

SCHRADERGROUP

Volume 1

DIVISION 00 – DIVISION 01



Prepared for:

Bertie County, North Carolina

106 Dundee Street
Windsor, NC 27983

New Facility Project:

Bertie County 911 Communications

202 County Farm Road
Windsor, NC 27983

Prepared by:

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SECTION 001200 - INVITATION TO BID

Contractors are invited to submit SEALED BIDS for the bidding of the facility renovation for Alamance County Emergency Services facility.

BIDS ARE INVITED ON A LUMP SUM BASIS FOR THE FOLLOWING CONTRACT(S):

Contract 1 General Construction

Drawings will be available on, or about, Wednesday May 27, 2026.

Sealed bid proposals for the Bertie County 911 Communications New Facility will be received by Bertie County, County Manager, 106 Dundee St., Windsor, NC 27983 until 2:00 P.M. on Thursday, June 25, 2026. Bidders are to submit one (1) original of their bid package. Bids submitted after the 2:00 P.M. deadline will NOT be accepted. The bids will be opened and read aloud at 2:00 P.M. in the Commissioner's Chambers at Bertie County Manager's Office located at 106 Dundee St., Windsor, NC 27983. Faxed bids will not be accepted. No award of the contract will be made at the bid opening.

Bids must be submitted in a sealed envelope and clearly marked with the project name and opening date. Bids must be received prior to 2:00 P.M. local time on the day of the bid opening at which time all proposals will be publicly opened and read at their scheduled time and location per the bid documents.

As part of the bid evaluation process, Bertie County reserves the right to hold bid evaluation meetings with selected contractors prior to selection and recommendation for a construction contract. If such bid evaluation meetings are needed, they will be held on **Monday, June 29, 2026, starting at 9:00AM at a location to be determined.** Contractors will be notified prior to the scheduled time should it be deemed necessary.

A **non-mandatory** pre-bid meeting has been scheduled to be held **virtually via Zoom, on Friday June 12, 2026 at 10am at Meeting ID: 995 4049 6235; Passcode: 736729.** A site visit for prospective bidders may be scheduled upon request and at the sole discretion of the Owner. Requests will be coordinated with other bidders and the Architect's office.

The project consists of a new facility for the Bertie County 911 Communications Center for Bertie County.

BID SECURITY

- A. Bid Security shall be made payable to the Owner, Bertie County, in the amount of 5 percent (5%) of the Base Bid sum. Security shall be either CERTIFIED CHECK, BANK CASHIERS CHECK or BID BOND issued by the Surety licensed to conduct business in the state in which the Project is being constructed. The Owner reserves the right to approve the sufficiency of the required bid security.
- B. The successful bidder's Security will be retained until the successful bidder has signed the Contract and furnished the required PAYMENT and PERFORMANCE BONDS. The Owner reserves the right to retain the Security of the next three (3) lowest bidders until the

lowest Bidder enters into a Contract or until ninety (90) days after bid opening, whichever is the shorter. All other Bid Security will be returned as soon as practical. If any Bidder refuses to enter into a Contract, the Owner will retain its Bid Security as liquidated damages, but not as a penalty.

- C. The Bid Security is to be submitted and attached to the BID FORM at the time of submission of Bids.

All contractors and subcontractors involved with the project will, to the extent practical, use North Carolina products, materials, services and labor in the implementation of their projects. Additionally, contractor compliance with equal employment opportunity requirements of North Carolina NC G. S. 126-16 Equal Employment Opportunity shall be required.

Bertie County is an affirmative action/equal opportunity employer that selects contractors without consideration of race, religion, color, ethnic background, sex, age or handicapped status. Minority-owned businesses are encouraged to submit bids.

It is the policy of Bertie County to award public building contracts without regard to race, religion, color, creed, national origin, sex, age, or handicapping condition, as defined in G.S. 168A-3. [143-128.2(h)].

Bertie County reserves the right to reject any or all bids and to waive any or all irregularities, mistakes, omissions or informalities relative thereto. The date and time for the submittals of questions and for the submittal of bids as set forth in the Contract Documents shall be deemed mandatory. The failure to meet all submittal dates as set forth shall constitute a defect in the bid submission, which shall be grounds for rejection of the bid as non-responsive. The failure to meet any submittal dates shall not be considered a waivable irregularity omission or informality.

E-mailed questions should be directed to: SCHRADERGROUP, a Hord Coplan Macht Studio, Attn: Anne Lebo alebo@hcmdesign.com and/ or Harry Pettoni at hpettoni@sgarc.com.

Bidders must comply with the Prevailing Wage Rates as determined for Bertie County, North Carolina as determined by the North Carolina Department of Labor and the United States Department of Labor's Wage and Hour Division.

The Contract Documents may be reviewed for bidding purposes without charge during business hours at the following location:

Bertie County
Office of the County Manager
106 Dundee St.
Windsor, NC 27893
Phone: 252-794-5300

SCHRADERGROUP, a Hord Coplan Macht Studio
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609
252-424-5968 (Anne Lebo, direct)
alebo@hcmdesign.com

Builders and Contractors Exchange
1118 Azalea Garden Road
Norfolk, VA 23502
Phone: 757-858-0680

McGraw Hill/Dodge
1015 Chestnut Street
Philadelphia, PA 19107
Phone : 215-627-6493

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951 Aviation Pkwy
Morrisville, NC 27560
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Sharpe Co. Raleigh
5606 Chapel Hill Rd
Raleigh, NC 27607
800-688-0692

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SECTION 002000 - INSTRUCTIONS TO BIDDERS

To be considered, Bids must be made in accordance with the Instructions to Bidders as amended by these Supplemental Instructions to Bidders.

1. DOCUMENTS:

- A. Bona fide Bidders may obtain a complete set of Drawings and Project Manual from the sources indicated in the Invitation to Bid, Section 001200.
- B. **Destruction of bid documents** - This project is a County **public safety facility**. The documents used for the bidding of this project shall not be made available for public use. A list of contractors who purchase bid documents will be kept by the printing company. All unsuccessful contractors bidding this project and all contractors who purchase documents but do not bid ***shall destroy the bid documents*** after bidding (or after failure to bid). Also, contractors who distribute partial or full sets of documents to subcontractors and vendors in order to prepare their pricing shall request the documents back from those subcontractors and vendors ***and shall destroy those documents as well.***

2. EXAMINATION:

- A. Bidders shall **CAREFULLY EXAMINE** the Documents and the construction Site to obtain first-hand knowledge of existing condition and limitations. **FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FOR SAME** nor will extra payment requests be considered for conditions which could have been determined by examination of the Site and Documents. All site visits shall take place on the dates and times established by the Owner, and as described in the pre-bid meeting.

3. QUESTIONS:

- A. Submit all questions about the Drawings and Project Manual to the Architect, in writing. Written replies will be issued to all Bidders of record as Addenda to the Drawings and Specifications and will become part of the Contract Documents. If any item of Work is shown on the Drawings and not specified, or mentioned in the Specifications and not shown on the Drawings, the matter should be brought to the attention of the Architect during bidding so an addendum can be issued correcting the issue. If such correction is not made, the Work in question shall be considered to be required as if it has been specified and shown on the Drawings. **CONTRACTOR SHALL NOT RELY, NOR BE ENTITLED TO RELY UPON ORAL CLARIFICATIONS MADE BY THE ARCHITECT.** All questions shall be presented as set forth herein and Contractor shall rely only upon written addenda by the Architect in response to the question(s) presented. Questions received less than five (5) working days before the bid opening shall not be answered.

4. **PRE-BID SUBSTITUTIONS:**

- A. Bids shall be based on the products or manufacturers specified. This is not intended to eliminate competition from other manufacturers other than those specified; however, **substitutions shall only be considered during the bid period and prior to the due date of questions.**

5. **BASIS OF BID:**

- A. The Bidder must include any Alternates and Unit Cost and Quantity Allowance Items as may be shown on the Bid Form. Failure to comply may be cause for rejection of Bid. Failure to address an alternate shall be considered the same as no change.
- B. No combination of Bids or assignments will be considered unless so noted in the bidding documents.
- C. **Failure to acknowledge any addendum or any other item listed on the BID FORM may be cause for rejection of the bid.**

6. **PREPARATION OF BIDS:**

- A. Bids shall be made on unaltered **BID FORM**. Fill in all blank spaces and submit one (1) original bid form.

Bids shall be signed in ink with name typed below signature. Where Bidder is a corporation, Bids must be signed with the legal name of the corporation followed by the name of the State of incorporation and the legal signature of an officer authorized to bind the corporation to a contract. **ALL UNSIGNED BIDS SHALL BE REJECTED.**

7. **BID SECURITY:**

- A. Bid Security shall be made payable to the Owner, in the amount of 5 percent (5%) of the Base Bid sum. Security shall be either CERTIFIED CHECK, BANK CASHIERS CHECK or BID BOND issued by the Surety licensed to conduct business in the state in which the Project is being constructed. The Owner reserves the right to approve the sufficiency of the required bid security.
- B. The successful bidder's Security will be retained until the successful bidder has signed the Contract and furnished the required PAYMENT and PERFORMANCE BONDS. The Owner reserves the right to retain the Security of the next three (3) lowest bidders until the lowest Bidder enters into a Contract or until sixty (60) days after bid opening, whichever is the shorter. All other Bid Security will be returned as soon as practical. If any Bidder refuses to enter into a Contract, the Owner will retain its Bid Security as liquidated damages, but not as a penalty.

- C. The Bid Security is to be submitted and attached to the BID FORM at the time of submission of Bids.

8. PERFORMANCE BOND AND PAYMENT BOND:

- A. Furnish and pay for Bonds covering faithful performance of the Contract and payment of all obligations arising there under. Furnish Bonds in the amount of 100% of Bid sum and in such form as the Owner may prescribe and with Surety Company acceptable to the Owner and the Public Works Contractors Bond Law. The bond cost must be included in the bid amount.
- B. The Contractor shall deliver said Bonds to the Owner prior to executing the agreement. Failure or neglecting to deliver said Bonds, as specified, shall be considered as having abandoned the Contract and the Bid Security will be retained as liquidated damages.
- C. Each such Performance and Payment Bond shall be executed by a surety legally authorized to do business in the State of North Carolina .
- D. Each such Performance and Payment Bond shall be obtained from a company having a minimum rating of "A-" or above in the Best Key Rating Guide, latest edition. The amount of the Bond shall be exclusively for this project and not a shared pool with other projects.
- E. The surety company executing any such Bond must be included in the listing of acceptable sureties as listed in the Treasury Department Circular 570, as most-currently revised, and the amount of such Bond shall not exceed the underwriting risk for such surety as set forth in the above-referenced Circular or revision thereof.
- F. In the event the Owner terminates the Contract with the Contractor, and it is determined that the Contractor has forfeited the Performance Bond, the Owner reserves the right to disapprove the surety's use of the terminated Contractor to complete the Project.

9. NO-LIEN

- A. This is property of a public Owner and, as such, may not be liened. For the protection of sub-contractors and the contractor's suppliers, a payment bond will be required.

10. SUBMITTAL:

- A. Submit Bid in an opaque, sealed envelope and addressed to:

**Juan Vaughan, County Manager
Bertie County
106 Dundee St.
Windsor, NC 27983**

and shall be marked:

Bid for the:

Project Name: Bertie County 911 Communications New Facility

Contract No.: 1

Contract Name: General Construction

Bidder Name _____

- B. Submit Bids in accordance with the INVITATION TO BID.

12. MODIFICATION AND WITHDRAWAL:

- A. Bids may not be modified after submittal. Bidders may withdraw Bids at any time up to the scheduled time for opening of bids.
- B. Bids may be withdrawn or modified after the bid opening except where the award of Contract has been delayed for sixty (60) days or as provided by law.

13. DISQUALIFICATION AND REJECTION OF BIDS:

- A. The Owner reserves the right to disqualify Bids, before or after opening, upon evidence of collusion with intent to defraud or other illegal practices upon the part of the Bidder.
- B. The Owner has the right to reject bids, which are not responsive, and to not award to any bidder which is deemed to be not responsible.

14. OPENING BIDS:

- A. Bids will be **publicly** opened **and read aloud** as announced as noted in the **INVITATION TO BID**.

15. AWARD

- A. The Contract will be awarded on the basis of the lowest responsive base bid, including full consideration of any combination of alternates at the discretion of Alamance County as may appear on the Bid Form.
- B. **The lowest responsive bid will be comprehensive and include all costs necessary for the completion of the Work.**

16. EXECUTION OF CONTRACT:

- A. The Owner reserves the right to accept any Bid, and to reject any or all Bids.
- B. Each Bidder shall be prepared, if so requested by the Owner, to present evidence of his experience, qualifications, and financial ability to carry out the terms of the Contract above and beyond that to be submitted in the Contractor Qualification statement with the bid.
- C. Notwithstanding any delay in the preparation and execution of the formal Contract Agreement, the Contractor shall be prepared, upon written notice of Bid acceptance, **to commence work within ten (10) days** following receipt of official written order from the Owner to proceed, or on date stipulated in such order.
- D. The accepted Contractor shall assist and cooperate with the Owner in preparing the formal Contract Agreement, and **within five (5) days** following its presentation shall execute same and return it to the Owner.

17. **TIME OF COMPLETION:**

- A. The Contractor shall begin the Work on the date of commencement as defined in subparagraph 8.1.2 of the General Conditions and carry the Work forward expeditiously to achieve **Substantial Completion** of each phase on or before the date.
 - Substantial Completion of the Project shall be **no later than 365 calendar days after the issuance of the Notice to Proceed.**
- B. The Contractor understands and agrees that TIME IS OF THE ESSENCE and that all schedule dates are minimum performance dates. Notwithstanding anything to the contrary contained in the Contract Documents, should the progress of the Project be ahead of scheduled dates, the Contractor agrees to coordinate and complete its Work in accordance with the actual Project progress and the actual pace of the Project without additional compensation. In said case, contractor waives any right to claim that it has been accelerated.
- C. A notification should be provided to the Architect and Owner of the possible delay and a reasonable period to cure the problem is given before the claim and /or damages is allowed to be entertained. Should the Contractor fail to complete the work in accordance with the Contract Documents, the Contractor shall be liable to the Owner for the sum of **\$1,000.00 daily**, assessable as liquidated damages and not as a penalty.
- D. This schedule of completion of the Work shall be considered of the essence of the Contract, and for the cost of extra inspections, salaries of contingent forces, and other expense incurred by the Owner resulting from the Contractor's delay in completing the work of the Contract within the Contract Time, the Owner shall be entitled to liquidated damages, and not a penalty, for each calendar day that the Work is not substantially complete, subject to adjustments of the Contract Time as provided in the General Conditions. Liquidated damages are necessary, in that it is impossible to precisely calculate the monetary loss to the Owner as the result of any delay in implementation.

- E. Coordination of the Work is essential to timely completion of the project within the scheduled plan therefore it is critical that the Superintendent or Project Manager for each Trade Contractor be at each regularly scheduled project meeting. The general Contractor shall be assessed a sum of \$200.00 for each scheduled project meeting missed by their designated Superintendents or Project Managers.

19. **GOVERNING LAWS AND REGULATIONS:**

- A. The Bidder's attention is directed to the fact that all applicable Federal and State laws, municipal ordinances and codes, and the rules and regulations of all authorities having jurisdiction over construction of the Project shall apply to the Contract throughout, and they are deemed to be included in the Contract the same as though herein written in full.

- B. FEDERAL OCCUPATIONAL SAFETY & HEALTH ACT OF 1970 (O.S.H.A.):

The Contractor is required to promptly perform all reporting and recording as required by said Act.

- C. NORTH CAROLINA UTILITIES PROTECTION SERVICES:

The Contractor will be responsible for complying with North Carolina Utility Safety and Damage Prevention Act commonly known as the "**CALL BEFORE YOU DIG**". Excavation or digging Contractors may learn the utilities and authority Owners by calling 811 or 1-800-632-4949 three working days before you plan on digging.

- D. COMPLIANCE WITH HUMAN RELATIONS:

The provisions of the North Carolina Civil Rights Office of Administrative Hearings (OAH) is found under the provisions of Chapter 7A of the North Carolina General Statutes where in the Office of Administrative Hearings, State of North Carolina prohibit discrimination because of race, color, religious creed, ancestry, age, sex, national origin, handicap or disability, by employers, employment agencies, labor organizations, contractors, and others. The Contractor shall agree to comply with the provisions of this Chapter as amended that is made part of this specification. Your attention is directed to the language of the State's non-discrimination clause.

- E. **STATE of NORTH CAROLINA DAVIS BACON WAGE RATES:**

- 1. *The general prevailing minimum wage rates including contributions for employees benefits as shall have been determined by the United States Department of Labor's Wage and Hour Division which must be paid to the workmen employed in the performance of the Contract.*

The Contract shall specifically provide that the Contractor shall pay no less than the wage rates as determined in the decision United States Department of Labor's Wage and Hour Division and shall comply with the

conditions of the North Carolina Prevailing Wage requirements, and the Regulations issued pursuant thereto, to assure the full and proper payment of said rates.

- 2. The contract shall contain the stipulation that such workmen shall be paid no less than such general prevailing minimum wage rates and such other provisions to assure payment thereof, as heretofore set forth in this Section.*
- 3. The contract provisions shall apply to all work performed on the contract by the contractor and to all work performed on the contract by all subcontractors.*
- 4. The contractor shall insert in each of his sub-contracts all of the stipulations contained in these required provisions and such other stipulations as may be required.*
- 5. The Contract shall provide that no workmen may be employed on the public work except in accordance with the classifications set forth in the decision of the United States Department of Labor's Wage and Hour Division. In the event that additional or different classifications are necessary the procedure set forth in those Regulations shall be followed.*
- 6. The Contract shall provide that all workmen employed or working on the public work shall be paid unconditionally, regardless of whether any contractual relationship exists or the nature of any contractual relationship which may be alleged to exist between any contractor, subcontractor and workmen, not less than once a week without deduction or rebate, on any account, either directly or indirectly, except authorized deductions, the full amounts due at the time of payment, computed at the rates applicable to the time worked in the appropriate classification. Nothing in the contract, , or these Regulations shall prohibit the payment of more than the general prevailing minimum wage rates as determined by the United States Department of Labor's Wage and Hour Division to any workman on public work.*
- 7. The Contract shall provide that the Contractor and each subcontractor shall post for the entire period of construction the wage determination decisions of the United States Department of Labor's Wage and Hour Division, including the effective date of any changes thereof, in a prominent and easily accessible place or places at the site of the work and at such place or places used by them to pay workmen their wages. The posted notice of wage rates must contain the following information:*
 - a. Name of project.*
 - b. Name of public body of which it is being constructed.*
 - c. The crafts and classifications of workmen listed in the United States Department of Labor's Wage and Hour Division's general prevailing minimum wage rate determination for the particular project.*

- d. *The general prevailing minimum wage rates determined for each craft and classification and the effective date of any changes.*
 - e. *A statement advising workmen that if they have been paid less than the general prevailing minimum wage rate for their job classification or that the contractor and/or subcontractor are not complying with the United States Department of Labor's Wage and Hour Division or these Regulations in any manner whatsoever they may file a protest in writing with the United States Department of Labor's Wage and Hour Division within three (3) months of the date of the occurrence, objecting to the payment to any contractor to the extent of the amount or amounts due or to become due to them as wages for work performed on the public work project. Any workmen paid less than the rate specified in the contract shall have a civil right of action for the difference between the wage paid and the wages stipulated in the contract, which right of action must be exercised within six (6) months from the occurrence of the event creating such right.*
- 8. *The Contract shall provide that the Contractor and all subcontractors shall keep an accurate record showing the name, craft and/or classification, number of hours worked per day, and the actual hourly rate of wage paid (including employee benefits) to each workman employed by him in connection with the public work and such record must include any deductions from each workman. The record shall be preserved for two years from the date of payment and shall be open at all reasonable hours to the inspection of the public body awarding the contract and to the United States Department of Labor's Wage and Hour Division or duly authorized representatives.*
 - 9. *The Contract shall provide that apprentices shall be limited to such numbers as shall be in accordance with a bona fide apprenticeship program registered with and approved by the North Carolina Apprenticeship and Training Council and only apprentices whose training and employment are in full compliance with the provisions of the Apprenticeship and Training and the Rules and Regulations issued pursuant thereto shall be employed on the public work project. Any workman using the tools of a craft who does not qualify as an apprentice within the provisions of this subsection shall be paid the rate predetermined for journeymen in that particular craft and/or classification.*
 - 10. *Wages shall be paid without any deductions except authorized deductions. Employers not parties to a contract requiring contributions for employee benefits which the United States Department of Labor's Wage and Hour Division has determined to be included in the general prevailing minimum wage rate shall pay the monetary equivalent thereof directly to the workman.*
 - 11. *Payment of compensation to workmen for work performed on public work on a lump sum basis, or a piece work system, or a price certain for the*

completion of a certain amount of work, or the production of a certain result shall be deemed a violation of the United States Department of Labor's Wage and Hour Division and these Regulations, regardless of the average hourly earnings resulting therefrom.

12. *The contract shall also provide that each contractor and each subcontractor shall file a statement each week and a final statement at the conclusion of the work on the contract with the contracting agency, under oath, and in form satisfactory to the United States Department of Labor's Wage and Hour Division, certifying that all workmen have been paid wages in strict conformity with the provisions of the contract as prescribed by these Regulations, or if any wages remain unpaid to set forth the amount of wages due and owing to each workman respectively.*
13. *The provisions of the United States Department of Labor's Wage and Hour Division and these Regulations shall be incorporated by reference in the contract.*

F. DISCRIMINATION PROHIBITED AND COMPLIANCE WITH ADA:

Contractor, at its own expense, shall conform to the nondiscrimination policies and plans required by the Contract Documents, the laws of the State of North Carolina and all other laws applicable to the Project.

1. In the hiring of employees for the performance of Work under the contract or any subcontract, no Contractor, Subcontractor, or any person acting on behalf of the Contractor, shall, by reason of gender, race, creed, religion, color, discriminate against any citizen of this State who is qualified and available to perform Work to which the employment relates.
2. No Contractor or Subcontractor, or any person on their behalf shall, in any manner discriminate, against or intimidate any employee hired for the performance of Work on Contract on account of gender, race, creed, or color
3. The contract may be cancelled or terminated by the Government Agency and all money due or to become due under the contract may be forfeited for a violation of terms or conditions of that portion of the contract.
4. Unless exempted by law, Contractor shall include the requirements of this section in every subcontracted or purchase order so that it will be binding upon each subcontractor or supplier of the Contractor.
5. In the event the Contractor believes it necessary to modify its sequence of Work, the work environment or means and methods to comply with the applicable requirements of the Americans with Disabilities Act (ADA), Contractor shall notify the Architect and Owner in writing of the proposed modification. All costs of the proposed modifications shall be borne by Contractor, including impact costs to other Contractors or other parts of the

Project, including any claims arising there from. No modification shall be implemented by Contractor until it receives written consent from the Architect. Nothing herein shall be construed to make the Owner, Architect or Contractor responsible for conformance of the Architect's design to ADA requirements.

6. If Contractor, its employees, subcontractors, suppliers or any other person or entity responsible to Contractor fails to comply with any applicable law or requirement of this Agreement or the Contract Documents, upon written notice from the Architect and/or Owners designated project representative, Contractor shall commence to cure such non-compliance within twenty-four (24) hours and shall achieve compliance within seventy-two (72) hours of receipt of written notice. Any failure of Contractor to do so after written notice to comply shall constitute a breach of contract and the Owner, in addition to its other rights in the event of a breach, shall have the right to terminate Contractor's right to perform the Work.
7. This Contract may be cancelled or terminated by Alamance County and all money due or to become due hereunder may be forfeited, for a second or any subsequent violation of the terms or conditions of this portion of the contract.

G. NONDISCRIMINATION/SEXUAL HARRASSMENT CLAUSE:

Contractor, as its own expense shall conform to the nondiscrimination policies and plans required by the Contract Documents.

H. STANDARD OF QUALITY

The various materials and products specified in the specifications by name or description are given to establish a standard of quality and of cost for bid purposes. In general it is not the intent to limit the bidder, the bid or the evaluation of the bid to any one material or product specified but rather to describe the minimum standard, except where listed without the following clause. When proprietary names are used, they shall generally be followed by the words "or alternatives of the quality necessary to meet the specifications". A bid containing an alternative which does not meet the specifications may be declared non-responsive. A bid containing an alternative may be accepted but, if an award is made to the bidder, the bidder will be required to replace any alternatives which do not meet the specifications at no additional cost." Substitution during bidding will not be accepted.

I. PROHIBITION OF CASH ALLOWANCES

Cash allowances are prohibited.

END OF SECTION 002000

SECTION 002001 – SUPPLEMENTAL INSTRUCTIONS TO BIDDERS

Except as otherwise specifically excluded, the ***Supplemental Instructions to Bidders*** and all documents referred to therein shall become a part of the **Contract** between Alamance County and the successful bidder.

1. **Definitions**

- “**Bidder**” or “**Contractor**” shall mean the corporation, partnership or individual proposing or under contract to furnish the supplies, materials, labor, equipment and/or services set forth in the ***Specifications***.
- “**County**” shall mean the Alamance County.
- “**Assistant County Manager**” shall mean the Assistant County Manager of Public Service or his/her duly authorized representative.
- “**Proposal**” shall mean the Bidder’s submission in response to this ***Bid Invitation***.
- “**Contract**” shall mean the agreement(s) entered into between Bidder and Alamance County pursuant to this bid invitation process.
- “**Specifications**” shall mean the particular need to be satisfied, or essential characteristics of goods, materials, methods, processes, services, systems, or work to be completed as part of the project delivery.
- Read more: <http://www.businessdictionary.com/definition/specification-spec.html>

2. **Proposal**

All **Proposals** must be made in accordance with the following instructions:

A. Preparation: Each **Proposal** shall be submitted on the form(s) furnished by the **County** and shall include 1.) **Bid Form**, 2.) **Non-Collusion Affidavit**, 3.) **Contractor’s Qualification Statement**, 4.) **Bid Bond**. All signatures shall be clearly and written legibly in long hand. No oral, telegraphic or telephonic proposal or modifications will be considered. Any **Proposal** which contains items not indicated shall be considered informal.

B. Name of Bidders: Each **Proposal** shall include the full name and business address of the **Bidder** and be signed by the **Bidder** or its authorized representative with his or her usual signature. **Proposals** by partnerships shall furnish the full names of all partners and shall be signed with the partnership name by one of the partners or by an authorized representative followed by the signature and title of the authorized representative signing same. **Proposals** by corporations must be signed with the legal name of the corporation, followed by the name of the state of incorporation and by the signature and title of the President, Secretary or other person authorized to bind the corporation with respect to this **Proposal**. The name of each person signing shall also be typed or printed legibly below his or her signature. A **Proposal** to which an individual affixes his or her signature and the title “President”, “Secretary”, “Agent” or other title without disclosing the principal, may be held by **County** to be the **Proposal**

of that individual. When requested by the **County**, satisfactory evidence of the authority of an officer or agent signing on behalf of a corporation or partnership shall be furnished.

C. Delivery of Proposals: **Proposals** shall be sealed in an envelope addressed and delivered to:

**Juan Vaughan, County Manager
Bertie County
106 Dundee St.
Windsor, NC 27983**

no later than the date and time set forth in the ***Invitation to Bid***. The sealed envelope shall also bear 1.) **Bidder's** name, 2.) The title "Bertie County 911 Communications New Facility" and 3.) the date and time **Proposals** are due. **Proposals** will be received until the date and time specified in ***Invitation to Bid***. **Proposals** will be opened and read immediately thereafter at Alamance County Government Center.

D. Proposals Shall Include All Work: Each **Proposal** shall include all work described in the ***Instructions to Bidders and Specifications*** and any exhibits attached thereto.

E. Withdrawal of Proposal: Permission will not be given to withdraw or modify any **Proposal** after it has been opened. Negligence on behalf of a **Bidder** in preparing the **Proposal** confers no right for the withdrawal of same after it has been opened.

F. Acceptance or Rejection of Proposal: The County reserves the right to accept Proposals at any time within sixty (60) days after the same are opened as provided above. The County reserves the right to reject any or all Proposals. In determining the award, each item may be considered separately, and a separate contract may be awarded on the various items, unless specified to the contrary in the specification.

G. Proposal Bond or Check: As soon as the Proposals have been compared, the County will return the Bid guaranties of all except the three (3) lowest and best Bidders. When the agreement is executed, or the period for holding the Bids has expired and no time extension has been mutually agreed upon, the Bid guaranties of the two (2) remaining unsuccessful Bidders will be returned. A contract bond of one hundred percent (100%) of the contract price, with a corporate surety approved by the County, will be required, if applicable for the faithful performance of the contract. A one hundred percent (100%) Bid Bond that turns into a performance bond may be also utilized.

H. Forfeiture of Check or Proposal Bond: If the Bidder to whom the contract is awarded shall fail to sign any documents necessary to formalize the contract, if any, the deposit accompanying the proposal shall thereupon be forfeited to the

County and as liquidated damage the work may then be re-advertised or awarded to the deemed second best Bidder as the County may determine.

I. Quantities: The quantities in the **Specifications** are estimates. They will be used only as a basis for comparison of the **Proposals**. The **County** reserves the right to decrease or increase any quantities and to eliminate any item(s) in its entirety.

J. Informal Proposals: **Proposals** will be considered informal and may be rejected for reasons including but not limited to the following:

1. If the **Proposal** is on a form other than that furnished by the **County** or if the form is altered or incomplete.
2. If there are unauthorized additions, conditions or alternatives in **Proposal** or irregularities of any kind which may tend to make the **Proposal** incomplete, indefinite or ambiguous as to its meaning.
3. If the **Bidder** adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award. This does not exclude a **Proposal** from limiting the maximum gross amount of awards acceptable to **Bidder**.
4. If the **Proposal** does not contain a unit price for each pay item listed, except in the case of authorized alternate pay items or lump sum items.

3. Competency of bidders:

No **Proposal** will be considered unless the **Bidder** submitting same shall, upon request of the **Assistant County Manager**, furnish evidence satisfactory to the **Assistant County Manager** that it has the necessary equipment, ability and financial resources to fulfill the conditions of a contract and specifications. Previous experience and responsibility of the **Bidders** will be considered in awarding a contract. No contract will be awarded to a **Bidder** who is in arrears to the **County** either upon a debt or contractual obligation, or who is in default as surety or otherwise upon any obligation to the **County**.

4. Disqualification of Bidders:

Any of the following reasons may be considered as being sufficient for the disqualification of a **Bidder** and the rejection of a **Proposal**.

A. More than one **Proposal** for the same work from an individual, firm or corporation under the same or different name.

B. Evidence of collusion among **Bidders**. Any participants in collusion among **Bidders** as may be determined by the **County** in its sole reasonable discretion will be disqualified as a **Bidder** in all future Bid or Requests for Proposals

process with the **County** until such time as the **County** shall have reinstated same.

C. Proposal prices which are obviously unbalanced.

5. Written and oral explanations:

Should a **Bidder** find discrepancies in, or omissions from, the **Specifications**, or should **Bidder** be in doubt as to the meaning thereof, **Bidder** shall at once notify the **County**, which may send written instructions to all **Bidders**. The **County** will not be responsible for any oral instructions.

6. Addendum or modification:

Any addendum(s) and/or modification(s) issued prior to the time and date that **Proposals** are due shall be addressed by **Bidder** in their **Proposal**. Said addendum(s) and/or modification(s) will become part any contract awarded by **County**. In the event any such addendum(s) and/or modification(s) are issued by the **County** within 72 hours (excluding Saturdays, Sundays and legal Holidays) of the time and date that **Proposals** are due, the time for submitting **Proposals** may be extended one week by the **County** with no further advertising.

7. Discrimination:

In the hiring of employees for the performance of work under **Contract** or any subcontract, neither the **Contractor**, subcontractor, nor any person acting on its behalf shall on the basis of race, creed, color, age, sex or handicap, discriminate against any citizens of the State in which the employment of any laborer or worker who is qualified and available to perform the work to which the employment relates. Neither the **Contractor**, subcontractor, nor any person acting on its behalf shall in any manner discriminate against or intimidate any employee hired for the performance of work under **Contract** on the basis of race, creed, color, age, sex or handicap.

8. Grant Funded Construction: The Alamance County Emergency Services Center has been partially funded through the NC 911 Grant Program through the 911 Board c/o NC Department of Information Technology 3700 Wake Forest Road, Raleigh, NC 27609. Additional information if requested by the Board including installation schedules, installation expenses, anticipated 911 system changes, other system related costs, expenses and other information deemed necessary by the Board or by the PSAP to ensure funding in compliance with G.S. 62A-46(e) are to be provided by the General Contractor.

9. Illegal Aliens: No costs incurred as a result of work performed by illegal aliens is eligible for payment by the County. As such, in submitting a payment request to the County, Contractor is certifying that the expenses for which payment is sought were not incurred as a result of work performed by illegal aliens.

10. Insurance:

The **Bidder** shall obtain insurance as per AIA 101-2017, Exhibit A.

11. Liability:

The **Bidder** shall defend, indemnify and save harmless the **County** and its officers and agents from all claims, demands, payments, suits, actions, recoveries and judgments of every description whether or not well founded in law, brought or recovered against it, by reason of any act or omission of said **Bidder**, his agents, subcontractors or employees, in the execution of **Contract** or for the use of any patented inventions by said **Bidder**, and a sum sufficient to cover aforesaid claims may be retained by the **County** from monies due or to become due to the **Bidder** under **Contract**, until such claims shall have been discharged.

12. Royalties and license fees:

The **Bidder** shall pay all royalties and license fees. The **Bidder** herein assume and hold the **County**, its officers and agency harmless from liability of any kind of nature whatsoever arising out of the use by the **County**, its officers and agent of any appliance, apparatus or mechanism, which may be furnished or installed by the **Bidder** under the terms of **Contract** including patent of copyright infringement and to defend the **County** from any and all such liabilities, whether or not such claims are well founded in law.

13. Assignment of Contract:

The **Bidder** who is awarded a contract shall not assign, transfer, convey, sublet or otherwise dispose of said contract, or his right, title or interest in or to the same, or any part thereof, without previous consent in writing from the **County Manager**, endorsed on or attached to the **Contract**.

14. Cancellation:

Should any materials supplied or delivered to the **County** under this **Contract** fail at any time to meet the **Specifications** required by the **Contract**, then in such event, the **County** may cancel **Contract** upon written notice to the **Bidder**.

15. Control of work:

The **Assistant County Manager** or his designated agent will decide all the questions which may arise as to the quality and acceptability of materials furnished and work performed and as to the rate of progress of the work; all questions which may arise as to the interpretation of the plans and specifications; and all questions as to the acceptable fulfillment of **Contract** on the part of the **Contractor**, and as to compensation.

16. Claims for adjustment and disputes:

If, in any case, the **Contractor** alleges that additional compensation is due for work or material not clearly defined herein, the **Contractor** shall notify the **Assistant County Manager**, in writing, of his intention to make a claim for such additional compensation before he begins the work on which the claim is based. If such notifications is not given and/or the **Assistant County Manager** is not afforded by the **Contractor** an acceptable means for keeping strict account of actual additional costs alleged, The claim shall be denied. The fact that the **Assistant County Manager** has kept account of the additional

costs alleged, shall in no way be construed as proving or substantiating the validity of the claim. If the claim, after consideration by the **Assistant County Manager** is found to be well founded, it will be forwarded to Council for approval as extra work in the amount approved by the **Assistant County Manager**.

17. Duration:

The duration of **Contract** shall be 365 calendar days and shall include all material, equipment and/or services ordered or delivered during the period. All prices quoted shall be definite fixed prices unless otherwise noted in the **Specifications**. **Contract** may be renewed for an additional twelve (12) months if mutually agreed.

18. Contract bond

The successful bidder will be required to furnish an approved bond for the faithful performance of the contract in the amount of one hundred percent (100%) of the contract price. Such bond shall be that of an approved surety company or a personal bond the sureties of which not possessing an interest in the contract unless said sureties furnish collateral security. All performance bonds and/or the collateral security thereto are subject to the approval and discretion of County Law and the Assistant County Manager.

19. General:

Contractors shall furnish all labor, equipment, materials, services and supplies necessary to complete the proposed work. All work shall be performed according to all standards of good workmanship and complete in every detail. **Contractors** shall coordinate their work with the work of others and, upon completion, remove tools, equipment waste and debris and leave the site(s) in broom clean condition. **Contractors** shall warrant all materials and equipment with the normal and usual warranties, including where applicable, warranties of merchantability and fitness for a particular purpose.

20. Acceptance or Rejection of Proposal:

The **County** reserves the right to award a contract based on the submitted **Proposals** at any time within sixty (60) days after same are opened. The **County** reserves the right to accept or reject all or any part of a **Proposal** and to waive any informality in a **Proposal**. In determining the award of a contract, items in the **Specifications** may be considered separately or grouped together at **County's** sole discretion. Unless specifically indicated to the contrary in **Specifications**, **County** may award one contract.

END OF SECTION 002001

SECTION 004100 - BID FORM

BID FORM

FOR

CONTRACT NUMBER: 1

CONTRACT NAME: General Construction

FOR

**Bertie County 911 Communications New Facility
106 Dundee St.
Windsor, NC 27983**

Proposal of: (Name) _____

(Address) _____

(Telephone) _____

(Contact Person) _____

**Juan Vaughan, County Manager
Bertie County
106 Dundee St.
Windsor, NC 27983**

In conformity with the Plans and Specifications as prepared by SCHRADERGROUP, a Hord Coplan Macht Studio, 4208 Six Forks Road, Suite 1000, Raleigh, NC 27609, after an examination of the site and the Bidding and Contract Documents, the undersigned submits this proposal and enclosed herewith a bond in an amount of not less than five percent (5%) of the total of the hereinafter stated Base Bid, made payable to or indemnifying the "**Bertie County, North Carolina**", which it is understood will be held by the Owner, as security as provided in the Instructions to Bidders, if this proposal or any part thereof is accepted by the Owner, and the undersigned shall fail to furnish approved bonds and execute the Agreement within twenty (20) days from the date of issuance of the award. Should the Owner fail to make an award on this project through no fault or failure on the part of the Bidder, then the Owner shall return said bid security.

It is hereby certified that the undersigned is the only person(s) interested in this proposal as principal, and that the proposal is made without collusion with any person, firm or corporation. The Bidder submits herewith, as such, a Non-Collusion Affidavit in accordance with the provisions of the North Carolina State Department of Commerce.

Bidder hereby agrees to execute the Agreement and furnish surety company bonds in the amount of one hundred percent (100%) of the Contract Price for the Performance Bond and Labor and Material Payment Bond, within twenty (20) days after mailing by the Owner of notice of award, and to begin work with twenty (20) days after date of Notice to Proceed.

Bidder guarantees that, if awarded contract, he will furnish and deliver all materials, tools, equipment, tests transportation, secure all permits and licenses, do and perform all labor, supervision and all means of construction, pay all fees and do all incidental work, and to execute, construct and finish, in an expeditious, substantial and workmanlike manner, in accordance with the plans and specifications, to the complete satisfaction and acceptance of the Owner, for the Work of this Contract for the **Bertie County 911 Communications New Facility, 206 Country Farm Road, Windsor, NC 27983.**

It is understood that the Owner, reserves the right to reject any or all proposals, or part thereof, or items therein and to waive technicalities required for the best interest of the Owner. It is further understood that competency and responsibility of bidders will receive consideration before the award of the contract. A certified copy of the Contractor's Qualification Statement, AIA Document A-305 will be submitted as part of this bid.

Bidders submit this proposal with the understanding that the work shall be substantially complete by the dates indicated in Supplemental Instruction to Bidders, Item 17, Time for Completion. The time for completion of the work of all contracts shall be considered as of the essence of this Contract. Liquidated Damages do apply to this Project and are further described in the Instructions to Bidders.

The Contractor understands and agrees the **TIME IS OF THE ESSENCE** and that all schedule dates are minimum performance dates, notwithstanding anything to the contrary contained in the Contract Documents, should the progress of the Project be ahead of schedule dates, the Contractor agrees to coordinate and complete its Work in accordance with the actual Project Progress and the actual pace of the Project without additional compensation.

The bidder agrees that he will not assign his bid or any of his rights or interests thereunder without the written consent of the Owner. In the event of a discrepancy between the verbiage (words) and numbers entered here below, the verbiage shall govern.

Bid Withdrawal

This proposal is submitted with the definite understanding that it will not be withdrawn for a period of sixty (60) days after Bids are due, or any authorized postponement thereof.

ALONG WITH THE "BID FORM" THE FOLLOWING ATTACHMENTS SHALL BE SUBMITTED:

1. One (1) Non-Collusion Affidavit
2. One (1) AIA A305 Contractors Qualification Statement
3. One (1) AIA A301 Bid Bond

Item A. BASE BID:

Dollars (\$))

General Construction: - \$ _____

Company Name: _____ License: _____

Mechanical Construction: - \$ _____

Company Name: _____ License: _____

Plumbing Construction: - - - \$ _____

Company Name: _____ License: _____

Electrical Construction: \$ _____

Company Name: _____ License: _____

Site/Civil Construction: _____ \$ _____

Company Name: _____ License: _____

ALTERNATES: The Instructions to Bidders and the Contract Documents comprising the plans and specifications, and all documents bound therewith, together with all Addenda thereto, shall apply to all Alternate Proposals as listed in Division 1 Section 012300, and as listed below:

ALTERNATES: None

UNIT PRICES: The Instructions to Bidders and the Contract Documents comprising the plans and specifications, and all documents bound therewith, together with all Addenda thereto, shall apply to all Unit Prices as listed in Division 1 Section 12400, and as listed below:
The Owner reserves the right to accept or reject any and all Unit Prices stipulated on the Bid Form.

UNIT PRICES (all unit prices are add or deduct): Reference Specification Section 012400

Unit Price G.1 – Concrete Walkway	\$_____	Per 1 sq. ft.
Unit Price G.2 – Structural Steel	\$_____	Per 1 tons
Unit Price G.3 – Brick Masonry	\$_____	Per 1 sq. ft.
Unit Price G.4 – Mass Rock Excavation	\$_____	Per 1 cu. yd.
Unit Price G.5 – Rock Excavation in Trenches	\$_____	Per 1 cu. yd.
Unit Price G.6 – Excavation Unsuitable Soils	\$_____	Per 1 cu. yd.
Unit Price G.7 - Duplex Receptacle & Wiring	\$_____	Per Assembly
Unit Price G.8 - Data Outlet & Wiring	\$_____	Per Assembly
Unit Price G.9 – Fire Alarm Device & Wiring	\$_____	Per Assembly

QUANTITY ALLOWANCES: The Instructions to Bidders and the Contract Documents comprising the plans and specifications, and all documents bound therewith, together with all Addenda thereto, shall apply to all Quantity Allowances as listed in Division 1 Section 012400, and as listed below:

BIDDER agrees to include in the Base Bid Price, in addition to the Work shown on the Drawings and Specifications the following:

Quantity Allowance G.1 – Concrete Walkway	\$_____	500 sq. ft.
Quantity Allowance G.2 – Structural Steel	\$_____	1 ton
Quantity Allowance G.3 – Brick Masonry	\$_____	250 sq. ft.
Quantity Allowance G.4 – Mass Rock Excavation	\$_____	50 cu. yd.
Quantity Allowance G.5 – Rock Excavation in Trenches	\$_____	50 cu. yd.
Quantity Allowance G.6 – Excavation Unsuitable Soils	\$_____	100 cu. yd.
Quantity Allowance G.7 - Duplex Receptacle & Wiring	\$_____	4 Assemblies
Quantity Allowance G.8 - Data Outlet & Wiring	\$_____	4 Assemblies
Quantity Allowance G.9 – Fire Alarm Device & Wiring	\$_____	2 Assemblies

Name of Contractor

ATTACHMENTS:

The following Documents are attached and are made a condition of this Bid:

- a. Refer to ~~Section 009001 Bidding Checklist~~ Division 00 Bidding and Contracting Requirements

ACCEPTANCE OF ADDENDA:

In submitting this proposal, I have received and included in this bid, the instructions and information contained in the following Addenda:

Addendum No.

Dated

SIGNATURES

The Undersigned here certifies that this Proposal is genuine and not a sham, collusive or fraudulent or made in the interest of or in behalf of any person, firm or corporation not herein named; and that the Undersigned has not, directly or indirectly, inducted or solicited any bidder to submit a sham bid, or any other person, firm or corporation from bidding, and that the Undersigned has not, in any manner, sought by collusion to secure for himself any advantage over any other Bidder.

(Individual Bidder)

Seal

WITNESS

Trading and doing business as

Business

Address: _____

** If a fictitious trade name is employed in the conduct of business, insert such name and complete appropriate, by deletion, the following sentence:

The foregoing fictitious trade name (has) (has not) been registered under North Carolina Law.

(Partnership Bidder)

WITNESS

Seal

Partner

Seal

Partner

Seal

Partner

Seal

Business Address:

** If a fictitious or trade name is employed in the conduct of business, insert such name and complete, as appropriate, by deletion, the following statement:

The foregoing fictitious or trade name (has) (has not) been registered under North Carolina law.

Complete, as appropriate, the following statement:

The Partners constituting the Partnership are:

(Corporate Bidder)

(Name of Corporation)

By: _____
(Vice) President

ATTEST:

(Asst.) Secretary

(Corporate Seal)

Business Address: _____

OR (If appropriate)

(Name of Corporation)

WITNESS

***By: _____
Authorized Representative

Business Address: _____

*** Complete, as appropriate, the following statement:

The Corporation has been organized and is existing under the
laws of the _____ of _____
(state/commonwealth) (state)

END OF BID FORM

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Authorized Representative

Business Address:

*** Complete, as appropriate, the following statement:

The Corporation has been organized and is existing under the
laws of the _____ of _____

(state/commonwealth)

(state)

END OF BID FORM

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SECTION 004201 – CONTRACTOR'S QUALIFICATION STATEMENT AIA A305

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This section contains four (4) pages, not including this cover page.

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DRAFT AIA® Document A305™ – 1986

Contractor's Qualification Statement

The Undersigned certifies under oath that the information provided herein is true and sufficiently complete so as not to be misleading.

SUBMITTED TO: Juan Vaughan, County Manager

ADDRESS: Bertie County
106 Dundee Street
Windsor, NC 27983

SUBMITTED BY:

NAME:

ADDRESS:

PRINCIPAL OFFICE:

- ☐ Corporation
☐ Partnership
☐ Individual
☐ Joint Venture
☐ Other

NAME OF PROJECT: (if applicable) Bertie County 911 Communications New Facility

TYPE OF WORK: (file separate form for each Classification of Work)

- ☐ General Construction
☐ HVAC
☐ Electrical
☐ Plumbing
☐ Other: (Specify)

§ 1 ORGANIZATION

§ 1.1 How many years has your organization been in business as a Contractor?

§ 1.2 How many years has your organization been in business under its present business name?

§ 1.2.1 Under what other or former names has your organization operated?

§ 1.3 If your organization is a corporation, answer the following:

§ 1.3.1 Date of incorporation:

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This form is approved and recommended by the American Institute of Architects (AIA) and The Associated General Contractors of America (AGC) for use in evaluating the qualifications of contractors. No endorsement of the submitting party or verification of the information is made by AIA or AGC.

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- § 1.3.2 State of incorporation:
§ 1.3.3 President's name:
§ 1.3.4 Vice-president's name(s)

- § 1.3.5 Secretary's name:
§ 1.3.6 Treasurer's name:

§ 1.4 If your organization is a partnership, answer the following:

- § 1.4.1 Date of organization:
§ 1.4.2 Type of partnership (if applicable):
§ 1.4.3 Name(s) of general partner(s)

§ 1.5 If your organization is individually owned, answer the following:

- § 1.5.1 Date of organization:
§ 1.5.2 Name of owner:

§ 1.6 If the form of your organization is other than those listed above, describe it and name the principals:

§ 2 LICENSING

§ 2.1 List jurisdictions and trade categories in which your organization is legally qualified to do business, and indicate registration or license numbers, if applicable.

§ 2.2 List jurisdictions in which your organization's partnership or trade name is filed.

§ 3 EXPERIENCE

§ 3.1 List the categories of work that your organization normally performs with its own forces.

§ 3.1.1 List a minimum of five (5) completed projects within the last ten (10) years that are directly related to the type of construction being performed for the proposed Franklin County PSAP project. This includes law enforcement, emergency operation centers, E911 facilities, mission critical facilities or similar.

§ 3.2 Claims and Suits. (If the answer to any of the questions below is yes, please attach details.)

§ 3.2.1 Has your organization ever failed to complete any work awarded to it?

§ 3.2.2 Are there any judgments, claims, arbitration proceedings or suits pending or outstanding against your organization or its officers?

§ 3.2.3 Has your organization filed any law suits or requested arbitration with regard to construction contracts within the last five years?

§ 3.3 Within the last five years, has any officer or principal of your organization ever been an officer or principal of another organization when it failed to complete a construction contract? (If the answer is yes, please attach details.)

§ 3.4 On a separate sheet, list major construction projects your organization has in progress, giving the name of project, owner, architect, contract amount, percent complete and scheduled completion date.

§ 3.4.1 State total worth of work in progress and under contract:

§ 3.5 On a separate sheet, list the major projects your organization has completed in the past five years, giving the name of project, owner, architect, contract amount, date of completion and percentage of the cost of the work performed with your own forces.

§ 3.5.1 State average annual amount of construction work performed during the past five years:

§ 3.6 On a separate sheet, list the construction experience and present commitments of the key individuals of your organization.

§ 4 REFERENCES

§ 4.1 Trade References (provide a minimum of three (3) trade references):

§ 4.2 Bank References:

§ 4.3 Surety:

§ 4.3.1 Name of bonding company:

§ 4.3.2 Name and address of agent:

§ 5 FINANCING

§ 5.1 Financial Statement.

§ 5.1.1 Attach a financial statement, preferably audited, including your organization's latest balance sheet and income statement showing the following items:

Current Assets (e.g., cash, joint venture accounts, accounts receivable, notes receivable, accrued income, deposits, materials inventory and prepaid expenses);

Net Fixed Assets;

Other Assets;

Current Liabilities (e.g., accounts payable, notes payable, accrued expenses, provision for income taxes, advances, accrued salaries and accrued payroll taxes);

Other Liabilities (e.g., capital, capital stock, authorized and outstanding shares par values, earned surplus and retained earnings).

§ 5.1.2 Name and address of firm preparing attached financial statement, and date thereof:

§ 5.1.3 Is the attached financial statement for the identical organization named on page one?

§ 5.1.4 If not, explain the relationship and financial responsibility of the organization whose financial statement is provided (e.g., parent-subsidiary).

§ 5.2 Will the organization whose financial statement is attached act as guarantor of the contract for construction?

§ 6 SIGNATURE

§ 6.1 Dated at this day of

Name of Organization:

By:

Title:

§ 6.2

M being duly sworn deposes and says that the information provided herein is true and sufficiently complete so as not to be misleading.

Subscribed and sworn before me this day of

Notary Public:

My Commission Expires:

SECTION 004202 – BID BOND AIA A310

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DRAFT AIA® Document A310™ – 2010

Bid Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

BOND AMOUNT: \$**PROJECT:**

(Name, location or address, and Project number, if any)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

The Contractor and Surety are bound to the Owner in the amount set forth above, for the payment of which the Contractor and Surety bind themselves, their heirs, executors, administrators, successors and assigns, jointly and severally, as provided herein. The conditions of this Bond are such that if the Owner accepts the bid of the Contractor within the time specified in the bid documents, or within such time period as may be agreed to by the Owner and Contractor, and the Contractor either (1) enters into a contract with the Owner in accordance with the terms of such bid, and gives such bond or bonds as may be specified in the bidding or Contract Documents, with a surety admitted in the jurisdiction of the Project and otherwise acceptable to the Owner, for the faithful performance of such Contract and for the prompt payment of labor and material furnished in the prosecution thereof; or (2) pays to the Owner the difference, not to exceed the amount of this Bond, between the amount specified in said bid and such larger amount for which the Owner may in good faith contract with another party to perform the work covered by said bid, then this obligation shall be null and void, otherwise to remain in full force and effect. The Surety hereby waives any notice of an agreement between the Owner and Contractor to extend the time in which the Owner may accept the bid. Waiver of notice by the Surety shall not apply to any extension exceeding sixty (60) days in the aggregate beyond the time for acceptance of bids specified in the bid documents, and the Owner and Contractor shall obtain the Surety's consent for an extension beyond sixty (60) days.

If this Bond is issued in connection with a subcontractor's bid to a Contractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

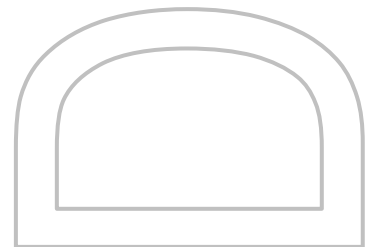
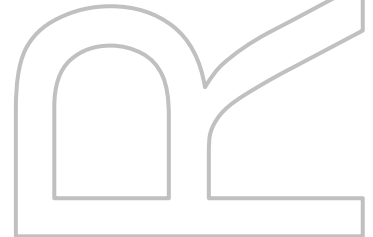
When this Bond has been furnished to comply with a statutory or other legal requirement in the location of the Project, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.



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<div></div> <div>(Witness)</div>	(Contractor as Principal) <div></div> (Seal)(Title) <div></div> (Surety)(Seal)(Title)
----------------------------------	---

[Large stylized signature area]

SECTION 004500 – NON-COLLUSION AFFIDAVIT

Note: This affidavit, properly executed and containing all required information, must accompany your bid. If you fail to comply, your bid may not be considered.

