ADDENDUM NO. 1

New Hanover County – Castle Hayne Fire Department

Prepared by:

SAMET CORPORATION

8115 Market Street; Suite 304
Wilmington, NC 28411

Date of Issue: May 2, 2024

The following items take precedence over the referenced portion of the bidding documents for the above referenced Project and in executing a contract shall become a part thereof.

PROJECT CLARIFICATIONS

1. The project will have a revised bid schedule as follows:

    a. Pre-Bid RFI's are due from subcontractors no later than 5:00PM on Friday, May 3rd, 2024
    b. RFI Responses will be issued in a final addendum May 13, 2024
    c. Revised Bid date will be Tuesday; 5/28/2024

2. A second Pre-Bid outreach and information session will be hosted via Teams to discuss the bidding procedure, bid forms and to present the pre-bid information again. Details are below:

    Pre-Bid/Outreach Session #2: May 9, 2024 from 3:00PM – 4:00 PM
    Meeting link: https://tinyurl.com/tpv6b9fx
    Meeting ID: 259 562 382 155
    Passcode: U7TYEC

3. Pre-Bid Meeting #1 Presentation and Attendance Roster added

PROJECT DOCUMENTS

A. Construction Managers Project Manual Documents

Distribution of Samet General Requirements Manual

B. Construction Managers Trade Package Manual Documents

Distribution of Samet Trade Package Manual, which includes bid forms

C. DRAWINGS AND SPECIFICATIONS

Add the following documents:

ASI 1 - Mockup installation details

Remove the following documents:

NONE

Remove and replace the following documents:

1. Specification 083620 – Sectional Overhead Doors

2. Architectural:
   0.0 Cover Sheet

3. Telecommunications:
   T0.01 TELECOM LEGEND AND NOTES (Stamps added)
   T1.01 NETWORK PLANS (Stamps added)
   T2.01 SECURITY PLANS (Stamps added)
   T4.01 TELECOM ENLARGED PLANS (Stamps added)
   T5.01 TELECOM DETAILS (Stamps added)
   T5.02 TELECOM DETAILS (Stamps added)
   T5.03 TELECOM DETAILS (Stamps added)

NOTE: Addendum #1 must be acknowledged on the project bid form

END OF - ADDENDUM NO. 1



New Hanover County
Fire Station #13 and Fire Station #20

Pre-Bid Conference | April 22, 2024

SAMET CORPORATION

ASK QUESTIONS IN CHAT WINDOW

All will be addressed at the end of the session



AGENDA

1. Introductions
2. Team Members
3. Project Overview
4. Pre-Qualification of Bidders
5. Bid Date and Time
6. Trade Packages
7. Bid Security Information
8. Contract Documents
9. Bid Document Distribution
10. Form of Agreement/General Conditions
11. MWBE Participation Goals and Forms
12. Form of Proposal
13. Alternates
14. Unit Prices
15. Bid Submittal Checklist
16. Questions/Substitution Requests

SAMET CORPORATION PROJECT TEAM



Philip Blalock
Project Manager



Joe Beard
Superintendent



Shante Stewart
Director of Diversity
+ Inclusion



Mathew Meyerhoeffer
Precon Project Mgr.

Other Team Members:

Stewart-Cooper-Newell Architects

- Gregory Scott
- Ken Newell

New Hanover County

- Kevin Caison

Castle Hayne Station #13

Located at 4860 Castle Hayne Road

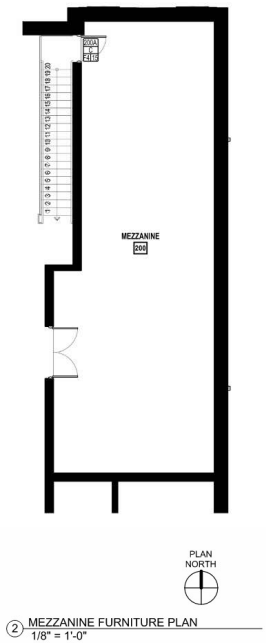
12,451 sqft

2.2 Acres



- 2.2 Acre Site
- Surcharged Site
- 29 Parking Spots
- Heavy Duty Asphalt and Concrete Paving
- Septic System
- Well System w/Underground Holding Tank
- CMU & Steel Structure
- TPO & Metal Roof
- (2) Pull-Through Truck Stalls
- Large Living Quarters w/Offices, Sleep Rooms, Kitchen, Dayroom, Etc.
- VRF Mechanical System
- Diesel Generator
- Estimated Start Of Construction: Aug 2024
- Completion: Aug 2025





Castle Hayne Station #13

SAMET CORPORATION

Gordon Road Station #20

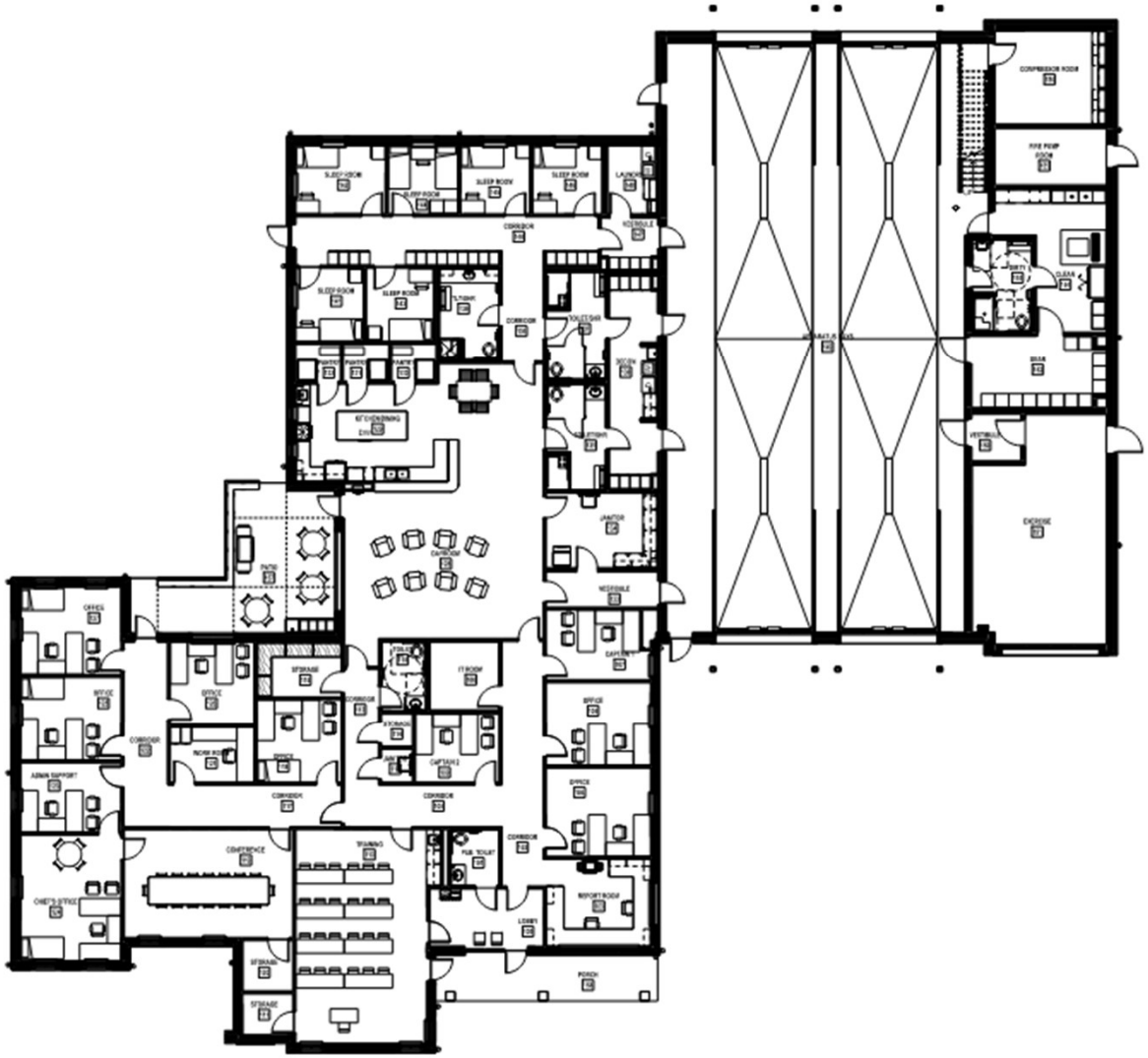
Located on Gordon Road near Intersection of Harris Road

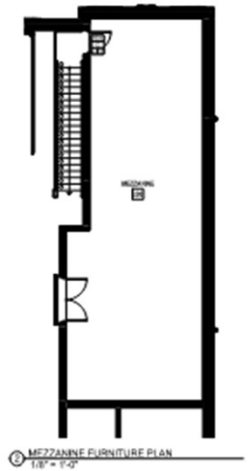
15,589 sqft

11 Acres



- 2.7 Acre Site
- 37 Parking Spots
- Light Duty Asphalt Parking and Concrete Paving
- Public Sewer
- Public Water
- CMU & Steel Structure
- TPO & Metal Roof
- (2) Pull-Through Truck Stalls
- Large Living Quarters w/Offices, Sleep Rooms, Kitchen, Dayroom, Etc.
- VRF Mechanical System
- Diesel Generator
- Estimated Start Of Construction: June 2024
- Completion: June 2025





Gordon Road Station #20

SAMET CORPORATION

PREQUALIFICATION

- Must be prequalified with Samet to bid
- Project Specific Application
- Meet bond requirements for select bid packages
- Relevant experience
- Safety & insurance
- NC licensing, where required
- Invite for plans & specifications



DEADLINE: May 3rd, 2024 by 3:00PM

For prequalification contact: Lauren Evans – 336-544-2600

BID SCHEDULE

BIDS: DUE DATE & TIME

May 9, 2024 @ 3:00 PM

Sealed Bid

Please label envelope with COMPANY NAME and PACKAGE bidding

Bids will be opened publicly at the
New Hanover County Government Center; Room 115.

Individual bids must be submitted for each project

BID ZOOM LINK INFORMATION

Note: This meeting is to watch the bid opening only. All bids must be received in person at the bid opening or sent to Samet Corporation at the following address PRIOR to bid time:

8115 Market Street; Suite 304
Wilmington, NC 28411

Bid Opening Teams Meeting:
Join Teams Meeting
https://tinyurl.com/2fy23xzt
Meeting ID: 295 748 638 85
Passcode: CE4LjS

If you intend to mail your bid prior to the bid opening; it must be received NO LATER THAN 2:00PM on May 9, 2024. Bid receipt is the responsibility of the submitting company. Samet Corporation will not contact bidders to ensure bids are received.

BID PACKAGES – Both Projects

01A: General Trades
01B: Final Cleaning
03A: Concrete
04A: Masonry
05A: Structural Steel
05C : Roof Trusses
06D: Millwork
07A: Waterproofing & Sealants
07B: Roofing
07D: Siding
07E: Building Insulation
07F: Fireproofing
07H : Joint Sealants
08A: Doors, Frames & Hardware
08B: Glass & Glazing
08D: Roll Up Doors
09A: Framing and Drywall
09B: Acoustical Ceilings
09C: Flooring
09D: Hard Tile
09H: Painting
10A: Specialties & Accessories
10B: Signage
10G: Awnings & Canopies
10K: Fire Protection Specialties
11A: Residential Appliances
12A: Window Treatments
21A: Fire Protection
22A: Plumbing
23A: HVAC
26A: Electrical
31A : Sitework & Utilities
31B: Pest Control
32E: Landscape & Irrigation

BID SECURITY INFORMATION:

5% Bid Security Required For These Packages; Applies to both projects:

04A: Masonry

05A: Steel

07B: Roofing

09A: Framing and Drywall

22A: Plumbing

23A: HVAC

26A: Electrical

31A : Sitework & Utilities

CONTRACT DOCUMENTS

PLANS AND PROJECT MANUALS

Documents have been Issued Via Building Connect

- Construction Plans & Specifications
- Trade Package Manual
- CM Manual
- Additional Documents Sent Out Via Addendum

To gain access to the documents, bidders must be pre-qualified

FORM OF AGREEMENT/GENERAL CONDITIONS

-Trades Project Manual

-Form of Agreement (Contract)

- Subcontract Agreement of the Contract
- Insurance Requirements
- Bonds (Section 01600)
- Safety Requirements

-Trade Package General Scope Requirements

MWBE PARTICIPATION GOAL – 20%

In accordance with General Statute 143-128.2, Samet is specifically encouraging participation of Minority or Women Owned Business Enterprises / Historically Underutilized Businesses (MWBE / HUB) on this project.

Each pre-qualified bidder shall make a good faith effort to recruit and select MWBE / HUB companies to participate in this project.

PLEASE INCLUDE THE IDENTIFICATION FORM & AFFIDAVIT A OR AFFIDAVIT B WITH YOUR BID. IF YOU ARE THE APPARENT LOW BIDDER AFFIDAVIT C OR D WILL BE DUE AT YOUR POST BID REVIEW



SAMET CORPORATION

LE31

IDENTIFICATION FORM:

Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid

Identification of HUB Certified/ Minority Business Participation

I, _____,
(Name of Bidder)

do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work Type	*Minority Category	**HUB Certified (Y/N)

Slide 18

LE31 Use project picture in background of all slides. Darken/Adjust picture.
Lauren Evans, 3/1/2021

AFFIDAVIT A – 50 POINT CHECK LIST
GOOD FAITH EFFORTS

Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of _____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

❑ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.

AFFIDAVIT B
INTENT TO PERFORM WITH OWN WORKFORCE

Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid Attach to Bid

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of _____
(Name of Bidder)

I hereby certify that it is our intent to perform 100% of the work required for the _____

_____ contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

AFFIDAVIT C
10% OR GREATER ACHIEVED

Do not submit with bid Do not submit with bid Do not submit with bid Do not submit with bid

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.
This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

AFFIDAVIT D

10% GOAL NOT ACHIEVED

Do not submit with the bid Do not submit with the bid Do not submit with the bid Do not submit with the bid Do not submit with the bid

State of North Carolina **AFFIDAVIT D – Good Faith Efforts**

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

FORM OF PROPOSAL

To be issued in final addendum

FORM OF PROPOSAL - ALTERNATES

In accordance with GS133-3 procedures the following preferred brand items are being considered as Alternates by the owner for this project:

Preferred Alternate #1 – Plumbing fixtures by Moen

Preferred Alternate #2 – VRF Systems by Mitsubishi

Justification of any approvals will be made available to the public in writing no later than seven (7) days prior to bid date.

FORM OF PROPOSAL
- ALLOWANCES & UNIT PRICES

UNIT PRICES

Bidders are to provide unit prices for each item of work listed below. Each unit price provided shall include all profit, overhead, supervision, surveying/field engineering services, materials, labor, equipment, taxes, insurance and any miscellaneous incidentals required to complete the unit price work activity. Refer to the Section I – Proposal Forms and Procedures, 01210 – Allowances/ Unit Prices within the PROJECT MANUAL for additional information related to each allowance / unit price. Where noted below, the Unit Price(s) shall be the basis for determining a respective Subcontract allowance value(s). Additionally, the Unit Prices outlined herein shall be used as a basis of determining additions and/or deductions to the Subcontract Sum by change order.

BID SECURITY CHECKLIST

In addition to completing this Form of Proposal, the bidder recognizes the following items must be completed in order to submit a responsible and responsive bid for this project.

1. All bids must be submitted on the Form of Proposal provided by the Construction Manager & marked accordingly to identify the Trade Package name being bid. YOU MUST HAVE SEPARATE ENVELOPES IF YOU ARE BIDDING MULTIPLE PACKAGES!!

2. Form of Proposal shall be signed by an officer of the company

3. Bids Must be Sealed

4. Please turn in all required MWBE Forms with your Bid (Identification Form & Affidavit A or Affidavit B)



SAMET CORPORATION

BID SUBMITTAL CHECKLIST

5. 5% Bid Bond Must be Included (Please refer to the Notice for Bidders for Bid Bond Information)

6. When applicable to a particular trade package scope of work, the respective bidder must fill in all alternates or unit prices on the form of proposal being solicited for the project.

7. Each bidder as applicable to its respective Trade Package shall include the value of each quantitative allowance within its base bid amount as further defined in Section I – Proposal Forms and Procedures, 01210 – Allowances.

QUESTIONS / SUBSTITUTION REQUESTS

All “Substitution Request” must be received on or before: April 26, 2024 @ 3:00PM

BY E-MAIL ONLY!

All questions must be received on or before: <April 26, 2024 @ 3:00 PM

BY E-MAIL ONLY!

Email to: mmeyerhoeffer@sametcorp.com



THANK YOU

Samet Corporation truly shares in your excitement and anticipation of this project and will be putting our local executives, project team and hometown reputation to work for you!

QUESTIONS?

SAMET CORPORATION

Information Session & MWBE Outreach: Sign-In Sheet 4/22/2024

Gordon Rd Fire Station/ Castle Haynes Fire Station

Name	Company Name	Mailing Address	City/ State	Phone	E-mail	MWBE/WBE
Travis Tagler	Boyd Plumbing & Heating	1868 Lennonville Rd	NC	804-837-2942	travis@boydmechanicalcom.com	no
Aaron Spencer	Sears	Aspencer@Searscontract.com	NC	910-568-2526		Y
David Storms	FSC (Fred Smith Comp)	David.Storms@fredsmithcompany		919-422-7414		NO

SAMET CORPORATION

Information Session & MWBE Outreach: Sign-In Sheet 4/22/2024

Gordon Rd Fire Station/ Castle Haynes Fire Station

Name	Company Name	Mailing Address	City/ State	Phone	E-mail	MWBE/WBE
Ben Howell	Saltwater Signworks	3013 Hall Watters Dr. Unit B	Wilm/NC	910.212.5020	Ben@saltwatersignworks.net	

SAMET CORPORATION

Information Session & MWBE Outreach: Sign-In Sheet 4/22/2024

Gordon Rd Fire Station/ Castle Haynes Fire Station

Name	Company Name	Mailing Address	City/ State	Phone	E-mail	MWBE/WBE
Dan Calhoun	Bajer Underground	5000 Blue Clay Rd	Castle Haynes NC	910-602-8383	danc@bajerunderground.com	
Jamie Pettitt	JPettitt@RDGrahamelectric.com	2936 N Kerr Ave	Wilm.	910-367-6103	RD Graham electric	
Chris Billups	Tino Tile	201 N Front St Ste 103	Wilmington	704-657-2002	chris@tinotile.com	
Presta King	Salt Air	3306 Kitty Hawk Rd	Wilmington	910 271 8566	pking@saltairinc.com	
Chris Coleman	Gregory Poole	151 Backhoe Rd NE	Leland NC	910 443 0525	Chris.Coleman@GPRENTAL.com	
Joey Conn	Grey Interiors	5504 Business Dr.	Wilmington	910 443 5397	JCONN@GREYINTLLC.com	
Michael Garrison	Lyle Contracting	2339 Orvil Wright Way	Wilm	910.367.8890	MIKE@LYLECONTRACTINGSOLUTIONS.COM	
Ana Julia	top to Bottom	3528 whispering	NC/wilmington	910-444-3810	contact@topto Bottom@loose cleaning.com	
Luciana Kimus	top to Bottom	Pines court	NC/wilmington	910-444-3810	↑	
Bob Clark	BFPE	3300 HWY 421 North	Wilmington	910.762.5418	bclarkjr@bfpe.com	
Michael Baird	CSM	5746 Oleander dr.	Wilm.	713 484 9272	michaelb@csmflooring.com	
Travis St. Brice	ProSourcefitness	6330 Mt. Herman Rd	Rd/NC	(919) 904-3964	travis@prosourcefitness.com	

SAMET CORPORATION

Information Session & MWBE Outreach: Sign-In Sheet 4/22/2024

Gordon Rd Fire Station/ Castle Haynes Fire Station

Name	Company Name	Mailing Address	City/ State	Phone	E-mail	MWBE/WBE
Greg Smith	WESCO		Wilmington	910 762-1839	gsmith@Cwhitesondec.com	
Richard Ward	Pitt Electric		Wilmington	910-622-9070	RWard@Pittelectric.com	



Construction Manager General Requirements Manual
New Hanover County
Castle Hayne Fire Station

CONSTRUCTION MANAGER:
Samet Corporation
8115 Market St suite 304, Wilmington, NC 28411
336.544.2600

New Hanover County
230 Government Center Drive
Wilmington, NC 28403
910-798-7311

Architect:
Stewart Cooper Newell
719 E Second Ave, Gastonia, NC 28054
(704) 865-6311

Civil Engineer:
Timmons Group
430 Eastwood Rd Suite 100, Wilmington, NC
(910) 746-1144

INDEX TO CONSTRUCTION MANAGER GENERAL REQUIREMENTS MANUAL

PREPARED BY: SAMET CORPORATION

Description — Pages

1. Project Manual Cover 1
2. Index to CM General Requirements Manual 1
3. Notice to Bidders/Advertisement for Bids 7
4. Trade Package Pre-Qualification Forms/Requirements 22
5. Form of Agreement between Construction Manager and Subcontractor
   Example Subcontract Agreement 87
6. Schedule Requirements 1

Forms:

Quick Pay Agreement Form 1
Joint Check Agreement between Subcontractor and Sub-subcontractor 1
Joint Check Agreement between Subcontractor and Supplier 1
Subcontractor Daily Report Form 2
Filed Work Ticket Form 1

NOTICE TO BIDDERS / ADVERTISEMENT FOR BIDS

Castle Hayne Fire Station

Samet Corporation as Construction Manager for Castle Hayne Fire Station will receive sealed bid proposals from ***Pre-qualified Bidders*** at **3:00 PM on May 28th, 2024,** for the Trade Packages enumerated below. Sealed bids shall be addressed to Samet Corporation and will be received at the **NHC Government Center / Room 155 – Wilmington** at **230 Government Center Drive Wilmington, NC 28403**. At the time enumerated above all sealed bids received will be opened publicly and read aloud via Zoom Meeting link that will be made available to all bidders**.**

https://tinyurl.com/2fy23xzt

Meeting ID: 295 748 638 85

Passcode: CE4LjS

BUILDING TRADE PACKAGES:

01A Final Clean
03A Concrete
04A Masonry
05A Structural Steel
05C Roof Trusses
06D Millwork
07A Waterproofing & Joint Sealants
07B Roofing
07D Siding
07E Building Insulation
07F Fireproofing
07H Joint Sealants
08A Doors, Frames, & Hardware
08B Glass, & Glazing
08D Roll Up Doors
09A Framing &Drywall
09B Acoustical Ceilings
09C Flooring
09D Hard Tile
09H Paint
10A Specialties & Accessories
10B Signage
10G Awnings and Canopies
11A Residential Appliances
12A Window Treatments
21A Fire Protection
22A Plumbing
23A HVAC
26A Electrical
31A Site Work & Utilities
31B Pest Control
32E Landscaping & Irrigation

PRE-BID CONFERENCE MEETING

A Pre-Bid Conference will be held on **Thursday, May 9, 2024 @ 3:00 PM,** Virtually via Microsoft Teams Meeting. Login information is below:

https://tinyurl.comtpv6b9fx

Meeting ID: 259 562 382 155

Passcode: U7TYEC

Questions from all interested bidders or their sub-subcontractors will be clarified during this meeting. The attendance at this Pre-bid Conference is not mandatory, but all attendance is encouraged by the Construction Manager.

The Pre-Bid Conference Meeting is also to identify preferred brand alternates and their performance standards that the Owner will consider for approval on this project.

In accordance with General Statute GS 133-3, Specifications may list one or more preferred brands as an alternate to the base bid in limited circumstances. Specifications containing a preferred brand alternate under this section must identify the performance standards that support the preference. Performance standards for the preference must be approved in advance by the owner in an open meeting. Any alternate approved by the owner shall be approved only where (i) the preferred alternate will provide cost savings, maintain or improve the functioning of any process or system affected by the preferred item or items, or both, and (ii) a justification identifying these criteria is made available in writing to the public.

In accordance with GS133-3 procedures the following preferred brand items are being considered as Alternates by the owner for this project:

Preferred Alternate #1 – Deduct if both Gordon Rd & Castle Hayne Fire Stations are awarded.

Preferred Alternate #2 – State Change in Base Bid Sum to provide all General Construction work for two bifold doors and all components as listed in drawings and specifications in lieu of two overhead doors located at front elevation.

Justification of any approvals will be made available to the public in writing no later than seven (7) days prior to bid date.

PROJECT LOCATION / SCOPE

The aforementioned bid packages are part of the construction of the Castle Hayne Fire Station at the intersection of Castle Hayne Road and Parmele Drive in Wilmington, NC 28428. Bid packages being solicited at this time consist of all packages/trades for the construction of the project.

BIDDER PRE-QUALIFICATION PROCESS

In accordance with N.C. General Statute 143-129, all bidders must be pre-qualified by the Construction Manager in order to submit a sealed bid proposal for this project. All 1st tier subcontractors or suppliers are required regardless of current standing with Samet Corporation to complete this pre-qualification process. When requested by Samet Corporation, all trade subcontractors previously pre-qualified or not must submit updated financial statements, surety's letter of bondability, reference / bonding ability confirmation letter from surety agent (if applicable) and certificate(s) of insurance in order to remain pre-qualified by Samet Corporation. This pre-qualification process starts by completing the "Samet Standard Prequalification" via Trade Tapp / Building Connected here. Once completed, all Trade Partner's prequalification status will remain effective for 16 months after the date of the most recently submitted year-end financial documents.

Additional steps to the process are as follows:

- Each Trade Partner shall pay close attention to the Project Specific Prequalification Form, found on Building Connected under Bid Form, with respect to potential bonding, insurance and previous experience requirements, all of which may be a key component of becoming a pre-qualified Trade Partner.

- Samet's Standard Prequalification and the Project Specific Prequalification Form must be received by Samet **on or before 3:00 PM; Friday May 24th, 2024.** Failure to submit this information on or before the aforementioned date and time may result in your company not being pre-qualified by Samet, thus not allowing the company to participate in the bid process.

- Bidders with questions regarding the pre-qualification process are encouraged to contact Lauren Evans via email at levans@sametcorp.com

- Upon submission of all required documents via Trade Tapp / Building Connected, a Samet Prequalification Specialist will review for approval. Each Subcontractor / Supplier will be notified by Samet of its qualification status no later than three (3) business days following the expiration of the Pre-qualification Period.

SELECT TRADE PACKAGE BONDING REQUIREMENTS

Pre-qualified bidders **for select bid packages** shall be **capable of providing** a Payment and a Performance Bond to the Construction Manager in the sum equal to 100% of their Subcontract Amount. The surety / bonding company must be licensed to do business in the State of North Carolina. **Trade packages requiring bonding are enumerated below and are further defined on the Subcontractor / Supplier Supplemental Qualification Form. Prior to Subcontract Award, the Construction Manager reserves the right to require a Performance and Payment Bond(s) on any Trade Package defined below. Additionally, the Construction Manager shall require a Performance and Payment Bond(s) of any prospective bidder who was informed of this requirement during the Subcontractor Prequalification Process as a condition for prequalification approval. Should a Performance and Payment Bond(s) be required, the Construction Manager shall request the cost of the Performance and Payment Bond(s) prior to Subcontract Award.**

03A Concrete
04A Masonry
05A Structural Steel
07B Roofing
08B Glass, & Glazing
09A Framing & Drywall
21A Fire Protection
22A Plumbing
23A HVAC
26A Electrical
31A Site Work & Utilities

SELECT BID SECURITY / TIME LIMITATION

A Bid Security of five percent (5%) of the bid in cash, cashier's check, certified check, or a fully executed Bid Bond is required to accompany each proposal **over the amount of $500,000**. Bids may not be withdrawn within sixty (60) days after the scheduled bid date and time, except as provided by law.

DRAWING AND SPECIFICATION AVAILABILITY

Complete plans, specifications and contract documents will be open for inspection through SAMET's Internet / Web Based Plan Room as powered by *Building Connected* via issuance of an Invitation to Bid by Samet to the pre-qualified bidder.

LICENSING

All trade subcontractors must have proper license in accordance with state laws governing **their respective trades** in accordance with General Statutes of North Carolina Chapter 87. General Statutes of North Carolina Chapter 87 will be observed in receiving and awarding all Contracts.

EVALUATION OF BID AMOUNTS

Following the opening of the bids on the pre-determined date(s), the Construction Manager's determination that the low bidder's bid is responsible and responsive and the Construction Manager's

receipt of approval from the Owner, the Construction Manager will award each respective trade package to the lowest responsible and responsive bidder. The lowest bid amount will be determined by evaluating the best combination of the pricing received for each bid package with respect to evaluating individual bid package amounts submitted versus combined bid package amounts submitted. For example, if a combination bid package being solicited is submitted and is less than the sum of the individual bid package amounts received for this same work, then the combination package bidder will be named apparent low bidder. This same evaluation process will be employed by the Construction Manager when evaluating bid alternates and various combinations thereof which are accepted by the Owner.

Bidders are hereby notified of the following as it relates to pre-qualification and the potential for a dual project award:

If a bidder is approved through the prequalification process to submit a bid for both fire stations individually; however, is not approved to submit on the Project Alternate for a combined package to be awarded both fire stations, they will be notified as such thru the prequalification committee.
Samet Corporation and New Hanover County reserve the right to award packages in the combination that is in the best interest of the County.

BID PREPARATION

All bids must be submitted on the standard forms provided by the Construction Manager and marked accordingly to identify the Trade Package name being bid. Bids must be submitted in a sealed opaque envelope with the following marked on the front of the envelope: (1) Bidder Name and Address, (2) Project Name - "New Hanover County Fire Stations" and Trade Package Name (e.g. "32A Asphalt Paving, Curb & Gutter"). Bidders shall be required to review and use complete sets of bid documents to prepare bids. Neither the Construction Manager, Owner nor Designer assumes responsibility for errors or misinterpretations resulting from the use of incomplete bid document sets.

Note: There will be one bid form for both projects. Bidders will submit numbers on this bid form per station, and if approved to bid both projects as a combination (see note above in red), will have the availability to price the alternate for a combination package.

MINORITY OWNED AND WOMEN OWNED BUSINESS ENTERPRISES

Minority owned and women owned businesses are encouraged to submit bids for this construction project. Samet Corporation and New Hanover County awards public contracts without regard to race, religion, color, creed, national origin, sex, age, or handicapping condition as defined by North Carolina General Statutes, Section 168A-3.

In accordance with N.C. General Statute 143-128.2, Samet Corporation is specifically encouraging participation of Minority or Women Owned Business Enterprises / Historically Underutilized Businesses (MWBE / HUB) on this project. Each pre-qualified bidder shall make a good faith effort to recruit and select MWBE / HUB companies to participate in this project. As part of the requirements for submitting a bid, each pre-qualified bidder must submit the proper documentation substantiating their adherence to the requirements depicted within N.C. General Statue 143-128.2 and the bid documents. Bidders

who fail to submit the required documents with their bid may result in their bid being rejected by the Construction Manager. Our goal for this project is 20%.

NOTE: The bidder shall include with the bid proposal the form *Identification of Minority Business Participation* identifying the minority business participation it will use on the project and shall include either *Affidavit **A*** or B as applicable. Forms and instructions are included within the Proposal Form in the bid documents. Please reference the form of proposal for further direction on the exact items required to be included within your bid.

BIDDER QUESTIONS

- All bidders shall note that the Construction Manager and/or Designer shall answer only questions that are submitted in writing via e-mail to the Construction Manager's office. All questions during the bid period shall be directed to the attention of Matthew Meyerhoeffer via email at mmeyerhoeffer@sametcorp.com

Specific questions, when warranted by the Construction Manager will be addressed to all bidders in the form an addendum. **All questions must be received by Samet on or before May 3rd, 2024.** All bidders shall note that no questions will be answered regarding any aspect of the project after the expiration of the aforementioned ten (7) calendar day cut off period in order to enable the Construction Manager and/or Designer to issue a final addendum, if necessary, to equitably inform all bidders.

MATERIAL AND EQUIPMENT SUBSTITUTION REQUEST FORMS

- **Material or equipment substitution requests must be received by Samet on or before May 9th, 2024** Following review of the specifications or drawings, any prospective bidder or supplier thereof may submit a Material and Equipment Substitution Request Form directly to the Construction Manager for review prior to sending to the Designer for review and approval. A Material and Equipment Substitution Request Form will be available from Samet upon request and will also be included as part of the Construction Documents. Material and equipment requests shall be submitted on the aforementioned form only and shall be accompanied with any further information necessary to ascertain that the particular product, equipment, etc. is equal to the one(s) specified. Material and substitution request forms may be obtained from or submitted to the attention of Matthew Meyerhoeffer via email at mmeyerhoeffer@sametcorp.com approved material and equipment substitutions will be addressed to all bidders in the form an Addendum.

BID INFORMALITIES

The Construction Manager and/or Owner reserves the rights to accept or reject any or all bids and waive any or all informalities or irregularities in the bid process in order to accept bids in the best interest of the Owner or Construction Manager.

Notice: The above bids are being solicited under N.C.G.S. § 143-128 and 143-129 respectively.

PROJECT STATEMENT

NOTICE OF PROJECT STATEMENT

A. Name of Project:
Castle Hayne Fire Station

B. Physical Address of the Project:
4860 Castle Hayne Road
Castle Hayne, NC 28429

C. Contracting Body:
Samet Corporation
8115 Market St suite 304, Wilmington, NC 28411
336-544-2600

D. Name of Construction Manager:
Samet Corporation, 309 Gallimore Dairy Road, Suite 102, Greensboro, NC 27409

E. The name, phone number, and mailing address of an agent authorized by the Construction Manager to accept service of the requests for payment bond, the notice of public subcontract, and the payment bond referenced in subsection(b) of this section:

Douglas A Beane, CFO
Samet Corporation
P.O. Box 8050
Greensboro, NC 27419
(336) 544-2600

F. The name and address of he principal place of Business retry issuing the payment bond required by G.S. 44A—26(a) for the construction contract:

Liberty Mutual Insurance
Attn: Surety Claims Department
1001 4th Avenue
Suite 1700
Seattle, WA 98154

Dated: 4-29-24

SAMET CORPORATION

Instructions to Prequalify – Samet CM @ Risk Projects

Thank you for your interest and participation in the Prequalification process of the referenced CM at Risk project. This document is provided to guide our valued trade partners through the Prequalification process and provide the necessary documentation needed to further evaluate your company for each project. If you need further assistance with Prequalification, please contact Lauren Evans at (336) 509-1108 or through Messages on Building Connected. You can also contact the assigned Project Manager noted within the Invitation to Bid from Building Connected.

1. **Submit your Prequalification Application**
    a. As of February 2022, Samet Corporation will require all Trade Partners to complete a new Prequalification through Building Connected / Trade Tapp. This application has been developed to combine both the Samet Prequalification requirements and CM @ Risk minimum requirements.
    b. Once the new application is fully completed, your firm will only need to provide Project Specific Requirements for each project (see below). Your firm will be contacted, via TradeTapp, once renewal is required.
    c. Samet Standard Prequalification - Click Here

2. **Submit your Project Specific Prequalification Form to Samet Corporation via Building Connected**
    a. Samet Corporation will issue Trade Partners an invitation to prequalify for a project via Building Connected. It is the responsibility of your firm to meet the requirements set forth by the Samet Standard Prequalification, Noted in Section 1 above, as well as the Project Specific Prequalification Form.
    b. The Project Specific Prequalification Form shall be completed and submitted on Building Connected.
        i. Complete the Prequalification Form provided under the "Bid Form" section.
        ii. Attach requested documents by using the attachment section located at the bottom of Prequalification Bid Form.
        iii. Once completed, submit form, via Building Connected, by means of a $0.00 base bid.

3. **Prequalification Ratings Matrix for First-Tier Subcontractors under CM @ Risk**
    a. This matrix is located on Building Connected under the "Files" section and available for your reference as necessary. Samet will utilize the same scoring matrix as part of the Prequalification.

Did you complete the Checklist to Prequalify?

- ☐ **Completed and submitted Samet Standard Prequalification Form through Building Connected / TradeTapp (link found in 1.c. above).**
- ☐ **Completed and submit any applicable Project Specific Prequalification Forms via Building Connected.**

TRADETAPP

PREQUAL APPLICATION SUMMARY

John Doe Concrete, LLC

Application for: Samet Corporation

Report Created: March 3rd, 2022 3:10 PM

EXAMPLE

01 COMPANY INFORMATION

Submission as of: 03/03/2022

GENERAL

Company Name	John Doe Concrete, LLC
Offices	**Main Office** 309 Gallimore Dairy Road, Suite 102, Greensboro, North Carolina 27409 **Other Offices** 5605 Carnegie Blvd, Suite 220, Charlotte, North Carolina 28209
Year Founded	1961
State/Province Founded	North Carolina
Business Tax ID	US FEIN: 000111222
Type of Work Performed	03 00 00 Concrete, 03 30 00 Cast-in-Place Concrete, 03 81 00 Concrete Cutting
Markets Served	Healthcare, Civic & Government, Education, Hospitality, Industrial & Manufacturing, Concrete & Heavy Civil, Sports, Office & Interiors, Commercial
Regions Served	South Carolina, North Carolina, Georgia, Virginia, Florida, Tennessee
Total Number of Employees	89 Home Office, 425 Field Supervisory Employees
Enterprise Business Certifications	-
Professional Licenses	-

EXAMPLE

CUSTOM GENERAL

Company Mailing Address if different from Company's Address? (If not different answer "N/A or Not Applicable".)	N/A
Company Phone Number?	(336) 544-2600
Company Fax Number?	(336) 544-2638
Other Certifications? (specify Name, Certifying Agency, and State. If not, then answer "N/A" or "Not Applicable".)	N/A
In which states is your company registered to do business?	NC, TN, SC, GA, FL, VA
If owned or controlled by parent or any other organizations, describe ownership. (If not, then answer "N/A or Not Applicable".)	N/A
If answered "YES" as owned by others, you agree to sign a Parent Company Guarantee Letter and submit the same with this Prequalification Application for review and approval. Additionally, an individual who is authorized to bind the Parent Company shall co-sign the contract as a condition precedent to the award of a contract. If you do not agree to these terms, your pre-qualification application will not meet the minimum requirements and will be disapproved. (If not owned by another, then answer "N/A or Not Applicable". If owned by another Answer Yes if you agree or No if you do not agree.)	N/A
List all other names your firm has operated as for the past five (5) years? (If not, then answer "N/A or Not Applicable".)	N/A
What is your business type?	Corporation
Does your company have any union affiliations? (If yes, then describe. If no, answer "N/A or Not applicable".)	N/A
What other types of work does your company perform?	N/A
Please specify if you are applying/renewing for a specific project	Test - Public
Does your company self perform? If so, what types?	Every so often a supervisor will be solely assigned to a 06 trade
Has any license ever been denied or revoked? (If yes, describe license and reason. If not, answer "no".)	No

Part I: By submitting this Qualification Statement, the Subcontractor certifies that the information provided herein and, in any attachments, and enclosures is accurate, current, full, and complete, and true. The subcontractor further certifies that the information is not in any respect misleading, and Subcontractor has not omitted information that would in any way disqualify or tend to call into question the information provided. (Type "Yes" if in agreement or "No" if not in agreement.)	Yes
Part II: Subcontractor recognizes that Samet Corporation will rely upon the accuracy and completeness of Subcontractor's responses in determining whether to prequalify the Subcontractor to bid or perform the Work. Subcontractor agrees that any misstatement discovered or determined to be material in nature by Samet Corporation, after prequalification is granted, whether made innocently, carelessly, or fraudulently, may result in damages to Samet Corporation and may cause Samet Corporation to rescind prequalification or project award status and/or to terminate an issued or executed Subcontract Agreement under the provisions of the Subcontract Agreement for cause. (Type "Yes" if in agreement or "No" if not in agreement.)	Yes
Provide your First and Last Name as a responsible officer of your company and further acknowledgment and agreement to Qualification Statement as described within the Disclaimer Section.	John Doe

CONTACTS

John Doe - President / CEO Company & Prequalification Contact	John@JohnDoe.com (123) 456-7980
Jane Doe - Vice President / CFO Company & Prequalification Contact	Jane@JohnDoe.com (123) 456-7890

CUSTOM CONTACTS

EXAMPLE

02 PROJECT HISTORY, REFERENCES, BACKLOG

Submission as of: 03/03/2022

COMPLETED REFERENCES

123 Longale Road, Greensboro, NC 27409, United States of America
Building ABC
Completed: 2021
$1,000,000

John Smith Construction
John Smith
(123) 456-7890
JohnSmith@JohnSmithConstruction.com

U.S. 220, Summerfield, NC, United States of America
Building DEF
Completed: 2020
$750,000

John Smith Construction
John Smith
(123) 456-7890
JohnSmith@JohnSmithConstruction.com

789 Stafford Centre Drive, Kernersville, NC 27284, United States of America
Building GHI
Completed: 2019
$500,000

John Smith Construction
John Smith
(123) 456-7890
JohnSmith@JohnSmithConstruction.com

BACKLOG

Current Estimated Backlog	$5,000,000

CUSTOM PROJECT HISTORY

Upload any documents with additional project references	Not Applicable
What was your largest project completed within the last 5 years?	500,000 Sqft; $1,000,000.00; Greensboro, NC; 2021

EXAMPLE

03 SAFETY

Submission as of: 03/03/2022

EMR

2021	0.98
2020	0.98
2019	1.00

OSHA 300

2021	Fatalities: 0 Cases Days Away: 0 Cases Restriction/Transfer: 1 Other Recordable: 1 Employee Hours Worked: 200,000
2020	Fatalities: 0 Cases Days Away: 1 Cases Restriction/Transfer: 0 Other Recordable: 0 Employee Hours Worked: 150,000
2019	Fatalities: 0 Cases Days Away: 0 Cases Restriction/Transfer: 0 Other Recordable: 0 Employee Hours Worked: 100,000

SAFETY MANUALS

2021	Safety Plan.pdf

EXAMPLE

CUSTOM SAFETY

Provide an EMR letter (upload here). If your company does not have an EMR Rating, provide a letter stating no EMR rating and reason from your insurance company.	EMR Rating.pdf
If your company's EMR rate reflects corporate performance over a number of locations please explain the extent that pertains to the applying entity.	N/A
List any OSHA fines and Jobsite fatalities in the past 3 years with an explanation.	N/A
Provide us a copy of your company's current substance abuse policy. Please indicate location if a part of Written Safety Plan.	Substance Abuse Policy.pdf
Have you reviewed our Site Safety & Incident Prevention Program?	Yes
Do you have a new employee safety orientation program?	Yes
Is abatement activity part of your inspection procedure?	Yes
Do you maintain records and documented certified inspections on maintenance work performed on company-owned equipment?	Yes
Does your company perform Job Hazard Analysis (JHA) and pre-task planning for high risk tasks?	Job Hazard Analysis (JHS).pdf
Do you perform frequent job safety inspections? (Yes or No. If yes, who performs the inspections and how often are inspections performed?)	Yes, Superintendent daily

EXAMPLE

05 ORGANIZATION

Submission as of: 03/03/2022

Does your company currently have a documented plan for engaging subcontractor participation from Historically Underutilized Businesses? (Yes or No.)	Yes
If yes to company HUB Plan, upload here.	HUB Plan.pdf
What had been your company's typical percentage level of Historically Underutilized Business participation for Public projects for the past 5 years? (Provide percentage value 0% to 100%)	20%
List HUB Participation you provided in past projects and as defined, including name, percentage achieved, and CM/GC/Owner representative's name and telephone number. Provide anticipated completion date or actual completion date of individual projects. (If no participation was provided answer "No participation or N/A".)	John Smith Construction, 25%, CM Name - John Smith (123) 456-7890

EXAMPLE

06 INSURANCE AND BONDING

Submission as of: 03/03/2022

COVERAGE

General Liability $2,000,000 | $4,000,000	21st Century Advantage Insurance Company Expires: 12/31/2027 Insurance - General Liability.pdf
Umbrella/Excess $10,000,000 | $10,000,000	21st Century Advantage Insurance Company Expires: 12/31/2027 Insurance - Umbrella.pdf
Automobile Liability $500,000 | $1,000,000	21st Century Advantage Insurance Company Expires: 12/31/2027
Workers' Compensation	21st Century Advantage Insurance Company Expires: 12/31/2027

ADDITIONAL INSURED ENDORSEMENTS

2021	Insured Endorsements.pdf

INSURANCE BROKER INFORMATION

SURETY / BONDING INFORMATION

Current Bonding Company	Surety Company, Inc
Broker Agency Company Name	Broker Company, LLC
Broker Agency Contact Name	Betty Smith
Broker Agency Contact Phone	(123) 456-7890
Single Project Capacity	$500,000
Aggregate Project Capacity	$100,000
Surety Letter	Surety Letter.pdf

EXAMPLE

CUSTOM INSURANCE & BONDING

Provide us a copy of your current certificate(s) of Insurance	Certificate of Insurance (COI).pdf
The minimum requirements of coverage are defined on the Sample Certificate of Insurance (COI). Firms must indicate that they can provide evidence of insurance coverage, should they be considered for approval by attaching a copy of their insurance certificate. Additionally, should your firm not currently carry the exact insurance requirements defined within the Sample Certificate of Insurance, the applicant agrees to provide the specified insurance as a precedent to the award of a contract. (Yes or No.)	Yes
Can your company provide a performance & payment bond?	Yes
Please provide a current letter from the Surety provider indicating single job and aggregate program support, duration of the relationship, and comments on any open bond claims (most recent within the past 6 months).	Surety Letter.pdf

07 FINANCIAL INFORMATION

Submission as of: 03/03/2022

BANKING

Bank Name	Bank, LLC
Total Line of Credit	$50,000,000
Line of Credit Available	$50,000,000
Bank Contact Name	Lisa Banker
Bank Contact Phone	(123) 456-7890
Bank Contact Email	Lisa@Bank.com

W-9

2022	2022 W-9.pdf

ANNUAL VOLUME / REVENUE

2021	$4,000,000
2020	$3,500,000
2019	$3,000,000

FINANCIAL STATEMENTS

2021	Statement Date: 12/31/2021 Finanacial Statement Date- 12.31.2021 Audit Report.pdf

EXAMPLE

CUSTOM FINANCIAL

If requested, are you willing to utilize the joint check method?	Yes
Please provide a letter from your bank	Line of Credit - Letter.pdf
Dun and Bradstreet information and number? (If not, then answer "N/A or Not Applicable".)	01-234-5678, Rating:1R4 as of 2020.01.01
Have any funds been expended by a Surety Company on your firm's behalf (Yes or No. If yes, explain all details.)	No
Has your company ever failed to complete work awarded (under contract) to it? (Yes or No, If "YES", provide State, Project Name(s), Year(s), and the reason why.)	No
Has your company ever paid liquidated damages on any project? (Yes or No, If "YES", then provide State, Project Name(s), Year(s), and the reason why.)	No
Has your company, its officers, owners, or agents ever been convicted of charges relating to conflicts of interest, bribery, or bid-rigging? (Yes or No, If "YES" provide State, Project Name(s), Year(s), and the reason why.)	No
Has your company, its officers, owners, or agents ever been barred from bidding Public Work? (Yes or No, If "YES", then provide State, Project Name(s), Year(s), Case Number(s), and the reason why.)	No
Are there currently any judgments, claims, suits or arbitrations, mediation proceedings, or liens against your company, its officers, owners, or agents? (Yes or No, If "Yes", then provide State(s), Project Name(s), Year(s), Case Number(s), and the reason why?)	No

Test Project Specific Prequalification

United States of America

Sent proposal: —

Submitted Mar 3, 2022 at 3:41 PM EST
Lauren S Concrete
United States of America

LINE ITEMS

Description	Quantity	Unit Cost	Total Cost
Concrete Foundations, Walls & Slabs			
Base Bid			Enter $0.00 Here $0

GENERAL ACKNOWLEDGMENTS

PURSUANT TO THE STATUTE, THIS FORM GATHERS INFORMATION ABOUT THE SUBCONTRACTORS SEEKING TO QUALIFY FOR THE WORK AND PROVIDES A GENERAL FORMAT FOR THE PREQUALIFICATION CRITERIA. COMPLETING THIS QUESTIONNAIRE DOES NOT GUARANTEE PREQUALIFICATION. EVALUATION OF THE SUBMITTAL SHALL BE PERFORMED BY THE PREQUALIFICATION COMMITTEE IN ACCORDANCE WITH GS 143-128.1, 143-135.8 AND THE STATE OF NC PREQUALIFICATION POLICY:

PREQUALIFICATION DUE DATE - 03/03/2022:

PREQUALIFICATION DUE TIME - 4:20 PM:

CONTACT NAME - LAUREN EVANS:

CM @ RISK FIRM - SAMET CORPORATION:

ADDRESS - 309 GALLIMORE DAIRY ROAD, SUITE 102, GREENSBORO, NC 27409:

PHONE NUMBER 336-565-1809:

E-MAIL ADDRESS - PREQUAL@SAMETCORP.COM:

No input required by Trade Partner

PROJECT INFORMATION:

NAME OF PROJECT - PROJECT SPECIFC PREQUALIFICATION EXAMPLE:

PROJECT OWNER - TEST PROJECT:

PROJECT LOCATION AND ADDRESS - TEST ADDRESS, GREENSBORO, NC:

PROJECT ARCHITECT - SAMETARCH:

PROJECT PHASE - PREQUALIFICATION:

PROJECT PHASE/DURATION - 15 MONTHS:

PROJECT START DATE (APPROX.) - 04/01/2022:

ANTICIPATED BID DATE - 03/24/2022:

PHASE BUDGET - ADD INFORMATION:

TOTAL PROJECT BUDGET - $3,000,000.00:

PROJECT DESCRIPTION - TEST PROJECT FOR INFORMATION:

powered by BUILDINGCONNECTED

Test Project Specific Prequalification

United States of America

PROJECT DESCRIPTION - ADD INFORMATION:

IF YOUR FIRM IS INTERESTED IN PREQUALIFYING FOR THIS PROJECT/PHASE, PLEASE CHECK THE BOX FOR YOUR TRADE(S). THIS IS A PRELIMINARY LIST OF BID PACKAGES AND MAY CHANGE BASED ON RESPONSE AND QUALIFIED BIDDERS:

PROJECT BID PACKAGE INFORMATION:

Select Yes for all Trade Packages you wish to Prequalify. No for all others.

BID PACKAGE 01A: FINAL CLEANING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 01A? No

BID PACKAGE 01B: GENERAL TRADES - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 01B? No

BID PACKAGE 01C: TEMP FACILITIES & CONTROLS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 01C? No

BID PACKAGE 01D: CLEANING & DUMPSTER FEES - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 01D? No

BID PACKAGE 01F: SURVEY & CONSTRUCTION STAKING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 01F? No

BID PACKAGE 02A: DEMOLITION - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 02A? No

BID PACKAGE 02B: HAZARDOUS MATERIAL ABATEMENT - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 02B? No

BID PACKAGE 03A: CONCRETE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 03A? Yes

BID PACKAGE 03C: STRUCTURAL PRECAST - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 03C? No

BID PACKAGE 03D: TILT-UP CONCRETE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 03D? No

BID PACKAGE 03G: POLISHED CONCRETE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 03G? No

BID PACKAGE 04A: MASONRY - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 04A? No

Test Project Specific Prequalification

United States of America

BID PACKAGE 05A: STRUCTURAL STEEL - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 05A? No

BID PACKAGE 06D: MILLWORK & CASEWORK - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 06D? No

BID PACKAGE 07A: WATERPROOFING & DAMPPROOFING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07A? No

BID PACKAGE 07B: MEMBRANE & SHINGLE ROOFING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07B? No

BID PACKAGE 07C: METAL WALL PANELS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07C? No

BID PACKAGE 07E: SPRAY & BATT INSULATION - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07E? No

BID PACKAGE 07F: APPLIED FIREPROOFING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07F? No

BID PACKAGE 07H: JOINT SEALANTS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 07H? No

BID PACKAGE 08A: DOORS, FRAMES, AND HARDWARE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 08A? No

BID PACKAGE 08B: STOREFRONT & CURTAIN WALL - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 08B? No

BID PACKAGE 08D: OVERHEAD DOORS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 08D? No

BID PACKAGE 09A: DRYWALL & FRAMING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09A? No

BID PACKAGE 09B: ACOUSTICAL CEILINGS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09B? No

BID PACKAGE 09C: RESILIENT FLOORING - $PRELIMINARY BUDGET (ADD INFORMATION):

Test Project Specific Prequalification

United States of America

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09C? No

BID PACKAGE 09D: HARD TILE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09D? No

BID PACKAGE 09E: TERRAZZO - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09E? No

BID PACKAGE 09F: EPOXY FLOORING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09F? No

BID PACKAGE 09H: PAINT & WALL COVERINGS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 09H? No

BID PACKAGE 10A: TOILET PARTITIONS & ACCESSORIES - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 10A? No

BID PACKAGE 10B: SIGNAGE - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 10B? No

BID PACKAGE 10E: LOCKERS & BENCHES - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 10E? No

BID PACKAGE 10G: AWNINGS & CANOPIES - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 10G? No

BID PACKAGE 11B: FOOD SERVICE EQUIPMENT - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 11B? No

BID PACKAGE 11C: ATHLETIC EQUIPMENT - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 11C? No

BID PACKAGE 11H: VISUAL DISPLAY BOARDS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 11H? No

BID PACKAGE 12A: WINDOW TREATMENTS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 12A? No

BID PACKAGE 12E: SEATING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 12E? No

Test Project Specific Prequalification

United States of America

BID PACKAGE 14A: ELEVATORS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 14A?	No	

BID PACKAGE 21A: FIRE PROTECTION - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 21A?	No	

BID PACKAGE 22A: PLUMBING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 22A?	No	

BID PACKAGE 23A: HVAC - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 23A?	No	

BID PACKAGE 26A: ELECTRICAL - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 26A?	No	

BID PACKAGE 31A: EARTHWORK - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 31A?	No	

BID PACKAGE 32A: PAVING & CURBS - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 32A?	No	

BID PACKAGE 32D: FENCING - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 32D?	No	

BID PACKAGE 32E: LANDSCAPING & IRRIGATION - $PRELIMINARY BUDGET (ADD INFORMATION):

Check Yes if Prequalifying or No if you are not Prequalifying for Bid Package 32E?	No	

PROJECT SPECIFICS STAFFING:

The assigned project superintendent for this project shall be?	Bob Smith	**Input Required by Trade Partner**
Upload a current resume for the assigned superintendent for this project. Have you included a resume?	Yes	
The experience this superintendent has on this specific type of project is [choose from the following and type: 0-2, 3-4, 5-10, >10 years?	15 Years	
The assigned project manager for this project shall be?	Rob Smith	**Input Required by Trade Partner**
Upload a current resume for the assigned project manager for this project. Have you included a resume?	Yes	
The experience this project manager has on this specific type of project is [choose from the following and type: 0-2, 3-4, 5-10, >10 years?	9 Years	
Location of Company Headquarter of office serving this project?	Greensboro, NC	**Input Required by Trade Partner**

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Test Project Specific Prequalification

United States of America

	Input Required by Trade Partner
PROJECT SPECIFICS SIMILAR PROJECTS:	
List 1 of 3 (three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	Building ABC - Concrete 123 Anywhere Road, Anywhere, NC 12345 CM Work Owner: City of Anywhere (123) 456-7890 Architect: Architects, LLC (123)456-7890 John Smith Construction (123) 456-7890 JohnSmith@JohnSmithConstruction.com Completed: 2021 100% $1,000,000 MWBE: 20%
List 2 of 3 three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	Building DEF - Concrete 123 Anywhere Road, Anywhere, NC 12345 CM Work Owner: City of Anywhere (123) 456-7890 Architect: Architects, LLC (123)456-7890 John Smith Construction (123) 456-7890 JohnSmith@JohnSmithConstruction.com Completed: 2021 100% $1,000,000 MWBE: 20%
List 3 of 3 (three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	Building GHI - Concrete 123 Anywhere Road, Anywhere, NC 12345 CM Work Owner: City of Anywhere (123) 456-7890 Architect: Architects, LLC (123)456-7890 John Smith Construction (123) 456-7890 JohnSmith@JohnSmithConstruction.com Completed: 2021 100% $1,000,000 MWBE: 20%

Test Project Specific Prequalification

United States of America

SIGNATURE:

Provide your First and Last Name as a responsible officer of your company and further acknowledgment and agreement to Qualification Statement as described within the Disclaimer Section.

Lauren Smith **Input Required by Trade Partner**

DISCLAIMERS AND CLARIFICATIONS

By submitting this Qualification Statement, the Subcontractor certifies that the information provided herein and, in any attachments, and enclosures is accurate, current, full, and complete, and true. The subcontractor further certifies that the information is not in any respect misleading, and Subcontractor has not omitted information that would in any way disqualify or tend to call into question the information provided. Subcontractor recognizes that Samet Corporation will rely upon the accuracy and completeness of Subcontractor's responses in determining whether to prequalify the Subcontractor to bid or perform the Work. Subcontractor agrees that any misstatement discovered or determined to be material in nature by Samet Corporation, after prequalification is granted, whether made innocently, carelessly, or fraudulently, may result in damages to Samet Corporation and may cause Samet Corporation to rescind prequalification or project award status and/or to terminate an issued or executed Subcontract Agreement under the provisions of the Subcontract Agreement for cause.

ADDITIONAL INFORMATION

Notes Please see attached for Resumes **Add additional notes as needed**

ATTACHMENTS

Bob Smith Resume.pdf (1 KB)

Rob Smith Resume.pdf (1 KB)

Upload resumes in the Attachments Section

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Prequalification Ratings Matrix for First-Tier Subcontractors under CM @ Risk

QUESTIONS FROM TRADE TAPP (66 POSSIBLE POINTS)

Question	Max Points	Matrix Scoring
General		
What is your company name?		
In what year and state/province was your company founded		
Provide us your company's business tax ID		
What is your company's address?		
Company Mailing Address if different from Company's Address? (If not different answer "N/A or Not Applicable".)		
Company Phone Number?		
Company Fax Number?		
How many employees does your company have?		
What markets does our company normally serve?		
What regions does your company normally serve?		
Select your currency.		
Does your company have any enterprise business certifications?		
Other Certifications? (specify Name, Certifying Agency, and State. If not, then answer "N/A" or "Not Applicable".)		
In which states is your company registered to do business?		
Is your company a subsidiary or child to a parent company?		
If owned or controlled by parent or any other organizations, describe ownership. (If not, then answer "N/A or Not Applicable".)		
If answered "YES" as owned by others, you agree to sign a Parent Company Guarantee Letter and submit the same with this Prequalification Application for review and approval. Additionally, an individual who is authorized to bind the Parent Company shall co-sign the contract as a condition precedent to the award of a contract. If you do not agree to these terms, your pre-qualification application will not meet the minimum requirements and will be disapproved. (If not owned by another, then answer "N/A or Not Applicable". If owned by another Answer Yes if you agree or No if you do not agree.)		
List all other names your firm has operated as for the past five (5) years? (If not, then answer "N/A or Not Applicable".)		If not answered, proposal is non-responsive and will not be considered for pre-qualification
What is your business type?		
Does your company have any union affiliations? (If yes, then describe. If no, answer "N/A or Not applicable".)		
What type of work do you normally perform?		
What other types of work does your company perform?		
Please specify if you are applying/renewing for a specific project		
Does your company self perform? If so, what types?		
Does your company have any professional licenses?		
Has any license ever been denied or revoked? (If yes, describe license and reason. If not, answer "no".)		
Part I: By submitting this Qualification Statement, the Subcontractor certifies that the information provided herein and, in any attachments, and enclosures is accurate, current, full, and complete, and true. The subcontractor further certifies that the information is not in any respect misleading, and Subcontractor has not omitted information that would in any way disqualify or tend to call into question the information provided. (Type "Yes" if in agreement or "No" if not in agreement.)		
Part II: Subcontractor recognizes that Samet Corporation will rely upon the accuracy and completeness of Subcontractor's responses in determining whether to prequalify the Subcontractor to bid or perform the Work. Subcontractor agrees that any misstatement discovered or determined to be material in nature by Samet Corporation, after prequalification is granted, whether made innocently, carelessly, or fraudulently, may result in damages to Samet Corporation and may cause Samet Corporation to rescind prequalification or project award status and/or to terminate an issued or executed Subcontract Agreement under the provisions of the Subcontract Agreement for cause. (Type "Yes" if in agreement or "No" if not in agreement.)		
Provide your First and Last Name as a responsible officer of your company and further acknowledgment and agreement to Qualification Statement as described within the Disclaimer Section.		
ALL QUESTIONS ABOVE MUST BE ANSWERED FOR PROPOSAL TO BE RESPONSIVE		
Contacts		
Who are your company contacts (Company and Prequalification)?		If not answered, proposal is non-responsive and will not be considered for pre-qualification
ALL QUESTIONS ABOVE MUST BE ANSWERED FOR PROPOSAL TO BE RESPONSIVE		

SAMET CORPORATION

Prequalification Ratings Matrix for First-Tier Subcontractors under CM @ Risk

Projects			
			0-4 points. If section completed give 4 points. If not, give 0 points.
			0-5 points. See scoring below: **Step One:** Take "current backlog (2.a.(4)" dollar amount and add "largest job completed (2.a.(3)) multiplied by 1.5". (**Example 1:** Current Backlog = $3,500,000; Largest Job Completed = $1,750,000; $3,500,000 + $1,750,000 = $5,250,000 x 1.5 = $7,875,000) (**Example 2:** Current Backlog = $2,000,000; Largest Job Completed = $1,000,000; $2,000,000 + $1,000,000 = $3,000,000 x 1.5 = $4,500,000) **Step Two:** If the step one value above is less than the 3 year average of the sum of "annual dollar amounts" listed in (2.a.(1)) divided by 3 and then Multiplied by 1.5, then proceed to the table below for applicable points. If the step one value above is greater than the 3 year average of the sum of "annual dollar amounts" listed in (2.a.(1)) divided by 3 and then multiplied by 1.5, then give 0 points If "current backlog dollar amount plus largest job completed x 1.5" divided by the 3 year average of the sum of "annual dollar amounts" x 1.5 is greater than 0% and less than 20% then give 5 points If "current backlog dollar amount plus largest job completed x 1.5" divided by the 3 year average of the sum of "annual dollar amounts" x 1.5 is between 20% and 40% then give 4 points If "current backlog dollar amount plus largest job completed x 1.5" divided by the 3 year average of the sum of "annual dollar amounts" x 1.5 is between 40% and 60% then give 3 points If "current backlog dollar amount plus largest job completed x 1.5" divided by the 3 year average of the sum of "annual dollar amounts" x 1.5 is between 60% and 80% then give 2 points If "current backlog dollar amount plus largest job completed x 1.5" divided by the 3 year average of the sum of "annual dollar amounts" x 1.5 is between 80% and 100% then give 1 points If "current backlog dollar amount plus largest job completed x 1.5" is greater than the 3 year average of the sum of "annual dollar amounts" x 1.5, then give 0 points (**Example 1:** 1st Year Annual Dollar Volume = $5,000,000 2nd Year Annual Dollar Volume = $4,500,000 3rd Year Annual Dollar Volume = $6,000,000 Total: $15,500,000 $15,500,000 / 3 = $5,166,666 x 1.5 = $7,750,000 Points Scored: $7,875,000 > $7,750,000 = 0 points (**Example 2:** 1st Year Annual Dollar Volume = $4,000,000 2nd Year Annual Dollar Volume = $4,500,000 3rd Year Annual Dollar Volume = $5,000,000 Total: $13,500,000 $13,000,000 / 3 = $4,500,000 x 1.5 = $6,750,000 Points Scored: $4,500,000 < $6,750,000 = Proceed to Table $4,500,000 / $6,750,000 = 66.67% or 2 points
What is your current estimated backlog? Please provide your backlog only for projects currently in progress. Do not include completed projects.	9		
Provide references of recently completed projects.	12		0-4 points for each project reference listed, total of 12 points. For each project listed, give 4 points for a positive reference from either the owner, architect or GC/CMR.
Provide any additional project reference documents.			
Upload any documents with additional project references			
			Step One: Take the "dollar amount of largest job completed" and multiply by 1.5. Step Two: If the result is larger than the sum total of estimated package(s) cost being prequalified for by 100% then give 5 points; If the result is larger than the sum total of estimated package(s) cost being prequalified for by 80% and less than 100% then give 4 points; If the result is larger than the sum total of estimated package(s) cost being prequalified for by 60% and less than 80% then give 3 points; If the result is larger than the sum total of estimated package(s) cost being prequalified for by 40% and less than 60% then give 2 points; If the result is larger than the sum total of estimated package(s) cost being prequalified for by 20% and less than 40% then give 2 points; If the result is larger than the sum total of estimated package(s) cost being prequalified for by 10% and less than 20% then give 1 point. If the result is smaller than the sum total of estimated package(s) cost being prequalified for then give 0 points.] Example No.1: Result of Largest Job Completed = 1,000,000 x 1.5 = $1,500,000 Sum Estimated Total of Bid Package(s): $687,000 $1,500,000 / $687,000 = 2.18 or 118% greater = 5 points Example No.2: Result of Largest Job Completed = 1,000,000 x 1.5 = $1,500,000 Sum Estimated Total of Bid Package(s): $1,200,000 $1,500,000 / $1,200,000 = 1.25 or 25% greater = 2 points
What was your largest project completed within the last 5 years?	5		
Subtotal	26		
Organization			
Does your company currently have a documented plan for engaging subcontractor participation from Historically Underutilized Businesses? (Yes or No.)	3		0-3 points. If company has a current documented plan give 3 points.
If yes to company HUB Plan, upload here.			Must be uploaded to receive points.
What had been your company's typical percentage level of Historically Underutilized Business participation for Public projects for the past 5 years? (Provide percentage value 0% to 100%)			
List HUB Participation you provided in past projects and as defined, including name, percentage achieved, and CM/GC/Owner representative's name and telephone number. Provide anticipated completion date or actual completion date of individual projects. (If no participation was provided answer "No participation or N/A".)	3		0-3 points, 3 points total. If information provided for each project, give 1 point per project. If information is not provided per project, give 0 points per project. To get points, not all HUB % listed needs to be over 10%.
Subtotal	6		

SAMET CORPORATION

Prequalification Ratings Matrix for First-Tier Subcontractors under CM @ Risk

Safety			
Provide your company's most recent EMR scores. This application requires at least 3 entries for this question.	5		0-5 points. If company has EMR rating less than or equal to 1 then give 5 points; if the company has EMR rating greater than 1 and less than 1.10 then give 3 points; if the company has EMR rating greater than 1.10 then give 0 points.
Provide an EMR letter (upload here). If your company does not have an EMR Rating, provide a letter stating no EMR rating and reason from your insurance company.			Must be uploaded (if you do not have an EMR rating) for prequalification and bid to be responsive.
If your company's EMR rate reflects corporate performance over a number of locations please explain the extent that pertains to the applying entity.			
Provide your company's OSHA 300 results and OSHA 300A logs. This application requires at least 3 entries for this question.			Must be uploaded for prequalification and bid to be responsive.
Provide us a copy of your company's current safety manual. This application requires at least 1 entry for this question.			Must be uploaded for prequalification and bid to be responsive.
List any OSHA fines and Jobsite fatalities in the past 3 years with an explanation.			
Provide us a copy of your company's current substance abuse policy. Please indicate location if a part of Written Safety Plan.			Must be uploaded for prequalification and bid to be responsive.
Does your company perform Job Hazard Analysis (JHA) and pre-task planning for high risk tasks?			
Do you perform frequent job safety inspections? (Yes or No. If yes, who performs the inspections and how often are inspections performed?)			
Have you reviewed our Site Safety & Incident Prevention Program?			
Do you have a new employee safety orientation program?			
Is abatement activity part of your inspection procedure?			
Do you maintain records and documented certified inspections on maintenance work performed on company-owned equipment?			
Subtotal	5		
Insurance			
Who is the broker or agency contact for your insurance programs?			
What are the details of your current insurance policies?			
Provide us a copy of your current certificate(s) of Insurance			Must be uploaded for prequalification and bid to be responsive.
The minimum requirements of coverage are defined on the Sample Certificate of Insurance (COI). Firms must indicate that they can provide evidence of insurance coverage, should they be considered for approval by attaching a copy of their insurance certificate. Additionally, should your firm not currently carry the exact insurance requirements defined within the Sample Certificate of Insurance, the applicant agrees to provide the specified insurance as a precedent to the award of a contract. (Yes or No.)			
Provide us your additional insured endorsement(s) to all applicable policies			
What are the details of your surety/bonding program?			
Please provide a current letter from the Surety provider indicating single job and aggregate program support, duration of the relationship, and comments on any open bond claims (most recent within the past 6 months).			"Yes or No". If this information is not provided in application for firms wishing to be approved for a bid package(s) requiring evidence (see bid package list at front of this form) of the ability to provide a Performance and Payment Bond, proposal is non-responsive and will not be considered for pre-qualification. Further, this review and approval for this section will be based on the surety letter stating an amount able to substantiate the surety's willingness to issue bonds in the sum total of the preliminary budget amounts identified herein for the proposed bid package(s) being sought for pre-qualification approval. This section is not a minimum requirement for firms wishing to become prequalified for bid packages not requiring the ability to provide a Performance and Payment Bond, however all firms are encouraged to provide a surety letter regardless.
Can your company provide a performance & payment bond?			
ALL QUESTIONS ABOVE MUST BE ANSWERED FOR PROPOSAL TO BE RESPONSIVE			

Financial

As a minimum requirement to become pre-qualified, the metrics illustrated below must be achieved in order to be approved for prequalification with one exception if the firm doesn't meet or exceed these designated metrics, a Performance and Payment Bond (see requirements under the Bond section above) can be substituted by the firm should the company become the successful low bidder for a particular bid package(s). This review and approval for this section will be based on the sum total of the preliminary budget amounts (greatest estimated contract amount if seeking approval for more than one bid package) identified herein for the proposed bid package(s) being sought for pre-qualification approval.

Have you achieved your metrics or provided evidence of bond-ability based on the anticipated contract value for the bid packages seeking approval?