STATE OF NORTH CAROLINA)
COUNTY OF _____) SS:

_____ being first duty sworn
deposes and says:

Individual only: That he/she is an individual doing business under the name of:

At _____ in the City of _____, State of _____

Partnership only: That he/she is the duly authorized representative of a partnership doing business under the legal name of:

At _____ in the City of _____, State of _____

Corporation only: That he/she is the duly authorized qualified and acting _____ (Title)

of a corporation doing business under the legal name of:

organized and existing under the laws of the State of

And that he/she, said partnership, or said corporation, is filing herewith a proposal or bid with Alamance County, in conformity with the foregoing specifications;

Individual only: Affiant further says that the following is a complete and accurate list of the names and addresses of all persons interested in said proposed contract: _____

Affiant further says that he/she is represented by the following attorney(s):

And is also represented by the following resident agent(s) in Alamance County:

Partnership only: Affiant further says that the following is a complete and accurate list of the names and addresses of the members of the partnership interested in said proposed contract: _____

Affiant further says that said partnership is represented by the following attorneys:

And is also represented by the following resident agent(s) in Alamance County:

Corporation only: Affiant further says that the following is a complete and accurate list of the officers, directors and attorneys of said corporation:

President:

Vice President:

Secretary:

Treasurer:

Local Manager or Agent:

Attorneys:

Directors:

And that the following officers are duly authorized to execute contracts on behalf of said corporation: _____

Affiant further says that the proposal or bid filed herewith is not made in the interest of or on behalf of any undisclosed person, partnership, company, association, organization or corporation; that such proposal or bid is genuine and not collusive or sham; that said bidder has not, directly or indirectly, induced or solicited any other bidder to put in a false or sham bid; that said bidder has not directly or indirectly colluded, conspired, connived or agreed with any bidder or other person or entity to submit a sham proposal or bid or to refrain from submitting a proposal or bid; that said bidder has not in any manner, directly or indirectly, sought by agreement, communication or conference with any bidder or other person or entity to fix any overhead, profit, or cost element of any proposal or bid to gain or secure any advantage against Alamance County or person or entity interested in the proposed contract; that all statements contained in such proposal or bid are true and accurate; that said bidder has not submitted its proposal or bid based on any illegally obtained information or data, or paid or agreed to pay, directly or indirectly, any money or other valuable consideration to any individual, corporation, partnership, company, association, organization, or to any member or agency thereof, in procuring or attempting to procure the contract above referred to, except to such person or persons hereinabove disclose to have a partnership or other financial interest with said bidder in its general business and further that said bidder will not pay or agree to pay, directly or indirectly, any money or other valuable consideration to any individual, corporation, partnership, company, association, organization or to any member or agent thereof for any aid or assistance in securing the contract above referred to in the event the same is awarded to:

(Name of individual, partnership or corporation)

Further affiant saith nought.

(Signature of affiant)

Sworn to before me and subscribed in my presence this ____ day of _____, 20____.

Notary Public

END OF SECTION 004500

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**SECTION 005200 - AGREEMENT BETWEEN OWNER AND CONTRACTOR
(AIA A101)**

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DRAFT AIA® Document A101™ – 2017

Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum

AGREEMENT made as of the [] day of [] in the year
(In words, indicate day, month and year.)

BETWEEN the Owner:
(Name, legal status, address and other information)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

and the Contractor:
(Name, legal status, address and other information)

for the following Project:
(Name, location and detailed description)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

The Architect:
(Name, legal status, address and other information)

SCHRADERGROUP, a Hord Coplan Macht Studio
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609

The Owner and Contractor agree as follows.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

The parties should complete A101™-2017, Exhibit A, Insurance and Bonds, contemporaneously with this Agreement. AIA Document A201™-2017, General Conditions of the Contract for Construction, is adopted in this document by reference. Do not use with other general conditions unless this document is modified.

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TABLE OF ARTICLES

- 1 THE CONTRACT DOCUMENTS
- 2 THE WORK OF THIS CONTRACT
- 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION
- 4 CONTRACT SUM
- 5 PAYMENTS
- 6 DISPUTE RESOLUTION
- 7 TERMINATION OR SUSPENSION
- 8 MISCELLANEOUS PROVISIONS
- 9 ENUMERATION OF CONTRACT DOCUMENTS

EXHIBIT A INSURANCE AND BONDS

ARTICLE 1 THE CONTRACT DOCUMENTS

The Contract Documents consist of this Agreement, Conditions of the Contract (General, Supplementary, and other Conditions), Drawings, Specifications, Addenda issued prior to execution of this Agreement, other documents listed in this Agreement, and Modifications issued after execution of this Agreement, all of which form the Contract, and are as fully a part of the Contract as if attached to this Agreement or repeated herein. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. An enumeration of the Contract Documents, other than a Modification, appears in Article 9.

ARTICLE 2 THE WORK OF THIS CONTRACT

The Contractor shall fully execute the Work described in the Contract Documents, except as specifically indicated in the Contract Documents to be the responsibility of others.

ARTICLE 3 DATE OF COMMENCEMENT AND SUBSTANTIAL COMPLETION

§ 3.1 The date of commencement of the Work shall be:
(Check one of the following boxes.)

- ☐ The date of this Agreement.
- ☐ A date set forth in a notice to proceed issued by the Owner.
- ☐ Established as follows:
(Insert a date or a means to determine the date of commencement of the Work.)

The commencement date will be fixed in a Notice to Proceed.

If a date of commencement of the Work is not selected, then the date of commencement shall be the date of this Agreement.

§ 3.2 The Contract Time shall be measured from the date of commencement of the Work.

§ 3.3 Substantial Completion

§ 3.3.1 Subject to adjustments of the Contract Time as provided in the Contract Documents, the Contractor shall achieve Substantial Completion of the entire Work:

(Check one of the following boxes and complete the necessary information.)

[☒] Not later than Three-Hundred and Sixty-Five (365) calendar days from the date of commencement of the Work.

[☐] By the following date:.

§ 3.3.2 Subject to adjustments of the Contract Time as provided in the Contract Documents, if portions of the Work are to be completed prior to Substantial Completion of the entire Work, the Contractor shall achieve Substantial Completion of such portions by the following dates:

Portion of Work	Substantial Completion Date

§ 3.3.3 If the Contractor fails to achieve Substantial Completion as provided in this Section 3.3, liquidated damages, if any, shall be assessed as set forth in Section 4.5.

ARTICLE 4 CONTRACT SUM

§ 4.1 The Owner shall pay the Contractor the Contract Sum in current funds for the Contractor's performance of the Contract. The Contract Sum shall be \$ (\$), subject to additions and deductions as provided in the Contract Documents.

§ 4.2 Alternates

§ 4.2.1 Alternates, if any, included in the Contract Sum:

Item	Price

§ 4.2.2 Subject to the conditions noted below, the following alternates may be accepted by the Owner following execution of this Agreement. Upon acceptance, the Owner shall issue a Modification to this Agreement. (Insert below each alternate and the conditions that must be met for the Owner to accept the alternate.)

Item	Price	Conditions for Acceptance

§ 4.3 Allowances, if any, included in the Contract Sum: (Identify each allowance.)

Item	Price

§ 4.4 Unit prices, if any:

(Identify the item and state the unit price and quantity limitations, if any, to which the unit price will be applicable.)

Item	Units and Limitations	Price per Unit (\$0.00)

§ 4.5 Liquidated damages, if any:

(Insert terms and conditions for liquidated damages, if any.)

§ 4.6 Other:

(Insert provisions for bonus or other incentives, if any, that might result in a change to the Contract Sum.)

ARTICLE 5 PAYMENTS

§ 5.1 Progress Payments

§ 5.1.1 Based upon Applications for Payment submitted to the Architect by the Contractor and Certificates for Payment issued by the Architect, the Owner shall make progress payments on account of the Contract Sum to the Contractor as provided below and elsewhere in the Contract Documents.

§ 5.1.2 The period covered by each Application for Payment shall be one calendar month ending on the last day of the month, or as follows:

§ 5.1.3 Provided that an Application for Payment is received by the Architect not later than the day of a month, the Owner shall make payment of the amount certified to the Contractor not later than the day of the month. If an Application for Payment is received by the Architect after the application date fixed above, payment of the amount certified shall be made by the Owner not later than () days after the Architect receives the Application for Payment.

(Federal, state or local laws may require payment within a certain period of time.)

§ 5.1.4 Each Application for Payment shall be based on the most recent schedule of values submitted by the Contractor in accordance with the Contract Documents. The schedule of values shall allocate the entire Contract Sum among the various portions of the Work. The schedule of values shall be prepared in such form, and supported by such data to substantiate its accuracy, as the Architect may require. This schedule of values shall be used as a basis for reviewing the Contractor's Applications for Payment.

§ 5.1.5 Applications for Payment shall show the percentage of completion of each portion of the Work as of the end of the period covered by the Application for Payment.

§ 5.1.6 In accordance with AIA Document A201™–2017, General Conditions of the Contract for Construction, and subject to other provisions of the Contract Documents, the amount of each progress payment shall be computed as follows:

§ 5.1.6.1 The amount of each progress payment shall first include:

- .1 That portion of the Contract Sum properly allocable to completed Work;
- .2 That portion of the Contract Sum properly allocable to materials and equipment delivered and suitably stored at the site for subsequent incorporation in the completed construction, or, if approved in advance by the Owner, suitably stored off the site at a location agreed upon in writing; and
- .3 That portion of Construction Change Directives that the Architect determines, in the Architect's professional judgment, to be reasonably justified.

§ 5.1.6.2 The amount of each progress payment shall then be reduced by:

- .1 The aggregate of any amounts previously paid by the Owner;
- .2 The amount, if any, for Work that remains uncorrected and for which the Architect has previously withheld a Certificate for Payment as provided in Article 9 of AIA Document A201–2017;
- .3 Any amount for which the Contractor does not intend to pay a Subcontractor or material supplier, unless the Work has been performed by others the Contractor intends to pay;
- .4 For Work performed or defects discovered since the last payment application, any amount for which the Architect may withhold payment, or nullify a Certificate of Payment in whole or in part, as provided in Article 9 of AIA Document A201–2017; and
- .5 Retainage withheld pursuant to Section 5.1.7.

§ 5.1.7 Retainage

§ 5.1.7.1 For each progress payment made prior to Substantial Completion of the Work, the Owner may withhold the following amount, as retainage, from the payment otherwise due:

(Insert a percentage or amount to be withheld as retainage from each Application for Payment. The amount of retainage may be limited by governing law.)

§ 5.1.7.1.1 The following items are not subject to retainage:

(Insert any items not subject to the withholding of retainage, such as general conditions, insurance, etc.)

§ 5.1.7.2 Reduction or limitation of retainage, if any, shall be as follows:

(If the retainage established in Section 5.1.7.1 is to be modified prior to Substantial Completion of the entire Work, including modifications for Substantial Completion of portions of the Work as provided in Section 3.3.2, insert provisions for such modifications.)

If after the project is fifty percent (50%) complete, the Architect determines that the work is not proceeding in accordance with the requirements of the Contract, the Architect, with the Owner's concurrence, may increase the retainage to the amount provided for when the project is less than fifty percent (50%) completed. In addition, the retainage may be increased as provided in the General Conditions of the Contract for Construction (AIA Document A201).

§ 5.1.7.3 Except as set forth in this Section 5.1.7.3, upon Substantial Completion of the Work, the Contractor may submit an Application for Payment that includes the retainage withheld from prior Applications for Payment pursuant to this Section 5.1.7. The Application for Payment submitted at Substantial Completion shall not include retainage as follows:

(Insert any other conditions for release of retainage upon Substantial Completion.)

§ 5.1.8 If final completion of the Work is materially delayed through no fault of the Contractor, the Owner shall pay the Contractor any additional amounts in accordance with Article 9 of AIA Document A201-2017.

§ 5.1.9 Except with the Owner's prior approval, the Contractor shall not make advance payments to suppliers for materials or equipment which have not been delivered and stored at the site.

§ 5.2 Final Payment

§ 5.2.1 Final payment, constituting the entire unpaid balance of the Contract Sum, shall be made by the Owner to the Contractor when

- .1 the Contractor has fully performed the Contract except for the Contractor's responsibility to correct Work as provided in Article 12 of AIA Document A201-2017, and to satisfy other requirements, if any, which extend beyond final payment; and
- .2 a final Certificate for Payment has been issued by the Architect.

§ 5.2.2 The Owner's final payment to the Contractor shall be made no later than 30 days after the issuance of the Architect's final Certificate for Payment, or as follows:

§ 5.3 Interest

Payments due and unpaid under the Contract shall bear interest from the date payment is due at the rate stated below, or in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

(Insert rate of interest agreed upon, if any.)

%

ARTICLE 6 DISPUTE RESOLUTION

§ 6.1 Initial Decision Maker

The Architect will serve as the Initial Decision Maker pursuant to Article 15 of AIA Document A201-2017, unless the parties appoint below another individual, not a party to this Agreement, to serve as the Initial Decision Maker.

(If the parties mutually agree, insert the name, address and other contact information of the Initial Decision Maker, if other than the Architect.)

§ 6.2 Binding Dispute Resolution

For any Claim subject to, but not resolved by, mediation pursuant to Article 15 of AIA Document A201–2017, the method of binding dispute resolution shall be as follows:

(Check the appropriate box.)

☐ Arbitration pursuant to Section 15.4 of AIA Document A201–2017

☒ Litigation in a court of competent jurisdiction

☐ Other *(Specify)*

If the Owner and Contractor do not select a method of binding dispute resolution, or do not subsequently agree in writing to a binding dispute resolution method other than litigation, Claims will be resolved by litigation in a court of competent jurisdiction.

ARTICLE 7 TERMINATION OR SUSPENSION

§ 7.1 The Contract may be terminated by the Owner or the Contractor as provided in Article 14 of AIA Document A201–2017.

§ 7.1.1 If the Contract is terminated for the Owner's convenience in accordance with Article 14 of AIA Document A201–2017, then the Owner shall pay the Contractor a termination fee as follows:

(Insert the amount of, or method for determining, the fee, if any, payable to the Contractor following a termination for the Owner's convenience.)

§ 7.2 The Work may be suspended by the Owner as provided in Article 14 of AIA Document A201–2017.

ARTICLE 8 MISCELLANEOUS PROVISIONS

§ 8.1 Where reference is made in this Agreement to a provision of AIA Document A201–2017 or another Contract Document, the reference refers to that provision as amended or supplemented by other provisions of the Contract Documents.

§ 8.2 The Owner's representative:

(Name, address, email address, and other information)

uan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

§ 8.3 The Contractor's representative:

(Name, address, email address, and other information)

§ 8.4 Neither the Owner's nor the Contractor's representative shall be changed without ten days' prior notice to the other party.

§ 8.5 Insurance and Bonds

§ 8.5.1 The Owner and the Contractor shall purchase and maintain insurance as set forth in AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor where the basis of payment is a Stipulated Sum, Exhibit A, Insurance and Bonds, and elsewhere in the Contract Documents.

§ 8.5.2 The Contractor shall provide bonds as set forth in AIA Document A101™–2017 Exhibit A, and elsewhere in the Contract Documents.

§ 8.6 Notice in electronic format, pursuant to Article 1 of AIA Document A201–2017, may be given in accordance with AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, if completed, or as otherwise set forth below:

(If other than in accordance with AIA Document E203–2013, insert requirements for delivering notice in electronic format such as name, title, and email address of the recipient and whether and how the system will be required to generate a read receipt for the transmission.)

§ 8.7 Other provisions:

ARTICLE 9 ENUMERATION OF CONTRACT DOCUMENTS

§ 9.1 This Agreement is comprised of the following documents:

- .1 AIA Document A101™–2017, Standard Form of Agreement Between Owner and Contractor
- .2 AIA Document A101™–2017, Exhibit A, Insurance and Bonds
- .3 AIA Document A201™–2017, General Conditions of the Contract for Construction
- .4 AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, dated as indicated below:
(Insert the date of the E203-2013 incorporated into this Agreement.)

.5 Drawings

Number

Listing of Drawings as enumerated on the Cover Sheet of the Drawings and attached as Exhibit C to this Agreement.

Title

Date

.6 Specifications

Section

Index to Divisions 00 through 34 for the Work as enumerated in the Table of Contents of the Project Manual as attached as Exhibit B to this Agreement.

Title

Date

Pages

.7 Addenda, if any:

Number	Date	Pages

Portions of Addenda relating to bidding or proposal requirements are not part of the Contract Documents unless the bidding or proposal requirements are also enumerated in this Article 9.

- .8** Other Exhibits:
(Check all boxes that apply and include appropriate information identifying the exhibit where required.)

☐ AIA Document E204™–2017, Sustainable Projects Exhibit, dated as indicated below:
(Insert the date of the E204-2017 incorporated into this Agreement.)

☐ The Sustainability Plan:

Title	Date	Pages

☐ Supplementary and other Conditions of the Contract:

Document	Title	Date	Pages

- .9** Other documents, if any, listed below:
(List here any additional documents that are intended to form part of the Contract Documents. AIA Document A201™–2017 provides that the advertisement or invitation to bid, Instructions to Bidders, sample forms, the Contractor's bid or proposal, portions of Addenda relating to bidding or proposal requirements, and other information furnished by the Owner in anticipation of receiving bids or proposals, are not part of the Contract Documents unless enumerated in this Agreement. Any such documents should be listed here only if intended to be part of the Contract Documents.)

Performance Bond, AIA Document A312
Payment Bond, AIA Document A312

This Agreement entered into as of the day and year first written above.

OWNER (Signature)

(Printed name and title)

CONTRACTOR (Signature)

(Printed name and title)

DRAFT AIA® Document A101™ – 2017

Exhibit A

Insurance and Bonds

This Insurance and Bonds Exhibit is part of the Agreement, between the Owner and the Contractor, dated the [] day of [] in the year []
(In words, indicate day, month and year.)

for the following **PROJECT**:
(Name and location or address)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

THE OWNER:
(Name, legal status and address)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

THE CONTRACTOR:
(Name, legal status and address)

TABLE OF ARTICLES

- A.1 GENERAL
- A.2 OWNER'S INSURANCE
- A.3 CONTRACTOR'S INSURANCE AND BONDS
- A.4 SPECIAL TERMS AND CONDITIONS

ARTICLE A.1 GENERAL

The Owner and Contractor shall purchase and maintain insurance, and provide bonds, as set forth in this Exhibit. As used in this Exhibit, the term General Conditions refers to AIA Document A201™–2017, General Conditions of the Contract for Construction.

ARTICLE A.2 OWNER'S INSURANCE

§ A.2.1 General

Prior to commencement of the Work, the Owner shall secure the insurance, and provide evidence of the coverage, required under this Article A.2 and, upon the Contractor's request, provide a copy of the property insurance policy or policies required by Section A.2.3. The copy of the policy or policies provided shall contain all applicable conditions, definitions, exclusions, and endorsements.

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

This document is intended to be used in conjunction with AIA Document A201™–2017, General Conditions of the Contract for Construction. Article 11 of A201™–2017 contains additional insurance provisions.

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§ A.2.2 Liability Insurance

The Owner shall be responsible for purchasing and maintaining the Owner's usual general liability insurance.

§ A.2.3 Required Property Insurance

§ A.2.3.1 Unless this obligation is placed on the Contractor pursuant to Section A.3.3.2.1, the Owner shall purchase and maintain, from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located, property insurance written on a builder's risk "all-risks" completed value or equivalent policy form and sufficient to cover the total value of the entire Project on a replacement cost basis. The Owner's property insurance coverage shall be no less than the amount of the initial Contract Sum, plus the value of subsequent Modifications and labor performed and materials or equipment supplied by others. The property insurance shall be maintained until Substantial Completion and thereafter as provided in Section A.2.3.1.3, unless otherwise provided in the Contract Documents or otherwise agreed in writing by the parties to this Agreement. This insurance shall include the interests of the Owner, Contractor, Subcontractors, and Sub-subcontractors in the Project as insureds. This insurance shall include the interests of mortgagees as loss payees.

§ A.2.3.1.1 **Causes of Loss.** The insurance required by this Section A.2.3.1 shall provide coverage for direct physical loss or damage, and shall not exclude the risks of fire, explosion, theft, vandalism, malicious mischief, collapse, earthquake, flood, or windstorm. The insurance shall also provide coverage for ensuing loss or resulting damage from error, omission, or deficiency in construction methods, design, specifications, workmanship, or materials. Sub-limits, if any, are as follows:

(Indicate below the cause of loss and any applicable sub-limit.)

Causes of Loss	Sub-Limit

§ A.2.3.1.2 **Specific Required Coverages.** The insurance required by this Section A.2.3.1 shall provide coverage for loss or damage to falsework and other temporary structures, and to building systems from testing and startup. The insurance shall also cover debris removal, including demolition occasioned by enforcement of any applicable legal requirements, and reasonable compensation for the Architect's and Contractor's services and expenses required as a result of such insured loss, including claim preparation expenses. Sub-limits, if any, are as follows:

(Indicate below type of coverage and any applicable sub-limit for specific required coverages.)

Coverage	Sub-Limit

§ A.2.3.1.3 Unless the parties agree otherwise, upon Substantial Completion, the Owner shall continue the insurance required by Section A.2.3.1 or, if necessary, replace the insurance policy required under Section A.2.3.1 with property insurance written for the total value of the Project that shall remain in effect until expiration of the period for correction of the Work set forth in Section 12.2.2 of the General Conditions.

§ A.2.3.1.4 **Deductibles and Self-Insured Retentions.** If the insurance required by this Section A.2.3 is subject to deductibles or self-insured retentions, the Owner shall be responsible for all loss not covered because of such deductibles or retentions.

§ A.2.3.2 **Occupancy or Use Prior to Substantial Completion.** The Owner's occupancy or use of any completed or partially completed portion of the Work prior to Substantial Completion shall not commence until the insurance company or companies providing the insurance under Section A.2.3.1 have consented in writing to the continuance of coverage. The Owner and the Contractor shall take no action with respect to partial occupancy or use that would cause cancellation, lapse, or reduction of insurance, unless they agree otherwise in writing.

§ A.2.3.3 Insurance for Existing Structures

If the Work involves remodeling an existing structure or constructing an addition to an existing structure, the Owner shall purchase and maintain, until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, "all-risks" property insurance, on a replacement cost basis, protecting the existing structure against direct physical loss or damage from the causes of loss identified in Section A.2.3.1, notwithstanding the undertaking of the Work. The Owner shall be responsible for all co-insurance penalties.

§ A.2.4 Optional Extended Property Insurance.

The Owner shall purchase and maintain the insurance selected and described below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. For each type of insurance selected, indicate applicable limits of coverage or other conditions in the fill point below the selected item.)

- ☐ **§ A.2.4.1 Loss of Use, Business Interruption, and Delay in Completion Insurance**, to reimburse the Owner for loss of use of the Owner's property, or the inability to conduct normal operations due to a covered cause of loss.
- ☐ **§ A.2.4.2 Ordinance or Law Insurance**, for the reasonable and necessary costs to satisfy the minimum requirements of the enforcement of any law or ordinance regulating the demolition, construction, repair, replacement or use of the Project.
- ☐ **§ A.2.4.3 Expediting Cost Insurance**, for the reasonable and necessary costs for the temporary repair of damage to insured property, and to expedite the permanent repair or replacement of the damaged property.
- ☐ **§ A.2.4.4 Extra Expense Insurance**, to provide reimbursement of the reasonable and necessary excess costs incurred during the period of restoration or repair of the damaged property that are over and above the total costs that would normally have been incurred during the same period of time had no loss or damage occurred.
- ☐ **§ A.2.4.5 Civil Authority Insurance**, for losses or costs arising from an order of a civil authority prohibiting access to the Project, provided such order is the direct result of physical damage covered under the required property insurance.
- ☐ **§ A.2.4.6 Ingress/Egress Insurance**, for loss due to the necessary interruption of the insured's business due to physical prevention of ingress to, or egress from, the Project as a direct result of physical damage.
- ☐ **§ A.2.4.7 Soft Costs Insurance**, to reimburse the Owner for costs due to the delay of completion of the Work, arising out of physical loss or damage covered by the required property insurance: including construction loan fees; leasing and marketing expenses; additional fees, including those of architects, engineers, consultants, attorneys and accountants, needed for the completion of the construction, repairs, or reconstruction; and carrying costs such as property taxes, building permits, additional interest on loans, realty taxes, and insurance premiums over and above normal expenses.

§ A.2.5 Other Optional Insurance.

The Owner shall purchase and maintain the insurance selected below.

(Select the types of insurance the Owner is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance.)

☐ **§ A.2.5.1 Cyber Security Insurance** for loss to the Owner due to data security and privacy breach, including costs of investigating a potential or actual breach of confidential or private information. (Indicate applicable limits of coverage or other conditions in the fill point below.)

☐ **§ A.2.5.2 Other Insurance**
(List below any other insurance coverage to be provided by the Owner and any applicable limits.)

Coverage	Limits

ARTICLE A.3 CONTRACTOR'S INSURANCE AND BONDS

§ A.3.1 General

§ A.3.1.1 Certificates of Insurance. The Contractor shall provide certificates of insurance acceptable to the Owner evidencing compliance with the requirements in this Article A.3 at the following times: (1) prior to commencement of the Work; (2) upon renewal or replacement of each required policy of insurance; and (3) upon the Owner's written request. An additional certificate evidencing continuation of commercial liability coverage, including coverage for completed operations, shall be submitted with the final Application for Payment and thereafter upon renewal or replacement of such coverage until the expiration of the periods required by Section A.3.2.1 and Section A.3.3.1. The certificates will show the Owner as an additional insured on the Contractor's Commercial General Liability and excess or umbrella liability policy or policies.

§ A.3.1.2 Deductibles and Self-Insured Retentions. The Contractor shall disclose to the Owner any deductible or self-insured retentions applicable to any insurance required to be provided by the Contractor.

§ A.3.1.3 Additional Insured Obligations. To the fullest extent permitted by law, the Contractor shall cause the commercial general liability coverage to include (1) the Owner, the Architect, and the Architect's consultants as additional insureds for claims caused in whole or in part by the Contractor's negligent acts or omissions during the Contractor's operations; and (2) the Owner as an additional insured for claims caused in whole or in part by the Contractor's negligent acts or omissions for which loss occurs during completed operations. The additional insured coverage shall be primary and non-contributory to any of the Owner's general liability insurance policies and shall apply to both ongoing and completed operations. To the extent commercially available, the additional insured coverage shall be no less than that provided by Insurance Services Office, Inc. (ISO) forms CG 20 10 07 04, CG 20 37 07 04, and, with respect to the Architect and the Architect's consultants, CG 20 32 07 04.

§ A.3.2 Contractor's Required Insurance Coverage

§ A.3.2.1 The Contractor shall purchase and maintain the following types and limits of insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:
(If the Contractor is required to maintain insurance for a duration other than the expiration of the period for correction of Work, state the duration.)

§ A.3.2.2 Commercial General Liability

§ A.3.2.2.1 Commercial General Liability insurance for the Project written on an occurrence form with policy limits of not less than **Two Million Dollars (\$ 2,000,000.00)** each occurrence, **Four Million Dollars (\$ 4,000,000.00)** general aggregate, and **Two Million Dollars (\$ 2,000,000.00)** aggregate for products-completed operations hazard, providing coverage for claims including

- .1 damages because of bodily injury, sickness or disease, including occupational sickness or disease, and death of any person;

- .2 personal injury and advertising injury;
- .3 damages because of physical damage to or destruction of tangible property, including the loss of use of such property;
- .4 bodily injury or property damage arising out of completed operations; and
- .5 the Contractor's indemnity obligations under Section 3.18 of the General Conditions.

§ A.3.2.2.2 The Contractor's Commercial General Liability policy under this Section A.3.2.2 shall not contain an exclusion or restriction of coverage for the following:

- .1 Claims by one insured against another insured, if the exclusion or restriction is based solely on the fact that the claimant is an insured, and there would otherwise be coverage for the claim.
- .2 Claims for property damage to the Contractor's Work arising out of the products-completed operations hazard where the damaged Work or the Work out of which the damage arises was performed by a Subcontractor.
- .3 Claims for bodily injury other than to employees of the insured.
- .4 Claims for indemnity under Section 3.18 of the General Conditions arising out of injury to employees of the insured.
- .5 Claims or loss excluded under a prior work endorsement or other similar exclusionary language.
- .6 Claims or loss due to physical damage under a prior injury endorsement or similar exclusionary language.
- .7 Claims related to residential, multi-family, or other habitational projects, if the Work is to be performed on such a project.
- .8 Claims related to roofing, if the Work involves roofing.
- .9 Claims related to exterior insulation finish systems (EIFS), synthetic stucco or similar exterior coatings or surfaces, if the Work involves such coatings or surfaces.
- .10 Claims related to earth subsidence or movement, where the Work involves such hazards.
- .11 Claims related to explosion, collapse and underground hazards, where the Work involves such hazards.

§ A.3.2.3 Automobile Liability covering vehicles owned, and non-owned vehicles used, by the Contractor, with policy limits of not less than **One Million Dollars** (\$ 1,000,000.00) per accident, for bodily injury, death of any person, and property damage arising out of the ownership, maintenance and use of those motor vehicles along with any other statutorily required automobile coverage.

§ A.3.2.4 The Contractor may achieve the required limits and coverage for Commercial General Liability and Automobile Liability through a combination of primary and excess or umbrella liability insurance, provided such primary and excess or umbrella insurance policies result in the same or greater coverage as the coverages required under Section A.3.2.2 and A.3.2.3, and in no event shall any excess or umbrella liability insurance provide narrower coverage than the primary policy. The excess policy shall not require the exhaustion of the underlying limits only through the actual payment by the underlying insurers.

§ A.3.2.5 Workers' Compensation at statutory limits.

§ A.3.2.6 Employers' Liability with policy limits not less than **(\$)** each accident, **(\$)** each employee, and **(\$)** policy limit as per the statutory limits for Workers Compensation.

§ A.3.2.7 Jones Act, and the Longshore & Harbor Workers' Compensation Act, as required, if the Work involves hazards arising from work on or near navigable waterways, including vessels and docks

§ A.3.2.8 If the Contractor is required to furnish professional services as part of the Work, the Contractor shall procure Professional Liability insurance covering performance of the professional services, with policy limits of not less than **One Million Dollars** (\$ 1,000,000.00) per claim and **Two Million Dollars** (\$ 2,000,000.00) in the aggregate.

§ A.3.2.9 If the Work involves the transport, dissemination, use, or release of pollutants, the Contractor shall procure Pollution Liability insurance, with policy limits of not less than **(\$)** per claim and **(\$)** in the aggregate.

§ **A.3.2.10** Coverage under Sections A.3.2.8 and A.3.2.9 may be procured through a Combined Professional Liability and Pollution Liability insurance policy, with combined policy limits of not less than █ (\$ █) per claim and █ (\$ █) in the aggregate.

§ **A.3.2.11** Insurance for maritime liability risks associated with the operation of a vessel, if the Work requires such activities, with policy limits of not less than █ (\$ █) per claim and █ (\$ █) in the aggregate.

§ **A.3.2.12** Insurance for the use or operation of manned or unmanned aircraft, if the Work requires such activities, with policy limits of not less than █ (\$ █) per claim and █ (\$ █) in the aggregate.

§ **A.3.3 Contractor's Other Insurance Coverage**

§ **A.3.3.1** Insurance selected and described in this Section A.3.3 shall be purchased from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Contractor shall maintain the required insurance until the expiration of the period for correction of Work as set forth in Section 12.2.2 of the General Conditions, unless a different duration is stated below:

(If the Contractor is required to maintain any of the types of insurance selected below for a duration other than the expiration of the period for correction of Work, state the duration.)

§ **A.3.3.2** The Contractor shall purchase and maintain the following types and limits of insurance in accordance with Section A.3.3.1.

(Select the types of insurance the Contractor is required to purchase and maintain by placing an X in the box(es) next to the description(s) of selected insurance. Where policy limits are provided, include the policy limit in the appropriate fill point.)

☐ § **A.3.3.2.1** Property insurance of the same type and scope satisfying the requirements identified in Section A.2.3, which, if selected in this section A.3.3.2.1, relieves the Owner of the responsibility to purchase and maintain such insurance except insurance required by Section A.2.3.1.3 and Section A.2.3.3. The Contractor shall comply with all obligations of the Owner under Section A.2.3 except to the extent provided below. The Contractor shall disclose to the Owner the amount of any deductible, and the Owner shall be responsible for losses within the deductible. Upon request, the Contractor shall provide the Owner with a copy of the property insurance policy or policies required. The Owner shall adjust and settle the loss with the insurer and be the trustee of the proceeds of the property insurance in accordance with Article 11 of the General Conditions unless otherwise set forth below:
(Where the Contractor's obligation to provide property insurance differs from the Owner's obligations as described under Section A.2.3, indicate such differences in the space below. Additionally, if a party other than the Owner will be responsible for adjusting and settling a loss with the insurer and acting as the trustee of the proceeds of property insurance in accordance with Article 11 of the General Conditions, indicate the responsible party below.)

☐ § **A.3.3.2.2 Railroad Protective Liability Insurance**, with policy limits of not less than █ (\$ █) per claim and █ (\$ █) in the aggregate, for Work within fifty (50) feet of railroad property.

☐ § **A.3.3.2.3 Asbestos Abatement Liability Insurance**, with policy limits of not less than █ (\$ █) per claim and █ (\$ █) in the aggregate, for liability arising from the encapsulation, removal, handling, storage, transportation, and disposal of asbestos-containing materials.

☐ § **A.3.3.2.4** Insurance for physical damage to property while it is in storage and in transit to the construction site on an "all-risks" completed value form.

☐ § **A.3.3.2.5** Property insurance on an "all-risks" completed value form, covering property owned by the Contractor and used on the Project, including scaffolding and other equipment.

[]

§ A.3.3.2.6 Other Insurance

(List below any other insurance coverage to be provided by the Contractor and any applicable limits.)

Coverage	Limits
----------	--------

§ A.3.4 Performance Bond and Payment Bond

The Contractor shall provide surety bonds, from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located, as follows:

(Specify type and penal sum of bonds.)

Type	Penal Sum (\$0.00)
Payment Bond	
Performance Bond	

Payment and Performance Bonds shall be AIA Document A312™, Payment Bond and Performance Bond, or contain provisions identical to AIA Document A312™, current as of the date of this Agreement.

ARTICLE A.4 SPECIAL TERMS AND CONDITIONS

Special terms and conditions that modify this Insurance and Bonds Exhibit, if any, are as follows:

SECTION 006100 - PERFORMANCE BOND AIA A312

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This section contains four (4) pages, not including this cover page.

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DRAFT AIA® Document A312™ - 2010

Performance Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

CONSTRUCTION CONTRACT

Date:

Amount: \$

Description:

(Name and location)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: ☐ None ☐ See Section 16

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____

Name and _____

Title: _____

Signature: _____

Name and _____

Title: _____

(Any additional signatures appear on the last page of this Performance Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner for the performance of the Construction Contract, which is incorporated herein by reference.

§ 2 If the Contractor performs the Construction Contract, the Surety and the Contractor shall have no obligation under this Bond, except when applicable to participate in a conference as provided in Section 3.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation under this Bond shall arise after

- .1 the Owner first provides notice to the Contractor and the Surety that the Owner is considering declaring a Contractor Default. Such notice shall indicate whether the Owner is requesting a conference among the Owner, Contractor and Surety to discuss the Contractor's performance. If the Owner does not request a conference, the Surety may, within five (5) business days after receipt of the Owner's notice, request such a conference. If the Surety timely requests a conference, the Owner shall attend. Unless the Owner agrees otherwise, any conference requested under this Section 3.1 shall be held within ten (10) business days of the Surety's receipt of the Owner's notice. If the Owner, the Contractor and the Surety agree, the Contractor shall be allowed a reasonable time to perform the Construction Contract, but such an agreement shall not waive the Owner's right, if any, subsequently to declare a Contractor Default;
- .2 the Owner declares a Contractor Default, terminates the Construction Contract and notifies the Surety; and
- .3 the Owner has agreed to pay the Balance of the Contract Price in accordance with the terms of the Construction Contract to the Surety or to a contractor selected to perform the Construction Contract.

§ 4 Failure on the part of the Owner to comply with the notice requirement in Section 3.1 shall not constitute a failure to comply with a condition precedent to the Surety's obligations, or release the Surety from its obligations, except to the extent the Surety demonstrates actual prejudice.

§ 5 When the Owner has satisfied the conditions of Section 3, the Surety shall promptly and at the Surety's expense take one of the following actions:

§ 5.1 Arrange for the Contractor, with the consent of the Owner, to perform and complete the Construction Contract;

§ 5.2 Undertake to perform and complete the Construction Contract itself, through its agents or independent contractors;

§ 5.3 Obtain bids or negotiated proposals from qualified contractors acceptable to the Owner for a contract for performance and completion of the Construction Contract, arrange for a contract to be prepared for execution by the Owner and a contractor selected with the Owner's concurrence, to be secured with performance and payment bonds executed by a qualified surety equivalent to the bonds issued on the Construction Contract, and pay to the Owner the amount of damages as described in Section 7 in excess of the Balance of the Contract Price incurred by the Owner as a result of the Contractor Default; or

§ 5.4 Waive its right to perform and complete, arrange for completion, or obtain a new contractor and with reasonable promptness under the circumstances:

- .1 After investigation, determine the amount for which it may be liable to the Owner and, as soon as practicable after the amount is determined, make payment to the Owner; or
- .2 Deny liability in whole or in part and notify the Owner, citing the reasons for denial.

§ 6 If the Surety does not proceed as provided in Section 5 with reasonable promptness, the Surety shall be deemed to be in default on this Bond seven days after receipt of an additional written notice from the Owner to the Surety demanding that the Surety perform its obligations under this Bond, and the Owner shall be entitled to enforce any remedy available to the Owner. If the Surety proceeds as provided in Section 5.4, and the Owner refuses the payment or the Surety has denied liability, in whole or in part, without further notice the Owner shall be entitled to enforce any remedy available to the Owner.

§ 7 If the Surety elects to act under Section 5.1, 5.2 or 5.3, then the responsibilities of the Surety to the Owner shall not be greater than those of the Contractor under the Construction Contract, and the responsibilities of the Owner to

the Surety shall not be greater than those of the Owner under the Construction Contract. Subject to the commitment by the Owner to pay the Balance of the Contract Price, the Surety is obligated, without duplication, for

- .1 the responsibilities of the Contractor for correction of defective work and completion of the Construction Contract;
- .2 additional legal, design professional and delay costs resulting from the Contractor's Default, and resulting from the actions or failure to act of the Surety under Section 5; and
- .3 liquidated damages, or if no liquidated damages are specified in the Construction Contract, actual damages caused by delayed performance or non-performance of the Contractor.

§ 8 If the Surety elects to act under Section 5.1, 5.3 or 5.4, the Surety's liability is limited to the amount of this Bond.

§ 9 The Surety shall not be liable to the Owner or others for obligations of the Contractor that are unrelated to the Construction Contract, and the Balance of the Contract Price shall not be reduced or set off on account of any such unrelated obligations. No right of action shall accrue on this Bond to any person or entity other than the Owner or its heirs, executors, administrators, successors and assigns.

§ 10 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 11 Any proceeding, legal or equitable, under this Bond may be instituted in any court of competent jurisdiction in the location in which the work or part of the work is located and shall be instituted within two years after a declaration of Contractor Default or within two years after the Contractor ceased working or within two years after the Surety refuses or fails to perform its obligations under this Bond, whichever occurs first. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 12 Notice to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears.

§ 13 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 14 Definitions

§ 14.1 Balance of the Contract Price. The total amount payable by the Owner to the Contractor under the Construction Contract after all proper adjustments have been made, including allowance to the Contractor of any amounts received or to be received by the Owner in settlement of insurance or other claims for damages to which the Contractor is entitled, reduced by all valid and proper payments made to or on behalf of the Contractor under the Construction Contract.

§ 14.2 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and changes made to the agreement and the Contract Documents.

§ 14.3 Contractor Default. Failure of the Contractor, which has not been remedied or waived, to perform or otherwise to comply with a material term of the Construction Contract.

§ 14.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 14.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 15 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 16 Modifications to this bond are as follows:



(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

SURETY

Company: _____ (Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____



SECTION 006120 - PAYMENT BOND AIA A312

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Payment Bond

CONTRACTOR:

(Name, legal status and address)

SURETY:

(Name, legal status and principal place of business)

OWNER:

(Name, legal status and address)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

CONSTRUCTION CONTRACT

Date:

Amount: \$

Description:

(Name and location)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

BOND

Date:

(Not earlier than Construction Contract Date)

Amount: \$

Modifications to this Bond: ☐ None ☐ See Section 18

CONTRACTOR AS PRINCIPAL

Company: (Corporate Seal)

SURETY

Company: (Corporate Seal)

Signature: _____

Name and _____

Title: _____

Signature: _____

Name and _____

Title: _____

(Any additional signatures appear on the last page of this Payment Bond.)

(FOR INFORMATION ONLY — Name, address and telephone)

AGENT or BROKER:**OWNER'S REPRESENTATIVE:**

(Architect, Engineer or other party:)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

ADDITIONS AND DELETIONS:

The author of this document has added information needed for its completion. The author may also have revised the text of the original AIA standard form. An *Additions and Deletions Report* that notes added information as well as revisions to the standard form text is available from the author and should be reviewed.

This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

Any singular reference to Contractor, Surety, Owner or other party shall be considered plural where applicable.

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§ 1 The Contractor and Surety, jointly and severally, bind themselves, their heirs, executors, administrators, successors and assigns to the Owner to pay for labor, materials and equipment furnished for use in the performance of the Construction Contract, which is incorporated herein by reference, subject to the following terms.

§ 2 If the Contractor promptly makes payment of all sums due to Claimants, and defends, indemnifies and holds harmless the Owner from claims, demands, liens or suits by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract, then the Surety and the Contractor shall have no obligation under this Bond.

§ 3 If there is no Owner Default under the Construction Contract, the Surety's obligation to the Owner under this Bond shall arise after the Owner has promptly notified the Contractor and the Surety (at the address described in Section 13) of claims, demands, liens or suits against the Owner or the Owner's property by any person or entity seeking payment for labor, materials or equipment furnished for use in the performance of the Construction Contract and tendered defense of such claims, demands, liens or suits to the Contractor and the Surety.

§ 4 When the Owner has satisfied the conditions in Section 3, the Surety shall promptly and at the Surety's expense defend, indemnify and hold harmless the Owner against a duly tendered claim, demand, lien or suit.

§ 5 The Surety's obligations to a Claimant under this Bond shall arise after the following:

§ 5.1 Claimants, who do not have a direct contract with the Contractor,

- .1 have furnished a written notice of non-payment to the Contractor, stating with substantial accuracy the amount claimed and the name of the party to whom the materials were, or equipment was, furnished or supplied or for whom the labor was done or performed, within ninety (90) days after having last performed labor or last furnished materials or equipment included in the Claim; and
- .2 have sent a Claim to the Surety (at the address described in Section 13).

§ 5.2 Claimants, who are employed by or have a direct contract with the Contractor, have sent a Claim to the Surety (at the address described in Section 13).

§ 6 If a notice of non-payment required by Section 5.1.1 is given by the Owner to the Contractor, that is sufficient to satisfy a Claimant's obligation to furnish a written notice of non-payment under Section 5.1.1.

§ 7 When a Claimant has satisfied the conditions of Sections 5.1 or 5.2, whichever is applicable, the Surety shall promptly and at the Surety's expense take the following actions:

§ 7.1 Send an answer to the Claimant, with a copy to the Owner, within sixty (60) days after receipt of the Claim, stating the amounts that are undisputed and the basis for challenging any amounts that are disputed; and

§ 7.2 Pay or arrange for payment of any undisputed amounts.

§ 7.3 The Surety's failure to discharge its obligations under Section 7.1 or Section 7.2 shall not be deemed to constitute a waiver of defenses the Surety or Contractor may have or acquire as to a Claim, except as to undisputed amounts for which the Surety and Claimant have reached agreement. If, however, the Surety fails to discharge its obligations under Section 7.1 or Section 7.2, the Surety shall indemnify the Claimant for the reasonable attorney's fees the Claimant incurs thereafter to recover any sums found to be due and owing to the Claimant.

§ 8 The Surety's total obligation shall not exceed the amount of this Bond, plus the amount of reasonable attorney's fees provided under Section 7.3, and the amount of this Bond shall be credited for any payments made in good faith by the Surety.

§ 9 Amounts owed by the Owner to the Contractor under the Construction Contract shall be used for the performance of the Construction Contract and to satisfy claims, if any, under any construction performance bond. By the Contractor furnishing and the Owner accepting this Bond, they agree that all funds earned by the Contractor in the performance of the Construction Contract are dedicated to satisfy obligations of the Contractor and Surety under this Bond, subject to the Owner's priority to use the funds for the completion of the work.

§ 10 The Surety shall not be liable to the Owner, Claimants or others for obligations of the Contractor that are unrelated to the Construction Contract. The Owner shall not be liable for the payment of any costs or expenses of any Claimant under this Bond, and shall have under this Bond no obligation to make payments to, or give notice on behalf of, Claimants or otherwise have any obligations to Claimants under this Bond.

§ 11 The Surety hereby waives notice of any change, including changes of time, to the Construction Contract or to related subcontracts, purchase orders and other obligations.

§ 12 No suit or action shall be commenced by a Claimant under this Bond other than in a court of competent jurisdiction in the state in which the project that is the subject of the Construction Contract is located or after the expiration of one year from the date (1) on which the Claimant sent a Claim to the Surety pursuant to Section 5.1.2 or 5.2, or (2) on which the last labor or service was performed by anyone or the last materials or equipment were furnished by anyone under the Construction Contract, whichever of (1) or (2) first occurs. If the provisions of this Paragraph are void or prohibited by law, the minimum period of limitation available to sureties as a defense in the jurisdiction of the suit shall be applicable.

§ 13 Notice and Claims to the Surety, the Owner or the Contractor shall be mailed or delivered to the address shown on the page on which their signature appears. Actual receipt of notice or Claims, however accomplished, shall be sufficient compliance as of the date received.

§ 14 When this Bond has been furnished to comply with a statutory or other legal requirement in the location where the construction was to be performed, any provision in this Bond conflicting with said statutory or legal requirement shall be deemed deleted herefrom and provisions conforming to such statutory or other legal requirement shall be deemed incorporated herein. When so furnished, the intent is that this Bond shall be construed as a statutory bond and not as a common law bond.

§ 15 Upon request by any person or entity appearing to be a potential beneficiary of this Bond, the Contractor and Owner shall promptly furnish a copy of this Bond or shall permit a copy to be made.

§ 16 Definitions

§ 16.1 Claim. A written statement by the Claimant including at a minimum:

- .1 the name of the Claimant;
- .2 the name of the person for whom the labor was done, or materials or equipment furnished;
- .3 a copy of the agreement or purchase order pursuant to which labor, materials or equipment was furnished for use in the performance of the Construction Contract;
- .4 a brief description of the labor, materials or equipment furnished;
- .5 the date on which the Claimant last performed labor or last furnished materials or equipment for use in the performance of the Construction Contract;
- .6 the total amount earned by the Claimant for labor, materials or equipment furnished as of the date of the Claim;
- .7 the total amount of previous payments received by the Claimant; and
- .8 the total amount due and unpaid to the Claimant for labor, materials or equipment furnished as of the date of the Claim.

§ 16.2 Claimant. An individual or entity having a direct contract with the Contractor or with a subcontractor of the Contractor to furnish labor, materials or equipment for use in the performance of the Construction Contract. The term Claimant also includes any individual or entity that has rightfully asserted a claim under an applicable mechanic's lien or similar statute against the real property upon which the Project is located. The intent of this Bond shall be to include without limitation in the terms "labor, materials or equipment" that part of water, gas, power, light, heat, oil, gasoline, telephone service or rental equipment used in the Construction Contract, architectural and engineering services required for performance of the work of the Contractor and the Contractor's subcontractors, and all other items for which a mechanic's lien may be asserted in the jurisdiction where the labor, materials or equipment were furnished.

§ 16.3 Construction Contract. The agreement between the Owner and Contractor identified on the cover page, including all Contract Documents and all changes made to the agreement and the Contract Documents.

§ 16.4 Owner Default. Failure of the Owner, which has not been remedied or waived, to pay the Contractor as required under the Construction Contract or to perform and complete or comply with the other material terms of the Construction Contract.

§ 16.5 Contract Documents. All the documents that comprise the agreement between the Owner and Contractor.

§ 17 If this Bond is issued for an agreement between a Contractor and subcontractor, the term Contractor in this Bond shall be deemed to be Subcontractor and the term Owner shall be deemed to be Contractor.

§ 18 Modifications to this bond are as follows:

[Redacted line]

(Space is provided below for additional signatures of added parties, other than those appearing on the cover page.)

CONTRACTOR AS PRINCIPAL

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

SURETY

Company: _____
(Corporate Seal)

Signature: _____
Name and Title: _____
Address: _____

DRAFT AIA® Document A201™ – 2017

General Conditions of the Contract for Construction

for the following PROJECT:

(Name and location or address)

Bertie County 911 Communications New Facility
206 Country Farm Road
Windsor, NC 27983

THE OWNER:

(Name, legal status and address)

Juan Vaughan, County Manager
Bertie County
106 Dundee Street
Windsor, NC 27983

THE ARCHITECT:

(Name, legal status and address)

SCHRADERGROUP, a Hord Coplan Macht Studio
4208 Six Forks Road, Suite 1000
Raleigh, NC 27609

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ADDITIONS AND DELETIONS:

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This document has important legal consequences. Consultation with an attorney is encouraged with respect to its completion or modification.

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ARTICLE 1 GENERAL PROVISIONS

§ 1.1 Basic Definitions

§ 1.1.1 The Contract Documents

The Contract Documents are enumerated in the Agreement between the Owner and Contractor (hereinafter the Agreement) and consist of the Agreement, Conditions of the Contract (General, Supplementary and other Conditions), Drawings, Specifications, Addenda issued prior to execution of the Contract, other documents listed in the Agreement, and Modifications issued after execution of the Contract. A Modification is (1) a written amendment to the Contract signed by both parties, (2) a Change Order, (3) a Construction Change Directive, or (4) a written order for a minor change in the Work issued by the Architect. Unless specifically enumerated in the Agreement, the Contract Documents do not include the advertisement or invitation to bid, Instructions to Bidders, sample forms, other information furnished by the Owner in anticipation of receiving bids or proposals, the Contractor's bid or proposal, or portions of Addenda relating to bidding or proposal requirements.

§ 1.1.2 The Contract

The Contract Documents form the Contract for Construction. The Contract represents the entire and integrated agreement between the parties hereto and supersedes prior negotiations, representations, or agreements, either written or oral. The Contract may be amended or modified only by a Modification. The Contract Documents shall not be construed to create a contractual relationship of any kind (1) between the Contractor and the Architect or the Architect's consultants, (2) between the Owner and a Subcontractor or a Sub-subcontractor, (3) between the Owner and the Architect or the Architect's consultants, or (4) between any persons or entities other than the Owner and the Contractor. The Architect shall, however, be entitled to performance and enforcement of obligations under the Contract intended to facilitate performance of the Architect's duties.

§ 1.1.3 The Work

The term "Work" means the construction and services required by the Contract Documents, whether completed or partially completed, and includes all other labor, materials, equipment, and services provided or to be provided by the Contractor to fulfill the Contractor's obligations. The Work may constitute the whole or a part of the Project.

§ 1.1.4 The Project

The Project is the total construction of which the Work performed under the Contract Documents may be the whole or a part and which may include construction by the Owner and by Separate Contractors.

§ 1.1.5 The Drawings

The Drawings are the graphic and pictorial portions of the Contract Documents showing the design, location and dimensions of the Work, generally including plans, elevations, sections, details, schedules, and diagrams.

§ 1.1.6 The Specifications

The Specifications are that portion of the Contract Documents consisting of the written requirements for materials, equipment, systems, standards and workmanship for the Work, and performance of related services.

§ 1.1.7 Instruments of Service

Instruments of Service are representations, in any medium of expression now known or later developed, of the tangible and intangible creative work performed by the Architect and the Architect's consultants under their respective professional services agreements. Instruments of Service may include, without limitation, studies, surveys, models, sketches, drawings, specifications, and other similar materials.

§ 1.1.8 Initial Decision Maker

The Initial Decision Maker is the person identified in the Agreement to render initial decisions on Claims in accordance with Section 15.2. The Initial Decision Maker shall not show partiality to the Owner or Contractor and shall not be liable for results of interpretations or decisions rendered in good faith.

§ 1.2 Correlation and Intent of the Contract Documents

§ 1.2.1 The intent of the Contract Documents is to include all items necessary for the proper execution and completion of the Work by the Contractor. The Contract Documents are complementary, and what is required by one shall be as binding as if required by all; performance by the Contractor shall be required only to the extent consistent with the Contract Documents and reasonably inferable from them as being necessary to produce the indicated results.

§ 1.2.1.1 The invalidity of any provision of the Contract Documents shall not invalidate the Contract or its remaining provisions. If it is determined that any provision of the Contract Documents violates any law, or is otherwise invalid or unenforceable, then that provision shall be revised to the extent necessary to make that provision legal and enforceable. In such case the Contract Documents shall be construed, to the fullest extent permitted by law, to give effect to the parties' intentions and purposes in executing the Contract.

§ 1.2.2 Organization of the Specifications into divisions, sections and articles, and arrangement of Drawings shall not control the Contractor in dividing the Work among Subcontractors or in establishing the extent of Work to be performed by any trade.

§ 1.2.3 Unless otherwise stated in the Contract Documents, words that have well-known technical or construction industry meanings are used in the Contract Documents in accordance with such recognized meanings.

§ 1.3 Capitalization

Terms capitalized in these General Conditions include those that are (1) specifically defined, (2) the titles of numbered articles, or (3) the titles of other documents published by the American Institute of Architects.

§ 1.4 Interpretation

In the interest of brevity the Contract Documents frequently omit modifying words such as "all" and "any" and articles such as "the" and "an," but the fact that a modifier or an article is absent from one statement and appears in another is not intended to affect the interpretation of either statement.

§ 1.5 Ownership and Use of Drawings, Specifications, and Other Instruments of Service

§ 1.5.1 The Architect and the Architect's consultants shall be deemed the authors and owners of their respective Instruments of Service, including the Drawings and Specifications, and retain all common law, statutory, and other reserved rights in their Instruments of Service, including copyrights. The Contractor, Subcontractors, Sub-subcontractors, and suppliers shall not own or claim a copyright in the Instruments of Service. Submittal or distribution to meet official regulatory requirements or for other purposes in connection with the Project is not to be construed as publication in derogation of the Architect's or Architect's consultants' reserved rights.

§ 1.5.2 The Contractor, Subcontractors, Sub-subcontractors, and suppliers are authorized to use and reproduce the Instruments of Service provided to them, subject to any protocols established pursuant to Sections 1.7 and 1.8, solely and exclusively for execution of the Work. All copies made under this authorization shall bear the copyright notice, if any, shown on the Instruments of Service. The Contractor, Subcontractors, Sub-subcontractors, and suppliers may not use the Instruments of Service on other projects or for additions to the Project outside the scope of the Work without the specific written consent of the Owner, Architect, and the Architect's consultants.

§ 1.6 Notice

§ 1.6.1 Except as otherwise provided in Section 1.6.2, where the Contract Documents require one party to notify or give notice to the other party, such notice shall be provided in writing to the designated representative of the party to whom the notice is addressed and shall be deemed to have been duly served if delivered in person, by mail, by courier, or by electronic transmission if a method for electronic transmission is set forth in the Agreement.

§ 1.6.2 Notice of Claims as provided in Section 15.1.3 shall be provided in writing and shall be deemed to have been duly served only if delivered to the designated representative of the party to whom the notice is addressed by certified or registered mail, or by courier providing proof of delivery.

§ 1.7 Digital Data Use and Transmission

The parties shall agree upon protocols governing the transmission and use of Instruments of Service or any other information or documentation in digital form. The parties will use AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, to establish the protocols for the development, use, transmission, and exchange of digital data.

§ 1.8 Building Information Models Use and Reliance

Any use of, or reliance on, all or a portion of a building information model without agreement to protocols governing the use of, and reliance on, the information contained in the model and without having those protocols set forth in AIA Document E203™–2013, Building Information Modeling and Digital Data Exhibit, and the requisite AIA Document G202™–2013, Project Building Information Modeling Protocol Form, shall be at the using or

relying party's sole risk and without liability to the other party and its contractors or consultants, the authors of, or contributors to, the building information model, and each of their agents and employees.

ARTICLE 2 OWNER

§ 2.1 General

§ 2.1.1 The Owner is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Owner shall designate in writing a representative who shall have express authority to bind the Owner with respect to all matters requiring the Owner's approval or authorization. Except as otherwise provided in Section 4.2.1, the Architect does not have such authority. The term "Owner" means the Owner or the Owner's authorized representative.

§ 2.1.2 The Owner shall furnish to the Contractor, within fifteen days after receipt of a written request, information necessary and relevant for the Contractor to evaluate, give notice of, or enforce mechanic's lien rights. Such information shall include a correct statement of the record legal title to the property on which the Project is located, usually referred to as the site, and the Owner's interest therein.

§ 2.2 Evidence of the Owner's Financial Arrangements

§ 2.2.1 Prior to commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract. The Contractor shall have no obligation to commence the Work until the Owner provides such evidence. If commencement of the Work is delayed under this Section 2.2.1, the Contract Time shall be extended appropriately.

§ 2.2.2 Following commencement of the Work and upon written request by the Contractor, the Owner shall furnish to the Contractor reasonable evidence that the Owner has made financial arrangements to fulfill the Owner's obligations under the Contract only if (1) the Owner fails to make payments to the Contractor as the Contract Documents require; (2) the Contractor identifies in writing a reasonable concern regarding the Owner's ability to make payment when due; or (3) a change in the Work materially changes the Contract Sum. If the Owner fails to provide such evidence, as required, within fourteen days of the Contractor's request, the Contractor may immediately stop the Work and, in that event, shall notify the Owner that the Work has stopped. However, if the request is made because a change in the Work materially changes the Contract Sum under (3) above, the Contractor may immediately stop only that portion of the Work affected by the change until reasonable evidence is provided. If the Work is stopped under this Section 2.2.2, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided in the Contract Documents.

§ 2.2.3 After the Owner furnishes evidence of financial arrangements under this Section 2.2, the Owner shall not materially vary such financial arrangements without prior notice to the Contractor.

§ 2.2.4 Where the Owner has designated information furnished under this Section 2.2 as "confidential," the Contractor shall keep the information confidential and shall not disclose it to any other person. However, the Contractor may disclose "confidential" information, after seven (7) days' notice to the Owner, where disclosure is required by law, including a subpoena or other form of compulsory legal process issued by a court or governmental entity, or by court or arbitrator(s) order. The Contractor may also disclose "confidential" information to its employees, consultants, sureties, Subcontractors and their employees, Sub-subcontractors, and others who need to know the content of such information solely and exclusively for the Project and who agree to maintain the confidentiality of such information.

§ 2.3 Information and Services Required of the Owner

§ 2.3.1 Except for permits and fees that are the responsibility of the Contractor under the Contract Documents, including those required under Section 3.7.1, the Owner shall secure and pay for necessary approvals, easements, assessments and charges required for construction, use or occupancy of permanent structures or for permanent changes in existing facilities.

§ 2.3.2 The Owner shall retain an architect lawfully licensed to practice architecture, or an entity lawfully practicing architecture, in the jurisdiction where the Project is located. That person or entity is identified as the Architect in the Agreement and is referred to throughout the Contract Documents as if singular in number.

§ 2.3.3 If the employment of the Architect terminates, the Owner shall employ a successor to whom the Contractor has no reasonable objection and whose status under the Contract Documents shall be that of the Architect.

§ 2.3.4 The Owner shall furnish surveys describing physical characteristics, legal limitations and utility locations for the site of the Project, and a legal description of the site. The Contractor shall be entitled to rely on the accuracy of information furnished by the Owner but shall exercise proper precautions relating to the safe performance of the Work.

§ 2.3.5 The Owner shall furnish information or services required of the Owner by the Contract Documents with reasonable promptness. The Owner shall also furnish any other information or services under the Owner's control and relevant to the Contractor's performance of the Work with reasonable promptness after receiving the Contractor's written request for such information or services.

§ 2.3.6 Unless otherwise provided in the Contract Documents, the Owner shall furnish to the Contractor one copy of the Contract Documents for purposes of making reproductions pursuant to Section 1.5.2.

§ 2.4 Owner's Right to Stop the Work

If the Contractor fails to correct Work that is not in accordance with the requirements of the Contract Documents as required by Section 12.2 or repeatedly fails to carry out Work in accordance with the Contract Documents, the Owner may issue a written order to the Contractor to stop the Work, or any portion thereof, until the cause for such order has been eliminated; however, the right of the Owner to stop the Work shall not give rise to a duty on the part of the Owner to exercise this right for the benefit of the Contractor or any other person or entity, except to the extent required by Section 6.1.3.

§ 2.5 Owner's Right to Carry Out the Work

If the Contractor defaults or neglects to carry out the Work in accordance with the Contract Documents and fails within a ten-day period after receipt of notice from the Owner to commence and continue correction of such default or neglect with diligence and promptness, the Owner may, without prejudice to other remedies the Owner may have, correct such default or neglect. Such action by the Owner and amounts charged to the Contractor are both subject to prior approval of the Architect and the Architect may, pursuant to Section 9.5.1, withhold or nullify a Certificate for Payment in whole or in part, to the extent reasonably necessary to reimburse the Owner for the reasonable cost of correcting such deficiencies, including Owner's expenses and compensation for the Architect's additional services made necessary by such default, neglect, or failure. If current and future payments are not sufficient to cover such amounts, the Contractor shall pay the difference to the Owner. If the Contractor disagrees with the actions of the Owner or the Architect, or the amounts claimed as costs to the Owner, the Contractor may file a Claim pursuant to Article 15.

ARTICLE 3 CONTRACTOR

§ 3.1 General

§ 3.1.1 The Contractor is the person or entity identified as such in the Agreement and is referred to throughout the Contract Documents as if singular in number. The Contractor shall be lawfully licensed, if required in the jurisdiction where the Project is located. The Contractor shall designate in writing a representative who shall have express authority to bind the Contractor with respect to all matters under this Contract. The term "Contractor" means the Contractor or the Contractor's authorized representative.

§ 3.1.2 The Contractor shall perform the Work in accordance with the Contract Documents.

§ 3.1.3 The Contractor shall not be relieved of its obligations to perform the Work in accordance with the Contract Documents either by activities or duties of the Architect in the Architect's administration of the Contract, or by tests, inspections or approvals required or performed by persons or entities other than the Contractor.

§ 3.2 Review of Contract Documents and Field Conditions by Contractor

§ 3.2.1 Execution of the Contract by the Contractor is a representation that the Contractor has visited the site, become generally familiar with local conditions under which the Work is to be performed, and correlated personal observations with requirements of the Contract Documents.

§ 3.2.2 Because the Contract Documents are complementary, the Contractor shall, before starting each portion of the Work, carefully study and compare the various Contract Documents relative to that portion of the Work, as well as

the information furnished by the Owner pursuant to Section 2.3.4, shall take field measurements of any existing conditions related to that portion of the Work, and shall observe any conditions at the site affecting it. These obligations are for the purpose of facilitating coordination and construction by the Contractor and are not for the purpose of discovering errors, omissions, or inconsistencies in the Contract Documents; however, the Contractor shall promptly report to the Architect any errors, inconsistencies or omissions discovered by or made known to the Contractor as a request for information in such form as the Architect may require. It is recognized that the Contractor's review is made in the Contractor's capacity as a contractor and not as a licensed design professional, unless otherwise specifically provided in the Contract Documents.

§ 3.2.3 The Contractor is not required to ascertain that the Contract Documents are in accordance with applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, but the Contractor shall promptly report to the Architect any nonconformity discovered by or made known to the Contractor as a request for information in such form as the Architect may require.

§ 3.2.4 If the Contractor believes that additional cost or time is involved because of clarifications or instructions the Architect issues in response to the Contractor's notices or requests for information pursuant to Sections 3.2.2 or 3.2.3, the Contractor shall submit Claims as provided in Article 15. If the Contractor fails to perform the obligations of Sections 3.2.2 or 3.2.3, the Contractor shall pay such costs and damages to the Owner, subject to Section 15.1.7, as would have been avoided if the Contractor had performed such obligations. If the Contractor performs those obligations, the Contractor shall not be liable to the Owner or Architect for damages resulting from errors, inconsistencies or omissions in the Contract Documents, for differences between field measurements or conditions and the Contract Documents, or for nonconformities of the Contract Documents to applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities.

§ 3.3 Supervision and Construction Procedures

§ 3.3.1 The Contractor shall supervise and direct the Work, using the Contractor's best skill and attention. The Contractor shall be solely responsible for, and have control over, construction means, methods, techniques, sequences, and procedures, and for coordinating all portions of the Work under the Contract. If the Contract Documents give specific instructions concerning construction means, methods, techniques, sequences, or procedures, the Contractor shall evaluate the jobsite safety thereof and shall be solely responsible for the jobsite safety of such means, methods, techniques, sequences, or procedures. If the Contractor determines that such means, methods, techniques, sequences or procedures may not be safe, the Contractor shall give timely notice to the Owner and Architect, and shall propose alternative means, methods, techniques, sequences, or procedures. The Architect shall evaluate the proposed alternative solely for conformance with the design intent for the completed construction. Unless the Architect objects to the Contractor's proposed alternative, the Contractor shall perform the Work using its alternative means, methods, techniques, sequences, or procedures.

§ 3.3.2 The Contractor shall be responsible to the Owner for acts and omissions of the Contractor's employees, Subcontractors and their agents and employees, and other persons or entities performing portions of the Work for, or on behalf of, the Contractor or any of its Subcontractors.

§ 3.3.3 The Contractor shall be responsible for inspection of portions of Work already performed to determine that such portions are in proper condition to receive subsequent Work.

§ 3.4 Labor and Materials

§ 3.4.1 Unless otherwise provided in the Contract Documents, the Contractor shall provide and pay for labor, materials, equipment, tools, construction equipment and machinery, water, heat, utilities, transportation, and other facilities and services necessary for proper execution and completion of the Work, whether temporary or permanent and whether or not incorporated or to be incorporated in the Work.

§ 3.4.2 Except in the case of minor changes in the Work approved by the Architect in accordance with Section 3.12.8 or ordered by the Architect in accordance with Section 7.4, the Contractor may make substitutions only with the consent of the Owner, after evaluation by the Architect and in accordance with a Change Order or Construction Change Directive.

§ 3.4.3 The Contractor shall enforce strict discipline and good order among the Contractor's employees and other persons carrying out the Work. The Contractor shall not permit employment of unfit persons or persons not properly skilled in tasks assigned to them.

§ 3.5 Warranty

§ 3.5.1 The Contractor warrants to the Owner and Architect that materials and equipment furnished under the Contract will be of good quality and new unless the Contract Documents require or permit otherwise. The Contractor further warrants that the Work will conform to the requirements of the Contract Documents and will be free from defects, except for those inherent in the quality of the Work the Contract Documents require or permit. Work, materials, or equipment not conforming to these requirements may be considered defective. The Contractor's warranty excludes remedy for damage or defect caused by abuse, alterations to the Work not executed by the Contractor, improper or insufficient maintenance, improper operation, or normal wear and tear and normal usage. If required by the Architect, the Contractor shall furnish satisfactory evidence as to the kind and quality of materials and equipment.

§ 3.5.2 All material, equipment, or other special warranties required by the Contract Documents shall be issued in the name of the Owner, or shall be transferable to the Owner, and shall commence in accordance with Section 9.8.4.

§ 3.6 Taxes

The Contractor shall pay sales, consumer, use and similar taxes for the Work provided by the Contractor that are legally enacted when bids are received or negotiations concluded, whether or not yet effective or merely scheduled to go into effect.

§ 3.7 Permits, Fees, Notices and Compliance with Laws

§ 3.7.1 Unless otherwise provided in the Contract Documents, the Contractor shall secure and pay for the building permit as well as for other permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work that are customarily secured after execution of the Contract and legally required at the time bids are received or negotiations concluded.

§ 3.7.2 The Contractor shall comply with and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities applicable to performance of the Work.

§ 3.7.3 If the Contractor performs Work knowing it to be contrary to applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of public authorities, the Contractor shall assume appropriate responsibility for such Work and shall bear the costs attributable to correction.

§ 3.7.4 Concealed or Unknown Conditions

If the Contractor encounters conditions at the site that are (1) subsurface or otherwise concealed physical conditions that differ materially from those indicated in the Contract Documents or (2) unknown physical conditions of an unusual nature that differ materially from those ordinarily found to exist and generally recognized as inherent in construction activities of the character provided for in the Contract Documents, the Contractor shall promptly provide notice to the Owner and the Architect before conditions are disturbed and in no event later than 14 days after first observance of the conditions. The Architect will promptly investigate such conditions and, if the Architect determines that they differ materially and cause an increase or decrease in the Contractor's cost of, or time required for, performance of any part of the Work, will recommend that an equitable adjustment be made in the Contract Sum or Contract Time, or both. If the Architect determines that the conditions at the site are not materially different from those indicated in the Contract Documents and that no change in the terms of the Contract is justified, the Architect shall promptly notify the Owner and Contractor, stating the reasons. If either party disputes the Architect's determination or recommendation, that party may submit a Claim as provided in Article 15.

§ 3.7.5 If, in the course of the Work, the Contractor encounters human remains or recognizes the existence of burial markers, archaeological sites or wetlands not indicated in the Contract Documents, the Contractor shall immediately suspend any operations that would affect them and shall notify the Owner and Architect. Upon receipt of such notice, the Owner shall promptly take any action necessary to obtain governmental authorization required to resume the operations. The Contractor shall continue to suspend such operations until otherwise instructed by the Owner but shall continue with all other operations that do not affect those remains or features. Requests for adjustments in the Contract Sum and Contract Time arising from the existence of such remains or features may be made as provided in Article 15.

§ 3.8 Allowances

§ 3.8.1 The Contractor shall include in the Contract Sum all allowances stated in the Contract Documents. Items covered by allowances shall be supplied for such amounts and by such persons or entities as the Owner may direct, but the Contractor shall not be required to employ persons or entities to whom the Contractor has reasonable objection.

§ 3.8.2 Unless otherwise provided in the Contract Documents,

- .1 allowances shall cover the cost to the Contractor of materials and equipment delivered at the site and all required taxes, less applicable trade discounts;
- .2 Contractor's costs for unloading and handling at the site, labor, installation costs, overhead, profit, and other expenses contemplated for stated allowance amounts shall be included in the Contract Sum but not in the allowances; and
- .3 whenever costs are more than or less than allowances, the Contract Sum shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect (1) the difference between actual costs and the allowances under Section 3.8.2.1 and (2) changes in Contractor's costs under Section 3.8.2.2.

§ 3.8.3 Materials and equipment under an allowance shall be selected by the Owner with reasonable promptness.

§ 3.9 Superintendent

§ 3.9.1 The Contractor shall employ a competent superintendent and necessary assistants who shall be in attendance at the Project site during performance of the Work. The superintendent shall represent the Contractor, and communications given to the superintendent shall be as binding as if given to the Contractor.

§ 3.9.2 The Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the name and qualifications of a proposed superintendent. Within 14 days of receipt of the information, the Architect may notify the Contractor, stating whether the Owner or the Architect (1) has reasonable objection to the proposed superintendent or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 3.9.3 The Contractor shall not employ a proposed superintendent to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not change the superintendent without the Owner's consent, which shall not unreasonably be withheld or delayed.

§ 3.10 Contractor's Construction and Submittal Schedules

§ 3.10.1 The Contractor, promptly after being awarded the Contract, shall submit for the Owner's and Architect's information a Contractor's construction schedule for the Work. The schedule shall contain detail appropriate for the Project, including (1) the date of commencement of the Work, interim schedule milestone dates, and the date of Substantial Completion; (2) an apportionment of the Work by construction activity; and (3) the time required for completion of each portion of the Work. The schedule shall provide for the orderly progression of the Work to completion and shall not exceed time limits current under the Contract Documents. The schedule shall be revised at appropriate intervals as required by the conditions of the Work and Project.

§ 3.10.2 The Contractor, promptly after being awarded the Contract and thereafter as necessary to maintain a current submittal schedule, shall submit a submittal schedule for the Architect's approval. The Architect's approval shall not be unreasonably delayed or withheld. The submittal schedule shall (1) be coordinated with the Contractor's construction schedule, and (2) allow the Architect reasonable time to review submittals. If the Contractor fails to submit a submittal schedule, or fails to provide submittals in accordance with the approved submittal schedule, the Contractor shall not be entitled to any increase in Contract Sum or extension of Contract Time based on the time required for review of submittals.

§ 3.10.3 The Contractor shall perform the Work in general accordance with the most recent schedules submitted to the Owner and Architect.

§ 3.11 Documents and Samples at the Site

The Contractor shall make available, at the Project site, the Contract Documents, including Change Orders, Construction Change Directives, and other Modifications, in good order and marked currently to indicate field changes and selections made during construction, and the approved Shop Drawings, Product Data, Samples, and

similar required submittals. These shall be in electronic form or paper copy, available to the Architect and Owner, and delivered to the Architect for submittal to the Owner upon completion of the Work as a record of the Work as constructed.

§ 3.12 Shop Drawings, Product Data and Samples

§ 3.12.1 Shop Drawings are drawings, diagrams, schedules, and other data specially prepared for the Work by the Contractor or a Subcontractor, Sub-subcontractor, manufacturer, supplier, or distributor to illustrate some portion of the Work.

§ 3.12.2 Product Data are illustrations, standard schedules, performance charts, instructions, brochures, diagrams, and other information furnished by the Contractor to illustrate materials or equipment for some portion of the Work.

§ 3.12.3 Samples are physical examples that illustrate materials, equipment, or workmanship, and establish standards by which the Work will be judged.

§ 3.12.4 Shop Drawings, Product Data, Samples, and similar submittals are not Contract Documents. Their purpose is to demonstrate how the Contractor proposes to conform to the information given and the design concept expressed in the Contract Documents for those portions of the Work for which the Contract Documents require submittals. Review by the Architect is subject to the limitations of Section 4.2.7. Informational submittals upon which the Architect is not expected to take responsive action may be so identified in the Contract Documents. Submittals that are not required by the Contract Documents may be returned by the Architect without action.

§ 3.12.5 The Contractor shall review for compliance with the Contract Documents, approve, and submit to the Architect, Shop Drawings, Product Data, Samples, and similar submittals required by the Contract Documents, in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness and in such sequence as to cause no delay in the Work or in the activities of the Owner or of Separate Contractors.

§ 3.12.6 By submitting Shop Drawings, Product Data, Samples, and similar submittals, the Contractor represents to the Owner and Architect that the Contractor has (1) reviewed and approved them, (2) determined and verified materials, field measurements and field construction criteria related thereto, or will do so, and (3) checked and coordinated the information contained within such submittals with the requirements of the Work and of the Contract Documents.

§ 3.12.7 The Contractor shall perform no portion of the Work for which the Contract Documents require submittal and review of Shop Drawings, Product Data, Samples, or similar submittals, until the respective submittal has been approved by the Architect.

§ 3.12.8 The Work shall be in accordance with approved submittals except that the Contractor shall not be relieved of responsibility for deviations from the requirements of the Contract Documents by the Architect's approval of Shop Drawings, Product Data, Samples, or similar submittals, unless the Contractor has specifically notified the Architect of such deviation at the time of submittal and (1) the Architect has given written approval to the specific deviation as a minor change in the Work, or (2) a Change Order or Construction Change Directive has been issued authorizing the deviation. The Contractor shall not be relieved of responsibility for errors or omissions in Shop Drawings, Product Data, Samples, or similar submittals, by the Architect's approval thereof.

§ 3.12.9 The Contractor shall direct specific attention, in writing or on resubmitted Shop Drawings, Product Data, Samples, or similar submittals, to revisions other than those requested by the Architect on previous submittals. In the absence of such notice, the Architect's approval of a resubmission shall not apply to such revisions.

§ 3.12.10 The Contractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Contract Documents for a portion of the Work or unless the Contractor needs to provide such services in order to carry out the Contractor's responsibilities for construction means, methods, techniques, sequences, and procedures. The Contractor shall not be required to provide professional services in violation of applicable law.

§ 3.12.10.1 If professional design services or certifications by a design professional related to systems, materials, or equipment are specifically required of the Contractor by the Contract Documents, the Owner and the Architect will

specify all performance and design criteria that such services must satisfy. The Contractor shall be entitled to rely upon the adequacy and accuracy of the performance and design criteria provided in the Contract Documents. The Contractor shall cause such services or certifications to be provided by an appropriately licensed design professional, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, Shop Drawings, and other submittals prepared by such professional. Shop Drawings, and other submittals related to the Work, designed or certified by such professional, if prepared by others, shall bear such professional's written approval when submitted to the Architect. The Owner and the Architect shall be entitled to rely upon the adequacy and accuracy of the services, certifications, and approvals performed or provided by such design professionals, provided the Owner and Architect have specified to the Contractor the performance and design criteria that such services must satisfy. Pursuant to this Section 3.12.10, the Architect will review and approve or take other appropriate action on submittals only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents.

§ 3.12.10.2 If the Contract Documents require the Contractor's design professional to certify that the Work has been performed in accordance with the design criteria, the Contractor shall furnish such certifications to the Architect at the time and in the form specified by the Architect.

§ 3.13 Use of Site

The Contractor shall confine operations at the site to areas permitted by applicable laws, statutes, ordinances, codes, rules and regulations, lawful orders of public authorities, and the Contract Documents and shall not unreasonably encumber the site with materials or equipment.

§ 3.14 Cutting and Patching

§ 3.14.1 The Contractor shall be responsible for cutting, fitting, or patching required to complete the Work or to make its parts fit together properly. All areas requiring cutting, fitting, or patching shall be restored to the condition existing prior to the cutting, fitting, or patching, unless otherwise required by the Contract Documents.

§ 3.14.2 The Contractor shall not damage or endanger a portion of the Work or fully or partially completed construction of the Owner or Separate Contractors by cutting, patching, or otherwise altering such construction, or by excavation. The Contractor shall not cut or otherwise alter construction by the Owner or a Separate Contractor except with written consent of the Owner and of the Separate Contractor. Consent shall not be unreasonably withheld. The Contractor shall not unreasonably withhold, from the Owner or a Separate Contractor, its consent to cutting or otherwise altering the Work.

§ 3.15 Cleaning Up

§ 3.15.1 The Contractor shall keep the premises and surrounding area free from accumulation of waste materials and rubbish caused by operations under the Contract. At completion of the Work, the Contractor shall remove waste materials, rubbish, the Contractor's tools, construction equipment, machinery, and surplus materials from and about the Project.

§ 3.15.2 If the Contractor fails to clean up as provided in the Contract Documents, the Owner may do so and the Owner shall be entitled to reimbursement from the Contractor.

§ 3.16 Access to Work

The Contractor shall provide the Owner and Architect with access to the Work in preparation and progress wherever located.

§ 3.17 Royalties, Patents and Copyrights

The Contractor shall pay all royalties and license fees. The Contractor shall defend suits or claims for infringement of copyrights and patent rights and shall hold the Owner and Architect harmless from loss on account thereof, but shall not be responsible for defense or loss when a particular design, process, or product of a particular manufacturer or manufacturers is required by the Contract Documents, or where the copyright violations are contained in Drawings, Specifications, or other documents prepared by the Owner or Architect. However, if an infringement of a copyright or patent is discovered by, or made known to, the Contractor, the Contractor shall be responsible for the loss unless the information is promptly furnished to the Architect.

§ 3.18 Indemnification

§ 3.18.1 To the fullest extent permitted by law, the Contractor shall indemnify and hold harmless the Owner, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), but only to the extent caused by the negligent acts or omissions of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, regardless of whether or not such claim, damage, loss, or expense is caused in part by a party indemnified hereunder. Such obligation shall not be construed to negate, abridge, or reduce other rights or obligations of indemnity that would otherwise exist as to a party or person described in this Section 3.18.

§ 3.18.2 In claims against any person or entity indemnified under this Section 3.18 by an employee of the Contractor, a Subcontractor, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under Section 3.18.1 shall not be limited by a limitation on amount or type of damages, compensation, or benefits payable by or for the Contractor or a Subcontractor under workers' compensation acts, disability benefit acts, or other employee benefit acts.

ARTICLE 4 ARCHITECT

§ 4.1 General

§ 4.1.1 The Architect is the person or entity retained by the Owner pursuant to Section 2.3.2 and identified as such in the Agreement.

§ 4.1.2 Duties, responsibilities, and limitations of authority of the Architect as set forth in the Contract Documents shall not be restricted, modified, or extended without written consent of the Owner, Contractor, and Architect. Consent shall not be unreasonably withheld.

§ 4.2 Administration of the Contract

§ 4.2.1 The Architect will provide administration of the Contract as described in the Contract Documents and will be an Owner's representative during construction until the date the Architect issues the final Certificate for Payment. The Architect will have authority to act on behalf of the Owner only to the extent provided in the Contract Documents.

§ 4.2.2 The Architect will visit the site at intervals appropriate to the stage of construction, or as otherwise agreed with the Owner, to become generally familiar with the progress and quality of the portion of the Work completed, and to determine in general if the Work observed is being performed in a manner indicating that the Work, when fully completed, will be in accordance with the Contract Documents. However, the Architect will not be required to make exhaustive or continuous on-site inspections to check the quality or quantity of the Work. The Architect will not have control over, charge of, or responsibility for the construction means, methods, techniques, sequences or procedures, or for the safety precautions and programs in connection with the Work, since these are solely the Contractor's rights and responsibilities under the Contract Documents.

§ 4.2.3 On the basis of the site visits, the Architect will keep the Owner reasonably informed about the progress and quality of the portion of the Work completed, and promptly report to the Owner (1) known deviations from the Contract Documents, (2) known deviations from the most recent construction schedule submitted by the Contractor, and (3) defects and deficiencies observed in the Work. The Architect will not be responsible for the Contractor's failure to perform the Work in accordance with the requirements of the Contract Documents. The Architect will not have control over or charge of, and will not be responsible for acts or omissions of, the Contractor, Subcontractors, or their agents or employees, or any other persons or entities performing portions of the Work.

§ 4.2.4 Communications

The Owner and Contractor shall include the Architect in all communications that relate to or affect the Architect's services or professional responsibilities. The Owner shall promptly notify the Architect of the substance of any direct communications between the Owner and the Contractor otherwise relating to the Project. Communications by and with the Architect's consultants shall be through the Architect. Communications by and with Subcontractors and suppliers shall be through the Contractor. Communications by and with Separate Contractors shall be through the Owner. The Contract Documents may specify other communication protocols.

§ 4.2.5 Based on the Architect's evaluations of the Contractor's Applications for Payment, the Architect will review and certify the amounts due the Contractor and will issue Certificates for Payment in such amounts.

§ 4.2.6 The Architect has authority to reject Work that does not conform to the Contract Documents. Whenever the Architect considers it necessary or advisable, the Architect will have authority to require inspection or testing of the Work in accordance with Sections 13.4.2 and 13.4.3, whether or not the Work is fabricated, installed or completed. However, neither this authority of the Architect nor a decision made in good faith either to exercise or not to exercise such authority shall give rise to a duty or responsibility of the Architect to the Contractor, Subcontractors, suppliers, their agents or employees, or other persons or entities performing portions of the Work.

§ 4.2.7 The Architect will review and approve, or take other appropriate action upon, the Contractor's submittals such as Shop Drawings, Product Data, and Samples, but only for the limited purpose of checking for conformance with information given and the design concept expressed in the Contract Documents. The Architect's action will be taken in accordance with the submittal schedule approved by the Architect or, in the absence of an approved submittal schedule, with reasonable promptness while allowing sufficient time in the Architect's professional judgment to permit adequate review. Review of such submittals is not conducted for the purpose of determining the accuracy and completeness of other details such as dimensions and quantities, or for substantiating instructions for installation or performance of equipment or systems, all of which remain the responsibility of the Contractor as required by the Contract Documents. The Architect's review of the Contractor's submittals shall not relieve the Contractor of the obligations under Sections 3.3, 3.5, and 3.12. The Architect's review shall not constitute approval of safety precautions or of any construction means, methods, techniques, sequences, or procedures. The Architect's approval of a specific item shall not indicate approval of an assembly of which the item is a component.

§ 4.2.8 The Architect will prepare Change Orders and Construction Change Directives, and may order minor changes in the Work as provided in Section 7.4. The Architect will investigate and make determinations and recommendations regarding concealed and unknown conditions as provided in Section 3.7.4.

§ 4.2.9 The Architect will conduct inspections to determine the date or dates of Substantial Completion and the date of final completion; issue Certificates of Substantial Completion pursuant to Section 9.8; receive and forward to the Owner, for the Owner's review and records, written warranties and related documents required by the Contract and assembled by the Contractor pursuant to Section 9.10; and issue a final Certificate for Payment pursuant to Section 9.10.

§ 4.2.10 If the Owner and Architect agree, the Architect will provide one or more Project representatives to assist in carrying out the Architect's responsibilities at the site. The Owner shall notify the Contractor of any change in the duties, responsibilities and limitations of authority of the Project representatives.

§ 4.2.11 The Architect will interpret and decide matters concerning performance under, and requirements of, the Contract Documents on written request of either the Owner or Contractor. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness.

§ 4.2.12 Interpretations and decisions of the Architect will be consistent with the intent of, and reasonably inferable from, the Contract Documents and will be in writing or in the form of drawings. When making such interpretations and decisions, the Architect will endeavor to secure faithful performance by both Owner and Contractor, will not show partiality to either, and will not be liable for results of interpretations or decisions rendered in good faith.

§ 4.2.13 The Architect's decisions on matters relating to aesthetic effect will be final if consistent with the intent expressed in the Contract Documents.

§ 4.2.14 The Architect will review and respond to requests for information about the Contract Documents. The Architect's response to such requests will be made in writing within any time limits agreed upon or otherwise with reasonable promptness. If appropriate, the Architect will prepare and issue supplemental Drawings and Specifications in response to the requests for information.

ARTICLE 5 SUBCONTRACTORS

§ 5.1 Definitions

§ 5.1.1 A Subcontractor is a person or entity who has a direct contract with the Contractor to perform a portion of the Work at the site. The term "Subcontractor" is referred to throughout the Contract Documents as if singular in

number and means a Subcontractor or an authorized representative of the Subcontractor. The term “Subcontractor” does not include a Separate Contractor or the subcontractors of a Separate Contractor.

§ 5.1.2 A Sub-subcontractor is a person or entity who has a direct or indirect contract with a Subcontractor to perform a portion of the Work at the site. The term “Sub-subcontractor” is referred to throughout the Contract Documents as if singular in number and means a Sub-subcontractor or an authorized representative of the Sub-subcontractor.

§ 5.2 Award of Subcontracts and Other Contracts for Portions of the Work

§ 5.2.1 Unless otherwise stated in the Contract Documents, the Contractor, as soon as practicable after award of the Contract, shall notify the Owner and Architect of the persons or entities proposed for each principal portion of the Work, including those who are to furnish materials or equipment fabricated to a special design. Within 14 days of receipt of the information, the Architect may notify the Contractor whether the Owner or the Architect (1) has reasonable objection to any such proposed person or entity or (2) requires additional time for review. Failure of the Architect to provide notice within the 14-day period shall constitute notice of no reasonable objection.

§ 5.2.2 The Contractor shall not contract with a proposed person or entity to whom the Owner or Architect has made reasonable and timely objection. The Contractor shall not be required to contract with anyone to whom the Contractor has made reasonable objection.

§ 5.2.3 If the Owner or Architect has reasonable objection to a person or entity proposed by the Contractor, the Contractor shall propose another to whom the Owner or Architect has no reasonable objection. If the proposed but rejected Subcontractor was reasonably capable of performing the Work, the Contract Sum and Contract Time shall be increased or decreased by the difference, if any, occasioned by such change, and an appropriate Change Order shall be issued before commencement of the substitute Subcontractor’s Work. However, no increase in the Contract Sum or Contract Time shall be allowed for such change unless the Contractor has acted promptly and responsively in submitting names as required.

§ 5.2.4 The Contractor shall not substitute a Subcontractor, person, or entity for one previously selected if the Owner or Architect makes reasonable objection to such substitution.

§ 5.3 Subcontractual Relations

By appropriate written agreement, the Contractor shall require each Subcontractor, to the extent of the Work to be performed by the Subcontractor, to be bound to the Contractor by terms of the Contract Documents, and to assume toward the Contractor all the obligations and responsibilities, including the responsibility for safety of the Subcontractor’s Work that the Contractor, by these Contract Documents, assumes toward the Owner and Architect. Each subcontract agreement shall preserve and protect the rights of the Owner and Architect under the Contract Documents with respect to the Work to be performed by the Subcontractor so that subcontracting thereof will not prejudice such rights, and shall allow to the Subcontractor, unless specifically provided otherwise in the subcontract agreement, the benefit of all rights, remedies, and redress against the Contractor that the Contractor, by the Contract Documents, has against the Owner. Where appropriate, the Contractor shall require each Subcontractor to enter into similar agreements with Sub-subcontractors. The Contractor shall make available to each proposed Subcontractor, prior to the execution of the subcontract agreement, copies of the Contract Documents to which the Subcontractor will be bound, and, upon written request of the Subcontractor, identify to the Subcontractor terms and conditions of the proposed subcontract agreement that may be at variance with the Contract Documents. Subcontractors will similarly make copies of applicable portions of such documents available to their respective proposed Sub-subcontractors.

§ 5.4 Contingent Assignment of Subcontracts

§ 5.4.1 Each subcontract agreement for a portion of the Work is assigned by the Contractor to the Owner, provided that

- .1 assignment is effective only after termination of the Contract by the Owner for cause pursuant to Section 14.2 and only for those subcontract agreements that the Owner accepts by notifying the Subcontractor and Contractor; and
- .2 assignment is subject to the prior rights of the surety, if any, obligated under bond relating to the Contract.

When the Owner accepts the assignment of a subcontract agreement, the Owner assumes the Contractor's rights and obligations under the subcontract.

§ 5.4.2 Upon such assignment, if the Work has been suspended for more than 30 days, the Subcontractor's compensation shall be equitably adjusted for increases in cost resulting from the suspension.

§ 5.4.3 Upon assignment to the Owner under this Section 5.4, the Owner may further assign the subcontract to a successor contractor or other entity. If the Owner assigns the subcontract to a successor contractor or other entity, the Owner shall nevertheless remain legally responsible for all of the successor contractor's obligations under the subcontract.

ARTICLE 6 CONSTRUCTION BY OWNER OR BY SEPARATE CONTRACTORS

§ 6.1 Owner's Right to Perform Construction and to Award Separate Contracts

§ 6.1.1 The term "Separate Contractor(s)" shall mean other contractors retained by the Owner under separate agreements. The Owner reserves the right to perform construction or operations related to the Project with the Owner's own forces, and with Separate Contractors retained under Conditions of the Contract substantially similar to those of this Contract, including those provisions of the Conditions of the Contract related to insurance and waiver of subrogation.

§ 6.1.2 When separate contracts are awarded for different portions of the Project or other construction or operations on the site, the term "Contractor" in the Contract Documents in each case shall mean the Contractor who executes each separate Owner-Contractor Agreement.

§ 6.1.3 The Owner shall provide for coordination of the activities of the Owner's own forces and of each Separate Contractor with the Work of the Contractor, who shall cooperate with them. The Contractor shall participate with any Separate Contractors and the Owner in reviewing their construction schedules. The Contractor shall make any revisions to its construction schedule deemed necessary after a joint review and mutual agreement. The construction schedules shall then constitute the schedules to be used by the Contractor, Separate Contractors, and the Owner until subsequently revised.

§ 6.1.4 Unless otherwise provided in the Contract Documents, when the Owner performs construction or operations related to the Project with the Owner's own forces or with Separate Contractors, the Owner or its Separate Contractors shall have the same obligations and rights that the Contractor has under the Conditions of the Contract, including, without excluding others, those stated in Article 3, this Article 6, and Articles 10, 11, and 12.

§ 6.2 Mutual Responsibility

§ 6.2.1 The Contractor shall afford the Owner and Separate Contractors reasonable opportunity for introduction and storage of their materials and equipment and performance of their activities, and shall connect and coordinate the Contractor's construction and operations with theirs as required by the Contract Documents.

§ 6.2.2 If part of the Contractor's Work depends for proper execution or results upon construction or operations by the Owner or a Separate Contractor, the Contractor shall, prior to proceeding with that portion of the Work, promptly notify the Architect of apparent discrepancies or defects in the construction or operations by the Owner or Separate Contractor that would render it unsuitable for proper execution and results of the Contractor's Work. Failure of the Contractor to notify the Architect of apparent discrepancies or defects prior to proceeding with the Work shall constitute an acknowledgment that the Owner's or Separate Contractor's completed or partially completed construction is fit and proper to receive the Contractor's Work. The Contractor shall not be responsible for discrepancies or defects in the construction or operations by the Owner or Separate Contractor that are not apparent.

§ 6.2.3 The Contractor shall reimburse the Owner for costs the Owner incurs that are payable to a Separate Contractor because of the Contractor's delays, improperly timed activities or defective construction. The Owner shall be responsible to the Contractor for costs the Contractor incurs because of a Separate Contractor's delays, improperly timed activities, damage to the Work or defective construction.

§ 6.2.4 The Contractor shall promptly remedy damage that the Contractor wrongfully causes to completed or partially completed construction or to property of the Owner or Separate Contractor as provided in Section 10.2.5.

§ 6.2.5 The Owner and each Separate Contractor shall have the same responsibilities for cutting and patching as are described for the Contractor in Section 3.14.

§ 6.3 Owner's Right to Clean Up

If a dispute arises among the Contractor, Separate Contractors, and the Owner as to the responsibility under their respective contracts for maintaining the premises and surrounding area free from waste materials and rubbish, the Owner may clean up and the Architect will allocate the cost among those responsible.

ARTICLE 7 CHANGES IN THE WORK

§ 7.1 General

§ 7.1.1 Changes in the Work may be accomplished after execution of the Contract, and without invalidating the Contract, by Change Order, Construction Change Directive or order for a minor change in the Work, subject to the limitations stated in this Article 7 and elsewhere in the Contract Documents.

§ 7.1.2 A Change Order shall be based upon agreement among the Owner, Contractor, and Architect. A Construction Change Directive requires agreement by the Owner and Architect and may or may not be agreed to by the Contractor. An order for a minor change in the Work may be issued by the Architect alone.

§ 7.1.3 Changes in the Work shall be performed under applicable provisions of the Contract Documents. The Contractor shall proceed promptly with changes in the Work, unless otherwise provided in the Change Order, Construction Change Directive, or order for a minor change in the Work.

§ 7.2 Change Orders

§ 7.2.1 A Change Order is a written instrument prepared by the Architect and signed by the Owner, Contractor, and Architect stating their agreement upon all of the following:

- .1 The change in the Work;
- .2 The amount of the adjustment, if any, in the Contract Sum; and
- .3 The extent of the adjustment, if any, in the Contract Time.

§ 7.3 Construction Change Directives

§ 7.3.1 A Construction Change Directive is a written order prepared by the Architect and signed by the Owner and Architect, directing a change in the Work prior to agreement on adjustment, if any, in the Contract Sum or Contract Time, or both. The Owner may by Construction Change Directive, without invalidating the Contract, order changes in the Work within the general scope of the Contract consisting of additions, deletions, or other revisions, the Contract Sum and Contract Time being adjusted accordingly.

§ 7.3.2 A Construction Change Directive shall be used in the absence of total agreement on the terms of a Change Order.

§ 7.3.3 If the Construction Change Directive provides for an adjustment to the Contract Sum, the adjustment shall be based on one of the following methods:

- .1 Mutual acceptance of a lump sum properly itemized and supported by sufficient substantiating data to permit evaluation;
- .2 Unit prices stated in the Contract Documents or subsequently agreed upon;
- .3 Cost to be determined in a manner agreed upon by the parties and a mutually acceptable fixed or percentage fee; or
- .4 As provided in Section 7.3.4.

§ 7.3.4 If the Contractor does not respond promptly or disagrees with the method for adjustment in the Contract Sum, the Architect shall determine the adjustment on the basis of reasonable expenditures and savings of those performing the Work attributable to the change, including, in case of an increase in the Contract Sum, an amount for overhead and profit as set forth in the Agreement, or if no such amount is set forth in the Agreement, a reasonable amount. In such case, and also under Section 7.3.3.3, the Contractor shall keep and present, in such form as the Architect may prescribe, an itemized accounting together with appropriate supporting data. Unless otherwise provided in the Contract Documents, costs for the purposes of this Section 7.3.4 shall be limited to the following:

- .1 Costs of labor, including applicable payroll taxes, fringe benefits required by agreement or custom, workers' compensation insurance, and other employee costs approved by the Architect;

- .2 Costs of materials, supplies, and equipment, including cost of transportation, whether incorporated or consumed;
- .3 Rental costs of machinery and equipment, exclusive of hand tools, whether rented from the Contractor or others;
- .4 Costs of premiums for all bonds and insurance, permit fees, and sales, use, or similar taxes, directly related to the change; and
- .5 Costs of supervision and field office personnel directly attributable to the change.

§ 7.3.5 If the Contractor disagrees with the adjustment in the Contract Time, the Contractor may make a Claim in accordance with applicable provisions of Article 15.

§ 7.3.6 Upon receipt of a Construction Change Directive, the Contractor shall promptly proceed with the change in the Work involved and advise the Architect of the Contractor's agreement or disagreement with the method, if any, provided in the Construction Change Directive for determining the proposed adjustment in the Contract Sum or Contract Time.

§ 7.3.7 A Construction Change Directive signed by the Contractor indicates the Contractor's agreement therewith, including adjustment in Contract Sum and Contract Time or the method for determining them. Such agreement shall be effective immediately and shall be recorded as a Change Order.

§ 7.3.8 The amount of credit to be allowed by the Contractor to the Owner for a deletion or change that results in a net decrease in the Contract Sum shall be actual net cost as confirmed by the Architect. When both additions and credits covering related Work or substitutions are involved in a change, the allowance for overhead and profit shall be figured on the basis of net increase, if any, with respect to that change.

§ 7.3.9 Pending final determination of the total cost of a Construction Change Directive to the Owner, the Contractor may request payment for Work completed under the Construction Change Directive in Applications for Payment. The Architect will make an interim determination for purposes of monthly certification for payment for those costs and certify for payment the amount that the Architect determines, in the Architect's professional judgment, to be reasonably justified. The Architect's interim determination of cost shall adjust the Contract Sum on the same basis as a Change Order, subject to the right of either party to disagree and assert a Claim in accordance with Article 15.

§ 7.3.10 When the Owner and Contractor agree with a determination made by the Architect concerning the adjustments in the Contract Sum and Contract Time, or otherwise reach agreement upon the adjustments, such agreement shall be effective immediately and the Architect will prepare a Change Order. Change Orders may be issued for all or any part of a Construction Change Directive.

§ 7.4 Minor Changes in the Work

The Architect may order minor changes in the Work that are consistent with the intent of the Contract Documents and do not involve an adjustment in the Contract Sum or an extension of the Contract Time. The Architect's order for minor changes shall be in writing. If the Contractor believes that the proposed minor change in the Work will affect the Contract Sum or Contract Time, the Contractor shall notify the Architect and shall not proceed to implement the change in the Work. If the Contractor performs the Work set forth in the Architect's order for a minor change without prior notice to the Architect that such change will affect the Contract Sum or Contract Time, the Contractor waives any adjustment to the Contract Sum or extension of the Contract Time.

ARTICLE 8 TIME

§ 8.1 Definitions

§ 8.1.1 Unless otherwise provided, Contract Time is the period of time, including authorized adjustments, allotted in the Contract Documents for Substantial Completion of the Work.

§ 8.1.2 The date of commencement of the Work is the date established in the Agreement.

§ 8.1.3 The date of Substantial Completion is the date certified by the Architect in accordance with Section 9.8.

§ 8.1.4 The term "day" as used in the Contract Documents shall mean calendar day unless otherwise specifically defined.

§ 8.2 Progress and Completion

§ 8.2.1 Time limits stated in the Contract Documents are of the essence of the Contract. By executing the Agreement, the Contractor confirms that the Contract Time is a reasonable period for performing the Work.

§ 8.2.2 The Contractor shall not knowingly, except by agreement or instruction of the Owner in writing, commence the Work prior to the effective date of insurance required to be furnished by the Contractor and Owner.

§ 8.2.3 The Contractor shall proceed expeditiously with adequate forces and shall achieve Substantial Completion within the Contract Time.

§ 8.3 Delays and Extensions of Time

§ 8.3.1 If the Contractor is delayed at any time in the commencement or progress of the Work by (1) an act or neglect of the Owner or Architect, of an employee of either, or of a Separate Contractor; (2) by changes ordered in the Work; (3) by labor disputes, fire, unusual delay in deliveries, unavoidable casualties, adverse weather conditions documented in accordance with Section 15.1.6.2, or other causes beyond the Contractor's control; (4) by delay authorized by the Owner pending mediation and binding dispute resolution; or (5) by other causes that the Contractor asserts, and the Architect determines, justify delay, then the Contract Time shall be extended for such reasonable time as the Architect may determine.

§ 8.3.2 Claims relating to time shall be made in accordance with applicable provisions of Article 15.

§ 8.3.3 This Section 8.3 does not preclude recovery of damages for delay by either party under other provisions of the Contract Documents.

ARTICLE 9 PAYMENTS AND COMPLETION

§ 9.1 Contract Sum

§ 9.1.1 The Contract Sum is stated in the Agreement and, including authorized adjustments, is the total amount payable by the Owner to the Contractor for performance of the Work under the Contract Documents.

§ 9.1.2 If unit prices are stated in the Contract Documents or subsequently agreed upon, and if quantities originally contemplated are materially changed so that application of such unit prices to the actual quantities causes substantial inequity to the Owner or Contractor, the applicable unit prices shall be equitably adjusted.

§ 9.2 Schedule of Values

Where the Contract is based on a stipulated sum or Guaranteed Maximum Price, the Contractor shall submit a schedule of values to the Architect before the first Application for Payment, allocating the entire Contract Sum to the various portions of the Work. The schedule of values shall be prepared in the form, and supported by the data to substantiate its accuracy, required by the Architect. This schedule, unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's Applications for Payment. Any changes to the schedule of values shall be submitted to the Architect and supported by such data to substantiate its accuracy as the Architect may require, and unless objected to by the Architect, shall be used as a basis for reviewing the Contractor's subsequent Applications for Payment.

§ 9.3 Applications for Payment

§ 9.3.1 At least ten days before the date established for each progress payment, the Contractor shall submit to the Architect an itemized Application for Payment prepared in accordance with the schedule of values, if required under Section 9.2, for completed portions of the Work. The application shall be notarized, if required, and supported by all data substantiating the Contractor's right to payment that the Owner or Architect require, such as copies of requisitions, and releases and waivers of liens from Subcontractors and suppliers, and shall reflect retainage if provided for in the Contract Documents.

§ 9.3.1.1 As provided in Section 7.3.9, such applications may include requests for payment on account of changes in the Work that have been properly authorized by Construction Change Directives, or by interim determinations of the Architect, but not yet included in Change Orders.

§ 9.3.1.2 Applications for Payment shall not include requests for payment for portions of the Work for which the Contractor does not intend to pay a Subcontractor or supplier, unless such Work has been performed by others whom the Contractor intends to pay.

§ 9.3.2 Unless otherwise provided in the Contract Documents, payments shall be made on account of materials and equipment delivered and suitably stored at the site for subsequent incorporation in the Work. If approved in advance by the Owner, payment may similarly be made for materials and equipment suitably stored off the site at a location agreed upon in writing. Payment for materials and equipment stored on or off the site shall be conditioned upon compliance by the Contractor with procedures satisfactory to the Owner to establish the Owner's title to such materials and equipment or otherwise protect the Owner's interest, and shall include the costs of applicable insurance, storage, and transportation to the site, for such materials and equipment stored off the site.

§ 9.3.3 The Contractor warrants that title to all Work covered by an Application for Payment will pass to the Owner no later than the time of payment. The Contractor further warrants that upon submittal of an Application for Payment all Work for which Certificates for Payment have been previously issued and payments received from the Owner shall, to the best of the Contractor's knowledge, information, and belief, be free and clear of liens, claims, security interests, or encumbrances, in favor of the Contractor, Subcontractors, suppliers, or other persons or entities that provided labor, materials, and equipment relating to the Work.

§ 9.4 Certificates for Payment

§ 9.4.1 The Architect will, within seven days after receipt of the Contractor's Application for Payment, either (1) issue to the Owner a Certificate for Payment in the full amount of the Application for Payment, with a copy to the Contractor; or (2) issue to the Owner a Certificate for Payment for such amount as the Architect determines is properly due, and notify the Contractor and Owner of the Architect's reasons for withholding certification in part as provided in Section 9.5.1; or (3) withhold certification of the entire Application for Payment, and notify the Contractor and Owner of the Architect's reason for withholding certification in whole as provided in Section 9.5.1.

§ 9.4.2 The issuance of a Certificate for Payment will constitute a representation by the Architect to the Owner, based on the Architect's evaluation of the Work and the data in the Application for Payment, that, to the best of the Architect's knowledge, information, and belief, the Work has progressed to the point indicated, the quality of the Work is in accordance with the Contract Documents, and that the Contractor is entitled to payment in the amount certified. The foregoing representations are subject to an evaluation of the Work for conformance with the Contract Documents upon Substantial Completion, to results of subsequent tests and inspections, to correction of minor deviations from the Contract Documents prior to completion, and to specific qualifications expressed by the Architect. However, the issuance of a Certificate for Payment will not be a representation that the Architect has (1) made exhaustive or continuous on-site inspections to check the quality or quantity of the Work; (2) reviewed construction means, methods, techniques, sequences, or procedures; (3) reviewed copies of requisitions received from Subcontractors and suppliers and other data requested by the Owner to substantiate the Contractor's right to payment; or (4) made examination to ascertain how or for what purpose the Contractor has used money previously paid on account of the Contract Sum.

§ 9.5 Decisions to Withhold Certification

§ 9.5.1 The Architect may withhold a Certificate for Payment in whole or in part, to the extent reasonably necessary to protect the Owner, if in the Architect's opinion the representations to the Owner required by Section 9.4.2 cannot be made. If the Architect is unable to certify payment in the amount of the Application, the Architect will notify the Contractor and Owner as provided in Section 9.4.1. If the Contractor and Architect cannot agree on a revised amount, the Architect will promptly issue a Certificate for Payment for the amount for which the Architect is able to make such representations to the Owner. The Architect may also withhold a Certificate for Payment or, because of subsequently discovered evidence, may nullify the whole or a part of a Certificate for Payment previously issued, to such extent as may be necessary in the Architect's opinion to protect the Owner from loss for which the Contractor is responsible, including loss resulting from acts and omissions described in Section 3.3.2, because of

- .1 defective Work not remedied;
 - .2 third party claims filed or reasonable evidence indicating probable filing of such claims, unless security acceptable to the Owner is provided by the Contractor;
 - .3 failure of the Contractor to make payments properly to Subcontractors or suppliers for labor, materials or equipment;
 - .4 reasonable evidence that the Work cannot be completed for the unpaid balance of the Contract Sum;
 - .5 damage to the Owner or a Separate Contractor;
 - .6 reasonable evidence that the Work will not be completed within the Contract Time, and that the unpaid balance would not be adequate to cover actual or liquidated damages for the anticipated delay;
- or

.7 repeated failure to carry out the Work in accordance with the Contract Documents.