☐ Yes ☐ No

Metrics:

Contract(s) Amounts: $0 to $200,000
Debt to Equity (Total Liabilities/Total Equity) is between 0 and 5.0
Current Ratio (Current Assets/Current Liabilities) is greater than 1.1
Net Current Assets (Current Assets less Current Liabilities) greater than $1

Contract(s) Amounts: $200,000 to $500,000
Debt to Equity (Total Liabilities/Total Equity) is between 0 and 4.0
Current Ratio (Current Assets/Current Liabilities) is greater than 1.2
Net Current Assets (Current Assets less Current Liabilities) greater than $20,000

Contract(s) Amounts: $500,000 and above
Debt to Equity (Total Liabilities/Total Equity) is between 0 and 3.0
Current Ratio (Current Assets/Current Liabilities) is greater than 1.3
Net Current Assets (Current Assets less Current Liabilities) greater than $50,000

SAMET CORPORATION

Prequalification Ratings Matrix for First-Tier Subcontractors under CM @ Risk

Provide your current IRS form W-9. This application requires at least 1 entry for this question.		
What are the details of your banking information?		
What is your company's historical volume/revenue by year? This application requires at least 3 entries for this question.	6	0-6 points. For each year completed (positive value), give 2 points each.
Upload your most recent financial statement including balance sheet and statement of income ("P&L"). CPA Audited or Reviewed statements are preferred.		Must be uploaded for prequalification and bid to be responsive.
Please provide a letter from your bank. Should include: Current line-of-credit Currently outstanding and average outstanding over the past 12 months.		
Dun and Bradstreet information and number? (If not, then answer "N/A or Not Applicable".)		
Have any funds been expended by a Surety Company on your firm's behalf (Yes or No. If yes, explain all details.)		If "Yes," with no explanation given, proposal is non-responsive and will not be considered for pre-qualification.
Has your company ever failed to complete work awarded (under contract) to it? (Yes or No, If "YES", provide State, Project Name(s), Year(s), and the reason why.)	4	0-4 points. If company has never failed to complete work it has been awarded then give 4 points; if the company has failed to complete one (1) project it has been awarded then give 2 points; if the company has failed to complete two (2) or more projects it has been awarded then give 0 points.
Has your company ever paid liquidated damages on any project? (Yes or No, If "YES", then provide State, Project Name(s), Year(s), and the reason why.)	3	0-3 points. If company has never paid liquidated damages on any of its projects then give 3 points; if the company has paid liquidated damages on only one project then give 2 points; if the company has paid liquidated damages on only two projects then give 1 point; if the company has paid liquidated damages on three or more projects then give 0 points.
Has your company, its officers, owners, or agents ever been convicted of charges relating to conflicts of interest, bribery, or bid-rigging? (Yes or No, If "YES" provide State, Project Name(s), Year(s), and the reason why.)	3	0 -3 points. If "Yes," give 0 points. If "No," give 3 points.
Has your company, its officers, owners, or agents ever been barred from bidding Public Work? (Yes or No, If "YES", then provide State, Project Name(s), Year(s), Case Number(s), and the reason why.)	3	0 -3 points. If "Yes," give 0 points. If "No," give 3 points.
Are there currently any judgments, claims, suits or arbitrations, mediation proceedings, or liens against your company, its officers, owners, or agents? (Yes or No, If "Yes", then provide State(s), Project Name(s), Year(s), Case Number(s), and the reason why?)	10	0-5 points. If within the last 5 years, whether resolved or still pending: If "Yes," with no explanation given then give 0 points; if "Yes" with an explanation given or "No" then give 5 points. 0-5 points. If "Yes," with no explanation given then give 0 points; if "Yes" with an explanation given or "No" then give 5 points.
If requested, are you willing to utilize the joint check method?		
Subtotal	**29**	
TOTAL TRADE TAPP POINTS	**66**	

QUESTIONS FROM BUILDING CONNECTED (34 POSSIBLE POINTS)

Question	Max Points	Matrix Scoring
The assigned project superintendent for this project shall be?	2	0-2 points. If resume included, give 2 points. If not, give 0 points.
Upload a current resume for the assigned superintendent for this project. Have you included a resume?		Must upload resume to earn above points.
The experience this superintendent has on this specific type of project is (choose from the following and type: 0-2, 3-4, 5-10, >10 years?	5	0-5 points. If 0-2 years give 1 pt, 3-4 years give 2 pts, 5-10 years give 4 pts, >10 years give 5 pts.
The assigned project manager for this project shall be?	2	0-2 points. If resume included, give 2 points. If not, give 0 points.
Upload a current resume for the assigned project manager for this project. Have you included a resume?		Must upload resume to earn above points.
The experience this project manager has on this specific type of project is (choose from the following and type: 0-2, 3-4, 5-10, >10 years?	5	0-5 points. If 0-2 years give 1 pt, 3-4 years give 2 pts, 5-10 years give 4 pts, >10 years give 5 pts.
Location of Company Headquarter of office serving this project?	5	0-5 points. If over 50 miles give 0 pt, 20 – 50 miles give 3 pts, 0-19 miles give 5 pts.
List 1 of 3 (three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	5	0-5 points for each project listed, for a total of 15 points. For each project listed and all required information provided, give 5 points.
List 2 of 3 three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	5	
List 3 of 3 (three shall be provided in total) current or completed projects of similar type which most closely reflects the size and complexity of the type of work being requested for the currently proposed project. Provide description of work performed, Contract Delivery Method (CM/GC), Owner Name and Contact Information, Architect Name and Contact Information, GC or CM Name and Contact Information, Contract Value, Percentage Complete, Current Anticipated Completion Date, MWBE % Achieved?	5	
Subtotal	**34**	
TOTAL OVERALL POINTS	**100**	

SAMET CORPORATION

THIS AGREEMENT IS SUBJECT TO ARBITRATION PER APPLICABLE LAW

SUBCONTRACT AGREEMENT

Contractor:
Samet Corporation

Subcontractor:

Phone:

Designated Representative:
Title:
Phone:
Email:

Designated Representative:
Title:
Phone:
Email:

Subcontract #:
Samet Phase Code:
Samet Job #:

Subcontract Date:
Subcontract For:

Project Name:
Job Site Address:

Subcontract Amount: $0.00

EXAMPLE

Project Owner:
Project Architect:

Lien Agent:

Submit Pay Requests to: accts@sametcorp.com

Subcontract Addenda:

Addendum 1	Insurance and Bonds
Addendum 2	Work Rules and Safety Policy
Addendum 3	Application for Payment
Addendum 4	Affidavit of Capital Improvement

Subcontract Exhibits:

Exhibit A	Detailed Scope of Work
Exhibit B	List of Contract Documents
Exhibit C	Project Schedule
Exhibit D	MWBE Documentation
Exhibit E	Pre-Award Meeting Minutes
Exhibit F	Notice of Project Statement

THIS SUBCONTRACT AGREEMENT (hereinafter "Agreement") is made and entered as of the Subcontract Date above, by and between Samet Corporation (hereinafter "Contractor") and the above-named Subcontractor (hereinafter "Subcontractor") and, together Contractor and Subcontractor are hereinafter the "Parties". This Agreement is contingent upon the Contractor entering into a Prime Contract with the Owner and the Owner's approval of the Subcontractor. Subcontractor is not authorized to perform any Work hereunder until this Agreement is signed and returned to the Contractor, along with a current Certificate of Insurance and any required bonds. If Subcontractor begins Work prior to signing this Agreement, such action shall constitute acceptance of all terms and conditions tendered herein. Contractor, however, shall have no obligation to make payment for work performed by Subcontractor without a signed Agreement.

Samet Corporation

By:	Sample - Do Not Sign	By:	Sample - Do Not Sign
Name:		Name:	
Title:		Title:	
Date:		Date:	

EXAMPLE

TABLE OF ARTICLES

1 CONTRACT DOCUMENTS
2 SCOPE OF WORK
3 EXECUTION AND PROGRESS OF SUBCONTRACTOR'S WORK, DELAYS
4 SUBCONTRACT AMOUNT
5 SUBMITTALS, AS-BUILT DRAWINGS, ELECTRONIC DATA
6 DESIGN WORK AND PROFESSIONAL SERVICES
7 WARRANTY
8 QUALITY, MATERIALS, EQUIPMENT AND CLEAN UP
9 VERIFICATION OF PROJECT CONDITIONS, APPLICABLE LAW AND CONTRACT DOCUMENTS
10 SUPERINTENDENCE, COOPERATION, SUBCONTRACTING, PROJECT MEETINGS
11 MEANS, METHODS AND SAFETY
12 CHANGES
13 PROGRESS PAYMENTS, RETAINAGE, FINAL PAYMENT
14 SUSPENSION, DEFAULT AND TERMINATION
15 SUBCONTRACTOR CLAIMS AND DISPUTES
16 PROTECTION AND CORRECTION OF WORK
17 DEFENSE AND INDEMNITY
18 INSURANCE AND BONDS
19 LABOR
20 MISCELLANEOUS

The Contractor and Subcontractor hereby agree as follows:

ARTICLE 1. CONTRACT DOCUMENTS

1.1 The Contract Documents consist of:

(1) this Agreement, including the Exhibits and Addenda identified on page 1 of this Agreement, and

(2) the Prime Contract between the Owner and Contractor, including all exhibits, attachments, drawings, plans and specifications, and other contract documents enumerated or incorporated therein, along with all Addenda and Modifications to the Prime Contract, which Prime Contract (excluding Contractor's compensation and confidential business terms) shall be kept on file in the office of the Contractor and made available to the Subcontractor for inspection upon reasonable request.

EXAMPLE

Together, these Contract Documents form this Subcontract. Subcontractor agrees to all terms of this Subcontract. This Subcontract represents the entire and integrated agreement between the Parties hereto and supersedes all prior agreements and representations, written or oral. The Contract Documents are complementary and what is required by one shall be as binding as if required by all. In the event of a conflict between any of the provisions of the Contract Documents, the Subcontractor shall be deemed to have agreed to provide the greater quantity and better quality of work called for in any of the conflicting provisions.

1.2 Contractor and Subcontractor shall be mutually bound by the terms of this Subcontract. To the extent that the provisions of the Prime Contract apply to the Subcontractor's Work, the Subcontractor shall assume toward the Contractor all obligations that the Contractor assumes toward the Owner and any design professionals under the Prime Contract.

ARTICLE 2. SCOPE OF WORK

2.1 Subcontractor agrees to furnish all labor, materials, equipment, and supervision required by **Exhibit A** or reasonably inferable therefrom in order to provide a complete and functioning installation, except to the extent specifically indicated in this Subcontract to be the responsibility of others ("Work"). Subcontractor shall secure and pay for all permits, fees, licenses, and inspections by government agencies necessary for proper execution and completion of the Work. Subcontractor shall comply with the requirements of all governmental or quasi-governmental authorities having jurisdiction over the Work, including Building Departments, and shall give these authorities requisite notices relating to its Work.

2.2 Subcontractor's Work shall conform to the Plans, Specifications, Drawings and Addenda included in the Contract Documents defined in ARTICLE 1, subject to Modifications, as set forth in **Exhibit B**.

ARTICLE 3. EXECUTION AND PROGRESS OF SUBCONTRACTOR'S WORK, DELAYS

3.1 Time is of the essence of this Subcontract, and any time specified for completion of the Subcontractor's Work or any portion thereof is a material provision of this Subcontract.

3.2 The Schedule is attached to this Agreement as **Exhibit C**. By executing this Agreement, Subcontractor agrees that the sequences and durations reflected in the Schedule are reasonable and appropriate for the completion of its Work and that Subcontractor has taken into consideration all reasonably foreseeable delays and disruptions incident to its Work, including weather conditions, the availability and cost of labor, materials, tools, and equipment, Owner's and Contractor's scheduling requirements, and potential Project congestion caused by simultaneous work of Subcontractor and others.

3.3 Unless otherwise expressly provided in this Subcontract, Subcontractor shall begin its Work in accordance with the Schedule or as otherwise directed in any written notice by Contractor. Subcontractor shall furnish at its own expense sufficient labor, materials, equipment, and supervision to assure proper performance of its Work in strict compliance with

the Schedule. Subcontractor shall diligently and continuously prosecute its Work in an efficient fashion and take all necessary actions to assure completion of the Project within the time specified in the Schedule.

3.4 Subcontractor shall at all times give due consideration to the fact that other work is dependent upon Subcontractor's proper and timely completion of its Work. Subcontractor shall perform and coordinate its Work with that of Contractor and all other subcontractors for the most efficient construction of the Project and at a rate that will not cause delay or disruption to the completion of the Project, or any portions thereof, including portions performed by Contractor or others.

3.5 Subcontractor shall continuously monitor the Schedule and advise Contractor of the status of its progress, including providing updates on its Submittals, and any materials or equipment that may be in preparation or manufacture. Subcontractor shall comply with any schedule and reporting requirements imposed upon Contractor in the Prime Contract and shall furnish Contractor any additional information reasonably required by Contractor during the performance of Subcontractor's Work.

3.6 Subcontractor shall immediately notify Contractor of any circumstances known or reasonably foreseeable which may impact the times and sequences in the Schedule and shall make all requests for time extensions in writing pursuant to the provisions of ARTICLE 15 so as to allow Contractor sufficient time to forward the request to Owner as required by the Prime Contract.

3.7 Subcontractor recognizes that revisions in the Schedule are inherent in the nature of construction. Contractor shall have the right, in its sole discretion, to decide the time, order, priority and other matters relative to the performance and orderly conduct of Subcontractor's Work and to modify the Schedule so as to suspend, delay, resequence or accelerate, in whole or in part, the commencement or execution of Subcontractor's Work, all without additional compensation to Subcontractor. No Schedule modification, suspension, delay, resequencing, acceleration, interference, or inefficiency shall relieve Subcontractor of its duty to perform hereunder.

3.8 Should the Subcontractor's Work be delayed, re-sequenced, accelerated, or otherwise disrupted in any way by the act or omission of the Contractor or other subcontractor, or by any cause beyond the Subcontractor's control and not due to any fault, act or neglect on its part, then the time for completion of Subcontractor's Work ("Subcontract Time") shall be extended for a period equivalent to the time lost by any of the aforesaid causes, as determined by Contractor, provided that Subcontractor provides written notice of the same to Contractor in strict accordance with ARTICLE 15. Such extension of time shall be Subcontractor's sole and exclusive remedy for any such occurrence or occurrences, and Subcontractor shall have no claim for damages against Contractor for any such occurrence or occurrences or the cumulative impact of the same.

EXAMPLE

3.9 Should Contractor's, or any other subcontractor's, work be stopped or delayed due to Subcontractor's failure to provide sufficient and properly skilled labor, materials, or equipment, or should Subcontractor fail to properly perform its Work in a timely manner resulting in a delay in the Schedule, Contractor shall have the right, in addition to any and all other rights hereunder, upon seventy-two (72) hours' written notice and opportunity to cure to Subcontractor, to (a) employ whatever labor, materials and equipment as Contractor deems appropriate to complete the requirements of this Subcontract, and/or (b) direct Subcontractor to promptly increase its labor force, accelerate its performance, re-sequence Work, increase the number of shifts, work overtime operations, and submit for Contractor's approval a schedule demonstrating the method under which Subcontractor will regain the required rate of progress, and/or (c) take other steps Contractor deems necessary to improve the Subcontractor's rate of progress. Subcontractor shall be responsible for all costs incurred by Contractor in completing the Subcontractor's Work and/or regaining the proper rate of progress of the Subcontractor's Work.

3.10 Subcontractor shall be responsible for and shall reimburse Contractor for all damages suffered by Contractor resulting from delays caused by or contributed to by Subcontractor, including any liquidated damages and other delay damages recovered by the Owner from Contractor, and Contractor's own costs. Contractor shall have the right to reasonably apportion such damages among Subcontractor and any other subcontractor or other party responsible for such damages, and such apportionment shall be binding upon Subcontractor.

ARTICLE 4. SUBCONTRACT AMOUNT

4.1 Contractor shall pay Subcontractor the Subcontract Amount set forth on page 1 of this Agreement, subject to additions and deletions as provided for in ARTICLE 12. The Subcontract Amount includes all transportation tax, sales and use taxes, tariffs, duties, licenses, permits, bonds and inspections, royalties, other taxes or escalation that might accrue through the purchase of materials, and other fees required for the Work, to the extent legally enacted as of the Subcontract Date, whether or not yet effective or merely scheduled to go into effect, and any amounts paid for labor or services by Subcontractor and any employment or other taxes or fringe benefits related thereto.

4.2 To the extent that any materials or equipment to be provided by Subcontractor as part of its Work require an advanced payment prior to fabrication or shipment of materials ("Deposit"), Subcontractor shall advise Contractor in writing of such Deposit prior to execution of this Agreement to allow Contractor to seek Owner's prior approval for payment of such Deposit.

4.3 To the extent that some or all of the Subcontractor's Work is to be performed on a unit price basis, the Subcontract Amount shall be computed in accordance with the unit prices set forth on **Exhibit A**. Unit prices are deemed to include all costs related to Subcontractor's performance of the Work, including, but not limited to, costs of labor,

supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance and taxes, and all overhead and profit. Quantities shall be measured by means acceptable to Owner, Contractor and Subcontractor, and if applicable, an independent testing firm hired by Owner.

4.4 To the extent that the Subcontract Amount includes allowances, the allowances shall be as set forth on **Exhibit A**. Allowances shall cover the cost of all materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses associated with stated allowance amounts shall be included in the Subcontract Amount but not in the allowances. Whenever costs are more than or less than an allowance amount, the Subcontract Amount shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual costs and the allowances.

ARTICLE 5. SUBMITTALS, AS-BUILT DRAWINGS, ELECTRONIC DATA

5.1 Subcontractor shall prepare and submit to Contractor all shop drawings, product data, samples, test results, installer's instructions, certificates, and other required documents ("Submittals"), and obtain all required approvals, permits, and licenses necessary or required related to the Work with reasonable promptness and in such sequence so as not to cause a delay in the Subcontractor's Work or in the activities of the Contractor or other subcontractors unless agreed to otherwise by Contractor in writing. In no event shall said items be submitted to Contractor later than thirty (30) days following Subcontractor's receipt of the Notice to Proceed or Subcontract Date, whichever occurs first.

5.2 All Submittals shall be made in an electronic media and format acceptable to Contractor with the exception of samples. Contractor's written review and/or approval of Submittals is required prior to fabrication of any items to be furnished under this Subcontract. All deviations by this Subcontractor from the Contract Documents shall be explicitly noted on the reviewed Submittal. Contractor's review and/or approval of any of Subcontractor's Submittals shall not relieve the Subcontractor of any of its duties under the Subcontract nor relieve the Subcontractor of any liability for any deviations from the requirements of the Subcontract. Subcontractor shall provide final "field use" shop drawings incorporating all Submittal comments in electronic and hard copy.

5.3 Subcontractor shall maintain as-built drawings weekly depicting any deviations between its installed Work and the Subcontract and deliver the final as-built drawings to Contractor within fifteen (15) days of completion of Subcontractor's Work. Updates to the Contractor's as-built drawings within the Contractor's field office shall also be maintained by Subcontractor on a weekly or other consistent basis as agreed to by the Contractor.

5.4 In the event the Parties intend to (1) develop, use, transmit and exchange Digital Data on the Project, (2) utilize a centralized electronic document management system on the Project, and/or (3) develop, share, use and rely upon three-dimensional Building Information Modeling ("BIM"), the Parties shall agree in writing upon protocols governing the development, use, management, maintenance, storage, transmission, reliance upon and exchange of such information, which writing shall be known as the "BIM Exhibit" and shall become a part of this Subcontract.

EXAMPLE

ARTICLE 6. DESIGN WORK AND PROFESSIONAL SERVICES

6.1 Subcontractor shall not be required to provide professional services that constitute the practice of architecture or engineering unless such services are specifically required by the Subcontract or unless required for Subcontractor to provide the services necessary to carry out Subcontractor's responsibilities for its own construction means, methods, techniques, sequences or procedures.

6.2 All designs, calculations, models, schedules or specifications or other design information created for the Project that were created by, for or on behalf of the Subcontractor (collectively, "Subcontractor Design Material") shall be deemed owned by Contractor. Subcontractor hereby assigns all intellectual property rights, including copyrights and rights related thereto, in the Subcontractor Design Material to Contractor. Subcontractor shall obtain similar assignments from its sub-consultants. The Subcontractor Design Material is created for the specific use of Contractor, and any re-use or adaptation of the same for any other project or client of Subcontractor is expressly prohibited without Contractor's prior written approval.

6.3 In the performance of any design work, Subcontractor shall:

6.3.1 perform its services consistent with the professional skill and care ordinarily provided by design professionals practicing in the same or similar locality under the same or similar circumstances;

6.3.2 cause any design or engineering services to be performed as part of Subcontractor's Work to be provided by a properly licensed, qualified and independent design professional for the State in which the Project is located, whose signature and seal shall appear on all drawings, calculations, specifications, certifications, shop drawings and other submittals prepared by such professional and shall bear the professional's written approval when submitted to Contractor.

6.3.3 give all notices and comply with all Applicable Law;

6.3.4 submit for Contractor's and Owner's approval in accordance with the Schedule, design development documents, working drawings, specified shop drawings and samples, and data and specifications of materials proposed to be incorporated in the Work.

6.4 Subcontractor's design work performed under this Subcontract shall be coordinated by Subcontractor with the design and construction work performed by others outside of this Subcontract. Sufficient plans and specifications prepared by Subcontractor under this Subcontract will be furnished for coordination, construction, and permit purposes. Subcontractor shall provide copies of approved drawings in the form and quality specified by Contractor. Subcontractor

shall notify Contractor and other affected trades of all design development changes in sufficient time to preclude additional costs and conflicts with work of others on the Project. Subcontractor may be liable for the extra costs incurred for its failure to provide such timely notice.

6.5 Subcontractor shall maintain professional liability insurance covering negligent acts, errors and omissions in the performance of professional design or engineering services as set forth on **Addendum 1**.

6.6 The Subcontractor shall include all of the provisions of this ARTICLE 6 into its agreement with any design professional it engages as set forth herein.

ARTICLE 7. WARRANTY

Subcontractor warrants to the Owner and Contractor that the materials and equipment furnished under this Subcontract will be of good quality and new. Subcontractor further warrants that the Work will be executed in strict conformance with the Subcontract, and all Federal, state and local laws, ordinances, rules, regulations, codes and orders of any public authority bearing on the performance of the Work of this Subcontract in effect as of the Subcontract Date ("Applicable Law"), and in the most sound and workmanlike manner and will otherwise be free from defects. Work, materials and or equipment not conforming to these requirements may be considered defective. Subcontractor's warranty obligations shall survive completion of the Project, Owner's acceptance and the making of final payment. These warranties shall be in addition to, and not a limitation of, all other warranties, implied or express, allowed, required or granted by law, the Prime Contract, or other provisions of this Subcontract.

ARTICLE 8. QUALITY, MATERIALS, EQUIPMENT AND CLEANUP

8.1 Subcontractor is responsible for continuously monitoring, planning, establishing, and executing the quality of its Work and that of its employees, lower tier subcontractors and suppliers and shall immediately report any quality issues to Contractor. All Work shall be done to the final approval of Contractor, Architect and/or Owner, and to their decision as to the performance of the Work in accordance with the Subcontract and manufacturer's recommendations. Subcontractor agrees that Contractor, Architect and/or Owner each have the authority to reject Subcontractor's Work that does not conform to the Subcontract. The Owner's or Architect's final decision on matters relating to aesthetic effect shall be binding on Subcontractor.

8.2 Should any of Subcontractor's Work and/or materials furnished be rejected, defective, or deemed nonconforming by Contractor, Architect and/or Owner (the "Rejected Work"), Subcontractor shall, within seventy-two (72) hours of receipt of written notice from Contractor of such rejection and opportunity to cure, proceed to remove and replace all Rejected Work and any other work damaged or destroyed in removing and replacing the Rejected Work. All costs associated with correcting, removing, or replacing Rejected Work, including additional testing and inspections, shall be borne by Subcontractor without any increase in the Subcontract Amount. If Subcontractor fails to promptly correct or remove and replace the Rejected Work, Contractor may at its option do so on Subcontractor's behalf and at Subcontractor's expense.

EXAMPLE

8.3 Contractor's failure to discover or notify Subcontractor of defective or nonconforming Work, or any portion thereof, at the time the Work is performed shall not relieve Subcontractor of its full responsibility for correction or replacement of the defective or non-conforming Work and all damages resulting therefrom.

8.4 If Owner elects to accept any defective or nonconforming Work performed by Subcontractor, rather than requiring removal or correction, the Subcontract Amount shall be reduced to compensate Owner for the diminished value of Subcontractor's defective or nonconforming work.

8.5 Subcontractor shall be responsible for the proper receipt, delivery, unloading, handling, hoisting, storage, protection, installation, and all risk of loss associated with any materials or equipment it is to furnish, install, utilize, or provide, or have provided to it for the performance of Subcontractor's Work. Materials or equipment which become damaged in any way through no fault of Contractor during storage, delivery or installation shall not be used and shall be replaced by Subcontractor at its expense.

8.6 Subcontractor agrees that any materials or equipment of Contractor or Owner, which are not to be incorporated into Subcontractor's Work, and any labor of Contractor or Owner, will be available to Subcontractor only with the express prior written permission of Contractor and in accordance with Contractor's terms and conditions of use. By using such labor, materials, or equipment, including tools, scaffolding, hoists, lifts or other similar items owned, leased or under the control of Contractor, Subcontractor shall, to the maximum extent allowed by law, indemnify, defend and be liable to Contractor for any loss or damage, including bodily injury or death, arising, or alleged to arise, from such use.

8.7 No substitutions shall be made in Subcontractor's Work unless permitted by the Subcontract and only then upon receiving all prior approvals required under the Subcontract. Subcontractor shall indemnify Contractor for any increased costs incurred by Contractor resulting from any unauthorized substitutions.

8.8 Cleanup of the Work and daily removal of debris from Work areas are mandatory. Subcontractor shall during the performance of its Work keep the Project site clean and free from debris resulting from Subcontractor's Work. Before discontinuing Work in an area, Subcontractor shall clean the area and remove all rubbish and its construction equipment, tools, machinery, waste, and surplus materials. Subcontractor shall make provisions to minimize and confine dust and debris resulting from its construction activities. Subcontractor is required to participate in the clean-up of any common areas in the building or Project site jointly used by Subcontractor, Contractor, and other subcontractors. Fire exits, corridors, ladderways, doorways, and exit paths in general shall be clear of all debris and always open to pedestrian and wheelchair traffic, including nights and weekends. If Subcontractor fails to comply with cleanup duties within twenty-four

(24) hours after receipt of written notice from Contractor of non-compliance, which notice may be delivered to Subcontractor's field supervisor, Contractor shall have the right, at its option, to perform appropriate cleanup measures without further notice to Subcontractor. Subcontractor shall pay Contractor all costs incurred by Contractor in performing the cleanup measures or Contractor may deduct the costs incurred from any amounts due or to become due Subcontractor. In the event a dispute arises among the Subcontractor and any others as to the responsibility for such cleanup, the Contractor may allocate reasonably the cost among the responsible parties and the allocation thus made shall be binding on the Subcontractor.

ARTICLE 9. VERIFICATION OF PROJECT CONDITIONS, APPLICABLE LAW AND CONTRACT DOCUMENTS

9.1 Subcontractor represents it has visited the Project site and adjoining premises as applicable to its Work, is familiar with the conditions under which the Work is to be performed, is familiar with all Applicable Law, has correlated its personal observations with the requirements of the Subcontract, is capable of performance by reason of experience and expertise, is duly licensed to perform the Work, and is able to perform and staff the Work with an appropriate number of qualified personnel.

9.2 Subcontractor agrees that Contractor has made no representations of any kind or nature as to the conditions or limitations of the Project site and/or Subcontractor's Work other than those contained in the Subcontract. If the Subcontractor discovers or should have discovered any defect in any work or materials provided by others that would make it unsuitable for the installation of its Work, then Subcontractor shall promptly, and before executing the Work, notify Contractor of the same in writing. Subcontractor shall be solely responsible for all costs, including the cost of changing the subsequent work of others, necessitated by Subcontractor's failure to report any error, omission, or defect which Subcontractor discovered or reasonably should have discovered before executing the Work.

9.3 If Subcontractor discovers or reasonably should have discovered any error, omission or variance between the Contract Documents and any Applicable Law, Subcontractor shall notify Contractor promptly in writing prior to proceeding with said Work. In the event Subcontractor fails to so notify Contractor, Subcontractor shall be solely responsible for all resulting costs and damages.

9.4 If Subcontractor determines the Contract Documents do not contain sufficient detail on any matters relating to its Work, Subcontractor shall request Contractor to furnish such other and further drawings and explanations as may be necessary, and Subcontractor shall conform to the same without additional compensation provided such information does not materially change the Subcontractor's Scope of Work.

EXAMPLE

9.5 Contractor shall establish principal axis lines of the building and site and benchmarks. Subcontractor is solely responsible for the proper layout of its Work and responsible for any loss to Contractor or others due to Subcontractor's failure to lay out its Work correctly. Subcontractor shall exercise prudence so that actual final conditions and details shal l result in proper alignment of finished surfaces. Prior to the commencing its Work, Subcontractor shall thoroughly and accurately: (a) review all Submittals and Contract Documents referring to items requiring integration, coordination and compatibility with Subcontractor's Work; (b) observe and verify all previous and surrounding work performed and surfaces provided by others and determine the location, condition, and correctness of the same, to the extent necessary to assure that the Work can be performed as intended; and (c) measure all field conditions relating to its Work.

9.6 The exactness of grades, elevations, dimensions, clearances or locations given on any Contract Documents, or the work installed by other contractors, is not guaranteed by the Contractor. Subcontractor shall be responsible to field verify all existing conditions and perform all necessary field dimensioning as required to ensure that all materials are fabricated to fit properly and to ensure the proper fitting of Subcontractor's Work with the work of Contractor and others. All field dimensions should be verified prior to Subcontractor's Submittals or at the earliest possible time after field conditions allow the dimensions to be taken. "Long lead" items may be released for fabrication prior to field dimensioning only when authorized by Contractor in writing and only after all critical dimensions have been agreed to in writing by all involved Parties. Subcontractor shall be fully responsible for all fabrication errors, including costs to rebuild or modify completed Work, resulting from Subcontractor's failure to obtain precise field dimensioning whererequired.

9.7 If a condition encountered is (a) a subsurface or other physical condition materially different from those indicated in the Contract Documents, or (b) an unusual or unknown physical condition materially different from conditions ordinarily encountered and generally recognized as inherent in Subcontractor's Work, Subcontractor shall stop the affected Work as soon as the condition is first observed, immediately notify the Contractor, and subsequently give written notice to Contractor of the condition no later than seventy-two (72) hours after discovery and prior to any disturbance of the condition. Subcontractor shall be responsible for all costs to change subsequent work of others, or for any damages arising out of Subcontractor's failure to give prompt notice to Contractor.

ARTICLE 10. SUPERINTENDENCE, COOPERATION, SUBCONTRACTING, PROJECT MEETINGS

10.1 Subcontractor shall supervise and direct Subcontractor's Work and provide continuous, adequate and competent fulltime on-site supervision during the performance of its Work.

10.2 Subcontractors' Designated Representative shall be satisfactory to Contractor and shall have the authority to carry out direction from Contractor relating to Subcontractor's Work or responsibilities. Subcontractor's Designated Representative shall be a fulltime employee on-site who can speak the English language fluently and translate and communicate with all on-site employees who cannot speak the English language fluently so that all field personnel are able to receive immediate verbal direction from Subcontractor or Contractor. If Subcontractor does not have a translator

on-site, any employees on-site who are incapable of speaking the English language fluently shall, upon request of Contractor, be immediately removed from the Project site.

10.3 Subcontractor shall provide technical services as required to effect the operation of any equipment and/or material furnished under this Subcontract, including performance of specific testing, if any, and shall instruct the Owner's personnel on the operation, maintenance, and control of such equipment.

10.4 Subcontractor shall enter into written agreements with sub-subcontractors performing any portions of the Work of this Subcontract, wherein Subcontractor and sub-subcontractor are mutually bound, to the extent of the Work to be performed by the sub-subcontractor, assuming toward each other all obligations and responsibilities that Contractor and Subcontractor assume toward each other, and having all rights, remedies and redress against each other that the Contractor and Subcontractor have under this Subcontract. Prior to Contractor's payment of Subcontractor's first requisition, Subcontractor shall provide Contractor a sworn statement of all lower tier subcontractors and suppliers/vendors that it intends to use to perform or provide any portion of its Work.

10.5 Subcontractor will be required to attend a pre-construction meeting which shall be scheduled and conducted by the Contractor. Subcontractor's Designated Representative is required to attend all jobsite meetings as scheduled by the Project Superintendent during the time that Subcontractor is actively working on the Project. Subcontractor shall comply with any Project-specific meeting requirements set forth in **Exhibit A**.

ARTICLE 11. MEANS, METHODS AND SAFETY

11.1 Contractor shall not have control over or charge of and shall not be responsible for the construction means, methods, techniques, sequences or procedures, or for safety precautions and programs relating to Subcontractor's Work. Subcontractor shall be solely responsible for the safety of its employees, sub-subcontractors, suppliers and any other person or entity for whom Subcontractor is responsible. Subcontractor shall perform its Work in a safe and reasonable manner and shall continuously maintain its Work area in such a manner to provide a safe working environment. Subcontractor shall, at its own expense, implement appropriate safety programs pertaining to its Work, including establishing safety rules, posting appropriate warnings and notices, and establishing proper notice procedures to protect persons and property at the Project site and adjacent to the Project from injury, loss or damage. Subcontractor shall review and comply with Contractor's Work Rules and Safety Policy, attached to this Agreement as **Addendum 2**.

11.2 Subcontractor shall conform with all safety and record keeping requirements imposed by the Prime Contract or Applicable Law, including the Occupational Safety and Health Act of 1970 and industry specific regulations. Subcontractor shall directly receive, respond to, defend and be solely responsible for all citations, assessments, fines or penalties which may be received or incurred by either Party by reason of Subcontractor's failure, or the failure on the part of its agents, employees, suppliers or sub-subcontractors, to comply with any Law and further shall indemnify and hold harmless Contractor and Owner from and against any such claims, damages, loss, cost or expense, including reasonable attorneys' fees, relating thereto.

EXAMPLE

11.3 Subcontractor shall notify Contractor immediately and in no event later than twenty-four (24) hours following any injury to an employee or anyone for whom Subcontractor is responsible which occurred at the Project or of any damage to the Project, Work or other property damage at the Project. Subcontractor shall reasonably cooperate with Contractor in the event of any accident or other event that may give rise to a claim against Contractor or Owner. To the fullest extent possible, Subcontractor shall preserve all evidence related to any accident or event until Contractor, and/or the Owner and/or any insurance carrier providing coverage for such accident or event, has had the opportunity to investigate and to inspect the evidence.

11.4 To the fullest extent permitted by law, Subcontractor shall indemnify and hold harmless Contractor and Owner, their affiliates, parents, subsidiaries, officers, directors, employees, success and assigns (all collectively "Indemnitees"), from and against all claims, damages, losses, costs and expenses, including without limitation reasonable attorney's fees, fines and/or penalties incurred by the Indemnitees arising out of or resulting from the performance of the Subcontractor's Work under this Subcontract.

ARTICLE 12. CHANGES

12.1 If the Owner makes changes in the Work by issuing modifications to the Prime Contract, Contractor shall notify the Subcontractor of any such modifications. Unless otherwise directed by Contractor, Subcontractor shall not thereafter order materials or perform Work that would be inconsistent with the changes made by any modification to the Prime Contract.

12.2 In the event Contractor requests Subcontractor to review a proposed modification to the Prime Contract which may affect Subcontractor's Work, Subcontractor shall respond in writing prior to commencing any modified work and within seven (7) days after receipt of such request, or other reasonable time as the Parties may agree, stating the effect of the proposed modification upon its performance, including details of costs and time thereof. If Subcontractor fails to properly or timely respond to Contractor's request, Subcontractor shall accept the determination of Contractor as to the effect of the proposed modification. To the extent the Prime Contract provides for changes to be computed based on mutually agreed lump sum, unit price, cost plus fee basis, or otherwise, these obligations are hereby imposed upon Subcontractor.

12.3 Subcontractor may be ordered in writing by Contractor, without notice to Subcontractor's Surety and without invalidating this Subcontract or any bond hereunder, to make changes in the Work consisting of additions, deletions or

other revisions, with the Subcontract Amount and the Subcontract Time adjusted accordingly by written directive which shall be promptly enacted upon by Subcontractor and shall be followed by a formal written change order representing the changes to the Work ("Change Order"). At Contractor's option, the amount of any increase in the Subcontract Amount shall be calculated based on: (a) an agreed upon lump sum; (b) any Unit Prices set forth in **Exhibit A** to this Agreement or otherwise agreed to by the Parties; or (c) the documented direct costs of labor, materials, and equipment actually and reasonably incurred by the Subcontractor in the performance of the changed Work ("Direct Costs") plus the maximum Overhead and Profit Rate set forth in the Prime Contract.

12.4 If the Parties are unable to agree as to whether any work directed by the Contractor entitles Subcontractor to a Change Order, or as to the value of such changed Work, Subcontractor shall proceed under the written directive from Contractor, from which the adjustment of the Subcontract Amount and/or the Subcontract Time shall be omitted, and shall keep accurate, detailed and itemized records of the Direct Costs incurred in completing the work directed including without limitation, timesheets, payrolls, inspection records, invoices, vouchers and other records to substantiate the cost of changed Work, and shall submit a Claim for resolution pursuant to the provisions of ARTICLE 15.

12.5 Subcontractor shall be entitled to an adjustment of the Subcontract Amount or Subcontract Time only to the same extent and according to the same provisions as Contractor's adjustment from Owner. Subcontractor's allocable share of Contractor's adjustment shall be fairly and reasonably determined by Contractor after allowance for Contractor's cost of presenting and recovering the Claim, including legal fees, normal overhead and profit and apportionments to other affected subcontractors. Under no circumstance shall Subcontractor's entitlement exceed Contractor's entitlement after deduction of the expenses and costs described herein.

12.6 Contractor's, or Owner's, receipt or acknowledgement of Subcontractor's Change Order request, or any other Claim, notice or report, including reports of cost and time, or any payments made, shall not be construed as Contractor's, or Owner's, acceptance of the accuracy or validity thereof until such time as a Change Order is signed by Contractor.

12.7 No Change Order shall be valid unless Contractor's Designated Representative, or higher-level representative, has signed the same. Contractor's Superintendent(s) are not authorized to approve any additional Work and may not sign any field or office work order authorizing or approving any additional Work for which Subcontractor expects payment. No course of conduct or dealings between the Parties, nor express or implied acceptance of alterations or additions to the Work, and no claim that Owner or Contractor have been unjustly enriched by any alteration of or addition to the Work, whether or not there is, in fact, any unjust enrichment, shall be the basis of any claim to a change in the Subcontract Amount or the Subcontract Time.

12.8 Agreement on any Change Order shall constitute a final settlement of all matters relating to the change in the Work that is the subject of the Change Order, including, but not limited to, all direct and indirect costs and consequential damages or cumulative impact associated with such change and any and all adjustments to the Subcontract Amount and Contract Time.

EXAMPLE

ARTICLE 13. PROGRESS PAYMENTS, RETAINAGE, FINAL PAYMENT

13.1 Subcontractor shall be entitled to apply for progress payments for that portion of its Work performed during the payment periods established in the Prime Contract, but not more frequently than monthly. Contractor shall make progress payments on the Subcontract Amount to Subcontractor as provided below and elsewhere in the Subcontract.

13.2 As a condition precedent to payment of the first requisition, Subcontractor shall submit to Contractor: (i) a sworn statement of all subcontractors and suppliers as set forth in Section 10.4 herein; (ii) if not previously provided to Contractor, a schedule of values allocating the entire Subcontract Amount among the various portions of Subcontractor's Work, in a form acceptable to Contractor; (iii) if not previously provided to Contractor, a current financial statement or other evidence of financial stability, and (iv) a fully executed Agreement with a current Certificate of Insurance meeting or exceeding the requirements of **Addendum 1** and any required bonds. Contractor shall have no obligation to make payment for Work performed by Subcontractor unless and until these items are submitted to Contractor.

13.3 As a further condition precedent to receiving any progress payments from Contractor, Subcontractor agrees that it shall execute and deliver to Contractor with each of Subcontractor's payment requisitions, a full and complete partial lien waiver and release of all claims and causes of action which Subcontractor may have or claims to have against Contractor, Owner or the Project ("Partial Waiver") through the date of the Partial Waiver, excepting only those claims for which Subcontractor has previously notified Contractor and which Subcontractor has specifically listed on the Payment Application, and conditioned only upon receipt of the payment identified therein. The Partial Waiver shall be on a form approved by Contractor and shall cover all work for which payment is requested. If requested by Contractor, as a further condition precedent to receiving any progress payment, Subcontractor shall also provide fully executed Partial Waivers from Subcontractor's lower tier subcontractors and suppliers.

13.4 Unless the Prime Contract provides for a different schedule, by the 20th day of each month Subcontractor shall submit to Contractor a written application, on Contractor's form (see **Addendum 3**), or other form approved in advance by Contractor, showing the value of Work performed and completed since the preceding pay period ("Payment Application"), along with all substantiating information required by the Subcontract. Provided the Payment Application is timely received, Contractor shall include the Subcontractor's Work covered by that Payment Application in its application for payment to Owner for the same period. If the Subcontractor's Payment Application is received after the application date fixed above, Subcontractor's Work shall be included by Contractor in its next application for payment to Owner. Contractor shall have

no obligation to delay its monthly application for payment to Owner due to Subcontractor's delay in submission of its Payment Application to Contractor.

13.5 The amount of each progress payment shall be calculated as follows:

(1) Take that portion of the Subcontract Amount properly allocable to completed Work; and

(2) Reduce that amount by: (i) the aggregate of all previous payments made by Contractor; (ii) the amount, if any, for Work that remains uncorrected and for which Contractor has previously withheld payment for a cause that is the fault of Subcontractor; (iii) all charges for materials and services furnished by Contractor to Subcontractor; (iv) any other charges or deductions as provided for in Section 13.10 below or elsewhere in the Subcontract, including for Work not performed or defects discovered since Subcontractor's last Payment Application for a cause that is the fault of Subcontractor; and (v) retainage withheld pursuant to this Agreement.

13.6 If allowed by the Contract Documents, Subcontractor's Payment Application may include materials and equipment not yet incorporated in the Work but delivered to, adequately protected, insured, and suitably stored at the Project site or at an offsite storage facility. Approval for payment of such stored items, on or offsite, shall be conditioned upon submission by Subcontractor of bills of sale, evidence of insurance, and such other documents and procedures satisfactory to Owner and Contractor to establish Owner's unencumbered title to such materials and equipment and to otherwise protect Owner's and Contractor's interest, including transportation from an offsite facility to the Project site. Materials stored on the Project site, and for which payment is requested, shall remain in the care and custody of the Subcontractor and shall not be removed from the Project site without the written consent of the Contractor.

13.7 For each progress payment made prior to Substantial Completion of the Work, Contractor shall withhold retainage at the rate equal to the percentage retained from Contractor's payment by Owner for Subcontractor's Work, at the rate defined in the Prime Contract. If the Subcontractor's Work is satisfactory and the Prime Contract provides for a reduction of retainage, Subcontractor's retainage shall also be reduced when Contractor's retainage for Subcontractor's Work has been so reduced by Owner. Early release of retainage, if any, shall be at Contractor's discretion and in compliance with the early release of retainage provisions of the Prime Contract.

13.8 The timing and frequency of Contractor's progress and final payments to Subcontractor shall be the same as the timing and frequency of Owner's payments to Contractor pursuant to the terms of the Prime Contract. Provided the Subcontractor is not in default, Contractor shall pay Subcontractor each progress payment no later than seven (7) days after Contractor receives payment from the Owner, or per applicable State law. If Owner does not make payment to Contractor within the time prescribed in the Prime Contract, through no fault of Subcontractor, Contractor will make payment to Subcontractor within sixty (60) days of the Subcontractor's Payment Application for the Work satisfactorily performed, computed pursuant to Section 13.5 herein.

EXAMPLE

13.9 Subcontractor shall promptly, and no later than seven (7) days after receipt of payment from Contractor, or per applicable State law, pay its lower tier subcontractors, suppliers, and any other bills or obligations for labor, materials, equipment, suppliers and other items for the Project. Upon Contractor's receipt of notice of any unpaid bills or obligations of Subcontractor on this Project, Contractor, in its sole discretion and in addition to any other remedies it may have hereunder, may pay Subcontractor's lower tier subcontractors or suppliers (either directly or by joint check) and recover these payments from the Subcontractor. Notwithstanding anything to the contrary herein, Subcontractor acknowledges and agrees that regardless of whether Contractor paid Subcontractor, Subcontractor has an obligation to pay its lower tier subcontractor and suppliers the amounts owed by Subcontractor to them for labor and materials furnished to Subcontractor in connection with its Work on the Project. Upon Contractor's request, Subcontractor shall furnish evidence of the payment of all bills and expenses incurred by Subcontractor for labor, services, equipment and materials used by Subcontractor, or any other liability incurred by Subcontractor, in performance of its Work on the Project.

13.10 Contractor may reject a Subcontractor's Payment Application in whole or in part or withhold amounts from a previously approved Payment Application for any reason set forth in the Prime Contract or as may be reasonably necessary to protect Contractor from loss, including but not limited to, the following:

(1) Subcontractor's failure to perform the Subcontract Work as required by this Subcontract;

(2) Loss or damage arising out of or relating to this Subcontract and caused by Subcontractor or those for whom Subcontractor is responsible;

(3) Rejected, nonconforming, or defective Work which has not been corrected in a timely fashion;

(4) Reasonable evidence of delay in the Subcontractor's performance of the Work;

(5) Reasonable evidence demonstrating that the unpaid balance of the Subcontract Amount is insufficient to cover the cost to complete the Subcontractor's Work; and

(6) Third-party claims involving Subcontractor or reasonable evidence demonstrating that third-party claims are likely to be filed.

13.11 To the extent permitted by Applicable Law, acceptance of periodic progress payments by Subcontractor shall constitute a waiver of any and all claims, by the Subcontractor against the Contractor, the Owner, the Project, or Contractor's payment bond through the date of the pay period for which payment is made, unless such claims are expressly reserved on the Payment Application.

13.12 When the Work is Substantially Complete, Subcontractor shall promptly submit its Payment Application for such Work. Within thirty (30) days of acceptance of the Payment Application covering such substantially completed Work, Contractor shall make payment to Subcontractor, less final retainage, and deducting any amounts as may be necessary to cover the cost of items to be completed or corrected by the Subcontractor. Acceptance of Subcontractor's substantially completed Work shall not result in commencement of the warranty period or the statutes of limitations or repose for the Subcontractor's Work which shall instead commence upon achievement of Substantial Completion of the Project under the terms of the Prime Contract.

13.13 Final payment, constituting the entire unpaid balance of the Subcontract Amount, shall be made by Contractor to Subcontractor when the Subcontract Work is fully performed in accordance with the requirements of the Contract Documents.

13.13.1 Subcontractor shall submit its final Payment Application in such time to allow Contractor to incorporate Subcontractor's Payment Application into Contractor's application for final payment to Owner without delay. **ANY INVOICE NOT SUBMITTED WITHIN SIXTY (60) DAYS OF THE ISSUANCE OF THE FINAL CERTIFICATE OF OCCUPANCY WILL NOT BE PAID**, except as related to Work completed after Substantial Completion.

13.13.2 Issuance of the final payment to Subcontractor is contingent upon: (a) final completion of Subcontractor's Work in accordance with the Contract Documents; (b) acceptance of Subcontractor's Work by Contractor and Owner; (c) furnishing of a Final Release and Waiver of Liens and Claims, in such form as required by Contractor, from Subcontractor and all persons or entities claiming under or through Subcontractor, (d) furnishing an Affidavit that all payrolls, bills for materials and equipment, and all known indebtedness connected with Subcontractor's Work, including any taxes and governmental charges, have been satisfied or will be paid with the proceeds of final payment so not to encumber the Owner, Project, Contractor or Contractor's surety; (e) consent of surety to final payment, if required; (f) furnishing a report of any outstanding known and unreported accidents or injuries experienced by Subcontractor, or anyone for whom Subcontractor is responsible, at the Project site; (g) receipt by Contractor of all close-out documents required by the Subcontract; and (h) compliance with any other conditions precedent to Subcontractor's receipt of final payment as set forth in the Prime Contract or elsewhere in the Subcontract.

13.13.3 If the above conditions have been satisfied, final payment shall be made to Subcontractor within seven (7) days after receipt by Contractor of final payment from Owner for the Subcontractor's Work, or per applicable State law. If Owner does not make final payment to Contractor within the time prescribed in the Prime Contract, through no fault of Subcontractor, Contractor will make payment to Subcontractor within sixty (60) days of Subcontractor's compliance with the conditions precedent to final payment as set forth herein.

EXAMPLE

13.14 No payment, including final payment, shall be construed as an acceptance of defective, rejected, nonconforming or incomplete Work, and Subcontractor shall remain responsible for its performance conforming to the requirements of the Contract Documents.

13.15 Acceptance of final payment by Subcontractor shall constitute a waiver of all claims by Subcontractor against Contractor, the Owner, the Project, or any surety or bond, arising out of or relating to Subcontractor's Work.

ARTICLE 14. S[redacted]

14.1 Should Owner suspend the Contractor's Work, or any part which includes the Subcontractor's Work, for the convenience of Owner and such suspension is not due to any act or omission of Subcontractor, Contractor shall notify Subcontractor in writing and, upon receipt of notification, Subcontractor shall immediately suspend its Work. To the extent provided for under the Prime Contract, and to the extent Contractor recovers such on Subcontractor's behalf, the Subcontract Amount and the Subcontract Time shall be adjusted by Change Order for the cost and delay resulting for any Owner directed suspension. Contractor agrees to cooperate with Subcontractor, at Subcontractor's expense, in the prosecution of any claim by Subcontractor arising out of an Owner's suspension.

14.2 Contractor may order Subcontractor in writing to suspend all or any part of the Work for such time as may be determined by Contractor. Phased Work or interruptions of the Subcontractor's Work for short periods of time which do not directly affect the critical path of the Work shall not be considered a suspension. Subcontractor shall promptly notify Contractor if Subcontractor believes such suspension will cause an increase in the time for performance of its Work. The Subcontract Time shall be adjusted for delays caused by the suspension; however, no adjustment shall be made to the extent that Subcontractor's performance is, was or would have been so suspended, delayed or interrupted by another cause for which Subcontractor is responsible.

14.3 If the Subcontractor:

(1) repeatedly performs Work in an untimely, defective, or nonconforming fashion;

(2) provides any false information or documents to the Contractor, Owner or Architect;

(3) damages work of others or any other property in connection with performance of Subcontractor's Work and fails to repair promptly said damage;

(4) fails to make payment to its employees, subcontractors or suppliers for labor, materials or equipment, relating to Subcontractor's Work on the Project;

(5) fails to deliver current insurance certificates, licenses, required bonds, as-built drawings, warranties or the approvals required of Subcontractor's Work;

(6) fails to promptly provide adequate assurances of its ability to perform under this Subcontract when reasonably requested to do so by Contractor;

(7) fails to comply with all Applicable Law; or

(8) has otherwise committed a material breach of this Subcontract,

Contractor may terminate the Subcontract upon seventy-two (72) hours' written notice to Subcontractor unless Subcontractor, within those 72 hours, commences and continues satisfactory correction of the default with diligence and promptness. In the event of emergency affecting the safety of persons or property, Contractor may proceed as above without prior notice to Subcontractor.

14.4 When Contractor terminates Subcontractor for any of the reasons stated above, Contractor may take possession of the Work, and materials and equipment to be incorporated into the Work of Subcontractor at the Project site, accept assignment of agreements or subcontracts executed by the Subcontractor related to its Work hereunder, and through itself or others prosecute the Subcontractor's Work in the manner Contractor reasonably determines is most expeditious for completion of the Work. Subcontractor shall not be entitled to any further payments until Subcontractor's Work has been completed and fully accepted by Owner. If the unpaid balance of the Subcontract Amount exceeds Contractor's costs of completion, the difference shall be paid to Subcontractor. If such expenses exceed the unpaid balance due, Subcontractor shall pay the difference to Contractor within ten (10) days of written demand for payment of the same.

14.5 Subcontractor shall be liable to Contractor for all costs incurred as a result of Subcontractor's failure to perform under this Subcontract, including all charges, expenses, losses, costs, damages and reasonable attorney's fees incurred in enforcing any provision hereunder and/or in correcting or completing the Work, and including all costs and expenses associated with Contractor's prosecution or defense of any bankruptcy or insolvency proceeding relating to Subcontractor, and any subsequent proceeding or appeal from any order or judgment entered therein.

14.6 Contractor shall have the right to terminate this Subcontract, or any part thereof, without Subcontractor being at fault, for any cause or for Contractor's or the Owner's convenience, upon seventy-two (72) hours' written notice to Subcontractor. Upon Subcontractor's receipt of such written notice, this Subcontract shall be terminated, and Subcontractor shall: (a) cease operations as directed by Contractor's notice; (b) take actions necessary, or as directed by Contractor, for the protection and preservation of the Work; and (c) 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 or purchase orders. In the event Contractor terminates this Subcontract for its own convenience, Contractor shall pay Subcontractor for all Work properly performed through the date of termination, including reasonable overhead and profit on such Work, and reasonable costs incurred by Subcontractor related to termination. Contractor shall not be liable to Subcontractor for any other costs, including overhead and profit on the Work not executed. A termination for Subcontractor's default shall, if determined to have been wrongfully made, be treated as a termination for convenience under this subparagraph.

EXAMPLE

14.7 The rights and remedies provided Contractor in this Article are not exclusive but are in addition to any rights and remedies afforded by this Subcontract or by law.

14.8 Any amounts due Contractor as a result of Subcontractor's failure to perform hereunder may be recovered from the surety issuing any bonds required under this Subcontract, and both Subcontractor and its surety agree to pay Contractor such losses, damages, expenses and Contractor's reasonable attorney's fees.

ARTICLE 15. SUBCONTRACTOR CLAIMS AND DISPUTES

15.1 Any claim by Subcontractor seeking an adjustment in the Subcontract Amount and/or Subcontract Time, an adjustment or interpretation of the Subcontract terms, or other relief arising out of or relating to this Subcontract ("Claim"), must be made by written notice to the Contractor: (a) at least seventy-two (72) hours prior to the beginning of Subcontractor's affected or additional Work, (b) within seventy-two (72) hours of Subcontractor's first knowledge of the event giving rise to the Claim, or (c) at least two (2) business days prior to the date by which Contractor is obligated to give notice to the Owner with respect to such Claim, whichever shall first occur; otherwise, such Claims shall be deemed waived.

15.2 Should any timely submitted Claim or other dispute between Contractor and Subcontractor remain unresolved, the Parties agree that:

(1) The Parties shall endeavor to reach resolution of such Claim or other dispute between them through good faith direct discussions between the Parties' Designated Representatives.

(2) If such Claim or other dispute cannot be resolved between the Parties' Designated Representatives, then Contractor shall issue a written directive to Subcontractor which shall be followed by Subcontractor without waiver of Subcontractor's Claims ("Contractor's Directive").

(3) Contractor's Directive shall be final and conclusive unless, within seventy-two (72) hours of receipt of such directive, Subcontractor provides a written notice to Contractor contesting Contractor's Directive. If Subcontractor does not timely contest Contractor's Directive, Subcontractor shall be deemed to have waived any right to contest that directive.

(4) If Subcontractor timely contests Contractor's Directive, the Parties shall proceed as set forth in Section 15.5, below.

(5) Unless otherwise agreed to by the Parties in writing, Subcontractor shall continue its Work and maintain the Schedule during any dispute resolution procedure. If Subcontractor continues to perform, Contractor shall continue to make any undisputed payments owed to Subcontractor in accordance with this Subcontract.

15.3 If Subcontractor asserts a Claim for which Owner is or may be responsible ("Pass-Through Claim"), Subcontractor's sole remedy shall be to pursue it at its expense against Owner in its own name. Contractor, in its sole discretion, may choose to, but is not required to, prosecute the Pass-Through Claim for Subcontractor and where applicable charge Subcontractor for a pro-rata share, based on the percentage which Subcontractor's claim bears to the total claim asserted by Contractor, of the total expenses, including reasonable attorney's fees, incurred in pursuing the claim. Subcontractor shall comply with all claim notice requirements and dispute resolution procedures in the Prime Contract, or which otherwise apply to any Pass-Through Claim. Contractor shall have no responsibility or liability in relation to a Pass-Through Claim or its outcome, except to pay Subcontractor any sums received by Contractor from Owner or any other party, less expenses incurred by Contractor in connection with the Pass-Through Claim, as noted herein.

15.4 If Subcontractor chooses to appeal an adverse final decision rendered with respect to a Pass-Through Claim, Subcontractor may do so provided the Contractor's interests are not materially affected, and the Subcontractor agrees to bear the full cost thereof and be solely responsible for prosecuting such appeal.

15.5 Contractor and Subcontractor shall endeavor to resolve any Claim or other dispute between them by mediation which, unless the Parties' agree otherwise, shall be conducted in accordance with the then current American Arbitration Association Construction Industry Mediation Procedures. A request for meditation shall be made in writing delivered to the other party to this Subcontract. This request may be made concurrently with the filing of a demand for arbitration as set forth in Section 15.6, which shall be stayed for a period of 30 days following completion of said mediation. The Parties shall share the mediator's fee equally unless otherwise agreed. The mediation shall be held in the County where the Project is located unless otherwise agreed. Agreements reached in mediation shall be enforceable in any court having jurisdiction thereof.

15.6 Any Claim or other dispute between Contractor and Subcontractor that has not been waived per Section 15.2 and was not resolved through 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 Subcontract Date. The arbitration shall be conducted in the County where the Project is located, unless another location is mutually agreed upon by the Parties. A demand for arbitration shall be made in writing, delivered to the other party of the Subcontract and filed with the person or entity administering the arbitration. Unless otherwise mutually agreed to by the Parties, the party filing a notice of demand for arbitration must assert in the demand all Claims and other disputes between the Parties arising from the Project then known to that party. In no event shall a demand for arbitration be made after the date when the institution of legal or equitable proceedings based upon the Claim or other dispute 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 initiation of legal or equitable proceedings based on the Claim or other dispute. 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. Subcontractor agrees to require its sureties to participate in said arbitration proceedings and to be bound by any award rendered against Subcontractor. The foregoing agreement to arbitrate, and any other agreements to arbitrate with an additional person or entity duly consented to by the Parties, shall be specifically enforceable under Applicable Law in any court having jurisdiction thereof. The Parties agree to share equally all arbitration fees and costs. Each party agrees to bear its own attorney's fees associated with any arbitration.

EXAMPLE

15.7 Contractor may, in its discretion and as may be required by the Prime Contract, join Subcontractor in any dispute resolution proceeding to which Contractor is or becomes a party and which, in Contractor's reasonable judgment, relates to or affects Subcontractor's performance of the Work, including: (a) any dispute resolution procedure provided in the Prime Contract for disputes arising between Contractor, Owner and/or others, including arbitration and submission to Architect or Engineer; (b) litigation, (c) administrative proceedings, and (d) any other dispute resolution proceeding applicable under the Applicable Law. If so joined or consolidated, Subcontractor shall participate at its own expenses in said proceeding, shall be bound by its outcome, and shall dismiss any mediation, arbitration or litigation proceedings instituted against Contractor related to the same claims and disputes.

15.8 The validity, interpretation and performance of this Subcontract shall be governed by the laws of the State in which the Project is located. If Contractor is required to employ an attorney to enforce any of the provisions of this Subcontract, or to protect its interest in any matter arising hereunder, or to collect damages for the breach of this Subcontract or to prosecute or defend any suit resulting therefrom, or to recover on any bond given by Subcontractor hereunder, Subcontractor and its surety, jointly and severally, agree to pay Contractor for all reasonable costs, charges, expenses, expert fees and attorney's fees expended or incurred in connection therewith.

ARTICLE 16. PROTECTION AND CORRECTION OF WORK

16.1 Subcontractor shall take necessary precautions to properly protect its Work and the work of others from theft or damage caused by Subcontractor's performance of its Work, including the cleaning of surfaces. Should Subcontractor cause damage to its Work or the work or property of Contractor, Owner, or others, Subcontractor shall promptly remedy

such damage to the satisfaction of the Contractor, or Contractor may, in addition to all other rights hereunder, upon seventy-two (72) hours' written notice and opportunity to cure, remedy such damage and recover the cost from Subcontractor.

16.2 In addition to its obligations under ARTICLE 7, Subcontractor agrees to promptly correct, after receipt of written notice from Contractor, all Work which is found to not be in accordance with the requirements of the Contract Documents within a period of one year from the date of Substantial Completion of the Project, or for a longer period of time as may be required by Prime Contract. Should Subcontractor, within seventy-two (72) hours' of receipt of notice, fail or refuse to commence and continue satisfactory correction of the nonconforming Work, Contractor may have the nonconforming Work corrected at the sole expense of Subcontractor, and may recover from Subcontractor an amount sufficient to cover such repair costs. Nothing contained in this Section shall be construed to establish a period of limitation with respect to the obligations Subcontractor has under the Subcontract. Establishment of the one-year period for correction of Work described in this Section relates only to the specific obligations of Subcontractor to correct its Work, and has no relationship to the time within which the obligation to comply with the Subcontract may be sought to be enforced, nor to the time within which proceedings may be commenced to establish the Subcontractor's liability with respect to the Subcontractor's obligations other than to specifically correct its Work. Contractor's remedies described in this Section shall not be exclusive but shall be in addition to all others provided by this Subcontract and Applicable Law.

ARTICLE 17. DEFENSE AND INDEMNITY

17.1 To the fullest extent permitted by law, Subcontractor shall indemnify and hold harmless the Owner and Contractor, and all agents and employees of either of them, from and against all claims, damages, losses and expenses, including but not limited to reasonable attorney's fees, arising out of or resulting from performance of Subcontractor's Work, provided that any such claim, damage, loss or expense is attributable to bodily injury, sickness, disease or death, or to injury to or destruction of real or personal property, but only to the extent caused by the negligent acts or omissions of Subcontractor, its sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable. Such obligation shall not be construed to negate, abridge or otherwise reduce other rights or obligations of indemnity which would otherwise exist as to a party or person described in this ARTICLE 17. In claims against any person or entity indemnified under this ARTICLE 17 by an employee of the Subcontractor, its sub-subcontractors, anyone directly or indirectly employed by them, or anyone for whose acts they may be liable, the indemnification obligation under this ARTICLE 17 shall not be limited by a limitation on the amount or type of damages, compensation or benefits payable by or for Subcontractor, or its sub-subcontractors, under workers' compensation acts, disability benefits acts or other employee benefits acts. The defense and indemnity obligations hereunder apply without regard to when the claims occur or who makes them and applies to claims made while this Subcontract is in force as well as to claim made after it is terminated or the Work is complete. In addition, Subcontractor shall indemnify, defend and hold harmless Contractor to the same extent that Contractor is required to indemnify, defend and hold harmless Owner and others under the Prime Contract, to the extent of Subcontractor's Work.

EXAMPLE

17.2 Subcontractor shall turn the Work over to Contractor in good condition and free and clear of all claims, security interest, encumbrances or liens arising out of the performance of the Work. Subcontractor shall defend, hold harmless and indemnify Contractor and Owner from all loss, liability, damage, or expense, including reasonable attorney's fees and expenses, arising out of any lien claim or other claim for payment by any of Subcontractor's subcontractors or suppliers of any tier. If at any time there is evidence of a lien or claim for which, if established, Contractor or Owner might become liable, and which is chargeable to Subcontractor, including any liens by lower tier subcontractors or suppliers, and Subcontractor has not promptly satisfied, or if Subcontractor shall incur any liability to Contractor, or Contractor shall have a claim or demand against Subcontractor of any kind or for any reason, whether or not reduced to judgment or award, Contractor shall have the right to retain out of any payment due or to become due under this Subcontract, an amount sufficient to indemnify Contractor and Owner against such lien or claim, or to fully satisfy such liability, claim or demand, including reasonable attorney's fees and costs. Upon receipt of notice of such lien claim or other claim for payment, Contractor shall notify Subcontractor, who shall immediately satisfy such lien or claim by filing a bond or in such other manner as may be authorized by Applicable Law or Contractor. Should any claim or lien develop after all payments have been made to Subcontractor under this Subcontract, Subcontractor shall pay to Contractor, within ten (10) days of demand, all monies that Contractor was compelled to pay in discharging such claims or liens, including reasonable attorney's fees and costs incurred in collecting said monies from Subcontractor.

ARTICLE 18. INSURANCE AND BONDS

18.1 Subcontractor agrees to provide and maintain the coverage and limits of insurance outlined on **Addendum 1** hereto which are minimum requirements for all projects unless the Contract Documents applicable to a specific project (a) require higher limits, at which point Contractor shall so notify Subcontractor, and Subcontractor shall be required to provide the higher limit or (b) a Controlled Insurance Program (CIP) provided by Owner or Contractor requires Subcontractor to provide different coverage for offsite inspections, warranty period, or other risks not covered by the CIP, at which point Subcontractor is required to strictly comply with the applicable CIP program manual. If a project is covered by a CIP, it will be so indicated on **Addendum 1**. Subcontractor shall require its subcontractor(s) and suppliers to furnish the same coverage, limits of insurance and additional insured status as required of Subcontractor under **Addendum 1** of this Agreement. Subcontractor shall provide certificates of insurance evidencing insurance coverage as required herein prior to commencement of Subcontractor's Work.

18.2 Should Subcontractor be required to provide Payment and Performance Bonds, the requirement for, and the amounts and terms for, such bonds are set forth on **Addendum 1**.

ARTICLE 19. LABOR

19.1 Only workers with a legal right to work in the United States shall be employed or used by Subcontractor or any of its lower tier subcontractors or suppliers. Subcontractor certifies that it has completed all work authorizations required by law, including without limitation, the requirements for the use of E-Verify for employment eligibility verification for all new hires where such usage is required by Law or required by the Prime Contract, and retention of Forms I-9 Employment Eligibility Verification, for itself and its lower tier subcontractors and suppliers. Subcontractor agrees that Contractor is entitled, but not required, to monitor compliance with this policy, and that any false certifications or failure to comply may result in termination and/or other penalties.

19.2 Subcontractor shall give notices and comply with all employment requirements of the Prime Contract and Applicable Law, including: equal opportunity employment requirements, the Fair Labor Standards Act; building codes; federal, state and local tax laws; Workers' Compensation Acts, and such other labor, non-discrimination, employment, Social Security and tax laws to the extent applicable to performance of the Work under this Subcontract. Subcontractor shall also review and comply with the Employment policies and requirements of Contractor outlined in **Addendum 2** to this Agreement.

19.3 To the fullest extent permitted by law, Subcontractor shall indemnify and hold harmless the Indemnitees from and against all claims, damages, losses, costs and expenses, including without limitation reasonable attorney's fees, public relations costs, fines and/or penalties incurred by the Indemnitees, and work stoppages arising out of or resulting from the failure of Subcontractor, or its employees, agents, lower tier subcontractors or suppliers, to properly verify employment eligibility of any workers or otherwise to fully comply with all applicable immigration and employment laws, and all other applicable wage and benefits Laws.

ARTICLE 20. MISCELLANEOUS

20.1 Severability. If any provision, or portion thereof, of this Subcontract is found to be void, unenforceable or invalid, the remaining provisions, or portions thereof, shall survive and remain effective and binding.

20.2 Titles. Title given to articles and sections of this Agreement are for ease of reference only and shall not be relied upon or cited for any other purpose.

EXAMPLE

20.3 Electronic Exchange. The Parties may execute and exchange records in electronic form, including the signing of this Agreement, and including written notices in accordance with the terms of Section 20.14 herein. The Contractor may use DocuSign for the transmission and electronic execution of certain Contract Documents, including Change Orders, or may transmit and exchange Contract Documents by email as set forth in Section 20.14 herein. By execution of this Agreement, the parties agree that any electronic record or electronic signature, including a scanned and emailed copy of an original signature, shall be attributable to the person whose signature appears on the electronic record/electronic signature, shall have full legal effect and enforceability to bind the party causing the electronic signature to be made, and shall satisfy any provision of this Agreement or of any Law that requires a record be in writing.

20.4 Sustain[redacted]. Subcontractor shall take all steps necessary to ensure that its Work, including the work of its lower tier subcontractors and suppliers, complies with any sustainability objective, including LEED or other industry-related certification program, required under the Prime Contract.

20.5 Assignment. Subcontractor shall not assign, transfer or otherwise dispose of this Subcontract, or any part thereof, nor assign any monies due or to become due hereunder, except with the prior written consent of Contractor. Any assignment consented to by Contractor shall not operate to relieve Subcontractor of its primary responsibility to Contractor for the full performance of this Subcontract, nor shall it create any contractual relationship between Contractor and such assignee, and Subcontractor shall continue to be liable to Contractor for all acts and omissions of its subcontractors and assignees. In the event Owner terminates the Prime Contract for cause, this Subcontract is assigned to the Owner pursuant to the Prime Contract provided the Owner accepts the assignment by notifying the Contractor and Subcontractor.

20.6 Non-Solicitation. Until final completion of the Project, Subcontractor agrees not to perform any work directly for the Owner or any tenants thereof or deal directly with the Owner's representatives in connection with the Project unless otherwise directed and/or consented to in writing by Contractor. All Work for the Project performed by Subcontractor shall be processed and handled exclusively by Contractor.

20.7 Independent Contractor. All of Subcontractor's services provided under this Subcontract are performed as an independent contractor. Nothing in this Subcontract shall change or modify the independent contractor status or be construed as a partnership arrangement, employer-employee relationship, limited liability relationship or otherwise. Subcontractor shall be solely responsible to its own employees and agents for any compensation due them and for compliance with all Laws including without limitation worker's compensation, employer taxes including FICA and self-employment taxes, and unemployment compensation payments. Subcontractor shall have no authority or right under any circumstance to employ any person for or on behalf of Contractor, or to incur any indebtedness in the name or Contractor, or otherwise to bind or purport to bind Contractor in any manner. Subcontractor agrees, represents and acknowledges that it is an independent contractor and is not an employee of Contractor, the Owner, or any other party on the Project.

20.8 Confidentiality. To the extent the Contract Documents provide for the confidentiality of any of the Owner's proprietary or otherwise confidential information disclosed in connection with the performance of this Subcontract, Subcontractor is equally bound by the Owner's confidentiality requirements. As used herein, "Confidential Information" means all information, documentation or records of one party that are disclosed to the other party that are marked or stated to be "Confidential" at the time of disclosure or that a reasonably prudent businessperson would consider to be confidential or proprietary in nature. Subcontractor will hold in confidence any Confidential Information (whether of Owner or Contractor) disclosed to it by Contractor to be used only the purpose for which such Confidential Information was disclosed. The obligations of Subcontractor pursuant to this Section 20.8 are in addition to any confidentiality obligations under the Prime Contract that are incorporated into this Subcontract. All obligations of the Subcontractor and Contractor pursuant to this Article shall survive termination of this Subcontract for any reason.

20.9 Subordination of Lien. Subcontractor agrees to subordinate its lien rights to Owner's lender if reasonably requested to do so and execute all necessary documents provided by Owner to affect the subordination of lien.

20.10 Photographs and Social Media. Subcontractor may not post, on personal or corporate accounts, any photographs or videos of the Project on any social media forum, including online communities, blogs, social networks, or chat rooms, without the prior written consent of Contractor. Subcontractor shall not disclose any Confidential Information related to the Project on personal or corporate accounts.