§ 9.5.2 When either party disputes the Architect's decision regarding a Certificate for Payment under Section 9.5.1, in whole or in part, that party may submit a Claim in accordance with Article 15.

§ 9.5.3 When the reasons for withholding certification are removed, certification will be made for amounts previously withheld.

§ 9.5.4 If the Architect withholds certification for payment under Section 9.5.1.3, the Owner may, at its sole option, issue joint checks to the Contractor and to any Subcontractor or supplier to whom the Contractor failed to make payment for Work properly performed or material or equipment suitably delivered. If the Owner makes payments by joint check, the Owner shall notify the Architect and the Contractor shall reflect such payment on its next Application for Payment.

§ 9.6 Progress Payments

§ 9.6.1 After the Architect has issued a Certificate for Payment, the Owner shall make payment in the manner and within the time provided in the Contract Documents, and shall so notify the Architect.

§ 9.6.2 The Contractor shall pay each Subcontractor, no later than seven days after receipt of payment from the Owner, the amount to which the Subcontractor is entitled, reflecting percentages actually retained from payments to the Contractor on account of the Subcontractor's portion of the Work. The Contractor shall, by appropriate agreement with each Subcontractor, require each Subcontractor to make payments to Sub-subcontractors in a similar manner.

§ 9.6.3 The Architect will, on request, furnish to a Subcontractor, if practicable, information regarding percentages of completion or amounts applied for by the Contractor and action taken thereon by the Architect and Owner on account of portions of the Work done by such Subcontractor.

§ 9.6.4 The Owner has the right to request written evidence from the Contractor that the Contractor has properly paid Subcontractors and suppliers amounts paid by the Owner to the Contractor for subcontracted Work. If the Contractor fails to furnish such evidence within seven days, the Owner shall have the right to contact Subcontractors and suppliers to ascertain whether they have been properly paid. Neither the Owner nor Architect shall have an obligation to pay, or to see to the payment of money to, a Subcontractor or supplier, except as may otherwise be required by law.

§ 9.6.5 The Contractor's payments to suppliers shall be treated in a manner similar to that provided in Sections 9.6.2, 9.6.3 and 9.6.4.

§ 9.6.6 A Certificate for Payment, a progress payment, or partial or entire use or occupancy of the Project by the Owner shall not constitute acceptance of Work not in accordance with the Contract Documents.

§ 9.6.7 Unless the Contractor provides the Owner with a payment bond in the full penal sum of the Contract Sum, payments received by the Contractor for Work properly performed by Subcontractors or provided by suppliers shall be held by the Contractor for those Subcontractors or suppliers who performed Work or furnished materials, or both, under contract with the Contractor for which payment was made by the Owner. Nothing contained herein shall require money to be placed in a separate account and not commingled with money of the Contractor, create any fiduciary liability or tort liability on the part of the Contractor for breach of trust, or entitle any person or entity to an award of punitive damages against the Contractor for breach of the requirements of this provision.

§ 9.6.8 Provided the Owner has fulfilled its payment obligations under the Contract Documents, the Contractor shall defend and indemnify the Owner from all loss, liability, damage or expense, including reasonable attorney's fees and litigation expenses, arising out of any lien claim or other claim for payment by any Subcontractor or supplier of any tier. Upon receipt of notice of a lien claim or other claim for payment, the Owner shall notify the Contractor. If approved by the applicable court, when required, the Contractor may substitute a surety bond for the property against which the lien or other claim for payment has been asserted.

§ 9.7 Failure of Payment

If the Architect does not issue a Certificate for Payment, through no fault of the Contractor, within seven days after receipt of the Contractor's Application for Payment, or if the Owner does not pay the Contractor within seven days after the date established in the Contract Documents, the amount certified by the Architect or awarded by binding dispute resolution, then the Contractor may, upon seven additional days' notice to the Owner and Architect, stop the Work until payment of the amount owing has been received. The Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable costs of shutdown, delay and start-up, plus interest as provided for in the Contract Documents.

§ 9.8 Substantial Completion

§ 9.8.1 Substantial Completion is the stage in the progress of the Work when the Work or designated portion thereof is sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work for its intended use.

§ 9.8.2 When the Contractor considers that the Work, or a portion thereof which the Owner agrees to accept separately, is substantially complete, the Contractor shall prepare and submit to the Architect a comprehensive list of items to be completed or corrected prior to final payment. Failure to include an item on such list does not alter the responsibility of the Contractor to complete all Work in accordance with the Contract Documents.

§ 9.8.3 Upon receipt of the Contractor's list, the Architect will make an inspection to determine whether the Work or designated portion thereof is substantially complete. If the Architect's inspection discloses any item, whether or not included on the Contractor's list, which is not sufficiently complete in accordance with the Contract Documents so that the Owner can occupy or utilize the Work or designated portion thereof for its intended use, the Contractor shall, before issuance of the Certificate of Substantial Completion, complete or correct such item upon notification by the Architect. In such case, the Contractor shall then submit a request for another inspection by the Architect to determine Substantial Completion.

§ 9.8.4 When the Work or designated portion thereof is substantially complete, the Architect will prepare a Certificate of Substantial Completion that shall establish the date of Substantial Completion; establish responsibilities of the Owner and Contractor for security, maintenance, heat, utilities, damage to the Work and insurance; and fix the time within which the Contractor shall finish all items on the list accompanying the Certificate. Warranties required by the Contract Documents shall commence on the date of Substantial Completion of the Work or designated portion thereof unless otherwise provided in the Certificate of Substantial Completion.

§ 9.8.5 The Certificate of Substantial Completion shall be submitted to the Owner and Contractor for their written acceptance of responsibilities assigned to them in the Certificate. Upon such acceptance, and consent of surety if any, the Owner shall make payment of retainage applying to the Work or designated portion thereof. Such payment shall be adjusted for Work that is incomplete or not in accordance with the requirements of the Contract Documents.

§ 9.9 Partial Occupancy or Use

§ 9.9.1 The Owner may occupy or use any completed or partially completed portion of the Work at any stage when such portion is designated by separate agreement with the Contractor, provided such occupancy or use is consented to by the insurer and authorized by public authorities having jurisdiction over the Project. Such partial occupancy or use may commence whether or not the portion is substantially complete, provided the Owner and Contractor have accepted in writing the responsibilities assigned to each of them for payments, retainage, if any, security, maintenance, heat, utilities, damage to the Work and insurance, and have agreed in writing concerning the period for correction of the Work and commencement of warranties required by the Contract Documents. When the Contractor considers a portion substantially complete, the Contractor shall prepare and submit a list to the Architect as provided under Section 9.8.2. Consent of the Contractor to partial occupancy or use shall not be unreasonably withheld. The stage of the progress of the Work shall be determined by written agreement between the Owner and Contractor or, if no agreement is reached, by decision of the Architect.

§ 9.9.2 Immediately prior to such partial occupancy or use, the Owner, Contractor, and Architect shall jointly inspect the area to be occupied or portion of the Work to be used in order to determine and record the condition of the Work.

§ 9.9.3 Unless otherwise agreed upon, partial occupancy or use of a portion or portions of the Work shall not constitute acceptance of Work not complying with the requirements of the Contract Documents.

§ 9.10 Final Completion and Final Payment

§ 9.10.1 Upon receipt of the Contractor's notice that the Work is ready for final inspection and acceptance and upon receipt of a final Application for Payment, the Architect will promptly make such inspection. When the Architect finds the Work acceptable under the Contract Documents and the Contract fully performed, the Architect will promptly issue a final Certificate for Payment stating that to the best of the Architect's knowledge, information and belief, and on the basis of the Architect's on-site visits and inspections, the Work has been completed in accordance with the Contract Documents and that the entire balance found to be due the Contractor and noted in the final Certificate is due and payable. The Architect's final Certificate for Payment will constitute a further representation that conditions listed in Section 9.10.2 as precedent to the Contractor's being entitled to final payment have been fulfilled.

§ 9.10.2 Neither final payment nor any remaining retained percentage shall become due until the Contractor submits to the Architect (1) an affidavit that payrolls, bills for materials and equipment, and other indebtedness connected with the Work for which the Owner or the Owner's property might be responsible or encumbered (less amounts withheld by Owner) have been paid or otherwise satisfied, (2) a certificate evidencing that insurance required by the Contract Documents to remain in force after final payment is currently in effect, (3) a written statement that the Contractor knows of no reason that the insurance will not be renewable to cover the period required by the Contract Documents, (4) consent of surety, if any, to final payment, (5) documentation of any special warranties, such as manufacturers' warranties or specific Subcontractor warranties, and (6) if required by the Owner, other data establishing payment or satisfaction of obligations, such as receipts and releases and waivers of liens, claims, security interests, or encumbrances arising out of the Contract, to the extent and in such form as may be designated by the Owner. If a Subcontractor refuses to furnish a release or waiver required by the Owner, the Contractor may furnish a bond satisfactory to the Owner to indemnify the Owner against such lien, claim, security interest, or encumbrance. If a lien, claim, security interest, or encumbrance remains unsatisfied after payments are made, the Contractor shall refund to the Owner all money that the Owner may be compelled to pay in discharging the lien, claim, security interest, or encumbrance, including all costs and reasonable attorneys' fees.

§ 9.10.3 If, after Substantial Completion of the Work, final completion thereof is materially delayed through no fault of the Contractor or by issuance of Change Orders affecting final completion, and the Architect so confirms, the Owner shall, upon application by the Contractor and certification by the Architect, and without terminating the Contract, make payment of the balance due for that portion of the Work fully completed, corrected, and accepted. If the remaining balance for Work not fully completed or corrected is less than retainage stipulated in the Contract Documents, and if bonds have been furnished, the written consent of the surety to payment of the balance due for that portion of the Work fully completed and accepted shall be submitted by the Contractor to the Architect prior to certification of such payment. Such payment shall be made under terms and conditions governing final payment, except that it shall not constitute a waiver of Claims.

§ 9.10.4 The making of final payment shall constitute a waiver of Claims by the Owner except those arising from

- .1 liens, Claims, security interests, or encumbrances arising out of the Contract and unsettled;
- .2 failure of the Work to comply with the requirements of the Contract Documents;
- .3 terms of special warranties required by the Contract Documents; or
- .4 audits performed by the Owner, if permitted by the Contract Documents, after final payment.

§ 9.10.5 Acceptance of final payment by the Contractor, a Subcontractor, or a supplier, shall constitute a waiver of claims by that payee except those previously made in writing and identified by that payee as unsettled at the time of final Application for Payment.

ARTICLE 10 PROTECTION OF PERSONS AND PROPERTY

§ 10.1 Safety Precautions and Programs

The Contractor shall be responsible for initiating, maintaining, and supervising all safety precautions and programs in connection with the performance of the Contract.

§ 10.2 Safety of Persons and Property

§ 10.2.1 The Contractor shall take reasonable precautions for safety of, and shall provide reasonable protection to prevent damage, injury, or loss to

- .1 employees on the Work and other persons who may be affected thereby;

- .2 the Work and materials and equipment to be incorporated therein, whether in storage on or off the site, under care, custody, or control of the Contractor, a Subcontractor, or a Sub-subcontractor; and
- .3 other property at the site or adjacent thereto, such as trees, shrubs, lawns, walks, pavements, roadways, structures, and utilities not designated for removal, relocation, or replacement in the course of construction.

§ 10.2.2 The Contractor shall comply with, and give notices required by applicable laws, statutes, ordinances, codes, rules and regulations, and lawful orders of public authorities, bearing on safety of persons or property or their protection from damage, injury, or loss.

§ 10.2.3 The Contractor shall implement, erect, and maintain, as required by existing conditions and performance of the Contract, reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards; promulgating safety regulations; and notifying the owners and users of adjacent sites and utilities of the safeguards.

§ 10.2.4 When use or storage of explosives or other hazardous materials or equipment, or unusual methods are necessary for execution of the Work, the Contractor shall exercise utmost care and carry on such activities under supervision of properly qualified personnel.

§ 10.2.5 The Contractor shall promptly remedy damage and loss (other than damage or loss insured under property insurance required by the Contract Documents) to property referred to in Sections 10.2.1.2 and 10.2.1.3 caused in whole or in part by the Contractor, a Subcontractor, a Sub-subcontractor, or anyone directly or indirectly employed by any of them, or by anyone for whose acts they may be liable and for which the Contractor is responsible under Sections 10.2.1.2 and 10.2.1.3. The Contractor may make a Claim for the cost to remedy the damage or loss to the extent such damage or loss is attributable to acts or omissions of the Owner or Architect or anyone directly or indirectly employed by either of them, or by anyone for whose acts either of them may be liable, and not attributable to the fault or negligence of the Contractor. The foregoing obligations of the Contractor are in addition to the Contractor's obligations under Section 3.18.

§ 10.2.6 The Contractor shall designate a responsible member of the Contractor's organization at the site whose duty shall be the prevention of accidents. This person shall be the Contractor's superintendent unless otherwise designated by the Contractor in writing to the Owner and Architect.

§ 10.2.7 The Contractor shall not permit any part of the construction or site to be loaded so as to cause damage or create an unsafe condition.

§ 10.2.8 Injury or Damage to Person or Property

If either party suffers injury or damage to person or property because of an act or omission of the other party, or of others for whose acts such party is legally responsible, notice of the injury or damage, whether or not insured, shall be given to the other party within a reasonable time not exceeding 21 days after discovery. The notice shall provide sufficient detail to enable the other party to investigate the matter.

§ 10.3 Hazardous Materials and Substances

§ 10.3.1 The Contractor is responsible for compliance with any requirements included in the Contract Documents regarding hazardous materials or substances. If the Contractor encounters a hazardous material or substance not addressed in the Contract Documents and if reasonable precautions will be inadequate to prevent foreseeable bodily injury or death to persons resulting from a material or substance, including but not limited to asbestos or polychlorinated biphenyl (PCB), encountered on the site by the Contractor, the Contractor shall, upon recognizing the condition, immediately stop Work in the affected area and notify the Owner and Architect of the condition.

§ 10.3.2 Upon receipt of the Contractor's notice, the Owner shall obtain the services of a licensed laboratory to verify the presence or absence of the material or substance reported by the Contractor and, in the event such material or substance is found to be present, to cause it to be rendered harmless. Unless otherwise required by the Contract Documents, the Owner shall furnish in writing to the Contractor and Architect the names and qualifications of persons or entities who are to perform tests verifying the presence or absence of the material or substance or who are to perform the task of removal or safe containment of the material or substance. The Contractor and the Architect will promptly reply to the Owner in writing stating whether or not either has reasonable objection to the persons or entities proposed by the Owner. If either the Contractor or Architect has an objection to a person or entity proposed

by the Owner, the Owner shall propose another to whom the Contractor and the Architect have no reasonable objection. When the material or substance has been rendered harmless, Work in the affected area shall resume upon written agreement of the Owner and Contractor. By Change Order, the Contract Time shall be extended appropriately and the Contract Sum shall be increased by the amount of the Contractor's reasonable additional costs of shutdown, delay, and start-up.

§ 10.3.3 To the fullest extent permitted by law, the Owner shall indemnify and hold harmless the Contractor, Subcontractors, Architect, Architect's consultants, and agents and employees of any of them from and against claims, damages, losses, and expenses, including but not limited to attorneys' fees, arising out of or resulting from performance of the Work in the affected area if in fact the material or substance presents the risk of bodily injury or death as described in Section 10.3.1 and has not been rendered harmless, provided that such claim, damage, loss, or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of tangible property (other than the Work itself), except to the extent that such damage, loss, or expense is due to the fault or negligence of the party seeking indemnity.

§ 10.3.4 The Owner shall not be responsible under this Section 10.3 for hazardous materials or substances the Contractor brings to the site unless such materials or substances are required by the Contract Documents. The Owner shall be responsible for hazardous materials or substances required by the Contract Documents, except to the extent of the Contractor's fault or negligence in the use and handling of such materials or substances.

§ 10.3.5 The Contractor shall reimburse the Owner for the cost and expense the Owner incurs (1) for remediation of hazardous materials or substances the Contractor brings to the site and negligently handles, or (2) where the Contractor fails to perform its obligations under Section 10.3.1, except to the extent that the cost and expense are due to the Owner's fault or negligence.

§ 10.3.6 If, without negligence on the part of the Contractor, the Contractor is held liable by a government agency for the cost of remediation of a hazardous material or substance solely by reason of performing Work as required by the Contract Documents, the Owner shall reimburse the Contractor for all cost and expense thereby incurred.

§ 10.4 Emergencies

In an emergency affecting safety of persons or property, the Contractor shall act, at the Contractor's discretion, to prevent threatened damage, injury, or loss. Additional compensation or extension of time claimed by the Contractor on account of an emergency shall be determined as provided in Article 15 and Article 7.

ARTICLE 11 INSURANCE AND BONDS

§ 11.1 Contractor's Insurance and Bonds

§ 11.1.1 The Contractor shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Contractor shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located. The Owner, Architect, and Architect's consultants shall be named as additional insureds under the Contractor's commercial general liability policy or as otherwise described in the Contract Documents.

§ 11.1.2 The Contractor shall provide surety bonds of the types, for such penal sums, and subject to such terms and conditions as required by the Contract Documents. The Contractor shall purchase and maintain the required bonds from a company or companies lawfully authorized to issue surety bonds in the jurisdiction where the Project is located.

§ 11.1.3 Upon the request of any person or entity appearing to be a potential beneficiary of bonds covering payment of obligations arising under the Contract, the Contractor shall promptly furnish a copy of the bonds or shall authorize a copy to be furnished.

§ 11.1.4 Notice of Cancellation or Expiration of Contractor's Required Insurance. Within three (3) business days of the date the Contractor becomes aware of an impending or actual cancellation or expiration of any insurance required by the Contract Documents, the Contractor shall provide notice to the Owner of such impending or actual cancellation or expiration. Upon receipt of notice from the Contractor, the Owner shall, unless the lapse in coverage arises from an act or omission of the Owner, have the right to stop the Work until the lapse in coverage has been cured by the

procurement of replacement coverage by the Contractor. The furnishing of notice by the Contractor shall not relieve the Contractor of any contractual obligation to provide any required coverage.

§ 11.2 Owner's Insurance

§ 11.2.1 The Owner shall purchase and maintain insurance of the types and limits of liability, containing the endorsements, and subject to the terms and conditions, as described in the Agreement or elsewhere in the Contract Documents. The Owner shall purchase and maintain the required insurance from an insurance company or insurance companies lawfully authorized to issue insurance in the jurisdiction where the Project is located.

§ 11.2.2 Failure to Purchase Required Property Insurance. If the Owner fails to purchase and maintain the required property insurance, with all of the coverages and in the amounts described in the Agreement or elsewhere in the Contract Documents, the Owner shall inform the Contractor in writing prior to commencement of the Work. Upon receipt of notice from the Owner, the Contractor may delay commencement of the Work and may obtain insurance that will protect the interests of the Contractor, Subcontractors, and Sub-Subcontractors in the Work. When the failure to provide coverage has been cured or resolved, the Contract Sum and Contract Time shall be equitably adjusted. In the event the Owner fails to procure coverage, the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent the loss to the Owner would have been covered by the insurance to have been procured by the Owner. The cost of the insurance shall be charged to the Owner by a Change Order. If the Owner does not provide written notice, and the Contractor is damaged by the failure or neglect of the Owner to purchase or maintain the required insurance, the Owner shall reimburse the Contractor for all reasonable costs and damages attributable thereto.

§ 11.2.3 Notice of Cancellation or Expiration of Owner's Required Property Insurance. Within three (3) business days of the date the Owner becomes aware of an impending or actual cancellation or expiration of any property insurance required by the Contract Documents, the Owner shall provide notice to the Contractor of such impending or actual cancellation or expiration. Unless the lapse in coverage arises from an act or omission of the Contractor: (1) the Contractor, upon receipt of notice from the Owner, shall have the right to stop the Work until the lapse in coverage has been cured by the procurement of replacement coverage by either the Owner or the Contractor; (2) the Contract Time and Contract Sum shall be equitably adjusted; and (3) the Owner waives all rights against the Contractor, Subcontractors, and Sub-subcontractors to the extent any loss to the Owner would have been covered by the insurance had it not expired or been cancelled. If the Contractor purchases replacement coverage, the cost of the insurance shall be charged to the Owner by an appropriate Change Order. The furnishing of notice by the Owner shall not relieve the Owner of any contractual obligation to provide required insurance.

§ 11.3 Waivers of Subrogation

§ 11.3.1 The Owner and Contractor waive all rights against (1) each other and any of their subcontractors, sub-subcontractors, agents, and employees, each of the other; (2) the Architect and Architect's consultants; and (3) Separate Contractors, if any, and any of their subcontractors, sub-subcontractors, agents, and employees, for damages caused by fire, or other causes of loss, to the extent those losses are covered by property insurance required by the Agreement or other property insurance applicable to the Project, except such rights as they have to proceeds of such insurance. The Owner or Contractor, as appropriate, shall require similar written waivers in favor of the individuals and entities identified above from the Architect, Architect's consultants, Separate Contractors, subcontractors, and sub-subcontractors. The policies of insurance purchased and maintained by each person or entity agreeing to waive claims pursuant to this section 11.3.1 shall not prohibit this waiver of subrogation. This waiver of subrogation shall be effective as to a person or entity (1) even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, (2) even though that person or entity did not pay the insurance premium directly or indirectly, or (3) whether or not the person or entity had an insurable interest in the damaged property.

§ 11.3.2 If during the Project construction period the Owner insures properties, real or personal or both, at or adjacent to the site by property insurance under policies separate from those insuring the Project, or if after final payment property insurance is to be provided on the completed Project through a policy or policies other than those insuring the Project during the construction period, to the extent permissible by such policies, the Owner waives all rights in accordance with the terms of Section 11.3.1 for damages caused by fire or other causes of loss covered by this separate property insurance.

§ 11.4 Loss of Use, Business Interruption, and Delay in Completion Insurance

The Owner, at the Owner's option, may purchase and maintain insurance that will protect the Owner against loss of use of the Owner's property, or the inability to conduct normal operations, due to fire or other causes of loss. The Owner waives all rights of action against the Contractor and Architect for loss of use of the Owner's property, due to fire or other hazards however caused.

§11.5 Adjustment and Settlement of Insured Loss

§ 11.5.1 A loss insured under the property insurance required by the Agreement shall be adjusted by the Owner as fiduciary and made payable to the Owner as fiduciary for the insureds, as their interests may appear, subject to requirements of any applicable mortgagee clause and of Section 11.5.2. The Owner shall pay the Architect and Contractor their just shares of insurance proceeds received by the Owner, and by appropriate agreements the Architect and Contractor shall make payments to their consultants and Subcontractors in similar manner.

§ 11.5.2 Prior to settlement of an insured loss, the Owner shall notify the Contractor of the terms of the proposed settlement as well as the proposed allocation of the insurance proceeds. The Contractor shall have 14 days from receipt of notice to object to the proposed settlement or allocation of the proceeds. If the Contractor does not object, the Owner shall settle the loss and the Contractor shall be bound by the settlement and allocation. Upon receipt, the Owner shall deposit the insurance proceeds in a separate account and make the appropriate distributions. Thereafter, if no other agreement is made or the Owner does not terminate the Contract for convenience, the Owner and Contractor shall execute a Change Order for reconstruction of the damaged or destroyed Work in the amount allocated for that purpose. If the Contractor timely objects to either the terms of the proposed settlement or the allocation of the proceeds, the Owner may proceed to settle the insured loss, and any dispute between the Owner and Contractor arising out of the settlement or allocation of the proceeds shall be resolved pursuant to Article 15. Pending resolution of any dispute, the Owner may issue a Construction Change Directive for the reconstruction of the damaged or destroyed Work.

ARTICLE 12 UNCOVERING AND CORRECTION OF WORK

§ 12.1 Uncovering of Work

§ 12.1.1 If a portion of the Work is covered contrary to the Architect's request or to requirements specifically expressed in the Contract Documents, it must, if requested in writing by the Architect, be uncovered for the Architect's examination and be replaced at the Contractor's expense without change in the Contract Time.

§ 12.1.2 If a portion of the Work has been covered that the Architect has not specifically requested to examine prior to its being covered, the Architect may request to see such Work and it shall be uncovered by the Contractor. If such Work is in accordance with the Contract Documents, the Contractor shall be entitled to an equitable adjustment to the Contract Sum and Contract Time as may be appropriate. If such Work is not in accordance with the Contract Documents, the costs of uncovering the Work, and the cost of correction, shall be at the Contractor's expense.

§ 12.2 Correction of Work

§ 12.2.1 Before Substantial Completion

The Contractor shall promptly correct Work rejected by the Architect or failing to conform to the requirements of the Contract Documents, discovered before Substantial Completion and whether or not fabricated, installed or completed. Costs of correcting such rejected Work, including additional testing and inspections, the cost of uncovering and replacement, and compensation for the Architect's services and expenses made necessary thereby, shall be at the Contractor's expense.

§ 12.2.2 After Substantial Completion

§ 12.2.2.1 In addition to the Contractor's obligations under Section 3.5, if, within one year after the date of Substantial Completion of the Work or designated portion thereof or after the date for commencement of warranties established under Section 9.9.1, or by terms of any applicable special warranty required by the Contract Documents, any of the Work is found to be not in accordance with the requirements of the Contract Documents, the Contractor shall correct it promptly after receipt of notice from the Owner to do so, unless the Owner has previously given the Contractor a written acceptance of such condition. The Owner shall give such notice promptly after discovery of the condition. During the one-year period for correction of Work, if the Owner fails to notify the Contractor and give the Contractor an opportunity to make the correction, the Owner waives the rights to require correction by the Contractor and to make a claim for breach of warranty. If the Contractor fails to correct nonconforming Work within a reasonable time during that period after receipt of notice from the Owner or Architect, the Owner may correct it in accordance with Section 2.5.

§ 12.2.2.2 The one-year period for correction of Work shall be extended with respect to portions of Work first performed after Substantial Completion by the period of time between Substantial Completion and the actual completion of that portion of the Work.

§ 12.2.2.3 The one-year period for correction of Work shall not be extended by corrective Work performed by the Contractor pursuant to this Section 12.2.

§ 12.2.3 The Contractor shall remove from the site portions of the Work that are not in accordance with the requirements of the Contract Documents and are neither corrected by the Contractor nor accepted by the Owner.

§ 12.2.4 The Contractor shall bear the cost of correcting destroyed or damaged construction of the Owner or Separate Contractors, whether completed or partially completed, caused by the Contractor's correction or removal of Work that is not in accordance with the requirements of the Contract Documents.

§ 12.2.5 Nothing contained in this Section 12.2 shall be construed to establish a period of limitation with respect to other obligations the Contractor has under the Contract Documents. Establishment of the one-year period for correction of Work as described in Section 12.2.2 relates only to the specific obligation of the Contractor to correct the Work, and has no relationship to the time within which the obligation to comply with the Contract Documents may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Contractor's liability with respect to the Contractor's obligations other than specifically to correct the Work.

§ 12.3 Acceptance of Nonconforming Work

If the Owner prefers to accept Work that is not in accordance with the requirements of the Contract Documents, the Owner may do so instead of requiring its removal and correction, in which case the Contract Sum will be reduced as appropriate and equitable. Such adjustment shall be effected whether or not final payment has been made.

ARTICLE 13 MISCELLANEOUS PROVISIONS

§ 13.1 Governing Law

The Contract shall be governed by the law of the place where the Project is located, excluding that jurisdiction's choice of law rules. If the parties have selected arbitration as the method of binding dispute resolution, the Federal Arbitration Act shall govern Section 15.4.

§ 13.2 Successors and Assigns

§ 13.2.1 The Owner and Contractor respectively bind themselves, their partners, successors, assigns, and legal representatives to covenants, agreements, and obligations contained in the Contract Documents. Except as provided in Section 13.2.2, neither party to the Contract shall assign the Contract as a whole without written consent of the other. If either party attempts to make an assignment without such consent, that party shall nevertheless remain legally responsible for all obligations under the Contract.

§ 13.2.2 The Owner may, without consent of the Contractor, assign the Contract to a lender providing construction financing for the Project, if the lender assumes the Owner's rights and obligations under the Contract Documents. The Contractor shall execute all consents reasonably required to facilitate the assignment.

§ 13.3 Rights and Remedies

§ 13.3.1 Duties and obligations imposed by the Contract Documents and rights and remedies available thereunder shall be in addition to and not a limitation of duties, obligations, rights, and remedies otherwise imposed or available by law.

§ 13.3.2 No action or failure to act by the Owner, Architect, or Contractor shall constitute a waiver of a right or duty afforded them under the Contract, nor shall such action or failure to act constitute approval of or acquiescence in a breach thereunder, except as may be specifically agreed upon in writing.

§ 13.4 Tests and Inspections

§ 13.4.1 Tests, inspections, and approvals of portions of the Work shall be made as required by the Contract Documents and by applicable laws, statutes, ordinances, codes, rules, and regulations or lawful orders of public authorities. Unless otherwise provided, the Contractor shall make arrangements for such tests, inspections, and approvals with an independent testing laboratory or entity acceptable to the Owner, or with the appropriate public authority, and shall bear all related costs of tests, inspections, and approvals. The Contractor shall give the Architect

timely notice of when and where tests and inspections are to be made so that the Architect may be present for such procedures. The Owner shall bear costs of tests, inspections, or approvals that do not become requirements until after bids are received or negotiations concluded. The Owner shall directly arrange and pay for tests, inspections, or approvals where building codes or applicable laws or regulations so require.

§ 13.4.2 If the Architect, Owner, or public authorities having jurisdiction determine that portions of the Work require additional testing, inspection, or approval not included under Section 13.4.1, the Architect will, upon written authorization from the Owner, instruct the Contractor to make arrangements for such additional testing, inspection, or approval, by an entity acceptable to the Owner, and the Contractor shall give timely notice to the Architect of when and where tests and inspections are to be made so that the Architect may be present for such procedures. Such costs, except as provided in Section 13.4.3, shall be at the Owner's expense.

§ 13.4.3 If procedures for testing, inspection, or approval under Sections 13.4.1 and 13.4.2 reveal failure of the portions of the Work to comply with requirements established by the Contract Documents, all costs made necessary by such failure, including those of repeated procedures and compensation for the Architect's services and expenses, shall be at the Contractor's expense.

§ 13.4.4 Required certificates of testing, inspection, or approval shall, unless otherwise required by the Contract Documents, be secured by the Contractor and promptly delivered to the Architect.

§ 13.4.5 If the Architect is to observe tests, inspections, or approvals required by the Contract Documents, the Architect will do so promptly and, where practicable, at the normal place of testing.

§ 13.4.6 Tests or inspections conducted pursuant to the Contract Documents shall be made promptly to avoid unreasonable delay in the Work.

§ 13.5 Interest

Payments due and unpaid under the Contract Documents shall bear interest from the date payment is due at the rate the parties agree upon in writing or, in the absence thereof, at the legal rate prevailing from time to time at the place where the Project is located.

ARTICLE 14 TERMINATION OR SUSPENSION OF THE CONTRACT

§ 14.1 Termination by the Contractor

§ 14.1.1 The Contractor may terminate the Contract if the Work is stopped for a period of 30 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, for any of the following reasons:

- .1 Issuance of an order of a court or other public authority having jurisdiction that requires all Work to be stopped;
- .2 An act of government, such as a declaration of national emergency, that requires all Work to be stopped;
- .3 Because the Architect has not issued a Certificate for Payment and has not notified the Contractor of the reason for withholding certification as provided in Section 9.4.1, or because the Owner has not made payment on a Certificate for Payment within the time stated in the Contract Documents; or
- .4 The Owner has failed to furnish to the Contractor reasonable evidence as required by Section 2.2.

§ 14.1.2 The Contractor may terminate the Contract if, through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, their agents or employees, or any other persons or entities performing portions of the Work, repeated suspensions, delays, or interruptions of the entire Work by the Owner as described in Section 14.3, constitute in the aggregate more than 100 percent of the total number of days scheduled for completion, or 120 days in any 365-day period, whichever is less.

§ 14.1.3 If one of the reasons described in Section 14.1.1 or 14.1.2 exists, the Contractor may, upon seven days' notice to the Owner and Architect, terminate the Contract and recover from the Owner payment for Work executed, as well as reasonable overhead and profit on Work not executed, and costs incurred by reason of such termination.

§ 14.1.4 If the Work is stopped for a period of 60 consecutive days through no act or fault of the Contractor, a Subcontractor, a Sub-subcontractor, or their agents or employees or any other persons or entities performing portions of the Work because the Owner has repeatedly failed to fulfill the Owner's obligations under the Contract

Documents with respect to matters important to the progress of the Work, the Contractor may, upon seven additional days' notice to the Owner and the Architect, terminate the Contract and recover from the Owner as provided in Section 14.1.3.

§ 14.2 Termination by the Owner for Cause

§ 14.2.1 The Owner may terminate the Contract if the Contractor

- .1 repeatedly refuses or fails to supply enough properly skilled workers or proper materials;
- .2 fails to make payment to Subcontractors or suppliers in accordance with the respective agreements between the Contractor and the Subcontractors or suppliers;
- .3 repeatedly disregards applicable laws, statutes, ordinances, codes, rules and regulations, or lawful orders of a public authority; or
- .4 otherwise is guilty of substantial breach of a provision of the Contract Documents.

§ 14.2.2 When any of the reasons described in Section 14.2.1 exist, and upon certification by the Architect that sufficient cause exists to justify such action, the Owner may, without prejudice to any other rights or remedies of the Owner and after giving the Contractor and the Contractor's surety, if any, seven days' notice, terminate employment of the Contractor and may, subject to any prior rights of the surety:

- .1 Exclude the Contractor from the site and take possession of all materials, equipment, tools, and construction equipment and machinery thereon owned by the Contractor;
- .2 Accept assignment of subcontracts pursuant to Section 5.4; and
- .3 Finish the Work by whatever reasonable method the Owner may deem expedient. Upon written request of the Contractor, the Owner shall furnish to the Contractor a detailed accounting of the costs incurred by the Owner in finishing the Work.

§ 14.2.3 When the Owner terminates the Contract for one of the reasons stated in Section 14.2.1, the Contractor shall not be entitled to receive further payment until the Work is finished.

§ 14.2.4 If the unpaid balance of the Contract Sum exceeds costs of finishing the Work, including compensation for the Architect's services and expenses made necessary thereby, and other damages incurred by the Owner and not expressly waived, such excess shall be paid to the Contractor. If such costs and damages exceed the unpaid balance, the Contractor shall pay the difference to the Owner. The amount to be paid to the Contractor or Owner, as the case may be, shall be certified by the Initial Decision Maker, upon application, and this obligation for payment shall survive termination of the Contract.

§ 14.3 Suspension by the Owner for Convenience

§ 14.3.1 The Owner may, without cause, order the Contractor in writing to suspend, delay or interrupt the Work, in whole or in part for such period of time as the Owner may determine.

§ 14.3.2 The Contract Sum and Contract Time shall be adjusted for increases in the cost and time caused by suspension, delay, or interruption under Section 14.3.1. Adjustment of the Contract Sum shall include profit. No adjustment shall be made to the extent

- .1 that performance is, was, or would have been, so suspended, delayed, or interrupted, by another cause for which the Contractor is responsible; or
- .2 that an equitable adjustment is made or denied under another provision of the Contract.

§ 14.4 Termination by the Owner for Convenience

§ 14.4.1 The Owner may, at any time, terminate the Contract for the Owner's convenience and without cause.

§ 14.4.2 Upon receipt of notice from the Owner of such termination for the Owner's convenience, the Contractor shall

- .1 cease operations as directed by the Owner in the notice;
- .2 take actions necessary, or that the Owner may direct, for the protection and preservation of the Work; and
- .3 except for Work directed to be performed prior to the effective date of termination stated in the notice, terminate all existing subcontracts and purchase orders and enter into no further subcontracts and purchase orders.

§ 14.4.3 In case of such termination for the Owner's convenience, the Owner shall pay the Contractor for Work

properly executed; costs incurred by reason of the termination, including costs attributable to termination of Subcontracts; and the termination fee, if any, set forth in the Agreement.

ARTICLE 15 CLAIMS AND DISPUTES

§ 15.1 Claims

§ 15.1.1 Definition

A Claim is a demand or assertion by one of the parties seeking, as a matter of right, payment of money, a change in the Contract Time, or other relief with respect to the terms of the Contract. The term “Claim” also includes other disputes and matters in question between the Owner and Contractor arising out of or relating to the Contract. The responsibility to substantiate Claims shall rest with the party making the Claim. This Section 15.1.1 does not require the Owner to file a Claim in order to impose liquidated damages in accordance with the Contract Documents.

§ 15.1.2 Time Limits on Claims

The Owner and Contractor shall commence all Claims and causes of action against the other and arising out of or related to the Contract, whether in contract, tort, breach of warranty or otherwise, in accordance with the requirements of the binding dispute resolution method selected in the Agreement and within the period specified by applicable law, but in any case not more than 10 years after the date of Substantial Completion of the Work. The Owner and Contractor waive all Claims and causes of action not commenced in accordance with this Section 15.1.2.

§ 15.1.3 Notice of Claims

§ 15.1.3.1 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered prior to expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party and to the Initial Decision Maker with a copy sent to the Architect, if the Architect is not serving as the Initial Decision Maker. Claims by either party under this Section 15.1.3.1 shall be initiated within 21 days after occurrence of the event giving rise to such Claim or within 21 days after the claimant first recognizes the condition giving rise to the Claim, whichever is later.

§ 15.1.3.2 Claims by either the Owner or Contractor, where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2, shall be initiated by notice to the other party. In such event, no decision by the Initial Decision Maker is required.

§ 15.1.4 Continuing Contract Performance

§ 15.1.4.1 Pending final resolution of a Claim, except as otherwise agreed in writing or as provided in Section 9.7 and Article 14, the Contractor shall proceed diligently with performance of the Contract and the Owner shall continue to make payments in accordance with the Contract Documents.

§ 15.1.4.2 The Contract Sum and Contract Time shall be adjusted in accordance with the Initial Decision Maker’s decision, subject to the right of either party to proceed in accordance with this Article 15. The Architect will issue Certificates for Payment in accordance with the decision of the Initial Decision Maker.

§ 15.1.5 Claims for Additional Cost

If the Contractor wishes to make a Claim for an increase in the Contract Sum, notice as provided in Section 15.1.3 shall be given before proceeding to execute the portion of the Work that is the subject of the Claim. Prior notice is not required for Claims relating to an emergency endangering life or property arising under Section 10.4.

§ 15.1.6 Claims for Additional Time

§ 15.1.6.1 If the Contractor wishes to make a Claim for an increase in the Contract Time, notice as provided in Section 15.1.3 shall be given. The Contractor’s Claim shall include an estimate of cost and of probable effect of delay on progress of the Work. In the case of a continuing delay, only one Claim is necessary.

§ 15.1.6.2 If adverse weather conditions are the basis for a Claim for additional time, such Claim shall be documented by data substantiating that weather conditions were abnormal for the period of time, could not have been reasonably anticipated, and had an adverse effect on the scheduled construction.

§ 15.1.7 Waiver of Claims for Consequential Damages

The Contractor and Owner waive Claims against each other for consequential damages arising out of or relating to this Contract. This mutual waiver includes

- .1 damages incurred by the Owner for rental expenses, for losses of use, income, profit, financing, business and reputation, and for loss of management or employee productivity or of the services of such persons; and
- .2 damages incurred by the Contractor for principal office expenses including the compensation of personnel stationed there, for losses of financing, business and reputation, and for loss of profit, except anticipated profit arising directly from the Work.

This mutual waiver is applicable, without limitation, to all consequential damages due to either party's termination in accordance with Article 14. Nothing contained in this Section 15.1.7 shall be deemed to preclude assessment of liquidated damages, when applicable, in accordance with the requirements of the Contract Documents.

§ 15.2 Initial Decision

§ 15.2.1 Claims, excluding those where the condition giving rise to the Claim is first discovered after expiration of the period for correction of the Work set forth in Section 12.2.2 or arising under Sections 10.3, 10.4, and 11.5, shall be referred to the Initial Decision Maker for initial decision. The Architect will serve as the Initial Decision Maker, unless otherwise indicated in the Agreement. Except for those Claims excluded by this Section 15.2.1, an initial decision shall be required as a condition precedent to mediation of any Claim. If an initial decision has not been rendered within 30 days after the Claim has been referred to the Initial Decision Maker, the party asserting the Claim may demand mediation and binding dispute resolution without a decision having been rendered. Unless the Initial Decision Maker and all affected parties agree, the Initial Decision Maker will not decide disputes between the Contractor and persons or entities other than the Owner.

§ 15.2.2 The Initial Decision Maker will review Claims and within ten days of the receipt of a Claim take one or more of the following actions: (1) request additional supporting data from the claimant or a response with supporting data from the other party, (2) reject the Claim in whole or in part, (3) approve the Claim, (4) suggest a compromise, or (5) advise the parties that the Initial Decision Maker is unable to resolve the Claim if the Initial Decision Maker lacks sufficient information to evaluate the merits of the Claim or if the Initial Decision Maker concludes that, in the Initial Decision Maker's sole discretion, it would be inappropriate for the Initial Decision Maker to resolve the Claim.

§ 15.2.3 In evaluating Claims, the Initial Decision Maker may, but shall not be obligated to, consult with or seek information from either party or from persons with special knowledge or expertise who may assist the Initial Decision Maker in rendering a decision. The Initial Decision Maker may request the Owner to authorize retention of such persons at the Owner's expense.

§ 15.2.4 If the Initial Decision Maker requests a party to provide a response to a Claim or to furnish additional supporting data, such party shall respond, within ten days after receipt of the request, and shall either (1) provide a response on the requested supporting data, (2) advise the Initial Decision Maker when the response or supporting data will be furnished, or (3) advise the Initial Decision Maker that no supporting data will be furnished. Upon receipt of the response or supporting data, if any, the Initial Decision Maker will either reject or approve the Claim in whole or in part.

§ 15.2.5 The Initial Decision Maker will render an initial decision approving or rejecting the Claim, or indicating that the Initial Decision Maker is unable to resolve the Claim. This initial decision shall (1) be in writing; (2) state the reasons therefor; and (3) notify the parties and the Architect, if the Architect is not serving as the Initial Decision Maker, of any change in the Contract Sum or Contract Time or both. The initial decision shall be final and binding on the parties but subject to mediation and, if the parties fail to resolve their dispute through mediation, to binding dispute resolution.

§ 15.2.6 Either party may file for mediation of an initial decision at any time, subject to the terms of Section 15.2.6.1.

§ 15.2.6.1 Either party may, within 30 days from the date of receipt of an initial decision, demand in writing that the other party file for mediation. If such a demand is made and the party receiving the demand fails to file for mediation within 30 days after receipt thereof, then both parties waive their rights to mediate or pursue binding dispute resolution proceedings with respect to the initial decision.

§ 15.2.7 In the event of a Claim against the Contractor, the Owner may, but is not obligated to, notify the surety, if any, of the nature and amount of the Claim. If the Claim relates to a possibility of a Contractor's default, the Owner may, but is not obligated to, notify the surety and request the surety's assistance in resolving the controversy.

§ 15.2.8 If a Claim relates to or is the subject of a mechanic's lien, the party asserting such Claim may proceed in accordance with applicable law to comply with the lien notice or filing deadlines.

§ 15.3 Mediation

§ 15.3.1 Claims, disputes, or other matters in controversy arising out of or related to the Contract, except those waived as provided for in Sections 9.10.4, 9.10.5, and 15.1.7, shall be subject to mediation as a condition precedent to binding dispute resolution.

§ 15.3.2 The parties shall endeavor to resolve their Claims by mediation which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Mediation Procedures in effect on the date of the Agreement. A request for mediation shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the mediation. The request may be made concurrently with the filing of binding dispute resolution proceedings but, in such event, mediation shall proceed in advance of binding dispute resolution proceedings, which shall be stayed pending mediation for a period of 60 days from the date of filing, unless stayed for a longer period by agreement of the parties or court order. If an arbitration is stayed pursuant to this Section 15.3.2, the parties may nonetheless proceed to the selection of the arbitrator(s) and agree upon a schedule for later proceedings.

§ 15.3.3 Either party may, within 30 days from the date that mediation has been concluded without resolution of the dispute or 60 days after mediation has been demanded without resolution of the dispute, demand in writing that the other party file for binding dispute resolution. If such a demand is made and the party receiving the demand fails to file for binding dispute resolution within 60 days after receipt thereof, then both parties waive their rights to binding dispute resolution proceedings with respect to the initial decision.

§ 15.3.4 The parties shall share the mediator's fee and any filing fees equally. The mediation shall be held in the place where the Project is located, unless another location is mutually agreed upon. Agreements reached in mediation shall be enforceable as settlement agreements in any court having jurisdiction thereof.

§ 15.4 Arbitration

§ 15.4.1 If the parties have selected arbitration as the method for binding dispute resolution in the Agreement, any Claim subject to, but not resolved by, mediation shall be subject to arbitration which, unless the parties mutually agree otherwise, shall be administered by the American Arbitration Association in accordance with its Construction Industry Arbitration Rules in effect on the date of the Agreement. The Arbitration shall be conducted in the place where the Project is located, unless another location is mutually agreed upon. A demand for arbitration shall be made in writing, delivered to the other party to the Contract, and filed with the person or entity administering the arbitration. The party filing a notice of demand for arbitration must assert in the demand all Claims then known to that party on which arbitration is permitted to be demanded.

§ 15.4.1.1 A demand for arbitration shall be made no earlier than concurrently with the filing of a request for mediation, but in no event shall it be made after the date when the institution of legal or equitable proceedings based on the Claim would be barred by the applicable statute of limitations. For statute of limitations purposes, receipt of a written demand for arbitration by the person or entity administering the arbitration shall constitute the institution of legal or equitable proceedings based on the Claim.

§ 15.4.2 The award rendered by the arbitrator or arbitrators shall be final, and judgment may be entered upon it in accordance with applicable law in any court having jurisdiction thereof.

§ 15.4.3 The foregoing agreement to arbitrate and other agreements to arbitrate with an additional person or entity duly consented to by parties to the Agreement, shall be specifically enforceable under applicable law in any court having jurisdiction thereof.

§ 15.4.4 Consolidation or Joinder

§ 15.4.4.1 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may consolidate an arbitration conducted under this Agreement with any other arbitration to which it is a party

provided that (1) the arbitration agreement governing the other arbitration permits consolidation, (2) the arbitrations to be consolidated substantially involve common questions of law or fact, and (3) the arbitrations employ materially similar procedural rules and methods for selecting arbitrator(s).

§ 15.4.4.2 Subject to the rules of the American Arbitration Association or other applicable arbitration rules, either party may include by joinder persons or entities substantially involved in a common question of law or fact whose presence is required if complete relief is to be accorded in arbitration, provided that the party sought to be joined consents in writing to such joinder. Consent to arbitration involving an additional person or entity shall not constitute consent to arbitration of any claim, dispute or other matter in question not described in the written consent.

§ 15.4.4.3 The Owner and Contractor grant to any person or entity made a party to an arbitration conducted under this Section 15.4, whether by joinder or consolidation, the same rights of joinder and consolidation as those of the Owner and Contractor under this Agreement.

**SECTION 007000 - GENERAL CONDITIONS OF THE PROJECT FOR CONSTRUCTION AIA
A201/2017 (AMENDED)**

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This section contains thirty-nine (40) pages, not including this cover page.

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SECTION 009000 – CONSTRUCTION FORMS

The list of below forms shall be used during the course of this project. Substitute forms will not be acceptable.

1. Change Order (AIA Document G701 – 2001)
2. Application and Certificate for Payment (AIA Document G702 - 1992)
3. Continuation Sheet (AIA Document G703 – 1992)
4. Certificate of Substantial Completion (AIA Document G704 – 2000)
5. List of Subcontractors (AIA Document G705-2001)
6. Contractors Affidavit of Payment of Debts & Claims (AIA Document G706 – 1994)
7. Contractor's Affidavit of Release of Liens (G706A-1994)
8. Consent of Surety to Final Payment (AIA Document G707 – 1994)
9. Consent of Surety to Reduction in or Partial Release of Retainage (G707A-1994)
10. Work Changes Proposal Request (AIA Document G709 – 2001)
11. Architects Supplemental Instructions (AIA Document G710 – 1992)
12. Construction Change Directive (AIA Document G714 – 2001)
13. Request for Information Form (GC provided)
14. Submittal Cover Sheet (GC provided)
15. Equipment Suppliers List (GC provided)

END OF SECTION 009000

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SECTION 010200 – GENERAL SITEWORK REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. The provisions of the Contract Documents apply to the work of this Section.

1.2 SITEWORK LAYOUT

A. Monuments and Benchmarks

1. Maintain all monuments, property corners, bench marks and other reference points.
2. If these are disturbed or destroyed during construction operations, have them replaced by a surveyor licensed in the State of North Carolina. This replacement shall be at no additional expense to the Contract.

B. Laying out the Work.

1. Locate all existing bench marks and other reference points.
2. Protect these points throughout construction.
3. Layout work utilizing these reference points.

C. Record Drawings

1. Maintain a record of the locations of all underground utilities and piping.
2. Maintain a record of any variations of the work.
3. Record Drawings shall be certified by a Land Surveyor registered in the State of North Carolina.
4. Submit these record drawings at Project Closeout.

1.3 EASEMENTS

- A. Verify the acquisition of all off-site easements and Rights-of-Way prior to the start of off-site construction. This may be done by contacting the Architect.
- B. Restore all off-site easements to the condition existing prior to the start of work.

1.4 MAINTENANCE OF TRAFFIC

- A. Maintain vehicular and pedestrian traffic across the frontage of this project. Comply with all applicable safety requirements.

1.5 SUBMITTALS

- A. For those submittals, close-out documents and O&M manuals requiring review by the architect's consultants, contractor shall ship such documents directly to the consultant, while sending a copy of the transmittal to the architect.

1.6 CORRELATION OF CONSTRUCTION DOCUMENTS

- A. Review construction documents thoroughly prior to the start of construction.
- B. Report any conflict or discrepancy discovered in the Construction Documents to the Architect prior to the start of construction.
- C. Report any conflict or discrepancy discovered between the Construction Documents and state and local governmental regulations to the Architect prior to the start of construction.

1.7 PROJECT CONDITIONS

- A. The conditions existing at the time of inspection for bidding purposes will be maintained by the Owner to the extent practical. However, minor variations may occur due to natural occurrences prior to the start of work.
- B. The location of existing underground utilities indicated is approximate only. Field locate all existing underground utilities in the area of work, regardless of whether or not they are indicated. Call "NC one call" at 1800-632-4949 prior to the start of demolition work for assistance in the location of existing underground utilities.
- C. Should charted, uncharted or incorrectly charted utilities be encountered during demolition, contact the Architect immediately for instructions. Cooperate with Owner and utility companies to keep services and facilities in operation.

1.8 SCHEDULING

- A. Do not begin work on any off-site roadway improvements until the owner has acquired and recorded all easements and right-of-way required to complete the project.

PART 1 - PART 2 - PRODUCTS

1.1 NOT APPLICABLE

PART 2 - PART 3 – EXECUTION

3.1 PROJECT CLEAN UP

- A. Clean site as construction progresses. Do not allow trash or other waste materials to accumulate.

- B. Prior to requesting the punch-list inspection, clean the site to the following requirements:

1. Power wash all walks and pavements.
2. The remainder of the site shall be broom clean.
3. Remove all trash and debris.

3.2 EXISTING FACILITIES

- A. Preserve existing signs, markers, guardrails and fences in their original condition unless written permission is obtained for their removal and replacement.
- B. Replace damaged items at no additional cost to the Contract.

END OF SECTION 010200

SECTION 012900 - PAYMENT PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General Conditions and other Division 1, Specifications Sections, apply to this Section.
 - 1. Provisions of this section apply to the work of the Prime Contract.

1.2 SUMMARY

- A. This Section specifies administrative and procedural requirements governing the Contractor's Applications for Payment.
- B. This Section specifies administrative and procedural requirements governing each Prime Contractor's Applications for Payment.
 - 1. Coordinate the Schedule of Values and Applications for Payment with the Contractor's Construction Schedule. List of Subcontracts, and Submittal Schedule.
- C. The Contractor's Construction Schedule and Submittal Schedule are included in Section "Submittals".

1.3 SCHEDULE OF VALUES

- A. Coordinate preparation of the Schedule of Values with preparation of the Contractor's Construction Schedule.
- B. Each Prime Contractor shall coordinate preparation of its Schedule of Values for its part of the work with preparation of the Contractor's Construction Schedule.
 - 1. Correlate the items in the Schedule of Values with other required administrative schedules and forms, including:
 - a. Contractor's construction schedule.
 - b. Application for Payment form.
 - c. List of subcontractors.
 - d. Schedule of alternates.
 - e. List of products.
 - f. List of principal suppliers and fabricators, if items purchased by Contractor.
 - g. Schedule of submittals.
 - 2. Submit the Schedule of Values within 10 days of award of contract.

3. Sub-Schedules: Where the work is separated into phases, areas or floors that require separate payments, provide sub-schedules showing values correlated with portion of the work.
- C. Format: Use the Project Manual Table of Contents as a guide to establish the format for the Schedule of Values.
1. Type Schedule on AIA Document G703 - Continuation Sheet for Application and Certificate for Payment or on 8-1/2 x 11 in. white bond paper.
 2. Contractor's standard forms or media driven printout will be considered upon request.
 3. Follow Table of Contents or Project Manual for listing component parts. Identify each line item by number and title of major Specification Section. Include the following Project identification on the Schedule of Values:
 - a. Project name and location.
 - b. Name of the Architect.
 - c. Project number.
 - d. Contractor's name and address.
 - e. Date of submittal.
- D. Content:
1. List each "Major Item of Work" and each "Subcontracted Item of Work" and each item covered under "General Conditions": As a separate line item to serve as a basis for computing values for Progress Payments.
 2. For each major line item, list sub-values of products operations under the item.
 3. For the various portions of the Work:
 - a. Each item shall include a directly proportional amount of the Contractor's overhead and profit.
 - b. For items on which progress payments will be requested for stored materials, breakdown the value into:
 1. The cost of the materials, delivered and unloaded, with taxes paid.
 2. The total installed value.
 - c. Contractor shall include in various items a proportional amount of overhead and profit on Owner's direct purchased materials which were included in Contractor's bid.
 4. Submit a "Sub-Schedule" of unit costs and quantities for each separate stage, phase or portion of Work with unit values for the materials to be purchased by Contractor broken down into:
 - a. Cost of the material, delivered and unloaded at the site, with taxes paid.

- b. Installation costs, including Contractor's overhead and profit.
- 5. The installed unit volume multiplied by the quantity listed shall equal the cost of that item in the Schedule of Values.
- 6. The sum of all values listed in the schedule shall equal the total Contract Sum.

1.4 APPLICATIONS FOR PAYMENT

- A. Each Application for Payment shall be consistent with previous applications and payments as certified by the Architect and paid for by the Owner.
 - 1. The initial Application for Payment, the Application for Payment at time of Substantial Completion, and the final Application for Payment involve additional requirements.
- B. Payment: After the Architect has issued a Project Certificate for Payment, the Owner shall make payment within the time provided in the Contract Documents.
- C. Payment Application Times: Pencil copies of pay applications are due to be submitted to the **Architect** on the 25th day of each month for work completed up to that day. Upon approval by the **Architect**, three (3) notarized originals shall be sent to the Architect for further processing. Originals must be received by the Architect by the 1st of each month. Contractors will receive payment in accordance with the general conditions to the contract.
- D. Payment Application Forms: Use AIA Document and Continuation Sheets G703 as the form for Application for Payment.
- E. Application Preparation: Complete every entry on the form, including notarization and execution by person authorized to sign legal documents on behalf of the Contractor. Incomplete applications will be returned without action.
 - 1. Entries shall match data on the Schedule of Values and Contractor's Construction Schedule. Use updated schedules if revisions have been made.
 - 2. Include amounts of Change Orders and Construction Change Directives issued prior to the last day of the construction period covered by the application.
- F. Transmittal: Submit three (3) executed copies of each Application for Payment to the Architect by means ensuring receipt by the 1st of the month.
- G. Initial Application for Payment: Administrative actions and submittals that must precede or coincide with submittal of the first Application for Payment include the following:
 - 1. Contractor's Construction Schedule per Section 01320.
 - 2. List of subcontractors.

3. List of principal suppliers and fabricators for both Owner's direct purchase of Materials and Contractors.
 4. Schedule of Values.
 5. Schedule of principal products.
 6. Schedule of unit prices.
 7. Submittal Schedule.
 8. Copies of authorizations and licenses from governing authorities for performance of the work.
 9. Certificates of insurance and insurance policies.
 10. Performance and payment bonds.
- H. Application for Payment at Substantial Completion: Following issuance of the Certificate of Substantial Completion, submit an Application for Payment; this application shall reflect any Certificates of Partial Substantial Completion issued previously for Owner occupancy of designated portions of the work. Administrative actions and submittals that shall proceed or coincide with this application include:
1. Occupancy permits and similar approvals.
 2. Warranties (guarantees) and maintenance agreement.
 3. Test/adjust/balance records.
 4. Maintenance instructions.
 5. Meter readings.
 6. Start-up performance reports.
 7. Change-over information related to Owner's occupancy, use, operation and maintenance.
 8. Final cleaning.
 9. Application for reduction of retainage, and consent of surety.
 10. List of incomplete work, recognized as exceptions to Architect's Certificate of Substantial Completion.
- I. Final Payment Application: Administrative actions and submittals which must precede or coincide with submittal of the final payment Application for Payment include the following:
1. Completion of Project close-out requirements.
 2. Completion of Punch list items.
 3. Transmittal of required Project construction records to Owner.
 4. Resolution of all Claims
 5. Execution of all Change Orders
 6. Assessment of Liquidated Damages
 7. Removal of temporary facilities and services.
 8. Removal of surplus materials, rubbish and similar elements.
 9. Change of door locks to Owner's access.
 10. Consent of Surety to release final payment.
 11. Executed final waiver

J. Owner Payment

- A. Notwithstanding anything to the contrary, in no event shall Contractor stop the Work in connection with any withholding of payment for an item on failure to make payment relating to an item in connection with a good faith dispute.
- B. Owner reserves the right, at its sole discretion, to issue joint checks. In no event shall joint payment create any obligations or contracts between Owner and a sub-contractor's supplier.

1.5 PAYMENT FOR STORED MATERIALS

The Owner may pay for off site stored materials to be purchased by Contractor, at their discretion and through consultation with the Architect, provided the following requirements are met:

- 1. Prime Contractor must provide insurance certificate indicating such materials specifically insured. Materials remain Prime Contractor's insurance responsibility until they are delivered to the job site, which is when the Owner's Builders Risk goes into effect. Reference insurance specifications.
- 2. Materials shall be segregated and clearly marked with the Owner's name and project name.
- 3. Prime Contractor must provide a fully executed "Bill of Sale".
- 4. Prime Contractor must provide proof (through personal inspection by Owner's representative) that materials noted can be physically verified. Prime Contractor shall reimburse the Owner and Architect for all reasonable expenses associated with representative's inspection trip.

END OF SECTION 012900

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SECTION 013100 - COORDINATION

PART 1 - GENERAL

1.1 SUMMARY

- A. Sizes and locations of installed items and the general direction of installation area indicated on the Contract Documents. It is not the intent of the Documents to show every pipe, fitting connection, offset, etc. nor every structural difficulty to be encountered during installation. It is each Contractors responsibility to verify routings before work commences and provide the materials and accessories necessary for a complete installation.
- B. Coordinate this section with the appropriate "Coordination Section" in the mechanical and electrical divisions of the Specifications.
- C. This section encompasses and involves ALL Contractors, and all Contractors should review this section carefully and fully to determine to what extent their work is affected.

1.2 COORDINATION MEETINGS

- A. When necessary, the appropriate Consultant will participate in coordination meetings.
- B. All Contractors are required to participate in coordination meetings as necessary where mechanical and electrical work may coincide or interfere with their installations.

1.3 BUILDING COORDINATION DRAWINGS

- A. Before materials are purchased, fabricated or work is begun, the HVAC Contractor shall prepare building coordination drawings for all floors and areas, including buried systems and services, showing the size and location of the contractor's equipment and systems size, location and routing, in the manner described herein. The coordination drawings shall be no less than 1/4 inch scale and shall be generated from a computer CAD program. Base architectural drawings and base MEP drawings will be available from the Architect and/or Engineer. Refer to Section 011100 for further details.
- B. Each Contractor shall take the basic coordination drawings prepared by the HVAC Contractor and add (draft) their particular trade item, in locations decided upon in coordination meetings. Contractor shall add items to the coordination drawings only after all present at the coordination meetings agree to their location. Sequencing of drawing additions will be as follows:
 - 1. HVAC Contractor (prepares original coordination documents)
 - 2. Plumbing Contractor

3. Electrical Contractor
4. General Contractor

Documents will be used as a guide, with final approved coordination drawings governing installation sequence.

Adjustments in sequencing will be made as necessary in coordination meetings. All drawings will be prepared in accordance with all applicable rules, regulations and governing authorities.

- C. Once reviewed and approved by each Trade Contractor, the HVAC Contractor shall prepare a final reproducible Systems Coordination Drawings, illustrating the work by all Trades. This reproducible drawing shall be submitted with two (2) prints to the Architect prior to start of work but no later than 60 days from notice to proceed. The Architect will forward this drawing to the Owner for his review.
- D. Final coordination documents (with ALL contractor markings) will be reviewed by the Consultants for general compliance with the original intent of the Contract Documents.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION

3.1 COORDINATION OF INSTALLED WORK

- A. In case of interferences with work of other trades or scheduling problems during any portions of actual construction, Architect shall decide which work will be relocated or adjusted. These minor adjustments will be made with NO additional COST to the Owner.
- B. The Architect or Consultants may direct minor architectural location changes during the installation of the Work. All adjustments will be completed at no additional cost to the Owner.
- C. Each contractor is responsible to coordinate with all other Contractors and Architect when installing their work. This may involve minor adjustments or modifications in the work to accommodate the work of other trades. This coordination shall be considered part of each Contractor's contract.
- D. The commencement of any work in any section indicates that previous work has been inspected and meets the full satisfaction of the Contractor and his willingness to undertake all of the guarantee stipulations as noted within the Contract specifications.
- E. It is the responsibility of each Contractor to assure that all other trade work is completed prior to the commencement of the following work. The Owner is in no

way liable for work which is closed up before each trade has satisfactorily completed their portion of the work.

- F. Each Contractor shall be required to schedule and coordinate his activities with the other Contractors to assure proper fit of the various elements of work in common.

3.2 GENERAL SUBSTRATE ACCEPTANCE

- A. In general, installation of any Contractor's work to another Contractor installed substrate indicates acceptance of the substrate as satisfactory for an acceptable installation. Surfaces with defects in excess of the specifications tolerances for the Contractor installing the substrate should be brought to the attention of the Architect before the Contractor proceeds with their work.

3.3 MATERIAL COMPATIBILITY

- A. It is each Contractor's responsibility to assure that all finish application adhesives, cements, materials, etc. are compatible with substrate installed materials such as curing components, additives, materials, etc. before proceeding with their work.

END OF SECTION 013100

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SECTION 013110 - PROJECT MEETINGS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Contractor participation in Preconstruction Meeting and Project Meetings.

1.2 RELATED REQUIREMENTS

- A. Section 011100: SUMMARY OF WORK
- B. Section 013200: CONSTRUCTION PROGRESS DOCUMENTATION
- C. Section 013300: SUBMITTAL PROCEDURES

1.3 PRECONSTRUCTION CONFERENCE (Initial Job Conference)

- A. Architect will schedule THE PRECONSTRUCTION CONFERENCE after Notice to Award.
- B. Location: Temporary field office or as designated by the Owner's designated project representative or the Architect.
- C. Attendance:
 - 1. Owner/Owner's Representative.
 - 2. Architect's Representative.
 - 3. Contractor's Representative, as appropriate.
 - 4. Contractor's major Subcontractors' Representatives as deemed appropriate by Contractor or Architect.
- D. Agenda: Use this format:
 - 1. Distribution of Contract Documents.
 - 2. Submittal of Source of Supply Forms listing subcontractors, proposed products, Schedule of Values, and progress schedule.
 - 3. Designation of responsible personnel.
 - 4. Procedures and processing of field decisions, required submittals, substitutions, applications for payment, proposal requests, change orders, and Contract close-out procedures.
 - 5. Scheduling, major equipment and component deliveries, and priorities.
 - 6. Use of premises by Owner and Contractor(s).
 - 7. Owner's requirements, and when appropriate, occupancy.
 - 8. Temporary facilities.
 - 9. Security and housekeeping.
 - 10. Procedures for testing.
 - 11. Requirements for start-up of equipment.

12. Inspection and acceptance of equipment put into service during construction.

1.4 PROGRESS MEETINGS

- A. Architect will schedule regular progress meetings.
- B. Called meetings and/or special meetings shall be as required by progress of the work.
- C. Location of the progress meetings: Field office trailer or as designated by Owner's designated project representative or the Architect.
- D. Attendance:
 1. Owner/Owner's Representative.
 2. Architect's Representative.
 3. Contractors working on site or necessary for coordination of upcoming work (mandatory).
 4. Suppliers as appropriate to the agenda.
- E. Agenda:
 1. Review, approval of minutes of previous meeting.
 2. Review of work progress since previous meeting.
 3. Field observation, problems, conflicts.
 4. Problems which impede Construction Schedule.
 5. Review of off-site fabrication, delivery schedules.
 6. Corrective measures and procedures to regain project's schedule.
 7. Revisions to Construction Schedule.
 8. Progress, schedule, during succeeding work period.
 9. Coordination of schedules.
 10. Review submittal schedules; expedite as required.
 11. Maintenance of quality standards.
 12. Pending changes and substitutions.
 13. Review proposed changes for:
 - a. Effect on Construction Schedule and on Completion date.
 - b. Effect on other contracts of the Project.
 14. Other business.
 15. Discuss outstanding proposal requests, RFI's, change orders, etc.
 16. Safety Issues

1.5 PROJECT SUPERINTENDENT MEETINGS

- A. General Contractor will schedule regular superintendent meetings.
- B. Called meetings and/or special meetings shall be held as required by progress of the work.

- C. Location of the superintendent meetings: General Contractor's office trailer or as designated by General Contractor.
- D. Attendance:
 - 1. General Contractor's Representative.
 - 2. All other Prime Contractors' superintendent working on site or necessary for coordination of upcoming work (mandatory).
 - 3. Subcontractors Representative as required by General Contractor or Job Condition.
 - 4. Suppliers as required.
- E. Agenda:
 - 1. Review, approval of minutes of previous meetings.
 - 2. Review of work progress since previous meetings.
 - 3. Review of upcoming work.
 - 4. Problems/conflicts.
 - 5. Old business/New Business.
 - 5. Safety.
- F. Minutes: Within 5 working days of Superintendent's Meeting, General Contractor shall publish and distribute.

1.6 PREINSTALLATION MEETINGS

- A. When required in individual specification sections, the respective Contractor shall convene a Preinstallation meeting at the site prior to commencing work of the section.
- B. All Contractors directly affecting, or affected by the work of the specific section shall be required to attend.
- C. The responsible Contractor shall notify the Architect/Engineer, Owner's designated project representative and other affected Contractors five days in advance of the meeting.
- D. The Contractor shall prepare the agenda and preside at the meeting.
 - 1. Review the conditions of installation, preparation and installation procedures.
 - 2. Review the coordination of other work.
- E. The Contractor shall record minutes and distribute copies within five days after the meeting to all participants, with two copies to the Architect, and single copies to the Owner's designated project representative and those affected by the decisions made and information provided.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 013110

SECTION 013125 - WEB-BASED PROJECT MANAGEMENT SYSTEM

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Shop Drawings, Product Data, and Samples.
- B. Contractor review and approval, and distribution of copies.
- C. The General Contractor shall include and incur the full cost of procuring submittal software services known as Web-Based Software Management Platform for the project. Web-Based Software Management Platform software will include access for all contractors, Owner, Architect, Designated Owner's Project Representative and others as required.
- D. General Contractor must fill out the Daily Log, in the Site Activities Log, in the Web-Based Software Management Platform portal.
- E. All contractors are required to use the Web-Based Software Management Platform software system to it's fullest reasonable extent. This will include at a minimum, the submission and tracking of all shop drawings, processing of RFI's and completion and submission of daily field reports by the applicable prime contractor.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS of the CONTRACT: Definitions and basic responsibilities of entities.
- B. Section 013200 - CONSTRUCTION PROGRESS DOCUMENTATION: Schedule for submittals.
- C. Section 013300 - Submittal Procedures
- D. Section 017800 - PROJECT RECORD DOCUMENTS
- E. Section 017810 – WARRANTIES AND BONDS

1.3 SHOP DRAWINGS

- A. Present in a clear and thorough manner in CADD (not hand drawn). Title each drawing with Project name and number.
 - 1. Architect's Shop Drawing, Product Data and Sample Submissions cover sheet shall be fully completed for each submission and permanently attached as the first sheet for all product data, shop drawing, and sample submissions. Submittals not complying with this requirement will be

returned to the contractor for non-compliance with the submittal procedures.

- B. Identify field dimensions; show relation to adjacent or critical feature of work or products.
 - 1. Elements of drawings shall be identified by reference to sheet number and detail, schedule or room numbers shown on Contract Drawings.
- C. Minimum sheet size: Manufacturer's standard; adequate to clearly illustrate.
- D. Contractor submitting shop drawings is required to submit their initial submittal information in pdf format to the Web-Based Software Management Platform software that will be utilized by all team members for this project.
- E. Contractor submitting shop drawings is required to submit one record hard copy of all final approved submittal information to the Designated Owner's Project Representative until the project completion and then be turned over to the Owner for their use.

1.4 DISTRIBUTION

- A. Shop Drawings and copies of Product Data will be available to Contractors through the Web-Based Software Management Platform software. All contractors and sub-contractors are required to access and review all applicable information provided by other trades on a regular basis. Each Contractor is required to coordinate their work with the other trades through the shop drawing process. No claims will be paid by the Owner for re-work that is required as a result of a failure to coordinate one trade contractor's work with another trade contractor.
- B. Distribute samples which carry the Architect/Engineer stamp of review as directed by the Architect/Engineer.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 013125

SECTION 013200 - CONSTRUCTION PROGRESS DOCUMENTATION

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Pre-bid Schedule
- B. Procedures for preparation, development and updating of CPM CONSTRUCTION SCHEDULE.

1.2 RELATED REQUIREMENTS

- A. Section 011100 - SUMMARY OF WORK
- B. Section 013300 - SUBMITTAL PROCEDURES

PART 2 – PROJECT SCHEDULE

2.1 GENERAL

- A. Upon Notice to Proceed the overall Project CPM Schedule will be prepared by the General Contractor in accordance with the following.

PART 3 - CPM CONSTRUCTION SCHEDULING

3.1 GENERAL

- A. The CPM Schedule network plan including any appropriate milestone dates and the computer-produced reports shall be part of the Owner/Contractor agreement as stipulated herein.
- B. The Prime Contractors shall provide all information required by the General Contractor for development of a network plan and schedule for this in accordance with the requirements of this section of the General Requirements.
- C. The purpose of the plan and schedule will be to assure adequate planning and execution of the work of the Prime Contractor, and to assist the Architect in monitoring the progress of the work and evaluating proposed changes to the contract and schedule.
- D. The project management tool commonly called the Critical Path Method (CPM) shall be employed for the planning, scheduling and reporting of all work to be performed under the contract. Primavera P3 (version 3.0 or higher), SureTrak (version 3.0 or higher) or Engineering & Construction (latest version) shall be used by the General Contractor to computerize the CPM Schedule network.

- E. Changes to the construction schedule affecting start and completion dates of activities or durations shall not automatically mean that an extension of the Contract Completion Date is warranted or due the Contractor. A Contract Modification or delay may not affect existing critical activities or may cause non-critical activities to become critical, resulting only in absorbing a part of the available total float that may exist within an activity chain on the Network and no change to the interim milestone dates or the Contract Completion Date.
- F. Total float is defined as the amount of time between the early start date and the late start date, or the early finish date and the late finish date, for each and every activity in the schedule. Float is not for the exclusive use or benefit of either the Owner or any of the Prime Contractors. Extensions of time to interim milestone dates or the Contract Completion Date under the Contract will be granted only to the extent that equitable time adjustment to the activity or activities affected by the Contract Modification or delay exceeds the total float of the affected or subsequent paths and extends any interim milestone date or the Contract Completion Date.
- G. In no event shall any progress report or updated schedule constitute an extension or change of the Contract Time, a milestone date or the Contract Sum unless any such adjustment is agreed to by the Owner and authorized pursuant to a change order.

3.2 INITIAL SUBMITTAL AND NETWORK PREPARATION

- A. To the extent necessary for the General Contractor to reflect in a computerized CPM Schedule network diagram the Prime Contractor's proposed plan for completion of their work, the Prime Contractors shall be prepared to meet with and assist the General Contractor, and furnish information subsequent to award of the contract.
- B. Following the Contract Award, the General Contractor will meet with the other Prime Contractors and conduct a review meeting to assure their understanding of said schedule and contractual milestone dates.
- C. Within ten (10) calendar days after the meeting to review the Project Schedule, the Prime Contractors will provide their proposed plans of operation to the General Contractor. The Contractor's plan of operations shall consist of, but not limited to, the following:
 - 1. List of proposed Construction Activities.
 - 2. List of Proposed Duration's for Construction Activities (in work days).
 - 3. List of proposed Duration's for major procurement items (in work days).
 - 4. Proposed Sequencing of Construction Activities.
- D. The General Contractor and other Prime Contractors will then meet and jointly develop the CPM project schedule, based on all of the Prime Contractor's proposed plans and sequences of operation. Any areas of such plans which conflict with timely completion of the project will be subject to revision unless adequate justification for these plans, duration's and logic.

- E. The Prime Contractor will be responsible for assuring that any and all subcontractor work, as well as his own work, is included and that the diagram shows a coordinated plan of work.
- F. Proposed durations assigned to each activity shall reflect the Prime Contractor's best estimate of time required to complete activity considering the scope and resources planned for activity.
- H. Failure by the Prime Contractors to include the element of work required for performance of the contract shall not excuse any of the Prime Contractors from completing all their work within the Contract Completion Date. If the General Contractor questions any of the Prime Contractor's proposed durations, said Prime Contractor shall within five (5) calendar days provide estimates of his labor and intended crew and/or equipment sizes required for the activity which support the proposed duration.
- I. Seasonal weather conditions will be considered in the planning and scheduling of all work influenced by high or low ambient temperatures to insure the completion of all contract work within the allotted contract time milestone completion dates.

3.3. REVIEW AND APPROVAL

- A. Within ten (10) calendar days after receipt of the CPM Schedule and reports provided by the General Contractor, each Prime Contractor shall meet with the General Contractor, if required, for joint review, correction, or adjustment of the proposed plan and schedule. After these joint meetings, the CPM Schedule and reports will be revised in accordance with agreements reached during the joint reviews. Two (2) copies each of the CPM Schedule and reports will be provided to the Prime Contractors and the Architect. The General Contractor shall provide, on compact disk, an electronic version of the schedule in the native software format to the Architect for verification of conformance with the contract documents. The revised CPM Schedule will be reviewed by the Prime Contractors, and if found to be as previously agreed upon, will be accepted within three (3) working days.
- B. Upon establishment of an agreed upon schedule, the Prime Contractor will sign the CPM Schedule network drawings and computer produced reports, which will then indicate the acceptance and approval of the project schedule, sequence of activities and times for completion. Receipt of the approved project schedule by the Prime Contractor and the Architect will be a condition precedent to the making of any partial payments under the Contract.

3.4 SCHEDULING UPDATING AND REVISIONS

- A. The Approved Project Schedule will be updated by the General Contractor on a monthly basis for the purpose of recording and monitoring the progress of work. The other Prime Contractors shall meet with the General Contractor monthly at a minimum upon request to review actual progress made to date, dates of activities started and completed, and the percentage of work completed to date on each activity started by not completed.

- B. Upon completion of the joint reviews, the General Contractor will revise the schedule to reflect progress of the work to date and provide a copy to the other Prime Contractors.
- C. Based on the result of the progress update, when the approved project schedule no longer represents the actual prosecution and progress of the work, a revision to the schedule logic sequence and the precedence diagram may be required by the Architect or requested by the Prime Contractors.
- D. The Prime Contractors may also request revisions to the logic sequence and precedence diagram in the event his planning for the project is revised. If the Prime Contractor desires to make changes in the Approved Project Schedule to reflect revisions in this method of operating and scheduling, he shall notify the General Contractor in writing two weeks prior to the next schedule update, stating the reasons for the proposed revision.
- E. The General Contractor will give consideration to reasonable requests for changes to the schedule logic sequence.
- F. The General Contractor will prepare a revised construction schedule incorporating the necessary or agreed to changes to the logic sequence and distribute it to all Prime Contractors.
- G. General Contractor shall complete updates & submit updated schedule in paper and electronic format in the native software format to the Architect by the 25th of each month. Failure to submit can be grounds for withholding payment. Prime Contractor not providing updated information to the General Contractor in a timely manner may have payment withheld.
- H. Updating the schedule to reflect actual progress made up to the date of an update shall not be considered revisions to logic sequence and schedule.
- I. If the Prime Contractor does not record any exceptions to the published Project Schedule update or the revised construction schedule within five (5) calendar days of its receipt, he will be deemed to have accepted and approved it.

3.5 RESPONSIBILITY FOR COMPLETION

- A. The Prime Contractor shall furnish sufficient forces, plan and equipment, and shall work such hours including night shift and overtime operations, as necessary to ensure the prosecution of the work in accordance with the most current update of the Project Schedule. If, in the opinion of the Architect, the Prime Contractor falls behind in meeting the schedule as presented in the most current update, the Prime Contractor shall take steps as may be necessary to improve his progress, and the Architect may require him to increase the hours of work, the number of shifts, overtime operations and/or the amount of construction plant and equipment without additional cost to the Owner. All additional expenses incurred by the Owner due to such work will be deducted from the amount due the Prime Contractor. The provisions of this section shall not be construed as prohibiting

work on Saturdays, Sundays, and holidays if the Prime Contractor so elects and if approved by the Architect or the Owner's designated project representative.

- B. Failure of the Prime Contractor to comply with the requirements of this subsection shall be a basis for determination by the Owner that the Prime Contractor is not prosecuting the work with such diligence as will ensure completion within the time stipulated. Upon such determination, the Owner may terminate the Prime Contractor's right to proceed with the Work or any separable part thereof, in accordance with the provisions of Article 14.2 of the General Conditions, or may take such other actions as may be deemed appropriate.

END OF SECTION 013200

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SECTION 013300 - SUBMITTAL PROCEDURES

PART 1 – GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Procedures for preparation and submittal of Shop Drawings, Product Data, and Samples.
- B. Contractor review and approval, and distribution of copies.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS of the CONTRACT: Definitions and basic responsibilities of entities.
- B. Section 013200 - CONSTRUCTION PROGRESS DOCUMENTATION: Schedule for submittals.

1.3 SHOP DRAWINGS

- A. Present in a clear and thorough manner. Title each drawing with Project name and number.
- B. Identify field dimensions; show relation to adjacent or critical feature of work or products.
 - 1. Elements of drawings shall be identified by reference to sheet number and detail, schedule or room numbers shown on Contract Drawings.
- C. Minimum sheet size: Manufacturer's standard; adequate to clearly illustrate.
- D. Each contractor submitting shop drawings is required to submit a **Shop drawings electronically in PDF format via e-mail, ShareFile, or Project Management Software is acceptable for this project.**

1.4 PRODUCT DATA

- A. Submit only pages which are pertinent.
 - 1. Clearly mark data to identify applicable Products, models, options, and other data, referenced to Specification Section and Article number.
 - 2. Show reference standards, performance characteristics and capacities.
 - 3. Show dimensions and clearances required.
 - 4. Show wiring or piping diagrams and controls.
 - 5. Show component parts, and finishes.
- B. Manufacturer's standard schematic drawings and diagrams:

1. Modify drawings and diagrams to delete information which is not applicable to the Work.
2. Supplement standard information to provide information specifically applicable to the Work.
3. Delete information not applicable.
4. Provide manufacturer's preparation, assembly, and installation instructions when required by the Specification Section.

1.5 SAMPLES

- A. Office Samples: Limit to items requiring color, pattern and similar selections and shall be sufficient size and quantity to clearly illustrate:
 1. Full range of color, texture and pattern, for Architect/Engineer selection.
 2. Submit samples for selection of finishes within 20 days after date of Contract.
 3. Submit a minimum of two items.
- B. Label each sample with identification required for transmittal letter.
- C. Approved samples which may be used in the Work are indicated in the respective Specification Section.

1.6 COLOR SELECTIONS

- A. The Contractor, as soon as possible, shall assemble from appropriate subcontractors and material suppliers, the manufacturer's names of all material requiring color selection by the Architect including those already defined on the drawings. Color charts shall be supplied to the Architect. Promptly after the required information has been supplied, the Architect will prepare a complete color schedule based on the approved samples of materials submitted. The Architect will not prepare a color schedule or approve colors of any items until complete information on all items requiring color selection has been supplied by all Contractors.

1.7 MANUFACTURER'S CERTIFICATES

- A. Submit Certificates, in duplicate, in accordance with requirements of each Specification Section.

1.8 CONTRACTOR RESPONSIBILITIES

- A. Review and approve Shop Drawings, Product Data, and Samples PRIOR to submission to Architect and Engineer.
- B. Determine and verify:
 1. Field measurements.
 2. Field construction criteria.

3. Manufacturer's catalog numbers and similar data.
 4. Conformance of submittal with requirements of Contract Documents.
- C. Coordinate each submittal with requirements of the Work and of the Contract Documents.
- D. Sign or initial each sheet of shop drawings and product data and each sample label to certify approval and compliance with requirements of Contract Documents.
- E. Notify the Architect in writing, at time of submission, of ANY AND ALL DEVIATIONS in the submittals from requirements of the Contract Documents.
- F. DO NOT FABRICATE PRODUCTS or begin work which requires submittals until return of submittals with Architect/Engineer review stamp.

1.9 SUBMITTAL REQUIREMENTS

- A. Transmit submittals promptly in accordance with approved Progress Schedule, and in such sequence as to cause NO DELAY in the work or in the work of any other Contractor.
1. The Contractor shall transmit submittals directly to the Architect with a copy to the Architect.
 2. **The Contractor shall transmit all submittals using the submittal sheet supplied by the Architect.**
 3. All submittals shall be made within 60 days of the date of the Notice to Proceed, or as required to maintain the project schedule.
- B. Contractor shall prepare for his use on this project a shop drawing stamp or a permanent stick on label as required in Division 1 and shall contain the following:

Contractor approves and submits these shop drawings and samples and thereby represents that he has determined and verified all field measurements, field construction criteria, materials, catalog numbers and similar data and that he has checked and coordinated each shop drawing and sample with the requirements of the work and of the Contract Documents and with work of other Contractors.

_____ Date _____ Contractor

Specification Section _____ Contract No.

Submittal No.

The above stamp or permanent stick on label shall be affixed by the Contractor to all shop drawings and data submitted by the Contractor thus indicating that the Contractor has thoroughly reviewed same and approves of their content. Drawings not stamped in this manner will be returned to Contractor as "not reviewed" for resubmission and no action shall be taken.

- C. Number of submittals required:

1. Shop Drawings: **If NOT submitting electronically** - Submit Six (6) copies of all shop drawings (five copies and one reproducible). One (1) original set of shop drawings bearing review comments will be returned to the Contractor.
 2. Product Data: Submit Six (6) copies. Four (4) of which bearing review comments will be returned to the Contractor.
 3. Samples: Submit the number stated in each specification section.
- D. Submittals shall contain:
1. The date of submission and the dates of any previous submissions.
 2. The Project title and number.
 3. Contract identification.
 4. The name of:
 - a. Contractor
 - b. Supplier
 - c. Manufacturer
 5. Identification of the project, with the specification section number.
 6. Field dimensions, clearly identified as such.
 7. Relation to adjacent or critical features of the Work or materials.
 8. Applicable standards, such as ASTM or Federal Specification numbers.
 9. Identification of deviations from Contract Documents.
 10. Identification of revisions on re-submittals.
 11. An 8 in. x 3 in. blank space for Contractor and Architect/Engineer stamps.

1.10 RESUBMISSION REQUIREMENTS

- A. Make any corrections or changes in the submittals required by the Architect/Engineer and resubmit under procedures specified for initial submittals.
- B. Indicate any changes which have been made other than those requested by the Architect/Engineer.
- C. Architect will accept a total of two (2) submittal submissions for review, One (1) initial submission and one (1) resubmission. In the event additional resubmissions are required the Architect will back charge the contractor at an hourly rate for each additional review.

1.11 ARCHITECT/ENGINEER REVIEW

- A. Architect's/Engineer's review of submittals is for GENERAL CONFORMANCE ONLY AND IS NOT IMPLIED OR EXPRESSED AS ACCEPTANCE OR APPROVAL of the submission.
- B. Submittals will be reviewed and returned to the Contractor within two (2) weeks following the date of receipt from the Contractor to the Architect.

1.12 DISTRIBUTION

- A. Distribute reproductions of the Shop Drawings and copies of Product Data which carry the Architect/Engineer stamp of review to:
 - 1. Job site file.
 - 2. Record Documents file.
 - 3. Other affected contractors.
 - 4. Subcontractors.
 - 5. Supplier or Fabricator.
- B. Distribute samples which carry the Architect/Engineer stamp of review as directed by the Architect/Engineer.
- C. Contractor will be required to submit a maximum of eight (8) copies of approved shop drawings to the Architect for distribution to other contractors for coordination.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 013300

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SECTION 013500 - SAFETY

PART 1 - GENERAL

1.1 SUMMARY

- A. It is recognized that the safety of all personnel is the responsibility of all participants involved directly in the construction of this Project. It is the contractual obligation of each Contractor to adhere to all requirements of the Occupational Health and Safety Act (OSHA), as well as Local and State safety rules and regulations. Each Contractor shall assure the safety of his personnel by providing all protection and safety devices, covers, etc. as they relate to the safe conduct of his work in accordance with all Local, State and Federal regulations. Each Contractor is responsible for any safety requirements that are contractually those of any Contractor.
- B. The General Contractor shall be designated as the "Lead Contractor" with respect to jobsite safety. Responsibilities and authority of the Contractor shall be as follows:
 - 1. This Contractor will be responsible to inspect and maintain safe working conditions on the jobsite.
 - 2. Where the work of one (1) Contractor places another contractor's workers in jeopardy, the "Lead Contractor" shall direct and coordinate the effort of the Contractors to ensure that jobsite safety is maintained.
 - 3. This contractor will maintain a "competent person" on site at all times designated to make safety inspections and to serve as the designated representative in charge of safety during the inspection by OSHA employees.
 - 4. This Contractor may direct another Contractor to make corrections in the event of a safety violation. Failure of another Contractor to take prompt action (within 24 hours following written notice) to correct a safety violation will empower this Contractor to make the necessary corrections and to receive full compensation for such corrections directly from the Owner. The Architect or the Owner's designated project representative will verify and provide documentation time and material expended to make corrections. The Owner in turn will recover the amount of expense from the offending Contractor through deduct Change Order.
 - 5. This Contractor's responsibilities and corresponding authority will be as defined in the General Conditions of the Contract for Construction.
 - 6. The individual Prime Contractors will maintain primary responsibility for the safety of their workers. The "Lead Contractor" will serve to identify areas of concern and will endeavor to accomplish required corrections

through cooperation of other Contractors. In the event this effort is unsuccessful, the "Lead Contractor" will take action as defined above.

7. The Owner will support the decisions and action taken by the "Lead Contractor" to maintain jobsite safety. The Owner will promptly make payment to the "Lead Contractor" when corrective action has been taken on behalf of an offending Contractor, and the "Lead Contractor" has provided appropriate documentation.
8. Lead Safety Contractor shall provide regular and periodic safety inspections and reports by an independent safety consultant. Inspections and reports shall be preformed at least once every three months.
9. Each contractor shall provide a safety representative who is trained in First Aid and CPR.

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION

3.1 ACCIDENTS

- A. The Contractor shall notify the Architect and the Owner's designated project representative of any personal injury that could require medical treatment of any Contractor or his subcontractor's employees at the project site. Also, any damage to property arising in connection with the Contractor's performance should be told to the Architect and the Owner's designated project representative as promptly as possible after the occurrence of such injury or damage but at the maximum 24 hours. Within 48 hours of such occurrence, the Contractor shall furnish to the Architect and the Owner's designated project representative a complete written report of such injury or damage. Accident Reports shall include specific actions taken by Contractor to preclude recurrence of similar incidents.

3.2 EMERGENCY DATA

- A. Each Contractor shall provide the Architect and/or the Owner's designated project representative with the following emergency data prior to beginning work at the project site:
 1. Emergency care facility to be utilized, address and telephone number.
 2. Insurance Company and local agent/name, address and telephone number.
 3. Detailed description of Overall Corporation or company safety program.
 4. Employees qualified in any type of first aid, list employee and associated skill.
 5. Detailed description of specifically tailored job site safety program.
 6. Identify corporate and job site safety officer.
 7. Submit weekly TOOL BOX SAFETY TALK program/meeting minutes including;

- a. Day of week.
 - b. Time of day.
 - c. Location.
 - d. Attendance record.
 - e. Agenda.
 - f. Unsafe items previously discussed, date of correction.
 - g. Identify on site personnel with FIRST AID training.
8. All applicable MSDS Program sheets. (Include numbered pages and table of Contents.)
9. Submit completed hazardous substance survey form.
10. Review project "Emergency Response Plan" with the Architect and the Owners designated representative.

3.3 SAFETY AGREEMENT

- A. Contractor shall review and comply with the following Safety Agreement before beginning work:

As a Contractor under this Contract, you have, by accepting this Contract, obligated yourself to conduct all your operations within this Safety Agreement

The Contractor agrees that the prevention of accidents to employees engaged in the Work under this Agreement is the responsibility of the Contractor.

The Contractor agrees to comply with all laws, regulations and codes concerning safety as shall be applicable to the Work and to the safety standards established during the progress of the Work. When so ordered, the Contractor agrees to stop any part of the Work which the "Lead Contractor" or any other applicable agency may deem unsafe until corrective measures satisfactory to, and in accordance with the applicable Federal and/or State regulations have been taken and further agrees to make no claim for damages growing out of such stoppages. Should the Contractor neglect to adopt such corrective measures, the Architect, through the Owner, may elect to hire an entity, perform the corrections and deduct the cost from payments due or to become due the Contractor.

The Contractor realizes that an effective accident prevention program is to the mutual benefit of all Contractors through improved employee and public relations and through increased efficiency and production. Further, no accident prevention activity can be truly effective without the sincere cooperation of each Contractor performing on the site. Your attention is directed, but not limited to the following items:

3.4 HOUSEKEEPING

- A. Indiscriminate accumulations of debris, waste or scrap in work areas will not be permitted. Contractor to designate specific area(s) or receptacles for storage or

disposal. All materials, tools and equipment must be stored in an orderly manner in designated areas.

3.5 PERSONAL PROTECTION EQUIPMENT

- A. Contractors must furnish their employees with the proper type of personal protective equipment as required by the operations being performed, including, but not necessarily limited to the following:
 - 1. Hard Hats must be furnished to employees and worn at ALL times when on this project, whether or not an overhead hazard exists or what state the project may be in.
 - 2. Appropriate attire must be worn at all times while employees are working on-site. Appropriate attire shall be, and in accordance with all applicable OSHA regulations.

3.6 SAFETY MEETINGS

- A. The Contractor is required to conduct and all employees are required to attend a "Tool Box" type safety meeting once a week minimum. The meetings may either be presided over by Contractor's foreman or another competent representative designated by the Contractor.

3.7 FIRE PROTECTION

- A. When necessary, the Contractor must supply approved type fire extinguisher for emergency use within his own immediate area of operation, including the Contractor's office, tool and storage enclosures.

3.8 TREATMENT OF INJURIES

- A. The Contractor shall require that all employees injured (no matter how slight) while working on this project, report immediately for First Aid Treatment. The Contractor shall maintain adequate First Aid Facilities in the field.

3.9 COOPERATION

- A. Any deviation from this course of action will be called to the attention of the Contractor for immediate correction. Conversely, the Contractor should call attention to any unsafe conditions or unsafe practice by other Contractors at the site.

3.10 INSTALLED SAFETY APPARATUS

- A. Each Contractor is responsible for the reinstallation of safety apparatus installed by other Contractors if removed to facilitate the installation of their own contract work.

3.11 WEAPONS POLICY

- A. All persons are prohibited from carrying, possessing or storing a handgun. Firearm, or weapon of any kind while on the project site regardless of whether the person has registered the weapon or is licensed to carry a concealed weapon.
- B. Failure to abide all terms and conditions of the policy will result in termination. Further, carrying any weapon onto the owner's property in violation of this policy will be considered an act of criminal trespass and possession of a weapon will be grounds for immediate removal of the person from the Project Site, and may result in prosecution.

3.13 RADIOS

- A. The playing of radios will not be permitted on this project during any time.

3.14 TOBACCO

- A. No tobacco products will be allowed on this job site at any time.

END OF SECTION 013500

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SECTION 014100 - REGULATORY REQUIREMENTS

PART 1 - GENERAL

1.1 DESCRIPTION OF REQUIREMENTS

- A. This section specifies procedural and administrative requirements for the compliance with governing regulations and imposed codes and standards, including the obtaining of permits, licenses, inspections, releases and similar requirements associated with regulations, codes and standards. "Regulations" is defined to include those rules, conventions and agreements within the construction industry which effectively control the performance of the work, regardless of whether lawfully imposed by governing authority.
- B. Refer to the General Conditions and Statutory Requirements for requirements related to the compliance with governing regulations.

1.2 RELATED REQUIREMENTS

- A. General Conditions of the Contract for Construction.
- B. Division 01 Section 014200 "Reference Standards and Definitions"

1.3 STANDARDS

- A. Except to the extent more explicit or more stringent requirements are written directly into the Contract Documents, applicable standards of the construction industry have the same force and effect (and are made a part of the Contract Documents by reference) as if copied directly into the Contract Documents, or as if published copies were bound herewith.
 - 1. Referenced standards, referenced directly in the Contract Documents or by governing regulations have precedence over non-referenced standards which are recognized in the industry for applicability to the work.
 - 2. Non-referenced standards are hereby defined to have no particular applicability to the work, except as a general measurement of whether work complies with standards recognized in the construction industry.
- B. Except as otherwise indicated, where compliance with an industry standard is required, comply with the standard in effect as of the date of the Contract Documents.
- C. Where compliance with two or more standards is specified, and the standards may establish different or conflicting requirements for minimum quantities or quality levels, implement the requirement which is of greater quality.
- D. The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. In complying with these requirements, indicated numeric values are minimum or maximum, as

appropriate for the context of the requirements. Refer uncertainties to the Owner's Project Representative for a decision before proceeding.

- E. Copies of Standards: Each entity engaged in construction on the project is required to be familiar with industry standards applicable to that entity's construction activity. Copies of applicable standards are not bound with the Contract Documents.
 - 1. Where copies of standards are needed for performance of a required construction activity, the Contractor shall obtain copies directly from the publication source.
- F. Abbreviations and Names: Trade association names and titles of general standards are frequently abbreviated. Where such acronyms or abbreviations are used in the Specifications or Contract Documents, they mean the recognized name of the trade association, standards generating organization, authority having jurisdiction, or other entity applicable to the context of the text provision. Refer to the "Encyclopedia of Associations", published by Gale Research Co., available in most libraries.

1.4 GOVERNING REGULATIONS/AUTHORITIES

- A. The procedure followed by the Architect/Engineer has been to contact governing authorities where necessary to obtain information needed for the purpose of preparing the Contract Documents, recognizing that such information may or may not be of significance in relation to the Contractor's responsibilities for performing the work. Contact governing authorities directly for necessary information and decisions having a bearing on the performance of the work. Advise the Construction Manager of any and all changes.
 - 1. Copies of Correspondence: During preparation of Contract Documents, the Architect/Engineer may have maintained a file of correspondence with governing authorities. This file may therefore be available at the A/E office for reference by bidders/contractors.
- B. The Contractor shall observe all laws and regulations, pertaining to his work including regulations of the Department of Commerce, the Department of Health, and any other local laws or ordinances, and shall furnish as required, any permits, licenses, and certificates and pay any fees incidental thereto.
- C. The Contractor shall comply with all applicable tax laws and shall pay for all permits, fees, and notices required in the performance of the work. The Contractor shall give all notices and comply with all applicable laws, ordinances, regulations, rules, and orders of any public authority bearing on the performance of the work. The Contractor shall be responsible for the acts and/or omissions of all his employees and all subcontractors, their agents and employees, and all other persons performing any of the work under a contract with the Contractor.
- D. The Contractor shall comply with all applicable, laws, ordinances, rules, regulations, and orders of any public authority having jurisdiction for the safety of persons or property or to protect them from damage, injury, or loss. Contractor shall erect and maintain as required by existing conditions and progress of the work, until the acceptance of the completion of their portion of the project, all reasonable safeguards for safety and protection, including posting danger signs and other warnings against hazards,

promulgating safety regulations and notifying Owners and users of adjacent utilities. In no event shall Owner have control over or be responsible for acts or omissions of the Contractor. At all times shall Contractor be the controlling employer responsible for the safety programs and precautions applicable to its own Work and the activities of other's work in areas designed to be controlled by Contractor. Contractor shall control the activities of its employees and any other persons or entities for whom Contractor is responsible. Contractor shall be liable for each hazardous condition which Contractor either creates or controls, whether or not the persons exposed to the hazard are the Contractor's employees or agents.

- E. In the event an action is undertaken against the Owner for violations of law as a result of conditions allegedly created or controlled in whole or in part by Contractor or its sub-contractors, regardless of their, or any other person or entity for whom Contractor is responsible, Contractor shall defend, indemnify and hold harmless the Owner and Construction Manager from any and all costs on damages which may be assessed as the result of such action, including attorney's fees and disbursements incurred in the defense and/or appeal of such action.

1.5 CODES AND REGULATIONS

- A. The Contractor shall comply with all Federal, State and Local codes and ordinances including, but not limited to, the following:
 - 1. 2018 North Carolina Building Code, and the locally adopted amendments, including all related 2018 North Carolina Codes.
 - 2. All New State Codes and Regulations
 - 3. NFPA - National Fire Protection Association.
 - 4. NEC - National Electrical Code
 - 5. EPA - Environmental Protection Administration
- B. The Contractor for the work hereunder shall be totally responsible for compliance with regulations established under the Federal Occupational Safety and Health Act of 1970 including agreements with the U.S. Department of Labor and the State of North Carolina under the State plan section of the act and any applicable amendments or revisions thereof whether associated with the furnishings or equipment and/or systems, the furnishing and installation of the equipment and/or systems, the construction of facilities, the performance of services or any other similar contractual relations.
- C. The Contractor shall be responsible and shall indemnify and hold harmless the Owner and Construction Manager for any violations of the Regulations including payment of costs involved with correction of violations, hearing or appeal procedures, claims and/or fines associated with said violations.

1.6 REGULATIONS GOVERNING ASBESTOS

- A. Should material known or suspected to contain asbestos be encountered, the Contractor shall cease operations in that area and notify the Owner's representative or Construction Manager immediately. In this event, the Owner will:
 - 1. Restrict or deny access to all or part of the site if deemed necessary for protection of workers and occupants during testing and removal operations.

2. Have material tested to verify presence or absence of ACM if such testing has not previously been performed.
 3. If ACM is present, contract to have the material removed by a qualified contractor in accordance with the latest applicable statutes and regulations of the State of New York and the latest rules and regulations of the United States Environment Protection Agency as they pertain to the emission of asbestos into the air during construction and demolition work.
- B. Should asbestos material be encountered on the job, each contractor shall comply with all of the latest statutes and regulations of the State of New York and all of the latest rules and regulations of the United States Environmental Protection Agency as they pertain to the emission of asbestos into the air during construction and demolition work and the disposal of material asbestos. Particular attention is drawn to Code of Federal Regulations, Title 40, Part 61, "Section 112 of Clean Air Act".
1. "Each contractor shall comply fully with the latest regulations of OSHA as they pertain to the protection of workers exposed to the emission of asbestos fibers and shall take all steps necessary to protect his employees, as well as all other people engaged in the building, from exposure to asbestos fibers resulting from his work."

1.7 SUBMITTALS

- A. For the Owner's records, submit copies of permits, licenses, certifications, inspection reports, releases, jurisdictional settlements, notices, receipts for fee payments, judgments, and similar documents, correspondence and records established in conjunction with compliance with standards and regulations bearing upon the performance of the work.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 014100

SECTION 014200 - REFERENCE STANDARDS AND DEFINITIONS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Abbreviations and acronyms used in Contract Documents to identify reference standards.

1.2 QUALITY ASSURANCE

- A. Application: When a standard is specified by reference, comply with requirements and recommendations stated in that standard, except when requirements are modified by the Contract Documents, or applicable codes establish stricter standards.
- B. Publication Date: The publication in effect on the date of issue of Contract Documents, except when a specific publication date is specified.

1.3 ABBREVIATIONS, NAMES, AND ADDRESSES OF ORGANIZATIONS

- A. Obtain copies of referenced standards direct from publication source, when needed for proper performance of Work, or when required for submittal by Contract Documents.
- B. The following, as appropriate to Project, is a list of reference standards and their mailing address for requesting copies of standards:

AA	Aluminum Association 900 19th Street, NW, Suite 300, Washington, DC 20006; 202/862-5100
AABC	Associated Air Balance Council 1518 K Street, NW, Suite 503, Washington, DC 20005 202/737-0202
AASHTO	American Association of State Highway & Transportation Officials 444 North Capitol St., Suite 225, Washington, DC 20001 202/624-5800
ACI	American Concrete Institute P.O. Box 19150, Detroit, MI 48219 313/532-2600
ADC	Air Diffusion Council 230 N. Michigan Avenue, Suite 1200, Chicago, IL 60601 312/372-9800
AI	Asphalt Institute Asphalt Institute Building, College Park, MD 20740

301/227-4258

AIA	American Institute of Architects 1735 New York Avenue, NW, Washington, DC 20006 202/626-7300
AISC	American Institute of Steel Construction 400 N. Michigan Avenue, 8th Floor, Chicago, IL 60611 312/670-2400
AISI	American Iron and Steel Institute 1000 16th Street, NW, Washington, DC 20036 202/452-7100
AMCA	Air Movement and Control Association 30 W. University Drive, Arlington Heights, IL 60004 312/449-2933
ANSI	American National Standards Institute 1430 Broadway, New York, NY 10018 212/354-3300
ARI	Air Conditioning and Refrigeration Institute 1501 Wilson Boulevard, Arlington, VA 22209 703/524-8800
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE, Atlanta, GA 30329 404/636-8400
ASME	American Society of Mechanical Engineers 345 East 47th Street, New York, NY 10017 212/705-7722
ASPE	American Society of Plumbing Engineers 3617 Thousand Oaks Blvd., Suite 210, Westlake, CA 91362 805/495-7120
ASSE	American Society of Sanitary Engineers P.O. Box 40362, Bay Village, OH 44140 216/835-3040
ASTM	American Society for Testing of Materials 1916 Race Street, Philadelphia, PA 19103 215/299-5400
AWI	Architectural Woodwork Institute 2310 S. Walter Reed Dr., Arlington, VA 22206 703/671-9100
AWPA	American Wood Preservers' Association P.O. Box 5283, Springfield, VA 21666 703/339-6660
AWS	American Welding Society

P.O. Box 351040, 550 LeJeune Road, NW Miami, FL 33135
305/443-9353

AWWA	American Water Works Association 6666 W. Quincy Ave., Denver, CO 80235 303/794-7711
CDA	Copper Development Association Box 1840, Greenwich Office Park 2, Greenwich, CT 06836 203/625-8210
CLFMI	Chain Link Fence Manufacturers Institute 1101 Connecticut Avenue, Washington, DC 20036
CRSI	Concrete Reinforcing Steel Institute 933 Plum Grove Road, Schaumburg, IL 60195 312/490-1700
CTI	Cooling Tower Institute 530 Wells Fargo Drive # 107 Houston, Texas 77090 713-583-4087 713-537-1721 fax
FM	Factory Mutual Engineering and Research 1151 Boston-Providence Turnpike, Norwood, MA 02062 617/762-4300
FS	Federal Specification General Services Administration Specifications and Consumer Information Distribution Section (WFSIS) Washington Navy Yard, Bldg. 197, Washington, DC 20407
GA	Gypsum Association 1603 Orrington Ave., Evanston, IL 60201 312/491-1744
MFMA	Maple Flooring Manufacturers Association 2400 East Devon, Suite 205, Des Plaines, IL 60018
MIL	Military Specification Naval Publications and Forms Center 5801 Tabor Avenue, Philadelphia, PA 19120

MSS	Manufacturers Standardization Society of valve and fitting industry. 127 Park St. N. E. Vienna, VA 22180
ML/SFA	Metal Lath/Steel Framing Association 600 S. Federal St., Suite 400, Chicago, IL 60605 312/346-1600
NAAMM	National Association of Architectural Metal Manufacturers 600 S. Federal St., Suite 400, Chicago, IL 60605 312/922-6222
NEBB	National Environmental Balancing Bureau 8224 Old Courthouse Road 4, Vienna, VA 22180
NEMA	National Electrical Manufacturers Association 2101 L St., NW, Suite 300, Washington, DC 20037 202/457-8400
NFPA	National Fire Protection Association 470 Atlantic Avenue, Boston, MA 02210
NFPA	National Forest Products Association 1619 Massachusetts Avenue, NW, Washington, DC 20036
NOFMA	National Oak Flooring Manufacturers Association 8 North Third St., 804 Sterick Bldg., Suite 810 Memphis, TN 38103 901/526-5016
NSF	National Sanitation Foundation P.O. Box 1468, 3475 Plymouth Road, Ann Arbor, MI 48106 313/769-8010
NSWMA	National Solid Wastes Management Association 1120 Connecticut Avenue, NW, Washington, DC 20036
NTMA	National Terrazzo and Mosaic Association 3166 Des Plaines Ave., Suite 132, Des Plaines, IL 60018 312/635-7744
OSHA	Occupational Safety and Health Administration Local Office: 49 N. Progress Avenue Harrisburg, PA 17109 717-782-3902
PCA	Portland Cement Association 5420 Old Orchard Road, Skokie, IL 20076
PCI	Prestressed Concrete Institute 201 N. Wells St., Chicago, IL 60606 312/346-4071
PS	Product Standard U.S. Department of Commerce, Washington, DC 20203

RCSHSB	Red Cedar Shingle and Handsplit Shake Bureau 515 116th Avenue, Bellevue, WA 98004
SDI	Steel Deck Institute P.O. Box 9506, Canton, OH 44711 216/493-7886
SDL	Steel Door Institute (c/o A.P. Wherry and Associates, Inc.) 712 Lakewood Center N. 14600 Detroit Avenue, Cleveland, OH 44107 216/226-7700
SIGMA	Sealed Insulating Glass Manufacturers Association 111 E. Wacker Dr., Chicago, IL 60601 312/644-6610
SJI	Steel Joist Institute 1205 48th Street, North, Suite A Myrtle Beach, SC 29577 803/449-0487
SMACNA	Sheet Metal & Air Conditioning Contractors National Association P.O. Box 70, Merrifield, VA 22116 703/790-9890
TAS	Technical Aid Series Construction Specifications Institute 1150 17th Street, NW, Washington, DC 20036
TCA	Tile Council of America P.O. Box 326, Princeton, NJ 08542 609/921-7050
UL	Underwriters Laboratories 333 Pfingsten Rd., Northbrook, IL 60062 312/272-8800

1.4 DEFINITIONS

Coordinate: The term "coordinate" means "to cooperate with related Prime Contractors to furnish and install all connections between the Prime in correct sequence size and location to create a complete system ready for intended use."