20.11 Setoff. Subcontractor acknowledges that Contractor shall have the right to set off against funds owed to Subcontractor any amounts due to Contractor by Subcontractor under this Subcontract or any other agreement between the Parties.

20.12 Temporary Facilities. Subcontractor shall provide, maintain and remove from the Project site upon completion of its Work, at its sole expense, all temporary office structures for the use of its employees, sheds and storage facilities, complete with all related utilities. Storage areas for the use of Subcontractor shall be designated by Contractor and no materials or equipment shall be stored by Subcontractor except in areas approved by Contractor. Such storage areas shall be maintained in an orderly condition by Subcontractor. Subcontractor shall move material and/or temporary trailers as directed by Contractor with all costs of same borne by Subcontractor.

20.13 Cutting and Patching. Subcontractor shall perform all cutting, fitting, patching, sleeving, grouting and sealing of its Work that may be required to fit it to receive, or be received by, the work of others as shown or reasonably implied by the Contract Documents; or as required or reasonably implied by the rules and regulations, codes and requirements of any regulatory or governmental agency having jurisdiction over the project; or as required or reasonably implied to achieve consistency and compatibility with attendant design elements. Poor fit or oversized openings will not be acceptable. Cutting, drilling or other alterations of prefabricated members such as floor trusses, roof trusses, beams, etc. will NOT be allowed without prior approval from the Architect/Engineer of record. The integrity of all structural members must be maintained.

EXAMPLE

20.14 Notices. Where the Contract Documents require one party to notify the other party, such notice shall be provided in a written communication to the Designated Representative of said party and shall be deemed to have been duly made if delivered in per[redacted] by facsimile, or by email.

20.15 No Waiver of Performance. The failure of Contractor to enforce one or more provisions of this Subcontract shall not be construed to be and shall not be a waiver of any such provision(s), and Contractor shall thereafter be entitled to enforce each and every such provision(s) without any requirement that Contractor provide notification to Subcontractor of its intention to thereafter enforce such provision(s).

20.16 Third-Party Beneficiary. The Subcontractor agrees that the Owner is a third-party beneficiary of this Agreement.

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ADDENDUM 1
INSURANCE AND BONDS

Subcontractor:	Project Name: Sandbox Test Project - Charlotte Region
	Samet Job #:
	Subcontract #: 20039003

ARTICLE A1.1 GENERAL

A1.1.1 Subcontractor shall purchase and maintain insurance, and if required, provide bonds as set forth in this Addendum 1. Unless otherwise specifically defined in this Addendum 1, any capitalized terms herein shall have the same meaning as set forth in the Subcontract Agreement.

A1.1.2 The coverage limits set forth in this Addendum 1 are minimum limits. If the Prime Contract or other Contract Documents require higher limits, then the Subcontractor shall provide such higher limits. Subcontractor acknowledges receipt of a copy of the insurance requirement in the Prime Contract.

A1.1.3 The Contractor makes no representation as to the adequacy or sufficiency of the coverages set forth herein. The following requirements shall in no way be construed to limit or eliminate liability of the Subcontractor, which arises from performance of the Work under the Subcontract Agreement. Subcontractor is responsible for any losses, claims, and costs of any kind which exceed the Subcontractor's limits of liability, or which may be outside the coverage scope of the policies, and which are caused by the negligence of Subcontractor or its representatives, employees, consultants, agents and lower tier subcontractors.

A1.1.4 In no event shall the failure to provide proof of insurance as set forth herein, prior to the commencement of the Work, be deemed a waiver by the Contractor of Subcontractor's, or its lower tier subcontractor's, insurance obligation set forth herein.

ARTICLE A1.2 PAYMENT AND PERFORMANCE BONDS (P&P Bonds)

A1.2.1 As related to the Project of this Agreement, Subcontractor ☐ **is or** ☑ **not** required to provide P&P Bonds at the time of execution of this Agreement.

EXAMPLE

A1.2.2 If P&P Bonds are required per Article A.2.1 , Subcontractor shall obtain P&P Bonds, each with a penal amount equal to 100% of the Subcontract Amount, on forms acceptable to Contractor. The premium for these bonds shall be paid by Subcontractor and the cost thereof shall be included in the Subcontract Amount.

A1.2.2.1 If required per Article A.2.1 , Subcontractor shall provide P&P Bonds prior to commencement of Subcontractor's Work under this Agreement. The commencement of Work by Subcontractor without having provided said P&P Bonds shall not be considered a waiver or release by Contractor of the requirement for P&P Bonds, and Subcontractor shall have proceeded with the Work at its own risk and shall not be entitled to payment under the Agreement until such P&P Bonds are delivered to Contractor.

A1.2.3 Subsequent to the execution of this Agreement, if a bond is later required for the Project, upon Contractor's written request, Subcontractor shall obtain P&P Bonds, each with a penal amount equal to 100% of the then current Subcontract Amount, including all adjustments thereto, on forms acceptable to Contractor. The cost of any subsequently required P&P Bonds shall be charged to the Project outside of the scope of Subcontractor's Work. Subcontractor shall submit for reimbursement a separate invoice for the cost of the P&P Bonds without profit and/oroverhead

ARTICLE A1.3 CONTROLLED INSURANCE PROGRAM

A1.3.1 This Project ☐ **shall or** ☑ **shall not** be enrolled in a Controlled Insurance Program (CIP).

ARTICLE A1.4 SUBCONTRACTOR INSURANCE

A1.4.1 Subcontractor shall secure, pay for, and maintain insurance as enumerated below, and such insurance shall be from an insurer lawfully authorized to transact business in the State of North Carolina and in the state wherein the Project is located, and have a minimum A.M. Best Rating of "A". The insurance must be issued by an insurer(s) acceptable to the Contractor, and in such amounts as required by the Contract Documents. Subcontractor shall furnish such other insurance coverages as may be applicable to its Work and as required under this Agreement, all prior to commencing its Work. All insurance policies shall contain a provision that the coverages afforded thereunder shall not be cancelled, allowed to expire, or not renewed, nor restricted modifications added unless at least thirty (30) days prior written notice has been given to Contractor. Coverages shall be maintained without interruption from the date of commencement of Subcontractor's Work and thereafter remain in full force and effect for the longer of (a) the expiration of the applicable Statutes of Limitations and Repose in the State where the Project is located for any claims arising out of or in any way related to the Subcontractor's Work or (b) such longer period as may be required by the Contract Documents or any applicable laws and regulations, but in no event less than 6 years. Certificates of Insurance acceptable to the Contractor shall be filed with the Contractor prior to the commencement of Subcontractor's Work. Additionally, and prior to commencement of the Work, the Subcontractor shall provide the Contractor with a Certificate of Insurance showing coverage for any sub-subcontractors of the Subcontractor for CGL liability insurance, Worker's Compensation and

Employer's Liability Insurance, and Automobile Liability Insurance, as described herein. **If Subcontractor begins Work prior to providing Contractor with acceptable Certificates of Insurance, Contractor may withhold all payments to Subcontractor until Contractor receives acceptable Certificates of Insurance.** In the event Subcontractor fails to obtain or maintain any insurance coverage required by this Agreement, or the Contract Documents, Contractor may at its option: (i) terminate the Subcontractor or (ii) purchase such coverage and charge the expense thereof to the Subcontractor. The coverage and limits of said insurance are as outlined below.

A1.4.2 Worker's Compensation and Employer's Liability meeting statutory limits mandated by state and federal laws or no less than:

- $1,000,000 Each Accident
- $1,000,000 Policy Limit
- $1,000,000 Each Employee

A1.4.3 Commercial General Liability ("CGL") including coverage for Premises-Operations, Products-Completed Operations, Contractual Liability, Personal Injury, Bodily injury and Property Damage (including coverage for Explosion, Collapse, Soil subsistence and Underground hazards):

- $1,000,000 Each Occurrence other than Completed Operations claims
- $2,000,000 General Aggregate
- $1,000,000 Personal and Advertising Injury
- $2,000,000 Products –Completed Operations Aggregate

The General Aggregate Limits and the Completed Operations limits shall be separate limits and shall be administered as separate limits. Only Completed Operations claims shall be applied to the Completed Operations limits. All other claims shall be applied to the General Aggregate. The Subcontractors policy shall be endorsed to provide these separate limits.

A1.4.3.1 CGL coverage shall be written on ISO coverage form CG 00 01 04 13, or a current version providing equivalent coverage. The CGL provided by subcontractor for this project shall provide ongoing operations, independent contractors, products-completed operations, bodily injury and property damage, and personal and advertising injury and liability assumed under an insured contract (including the tort liability of another assumed in an insured contract). There shall not be any reduction or limitation in the coverage required herein and offered by the policy forms insuring Subcontractor, including but not limited to, the exception to the "your work" exclusion for subcontracted work for completed operations claims.

A1.4.3.2 Subcontractor shall provide coverage for pollution, explosion, collapse and soil subsistence and underground property damage by endorsement or additional policy if such risks are not covered by Subcontractor's policy.

A1.4.3.3 EIFS Coverage. As related to the Project of this Agreement, Subcontractor's Work ☐ **involves or** ☐ **does not involve** the installation and/or application, or any part thereof, of exterior insulation and finish systems, synthetic stucco or similar exterior coatings or surfaces (collectively, "EIFS"). If the Subcontractor's Work involves EIFS as set forth in this Article, Subcontractor's CGL policy under A[redacted]t contain an exclusion or restriction of coverage for claims related to any EIFS. Subcontractor's Certificate of Insurance shall indicate EIFS coverage. Upon request of Contractor or Owner, Subcontractor shall provide a copy of the policy providing EIFS coverage.

A1.4.4 Automobile Liability providing (i) At least $1,000,000 Combined Single Limit for bodily injury and property damage, including all owned, leased, non-owned and hired motor vehicles and (ii) Endorsement naming Contractor as an Additional Insured.

A1.4.5 Additional Insureds. Contractor, Owner and all other parties required of Contractor by the Prime Contract shall be included as Additional Insureds on the Subcontractor's CGL, and including ongoing and completed operations coverage for the Additional Insured on Subcontractor's policy, using both ISO Additional Insured Endorsements CG 20 38 04 13 and CG 20 37 04 13 or an equivalent coverage for an Additional Insured. If equivalent forms are used the coverage afforded shall include ongoing and completed operations and shall afford coverage equal to or greater than the ISO forms cited.

A1.4.5.1 Attached to all Certificates of Insurance provided by Subcontractor shall be a copy of the Additional Insured Endorsement that is part of the Subcontractor's CGL policy that, to the fullest extent permitted by law, names Contractor, Owner and all others as may be required by the Prime Contract, as Additional Insureds ("Additional Insureds"). Insurance for the Additional Insureds shall be at least as broad as the coverage provided for the Named Insured Subcontractor. It shall apply as primary insurance on a non-contributing basis before any other insurance or self-insurance, including any deductible, maintained by or provided by Owner, Contractor or any other Additional Insureds. During the period insurance is required to be provided as described herein there shall be no modification, reduction or cancellation in insurance provided to Contractor, or any other Additional Insureds, by endorsement or otherwise including but not limited to the ISO standard CGL policy exclusion relating to the "your work" exception for subcontracted work during completed operations. Subcontractor shall maintain CGL coverage for itself and all Additional Insureds for the duration of the project and maintain completed operations coverage for itself and each Additional Insured, including Contractor, for the longer of (a) the expiration of the applicable Statutes of Limitations and Repose in the State where the Project is located ,for any claims arising out of or in any way related to the Subcontractor's Work or (b) such longer period as may be required by the Contract Documents or any applicable laws and regulations but in no event less than 6 years.

EXAMPLE

Subcontractor is solely responsible to ensure that all Subcontractor's subcontractors, sub-subcontractors (of any tier), vendors and suppliers ("Lower Tier Party") provide the necessary insurance coverage required by the Contract Documents and in no case less than the limits provided in this Agreement. Subcontractor is responsible for obtaining prior to the start of any Lower Tier Party's work, and maintaining on file, Certificates of Insurance for each Lower Tier Party and shall provide a copy of all Certificates to Contractor upon request.

A1.4.5.2 Additional Insured endorsement(s) shall not limit Additional Insured coverage to less than those insurance limits required by the Contract Documents.

A1.4.5.3 Subcontractor's CGL under which Contractor, Owner and all other Additional Insureds are made Additional Insureds shall provide coverage at least as broad as described herein.

A1.4.6 Excess Liability/Umbrella providing (i) At least $1,000,000 for any one occurrence and (ii) at least $1,000,000 aggregate per Project. Umbrella policy must provide coverage excess of policies noted above. The Umbrella policy coverage shall be at least as broad as the coverages required above and shall include as Additional Insureds all entities required to be named as Additional Insureds on the Subcontractor's CGL policy above. The excess/umbrella shall be written on a follow form basis. Such Umbrella coverage shall be primary and non-contributory, including any deductible, to any other insurance or self-insurance maintained by or provided to the Additional Insureds, and shall apply to both On-Going and Completed Operations. There shall be no endorsement or modification to the Umbrella coverage excluding any claims arising from pollution, explosion, collapse, underground property damage or work performed by Subcontractor or any Lower Tier Party.

A1.4.7 Pollution Liability Insurance. As related to the Project of this Agreement, Subcontractor ☑ **is or** ☐ **is not** required to provide Contractor's Pollution Liability Insurance ("CPL").

A1.4.7.1 If not provided under the Subcontractor's CGL policy, Subcontractor shall provide CPL, with a minimum limit of $1,000,000 per claim and $2,000,000 in the aggregate, providing coverage for, but not limited to, claims for bodily injury (including death) or property damage (including loss of use of the damaged property), arising from the discharge, dispersal, release or escape of any irritant or contaminant into or upon land, any structure, the atmosphere, watercourse or body of water (including ground water), including claims arising from above ground and below ground storage tanks used by and/or damaged by Subcontractor in performance of its Work, mold, and other pollution conditions caused by Subcontractor while working at the Project site, including sudden and gradual pollution (collectively a "Pollution Condition"). Such coverage shall include on-site and off-site cleanup and emergency response costs, including costs and expenses incurred in the investigation and settlement of claims, transit, disposal, operation of a motor vehicle and completed operations. To the fullest extent permitted by law, Contractor and Owner, and all other parties required of Contractor by the Contract Documents shall be included as Additional Insureds on the CPL by attachment of endorsement ISO CG 2038 (or equivalent), "Automatic Status for Other Parties When Required in Written Construction Agreement", and the policy shall contain a cross liability clause. The retroactive insurance date of such CPL insurance shall be no later than the commencement date of this Agreement. The CPL insurance shall be provided for the duration of the Project and shall continue for the longer of (a) the expiration of the applicable Statutes of Limitations and Repose in the State where the Project is located for any claims arising out of or in any way related to Subcontractor's Work or (b) such longer period as may be required by the Contract Documents or applicable laws and regulations. To the extent not covered by any insurance hereunder, Subcontractor shall indemnify, defend and hold harmless Contractor, Owner, and all other Additional Insureds, from and against all claims for any Pollution Condition arising out of Subcontractor's performance of its Work, including without limitation cleanup, control, removal, restoration, remediation, and emergency response costs, investigation and settlement of claims, and reasonable attorney's fees.

EXAMPLE

A1.4.8 Professional Liability Insurance (Errors and Omissions Coverage). As related to the Project of this Agreement, Subcontractor ☑ **is or** ☐ **is not** required to provide Professional Liability Insurance (Errors and Omissions Coverage) ("E&O Insurance").

A1.4.8.1 If the scope of the Subcontractor's work requires it to provide design services for any component of the Work required by the Contract Documents, Subcontractor shall provide and maintain throughout the period of the Project, and for a period of six (6) years thereafter as measured from the date of Substantial Completion of the Project, or as required by law, whichever is more stringent, standard E&O Insurance in accordance with the following requirements and limits of coverage: (i) per claim limit of at least $1,000,000; and (ii) Aggregate of at least $2,000,000 per policy year. If the Subcontractor does not currently have E&O Insurance and professional design services are being provided through a third-party design professional, then Subcontractor shall obtain from the said third party design professional of record and shall provide Contractor with a Certificate of Insurance noting the coverage limits for E&O Insurance. The retroactive insurance date of such E&O insurance shall be no later than the commencement date of this Agreement.

A1.4.8.2 Subcontractor shall indemnify and hold harmless Contractor, Owner, and all other Additional Insureds from and against (i) all claims, demands, and causes of action arising out of Subcontractor's negligence, errors, omissions, or other fault of the Subcontractor or any persons for whom it is responsible; (ii) bodily injury or death to the Subcontractor or any persons for whom it is responsible; and (iii) infringement of intellectual property rights resulting from an item or process furnished, designed or specified by the Subcontractor or any persons for whom it is responsible. Failure of the Subcontractor's insurance to respond to a professional liability claim shall in no way negate the Subcontractor's contractual obligations to respond.

A1.4.9 Waiver of Subrogation. To the fullest extent permitted by law, Subcontractor waives all rights against (i) the Contractor and any of its other subcontractors, sub-subcontractors, agents and employees; and (ii) the Owner, the Architect, the Architect's consultants, separate contractors, and any of their subcontractors, sub-subcontractors, agents and employees for damages to the extent covered by property insurance applicable to Subcontractor's Work, except such rights as Subcontractor may have to proceeds of such insurance. Subcontractor shall require of its sub-subcontractors, agents and employees their own CGL and/or Worker's Compensation insurance or by appropriate agreements, written where legally required for validity, similar waivers in favor of other parties enumerated herein. The policies shall provide such waivers of subrogation by endorsement or otherwise. A waiver of subrogation shall be effective as to a person or entity even though that person or entity would otherwise have a duty of indemnification, contractual or otherwise, did not pay the insurance premium directly or indirectly, and whether or not the person or entity had an insurable interest in the property damaged. Subcontractor further waives all claims and all rights of subrogation against Contractor and Owner for loss of, or damage to, Subcontractor's Work, tools, machinery, equipment, materials or supplies.

A1.4.10 Deductibles/Self-Retention. To the extent any of the insurance coverages to be provided by Subcontractor in this Addendum 1 are subject to any deductibles or self-insurance retentions, Subcontractor shall be solely responsible for the payment of such deductibles or retentions and any costs not covered by such deductibles or retentions. To the extent any claims are made against any insurance, including any Builder's Risk insurance, provided by the Contractor or Owner on the Project, due to Subcontractor's negligent acts or omissions, Subcontractor shall be responsible for the payment of any deductibles or self-insurance retentions and any costs not covered by such deductibles or retentions under said insurance policies of Contractor or Owner.

A1.4.11 Sample Certificate. A sample Certificate of Insurance is attached to this Agreement as **Addendum 1-1**. Subcontractor is required to use this form or another form providing equivalent information.

A1.4.11.1 Subcontractor shall provide Contractor with an acceptable Certificate of Insurance prior to commencing Work.

ARTICLE A1.5 BUILDER'S RISK INSURANCE. Contractor is not obligated to carry Builder's Risk insurance for the benefit of Subcontractor. Subcontractor agrees that it will assume responsibility to determine whether Builder's Risk Insurance is in force. Upon request of Subcontractor, Contractor shall provide Subcontractor with satisfactory evidence of Builder's Risk insurance, if any, or any other property or equipment insurance in force for the Project and procured by Contractor or Owner. Subcontractor shall be responsible for any desired coverage against damage or loss to its own materials, facilities, equipment or other property or similar items not covered by Owner's or Contractor's insurance on the Project.

EXAMPLE

ARTICLE A1.6 ACKNOWLEDGEMENT OF REVIEW. The Subcontractor represents that it has reviewed this Addendum 1, that all appropriate boxes are checked at the time of execution of this Addendum 1, that it has or will provide a copy of these insurance requirements to its insurance agent and/or broker, and that the Subcontractor will provide insurance in full compliance with the terms and conditions herein. The Subcontractor hereby acknowledges that this Addendum 1 is a material component of the Subcontract Agreement.

(Subcontractor)

By: Sample - Do Not Sign

Printed Name: _____

Printed Title: _____

Date:

NOTE: This is a Sample Certificate that is required by Samet (and all of its subsidiaries). It is only a sample. The Minimum Coverages shown below are just that. You must verify against and meet any Project Specific requirements. All other below Check boxes are required unless otherwise noted

ACORD

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY): Current Date

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Subcontractor's Insurance Agency Name and Address	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Insurance Company's Name(s)	
INSURER B : "	
INSURER C : "	
INSURER D : "	
INSURER E : "	
INSURER F : "	

INSURED
Subcontractor's Name
Address
City, State, Zip
NOTE: Must match the name on Subcontract/PO

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PER IOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS , EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
A	COMMERCIAL GENERAL LIABILITY CLAIMS-MADE X OCCUR	X	X	Policy Numbers Required for each type of Insurance Coverage "Occur" box Must be ecked	Current Policy Date	Current Policy Date	EACH OCCURRENCE DAMAGE TO RENTED PREMISES (Ea occurrence) MED EXP (Any one person) PERSONAL & ADV INJURY GENERAL AGGREGATE PRODUCTS - COMP/OP AGG	$1,000,000 $ 300,000 $ 10,000 $1,000,000 $2,000,000 $2,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER: POLICY X PRO-JECT LOC X OTHER: EIFS			oject" st be ecked Project ude IFS, form lication EIFS of				
A	AUTOMOBILE LIABILITY X ANY AUTO ALL OWNED AUTOS X HIRED AUTOS SCHEDULED AUTOS X NON-OWNED AUTOS	X	X	has clu Hi d Non ed Any o			COMBINED SINGLE LIMIT (Ea accident) BODILY INJURY (Per person) BODILY INJURY (Per accident) PROPERTY DAMAGE (Per accident)	$1,000,000
A	X UMBRELLA LIAB X OCCUR EXCESS LIAB CLAIMS-MADE DED RETENTION $	X	X				EACH OCCURRENCE AGGREGATE	$ 1,000,000 $ 1,000,000
A	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y / N Y/N N/A	X	You MUST enter a "Y" or "N" in this box based on your policy. As noted, ONLY Proprietor/Partner/Officer/Members are permitted exclusions.			PER STATUTE / OTH-ER E.L. EACH ACCIDENT E.L. DISEASE - EA EMPLOYEE E.L. DISEASE - POLICY LIMIT	$1,000,000 $1,000,000 $1,000,000
A	Professional Liability			If you are a Design Professional or a subcontractor providing design-build or design assist services, this Coverage is Required.			Per Claim: $1,000,000 Aggregate: $2,000,000	

EXAMPLE

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

The Certificate Holder, Owner and all other parties as required by Contract are Additional Insured on a Primary & non-Contributory basis which includes "your work". A Waiver of Subrogation in favor of Holder is provided on all policies scheduled above. A 30-day cancellation notice must be provided by endorsement.

NOTE: Additional Insured endorsement must include On-Going & Completed Operations coverage. Copies of all endorsements are required.

CERTIFICATE HOLDER

Samet Corporation and all of its Affiliates and Joint Venture partners
309 Gallimore Dairy Road, Suite 102
Greensboro, NC 27409

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Agent Signature Required

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NOTE: This is a Sample Certificate that is required by Samet (and all of its subsidiaries). It is only a sample. The Minimum Coverages shown below are just that. You must verify against and meet any Project Specific requirements. All other below Check boxes are required unless otherwise noted

ACORD

CERTIFICATE OF LIABILITY INSURANCE -Cont'd

DATE (MM/DD/YYYY): Current Date

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:	
Subcontractor's Insurance Agency Name and Address	PHONE (A/C, No, Ext):	FAX (A/C, No):
	E-MAIL ADDRESS:	

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : Insurance Company's Name(s)	
INSURER B :	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED
Subcontractor's Name
Address
City, State, Zip
NOTE: Must match the name on Subcontract/PO

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PER IOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS , EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	COMMERCIAL GENERAL LIABILITY						EACH OCCURRENCE $
	CLAIMS-MADE ☐ OCCUR ☐						DAMAGE TO RENTED PREMISES (Ea occurrence) $
							MED EXP (Any one person) $
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE $
	POLICY ☐ PRO-JECT ☐ LOC ☐						PRODUCTS - COMP/OP AGG $
	OTHER:						$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident) $
	ANY AUTO						BODILY INJURY (Per person) $
	ALL OWNED AUTOS ☐ SCHEDULED AUTOS ☐						BODILY INJURY (Per accident) $
	HIRED AUTOS ☐ NON-OWNED AUTOS ☐						PROPERTY DAMAGE (Per accident) $
							PERSONAL & ADV INJURY $
							$
	UMBRELLA LIAB OCCUR ☐						EACH OCCURRENCE $
	EXCESS LIAB CLAIMS-MADE ☐						AGGREGATE $
	DED RETENTION $						$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y / N						PER STATUTE ☐ OTH-ER ☐
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? ☐ N / A				Current Policy Date	Current Policy Date	E.L. EACH ACCIDENT $
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE $
							E.L. DISEASE - POLICY LIMIT $
A	Pollution Liability			If you are a demolition, grading, remediation, abatement or similar subcontractor who has potential pollution exposure, OR if there is a project specific pollution requirement, this Coverage is Required.			Per Claim: $1,000,000 Aggregate: $2,000,000

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

A 30-day cancellation notice must be provided by endorsement.

CERTIFICATE HOLDER

Samet Corporation and all of its Affiliates and Joint Venture partners.

CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

Agent Signature Required

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THIS ENDDRSEMENT CHANGES THE POLICY. PLEASE READ IT GAREFULLY.

ADDITIONAL INSURED - OWNERS, LESSEES OR CONTRACTORS - AUTOMATIC STATUS FOR OTHER PARTIES WHEN REQUIRED IN WRITTEN CONSTRUCTION AGREEMENT

This endorsement modifies insurance provided under the following:

COMMERC1AL GENERAL LIABILITY COVERAGE PART

A. Section II — Who Is An Insured is amended ID include as an additional insured:

1. Any person or organization for whom you are perlbrming operations when you and such person or organization have agreed in writing in a contract or agreement that such person or grggnizatio n be added os an gdditignl insurgd on your policy. and
2. Any other person or organization you are required to add as an additional insured under the cont act or agreement described i0 Paragraph 1. above.

Such person(s) or organization(s) is an additional insured only with ‹espect to liability for "bodily injury", "property damage" or "personal atld advertising injury" caused. in whole or in part,by:

a. Your acts or omissions: or
b. The acts or omissions of those acting on your behalfs

in the performance of your ongoing operatione for the additional insured.

However. the insurance afforded to such additional insured described above:

a. Only applies to the extent permitted by law; and
b. Will not be broader than that which you are required by the coniract or agreement to provide for ouch additional insured.

A person's or organization's status as an additional insured under this endorsement ends when your operations for the person or organization described in Paragraph 1. above are completed.

B. With respect to the insurance afforded to these additional insureds. the following additional exclueions apply.

This insurance does not apply to:

1. ”Bodily injury", "prgpgrty clamage" or " psr6gng| arxf advertising injury“ arising out of the rendering Of, Dr too failure to render, any profesgional architectural. engineering or surv ng services. including:

é. The preparing. approving. or failing ID pr6pars or app›o•e, maps, shop drawings, opinions, reports. surveys. field orders, change orders or drawings and specifications, or

b. Supervisory. inspection, zrchitecfural or engineering activities.

This exclusion applies even if the claims against any insured allege negligence or ofher wrongdoing in the supervision, hiring. employment, training or monitoring of others by that insured, if ltte "occurrence" which caused the "bDdily injury" or "property damage", or the offense which ‹reused the “personal and advertising injury“. involved the rendering of. or the failure to render, any professional architectural. engineering or surveying 3eFyice3.

2. -Bodily injury" or ”property damage" occurring after'

0. All wO/k, including materials. parts or equipment furnished in connection with such work. on the project (other than service. maintenance or repairs) to be performed by or on behalf of the additional insured(s) at the location of the covered operations has been completed: or

POLICY NUMBER:

COMMERCIAL GENERAL LIABILITY
CG 20 37 04 13

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

ADDITIONAL INSURED – OWNERS, LESSEES OR CONTRACTORS – COMPLETED OPERATIONS

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Additional Insured Person(s) Or Organization(s)	Location And Description Of Completed Operations
Information required to complete this Schedule, if not shown above, will be shown in the Declarations.	

EXAMPLE

A. **Section II – Who Is An Insured** is amended to include as an additional insured the person(s) or organization(s) shown in the Schedule, but only with respect to liability for "bodily injury" or "property damage" caused, in whole or in part, by "your work" at the location designated and described in the Schedule of this endorsement

hazard".

However:

1. The insurance afforded to such additional insured only applies to the extent permitted by law; and
2. .

B. With respect to the insurance afforded to these additional insureds, the following is added to **Section III – Limits Of Insurance:**

If coverage provided to the additional insured is

amount of insurance:

1. Required by the contract or agreement; or
2. Available under the applicable Limits of Insurance shown in the Declarations;

.

This endorsement shall not increase the applicable Limits of Insurance shown in the Declarations.

© Insurance Services Office, Inc., 2012

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US

This endorsement modifies insurance provided under the following:

COMMERCIAL GENERAL LIABILITY COVERAGE PART
PRODUCTS/COMPLETED OPERATIONS LIABILITY COVERAGE PART

SCHEDULE

Name Of Person Or Organization:

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The following is added to Paragraph **8. Transfer Of Rights Of Recovery Against Others To Us** of **Section IV – Conditions:**

We waive any right of recovery we may have against the person or organization shown in the Schedule above because of payments we make for injury or damage arising out of your ongoing operations or "your work" done under a contract with that person or organization and included in the "products-completed operations hazard". This waiver applies only to the person or organization shown in the Schedule above.

EXAMPLE

© Insurance Services Office, Inc., 2008

THIS ENDORSEMENT CHANGES THE POLICY. PLEASE READ IT CAREFULLY.

WAIVER OF TRANSFER OF RIGHTS OF RECOVERY AGAINST OTHERS TO US (WAIVER OF SUBROGATION)

This endorsement modifies insurance provided under the following:

AUTO DEALERS COVERAGE FORM
BUSINESS AUTO COVERAGE FORM
MOTOR CARRIER COVERAGE FORM

With respect to coverage provided by this endorsement, the provisions of the Coverage Form apply unless modified by the endorsement.

This endorsement changes the policy effective on the inception date of the policy unless another date is indicated below.

Named Insured: The TES Group, Inc. dba TCS Event Rentals

Endorsement Effective Date: 01/23/2019

SCHEDULE

Name(s) Of Person(s) Or Organization(s):

Information required to complete this Schedule, if not shown above, will be shown in the Declarations.

The Transfer Of Rights Of Recovery Against Others To Us condition does not apply to the person(s) or organization(s) shown in the Schedule, but only to the extent that subrogation is waived prior to the "accident" or the "loss" under a contract with that person or organization.

ADDENDUM 2
WORK RULES, SAFETY & QUALITY POLICY

Subcontractor:	Project Name: Sandbox Test Project - Charlotte Region
	Samet Job #:
	Subcontract #: 20039003

ARTICLE A2.1 GENERAL

Unless otherwise specifically defined in this Addendum 2, any capitalized terms herein shall have the same meaning as set forth in the Subcontract Agreement. This Addendum 2 is a material component of the Subcontract Agreement. The provisions of this Addendum 2 are in addition to, and not in lieu of, any provisions in the Subcontract Agreement.

ARTICLE A2.2 SAFETY

A2.2.1 Subcontractor shall execute its Work with a visible, proactive commitment to safety at all levels. Subcontractor, its employees, and all its tiered subcontractors engaged on the Project site are required to adhere to Contractor's safety rules, regulations and policies. Subcontractor shall review and comply with Contractor's Site-Specific Safety Plan, if applicable, which shall be provided to the Subcontractor at the kick-off meeting. In addition, Subcontractor shall also review and comply with the Contractor's Site Safety & Incident Prevention Program, available here: https://www.sametcorp.com/subcontractors/safety/, which requirements are incorporated into the Subcontract Agreement by reference.

A2.2.2 Subcontractor shall designate a fulltime employee at the Project site who shall act as Subcontractor's "Competent Person", as defined by OSHA regulations. Subcontractor's Competent Person shall oversee the safety of Subcontractor's employees and will be expected to have above average knowledge of OSHA construction standards, pre-task safety planning, job hazard analysis and risk/severity assessment. Unless otherwise identified by Subcontractor in writing to Contractor, the Competent Person shall be the Subcontractor's Supervisor who shall have the necessary training and authority required by OSHA regulations to act as Subcontractor's "Competent Person". Such Competent Person shall attend all Project safety meeting as requested by Contractor and must be able to speak English fluently and speak the language(s) of the Subcontractor's employees and lower tier subcontractors it engages on the Project site. The Subcontractor's Competent Person may be asked to translate safety meetings and onsite orientations for Subcontractor's employees and its lower tier subcontractors. Contractor has the authority to remove or request a replacement of Subcontractor's Competent Person if such Competent Person is found not to be engaged in his/her duties or safe work practices.

EXAMPLE

A2.2.3 Subcontractor, its sub-subcontractors, suppliers, and any other person or entity for whom Subcontractor is responsible, shall not generate, introduce or transport any hazardous substance, material or equipment at, near or on the Project site without the prior approval of Contractor. Subcontractor shall exercise extreme care in performing any Work which involves explosives or other dangerous methods of construction or hazardous procedures, materials or equipment. Subcontractor shall use properly qualified individuals or entities to carry out its Work in a safe and reasonable manner to reduce the risk of bodily injury and property damage.

A2.2.4 Subcontractor shall provide Contractor with an inventory of all materials Subcontractor has or will have on site that are regulated under OSHA Standard 1910.1200. Subcontractor shall also provide Contractor with a Safety Data Sheet (SDS) on all the materials listed on its inventory prior to transporting such materials to the Project site. Subcontractor shall not subcontract any of its Work without securing the above from its sub-subcontractors and providing the same to Contractor.

A2.2.5 In an emergency affecting the safety of persons or property, Subcontractor shall act immediately to prevent threatened damage, injury or loss. In addition to, and not in lieu of, the safety requirements of the Contract Documents, Subcontractor shall immediately notify Contractor of any illness, injury or property damage with an accident investigation to be completed within twenty-four (24) hours of the incident notification. Any amputations or fatalities must be reported to the local OSHA office within twenty-four (24) hours of the incident. A receipt of required communication to the OSHA office shall be provided to Contractor within twenty-four (24) hours.

A2.2.6 Contractor is committed to providing a safe, drug-free workplace for all persons engaged on the Project site. Subcontractor shall promote a drug-free workplace with their employees. Subcontractor shall ensure compliance by itself, its employees, and sub-subcontractors with any applicable laws or regulations with respect to "drugs and the workplace" and shall be solely responsible for the consequence of any drug-related losses or expenses due to noncompliance. If required by the Prime Contract, or upon reasonable request of Contractor, Subcontractor shall provide a negative drug screening report for any of its employees or sub-subcontractors who will be working on the Project site.

A2.2.7 Subcontractor shall comply with the reasonable recommendations of insurance companies having an interest in the Project and shall stop any part of the Work which Contractor deems unsafe until corrective measures satisfactory to Contractor have been taken. Contractor's failure to stop Subcontractor's unsafe practices shall not relieve Subcontractor of its responsibility therefor.

A2.2.8 Contractor will conduct regular jobsite safety inspections to evaluate safety hazards and general compliance with OSHA Standards. Contractor shall notify Subcontractor of any discovered safety violation or conditions deemed hazardous by Contractor. Corrective action shall be required within a reasonable time as established by the notice. Failure to comply within the time established by the notice shall be considered grounds for Default as provided for in the Subcontract Agreement, and Contractor may, at its option, provide corrective action as required and deduct the cost thereof from any money due or thereafter to become due to Subcontractor. Contractor notifications are not intended to cover the requirements of any federal, state or local statute, ordinance or regulation, nor do they relieve Subcontractor of its legal obligation to maintain safe premises and operations for its employees.

A2.2.9 If required for the performance of its Work, Subcontractor shall erect and maintain suitable fences, barriers, and barricades. Subcontractor shall replace any fences, barriers and/or barricades which Subcontractor removes or damages in the performance of its Work and shall be responsible for maintaining a safe working environment while such fences, barriers and/or barricades are damaged or removed.

A2.2.10 Subcontractor has an affirmative duty not to overload the structures or conditions at the Project site and shall take reasonable steps to prevent any loading of any part of the structure or Project site that could give rise to an unsafe condition or create an unreasonable risk of bodily injury or property damage.

A2.2.11 In the event of any local, state or national epidemic or pandemic, including without limitation the COVID-19 pandemic or any similar or other pandemics or communicable diseases (hereafter "Diseases"), Subcontractor shall comply with all federal, state and local orders, recommendations and requirements of authorities having jurisdiction, including public safety authorities such as the Centers for Disease Control (CDC), as related to such Diseases and Subcontractor's Work on the Project. Such orders may include social distancing recommendations, and require additional personal protective equipment to be utilized on the Project site, monitoring of employee temperatures, increased sanitation measures related to Subcontractor's Work, increased personal hygiene measures, and other proactive measures to prevent the spread of the Diseases, all of which shall be complied with by Subcontractor while on the Project site at Subcontractor's expense. Additionally, Subcontractor shall notify Contractor immediately upon learning that any of Subcontractor's employees or lower tier subcontractors who were on the Project site have tested positive for any Diseases or are awaiting test results and are presumed positive. Such notice by Subcontractor need only indicate that an employee has tested positive or is presumed positive and indicate the day(s) the employee was on the Project site so that Contractor may take appropriate measures to sanitize the Project site, notify others who may have been exposed, and notify the Owner as may be required by the Prime Contract. Subcontractor need not provide any information in violation of HIPAA or other Laws.

EXAMPLE

ARTICLE A2.3 COMPLIANCE WITH LAWS AND ENVIRONMENTAL REGULATIONS

A2.3.1 Compliance requirements of the Prime Contract are incorporated herein by reference, and Subcontractor shall comply with such requirements. Specific reference is made to, but not limited to, the following: (a) equal opportunity employment requirements, (b) special trade permits and connection permits or fees, (c) employee wage rate determinations required by governing authorities, if applicable, (d) insurance provisions, and (e) environmental policy.

A2.3.2 Subcontractor shall give notices and comply with all Federal, state and local laws, ordinances, rules, regulations, codes and orders of any public authority bearing on the performance of the Work of this Agreement, including but not limited to: the Occupational Safety and Health Act of 1970; Fair Labor Standards Act; building codes; federal, state and local tax laws; Workers' Compensation Acts; the General Safety Rules and Regulations of the Construction Industry as currently required by the governing authorities having jurisdiction; and such other labor, non-discrimination, employment, Social Security and tax laws to the extent applicable to performance of the Work under this Agreement.

A2.3.3 Subcontractor shall observe and comply with all environmental requirements of Owner, Architect, Engineer, Contractor and the Prime Contract. Owner, Architect, Engineer and/or Contractor may retain independent persons experienced in environmental matters to ensure that acceptable environmental standards are being maintained during the performance of the Work. Failure by Subcontractor to comply with such environmental requirements shall constitute an immediate event of default, and upon the occurrence thereof, Contractor may exercise any or all of the rights and remedies available to it under this Agreement or Applicable Law. Subcontractor shall immediately give notice to Contractor of any environmental disturbance, including without limitation: contamination of the environment such as any spills or leaks of fuels, lubricants, motor oils, pipe dope or coating, paints, solvents, ballasts, bilge garbage, sewerage, pollutants or other materials caused by the acts or omissions of Subcontractor or anyone for whom it is responsible; erosion; or archaeological finds. Subcontractor shall, if directed by Contractor, immediately stop its Work causing or affecting the environmental disturbance and take such other actions as may be required by Owner, Architect, Engineer, or Contractor. Subcontractor shall be responsible for all costs, including control and removal of, and shall indemnify and hold harmless Owner and Contractor against and from all loss, costs, or damages arising from pollution or contamination which originates from any environmental disturbance caused by Subcontractor or anyone for whom it isresponsible.

A2.3.4 If hazardous materials or substances are being used on the site by Subcontractor, or anyone for whom they are responsible, and they are a type of hazardous material or substance of which an employer is required by law to notify its employees, Subcontractor shall, prior to delivery to the Project site or exposure of the Contractor, other subcontractors and other employers on the site to such material or substance, give notice of the chemical composition thereof to Contractor in sufficient detail and time to permit compliance with laws by Contractor, other subcontractors and other employers at the site.

A2.3.5 Subcontractor shall reimburse Contractor for the cost and expense Contractor incurs (1) for remediation of a hazardous material or substance brought to the site and negligently handled by Subcontractor or (2) where Subcontractor fails to perform its obligations under Article A2.3.4 , except to the extent that the cost and expense are due to Contractor's fault or negligence.

A2.3.6 Subcontractor shall defend, indemnify and hold harmless Contractor and Owner from any and all liability, damages, fines, citations and costs arising out of Subcontractor's failure to comply with Applicable Law. In the event of Subcontractor's violation of any of the requirements of this Article A2.3 , Subcontractor shall bear all costs resulting from any such violation and shall defend, indemnify and hold harmless Contractor and Owner from any damages, including reasonable attorney's fees, claims, losses, expenses and causes of actions arising from such violations.

ARTICLE A2.4 LABOR RELATIONS AND CONDUCT

A2.4.1 Subcontractor acknowledges and understands that contracts on the Project are awarded and labor employed without discrimination as to whether the employees of any contractor or subcontractor are members or non-members of any labor organization.

A2.4.2 Subcontractor agrees that all workers employed or used by Subcontractor or its sub-subcontractors, shall be paid by their respective employers all wages and benefits to which they are entitled in accordance with Applicable Law, including but not limited to, the federal Davis Bacon Act if applicable to the Project, and to make payments at the time prescribed in the Subcontract Documents or by law. Subcontractor, upon request of Contractor, shall certify that it and all its subcontractors are in compliance with all laws pertaining to the payment of wages and benefits. If the Project of this Agreement is subject to the federal Davis Bacon Act, Subcontractor shall be notified by Contractor prior to execution of this Agreement and the terms of any wage and certification requirements shall be set forth on an exhibit to be attached to this Agreement. Subcontractor and its lower tier subcontractors agree that Contractor is entitled, but not required, to monitor compliance with this policy, and that any false certifications or failure to comply with Applicable Laws pertaining to payment of wages and benefits may result in termination and/or other penalties.

A2.4.3 In addition to, and not in lieu of, any other provisions herein requiring compliance with Laws, Subcontractor warrants to Contractor that it: (a) has fully complied and shall continue to fully comply, at its sole cost, with all applicable federal, state and local Laws concerning employment and immigration, including without limitation, the Immigration Reform and Control Act of 1986 ("IRCA") and the employment eligibility verification provisions therein, and the child labor restrictions set forth in the Fair Labor Standards Act ("FLSA") and any other applicable statute; (2) has properly trained and shall continue to properly train its staff regarding the execution and retention of Forms I-9 Employment Eligibility Verification and any other applicable employment verification method used by Subcontractor to comply with any requirements of IRCA and any other applicable Laws; is not now in violation of IRCA or any child labor restrictions including without limitation those set forth in FLSA; (4) has provided written notification to Contractor of all prior citations by any government agency for violation of IRCA or any child labor restrictions including without limitation those set forth in FLSA; (5) has implemented and shall continue to implement a company-wide employment verification policy that fully complies with all applicable federal, state and local Laws, including without limitation the use of the **E-Verify** for employment eligibility verification for all new hires where such usage is required by law or required by the Prime Contract. Subcontractor further warrants that if Subcontractor becomes aware of any government audit of its employees, employer verification procedures or any child labor restrictions, it shall immediately notify Contractor in writing of such audit and provide Contractor a copy of the finding when they are made available.

EXAMPLE

A2.4.4 Subcontract shall maintain harmony among its personnel, lower tier subcontractors and other workers. Subcontractor shall not employ any persons or engage in any activities which cause, or are likely to cause, a work stoppage or other similar concerted labor action. Subcontractor shall maintain and exercise control over all employees engaged in the performance of the Work and shall remove or cause to be removed from the Project site any such person(s) reasonably determined by Owner or Contractor to be detrimental to Owner's best interests.

A2.4.5 If Subcontractor's workers, or workers of Subcontractor's lower tier subcontractors, engage in a work stoppage or strike, whether against Subcontractor or to support employees of a third party, Contractor may suspend Subcontractor for a reasonable time and either perform the services or retain a third party of its choosing to perform the services Subcontractor would have otherwise had to perform under this Agreement. Subcontractor shall defend, indemnify and hold harmless Contractor from all costs, losses or expenses, including reasonable attorney's fees incurred by Contractor related to such work stoppage and/or suspension of Subcontractor. If Contractor suspends Subcontractor under this provision, Subcontractor shall not receive any further payments under this Agreement except for payments for Work satisfactorily performed through the date of suspension less all costs, losses or expenses, including reasonable attorney's fees, incurred by Contractor, and Contractor may retain out of any payment due or to become due Subcontractor under this Agreement, or under any other agreement between Contractor and Subcontractor, an amount sufficient to cover such costs. Subcontractor shall refund Contractor, upon written demand, any amounts paid in advance for Work not performed by Subcontractor.

A2.4.6 To the extent required by the Prime Contract and/or upon written request of Contractor, Subcontractor shall obtain criminal history record information regarding its and its subcontractor's "Covered Employees". For the purposes of this Article, "Covered Employees" means employees, agents, lower tier subcontractors or suppliers of Subcontractor who

have or will have continuing duties related to the Work to be performed at the Project. Subcontractor agrees that it will not assign any Covered Employees who Owner and/or Contractor reasonably determined have a disqualifying criminal history to work on the Project. On request of Contractor, Subcontractor shall provide all necessary identifying information to allow Contractor to obtain criminal history record information covered by employees of Subcontractor and all its lower tier subcontractors and suppliers. Subcontractor shall update this list at the request of Contractor. If Subcontractor becomes aware that a Covered Employee has a record disqualifying criminal history, then Subcontractor shall immediately remove the Covered Employee from the Project and notify Contractor in writing within three (3) business days. If Contractor objects to the assignment of any Covered Employee based on the Covered Employee's criminal history record information, Subcontractor agrees to discontinue using that Covered Employee on the Project.

A2.4.7 Subcontractor shall conform to Contractor's hours of work, and any Work performed outside those hours must be approved in advance by Contractor. No premium or overtime will be allowed or paid without prior written approval by Contractor.

A2.4.8 Subcontractor and all its lower tier subcontractors agree:

A2.4.8.1 All personnel assigned to the Project site shall conduct themselves in a professional manner and be respectful of others on the Project including employees of Contractor, Owner, other subcontractors and adjacent property owners.

A2.4.8.2 Obscene, vulgar or harsh conduct will not be tolerated in any manner. Obscene displays or inappropriate comments to the public or any Project personnel will result in the immediate dismissal of the offender from the Project site regardless of his or her position.

A2.4.8.3 Alcohol, tobacco and controlled substances are prohibited on the Project site.

A2.4.8.4 Subcontractor shall not communicate directly with Owner during the period of this Agreement unless agreed to by and in the presence of Contractor. All submittals or other Project communication or documentation, unless otherwise directed, will be directed to Contractor.

ARTICLE A2.5 QUALITY

A2.5.1 In addition to the requirements of Article 8 of the Subcontract Agreement, Contractor may establish a Site-Specific Quality Control Plan to ensure that all Work performed by employees and subcontractors meets all contractual requirements. If applicable, Contractor's current Site-Specific Quality Control Plan will be provided to Subcontractor at the kick-off meeting. Upon receipt of the Site-Specific Quality Control Plan, Subcontractor will be expected to review and comply with the Site-Specific Quality Control Plan.

EXAMPLE

ADDENDUM 3

APPLICATION FOR PAYMENT

INSTRUCTIONS TO RECEIVE PAYMENT

The below items are required for payment.

1. Application for payment must be received by the **20th day** of each month.

   Request for payment received after the 20th of each month will fall into the following month's payment cycle.

2. Reconciliation of contract amount (including any change orders) with previous payments is a pre requisite of application acceptance.

   Applications submitted without proper mathematical reconciliation will be rejected.

3. Contract/Change Orders must be fully executed (signatures of both parties).

   YOU ARE RESPONSIBLE FOR PROPER DOCUMENTATION

4. Current certificates of insurance, all of which meet 's requirements, must be on file. A sample certificate outlining 's requirements is available by visiting:
   http://www.sametcorp.com/subcontractors/apply/

EXAMPLE

5. Payments will be processed from original, faxed or emailed invoices (if faxed or emailed do not send a paper copy in the mail). Email Pay Applications to accts@sametcorp.com or to fax to (336) 544 2562.

6. Application for payment must be **approved by the PROJECT MANAGER** and include an itemized schedule of values displaying a breakdown of labor, materials and equipment.

7. Any other documents that are specifically required for the project.

YOUR APPLICATION FOR PAYMENT consists of the following documents:

A. Application and Certification for Payment Form
B. Continuation Sheet Approved Schedule of Values
C. Subcontractors List of 2nd Tier Suppliers and Subcontractors
   a. 2nd Tier Partial Lien Waivers may be requested with your partial payment request at 's discretion.
D. Sales Tax Affidavit

**The Application for Payment documents listed above are available in a Microsoft Excel version by visiting:

http://www.sametcorp.com/subcontractors/forms/

SUBCONTRACTOR/SUPPLIER STANDARD APPLICATION & CERTIFICATION FOR PAYMENT

TO CONTRACTOR:
Samet Corporation

FROM: SUBCONTRACTOR/SUPPLIER

Project: _____

Project #: _____

Owner: _____

Designer: _____

Subcontractor for: _____ Application # _____

Subcontract / P.O. # _____ Period From: _____ to _____

SUBCONTRACTOR/SUPPLIER'S APPLICATION FOR PAYMENT: Applications made for payment, as shown below, in connection with the Contract. Continuation Sheet is attached.

CONTRACTOR'S APPLICATION FOR PAYMENT

Application is made for payment, as shown below, in connection with the Contract. Continuation Sheet is attached.

1. ORIGINAL SUBCONTRACT/PURCHASE ORDER SUM _____
2. Net change by Change Orders _____
3. SUBCONTRACT/PURCHASE ORDER SUM TO DATE (Line 1 + 2) _____
4. TOTAL COMPLETED AND STORED TO DATE (Column G on Continuation Sheet) _____
5. RETAINAGE:
   a. % of Completed & Stored to Date Work (Column I on Contin. Sheet _____
   Total Retainage (Line 5a or Total in Column I of ContinuationSheet) _____
6. TOTAL EARNED LESS RETAINAGE (Line 4 Less Line 5 Total). _____
7. LESS PREVIOUS CERTIFICATES FOR PAYMENT (Line 6 from prior Certificate) _____
8. CURRENT PAYMENT DUE:
9. BALANCE TO FINISH, INCLUDING RETAINAGE (Line 3 less Line 6).

EXAMPLE

CHANGE ORDER SUMMARY	ADDITIONS	DEDUCTIONS
Change Orders previously approved by GC		
Total approved this Month:		
Totals:		
Net change by Change Orders:		

Partial Waiver of Lien In consideration for, and effective upon receipt of, payment in the amount of Current payment Due noted above, to be paid after approval of this request, the Undersigned Subcontractor/Supplier does hereby waive, release and discharge all claims, liens, bond claims, Claims of Lien on Real Property, and Notices of Claim of Lien upon Funds on or against Owner, Contractor, Contractor's Surety or on the Project described above or any funds owed to anyone on the Project for and on account of labor, services, materials, fixtures, apparatus or machinery furnished by the Undersigned to or for the above-described Project, through the end date of the Pay period above, excepting only those claims for retainage withheld.

Further, Undersigned certifies that to the best of its knowledge, information and belief the Work covered by this Application for Payment has been completed in accordance with the Contract Documents and that Current Payment Due noted above is now due. Undersigned further represents and warrants that all labor, materials, equipment, services and other items, including without limitation all payroll, sales and privilege taxes furnished by it and/or its subcontractors and suppliers for Work on the Project for which Undersigned Subcontractor/Supplier has previously been paid by Contractor, have been paid by the Undersigned, and Undersigned agrees to indemnify Owner, Contractor and Contractor's Surety from any claims for the same.

SUBCONTRACTOR OR SUPPLIER:

By: _____ Date: _____

State of: _____ County of: _____

Subscribed and sworn to before me this _____ day of _____, 20_____

Notary Public:

My commission expires:

Contractor's Approval
In accordance with the Contract Documents, based on on site observations and the data comprising the application, this Application for Payment has been approved.

By: _____ Date: _____
Samet Corporation

Outstanding Change Requests:
If there are any outstanding change requests as of the date of this Application for Payment, the Subcontractor/Supplier shall provide a detailed list of these items below. Failure to list these items, if applicable, may result in the denial of the Subcontractor/ Supplier's change request due to untimely notice to the General Contractor.

Outstanding Item(s) Description:	**COR No.**	**Amount**
1.		
2.		
3.		
4.		
Total Outstanding Change Requests:	$	

EXAMPLE

CONTINUATION SHEET

APPLICATION NO:
APPLICATION DATE:
PERIOD TO:
PROJECT NO:

Contractor's signed certification is attached.
In tabulations below, amounts are stated to the nearest dollar.
Use Column I on Contracts where variable retainage for line items may apply.

A	B	C	D		F	G		H	I
ITEM NO.	DESCRIPTION OF WORK	SCHEDULED VALUE	WORK COMPLETED FROM PREVIOUS APPLICATION (D + E)	THIS PERIOD	MATERIALS PRESENTLY STORED (NOT IN D OR E)	TOTAL COMPLETED AND STORED TO DATE (D+E+F)	% (G ÷ C)	BALANCE TO FINISH (C - G)	RETAINAGE (IF VARIABLE RATE)
1									
2									
3									
4									
5									
6									
7									
8									
9									
10									
11									
12									
13									
14									
15									
16									
17									
18									
19									
20									
21									
22									
23									
24									
25									
26									
27									
	GRAND TOTALS								

EXAMPLE

SAMET CORPORATION - SUBCONTRACTOR'S LIST OF 2N[illegible]IER S[illegible]PLIE[illegible] AND SUBCONTRACTORS

Subcontractor's Name & Address	Project Name
Contact Name:	
Phone & Email:	

MATERIAL SUPPLIER or SUBCONTRACTOR (Name & Address)	CONTACT	A[illegible]NT	Sub[illegible]act/PO # used f[illegible] Project	Phone #	ACCOUNTING DEPARTMENT EMAIL/FAX #

I ACKNOWLEDGE THE INFORMATION SUBMITTED IS TRUE AND ACCU[illegible]E.

Signed: _____ Date: _____

Name and Title: _____

(Must[illegible] the company)

EXAMPLE

SAMET CORPORATION

SALES TAX AFFIDAVIT

The purpose of this Sales Tax Affidavit is to provide ~~Samet Corporation documen~~tation that you have paid sales tax on materials purchased for the Samet Corporation job referenced below. Please select one of the three options shown below and provide this affidavit with each pay application to Samet Corporation. This document must be signed and returned to this office before any final retainages are released.

Job Name: _____

Job Location: _____

_____

Period To Date:

☐ The undersigned certifies that all state and local taxes (including sales, use and excise taxes) applicable to the work and services performed and materials and equipment incorporated into the work, in each case pursuant to the contract referred to above, have been paid in full.

☐ If state and local taxes (including sales, use and excise taxes) have been paid to a jurisdiction other than the location of the project listed above, please indicate the amount of material purchases as well as amounts paid to each jurisdiction.

EXAMPLE

Net Amount Paid for Materials: $

County Tax	$		%
City Tax	$		%
State Tax	$		%

☐ In the event state and local sales tax have not been, please list the amount of purchases made for materials and provide a brief description as to why sales tax has not been paid.

Net Amount Paid for Materials: $

Reason for no sales tax:

Signature: _____

Printed Name: _____

Date: _____

Company Name: _____

Address: _____

_____

Sworn to and Subscribed before me:

This_____Day of_____, 20_____
(Seal)

Notary Public
My Commission Expires:

NCDOR
Web-Fill
1-17

E 589CI
Affidavit of Capital Improvement

Form E 589CI, Affidavit of Capital Improvement, is generally required to substantiate that a contract, or a portion of work to be performed to fulfill a contract, is to be taxed for sales and use tax purposes as a real property contract with respect to a capital improvement to real property.

• This affidavit may not be used to purchase building materials, other tangible personal property, or digital property to fulfill a real property contract exempt from sales and use tax.

• A person who willfully attempts, or a person who aids or abets a person to attempt in any manner, to evade or defeat a tax imposed by the Sales and Use Tax Laws, or the payment thereof, shall be guilty of a Class H felony. If there is a deficiency or delinquency in payment of any tax due to fraud with intent to evade the tax, there shall be assessed a penalty equal to 50% of the total deficiency.

Section I. Single Use (Complete this section to issue the affidavit for a single capital improvement.)

Owner, Tenant, or Real Property Contractor	**Real Property Contractor** (General Contractor or Subcontractor) *Hired to perform capital improvement*

Describe capital improvement to be performed:

Project Name:

Project Address (where the work is to be performed)

EXAMPLE

I certify that, to the best of my knowledge, this affidavit is accurate and complete and that the transaction described to be performed by the Real Property Contractor (General Contractor or Subcontractor identified in box "B") shall be treated as a real property contract with respect to a capital improvement to real property for sales and use tax purposes.

Signature of Authorized Person: [redacted] Title: Date:

Section II. Blanket Use *(Complete this section execute a blanket affidavit.)*

C **Real Property Contractor**

Address

City **State** **Zip Code**

D **Real Property Contractor or Subcontractor** *Hired to perform capital improvement*

Address

City **State** **Zip Code**

To be completed by the Real Property Contractor identified in Box C.

I certify that I am a Real Property Contractor who performs capital improvements to real property and all transactions with the real property contractor (subcontractor) identified in box "D" shall be treated as real property contracts with respect to capital improvements for real property for sales and use tax purposes.

Signature of Authorized Person: _____ Title: _____ Date: _____

Affidavit of Capital Improvement Instructions

Form E-589CI, Affidavit of Capital Improvement, is generally required to be issued (see exceptions below) to substantiate that a contract, or a portion of work performed to fulfill a contract, is to be taxed for sales and use tax purposes as a real property contract with respect to a capital improvement to real property.

- Form E-589CI is not an affidavit of tax paid on building materials, other tangible personal property, or digital property purchased or used to fulfill a real property contract.
- Form E-589CI is not to be used to purchase building materials, other tangible personal property, or digital property purchased or used to fulfill a real property contract exempt from sales and use tax.
- A person that issues Form E-589CI in error is liable for use tax on the sales price of or the gross receipts derived from the transaction if it is determined that the contract is not a capital improvement to real property.

A person who willfully attempts, or a person who aids or abets a person to attempt in any manner, to evade or defeat a tax imposed by the Sales and Use Tax Laws, or the payment thereof, shall be guilty of a Class H felony. If there is a deficiency or delinquency in payment of any tax due to fraud with intent to evade the tax, there shall be assessed a penalty equal to 50% of the total deficiency.

Exceptions to the Requirement to Issue Form E-589CI
The following are exceptions for transactions where Form E-589CI is not required to be issued to substantiate that the transaction is taxed, as applicable, for sales and use tax purposes as a real property contract with respect to a capital improvement to real property.

- Painting or wallpapering real property, or parts thereof.
- Landscaping service.

Form E-589CI is not required to be issued by the specific person for a transaction noted below. The exceptions do not apply to transactions between a general contractor hired to oversee the entire contract and one of its subcontractors (See "Blanket Use" of Form E-589CI (Section II) for possible exceptions.). **The following exceptions do not apply to remodeling.**

- A real property owner or other person hires a general contractor to oversee the entire contract and the contract is for "new construction" as defined in N.C. Gen. Stat. § 105-164.4H(e)(2).
- A real property owner or other person hires a general contractor to oversee the entire contract and the contract is to rebuild or construct again a prior existing permanent building, structure, or fixture on land (reconstruction as defined in N.C. Gen. Stat. § 105-164.4H(e)(3)).
- A general contractor that purchases all tangible personal property and digital property to fulfill the real property contract and provides the employee labor to fulfill the real property contract.

Section I. Single Use Instructions
A person must complete "Section I - Single Use" of the form for a one time use to substantiate that a transaction that otherwise meets the definition of repair, maintenance, or installation services to real property is taxed for sales and use tax purposes as a real property contract with respect to a single capital improvement for real property. When a real property contractor hires a subcontractor to perform a portion of the overall contract and there is not a recurring business relationship between the two parties, "Section I – Single Use" of Form E-589CI shall be completed and the form issued to each subcontractor as notice that the transaction is subject to tax as a real property contract with respect to a capital improvement for sales and use tax purposes.

EXAMPLE

A property own[illegible]ersee[illegible] entire activit[illegible] a real prope[illegible]act with[illegible] to a [illegible] for [illegible]roperty and hires [illegible]ous subcontractors to [illegible] real property [illegible]

- **Box A - Ow[illegible]ant or Real P[illegible]rty C[illegible]ctor:** E[illegible] or[illegible]ty o[illegible]'s [illegible]e an[illegible]ress.
- **Box B - Re[illegible]rty Contract[illegible]** *[illegible]enera[illegible]tractor o[illegible]* [illegible]En[illegible]enera[illegible]ubcont[illegible]'s name and add[illegible]
- Property o[illegible] in Box A m[illegible]roperty [illegible]rac[illegible]pec[illegible]apita[illegible]ovement to be perf[illegible]d.
- Authoriz[illegible]so[illegible]ically pro[illegible]enters [illegible](ow[illegible] en[illegible]the da[illegible]

[illegible] co[illegible]r hires a [illegible]ntr[illegible] to perform a [illegible]rope[illegible]ontra[illegible] resp[illegible]o a ca[illegible] improvement, or po[illegible]

- **Box A - Owner, Tenant or Real Property Contractor:** Enter general contractor's name and address.
- **Box B - Real Property Contractor** *(General Contractor or Subcontractor)*: Enter subcontractor's name and address.
- General contractor listed in Box A describes real property contract with respect to capital improvement to be performed.
- Authorized Person (typically general contractor) signs, enters title (general contractor), and enters the date.

A lessee or tenant hires a general contractor (or subcontractor) to perform a real property contract with respect to a capital improvement for real property; provided the capital improvement is intended to become a permanent installation and title to it vests in the owner or lessor of the real property immediately upon installation:

- **Box A - Owner, Tenant or Real Property Contractor:** Enter lessee or tenant's name and address.
- **Box B - Real Property Contractor** *(General Contractor or Subcontractor)*: Enter general contractor's or subcontractor's name and address.
- General contractor must describe capital improvement for real property to be performed.
- Authorized Person (typically lessee or tenant) signs, enters title, and enters the date.

Section II. Blanket Use Instructions
A real property contractor may complete "Section II – Blanket Use" and issue the form to a real property contractor (subcontractor) who is used **exclusively** to perform part, or all, of real property contracts with respect to capital improvements to real property, where the person and the real property contractor have a recurring business relationship. A blanket use affidavit continues in force so long as the real property contractor named in "Box C" and the real property contractor (subcontractor) named in "Box D" maintain a recurring business relationship (when a period of no more than twelve months elapse between transactions between two parties) or until withdrawn or otherwise notified by the issuer of the form. The blanket use will generally apply for the following: (1) a builder who hires the same contractor(s) only for new construction; (2) a real property contractor who hires the same subcontractor(s) only for reconstruction; (3) a real property contractor who hires the same subcontractor(s) for remodeling and the activities performed by the subcontractor(s) are never repair, maintenance, and installation services for real property; and (4) a real property contractor who exclusively hires the same subcontractor(s) to perform part, or all, of its real property contracts with respect to capital improvements for real properties.

A general contractor or subcontractor hires a subcontractor to perform a capital improvement, or portion thereof:

- **Box C - Real Property Contractor:** Enter the hiring real property contractor's name and address.
- **Box D - Real Property Contractor** *(General Contractor or Subcontractor)*: Enter subcontractor's name and address. Authorized person listed in Box C signs, enters title, and dates.

ATTACHMENT E

MBE DOCUMENTATION FOR CONTRACT PAYMENTS

PrimeContractor/Architect: _____

Address & Phone: _____

ProjectName: _____

Pay Application #:_____ Period: _____

The following is a list of payments to be made to minority business contractors on this project for the above-mentioned period.

Firm Name	*Minority Category	Payment Amount	Owner Use Only

EXAMPLE

*Minoritycategories: Btack, African American (B), Hispanic (H), Asian American (A), American Indian (I), Female (F), Socially and Economically Disadvantaged (D)

Date:_____ Approved/CertifiedBy: _____

Name

_____

Title

_____

Signature

THIS DOCUMENT MUST BE SUBMITTED WITH EACH PAY REQUEST & FINAL PAYMENT

TRADE PACKAGE SCOPE OF WORK

03A CONCRETE FOUNDATIONS, WALLS, SLABS, & SITE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Concrete Foundations, Walls, Slabs, & Site** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Concrete Foundations, Walls, Slabs, & Site Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

EXAMPLE

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

DIVISION 1 – GENERAL REQUIREMENTS	
GC Req.	**General Requirements Manual**
GC Req.	**Trade Package Scope Manual**
GC Req.	**Trade Package General Scope Requirements**
010200	General Sitework Requirements
011000	Summary
012100	Allowances
012200	Unit Prices
012300	Alternates
012500	Substitution Procedures
012501	Substitution Request Form
012900	Payment Procedures
013100	Project Management and Coordination
013300	Submittals Procedures
014000	Quality Requirements
014110	Statement of Special Inspections
014200	References
015000	Temporary Facilities and Controls
016000	Product Requirements
017300	Execution

017419	Construction Waste Management and Disposal
017700	Closeout Procedures
017823	Operation and Maintenance Data

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
033000	Cast-in-Place Concrete
107500	Flagpoles
313116	Termite Control

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
033100	Polished Concrete Flooring
055000	Metal Fabrications
055100	Metal Stairs
072100	Thermal Insulation
079200	Joint Sealants
079500	Expansion Control
105113	Metal Lockers
312000	Earthwork
321313	Site Concrete
334100	Storm Drainage

EXAMPLE

The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed above, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary SpecificationResponsibilities.

The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Work described herein and

below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal regardless.

3.0 CONCRETE SCOPE OF WORK DESCRIPTION

3.0.1 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

3.0.2 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all layout work, field engineering including vertical control, providing and maintaining lines and batter boards, protection of survey pins provided by others and coordination between its Subcontractors and other onsite subcontractors for all aspects covered under this Scope of Work. Building corners and control points will be established and maintained by the Concrete Foundations, Walls, Slabs, & Site Subcontractor using a Certified Registered Surveyor. The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall have Surveyor provide control lines on building slabs and benchmark elevations as located by the General Contractor (4 per floor and roof) for all tradesuse.

EXAMPLE

3.0.3 Concrete Formwork – This Work shall include providing of a complete concrete formwork system, where required, including but not limited to, formwork design / engineering, safety measures, preformed steel forms, plyform material, strongbacks, walers, kickers, wall braces and shores, temporary elevated slab on deck shores, if required, formed construction joints, edge forms, form ties, form release agents, chamfer strips, installation of dovetail anchors slots furnished by others, flashing reglets, nails, spikes, lag bolts, through bolts, miscellaneous anchors, waterstop, adjustable wedge inserts, threaded inserts, sealers, miscellaneous incidentals, form stripping, pointing, patching and rubbing of all exposed concrete surfaces following the form stripping operation, concrete embed supports, etc. This Subcontractor shall provide all concrete form work, including but not limited to, concrete footing forms, where required, step footing forms, rebar templates, anchor bolt templates, slab on grade column blockout forms, concrete pier forms, concrete wall and pilaster forms, if required, wall blockout forms, where required, slab on grade edge forms, slab on grade construction joints, depressed slab forms, slab on grade turndown forms, etc.

3.0.4 Miscellaneous Blockout Formwork – Miscellaneous slab on grade, wall or elevated slab blockout forms / sleeves required to accommodate work of other trades will be provided by the Subcontractor requiring a specific slab on grade, wall or elevated slab blockout form / sleeve, unless noted otherwise. Coordination of these items will be required by this Subcontractor.

3.0.5 Concrete Reinforcement and Accessories – This Work shall include furnishing and installing a complete concrete reinforcement and accessories system, including not be limited to, all reinforcing steel, welded steel wire fabric at slab on grade, tie wire, bar supports, bar chairs, slab on grade expansion joint filler and felts, column / wall support anchor bolts, adhesive

anchors, etc. This Subcontractor shall furnish and install all concrete reinforcement and accessories work, including but not limited to, concrete foundation reinforcement, including footing wall dowels to receive masonry (block walls by others), concrete wall reinforcement, concrete steps on grade reinforcement, concrete column reinforcement, concrete pier reinforcements, concrete slab on grade turn down reinforcement, equipment pad reinforcement, concrete slabs on grade reinforcement, including thickened slab reinforcement, elevated supported slab reinforcement, etc. All concrete steel bar reinforcement such as concrete footing dowels, thickened slab on grade dowels, etc. cast into a concrete assembly is part of this Scope ofWork.

3.0.6 Cast-In-Place Concrete and Accessories – This Work shall include furnishing and installing all cast-in-place concrete with admixtures and PSI requirements as specified and accessories, including but not limited to, all concrete materials for foundations, slabs on grade, elevated slab on deck, column block out concrete, stair pan fill, concrete steps on grade, exterior/interior concrete equipment pads, elevator machine slabs, etc. in accordance with the concrete finishes specified. Provide all concrete floor sealers, curing compounds, expansion joints, slab on grade vapor barriers, non-shrink grout, saw cut joints, waterstop, diamond dowels, smooth bar dowels , etc. to complete this concrete scope ofwork.

3.0.7 Grouting Base Plates – This Work shall include furnishing and installing non-shrink grout at all base plates provided by the Structural Steel Subcontractor that are utilized or set atop concrete foundations, piers or other concrete related work.

EXAMPLE

3.0.8 Concrete Finishes – This Work shall include placement and finishing of all concrete furnished and installed as part of this scope of work in accordance with the finish tolerance requirements specified. Work shall also include providing slab on grade saw cut and/or tooled joints, where specified. Unless noted otherwise, all exposed concrete shall be pointed, rubbed and patched to provide a uniform and smooth face finish as part of this Scope of Work. EXTREME CARE SHALL BE TAKEN TO PLACE AND FINISH THE SLAB ON GRADE TO ACHIEVE A FF35 / FL25 TOLERANCE. SLABE ON GRADE TOLERANCE UNDER GYMNASIUM, CORRIDORS AND CAFETERIA FLOORING SHALL BE EVEN MORE STRIGENT AT A FF50/FL35 TOLERANCE. THIS MEANS THAT CERTAIN PLACE AND FINISH TECHNIQUES (SEPARATE POURS, SETTING PIPE SCREEDS, ETC.) MUST BE UTILIZED TO ENSURE THESE TOLERANCE REQUIREMENTS ARE MET. ALL OTHER TOLERANCES SHALL BE AS SPECIFIED IN SECTION 03300 – CAST-IN-PLACE CONCRETE OR THE APPLICABLE FLOORING SYSTEM (WHICHEVER IS GREATER OR MORE STRINGENT) AS SPECIFIED IN DIVISION 9 FINISHES.