Verify: The term "verify" means "to measure, investigate, review, test, check the accuracy or correctness of and prove by demonstration, evidence, or testimony the location, size, dimension and condition of an item."

Furnish: The term "furnish" is used to mean "supply and deliver to the project site, ready for unloading, unpacking, assembly, installation and similar operations."

Install: The term "install" is used to describe operations at the project site including the actual "unloading, unpacking, assembly, erection, placing,

anchoring, applying, working to dimension, finishing, curing, performing, coordinating with other Prime, protecting, cleaning, and similar activities".

Provide: The term "provide" means "to furnish and install, complete and ready for its intended use.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 014200

SECTION 014500 - QUALITY CONTROL

PART 1 – GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Provision of specified Testing Laboratory Services.
- B. All testing is to be provided by the appropriate Contractor as required for their work unless otherwise noted.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS of the CONTRACT: Inspections, testing, and approvals required by public authorities.
- B. INDIVIDUAL SPECIFICATION SECTIONS: Inspections and tests required, and standards for testing.

1.3 DESCRIPTION

- A. The Contractor will coordinate and pay for concrete compressive strength testing, soils compaction testing, masonry testing and inspection, and structural steel field inspections for the purpose of quality assurance. All other required testing shall be coordinated and paid for by the Prime Contractor requiring such testing to complete their work.
- B. Employment of testing laboratory shall in NO WAY RELIEVE Contractor of obligation to perform Work in accordance with requirements of Contract Documents and to perform necessary testing and inspections for purposes of quality control.

1.4 REFERENCE STANDARDS

- A. American National Standards Institute (ANSI)/American Society for Testing and Materials (ASTM).
 - 1. ANSI / ASTM D3740 - Practice for Evaluation of Agencies Engaged in Testing and/or Inspection of Soil and Rock as used in Engineering Design and Construction.
 - 2. ANSI / ASTM E329 - Standard Recommended Practice for Inspection and Testing Agencies for Concrete, Steel, and Bituminous Materials as Used in Construction.

1.5 QUALITY ASSURANCE

- A. Comply with requirements of ANSI / ASTM D3740 and ANSI/ASTM E329.
- B. Testing Laboratory Qualification: Shall have been inspected by a nationally recognized inspection agency, acceptable to Architect/Engineer. Evidence of such inspection and current status shall be provided to Architect/Engineer. In addition, the approved lab shall document participation in a nationally recognized soils and concrete reference testing program during the twelve (12) months proceeding the start of work on this project. Results of reference testing shall indicate an average or above rating for the laboratory to be acceptable.
 - 1. Laboratory authorized to operate in State in which Project is located.
- C. Laboratory Representative: Laboratory shall maintain a full-time registered Engineer on staff to review services.
- D. Testing Equipment: Shall be calibrated at reasonable intervals with devices of an accuracy traceable to either NBS standards or accepted values of natural physical constants.

1.6 CONTRACTOR SUBMITTALS

- A. PRIOR TO START OF WORK, submit testing laboratory name, address, and telephone number, and names of full-time registered Engineer and responsible officer to Owner and Architect. Include qualification data to demonstrate their capabilities and experience.
- B. Submit copy of report of laboratory facilities inspection made by Materials Reference Laboratory of National Bureau of Standards during most recent tour of inspection, with memorandum of remedies of any deficiencies reported by the inspection.
- C. Schedule all tests and inspections, except concrete compressive strength tests, soils compaction tests and structural steel weld and bolt tests; prepare a schedule of tests, inspections and similar quality control services required by the Contract Documents. Submit schedule within 30 days of Notice to Proceed.

1.7 LABORATORY RESPONSIBILITIES

- A. Test samples of mixes submitted by Contractor.
- B. Provide qualified personnel at site after due notice; cooperate with Architect/Engineer, and Contractor in performance of services.
- C. Perform specified inspections, sampling, and testing of products in accordance with specified standards.
- D. Ascertain compliance of materials and mixes with requirements of Contract Documents.

- E. Promptly notify Architect and Contractor of observed irregularities or non-conformance of Work or products.
- F. Perform additional inspections and tests required by Owner and Architect/Engineer.
- G. Obtain samples at the Project Site or source of the materials to be tested.

1.8 LABORATORY REPORTS

- A. After each inspection and test, promptly submit four (4) copies of laboratory reports to Owner, Architect and to Contractor. Report shall include:
 - 1. Date issued.
 - 2. Project title and number.
 - 3. Name of inspector.
 - 4. Date and time of sampling or inspection.
 - 5. Identification of product and Specification section.
 - 6. Location of sample or test in the Project.
 - 7. Type of inspection or test. Date of test. Time of test.
 - 8. Results of tests and compliance with Contract Documents.

1.9 LIMITS ON TESTING LABORATORY AUTHORITY

- A. Laboratory MAY NOT release, revoke, alter or enlarge on requirements of Contract Documents.
- B. Laboratory MAY NOT approve or accept any portion of the Work.
- C. Laboratory MAY NOT assume any duties of the Contractor.
- D. Laboratory HAS NO authority to stop Work.

1.10 CONTRACTOR RESPONSIBILITIES

- A. Notify testing agencies at least 24 hours in advance of time when work that requires testing or inspection will be performed.
- B. Cooperate with laboratory personnel, and provide access to Work, and to manufacturer's facilities.
- C. Provide incidental labor and facilities to:
 - 1. Provide access to Work to be tested.
 - 2. To facilitate inspections and tests.
 - 3. Provide for proper storage and curing of test samples in accordance with direction from testing agency.

PART 2 - PRODUCTS (Not Applicable)

PART 3 - EXECUTION (Not Applicable)

END OF SECTION 014500

SECTION 015100 - TEMPORARY UTILITIES AND FACILITIES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section specifies requirements for temporary services and facilities including utilities, construction and support facilities, security and protection, as specified below. The scope of work includes installation, maintenance, and removal of utilities.
- B. Temporary utilities include, but are not limited to:
 - 1. The Plumbing Contractor shall furnish temporary water service and distribution, if required, to Contractor's field offices.
 - 2. Temporary utilities for the field office are to be provided at the location noted on the Contract Documents or as directed by the Owner's project representative. This includes all work associated with the temporary electric to this location. General Contractor will make arrangements with the Electrical Contractor to have any and all trailers connected into the temporary electrical service. The Contractors will be responsible to pay all the labor and material costs and any connection fees used to connect the trailer.
 - 3. The Electrical Contractor shall, if requested by the General Contractor, provide temporary telephone cabling including surge and lightning protectors at the field offices. Electrical Contractor shall provide adequate telephone cable from an existing Telephone Company pole to central location near the field offices. Install cabling on proposed temporary electric service poles that will be installed as part of this contract. Electrical Contractor shall provide terminations and required hardware and include any Telephone Company connection fee in the base bid. Individual Contractors shall provide all wiring and costs from central location to trailers, along with telephones and fax machines. The Contractor shall be responsible for their own monthly telephone bills. Temporary power for electric services shall be provided at the locations or as directed by the Architect and/or Owner's designated project representative. This includes all work associated with the temporary electric to these locations.
 - 4. The Electrical Contractor shall provide 200 amp, 277/480V, 3-phase service, including 200 amp 277/480V panelboard, step-down transformer, 200 amp 120/208V, and all feeders and breakers as required located on a service pole near the General Contractor's trailer. The Electrical Contractor shall provide temporary electric for the trailer in accordance with OSHA, NEMA and UL compliance installed per the National Electrical Code. Provide two (2) dusk to dawn light fixtures (500 watt min.) located on temporary poles at the lay down area. Refer to the site logistics for additional information. Coordinate equipment location with the Owner's designated representative.

C. Temporary Construction and Support Facilities required include, but not limited to:

1. Temporary heating, dehumidification and ventilating of the building following enclosure shall be furnished by, General Contractor unless otherwise noted in the summary of work. Including but not limited to dehumidification required to install flooring, acoustical, millwork & casework.
2. Field offices and storage facilities shall be provided by each Contractor. Locations will be coordinated with the Architect and/or Owner's designated project representative. A Site Utilization Plan shall be developed by the Contractors and Owner's Representative following the Preconstruction Meeting.
3. Temporary parking lots & laydown areas shall be provided by General Contractor for the duration of the project.
4. Temporary sanitary facilities shall be provided by General Contractor.
5. Temporary building enclosure shall be provided by General Contractor unless noted otherwise in the summary of the work. This is to include all temporary window openings and temporary doorways and roof openings required to ensure temporary weather protection throughout the duration of the project.
6. General Contractor shall provide for hoisting and scaffolding.
7. Temporary project identification signs, including signs for directions, warnings, deliveries and safety shall be provided, posted, and maintained by General Contractor and shall be coordinated by the Architect and/or Owner's designated project representative.
8. Each Contractor shall furnish their own safety and first aid supplies.

D. Security and Protection Facilities required included, but are not limited to:

1. General Contractor shall provide all temporary fire protection and extinguishers and all updated inspections of the same.
2. The General Contractor shall provide barricades, warning signs, and lights.
3. Environmental protection shall be provided by all Trades.
4. Temporary Site Security Fence and Gates shall be provided by the General Contractor.
5. Securing of the building and property shall be provided by General Contractor.
6. Temporary ladders, and temporary railings will be installed and maintained at all openings and building perimeter, as required by OSHA. This will be the responsibility of the General Contractor. Roof perimeter protection shall be provided by General Contractor.
7. Special requirements for ventilation & exhaust are the responsibility of the General Contractor requiring ventilation for their work.
8. General trades contractor to provide temporary fencing on site. It must be maintained during the process and removed after completion of that work.

E. Quality Assurance

1. Regulations: All trades shall comply with industry standards and applicable laws and regulations of authority having jurisdiction, including but not limited to:
 - a. Town of Louisburg, County and State Building Code Requirements.
 - b. State building codes.
 - c. Health and Safety Regulations.
 - d. Utility Company Regulations.
 - e. Police, Fire Department, and Rescue Squad rules.
 - f. Environmental Protection Regulations.

- F. Inspections: The Contractor furnishing the temporary utility shall arrange for authorities having jurisdiction to inspect and test each temporary utility before use and obtain required certifications, fees and permits. Provide copies of the results of all inspections and tests to the Owner and Architect and/or Owner's designated project representative.

1.3 PROJECT CONDITIONS

- A. Conditions of Use: General Contractor shall keep temporary services and facilities clean and neat in appearance. Operate in a safe and efficient manner. Take necessary fire prevention measures including all required 'Fire-Watches'. Do not overload facilities or permit them to interfere with progress. Do not allow hazardous or unsanitary conditions or public nuisances to develop or persist on the site. Report any unsafe conditions noticed to the General Contractor and to the Architect and/or Owner's designated project representative immediately.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. General: Provide new materials or, if acceptable to the Architect and Architect and/or Owner's designated project representative beforehand, undamaged previously used materials in serviceable condition may be used for temporary construction. Provide materials suitable for the use intended.
- B. Lumber and Plywood: Comply with requirements in Division 6, Section "Rough Carpentry".
- C. Tarpaulins: Provide waterproof, fire-resistant, UL labeled tarpaulins with flame spread rating of 15 or less. For temporary enclosures, provide translucent nylon reinforced laminated polyethylene or polyvinyl chloride fire retardant tarpaulins.
- D. Water: Provide potable water approved by local Health Authorities. Contractor is responsible for providing potable water as approved by local health authorities for their personnel.
- E. Construction Safety Fence: Four-foot (4') high plastic orange fence and approved supports as required. Removal by installed party at work completion.
- F. Site Security Fence: Provide eight-foot (8') high chain link fence. Posts shall be either driven or have movable bases. Provide 20'-0" wide vehicular entrance gates where indicated and/or coordinated with Architect and Owner. Contractor is to provide fence, gates and locks as required. Rental for said fencing shall be for the duration of the project. Should the fencing be reduced and or removed prior to the

completion of the project, the Contractor shall provide the appropriate credit to the Owner for the unused portion of the rental fees. All temporary fences and gates to be in new condition.

2.2 EQUIPMENT

- A. General: Provide new equipment or, if acceptable to the Architect and/or Owner's designated project representative, undamaged previously used equipment in serviceable and safe condition may be used for temporary construction. Provide equipment suitable for use intended.
- B. Water Hoses: The Plumbing Contractor shall provide 3/4" heavy duty abrasion resistant, flexible rubber hoses 200-feet long, with pressure rating greater than the maximum pressure of the water distribution system. Provide adjustable shut off nozzles at hose discharge. Additional hose bibs will be located and maintained at entrances and exits for construction vehicles.
- C. Electrical Outlets: The Electrical Contractor shall provide properly configured NEA polarized outlets to prevent insertion of 110-120 volt plugs into higher voltage outlets. Provide receptacle outlets equipped with ground fault circuit interrupters, reset button and pilot light, for connection of power tools and equipment. EC will also supply and furnish any 3 phase power requirements for other trades, i.e. welding equipment.
- D. Electrical Power Cords: Contractor shall provide grounded extension cords. Use hard service cords where exposed to abrasion and traffic. Provide waterproof connectors to connect separate lengths of electric cords, if single lengths will not reach areas where Construction activities are in progress. Do not exceed safe length-voltage ratio.
- E. Lamps and Light Fixtures: The Electrical Contractor shall provide rough service incandescent lamps of wattage required for adequate illumination. Provide guard cages or tempered glass enclosures, where exposed to breakage. Provide exterior fixtures where exposed to moisture. Electrical Contractor shall provide rough service incandescent lights of wattage no less than 150 watts in each room and on each landing. Lighting and receptacles will not be on the same circuits. EC will also maintain all lighting throughout the project duration.
- F. Heating Units: Provide temporary heating units that have been tested and labeled by UL, FM, or another recognized trade association related to the type of fuel being consumed. No open flame allowed.
- G. Temporary Office: Provide pre-fabricated or mobile units or similar job built Construction offices with lockable entrances, operable window and serviceable finishes. Provide heated and air-conditioned units on foundations adequate for normal loading. All utilities will be included and maintained, cleaned up until final completion.
- H. Temporary Toilet Units: Provide self-contained single occupant toilet units of the chemical, aerated re-circulation, or combustion type, properly vented and fully enclosed with a glass fiber reinforced polyester shell or similar non-absorbent material. Provide one (1) unit for every fifteen (15) workmen/workwomen on the project. There will be no use of building toilet.
- I. First Aid Supplies: All Contractors shall comply with governing regulations. All Contractors shall have a first aid kit and comply with all governing regulations.

- J. Fire Extinguishers: Provide hand carried, portable UL rated, Class "A" Fire extinguishers for temporary office and similar spaces. In other locations, provide hand carried, portable, UL rated, Class "ABC" dry chemical extinguishers, or a combination of extinguishers of NFPA recommended classed for the exposures. Comply with NFPA 10 classification, extinguishing agent and size required by location and class of fire exposure. Inspections testing certifications are by the trade contractor.

PART 3 - EXECUTION

3.1 TEMPORARY UTILITY INSTALLATION

- A. Use qualified personnel for installation of temporary facilities. Locate facilities where they will serve the project adequately and result in minimum interference with performance of the work. Relocate and modify facilities as required.
- B. Provide each facility ready for use when needed to avoid delay. Maintain and modify as required. Do not remove until facilities are no longer needed or are replaced by completed permanent facilities that have been authorized for use.
- C. Permanent Facility Warranties: Use of permanent facilities prior to substantial completion shall not reduce the one (1) year warranty period for permanent facilities from the date of substantial completion. This includes, but is not limited to, HVAC systems, electrical systems and plumbing systems and elevator.
- D. Water Service: The Plumbing Contractor to connect to the domestic water service and shall also install distribution piping of sizes and pressures adequate for construction until permanent water service is in use. Provide 3/4" hose bib termination at each area of construction work, located so that any area of the building construction can be reached with a 200-foot length of hose.
 - 1. Sterilization: Sterilize temporary water piping prior to use.
 - 2. Protect system from freezing.
 - 3. Maintain 30 psig. Water pressure with 12 gpm. flow rate.
 - 4. Provide a three quarter inch (3/4") ground hydrants, stone drain base, required anchors and support, three feet (3'-0") burial depth and a three quarter inch (3/4") hose bib connection. Underground mains to have a minimum of three feet (3'-0") of cover. Provide required isolation valves and "Non-Potable Water" signs. Maintain for entire construction period or until directed by the Architect and/or Owner's designated project representative to remove and then remove and restore area.
 - 5. General Contractor shall pay for all temporary water consumption and hookup fees throughout the course of construction until substantial completion.
- E. Temporary Electric Power Distribution
 - 1. As soon as Architect and/or Owner's designated project representative notifies the Contractor after the start of the work at the project site, the Electrical Contractor shall provide temporary electrical power distribution system, sufficient to accommodate temporary lighting and construction operations including the use of power tools, but not including heavy duty electrical welding units, terrazzo grinders, elevator, electrical heating units, and start up of specified building equipment which must be tested, started or placed into use prior to completion of its permanent power connections,

Provide weatherproof, grounded wiring with overload protection, with direct wired connections, where feasible, and for all voltages over 120 volts. Locate multiple outlets, not less than 4 gang, where not already accessible in the building, spaced so that entire area of construction can be reached by power tools on a single extension cord of 100' maximum length.

- a. The Contractor shall pay for all project power usage including hookup fees and field offices until substantial completion. This shall include power consumption through the permanent electrical service.
- b. The Electrical Contractor will install new metering as required and or directed by the local Power Company.
- c. All Field Office trailer power usage and lighting is part of the project power usage.
- d. Electrical Contractor shall provide and pay for all installation, maintenance, servicing, operation and supervision of lines installed unless other wise noted.
- e. The Electrical Contractor shall provide service with ground fault circuit interrupter feature, activated from each circuit of 20 amp or less rating.
- f. Where a service of a type other than herein mentioned is required, the Contractor requiring the same shall install and pay all costs for such special service, including power requirements for temporary offices. Each Contractor shall also be responsible for their own generator for temporary electric where power cannot be obtained within a reasonable distance from the temporary electric services indicated on the Site Utilization Plan.
- g. As permanent power distribution system is accepted as substantially complete, either entire system or usable portions thereof, the Electrical Contractor shall make suitable provisions for temporary use thereof, and remove unused portions of temporary system including old wire and hangers, etc.
- h. The Electrical Contractor shall maintain and operate permanent electrical supply and distribution system until time of final acceptance and transfer of operation to Owner's personnel.
- i. The Electrical Contractor shall provide the necessary wiring and circuit breakers for the connection of temporary dehumidification units, if required, to closest new panel box location having ample power to run units.

F. Temporary Lighting

1. Electrical Contractor shall provide temporary lighting with local switching throughout each phase of construction. Furnish and install sufficient lighting to ensure proper workmanship everywhere by combined daylight, general lighting and portable plug-in task lighting. Electrical Contractor shall provide rough service incandescent or compact fluorescent lights of wattage no less than 150 watts in each room on each landing and or a minimum of 15 foot-candles. Lighting and receptacles shall not be on the same circuits.
2. Limit lighting installation to intensities which will accommodate normal access and workmanship requirements, recognizing that each Individual Contractor performing work requiring higher intensity lighting will provide supplementary plug-in temporary lighting and localized areas where such

work is in progress.

3. As permanent lighting system is substantially complete, for each area or usable portion thereof make suitable provisions for temporary use thereof and remove unused portions of all temporary lighting systems.
4. Electrical Contractor shall maintain and operate permanent lighting system until time of final acceptance and transfer of operation to Owner's personnel.
5. Electrical Contractor shall replace all lamps in permanent light fixtures that are burned out or noticeably dimmed by substantial use. Must be maintained regularly.

G. Temporary Electric Overhead Service

1. The following description of the overhead pole service scope is not a complete description of the Electrical Contractors requirements or obligations. The Electrical Contractor is reminded to review and familiarize themselves with all relevant Contract Documents including the site plans. Coordinate equipment locations with the Owner's designated project representative. It is highly recommended that the Electrical Contractor visit the existing site to familiarize himself with existing conditions prior to submitting a bid. The Electrical Contractor will be responsible to coordinate and verify that any existing overhead Electrical Lines be protected from construction, if required and coordinated upon completion.
2. The Electrical Contractor shall provide (1) 225 amp 120/208 3 phase service or one (1) 200 amp single phase service panel located on a service pole near the General Contractor's trailer. The Electrical Contractor shall provide temporary electric in accordance with OSHA, NEMA and UL compliance installed per the National Electrical Code. Provide two (2) dusk to dawn light fixtures (500 watt min.) located on temporary poles at the lay down area. Refer to the site plans for additional information. Coordinate equipment location with the Owner's designated project representative.
3. Furnish and install necessary hangers, supports, conduit, cabling, ground rods, grounding, disconnect switches, transformers, wall penetrations, poles, backboards, hardware, guy wires, anchors, etc required for overhead electric service.
4. Furnish and install necessary hangers, supports, conduit, cabling, ground rods, grounding, disconnect switches, transformers, wall penetrations, poles, backboards, hardware, guy wires, anchors, etc required for overhead electric services.
5. Provide an electrical inspection agency for the temporary electric pole service. Provide copies to the Architect and/or Owner's designated project representative.
6. The Electrical Contractor shall patch construction materials where temporary power has penetrated walls including brackets and support hardware. Landscape, grass areas, paved areas, concrete, etc where temporary poles were removed or underground duct banks installed shall be restored to the original or new surface.

H. Storm Sewers and Drainage

1. Comply with the soil erosion and sedimentation control plan and locate authorities having jurisdiction.

3.2 TEMPORARY CONSTRUCTION AND SUPPORT FACILITIES INSTALLATION

A. General

1. Locate field offices, storage, sanitary facilities, and other temporary construction and support facilities for easy access and as directed by the Architect and/or Owner's designated project representative.
2. Provide noncombustible construction for offices, shops, and sheds located within the construction area, or within 30 feet of building lines.

B. Temporary Heating, Ventilating and Air Conditioning

1. Once the structure is enclosed, the General Contractor shall provide temporary heat, ventilation, dehumidification as necessary or required by construction activities, for curing or drying of completed installation or protection of installed construction from adverse effects of low or high temperatures or high humidity. The Architect and Architect and/or Owner's designated project representative will determine when the building is considered enclosed. The minimum requirements for enclosure will be when the block walls are erected, the roof insulation is on, and all openings are either temporarily or permanently filled. It is the responsibility of the General Contractor to make the building enclosed as soon as feasible and in accordance with the project schedule and/or as recommended by the Architect and/or Owner's designated project representative. Fire Alarm systems must be operational for all equipment that will be in operation.
2. Select safe equipment that will not have a harmful effect on completed installations or elements being installed. Coordinate ventilation and exhaust requirements to produce the ambient condition required and minimize consumption of energy once the structure is enclosed.
3. Once the structure is enclosed, maintain acceptable temperatures to allow for the installation of all finishes and a minimum temperature of 55 degree F inside temperature when the outside temperature is 0 degree F.
4. Provide temporary humidity control for installation of materials requiring permanently conditioned spaces (acoustic ceiling, flooring, casework etc).
5. Provide vented self-contained LP gas or fuel oil heaters with individual space thermostatic control. Use of electric resistance, gasoline burning space heaters, open flame, or salamander type heating units is prohibited. General Contractor shall not be permitted to use the permanent HVAC system for temporary heat, ventilating or air conditioning.
6. The General Contractor shall pay for all fuel and electricity required for providing temporary heat and air conditioning.
7. The General Contractor shall remove all soot, smudges, and other deposits from the walls, ceilings, and all exposed surfaces that are the result of the use of temporary heating equipment including the use of the permanent heating system for temporary heat purposes. The General Contractor shall not do any finish work until all such surfaces are properly cleaned.

8. The HVAC contractor shall replace all the filters in the air handlers during the temporary heat and A/C period on an as needed basis as determined by the Owner's designated project representative.
- C. Temporary Ventilation: The trade requiring ventilation for work to expel fumes or to provide circulation of air is required to provide their own methods to induce the circulation or ventilation.
- D. Field Offices
1. Contractors may, at their own option and expense including utilities, provide offices for their personnel if there is room available on site. General Contractor must maintain on the site a copy of all Contract Documents, Change Orders, supplemental drawings, shop drawings, and submissions, and a set of as-built prints.
 2. Each Contractor shall maintain in their field office all OSHA required up to date Hazardous Communications Standards, MSDS information and emergency phone numbers and contract information.
 3. The General Contractor must provide a construction trailer with conference space capable of holding all project meetings and Owners Staff Reps. Space and/or trailer will be no smaller than 500 sq.ft.
- E. Storage and Fabrication Sheds: Contractor shall provide storage and fabrication sheds or trailers, sized, furnished, and equipped to accommodate materials and equipment involved, including temporary utility service. Sheds may be open shelters or fully enclosed spaces and lockable. Coordinate locations with Architect and/or Owner's designated project representative.
- F. Temporary Roads and Laydown Areas
1. General Contractor shall maintain and protect existing roads to adequately support the indicated loading and to withstand exposure to traffic during the construction period. Locate temporary roads, storage areas, and parking where the same permanent facilities will be located.
 2. General Contractor will be responsible for any snow or ice removal at all roads within the bounds of the Contractor's Scope of Work, lay down areas and building footprint, if applicable. Should the General Contractor create elevation changes due to the removal of mud or other unstable materials, the General Contractor shall restore these areas to design elevations prior to the placement of topsoil or the installation of any non-pervious materials. See Paragraph 3.2.N of this section for additional information on snow removal.
 3. General Contractor shall clear topsoil, grade and provide stone base for temporary construction activities. Areas include space designated for Field Offices and for material storage and laydown. General Contractor will maintain areas during construction and will restore areas to original condition, or as provided for in Contract Documents, at the end of Project.
 4. Paved surfaces on the project are intended to be used for laydown, parking and storage as indicated on the site logistics plan. The General Contractor shall protect these areas. Upon substantial completion of the renovation, the General Contractor shall inspect the surfaces for soft spots. If identified these areas shall be repaired at no additional cost to the owner prior to the

placement of the wearing surface. General Contractor shall clean asphalt binder and apply tack coat prior to installation of final wearing surface.

G. Sanitary Facilities

1. General Contractor shall provide temporary toilets. Comply with regulations and health codes for the type, number, location, operation and maintenance of fixtures and facilities. Install where facilities will best serve the Project's needs at a rate of one (1) unit for every fifteen (15) workmen.
 - a. Provide toilet tissue and similar disposable materials for each facility.
2. Toilets: Install self contained toilet units of appropriate quantity dictated by manpower on site. Shield toilets to ensure privacy. Use of pit type privies will not be permitted. Provide means of locking toilet facilities when construction is not in progress.
 - a. Provide separate facilities for male and female personnel when both sexes are working in any capacity at the project site.
3. Drinking Water Facilities: Each Prime Contractor shall provide containerized tap dispenser bottle water type drinking water units, including paper supply. Where power is accessible, provide electric water coolers to maintain dispensed water temperature at 45 degrees to 55 degrees F.

H. Dewatering Facilities and Drains

1. Plumbing Contractor shall provide temporary storm water drainage lines within the building, including roof drainage and downspout collection from the existing roof to bring it outside the building until permanent drainage lines are installed and shall remove storm water from building to an approved discharge area.

I. Temporary Enclosures

1. The General Contractor shall provide temporary enclosure, which shall include window openings, door openings or any other openings in the exterior wall or roof. The definition of enclosed structure shall mean the block walls shall have been run and the roof decking and the roof insulation will have been installed before temporary heat and enclosures are to begin. All activities are to be under the approval of the Architect and/or Owner's designated project representative and building enclosures shall take place in the time frame as determined by the General Contractor and shall be provided in phases as required.
2. Where heat is needed and the permanent building enclosure is not complete, each Prime Contractor shall provide temporary enclosures where there is not other provision for containment of heat. Coordinate enclosure with ventilating and material drying or curing requirements to avoid dangerous conditions an effects.
3. Install tarpaulins securely with fire retardant wood framing and other materials. Close openings of 25 square feet or less with plywood or similar materials.
4. Dust control partitions are to be provided by the Contractor who is creating dust and dirt in order to protect the surrounding conditions. Contractors are required to clean up debris caused by any operation.

5. Temporary partitions, including relocation and removal, will be provided by the General Contractor for phased construction, as directed by the Architect and/or Owner's designated project representative.
 6. Interior temporary partitions will be constructed as directed by the Architect and/or Owner's designated project representative to include 1/2" plywood on 2 x 4 framing, insulated, with plastic to contain dust (if required), and from floor to deck (if required).
- J. Temporary Lifts and Hoists: Truck cranes and similar devices used for hoisting materials are considered "tools and equipment", and shall be provided by the Contractor requiring same. Owner will require Insurance Certificates and inspection certificates.
- K. Project Identification and Temporary Signs
1. General Contractor shall provide project identification and other signs of the size indicated. Install signs where indicated to inform the public and persons seeking entrance to the Project. Support on posts or framing of preservative treated wood or steel. Owner will not permit installation of unauthorized signs and/or advertising.
 2. Provide one (1) project identification sign erected on the site, where directed to identify the project. Sign shall include Project Name, Owner's Name, Architect's Name, Architect and/or Owner's designated project representatives Name, all Engineers names, and the names of all Prime Contractors. Refer to contract drawings for the project signs layout, construction, colors, lettering style and specifications. Owner approval prior to ordering/installation.
 3. Engage an experienced sign painter to apply graphics.
 4. Temporary Signs: Furnish and install signs to provide directional information to construction personnel and visitors.
 5. Project Safety Sign: General Contractor shall provide a 4' x 8' plywood temporary safety sign mounted on 2-4 "x4"x10' posts. Sign shall be professionally painted and shall contain safety language as agreed upon with the Architect and/or Owner's designated project representative.
 6. General Contractor to submit for approval a list of project signage prior to ordering and installation. If at any time signage will need to be replaced, the GC will replace them at no cost to the Owner.
- L. Collection and Disposal of Waste
1. The General Contractor shall serve as the lead contractor for coordinating and maintaining a clean project site.
 2. Contractor is responsible for general clean up and trash removal resulting from the work or employees of that contract. The General Contractor shall provide all dumpster(s) as required for the purpose of trash removal for all Contractors and Owner's contractors and vendors. Hazardous materials shall not be placed in dumpster but should be removed from site by Contractor responsible for the material. Do not hold materials more than seven (7) days during normal weather or three (3) days when the temperature is expected to rise above 80 degrees F. (27 degrees C).

Handle hazardous, dangerous, or unsanitary water material separately from other waste, by containerizing properly. Dispose of material in a lawful manner.

3. It shall be the General Contractor's responsibilities to broom sweep the project on a weekly basis including trailers and cleanup of laydown areas. This does not eliminate the responsibility of other Contractors for clean up of material and waste caused by their actions or installation of work.
 4. In a case where a Contractor fails to adequately clean up, the General Contractor shall notify the Architect and/or Owner's designated project representative and the violating contractor, in writing. The notification shall include the name of the Prime Contractor(s), and indicate the areas of the project that are in violation. Upon review, the Architect and/or Owner's designated project representative may take corrective action, and back-charge the responsible Prime Contractor without further written notification to the violating contractor.
 5. Contractor is responsible to maintain a clean, safe and organized site. This includes, but is not limited to, clean up on an as needed basis, but not less than weekly as coordinated by the Architect and/or Owner's designated project representative.
 6. If cleaning is not being performed in an acceptable manner to the Owner and all parties relax at this requirement, the Owner has the right to hire a third party cleaning company and back charge all prime contractors for the cost of this work.
- M. Debris Control: The General Contractor shall daily clean all mud, dirt, and debris resulting from all trades operations from the adjacent streets, sidewalks, drives, parking areas and shall repair all damage caused by the cleaning when the Site Contractor is on site. The General Contractor is responsible once the Site Contractor is no longer on the site.
- N. Snow Removal
1. The General Contractor is responsible for snow removal to allow access to the building, contractor parking area and site for construction activities, until demobilization.
 2. The General Contractor is responsible for snow removal within the bounds of the project Scope of Work
 3. The General Contractor will be responsible for snow removal and material protection as required to execute roofing work.

3.3 SECURITY AND PROTECTION FACILITIES INSTALLATION

- A. Do not change over from use of temporary security and protection facilities to permanent facilities until substantial completion or longer if requested by the Architect, except for the use of the permanent fire protection which shall be put into use as soon as available.
- B. Temporary Fire Protection: Until fire protection needs are supplied by permanent facilities, the General Contractor shall install and maintain temporary fire protection facilities of the types needed to protect against reasonable predictable and controllable fire losses. Comply with NFPA 10 "Standard for Portable Fire

Extinguishers".

1. Locate fire extinguishers where convenient and efficient for their intended purpose, but not less than two (2) extinguishers on each floor or 1 at each usable stairwell whichever is greater.
 2. Store combustible materials in containers in fire safe locations.
 3. Maintain unobstructed access to fire extinguishers, fire hydrants, temporary fire protection facilities, stairways, and other access routes for fighting fires. Prohibit smoking in hazardous fire exposure areas.
 4. Provide supervision of welding operations, combustion type temporary heating units, and similar sources of fire ignition.
 5. Each Prime Contractor is responsible for providing fire protection mats, a man assigned to fire watch, temporary fire extinguishers, and proper notification to other trades during any welding process.
- C. Permanent Fire Protection: At the earliest feasible date in each area of the project, the respective Prime Contractor shall complete installation of the permanent fire protection facility, including connected services, and place into operation and use. Instruct key personnel on use of facilities. Provide attendance record of each contractor's attendance to the Owner.
- D. Barricades, Warning Signs and Lights: The General Contractor shall comply with standards and code requirements for erection of structurally adequate barricades. Paint with appropriate colors, graphics, and warning signs to inform personnel and the public of the hazard being protected against. Where appropriate and/or needed, provide lighting including flashing red or amber lights.
- E. Security Enclosure and Lock Up
1. The General Contractor shall install substantial temporary enclosure of partially completed areas of construction. Provide locking entrances to prevent unauthorized entrance, vandalism, theft and similar violations of security. Owner will not be responsible for any loss.
 2. Each Prime Contractor is responsible for the secure storage to their own material and equipment on and off the site. Owner will not be responsible for any loss.
- F. Environmental Protection: Provide protection, operate temporary facilities and conduct construction in ways and methods that comply with environmental regulations, and minimize the possibility that air, waterways, and subsoil might be contaminated or polluted or that other undesirable effects might result. Avoid use of tools and equipment, which produce harmful noise. Restrict use of noise making tools and equipment to hours that will minimize complaints from persons or firms near the site.

3.4 OPERATION, TERMINATION AND REMOVAL

- A. Supervision: Enforce discipline in use of temporary facilities. Limit availability of temporary facilities to essential and intended uses to minimize waste and abuse.
- B. Maintenance: Maintain temporary facilities in good operating condition until removal. Protect from damage by freezing temperatures and similar elements. Maintain operation of temporary enclosures, heating, cooling humidity control, ventilation and

similar facilities on a twenty four (24) hour day basis where required to achieve indicted results and to avoid possibility of damage.

1. Protection: Prevent water filled piping from freezing. Maintain markers for underground lines. Protect from damage during excavation operations.
- C. Termination and Removal: Unless the Architect or Architect and/or Owner's designated project representative request that it be maintained longer, remove each temporary facility when the need has ended. This is normally when replaced by authorized use of a permanent facility or no later than substantial completion. Complete, or if necessary, restore permanent construction that may have been delayed because of interference with the temporary facility. Repair damaged work, clean exposed surfaces and replace construction that cannot be satisfactorily repaired.
1. Materials and facilities that constitute temporary facilities are property of the Contractor. The Owner reserves the right to take possession of project identification signs.
 2. General Contractor shall remove soil and aggregate fill that does not comply with requirements for fill or subsoil in the area. Remove materials contaminated with road oil, asphalt, other petrochemical compounds, and other substances, which might impair growth of plant materials or lawns. Repair or replace street paving, curbs and sidewalks at the temporary entrances, as required by the governing authority.
- D. At Substantial Completion, clean and renovate permanent facilities that have been used during the construction period. Including but not limited to:
1. The HVAC Contractor shall replace air filters and clean inside of ductwork and housings.
 2. The HVAC Contractor shall replace significantly worn parts and parts that have been subject to unusual operating conditions.
 3. The Electrical Contractor shall replace lamps that are burned out or noticeably dimmed by substantial hours or use.

All Contractors, Vendors and Material Suppliers will be required to meet all Local Ordinances and Regulations that are mandatory for working in their surrounding areas. The ordinances will be enforced by the surrounding government authorities.

END OF SECTION 015100

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SECTION 015800 – PROJECT IDENTIFICATION AND SIGNS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. General Trades Contractor shall provide temporary on-site information signs:
 - 1. As may be required by local codes, laws and regulatory agencies.
 - 2. To identify key elements of the construction facilities.
 - 3. To direct traffic.
 - 4. To facilitate trade gate system if required.
 - 5. Provide other signs as may be required such as No Trespassing, No Parking, Safety Signs, and directional signs as directed by the Architect.
 - 6. Project Identification Sign – See details included in Bid Documents.
- B. Remove signs on completion of construction or as directed by Architect.
- C. Allow no other signs to be displayed.

1.2 RELATED REQUIREMENTS

- A. Section 011200 – CONTRACT SUMMARY

1.3 INFORMATION SIGNS

- A. Painted signs with painted lettering, or standard products.
 - 1. Size of Signs and Lettering: As required by regulatory agencies, or as appropriate to usage.
 - 2. Colors: As required by regulatory agencies, otherwise of uniform color throughout Project.
- B. Erect at appropriate locations to provide required information or as directed by Architect.

1.4 QUALITY ASSURANCE

- A. Sign Painter: Professional Experience in type of work required.
- B. Paint Finishes: Adequate to resist weathering and fading for scheduled construction period.

1.5 PROJECT PROFESSIONAL SIGNS

- A. Install and maintain signs provided by Architect as required by Architect.

PART 2 - PRODUCTS

2.1 SIGNS MATERIALS

- A. Structure and Framing: May be new or used, wood or metal, in sound condition structurally adequate to work and suitable for specified finish.
- B. Sign Surfaces: Exterior softwood plywood with medium density overlay, standard large sizes to minimize joints.
 - 1. Thickness: In accordance with details
- C. Rough Hardware: Galvanized.
- D. Paint: Exterior quality, as specified in Section 099100.
 - 1. Use Bulletin colors for graphics.
 - 2. Color for structure, framing, sign surfaces and graphics: In accordance with details.

PART 3 - EXECUTION

3.1 PROJECT IDENTIFICATION SIGN

- A. Paint exposed surfaces of supports, framing and surface material; one coat of prime and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors indicated on the contract documents.

3.2 INFORMATIONAL SIGNS

- A. Paint exposed surfaces: One coat of primer and one coat of exterior paint.
- B. Paint graphics in styles, sizes and colors selected.
- C. Install at a height for optimum visibility, on ground-mounted poles or attached to temporary structural surfaces.

3.3 MAINTENANCE

- A. Maintain signs and supports in a neat, clean condition; repair damages to structure, framing or sign.
- B. Relocate informational signs as required by progress of the Work.

3.4 REMOVAL

- A. Remove signs, framing, support and foundations at completion of the project.

END OF SECTION 015800

SECTION 016100 - BASIC PRODUCT REQUIREMENTS

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes administrative and procedural requirements for selection of products for use in Project including the following.
 - 1. Workmanship.
 - 2. Manufacturer's Instructions.
 - 3. Transportation and Handling.
 - 4. Storage and Protection.
 - 5. Contractor Options.
 - 6. Material Source and Subcontractor Approval.
 - 7. Products
- B. Related Sections include the following:
 - 1. Division 1 Section "Submittal Procedures" for submittal of manufacturer's drawings, descriptive literature, samples and certificates.
 - 2. Division 1 Section "Reference Standards and Definitions" for Provision and identification of publication source for referenced standards.
 - 3. Division 1 Section "Product Substitution Procedures" for general requirements regarding products, product handling, product compliance, and substitutions, including submittal procedures.
 - 4. Division 1 Section "Cleaning" for manufacturer's recommendation and procedures for cleaning.
 - 5. Division 1 Section "Warranties And Bonds" for form and time of submission.

1.3 PRODUCTS

- A. Products: Items purchased for incorporating into the Work, whether purchased for Project or taken from previously purchased stock. The term "product" includes the terms "material," "equipment," "system," and terms of similar intent.
- B. Comply with Specifications and referenced standards as minimum requirements.
- C. Manufactured and fabricated components required to be supplied in quantity within a Specification section shall be of the same manufacturer, and shall be interchangeable.

- D. When work of Project involves alteration and addition work, DO NOT use materials and equipment removed from existing structure, except as specifically allowed by notation or indication by Contract Documents.

1.4 WORKMANSHIP

- A. Comply with industry standards when more restrictive tolerance or specified requirements indicate more rigid standards or more precise workmanship.
- B. Perform work by persons qualified to produce workmanship of specified quality.
- C. Secure Products in place with positive anchorage devices designed and sized to withstand stresses, vibration and racking.

1.5 MANUFACTURERS' INSTRUCTION

- A. When work is specified to comply with manufacturer's printed instructions, obtain and distribute copies to persons involved, and maintain one set at job site in field office.
- B. Perform work in accordance with manufacturer's instructions and specified requirements.
- C. Should a conflict exist between Specifications and instructions, consult with Architect/Engineer.
- D. All materials must be installed by skilled mechanics in accordance with the best practices of the industry.

1.6 TRANSPORTATION AND HANDLING

- A. Arrange deliveries of Products in accord pursuant to the Owner Sales Tax Recovery Plan with construction schedules, coordinate to avoid delay of progress, conflict with work and conditions at the site. Coordinate with the Architect and Owner for the direct purchase of certain materials by the Owner.
- B. Transport Products by methods to avoid Product damage; deliver in undamaged condition in manufacturer's unopened containers or packaging, dry.
- C. Provide equipment and personnel to handle Product by methods to prevent soiling or damage.
- D. Promptly inspect shipments to assure that Products comply with requirements, quantities are correct, and Products are undamaged.
- E. Complete a "Contractor Acceptance of Owner Furnished Material" form for each delivery of the Owner purchased material.

1.7 STORAGE AND PROTECTION

- A. Store Products in accordance with manufacturer's instructions, with seals and labels intact and legible.
- B. Store sensitive Products in weather-tight enclosures; maintain within temperature and humidity ranges required by manufacturer's instructions.
- C. For exterior storage of fabricated Products, place on sloped supports above ground. Cover Products subject to deterioration with impervious sheet covering; provide ventilation to avoid condensation.
- D. Store loose granular materials on solid surfaces in a well-drained area; prevent mixing with foreign matter.
- E. Arrange storage to provide access for inspection. Periodically inspect to assure Products are undamaged, and are maintained under required conditions.
- F. After installation, provide coverings to protect Products from damage from traffic and construction operations, remove when no longer needed.
- G. All contractors must coordinate and schedule the storage of materials in the laydown area and in the building with the Owner and Architect.

1.8 CONTRACTORS OPTIONS

- A. Products Specified By Reference Standards Or By Description Only: ANY PRODUCT meeting those standards.
- B. Product Specified By Naming Several Manufacturers: Products of named manufacturers meeting specifications; NO OPTIONS, NO SUBSTITUTIONS.
- C. Products Specified By Naming One Or More Manufacturers With "Or Equal": SUBMIT A REQUEST FOR SUBSTITUTION for any manufacturer not specifically named.
- D. Products Specified By Naming Only One Manufacturer: NO OPTIONS; NO SUBSTITUTION allowed.
- E. Basis-of-Design Product Specification: Where a specific manufacturer's product is named and accompanied by the words "basis of design," including make or model number or other designation, to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics for purposes of evaluating comparable products of other named manufacturers.

1.9 MATERIAL SOURCE AND SUBCONTRACTOR APPROVAL

- A. Submit, on forms provided by the Architect, the names and addresses of subcontractors, testing laboratories, and manufacturing sources of materials to be incorporated into or used on this project.

- B. Tabulate products by Specifications section number, title and Article number.
- C. These forms shall be properly completed and must be submitted to the Architect within ten (10) calendar days after date of Contract.
- D. The Architect upon receipt of properly completed copies of the forms, will promptly review for approval or disapproval and subsequent distribution.

PART 2 - PRODUCTS

2.1 PRODUCT SELECTION PROCEDURES

- A. General Product Requirements: Provide products that comply with the Contract Documents, that are undamaged and, unless otherwise indicated, that are new at time of installation.
 - 1. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
 - 2. Standard Products: If available, and unless custom products or nonstandard options are specified, provide standard products of types that have been produced and used successfully in similar situations on other projects.
 - 3. Owner reserves the right to limit selection to products with warranties not in conflict with requirements of the Contract Documents.
 - 4. Where products are accompanied by the term "as selected," Architect will make selection.
 - 5. Where products are accompanied by the term "match sample," sample to be matched is Architect's.
 - 6. Descriptive, performance, and reference standard requirements in the Specifications establish "salient characteristics" of products.
 - 7. Or Equal: Where products are specified by name and accompanied by the term "or equal" or "or approved equal" or "or approved," comply with provisions in Part 2 "Comparable Products" Article to obtain approval for use of an unnamed product.

PART 3 - EXECUTION (Not applicable).

END OF SECTION 016100

SECTION 016300 - PRODUCTS SUBSTITUTION PROCEDURES

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of Contract, including General and Supplementary Conditions and other Division 01 Specification sections, apply to requirements of this Section.
- B. Closely-related requirements specified in other Sections:
 - 1. Specific provisions relative to certain products, and specific requirements relative to acceptability of certain products, are specified in Divisions 02 through 34.
 - 2. **All product substitutions must be submitted for consideration during the bid period. Substitution requests for convenience will not be considered following the opening of bids.**

1.2 DESCRIPTION OF REQUIREMENTS

- A. This Section specifies general requirements regarding products, product handling, product compliance, and substitutions, including submittal procedures.

1.3 DEFINITIONS

- A. Definitions used in this paragraph are not intended to negate the meaning of other terms used in the Contract Documents.
- B. "Products" are items purchased for incorporation in the Work, either by Owner or Contractor and whether specifically purchased for this project or taken from the Contractor's stock. The term "product" as used includes the terms "material", "equipment", "system" and other similar terms.
 - 1. "Named Products" are products identified by use of the manufacturer's name for a product, including make or model designation, as published in product literature, current as of the date of the Contract Documents.
 - 2. "Materials" are products that must be substantially cut, shaped, worked, mixed, finished, refined, fabricated or processed to form units of work.
 - 3. "Equipment" includes products with operational parts, whether motorized or manually operated; products that require service connections such as wiring or piping; and other products identified as "equipment" by the Specifications.
- C. Substitutions: Products and methods of construction differing from those required or identified as acceptable by the Contract Documents and requested by the Contractor to be deemed acceptable. The following are NOT subject to the substitutions requirements of this Section:

1. Revisions to the Contract Documents, where requested by the Owner or his representative; these are considered as "changes".
2. Contractor options on products and construction methods included in the Contract Documents.
3. The Contractor's determination of and compliance with governing regulations and orders as issued by governing authorities; these do not constitute "substitutions" and do not constitute a basis for Change Orders.

1.4 REQUIREMENTS

- A. Comply with the requirements of this Section relative to the selection, coordination, handling and installation of products, except where more stringent or more specific requirements are specified in Division 02 through 16.
- B. Comply with the requirements of this Section relative to requests for substitutions.

1.5 SUBMITTAL OF SUBSTITUTION REQUEST

- A. Make request for substitution only as specified. Do NOT request substitutions by the submittals procedure specified in Section 01330: Submittal Procedures.
- B. Requests for Substitutions:
 1. Submit 3 copies of each request for substitution.
 2. Identify the product or fabrication or installation method to be replaced by the substitution, including related Specification Section and Drawing numbers.
 3. Include the following information, as appropriate, with each request:
 - a. Reason for proposed substitution.
 - b. Complete product data, drawings and descriptions of products, and fabrication and installation procedures.
 - c. Samples where applicable or requested.
 - d. A detailed comparison of the proposed substitution with the work specified. Include significant qualities such as size, weight, performance characteristics, compliance with requirements and standards, and visual characteristics. Submit in same terms and same order as specified work, to facilitate comparison.
 - e. Complete coordination information. Identify changes required in other elements of the work to accommodate the substitution, including work performed by other Contractors.
 - 1) Include one of the following:
 - a) A statement by the Contractor proposing the substitution that he will pay for any additional costs to other Contractors.
 - b) A statement by each Contractor affected, that identifies changes to the costs, time, arrangement or performance characteristics of his work, and a statement by all other Contractors that the

proposed substitution will require no change to the cost, time, arrangement or performance characteristics of their work.

- f. A statement that the Contractor agrees to pay design costs or other costs incurred by the Owner in connection with the substitution.
- g. A statement indicating the effect the substitution would have on the work schedule including total Contract Time, in comparison to the schedule without the proposed substitution.
- h. Complete cost information, including a proposal of the net change in the Contract Sum.
- i. Certification by the Contractor to the effect that, in the Contractor's opinion, the proposed substitution shall result in work that in every significant respect is equal to or better than the work required by the Contract Documents, and that it shall perform adequately in the application indicated. Include in this certification the Contractor's waiver of rights to additional payment or time, which may subsequently be necessary because of the failure of the substitution to perform adequately.

C. Architect Action:

- 1. Within one week of receipt of the Contractor's request for substitution, the Architect will advise the Contractor of additional information or documentation needed for evaluation of the request, and an estimate of design costs, administrative costs, or other costs to be incurred by Owner.
- 2. Within 3 weeks of receipt of the request, or within 2 weeks of receipt of the requested additional information or documentation, whichever is later, the Architect will notify the Contractor of either the acceptance or rejection of the proposed substitution.
 - a. Acceptance will be in the form of a letter, including a statement that a Change Order will or will not be required, and, if required, the changes in cost and time to be included in that Change Order. The Change Order, if required, will be issued within a reasonable time.
 - b. Rejection will include a statement giving reason for the rejection.

1.6 QUALITY ASSURANCE

- A. Source Limitations: To the fullest extent possible, provide products of the same generic kind from a single source.
- B. Compatibility of Options: Compatibility of products is a basic requirement of product selection. Select products to be compatible with other products previously selected. The complete compatibility between the various choices available to the Contractor is not assured by the various requirements of the Contract Documents, but must be provided by the Contractor.

1.7 REFERENCED STANDARDS

- A. Comply with the applicable provisions of codes, standards and specifications referenced in the Section specifying each product.
 - 1. Where products are shown on Drawings but not described in these Specifications, comply with industry standards and regulations applicable to such products.

PART 2 - PRODUCTS

2.1 GENERAL PRODUCT COMPLIANCE

- A. Procedures for Selecting Products: The Contractor's options in selecting products are limited by requirements of the Contract Documents and governing regulations. They are not controlled by industry traditions or procedures experienced by the Contractor on previous construction projects. Required procedures include:
 - 1. Specifications including Named Products:
 - a. Where only a single product or manufacturer is named, provide the product named, unless the Specifications, by use of the term "Reference Product", "Design Product", or otherwise, indicate possible consideration of other products.
 - 1) Comply with the "substitutions" procedures of this Section if proposing unnamed product.
 - b. Where two or more products or manufacturers are named, provide one of the products named, at the Contractor's option. Do not provide or offer to provide an unnamed product, except as follows:
 - 1) Where the Specifications name products or manufacturers that are available and may be incorporated in the Work, but do not restrict the Contractor to the use of these products only nor require pre-bid substitution, the Contractor may, at his option, propose an unnamed product that complies with Contract requirements in accordance with the "Substitutions" procedures of this Section.
 - 2. Specifications which do not name products:
 - a. Where the Specifications describe a product or assembly by listing characteristics required, but without use of a brand or trade name, provide product or assembly that provides the specified characteristics and otherwise complies with Contract requirements.
 - b. Where the Specifications do not name products, but require compliance with specific performance requirements, provide products that comply with those requirements, and that are recommended by the manufacturer for each specific application. The manufacturer's recommendations may be contained in published product literature, or by the manufacturer's project-specific certification of performance.
 - c. Where the Specifications require only compliance with an imposed standard, code or regulation, the Contractor has the option of

selecting a product that complies with specified requirements, including the standards, codes and regulations.

3. Specifications requiring matching an established sample: The final judgment of whether a product proposed by the Contractor matches the sample satisfactorily will be determined by the Architect.
- B. Accommodation of Selected Products: Where the Contract Documents indicate details or other requirements based on a specified product, and the Specifications name two or more products or manufacturers for the Contractor's selection, the Contractor shall be responsible for adjustment in details and other requirements to accommodate the product of his selection, at no change to the Contract Sum or Contract Time.

2.2 GENERAL PRODUCT REQUIREMENTS

- A. General: Provide products that comply with the requirements of the Contract Documents and that are undamaged. Unless specifically required by the Contract Documents to be salvaged, re-used or otherwise restored, provide products that are unused at the time of installation. Provide products that are complete with accessories, trim, finish, safety guards and other devices and details needed for a complete installation and for the intended use and effect.
- B. Standard Products: To comply with the requirements of the Contract Documents, provide standard products of types that have been produced and used successfully in similar applications on other projects.
- C. Continued Availability: Where, because of the nature of its application, the Owner is likely to need replacement parts or additional amounts of a product at a later date, either for maintenance and repair or replacement, provide standard, domestically produced product for which the manufacturer has published assurances that the product and its parts shall be available to the Owner at a later date. A reasonable doubt regarding such future availability will be grounds for rejection of products other than named products.
- D. Nameplates: Except for required labels and operating data, do not permanently attach or imprint manufacturers' or producers' nameplates or trademarks on exposed surfaces to view in occupied spaces or on the exterior of the completed project.
 1. Labels: Locate required product labels and stamps on a concealed surface or, where required for observation after installation, on an accessible surface which, in occupied spaces, is not conspicuous.
 2. Equipment Nameplates: Provide a permanent nameplate on each item of service-connected or power-operated equipment. Locate the nameplate on an easily accessible surface which is inconspicuous in occupied spaces. The nameplate shall contain product identification and essential operating data, including information specified for particular nameplates in Divisions 02 through 34.

2.3 SUBSTITUTIONS

- A. General: A request for a substitution will be received and considered when extensive revisions to the Contract Documents are not required, when the proposed changes are in keeping with the general intent of the Contract Documents, when the requests are timely, fully documented and properly submitted, and when one or more of the following conditions is satisfied, as judged by the Architect; otherwise the requests will be returned without action except to record non-compliance with these requirements.
- B. Conditions: The Architect will consider a request for substitution when the following conditions are met:
 - 1. The request is for the use of a product not named in the Specifications, and where product selection is not limited to named products.
 - 2. The specified product or method is no longer available or cannot be provided in time to comply with the Contract Schedule. The request shall not be considered if the effect on the schedule is a result of the Contractor's failure to place an order within 30 days of award of Contract, to pursue the work expeditiously, or to properly coordinate the work.
 - 3. A substantial net advantage, as determined by the Architect, is offered the Owner, in terms of cost, time, operating efficiency or other factors, after deducting negative factors such as additional compensation to the Architect for redesign and evaluation services, increased costs of other work by other Contractors, or adverse effects on maintenance.

PART 3 - EXECUTION

3.1 INSTALLATION OF PRODUCTS

- A. Except where project-specific or more stringent requirements are set forth in the Contract Documents, comply with the manufacturer's instructions and recommendations for installation of products in each application.
- B. Anchor each product securely in place, accurately located and aligned with other work.
- C. Clean exposed surfaces and protect surfaces as necessary to ensure freedom from damage and deterioration at time of acceptance.

END OF SECTION 016300

SECTION 017123 – FIELD ENGINEERING

PART 1 – GENERAL

1.1 RELATED DOCUMENTS

- A. Requirements of the General Provisions apply to all work under this section.
- B. North Carolina Department of Transportation Standard Specifications for Roads and Structures.
- C. Town of Windsor, North Carolina, Code of Ordinances.

1.2 SUMMARY

Work included: Provided at the Contractor's expense, such field engineering services as are required for proper completion of the Work including, but not necessarily limited to:

- A. The Contractor shall have property lines located and marked and corners set by a certified land surveyor. Permanent corner markers shall be installed where they do not already exist.
- B. The Contractor shall be responsible for all stakeouts and elevation checks required for construction. All such Work shall be performed by a professional land surveyor. The surveyor shall verify adequacy of benchmarks before starting construction.
- C. Before the start of any building construction, the Contractor shall have a professional land surveyor locate and stake building corners, driveway entrances, driveways, parking areas and playfields. If there are any discrepancies between the actual layout and the project site plan, they shall be brought to the attention of the Architect and resolved before Work proceeds. A building and site stake out drawing stamped and signed by a professional land surveyor may be submitted in lieu of this preliminary stake out.
- D. After the corners of the exterior walls have been started, the Contractor shall obtain a wall check survey certificate made by a professional land surveyor. This survey shall show the accurate location of the building with reference to property lines.
- E. After the first sections of slab-on-grade have been placed in the school building, the Contractor shall have a professional land surveyor verify and record the finish floor elevation on the wall check survey.
- F. At the end of the project, the Contractor shall have a professional land surveyor prepare an as-built survey showing the accurate horizontal and vertical locations of all building corners, paved areas, sidewalks, utilities, fencing, site walls stormwater management facilities in accordance with the requirements of Town of Pittsboro, etc. located within the project area.

1.3 RELATED WORK:

- A. Documents affecting work of this Section include, but are not necessarily limited to, General Conditions, Supplementary Conditions, and Sections in Division 1 of these Specifications.
- B. Additional requirements for field engineering also may be described in other Sections of these Specifications.

1.4 QUALITY ASSURANCE

- A. Use adequate numbers of skilled workmen who are thoroughly trained and experienced in the necessary crafts and who are completely familiar with the specified requirements and the methods needed for proper performance of the work of this Section.

1.5 SUBMITTALS

- A. Comply with pertinent provisions of Section 01300-Submittals.
- B. Upon request of the Architect, submit;
 - 1. Data demonstrating qualifications of persons proposed to be engaged for field Engineering services.
 - 2. Documentation verifying accuracy of field engineering work.
 - 3. Certifications, signed by the Contractor's retained field engineer, certifying that elevations and locations of improvements are in conformance with requirements of the Contract Documents.
- C. Throughout the specifications, types of materials may be specified by manufacturer's name and catalogue number in order to establish standards of quality and performance and not for the purpose of limiting competition. Alternate methods and/or materials may be submitted to the Architect for consideration. Follow procedures listed in 016300-Product Substitution Procedures.

1.6 PROCEDURES

- A. In addition to procedures directed by the Contractor for the proper performance of the Contractor's responsibilities:
 - 1. Locate and protect control points before starting Work on the site.
 - 2. Preserve permanent reference points during process of the Work.
 - 3. Do not change or relocate reference points or items of the Work without specific approval from the Architect.
 - 4. Promptly advise the Architect when a reference point is lost or destroyed, or requires relations because of other changes in the Work.
 - a) Upon direction of the Architect, require the field engineer to replace reference stakes or markers.
 - b) Locate such replacements according to the original survey control.

PART 2 - PRODUCTS

Not Applicable

PART 3 - EXECUTION

Not Applicable

END SECTION 017123

SECTION 017320 - SELECTIVE DEMOLITION

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

- A. This Section includes the following:
 - 1. Demolition and removal of selected site elements.
 - 2. Repair procedures for selective demolition operations.
- B. Related Sections include the following:
 - 1. Division 1 Section "Summary of Work" for use of premises, and phasing, and Owner-occupancy requirements.
 - 2. Division 1 Section "Temporary Utilities and Facilities " for temporary construction and environmental-protection measures for selective demolition operations.
 - 3. Division 1 Section "Cutting and Patching" for cutting and patching procedures.

1.3 DEFINITIONS

- A. Remove: Detach items from existing construction and legally dispose of them off-site, unless indicated to be removed and salvaged or removed and reinstalled.
- B. Remove and Salvage: Detach items from existing construction and deliver them to Owner.
- C. Remove and Reinstall: Detach items from existing construction, prepare them for reuse, and reinstall them where indicated.
- D. Existing to Remain: Existing items of construction that are not to be removed and that are not otherwise indicated to be removed, removed and salvaged, or removed and reinstalled.

1.4 MATERIALS OWNERSHIP

- A. Historic items, relics, and similar objects including, but not limited to, cornerstones and their contents, commemorative plaques and tablets and other items of interest or value to Owner that may be encountered during selective demolition remain Owner's property. Carefully remove and salvage each item or object in a manner to prevent damage and deliver promptly to Owner.

1.5 SUBMITTALS

- A. Qualification Data: For demolition firm and refrigerant recovery technician.
- B. Proposed Dust-Control and Noise-Control Measures: Submit statement or drawing that indicates the measures proposed for use, proposed locations, and proposed time frame for their operation. Identify options if proposed measures are later determined to be inadequate.
- C. Schedule of Selective Demolition Activities: Indicate the following:
 - 1. Detailed sequence of selective demolition and removal work, with starting and ending dates for each activity.
 - 2. Interruption of utility services. Indicate how long utility services will be interrupted.
 - 3. Coordination for shutoff, capping, and continuation of utility services.
 - 4. Locations of proposed dust- and noise-control temporary partitions and means of egress, including for other tenants affected by selective demolition operations.
 - 5. Means of protection for items to remain and items in path of waste removal from building.
 - 6. Selectively demolish site components as required to construct new work. Only demolition of existing components affecting new construction.
- D. Inventory: After selective demolition is complete, submit a list of items that have been removed and salvaged.
- E. Landfill Records: Indicate receipt and acceptance of hazardous wastes by a landfill facility licensed to accept hazardous wastes.
 - 1. Comply with submittal requirements in Division 1 Section "Construction Waste Management."

1.6 QUALITY ASSURANCE

- A. Regulatory Requirements: Comply with governing EPA notification regulations before beginning selective demolition. Comply with hauling and disposal regulations of authorities having jurisdiction.
- B. Standards: Comply with ANSI A10.6 and NFPA 241.
- C. Predemolition Conference: Conduct conference at Project site to comply with requirements in Division 1 Section "Coordination." Review methods and procedures related to selective demolition including, but not limited to, the following:
 - 1. Inspect and discuss condition of construction to be selectively demolished.
 - 2. Review and finalize selective demolition schedule and verify availability of materials, demolition personnel, equipment, and facilities needed to make progress and avoid delays.

1.7 PROJECT CONDITIONS

- A. Owner assumes no responsibility for condition of areas to be selectively demolished.
- B. Notify Architect of discrepancies between existing conditions and Drawings before proceeding with selective demolition.
- C. Hazardous Materials: It is not expected that hazardous materials will be encountered in the Work.
 - 1. Hazardous materials will be removed by Owner before start of the Work under a separate contract.
 - 2. If materials suspected of containing hazardous materials are encountered, do not disturb; immediately notify Architect and Owner. Owner will remove hazardous materials under a separate contract.
- D. Storage or sale of removed items or materials on-site is not permitted.
- E. Utility Service: Maintain existing utilities indicated to remain in service and protect them against damage during selective demolition operations.
 - 1. Maintain fire-protection facilities in service during selective demolition operations.

1.8 WARRANTY

- A. Existing Warranties: Remove, replace, patch, and repair materials and surfaces cut or damaged during selective demolition, by methods and with materials so as not to void existing warranties.

PART 2 - PRODUCTS (Not Used)

- A. Use repair materials identical to existing materials.
 - 1. If identical materials are unavailable or cannot be used for exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible.
 - 2. Use materials whose installed performance equals or surpasses that of existing materials.

PART 3 - EXECUTION

3.1 EXAMINATION

- A. Verify that utilities have been disconnected and capped.
- B. Survey existing conditions and correlate with requirements indicated to determine extent of selective demolition required.

- C. Inventory and record the condition of items to be removed and reinstalled and items to be removed and salvaged.
- D. When unanticipated mechanical, electrical, or structural elements that conflict with intended function or design are encountered, investigate and measure the nature and extent of conflict. Promptly submit a written report to Architect.
- E. Perform surveys as the Work progresses to detect hazards resulting from selective demolition activities.

3.2 UTILITY SERVICES AND MECHANICAL/ELECTRICAL SYSTEMS

- A. Existing Services/Systems: Maintain services/systems indicated to remain and protect them against damage during selective demolition operations.
 - 1. Comply with requirements for existing services/systems interruptions specified in Division 1 Section "Summary."
- B. Service/System Requirements: Locate, identify, disconnect, and seal or cap off indicated utility services and mechanical/electrical systems serving areas to be selectively demolished.
 - 1. Arrange to shut off indicated utilities with utility companies.
 - 2. If services/systems are required to be removed, relocated, or abandoned, before proceeding with selective demolition provide temporary services/systems that bypass area of selective demolition and that maintain continuity of services/systems to other parts of building.

3.3 PREPARATION

- A. Dangerous Materials: Drain, purge, or otherwise remove, collect, and dispose of chemicals, gases, explosives, acids, flammables, or other dangerous materials before proceeding with selective demolition operations.
- B. Site Access and Temporary Controls: Conduct selective demolition and debris-removal operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 - 1. Comply with requirements for access and protection specified in Division 1 Section "Temporary Facilities and Controls."
 - 2. Erect temporary protection, such as walks, fences, railings, canopies, and covered passageways, where required by authorities having jurisdiction.
 - 3. Protect existing site improvements, appurtenances, and landscaping to remain.
 - 4. Erect a plainly visible fence around drip line of individual trees or around perimeter drip line of groups of trees to remain where applicable.
- C. Temporary Facilities: Provide temporary barricades and other protection required to prevent injury.

- D. Temporary Shoring: Provide and maintain shoring, bracing, and structural supports as required to preserve stability and prevent movement, settlement, or collapse of construction and finishes to remain, and to prevent unexpected or uncontrolled movement or collapse of construction being demolished. Strengthen or add new supports when required during progress of selective demolition.

3.4 POLLUTION CONTROLS

- A. Dust Control: Use water mist, temporary enclosures, and other suitable methods to limit spread of dust and dirt. Comply with governing environmental-protection regulations.
 - 1. Do not use water when it may damage or create hazardous or objectionable conditions, such as ice, flooding, and pollution.
- B. Disposal: Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
 - 1. Remove debris from elevated portions of building by chute, hoist, or other device that will convey debris to grade level in a controlled descent.
- C. Cleaning: Return adjacent areas to condition existing before selective demolition operations began.

3.5 SELECTIVE DEMOLITION, GENERAL

- A. General: Demolish and remove existing construction only to the extent required by new construction and as indicated. Use methods required to complete the Work within limitations of governing regulations.

3.6 PATCHING AND REPAIRS

- A. General: Promptly repair damage to adjacent construction caused by selective demolition operations.
- B. Patching: Comply with Division 1 Section "Cutting and Patching."

3.7 DISPOSAL OF DEMOLISHED MATERIALS

- A. General: Except for items or materials indicated to be recycled, reused, salvaged, reinstalled, or otherwise indicated to remain Owner's property, remove demolished materials from Project site and legally dispose of them in an EPA-approved landfill.
 - 1. Do not allow demolished materials to accumulate on-site.
 - 2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.

- B. Burning: Do not burn demolished materials.
- C. Disposal: Transport demolished materials off Owner's property and legally dispose of them.

END OF SECTION 017320

SECTION 017329 - CUTTING AND PATCHING

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Requirements and limitations for cutting and patching of Work.

1.2 RELATED REQUIREMENTS

- A. Section 011100 – SUMMARY OF WORK: Work by Owner or by separate Contractors.
- B. Section 016300 – PRODUCTS SUBSTITUTION PROCEDURES: Substitutions
- C. Individual Specifications Sections: Cutting and patching incidental to work of that Section.

1.3 DESCRIPTION

- A. Execute cutting, fitting, and patching, including attendance excavation and backfill, required to complete the Work and to:
 - 1. Remove services, lines and equipment and the installation of new services, lines and equipment, except as shown otherwise.
 - 2. Make its several parts fit together properly.
 - 3. Uncover portions of the Work to provide for installation of ill-timed work.
 - 4. Remove and replace defective work.
 - 5. Remove and replace work not conforming to requirements of Contract Documents.
 - 6. Remove samples of installed work when specified for testing.
 - 7. Provide routine penetrations of non-structural surfaces for installation of electrical services and conduit.

1.4 SUBMITTALS

- A. Submit written request to Architect in advance of executing any cutting or alteration which in the opinion of the Architect affects:
 - 1. The structural value or integrity of any element of the Project.
 - 2. The integrity or effectiveness of weather-exposed or moisture-resistant elements or systems.
 - 3. The efficiency, operational life, maintenance or safety of operational elements.
 - 4. The visual qualities of sight-exposed elements.
 - 5. Work of Owner or separate Contractor.

B. Include in request:

1. Identification of the Project.
2. Location and description of affected work.
3. The necessity for cutting, alteration or excavation.
4. Description of the proposed work:
 - a. The scope of cutting, patching, alteration, or excavation.
 - b. The trades who will execute the work.
 - c. Products proposed to be used.
 - d. The extent of refinishing to be done.
5. Alternatives to cutting and patching.
6. Written permission of affected separate Contractor.
7. Date and time work will be executed.

C. Obtain approval prior to proceeding.

PART 2 - PRODUCTS

2.1 MATERIALS

- A. Comply with specifications and standards for each specific product involved. Use materials identical to existing materials.
- B. For any change in materials, submit request for substitution in accordance with Section 016300.

PART 3 - EXECUTION

3.1 INSPECTION

- A. Inspect existing conditions of the Project, including elements subject to damage or to movement during cutting and patching. Do not cut and patch operating or safety related elements that will result in reduction of capacity to perform.
- B. After uncovering work, inspect the conditions affecting the installation of Products, or performance of the work.
- C. Report unsatisfactory or questionable conditions to the Architect in writing; do not proceed with the work until the Architect has provided further instructions.
- D. Beginning of cutting or patching means acceptance of existing conditions.

3.2 PREPARATION

- A. Provide adequate temporary support as deemed necessary by the Architect to assure the structural value or integrity of the affected portion of the Work.

- B. Provide devices and methods to protect other portions of the Project from damage.
- C. Provide protection from the elements for that portion of the Project which may be exposed by cutting and patching work, and maintain excavations free from water.

3.3 PERFORMANCE

- A. Execute cutting and demolition by methods which will prevent damage to other work, and will provide proper surfaces to receive patching and finishing.
- B. Execute excavating and backfilling by methods which will prevent settlement of damage to other work.
- C. Execute fitting and adjustment of products to provide a finished installation to comply with specified products, functions, tolerances, and finishes.
- D. Restore work which has been cut or removed; install new products to provide completed work in accordance with requirements of Contract Documents.
 - 1. All excessive patching and refinishing shall be performed by applicable trades, with costs borne by contractor requiring openings.
- E. Fit work airtight to pipes, sleeves, ducts, conduit and other penetrations through surfaces.
- F. Refinish entire surfaces as necessary to provide an even finish to match adjacent finishes.
 - 1. For continuous surfaces, refinish to nearest intersection.
 - 2. For an assembly, refinish the entire unit.

3.4 COORDINATION FOR CHASES/OPENING AND INSERTS

- A. Contractors or other trades requiring chases or openings shall furnish the Architect and General Contractor with a detailed drawing or sketch showing the size and location of each and every chase or opening required, if this information is not transmitted before the walls, partitions, floors, etc. are built, it will be done at the expense of the Contractor or trade who failed to provide the necessary information.
- B. Each trade shall be responsible for maintaining supervisory personnel on the job to assist in coordination and laying out of required chases or openings while the work is being performed by the responsible prime contractor.
- C. Unless otherwise noted or indicated, each Contractor or trade shall furnish and install ALL sleeves, thimbles and inserts necessary for the installation of his work at the proper time as not to delay the progress of the project or impede the work of any other Contractor or trade.

- D. Coordination drawings shall be required for Specification Divisions 21 thru 34, which shall constitute agreement by the Contractors performing this work that these shall be the basic plan for installation. These Contractors agree that they will make only minor adjustments to this plan of installation without formal revision of the coordination drawings. In all cases, they will keep the space requirements of the other Contractors as limitations on their own installations.

END OF SECTION 017329

SECTION 017400 - CLEANING

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Execute cleaning and disposal of waste materials, debris and rubbish during construction.
- B. Final cleaning of project including exterior.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS of the CONTRACT: Cleaning Up.
- B. Section 011100 – SUMMARY OF WORK
- C. Section 017700 - CLOSEOUT PROCEDURES.
- D. Individual Specifications Sections: Specific cleaning for product or work.

1.3 REQUIREMENTS OF REGULATORY AGENCIES

- A. Conduct cleaning and disposal operations to comply with codes, ordinances, regulations and anti-pollution laws.

1.4 DESCRIPTIONS

- A. Each prime contractor is responsible for clean-up of all waste materials, debris and rubbish from his work and the work of his sub-contractors. Cleaning shall occur daily. Maintain site in a clean and orderly condition.
- B. Dumpster and Covered Containers for deposit of debris and rubbish shall be provided under the General Contract including periodic disposal of accumulations or extraneous materials.
- C. The General Contractor shall include a Final Clean-up line item in their schedule of values.
- D. Each Trades Contractor shall clean up daily and remove to a dumpster provided by the General Contractor all scrap, trash and debris resulting from the Contractor's activities. Should the Contractor fail to perform such clean-up within a twenty-four (24) hour written or verbal notice or fail to keep all material and equipment stored in a neat and orderly manner, the Architect will authorize another to perform this service on behalf of the Contractor and deduct its costs from any payments due the Contractor. Because of the difficulty of maintaining separate accounting records of the costs authorized by the Architect in providing clean-up and storage service when the Contractor fails to do so, the Contractor authorizes the Architect to make reasonable itemized estimates of such costs, which estimates are agreed to be final, conclusive and binding.

- F. Removal from site of all demolition debris will be by the contractor performing the demolition activity. Demolition debris becomes the sole property of the Contractor, and unless items are marked for Salvage by the Owner, shall be properly removed from the jobsite.

PART 2 - PRODUCTS

2.1 CLEANING PRODUCTS

- A. Use only those materials, which will not create hazards to health or property, and which will not damage finishes and surfaces.
- B. Use only materials and methods recommended by manufacturer of material being cleaned.

PART 3 - EXECUTION

3.1 DURING CONSTRUCTION

- A. Execute daily cleaning, or as often as needed, to keep the Work, the site and adjacent properties free from accumulations of waste materials, rubbish and windblown debris resulting from construction operations.
- B. Dispose of waste materials, cartons, crating, debris and rubbish at designated waste receptor provided by the General Trades Contractor (i.e. dumpster, truck, etc.) and which shall be disposed of at legal disposal areas away from the site.
- C. The General Contractor shall serve as the lead contractor for coordinating and maintaining a clean project site. It shall be the General Trades Contractor's responsibility to broom sweep the project on a weekly basis. This does not eliminate the responsibility of other Contractors for clean up of materials and waste caused by their actions or installation of work.
- D. General Contractor shall be responsible for general site clean-up while they are mobilized on site and prior to substantial completion of earth work. Site clean-up shall include removal of mud and waste from parking lots, drives and public streets, rip-rap maintenance, cleaning of inlets and storm sewers, and other miscellaneous site clean-up.

3.2 DISPOSAL

- A. Unless stated otherwise in Bid Package Description, the General Contractor will remove collected waste materials, debris and rubbish from site as soon as dumpster/truck is full and dispose of off-site, in a lawful manner.

3.3 FINAL CLEANING

- A. Prior to final cleaning each Prime Contractor shall remove all debris, extra material etc. from the building to the dumpsters provided by the General Contractor. The

General Contractor will provide final cleaning of the building interior. If after a building space is finally cleaned a contractor returns to the cleaned space and creates a condition where the space needs to be cleaned a second time. The contractor responsible will be charged for the second cleaning service.

- B. General Contractor shall employ experienced workers or professional cleaners for final cleaning of building. Clean each surface or unit to condition expected in an average cleaning and maintenance program. Comply with manufacturers instructions.
- C. General Contractor shall complete the following cleaning operations for the site before requesting inspection for certification of Substantial Completion:
 - 1. Clean project site, yard, and grounds in areas disturbed by construction activities, including landscape development areas, of rubbish, waste, material, litter, and other foreign substances.
 - 2. Sweep paved areas broom clean. Remove petrochemical spills, stains, and other foreign deposits.
 - 3. Rake grounds that are neither planted nor paved to a smooth, even surface.
 - 4. Remove snow and ice to provide safe access to the building.
 - 5. All contractors shall remove all tools construction equipment, machinery, and surplus material from the project site.
- D. General Contractor shall complete the following cleaning for each phase of the building before requesting inspection for certificate of Substantial Completion for that phase:
 - 1. Clean exposed exterior and interior hard surfaces finishes to a dirt free condition, free of stains, films, and similar foreign substances. Avoid disturbing natural weathering of exterior surfaces. Restore reflective surfaces to their original condition.
 - 2. Remove debris and surface dust from limited access spaces, including roofs, plenums, shafts, trenches, tunnels, equipment vaults, manholes, attics and similar spaces.
 - 3. Sweep concrete floors broom clean in occupied spaces.
 - 4. Vacuum carpet and similar soft surfaces, removing debris and excess nap; replace if visible soil or stains remain notify.
 - 5. Clean, strip, seal and wax VCT floors and base in accordance with manufacturers instructions. Provide 3 coats of commercial grade floor wax. Confirm acceptable manufacturer with Owner's custodial department prior to beginning work.
 - 6. Clean and mop all other hard floor and wall surfaces including ceramic tile, quarry tile and rubber flooring.
 - 7. Clean transparent materials, including mirrors and glass. Remove glazing compounds and other noticeable, vision-obscuring materials. Advise Architect of any chipped or broken glass or other damaged transparent materials. Polish mirrors and glass, taking care not to scratch surfaces.
 - 8. Remove labels that are not permanent.
 - 9. Touch up and otherwise repair and restore marred, exposed finishes and surfaces. Replace finishes and surfaces that cannot be satisfactorily repaired or restored or that already show evidence of repair or

restoration. Do not paint over "UL" and similar labels, including mechanical and electrical nameplates.

10. Wipe off all interior and exterior surfaces of casework, countertops, white boards, and tack boards, specialties, and furnishings. Remove all dirt, paint, stains and other foreign substances.
11. Wipe surfaces of mechanical and electrical equipment, and similar equipment. Remove excess lubrication, paint and mortar droppings, and other foreign substances.
12. Replace parts subject to unusual operating conditions.
13. Clean plumbing fixtures to a sanitary condition, free of stains resulting from water exposure.
14. Clean exposed surfaces of HVAC diffusers, registers, and grills.
15. Clean light fixtures, lamps, globes, and reflectors to function with full efficiency.

END OF SECTION 017400

SECTION 017410 – CONSTRUCTION WASTE MANAGEMENT AND DISPOSAL

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

- A. Drawings and general provisions of the Contract, including General and Supplementary Conditions and other Division 01 Specification Sections, apply to this Section.

1.2 SUMMARY

- A. Section includes administrative and procedural requirements for the following:
 - 1. Disposing of nonhazardous demolition and construction waste.
- B. Related Requirements:
 - 1. Section 311000 Site Clearing - for disposition of waste resulting from demolition and site improvements.
 - 2. Section 042000 "Unit Masonry" for disposal requirements for masonry waste.

1.3 DEFINITIONS

- A. Construction Waste: Building and site improvement materials and other solid waste resulting from new construction, remodeling, renovation, or repair operations. Construction waste includes packaging.
- B. Demolition Waste: Building and site improvement materials resulting from demolition or selective demolition operations.
- C. Disposal: Removal off-site of demolition and construction waste and subsequent sale, recycling, reuse, or deposit in landfill or incinerator acceptable to authorities having jurisdiction.
- D. Recycle: Recovery of demolition or construction waste for subsequent processing in preparation for reuse.
- E. Salvage: Recovery of demolition or construction waste and subsequent sale or reuse in another facility.
- F. Salvage and Reuse: Recovery of demolition or construction waste and subsequent incorporation into the Work.

1.4 PERFORMANCE REQUIREMENTS

- A. General: Achieve end-of-Project rates for salvage/recycling of 75 percent by weight of total non-hazardous solid waste generated by the Work. Practice efficient waste management in the use of materials in the course of the Work. Use all reasonable means to divert construction and demolition waste from landfills and incinerators. Facilitate recycling and salvage of materials, including the following:

1. Construction Waste:

- a. Masonry and CMU.
- b. Lumber.
- c. Wood sheet materials.
- d. Wood trim.
- e. Metals.
- f. Roofing.
- g. Insulation.
- h. Carpet and pad.
- i. Gypsum board.
- j. Piping.
- k. Electrical conduit.
- l. Packaging: Regardless of salvage/recycle goal indicated in "General" Paragraph above, salvage or recycle 100 percent of the following uncontaminated packaging materials:
 - 1) Paper.
 - 2) Cardboard.
 - 3) Boxes.
 - 4) Plastic sheet and film.
 - 5) Polystyrene packaging.
 - 6) Wood crates.
 - 7) Plastic pails.

1.5 ACTION SUBMITTALS

- A. Waste Management Plan: Submit plan within 14 days of date established for the Notice to Proceed.

1.6 INFORMATIONAL SUBMITTALS

- A. Waste Reduction Progress Reports: Concurrent with each Application for Payment, submit report. Use Form CWM-7 for construction waste. Include the following information:
1. Material category.
 2. Generation point of waste.
 3. Total quantity of waste in tons.
 4. Quantity of waste salvaged, both estimated and actual in tons.
 5. Quantity of waste recycled, both estimated and actual in tons.
 6. Total quantity of waste recovered (salvaged plus recycled) in tons.

7. Total quantity of waste recovered (salvaged plus recycled) as a percentage of total waste.
 - B. Waste Reduction Calculations: Before request for Substantial Completion, submit calculated end-of-Project rates for salvage, recycling, and disposal as a percentage of total waste generated by the Work.
 - C. Records of Donations: Indicate receipt and acceptance of salvageable waste donated to individuals and organizations. Indicate whether organization is tax exempt.
 - D. Records of Sales: Indicate receipt and acceptance of salvageable waste sold to individuals and organizations. Indicate whether organization is tax exempt.
 - E. Recycling and Processing Facility Records: Indicate receipt and acceptance of recyclable waste by recycling and processing facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
 - F. Landfill and Incinerator Disposal Records: Indicate receipt and acceptance of waste by landfills and incinerator facilities licensed to accept them. Include manifests, weight tickets, receipts, and invoices.
 - G. Qualification Data: For waste management coordinator and refrigerant recovery technician.
 - H. Statement of Refrigerant Recovery: Signed by refrigerant recovery technician responsible for recovering refrigerant, stating that all refrigerant that was present was recovered and that recovery was performed according to EPA regulations. Include name and address of technician and date refrigerant was recovered.
- 1.7 QUALITY ASSURANCE
- A. Refrigerant Recovery Technician Qualifications: Certified by EPA-approved certification program.
 - B. Regulatory Requirements: Comply with hauling and disposal regulations of authorities having jurisdiction.
 - C. Waste Management Conference: Conduct conference at Project site. Review methods and procedures related to waste management including, but not limited to, the following:
 1. Review and discuss waste management plan including responsibilities of waste management coordinator.
 2. Review requirements for documenting quantities of each type of waste and its disposition.
 3. Review and finalize procedures for materials separation and verify availability of containers and bins needed to avoid delays.
 4. Review procedures for periodic waste collection and transportation to recycling and disposal facilities.

5. Review waste management requirements for each trade.

1.8 WASTE MANAGEMENT PLAN

- A. General: Develop a waste management plan according to ASTM E 1609 and requirements in this Section. Plan shall consist of waste identification, waste reduction work plan, and cost/revenue analysis. Indicate quantities by weight or volume, but use same units of measure throughout waste management plan.
- B. Waste Identification: Indicate anticipated types and quantities of site-clearing and construction waste generated by the Work. Use Form CWM-1 for construction waste. Include estimated quantities and assumptions for estimates.
- C. Waste Reduction Work Plan: List each type of waste and whether it will be salvaged, recycled, or disposed of in landfill or incinerator. Use Form CWM-3 for construction waste. Include points of waste generation, total quantity of each type of waste, quantity for each means of recovery, and handling and transportation procedures.
 1. Salvaged Materials for Reuse: For materials that will be salvaged and reused in this Project, describe methods for preparing salvaged materials before incorporation into the Work.
 2. Salvaged Materials for Sale: For materials that will be sold to individuals and organizations, include list of their names, addresses, and telephone numbers.
 3. Salvaged Materials for Donation: For materials that will be donated to individuals and organizations, include list of their names, addresses, and telephone numbers.
 4. Recycled Materials: Include list of local receivers and processors and type of recycled materials each will accept. Include names, addresses, and telephone numbers.
 5. Disposed Materials: Indicate how and where materials will be disposed of. Include name, address, and telephone number of each landfill and incinerator facility.
 6. Handling and Transportation Procedures: Include method that will be used for separating recyclable waste including sizes of containers, container labeling, and designated location where materials separation will be performed.
- D. Cost/Revenue Analysis: Indicate total cost of waste disposal as if there was no waste management plan and net additional cost or net savings resulting from implementing waste management plan. Use Form CWM-5 for construction waste. Include the following:
 1. Total quantity of waste.
 2. Estimated cost of disposal (cost per unit). Include hauling and tipping fees and cost of collection containers for each type of waste.
 3. Total cost of disposal (with no waste management).
 4. Revenue from salvaged materials.
 5. Revenue from recycled materials.
 6. Savings in hauling and tipping fees by donating materials.

7. Savings in hauling and tipping fees that are avoided.
8. Handling and transportation costs. Include cost of collection containers for each type of waste.
9. Net additional cost or net savings from waste management plan.

PART 2 - PRODUCTS (Not Used)

PART 3 - EXECUTION

3.1 PLAN IMPLEMENTATION

- A. General: Implement approved waste management plan. Provide handling, containers, storage, signage, transportation, and other items as required to implement waste management plan during the entire duration of the Contract.
- B. Training: Train workers, subcontractors, and suppliers on proper waste management procedures, as appropriate for the Work.
 1. Distribute waste management plan to everyone concerned within three days of submittal return.
 2. Distribute waste management plan to entities when they first begin work on-site. Review plan procedures and locations established for salvage, recycling, and disposal.
- C. Site Access and Temporary Controls: Conduct waste management operations to ensure minimum interference with roads, streets, walks, walkways, and other adjacent occupied and used facilities.
 1. Designate and label specific areas on Project site necessary for separating materials that are to be salvaged, recycled, reused, donated, and sold.

3.2 RECYCLING CONSTRUCTION WASTE, GENERAL

- A. General: Recycle paper and beverage containers used by on-site workers.
- B. Recycling Incentives: Revenues, savings, rebates, tax credits, and other incentives received for recycling waste materials shall accrue to Owner .
- C. Preparation of Waste: Prepare and maintain recyclable waste materials according to recycling or reuse facility requirements. Maintain materials free of dirt, adhesives, solvents, petroleum contamination, and other substances deleterious to the recycling process.
- D. Procedures: Separate recyclable waste from other waste materials, trash, and debris. Separate recyclable waste by type at Project site to the maximum extent practical according to approved construction waste management plan.

1. Provide appropriately marked containers or bins for controlling recyclable waste until removed from Project site. Include list of acceptable and unacceptable materials at each container and bin.
 - a. Inspect containers and bins for contamination and remove contaminated materials if found.
2. Stockpile processed materials on-site without intermixing with other materials. Place, grade, and shape stockpiles to drain surface water. Cover to prevent windblown dust.
3. Stockpile materials away from construction area. Do not store within drip line of remaining trees.
4. Store components off the ground and protect from the weather.
5. Remove recyclable waste from Owner's property and transport to recycling receiver or processor.
- 6.

3.3 RECYCLING CONSTRUCTION WASTE

A. Packaging:

1. Cardboard and Boxes: Break down packaging into flat sheets. Bundle and store in a dry location.
2. Polystyrene Packaging: Separate and bag materials.
3. Pallets: As much as possible, require deliveries using pallets to remove pallets from Project site. For pallets that remain on-site, break down pallets into component wood pieces and comply with requirements for recycling wood.
4. Crates: Break down crates into component wood pieces and comply with requirements for recycling wood.

B. Wood Materials:

1. Clean Cut-Offs of Lumber: Grind or chip into small pieces.
2. Clean Sawdust: Bag sawdust that does not contain painted or treated wood.

C. Gypsum Board: Stack large clean pieces on wood pallets or in container and store in a dry location.

1. Clean Gypsum Board: Grind scraps of clean gypsum board using small mobile chipper or hammer mill. Screen out paper after grinding.

3.4 DISPOSAL OF WASTE

A. General: Except for items or materials to be salvaged, recycled, or otherwise reused, remove waste materials from Project site and legally dispose of them in a landfill or incinerator acceptable to authorities having jurisdiction.

1. Except as otherwise specified, do not allow waste materials that are to be disposed of accumulate on-site.

2. Remove and transport debris in a manner that will prevent spillage on adjacent surfaces and areas.
- B. Burning: Do not burn waste materials.
- C. Burning: Burning of waste materials is permitted only at designated areas on Owner's property, provided required permits are obtained. Provide full-time monitoring for burning materials until fires are extinguished.
- D. Disposal: Remove waste materials and dispose of at designated spoil areas on Owner's property.
- E. Disposal: Remove waste materials from Owner's property and legally dispose of them.

3.5 ATTACHMENTS

- A. Form CWM-1 for construction waste identification.
- B. Form CWM-3 for construction waste reduction work plan.
- C. Form CWM-5 cost/revenue analysis of construction waste reduction work plan.
- D. Form CWM-7 for construction waste

END OF SECTION 017410

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FORM CWM-1: CONSTRUCTION WASTE IDENTIFICATION							
MATERIAL CATEGORY	GENERATION POINT	EST. QUANTITY OF MATERIALS RECEIVED* (A)	EST. WASTE - % (B)	TOTAL EST. QUANTITY OF WASTE* (C = A x B)	EST. VOLUME CY (CM)	EST. WEIGHT TONS (TONNES)	REMARKS AND ASSUMPTIONS
Packaging: Cardboard							
Packaging: Boxes							
Packaging: Plastic Sheet or Film							
Packaging: Polystyrene							
Packaging: Pallets or Skids							
Packaging: Crates							
Packaging: Paint Cans							
Packaging: Plastic Pails							
Site-Clearing Waste							
Masonry or CMU							
Lumber: Cut-Offs							
Lumber: Warped Pieces							
Plywood or OSB (scraps)							
Wood Forms							
Wood Waste Chutes							
Wood Trim (cut-offs)							
Metals							
Insulation							
Roofing							
Joint Sealant Tubes							
Gypsum Board (scraps)							
Carpet and Pad (scraps)							
Piping							
Electrical Conduit							
Other:							

* Insert units of measure.

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FORM CWM-3: CONSTRUCTION WASTE REDUCTION WORK PLAN

MATERIAL CATEGORY	GENERATION POINT	TOTAL EST. QUANTITY OF WASTE TONS (TONNES)	DISPOSAL METHOD AND QUANTITY			HANDLING AND TRANSPORTATION PROCEDURES
			EST. AMOUNT SALVAGED TONS	EST. AMOUNT RECYCLED TONS	EST. AMOUNT DISPOSED TO LANDFILL TONS (TONNES)	
Packaging: Cardboard						
Packaging: Boxes						
Packaging: Plastic Sheet or Film						
Packaging: Polystyrene						
Packaging: Pallets or Skids						
Packaging: Crates						
Packaging: Paint Cans						
Packaging: Plastic Pails						
Site-Cleaning Waste						
Masonry or CMU						
Lumber: Cut-Offs						
Lumber: Warped Pieces						
Plywood or OSB (scraps)						
Wood Forms						
Wood Waste Chutes						
Wood Trim (cut-offs)						
Metals						
Insulation						
Roofing						
Joint Sealant Tubes						
Gypsum Board (scraps)						
Carpet and Pad (scraps)						
Piping						
Electrical Conduit						
Other:						

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FORM CWM-5: COST/REVENUE ANALYSIS OF CONSTRUCTION WASTE REDUCTION WORK PLAN								
MATERIALS	TOTAL QUANTITY OF MATERIALS (VOL. OR WEIGHT) (A)	EST. COST OF DISPOSAL (B)	TOTAL EST. COST OF DISPOSAL (C = A x B)	REVENUE FROM SALVAGED MATERIALS (D)	REVENUE FROM RECYCLED MATERIALS (E)	LANDFILL TIPPING FEES AVOIDED (F)	HANDLING AND TRANSPORTATION COSTS AVOIDED (G)	NET COST SAVINGS OF WORK PLAN (H = D+E+F+G)
Packaging: Cardboard								
Packaging: Boxes								
Packaging: Plastic Sheet or Film								
Packaging: Polystyrene								
Packaging: Pallets or Skids								
Packaging: Crates								
Packaging: Paint Cans								
Packaging: Plastic Pails								
Site-Clearing Waste								
Masonry or CMU								
Lumber: Cut-Offs								
Lumber: Warped Pieces								
Plywood or OSB (scraps)								
Wood Forms								
Wood Waste Chutes								
Wood Trim (cut-offs)								
Metals								
Insulation								
Roofing								
Joint Sealant Tubes								
Gypsum Board (scraps)								
Carpet and Pad (scraps)								
Piping								
Electrical Conduit								
Other:								

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FORM CWM-7: CONSTRUCTION WASTE REDUCTION PROGRESS REPORT							
MATERIAL CATEGORY	GENERATION POINT	TOTAL QUANTITY OF WASTE TONS (TONNES) (A)	QUANTITY OF WASTE SALVAGED		QUANTITY OF WASTE RECYCLED		TOTAL QUANTITY OF WASTE RECOVERED TONS (TONNES) (D = (C) + (B) + (E) + (F))
			ESTIMATED TONS (TONNES)	ACTUAL TONS (TONNES) (B)	ESTIMATED TONS (TONNES)	ACTUAL TONS (TONNES) (C)	
Packaging: Cardboard							
Packaging: Boxes							
Packaging: Plastic Sheet or Film							
Packaging: Polystyrene							
Packaging: Pallets or Skids							
Packaging: Crates							
Packaging: Paint Cans							
Packaging: Plastic Pails							
Site-Clearing Waste							
Masonry or CMU							
Lumber: Cut-Offs							
Lumber: Warped Pieces							
Plywood or OSB (scraps)							
Wood Forms							
Wood Waste Chutes							
Wood Trim (cut-offs)							
Metals							
Insulation							
Roofing							
Joint Sealant Tubes							
Gypsum Board (scraps)							
Carpet and Pad (scraps)							
Piping							
Electrical Conduit							
Other:							

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SECTION 017700 - CLOSEOUT PROCEDURES

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Administrative provisions for Substantial Completion and for Final Acceptance.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS OF THE CONTRACT: Fiscal provisions, legal submittals, and additional administrative requirements.
- B. Section 011100 – SUMMARY OF WORK
- C. Section 017400 - CLEANING

1.3 SUBSTANTIAL COMPLETION

- A. When Contractor considers his Work is substantially complete, he shall submit to Architect:
 - 1. A written notice that the Work, or designated portion thereof, is substantially complete.
 - 2. A list of items to be completed or corrected.
- B. Should Architect/Engineer/Owner's designated project representative determine that the Work IS NOT substantially complete, Architect will notify Contractor in writing, listing observed deficiencies.
- C. Contractor shall remedy deficiencies and send a second written notice of Substantial Completion to the Architect.
- D. When Architect/Engineer/Owner's designated project representative finds Work is substantially complete, he will prepare a Certificate of Substantial Completion in accordance with provision of General Conditions.

1.4 FINAL INSPECTION

- A. When contractor considers the Work is complete, he shall submit to Architect certification that:
 - 1. Contract Documents have been reviewed.
 - 2. Work has been inspected for compliance with Contract Documents.
 - 3. Work has been completed in accordance with Contract Documents, and deficiencies listed with Certificate of Substantial Completion have been corrected.
 - 4. Equipment and systems have been tested, adjusted, and balanced, and are fully operational.

5. Operation of systems has been demonstrated to Owner's personnel.
 6. Work is completed and ready for final inspection.
- B. Should Architect/Engineer/Owner's designated project representative inspection find Work incomplete, Architect will promptly notify Contractor, in writing, listing observed deficiencies.
- C. Contractor shall remedy deficiencies and send a second written Certification of Final Completion to Architect.
- D. When Architect/Engineer/Owner's designated project representative finds Work is complete, he will consider closeout submittals.

1.5 CLOSEOUT SUBMITTALS

- A. Submit following documents to Architect:
1. Certificates of Inspection required for equipment, mechanical and electrical systems of each respective Section throughout Project Manual.
- B. Project Record Documents: In accordance with Section 017800.
- C. Operating and Maintenance Data, Instructions to Owner's Personnel.
- D. Warranties and Bonds: In accordance with Section 017810.
- E. Keys and Keying Schedule: In accordance with Section 087100, Finish Hardware.
- F. Spare Parts and Maintenance Materials: In accordance with each respective specification Section.
- G. Evidence of Payment and Release of Waivers: In accordance with General Conditions of the Contract.
- H. Consent of Surety to Final Payment.
- I. Certificate of Insurance for Products and Completed Operations: In accordance with Supplementary Conditions.

1.6 STATEMENT OF ADJUSTMENT OF ACCOUNTS

- A. Submit to Architect a final statement reflecting adjustments to Contract Sum indicating:
1. Original Contract Sum.
 2. Previous Change Orders.
 3. Change under allowances.
 4. Changes under unit prices.
 5. Deductions for uncorrected Work.

6. Deductions for liquidated damages.
7. Deductions for re-inspection payments.
8. Adjustments for increased Owner costs for direct purchase of Major Materials beyond that set forth in Contractor's Bid
9. Other adjustments to.
10. Total Contract Sum as adjusted.
12. Previous payments.
13. Sum remaining due.

- B. Architect will issue a Final Change Order, reflecting approved adjustments to the Contract Sum not previously made by Change Orders.

1.7 FINAL APPLICATION FOR PAYMENT

- A. Submit application for final payment in accordance with provisions of the General Conditions of the Contract.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION 017700

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SECTION 017800 - PROJECT RECORD DOCUMENTS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Maintenance of Record Documents and Samples.
- B. Submittal of Record Documents and Samples.

1.2 RELATED REQUIREMENTS

- A. GENERAL CONDITIONS of the CONTRACT: Documents at the site.
- B. Section 017800 - PROJECT RECORD DOCUMENTS
- C. Section 017700 - CLOSEOUT PROCEDURES
- D. Section 018300 - OPERATION AND MAINTENANCE DATA
- E. Individual Specifications Sections: Manufacturer's Certificates of Inspection.

1.3 MAINTENANCE OF DOCUMENTS AND SAMPLES

- A. Store Record Documents and Samples in field office apart from documents used for construction. Provide files, racks and secure storage for Record Documents and Samples.
- B. Label and file Record Documents and Samples in accordance with Section number listing in Table of Contents of this Project Manual. Label each document "PROJECT RECORD" in neat, large, printed letters.
- C. Maintain Record Documents in a clean, dry and legible condition. DO NOT use Record Documents for construction purposes.
- D. Keep Record Documents and Samples available for inspection by Architect/Engineer and Owner.

1.4 RECORDING

- A. Label each document "PROJECT RECORD" in neat, large, printed letters.
- B. Provide felt tip marking pens, maintaining separate colors for each major system, for recording information on prints. The final plot shall show all pertinent changes and shall be marked "As Built", dated and signed by Contractor. Submit "As Built" documents to the Architect for their review.
- C. Record information concurrently with construction progress. DO NOT CONCEAL any work until required information is recorded.

- D. Contract Drawings and Shop Drawings: Legibly mark each item to record actual construction, including:
1. Measured depths of elements of foundation in relation to finish first floor datum.
 2. Measured horizontal and vertical locations of underground utilities and appurtenances, referenced to permanent surface improvements.
 3. Measured location of internal utilities and appurtenances concealed in the construction, referenced to visible and accessible features of the construction.
 4. Field changes of dimension and detail.
 5. Changes made by Modifications.
 6. Details not on original Contract Drawings.
 7. References to related Shop Drawings and Modifications.
- E. Specifications: Legibly mark each item to record actual construction, including:
1. Manufacturer, trade name, catalog number of each product actually installed, particularly optional items and substitute items.
 2. Changes made by Addenda and Modifications.
- F. Other Documents: Maintain manufacturer's certifications, inspection certifications, field test records and other similar items required by individual Specifications sections.

1.5 SUBMITTAL

- A. At Contract Closeout, deliver Record Documents and Samples under provisions of Section 017700.
- B. Transmit with cover letter in duplicate, listing:
1. Date
 2. Project title and number
 3. Contractor's name, address and telephone number
 4. Title and number of each Record Document
 5. Signature of Contractor or his authorized representative

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION 017800

SECTION 017810 - WARRANTIES AND BONDS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Preparation and submittal of warranties and bonds.
- B. Schedule of submittals.

1.2 RELATED REQUIREMENTS

- A. INSTRUCTIONS TO BIDDERS: Bid Bonds.
- B. GENERAL CONDITIONS of the CONTRACT: Performance Bond and Labor and Material Payment Bonds (AS REQUIRED), Warranty and Correction of Work.
- C. Section 017700 - CLOSEOUT PROCEDURES.
- D. Section 018300 - OPERATION AND MAINTENANCE DATA.
- E. Individual Specifications Sections: Warranties and bonds required for specific Products or Work.

1.3 FORMS OF SUBMITTALS

- A. Bind in commercial quality 8 1/2 x 11 inch three-ring side binders with hardback, cleanable, plastic covers.
- B. Label cover of each binder with typed or printed title "WARRANTIES AND BONDS", with title of Project, name, address and telephone number of contractor and name of responsible principal.
- C. Table of Contents: Neatly typed in the sequence of the Table of Contents of the Project Manual with each item identified with the number and title of the specification section in which specified and the name of Product or Work item.
- D. Separate each warranty or bond with index tab sheets keyed to Table of Contents listing. Provide full information using separate typed sheets as necessary. List subcontractor, supplier and manufacturer with name, address and telephone number of responsible principal.

1.4 PREPARATION OF SUBMITTALS

- A. Obtain warranties and bonds as required, executed in duplicate by responsible subcontractors, suppliers and manufacturers within ten (10) days after completion of the applicable item of work. Except for items put into use with Owners' permission, leave date of beginning of time of warranty until the Date of Substantial Completion is determined.

- B. Verify that documents are in proper form, contain full information and are notarized.
- C. Co-execute submittals when required.
- D. Retain warranties and bonds until time specified for submittal.

1.5 TIME OF SUBMITTALS

- A. For equipment or component parts of equipment put into service during construction with Owner's permission, submit documents within ten (10) days after acceptance.
- B. Make other submittals within ten (10) days after Date of Substantial Completion prior to final Application for Payment.
- C. For items of Work when acceptance is delayed beyond Date of Substantial Completion, submit within ten (10) days after acceptance, listing the date of acceptance as the beginning of the warranty period.

1.6 SUBMITTALS REQUIRED

- A. Submit Warranties, Bonds, Service and Maintenance Contracts as specified in the respective Sections of the Specifications, "As Appropriate To This Project".

PART 2 - PRODUCTS (Not Applicable).

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 017810

SECTION 017820 - SPARE PARTS AND MAINTENANCE MANUALS

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Products required.
- B. Storage and delivery of products.

1.2 RELATED REQUIREMENTS

- A. Section 016100 - BASIC PRODUCT REQUIREMENTS.
- B. Section 017700 - CLOSEOUT PROCEDURES.
- C. Section 018300 - OPERATION AND MAINTENANCE DATA.
- D. Individual Specifications Sections: Specific spare parts and materials required.

1.3 PRODUCTS REQUIRED

- A. Provide quantities of products, spare parts, maintenance tools and maintenance materials specified in individual sections to be provided to Owner in addition to that required for completion of Work.
- B. Products: Identical to those installed in the Work. Include quantities in original purchase from supplier or manufacturer to avoid variations in manufacturer.

1.4 STORAGE, MAINTENANCE

- A. Store products with products to be installed in the Work under provisions of Section 016100.
- B. After delivery of products to site, maintain spare products in same space and condition as products to be installed in the Work.
- C. Maintain spare products in original containers with labels intact and legible until delivery to Owner.

1.5 DELIVERY

- A. Coordinate with Owner's project representative and/ or the Architect: Deliver and unload spare products to Owner at Project site and obtain receipt prior to final payment.

PART 3 - EXECUTION (Not Applicable).

END OF SECTION 017820

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SECTION 018300 - OPERATION AND MAINTENANCE DATA

PART 1 - GENERAL

1.1 REQUIREMENTS INCLUDED

- A. Format and content of manuals.
- B. Instruction of Owner's personnel.
- C. Schedule of submittals.

1.2 RELATED REQUIREMENTS

- A. Section 013300 - SUBMITTAL PROCEDURES
- B. Section 017700 - CLOSEOUT PROCEDURES
- C. Section 017800 - PROJECT RECORD DOCUMENTS
- D. Section 017810 - WARRANTIES AND BONDS
- E. Individual Specifications Sections: Specific requirements for operation and maintenance data.

1.3 QUALITY ASSURANCE

- A. Prepare instructions and data by personnel experienced in maintenance and operation of the described products.

1.4 FORMAT

- A. Prepare data in the form of an instructional manual for use by Owner's personnel.
- B. Binders: Commercial quality, 8 1/2 x 11 inch three-ring binders with hardback, cleanable, plastic covers; one inch maximum ring size. When multiple binders are used, correlate data into related consistent groupings.
- C. Covers: Identify each binder with typed or printed title "OPERATION AND MAINTENANCE INSTRUCTIONS"; list title of project and identify separate structures as applicable; identify subject matter of contents.
- D. Arrange content by systems, under section numbers and sequence of Table of Contents of this Project Manual.
- E. Provide tabbed fly leaf for each separate product and system with typed description of product and major component parts of equipment.