3.0.9 Polished Concrete Floor Finish – Placement of concrete shall be provided by the Concrete Foundations, Walls, Slab & Site Subcontractor in a separate pour/s in accordance with the plans and specifications at locations indicated; the Polished Concrete Flooring Subcontractor shall coordinate with the Concrete Foundations, Walls, Slab & Site Subcontractor prior to concrete placement to ensure the design mix and placement methods of the concrete pour/s meets the project specifications. A pre-installation meeting with each Subcontractor present will be held prior to concrete placement. Additionally, the Polished Concrete Subcontractor shall be present during these concrete placement activities to ensure the plans and specifications are being followed And the Polished Concrete Flooring

Subcontractor WILL saw cut all control joints. The Polished Concrete Flooring Subcontractor shall provide all polishing materials, hardening and sealing agents. The Polished Concrete Contractor shall provide all special concrete floor finishes as defined within the contract documents to include but not limited to finishing system, hardening/sealing agent, protective treatments, water and oil repellent, stain and cleaning products.

3.0.10 The Concrete Foundation, Walls, Slabs & Site Subcontractor shall specifically reference sheet A3.0.13 for proposed locations of polished concrete flooring. Subcontractor should also reference section 01230 – Alternates.

3.0.11 Concrete Curing – This Work shall include furnishing and installing specified curing and sealing compounds at all concrete slabs scheduled as part of this Scope of Work. The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall confirm that the proposed cure and seal compound will have compatibility with all future scheduled floor finishes so as to not impede any future floor finishes work being performed by other trades. This subcontractor is responsible for curing concrete per the project documents including but not limited to wet curing. If the proposed floor finishes specified requires that the concrete surface be wet cured in lieu of the specified cure and seal compound, then the Concrete Foundations, Walls and Slabs Subcontractor shall wet cure the concrete surface(s) at no additional cost. This Subcontractor shall coordinate with the Polished Concrete Flooring Subcontractor to ensure recommended curing practices are adhered to in all areas to receive polished concrete finishes per designated alternate, this includes any wet curing methods, other admixtures, wet curing blankets, etc. as required.

EXAMPLE

3.0.12 Stepped Footings / Forms – Where required to accommodate underground site utility piping, plumbing piping, electrical conduit or mechanical piping which is run across scheduled concrete foundations / footings, the Concrete Foundations, Walls, Slabs, & Site Subcontractor shall step footings as required to accommodate this work being provided by other trades at no additional cost. The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall reference the site utility, mechanical, electrical and plumbing drawings to determine underground pipe or conduit locations in order to ascertain these requirements.

3.0.13 Exterior & Interior Equipment Pads – This Work shall include furnishing and installing all concrete related work required for Plumbing, Mechanical / Electrical equipment including concrete equipment pads, transformer pads, water heater pads, boiler pads, Chiller pads, pump pads, housekeeping pads, etc. on slabs poured under this scope of work. The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall coordinate the specific size requirements of these exterior and interior equipment concrete pads with the respective HVAC, Plumbing and Electrical Subcontractor.

3.0.14 Dumpster and Masonry Wall Screen Enclosures - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall specifically include all foundations, reinforcing, backfilling, slabs, concrete accessories, etc. for the Dumpster and Masonry Wall Screen Enclosures as indicated within the Contract Documents.

3.0.15 Concrete Admixtures & Corrosion Inhibitor – This subcontractor shall furnish all required or specified admixtures including but not limited to corrosion inhibitors, super plasticizer, accelerators, decelerators, air, fly ash, alkali-silica reaction inhibiting admixture, etc. to complete this trades scope of work and as specified in contract documents. All admixtures and quantities shall be listed on delivery tickets and provided to the CM prior each concrete pour. All admixtures and quantities shall be listed on all delivery tickets and copies given to the GC during each pour. Failure to supply admixture documentation could result in removal of that particular portion of the work at Concrete Foundations, Walls, Slabs, & Site Subcontractor expense.

3.0.16 Dry Shake Floor Hardener – If specified, the Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish and install dry shake floor hardener per specified quantities at areas indicated on the contract documents. Application rate shall be in accordance with specifications.

3.0.17 Liquid Floor Treatment – If specified, the Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish and install Liquid Floor Treatment per specified quantities at areas indicated on the contract documents. Application rate shall be in accordance with specifications.

EXAMPLE

3.0.18 Mud Mats – In order to avoid problematic excavations being left open before concrete can be poured following inspections, this work shall include providing and installing a minimum of (2) inches of lean concrete mud mats at the bottoms of all footing and foundation excavations. This may be avoided if the Concrete Foundations, Walls, Slabs, & Site Subcontractor can properly coordinate its work, however its best to error on the side of caution. No excuses for delay or cost shall be permitted should mud mats not be used during concrete work execution.

3.0.19 If required, this Subcontractor shall provide temporary shoring of elevated slabs on top of metal decks or free formed slabs in accordance with contract documents to accommodate the designed floor construction system. Evaluate structural design, structural notes and industry standard requirements to determine if this work will in fact be arequired.

3.0.20 This Subcontract shall include the block out and forming necessary for the laundry extractor trench drain system as depicted on sheet P5.1. Coordinate size and locations with the 22A Plumbing Subcontractor. The 22A Plumbing Subcontractor shall provide all imbedded items to this Subcontractor for installation.

5.0 METALS SCOPE OF WORK DESCRIPTION

5.0.1 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

5.0.2 Installation of Steel Embeds – This Work shall include installing all steel embedded items furnished by others which are cast directly into a concrete system, including but not limited

to, all required field engineering, vertical control and layout, column anchor bolts, steel weld plates, interior and exterior bollards, if applicable, miscellaneous embedded angles, stair nosings, etc.

5.0.3 All structural steel embed items will be furnished by the Structural Steel Subcontractor to this Subcontractor for installation. The Concrete Foundations, Walls, Slabs, & Site Subcontractor will be responsible for unloading, sorting, storing and protecting aforementioned miscellaneous steel materials furnished by the Structural Steel Subcontractor.

5.0.4 Installation of Floor Expansion Joint Assemblies – The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall install all floor expansion joint assemblies. The expansion joint assemblies shall be furnished by the Drywall, Framing and InsulationSubcontractor.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORKDESCRIPTION

7.0.1 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

EXAMPLE

7.0.2 Under-Slab Vapor Barriers – This Work shall include furnishing and installing a complete under slab vapor barrier system, including but not limited to, under slab vapor barrier membrane, pipe boots, seam tape, miscellaneous accessories, etc. at all locations designated within the Contract Documents. Any specific tears, rips, etc. made in the under slab vapor barrier shall be patched in accordance with manufacturer recommendations at no additional cost. Under-Slab Vapor Barrier shall be as specified but at a minimum 15 mil Stego Wrap material or approved equal.

10.0 SPECIALTIES SCOPE OF WORK DESCRIPTION

10.0.1 Flagpoles - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish and install flagpoles in strict accordance with contract documents including, but not limited to ground mounted flagpole, concrete foundations, sleeves, flashing collar, etc. for a complete installation and system. Flags shall be furnished by Owner.

10.0.2 Brick Sign Foundations – This Work shall include providing a complete reinforced concrete foundation to serve the School sign(s) detailed on Drawings. Confirm locations of these signs with the General Contractor prior to commencing with thiswork.

10.0.3 Locker Bases – This Work shall include providing a complete concrete locker bases to serve the applicable lockers detailed on Drawings.

31.0 EARTHWORK SCOPE OF WORK DESCRIPTION

31.0.1 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

31.0.2 Excavation, Trenching, Backfilling, Fine Grading & Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, fine grading and compaction work associated with the proper installation of all work required of this Subcontract, including, but not limited to, concrete foundations, slab on grade turndowns, concrete steps on grade, interior concrete equipment pads, foundations, concrete piers, etc., backfilling and compacting stone or suitable backfill atop concrete foundations and within the elevated stage / ramp area, compacting soil and or stone adjacent to below grade masonry walls (interior and exterior against masonry foundations) etc. All excavation, backfilling, trenching and compaction work shall be based on the use of safe excavation practices, governed by the Occupational Safety and Health Administration (OSHA). Typical slab on grade elevations shall be left at approximately 8" below Finished Floor Elevations plus or minus one tenth as indicated on the Structural Drawings and all remaining excavation and backfill for foundations, slab elevation changes, etc. are the responsibility of this Subcontractor.

EXAMPLE

31.0.3 Graded Aggregate Stone Base - This Work shall include furnishing and installing all graded aggregate stone base underneath all concrete slabs on grades including but not limited to, crusher run (ABC stone) gravel base material in the four (4") inch thickness or as specified, fine grading, compaction, etc. at all slab locations being provided as part of this Scope of Work.

31.0.4 Termite Treatment - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish and install all required termite control including, but not limited to all slab on grade areas, beneath or adjacent to foundations, piping, interior of open masonry cells, and associated warranty etc. and in accordance with contract documents. This Subcontractor shall coordinate installation of termite control with other trades and their work.

31.0.5 Excess Foundation Spoil – The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall remove and dispose of all excess foundation spoils to an on-site location. The typical spread footing, perimeter footings, pits around auditorium area shall be quoted assuming excess spoils to be loaded into a truck immediately after excavation.

31.0.6 Dewatering - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall leave its work in a condition that will naturally drain at the end of each day. If standing water accumulates, this Subcontractor is responsible for dewatering, pumping of water, demucking, and subgrade and soil restoration at no additional cost.

31.0.7 Site Concrete Subgrades - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall assume the responsibility for determining if the sidewalk and concrete paving subgrade elevations as delivered by the Earthwork, Storm Drainage and Erosion Control Subcontractor are within a tolerance no more than plus or minus two tenths (±0.20') of one foot and are in conformance with the information reflected on the drawings. The General Contractor shall

be notified of the acceptance or rejection of these subgrades prior to commencement of this scope of work.

31.0.8 Building Pad Subgrades - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall assume the responsibility for determining if the building pad subgrade elevations as delivered by the Earthwork, Storm Drainage and Erosion Control Subcontractor are within a tolerance no more than plus or minus one tenth (±0.10') of one foot and are in conformance with the information reflected on the drawings. The General Contractor shall be notified of the acceptance or rejection of these subgrades prior to commencement of this scope of work.

32.0 EXTERIOR IMPROVEMENTS SCOPE OF WORK DESCRIPTION

32.0.1 Graded Aggregate Stone Base - This Work shall include furnishing and installing a graded aggregate stone base underneath the following exterior concrete areas:

1. All exterior concrete slab, paving, sidewalk, etc. designated to receive a stone base on the drawings.

32.0.2 Site Concrete, Concrete Sidewalks and Pavement – This Work shall include furnishing and installing all concrete sidewalks, crosswalks and associated ramps, concrete pavement, transformer(s) pads, exterior equipment pads, exterior patio slabs, door stoops, concrete walls, grandstand bleacher concrete paving under outdoor seating, softball / baseball concrete pads, etc. designated on the drawings complete with concrete, expansion joint materials, reinforcing, forms, curing compounds, detectable warning surfaces, etc. in order to provide a complete concrete sidewalk and pavement system. All material costs for concrete and accessories shall be included in this scope of work.

EXAMPLE

32.0.3 Concrete Materials and Admixtures: This scope shall include the costs for all concrete material costs with the correct PSI mix designs and admixtures as specified within the contract documents including but not limited to Silica Fume, air, etc.

32.0.4 Wheel Chair Ramps and Truncated Domes– This work shall include furnishing and installing all wheel chair ramps and detectable warning domes in accordance with details on drawings.

32.0.5 Adjustment of Tops / Grates / Covers - The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall adjust to appropriate finish grade elevations all tops, grates and covers associated with the sanitary sewer manholes, catch basins, drop inlets, grate inlets, etc. located within or directly in contact with an concrete sidewalk or concrete paved system. Elevation adjustment, if required, to these miscellaneous tops, grates and covers will be undertaken during the final phase of the Site Development Work.

33.0 UTILITIES SCOPE OF WORK DESCRIPTION

33.0.1 Auditorium Seating Area Subgrade Drainage - Provide a temporary drain pipe(s) at a depth adequate to not interfere with work of other trades including sump, pipe, fittings, coring,

grouting, patching, stone, fabric, etc. to serve as a temporary drainage device serving the low area and around all foundation walls at the Auditorium. Temporary drain piping shall be routed to the nearest stormwater manhole at the exterior of thebuilding.

33.0.2 Subdrainage (Foundation) System - This Work shall include providing a complete permanent subdrainage (foundation) system serving the Auditorium depressed area and walls and from the elevator pit to the nearest storm drain structure outside the building, including but not limited to, drainage / porous fill material around the pipe and adjacent to the wall up to subgrade, fabric drainage panels, high density polyethylene pipe (6"), fittings, accessories, etc., filter fabric, roofing felts, matting, foundation pipe drain leaders from the perforated foundation drainage piping to storm drain inlets provided by others, coring and grout patch work of each storm drain inlet to receive each end of the foundation pipe drain leaders, pipe fittings, accessories, etc., couplings, coupled joints, etc. and any other incidentals which might be required to provide a completely functional subdrainage (foundation) system. It shall be the Concrete Subcontractor's responsibility to install the subdrainage (foundation) system in accordance with the specified minimum one percent (1%) slope and invert elevations to ensure the subdrainage (foundation) system performs properly. Should any invert or profile discrepancies occur, the Concrete Subcontractor shall immediately advise the General Contractor in writing, prior toproceeding.

EXAMPLE

39.0 SCOPE OF WORK CLARIFICATIONS AND/OR OTHERREQUIREMENTS

39.0.1 All necessary hoisting equipment required to furnish and install all concrete shall be provided as part of this Scope ofWork.

39.0.2 All necessary conveyance equipment required to place and finish all concrete shall be provided as part of this Scope ofWork.

39.0.3 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall provide photo documentation of existing conditions for all items/areas including any items that are to be specifically reused or relocated. Any questionable items are to be brought to the attention of the General Contractor before beginningwork.

39.0.4 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall include all necessary shoring and engineering as required by contract documents or as deemed necessary to provide minimum flatness and levelness specifications on all elevatedslabs.

39.0.5 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall assume pouring the elevated concrete slabs using a leveling method and not a sticking method and include the additive costs in its bid amount. Confirm with the Structural Engineer and General Contractor during a pre-installation meeting if this is acceptable before work begins. Should this not be acceptable, a credit shall be issued to the GeneralContractor.

39.0.6 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall include the costs for light stands if required for night concrete pours. There will be no added costs for thesestands.

39.0.7 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall include costs for temporary power with generators throughout the entire duration of the concrete scope of work.

39.0.8 This subcontractor's trash/debris shall be removed from the buildings and work area constantly as work progresses, or immediately upon request by the General Contractor's superintendent. All stored material will be kept in neat locations at all times as directed by the General Contractor.

39.0.9 Perimeter Board Insulation – The Masonry Subcontractor will include furnishing and installing a perimeter below grade insulation system, at vertical installations including but not limited to, board insulation, seam tape, miscellaneous accessories, etc. at all locations designated within the Contract Documents.

39.0.10 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall establish and maintain wash out areas for concrete trucks and routinely dispose of debris generated by this process including removal, recycling and re-grading of the areas at the completion of the work.

39.0.11 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish manpower and necessary equipment including street washing truck to assist in cleaning concrete truck tires and any other material delivery truck under this subcontract at the wheel wash station and ensure that roadways are left in a clean condition after each pour sequence or unloading operation.

EXAMPLE

39.0.12 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish ample flag men to flag, pump and route concrete trucks in and out of pour areas once trucks enter the site.

39.0.13 This Concrete Foundations, Walls, Slabs, & Site Subcontractor shall be responsible for the proper spacing and locating of the reinforcement dowels to accept the CMU as sized and located on the drawings. This Subcontractor shall coordinate with the General Contractor and the Masonry Subcontractor responsible for the masonry work prior to commencement and installation of reinforcement dowels to minimize conflicts and errors. Any and/or all reinforcement dowel(s) which are incorrectly located and interfere with the installation of the CMU shall be promptly and properly corrected, by this Subcontractor at its own expense by methods approved by the Designer.

39.0.14 The Structural Steel Subcontractor shall furnish, install and maintain a complete Fall Protection Guardrail System for all elevated slabs, decks, mezzanines, etc. which are required by OSHA to receive a Guardrail System as stipulated by the OSHA Handbook for the Construction Industry (29 CFR PART 1926), Subpart L – Scaffolding and Subpart M – Fall Protection. Installation of the Fall Protection Guardrail System shall be based upon the elevated slabs, decks, mezzanines, etc. finish floor elevations so as to comply with the requirements for fall protection during the installation of the metal decking and subsequent to the placement of the elevated concrete slabs. Additional clarification and coordination is described as follows:

1. Upon installation of the elevated concrete slabs on deck, the Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish, install and maintain any additional appurtenances to provide a complete Fall Protection Guardrail System as stipulated by the OSHA Handbook for the Construction Industry (29 CFR PART 1926), Subpart L – Scaffolding and Subpart M – Fall Protection (i.e. toe boards, etc.). The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall maintain the Fall Protection Guardrail System until the Structural Steel Subcontractor who is responsible for the steel railings at the mezzanine removes and palletizes the components of the Fall Protection Guardrail System to allow for immediate installation of metal railing work.
2. The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish, install and maintain any additional appurtenances to provide a complete Fall Protection Guardrail System as stipulated by the OSHA Handbook for the Construction Industry (29 CFR PART 1926), Subpart L – Scaffolding and Subpart M – Fall Protection (i.e. toe boards, etc.) for foundation walls, elevator pits and openings, retaining walls, pits, stairs, etc. until permanent walls or protection are installed by other trades.

39.0.15 Masonry Reinforcement and Accessories – Furnishing and installing steel bar reinforcement for masonry block walls is not part of this Scope of Work and will be provided by the Masonry Subcontractor. Dowels for masonry shall be provided by this subcontractor. The Concrete Foundations, Walls, Slabs, & Site Subcontractor and the Masonry Subcontractor shall closely coordinate the concrete and masonry reinforcing shop drawings to ensure a complete reinforcement system is accomplished between both trades Scope of Work.

EXAMPLE

39.0.16 The Concrete Foundations, Walls, Slabs, & Site Subcontractor is responsible for all Concrete Work with the exception of:

1. Miscellaneous concrete work associated with the storm drainage, sewer, water or other related work.
2. Concrete Foundations for Home side Exterior Grandstands are by the Outdoor Grandstand and Bleachers Subcontractor.
3. Electrical concrete pole bases and ductbanks by Electrical Subcontractor.
4. Concrete curb and gutter provided by the Asphalt Paving and Curb & Gutter Subcontractor.
5. Concrete trench drain at perimeter of asphalt running track, track and field runways, takeoff boards, shot put and discus pads by the Athletic Surfaces Subcontractor.
6. Concrete footings for fencing by the Fencing Subcontractor.
7. Concrete footings for outdoor athletic equipment, discus pad, and shot-put pad by the Outdoor Athletic Equipment Subcontractor.

39.0.17 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall provide one (1) sets of scaffold stairs furnished, installed, maintained and removal for an eight (8) month period. Stairs should extend from the lowest floor elevation to roof level. Stairs to be installed at the direction and location of the General Contractor. Installation and erection shall be provided by a trained/certified installation company and crew.

39.0.18 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall furnish, maintain and remove at the direction of the General Contractor stone and grading for temporary access drives or pads for pump and concrete truck egress to pour locations.

39.0.19 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall include 200 Manhours of miscellaneous labor to be used as directed by the GC Field Supervision at an agreed upon labor rate in the base bid amount.

39.0.20 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall include 200 tons placed and compacted of ABC stone for use as directed by the GC Field Supervision at an agreed upon tonnage rate in the base bid amount.

39.0.21 Special inspections - As Special inspections will be required on this project it will be the responsibility of this Concrete Foundations, Walls, Slabs & Site Subcontractor to provide supervision to accompany inspectors as required. Any deficiencies noted shall be corrected at the time of inspection. If this Subcontractor is unable to make the correction during the inspection and a deficiency is placed on a non-compliant list, this Subcontractor will have no more than 48 hrs to make the correction and schedule the reinspection to have the item removed from the non-compliant list. All non-complaint items shall be reported to the General Contractor as soon as possible and before the close of business on the day of inspection. Failure to make corrections as stated above could result in a stop work order until corrections are made.

EXAMPLE

39.0.22 This Subcontractor shall NOT include the cost for their Payment and Performance Bonds in their bid amount, however if requested by the General Contractor, this Subcontractor shall provide a Performance and Payment Bond at Cost if awarded the Subcontract.

39.0.23 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall provide a lockable ASTM / Testing Company approved concrete cylinder box for storing and curing of concrete test cylinders for the project.

39.0.24 Prior to infilling concrete block-outs, the Concrete Foundations, Walls, Slabs, & Site Subcontractor shall provide the bituminous asphaltic coating to the below grade steel on all applicable columns as required on Sheet S0.0.1., Structural Steel Note 8.

39.0.25 The Concrete Foundations, Walls, Slabs, & Site Subcontractor shall provide the aluminum canopy foundations and installation of the foam block-outs to receive the canopy columns provided by the Awnings & Canopies Subcontractor. The Awnings & Canopies Subcontractor will provide the foam block-outs to the Concrete Foundations, Walls, Slabs, & Site Subcontractor for its installation.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Concrete Foundations, Walls, Slabs, & Site Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope ofWork.

SCHEDULE MILESTONE TABLE		
ACTIVITY NO.	ACTIVITY DESCRIPTION	COMPLETION DATE OR DURATION

—ALLOWANCES—

Allowances shall cover the cost of all materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses associated with stated allowance amounts shall be included in the Subcontract Amount but not in the allowances. Whenever costs are more than or less than an allowance amount, the Subcontract Amount shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual costs and the allowances.

EXAMPLE

ALLOWANCES		
ALLOWANCE NO.	ALLOWANCE DESCRIPTION	AMOUNT
1	Unsuitable Soil	$100,000.00
2	Surveying	$35,000.00

—UNIT PRICES—

To the extent that some or all of the Subcontractor's Work is to be performed on a unit price basis, the Subcontract Amount shall be computed in accordance with the unit prices set forth below. Unit prices are deemed to include all costs related to Subcontractor's performance of the Work, including, but not limited to, costs of labor, supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance, and taxes, and all overhead and profit. Quantities shall be measured by means acceptable to Owner, General Contractor and Subcontractor, and if applicable, an independent testing firm hired byOwner.

UNIT PRICES			
UNIT NO.	UNIT PRICE DESCRIPTION	UNIT PRICE	UNIT MEASURE
1	Unsuitable Soil Excavation Off-Site	$25.00	CY

—ALTERNATES—

Each alternate designated below has been separated into the following three categories:

- "Accepted" – Alternate was accepted by General Contractor and the dollar value for the alternate is included within the Subcontractor Amount.
- "Pending" – Alternate is pending award by General Contractor with the decision being deferred until the date defined within each applicable Alternate. This cost is NOT included in the Subcontractor Amount.
- "Declined" – Alternate was NOT accepted by General Contractor and the dollar value for the alternate is NOT included within the Subcontractor Amount. By declining the alternate, all requirements applicable thereof are deleted from the contract documents.

ALTERNATES			
ALTERNATE NO.	ALTERNATE DESCRIPTION	VALUE	STATUS
1	Tennis Courts (Turnkey with HID Athletic Field Lighting)	N/A	Declined
2	Tennis Courts (Turnkey with LED Athletic Field Lighting)	N/A	Accepted
3	Gravel Parking Lot (Asphalt Paving, Curb & Gutter on Gravel Lot)	$11,625.00	Accepted
4	Soccer Field Irrigation	N/A	Accepted
5	Polished Concrete (First Floor Main Corridor & Commons)	$30,960.00	Accepted
6	Polished Concrete (First Floor Secondary Corridors)	$32,617.00	Accepted
7	Exterior Steel Doors & Frames	N/A	Declined
8	TPO Roofing System	N/A	Declined

EXAMPLE

Subcontract Cost Breakdown Summary

03A: Concrete Foundations, Walls, Slabs, and Site

Base Contract Amount Total (Excluding Allowances & Alternates):			**$3,850,000.00**
Scope Breakdown			
1	Concrete Foundations, Walls, Slabs, and Site	$3,000,000.00	
2		$0.00	
3		$0.00	
	Subtotal:	**$3,850,000.00**	
Accepted Alternates Total:			**$75,202.00**
No.	Description		
2	Tennis Courts (Turnkey with LED Athletic Field Lighting)	N/A	
3	Gravel Parking Lot (Asphalt Paving, Curb & Gutter on Gravel Lot)	$11,625.00	
4	Soccer Field Irrigation	N/A	
5	Polished Concrete (First Floor Main Corridor & Commons)	$30,960.00	
6	Polished Concrete (First Floor Secondary Corridors)	$32,617.00	
	Subtotal:	**$75,202.00**	
Allowances Total:			**$135,500.00**
No.	Description		
1	Unsuitable Soil	$100,000.00	
2	Surveying	$35,500.00	
	Subtotal:	**$135,500.00**	
		Sales Tax	Included
		P & P Bond	Included
		Final Subcontract Amount:	**$4,060,702.00**

EXAMPLE

—PAYMENT AND PERFORMANCE BONDS—

If requested, the cost of the Performance and Payment Bonds will be reimbursed to the Subcontractor based on the following revised contract revision noted below:

Subcontractor shall provide Performance and Payment Bonds, if required, each with a penal amount equal to 100% of the Subcontract Amount, on forms acceptable to the General Contractor. The premium for these bonds shall be paid by Subcontractor and the cost thereof shall be invoiced separately to the General Contractor based on the Subcontractor providing an actual paid receipt from its surety agent. No mark-up, overhead, etc. shall be included as Samet will only reimburse the cost of the bond.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
03A CONCRETE FOUNDATIONS, WALLS, SLABS, & SITE SUBCONTRACT

EXAMPLE

SCHEDULE REQUIREMENTS

I. Project Construction Schedule

Samet Corporation's Master Project Construction Schedule which has been issued and is part of the Contract Documents illustrates the project schedule plan for this project. Each work activity required for the project is depicted on this schedule and will be updated on a monthly basis or as required by Samet until project completion. Additional work activities, when required, will be added to the project construction schedule as deemed warranted by Samet. Each subcontractor and/or supplier bidding and/or contracted to complete an aspect of this project shall comply with the durations and time frames established by this schedule. Additionally, all subcontractors and suppliers shall comply with project schedule updates and/or additional schedule requirements implemented by Samet during the course of the project to ensure the project is completed on schedule. *The Project Construction Schedule will be strictly enforced by Samet.*

Additionally, it is imperative that each Subcontractor or Supplier intending to bid this project thoroughly review the Project Construction Schedule in conjunction with the Contract Documents and prepare its bid proposal to meet the Project Construction Schedule. The successful Subcontractor(s) or Supplier shall be required to maintain the scheduled activity dates whether by the required forty (40) hour work week, or additional overtime labor and/or additional shifts. If in the opinion of Samet, the Subcontractor or Supplier falls behind schedule, the Subcontractor or Supplier shall be required to increase crew size, work overtime, shift work and/or weekends and provide supplemental equipment as necessary at no additional cost in order to recover the slippage of the schedule. Work hours shall be set by Samet and shall be adhered to by the Subcontractor or Supplier.

If inclement weather is encountered during the regular scheduled work week, weekends (Saturday or Sunday) shall be worked (full day) in order to make up lost time at no additional cost as directed by the Construction Manager.

At a minimum, the work week shall be Monday through Friday, working eight (8) hours per day (7:00 AM to 4:00 PM) with Saturdays or Sundays being a make-up day(s).

II. Short Interval Schedules

"Short Interval Schedules" may also be utilized by Samet's Site Superintendent or Project Manager during the course of the project to compliment the Master Project Construction Schedule. "Short Interval Schedules" will be discussed, reviewed and agreed to during weekly subcontractor / supplier coordination meetings held on site.

Each Subcontractor shall submit a two (2) week Look Ahead Schedule in a format acceptable to the Construction Manager on or before each Monday Morning by 9:00 am for the total duration of the Subcontractors Work. The Construction Manager will review, approve or provide modifications to the proposed two (2) week Look Ahead Schedule as necessary to maintain the project construction schedule.

QUICK PAY AGREEMENT
(01600.3)

For

Date: Month/Day/2024

Project Name: Example Project

Samet Corporation agrees to provide quick pay to Minority or Women or Socially and Economically Disadvantaged Business Enterprise (MWBE) contractors in connection with the above-named project, to enable the MWBE to meet cash-flow demands. For the purpose of this Agreement, the term "Quick Pay" means a commitment to pay the MWBE within fifteen (15) days after confirmation that performance has been properly completed.

Contractor: _____

This Agreement is entered into as of the day and year first written above for the project referenced herein.

Samet Corporation
8115 Market Street; Suite 304
Wilmington, NC 28411

_____
Printed:

_____
Signature:

Subcontractor Name
Street Address
City, State, Zip

_____
Printed:

_____
Signature:

Subscribed and sworn before me this _____ day of _____, 2024

Signature: _____ Seal:

My Commission expires: _____

Name of Project
City of Project
Samet Project # XX-XXX

JOINT CHECK AGREEMENT BETWEEN SUBCONTRACTOR AND SUB-SUBCONTRACTOR (01600.4)

THIS AGREEMENT made this _____ day of _____, 20__, by and among:

Subcontractor:

_____

_____

Sub-Subcontractor:

_____

_____

For the establishment of an open account with the Sub-Subcontractor for the purchase of certain materials to be sold by Sub-Subcontractor to Subcontractor and identified for delivery to the following project: _____

Subcontractor and Sub-Subcontractor hereby acknowledge, agree and authorize Samet Corporation to make disbursement of joint-payee checks drawn jointly payable to both the Subcontractor and Sub-Subcontractor. Said joint-payee checks shall be delivered by Samet to Subcontractor who further agrees to endorse same then transmit to Sub-Subcontractor for deposit and credit on the open account.

The Sub-Subcontractor agrees not to apply any portion of the checks issued pursuant to this Agreement to or for any account other than the subcontract and the project involved, shall apply all amounts for credit against materials actually furnished or services actually rendered in connection with the subcontract, and will not rebill any such amounts to Samet Corporation, the Subcontractor, or the owner.

All payments made by joint-payee check shall constitute a credit for or payment of sums due from Samet Corporation to Subcontractor on the designated project.

EXAMPLE

The obligations of Samet Corporation to the Subcontractor and the Sub-subcontractor, or either of them, under this Agreement, are expressly made subject to the terms of the contract between Samet Corporation and the Subcontractor and to all rights at law or in equity which Samet Corporation has with respect thereto including back charges for defective work, setoffs, or otherwise.

Samet Corporation assumes no obligation or liability to the Subcontractor or the Sub-Subcontractor pursuant to this Agreement. The Subcontractor and the Sub-Subcontractor shall release, indemnify, and hold Samet Corporation harmless from any and all liability, including reasonable attorneys' fees, to any party as a result of complying or failing to comply with the provisions hereof.

To the maximum extent allowed by law, execution of this Agreement shall constitute a waiver by Sub-Subcontractor of all claims, demands, or liens of any sort against the Project, the Owner of the Project, Samet Corporation, and _____ surety and bonds provided by any of the above for labor materials equipment or services provided by Sub-Subcontractor on the Project.

Receipt and negotiation of any referenced check shall constitute evidence of payment of outstanding invoices from Sub-Subcontractor to Subcontractor and will operate as a full release and discharge of all lien or other rights against Samet Corporation by Sub-Subcontractor and Subcontractor to the extent of such payments.

Nothing in this Agreement shall constitute a security interest, guaranty, additional assurance, or grant of any other or further rights against Samet Corporation to either Subcontractor or Sub-Subcontractor.

This Agreement cannot be altered or revoked without the written consent of Samet Corporation.

Unless this Agreement is sooner terminated by mutual agreement by the Subcontractor and Sub-Subcontractor, the Sub-Subcontractor, upon receipt of all amounts owed by Samet Corporation for materials and services furnished on account for the project, shall promptly give written notice to Samet Corporation of the termination of this Agreement.

Sub-Subcontractor:

By: _____

Title: _____

Subcontractor:

By: _____

Title: _____

Name of Project
City of Project
Samet Project # XX-XXX

JOINT CHECK AGREEMENT BETWEEN SUBCONTRACTOR AND SUPPLIER (01600.5)

THIS AGREEMENT made this _____ day of _____, 20__, by and among:

Subcontractor:

_____

_____

Supplier:

_____

_____

For the establishment of an open account with the Supplier for the purchase of certain materials to be sold by Supplier to Subcontractor and identified for delivery to the following project: _____

Subcontractor and Supplier hereby acknowledge, agree and authorize Samet Corporation to make disbursement of joint-payee checks drawn jointly payable to both the Subcontractor and Supplier. Said joint-payee checks shall be delivered by Samet Corporation to Subcontractor who further agrees to endorse same and then transmit to Supplier for deposit and credit on the open account.

The Supplier agrees not to apply any portion of the checks issued pursuant to this Agreement to or for any account other than the subcontract and the project involved, shall apply all amounts for credit against materials actually furnished or services actually rendered in connection with the subcontract, and will not rebill any such amounts to Samet Corporation, the Subcontractor, or the owner.

All payments made by joint-payee check shall constitute a credit for or payment of sums due from Samet Corporation to Subcontractor on the designated project.

EXAMPLE

The obligations of Samet Corporation to the Subcontractor and the Supplier, or either of them, under this Agreement, are expressly made subject to the terms of the contract between Samet Corporation and the Subcontractor and to all rights at law or in equity which Samet has with respect thereto including back charges for defective work, setoffs, or otherwise.

Samet Corporation assumes no obligation or liability to the Subcontractor or the Supplier pursuant to this Agreement. The Subcontractor and the Supplier shall release, indemnify, and hold Samet Corporation harmless from any and all liability, including reasonable attorneys' fees, to any party as a result of complying or failing to comply with the provisions hereof.

To the maximum extent allowed by law, execution of this Agreement shall constitute a waiver by Supplier of all claims, demands, or liens of any sort against the Project, the Owner of the Project, Samet Corporation, and _____ surety and bonds provided by any of the above for labor materials equipment or services provided by Supplier on the Project.

Receipt and negotiation of any referenced check shall constitute evidence of payment of outstanding invoices from Supplier to Subcontractor and will operate as a full release and discharge of all lien or other rights against Samet Corporation by Supplier and Subcontractor to the extent of such payments.

Nothing in this Agreement shall constitute a security interest, guaranty, additional assurance, or grant of any other or further rights against Samet Corporation to either Subcontractor or Supplier.

This Agreement cannot be altered or revoked without the written consent of Samet Corporation.

Unless this Agreement is sooner terminated by mutual agreement by the Subcontractor and Supplier, the Supplier, upon receipt of all amounts owed by Samet Corporation for materials and services furnished on account for the project, shall promptly give written notice to Samet of the termination of this Agreement.

Supplier:

By: _____

Title: _____

Subcontractor:

By: _____

Title: _____

Company: _____ **Project:** _____ **Date:** _____

Weather Conditions: AM _____**PM** _____

Temperature: 7:00AM _____ **Lunch** _____ **4:00PM** _____

Manpower Summary

NOTE: Include all sub-tier personnel as well as direct employees

	Total # Employees	Total Manhours	Description
Superintendent			
Foreman			
Journeyman			
Apprentice			
Laborer			
Operator			

Description of Work Activities (IN DETAIL):

_____

_____

_____

Look Ahead Tasks (IN DETAIL):

_____

_____

_____

Safety:	**Yes/No**	**Comments**
Have all on-site sub personnel and sub-tiers have attended Samet Safety orientation?		
Were any employees injured today?		
Are there any unsafe conditions to report?		
Is the Daily Pre-Task Plan/Jobsite Checklist attached? (Required)		
Environmental:		
Are there any environmental issues to report?		
Quality Assurance/Control:		
Have all inspections/testing per project specifications been performed, documented, and submitted to Samet Corporation?		

Materials Delivered (IN DETAIL):

_____

_____

Inspections Performed (IN DETAIL):

_____

_____

The information contained herein this report is true and accurate to the best of my knowledge:

_____ _____ _____

Name (Print) Name (Signature) Date

SAMET CORPORATION

Daily Time & Material Ticket

ISSUED TO: _____ DATE / SHIFT: _____

_____ T&MWA #: _____

_____ PCO: _____

PROJECT NAME: _____ CONTRACT #: _____

WORK TO PERFORM: _____

_____

_____

_____

_____

Note: Prior to commencing work, authorization by Samet Corporation is required.

Note: A complete breakdown and accounting of labor, material, equipment and subcontract costs is required for Time & Material Work.

LABOR

TRADE	ST/OT	HRS.	DESCRIPTION

MATERIALS

QTY.	UNIT	DESCRIPTION

EQUIPMENT

QTY.	UNIT	DESCRIPTION

SUBCONTRACT

COMPANY	DESCRIPTION

T&M WORK AUTHORIZATION SIGNATURES

Trade Partner Rep. Requesting Authorization

SIGNED: _____

Samet Representative Requesting Authorization

SIGNED: _____

T&M WORK VERIFICATION SIGNATURES

Trade Partner Rep. Requesting Verification

SIGNED: _____

Samet Representative Requesting Verification

SIGNED: _____

EXAMPLE

CM Trade Package Manual

New Hanover County

Castle Hayne Fire Station



CONSTRUCTION MANAGER:
Samet Corporation
8115 Market St suite 304, Wilmington, NC 28411
336-544-2600

Owner:
New Hanover County
230 Government Center Drive
Wilmington, NC 28403
910-798-7311

Architect:
Stewart Cooper Newell
719 E Second Ave, Gastonia, NC 28054
(704) 865-6311

Civil Engineer:
Timmons Group
430 Eastwood Rd Suite 100, Wilmington, NC
(910) 746-1144

TRADE PACKAGE MANUAL INDEX

Description Pages

1. CM Trade Package Manual Cover
2. Trade Package Manual Index
3. Bid Submittal Checklist
4. A. Bid Form
    a. Form of Proposal
    b. Standard Alternates
    c. Preferred Alternates
    d. Unit Prices
    e. Verification
    B. North Carolina State M/WBE Forms
    C. E-Verify Compliance Requirements
    D. Iran Divestment Act Certification
    E. Payment Bond
    F. Performance Bond
5. Project Construction Schedule
6. Logistics Plan
7. List of Contract Documents
8. Report of Subsurface Exploration (for information / reference only)
9. Trade Package General Scope Requirements
10. Trade Package Scopes of Work
    01A Final Clean
    03A Concrete
    04A Masonry
    05A Structural Steel
    06D Millwork
    07A Waterproofing & Joint Sealants
    07B Roofing
    07D Siding
    07E Building Insulation
    07F Fireproofing
    08A Doors, Frames, & Hardware
    08B Glass, & Glazing
    08D Rollup Doors
    09A Framing and Drywall
    09B Acoustical Ceilings
    09C Flooring
    09D Hard Tile
    09H Painting
    10A Specialties and Accessories
    10B Signage
    10G Awnings and Canopies
    10K Fire Protection Specialties
    11A Residential Appliances
    12A Window Treatments
    21A Fire Protection
    22A Plumbing
    23A HVAC
    26A Electrical
    31A Sitework and Utilities
    31B Pest Control
    32E Landscaping & Irrigation
11. Pre-Construction RFI Form
12. Trade Partner Pre-Award Meeting

3. Bid Submittal Checklist

BID SUBMITTAL CHECKLIST (ITEMS THAT MUST BE INCLUDED WITH BID)

DO NOT SUBMIT THIS PAGE WITH BID DO NOT SUBMIT THIS PAGE WITH BID

- [ ] 1. Form of Proposal
- [ ] 2. M/WBE Forms
- [ ] 3. E-Verify Compliance Requirements
- [ ] 4. Iran Divestment Act Certification
- [ ] 5. Bid Security (as required by trade package manual)
- [ ] 6. Payment and Performance Bond (as required by trade package manual)

In addition to completing this Form of Proposal, the bidder recognizes the following items must be completed in order to submit a responsible and responsive bid for this project.

a. All bids must be submitted on the Form of Proposal provided by the Construction Manager and marked accordingly to identify the Trade Package name being bid.

b. Form of Proposal shall be signed by an officer of the company.

c. When applicable to a particular trade package scope of work, the respective bidder must fill in all alternates or unit prices on the form of proposal being solicited for the project.

d. Each bidder as applicable to its respective Trade Package shall include the value of each quantitative allowance within its base bid amount as further defined in 01210 – Allowances.

e. **Bids must be submitted in a sealed opaque envelope with the following marked on the front of the envelope**:

(1) Bidder Name and Address
(2) Project Name - "New Hanover County Fire Stations"
(3) Trade Package Name (e.g. "23A HVAC")

f. A Bid Security of five percent (5%) of the Bid in Cashier's Check, Certified Check, or a fully executed Bid Bond is required to accompany each Bid Proposal **where designated within the Notice to Bidders / Advertisement for Bids**. Bids may not be withdrawn within sixty (60) days after the scheduled bid date and time, except as provided by law. Please reference Notice to Bidders / Advertisement for Bids for specifics.

g. All bids must be accompanied with the completed North Carolina State M/WBE Participation Forms as described below.

1. **Form: "Identification of HUB Certified / Minority Business Participation**

2. **Either Affidavit A or Affidavit B – Depending you firms' status and type of work.**

An issuance of a Notice to Proceed shall be considered acceptance of this bid proposal sixty (60) calendar days after the date fixed for the opening of bid proposals. Furthermore, the undersigned agrees to execute and deliver the Contractor and Subcontractor Agreement, Performance and Payment Bonds (if applicable), Material Purchase Order Agreement (if applicable) and Certificate of Insurance within fourteen (14) calendar days after the Subcontractor or Supplier has received the said Contractor and Subcontractor Agreement and/or Purchase Order (if applicable), requiring execution. The undersigned agrees, if awarded the Subcontract, within sixty (60) calendar days from the fixed date for opening of the bids, to faithfully and properly complete the whole and several portions of the work within the specified time defined within the Contract Documents.

4. Form of Proposal (Bid Form)

SUBMIT THIS PAGE WITH BID *SUBMIT THIS PAGE WITH BID* *SUBMIT THIS PAGE WITH BID*

FORM OF PROPOSAL

SUBMIT ONE BID FORM FOR BOTH PROJECTS

Name of Firm: _____

Address: _____

_____

Phone/Fax: _____

_____

(Contractor's License Number, if applicable)

Trade Package #:_____ Trade Package Name:_____

(NOTE: ONLY ONE TRADE PACKAGE PER BID FORM IS PERMITTED)

NOTE: If you are bidding multiple trade packages or combinations, you must turn in a separate envelope with a separate bid form for every trade package.

CONSTRUCTION MANAGER: SAMET CORPORATION
8115 Market Street; Suite 304
Wilmington, NC 28411

For

OWNER: New Hanover County
230 Government Center Drive
Wilmington, NC 28403

The undersigned, having carefully and completely examined the Proposal Forms and Procedures, Contract Documents, Trade Package Scopes of Work, Other Bidding Requirements and all subsequent addenda, and being familiar with all conditions and requirements of the Work for the New Hanover County Fire Station Projects, hereby agrees to furnish all materials, labor, equipment, taxes, insurance and services for the lump sum, BASE BID AMOUNT of:

Castle Hayne Fire Station Base Bid:

$_____ Words

$_____ Figures

Gordon Road Fire Station Base Bid:

$_____ Words

$_____ Figures

SUBMIT THIS PAGE WITH BID *SUBMIT THIS PAGE WITH BID* *SUBMIT THIS PAGE WITH BID*

(List all Addenda along with the date of issue. If no additional Addenda are issued, write the word "NONE".)

Addendum Number	Date
_____	_____
_____	_____
_____	_____
_____	_____
_____	_____

ALTERNATES

The undersigned further agrees to perform the alternates for the sums herein stated resulting in additions to or deductions from the Base Bid Amount. Additions and deductions shall include any modifications of work or additional work that shall be reasonably included as a part of the alternate. Refer to Proposal Forms and Procedures, 01230 - Alternates within the Trade Package Scope Manual for additional information and/or requirements related to each alternate. If any of the following alternates are accepted, the above stated lump sum (Base Bid Amount) will be revised by the amount(s) indicated below.

If you choose to bid an alternate but there is no change to the base bid amount, enter the term "NO CHANGE" after the dollar sign ($). If you know an alternate below is not applicable to your scope of work, enter the term "NOT APPLICABLE" after the dollar sign ($).

Standard Alternates

Alternate 1 – Provide Composite award for both Gordon Road and Castle Hayne Fire Stations

As stated in the General Requirements Manual, if a bidder is approved through the prequalification process to submit a bid for both fire stations individually; however, is not approved to submit on the Project Alternate for a combined package to be awarded both fire stations, they will be notified as such thru the prequalification committee. Samet Corporation and New Hanover County reserve the right to award packages in the combination that is in the best interest of the County.

Add / Deduct (Circle one)

$_____(Words)

$_____ (Figures)

SUBMIT THIS PAGE WITH BID SUBMIT THIS PAGE WITH BID SUBMIT THIS PAGE WITH BID

Alternate 2 – Provide two Bifold Doors and all components in lieu of two overhead doors located at the front elevation

Castle Hayne Fire Station:

$_____ Words

$_____ Figures

Gordon Road Fire Station:

$_____ Words

$_____ Figures

Preferred Alternates

Preferred Alternate 1 – Moen Plumbing Fixtures - (ADD or DEDUCT)

Castle Hayne Fire Station:

$_____ Words

$_____ Figures

Gordon Road Fire Station:

$_____ Words

$_____ Figures

Preferred Alternate 2 – Mitsubishi VRF Systems - (ADD or DEDUCT)

Castle Hayne Fire Station:

$_____ Words

$_____ Figures

Gordon Road Fire Station:

$_____ Words

$_____ Figures

SUBMIT THIS PAGE WITH BID *SUBMIT THIS PAGE WITH BID* *SUBMIT THIS PAGE WITH BID*

UNIT PRICES

Bidders are to provide unit prices for each item of work listed below. Each unit price provided shall include all profit, overhead, supervision, surveying/field engineering services, materials, labor, equipment, taxes, insurance and any miscellaneous incidentals required to complete the unit price work activity. Unit prices shall be treated as a change to the Scope of Work and are subject to comply with all provisions outlined within the Contract Documents. Refer to the Trade Package Scope Manual Scope and Bid Documents, Section 012200 - Allowances within the PROJECT MANUAL for additional information related to each allowance. **Where noted below, the Unit Price(s) shall be the basis for determining a respective Subcontract allowance value(s). Additionally, the Unit Prices outlined herein shall be used as a basis of determining additions and/or deductions to the Subcontract Sum by change order.**

TRADE PACKAGE 31A – Sitework and Utilities

No.	Unit Price Description	Unit Price
UP-1	Unsuitable Soils – removal and dispose off-site	/CY
UP-2	Replacement of removed unsuitable soil with on-site soil	/CY
UP-3	Replacement of removed unsuitable soil with off-site soil	/CY
UP-4	Replacement of removed unsuitable soil with aggregate base course	/CY
UP-5	Replacement of removed unsuitable soil with No.57 washed stone	/CY
UP-6	Provide and install Geo-Grid	/SY
UP-7	Provide and install Woven Geo-Textile (separation) fabric in place	/SY
UP-8	Provide and install Non-Woven Geo-Textile (separation) fabric in place	/SY

VERIFICATION

It is agreed that the undersigned has fulfilled and is in current compliance with all state licensing laws and will comply with all requirements concerning licensing with all other local and national laws and that no legal requirement has been or will be violated in making or accepting this bid proposal by awarding the Subcontract or Purchase Order to the firm and/or in the performance of the work required thereunder.

The undersigned declares that he/she is an officer of the firm listed and is authorized to sign the bid proposal and fully bind the said firm to all the conditions and provisions thereof.

Respectfully submitted this _____ day of _____, 20_____.

By: _____
(Signature)

_____
(Name and Title)

Identification of HUB Certified/ Minority Business Participation

I,_____,
(Name of Bidder)
do hereby certify that on this project, we will use the following HUB Certified/ minority business as construction subcontractors, vendors, suppliers or providers of professional services.

Firm Name, Address and Phone #	Work Type	*Minority Category	**HUB Certified (Y/N)

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

The total value of minority business contracting will be ($)_____.

State of North Carolina AFFIDAVIT A – Listing of Good Faith Efforts

County of _____

(Name of Bidder)

Affidavit of_____

I have made a good faith effort to comply under the following areas checked:

Bidders must earn at least 50 points from the good faith efforts listed for their bid to be considered responsive. (1 NC Administrative Code 30 I.0101)

- ☐ **1 – (10 pts)** Contacted minority businesses that reasonably could have been expected to submit a quote and that were known to the contractor, or available on State or local government maintained lists, at least 10 days before the bid date and notified them of the nature and scope of the work to be performed.
- ☐ **2 --(10 pts)** Made the construction plans, specifications and requirements available for review by prospective minority businesses, or providing these documents to them at least 10 days before the bids are due.
- ☐ **3** – **(15 pts)** Broken down or combined elements of work into economically feasible units to facilitate minority participation.
- ☐ **4 – (10 pts)** Worked with minority trade, community, or contractor organizations identified by the Office of Historically Underutilized Businesses and included in the bid documents that provide assistance in recruitment of minority businesses.
- ☐ **5** – **(10 pts)** Attended prebid meetings scheduled by the public owner.
- ☐ **6** – **(20 pts)** Provided assistance in getting required bonding or insurance or provided alternatives to bonding or insurance for subcontractors.
- ☐ **7 – (15 pts)** Negotiated in good faith with interested minority businesses and did not reject them as unqualified without sound reasons based on their capabilities. Any rejection of a minority business based on lack of qualification should have the reasons documented in writing.
- ☐ **8** – **(25 pts)** Provided assistance to an otherwise qualified minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letters of credit, including waiving credit that is ordinarily required. Assisted minority businesses in obtaining the same unit pricing with the bidder's suppliers in order to help minority businesses in establishing credit.
- ☐ **9** – **(20 pts)** Negotiated joint venture and partnership arrangements with minority businesses in order to increase opportunities for minority business participation on a public construction or repair project when possible.
- ☐ **10** - **(20 pts)** Provided quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

The undersigned, if apparent low bidder, will enter into a formal agreement with the firms listed in the Identification of Minority Business Participation schedule conditional upon scope of contract to be executed with the Owner. Substitution of contractors must be in accordance with GS143-128.2(d) Failure to abide by this statutory provision will constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of the minority business commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

State of_____, County of_____

Subscribed and sworn to before me this _____day of _____20____

Notary Public_____

My commission expires _____

State of North Carolina --AFFIDAVIT B-- Intent to Perform Contract with Own Workforce.

County of _____

Affidavit of_____
(Name of Bidder)
I hereby certify that it is our intent to perform 100% of the work required for the _____

_____contract.
(Name of Project)

In making this certification, the Bidder states that the Bidder does not customarily subcontract elements of this type project, and normally performs and has the capability to perform and will perform all elements of the work on this project with his/her own current work forces; and

The Bidder agrees to provide any additional information or documentation requested by the owner in support of the above statement. The Bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible.

The undersigned hereby certifies that he or she has read this certification and is authorized to bind the Bidder to the commitments herein contained.

Date:_____Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

State of _____, County of_____
Subscribed and sworn to before me this _____day of _____20___
Notary Public _____
My commission expires_____

State of North Carolina - AFFIDAVIT C - Portion of the Work to be Performed by HUB Certified/Minority Businesses

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the portion of the work to be executed by HUB certified/minority businesses as defined in GS143-128.2(g) and 128.4(a),(b),(e) is equal to or greater than 10% of the bidders total contract price, then the bidder must complete this affidavit.
This affidavit shall be provided by the apparent lowest responsible, responsive bidder within **72 hours** after notification of being low bidder.

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

I will expend a minimum of _____% of the total dollar amount of the contract with minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. Attach additional sheets if required

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)
**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

SEAL

Signature:_____

Title:_____

State of _____, County of _____
Subscribed and sworn to before me this _____day of _____20____
Notary Public_____
My commission expires_____

State of North Carolina AFFIDAVIT D – Good Faith Efforts

County of _____

(Note this form is to be submitted only by the apparent lowest responsible, responsive bidder.)

If the goal of 10% participation by HUB Certified/ minority business **is not** achieved, the Bidder shall provide the following documentation to the Owner of his good faith efforts:

Affidavit of _____ I do hereby certify that on the
(Name of Bidder)

_____
(Project Name)

Project ID#_____ Amount of Bid $_____

I will expend a minimum of _____% of the total dollar amount of the contract with HUB certified/ minority business enterprises. Minority businesses will be employed as construction subcontractors, vendors, suppliers or providers of professional services. Such work will be subcontracted to the following firms listed below. (Attach additional sheets if required)

Name and Phone Number	*Minority Category	**HUB Certified Y/N	Work Description	Dollar Value

*Minority categories: Black, African American (**B**), Hispanic (**H**), Asian American (**A**) American Indian (**I**), Female (**F**) Socially and Economically Disadvantaged (**D**)

**** HUB Certification with the state HUB Office required to be counted toward state participation goals.**

Examples of documentation that may be required to demonstrate the Bidder's good faith efforts to meet the goals set forth in these provisions include, but are not necessarily limited to, the following:

A. Copies of solicitations for quotes to at least three (3) minority business firms from the source list provided by the State for each subcontract to be let under this contract (if 3 or more firms are shown on the source list). Each solicitation shall contain a specific description of the work to be subcontracted, location where bid documents can be reviewed, representative of the Prime Bidder to contact, and location, date and time when quotes must be received.

B. Copies of quotes or responses received from each firm responding to the solicitation.

C. A telephone log of follow-up calls to each firm sent a solicitation.

D. For subcontracts where a minority business firm is not considered the lowest responsible sub-bidder, copies of quotes received from all firms submitting quotes for that particular subcontract.

E. Documentation of any contacts or correspondence to minority business, community, or contractor organizations in an attempt to meet the goal.

F. Copy of pre-bid roster

G. Letter documenting efforts to provide assistance in obtaining required bonding or insurance for minority business.

H. Letter detailing reasons for rejection of minority business due to lack of qualification.

I. Letter documenting proposed assistance offered to minority business in need of equipment, loan capital, lines of credit, or joint pay agreements to secure loans, supplies, or letter of credit, including waiving credit that is ordinarily required.

Failure to provide the documentation as listed in these provisions may result in rejection of the bid and award to the next lowest responsible and responsive bidder.

Pursuant to GS143-128.2(d), the undersigned will enter into a formal agreement with Minority Firms for work listed in this schedule conditional upon execution of a contract with the Owner. Failure to fulfill this commitment may constitute a breach of the contract.

The undersigned hereby certifies that he or she has read the terms of this commitment and is authorized to bind the bidder to the commitment herein set forth.

Date:_____ Name of Authorized Officer:_____

Signature:_____

Title:_____

SEAL

State of _____, County of _____

Subscribed and sworn to before me this _____ day of _____ 20____

Notary Public_____

My commission expires _____

E-Verify Compliance Requirements

Provide with the bid.

Each bidder shall provide with its bid proposal written assurance that it does now and will throughout the duration of the project fully comply with the requirements of Article 2. Chapter 64 North Carolina General Statutes and that it will throughout the duration of the project maintain records of verification of legal work status for all employees including records of verification on terminated employees for one year following the termination of employment status.

Each bidder shall also provide written assurance that it will require and monitor compliance with Article 2, Chapter 64 for each subcontractor awarded portions of work on the project by bidder unless the subcontractor documents that it has fewer than 25 employees at the time the subcontract is awarded and throughout the duration of the subcontract.

All E-Verify records of the successful bidder and its subcontractors shall be available for inspection by the OWNER or its designee at reasonable times and after reasonable notice throughout the duration of the project.

I, _____(print name), hereby state and declare that I am the _____(title of entity official) of _____(name of entity), and hereby certify to the OWNER, that, as to any construction contract subsequently entered into with the OWNER, that _____(name of entity) intends to comply with E-Verify requirements required under North Carolina General Statutes and as indicated above. Further, I declare that ____ _____(name of entity) shall similarly require all subcontractors and/or material suppliers that contract with said entity for the contract be required to meet these same requirements.

Name of Authorized Officer:_____

Title:_____

Signature: _____

Date:_____

IRAN DIVESTMENT ACT CERTIFICATION
REQUIRED BY N.C.G.S. 147-86.59

Name of Bidder or Vendor: _____

As of the date listed below, the bidder or vendor listed above is not listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 147-86.58. The bidder or vendor listed above also agrees not to utilize, in the performance of any contract with the Orange Rural Fire Department, any subcontractor that is listed on the Final Divestment List created by the State Treasurer pursuant to N.C.G.S. 147-86.58

The undersigned hereby certifies that he or she is authorized by the vendor or bidder listed above to make the foregoing statement.

_____

Signature Date

_____

Printed Name Title

NOTE THAT:

N.C.G.S. 147-86.59 requires this certification for bids or contracts with the State of North Carolina, a North Carolina local government, or any other political subdivision of the State of North Carolina. The certification is required at the following times:

- When a bid is submitted
- When a contract is entered into (if the certification was not already made when the vendor made its bid)
- When a contract is renewed or assigned

N.C.G.S.147-86.59 also requires that contractors with the State, a North Carolina local government, or any other political subdivision of the State of North Carolina must not utilize any subcontractor found on the State Treasurer's Final Divestment List.

The State Treasurer's Final Divestment List can be found on the State Treasurer's website at the address www.nctreasurer.com/Iran and will be updated every 180 days. The current list can be found on the reverse of this document.

AIA® Document A312™ – 2010

Payment Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:
Amount: $
Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount: $
Modifications to this Bond: ☐ None ☐ See Section 18

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		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:)*

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. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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.

Init.
/
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User Notes: (808482611)

§ 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.

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§ 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.

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§ 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:

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

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address:		Address:	

Init.

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Performance Bond

CONTRACTOR:
(Name, legal status and address)

SURETY:
(Name, legal status and principal place of business)

OWNER:
(Name, legal status and address)

CONSTRUCTION CONTRACT
Date:
Amount: $
Description:
(Name and location)

BOND
Date:
(Not earlier than Construction Contract Date)

Amount: $
Modifications to this Bond: ☐ None ☐ See Section 16

CONTRACTOR AS PRINCIPAL		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		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:)*

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. A vertical line in the left margin of this document indicates where the author has added necessary information and where the author has added to or deleted from the original AIA text.

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.

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§ 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.

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§ **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		**SURETY**	
Company:	*(Corporate Seal)*	Company:	*(Corporate Seal)*
Signature:		Signature:	
Name and Title:		Name and Title:	
Address:		Address:	

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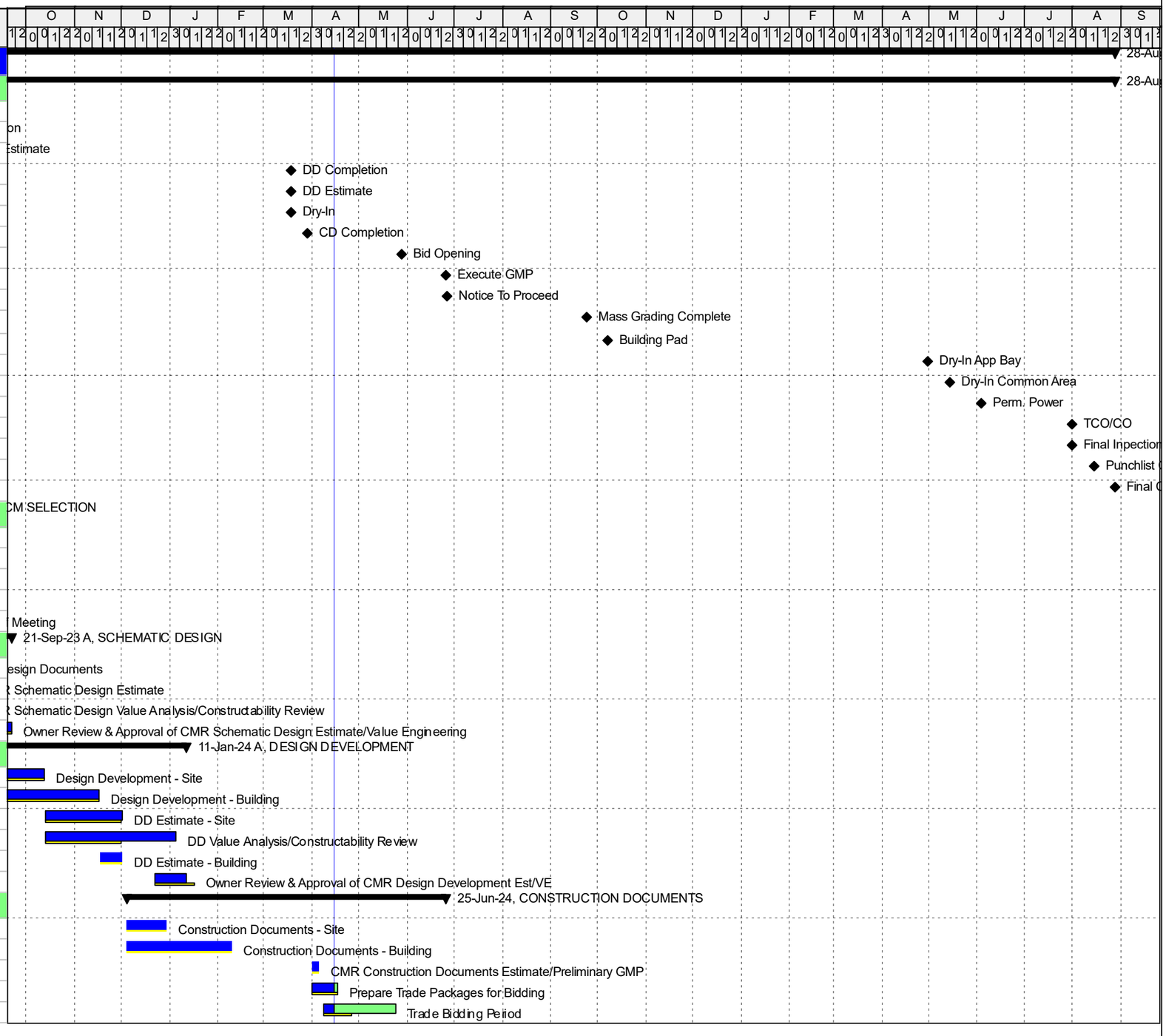
User Notes: (896547121)

5. Project Construction Schedule

CASTLE HAYNE FD

Activity ID	Activity Name	Original Duration	Start	Finish
Castle Haynes FD NHC 24APRIL24		571	18-May-23 A	28-Aug-25
MILESTONES		553	13-Jun-23 A	28-Aug-25
M1020	CM Selection	0		13-Jun-23 A
M1030	SD Completion	0		28-Jul-23 A
M1040	SD Estimate	0		25-Aug-23 A
M1050	DD Completion	0		18-Mar-24 A
M1060	DD Estimate	0		18-Mar-24 A
M1110	Dry-In	0		18-Mar-24 A
M1070	CD Completion	0		28-Mar-24 A
M1080	Bid Opening	0		28-May-24
M1090	Execute GMP	0		25-Jun-24
M1000	Notice To Proceed	0		26-Jun-24
M1100	Mass Grading Complete	0		23-Sep-24
M1120	Building Pad	0		07-Oct-24
M1130	Dry-In App Bay	0		30-Apr-25
M1140	Dry-In Common Area	0		14-May-25
M1150	Perm. Power	0		03-Jun-25
M1010	TCO/CO	0		31-Jul-25
M1160	Final Inpection	0		31-Jul-25
M1170	Punchlist Complete	0		14-Aug-25
M1180	Final Completion	0		28-Aug-25
CM SELECTION		48	18-May-23 A	27-Jul-23 A
CM1000	CM RFQ Due	0	18-May-23 A	
CM1010	CMR RFQ Review	13	18-May-23 A	06-Jun-23 A
CM1020	Tenative CM Interviews	1	07-Jun-23 A	07-Jun-23 A
CM1030	CM Selection	4	08-Jun-23 A	13-Jun-23 A
CM1040	CMR Kick off Meeting	1	27-Jul-23 A	27-Jul-23 A
SCHEMATIC DESIGN		87	18-May-23 A	21-Sep-23 A
SD1000	Schematic Design Documents	49	18-May-23 A	28-Jul-23 A
SD1010	CMR Schematic Design Estimate	20	31-Jul-23 A	25-Aug-23 A
SD1020	CMR Schematic Design Value Analysis/Constru	20	31-Jul-23 A	25-Aug-23 A
SD1030	Owner Review & Approval of CMR Schematic D	15	31-Aug-23 A	21-Sep-23 A
DESIGN DEVELOPMENT		92	31-Aug-23 A	11-Jan-24 A
DD1000	Design Development - Site	30	31-Aug-23 A	12-Oct-23 A
DD1010	Design Development - Building	55	31-Aug-23 A	16-Nov-23 A
DD1020	DD Estimate - Site	33	13-Oct-23 A	01-Dec-23 A
DD1030	DD Value Analysis/Constructability Review	33	13-Oct-23 A	04-Jan-24 A
DD1040	DD Estimate - Building	9	17-Nov-23 A	01-Dec-23 A
DD1060	Owner Review & Approval of CMR Design Deve	14	22-Dec-23 A	11-Jan-24 A
CONSTRUCTION DOCUMENTS		140	04-Dec-23 A	25-Jun-24
CD1000	Construction Documents - Site	18	04-Dec-23 A	29-Dec-23 A
CD1090	Construction Documents - Building	46	04-Dec-23 A	09-Feb-24 A
CD1020	CMR Construction Documents Estimate/Prelim	5	01-Apr-24 A	05-Apr-24 A
CD1050	Prepare Trade Packages for Bidding	13	01-Apr-24 A	17-Apr-24
CD1160	Trade Bidding Period	15	08-Apr-24 A	24-May-24

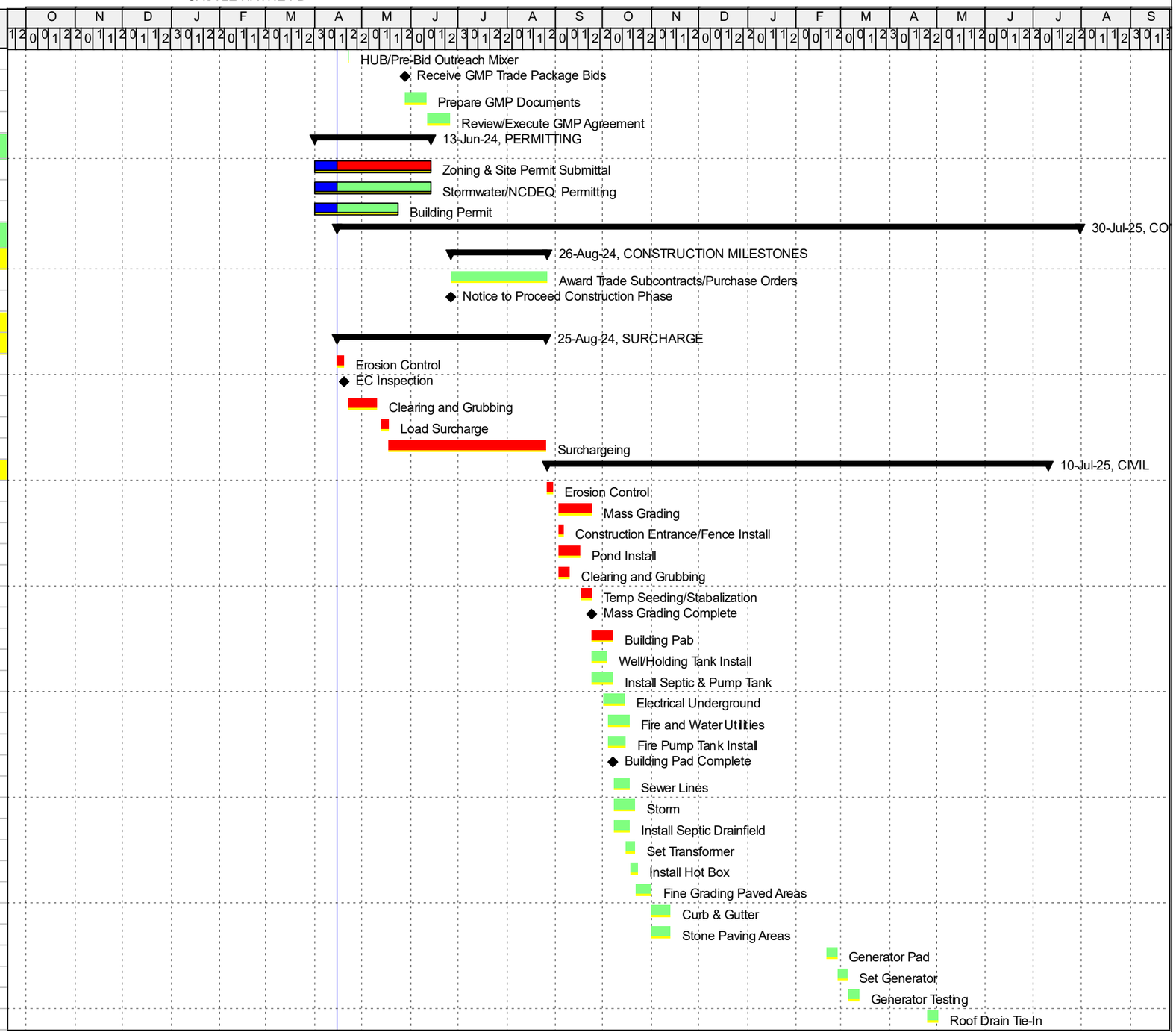


Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SAMET

CASTLE HAYNE FD

Activity ID	Activity Name	Original Duration	Start	Finish
CD1010	HUB/Pre-Bid Outreach Mixer	1	22-Apr-24	22-Apr-24
CD1200	Receive GMP Trade Package Bids	0	28-May-24	
CD1240	Prepare GMP Documents	10	28-May-24	10-Jun-24
CD1250	Review/Execute GMP Agreement	10	11-Jun-24	25-Jun-24
PERMITTING		53	01-Apr-24 A	13-Jun-24
P1000	Zoning & Site Permit Submittal	53	01-Apr-24 A	13-Jun-24
P1010	Stormwater/NCDEQ Permitting	53	01-Apr-24 A	13-Jun-24
P1020	Building Permit	39	01-Apr-24 A	23-May-24
CONSTRUCTION PHASE		324	15-Apr-24	30-Jul-25
CONSTRUCTION MILESTONES		43	26-Jun-24	26-Aug-24
MI1000	Award Trade Subcontracts/Purchase Orders	43	26-Jun-24	26-Aug-24
MI1010	Notice to Proceed Construction Phase	0	26-Jun-24	
SUBMITTALS		0		
SURCHARGE		92	15-Apr-24	25-Aug-24
SU1000	Erosion Control	5	15-Apr-24	19-Apr-24
SU1010	EC Inspection	0		19-Apr-24
SU1020	Clearing and Grubbing	15	22-Apr-24	10-May-24
SU1030	Load Surcharge	5	13-May-24	17-May-24
SU1040	Surchargeing	100	18-May-24	25-Aug-24
CIVIL		218	26-Aug-24	10-Jul-25
C1000	Erosion Control	5	26-Aug-24	30-Aug-24
C1010	Mass Grading	15	03-Sep-24	23-Sep-24
C1020	Construction Entrance/Fence Install	3	03-Sep-24	05-Sep-24
C1030	Pond Install	10	03-Sep-24	16-Sep-24
C1040	Clearing and Grubbing	5	03-Sep-24	09-Sep-24
C1050	Temp Seeding/Stabalization	5	17-Sep-24	23-Sep-24
C1060	Mass Grading Complete	0		23-Sep-24
C1070	Building Pab	10	24-Sep-24	07-Oct-24
C1080	Well/Holding Tank Install	8	24-Sep-24	03-Oct-24
C1090	Install Septic & Pump Tank	10	24-Sep-24	07-Oct-24
C1100	Electrical Underground	10	01-Oct-24	14-Oct-24
C1110	Fire and Water Utilities	10	04-Oct-24	17-Oct-24
C1120	Fire Pump Tank Install	8	04-Oct-24	15-Oct-24
C1130	Building Pad Complete	0		07-Oct-24
C1140	Sewer Lines	8	08-Oct-24	17-Oct-24
C1150	Storm	10	08-Oct-24	21-Oct-24
C1160	Install Septic Drainfield	8	08-Oct-24	17-Oct-24
C1170	Set Transformer	5	15-Oct-24	21-Oct-24
C1180	Install Hot Box	3	18-Oct-24	22-Oct-24
C1190	Fine Grading Paved Areas	8	22-Oct-24	31-Oct-24
C1200	Curb & Gutter	8	01-Nov-24	12-Nov-24
C1210	Stone Paving Areas	8	01-Nov-24	12-Nov-24
C1310	Generator Pad	5	20-Feb-25	26-Feb-25
C1320	Set Generator	5	27-Feb-25	05-Mar-25
C1330	Generator Testing	5	06-Mar-25	12-Mar-25
C1220	Roof Drain Tie-In	5	25-Apr-25	01-May-25



Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SAMET

CASTLE HAYNE FD

Activity ID	Activity Name	Original Duration	Start	Finish
C1230	HD/LD Paving	8	02-May-25	13-May-25
C1240	Concrete Paving	8	14-May-25	23-May-25
C1250	Sidewalks	8	27-May-25	05-Jun-25
C1260	Striping/Signage	8	27-May-25	05-Jun-25
C1270	Dumpster Enclosure	8	27-May-25	05-Jun-25
C1280	Fine Grade Landscaped Areas	8	06-Jun-25	17-Jun-25
C1290	Landscape	15	18-Jun-25	10-Jul-25
C1300	Flag Poles	5	18-Jun-25	25-Jun-25
STRUCTURE		165	08-Oct-24	05-Jun-25
FOUNDATIONS		25	08-Oct-24	11-Nov-24
S1000	Footings & Foundations	15	08-Oct-24	28-Oct-24
S1010	MEP Underground	15	15-Oct-24	04-Nov-24
S1020	Foundation Masonry	10	29-Oct-24	11-Nov-24
COMMON AREA		55	12-Nov-24	04-Feb-25
S1030	Prep/Pour Building Pad Common Area	10	12-Nov-24	25-Nov-24
S1070	Install Structural Steel Common Area	20	26-Nov-24	27-Dec-24
S1130	Exterior Cold Form Metal Framing Common Are	15	30-Dec-24	21-Jan-25
S1170	MEP Exterior In-Wall Rough Common Area	15	07-Jan-25	28-Jan-25
S1230	Install Roof Trusses Common Area	10	22-Jan-25	04-Feb-25
COMMON AREA EXT		95	22-Jan-25	05-Jun-25
S1240	Install Exterior Sheathing Common Area	15	22-Jan-25	11-Feb-25
S1310	Install Decking Common Area	5	05-Feb-25	11-Feb-25
S1690	Install TPO (Gutter b/t App/CA)	5	11-Feb-25	17-Feb-25
S1340	Install Fluid Applied Common Area	10	12-Feb-25	25-Feb-25
S1330	Install Metal Roof Common Area	5	18-Feb-25	24-Feb-25
S1430	Install Stone Veneer and Cap Stone East Wall	5	26-Mar-25	01-Apr-25
S1450	Install Rigid Insulation East Wall	5	26-Mar-25	01-Apr-25
S1460	Install Siding Common Area	10	02-Apr-25	15-Apr-25
S1470	Install Rigid Installation South Wall	10	02-Apr-25	15-Apr-25
S1480	Install Stone Veneer and Cap Stone South Wal	5	02-Apr-25	08-Apr-25
S1500	Install Brick Veneer South Wall	5	09-Apr-25	15-Apr-25
S1510	Install Storefront	10	16-Apr-25	30-Apr-25
S1520	Install Exterior Canpoies	5	16-Apr-25	23-Apr-25
S1530	Install Metal Soffits	8	16-Apr-25	28-Apr-25
S1540	Install Rigid Insulation West Wall	15	16-Apr-25	07-May-25
S1550	Install Stone Veneer and Cap Stone West Wall	5	16-Apr-25	23-Apr-25
S1660	Install Column Wraps	5	16-Apr-25	23-Apr-25
S1570	Install Metal Coping/Fascia	8	17-Apr-25	29-Apr-25
S1580	Install Brick Veneer West Wall	10	24-Apr-25	07-May-25
S1590	Install Gutters	8	25-Apr-25	06-May-25
S1610	Install Storefront	10	01-May-25	14-May-25
S1620	Install Rigid Insulation North Wall	12	08-May-25	23-May-25
S1630	Install Stone Veneer and Cap Stone North Wall	4	08-May-25	13-May-25
S1640	Install Brick Veneer Noth Wall	8	14-May-25	23-May-25
S1650	Dry-In	0		14-May-25
S1670	Painting Exterior	10	22-May-25	05-Jun-25
APPARATUS BAY/MEZZANINE		66	12-Nov-24	19-Feb-25

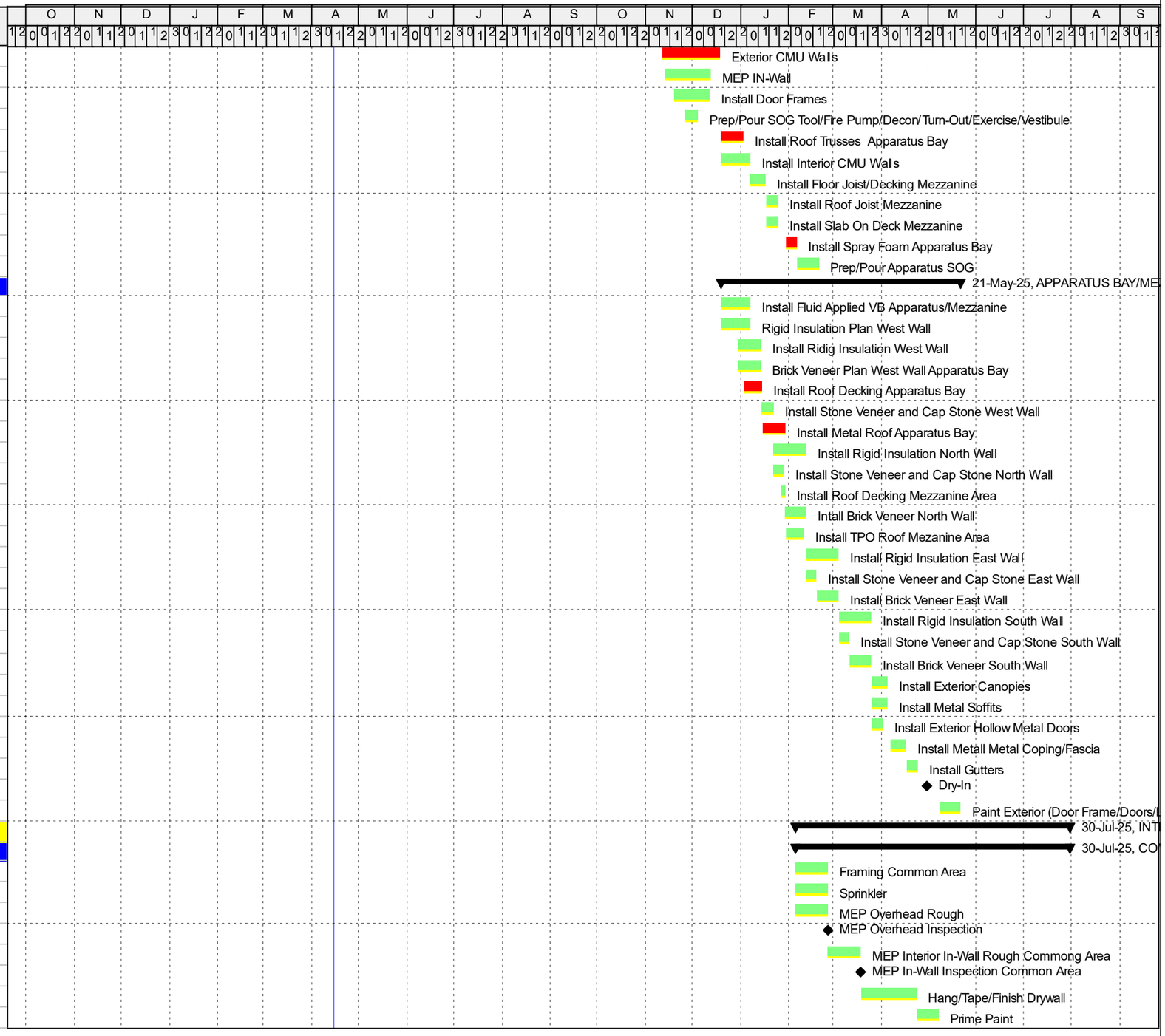


Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SAMET

CASTLE HAYNE FD

Activity ID	Activity Name	Original Duration	Start	Finish
S1040	Exterior CMU Walls	25	12-Nov-24	18-Dec-24
S1050	MEP IN-Wall	20	13-Nov-24	12-Dec-24
S1060	Install Door Frames	15	19-Nov-24	11-Dec-24
S1080	Prep/Pour SOG Tool/Fire Pump/Decon/ Turn-Ou	5	26-Nov-24	04-Dec-24
S1090	Install Roof Trusses Apparatus Bay	8	19-Dec-24	02-Jan-25
S1110	Install Interior CMU Walls	10	19-Dec-24	06-Jan-25
S1180	Install Floor Joist/Decking Mezzanine	8	07-Jan-25	16-Jan-25
S1210	Install Roof Joist Mezzanine	5	17-Jan-25	24-Jan-25
S1220	Install Slab On Deck Mezzanine	5	17-Jan-25	24-Jan-25
S1290	Install Spray Foam Apparatus Bay	5	30-Jan-25	05-Feb-25
S1320	Prep/Pour Apparatus SOG	10	06-Feb-25	19-Feb-25
APPARATUS BAY/MEZZANINE EXT		105	19-Dec-24	21-May-25
S1100	Install Fluid Applied VB Apparatus/Mezzanine	10	19-Dec-24	06-Jan-25
S1120	Rigid Insulation Plan West Wall	10	19-Dec-24	06-Jan-25
S1140	Install Ridig Insulation West Wall	10	30-Dec-24	13-Jan-25
S1150	Brick Veneer Plan West Wall Apparatus Bay	10	30-Dec-24	13-Jan-25
S1160	Install Roof Decking Apparatus Bay	8	03-Jan-25	14-Jan-25
S1190	Install Stone Veneer and Cap Stone West Wall	5	14-Jan-25	21-Jan-25
S1200	Install Metal Roof Apparatus Bay	10	15-Jan-25	29-Jan-25
S1250	Install Rigid Insulation North Wall	15	22-Jan-25	11-Feb-25
S1260	Install Stone Veneer and Cap Stone North Wall	5	22-Jan-25	28-Jan-25
S1270	Install Roof Decking Mezzanine Area	3	27-Jan-25	29-Jan-25
S1280	Intall Brick Veneer North Wall	10	29-Jan-25	11-Feb-25
S1300	Install TPO Roof Mezanine Area	8	30-Jan-25	10-Feb-25
S1350	Install Rigid Insulation East Wall	15	12-Feb-25	04-Mar-25
S1360	Install Stone Veneer and Cap Stone East Wall	5	12-Feb-25	18-Feb-25
S1370	Install Brick Veneer East Wall	10	19-Feb-25	04-Mar-25
S1380	Install Rigid Insulation South Wall	15	05-Mar-25	25-Mar-25
S1390	Install Stone Veneer and Cap Stone South Wal	5	05-Mar-25	11-Mar-25
S1400	Install Brick Veneer South Wall	10	12-Mar-25	25-Mar-25
S1410	Install Exterior Canopies	8	26-Mar-25	04-Apr-25
S1420	Install Metal Soffits	8	26-Mar-25	04-Apr-25
S1440	Install Exterior Hollow Metal Doors	5	26-Mar-25	01-Apr-25
S1490	Install Metall Metal Coping/Fascia	8	07-Apr-25	16-Apr-25
S1560	Install Gutters	5	17-Apr-25	24-Apr-25
S1600	Dry-In	0		30-Apr-25
S1680	Paint Exterior (Door Frame/Doors/Lintels)	10	08-May-25	21-May-25
INTERIOR		122	05-Feb-25	30-Jul-25
COMMON AREA		122	05-Feb-25	30-Jul-25
I1000	Framing Common Area	15	05-Feb-25	25-Feb-25
I1010	Sprinkler	15	05-Feb-25	25-Feb-25
I1020	MEP Overhead Rough	15	05-Feb-25	25-Feb-25
I1070	MEP Overhead Inspection	0		25-Feb-25
I1080	MEP Interior In-Wall Rough Commong Area	15	26-Feb-25	18-Mar-25
I1120	MEP In-Wall Inspection Common Area	0		18-Mar-25
I1130	Hang/Tape/Finish Drywall	25	19-Mar-25	23-Apr-25
I1210	Prime Paint	10	24-Apr-25	07-May-25

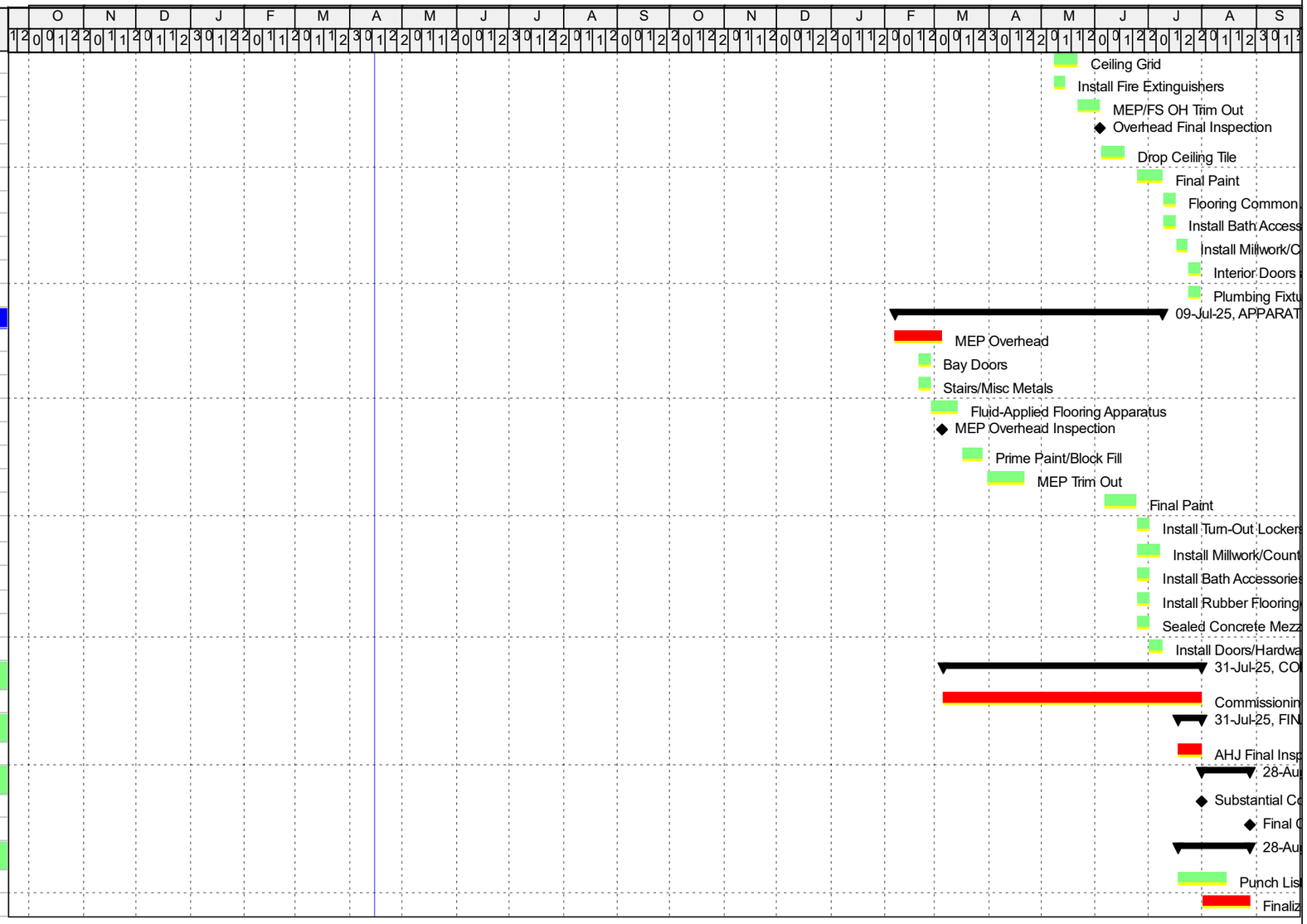


Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SAMET

CASTLE HAYNE FD

Activity ID	Activity Name	Original Duration	Start	Finish
I1220	Ceiling Grid	10	08-May-25	21-May-25
I1230	Install Fire Extinguishers	5	08-May-25	14-May-25
I1240	MEP/FS OH Trim Out	8	22-May-25	03-Jun-25
I1250	Overhead Final Inspection	0		03-Jun-25
I1260	Drop Ceiling Tile	10	04-Jun-25	17-Jun-25
I1270	Final Paint	10	25-Jun-25	09-Jul-25
I1280	Flooring Common Area	5	10-Jul-25	16-Jul-25
I1290	Install Bath Accessories	5	10-Jul-25	16-Jul-25
I1300	Install Millwork/Counter Tops	5	17-Jul-25	23-Jul-25
I1310	Interior Doors and Hardware	5	24-Jul-25	30-Jul-25
I1320	Plumbing Fixtures	5	24-Jul-25	30-Jul-25
APPARATUS BAY/MEZZANINE		106	06-Feb-25	09-Jul-25
I1030	MEP Overhead	20	06-Feb-25	05-Mar-25
I1040	Bay Doors	5	20-Feb-25	26-Feb-25
I1050	Stairs/Misc Metals	5	20-Feb-25	26-Feb-25
I1100	Fluid-Applied Flooring Apparatus	12	27-Feb-25	14-Mar-25
I1090	MEP Overhead Inspection	0		05-Mar-25
I1060	Prime Paint/Block Fill	10	17-Mar-25	28-Mar-25
I1110	MEP Trim Out	15	31-Mar-25	21-Apr-25
I1140	Final Paint	12	06-Jun-25	24-Jun-25
I1150	Install Turn-Out Lockers	5	25-Jun-25	01-Jul-25
I1160	Install Millwork/Counter Tops	8	25-Jun-25	07-Jul-25
I1170	Install Bath Accessories	5	25-Jun-25	01-Jul-25
I1180	Install Rubber Flooring/Gym	5	25-Jun-25	01-Jul-25
I1190	Sealed Concrete Mezzanine	5	25-Jun-25	01-Jul-25
I1200	Install Doors/Hardware	5	02-Jul-25	09-Jul-25
COMMISSION		102	06-Mar-25	31-Jul-25
CO1000	Commissioning	102	06-Mar-25	31-Jul-25
FINAL INSPECTIONS		10	18-Jul-25	31-Jul-25
F1000	AHJ Final Inspections	10	18-Jul-25	31-Jul-25
SUBSTANTIAL COMPLETION		20	31-Jul-25	28-Aug-25
SC1000	Substantial Completion	0		31-Jul-25
SC1010	Final Completion	0		28-Aug-25
CLOSEOUT		30	18-Jul-25	28-Aug-25
CO1020	Punch List	20	18-Jul-25	14-Aug-25
CO1010	Finalize Close Out Requirements	20	01-Aug-25	28-Aug-25



Primary Baseline
Actual Work
Remaining Work
Critical Remaining Work
Milestone
Summary

SAMET

6. Logistics Plan

SAMET

3606

LOGISTICS PLAN

Castle Hayne Rd

Parmele Rd

Parmele Rd

Parmele Rd

PARMELE ROAD (60' PUBLIC R/W)

CASTLE HAYNE ROAD (US HWY 117) (60' PUBLIC R/W)

15' x 555' SIGHT DISTANCE TRIANGLE

15' x 430' SIGHT DISTANCE TRIANGLE

15' x 500' SIGHT DISTANCE TRIANGLE

15' x 480' SIGHT DISTANCE TRIANGLE

25' SETBACK

30' SETBACK

5' SIDEWALK (TYP.)

SEAT WALL REFER TO ARCHITECTURAL PLANS

FLAG POLE

PLANTER REFER TO ARCHITECTURAL PLANS

PATIO

SEAT WALL AROUND PLANTER REFER TO ARCHITECTURAL PLANS

PROPOSED BUILDING 11,357 SF

ROOF OVERHANG (TYP.) REFER TO ARCHITECTURAL PLANS

DRY POND

18LF ROLLED CURB

DUMPSTER ENCLOSURE

4845

4837

4844

4844a

4844

4010

4000

4020

PROJECT KEY

- STAGING
- TRAILER
- PARKING
- RESTROOMS
- MUSTER AREA
- PROJECT FENCING
- DUMPSTERS

7. List of Contract Documents

Samet Corporation

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Job #: 23-109 Castle Hayne Fire Station NHC
4860 Castle Hayne Rd.
Castle Hayne, North Carolina 28429

Current Drawings

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
General					
0.00	COVER SHEET	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.00	APPENDIX B	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.10	LIFE SAFETY PLANS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.70	UL DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.71	UL DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.72	UL DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.73	UL DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
1.74	UL DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
Civil					
C0.0	COVER SHEET	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C1.0	EXISTING CONDITIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C2.0	PHASE I EC PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C2.1	PHASE II EC PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C2.2	PHASE III EC PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C2.3	PHASE IV EC PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C3.0	SITE PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C3.1	UTILITY PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.0	GRADING PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.1	SW COMPLIANCE PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.2	DRAINAGE AREA MAP	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.3	DRY DETENTION	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.4	DRY DETENTION	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.5	DRY DETENTION	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.6	STORM FILTER	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C4.7	STORMWATER PROFILES	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.0	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.1	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.2	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.3	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.4	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.5	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
C5.6	NOTES AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
--	LIGHTING PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)

Samet Corporation

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Job #: 23-109 Castle Hayne Fire Station NHC
4860 Castle Hayne Rd.
Castle Hayne, North Carolina 28429

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
L1.1	TREE INVENTORY	0	03/29/2024	04/24/2024	BID SET (03/29/24)
L2.0	PLANTING PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
Structural					
3.00	GENERAL NOTE	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.01	TYPICAL CMU WALL REINFORCING DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.02	SCHEDULES AND TYPICAL DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.10	FOUNDATION PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.11	MEZZANINE & CANOPY FRAMING PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.12	LOW ROOF FRAMING PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.13	HIGH ROOF FRAMING PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.70	FRAMING SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.71	FRAMING SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.72	FRAMING SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.73	FRAMING SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
3.74	FRAMING SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
Architectural					
4.10	DIMENSION PLANS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.11	NOTES PLANS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.12	DOOR, WINDOWS, AND WALL TAGS PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.13	FURNITURE PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.20	PLAN DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.21	PATIO AND EXTERIOR DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.30	ROOF PLAN AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.70	DOOR AND WINDOW SCHEDULE	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.72	WALL TYPES & DOOR DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.73	WALL TYPES, WINDOW & DOOR DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.74	WALL TYPES, WINDOW & DOOR DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.75	WALL TYPES, WINDOW & DOOR DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.76	ALTERNATE BID A-1	0	03/29/2024	04/24/2024	BID SET (03/29/24)
4.80	ENLARGED TOILET PLAN AND ACCESSORIES	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.10	ELEVATIONS COLORED	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.11	ELEVATIONS GRAYSCALE	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.20	BUILDING SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.21	BUILDING SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.22	BUILDING SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.23	WALL SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.24	WALL SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.25	WALL SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)

SAMET

Samet Corporation

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Job #: 23-109 Castle Hayne Fire Station NHC
4860 Castle Hayne Rd.
Castle Hayne, North Carolina 28429

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
5.26	WALL SECTIONS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.30	WALL SECTION DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.31	WALL SECTION DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.32	WALL SECTION DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
5.33	STAIRCASE, BOLLARD, AND SITE DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
6.10	REFLECTED CEILING PLAN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.10	FINISH PLANS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.11	FINISH DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.20	CASEWORK ELEVATIONS AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.21	CASEWORK ELEVATIONS AND DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.22	CASEWORK DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.23	CASEWORK DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
7.24	CASEWORK DETAILS	0	03/29/2024	04/24/2024	BID SET (03/29/24)
Plumbing					
P0.01	PLUMBING LEGEND, INDEX, AND NOTES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P0.02	PLUMBING SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P0.03	PLUMBING EQUIPMENT SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P1.01	DRAINAGE PIPING FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P1.02	DRAINAGE PIPING ROOF PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P2.01	SUPPLY PIPING FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P5.01	PLUMBING DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P5.02	PLUMBING DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
P5.03	U.L. PENETRATION DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
Fire Protection					
FP0.01	FIRE PROTECTION LEGEND, NOTES, AND DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
FP1.01	FIRE PROTECTION FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
FP5.01	FIRE PROTECTION DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
Mechanical					
M0.01	MECHANICAL LEGEND AND NOTES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M0.02	MECHANICAL NOTES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M0.03	MECHANICAL SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M0.04	MECHANICAL VENTILATION SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M1.01	MECHANICAL FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M1.02	MECHANICAL ROOF PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M2.01	MECHANICAL PIPING FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M5.01	MECHANICAL DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M5.02	MECHANICAL DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
M5.03	MECHANICAL DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)

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Job #: 23-109 Castle Hayne Fire Station NHC
4860 Castle Hayne Rd.
Castle Hayne, North Carolina 28429

Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
M5.04	MECHANICAL SECTIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
Electrical					
E0.01	ELECTRICAL LEGEND AND NOTES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E0.02	ELECTRICAL SPECIFICATIONS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E0.03	LIGHTING FIXTURE SCHEDULE	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E0.04	MECHANICAL EQUIPMENT CONNECTION SCHEDULE	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E0.10	ELECTRICAL SITE PLAN	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E1.01	LIGHTING FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E1.02	LIGHTING ROOF PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E2.01	POWER FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E3.01	EQUIPMENT CONNECTIONS FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E4.01	SPECIAL SYSTEMS FLOOR PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.00	ELECTRICAL DETAILS - PENETRATION	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.01	ELECTRICAL DETAILS - GENERAL	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.02	ELECTRICAL DETAILS - GENERAL	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.03	ELECTRICAL DETAILS - LIGHTING	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.04	ELECTRICAL DETAILS - LIGHTING	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.05	ELECTRICAL DETAILS - FIRE ALARM	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.06	ELECTRICAL DETAILS - FIRE ALARM	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.07	ELECTRICAL DETAILS - FIRE STATION	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.08	ELECTRICAL DETAILS - FIRE STATION	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.09	ELECTRICAL DETAILS - GENERATOR	1	03/28/2024	04/24/2024	BID SET (03/29/24)
E6.10	ELECTRICAL DETAILS - GENERATOR	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E7.01	ELECTRICAL DIAGRAMS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E8.01	PANEL SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
E8.02	PANEL SCHEDULES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
Telecommunications					
T0.01	TELECOM LEGEND AND NOTES	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T1.01	NETWORK PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T2.01	SECURITY PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T4.01	TELECOM ENLARGED PLANS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T5.01	TELECOM DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T5.02	TELECOM DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
T5.03	TELECOM DETAILS	0	03/28/2024	04/24/2024	BID SET (03/29/24)
SEPTIC SYSTEM					
SS1	SEPTIC SYSTEM DESIGN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS2	PARCEL	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS3	SEPTIC TANK	0	03/29/2024	04/24/2024	BID SET (03/29/24)

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Job #: 23-109 Castle Hayne Fire Station NHC
4860 Castle Hayne Rd.
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Drawing No.	Drawing Title	Revision	Drawing Date	Received Date	Set
SS4	PL-68 EFFLUENT FILTER	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS5	SEPTIC TANK	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS6	OLDCASTLE - OIL WATER SEPARATOR	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS7	SEPTIC SYSTEM DESIGN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS8	SEPTIC SYSTEM DESIGN	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS9	SEPTIC TANK DETAIL	0	03/29/2024	04/24/2024	BID SET (03/29/24)
SS10	NITRIFICATION TRENCH	0	03/29/2024	04/24/2024	BID SET (03/29/24)

8. Report of Subsurface Exploration (for information / reference only)

Geotechnical Exploration Report
NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No. 22060050

PREPARED FOR:

New Hanover County Property Management
200 Division Drive
Wilmington, North Carolina 28405

PREPARED BY:

S&ME, Inc.
3006 Hall Waters Drive, Suite 100
Wilmington, North Carolina 28405

September 1, 2023

September 1, 2023

New Hanover County Property Management
200 Division Drive
Wilmington, North Carolina 28405

Attention: Mr. Kevin Caison

Reference: **Geotechnical Exploration Report**
NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No. 22060050
N.C. PE Firm License No. F-0176

Dear Mr. Caison:

S&ME, Inc. (S&ME) is pleased to submit this geotechnical exploration report for the referenced project. Our services were performed in general accordance with S&ME Proposal No. 22060050, dated July 17, 2023.

The purpose of this exploration was to evaluate subsurface conditions within the project site as they relate to site preparation, earthwork, fill soil suitability, foundation support for the proposed structure, and pavement section construction.

This report describes our understanding of the project and presents the findings of our subsurface exploration along with geotechnical design and construction recommendations based on these findings.

We appreciate the opportunity to work with you on this project. Please contact us with any questions, or if you need additional information.

Sincerely,
S&ME, Inc.

Nathan Buffum, P.E.
Office Principal/Senior Engineer
NC Registration No. 042575

Thomas C. Still, P.E.
Principal Engineer
NC Registration No. 023923

Table of Contents

♦ **Report at a Glance** 1

1.0 Project and Site Information 2

2.0 Exploration Program 2

2.1 CPT Soundings 3

2.2 Hand Auger Borings 3

2.3 Laboratory Testing 3

3.0 Regional Geology 4

4.0 Surface and Subsurface Conditions 4

4.1 Surface Conditions 4

4.2 Subsurface Conditions 5

4.2.1 Interpreted Subsurface Profile 5

4.3 Undocumented Fill 5

4.4 Coastal Plain Soils 6

4.5 Subsurface Water 7

5.0 Construction Recommendations 7

5.1 General Discussion 7

5.2 Earthwork 8

5.2.1 Site Preparation 8

5.2.2 Subgrade Repair and Improvement Methods 8

5.2.3 Excavations 8

5.2.4 Structural Fill Placement and Compaction 9

6.0 Initial Surcharge and Idle Period Recommendations 9

6.1 Surcharge Monitoring 11

7.0 Design Recommendations 11

7.1 Foundation Support 11

7.1.1 Footing Evaluations 11

7.2 Floor Slabs 12
7.3 Seismic Design Considerations 12
7.3.1 General *12*
7.3.2 Seismic Site Class *12*
7.3.3 Design Spectral Accelerations *13*
7.3.4 Liquefaction Triggering Evaluations *13*
8.0 Pavement Section Design and Construction 14
9.0 Limitations of Geotechnical Report 15

Appendices

Appendix I – Figures
Appendix II – CPT/Hand Auger Logs
Appendix III – Laboratory Testing

♦ Report at a Glance

Key geotechnical findings based on our current understanding of the proposed project are presented below. These findings are presented as an overview and should not be used in place of the more detailed recommendations presented in the remainder of this report.

Category	Key Geotechnical Finding
Site Development Challenges	Specific geotechnical issues identified on this site that should be considered include: • Control of perched water within the upper 5 feet during wet periods of weather. • Moisture sensitive upper sands and cohesive soils in isolated areas may require stabilization during wet weather grading. • Existing fill within south portion of site may require undercut and replacement. • Surcharging program is recommended to mitigate excessive settlements due to highly compressible soils.
Subsurface Conditions	• Undocumented fill with debris encountered in south portion of site. • Poorly graded sands and silty sands within the upper 4 to 5 feet of some test locations while clayey sands and clays encountered in other locations. • Beneath upper sands, very soft silts, clays, sensitive fine-grained soils, and organic soils to exploration depths of 15 to 17 feet. • Beneath cohesive soils, dense to very dense sands to sounding termination depths of 17 to 20 feet. • Subsurface water at depths ranging from 6.8 to 16.7 feet below existing ground surface feet at the time of soundings.
Seismic Considerations	Liquefaction risk during seismic shaking is low. Site Class D based on sounding data.
Foundation Types	• CPT data indicates very soft cohesive soils are highly compressible under structural and fill loading. • After site grading to approximate subgrade elevations, we recommend an additional surcharge fill of 3 feet or more be constructed and allowed time for consolidation settlement to occur and be monitored. Depending upon surcharge height and other factors, the idle time for consolidation will vary, but is expected to require about 100 to 180 days for a 3-foot surcharge height. • Foundations can be designed using an allowable soil bearing pressure of 2,000 psf. This bearing pressure assumes that footings will bear in compacted structural fill or natural soils, and that the site is prepared and surcharged as recommended in this report.
Use of Site Soil as Fill	• Near-surface soils encountered as poorly graded sands and silty sands, within the upper profile, are suitable for re-use as structural fill. Fine grained soils are not. Selective borrowing of excavated materials may or may not be practical and discing and drying of soils may be required when reusing on site materials, especially considering the potential for perched water conditions at the site. • Fine grained soils such as silts and clays below the upper sands appear unsuitable for use as structural fill. The use of imported borrow soils should be anticipated.

1.0 Project and Site Information

The purpose of this exploration was to evaluate subsurface conditions within the project site as they relate to site preparation, earthwork, fill soil suitability, foundation support for the proposed structure, and pavement section construction.

Project information was provided by Kevin Caison (NHC) and Gregory Scott (Stewart Cooper Newell Architects), to Nathan Buffum (S&ME), from June 14 through July 5, 2023. In the email correspondence, we were provided a Site Plan, prepared by Timmons Group, dated March 17, 2023, that included the location of the proposed building and pavement areas with the design team's requested locations of borings, including eight (8) borings in the proposed building and seven (7) locations in the pavement areas. We were also provided an RFP document, prepared by Stewart Cooper Newell Architects, dated June 29, 2023, that included general geotechnical requirements for the project and report.

The project site is located in the southeast corner of the intersection of Parmele Road and Castle Hayne Road, in Castle Hayne, North Carolina. The project will include a single-story building of approximately 12,140 square feet in plan area. A portion of the building will serve as an apparatus bay and a portion as living quarters and offices. Construction will include pavements for drives and parking areas, concrete pavement for a dumpster pad, and associated underground utilities. We understand that concrete pavements are planned to be utilized throughout the site, while asphalt may be considered for use in public parking areas not subjected to truck traffic.

Structural information, including anticipated loading, was provided by Mr. Scott in an email on August 14, 2023. Reinforced masonry walls and structural steel framing will be utilized around the apparatus bay and steel framing and metal stud walls will be utilized around the living quarters and offices. Maximum column and wall loads are expected to be 100 kips and 8 kips per foot, respectively. The maximum floor load is expected to be 300 pounds per square foot (psf).

A topographic map prepared by Bateman Civil Survey Company, dated April 6, 2022, was provided in an email from Mr. Scott on August 17, 2023. The map indicates that the site generally slopes down from an elevation of 22 feet in the north portion, to an elevation of about 18 feet in the south portion. We were not provided grading plans at the time of this report; however, Mr. Scott's email indicated that the finished floor elevation for the building may be 25 feet, such that up to 7 feet of fill placement may be required within portions of the building pad area.

2.0 Exploration Program

Our exploration included a site reconnaissance by a geotechnical professional and the performance of eight cone penetrometer test (CPT) soundings with associated shallow hand auger borings at CPT locations in the proposed building footprint. In addition, we performed seven shallow hand auger borings with Sowers Dynamic Cone Penetrometer (DCP) testing in the proposed parking areas. CPT soundings and hand auger boring locations were selected and established in the field by S&ME using a handheld GPS unit and should be considered approximate. Figure 1 in Appendix I presents the Test Location Sketch and approximate test locations.

2.1 CPT Soundings

Soundings B-1 through B-8 were performed within the proposed building footprint to a depth where no further advancement could be made under the maximum force of the rig, defined as "refusal". Refusal occurred in all soundings at depths ranging from 16.7 to 20.2 feet beneath the existing ground surface. Shear wave velocity measurements were obtained in conjunction with advancement of sounding B-1.

In a CPT sounding (ASTM D5778), an electronically instrumented cone penetrometer is hydraulically pushed through the soil to measure point stress, pore water pressure, and sleeve friction. The CPT data is used to determine soil stratigraphy and to estimate soil parameters such as friction angle, and undrained shear strength. Soil types presented on CPT sounding logs are derived from Robertson's (1990) Soil Behavior Type (SBT) Index. The soil type determined from the SBT index is more representative of soil behavior characteristics than traditional soil classification that is based on grain size and plasticity. Sounding logs are included in Appendix II.

2.2 Hand Auger Borings

Our exploration also included performance of 15 shallow hand auger borings. Eight borings (B-1 through B-8) were performed adjacent to CPT sounding locations to a depth of approximately four feet. Seven borings (P-1 through P-7) were performed to a depth of five feet at locations within proposed pavement areas. During hand auger operations, representative soil cuttings were visually classified in general accordance with Unified Soil Classification System (USCS) guidelines. Upon completion of the hand auger borings, subsurface water levels were measured before the augered boreholes were backfilled with soil cuttings. Hand auger boring logs are included in Appendix II.

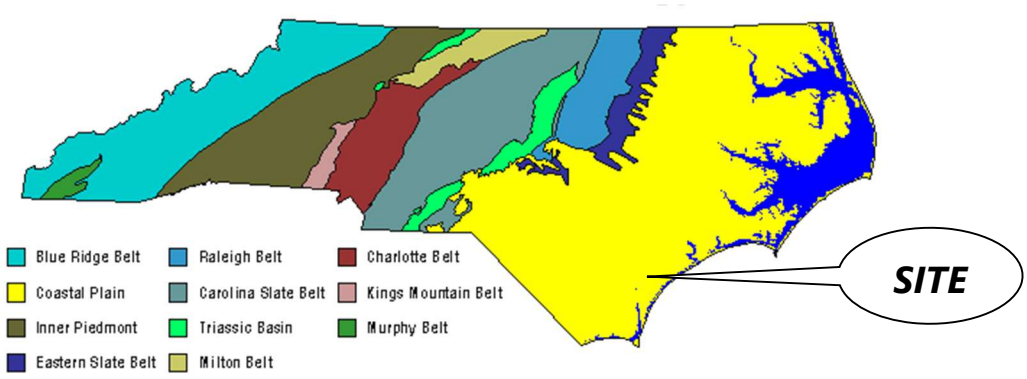
Sowers Dynamic Cone Penetrometer (DCP) testing was performed within each hand auger boring performed within pavement areas at regular depth intervals of approximately one foot each. DCP testing was performed in general accordance with ASTM STP 399 procedures to help us estimate the relative density and consistency of the subgrade soils within proposed pavement areas.

2.3 Laboratory Testing

Laboratory testing was performed upon four samples recovered from our hand auger borings. Each sample was subjected to natural moisture content determination, fines content testing, and Atterberg limits plasticity testing. Tests were performed in general accordance with applicable ASTM test procedures. Laboratory test results are included in Appendix III.

3.0 Regional Geology

Figure 1 - Physiography



The site is located within the Coastal Plain Physiographic Province of North Carolina as shown in Figure 1 above. The Coastal Plain Province is typically characterized by marine, alluvial, and aeolian sediments that were deposited during periods of fluctuating sea levels and moving shorelines. The soils and basal formations in the North Carolina Coastal Plain Physiographic Province are typical of those laid down in a shallow sloping sea bottom; interbedded sands and clays with irregular deposits of shells and layers of limestone and cemented sands. Alluvial sands, silts, and clays are typically present near rivers and creeks. Deposits of peat, organic silt, and organic clay are also typically present in or near current or former tidal marsh areas in the outer portion of the Coastal Plain.

According to the 1985 Geologic Map of North Carolina, the site is underlain by the Castle Hayne Formation of Tertiary age. This formation consists in part of light gray limestone, more or less consolidated, and in part of light-colored marl, that varies from loose to consolidated. The limestone is usually quite fossiliferous and in many places is composed of shells. At places the shells have been removed entirely, and the limestone is vuggy (has voids) or contains the casts and molds of the original organisms. The top of the coastal formations on the geologic map are typically on the order of 30 to 100 feet below the ground surface. They represent basal, relatively hard formations with consistency over large areas.

4.0 Surface and Subsurface Conditions

General descriptions of encountered soils are presented below. More detailed information is available on individual CPT and hand auger boring logs. Subsurface stratifications may be more gradual than indicated, and conditions may vary between test locations.

4.1 Surface Conditions

The site was mostly wooded at the time of our exploration. A surficial layer of topsoil and rootmat, approximately 3 to 12 inches in thickness, was encountered at the hand auger locations. Topsoil is typically a dark-colored soil material containing roots, fibrous matter, and/or other organic components, and is unsuitable for engineering

purposes. The topsoil depths provided in this report are based on measurements made during hand auger borings and should be considered approximate. We note that the transition from topsoil to underlying natural soils may be gradual and stripping depths will typically exceed topsoil measurements during our exploration. Actual topsoil depths should be expected to vary across the site.

During our site evaluation, we observed at the surface of the property trash and debris consisting of household trash, glass, vehicular tires, concrete pieces, and other construction debris scattered throughout the property. In the undocumented fill near hand auger P-2, this material was observed in the hand auger boring to a depth of 4 feet indicative of potential previous undocumented fill placement in this area.

4.2 Subsurface Conditions

The generalized subsurface conditions at the site are described below. For more detailed descriptions and stratifications at test locations, the respective hand auger boring logs should be reviewed in Appendix II.

4.2.1 Interpreted Subsurface Profile

Two interpreted subsurface cross-sectional profiles of the site soils are attached in Appendix I to illustrate general representation of the subsurface conditions within the proposed construction area. The cross-section orientations in plan view are shown on Figures 1A and 1B. Profile A-A' (Figure 2) depicts the subsurface conditions generally encountered from north to south across the site, looking in an easterly direction. Profile B-B' (Figure 3) depicts the subsurface conditions generally encountered from west to east across the site, looking in a northerly direction.

Note that the profiles are not to scale and were prepared for illustrative purposes only. Subsurface stratifications may be more gradual than indicated, and conditions may vary between test locations. Soil conditions presented on the profiles were grouped into several general strata based on estimated physical properties derived from the soundings.

4.3 Undocumented Fill

Beneath the topsoil at test location P-2, undocumented fill soils generally consisting of poorly graded sand with silt ("USCS Classification" SP-SM) and were observed to a depth of approximately 4 feet below the ground surface. The fill soils were observed to contain varying amounts of trash, debris, and glass fragments.

Sowers DCP values within the fill ranged from about 12 to 15 blows per increment (bpi), which are typically representative of medium dense relative density. However, DCP values tend to be higher when encountering buried debris, in which case the results would be less reliable for interpreting subgrade support conditions.

It should be anticipated that undocumented fill may exist between our test locations at varying depths throughout the site. Undercutting of these materials, removal and replacement may be needed to performed prior to placement of new structural fill for support of building and pavement areas as discussed in Section 5 of this report.

4.4 Coastal Plain Soils

Coastal Plain (native) soils were encountered underlying the topsoil and extended to sounding termination depths at all test locations.

Based on samples recovered from hand auger borings B-1 through B-5, B-8, P-1, P-3, and P-6, the upper 4 to 5 feet of the subsurface profile consisted of poorly graded sands (SP) and silty sands (SM). However, within borings B-6, B-7, P-4, P-5, and P-7, more cohesive soils were encountered, consisting of clayey sands (SC), lean clays with sand (CL), and highly plastic fat clays (CH). Four samples were subjected to laboratory testing and the results are summarized in Table 4-1 below:

Table 4-1: Laboratory Test Results

Boring Location	Sample Depth Range	USCS Classification	Natural Moisture Content (%)	Silt/Clay Fines Content (%)	Atterberg Limits (%)		
					LL	PL	PI
P-4	1.75′ - 3.0′	CH	26.2	93.1	50 - 19 - 31		
P-4	3.0′ - 5.0′	CL	23.2	79.3	38 – 16 - 22		
P-5	4.0′ - 5.0′	SC	14.4	41.5	22 – 12 – 10		
P-7	4.0′ - 5.0′	CL	17.9	78.6	44 – 18 - 26		

Within CPT soundings, upper sands and sand mixtures were generally encountered at the sounding locations to depths ranging from about 9 to 14 feet. Sandy soil types exhibited tip resistances typically ranging from about 20 to 100 tons per square foot (tsf), indicative of loose to medium dense relative densities. Exceptions were noted at depths of about 6 to 8 feet within soundings B-2 and B-4, where very dense sand lenses were encountered exhibiting tip resistances of up to about 400 tsf.

Within the upper sands, interbedded silt mixtures were encountered within sounding B-5 through B-7, between depths of about 5 and 8 feet, exhibiting tip resistances of about 15 to 30, indicating a firm to stiff consistency.

Below the upper sands, layers of very soft cohesive soils were encountered within all soundings to depths of about 15 to 17 feet. These soils exhibited variable SBT soil types of silts, clays, sensitive fine-grained soils, and organic soils. Tip resistances were typically less than 2 to 5 tsf within these soils.

Beneath the very soft cohesive soils, all soundings encountered dense to very dense sands to the sounding refusal depths of about 17 to 20 feet. Recorded tip resistances within the lower sands generally ranged from about 200 tsf to greater than 400 tsf.

4.5 Subsurface Water

Water levels were measured upon completion of the CPT soundings and hand auger borings. Subsurface water at the time of the exploration was encountered at depths of about 6.8 to 16.7 feet below existing ground surface in our CPT soundings and was not encountered in our hand auger borings. Subsurface water levels can be expected to fluctuate due to seasonal variations in rainfall, evaporation, tidal influences, and other factors. Additionally, perched water conditions may exist during the typically wetter winter months above less permeable fine-grained soils or very dense sands encountered within the upper soil profile. Thus, shallower water levels may be encountered during wet weather grading.

5.0 Construction Recommendations

The following conclusions and recommendations are based on our field exploration, our understanding of the proposed construction, our engineering analyses, experience with similar projects and subsurface conditions, and our correspondence with you. If structural loads and/or proposed site grades are different from those indicated, we should be provided the opportunity to review and comment upon the recommendations of this report so that they may be confirmed, extended, or modified as necessary. If subsurface conditions adverse to those indicated by this report are encountered during construction, those differences should be reported to us for review and comment.

5.1 General Discussion

Based on our review of the provided project information and geotechnical analyses of field and laboratory testing data, this site is suitable for the planned construction provided that site preparation recommendations presented herein are implemented during construction.

Hand auger boring P-2, conducted within a proposed pavement area in the south portion of the site, encountered existing undocumented fill containing debris such as glass and household trash, which we presume to have been placed in an uncontrolled manner. The amount of debris, extent of fill, and risk associated with allowing these materials to remain was not adequately evaluated during this exploration. To evaluate this risk more fully, during the site preparation portion of construction, we recommend that the area be evaluated by the geotechnical engineer or their representative. This evaluation would include proofroll observations and excavation of several test pits in these areas to observe and evaluate a larger cross-section of the in-place fill.

To reduce potential earthwork problems, site preparation and grading should be scheduled during the typically drier months of May through November, if possible. If late fall or winter grading is attempted, repair of near-surface soils and possible use of select off-site borrow will be necessary to adequately prepare subgrades for new construction. Heavy rubber-tired construction equipment should not be allowed to operate on exposed subgrades during wet conditions. Even during drier periods of the year, we recommend that exposed subgrades be sloped and sealed at the end of each day to promote runoff and reduce infiltration from rainfall. Water should not be allowed to pond on exposed subgrades. To further reduce potential deterioration of exposed subgrades, construction traffic patterns should be managed to limit equipment passes across the site. An all-weather surface may be necessary for heavy construction traffic to reduce degrading the soil subgrade during construction.

The following sections present our geotechnical conclusions and recommendations regarding site development.

5.2 Earthwork

5.2.1 Site Preparation

Initial site preparation should begin by clearing vegetation and stripping and grubbing of organics and topsoil, and any other deleterious materials for a lateral distance of at least 5 feet beyond the limits of new construction.

Based on the hand auger borings and experience at the site, we anticipate topsoil thicknesses will typically be about 4 to 12 inches in the grassy areas and/or deeper in the wooded areas. The site should be stripped with light, tracked equipment to avoid mixing the topsoil into the loose near surface silty sands and creating thicker stripping depths.

After initial site preparation is complete, the exposed subgrade of areas to receive fill and areas near final grades should be evaluated by an S&ME geotechnical engineer or their representative. This evaluation should include proofrolling with a fully-loaded tandem-axle dump truck or similar rubber-tired construction equipment. Any areas that deflect excessively and cannot be densified by rolling should be repaired by undercutting to suitable soils and replacing with compacted structural fill or aggregate base course (ABC) stone. Densification or undercutting existing near-surface soils may be required depending on weather conditions at the time of construction.

5.2.2 Subgrade Repair and Improvement Methods

The exposed subgrade of both cut and fill areas can deteriorate and lose support when exposed to construction traffic and adverse weather conditions. Deterioration can occur in the form of rutting, pumping, freezing, or erosion. We recommend that, during construction, exposed subgrade surfaces be sealed at the end of each day or when wet weather is forecast. Water should not be allowed to pond in fill or cut areas. Immediately prior to foundation or floor slab construction, exposed subgrade soils should be evaluated by proofrolling to determine their stability. Soils which rut, pump, or deflect under proofrolling should be repaired prior to ABC stone placement. Repair measures may include scarifying/drying/recompacting, undercutting, placement of geotextiles, or some combination of these. Actual repair measures will be influenced by project schedule and weather conditions and can only be determined in the field.

5.2.3 Excavations

Based on subsurface conditions encountered and assumed site grading, loose to very dense silty sands and firm to stiff clays may be encountered within anticipated shallow excavation depths at the site. Local excavations within these materials for shallow utility trenches and foundations can be accomplished by a conventional backhoe or track-mounted backhoe.

The sandy soils encountered within the upper 4 to 5 feet within our hand auger borings should be suitable for re-use as structural fill while the clayey sands and clays encountered at some locations will not be suitable for re-use as structural fill. While CPT soundings encountered upper sands containing suitable soil types to depths of 9 to 14

feet, interbedded silt mixtures which will be unsuitable for re-use as fill were encountered in some soundings. It may or may not be practical to selectively separate sandy soils from fine-grained soils during excavation.

These cohesive materials may need to be hauled from the site, used in non-structural areas of the site, and either suitable on-site or off-site borrow soils be used to backfill deeper excavations. This should be anticipated for all utility trenches and stormwater excavations which extend beneath these depths and where it is not practical to selectively separate the sandy soils from fine-grained soils during excavation.

Subsurface water was encountered at depths of about 6.8 to 16.7 feet at the time of performing the CPT soundings. Note that water may be shallower during wet periods of the year, after rainfall events, or in unexplored areas. The contractor should be prepared to dewater where utility or foundation excavations extend beneath subsurface water levels and control any water that collects in excavations. Temporary ditches or the use of French drains may be needed to assist in dewatering the site for construction. The contractor should be responsible for determining water control measures.

Excavations should be sloped or shored in accordance with local, state, and federal regulations, including OSHA (29 CFR Part 1926) excavation trench safety standards. The contractor is usually responsible for site safety. This information is provided only as a service and under no circumstances should we be assumed responsible for construction site safety.

5.2.4 Structural Fill Placement and Compaction

Soils used as structural fill should meet the following requirements:

- USCS classification of SM, SC, SP, SW, or some combination of these.
- Contain less than 3 percent organics.
- Be free of trash or other deleterious materials.
- Have a maximum particle size of 2 inches or less.
- Have a minimum standard Proctor maximum dry density of 100 pounds per cubic foot.

All new structural fill soil should be placed in 8 to 10-inch loose lifts and compacted to at least 95 percent of the standard Proctor maximum dry density (MDD) (ASTM D698). The top 12 inches should be compacted to at least 98 percent of the materials standard Proctor MDD. The moisture content of structural fill should be maintained at +/- 3% of optimum moisture during compaction. S&ME construction services personnel, working under the supervision of the geotechnical engineer, should observe fill placement and compaction. An appropriate number of soil density tests should be conducted to confirm that adequate fill compaction is achieved.

6.0 Initial Surcharge and Idle Period Recommendations

Information provided to us indicates that maximum column and wall loads for the new building will be 100 kips and 8 kips per linear foot, respectively. Maximum floor loads will be 300 psf. In addition, based on the provided site grading information, up to 7 feet of structural fill will be required to reach finished subgrade elevation in the building pad area. Please let us know if the structural loads change or are different than assumed or provided.

Shallow foundations can be used to support the proposed buildings, provided the surcharge program described herein is performed prior to foundation construction.

The building and fill loads will induce estimated settlements of about 1 ½ to 4 ½ inches within the building pad where there is about 3 feet of fill and 7 feet of fill, respectively. The resulting total and differential settlements will exceed typically tolerable magnitudes. The majority of estimated settlements will result from consolidation of the very soft cohesive materials over an extended period of time.

To mitigate excessive total and differential settlement, at least 3 feet of temporary surcharge fill should be placed across the building pad after permanent fill placement to achieve design subgrade elevations has been completed. After the surcharge fill is placed, an idle period should pass and the results of the monitoring program confirmed by the geotechnical engineer before the surcharge is removed and the site graded to the design subgrade elevation. If one inch of post construction settlement can be tolerated by the building structure, then at least a 100-day idle period is estimated to be required before final grading. If ½ inch of post construction settlement is required, then an estimated idle period of at least 180 days is estimated to be needed to mitigate excessive settlements. The idle periods may be reduced by increasing the initial surcharge fill height across the site. Actual settlements that are induced by surcharging and the time rate of settlement will vary and must be confirmed by implementation of the monitoring program outlined in the following section.

In Appendix I, we have provided Figure 5 - Surcharge Evaluation, which graphically presents the estimated time rate of settlement of various initial surcharge fill heights relative to the estimated settlement due to the building and fill loads. From the graph, an approximate idle period can be selected based on the initial surcharge fill height and the tolerable post construction settlement. The table below is based on Figure 5 and summarizes idle periods for 3 and 5 feet of surcharge fill, considering ½ inch and 1 inch of post construction settlement.

Table 6-1 – Surcharge Summary

Surcharge Height (ft)	Post Construction Settlement of 1 inch	Post Construction Settlement of ½ inch
3	100 days	180 days
5	60 days	90 days

The initial fill and surcharge fill should be constructed to the full height for a minimum of 10 feet laterally beyond the limits of the proposed building footprint and sloped down from that point to about a 1 to 1 height to lateral ratio (1H:1V). The fill used to reach finished subgrade should meet the recommendations in our Earthwork section. Above the design subgrade elevation, the surcharge fill should consist of clean, natural soil free of organics and debris. It should be placed in horizontal lifts of 12 inches or less thickness and be tracked in by a bulldozer.

6.1 Surcharge Monitoring

After stripping and site stabilization, if needed, but prior to fill placement, up to four settlement plates should be installed within the building pad as determined by the S&ME geotechnical engineer. The project surveyor should measure the elevations of the settlement plates and/or tops of the metal riser pipes prior to fill placement. If only the elevations of the plates are measured, the installer of the settlement plates should measure the vertical distance from the plates to the tops of the riser pipes.

As fill placement and then surcharge placement proceeds, the elevations of the tops of the metal riser pipes should be measured by the project surveyor every 2 to 3 days, and the elevation measurements should be forwarded to S&ME for analysis. Then throughout the settlement period, the settlement plates should be surveyed weekly, and the measurements forwarded to S&ME. S&ME will then determine when sufficient settlement has occurred and when the surcharge fill can be removed. The settlement plate PVC outer protective pipe should be painted or flagged, and care should be taken to prevent damage to the settlement plates and pipes during surcharge fill placement.

7.0 Design Recommendations

7.1 Foundation Support

Provided that the above recommendations for fill placement and compaction, and surcharging and idle periods are followed, the structure can be supported on shallow spread footings bearing in compacted structural fill or natural soils and designed for a net allowable bearing pressure of 2,500 pounds per square foot (psf). Based on encountered subsurface conditions, provided structural loads, and assuming the subgrades are properly prepared as discussed herein, total settlement of building foundations will be 1 inch or less with differential settlements of about ½ inch.

Footings should bear at least 18 inches below exterior grade to avoid frost penetration and develop the design bearing capacity. Continuous wall footings should be at least 18 inches wide, and isolated column footings should be at least 24 inches wide. This recommendation is made to prevent a localized or "punching" shear failure condition which can occur with very narrow footings.

7.1.1 Footing Evaluations

The bottom of all footing excavations for the structure should be evaluated by the S&ME project geotechnical engineer or their representative using a hand auger and dynamic cone penetrometer (DCP). Repairs may include undercutting and replacing with washed stone (#57) prior to foundation construction. Because the need for undercut is heavily dependent upon prevailing weather conditions at the time of construction, a quantity of undercut should be provided for the contractor to bid on with an associated unit price such that undercut can be added or deducted based on actual site conditions. Due to the potential of perched water conditions at the site, the contractor should be prepared to dewater footing excavations.

7.2 Floor Slabs

A slab-on-grade floor system can be adequately supported on newly placed and compacted structural fill or approved natural soils, provided the site preparation and fill placement procedures outlined in this report are implemented. The slab should be separated from footings to allow for relative displacement.

A modulus of subgrade reaction value (k) of 180 psi/in may be used to design floor slabs on properly prepared subgrades provided that at least 6 inches of compacted aggregate base course (ABC) stone be placed beneath the floor slab to provide more uniform slab support and to reduce damage to subgrade soils during construction. The ABC stone should be compacted to at least 95% of its modified Proctor maximum dry density.

Exposure to the environment and construction activities will weaken the floor slab subgrade soils. Therefore, we recommend that subgrade soils in slab areas be evaluated prior to ABC stone placement. If near surface deterioration of the soils has occurred, undercutting or reworking of the fill may be necessary.

Based on the water levels measured during the time of our field exploration and the assumed finish floor elevation, the floor slab will not be below the exterior grade and will not be subjected to hydrostatic pressure from groundwater. However, water vapor transmission through the slab is still a design consideration. Evaluating the need for and design of a vapor retarder or vapor barrier for moisture control is outside our scope of services and should be determined by the project architect/structural engineer based on the planned floor coverings and the corresponding design constraints, as outlined in ACI 302.1R-04 Guide for Concrete Floor and Slab Construction. Further, health and environmental considerations with respect to any potentially harmful vapor transmission are also outside of our scope.

7.3 Seismic Design Considerations

7.3.1 General

There are no known mapped faults in the area of the site. Five minor earthquakes with epicenters in the Wilmington area with magnitudes of 3.0 to 3.9 occurred between 1871 and 1968[1]. The historic earthquake event which influences the design seismicity of the site the most is the 1886 Charleston, South Carolina earthquake with a magnitude of approximately 7.3.

A seismic site classification and liquefaction potential evaluation were performed based on the field data collected from the CPT soundings and shear wave velocity measurements recorded in sounding B-1. The following sections discuss the results of the seismic evaluation.

7.3.2 Seismic Site Class

Seismic site classification is based on the top 100 feet of a site's subsurface profile. A shear wave velocity profile was developed from measurements recorded in Seismic CPT sounding B-1. Using the collected data, an average shear wave velocity of 572 ft/sec was computed for the upper 17 feet of the subsurface profile before sounding

[1] Map of Earthquake Epicenters in North Carolina and Portions of Adjacent States (1698-2006), North Carolina Geologic Survey.

termination. Based on S&ME's knowledge of the local geology, the final measured shear wave velocity (at a depth of 17 ft) of 724 ft/sec was extrapolated to a depth of 100 feet. Figure 4 in Appendix I presents the Shear Wave Velocity Profile developed from measurements recorded in sounding B-1. Per Section 1613 of the *2018 North Carolina State Building Code* the site is designated as **Seismic Site Class D**.

7.3.3 Design Spectral Accelerations

The current North Carolina Building Code (NCBC) references the 2015 International Building Code and ASCE 7-10 for determining the design spectral accelerations and liquefaction potential. Ground motion parameters are provided in the table below.

Table 7-1 - Ground Motion Parameters

Method	Site Class	S_S	S_1	S_{DS}	S_{D1}	PGA	PGA_M
2018 North Carolina Building Code (ASCE 7-10)	D	0.21 g	0.09 g	0.224 g	0.144 g	0.107 g	0.17 g

7.3.4 Liquefaction Triggering Evaluations

A liquefaction triggering evaluation was performed using the methods presented by Youd et. al. (2001) and Boulanger and Idriss (2014). These analysis methods calculate seismic shear stress ratios (SSR) induced by ground motions causing liquefaction and compare the SSR to seismic shear stress resistance ratios (SRR) that are correlated to recorded CPT cone tip resistances. A site is considered resistant to liquefaction if its resisting shear stresses (SRR) are greater than earthquake induced shear stresses (SSR).

Per the 2018 NC Building Code, the design earthquake has a 2 percent probability of exceedance in a 50-year period (2,475 year return period). For Seismic Site Class D in Wilmington, NC the site modified peak ground acceleration is 0.17 g for an earthquake having a magnitude of 7.3. The seismic hazard information (peak ground motion, earthquake magnitude) was obtained from the United States Geologic Survey (USGS).

Liquefaction triggering evaluation methods have been primarily based on evaluation/observation of events that occurred in the western U.S. in cohesionless materials that are much younger than deposits in the central and eastern U.S. An age correction factor that accounts for the increased liquefaction resistance of older Holocene and Pleistocene soils has been developed by Andrus et al (2009). Following the method developed by Andrus, the shear wave velocity profiles have been used to determine measured-to estimated-velocity-ratio (MEVR) which in turn is related to an age correction factor (K_{DR}) utilized in the liquefaction triggering evaluation.

Based on our evaluations, the site is considered to resist liquefaction and no further seismic considerations are necessary for the design and construction of the project.

8.0 Pavement Section Design and Construction

We understand that rigid Portland cement concrete pavements are planned for use at the site and asphalt may be considered for use in parking areas. We recommend that only rigid pavements be used for areas subjected to fire truck traffic and asphalt pavements only be considered for use in areas not subjected to truck traffic.

We assume that new pavement subgrades will be constructed atop compacted structural fill soils compacted to at least 98 percent of the standard Proctor maximum dry density (ASTM D 698). We have performed our evaluations assuming that a CBR value of at least 8 percent will be available from subgrade soils compacted to 98 percent. We estimate that a design modulus of subgrade reaction value (k) of 180 psi/in should be available for subgrades compacted to 98 percent of the standard Proctor maximum dry density. If soils exhibiting a CBR value of less than 8 percent at 98 percent compaction are to be used on this project, these recommendations may require revision.

Traffic volumes for the proposed development were not provided to us in preparation for our exploration and pavement section analysis. Based upon our previous experience on similar fire station projects, we have assumed traffic load information. A required capacity of about 900,000 Equivalent Single Axle Loads (ESALs) was estimated for the rigid (concrete) pavements subjected to fire truck/rescue traffic to accommodate the proposed fire station. Our analysis was based on typical loading conditions and our experience at this site, local practice, and similar projects. This information and our assumptions should be confirmed by the project Civil Engineer or their pavement design representative.

Based on the anticipated traffic and subgrade conditions, we recommend the pavement thicknesses and configurations over the prepared soil subgrades given in the table below.

Table 8-1 – Pavement Thickness Recommendations

Pavement Type	Material	Thickness (inches)
Rigid (Concrete) *Fire truck traffic*	Concrete (4,000 psi; air-entrained)	7
	Aggregate Base Course (ABC)	6
Flexible (Asphalt) *Automobile parking only*	Asphalt Surface Course	2
	Aggregate Base Course (ABC)	8

All materials and construction methods should conform to the 2018 edition of the NCDOT "Standard Specifications for Roads and Structures." The aggregate base course (ABC) stone should consist of stone meeting the requirements under Section 520. ABC stone should be compacted to at least 98 percent of the maximum dry density as determined by the modified Proctor compaction test, AASHTO T-180M as modified by NCDOT. To confirm that the base course stone has been uniformly compacted, in place density tests should be performed by S&ME construction services staff and the area should be thoroughly proofrolled under their observation.

We have assumed that load transfer across contraction (saw) joints will be handled by aggregate interlock. We recommend that the maximum joint spacing be 12 feet in all directions. Saw joints should be cut to a depth of at least ¼ of the thickness of the concrete pavement to promote shrinkage cracking along the joint.

Asphaltic concrete should conform to Section 610 in the 2018 edition of the NCDOT "Standard Specifications for Roads and Structures." Sufficient testing and observation should be performed during pavement construction to confirm that the required thickness, density, and quality requirements of the specifications are achieved.

Although our analysis was based on traffic loading for a 20-year design life, our experience indicates that pavement maintenance is necessary due to normal weathering of the asphaltic concrete. Normal weathering (i.e., oxidation) causes asphalt to become more brittle resulting in loss of tensional strength. This loss in strength can cause minor cracking which provides access for water infiltration into the stone base and subgrade. As the degree of saturation of the subgrade increases, the strength of the subgrade decreases leading to pavement failure. Routine maintenance in the form of sealing, patching, and maintaining proper drainage is required to increase pavement life. It is not uncommon for overlays to be required after 10 to 12 years.

9.0 Limitations of Geotechnical Report

This report has been prepared in accordance with generally accepted geotechnical engineering practice for specific application to this project. The conclusions and recommendations contained in this report are based upon applicable standards of our practice in this geographic area at the time this report was prepared. No other representation or warranty, either express or implied, is made.

We relied on project information given to us to develop our conclusions and recommendations. If project information described in this report is not accurate, or if it changes during project development, we should be notified of the changes so that we can modify our recommendations based on this additional information if necessary.

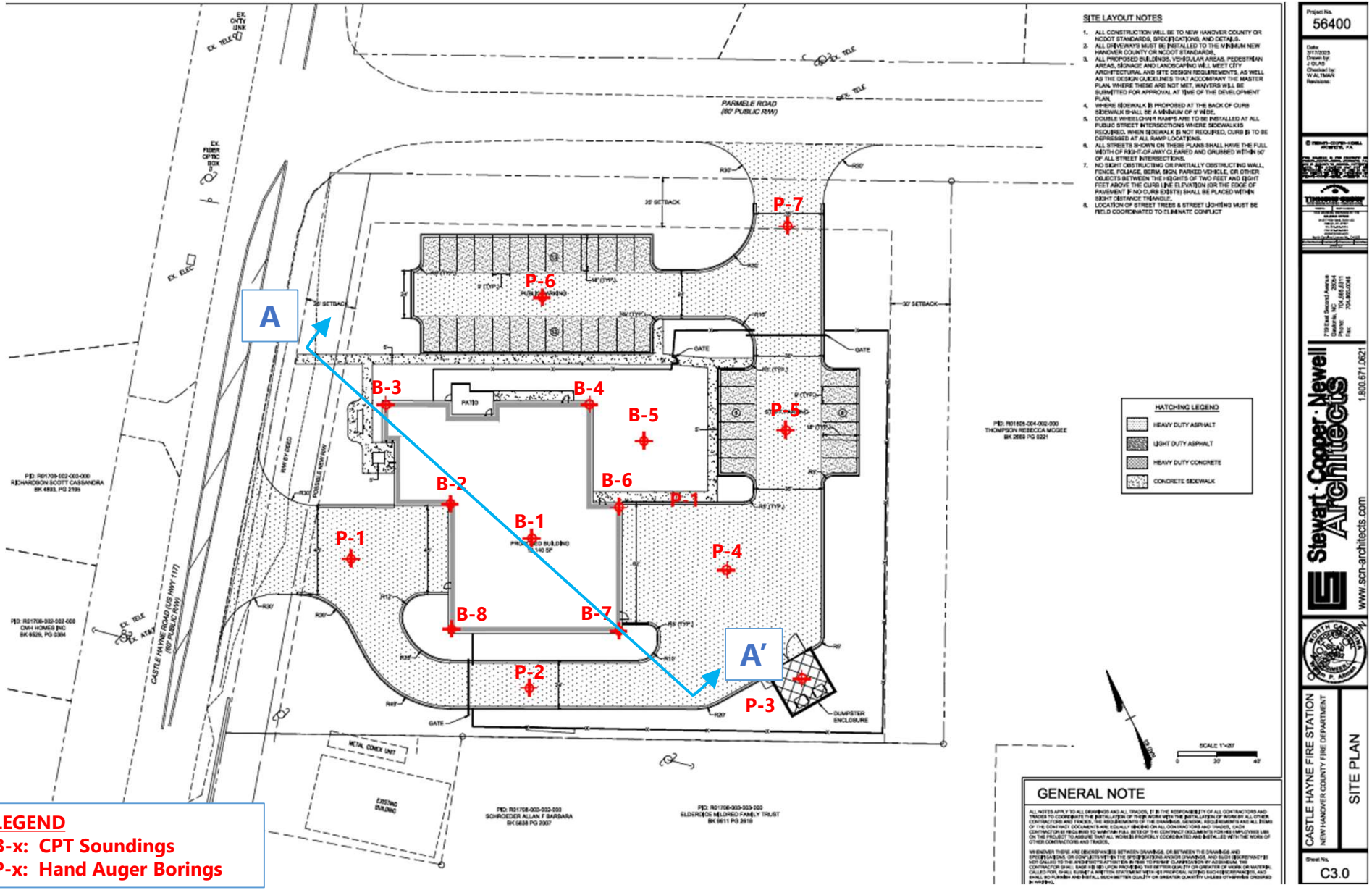
Our conclusions and recommendations are based on limited data from a field exploration program. Subsurface conditions can vary widely between explored areas. Some variations may not become evident until construction. If conditions are encountered which appear different than those described in our report, we should be notified. This report should not be construed to represent subsurface conditions for the entire site.