F. Text: Manufacturer's printed data or typewritten data on 20 pound paper.

- G. Drawings: Provide with reinforced punched binder tab. Bind in with text; fold larger drawings to size of text pages.
- H. Submit three copies of the completed manual at least 14 days in advance of the Contractors request for final payment.

1.5 CONTENTS, EACH VOLUME

- A. Table of Contents: Provide title of Project; names, addresses and telephone numbers of Architect/Engineer and Contractor with name of responsible parties; schedule of products and systems, indexed to content of the volume.
- B. For Each Product or System: List names, addresses and telephone numbers of subcontractors and suppliers, including local source of supplies and replacement parts.
- C. Product Data: Mark each sheet to clearly identify specific products and component parts and data applicable to installation; delete inapplicable information.
- D. Drawings: Supplement product data to illustrate relations to component parts of equipment and systems to show control and flow diagrams.
- E. Typed Text: As required to supplement product data. Provide logical sequence of instructions for each procedure, incorporating manufacturer's instructions.
- F. Warranties and Bonds: Bind in copy of each.

1.6 MANUAL FOR MATERIALS AND FINISHES

- A. Building Products, Applied Materials and Finishes: Include product data with catalog number, size, composition and color and texture designations.
- B. Instructions for Care and Maintenance: Include manufacturer's recommendations for cleaning agents and methods, precautions against detrimental agents and methods and recommended schedule for cleaning and maintenance.
- C. Moisture-Protection and Weather-Exposed Products: Include product data listing applicable reference standards, chemical composition and details of installation. Provide recommendations for inspection, maintenance and repair.
- D. Additional Requirements: As specified in Individual Specifications Sections.
- E. Provide complete information, "As Appropriate To This Project", for products specified in.

1.7 MANUAL FOR EQUIPMENT AND SYSTEMS

- A. Each item of Equipment and Each System: Include description of unit or system and component parts. Give function, normal operating characteristics and limiting conditions. Include performance curves with engineering data and tests and complete nomenclature and commercial number of replacement parts.
- B. Panel Board Circuit Directories: Provide electrical service characteristics, controls and communications.
- C. Include as-installed color coded wiring diagrams.
- D. Operating Procedures: Include start-out, break-in and routine normal operating instructions and sequences. Include regulation, control, stopping, shut-down and emergency instructions. Include summer, winter and any special operating instructions.
- E. Maintenance Requirements: Include routine procedures and guide for trouble-shooting; disassembly, repair and reassembly instructions; and alignment, adjusting, balance and checking instructions.
- F. Provide servicing and lubrication schedule and list of lubricants required.
- G. Include manufacturer's printed operation and maintenance operations.
- H. Include sequence of operation by controls manufacturer.
- I. Provide original manufacturer's parts list, illustrations, assembly drawings and diagrams required for maintenance.
- J. Provide as-installed control diagrams by controls manufacturer.
- K. Provide Contractor's coordination drawings with as-installed color coded piping diagrams.
- L. Provide charts of valve tag numbers with location and function of each valve, keyed to flow and control diagrams.
- M. Provide list of original manufacturer's spare parts, current prices and recommended quantities to be maintained in storage.
- N. Additional Requirements: As specified in individual Specifications Sections.
- O. Provide complete information, "As Appropriate To This Project", for products specified in all divisions of the specification.

1.8 INSTRUCTION OF OWNER PERSONNEL

- A. Before final inspection, instruct Owner's designated personnel in operation, adjustment and maintenance of products, equipment and systems, at as agreed upon times. For equipment requiring seasonal operation, perform instructions for other seasons within six months of substantial completion.
- B. Use operation and maintenance manuals as basis of instruction. Review contents of manuals with personnel in detail to explain all aspects of operation and maintenance.
- C. Prepare and insert additional data in Operation Maintenance Manual when need for such data becomes apparent during instruction.

PART 2 - PRODUCTS (Not applicable).

PART 3 - EXECUTION (Not applicable).

END OF SECTION 018300

SECTION 019130 GENERAL COMMISSIONING REQUIREMENTS

PART 1 - GENERAL

1.1 STIPULATIONS

- A. The specifications sections "General Conditions of Contract," "Special Conditions," and "Division 1 - General Requirements" form a part of this section by this reference thereto, and shall have the same force and effect as if printed herewith in full.

1.2 SUMMARY

- A. This section includes general administrative and procedural requirements for the commissioning process to supplement other Division 01 commissioning process activity Sections and other Sections in Divisions 21 thru 28 that specify testing of components, systems and assemblies.

1.3 DESCRIPTION

- A. Commissioning is a systematic process of confirming that all building systems perform interactively according to the Design Intent and continuing through construction, acceptance and the warranty period with actual verification of performance.
- B. Commissioning during the construction phase of this project is intended to achieve the following specific objectives:
 - 1. Coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultations with all necessary parties, frequently updated timelines and schedules and technical expertise.
 - 2. Coordinate the commissioning work with the design team and construction manager, to ensure that commissioning activities are being incorporated into the master schedule.
 - 3. Revise, as necessary the construction phase commissioning plan developed during design, including team member responsibilities, scope and schedule.
 - 4. Plan and coordinate commissioning meetings as needed and distribute minutes.

5. Request and review additional information required to perform commissioning tasks, including O&M materials, contractor start-up and checkout procedures. Before start-up, gather and review the current control sequences and interlocks and work with contractors and design engineers until sufficient clarity has been obtained, in writing, to be able to write detailed testing procedures.
6. Review submittals applicable to systems being commissioned for compliance with commissioning needs, concurrent with the design team and the construction manager reviews.
7. Review requests for information and change orders for impact on commissioning and User Agency objectives.
8. Review coordination drawings to ensure that trades are making a reasonable effort to coordinate.
9. Write and distribute construction checklists for commissioned equipment.
10. Develop an enhanced start-up and initial systems checkout plan with contractors for selected equipment.
11. Perform site visits as necessary, to observe component and system installations. Attend selected planning and job-site meetings to obtain information on construction progress. Review construction meeting minutes for revisions/substitutions relating to the commissioning process. Assist in resolving any discrepancies.
12. Witness any ductwork testing and cleaning sufficient to be confident that proper procedures were followed. Include documentation in the commissioning record.
13. Document construction checklist completion by reviewing completed construction checklists and by selected site observation.
14. Document systems start-up by reviewing start-up reports and by selected site observation.
15. Review air and water systems balancing by spot testing and by reviewing completed reports and by selected site observation.
16. Coordinate functional testing for all commissioned systems and assemblies. Witness and document manual functional performance tests performed by the construction contractor for all commissioned systems and assemblies except
 - i. Some smaller equipment may be tested and documented by the construction contractor at the commissioning agent's discretion.

- ii. Electrical equipment testing and regulated testing may be directed and documented by the construction contractor with only spot witnessing and report review by the commissioning agent. The functional testing shall include the operating system and components through each of the written sequences of operation and other significant modes and sequences including, start-up, shutdown, unoccupied mode, manual mode, staging, miscellaneous alarms, power failure, security alarm when impacted and interlocks with other systems or equipment. Sensors and actuators shall be calibrating during construction check listing by the installing contractors, and spot-checked by the commissioning agent during functional testing. Coordinate retesting as necessary until satisfactory performance is achieved. Tests on respective HVAC equipment shall be executed, if possible, during both the heating and cooling seasons. However, some overwriting of control values to simulate conditions shall be allowed. Functional testing shall be done using conventional manual methods, control system trend logs, and readouts or stand-alone data loggers, to provide a high level of confidence in proper system function, as deemed appropriate by the commissioning agent, the department, and the using agency.
- 17. After manual testing and initial troubleshooting is complete, monitor system operation and performance for selected data points for up to two weeks by requesting trend logs from the construction contractor from the building automation system. For needed system points not able to be trended by the building automation system, furnish and install temporary portable data loggers that will monitor up to 20 points. Analyze monitored data to verify performance and issue a written report. This time frame and monitoring points may be modified to accurately commission the building.
 - 18. Maintain a master issues log and a separate record of functional testing. Report all issues through the construction manager as they occur. Provide through the construction manager written progress reports and test results with recommended actions.
 - 19. Review equipment warranties to ensure that the User Agency responsibilities are clearly defined.
 - 20. Facilitate, oversee, and review the training of facility operating personnel. Oversee the videotaping of this training. Attend and participate in key training sessions.
 - 21. Review the preparation of O&M manuals for commissioned equipment.
 - 22. Compile a commissioning record which shall include:
 - i. A brief summary report that includes a list of participants and roles, brief building description, overview of commissioning and testing

scope, and a general description of testing and verification methods. For each piece of commissioned equipment, the report shall contain the disposition of the commissioning provider regarding the adequacy of the equipment, documentation and training meeting the contract documents in the following areas:

1. Equipment meeting the equipment specifications,
 2. Equipment installation,
 3. Functional performance and efficiency,
 4. Equipment documentation and
 5. Operator training.
- ii. All outstanding non-compliance items shall be specifically listed. Recommendations for improvement to equipment or operations, future actions, commissioning process changes, etc. shall also be listed. Each non-compliance issue shall be referenced to the specific functional test, inspection, trend log, etc. where the deficiency is documented.
- iii. Also included in the commissioning record shall be the commissioning plan, Design Intent, commissioning specifications, design review, submittal review, issues log, construction checklists, commissioning authority site visit and commissioning team meeting minutes, O&M review, training documentation, test procedures, warranty review and test data reports.
- iv. A re-commissioning management manual which provides guidance and establishes timelines for re-commissioning of building systems and components. The format of the re-commissioning management manual will closely parallel the commissioning plan for the facility.
- v. Submit 3 CD copies of the commissioning records including all information listed in ii, iii, and iv above.

C. Commissioning during the post-construction phase of this project is intended to achieve the following specific objectives:

1. Coordinate and supervise required opposite seasons or deferred testing and deficiency corrections and provide the final testing documentation for the final commissioning report and O&M manuals.
2. Return to the site monthly during the 12 month warranty period and review with facility staff the current building operation and the condition of outstanding issues related to the original or seasonal commissioning. Also interview facility staff and identify problems or concerns they have with operating the building as originally intended. Make suggestions for improvements and for recording these changes in the O&M manuals. Identify areas that may come under warranty or under the original construction contract. Assist facility staff in developing reports and documents and requests for services to remedy outstanding problems.

3. Verify continuing training.
4. The following is a sequence of stabilizing process activities following substantial completion:
 - i. Discuss recommended criteria for acceptable stabilization time frames in each season that monitoring will take place and establish the required outside temperature conditions (temperature level and duration) to satisfy typical weather conditions.
 - ii. Communicate agreed criteria to all user agency designated constituencies and request comments/approval.
 - iii. Distribute final criteria to all constituencies.
 - iv. Recommend number and location of temperature/relative humidity recording instruments.
 - v. Establish calibration procedures and confirm compliance.
 - vi. Define procedure for maintenance of recording instrumentation and responsibility for communicating results.
 - vii. Define procedure for communicating energy consumption results on a monthly basis and responsibility for collection/distribution of data.
 - viii. Establish regular meeting schedule to review and report on hydro thermograph test results to all User Agency and Department designated constituencies; review success of stabilization strategy and establish alternate procedures as necessary.
 - ix. Record overall monitoring results and asses against "success" criteria.
 - x. Establish compliance with criteria and review with all user agency delegates to ensure agreement with results.
 - xi. Discuss results with facility staff to ensure agreement with successful achievement of stabilization process completion.
- D. The Commissioning process does not take away from or reduce the responsibility of the system designers to design a workable system nor the installing contractors to provide a finished and fully functioning product.
- E. The CxA directs and coordinates the commissioning activities and reports to the Department. All members in the construction process work together to fulfill their contracted responsibilities and meet the objectives of the Design Intent as detailed in the Contract Documents.

- F. The CxA works with the Department according to established protocols to schedule the commissioning activities. The CxA will provide sufficient notice to the Department and the Using Agency for scheduling commissioning activities. Meanwhile, the CxA will integrate these activities into the master construction schedule. All parties will address scheduling problems and make necessary notifications in a timely manner in order to expedite the commissioning process.
- G. The following narrative provides a brief overview of the commissioning tasks during construction and the general order in which they occur.
1. Commissioning during construction begins with a Commissioning Kick-Off Meeting – Construction Team conducted by the CxA where the commissioning process is reviewed with the commissioning team members.
 2. Additional meetings will be required throughout construction, scheduled by the CxA with necessary parties attending, to plan, scope, coordinate, schedule future activities and resolve problems.
 3. Equipment documentation is submitted to the CxA through the submittal process, including detailed start-up procedures.
 4. In general, the checkout and performance verification proceeds from simple to complex; from component level to equipment to systems and intersystem levels with Pre-Functional checklists being completed before functional testing begins.
 5. The contractors, under their own direction, document and perform startup and initial checkout. The CxA documents that startup was completed according to the approved plans, when contracted. This may include the CxA witnessing start-up of selected equipment, if contracted.
 6. The CxA verifies installation integrity thru the use of checklists.
 7. The CxA develops specific equipment and system functional performance test procedures. The contractors review the procedures.
 8. The procedures are executed by the contractors, under the direction of, and documented by the CxA.
 9. Items of non-compliance in material, installation or setup are corrected at the contractor's expense and the system retested.
 10. The CxA reviews the O&M documentation for completeness.
 11. Commissioning is completed before Substantial Completion, whenever possible.

12. The CxA reviews and pre-approves the training plan provided by the contractors.
13. The contractors coordinate and provide training via qualified instructors.
14. Training occurs.
15. The Department verifies that training has occurred and provides a written statement that training has occurred.
16. Deferred testing is conducted, as specified or required.

1.4 DEFINITIONS

- A. Acceptance: A formal action, to declare that some aspect of the project meets defined requirements, thus permitting subsequent activities to proceed.
- B. Acceptance Phase: Phase of commissioning after start-up and initial checkout when functional performance tests, O&M documentation review and training occurs.
- C. Approval: Acceptance that a piece of equipment or system has been properly installed and is functioning in the tested modes according to the contract documents.
- D. Checklists: Verification checklists that are developed and used during all phases of the commissioning process to verify that the Design Intent are being achieved. This includes checklists for general verification, plus testing, training, and other specific requirements.
- E. Commissioning Authority (CxA): An entity identified by the Department who plans, schedules and coordinates the commissioning team to implement the Commissioning Process.
- F. Commissioning Plan: A document that outlines the organization, schedule, allocation of resources, and documentation requirements of the commissioning process.
- G. Commissioning Process: A quality-focused process for enhancing the delivery of a project and includes verifying and documenting that the facility and its systems and assemblies are planned, designed, installed, tested, operated and maintained to meet the Design Intent.
- H. Commissioning Process Progress Report: A written document that details activities completed as part of the commissioning process and significant findings from those activities that is continuously updated during the course of a project.

- I. Commissioning Report: A document recording the results of the commissioning process, including the record documents, performance of the commissioned systems and documents all sign-offs.
- J. Commissioning Specifications: The contract document that details the objective, scope and implementation of the construction and acceptance phases of the commissioning process as developed in the Commissioning Plan.
- K. Commissioning Team: A team comprised of the CxA, Using Agency, Department, Professionals, Contractors, maintenance and operations personnel, and occupants. Individuals, each having the authority to act on behalf of the entity he or she represents, explicitly organized to implement the commissioning process through coordinated action.
- L. Contract Documents: The documents binding on parties involved in the construction of this project (drawings, specifications, change orders, amendments, contracts, Cx Plan, etc.)
- M. Contractor: the subcontractors authorized representatives.
- N. Data Logging: The monitoring and recording of flow, current, status, pressure, etc. of equipment using 'stand-alone' data recorders separate from the control system or the trending capacities of control systems.
- O. Deferred Performance Tests (DPTs): Performance tests that are performed, at the discretion of the CxA, after substantial completion, due to partial occupancy, equipment, seasonal requirements, design, or other site conditions that disallow the test from being performed.
- P. Deficiency: A condition in the installation or function of a component, piece of equipment or system that is not in compliance with the Contract Documents (that is, does not perform properly or is not complying with the Design Intent).
- Q. Department: Pennsylvania Department of General Services
- R. Design Intent: A document that records concepts, calculations, decisions and product selections used to meet the Department and Using Agency's Project Requirements and to satisfy applicable regulatory requirements, standards and guidelines. The document includes both narrative descriptions and lists of individual items that support the design process. Also known as the Design Criteria.
- S. Design Professional: the prime Consultant and Sub-Consultants who comprise the design team, generally the Architect, HVAC Designer/Engineer, the Electrical Designer/Engineer, Architect and various other Sub-Consultants.
- T. Equipment Manufacturer: The multiple companies that will manufacturer equipment and products for the commissioned systems and who will

participate as required in the commissioning activities.

- U. Factory Testing: Testing of equipment on-site or at the factory, by factory personnel, with or without the Department and/or Using Agency's representative present.
- V. Functional Performance Test: The testing of the dynamic function and operation of equipment and systems using manual (direct observation) or monitoring methods. Functional testing is the dynamic testing of systems (rather than just components) under full operation. Systems are tested under various modes, such as during low cooling or heating loads, high loads, component failures, unoccupied, varying outside air temperatures, etc. The systems are run through all the control system's sequence of operation and components are verified to be responding as the sequences state. The commissioning authority develops the functional test procedures in a sequential written form, coordinates, oversees and documents the actual testing, which is usually performed by the installing contractor or vendor.
- W. HVAC: Heating, Ventilating, and Air Conditioning.
- X. Issues Log: A formal and ongoing record of problems or concerns – and their resolution – that have been raised by members of the commissioning team during the course of the commissioning process.
- Y. Manual Test: Using hand-held instruments, immediate control system readouts or direct observation to verify performance (contrasted to analyzing monitored data taken over time to make the 'observation').
- Z. Monitoring: The recording of parameters (flow, current, status, pressure, etc.) of equipment operation using data loggers or the trending capabilities of control systems.
- AA. Non-Compliance: See Deficiency.
- BB. Non-Conformance: See
Deficiency.
- CC. Over-written Value: Writing over a sensor value in the control system to see the response of a system.
- DD. Phased Commissioning: Commissioning that is completed in phases (by floors, for example) due to the size of a project or other scheduling issues, in order to minimize the total construction time.
- EE. Re-Commissioning Management Manual: A single manual that contains information required for re-commissioning the projects' building systems.
- FF. Sampling: Functionally testing only a fraction of the total number of identical or

near identical pieces of equipment.

- GG. Seasonal Performance Test: Performance tests that are deferred until the system(s) will experience conditions closer to their design conditions based on weather conditions.
- HH. Simulated Condition: Condition that is created for the purpose of testing the response of a system (e.g. Raising/lowering the set-point of a thermostat to see the response in a VAV box).
- II. Simulated Signal: Disconnecting a sensor and using a signal generator to simulate a sensor value for the purpose of testing a full range of conditions.
- JJ. Startup: The initial starting or activating of dynamic equipment, including completing construction checklists.
- KK. Systems Manual: A systems focused composite document that includes the operation manual, maintenance manual, and additional information of use to the Using Agency during the occupancy and operations phase.
- LL. Systems, Subsystems, and Equipment: Where these terms are used together or separately, they shall mean “as-built” systems, subsystems, and equipment.
- MM. Test Procedures: The step-by-step process which must be executed to fulfill the test requirements. The test procedures are developed by the CxA.
- NN. Test Requirements: Requirements specifying what modes and functions, etc. shall be tested. The test requirements are not the detailed test procedures. The test requirements are specified in the Contract Document.
- OO. Training Plan: A written document that details the expectations, schedule, budget and deliverables of commissioning process activities related to training of project operating and maintenance personnel, users, and occupants.
- PP. Trending: Monitoring over a period of time.
- QQ. Using Agency: The managing authority for the institution who oversees the design and/or construction of the project.
- RR. Verification: The process by which specific documents, components, equipment, assemblies, systems, and interfaces among systems are confirmed to comply with the criteria described in the Design Intent.
- SS. Warranty Period: Warranty period for the entire project, including equipment components. Warranty begins at Substantial Completion and extends typically for at least one year, unless specifically noted otherwise in the Contract Documents.

1.5 SUBMITTALS

- A. The CxA will review and approve submittals related to the commissioned equipment for conformance to the Contract Documents as it relates to the commissioning process, to the functional performance of the equipment and adequacy for developing test procedures. This review is intended primarily to aid in the development of functional testing procedures and only secondarily to verify compliance with equipment specifications. The CxA will notify the Department, Using Agency or Professionals as requested, of items missing or areas that are not in conformance with Contract Documents and which require resubmission.
- B. The CxA will review the submittals once. The CxA will receive a copy of the final approved submittals.

1.6 QUALITY ASSURANCE

- A. Test Equipment Calibration Requirements: Contractors will comply with test manufacturer's calibration procedures and intervals. Recalibrate test instruments immediately after instruments have been repaired resulting from being dropped or damaged. Affix calibration tags to test instruments. Furnish calibration records to CxA upon request.

1.7 COORDINATION

- A. Commissioning Kick-Off Meeting – Construction Team: Contractors will attend a meeting of the Commissioning Team, chaired by the CxA, to review the scope of commissioning process activities and the Commissioning Plan with discussions on milestones, activities, and assignments of responsibilities. The flow and type of documents and the amount of submittal data given to the CxA will be determined. Meeting minutes will then be distributed to all parties by the CxA.
- B. Commissioning Meetings: Contractors will attend coordination meetings with the Commissioning Team, chaired by the CxA, to review progress on the Commissioning
- C. Plan, construction deficiencies, scheduling conflicts, and to discuss strategies and processes for upcoming commissioning process activities.
- D. Miscellaneous Construction Meetings: The CxA attends selected planning and job-site meetings in order to remain informed on construction progress and to update parties involved in the commissioning process.
- E. Pre-testing Meetings: Contractors will attend pretest meetings with the Commissioning Team, chaired by the CxA, to review startup reports, pre-test inspection results, testing procedures, testing personnel and instrumentation requirements, and manufacturers' authorized service representative services

for each system, subsystem, equipment, and component to be tested.

- F. Testing: Contractors will coordinate with testing personnel and agencies for timing and access for CxA to witness test.
- G. Manufacturers' Inspection and Startup Services: Contractors will coordinate services of manufacturers' inspection and startup services.
- H. Testing, Adjusting and Balancing: Contractors will coordinate with plan and schedule for testing, adjusting and balancing for timing and access for CxA to witness process.

PART 2 – PRODUCTS

2.1 TEST EQUIPMENT

- A. All standard testing equipment required to perform startup, initial checkout and functional performance testing shall be provided by the Contractor for the equipment being tested. For example, the mechanical contractor of Division 15 shall ultimately be responsible for all standard testing equipment for the HVAC system and controls system in Division 15, except for equipment specific to and used by TAB in their commissioning responsibilities. A sufficient quantity of two-way radios shall be provided by each subcontractor.
- B. Special equipment, tools and instruments (specific to a piece of equipment and only available from the vendor) required for testing shall be included in the base bid price to the Using Agency and left on site, except for stand-alone data logging equipment that may be used by the CxA.
- C. Proprietary test equipment and software required by any equipment manufacturer for programming and/or start-up, whether specified or not, shall be provided by the manufacturer of the equipment. Manufacturer shall provide the test equipment, demonstrate its use, and assist in the commissioning process as needed. Proprietary test equipment (and software) shall become the property of the Using Agency upon completion of the commissioning process.
- D. Data logging equipment and software required to test equipment will be provided by the CxA, but shall not become the property of the Using Agency
- E. All testing equipment shall be of sufficient quality and accuracy to test and/or measure system performance with the tolerances specified in the Specifications. If not otherwise noted, the following minimum requirements apply: Temperature sensors and digital thermometers shall have a certified calibration within the past year to an accuracy of 0.5 degrees F and a resolution of + or - 0.1 degrees F. Pressure sensors shall have an accuracy of + or - 2.0% of the value range being measured (not full range of meter) and

have been calibrated within the last year.

PART 3 – EXECUTION

3.1 GENERAL DOCUMENTATION REQUIREMENTS

- A. Submittals: See Section 1.5 – SUBMITTALS for requirements.
- B. Checklists
 - 1. The CxA will prepare Pre-Functional Checklists for all commissioned components, equipment, and systems.
- C. Red-lined Drawings: The Contractor will verify all equipment, systems, instrumentation, wiring and components are shown correctly on red-lined drawings. Preliminary red-lined drawings must be available to the Commissioning Team for use prior to start of the Functional Performance Testing. Changes, as a result of Functional Testing, must be incorporated into the final as-built drawings, which will be created from the red-lined drawings. The contracted party, as defined in the Contract Documents will create the as-built drawings.
- D. Operation and Maintenance Data: Contractor will provide a copy of O&M literature within 45 days of each submittal acceptance for use during the commissioning process for all commissioned equipment and systems. The CxA will review the O&M literature once for conformance to project requirements. The CxA will receive a copy of the final approved O&M literature once corrections have been made by the Contractor.
- E. Demonstration and Training: Contractor will provide demonstration and training as required by the specifications. A complete training plan and schedule must be submitted by the Contractor to the CxA four weeks (4) prior to any training. A training agenda for each training session must be submitted to the CxA one (1) week prior the training session.

3.2 USING AGENCY'S RESPONSIBILITIES

- A. Provide the OPR documentation to the CxA and Contractors for use in developing the Commissioning Plan; testing plans and checklists.
- B. Provide the Basis of Design documents, prepared by the Design Professional and approved by the Department and the Using Agency, for use in developing the Commissioning Plan; testing plans and checklists
- C. Assign operation and maintenance personnel and schedule them to participate in Commissioning Team activities including, but not limited to, the

following:

1. Commissioning meetings.
 2. Construction phase coordination meetings.
 3. Piping and ductwork testing and flushing verification meetings.
 4. Procedures meeting for testing, adjusting and balancing.
 5. Testing and demonstration of systems, subsystems and equipment.
 6. Training in operation and maintenance of systems, subsystems and equipment.
 7. Final review and acceptance meetings
- D. Coordinate any seasonal or deferred testing.
- E. Ensure that any seasonal, deferred testing and/or deficiency issues are addressed.

3.3 DEPARTMENT RESPONSIBILITIES

- a. Facilitate the coordination of the commissioning work between the CxA, the Contractor and the Professionals to ensure that the commissioning activities are incorporated into the master schedule.
- b. Review and approve the commissioning plan.
- c. Coordinate any seasonal or deferred testing.
- d. Ensure that any seasonal, deferred testing and/or deficiency issues are addressed.

3.4 DESIGN PROFESSIONAL'S RESPONSIBILITIES

- A. Attend the Commissioning Kick-Off Meeting – Design Team, Commissioning Kick-Off Meeting – Construction Team and selected team meetings.
- B. Perform submittal review, construction observation, as-built drawing preparation, and other items as contracted.
- C. Provide the Design Intent. The designers shall assist (along with the contractors) in clarifying the operation and control of commissioned equipment in areas where the specifications, control drawings or equipment documentation is not sufficient for writing detailed testing procedures.
- D. Participate in the resolution of system deficiencies identified during the commissioning, according to the contract documents.
- E. Construction Record documents and specifications.
- F. Insure that the CxA's submittals comments are incorporated into the Design Professional's submittal comments prior to sending to the Department

for distribution.

- G. Facility operating procedures for normal, abnormal, and emergency modes of operation
- H. Participate in resolution of design non-conformance and design deficiencies identified during the warranty-period commissioning process.
- I. Provide a written description and rational for all energy and water saving features and strategies with operating instructions and caveats about their function and maintenance relative to energy use.
- J. Provide written guidelines for establishing and tracking benchmarks for whole building energy use and equipment efficiencies of cooling, heating and service hot water equipment.
- K. Provide a written list of diagnostic tools, with use descriptions, to assist facility staff.

3.5 CONTRACTOR'S RESPONSIBILITIES

- B. Contractor shall assign representatives with expertise and authority to act on its behalf and shall schedule them to participate in and perform commissioning process activities including, but not limited to, the following brief overview:
 - 1. Facilitate the coordination of commissioning and incorporate commissioning activities into the overall project.
 - 2. Provide copies of all applicable submittals as required in Division 01 including all changes thereto.
 - 3. Provide detailed startup procedures.
 - 4. Evaluate performance deficiencies identified in test reports and, in collaboration with entity responsible for system and equipment installation, perform corrective actions.
 - 5. Cooperate with the CxA for resolution of issues recorded in the Issues Log.
 - 6. Attend commissioning team meetings held on a scheduled basis.
 - 7. Furnish a copy of all construction documents, addenda, change orders and approved submittals and shop drawings related to commissioned equipment to the CxA. Furnish a copy of the O&M literature to the CxA forty five (45) days after final equipment submittals.
 - 8. In each purchase order or subcontract written, include requirements for

submittal data, O&M literature, commissioning tasks and training.

9. Integrate and coordinate commissioning process activities with construction schedule.
10. Review and accept construction checklists provided by the CxA.
11. Review and accept commissioning process test procedures provided by the CxA.
12. Complete commissioning process test procedures.
13. Submit training plan for approval, coordinate training and provide qualified instructors for training of Using Agency personnel.
14. Assist the CxA as necessary in the seasonal testing, deferred testing and deficiency resolution.
15. Ensure that subcontractors correct deficiencies and make necessary adjustments to submittals, O&M manuals and red-lined drawings for applicable issues identified in any seasonal testing.
16. Provide written as-built controls drawings and sequences of operation for all equipment.
17. Provide a written list of time of day schedules and a schedule frequency to review them for relevance and efficiency.
18. Provide written recommendations for recalibration frequency of sensors and actuators by type and use.
19. Provide a written list of all user adjustable set-points and reset schedules with a brief discussion of the purpose of each and the range of reasonable adjustments with energy implications.
20. Provide a written schedule frequency to review the various set-points and reset schedules to ensure they are current relevant and efficient values.
21. Provide a written list of diagnostic tools with use descriptions to assist facility staff.

3.6 EQUIPMENT SUPPLIERS RESPONSIBILITIES

A. Roles and Responsibilities

1. Provide all requested submittal data, including detailed start-up procedures and specific responsibilities of the Using Agency, to keep warranties in force.

2. Assist in equipment testing per agreements with subcontractors.
3. Provide information requested by CxA regarding equipment sequence of operation and testing procedures.

3.7 COMMISSIONING AUTHORITY RESPONSIBILITIES

A. Roles and Responsibilities

1. The CxA is not responsible for the design concept, the design criteria, compliance with codes, design or general construction scheduling, cost estimating or construction management.
2. The CxA may assist with problem solving and non-conformance items or deficiencies, but the CxA is not the Design Professional of Record, and the commissioning process does not preclude the Design Professional of Record of responsibilities for system evaluations, adequacy of systems to meet the Design Intent, capacities of systems, quality control checks, or any of the other elements and recommended final acceptance of systems to the Using Agency.
3. The primary role of the CxA is to coordinate and direct the commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications and consultants with all necessary parties, frequently updated timelines and schedules and technical expertise.

B. Commissioning Plan

1. The CxA shall develop a Commissioning Plan at the start of the project. The Commissioning Plan shall outline the organization, schedule, allocation of resources, and documentation requirements of the Commissioning Process.
2. The Commissioning Plan shall be a "living document" in which information is added to or modified by the Commissioning Team during the course of the Project.
3. At the end of the Project, the CxA shall provide the Department with the Final Commissioning Plan for the Department and Using Agency's use.

C. Document Review

1. Review the Design Intent developed by the design professionals.
2. Perform a focused review of the drawings and specification during the Design Development and near the end of the Construction Document Phase, if contracted.
3. Develop full commissioning specifications for all systems and equipment

to be commissioned. The commissioning specifications will be subject to approval of the design team and included in the final construction specifications.

4. Review submittals applicable to systems being commissioned for compliance for commissioning needs, concurrent with the Design Professional's reviews.

D. Cx Team Meetings

1. Commissioning during construction will begin with a 'Commissioning Kick-Off Meeting – for Construction Team' conducted by the CxA where the commissioning process is reviewed with all of the commissioning team members.
2. Additional meetings will be required throughout construction, and will be scheduled by the CxA on a weekly basis with necessary parties of the commissioning team attending, in order to plan, scope, coordinate, and schedule future activities and resolve problem

E. Coordination and Scheduling

1. Coordinate and direct commissioning activities in a logical, sequential and efficient manner using consistent protocols and forms, centralized documentation, clear and regular communications, and consultations with all necessary parties.
2. Coordinate commissioning work with the Department to ensure that commissioning activities are being scheduled into the master project schedule.

F. Commissioning Progress

1. Perform site visits, as necessary, to observe component and system installations.
2. Attend selected planning and jobsite meetings to obtain information on construction progress.
3. Review construction meeting minutes for revisions/substitutions relating to the commissioning process.

G. Pipe Testing, Flushing and Cleaning

1. Review and approve the pipe testing, flushing and cleaning plan submitted by the Contractor.
2. Witness all or part of the pipe testing, flushing and cleaning and be sufficiently confident that proper procedures are being followed.

3. Document any deficiencies in the procedures or results.

H. Pre-Functional Checks

1. Verify proper installation of components, equipment, systems and assemblies. Sampling procedures may NOT be employed on systems and equipment.
2. HEA will require each contractor to participate with each piece of equipment during the pre-functional phase of the property.

I. Equipment and System Startup and Verification

1. Review and approve component, equipment, and system and assembly startup plan developed and submitted by the Contractor.
2. Approve system startup by reviewing startup reports, if contracted; and by selected site observation.
3. Review the Testing, Adjusting and Balancing execution plan for the project, which shall be submitted by the TAB subcontractor.
4. Verify and document the accuracy of the air and water systems balancing by spot testing the air and water reported field values with TAB subcontractors and by reviewing completed reports.

J. Functional Performance Testing

1. With assistance from the Contractor, write Functional Performance Testing procedures for all components, equipment or systems to be commissioned.
2. With the assistance of the Contractors, coordinate Functional Performance Testing. Witness and approve Functional Performance Testing performed by the Contractors.
3. With the assistance of the Contractors, coordinate retesting as necessary until satisfactory performance is achieved.
4. Witness seasonal or deferred Functional Performance Testing as necessary.

K. Issue/Deficiency Logs

1. The CxA shall prepare a formal, ongoing, record of deficiencies, problems and concerns – and their resolution – raised by members of the Commissioning Team during the Commissioning Process.

2. Issues will be recorded on a Commissioning Issues Log for the Professionals, and Contractors to resolve to the satisfaction of the Department and Using Agency. Issues will be added by the CxA. Team members are required to post their own responses to issues pertaining to their work. Team members are required to respond to issues added to the list within five (5) working days of being added by the CxA.
3. Issues will be revisited one (1) time to verify that the proper corrections have been made. The Department reserves the right to deduct from the Contractors' contract costs associated with additional revisits required for outstanding issues.
4. When issues are resolved, they will be closed on the Issues Log by the CxA.

L. Operation and Maintenance Data

1. The CxA shall review of the documentation submitted by the Contractor as required by the Specifications for completeness and accuracy. This commissioning review supplements, but does not replace, the Design Professional's review.
2. Review equipment warranties to ensure that the Using Agency's responsibilities are clearly defined.

M. Training

1. The CM and Contractors will provide all documentation and qualified training personnel for training. The CxA will verify through the Contractor's plan and schedule, training agendas, and select observations that proper training procedures were followed on all commissioned systems.
2. See appropriate section below pertaining to training.

N. Commissioning Final Report

1. The CxA shall provide a final report following the completion of all Functional Performance Testing. The report is to outline compliance and non-compliance to the construction documents, as well as identify concerns relative to future performance

3.8 GENERAL TESTING REQUIREMENTS

- A. Pre-functional checklists are important to ensure that the equipment and systems are installed and operational. They ensure that functional performance testing (in-depth system checkout) may proceed without unnecessary delays. Each piece of equipment receives full Pre-Functional

checkout. The Pre-Functional testing for a given system must be successfully completed prior to formal functional performance testing of equipment or subsystems of the given system. The Commissioning Authority shall complete the Pre-Functional checks in the field, with assistance from the installing Contractors (where necessary).

- B. The installing contractors, under the direction of the CxA, shall perform Functional Performance Testing of systems and sub-system performance after Pre-Functional checks have been completed and all outstanding issues resolved.
- C. The installing contractor will perform tests specified in Division 1 commissioning process activity Sections and other sections specifying testing procedures according to approved testing procedures.
 - 1. Verify and test performance using actual conditions whenever possible.
 - 2. Simulate conditions by imposing an artificial load when it is not practical to test under actual conditions. Set and document simulated conditions and methods of simulation. After test, return settings to normal operating conditions.
 - 3. Alter set points when simulating conditions is not practical.
- D. The CxA shall witness and document the results of all functional performance tests using the specific procedural forms developed for that purpose. Prior to testing, these forms are provided to the Contractors for review and comment.
- E. Deficiencies/Non-Conformance
 - 1. The CxA will record the results of the functional test on the test form. All deficiencies or non-conformance items shall be noted and reported to the Department, Using Agency and Contractors on a standardized form.
 - 2. Corrections of minor deficiencies identified may be made during the tests at the discretion of the CxA.
 - 3. Every effort will be made to expedite the testing process and minimize unnecessary delays, while not compromising the integrity of the procedures.
 - 4. As tests progress and a deficiency are identified, the CxA discusses the issue with the executing contractor.
 - 5. When there is no dispute on the deficiency and the contractor accepts responsibility to correct it, the CxA documents the deficiency and the contractor's response and intentions or corrections. The CxA and contractor then proceed to another test or sequence. Once the contractor

corrects the deficiency, the test is rescheduled and repeated in the anticipation of correct operation or function. If a deficiency is identified, the cost of retesting will be as per section 3.7.F.

6. When there is a dispute about a deficiency, regarding whether it is a deficiency or who is responsible, the CxA documents the deficiency and the contractor's response. The deficiency is then forwarded to parties assumed to be responsible for the deficiency. Resolutions are made at the lowest management level possible. Other parties are brought into the discussion as needed. Final interpretive authority is with the Professionals. Final acceptance authority is with the Department, Using Agency and CxA. The CxA will then document the resolution process. Once the interpretation and resolution have been decided, the appropriate party corrects the deficiency. The CxA then reschedules the test as stated in the section above. Costs of retesting are as stated below in the applicable section.

F. Cost of Retesting

1. The cost for the contractor to retest a Pre-Functional or functional test, if they are responsible for the deficiency, shall be theirs. If they are not responsible, any cost recovery for retesting costs shall be negotiated with the Department.
2. For a deficiency identified, not related to any Pre-Functional checklist or start-up fault, the following shall apply: The CxA will direct the retesting of the equipment once at no "charge" to the Department for their time. However, the CxA's and Using Agency's time for a second retest will be charged to the Department, who may choose to recover costs from the responsible contractor or subcontractor. Before retesting occurs, the Department will inspect the deficiency and respond to the CxA that the issue has been addressed.
3. The time for the CxA and the Using Agency to direct any retesting required because a specific Pre-Functional checklist or start-up test item, reported to have been successfully completed, but determined during functional testing to be faulty, will be back charged to the Department, who may choose to recover costs from the party responsible for misinformation or deficiency.
4. The contractor shall respond in writing to the CxA and the Using Agency at least as often as commissioning meetings are being scheduled concerning the status of each apparent outstanding discrepancy identified during commissioning. Discussion shall cover explanations of any disagreements and proposals for their resolution.
5. Any required retesting by any contractor shall not be considered a justified reason for a claim of delay or for a time extension by the Department, contractors or subcontractors.

G. Failure due to Manufacturer Defect

1. If 10% or three, whichever is greater, of identical pieces (size alone does not constitute a difference) of equipment fail to perform to the Contract Documents (mechanically or substantively) due to manufacturing defect, not allowing it to meet its submitted performance spec, all identical units may be considered unacceptable by the Department, CxA or Using Agency. In such case, the Contractor shall provide the Using Agency with the following.
2. Within one week of notification from the Department or Using Agency, the Contractor or manufacturer's representative shall examine all other identical units making a record of the findings. The findings shall be provided to the Department or Using Agency within two weeks of the original notice.
3. Within two weeks of the original notification, the Contractor or manufacturer shall provide a signed and dated, written explanation of the problem, cause of failures, etc. and all proposed solutions which shall include full equipment submittals. The proposed solutions shall not significantly exceed the specification requirements of the original installation.
4. The Department, CxA or Using Agency will determine whether a replacement of all identical units or a repair is acceptable.
5. Two examples of the proposed solution will be installed by the Contractor and the Contractor will be allowed to test the installations for up to one week, upon which the CxA or Using Agency will decide whether to accept the solution.
6. Upon acceptance, the Contractor and/or manufacturer shall replace or repair all identical items, at their expense and extend the warranty accordingly, if the original equipment warranty had begun. The replacement/repair work shall proceed with reasonable speed beginning within one week from when parts can be obtained.

H. Approval

1. The CxA notes each satisfactorily demonstrated function on the test form. Formal approval of the functional test is made later after review by the CxA. The CxA recommends acceptance of each test to the Department and Using Agency using a standard form.

I. Deferred Testing

1. Unforeseen Deferred Testing – If any check or test cannot be completed

due to the building structure, required occupancy condition or other deficiency, execution of checklists and functional testing may be delayed upon approval of the Using Agency. These tests will be conducted in the same manner as the seasonal tests, as soon as possible. Services of necessary parties will be negotiated.

2. Seasonal Testing - During the warranty period, seasonal testing (tests delayed until weather conditions are closer to the system's design) shall be completed as part of this contract. The CxA shall coordinate this activity. Tests will be executed, documented and deficiencies corrected by the appropriate contractors, with facilities staff and the CxA witnessing. Any final adjustments to the O&M manuals and record documents due to seasonal testing will be made by the contractor.

3.9 SYSTEMS TO BE COMMISSIONED

A. Mechanical

1. Central Building Automation System (BAS and/or ATC)
2. All Heating, Ventilation, and Air Conditioning equipment and/or systems.
3. All other HVAC equipment as listed in the Commissioning Plan and Commissioning Log

B. Electrical

1. Scheduled or occupancy sensor lighting controls
2. Emergency Power Generators
3. Automatic Transfer Switching and Fuel Systems
4. Uninterruptible Power Supply Systems
5. Verification of:
 - d. Panel Schedules
 - e. Medium Voltage Cables
 - f. Switchgear and transformers
 - g. Switchboards
 - h. Dry-type transformers (1000 V and less)
 - i. Motor Controllers
 - j. Motor Control Centers

C. Plumbing

1. Domestic water heaters
2. Domestic water pumps

3.10 OPERATION AND MAINTENANCE MANUALS

- A. The specific content and format requirements for the standard O&M manuals are detailed in the each division section of the specification book.
- B. Design Professional's Contribution – The Design Professional will include in the beginning of the O&M manuals a separate section describing the

systems including the design Intent prepared by the Professionals. They will also provide Simplified professionally drawn single line system diagrams on 8 1/2" x 11" or 11" x 17" sheets. These shall include (ex. chillers/hot water system(s), condenser water system, supply air systems, exhaust systems, etc.). These shall show major pieces of equipment such as (ex. pumps, chillers, heat exchangers, control valves, expansion tanks, coils, service valves, etc.).

- C. CxA Review and Approval - Prior to substantial completion, the CxA shall review the O&M manuals, documentation and record documents for systems that were commissioned to verify compliance with the Specifications. The CxA will communicate deficiencies in the manuals to the Department, Using Agency or Design Professionals, as requested. Upon a successful review of the corrections, the CxA recommends approval and acceptance of these sections of the O&M manuals to the Department, Using Agency or Design Professionals. The CxA also reviews each equipment warranty and verifies that all requirements to keep the warranty valid are clearly stated. This work does not supersede the Design Professional's review of the O&M manuals according to the Design Professional's contract.

3.11 TRAINING THE USING AGENCY

- A. The Department and contractors shall be responsible for training coordination, scheduling and ultimately for ensuring that training is completed.
- B. The CxA shall oversee the training of Using Agency's personnel for commissioned equipment and systems.
 - 1. The CxA shall interview the Using Agency's staff to determine the special needs and areas where training will be most valuable. The Using Agency and CxA shall decide how rigorous the training should be for each piece of commissioned equipment. The CxA shall communicate the results to the Department and contractors, who will in turn communicate to the subcontractors and vendors, who also have training responsibilities.
 - 2. In addition to these general requirements, the specific training requirements of the Using Agency's personnel provided by contractors, subcontractors and vendors is specified in the individual sections listed in Section 1.2 – SUMMARY.
 - 3. Each Sub and vendor responsible for training will submit a written training plan to the Department and/or contractors for review and approval prior to training. The Department and/or contractors will submit one comprehensive training plan to the CxA and Using Agency.
 - 4. The plan will be reviewed by the CxA and Using Agency. Comments pertaining to its deficiencies will be forwarded to the Department and Contractors. The training plan will be rewritten until approved by the CxA and Using Agency. The final approved training plan will cover the following elements:

- a. Equipment (included in training)
 - b. Intended audience
 - c. Location of training
 - d. Objective
 - e. Subjects covered (description, duration of discussion, special methods, etc.)
 - f. Duration of training on each subject
 - g. Qualified instructor for each subject
 - h. Instructor qualifications
 - i. Methods (classroom lecture, video, site walk-through, actual operational demonstrations, written handouts, etc.)
5. For the primary HVAC equipment, the Controls Subcontractor shall provide a discussion of the control of the equipment during the HVAC or electrical training conducted by each subcontractor or vendor.
6. Training documentation shall include the following items:
 - a. Copy of the training plan, including schedule, syllabus, and agenda.
 - b. Copy of the Design Intent
 - d. Compiled operations manuals.
 - e. Compiled maintenance manuals.
 - f. Completed manufacturer training manuals.
 - g. Red-lined drawings.
 - h. Other pertinent documents.
7. The CxA develops criteria for determining that the training was satisfactorily completed, including attending some of the training, etc. The CxA recommends approval of the training to the Using Agency using a standard form. The Using Agency signs the approval form/letter template.
8. Video taping of the training sessions in DVD format will be provided by the Department, with tapes cataloged by the Department and added to the O&M manuals, if required by Division 1 specifications.
9. The mechanical design engineer shall at the first training session present the overall system design concept and the design concept of each equipment section. This presentation shall be one to two hours in length and include a review of mechanical systems using the simplified system schematics (one-line drawings).

3.12 REPORTING

- A. The CxA will provide regular reports to the Department, on a pre-determined frequency in accordance with the project schedule. The CxA will regularly communicate with all members of the commissioning team, keeping them apprised of commissioning progress and scheduling changes through, memos, progress reports, etc.

- B. The CxA will keep all documentation and log all commissioning-related issues that require current or future attention including deficiencies. An agreed-upon form will track the status of documentation and testing for each piece of equipment and system.

3.13 COMMISSIONING DOCUMENTATION

- A. The CxA oversees and maintains the development of commissioning documentation. The commissioning documentation shall be kept in three ring binders, and organized by system and sub-system when practical. All pages shall be numbered, and a table of contents page(s) shall be provided. The commissioning documentation shall include, but not be limited to, the following:
 - 1. Plan for delivery and review of submittals, systems manuals, and other documents and reports.
 - 2. Identification of installed systems, assemblies, equipment, and components including design changes that occurred during the construction phase.
 - 3. Process and schedule for completing construction checklists and manufacturer's prestart and startup checklists for systems, assemblies, equipment, and components to be verified and tested.
 - 4. Certificate of completion certifying that installation, prestart checks, and startup procedures have been completed.
 - 5. Certificate of readiness certifying that systems, subsystems, equipment, and associated controls are ready for testing.
 - 6. Test and inspection reports and certificates.
 - 7. Corrective action documents.
 - 8. Verification of testing, adjusting, and balancing reports.
 - 9. Approved final test and balance report for the building being commissioned.
 - 10. All accepted shop drawings of systems equipment. Shop drawings shall be full size sheets folded as required to fit in binders.
 - 11. All pre-functional performance test checklists, signed by personnel performing and/or witnessing test, organized by system and sub-system.
 - 12. All verification and functional performance test checklists/results

signed by personnel performing and/or witnessing test, organized by system and sub- system. This information may be used for calibrating the original energy simulation model. The revised model will be used to create the baseline for energy use in the building.

END OF SECTION 019130

BERTIE COUNTY
Bertie County 911 Facility
Accountabilities Matrix
2026.03.06

CFCI = Contractor Furnished / Contractor Installed
OFCI = Owner Furnished / Contractor Installed
OFOI = Owner Furnished / Owner Installed
OFVI = Owner Furnished / Owner's Vendor Installed

ACCOUNTABILITIES CATEGORIES

Item	CFCI	OFCI	OFOI	OFVI	Vendor, if applicable	Comments
Low Voltage Cabling - Voice, Data (install, terminate, label, and test)	X					
Low Voltage Cabling - Access Control (install, terminate, label, and test)	X					
Low Voltage Cabling - Security intrusion detection and surveillance (install, terminate, label, and test)	X					
Low Voltage Cabling - Audiovisual (install, terminate, label, and test)	X					
Cabling for NetClock display(s)	X					
NetClock Infrastructure: cable pathway, box rough-in, blocking	X					
Access Control System / Intercom / Remote Release				X		
Security Cameras and Security System (including gate access card readers, access control head-end, intrusion detection, intercom)				X		
Audiovisual display box rough-in, blocking, power and data	X					
Audiovisual display mounting and final connection				X		
Cable Tray / Basket and pathways	X					
Conduit (interior / exterior), handholds, pull string, and boxes	X					
Security Pedestal / Goose neck	X					
Grounding and Bonding per project requirements	X					
Lightning Protection System	X					
Equipment room / Data Center: cabinets / racks	X					
Equipment room / Data Center: cabinet / rack mounted PDUs and grounding bar	X					
Firestopping, fire detection, fire suppression	X					
Lighting	X					
8DA/DAS				X		
HVAC / CRAC / Redundant HVAC needs	X					
UPS(s)	X					
Generator(s)	X					
External (alternate) Generator Connection Panel	X					
Fire Alarm System	X					
Remote Annunciator Panel(s) (fire/security/BAS/generator/UPS)	X					
Leak Decdon System	X					
Building Management System (BMS/BAS)	X					
AED (Automated External Defib)		X				
Fire Extinguisher(s)		X				
Active Network - Switches, Routers, Firewalls, WAPs			X			
Servers, Workstations, Monitors			X			
Printers, Copiers, Fax machines			X			
Laminators and Plotters			X			
911 Call-handling Equipment (CHE)				X		
Administrative Phone System and Handsets			X			
Computer-aided Dispatch			X			
Radio Consoles				X		
Portable Radios			X			
Consolette Radios / Backup Radios				X		
Control Stations				X		
Antennas and Coax Cabling				X		
Tower or Antenna structure	X					
Entry port or doghouse for coax entry into the facility	X					
Grounding of antennas, coax, and radio equipment only. Overall grounding, see above.				X		
Amateur Radio Emergency Service (ARES) Equipment						None Anticipated
Satellite Phones and Antennas						None Anticipated
Logging Recorder				X		
NetClock Time Server with Displays				X		
Audiovisual System: Backend equipment				X		
Audiovisual Displays, encoders, decoders, and cable boxes				X		
Public Entry (101)						
Chair			X			
Side Table			X			
Transaction Window	X					

ACCOUNTABILITIES CATEGORIES

Item	CFCI	OFCI	OFOI	OFVI	Vendor, if applicable	Comments	
County Seal	X						
Plaque	X						
Lobby							
Offices (102, 103, 104, 105)							
Standard Office Items				X			
Office (106)							
IT Workbench	X						
911 Restroom (109)							
Floor standing toilet	X						
Sink	X						
Soap Dispenser			X				
Paper Towel Dispenser			X				
Wastebasket			X				
Conference Computer Lab / Training (112)							
Individual Tables			X				
Chairs			X				
Marker Board			X				
Storage (113)							
Metal Shelving			X				
Restroom (114 & 115)							
Floor standing toilet	X						
Sink	X						
Soap Dispenser			X				
Paper Towels			X				
Wastebasket			X				
Staff Entry (116)							
Break Room (117)							
Stove - ADA		X					
Microwave		X					
Refrig/Freezer Combo		X					
Dishwasher		X					
Ice Maker		X					
Coffee Maker			X				
Toaster			X				
Air Fryer			X				
Table			X				
Chairs			X				
Sink	X						
Soap Dispenser			X				
Trash Can			X				
Storage / Pantry (118)							
Metal Shelving			X				
Washing Machine		X					
Dryer - Electric		X					
Quiet Room (119)							
Pull-out Couch			X				
Ottoman			X				
Chair			X				
Lamp			X				
Janitor (120)							
Mop and bucket storage			X				
Janitors supplies storage / shelving			X				

ACCOUNTABILITIES CATEGORIES							
Item	CFCI	OFCI	OFOI	OFVI	Vendor, if applicable	Comments	
Mother's Room / Quiet Room (122)							
Full-out Couch			X				
Ottoman			X				
Chair			X				
Lamp			X				
Sink	X						
Refrigerator		X					
Operations Room (108)							
Dispatch Furniture				X			
Operations Room Chairs				X			
Sink	X						
Coffee Maker			X				
Multi-Use Printer			X				
Remote Annunciator: Fire Alarm Panel	X						
Remote Annunciator: UPS	X						
Remote Annunciator: Generator	X						
Remote Annunciator: Leak Detection	X						
Remote Annunciator: Sewer Lift Station	X						
Equipment Room - MDF (110)							
Cabinets	X						
Lockers - 911 Area							
Lockers - Z-Style	X						
Mechanical Room (111)							