Unless specifically noted otherwise, our field exploration program did not include an assessment of regulatory compliance, environmental conditions or pollutants or presence of any biological materials (mold, fungi, bacteria). If there is a concern about these items, other studies should be performed. S&ME can provide a proposal and perform these services if requested.

S&ME should be retained to review the final plans and specifications to confirm that earthwork, foundation, and other recommendations are properly interpreted and implemented. The recommendations in this report are contingent on S&ME's review of final plans and specifications followed by our observation and monitoring of earthwork and foundation construction activities.

Appendices

Appendix I– Figures



Test Location Sketch: Profile A–A′

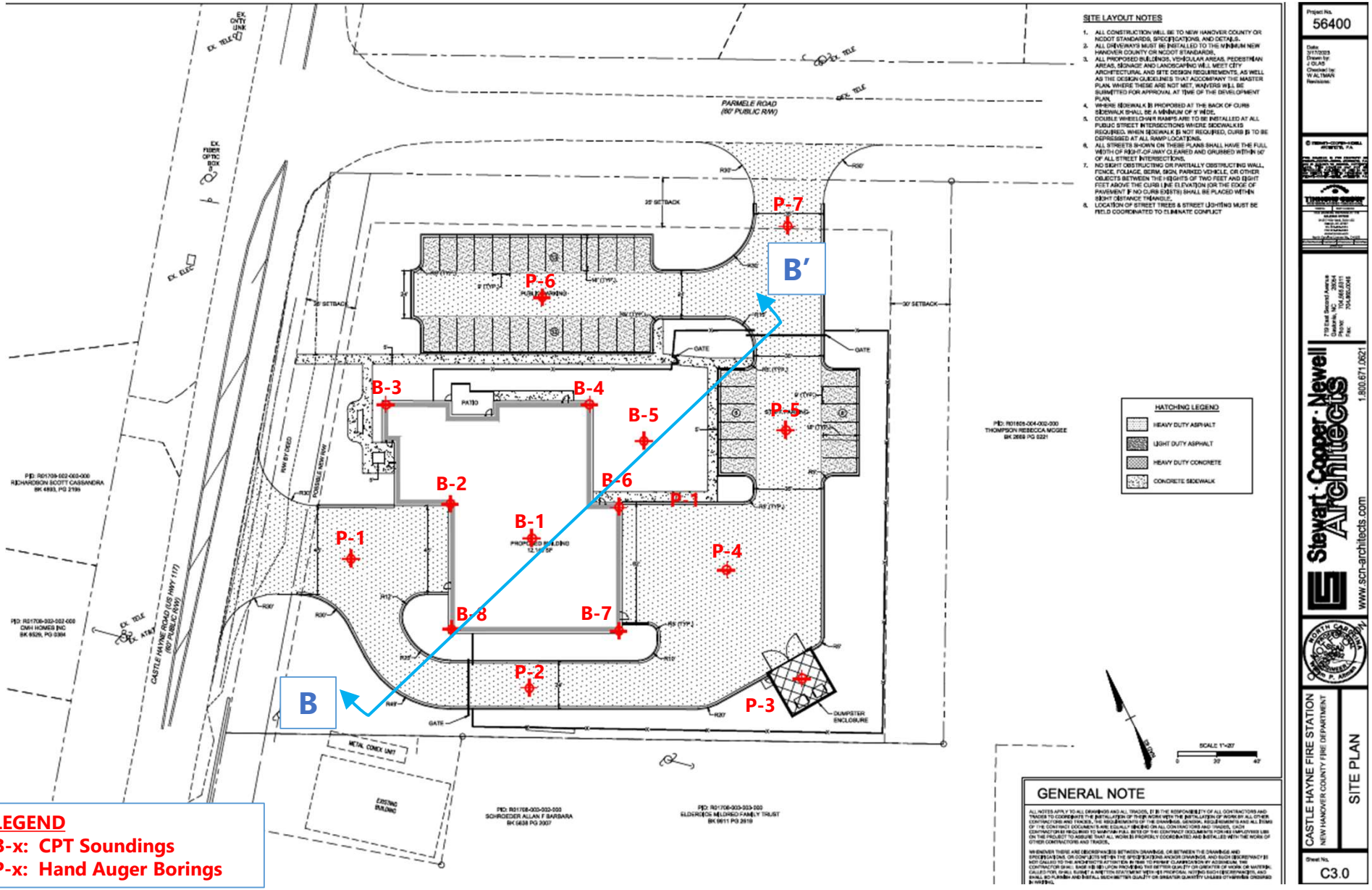
NHC Castle Hayne Fire Station
Castle Hayne, North Carolina

SCALE: AS SHOWN

DATE: 8/25/2023

PROJECT NUMBER 22060050

FIGURE NO. 1A



Test Location Sketch: Profile B–B′

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina

SCALE: AS SHOWN

DATE: 8/25/2023

PROJECT NUMBER 22060050

FIGURE NO. 1B

A

A'

FFE = 25 feet

B-3
8/7/2023 9:57:14 AM
ELEV.22

B-2
8/7/2023 10:31:48 AM
ELEV.22

B-1
8/7/2023 11:02:59 AM
ELEV.19

B-7
8/7/2023 1:49:19 PM
ELEV.19

SLEEVE STRESS (TSF) 10 8 6 4 2 0
TIP RESIST (TSF) 160 320 480 640 800
PORE PRESSURE (TSF) -1 -0.5 0 0.5 1

BT @ 20.18
BT @ 20.18
BT @ 17.22
BT @ 16.73

Upper Sands

Cohesive Soils

Lower Sands

Interbedded Silts/Clays

ELEVATION (feet-MSL)

0 20 40 60 80 100 120 140 160 180

ELECTRONIC CONE PENETROMETER SOUNDINGS

C-3 Sounding Number
123.0 Elevation at GS

CPT Sleeve Friction (tsf)
Direct Push Sample
1265
Downhole Shear Wave Velocity
Water Level Inferred from Pore Pressures
CPT Tip Resistance (tsf)
CPT Pore Pressure (tsf)
Water Level Measured Downhole
BT CPT Termination Depth
XXX CPT Refusal

MARCHETTI DILATOMETER SOUNDINGS

DMT-3 Sounding Number
123.0 Elevation at GS

Undrained Strength (psf)
Constrained Modulus M (ksf)
Water Level Inferred from Pore Pressure
BT DMT Termination Depth
XXX DMT Refusal

SOIL TEST BORINGS

B-3 Boring Number
123.0 Elevation at GS

Water Level at Time of Boring
Water Level after 24 Hours
Hole Caved
Water Loss/Inflow
11-16-10 Standard Penetration Test (blows per foot).
12in Undisturbed Sample Recovery in Inches
NX Core Barrel Size
REC 80% Recovery in Percent
RQD 56% Rock Quality Designation
BT Boring Termination Depth
XXX Boring Refusal

CPT/DMT MATERIAL GRAPHICS

- Sensitive Fine Grained Soils
- Organic Soils, Peats
- Clay to Silty Clay
- Clayey Silt to Silty Clay
- Silty Sand to Sandy Silt
- Clean Sand to Silty Sand
- Gravelly Sand to Sand
- OC Sand to Clayey Sand
- OC Fine Grained Soils

The depicted stratigraphy is shown for illustrative purposes only and is not warranted. Separations between different strata may be gradual and likely vary considerably from those shown. Profiles between nearby borings have been estimated using reasonable engineering care and judgment. The actual subsurface conditions will vary between boring locations.

SUBSURFACE PROFILE - FIGURE 2

PROJECT: NHC Castle Hayne Fire Station

LOCATION: Castle Hayne, North Carolina

JOB NO: 22060050

DATE: 8/24/23

B

B'

FFE = 25 feet

ELEVATION (feet-MSL)

B-8
8/7/2023 2:15:49 PM
ELEV.19.5
SLEEVE STRESS (TSF) 10 8 6 4 2 0
TIP RESIST (TSF) 160 320 480 640 800
BT @17.39
-1 -0.5 0 0.5 1 PORE PRESSURE (TSF)

B-1
8/7/2023 11:02:59 AM
ELEV.19
SLEEVE STRESS (TSF) 10 8 6 4 2 0
TIP RESIST (TSF) 160 320 480 640 800
BT @ 17.22
-1 -0.5 0 0.5 1 PORE PRESSURE (TSF)

B-6
8/7/2023 1:25:38 PM
ELEV.18.6
SLEEVE STRESS (TSF) 10 8 6 4 2 0
TIP RESIST (TSF) 160 320 480 640 800
BT @ 17.39
-1 -0.5 0 0.5 1 PORE PRESSURE (TSF)

B-5
8/7/2023 1:01:11 PM
ELEV.18.6
SLEEVE STRESS (TSF) 10 8 6 4 2 0
TIP RESIST (TSF) 160 320 480 640 800
BT @ 18.37
-1 -0.5 0 0.5 1 PORE PRESSURE (TSF)

Upper Sands

Cohesive Soils

Lower Sands

Interbedded Silts/Clays

Upper Sands

Cohesive Soils

Lower Sands

0 20 40 60 80 100 120 140 160

CPT/DMT MATERIAL GRAPHICS

- Sensitive Fine Grained Soils
- Organic Soils, Peats
- Clay to Silty Clay
- Clayey Silt to Silty Clay
- Silty Sand to Sandy Silt
- Clean Sand to Silty Sand
- Gravelly Sand to Sand
- OC Sand to Clayey Sand
- OC Fine Grained Soils

ELECTRONIC CONE PENETROMETER SOUNDINGS

C-3 Sounding Number
123.0 Elevation at GS
CPT Sleeve Friction (tsf)
Direct Push Sample
1265
Downhole Shear Wave Velocity
Water Level Inferred from Pore Pressures
CPT Tip Resistance (tsf)
CPT Pore Pressure (tsf)
Water Level Measured Downhole
BT CPT Termination Depth
XXX CPT Refusal

MARCHETTI DILATOMETER SOUNDINGS

DMT-3 Sounding Number
123.0 Elevation at GS
Undrained Strength (psf)
Constrained Modulus M (ksf)
Water Level Inferred from Pore Pressure
BT DMT Termination Depth
XXX DMT Refusal

SOIL TEST BORINGS

B-3 Boring Number
123.0 Elevation at GS
Water Level at Time of Boring
Water Level after 24 Hours
Hole Caved
Water Loss/Inflow
11-16-10 Standard Penetration Test (blows per foot).
12in Undisturbed Sample Recovery In Inches
NX Core Barrel Size
REC 80% Recovery in Percent
RQD 56% Rock Quality Designation
BT Boring Termination Depth
XXX Boring Refusal

The depicted stratigraphy is shown for illustrative purposes only and is not warranted. Separations between different strata may be gradual and likely vary considerably from those shown. Profiles between nearby borings have been estimated using reasonable engineering care and judgment. The actual subsurface conditions will vary between boring locations.

SUBSURFACE PROFILE - FIGURE 3

PROJECT: NHC Castle Hayne Fire Station

LOCATION: Castle Hayne, North Carolina

JOB NO: 22060050

DATE: 8/24/23

Shear Wave Velocity Calculations - Figure 4

Castle Hayne Fire Station
Castle Hayne, North Carolina

Sounding ID: **B-1** Project Number: **22060050**
Date: 08/09/23

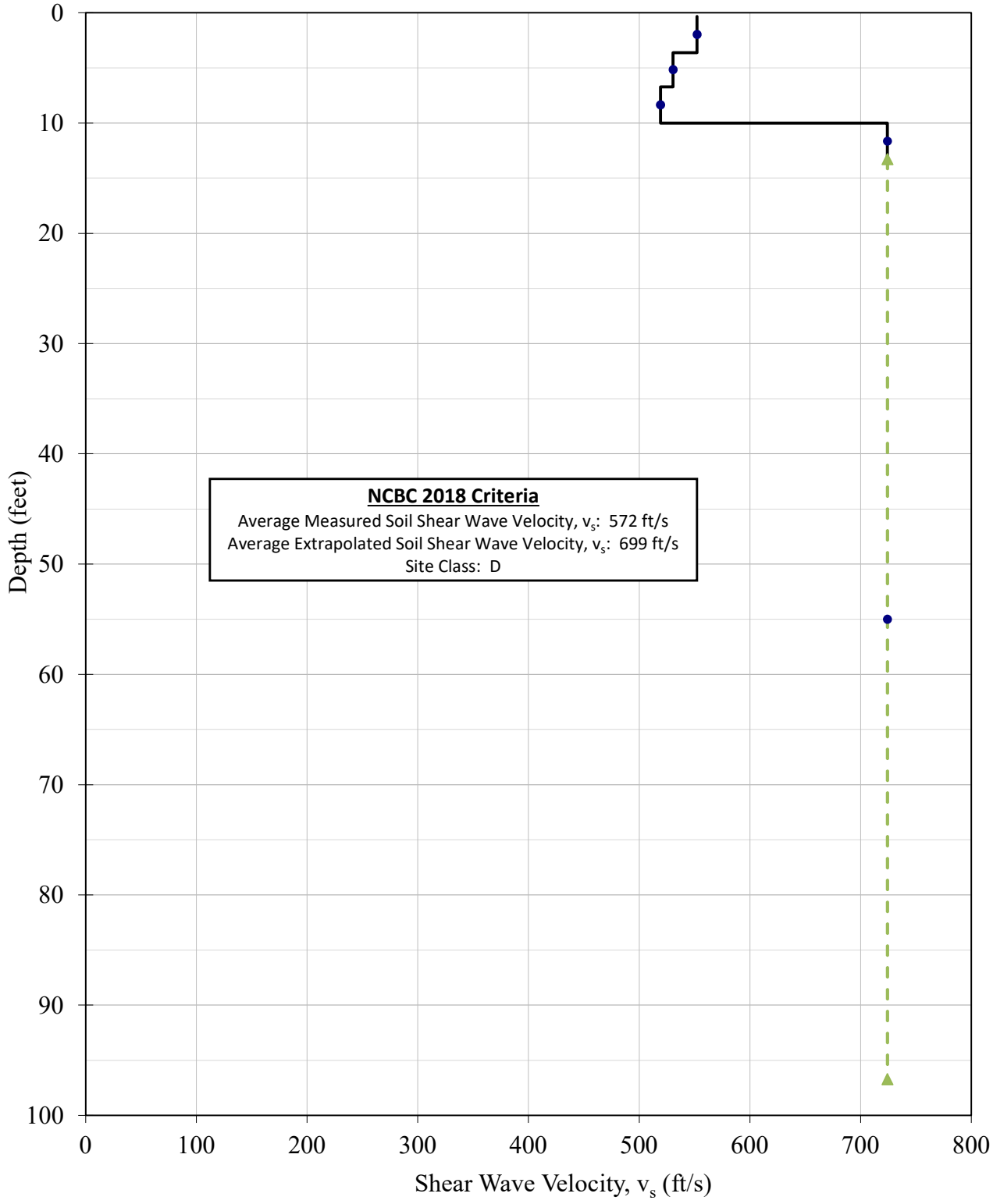
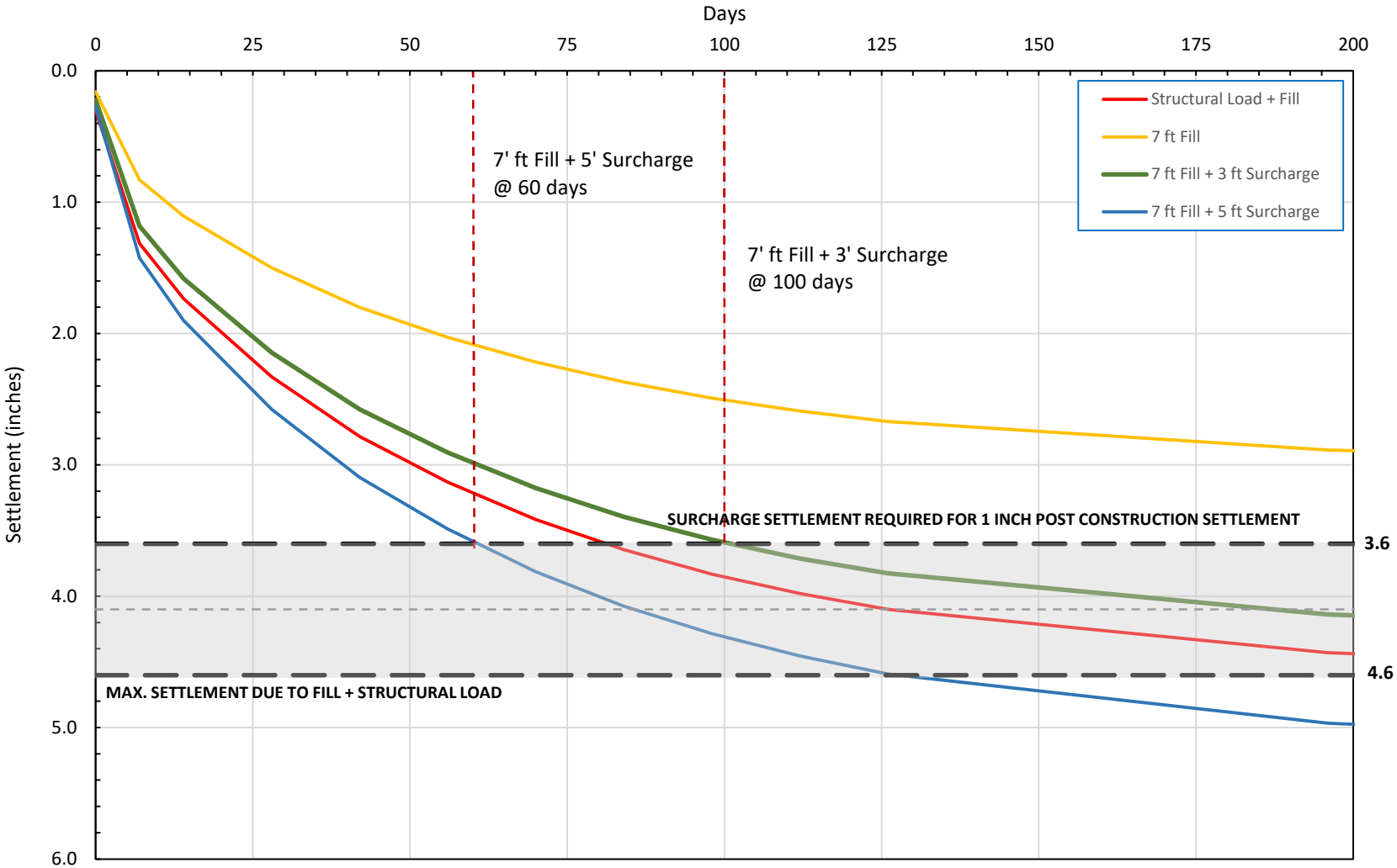
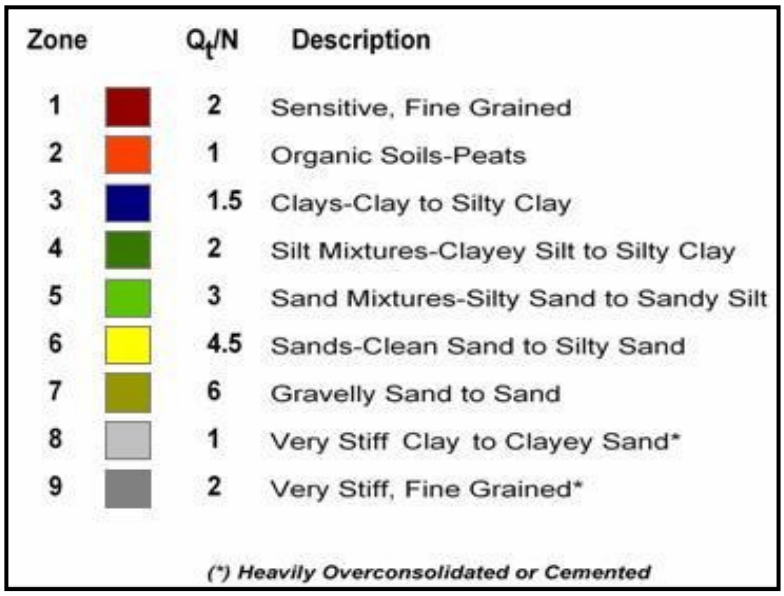


FIGURE 5 - SURCHARGE EVALUATION - Sounding B-6
NHC Castle Hayne Fire Station - Castle Hayne, NC



Appendix II– CPT/Hand Auger Logs

CPT Soil Classification Legend



Robertson's Soil Behavior Type (SBT), 1990			
Group #	**Description**	**Ic**	
		Min	**Max**
1	Sensitive, fine grained	N/A	
2	Organic soils - peats	3.60	N/A
3	Clays - silty clay to clay	2.95	3.60
4	Silt mixtures - clayey silt to silty clay	2.60	2.95
5	Sand mixtures - silty sand to sandy silt	2.05	2.60
6	Sands - clean sand to silty sand	1.31	2.05
7	Gravelly sand to dense sand	N/A	1.31
8	Very stiff sand to clayey sand (High OCR or cemented)	N/A	
9	Very stiff, fine grained (High OCR or cemented)	N/A	

Soil behavior type is based on empirical data and may not be representative of soil classification based on plasticity and grain size distribution.

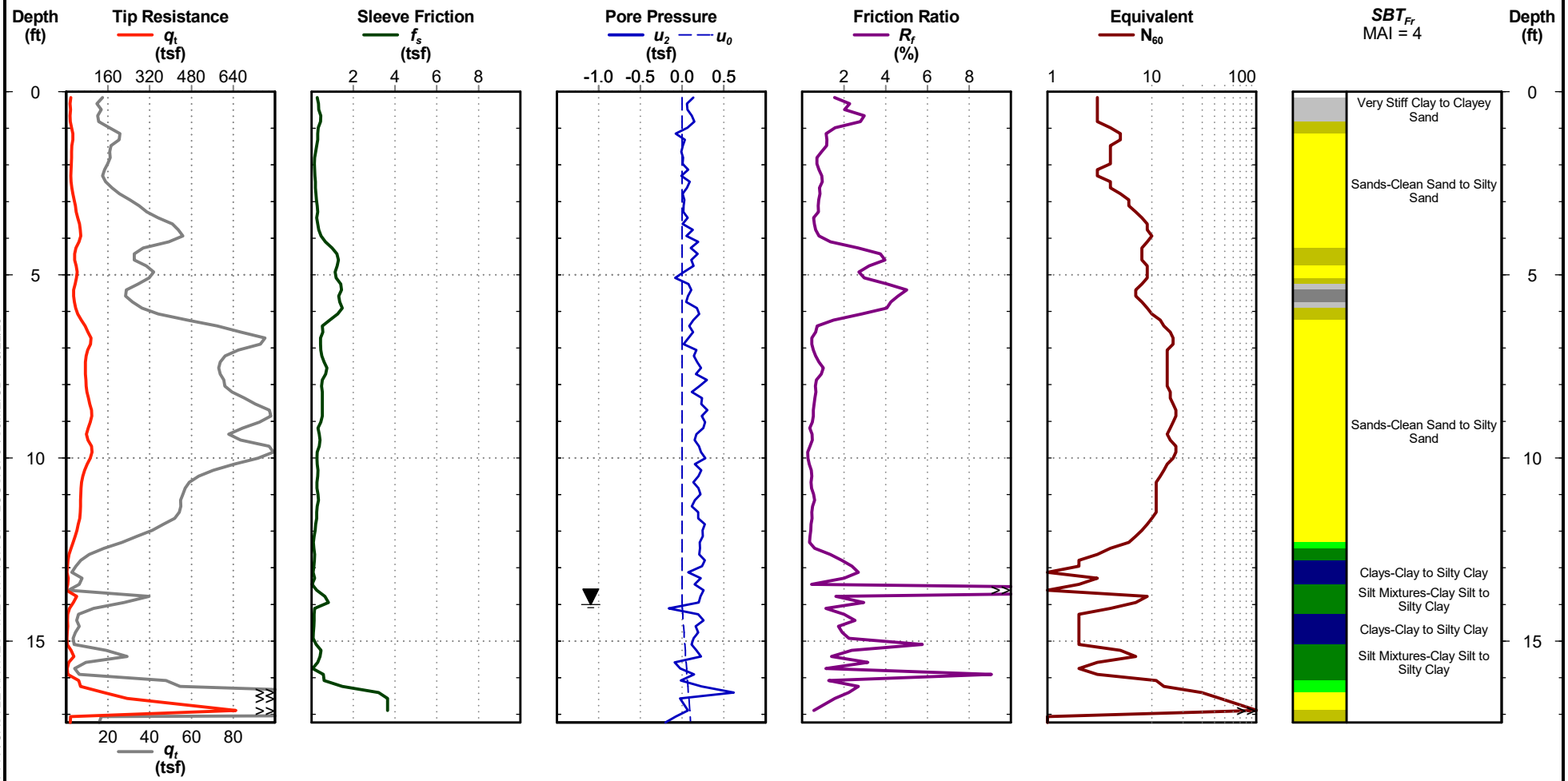
Relative Density and Consistency Table			
SANDS		SILTS and CLAYS	
Cone Tip Stress, qt (tsf)	Relative Density	Cone Tip Stress, qt (tsf)	Consistency
Less than 20	Very Loose	Less than 5	Very Soft
20 - 40	Loose	5 - 15	Soft to Firm
40 - 120	Medium Dense	15 - 30	Stiff
120 - 200	Dense	30 - 60	Very Stiff
Greater than 200	Very Dense	Greater than 60	Hard

Sounding ID: B-1

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 14 ft
Rig/Operator: Jared Duffy

Total Depth: 17.2 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-1.cpt

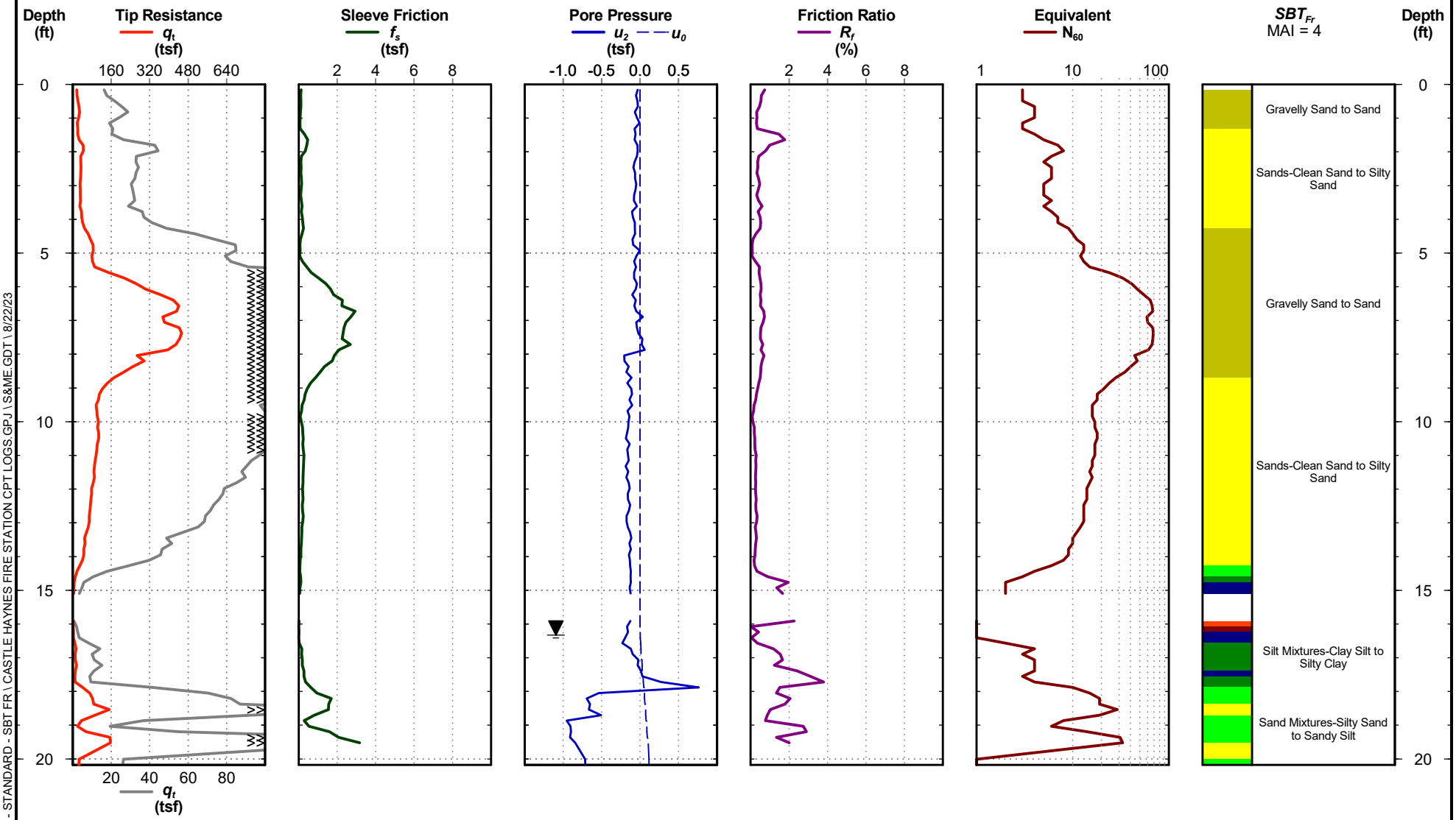
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-2

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 16.33 ft
Rig/Operator: Jared Duffy

Total Depth: 20.2 ft
Termination Criteria: Maximum Reaction Force
Cone Size:



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-2.cpt

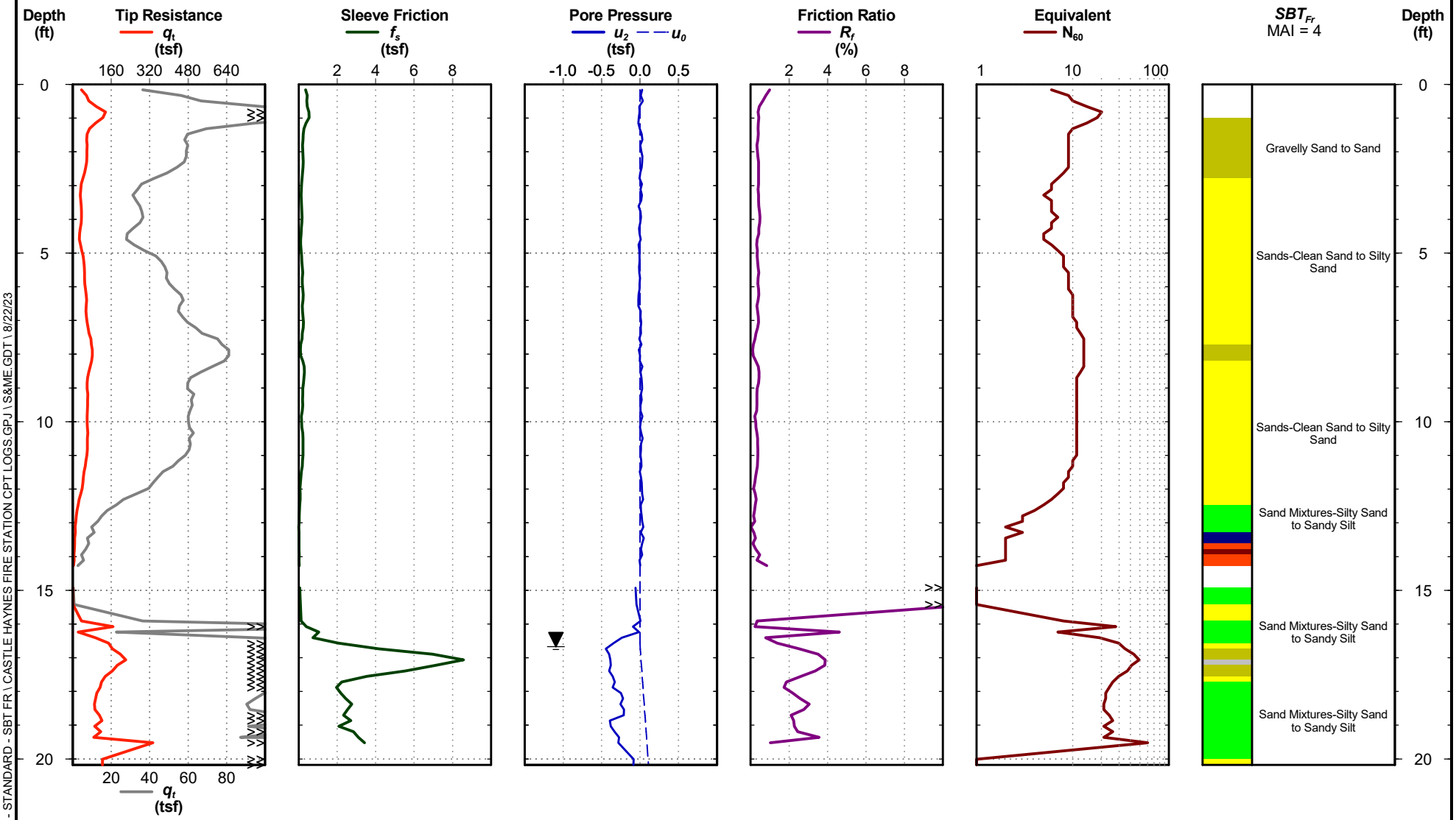
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-3

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 16.67 ft
Rig/Operator: Jared Duffy

Total Depth: 20.2 ft
Termination Criteria: Maximum Reaction Force
Cone Size:



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-3.cpt

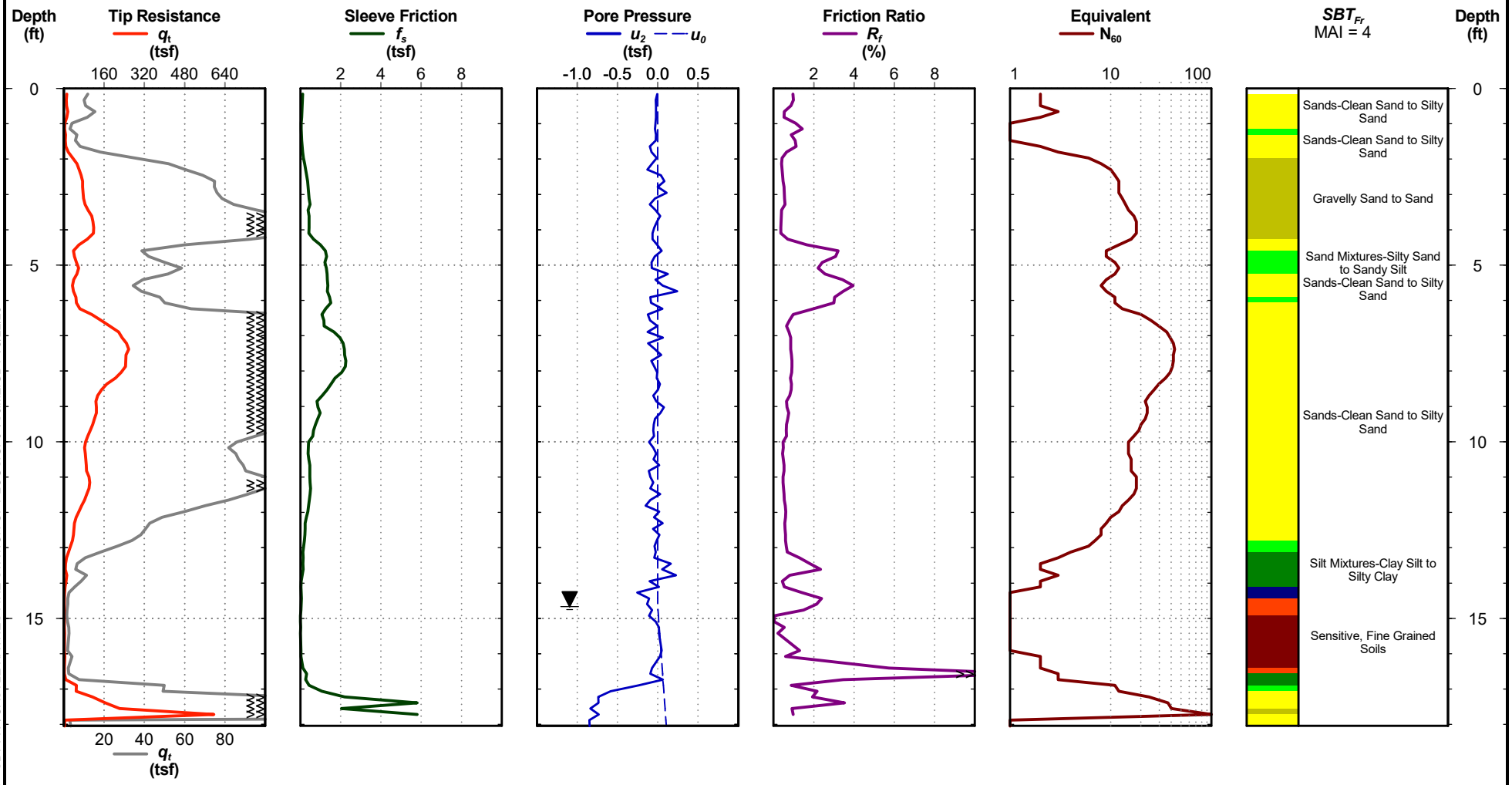
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-4

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 14.67 ft
Rig/Operator: Jared Duffy

Total Depth: 18.0 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-4A.cpt

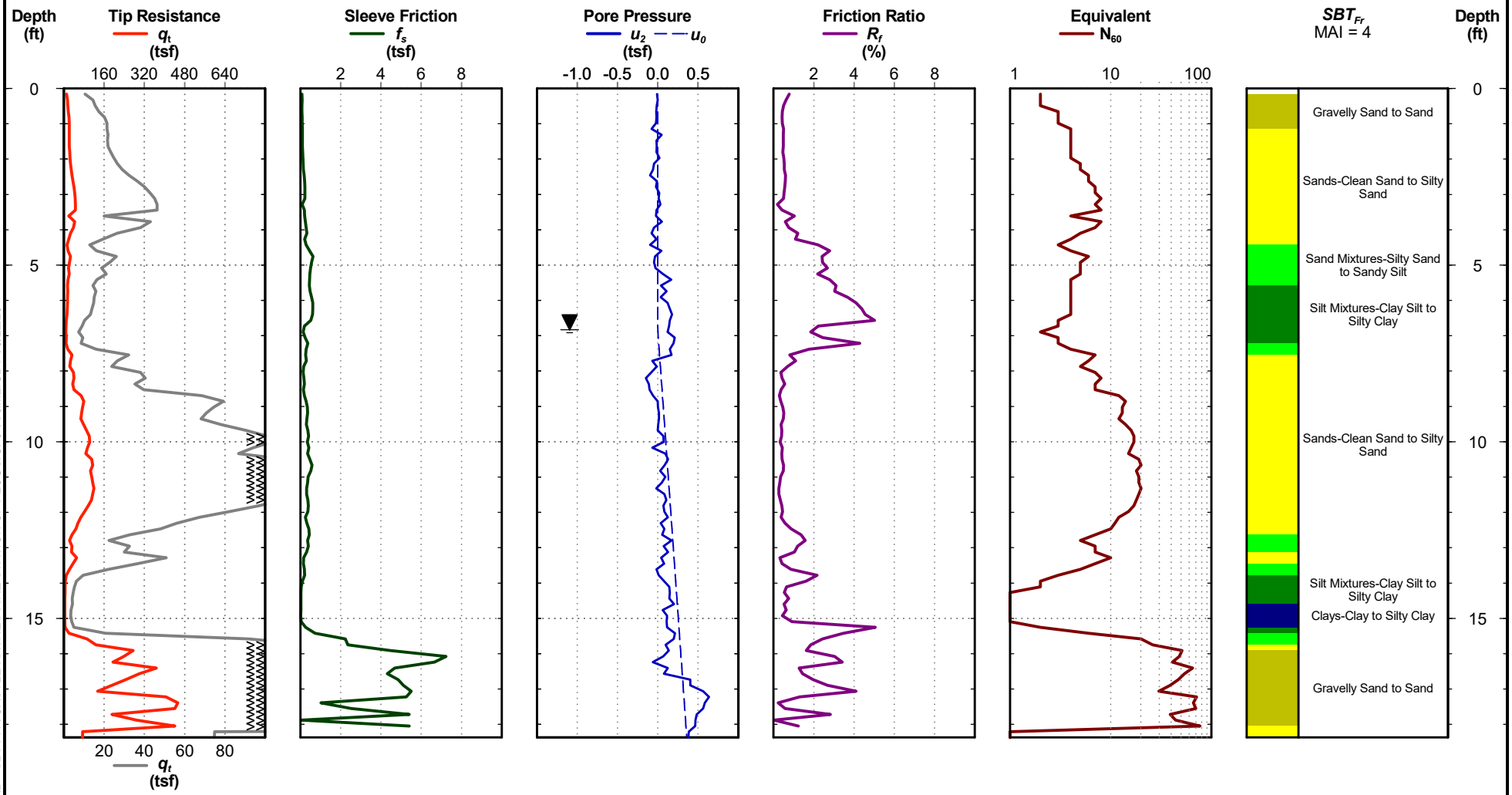
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-5

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 6.83 ft
Rig/Operator: Jared Duffy

Total Depth: 18.4 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-5.cpt

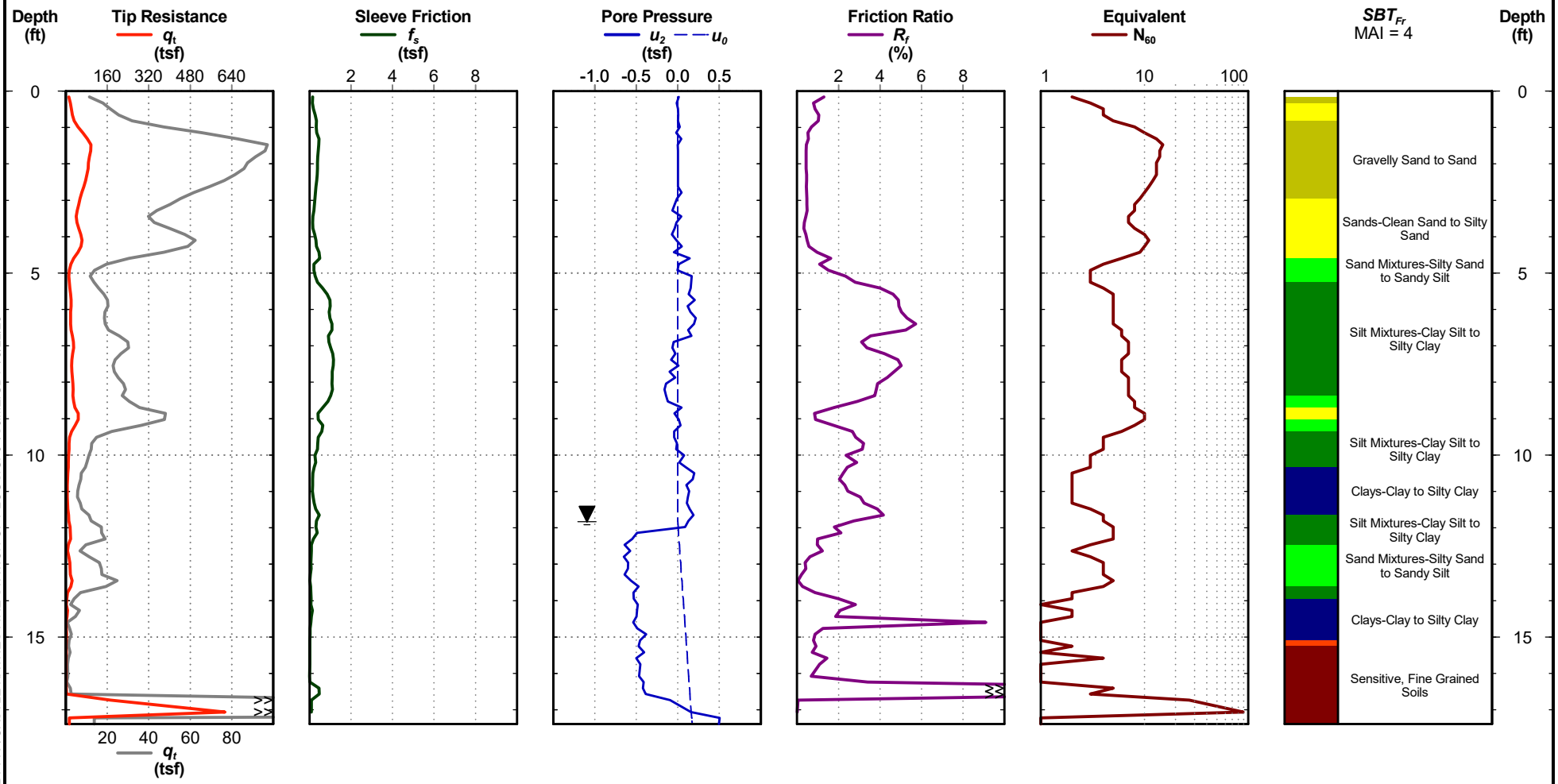
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-6

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 11.83 ft
Rig/Operator: Jared Duffy

Total Depth: 17.4 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-6.cpt

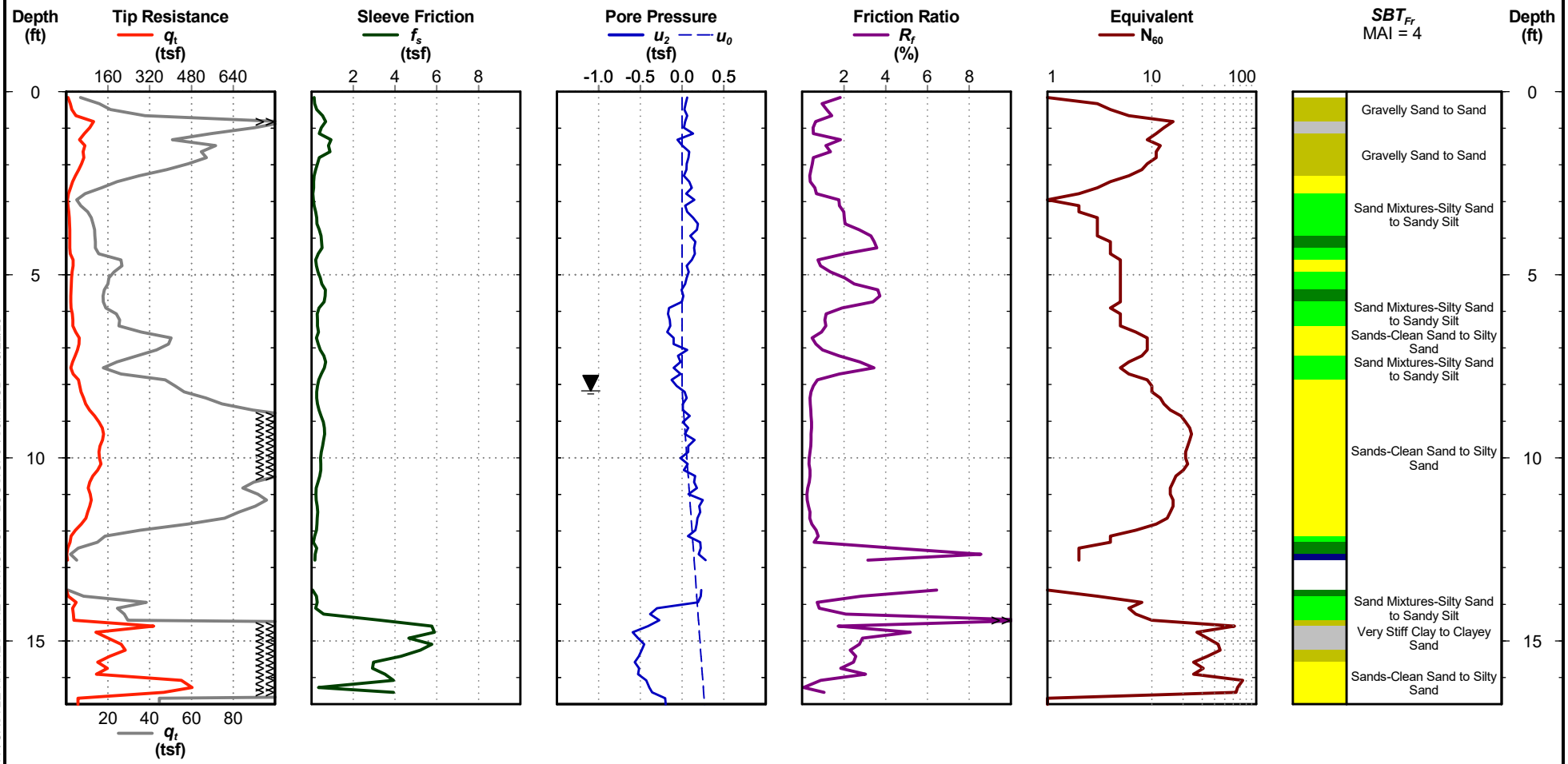
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-7

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 8.17 ft
Rig/Operator: Jared Duffy

Total Depth: 16.7 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

Electronic Filename: Castle Haynes Fire Station B-7.cpt

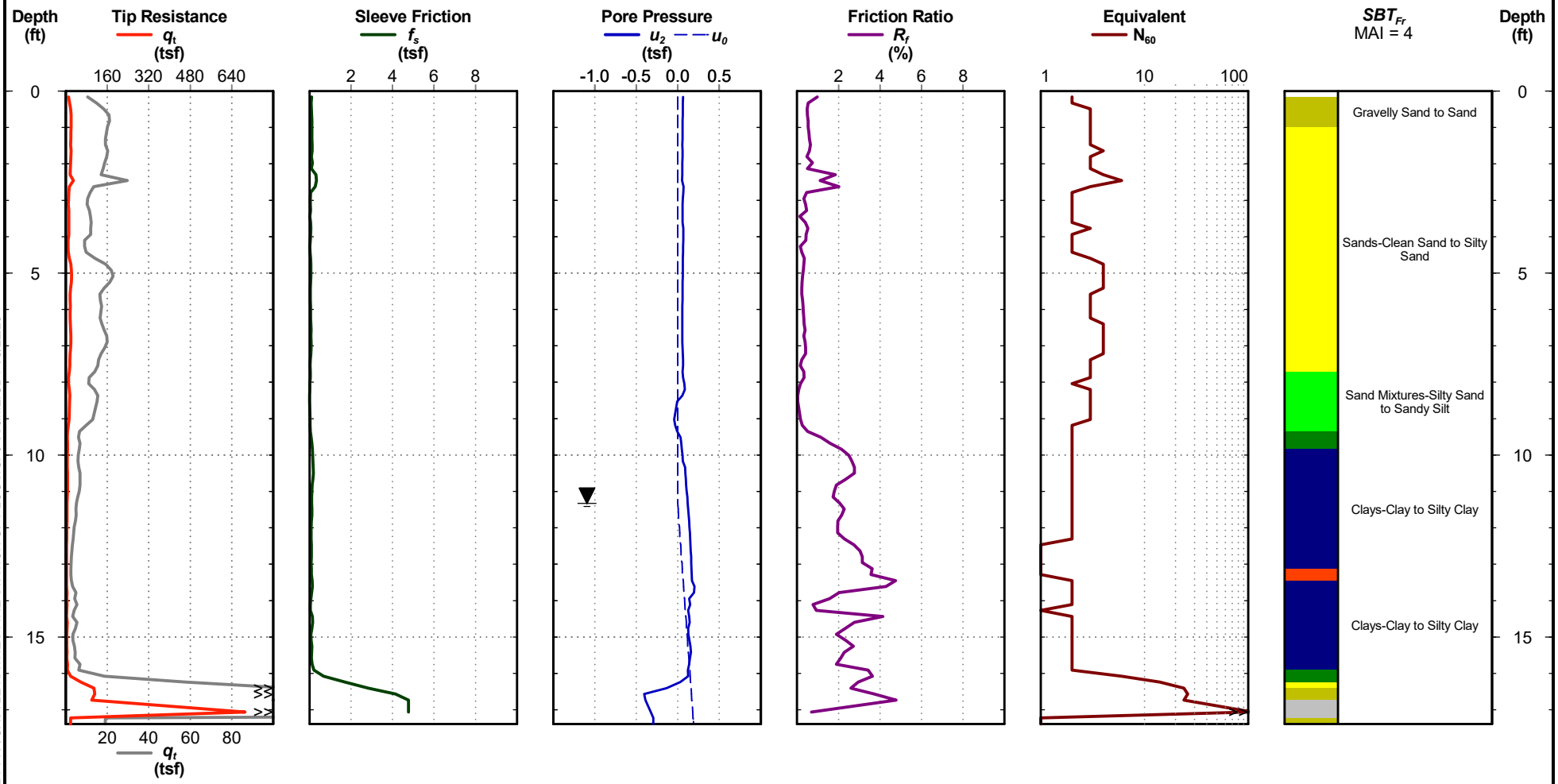
CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

Sounding ID: B-8

NHC Castle Hayne Fire Station
Castle Hayne, North Carolina
S&ME Project No: 22060050

Date: Aug. 7, 2023
Estimated Water Depth: 11.33 ft
Rig/Operator: Jared Duffy

Total Depth: 17.4 ft
Termination Criteria: Maximum Reaction Force
Cone Size: 1.75



Cone Penetration Test

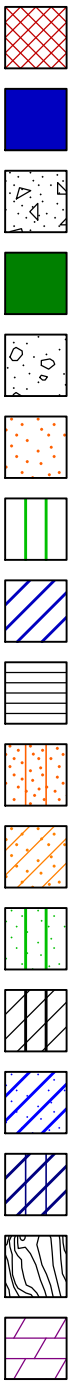
Electronic Filename: Castle Haynes Fire Station B-8A.cpt

CPT REPORT - STANDARD - SBT FR \ CASTLE HAYNES FIRE STATION CPT LOGS.GPJ \ S&ME.GDT \ 8/22/23

LEGEND TO SOIL CLASSIFICATION AND SYMBOLS

SOIL TYPES

(Shown in Graphic Log)



- Fill
- Asphalt
- Concrete
- Topsoil
- Gravel
- Sand
- Silt
- Clay
- Organic
- Silty Sand
- Clayey Sand
- Sandy Silt
- Clayey Silt
- Sandy Clay
- Silty Clay
- Partially Weathered Rock
- Cored Rock

WATER LEVELS

(Shown in Water Level Column)

▽ = Water Level At Termination of Boring
▼ = Water Level Taken After 24 Hours
◄ = Loss of Drilling Water
HC = Hole Cave

CONSISTENCY OF COHESIVE SOILS

CONSISTENCY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Soft	0 to 2
Soft	3 to 4
Firm	5 to 8
Stiff	9 to 15
Very Stiff	16 to 30
Hard	31 to 50
Very Hard	Over 50

RELATIVE DENSITY OF COHESIONLESS SOILS

RELATIVE DENSITY	STD. PENETRATION RESISTANCE BLOWS/FOOT
Very Loose	0 to 4
Loose	5 to 10
Medium Dense	11 to 30
Dense	31 to 50
Very Dense	Over 50

SAMPLER TYPES

(Shown in Samples Column)



- Shelby Tube
- Split Spoon
- Rock Core
- No Recovery

TERMS

Standard Penetration Resistance - The Number of Blows of 140 lb. Hammer Falling 30 in. Required to Drive 1.4 in. I.D. Split Spoon Sampler 1 Foot. As Specified in ASTM D-1586.

REC - Total Length of Rock Recovered in the Core Barrel Divided by the Total Length of the Core Run Times 100%.

RQD - Total Length of Sound Rock Segments Recovered that are Longer Than or Equal to 4" (mechanical breaks excluded) Divided by the Total Length of the Core Run Times 100%.

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-1**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL leaf litter roots - 4 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-2**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOT MAT - 6 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-3**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL mixed with gravel - 6 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-4**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL mixed with gravel - 6 inches.		
1		**SILTY SAND (SM)** - Tan and brown, mostly fine to medium sand, some low plasticity to non-plastic fines, moist.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-5**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - 6 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Brown, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-6**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - 6 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Brown and tan, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2				
3		**CLAYEY SAND (SC)** - Orange and brown, mostly fine to medium sand, some low to medium plasticity fines, dry.		
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-7**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - 6 inches.		
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Brown and tan, mostly fine to medium sand, few low plasticity to non-plastic fines, dry.		
2		**CLAYEY SAND (SC)** - Brown, mostly fine to medium sand, some low to medium plasticity fines, dry.		
3				
4		Boring terminated at 4 ft		

PROJECT:	Castle Hayne Fire Station Castle Hayne, North Carolina 22060050	**HAND AUGER BORING LOG: B-8**
DATE STARTED: **8/7/23**	DATE FINISHED: **8/7/23**	NOTES:
SAMPLING METHOD: **Hand Auger**	PERFORMED BY: **N. Buffum**	
WATER LEVEL: **Not Encountered**		

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL
		TOPSOIL AND ROOTMAT - 6 inches.		
1		**SILTY-CLAYEY SAND (SC-SM)** - Tan and brown, mostly fine to medium sand, some low plasticity fines, dry.		
2				
3				
4		Boring terminated at 4 ft		

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-1

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.) 10 20 30 60 80	DCP VALUE
		TOPSOIL - 3 inches.				11
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Loose, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				8
2		**POORLY GRADED SAND (SP)** - Loose, tan and brown, mostly fine to medium sand, trace fines.				9
3						8
4						7
5		Boring terminated at 5 ft				7

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-2

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.) 10 20 30 60 80	DCP VALUE
		TOPSOIL - 3 inches.				15
1		**FILL: POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines, with trash (glass, tires, household debris)				15
2						13
3						13
4						15
5		**POORLY GRADED SAND (SP)** - Medium dense, tan and brown, mostly fine to medium sand, trace fines.				15
		Boring terminated at 5 ft				

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-3

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.) 10 20 30 60 80	DCP VALUE
		ROOTMAT AND TOPSOIL - 3 inches.				12
		POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				
1		**POORLY GRADED SAND (SP)** - Medium dense, tan and brown, mostly fine to medium sand, trace fines.				15
		POORLY GRADED SAND WITH SILT (SP-SM) - Medium dense, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				
2						14
3						11
4						13
5		Boring terminated at 5 ft				14

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-4

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)	DCP VALUE
		ROOTMAT AND TOPSOIL - 12 inches.				11
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Very loose, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				10
2		**FAT CLAY (CH)** - Soft to firm, tan, mostly medium to high plasticity fines, trace fine to medium sand.				4
3		**LEAN CLAY WITH SAND (CL)** - Firm to stiff, tan, mostly low to medium plasticity fines, few fine to medium sand.				7
4						9
5		Boring terminated at 5 ft				10

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-5

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.) 10 20 30 60 80	DCP VALUE
		ROOTMAT AND TOPSOIL - 8 inches.				13
1		**POORLY GRADED SAND WITH SILT (SP-SM)** - Loose, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				8
2		**POORLY GRADED SAND (SP)** - Loose, tan and brown, mostly fine to medium sand, trace fines.				9
3						8
4		**CLAYEY SAND (SC)** - Loose, tan, mostly fine to medium sand, some low to medium plasticity fines.				6
5		Boring terminated at 5 ft				11

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-6

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.) 10 20 30 60 80	DCP VALUE
		ROOTMAT AND TOPSOIL - 3 inches.				7
1		**POORLY GRADED SAND (SP)** - Loose to medium dense, tan and brown, mostly fine to medium sand, trace fines.				15
2						5
3						5
4		**POORLY GRADED SAND WITH SILT (SP-SM)** - Medium dense, tan and brown, mostly fine to medium sand, few low plasticity to non-plastic fines.				15
5		Boring terminated at 5 ft				14

PROJECT: **Castle Hayne Fire Station**
Castle Hayne, North Carolina
22060050

HAND AUGER BORING LOG: P-7

DATE STARTED: **8/4/23** DATE FINISHED: **8/4/23**

NOTES:

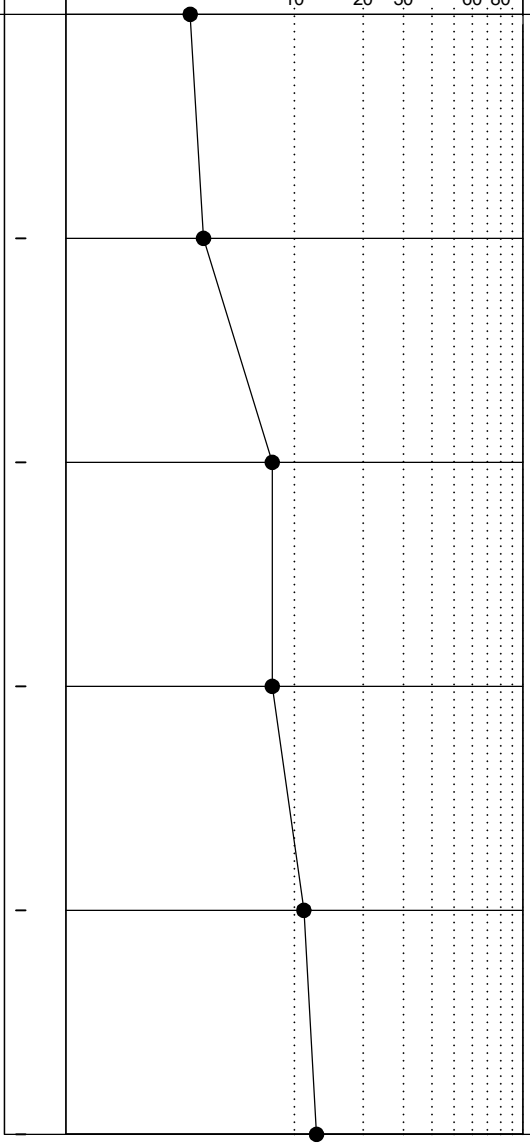
SAMPLING METHOD: **Hand Auger** PERFORMED BY: **S. Newton**

WATER LEVEL: **Not Encountered**

Depth (feet)	GRAPHIC LOG	MATERIAL DESCRIPTION	ELEVATION (feet)	WATER LEVEL	DCP VALUE
		TOPSOIL AND ROOTMAT - 6 inches.			4
1		**POORLY GRADED SAND (SP)** - Loose, tan and brown, mostly fine to medium sand, trace fines.			4
2					8
3		**LEAN CLAY WITH SAND (CL)** - Firm to Stiff, tan, mostly low to medium plasticity fines, some fine to medium sand.			8
4					11
5		Boring terminated at 5 ft			13

DYNAMIC CONE PENETRATION RESISTANCE (blows/1.75 in.)

10 20 30 60 80



Appendix III– Laboratory Testing

Form No: TR-D2216-T265-2
Revision No. 1
Revision Date: 08/16/17

LABORATORY DETERMINATION OF WATER CONTENT

ASTM D 2216 ☑ *AASHTO T 265* ☐

S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s):	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		
Sample by:	S. Newton (S&ME)	Sample Dates:	8/4/23
Sampling Method:	HA Borings	Drill Rig :	N/A

Method: **A** (1%) **B** (0.1%) ☑ Balance ID. 14862 Calibration Date: 7/1/23 Oven ID. 14993 Calibration Date: 7/24/23

Boring No.	Sample No.	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Water Weight	Percent Moisture
		ft. or m.		grams	grams	grams	grams	%
P-4	1	1.75'-3.0'	W	0.00	312.12	247.23	64.89	26.2%
P-4	2	3.0'-5.0'	E	0.00	319.61	259.27	60.34	23.3%
P-5	1	4.0'-5.0'	A	0.00	321.46	281.06	40.40	14.4%
P-7	1	4.0'-5.0'	K	0.00	318.42	269.98	48.44	17.9%

Notes / Deviations / References

Tests Performed By: J.FAUCETTE

AASHTO T 265: Laboratory Determination of Moisture Content of Soils

ASTM D 2216: Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass

Jason Faucette	Jason Faucette Aug 28 2023 6:49 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

Results shown in this report, relate only to the samples noted above.

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Form No: TR-D1140-1
Revision No. 1
Revision Date: 8/2/17

MATERIAL FINER THAN THE #200 SIEVE

ASTM D1140

S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s):	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		
Sample by:	S. Newton (S&ME)	Sample Dates:	8/4/23
Sampling Method:	HA Borings	Drill Rig :	N/A

Method; A ☐ **B** ☑ Soaked ☑ Soak Time **25.5 hrs**

Boring #	Sample #	Sample Depth	Tare #	Tare Weight	Tare Wt.+ Wet Wt	Tare Wt. + Dry Wt	Tare Wt. + Dry Wt. after Wash	% Passing #200
				grams	grams	grams	grams	%
P-4	1	1.75'-3.0'	W	0.00	312.12	247.23	17.09	**93.1%**
P-4	2	3.0'-5.0'	E	0.00	319.61	259.27	53.62	**79.3%**
P-5	1	4.0'-5.0'	A	0.00	321.46	281.06	164.42	**41.5%**
P-7	1	4.0'-5.0'	K	0.00	318.42	269.98	57.77	**78.6%**

Balance ID. *14862* *Calibration Date:* *7/1/23* *#200 Sieve* *17508* *Calibration Date:* *4/18/23*

Notes / Deviations / References: ASTM D1140: Amount of Material in Soil Finer Than the No. 200 (75-um)) Sieve

HA borings taken from on site **All Samples soaked 25.5 hours**

P-4/1: Gray-Brown Fat CLAY (CH)

P-4/2: Gray-Brown Lean CLAY with Sand (CL)

P-5/1: Gray-Brown Clayey SAND (SC)

P-7/1: Light Brown Lean CLAY with Sand (CL)

Tests Performed By: J.FAUCETTE

Jason Faucette	Jason Faucette Aug 28 2023 6:58 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

Results shown in this report, relate only to the samples noted above.

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Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

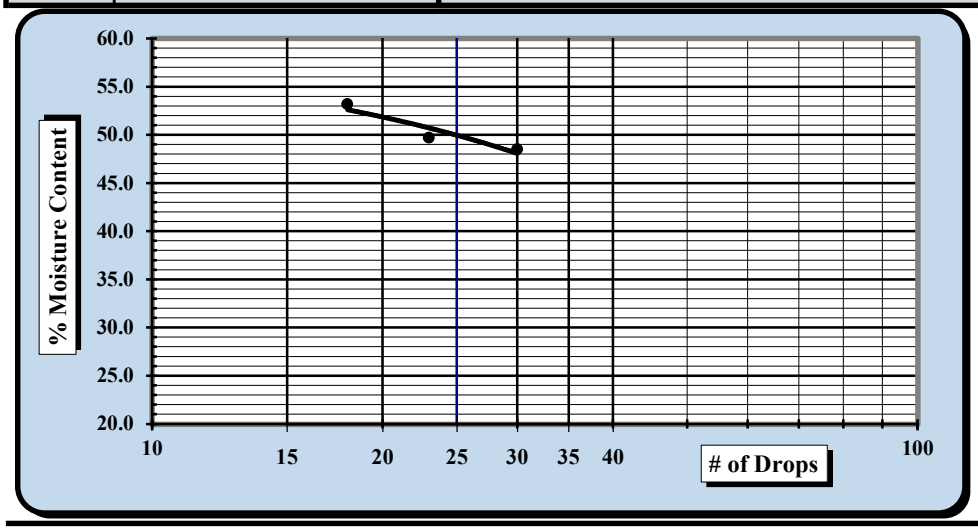
S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s)	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		

Sample Id:	148	Type: Site Material		Sample Date: 8/4/23	
Location:	HA Boring	Source Loc.: P-4/1		Depth(ft): 1.75'-3.0'	
Sample Description:	Gray-Brown Fat CLAY (CH)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	14862	7/1/2023	Grooving tool	14947(D)	7/12/2023
LL Apparatus	17515	7/12/2023	Grooving tool		
Oven	14993	7/24/2023	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	1	2	3				4	5	
A	Tare Weight	11.05	10.64	11.61				11.33	10.75	
B	Wet Soil Weight + A	19.56	19.40	20.02				20.42	19.63	
C	Dry Soil Weight + A	16.78	16.49	17.10				18.96	18.25	
D	Water Weight (B-C)	2.78	2.91	2.92				1.46	1.38	
E	Dry Soil Weight (C-A)	5.73	5.85	5.49				7.63	7.50	
F	% Moisture (D/E)*100	48.5%	49.7%	53.2%				19.1%	18.4%	
N	# OF DROPS	30	23	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.8%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**50**
Plastic Limit	**19**
Plastic Index	**31**
Group Symbol	**CH**

Multipoint Method ☑
One-point Method ☐

Wet Preparation | Dry Preparation | Air Dried | *Estimate the % Retained on the #40 Sieve:* N/A

Notes / Deviations / References: *ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils*

Tests Performed By: J.FAUCETTE

Jason Faucette	Jason C. Faucette Aug 28 2023 7:01 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

Results shown in this report, relate only to the sample noted above

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Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

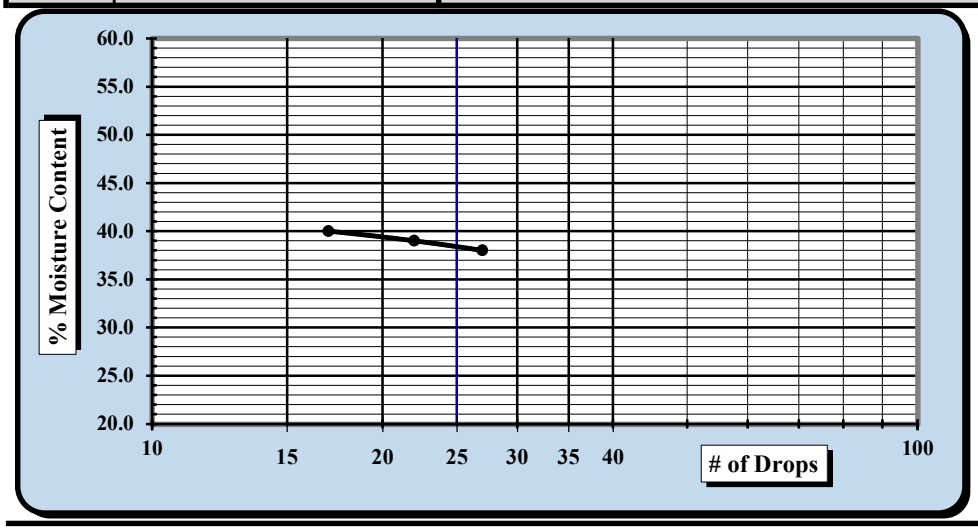
S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s)	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		

Sample Id:	148	Type: Site Material		Sample Date: 8/4/23	
Location:	HA Boring	Source Loc.: P-4/2		Depth(ft): 3.0'-5.0'	
Sample Description:	Gray-Brown Lean CLAY with Sand (CL)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	14862	7/1/2023	Grooving tool	14947(D)	7/12/2023
LL Apparatus	17515	7/12/2023	Grooving tool		
Oven	14993	7/24/2023	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	6	7	8				9	10	
A	Tare Weight	11.23	11.66	10.89				11.98	11.71	
B	Wet Soil Weight + A	20.67	21.89	20.41				20.87	20.91	
C	Dry Soil Weight + A	18.07	19.02	17.69				19.62	19.63	
D	Water Weight (B-C)	2.60	2.87	2.72				1.25	1.28	
E	Dry Soil Weight (C-A)	6.84	7.36	6.80				7.64	7.92	
F	% Moisture (D/E)*100	38.0%	39.0%	40.0%				16.4%	16.2%	
N	# OF DROPS	27	22	17				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**16.3%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**38**
Plastic Limit	**16**
Plastic Index	**22**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation | Dry Preparation | Air Dried | *Estimate the % Retained on the #40 Sieve:* N/A

Notes / Deviations / References: *ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils*

Tests Performed By: J.FAUCETTE

Jason Faucette	Jason Faucette Aug 28 2023 7:03 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

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Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

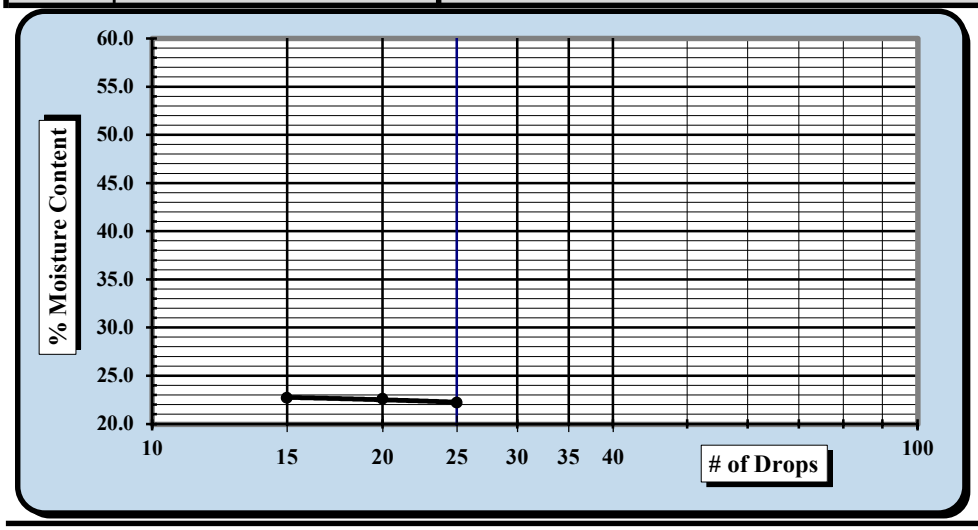
S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s)	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		

Sample Id:	148	Type: Site Material		Sample Date: 8/4/23	
Location:	HA Boring	Source Loc.: P-5/1		Depth(ft): 4.0'-5.0'	
Sample Description:	Gray-Brown Clayey SAND (SC)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	14862	7/1/2023	Grooving tool	14947(D)	7/12/2023
LL Apparatus	17515	7/12/2023	Grooving tool		
Oven	14993	7/24/2023	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	11	12	13				14	15	
A	Tare Weight	11.04	10.77	12.05				11.80	11.83	
B	Wet Soil Weight + A	22.53	23.64	22.63				21.27	21.50	
C	Dry Soil Weight + A	20.44	21.27	20.67				20.22	20.44	
D	Water Weight (B-C)	2.09	2.37	1.96				1.05	1.06	
E	Dry Soil Weight (C-A)	9.40	10.50	8.62				8.42	8.61	
F	% Moisture (D/E)*100	22.2%	22.6%	22.7%				12.5%	12.3%	
N	# OF DROPS	25	20	15				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**12.4%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**22**
Plastic Limit	**12**
Plastic Index	**10**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation | Dry Preparation | Air Dried | *Estimate the % Retained on the #40 Sieve:* N/A

Notes / Deviations / References: *ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils*

Tests Performed By: J.FAUCETTE

Jason Faucette	Jason Faucette Aug 28 2023 7:05 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

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Form No. TR-D4318-T89-90
Revision No. 1
Revision Date: 7/26/17

LIQUID LIMIT, PLASTIC LIMIT, & PLASTIC INDEX

ASTM D 4318 ☒ AASHTO T 89 ☐ AASHTO T 90 ☐

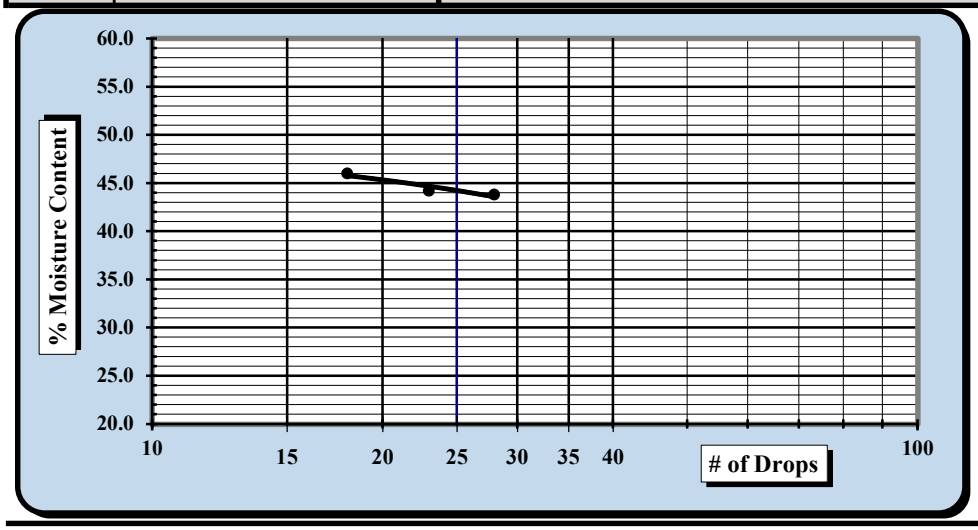
S&ME, Inc. - Wilmington: 3006 Hall Waters Drive, Suite 100, Wilmington, NC 28405

Project #:	22060050	Report Date:	8/28/23
Project Name:	NHC Castle Hayne Fire Station	Test Date(s)	8/25-8/28/23
Client Name:	New Hanover County Property Management		
Client Address:	200 Division Dr., Wilmington, NC 28405		

Sample Id:	148	Type: Site Material		Sample Date: 8/4/23	
Location:	HA Boring	Source Loc.: P-7/1		Depth(ft): 4.0'-5.0'	
Sample Description:	Light Brown Lean CLAY with Sand (CL)				

Type and Specification	*S&ME ID #*	*Cal Date:*	*Type and Specification*	*S&ME ID #*	*Cal Date:*
Balance (0.01 g)	14862	7/1/2023	Grooving tool	14947(D)	7/12/2023
LL Apparatus	17515	7/12/2023	Grooving tool		
Oven	14993	7/24/2023	Grooving tool		

Pan #		Liquid Limit						Plastic Limit		
	Tare #:	16	17	18				19	20	
A	Tare Weight	11.88	11.88	11.93				11.83	11.89	
B	Wet Soil Weight + A	22.03	20.88	21.87				20.51	20.81	
C	Dry Soil Weight + A	18.94	18.12	18.74				19.22	19.41	
D	Water Weight (B-C)	3.09	2.76	3.13				1.29	1.40	
E	Dry Soil Weight (C-A)	7.06	6.24	6.81				7.39	7.52	
F	% Moisture (D/E)*100	43.8%	44.2%	46.0%				17.5%	18.6%	
N	# OF DROPS	28	23	18				*Moisture Contents determined by ASTM D 2216*		
LL	LL = **F** * FACTOR									
Ave.	*Average*							**18.1%**		



One Point Liquid Limit			
N	**Factor**	**N**	**Factor**
20	0.974	26	1.005
21	0.979	27	1.009
22	0.985	28	1.014
23	0.99	29	1.018
24	0.995	30	1.022
25	1.000		

NP, Non-Plastic ☐

Liquid Limit	**44**
Plastic Limit	**18**
Plastic Index	**26**
Group Symbol	**CL**

Multipoint Method ☑
One-point Method ☐

Wet Preparation | Dry Preparation | Air Dried | *Estimate the % Retained on the #40 Sieve:* N/A

Notes / Deviations / References: *ASTM D 4318: Liquid Limit, Plastic Limit, & Plastic Index of Soils*

Tests Performed By: J.FAUCETTE

Jason Faucette	Jason Faucette Aug 28 2023 7:08 AM	Laboratory Supervisor	8/28/2023
Technical Responsibility	*Signature*	*Position*	*Date*

Results shown in this report, relate only to the sample noted above

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9. Trade Package General Scope Requirements

TRADE PACKAGE GENERAL SCOPE REQUIREMENTS

I. INTRODUCTION

The PROJECT MANUAL was prepared to assist with the overall administrative functions of the Project. It provides information and examples of several aspects of Project correspondence that should be followed throughout the job; however, the following requirements are not intended to supersede any more strenuous requirements elsewhere in the Contract Documents.

Revisions to this Manual and additional information may be issued periodically and should be inserted in the applicable section(s).

The General Contractor (Construction Manager (CM)) suggests that you copy portions of the Manual and distribute the necessary pages within your organization (especially field personnel) to ensure that these procedures are followed. This should eliminate inconsistencies, allowing an efficient completion of the Project.

Unless noted otherwise herein, requirements applicable to ALL trade package scopes of work are defined within this Section. Further, these requirements herein shall become part of each trade package scope of work as if fully written out in each respective trade package scope of work.

Each Subcontractor/Vendor is required to furnish General Contractor, in writing, the name of all their Supervisory Personnel clearly identifying and listing their roles and responsibilities related to the project. An organization chart shall be included as part of this submittal.

Note: All correspondence and/or communication must be directed through General Contractor. All construction directives must come through General Contractor. DO NOT contact the Owner or Architect directly without the consent of General Contractor.

"General Contractor" or "Contractor" specified in Contract Document trade specific Technical Specification sections refers to this Subcontractor for all work pertaining to the scope described herein unless otherwise noted.

II. DEFINITIONS

Outlined below are specific terms, which are used throughout the Contract Documents. These terms are described below to clarify the particular "term" as it is used in context throughout the Contract Documents.

#	Term:	Definition:
1.	"Owner"	New Hanover County 230 Government Center Drive Wilmington, NC 28403
2.	"Designer, Architect of Record, Architect/Engineer"	Stewart Cooper Newell 719 E Second Ave, Gastonia, NC 28054

		Phone: (704) 865-6311
3.	"General Contractor or Construction Manager"	Samet Corporation (SAMET) 8115 Market St suite 304, Wilmington, NC 28411Phone: 336 544-2600: Fax: 336 544-2673
4.	"Contractor"	All areas within the Contract Documents (except where implied differently when referring to an entity under contract with the General Contractor (e.g., references in a technical specification)) where this term is used shall mean "General Contractor" and not Contractor.
5.	"Subcontractor"	An entity who contracts directly with the General Contractor through execution of the *Standard form of Agreement between Contractor and Subcontractor* included within the Contract Documents to furnish and install specific goods and services as defined within a specific Trade Package Scope of Work.
6.	"Sub-Subcontractor"	An entity who contracts directly with the Subcontractor to furnish and install specific goods and services as defined within a specific Trade Package Scope of Work.
7.	"Supplier"	An entity who contracts directly with the General Contractor through execution of the standard *Purchase Order Agreement* included within the Contract Documents to furnish specific goods and services as defined within a specific Trade Package Scope of Work.
8.	"Provide"	This term shall mean to furnish and install a particular item(s) as necessary to accomplish a complete, finished and properly operating installation.
9.	"Furnish"	This term shall mean to furnish including taxes and delivery of a particular item(s) as necessary to facilitate a complete and finished installation by others or as defined within the Trade Package Scope of Work.
10.	"Install"	This term shall mean to install a particular item(s) as necessary to facilitate a complete and finished installation through materials, equipment or the like furnished by others or as defined within the Trade package Scope of Work.
11.	"PROJECT MANUAL"	The PROJECT MANUAL shall consist of all technical specifications, sample forms, sample agreements, trade package scopes of work, general requirements, proposal forms and procedures, etc. as prepared by the Designer, General Contractor and/or Owner for use in bidding and constructing the project.

III. CONTRACT DOCUMENTS

3.0. As applicable and defined within the respective Trade Package Scope of Work, furnish all labor, materials, tools, taxes, insurances, equipment, hoisting, supervision and all other incidentals necessary to accomplish all Work in accordance with ALL Contract Documents, which consist of the following:

1. All Addenda or Bid Clarifications issued prior to Bid Date.

2. Drawings and/or supplemental sketches prepared by Designer.

3. Technical Specifications located within the PROJECT MANUAL and/or as amended by Addendum as prepared by the Designer and General Contractor.

4. Form of Agreement (Subcontractor Agreement or Purchase Order Agreement) between Samet Corporation and Subcontractor or Supplier contained within the PROJECT MANUAL, – Contract Documents.

5. All Division 1 – General Requirement Specifications located within the PROJECT MANUAL and/or as amended by Addendum as prepared by the Designer and General Contractor.

6. Form of Agreement between the Owner and General Contractor containing the General Conditions for the Contract of Construction as contained within the PROJECT MANUAL, – Contract Documents.

7. Project Construction Schedule as prepared by the General Contractor contained within the SCOPE AND INFORMATION MANUALS – Contract Documents.

8. Safety Procedures and Requirements contained within the PROJECT MANUAL, – Contract Documents.

3.1. All Contract Documents shall be at each Subcontractor's expense.

3.2. Modifications are prohibited to the Standard Form of Agreement between the Contractor and Subcontractor. Successful Bidders will be required to execute the agreement without exception.

IV. APPLICATIONS FOR PAYMENT

4.0. Application for Payment Format – Applications for Payment must be submitted by the Subcontractor/Supplier Standard Application & Certification for Payment Forms furnished by the General Contractor. No exceptions will be allowed. Reference the Subcontractor/Supplier Standard Application & Certification for Payment Forms which are included within the PROJECT MANUAL for further information.

4.1. The Schedule of Values shall be approved by the General Contractor prior to the Subcontractor or Supplier submitting its first application for payment. The schedules of values must be submitted to the General Contractor for approval at least thirty (30) days before the Subcontractor or Vendor apply for payment.

4.2. The Subcontractor shall modify its Schedule of Values as directed by the General Contractor in order to provide sufficient breakdown of cost, reflect changes within the Subcontract Sum due to Change Orders and/or other modifications of the Subcontract Agreement.

4.3. All MWBE sub-Subcontractors and Suppliers shall be listed separately on the Trade Subcontractor or Supplier's Schedule of Values in order to easily track payments to these companies. Additionally, each Trade Subcontractor shall submit a completed "Appendix E – MBE Documentation for Contract Payments" Form with each of its Applications for Payment.

4.4. Materials stored on site may be submitted for payment provided the following conditions are adhered to by the Subcontractor:

1. Material is on site and properly stored and protected.

2. Submittals for materials have been forwarded to the General Contractor and Designer for review and the Designer has provided an acceptable review.

3. Field receiving reports (material delivery tickets) are provided with the Applications for Payment. The description and quantities of the subject material being invoiced shall be depicted on the subject field receiving report in order to comply with this requirement.

4. The material on site is the same material submitted and reviewed by the General Contractor and Designer.

5. Stored materials must be specific to the project. Items such as conduit, wire, pipe, etc. will not be paid for as stored material without prior approval of the Owner, General Contractor and the Designers.

4.5. Material stored off site may be submitted for payment provided the following conditions are adhered to by the Subcontractor:

1. The General Contractor must receive approval from the Designer and Owner on behalf of a Subcontractor prior to approving payment.

2. Material is in a bonded warehouse and properly stored and protected.

3. Submittals for materials have been forwarded to the General Contractor and Designer for review and the Designer has provided an acceptable review.

4. Field receiving reports (material delivery tickets) are provided with the Applications

for Payment. The description and quantities of the subject material being invoiced shall be depicted on the subject field receiving report in order to comply with this requirement.

5. The stored material is the same material submitted and reviewed by the General Contractor and Designer.

6. Material shall be fully insured by the Subcontractor to include full replacement thereof due to theft, fire, natural disaster, or any other cause under or outside the control of the Subcontractor. Subcontractor's insurance company via a certificate of insurance or letter as deemed acceptable to the Owner and/or General Contractor shall confirm that this separate coverage is intact prior to considering processing payment to Subcontractor. Offsite materials shall be stored in a bonded warehouse acceptable to the General Contractor and Owner in order to be considered for payment.

7. Bill of Sale for all stored materials are provided with the Applications for Payment.

8. Stored materials must be specific to the project. Items such as conduit, wire, pipe, etc. will not be paid for as stored material without prior approval of the Owner, General Contractor and the Designers.

9. The stored materials must be clearly marked for this project only at the stored location and stored separately from other materials, such that this material can be clearly delineated in provided photos satisfactory to the Owner, Designer and General Contractor. The Owner, Designer or General Contractor also require inspection of said materials, so this subcontractor or vendor shall fully cooperate to accomplish this inspection.

4.6. Retainage - The General Contractor shall pay ninety-five percent (95%) of the amount due to the Subcontractor which is an equivalent to five percent (5%) retainage. Upon fifty percent (50%) completion of the overall project and the Subcontractor's Scope of Work and if the project is proceeding satisfactorily as determined by the General Contractor, Designer and Owner and if approved by the Owner, no further retainage will be withheld from the Subcontractor. The retainage withheld (totaling two and one-half percent (2.5%) retainage at final completion) after the Subcontractor achieving the fifty percent (50%) completion stage of its Work shall be held until final completion is achieved. If the project is not proceeding satisfactorily on or after the Subcontractor achieves the fifty percent (50%) completion stage as determined by the General Contractor and Designer and Owner, retainage shall remain or be readjusted to five percent (5%). Additionally, retainage will not be withheld on materials purchased by the General Contractor through a Purchase Order Agreement.

4.7. Quick Payment Program – In order to promote a good faith effort to recruit Historically Underutilized Businesses, Minority Business Enterprises and/or Non-Minority Business Enterprises, the General Contractor will consider implementing a quick payment program for this project. This quick payment program / process must be approved and facilitated by

the Owner through early payments to the General Contractor. In all cases, each Subcontractor who wants to be considered for inclusion in this program shall provide a written request to the General Contractor on or before thirty (30) days prior to submission of its first Application for Payment. The General Contractor will also consider reviewing a Subcontractor's request if submitted to the General Contractor with its Subcontractor / Supplier Pre-qualification Application. Following receipt and review of the aforementioned written request, the General Contractor will advise the Subcontractor of its decision of what it can and cannot do in order to assist the Subcontractor with expediting its payments.

4.8. At a minimum, the Subcontractor's written request for enrollment into the General Contractor's Quick Payment Program shall include the following for review and consideration by both the General Contractor and Owner. Please note that only Subcontractors who may benefit from this program will be considered for inclusion. The General Contractor's decision on this matter will be final.

1. Provide a specific reason(s) as to why your company needs to receive payment on an alternative payment schedule (e.g., every two weeks, etc.) in lieu of the payment terms defined herein.

2. The aforementioned reason(s) shall be accompanied with an explanation and documentation in order to substantiate as to why this is necessary in order for the applying firm to meet its financial obligations.

3. Documentation which must be provided to the General Contractor shall include, but not be limited to the following:

    i. A comprehensive project list must be provided to include all projects currently under contract between an Owner(s) or other Contractor(s) and the applying Subcontractor.

    ii. Comprehensive project list shall include each project's completion status, contract amount between applying firm and Owner or other Contractor and amount of each contract currently paid to date.

    iii. Copies of recent bank statements (last six (6) months) illustrating the applying Subcontractor's cash on hand and its recent payment history.

4. Provide a proposed payment schedule and frequency thereof for review and consideration.

5. Define any other reasons for consideration for enrollment into the General Contractor's Quick Payment Program.

4.9. "Quick Payment Agreement" form to be used as part of this Quick Payment Program is included in Section 01600 - Forms of this Project Manual.

4.10. Joint Check Agreement – If deemed in the best interest of the Project, as determined by the General Contractor, the General Contractor may require the Trade Subcontractor to pay its Sub-subcontractor or Supplier via Joint Check. If required, the following procedure must be undertaken to complete the joint check process.

1. This Subcontractor shall provide the General Contractor with a comprehensive list of all material / equipment Suppliers and/or Sub-Subcontractors with whom the Trade Subcontractor intends on or will be purchasing materials / equipment and/or sub-subcontracting certain aspects of the Work for this project.

2. On behalf of the Trade Subcontractor, each of the proposed material / equipment suppliers or sub-subcontractors who are contracted by the Trade Subcontractor shall be paid by the General Contractor via a joint check naming both the Trade Subcontractor and material/equipment supplier or sub-subcontractor as a payee on the applicable check.

3. A joint check agreement shall be executed between the Trade Subcontractor and General Contractor in accordance with the General Contractor's standard Joint Check Procedure defined herein. There needs to be a Joint Check Agreement for each of the Trade Subcontractor's suppliers or Sub-subcontractors. Both signatures need to be notarized on each of the agreements.

4. The Trade Subcontractor shall also have its Material/Equipment Supplier or Sub-subcontractor shall submit and notarize a "Partial Wavier of Liens" form with each application of payment in order for the General Contractor's accounting department to determine the exact amount of each applicable joint check to be issued for the Trade Subcontract.

The following steps need to be completed every month before payment can be released by the General Contractor:

5. The Trade Subcontractor needs to supply the General Contractor with all invoices due to their sub-Subcontractors or Suppliers for that month.

6. A partial lien waiver needs to be completed for the correct amount scheduled to be paid to each sub-Subcontractor or Supplier that month.

7. Each Supplier and Subcontractor need to sign the partial lien waiver and both signatures are to be notarized.

8. Checks will be issued jointly to the Sub-subcontractor or Supplier and Trade Subcontractor. The Trade Subcontractor will need to execute and endorse the back of the check. In turn, the check will then be given to the Sub-subcontractor or Supplier by the General Contractor.

9. Reference the General Contractor's Joint Check Agreement Form included in Section 01600 of this Project Manual for further information.

4.11. Early Release of Final Payment – Contingent upon receipt of approval from the Owner, a particular Subcontract may be closed out financially upon the completion of the applicable Subcontractor's Scope of Work. In any event, prior to a Subcontract being closed out financially, the General Contractor and/or Designer must complete a Final Inspection of the Subcontractor's work, all punch list items, if applicable, must be completed in their entirety by the applicable Subcontractor and all required close out documentation shall be received and approved by the General Contractor, Designer and/or Owner. Additionally, if the Subcontractor's work is closed out financially prior to the achieving the substantial completion date of the project, all warranties and guarantees shall be post dated to the Substantial Completion date of the project. Upon completion of the aforementioned, and only contingent upon the Owner's concurrence, the applicable Subcontract will be considered complete and will be closed out accordingly.

4.12. Reference other Specification Sections contained within the PROJECT MANUAL as prepared by the General Contractor or Designer for other requirements pertaining to this section.

V. CHANGE ORDER PROCEDURE

5.0. Change Order Work

a. Definition: Any work that changes the scope of the Subcontractor's/Supplier's agreement whether directed by the Owner, Architect, or General Contractor.

b. Instructions for change order Work of any type must be in writing and include a General Contractor Proposed Change Order Number (PCO Number).

c. Extra Work performed without prior written instruction AND including a General Contractor's PCO Number will be at the Subcontractor's/Supplier's expense.

d. It is the Subcontractor's responsibility to ensure that the field supervisors are familiar with the extent and scope of Subcontractor's Work so that the Work is not delayed due to disagreements regarding contractual responsibilities.

e. **All Field Work Tickets are to be signed daily by the General Contractor's authorized representative.** Signing of this Field Work Ticket only constitutes Subcontractor has performed the work in question, **not** approval that Subcontractor will receive compensation. Each Field Work Ticket must have a **detailed** description of the work performed, itemized materials list, equipment utilized, and man-hours hours spent. Subcontractor shall forward to the General Contractor within one (1) week of such occurrence a Request for Change Order in the format defined herein. Failure to provide **all** information may result in rejection of claim.

5.1. Changes in Scope of Work

a. General Contractor will review all changes initiated by the Owner or Architect, assign a General Contractor PCO Number, and forward the information to applicable Subcontractors/ Supplier's with instructions.

b. It is imperative that the Subcontractor/Supplier's reply with a response in writing for the proposed change Work within five (5) business days of receipt of the General Contractor's **Proposed Change Order (PCO)** Letter. All proposals must include itemized breakdowns including the following:

i. Material
ii. Equipment rental
iii. Labor
iv. Taxes
v. Overhead and profit
vi. Bond/insurance, if applicable

c. If at the time Subcontractor submits his quotation (Change Proposal) he does not specify that a time extension is required, he will be required to complete the work required by the change as indicated by the most current Project Schedule.
Each change proposal shall reference only one General Contractor PCO Number. Change proposals that do not have the proper General Contractor PCO Number listed and/or a complete breakdown will be returned to the Subcontractor and may result in rejection of claim.

d. The pre-assigned Proposed Change Order Number shall be referenced on all correspondence relating to CHANGES and PROPOSED CHANGES once a number has been assigned.
When a Subcontractor/ Supplier submits a change proposal for a change under a particular referenced Proposed Change Order Number, it will be assumed to cover all Work required by that change unless indicated otherwise. It is the Subcontractor's/Supplier's responsibility to investigate the total scope of the change and notify General Contractor at the time the change proposal is submitted, of any exclusions and/or qualifications that would affect Subcontractor's/Supplier's quote.

e. If a change order(s) significantly increases the Subcontract value (in excess of 15% of the original subcontract amount), Subcontractor must provide a rider from its surety company increasing the Performance and Payment Bond amounts.

f. When Owner, Designer and General Contractor have approved Subcontractor change in scope, a Subcontractor Change Order will be issued.

5.2. Time and Material Change in Scope of Work (T&M) - If Subcontractor is instructed to perform Work on a "time and material" basis, the cost of the Work is to be documented as follows:

a. Prior to proceeding with any time and material Work, Subcontractor must obtain a **Field Work Ticket (Copy included in Section 01600 of this Project Manual)** form, along with a General Contractor PCO Number from the General Contractor's Project Manager responsible for that Project.

b. The **Field Work Ticket** (**included in Project Manual)** form must be completed in its entirety and **signed daily by the General Contractor's Superintendent or Project Manager**.

c. Time and material tickets are to be signed on a daily basis by General Contractor's authorized representative and attached as documentation to the **Field Work Ticket** form. One (1) copy of the signed ticket is to be given to General Contractor's authorized representative prior to leaving the site at the end of each day. Information on the daily tickets is to include:
i. Date
ii. Subcontractor

iii. Complete description of the Work, including type, location, extent, quantities, etc.
iv. Manpower involved, broken down by trade and number of hours worked by each
v. Material used
vi. Equipment used
vii. Include General Contractor reference number
viii. Estimated cost to complete the Work

d. **Extra Work Authorization** directives issued by the General Contractor are **valid for a Thirty (30) Calendar Day period**. If work extends beyond (30) calendar days, the subcontractor performing the work is responsible for obtaining a new **Extra Work Authorization** from the General Contractor. Failure to obtain a new **Extra Work Order** will result in rejection of payment for the work.
e. Failure to fully comply with the above requirements will result in rejection of claim.

5.3. Billing of Changes - All Subcontractor Pay Applications for base contract Work and change order Work (including change in Scope of Work, time and material Work, etc.) will be paid as progress billings ONLY. There will be no payments for change order work of any type without a signed General Contractor Change Order.

a. Change in Scope of Work - Upon receipt of a contract/change order from the Designer or Owner; General Contractor will issue a Subcontract Change Order.
b. Change in Scope of Work **not** involving the Owner or Designer - Upon General Contractor's review and approval of Subcontractor's quotation, General Contractor will issue a Subcontract Change Order.

5.4. Overhead and Profit Mark-up –

a. Subcontractor agrees to be bound to the provisions of the Contract Documents between the Owner and the General Contractor, with regards to percentage markups for changes and in no case shall the applicable percentage for overhead and profit for all tiers of Subcontractors exceed the amount shown on the Subcontract.
b. Supervision costs included in the original Subcontractor's Agreement cannot be included in any change order pricing unless additional supervision is required to execute change.
c. Overhead and fee will not be allowed on premium time.

5.5. In order to facilitate checking of quotations for extras or credits, all change requests from Subcontractors or Suppliers, except those so minor that their propriety can be seen by inspection, shall be accompanied by a complete itemization of costs including labor, materials, equipment and sub-Subcontractors. Labor and materials shall be itemized in the manner prescribed below. When major cost items as provided through sub-subcontracts are applicable to the particular change request, the same itemization shall be required of the sub-Subcontractor. In no case will a change involving over $500.00 be approved without such itemization.

5.6. All change requests shall be submitted directly to the General Contractor for review and approval and when applicable, subsequent submission to the Designer and Owner for their review and approval.

5.7. Submit one (1) original cost proposal along with all appropriate supporting documentation, including at least invoice(s) for any materials, cost proposal for any sub-subcontract work, invoice(s) for equipment rental, etc.

5.8. The Subcontractor's Change Order Request shall include an allowance for overhead and profit in accordance with the schedule as follows:

- 10% on net additional cost for work performed by Subcontractor's own forces or for work performed by others under sub-subcontract to the Subcontractor.
- No markups will be allowed below a sub-subcontractor level.
- For all change orders (additive or deductive) to the subcontract sum, the change order shall include the net cost plus ten (10%) overhead and profit.
- Reference General Conditions, Article 7 for specific percentage adjustments applicable to Changes associated with a Subcontractor or Suppliers work.

5.9. Change requests that result in an added cost of more than $500.00 shall be accompanied with an itemized cost breakdown of all material, labor, equipment, sub-subcontract work and bonds (if applicable) similar to the following format.

Change Request Cost Breakdown

Materials	
xxx units @ $xxx/unit	$xxx.xx
sales tax	$xx.xx
Total Material:	$xxx.xx
Labor	
tradesman xxhrs @ $xx.xx/hr	$xxx.xx
payroll tax & insurance @ xx%	$xxx.xx
Total Labor:	$xxx.xx
Rental Equipment	
Equipment xxday @ $xx.xx/day	$xxx.xx
Total Rental Equipment:	$xxx.xx
Sub-subcontract	(see attached separate material and labor breakdown)
Total Sub-subcontract:	$xxx.xx

Change Request Cost Summary

Self-Performed Work	
Total material	$xxx.xx
Total labor	$xxx.xx
Total rental equipment	$xxx.xx
Subtotal	$xxx.xx
Overhead / profit @ 15%	$xxx.xx
Subtotal Self Performed Work:	$xxx.xx
Sub-subcontract Work	
Total sub-subcontract	$xxx.xx
Overhead / profit @ 8%	$xxx.xx
Subtotal Sub-subcontract Work:	$xxx.xx
Total Self Performed and Sub-subcontract Work:	$xxx.xx
Bond Premium (if applicable)	$xxx.xx
Total Change Request Amount:	$xxx.xx

5.10. Labor rates and labor burden must be substantiated through a detailed cost breakdown acceptable to the General Contractor.

5.11. Upon request from the General Contractor for a specific change order proposal, the Subcontractor shall submit a change request proposal in accordance with the previously described format by no later than five (5) calendar days upon receipt of the request.

5.12. Should the Subcontractor discover a discrepancy among the Contract Documents or a concealed condition or other cause for initiating a change in the Subcontract Sum or Time of Completion, the Subcontractor shall notify the General Contractor immediately, but no later than seven (7) calendar days or sooner if required by other pertinent provisions of the Contract Documents. Failure to notify the General Contractor within the aforementioned established timeframe may result in a "No Cost" Change Order to the Subcontractor.

5.13. Should the Owner and/or Designer approve a change in the Work or a change in the Contract Time of Completion, the General Contractor shall issue a Change Order or a Notice to Proceed in the Change of the Work to the Subcontractor or Supplier for an agreed upon dollar value.

5.14. Cost Increase Policy – Subcontractor has assumed the risk of cost increases and the effects of shortages or lack of availability of materials, energy, goods, and labor, and neither the

price nor schedule for performance and completion of the Work shall be subject to adjustments should any of these risks arise.

5.15. Upon request, Subcontractor shall assist the General Contractor in preparing Time and Material / Unit Price Estimates before the Extra Work commences.

VI. SUBMITTALS

6.0. Timing of Submittals - Upon receipt of a Notice to Proceed, Subcontract Agreement or Purchase Order Agreement from the General Contractor, all submittals supporting critical path activities shall be transmitted to the General Contractor for review and subsequent forwarding to the Designer for review within thirty (30) calendar days, unless reflected otherwise within the Project Construction Schedule.

All submittals must be submitted to the General Contractor within thirty (30) calendar days from receipt of a Notice to Proceed, Subcontract Agreement or Purchase Order Agreement from the General Contractor. Only with prior approval from the General Contractor, at the latest any submittal shall be submitted to the General Contractor is sixty (60) calendar days from receipt of a Notice to Proceed, Subcontract Agreement or Purchase Order Agreement from the General Contractor. Subcontractor Monthly Pay Applications shall include a separate line item for submittals acceptable to the Owner, Designers and General Contractor. Subcontractor Pay Applications will not be processed for payment until **all** submittals have been submitted to the General Contractor for review and approval.

6.1. Prior to the Subcontractor preparing the submittals, the General Contractor shall advise the Subcontractor or Supplier of the required number of submittals including shop drawings, product data or color samples to be transmitted to the General Contractor for review. At a minimum, the Subcontractor shall assume a minimum of seven (7) copies. All submittals shall also be provided in a PDF electronic format organized by specified sections, paragraphs and subparagraphs numerical system.

6.2. It shall be the Subcontractor or Supplier's responsibility to forward all submittals far enough in advance to provide sufficient time required for reviews, for securing necessary approvals, including possible revisions and re-submittals, and for placing orders and securing delivery to enable installation of material or equipment to meet the Project Construction Schedule.

6.3. No extension of Subcontract Time will be authorized because of the Subcontractor or Supplier's failure to transmit submittals to the General Contractor sufficiently in advance of the Work to permit processing.

6.4. Each Subcontractor shall allow at least fourteen (14) calendar days for review of submittals by the General Contractor and an additional twenty (20) calendar days for review by the Designer following receipt of the submittal. Each Subcontractor is responsible for timely submission of submittals. Submittals shall be transmitted enough in advance of the work to permit processing including resubmittals. All costs for schedule delays or expediting costs associated with deliveries and work for late submission is the responsibility of the submitting Subcontractor.

6.5. Coordinate transmittal of different types of submittals for related elements of the Work such that processing will not be delayed by the need to review submittals concurrently for coordination. The General Contractor and/or Designer reserve the right to withhold action on any particular submittal requiring coordination with other submittals until all related submittals are received.

6.6. If required by the General Contractor, the Subcontractor or Supplier shall provide to the General Contractor six (6) sets of "Field Use Drawings" (i.e., rebar, structural steel, bar joist, trusses, food service equipment layout, etc.) for distribution to other Subcontractors for coordination purposes. "Field Use Drawings" shall incorporate all Designer approved and/or directed revisions and include the words "Field Use Drawings" stamped on each sheet.

6.7. Prior to each submittal, the Subcontractor or Supplier shall carefully review and coordinate all aspects of each item being submitted.

6.8. The Subcontractor or Supplier shall verify that each item and the submittal for it, conforms in all aspects with the specified requirements.

6.9. All shop drawings submitted shall be marked with the name of the project and associated building, numbered consecutively and bear **the signed and dated stamp of the approval of that Subcontractor or Supplier** as evidence that the drawings have been checked by the Subcontractor or Supplier. Any drawings submitted without this stamp of approval shall not be reviewed and shall be returned to the Subcontractor or Supplier for resubmission. In lieu of a review stamp, the Subcontractor or Supplier may provide **a letter with each submittal certifying the contents of the submittal have been reviewed by the Subcontractor or Supplier and that the same has been reviewed for compliance with the Contract Documents.** If the shop drawings indicate variations from the requirements of the Contract Documents because of standard shop practices or other reasons, the Subcontractor or Supplier shall make specific notation of such variations in its letter of transmittal and on the drawings in order that, if acceptable, suitable action may be taken for proper adjustment; otherwise, that Subcontractor or Supplier shall not be relieved of the responsibility for executing the Work in accordance with the Contract Documents even though such shop drawings have been reviewed.

6.10. Reference other Specification Sections including but not limited to submittals, as-built and record documents contained within the PROJECT MANUAL as prepared by the General Contractor or Designer for other requirements pertaining to this section.

VII. SUBMITTAL OF SUBSTITUTIONS

7.0. The Trade Subcontractor or Supplier's Base Bid shall be in strict accordance with the Contract Documents.

7.1. The Trade Subcontractor has the option of requesting substitutions during the bid period by submitting a completed Substitution Request Form to the General Contractor.

7.2. The Substitution Request Form shall be submitted a minimum of ten (10) calendar days prior to the Bid Date. Requests received by the General Contractor within ten (10) calendar days prior to Bid Date shall be included within an addendum, if acceptable to the General Contractor, Designer and/or Owner.

7.3. Reference the "Substitution Request Form" which is included in Section 01600 - Forms in this Project Manual or in not there, reference the Designer's Technical Specifications of their Project Manual.

7.4. Subcontractors submitting substitution request shall be responsible for coordination and all costs of other work required and/or necessitated by the substitution.

VIII. COORDINATION WITH OTHER TRADE SUBCONTRACTORS

8.0. Each Trade Subcontractor or Supplier shall coordinate its work with the work of the other Trade Subcontractors or Suppliers in such a manner as the General Contractor may direct.

8.1. Subcontractor understands and agrees that the Work performed under this agreement is intended to be a complete Scope of Work and shall perform such Work as may be reasonably inferred from the Contract Documents or required to complete the Work.

8.2. All RFI – Request for Information (questions, confirmation and clarifications of the contract documents) are required to made using the General Contractor's Procore Project Management System. Subcontractor shall obtain permission rights and password from the General Contractor.

8.3. If a Trade Subcontractor notifies the General Contractor in writing that a second Trade Subcontractor on the project is failing to coordinate its work with the work under the first Trade Subcontractor's Subcontract, the General Contractor will promptly investigate the matter and, if the allegation is determined to be justified, shall issue such directions to the second Subcontractor as are appropriate or as deemed necessary to resolve the issue. However, the General Contractor shall not be liable for any costs incurred by the Subcontractor by reason of the second Subcontractor's failure to coordinate or his failure to comply with directives of the General Contractor. Additionally, it shall be understood and agreed to by all Trade Subcontractors that the General Contractor does not guarantee that other Trade Subcontractors will not breach their obligations to coordinate their work with that of the Trade Subcontractor.

8.4. Various Trade Subcontractors and their respective Sub-subcontractors are required to work the days required when coordination between the Trade Subcontractors is required, even if the additional days worked are not considered a scheduled or normal workday. Trade Subcontractors can achieve this coordination by alternating workdays and/or shifts in a manner so as not to incur overtime or additional cost to the Trade Subcontractor. Instances which may require coordination, include but are not limited to, the following items:

A. Blockout sizing, locating and installing within:

1. Footings
2. Slabs on grade
3. Elevated Slabs
4. Masonry
5. Roof Decks

B. Installation of material within concrete, masonry, metal stud framing, drywall, acoustical ceiling grid, etc.:
1. Anchor Bolts
2. Embeds
3. Anchorage's and/or backing
4. Structural Steel Framing
5. Building Insulation
6. Electrical
7. Plumbing
8. HVAC
9. Fire Protection
10. Fire Safing
11. Spray-on Fireproofing

8.5. Failure on the Trade Subcontractor's part not to coordinate and provide sufficient manpower to maintain the Project Construction Schedule shall be at no fault of the other Trade Subcontractors and their Sub-subcontractors. Any demolition and rework required to install work which should have been located and/or installed during the construction and/or erection of other work shall be back charged to the negligent Trade Subcontractor(s) and deducted from its Subcontract Amount.

8.6. Fireproofing - All items that are attached to the structural steel and/or metal deck must be in place before the fireproofing is installed. Should this Subcontractor damage or disturb the fireproofing this Subcontractor will be charged for patching and repair costs.

8.7. Backing and Blocking -
a. The Drywall, Framing and Insulation Subcontractor shall provide all backing, blocking, and/or concealed framing required within their work and shall install same in a timely manner so as not to delay the Work of other trades. Fire-treated wood shall be used as required.
b. The Drywall, Framing and Insulation Subcontractor shall provide all in-wall blocking (and include double studs) as necessary to be attached to framing for support. The Drywall, Framing and Insulation, Subcontractor shall include all wood blocking attached to studs for systems installed by Others. Each Subcontractor requiring the blocking shall coordinate location and confirm/verify layout/installation of all blocking requirements with the installing subcontractor. All wood blocking and plywood to be fire rated as required. This includes plywood backing at all electrical panels, control panels, etc.
c. In-wall blocking support for all "Owner Furnished Contractor Installed", "Owner Furnished Owner Installed," and "Vendor Furnished Contractor Installed" equipment shall be furnished and installed by the Drywall, Framing and Insulation

Subcontractor. Work provided by the Drywall, Framing and Insulation Subcontractor shall include, but not be limited to, wood, metal backing, framed openings, etc. sufficient to support the equipment while in static or operating position.

d. All Roof blocking including but not limited to nailers, cants, plywood at parapets, blocking at parapets, blocking at eves, rakes and freeze boards, expansion joints, roof openings, etc. shall be by the Roofing Subcontractor(s).

e. Provide all materials as required (misc. iron, brackets, pipe, hangers, rods, inserts, etc.) to support, hang, secure, mount, and brace all equipment and materials encompassed by the terms of the Subcontract.

f. Provide all welding, bolting, fasteners, anchors, anchorage devices, and devices of similar distinction as required for the performance of the Work in the Subcontract.

8.8. Dewatering - Dewatering operations as needed to facilitate and continue work are included within each applicable Subcontract. Provide sump pits or other suitable means as required for dewatering.

8.9. Equipment Coordination - All Work associated with Owner or Vendor Furnished Equipment shall be coordinated with the manufacturer's requirements, product data/cut sheets, Owner requirements, and other trades Work.

IX. PRECEDING WORK / EXISTING CONDITIONS

9.0. All Trade Subcontractors and Suppliers shall be responsible for inspecting all job conditions affecting the installation of an item being furnished and/or installed as part of their respective Work. Additionally, all Trade Subcontractors and Suppliers shall take field measurements required prior to fabrication of an item to ensure that the item concerned will integrate properly with all adjacent materials and fit all other conditions as they exist or will exist in the finished construction.

9.1. All Work in connection with installation of an item(s) being furnished and/or installed as part of a Trade Package Scope of Work shall be coordinated with all other affected work and trades.

9.2. Each Subcontractor is responsible for inspecting the work that precedes its work and reporting any deficiencies which will affect its work to the General Contractor prior to commencing with the new work. Once the new work has been installed over preceding work, the General Contractor shall consider this action as the Subcontractor installing the new work as acceptance of all preceding work.

X. LIQUIDATED DAMAGES / SCHEDULE RECOVERY PLAN

10.0. Reference the CM – Owner Agreement for a detailed outline of the liquidated damages applicable to this project. Each Trade Subcontractor is responsible for liquidated damages if enacted by the Owner based on the portion thereof contributed by the Trade Subcontractor due to non-performance of its agreement between the General Contractor and Subcontractor.

10.1. Further requirements of this section are defined below.

10.2. The Dates for Substantial Completion and Final Acceptance / Completion are designated on the Project Construction Schedule.

10.3. As time is of the essence, all efforts shall be taken by all Trade Subcontractor's or Supplier's to ensure that the durations and dates within the Project Construction Schedule are maintained and are met by all project participants.

10.4. If enacted by the Owner due to the project failing to meet its scheduled dates plus time extensions granted by the Owner, liquidated damages will be accessed to the Trade Subcontractor(s) who is determined to be the cause of the delay. This determination will be made by the General Contractor by completing a detailed analysis of the "Critical Path" contained within the Project Construction Schedule. Once the schedule activity(s) is determined and the responsibility thereof assigned, the Trade Subcontractor initially causing the delay will be obligated to pay / reimburse the liquidated damages to the General Contractor to be paid to the Owner. If it is determined that the responsibility of the delay is a result of more than one Trade Subcontractor's inability to maintain the durations and dates on Project Construction Schedule, then the General Contractor will appropriate a pro-rata share of the liquidated damages to each Trade Subcontractor responsible for the delay.

10.5. If required, the Trade Subcontractor's application for payment may be placed on hold by the General Contractor in an amount(s) deemed sufficient to cover projected liquidated damages if it is likely that liquidated damages will be assessed by the Owner.

10.6. During the course of the project and if it is found that a particular Trade Subcontractor is behind schedule as measured by the current Project Construction Schedule, the General Contractor will serve the delinquent Trade Subcontractor a written notice of the delay and will instruct the Trade Subcontractor to provide a schedule recovery plan to the General Contractor for review and approval. The Trade Subcontractor will be allowed seventy-two (72) hours to submit this plan for review and approval. Upon receipt, the General Contractor will respond promptly as to the acceptance or rejection of this plan. If the Trade Subcontractor fails to submit an acceptable schedule recovery plan to the General Contractor within the seventy-two (72) hour time frame, the General Contractor will provide a mandatory schedule recovery plan to the Trade Subcontractor for its execution.

10.7. The Trade Subcontractor shall maintain the schedule recovery plan by working overtime, weekends, multiple shifts, multiple crews, etc. at no additional cost and as required to maintain and achieve the durations and activity completion dates defined within the Project Construction Schedule. The Trade Subcontractor may become responsible for the additional supervisory time required by the General Contractor as a result of the Trade Subcontractor not maintaining the Project Construction Schedule.

10.8. All Trade Subcontractor's or Supplier's recognize that the Project Construction Schedule represents the latest an activity shall start. Should the Project Construction Schedule be

improved during construction, the Trade Subcontractor or Supplier Subcontractor shall be required to begin the Work as soon as the preceding work allows or as expeditiously as the progress of the project permits in the opinion of the General Contractor.

10.9. If a Trade Subcontractor falls behind schedule for causes not entitling it to an extension of time under any provisions within the Contract Documents, and the delay in progress causes delay to another Trade Subcontractor's performance, the Trade Subcontractor shall indemnify and hold harmless the General Contractor from all reasonable costs incurred as a result of the delay.

10.10. Additionally, time is of the essence as it relates to crew sizing and scheduling of critical path activities, particularly those associated with work covered by each Trade Subcontractor's Scope of Work. The scheduling of each Trade Subcontractor's Scope of Work shall be based on the fact that different portions of the project will be undertaken separately and completed simultaneously in a timely manner in order to accomplish all work within the time frames designated within the Project Construction Schedule. Unless alternate scheduling proves the project can otherwise be completed on schedule, activities among different portions of the building shall not be interdependent.

XI. PERMITS, FEES, INSPECTIONS AND TESTING & LICENSING

11.0. The NCDEQ grading permit will be obtained by the Owner at no cost to the Trade Subcontractor(s).

11.1. All sanitary sewer and water tap and/or impact / connection fees, acreage fees, frontage fees, etc. will be paid directly by the Owner at no cost to the Trade Subcontractor(s).

11.2. Water meters and associated meter fees, if applicable shall be paid by the Owner at no cost to the Trade Subcontractor(s).

11.3. The Building Permit will be paid by the Owner at no cost to the Trade Subcontractor(s).

11.4. Any other applicable permits, licenses, and fees not included as part of the Building Permit including permits for HVAC, Plumbing, Electrical and/or Fire Protection Work shall be obtained and paid for by the respective Trade Subcontractor requiring the permit in order to be authorized to commence its work on site. New Hanover County is the permitting authority for this project.

11.5. Where tests, certificates or approvals by authorities other than the Designer are required for an item of work or material, the Trade Subcontractor shall have such tests performed and/or shall procure such certifications or approvals and forward four (4) copies of the test results of the certificates or approvals to the General Contractor prior to proceeding with the work involved. Such laboratories and/or authorities as are employed for this purpose shall be competent, with a generally recognized reputation in the field concerned and shall be subject to approval of the Designer.

11.6. Inspections by the Local Fire Marshal, City or County Building Inspectors or Utility Companies shall be obtained by and coordinated by the Trade Subcontractor through the General Contractor. The cost of inspections shall be borne by the responsible Trade Subcontractor for applicable inspections.

11.7. Each Trade Subcontractor shall be responsible for notifying the City Inspectors and/or County Inspectors and/or State Inspectors when their services or inspections are required. Expedite notification to insure proper lead-time. The Trade Subcontractor shall notify the General Contractor in writing twenty-four (24) hours prior to any inspection.

11.8. Independent Construction Materials Testing, Field Inspections and Special Inspections specifically provided by the Owner, will be at no cost to the General Contractor or Trade Subcontractor unless noted otherwise. The Subcontractor will offer complete cooperation to all testing and inspection-related personnel. Subcontractor shall provide the necessary equipment, devices, etc. to facilitate safe access to the points of inspection.

11.9. Excluding only tests and testing performed by a Testing Engineer employed by the Owner, the Subcontractor shall be responsible for the execution of all tests and testing required by the Specifications and by all governmental authorities having jurisdiction and shall pay the costs of all such tests and testing. The Subcontractor shall submit certified results of the test to the General Contractor for the Architect's approval. If directed in writing by General Contractor, the Subcontractor shall provide additional tests and testing performed by approved personnel working under the direction and supervision of General Contractor.

11.10. If retesting a certain aspect of the work results in confirmation of an initial failed test result, then the Trade Subcontractor responsible for the failed test result shall be responsible for reimbursing the cost thereof to the Owner for the additional testing work.

11.11. Each Trade Subcontractor shall be responsible for notifying the General Contractor in accordance with the Contract Documents, but no less than one (1) week of a specific work activity requiring an Owner furnished test and/or inspection in order for the General Contractor to timely schedule Owner furnished Construction Testing/Inspection Services. Failure of the Trade Subcontractor to advise the General Contractor no less than one (1) week of the requested testing and/or inspection shall not constitute an extension of time should the Construction Testing/Inspection Services not be available at the requested time.

11.12. Each Trade Subcontractor shall be responsible for having a Specialty Contractor's license to perform its Scope of Work as required by all state and/or local governing codes and/or requirements. For example, the HVAC, Plumbing, Electrical, Fire Protection, Site Utilities Trades require a Specialty Contractor's License in the State of North Carolina.

XII. PROJECT MEETINGS / REPORTING

12.0. Pre-construction Meeting – A Pre-Construction Meeting will be scheduled and conducted by the General Contractor and Designer. All Subcontractors and Suppliers issued a Subcontract Agreement and/or Purchase Order Agreement shall attend this meeting. At a minimum, the Project Manager and Field Superintendent for the Subcontractor or Supplier

shall attend this meeting as many processes and procedures will be discussed in detail during the course of this important meeting. The Owner, Designer and other interested parties will also attend this meeting. The General Contractor will establish the time and place of this meeting.

12.1. Weekly Project Meetings - Project Site Meetings will be held weekly at the project site. The purpose of these meetings will be discussing the Project Construction Schedule, Safety, Coordination Issues, Status of Submittals, RFI's, Change Requests, etc. At least two (2) weeks prior to the start of a Subcontractor's on-site work and through the completion thereof, each Subcontractor shall be represented at every weekly meeting by its on-site Superintendent or Project Supervisor. Additionally, each Subcontractor or Supplier's Project Manager(s) is required to attend the weekly project site meeting at least twice a month or as required by the General Contractor. Failure to attend the required weekly meetings will result in a $500 fine per occurrence. The General Contractor will establish time and place of these meetings.

12.2. Preparatory Meetings - The Subcontractor and/or Supplier and its sub-Subcontractor(s) shall not commence with any new work at the project site until such time as a preparatory meeting is scheduled. The intent of the General Contractor's preparatory meeting is outlined below.

1. The purpose of the preparatory meeting is to indoctrinate the Subcontractor's employees and/or sub-Subcontractors of the specific requirements, changes, clarifications, interfaces with other work, safety related issues, etc. which may affect the forthcoming new work.

2. The Subcontractor shall provide the General Contractor with a proposed list of the work items for which a preparatory meeting must be held prior to commencing on site work. The list shall be provided to the General Contractor within Ten (10) Calendar Days of receiving a Notice to Proceed for approval.

3. Prior to the preparatory meeting being scheduled, all submittal requirements, pending changes and/or clarifications affecting the new work shall have been completed and/or resolved.

4. At a minimum, the Subcontractor's onsite supervisor and/or key foreman who are going to directly supervise the installation of the Subcontractors work shall be in attendance at this meeting. This superintendent must be able to discuss and make decisions relative to schedule, costs, scope of work, etc.

5. The General Contractor reserves the right not to proceed with new work until the preparatory meeting(s) is held with the Subcontractor.

12.3. All Subcontractors will be required to submit a Daily Construction Report by 10:00 AM of the following workday to the General Contractor. The report shall include the number of men by trade or craft, type and location of work. It shall include the Subcontractor's work and other information as required by the General Contractor. Each Subcontractor shall use

the General Contractor's "Daily Construction Report Form" which is included in Section 01600 - Forms of this Project Manual or received during the preparatory meeting.

XIII. QUALITY EXPECTATIONS

13.0. All items shall be installed in a workmanlike manner in accordance with the best-recognized practice in the field concerned.

13.1. Manufactured items shall be installed in strict accordance with the manufacturer's printed directions, specifications and/or recommendations for installation of highest quality. All working parts shall be properly adjusted after installation and left in new working order.

13.2. Unless otherwise indicated, items exposed to weather or subject to flooding or wetting shall be installed so as to shed and not retain water. Items shall in all cases be installed plumb and true and/or in proper relation to surrounding materials.

13.3. All materials entering into the construction of the building covered by this Contract, including but not be limited to, those mentioned below, shall be securely anchored and/or tied together in accordance with the best recognized practice in the field concerned whether shown, specified or not.

13.4. Ties and anchors shall be best quality and material for the purpose and/or location for installation. Wythes of masonry and corners of masonry walls and partitions shall be bonded together if possible unless otherwise specifically shown and where not bonded shall be secured with appropriate metal ties or anchors. Masonry walls shall be anchored to adjacent columns unless otherwise specifically shown.

13.5. All wood, steel, concrete or other framing shall be securely anchored and tied together and to supporting or abutting masonry. All veneer finishes and applied items shall be securely anchored and tied to the backing material.

13.6. Except for expansion joints or otherwise where materials are purposely separated, each and every piece of material integrated into the building shall be bonded, anchored, tied or otherwise secured in place in a permanent manner that will permit expansion, contraction and other minor movements and normal use of the structure without structural features of the building becoming impaired and without any of its components becoming loose.

13.7. If in the opinion of the General Contractor, a Subcontractor's work requires caulking to provide the "finished product" appearance of any item installed, that Subcontractor shall furnish and install that caulking whether specified or not within the Contract Documents at no additional cost.

13.8. Unless otherwise specifically mentioned, all anchors, bolts, screws, fittings, fillers, hardware, accessories, trim and other parts required for or in connection with an item of material to make a complete, serviceable, finished and first quality installation shall be furnished and installed as part of the item whether specified or not within the Contract Documents at no additional cost.

13.9. Unless otherwise specifically specified, all items and parts thereof that are made of steel, iron or other ferrous metal that are not galvanized, plated or otherwise specified to be factory finished, shall be cleaned and painted with one shop coat of the best quality rust inhibitive metallic primer by the Painting Subcontractor unless specifically specified in the Contract Documents or other trade scopes. After installation, all exposed metal connections and abrasions shall be touched up with the same materials as the shop coat and left in good condition for final finishing.

13.10. Each respective Trade Subcontractor shall provide its own related supporting devices, including but not limited to, hangers and supports, seismic hangers and supports, hanger saddles, vibration isolation hangers, and miscellaneous structural steel supports and/or angle frame supports which are not detailed or illustrated on the drawings as being provided as part of Division 5 – Metals Work which are needed to support equipment as defined within the respective Trade Subcontractor's Scope of Work. When applicable, the respective Subcontractor shall be responsible for obtaining written approval for all attachments (i.e., beam clamps, all thread hangers, uni-strut, clamps, braces, etc.) attached to other Subcontractor's work prior to commencing with the installation of said attachments. Failure to obtain written approval from the respective Trade Subcontractor and/or Designer may result in the General Contractor's rejection of the installation(s).

13.11. The Subcontractor requiring access shall furnish access panels as required for access to items in their scope of work, panels to be installed by the Drywall/Acoustical or Masonry Subcontractor in their respective Scope of Work. This Subcontractor providing the access panels is responsible for provision of specified panels, included rated panels as required. Provide layout and coordination prior to all wall and ceiling construction for all access panels. All access panels to be keyed identical throughout the Project and shall be coordinated with other Subcontractors by this Subcontractor.

13.12. Provide dewatering operations as needed to facilitate and continue work included within this Contract.

13.13. Mold Prevention and Management Plan – The Subcontractor will comply with all mold prevention and management requirements as detailed in the Construction Mold Prevention and Management Plan that is part of the Project Manual enclosures. This includes all responsibilities, procedural controls, and moisture controls pertaining to Subcontractor's Scope of Work. Water leaks are to be responded to immediately upon discovery. Subcontractors are responsible for all rework and damage due to mold per Subcontractor's work.

13.14. This Subcontractor shall be fully responsible for Federal ADA standards compliance in the construction of this work. Where the Contract Documents conflict with these requirements, it is the supplier's responsibility to bring these inconsistencies to the attention of General Contractor in writing for clarification by the designer prior to the installation of the work. If any work is produced contrary to the Federal ADA, then this Subcontractor will be responsible for the cost of all work to bring it to compliance.

13.15. All materials furnished by Subcontractor are furnished and installed unless clearly specified otherwise.

XIV. SEPARATE TRADE PACKAGE SCOPES OF WORK

14.0. Each section of the Designer's Division 2 through 33 project specifications has been assigned to a minimum of one of the Trade Package Scopes of Work. Where a section of the specifications is referenced or in a Trade Package Scope of Work, then any and all items necessary for the proper and normal installation of the item referenced in the specification sections shall be included whether indicated within the documents or not.

14.1. This Subcontractor is responsible for all Contract Documents for this project. No allowance will be made for lack of knowledge of other subcontractor's work or existing conditions required in connection with HVAC, plumbing, electrical and other Subcontractors, including Owner furnished equipment.

XV. ON SITE SUPERVISION / WORK HOURS / MULTIPLE MOBILIZATIONS

15.0. Subcontractors/Suppliers performing work on multiple buildings or areas of the project site (i.e., buildings, road widening, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each building or area unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

15.1. Each Subcontractor shall have supervision on site any time work within their scope or the Subcontractor's tiered Subcontractors are being performed unless approved otherwise by the General Contractor.

15.2. The General Contractor will establish the project work hours that shall be adhered to by all Trade Subcontractor's, Sub-subcontractors and the like assigned to the project. Refer to Section 01340 of the Project Manual and the Trade Package Scope of Work Clarifications.

15.3. Should a Subcontractor fail to provide a competent supervisor, the Subcontractor's employees, Sub-Subcontractors, etc. shall be directed by the General Contractor to leave the project site.

15.4. Subcontractor's Field Supervision - Supervisor must be knowledgeable in all codes applicable to the Work including scope performed by sub-subcontractors. Qualified full-time supervision (onsite) is required for daily procedures with sole authority to make decisions on behalf of the company.

15.5. The Subcontractor and/or Supplier or its Sub-Subcontractor(s) shall have a full-time employee on site that is capable of translating/communicating with the other site employees who cannot speak the English language fluently. This requirement is to ensure that all on site field personnel are able to receive immediate verbal direction from their

supervisors. Any employees on-site who are incapable of speaking the English language fluently, and who are not supervised by individuals capable of communicating with these employees, shall be removed for the project site immediately. This requirement is only applicable if the Subcontractor has employees not capable of speaking the English language fluently.

15.6. Multiple mobilizations may be required to complete the respective Trade Package Scope of Work. No additional charges or cost will be accepted by the General Contractor from the Trade Subcontractor or Supplier for multiple mobilizations.

15.7. The Work includes any out-of-sequence work required to meet job progress. Work necessitated by the special construction phasing requirements of the Project, or work interrupted by the Owner's operations shall include "comeback" costs required to complete this work at no additional cost to the Owner or the General Contractor.

XVI. TEMPORARY FACILITIES

16.0. Temporary facilities that affect all Trade Subcontractors and/or are specifically assigned to a particular Trade Package Scope of Work is designated below.

16.1. All temporary facilities installed by this trade shall be removed by the installing trade as directed by General Contractor unless specifically noted otherwise. The location of any temporary facilities shall be returned to the condition which existed prior to starting Work by the removing Subcontractor.

16.2. Each Subcontractor shall provide or arrange for the use of a telephone and/or radio for its own use while on the project. If required, each Subcontractor's Superintendent/Forman shall have in their possession at all times radio(s) compatible with the General Contractor's radios/communication system. The General Contractor shall be able to contact each Subcontractor's Superintendent / Foreman (Responsible person having authority to make decisions on behalf of the company) at all times by use of the radio(s) or cell phone.

16.3. Each Subcontractor shall provide its own water coolers, ice, drinking water and cups for its own work force in accordance with the applicable FDA, OSHA and Union Labor requirements.

16.4. Portable power (i.e., generator, etc.), if necessary, shall be the responsibility of the Subcontractor requiring power along with its associated cost if a fixed power source is not available during construction unless specified otherwise.

16.5. Each trade Subcontractor shall provide generators as required for the Work of this Subcontract until temporary power is available to the building pads (exact location to be determined by General Contractor.

16.6. If temporary "task" lighting is required to complete the Subcontractor's work, then the Trade Subcontractor requiring the temporary "task" lighting in order to complete its work shall provide its own temporary lighting at its own expense.

16.7. Unless approved by the General Contractor, Subcontractors are not permitted to install any project signage on site and/or on any office and storage trailers.

16.8. Each Subcontractor shall be responsible for utilizing wheel wash equipment to wash off all of its respective vehicles leaving the project site which have accumulated mud, debris, etc. Any mud, debris, etc. tracked onto the adjacent roadway(s), due to the Subcontractor's failure to wash off affected vehicles, shall be scraped, cleaned and pressure washed immediately by and at the expense of the Subcontractor.

16.9. All other required temporary facilities or services not specifically assigned responsibility shall be provided by the Subcontractor requiring the service(s).

XVII. MATERIAL DELIVERY, STORAGE AND HANDLING

17.0. Each Subcontractor and/or Supplier is responsible for securing and protecting all materials furnished under its respective Scope of Work. Should a specific Trade Subcontractor and/or other entity furnish material to another Trade Subcontractor for installation, then at that time the Trade Subcontractor receiving the material from the other Trade Subcontractor and/or other entity becomes responsible for securing and protecting that material.

17.1. Each Subcontractor is responsible for coordinating on site material deliveries 24 hours in advance with the General Contractor's on-site project representative. Failure to do so, the General Contractor may request the material delivery to be rescheduled. This requirement will be strictly enforced by General Contractor.

17.2. Materials furnished and installed as part of the Trade Subcontractor's Scope of Work shall be received by a representative of the Trade Subcontractor and unloaded / transported by this Subcontractor to each respective work area for installation as part of this Scope of Work.

17.3. Unless noted otherwise, materials or equipment furnished by others for installation as part of the designated Trade Subcontractor's Scope of Work shall be received by a representative of the receiving Subcontractor in conjunction with a representative of General Contractor and unloaded / transported by the receiving Subcontractor to each respective work area on site for installation as part of the designated Trade Subcontractor's Scope of Work.

17.4. Any Trade Subcontractor or Supplier supplying and delivering equipment or materials that are to be installed by another Subcontractor must notify the receiving Subcontractor at least twenty-four (24) hours prior to delivery. If requested by the General Contractor and prior to authorizing the Subcontractor's or Supplier's payment, the receiving Subcontractor shall be responsible for unloading and must provide either a shipping invoice or a delivered materials list that has been signed and certified by the receiving Subcontractor.

17.5. Each Subcontractor shall be responsible for receiving, storing, distributing to the installed location and protecting all materials incorporated within their respective Scope of Work.

17.6. Any Subcontractor furnishing and delivering equipment or materials that are to be installed under its Scope of Work must provide personnel and equipment to unload these materials at the time they arrive on site or make provisions for receiving and unloading the shipment. Any deliveries arriving on site without proper personnel present to receive and unload the shipment shall be instructed by the General Contractor to return to the shipping terminal.

17.7. All materials shall be shipped and stored and handled in a manner that will afford protection and ensure their being in first-class condition at the time they are incorporated into the work. Improperly stored materials that accumulate mud, debris, rust or other foreign matter shall be restored to its original condition prior to concealment or final acceptance of the work.

17.8. After installation, the materials shall be properly protected against damage to ensure their being in first-class condition when the construction is substantially completed and accepted by the General Contractor, Designer and Owner.

17.9. Each Subcontractor is solely responsible for the security of its own material and equipment. The General Contractor, Designer nor Owner shall be responsible for the cost to replace stolen or missing material and equipment.

17.10. There is very limited storage and lay down area available on site, subsequently materials delivered to the site should be installed as soon as possible after delivery. Each Subcontractor may need off site storage in order to accommodate limited laydown and storage areas. The areas that are available shall be coordinated with and approved by the General Contractor. Storage and lay down areas may have to be relocated by the Trade Subcontractor multiple times during the duration of the project to accommodate construction progress. If requested by the General Contractor, the Trade Subcontractor shall relocate all material(s) at no additional cost.

17.11. Reference the Logistics Plan prepared by the General Contractor for further information.

17.12. All hoisting of materials into the building and to the installed location is the responsibility of each Subcontractor.

17.13. Each Subcontractor shall retain stored items in an orderly arrangement allowing maximum access, not impeding traffic or drainage and providing required protection of materials.

17.14. Each Subcontractor will remove all excess materials from the site at the time work has been completed. Failure to do so the General Contractor will give the Subcontractor a 24-hour notice at the end of this 24 hours the General Contractor will make arrangements to have the material removed. This work and the supervision of this work will be at the cost of this Subcontractor.

XVIII. PROGRESS CLEAN-UP

18.0. Each Subcontractor shall provide daily clean up relative to its own Scope of Work. Should the Subcontractor fail to provide daily clean-up of its own work, the General Contractor will provide the subject Subcontractor with a written notice. Upon receipt of the written notice, the Subcontractor will have Twenty-Four (24) hours to complete its daily clean up requirements. Failure to comply with this notification may result in the General Contractor completing the daily clean-up work on behalf of the Subcontractor through the General Trades/Final Cleaning Subcontractor or other means determined by the General Contractor, thus resulting in back charges to the Subcontractor. This requirement will be strictly enforced by General Contractor.

18.1. Scrap, debris, waste material and other items shall not be accumulated at or around the construction site.

18.2. At least once a week and more often, if necessary, completely remove all scrap, debris and waste material from the job site. Provide adequate storage for all items awaiting removal from the job site, observing requirements for fire protection and protection of the ecology.

18.3. At least once a week and more often, if necessary, inspect all arrangements of materials stored on the site. Re-stack or rearrange stored materials on site to ensure the site is maintained in a neat and orderly fashion.

18.4. During the course Project if debris and waste material get to be excessive, (determined by the General Contractor) the jobsite will be shut down and an all-hands clean-up will occur until the area is orderly. Costs of this effort will be at each Subcontractors expense. If a trade does not participate the General Contractor will supplement their part of the work and this cost will be paid by this subcontractor.

18.5. Each individual Subcontractor will be required to supply his own drum containers for the depositing of miscellaneous trash generated within the Subcontractor's office areas. No food or drinks other than water will be allowed in the buildings at any time. Coffee breaks/Meals/Snack areas will be identified by the General Contractor for the Subcontractors use outside the Buildings construction areas. Subcontractors are responsible for maintaining these areas in a clean and orderly manner at all times. Subcontractor will be responsible for keeping these areas clean and sanitary. No Subcontractor will allow waste materials to accumulate in any area without consolidating them for pickup for more than the duration of one (1) workday, or as may be directed by General Contractor to facilitate job cleanliness.

18.6. Trash and debris shall be removed and placed in designated dumpster daily.

18.7. All offsite disposal costs associated with remedial work, if encountered during the course of the project shall be borne by the Subcontractor responsible for the remedial work.

18.8. Reference the Logistics Plan prepared by the General Contractor for further information. Subcontractors should anticipate and expect the site logistics plan to change with updates during the course of construction.

XIX. FIELD ENGINEERING AND LAYOUT

19.0. The Earthwork, Storm Drainage and Erosion Control Subcontractor and Concrete Subcontractor will provide initial field engineering services as defined within their respective Scopes of Work for the vertical building trades use and coordination by establishing select building corners and column lines and vertical control via establishing a benchmark(s) reference at select area(s) of the site. These initial field engineering services will be established subsequent to completion of the building pad by a licensed surveyor for use by all Trade Subcontractors. Any additional or remaining field engineering, layout work, etc. as required to complete a respective Trade Package Scope of Work shall be provided by the Subcontractor requiring the additional or remaining field engineering services at its own cost.

19.1. Layout work and field engineering services required of each Subcontractor shall include, but not be limited to the following:

1. Unless specifically noted otherwise within a specific Trade Package Scope of Work or herein, each Subcontractor is responsible for its own layout work, field engineering and protection of the same necessary to complete its own respective Scope of Work.

2. Upon commencement of the Subcontractor's work, the pre-established reference points, benchmarks, etc. as provided by others shall be field verified and protected and become the responsibility of each Subcontractor using the subject reference points and/or benchmarks. This responsibility shall cease upon the preceding Subcontractor starting its Work with the responsibility thereof being transferred therewith.

3. Establishing additional lines and levels and/or maintaining lines and levels including horizontal and vertical control as required to properly install the Work shall be provided by the Subcontractor.

4. Locate and protect all control points before starting work on the project site.

5. Preserve permanent reference points during the progress of the work.

6. Do not change or relocate reference points or items of the work without written approval from the General Contractor.

7. Promptly advise the General Contractor when a reference point is lost or destroyed or requiring relocation because of other changes in the work. Upon direction of the General Contractor, the Subcontractor's field engineer or licensed surveyor as engaged by the Subcontractor shall immediately replace the lost or destroyed reference stakes or markers as not to slow or stop other trades work activities, which were its responsibility to protect. Subcontractor shall locate such replacements according to the original survey control points at no additional cost. Failure to do so the General Contractor will supplement this work and this cost will

be paid by this subcontractor.

XX. PROTECTION OF WORK

20.0. Each Subcontractor is responsible for the protection and security of its finished work until final acceptance of the work. If finished work is damaged by another Trade Subcontractor, then the responsible Trade Subcontractor shall be held accountable. However, if the entity responsible for the damage cannot be determined, it is the responsibility of each Subcontractor to repair, replace or restore its own work to an acceptable condition.

20.1. Any part of the finish product damaged during installation or prior to final acceptance of the work shall be repaired so as to be unnoticeable and to be equal of quality, appearance, serviceability and all other aspects to an undamaged item. Where this cannot be fully accomplished the damaged item or part shall be replaced. Upon completion of the repair(s) or replacement installation, all exposed surfaces and parts of the item(s) shall be cleaned in a manner that shall not damage the finish or any of the parts of the item(s) and the finish product left in first-class condition, free of all visible defects.

20.2. Each Subcontractor shall take all necessary precautions so as not to damage existing construction. However, if damage occurs the responsible Subcontractor shall be responsible for restoring the existing construction to a condition, which is equal to that found prior to the damage occurring at its own cost.

20.3. General Contractor will not accept any claim for repair or replacement of Subcontractor's material or installed Work required because of vandalism, malicious mischief, normal construction traffic, theft, etc.

20.4. Damage by another Subcontractor - If Subcontractor's Work is damaged by another, the Subcontractor who caused the damage will be responsible for any repair and/or replacement costs. The work is not to be delayed by disputes regarding cost responsibility. The burden of proof will be on the Subcontractor whose Work was damaged.

20.5. Repair or Replacement of Installed Work –

a. Subcontractor's responsibilities as noted above will be in effect until both the following conditions are met:
   i. Certificate of Beneficial Occupancy/Substantial Completion or Final Acceptance for the Project has been issued by the Designer.
   ii. The Owner accepts the Work and takes over the building for their beneficial use.

20.6. No work shall be performed on concrete floors that would detrimentally affect the finish or appearance of uncovered floors or the application of finish flooring where called for. Operations such as cutting or threading pipe, burring, welding, paint mixing, or cleanup of painting will not be permitted in these areas.

20.7. The Subcontractor must obtain approval in advance from the General Contractor's Superintendent for any usage of lifts, trucks, trailers, cranes, or other heavy equipment that will sit on or move over completed structures. Any damage to these structures caused by the Subcontractor's actions will be the responsibility of the Subcontractor.

20.8. Watchmen services will not be provided. Neither General Contractor nor the Owner will be responsible for loss due to theft or otherwise of the property of any Subcontractor or their employees, including construction materials and equipment not yet accepted by the Owner.

20.9. The Subcontractor shall provide security as deemed necessary to protect its own work, tools, materials, etc.

20.10. Each Subcontractor shall provide protection and /or cleaning of permanent roof following completion of the Subcontractor's work. This shall include but not be limited to foot traffic / mud removal, temporary protection and roof protection, etc.

20.11. Each Subcontractor is responsible for all roof protection to complete the Subcontractors scope of work. Provide a protective material (i.e., visqueen, rigid insulation with plywood) when performing work on or adjacent to the roof. A ½" layer of insulation board shall also be installed under the protective material. Maintenance and removal are by this Subcontractor.

XXI. CUTTING AND PATCHING

21.0. Unless specifically noted otherwise within a specific Trade Package Scope of Work, each Subcontractor is responsible for its own cutting and patching work as required facilitating the proper installation of its own Work.

21.1. Repair and/or replacement of the surrounding surfaces to their original condition shall be the responsibility of the Subcontractor requiring the activity to continue its own Work.

21.2. All cutting and patching shall be completed in a manner to ensure that the patched surfaces are compatible with the adjacent surfaces in which the repairs or cutting and patching work was performed.

XXII. SLEEVES AND FIRESTOPPING

22.0. All subcontractors having penetrations through wall, ceilings and or floors will participate in the construction of a mockup panel to be approved by the Designers, Inspectors and other governing authorities having jurisdiction.

22.1. All penetrations through walls, ceilings and/or floors shall be sealed in such a manner in order to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire

rating requirements of the applicable wall, ceiling and/or floor assembly as acceptable to the General Contractor, Designer and governing authorities.

22.2. Unless specifically noted otherwise within a Trade Package Scope of Work, all penetrations made by any Subcontractor through walls, ceilings and/or floors shall be sealed by the Subcontractor requiring the penetration in such a manner in order to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling and/or floor assembly as acceptable to the General Contractor, Designer and governing authorities.

22.3. Unless specifically noted otherwise within a Trade Package Scope of Work, all sleeves or embeds set or cast into concrete, masonry or other work shall be furnished and installed by the Subcontractor requiring these items in order to complete the installation of its respective work. Additionally, these items shall be provided in a timely manner so as not to delay the concrete, masonry or other work. In the event the Subcontractor requiring the sleeve(s) or embed(s) fails to provide them in a timely manner, the Subcontractor requiring the sleeve(s) or embed(s) will be required to bear the cost associated with cutting and patching the work in order to properly to install the sleeve(s) or embed(s).

22.4. The Drywall Subcontractor shall provide all sprayed firestopping at tops of ALL walls. Each Trade Subcontractor shall be responsible for firestopping all penetrations made by their respective trade.

22.5. All through-penetration firestop systems installed around fire protection piping shall comply fully with NFPA 13 requirements for minimum annular space and sealant flexibility, as well as, requirements imposed by the design assembly itself.

22.6. The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

22.7. Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by a specialty firestop installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will be installed. All firestopping materials will be supplied by only one of the specified manufacturers.

XXIII. PME SYSTEM START UP, PUNCH LIST, WARRANTEES, RECORD DRAWINGS, CLOSEOUT DOCUMENTS

23.0. Prior to Final Inspection and Turnover to the General Contractor, each Trade Subcontractor and/or Supplier shall provide sufficient manpower and materials to adequately "punch" out the Project, such that all Work required of each Trade Subcontract is undertaken and completed within twenty-one (21) calendar days of commencement and/or issuance of punch list or deficiency notice.

23.1. All Work shall be guaranteed by each Trade Subcontractor against defects in material or workmanship for a period defined within the Contract Documents and/or by the Laws of North Carolina as measured from the Date of Final Acceptance as established in writing by the Designer and/or Owner.

23.2. The HVAC, Plumbing, and Electrical Subcontractors shall place the permanent HVAC and Electrical systems in operation during the construction of this project to insure proper environmental conditions to allow for installation of finishes to cure and subsequent to final inspections by Designer and Owner. All warranties and guarantees shall start on the Date of Final Acceptance, established in writing by the Designer and/or Owner. If the manufacturer's warranties start at the date of installation, each Trade Subcontractor shall extend the warranties to start at the Date of Final Acceptance at no additional cost.

23.3. Unless advised otherwise by the General Contractor, each Trade Subcontractor shall furnish the General Contractor / Owner with four (4) original copies of the defined warranty / guarantee, delivered within the close-out documents, provided on the Trade Subcontractor's stationery with original signatures on each copy, signed and sealed, stating the language as reflected within the sample letter following this section.

23.4. Unless advised otherwise by the General Contractor, each Trade Subcontractor shall furnish the General Contractor with four (4) original copies of a Subcontractor / Supplier Final Waiver of Lien, delivered within the close-out documents, provided on the Trade Subcontractor's stationery with original signatures on each copy, signed and sealed, stating the language as reflected within the sample Final Lien Waiver following this section.

23.5. Unless required otherwise by the General Contractor or contract documents, each Trade Subcontractor shall provide a minimum of four (4) copies of its own Project Record Documents including Record Drawings and Operation and Maintenance Manuals to the General Contractor for subsequent review and approval by the General Contractor, Designer and Owner. These documents shall be provided to the General Contractor prior to the Substantial Completion Date/ Beneficial Occupation of the Project. Additionally, submitting these and all other required Closeout Documents required of the Project Specifications shall be received and approved by the General Contractor, Designer and Owner before the Trade Subcontractor receives its Final Payment.

23.6. All Closeout Documents including Record Drawings and Operation and Maintenance Manuals shall be submitted electronically in a PDF format and shall be bookmarked and cataloged for easy reference.

XXIV. FIREARM POLICY, BADGE PROGRAM & BACKGROUND CHECKS

24.0. ABSOLUTELY NO FIREARMS, WEAPONS OR THE LIKE SHALL BE PERMITTED ON SITE. Any violators will be removed from the project site immediately by the local authorities.

24.1. Employees of each Trade Subcontractor or Supplier including Sub-subcontractors, visitors, etc. may be required to carry an identification badge furnished by the General Contractor at no cost to the Trade Subcontractor or Supplier. Replacement badges if lost by the Trade Subcontractor or Supplier's employees shall be replaced at the Trade Subcontractor's or Supplier's expense. Anyone who is making a delivery to the site or just visiting the site must check in at the General Contractor's site office to obtain a visitor's badge. Badges will only be required if work is performed when the building is occupied by the owner.

24.2. Trade Subcontractors may be required to complete the Sexual Offender Registry Check Certification Form if included within the CM – Owner Agreement and to complete a Background Check of each of its employees to certify this form's contents BEFORE the Subcontractor commences any on-site Work. Forms shall be turned into the General Contractor for further distribution to the Owner.

XXV. FIRE PREVENTION PROGRAM

25.0. Each Subcontractor is required to maintain portable firefighting equipment for their work and their work areas (i.e., hot work areas, storage units, fuel storage, mobile equipment, trailers, etc.). All firefighting equipment is required to meet OSHA regulations and/or the local authority having jurisdiction requirements.

25.1. Each Subcontractor shall be required to furnish and maintain full, tested fire extinguishers for all of their equipment and work areas, as required by the latest federal, state, and local regulations. All Subcontractors involved in burning, welding, soldering, or cutting operations shall furnish their own fire extinguishers, welding blankets, fire watch, etc. in adequate quantities or provide fireproof protective enclosures.

25.2. All applicable safety rules and practices must be followed at all times. It is the responsibility of the Subcontractor to provide required training, PPE, and appropriate and safe materials, tools, and equipment, and to ensure that they are used in an appropriate manner. Proof of appropriate safety training programs may be required at any time.

XXVI. PARKING AND PROJECT ACCESS

26.1 There is limited area for parking for construction workers for all trades. Due limited site area for parking, material storage, equipment, etc., each Subcontractor may be limited in the number of vehicles onsite. Each Subcontractor may be required to make arrangements for off site parking for employee individual vehicles and transport said employees to the site with multiple workers in single vehicle or bus type transportation. See the Logistics Plan for further information.

10. Trade Package Scopes of Work

TRADE PACKAGE SCOPE OF WORK

01A FINAL CLEAN SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Final Clean** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Appliance Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS
This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
01 00 00	Final Clean

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 3	Concrete
Division 4	Masonry
Division 5	Metals
Division 6	Millwork
Division 7	Siding
Division 8	Doors/Rollup Doors/Frames/Hardware

Division 8	Glass & Glazing
Division 9	Finishes
Division 10	Specialties & Accessories
Division 12	Furnishings
Division 21	Fire Protection
Division 22	Plumbing
Division 26	Electrical
Division 33	Utilities

The Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

1.0 FINAL CLEANING SCOPE OF WORK DESCRIPTION

1. This Subcontractor shall provide a complete Final Building Cleaning acceptable to the Owner, Designers, and the Construction Manager including, but not limited to sweeping, damp mopping, stripping floors, waxing floors, vacuum carpets, wipe down of finishes / fixtures, exterior pressure washing, window washing, etc.
2. This Subcontractor shall include all (multiple) mobilizations as required to complete this scope of work.
4. This Subcontractor shall provide adequate manpower and supervision acceptable to the Contractor to comply with the Project Schedule.
5. Final Cleaning – Unless noted otherwise herein, the Work required as part of this Subcontract shall include a comprehensive project cleaning, including but shall not be limited to the following:

    1. Sweeping and damp mopping of all floor surfaces in which the manufacture's recommendations suggest sweeping and damp mopping as a recommended cleaning method.
    2. As scheduled by the Construction Manager and prior to Owner move-in, sweep, damp mop and strip the factory finish on resilient tile surfaces and then apply the specified neutralizing floor cleaner and coats of wax as specified and per

the manufacturer's recommendations to protect the resilient tile floor surfaces during and after construction.

3. Vacuuming carpet (shampoo carpet, where necessary, to remove stains, etc.).

4. Wiping down and cleaning of the following:
   a. Plumbing fixtures and accessories.
   b. Manufactured casework and cabinets.
   c. Mirrors
   d. Interior and exterior door and window frames.
   e. Interior and exterior glass including all windows, storefront and hollow metal framed glass.
   f. Wall partitions including base material.
   g. Toilet partitions and accessories.
   h. Light fixture lenses.
   i. All railings
   j. Polished surfaces
   k. Removing manufacturer decals from equipment, etc. (As directed by Construction Manager)
   l. Remove labels which are not permanent. (As directed by Construction Manager)
   m. Hollow metal doors, wood doors.
   n. Rubber floor base.
   o. Aluminum and/or Steel Sash window framing and glass, aluminum storefront systems and glass, aluminum curtain wall systems and glass.
   p. Millwork, counter tops, shelving, etc.
   q. HVAC ceiling diffusers.
   r. Louvers and Vents.
   s. All exposed horizontal ledges or flat surfaces that may retain debris, dirt, dust, etc.
   t. All polished metal/finish metal surfaces, including but not limited to, door hardware, etc.
   u. All hard-tiled surfaces.
   v. Interior surfaces of can lights and bulbs.
   w. Clean exposed areas of exterior canopy(s).
   x. Clean exposed exterior and interior hard-surfaced finishes to a dust-free condition, free of stains, films and similar foreign substances.
   y. Vacuum carpet using a commercial machine.
   z. Exposed mechanical ductwork, piping, accessories and heaters are to be cleaned.
   aa. Pressure wash all exterior sidewalks, concrete pavement and asphalt.
   bb. FE/FEC
   cc. Interior Specialties
   dd. Window Treatments

ee. Firing range equipment

6. This Subcontractor shall use only cleaning materials and equipment that are compatible with the surface being cleaned, and as recommended by the manufacturer of the material. Prior to the final building cleaning work commencing, the Final Clean Subcontractor shall obtain the manufacturer's recommended cleaning guidelines from the applicable on-site Subcontractor or Contractor to ensure cleaning materials used to accomplish this Scope of Work will not harm or detrimentally affect the particular item or surface being cleaned. The Cleaning Contractor will not claim lack of knowledge of manufacturer product for any surfaces, if damaged from improper cleaning and will reimburse Contractor in full for any damaged surfaces. Final Clean Subcontractor will not proceed with any cleaning until building component's product data has been read and acknowledged. All cleaning products shall be environmentally friendly.

7. Employ experienced workers or professional cleaners for final cleaning. Clean each surface or unit to the condition expected in a normal, commercial building cleaning and maintenance program. Comply with all manufacturers' instructions.

8. Final cleaning Work will require multiple mobilizations as directed by the Construction Manager. **No additional charges will be accepted for multiple mobilizations.**

9. Wash all glass on both faces in each area of Project not more than four (4) days prior to date scheduled for inspections that establish date of Substantial Completion. Wash glass as recommended by glass manufacturer. Glass and Glazing is to be cleaned interior and exterior on all levels and elevations of the project.

10. This Subcontractor shall reference the Interior Finish Schedule designated on the drawings to determine the floor and wall finishes which shall be cleaned as part of this Scope of Work.

11. Upon completing the final cleaning work within a specific building area, the Final Clean Subcontractor shall request the Construction Manager to inspect the particular building area for approval. Following receipt of written approval from the Construction Manager, the Final Clean Subcontractor shall not be obligated to re-clean the previously cleaned and approved specific building area.

12. Apply specified number of coats of wax to all Resilient Tile Flooring with products specified or recommended by the manufacturer. If additional coats are required by the Contract Documents, this Subcontractor shall be responsible for whichever requirement is more stringent.

13. This Subcontractor shall make provisions within its Base Bid proposal to include all necessary scaffolds, man lifts, etc. in order to reach areas within the building(s) which will require final cleaning as part of this Subcontract. Where scaffolds, man lifts, etc. are necessary, the Final Clean Subcontractor shall be responsible for protecting the applicable floor and/or roof surface, etc. by providing an approved covering (i.e. plywood, etc.) in order to prevent damage to the applicable floor and/or roof surface.

14. Prior to commencing with the final cleaning of the project, the Final Clean Subcontractor shall field verify and provide the Construction Manager with written confirmation that all substrate finishes are acceptable to receive final cleaning. Failure to

notify the Construction Manager in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable substrate finish.

15. This Subcontractor shall be responsible for providing and maintaining protective coverings, when required to protect the work of other trades. Should any Final Cleaning damage or come into contact with work of other trades, then the Final Cleaning Subcontractor shall be responsible for all costs necessary to restore the affected work back to its original condition prior to the Final Cleaning being installed.

16. This Subcontractor shall remove temporary floor protection to perform cleaning.

17. This Subcontractor shall include adequate supervision, manpower crews and equipment at all times to meet the schedule requirements. This Subcontractor acknowledges that this Subcontractors work will require working in multiple areas, on multiple floors concurrently to the extent that at during much of the project schedule significant work will occurring on both floors concurrently and this Subcontractor will be required to provide manpower and equipment required to meet or improve the durations shown on the project schedule as part of the base bid.

18. Subcontractor shall include 100 man-hours within the base bid to be used for cleaning as directed by the Construction Manager. The value of unused monies or man hours remaining upon completion of this Scope will be credited via deduct change order at time of reconciliation.

OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Final Clean Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
01A FINAL CLEAN SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

03A CONCRETE FOUNDATION, WALL, AND SLAB PACKAGE

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Concrete Foundation, Wall, and Slab Package** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on-site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Concrete Foundations and Slabs Package Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings
Division 3	Concrete
033000	Cast-In-Place Concrete

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Concrete Foundation, Wall, and Slab Package System scope of work.**
Division 4	Masonry

Division 5	Metals
Division 7	Thermal & Moisture Protection
Division 9	Finishes
Division 22	Plumbing
Division 23	Heating, Ventilation, and Air Conditioning
Division 26	Electrical
Division 27	Communications
Division 31	Earthwork
Division 32	Exterior Improvements

The Concrete Foundation and Slab Package Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Concrete Foundations and Slabs Package Subcontractor** is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

3.0 CONCRETE FOUNDATION, WALL, AND SLAB PACKAGE

3.0.1 This Subcontractor is responsible for all layout work, field engineering including vertical control, providing, and maintaining lines and batter boards, protection of survey pins provided by others and coordination between its Subcontractors and other on-site subcontractors for all aspects covered under this Scope of Work. Initial building corners and control points will be established by the Contractor for use by the Subcontractor to complete this Scope of Work.

3.0.2 Concrete Formwork – This Work shall include providing a complete concrete formwork system, where required, including but not limited to, formwork design / engineering, safety measures, preformed steel forms, ply-form material, strong-backs, walers, kickers, wall braces and shores,

temporary elevated slab on deck shores, if required, formed construction joints, edge forms, form ties, form release agents, chamfer strips, installation of dovetail anchors slots, flashing reglets, nails, spikes, lag bolts, through bolts, miscellaneous anchors, preformed plastic water-stop, adjustable wedge inserts, threaded inserts, sealers, miscellaneous incidentals, form stripping, pointing, patching and rubbing of all exposed concrete surfaces within 24 hours following the form stripping operation, concrete embed supports, etc. This Subcontractor shall provide all concrete form work, including but not limited to, concrete footing forms, where required, step footing forms, rebar templates, anchor bolt templates, slab on grade column block-out forms, concrete pier forms, concrete wall and plaster forms, if required, wall block-out forms, where required, slab on grade edge forms, slab on grade construction joints, depressed slab forms, slab on grade turndown forms, etc.

3.0.3 Miscellaneous Block-out Formwork – Miscellaneous slab on grade, wall or elevated slab block-out forms / sleeves required to accommodate work of other trades will be provided by the Subcontractor requiring a specific slab on grade, wall, or elevated slab block-out form / sleeve, unless noted otherwise and must be coordinated with the other trade and the site superintendent.

3.0.4 Concrete Reinforcement and Accessories – This Work shall include furnishing and installing a complete concrete reinforcement and accessories system, including but not limited to, all reinforcing steel, welded steel wire fabric at slab on grade (as noted), tie wire, bar supports, bar chairs, slab on grade expansion joint filler and felts, column / wall support anchor bolts, adhesive anchors, etc. This Subcontractor shall furnish and install all concrete reinforcement and accessories work, including but not limited to, concrete foundation reinforcement, including footing wall dowels to receive masonry block walls by others, concrete wall reinforcement, concrete steps on grade reinforcement, concrete column reinforcement, concrete slab on grade turndown reinforcement, concrete slabs on grade reinforcement, including thickened slab reinforcement, elevated supported slab reinforcement, etc. All concrete steel bar reinforcement such as concrete footing dowels, thickened slab on grade dowels, or any other miscellaneous rebar, etc., cast into a concrete assembly is part of this Scope of Work.

3.0.5 Cast-In-Place Concrete and Accessories – This Work shall include furnishing and installing all cast-in-place concrete and accessories, including but not limited to, all concrete materials for foundations, spread footings, step footings, slabs on grade, elevated slab on metal decking (mezzanine), column block out concrete, stair landing fill, stair pan fill, concrete walls, concrete steps, thickened slab, steel step nosing on grade, interior concrete equipment housekeeping pads, etc. in accordance with the concrete finishes specified, concrete floor sealers, curing compounds, expansion joints, slab on grade vapor barriers, non-shrink grout, saw cut joints, water-stop, diamond dowels, smooth bar dowels , etc. as required to complete this concrete scope of work.

3.0.6 Concrete Finishes – This Work shall include placement and finishing of all concrete furnished and installed as part of this scope of work in accordance with the finish tolerance requirements specified. Work shall also include providing slab on grade saw cut and/or tooled joints, where specified. Unless noted otherwise, all exposed concrete shall be pointed, rubbed, and patched to provide a uniform and smooth face finish as part of this Scope of Work.

3.0.7 Extreme care shall be taken to place and finish this scope of work in accordance with applicable tolerances per the contract documents. This shall include applicable tolerances pertaining to applicable floor finish. Subcontractor shall coordinate tolerances by specified floor finish with the Contractor. Subcontractor shall utilize place and finish techniques (separate pours, setting pipe screeds, etc.) must be utilized to ensure these tolerance requirements are met. This subcontractor is to hit all floor flatness and floor levelness tolerance laid out by the construction documents or the flooring system that is being installed.

3.0.8 Control Joints – This work shall include installing all joints in the slab on grade. Joints shall be installed so as not to impair strength or appearance of concrete, and at locations indicated on the construction drawings and/or approved by the Contractor. Saw joints shall be cut 1/8" wide by at least one-fourth the thickness of the slab. Saw joints shall be installed as soon as the cutting action will not damage the concrete surface and before the concrete develops random cracks (as soon as finishing is complete).

3.0.9 Concrete Curing – This Work shall include furnishing and installing specified curing and sealing compounds at all concrete slabs scheduled as part of this Scope of Work. Subcontractor shall confirm that the proposed cure and seal compound will have compatibility with all future scheduled floor finishes to not impede any future floor finishes work being performed by other trades. Any correction needed from a non-compatible product being used will be at the cost of this subcontractor. If the proposed floor finishes specified requires that the concrete surface be wet cured in lieu of the specified cure and seal compound, then this Subcontractor shall wet cure the concrete surface(s) at no additional cost. Installation of the curing compound (or wet curing) shall begin as soon as possible after the control joints are cut (as soon as the joints are cut, and the resulting dust is removed from the slab).

3.0.10 Stepped Footings / Forms – Where required to accommodate underground site utility piping, plumbing piping, electrical conduit, or mechanical piping which is run across scheduled concrete foundations/footings, they shall step footings as required to accommodate this work being provided by other trades at no additional cost. This Subcontractor shall reference the site utility, mechanical, electrical, gas, mechanical, and plumbing drawings to determine underground pipe or conduit locations to ascertain these requirements and coordinate with the Contractor as necessary.

3.0.11 Interior & Exterior Equipment Pads – This Work shall include furnishing and installing all concrete related work required for interior and exterior plumbing/mechanical/electrical/fire protection equipment including concrete equipment pads, transformer pads, water heater pads, boiler pads, pump pads, housekeeping pads, etc. This Subcontractor shall coordinate the specific size requirements of these interior equipment concrete pads with the respective HVAC, Plumbing, Electrical, and Fire Protection Subcontractors and shall coordinate the finish requirements with the Contractor. Locations and quantities of required pads shall be provided to this Subcontractor prior to mobilization for coordination and placement during a single mobilization.

3.0.12 Hot/Cold Weather Concrete – This Subcontractor shall include in the base bid all items necessary for Hot/Cold Weather Concrete protection including admixtures, blankets, etc.

3.0.13 Grouting Baseplates – This work shall include furnishing and installing non-shrink grout in all areas where required by the Contract Documents.

3.0.14 All necessary hoisting equipment required to furnish and install all concrete shall be provided as part of this Scope of Work.

3.0.15 All necessary conveyance equipment required to place and finish all concrete shall be provided as part of this Scope of Work.

3.0.16 This Subcontractor shall furnish concrete pumps, pump trucks, and light towers as required for installation of this scope of work and to make necessary pours.

3.0.17 This Subcontractor is responsible for digging and maintaining a truck washout area in a location specified by the Contractor. This subcontractor is responsible for disposing of concrete spoils.

3.0.18 Provide and maintain OSHA approved rebar caps for all exposed ends.

3.0.19 Concrete mixes in footings/foundations shall be as indicated in by the contract documents.

3.0.20 Backfill of foundations and foundation walls is included in this Subcontract.

3.0.21 Under-Slab Vapor Barriers – This Work shall include furnishing and installing a complete slab vapor barrier system, including but not limited to, under slab vapor barrier membrane, pipe boots, seam-tape, miscellaneous accessories, etc. at all locations designated within the Contract Documents. Any specific tears, rips, etc. made in the under- slab vapor barrier system shall be patched in accordance with manufacturer recommendations at no additional cost. Vapor barrier should be as specified in the contract documents. All seams should be taped to provide a solid or complete vapor barrier as per the manufacturer's recommendations.

3.0.22 Expansion Joint Assemblies – This Work shall include furnishing and installing all expansion joints specified to be installed directly in the Concrete Foundations & Slabs Subcontractors work.

3.0.23 This Subcontractor shall assume the responsibility for determining if the building pad or site related work Subgrade elevations as delivered by others are within a tolerance of plus or minus one tenth (+0.10') of one foot and are in conformance with the information reflected on the drawings. The Contractor shall be notified of the acceptance or rejection of these subgrades prior to commencement of this scope of work.

3.0.24 Layout by others will consist of benchmarks and control points. All other required layout for this scope of work is specifically included by this subcontractor. Memorialize benchmarks and control points; protect and maintain them throughout the duration of the project.

3.0.25 Excavation, Trenching, Backfilling, Fine Grading & Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, fine grading and compaction work associated with the proper installation of all work required of this Subcontract, including, but not limited to, concrete foundations, slab on grade turndowns, concrete steps on grade, interior concrete equipment pads, foundations, concrete piers, etc., backfilling and compacting stone or suitable backfill atop concrete foundations, etc. compacting soil adjacent to and below grade masonry walls, backfilling and compacting stone and/or soil adjacent to below grade masonry walls, recessed slab on grade excavation, fine grading, compaction, etc. All excavation, backfilling, trenching and compaction work shall be based on the use of safe excavation practices, governed by the Occupational Safety and Health Administration (OSHA).

3.0.26 Graded Aggregate Stone Base - This Work shall include installing a graded aggregate stone base underneath all concrete slabs as specified in the contract documents.

3.0.27 Foundation Spoils – Subcontractor shall remove all foundation spoils from the building pad and place on-site in a location approved by the Contractor. This soil may be utilized for backfill or at the direction of the construction manager.

3.0.28 This Subcontractor shall repair all areas where sub-grade was disturbed by this Subcontractor. All approved fill material will be furnished from an approved source and installed by this subcontractor at no cost to the Owner or Contractor.

3.0.29 Dewatering – This Subcontractor shall leave its work in a condition that will naturally drain at the end of each day. If standing water accumulates, this Subcontractor is responsible for dewatering, pumping of water, de-mucking, and subgrade and soil restoration at no additional cost.

3.0.30 This Subcontractor shall provide a concrete cylinder curing box capable of meeting the specified on required ACI/ASTM standards for the project. The size of the box shall be dependent on the number of cylinders needing to be cured at one given time.

3.0.31 This Subcontractor will need to reference the contract documents as well as coordinate with the Contractor to provide a depression in the slab that will facilitate flooring as required by the contract documents. Floor finishes to be figured into dimensional requirements to ensure a proper fit and finish, per the contract documents.

3.0.32 Special Inspections – As Special Inspections will be required on this project it will be the responsibility of this Subcontractor to provide Supervision to accompany Inspectors as required. Any deficiencies noted shall be corrected at the time of inspection. If this Subcontractor is unable to make the correction during inspection and the deficiency is placed on a non-compliant list this Subcontractor will have no more than 48 hours to make the correction and schedule the reinspection to have the item removed from the non- compliant list. All non-compliant work noted shall be reported to the Construction Manager as soon as possible and before the close of business on the day of inspection. Once the corrections have been completed this Subcontractor shall notify

the Construction Manager for confirmation and re-inspection. Failure to make the corrections as stated above could result in a stop work order until the correction has been made.

4.0 MASONRY

4.0.1 Masonry Reinforcement and Accessories – This Subcontractor and the Masonry Subcontractor shall closely coordinate the concrete and masonry reinforcing shop drawings to ensure a complete reinforcement system is accomplished between both trades' Scope of Work.

4.0.2 This Subcontractor shall be responsible for the proper spacing and locating of the reinforcement dowels to accept the CMU as sized and located, per the contract documents. This Subcontractor shall coordinate with the Contractor and the Masonry Subcontractor responsible for the masonry work prior to commencement and installation of reinforcement dowels to minimize conflicts and errors. Any and/or all reinforcement dowel(s) which are incorrectly located and interfere with the installation of the CMU shall be promptly and properly corrected, by this Subcontractor by methods approved by the Designer.

5.0 STRUCTURAL STEEL & MISC. METALS

5.0.1 Steel & Metal Embeds – This Work shall include **coordinating and installing** all steel and metal embed items furnished by others which are cast directly into or attached to a concrete system, including but not limited to, all required field engineering, vertical control and layout, stair nosing, column anchor bolts, steel weld plates, interior bollards, if applicable, non-shrink grout, miscellaneous embedded angles, etc. All structural steel embed items will be furnished by the Structural Steel and Misc. Metals Subcontractor to this Subcontractor for installation. This Subcontractor shall be responsible for unloading, sorting, storing, and protecting miscellaneous steel materials furnished by others.

5.0.2 This Subcontractor shall be responsible for initial height of one leveling nut per baseplate and marking the same with paint, tape, etc. as directed by the Contractor in coordination with the Structural Steel Subcontractor.

22.0 PLUMBING SCOPE OF WORK DESCRIPTION

22.0.1 This subcontractor is responsible for coordinating this the Plumbing subcontractor for all block outs and drain locations.

-OTHER SCHEDULE SUMMARY INFORMATION-

The Substantial Completion date for the Concrete Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
03A CONCRETE FOUNDATION, WALL, AND SLAB PACKAGE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

04A MASONRY PACKAGE

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Masonry Package** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on-site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Masonry Package Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings
Division 4	Masonry
04 20 00	Unit Masonry
04 20 02	Architectural Concrete Masonry Units
04 43 13	Manufactured Stone Veneer
04 72 06	Cast Stone Masonry

Secondary Responsibility
This Subcontractor is responsible for all Specification Responsibilities in the contract documents to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Masonry Package System scope of work.**

Division 3	Concrete
Division 5	Metals
Division 7	Thermal & Moisture Protection
Division 8	Opening
Division 9	Finishes
Division 21	Fire Sprinkler
Division 22	Plumbing
Division 23	Heating, Ventilation, and Air Conditioning
Division 26	Electrical
Division 31	Earthwork
Division 32	Exterior Improvements

The Masonry Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The Masonry Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

4.0 MASONRY SCOPE OF WORK DESCRIPTION

4.0.1 The drawings, details, and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions, or conflicts that prevent a complete and functioning system even though it may not be detailed.

4.0.2 The Masonry Subcontractor is responsible for all layout work, field engineering including vertical control, providing, and maintaining lines and batter boards, protection of survey pins provided by

others and coordination between its Subcontractors and other on-site subcontractors for all aspects covered under this Scope of Work. Initial building corners and control points will be provided by the General Contractor for use by this Subcontractor to complete this Scope of Work.

4.0.3 Unit Masonry - This Work shall include a complete Unit Masonry System, including but not limited to, shop drawings, scaffolding, material lifts, masonry units including brick, mortar, colored mortar (if specified), masonry sand, etc., concrete grout fill, horizontal joint reinforcement, adjustable brick wall ties and anchoring devices, control and expansion joints, expansion joint filler, block sealer, chases, recesses, pockets and openings in masonry to be used for installation by others, building in of items furnished by others into masonry such as access doors, door frames, anchors, sleeves, conduit, and inserts to be embedded into masonry, rigid steel masonry anchors, compressible joint filler, bond breaker strips, reinforcing bar positioners, if required, through wall flashing material, where specified, masonry damp proofing, where specified, rigid wall insulation and associated adhesives, where specified, miscellaneous masonry accessories, tie beams, weeps, cell vents, special masonry cuts, masonry cleaning at new work, protection of other work and repair, patching, rubbing, and pointing of mortar joints and new masonry surfaces at all exposed surfaces to receive paint, etc. per the contract documents.

4.0.4 Architectural Cast Stone & Stone Veneer - This Work shall include furnishing and installing architectural cast stone related to this Scope of Work. This shall include shop drawings, scaffolding, material lifts, cast stone units, mortar, anchors, hardware, clips, bearing pads, hangers, shims, inserts, plates, patching, accessories, and any other items required to provide a complete Cast Stone System per the contract documents. Washing and cleaning of architectural cast stone components shall also be provided, including but not limited to, removal of dirt, stains, mortar splatter, droppings, etc. Cleaning materials used shall be compatible with architectural cast stone finishes so that the appearance, color, etc. of architectural cast stone is not compromised.

4.0.5 The professional engineered design and detailing of all cast stone and its connection to the structural frame (furnish and install of all supports and steel designed) shall be the responsibility of this Subcontractor. This Subcontractor shall coordinate and verify that all structural elements providing support or anchorage to precast are adequate. Additional bracing required to support the structure as a result of imposed cast stone connection loads will be the responsibility of this Subcontractor in accordance with the contract documents.

4.0.6 Cast stone to be finished in accordance with the Contract Documents. Point, patch, rub, acid-etch, etc. as required to provide specified architectural finish or substrate as required for subsequent finishes. Coordinate compatibility of sealers and/or bond breakers for architectural finishes and/or coatings.

4.0.7 Brick Veneer Masonry – This Work shall include providing and installing brick veneer masonry as shown in the Contract Documents. This shall include brick veneer, brick shapes, mortar, grouting, anchors, installing lintels supplied by others, and any other accessories required to supply a complete Brick Veneer Masonry System, per the contract documents.

4.0.8 Flashing - The Masonry Subcontractor shall be responsible for furnishing and installing all through-wall flashing and metal sill flashing types including providing mortar net at all flashing locations and primers and mastic, per the contract documents.

4.0.9 Masonry Fill - The Masonry Subcontractor shall provide grout or concrete fill for built-in work in masonry; concrete fill at lintels, bond beams, and reinforced block cells; collar joints below grade; or at other locations specified by the contract documents. The Masonry Subcontractor shall supply all pumps and/or associated equipment necessary to complete this work.

4.0.10 Spray/Roll Applied Water Resistant Barrier – This subcontractor is responsible for all WRB where CMU is covered by masonry veneer.

4.0.11 Reinforcing Steel - The Masonry Subcontractor shall furnish and install all reinforced steel including horizontal and vertical steel scheduled or required within masonry walls and/or concrete block bond beams, and Epoxy Dowels required at all thickened slab areas. All reinforcing steel bars shall be furnished by the Masonry Subcontractor for installation included as part of this Scope of Work. The Masonry Subcontractor will be responsible for unloading, sorting, storing, and protecting the reinforcing steel materials.

4.0.12 Reinforcing Steel Protection – This Subcontractor shall be responsible for all reinforcing steel protection (rebar caps) once commencing work in each area. All reinforcement shall be protected by OSHA standards.

4.0.13 The Masonry Subcontractor shall provide all horizontal joint reinforcing as required for a complete installation, per the contract documents.

4.0.14 This subcontractor shall be responsible for coordinating its work with all other trades that penetrate, run within, and/or bear on its work, including but not limited to, the Framing subcontractor, Waterproofing subcontractor, all MEP subcontractors, and the Steel Staircase installer and/or fabricator to coordinate penetrations, and anchor/embed locations. The subcontractor shall be responsible for boxing out all penetrations where a sleeve is not provided. Finish around architectural louvers, vents, or any other items bearing on the masonry wall.

4.0.15 Masonry Anchors – This Work shall include providing and installing all masonry anchors and fasteners attached or anchored to metal studs / gypsum sheathing, if applicable, masonry walls, concrete slabs/panels, column anchors excluding welding work, where applicable, etc. as required to accomplish all masonry work, including but not limited to, epoxy wall dowels, rigid steel masonry anchors, “Z” ties, screw attached masonry veneer anchors, seismic masonry veneer anchors/fasteners, dovetail anchors, etc. per the contract documents.

4.0.16 Shoring - Miscellaneous shoring and/or wall bracing, if required to accomplish masonry work shall be provided by the Masonry Subcontractor. Subject bracing and/or shoring shall comply with applicable Building Codes and Federal OSHA Regulations.

4.0.17 Masonry Wall Rough Openings - This Work shall include providing all Masonry Wall Rough Openings at all locations, including but not limited to, all false work, if necessary, to provide all openings required for architectural and mechanical louvers, aluminum windows, aluminum storefront, overhead coiling doors and grilles, HVAC, plumbing, fire protection and/or electrical equipment, fire extinguisher cabinets, access doors, hollow metal doors, etc. General Contractor and/or the applicable Trade Subcontractor will coordinate with the Masonry Subcontractor all masonry rough opening sizes required to accommodate its work.

4.0.18 Cleaning - This Work shall include providing Masonry Cleaning by washing and cleaning all items installed under this Scope of Work and adjacent dissimilar materials (i.e., aluminum glazed framing components, including windows, etc., hollow metal door/window frames, metal stairs, etc. prior to the finish trades, etc. starting their work), including but not be limited to, removal of dirt, stains, mortar splatter, droppings, etc. Cleaning materials used shall be compatible with the masonry materials and finishes so that the appearance, color, etc. of masonry work and the adjoining surfaces are not compromised. Areas shall be ready to receive finish paint, wall covering, sealer, etc. as specified.

4.0.19 Masonry Mock-Up Panel(s) – Provide mock-up panel(s) as designed for each different type masonry wall assembly. Each mock-up panel shall include the applicable brick veneer, concrete block, joint reinforcement, vertical and horizontal bar reinforcement, through-wall flashing, rigid cavity wall insulation, bituminous damp proofing, proposed mortar joints, texture, weeps, etc. The mock-up panel(s) approved by General Contractor, Designer, and/or ARB will be used as a standard throughout construction. Mockup panel(s) shall be a minimum 72” x 72” in size or in a size as required by the Contract Documents, whichever is greater.

4.0.20 All interior masonry surfaces below the specified finish ceiling heights as reflected within the Contract Documents shall be pointed, patched, rubbed, and prepared for finish painting.

4.0.21 The Masonry Subcontractor’s work shall be in accordance with all applicable ASTM guidelines established for masonry construction.

4.0.22 The Masonry Subcontractor shall provide protection of all adjacent surfaces and materials.

4.0.23 The Masonry Subcontractor shall include patching around all piping, ductwork, conduits, and penetrations through masonry as required, per the contract documents.

4.0.24 This Subcontractor is to provide all add mixtures, curing compounds, etc. in accordance with the contract documents. All work shall be coordinated with finishes for compatibility, etc.

4.0.25 Subcontractor assumes all responsibility to remediate the occurrence of efflorescence.

4.0.26 Dewatering - This Subcontractor shall leave its work in a condition that will naturally drain at the end of each day. If standing water accumulates, this Subcontractor is responsible for dewatering,

pumping of water, de-mucking, and subgrade and soil restoration at no additional cost.

4.0.27 Weather Protection - The Masonry Subcontractor shall provide hot and cold-weather protection in accordance with Masonry Industry Standards. Further, this Subcontractor shall protect on-site materials from adverse weather conditions whether the materials are installed or otherwise. Material installed each day must be protected at the end of each day. Any material supplied and installed under this Scope of Work damaged by weather from a failure by this Subcontractor to protect their Work shall be replaced at no cost to the Contractor.

4.0.28 Gauge Box Measuring Method – The Masonry Subcontractor shall construct gauge boxes for measuring sand for mortar in order to ensure that each batch is consistent. A gauge box is simply a wooden box without a bottom or top. The gauge box will rest on a board and will be filled with sand and leveled off at the top. Upon leveling off the sand at the top, the box is removed, and the sand left over will be the correct quantity for one (1) batch of mortar.

4.0.29 Weatherproof Covering Material for Masonry Material Stored Onsite – All Masonry materials stored on site shall be covered with a weatherproof covering material at the end of each day. Additionally, Tops of Walls shall be covered at the end of each day to reduce or eliminate precipitation entering the cavity or cells of block during construction.

5.0 STEEL AND MISC METALS SCOPE OF WORK DESCRIPTION

5.0.1 Miscellaneous Steel Installation – This Work shall include installing all miscellaneous steel items designated as part of this Scope of Work, including but not limited to, all required layout, steel lintel beams, bolt on steel angles, steel lintels and lintel bearing plates, where installed within a masonry wall system, anchor bolts, embedded steel items cast within a masonry system, bearing plates, access panels, sleeves, ties, anchors, etc. at all applicable project locations as furnished by the Structural Steel Supplier. The Masonry Subcontractor will be responsible for unloading, sorting, storing, and protecting miscellaneous steel materials furnished by the Structural Steel Supplier.

5.0.2 The Masonry Subcontractor shall furnish weld tie clips to receive steel column anchors to the Structural Steel Erection Subcontractor for his installation. The Masonry Subcontractor shall assist the Structural Steel Erection Subcontractor with locating the subject weld ties so that the work in the field is unimpeded.

7.0 RIGID INSULATION & SEALANTS SCOPE OF WORK DESCRIPTION

7.0.1 Rigid Insulation – This Work shall include providing and installing all rigid board insulation above and below grade which is attached to the face of a block backup wythe or exterior sheathing/metal stud system by others including all associated adhesives, clips, caulking compounds, tape, mastic, anchors, etc., at designated locations per the Contract Documents.

7.0.2 Joint Sealants - This Subcontractor shall provide all joint treatment within the cast stone system including, but not limited to, construction joints, etc. All caulking of cast stone to cast stone and cast

stone to adjacent surfaces is included. Coordinate use of approved sealants (colors & materials) to ensure consistency throughout building.

8.0 HOLLOW METAL FRAMES SCOPE OF WORK DESCRIPTION

8.0.1 Hollow Metal Frame Installation – This Work shall include installing all hollow metal frames furnished by the Hollow Metal Frames, Doors, and Hardware Subcontractor which are scheduled or designated within a masonry wall assembly, including but not limited to, installing hollow metal door frames, jamb anchors, floor to frame anchors, etc. in conformance with the specification requirements and tolerances designated within the provisions of Steel Door Institute 105. Provide all necessary temporary bracing, spreaders, turnbuckles, wood blocking, miscellaneous hardware, anchors, and accessories required to properly perform the hollow metal frame installation work. Upon delivery of masonry wall assembly hollow metal frames, the Masonry Subcontractor will be responsible for unloading, securing, protecting, and installing all hollow metal frames scheduled within a masonry wall assembly. The Masonry Subcontractor shall provide a designated on-site representative to verify materials being furnished by the Hollow Metal Frames, Doors and Hardware Subcontractor are complete and in accordance with the Contract Documents. Upon completing the onsite verifications, the Masonry Subcontractor shall sign-off on delivery tickets and at that time will take responsibility of securing and protecting the applicable hollow metal frame material furnished by the Hollow Metal Frames, Doors, and Hardware Subcontractor.

8.0.2 Hollow Metal Frame Bracing - The Masonry Subcontractor shall install temporary bracing and/or spreaders on all hollow metal frames that are impacted by this Scope of Work.

-OTHER SCHEDULE SUMMARY INFORMATION-

The Substantial Completion date for the Masonry Package Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

—ALLOWANCES—

Allowances shall cover the cost of all materials and equipment delivered at the site and all required taxes, less applicable trade discounts. Costs for unloading and handling at the site, labor, installation costs, overhead, profit and other expenses associated with stated allowance amounts shall be included in the Subcontract Amount but not in the allowances. Whenever costs are more than or less than an allowance amount, the Subcontract Amount shall be adjusted accordingly by Change Order. The amount of the Change Order shall reflect the difference between actual costs and the allowances.

ALLOWANCES		
ALLOWANCE NO.	ALLOWANCE DESCRIPTION	AMOUNT
No. 1	Unit Masonry – Face Brick	$350 per Thousand

—UNIT PRICES—

To the extent that some or all the Subcontractor's Work is to be performed on a unit price basis, the Subcontract Amount shall be computed in accordance with the unit prices set forth below. Unit prices are deemed to include all costs related to Subcontractor's performance of the Work, including, but not limited to, costs of labor, supervision, services, materials, equipment, tools, scaffolds, hoisting, transportation, storage, insurance, and taxes, and all overhead and profit. Quantities shall be measured by means acceptable to Owner, General Contractor, and Subcontractor, and if applicable, an independent testing firm hired by Owner.

UNIT PRICES			
UNIT NO.	UNIT PRICE DESCRIPTION	UNIT PRICE	UNIT MEASURE
001	Mobilizations	$2,000	EA
002	Labor	$28	HR
003	Operator	$32	HR
004	Mason	$36	HR
005	Foreman	$45	HR
006	Project Manager	$60	HR

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
04A MASONRY PACKAGE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

05A - STRUCTURAL STEEL AND MISC METALS PACKAGE

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Structural Steel and Misc. Metals Package** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on-site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Structural and Misc. Metals Package** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings
Division 5	Metals
05 12 00	Structural Steel Framing
05 21 00	Steel Joist Framing
05 31 01	Steel Floor Decking – Composite
05 31 03	Steel Roof Decking
05 40 00	Cold Formed Metal Framing
05 44 00	Cold Formed Metal Trusses
05 50 00	Metal Fabrications
05 51 13	Metal Pan Stairs
05 52 13	Pipe and Tube Railings

Secondary Responsibility

This Subcontractor is responsible for all Specification Responsibilities in the contract documents to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Subcontractor is responsible for complete Specifications package as it relates to the Structural Steel and Misc. Steel Package scope of work.**
Division 3	Concrete
Division 4	Masonry
Division 9	Finishes

The **Structural Steel and Misc. Metals Package** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Structural Steel and Misc. Metals Package** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

5.0 STRUCTURAL STEEL & MISC METALS PACKAGE SCOPE OF WORK DESCRIPTION

5.0.1 Structural Steel, Steel Joists and Steel Decking - This Work shall include detailing, fabricating, furnishing, and installing all structural steel, steel joists, steel roof decking, and steel floor decking systems, including but not limited to, shop drawings, shop cleaning and painting, all structural steel metal framing, steel columns, steel beams, steel tubes, steel beams with plates, steel bar joists, special steel bar joists, steel joist bridging, steel joist girders, structural steel lintel beams, steel roof and slab on deck edge angles, steel roof decking, steel floor decking, galvanized steel and decking, where specified, steel bracing, shot/bolted/welded connections, closure strips and angles, bracing, connections, plates at joist extensions, brick support angle, edge of deck bent plate/angles, pour stops, slab plate with guide angles, mechanical, electrical and/or plumbing equipment roof, slab or wall opening framing to receive equipment provided by others, miscellaneous equipment steel

framing, etc. as specified and designated within Contract Documents to comprise a complete Structural Steel, Steel Joist, and Steel Decking System. (Note: Section 2 Sheet 3.74 for Roof Decking)

5.0.2 Miscellaneous Metals – This Work shall include detailing, fabricating, furnishing, and installing all miscellaneous steel, including but not limited to, shop drawings, shop cleaning and painting, all miscellaneous steel, pipe bollards (material only), galvanized steel, where specified, miscellaneous anchor bolts, bent plate jamb, galvanized steel angles at all exterior locations, galvanized steel plates, loose bearing and leveling plates, column base plates, where specified, permanent steel masonry wall partition bracing and supports, galvanized steel angles with headed studs, bent plate wall anchors, shelf and relief angles, stair nosing, steel support framing, headed beam shear studs, headed column shear studs, weld plates with headed studs, base plate leveling nuts, steel deck cover plates, steel deck edge bent plate, closure angles, accessories, equipment roof/floor deck opening angle framing, brick support angle, deck support angle, angle brackets, plates at timber brackets (supply only), etc. at all locations designated within the Contract Documents.

5.0.3 Miscellaneous Metals Installation Clarification –The following miscellaneous steel items shall be detailed, fabricated, and furnished by this Subcontractor to the designated Trade Subcontractor outlined below for their installation. Additionally, the designated Trade Subcontractor below shall unload, sort, and store all steel materials to be installed as part of their respective Scope of Work. However, in the event the steel items defined below are shipped to the project site along with other steel items to be installed by this Subcontractor, Subcontractor shall unload, sort, store, and then subsequently turnover these items to these respective Trade Subcontractors for its installation. Unless noted otherwise herein, all other steel materials required of this project shall be furnished and installed by this Subcontractor.

- Concrete Foundations & Decking/Stair Infill Subcontractor – Column anchor bolts, embed plates, embed angles, bollards, etc. cast directly into a concrete system.
- Masonry Subcontractor – Loose masonry lintels, block support lintels, embed plates, bearing plates, cast-in anchor bolts, etc. set directly into a masonry system.
- Truss Erection Subcontractor – Metal decking above light gauge trusses and mechanically fastened lintels.

5.0.4 This subcontractor is responsible for performing and providing an anchor bolt survey performed by a licensed surveyor to confirm the anchor bolts are in the correct location prior to erecting.

5.0.5 Metal Stairs – This Work shall include detailing, fabricating, furnishing, and installing all metal stair systems, including but not limited to, shop drawings, shop cleaning and painting, metal stair assemblies, steel columns, stair pans, stair nosing, platforms, steel stringers, steel risers, platform landings, plates, railings, removeable railing sections, expansion anchors, welded and bolted connections, bolts, anchors, etc. at all locations designated within the Contract Documents.

5.0.6 Handrails, Guard Rails, and Railings - This Work shall include detailing, fabricating, furnishing, and

installing all handrail and guardrail systems, including but not limited to, shop drawings, shop cleaning and painting, steel picket railings, decorative handrails, decorative guardrails, pipe rails, stainless steel cable, coring, non-shrink grout, anchors, railing accessories, etc. at all locations designated within the Contract Documents.

5.0.7 Subcontractor shall furnish and install all mechanical, electrical and/or plumbing equipment roof, slab or wall opening framing to receive equipment provided by others. Reference Mechanical, Electrical or Plumbing Drawings for sizes and locations as well as sizes and locations specified by each Mechanical, Electrical, and Plumbing subcontractor.

5.0.8 Subcontractor shall furnish and install expansion bolts, expansion anchors, flat bar anchors, etc. as designated within the Contract Documents to attach steel components to the face of a masonry wall and/or concrete assembly. The miscellaneous anchors shall be furnished by this Subcontractor as part of this Scope of Work.

5.0.9 Where applicable, the Subcontractor shall furnish and install all shear studs to complete all designated composite steel construction.

5.0.10 Subcontractor shall furnish and install the necessary frames at all roof deck conditions and interior floor deck where required for Work scheduled under this Subcontract. The respective Subcontractor requiring a specific frame will provide the size and location of these areas for the Subcontractor's fabrication and installation.

5.0.11 Subcontractor shall furnish and install all structural steel supports required to support all items if not provided by their respective Trade Subcontractor at all locations designated within the Contract Documents.

5.0.12 Cranage and Hoisting –Subcontractor shall provide all Cranage and Hoisting as required to facilitate this scope of work, including but not limited to, insurance, certified operator, inspections, lighting, flagmen, communication devices and all other incidentals required.

5.0.13 Subcontractor shall provide all materials per this scope of work in the finish as dictated by the contract documents.

5.0.14 All shop drawing connections not detailed in the contract documents shall be designed by this Subcontractor under the direct supervision of a Professional Engineer licensed in the State where the project is located. Shop drawings shall include these connection details and bear the seal and signature of the Professional Engineer procured by this Subcontractor.

5.0.15 Non shrink grouting of column base plates and concrete fill for the stair pans will be provided by the Concrete Foundations & Slabs Subcontractor and is not part of this Scope of Work.

5.0.16 Subcontractor shall furnish, install, and maintain a complete Fall Protection Guardrail System for all elevated slabs, decks, stair openings, mechanical equipment/duct openings, elevated running

track, mezzanines, etc. which are required by OSHA to receive a Guardrail System as stipulated by the OSHA Handbook for the Construction Industry (29 CFR PART 1926), Subpart L – Scaffolding and Subpart M – Fall Protection. Installation of the Fall Protection Guardrail System shall be based upon the elevated slabs, stair openings, decks, mechanical equipment/duct openings, elevated running track, mezzanines, etc. finish floor elevations to comply with the requirements for fall protection during the installation of the metal decking and after the placement of the elevated concrete slabs. Additional clarification and coordination are described as follows: Upon installation of the elevated concrete slabs on deck, the Concrete Foundations & Slabs Subcontractor shall furnish, install and maintain any additional appurtenances to provide a complete Fall Protection Guardrail System as stipulated by the OSHA Handbook for the Construction Industry (29 CFR PART 1926), Subpart L – Scaffolding and Subpart M – Fall Protection (i.e. toe boards, etc.). The Concrete Foundations & Slabs Subcontractor shall maintain the Fall Protection Guardrail System until the Structural Steel Subcontractor who is responsible for the steel railings at the mezzanines, elevated running track area, open lobby areas, etc., removes and palletizes the components of the Fall Protection Guardrail System to allow for immediate installation of metal railing work.

5.0.17 Subcontractor shall provide temporary railings at all stair locations until the time when permanent railings can be installed as part of this scope of work.

5.0.18 Subcontractor will provide ALL field welding work required of the project. This includes but is not limited to, welding of steel lintel beams to base plates, which are set as part of the Masonry Subcontractor's Scope of Work, screw attaching and welding off brick shelf angles to metal studs as well as welding the adjustable column anchor clips to the steel columns scheduled to receive a masonry column wrap or wall.

5.0.19 Touch-up Painting – Immediately after erection, clean field welds, bolted connections, and abraded areas of shop painted materials. Apply paint to exposed areas using same material as used for shop painting per the contract documents.

5.0.20 Lay-down Area - This project site will have a limited lay-down area for structural steel materials. To maintain the project schedule multiple deliveries may be required to complete this Scope of Work. It will be the responsibility of this Subcontractor to utilize the Project Schedule and any other applicable information to develop a closely coordinated material delivery plan that will ensure ALL materials to be provided as a part of this scope of work are delivered to the project site as needed to maintain the project schedule. No additional charges will be accepted for multiple deliveries or mobilizations due to lack of coordination by this Subcontractor.

5.0.21 The Contractor will designate areas on site to be utilized as material laydown areas. Material left exposed to the elements shall be cleaned, if deemed necessary by the Contractor, prior to the material being installed. Exposed Structural Steel that is scheduled to receive finish paint shall be free of foreign matter, which may cause the application of the finish coating to be aesthetically unacceptable.

5.0.22 This Subcontractor shall provide all labor, materials, equipment, hoisting, temporary utilities, etc.

including providing temporary steel bracing as required and necessary to provide a complete turnkey misc. steel installation package.

5.0.23 Structural Steel components shall be installed plumb and true.

5.0.24 Subcontractor shall provide a wash down and final cleanup of all finished work installed by this subcontractor.

5.0.25 This Subcontractor shall provide protection of all adjacent surfaces and materials.

5.0.26 This Subcontractor shall provide galvanized materials at all exposed exterior locations in accordance with the Contract Documents.

5.0.27 Special Inspections – As Special Inspections will be required on this project it will be the responsibility of this Subcontractor to provide Supervision to accompany Inspectors as required. Any deficiencies noted shall be corrected at the time of inspection. If this Subcontractor is unable to make the correction during inspection and the deficiency is placed on a non-compliant list this Subcontractor will have no more than 48 hours to make the correction and schedule the reinspection to have the item removed from the non- compliant list. All non-compliant work noted shall be reported to the Contractor as soon as possible and before the close of business on the day of inspection. Once the corrections have been completed this Subcontractor shall notify the Contractor for confirmation and re-inspection. Failure to make the corrections as stated above could result in a stop work order until the correction has been made.

-OTHER SCHEDULE SUMMARY INFORMATION-

The Substantial Completion date for the Structural & Misc. Steel Package Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
05A STRUCTURAL AND MISC STEEL PACKAGE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

05F – COLD-FORMED METAL TRUSSES AND METAL DECKING LABOR

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Cold-Formed Metal Trusses and Metal Decking Labor Package** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on-site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Cold-Formed Metal Trusses and Metal Decking Labor Package** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings
05 31 00	Steel Decking
05 40 00	Cold-Formed Metal Framing
05 50 00	Metal Fabrications

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Subcontractor is responsible for complete Specifications package as it relates to the Cold-Formed Metal Trusses and Metal Decking Labor Package scope of work.**

Div. 7	Thermal and Moisture Protection
Div. 9	Finishes
Div. 21	Fire Suppression
Div. 22	Plumbing
Div. 23	Heating, Ventilation, and Air Conditioning (HVAC)
Div. 26	Electrical
Div. 27	Communications
Div. 28	Electronic Safety and Security

The **Cold-Formed Metal Trusses and Metal Decking Labor Package** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Cold-Formed Metal Trusses and Metal Decking Labor Package** Subcontractor is responsible for all Work.

5.0 COLD-FORMED METAL TRUSSES AND METAL DECKING LABOR SCOPE OF WORK DESCRIPTION

5.0.1 Cold-Formed Metal Trusses and Metal Decking- This Work shall include erection and install all cold-formed metal trusses and metal decking above, including but not limited to, staging, fasteners, truss-to-bearing attachments (clips, brackets, and straps), truss-to-truss attachments (clips, brackets, and straps), permanent lateral and diagonal bracing, metal deck termination metal, outrigger framing, etc. per the contract documents and truss supplier's shop drawings, truss placement plan, etc. Subcontractor to furnish and install all fasteners. All truss, decking, clips, brackets, straps, bracing, termination metal, outrigger, etc. material to be provided by others.

5.0.2 Subcontractor has included outlooker framing.

5.0.3 Subcontractor has included the installation of metal deck termination metal for attachment of facia board, blocking, etc.

5.0.4 Subcontractor has included the installation of all truss-to-wall and truss-to-truss attachments.

5.0.5 Subcontractor has included installation of all metal blocking for the truss and metal decking systems.

5.0.6 Subcontractor shall coordinate installation of this scope of work with HVAC, Electrical, Plumbing, Fire Protection, and Metal Stud / Drywall subcontractors, per the contract documents.

5.0.7 This Subcontractor shall directly coordinate with the Truss Supplier for all the materials required to achieve the erection of a complete and fully operable Cold-Formed Metal Truss System with Metal Roof Decking System(s).

5.0.8 Subcontractor shall install all blocking integral to the truss systems as shown within the contract documents or otherwise reasonably inferred by the contract documents as components of the truss system are included.

5.0.9 Subcontractor shall review the erection drawings provided by the Truss Manufacturer and Supplier. Any discrepancies or additional bracing requirements is to be directly coordinated with the Truss Manufacturer and Supplier.

5.0.10 During installation and erection, distribute concentrated loads applied to trusses adequately so that carrying capacity on any one truss or other component is not exceeded.

5.0.11 Subcontractor has included install of temporary bridging and bracing of the truss system during erection. Temporary provisions will provide for a safe structure during all phases of truss erection and no trusses are to be left in an “un-braced” condition after setting in place. Temporary bracing must be removed when it is no longer necessary.

5.0.12 Roof truss and decking work will be closely followed by roofing install. Direct coordination with the Roofing Subcontractor, as necessary to coordinate and expedite available work is expected and included.

5.0.13 Subcontractor shall provide all necessary fasteners in the required finish for execution of this scope of work.

5.0.14 Trusses shall be installed plumb and true.

5.0.15 This Subcontractor shall provide protection of all adjacent surfaces and materials.

5.0.16 Cranage and Hoisting –Subcontractor shall provide all Cranage and Hoisting as required to facilitate this scope of work, including but not limited to, insurance, certified operator, inspections, lighting, flagmen, communication devices and all other incidentals required.

5.0.17 Store trusses on blocking off ground and in an upright position, when possible, to avoid damage from bending and over stressing. Protect metal from corrosion, deformation, damage, and

deterioration when stored on the job site. Keep trusses free of dirt and other foreign materials. Cleaning of trusses after installation, if necessary due to improper storage or handling methods is included in this contract. Handling includes footprints.

5.0.18 Lay-down Area - This project site will have a limited lay-down area for the cold-formed metal trusses. To maintain the project schedule multiple deliveries may be required to complete this Scope of Work. It will be the responsibility of this Subcontractor to utilize the Project Schedule and any other applicable information to develop a closely coordinated material delivery plan with the Supplier and General Contractor. No additional charges will be accepted for multiple deliveries or mobilizations due to lack of coordination by this Subcontractor.

5.0.19 The Contractor will designate areas on site to be utilized as material laydown areas. Material left exposed to the elements shall be cleaned, if deemed necessary by the Contractor, prior to the material being installed. Exposed Structural Steel that is scheduled to receive finish paint shall be free of foreign matter, which may cause the application of the finish coating to be aesthetically unacceptable.

-OTHER SCHEDULE SUMMARY INFORMATION-

The Substantial Completion date for the Structural & Misc. Steel Package Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
05A COLD-FORMED METAL TRUSSES AND METAL DECKING LABOR SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

6D CASEWORK AND COUNTERTOPS

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Casework and Countertops** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Casework and Countertops** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
06 40 23	Interior Architectural Woodwork
12 32 13	Manufactured Wood – Casework
12 36 16	Metal Countertops
12 36 61	Quartz Agglomerate Countertops

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Casework and Countertops Scope of Work.**
Division 6	Wood, Plastics, and Composites
Division 9	Finishes
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning
Division 26	Electrical

The **Cabinets and Countertops** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Cabinets and Countertops** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use

all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

6.0 CASEWORK AND COUNTERTOPS SCOPE OF WORK DESCRIPTION

6.0.1 This Subcontractor shall furnish all labor, materials, equipment, tools, taxes, lifting and hoisting, insurance, supervision, and any other incidentals necessary to provide a complete Casework and Countertop scope of work. This Subcontractor shall be responsible for all cabinets, cubbies, bunk cabinets, floating wall shelves, and sink/vanity aprons, fillers, hardware, etc. as specified in the contract documents, required by Authorities Having Jurisdiction, and as noted herein. The following scope items are not intended to be all-inclusive but are merely used to highlight some of the major scope items.

6.0.2 The scope of this Subcontract shall be in accordance with ADA and Fair Housing requirements, as well as in accordance with local authority having jurisdiction. Failure to comply with the ADA and Fair Housing regulations will require correction of work-in-place solely at the Subcontractor's expense. This Subcontractor shall notify the General Contractor of any potential problems prior to the installation of its scope of work.

6.0.3 This Subcontractor shall furnish and install all cabinets (uppers, lowers, etc. and standard, deep and HC sizes), countertops (plastic laminate, solid surface, quartz, metal, butcher block, cultured stone, etc.), millwork, vanity tops, shelves, backsplashes, hardware, brackets, supports, corbels, fillers, shoe molds, trim, toe kick, surface blocking, covers, end panels, scribe, etc. to provide a complete cabinetry and countertop package, per the contract documents.

6.0.4 The installation of cabinets and countertops shall constitute acceptance of adjacent finishes and substrates by this Subcontractor. Subcontractor understands that cabinets and countertops shall be removed and reinstalled at no additional cost to General Contractor if corrections to adjacent finishes or substrates dictate such removal.

6.0.5 Subcontractor shall install cabinets and countertops plumb, true, and level. Further, Subcontractor shall furnish and install minimum fillers and moldings that fit neatly.

6.0.6 Subcontractor to include all open shelving including, but not limited to, the shelving in room 108 and other areas as per the contract documents.

6.0.7 Subcontractor shall install all cabinet components (drawers, doors, hinges, pull, etc.) level and plumb in a manner that will allow for proper function of said components, per the approved cabinet shop drawings and contract documents.

6.0.8 Subcontractor shall provide complete cabinet and countertop layouts as part of the submittal process. These drawings will be strictly adhered to as part of this Subcontractor's installation process.

6.0.9 Subcontractor shall set nails in fillers, moldings, and toe kicks and fill holes with matching color putty.

6.0.10 All cut ends to be field treated / applied with laminate / stain to achieve the appropriate matching finish. No edges / cuts are to be left un-treated.

6.0.11 Color samples (countertops, vanity tops, plastic laminate, solid surface, stone, quartz, metal, butcher block etc.) and box cabinet construction samples are to be provided to the General Contractor for Owner Architect approval / selection.

6.0.12 Subcontractor shall be responsible for field measuring and coordinating with the General Contractor prior to installation to avoid any fabrication and corresponding installation issues in the field. Any issues that may arise during field measuring shall be issued to General Contractor in writing.

6.0.13 Provide all uniform cutouts for other trades' work. Escutcheons are by others.

6.0.14 All nail holes, screw holes, fastening points, etc. shall be filled and made ready to receive finish installed by others.

6.0.15 All cutouts for all plumbing, mechanical or electrical fixtures shall be by this trade if the fixture or a template is on site. All fixtures shall be furnished and installed by others.

6.0.16 This Subcontractor shall make all field modifications such as trimming and scribing necessary for a tight fit to similar or dissimilar surfaces.

6.0.17 All field measurements are by the subcontractor to ensure proper fit.

6.0.18 This subcontractor shall coordinate the installation of the work under this subcontract and verify blocking requirements with other trades and field conditions. Subcontractor to provide blocking layout for this scope of work at time of submittals.

6.0.19 All blocking not within wall shall be by this Subcontractor.

6.0.20 Subcontractor shall furnish and install base trim to match the cabinetry for all cabinets within this scope of work.

6.0.21 Subcontractor has included all shimming and/or installation of wood strips necessary for leveling of all cabinetry and countertops within this scope of work.

7.0 JOINT SEALANT SCOPE OF WORK DESCRIPTION

7.0.1 Joint Sealants – This Work shall include a complete Joint Sealant System, including but not limited to, all warranties, colored joint sealants to match this scope of work including miscellaneous joint sealants, cleaners, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints. The Cabinet & Countertop Subcontractor shall be responsible for providing all joint sealants, etc. required to complete all work provided as part of this Subcontract, including but not limited to, providing joint sealant work where millwork cabinets, countertops, backsplashes, etc. abut the adjacent walls and floors.

7.0.2 Subcontractor shall caulk all back splashes installed under this subcontract to the wall and dissimilar surfaces.

12.0 COUNTERTOPS SCOPE OF WORK DESCRIPTION

12.0.1 Subcontractor has included all plastic laminate, solid surface, quartz, butcher block, metal/stainless, and cultured stone countertops to include all side and backsplashes as noted, per the contract documents.

12.0.2 Subcontractor has included all grommets as required, per the contract documents.

12.0.3 Subcontractor has included all steel countertop supports, per the contract documents.

12.0.4 Subcontractor shall coordinate and perform cutouts for all plumbing, mechanical or electrical fixtures. All fixtures shall be furnished and installed by others.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
06D CABINETS AND COUNTERTOPS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

07A WATERPROOFING AND SEALANTS SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Waterproofing and Sealants** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Waterproofing and Sealants** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
07 27 26.03	Fluid-Applied Membrane Air Barriers
07 92 00	Joint Sealants

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Waterproofing and Sealants Scope of Work.**

Div. 3	Concrete
Div. 4	Masonry
Div. 6	Wood, Plastics, and Composites
Div. 7	Thermal and Moisture Protection
Div. 8	Openings
Div. 22	Plumbing
Div. 23	Heating, Ventilating, and Air Conditioning (HVAC)
Div. 26	Electrical

The **Waterproofing and Sealants** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Waterproofing and Sealants** Subcontractor is responsible for all Work.

7.0 WATERPROOFING AND SEALANTS SCOPE OF WORK DESCRIPTION

7.0.1 Subcontractor shall furnish all labor, materials, equipment, tools, taxes, hoisting, lifting, insurance, warranties, and any other incidentals necessary to provide a complete Closed Cell Spray Foam Insulation scope of work as specified by the contract documents, authorities having jurisdiction, and noted herein.

7.0.2 Fluid Applied Membrane Barrier – This Subcontractor shall furnish and install all fluid applied membrane barrier, per the contract documents. This Work shall include, but is not limited to, termination bars, fasteners, sealants, tapes, adhesives, primers, mastics, surface conditioners, cavity drainage system, masonry waterproofing, etc. as required at exterior envelope to provide a complete fluid applied membrane barrier system. Scope of Work includes but is not limited to exterior walls, door, and window treatment, and caulking of sheathing, per the contract documents and manufacturer's recommendations.

7.0.3 Penetrations – Subcontractor shall be responsible for installation of flashing, sealants, mastics, etc., at all penetrations through Waterproofing system. Penetrations shall be sealed in accordance with

the contract documents and manufacturer's installation instructions/recommendations to ensure the system warranty can be provided as specified. This specifically includes building penetrations at plumbing, electrical, and utility penetrations, per the contract documents and project requirements.

7.0.4 Installer shall meet qualification standards set forth in the Contract Documents and shall adhere to the specification materials, installation requirements, quality assurance, testing / inspection requirements, warranties, etc.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all pre-construction testing, warranties, elastomeric joint sealants, solvent-release joint sealants, latex joint sealants, miscellaneous joint sealants, fire-resistant joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints. Subcontractor shall be responsible for providing all joint sealants, etc. required to complete all work provided as part of this Subcontract, including but shall not be limited to:

1. Exterior sealants at perimeter of all louvers, scuppers, grilles, HM Frames, Overhead Doors, and similar.
2. Exterior brick / block expansion / precast / control joints.
3. Horizontal relieving angle joints and dissimilar materials.
4. CMU control and expansion joints at exterior and interior of exterior walls (unless advised otherwise, assume maximum 20'-0" O.C.).
5. Joints within architectural precast concrete components.
6. All window, door, louver, or other frames in walls.
7. Control and expansion joints of interior concrete slabs on grade.
8. Expansion / control joints of exterior concrete work including but not limited to sidewalks and concrete paving. Includes joint between building and sidewalks, site stairs, and concrete paving.
9. Stair stringers to adjacent walls, as required.
10. Signage to dissimilar materials.
11. Exterior light fixtures.

7.0.6 This Subcontractor shall be responsible for providing and installing compressible expansion joint systems at Masonry walls as required, including compressible filler, joint sealants, etc. per the contract documents.

7.0.7 This Subcontractor shall furnish and install fire caulking at interior head of the fire-rated masonry walls, per the contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
07A WATERPROOFING AND SEALANTS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

07B MEMBRANE ROOFING AND 07C METAL SOFFIT, METAL ROOFING, GUTTERS & DOWNSPOUTS PACKAGE

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Membrane Roofing, Metal Roofing, Metal Soffit, and Gutters & Downspouts Package** Scope of Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on-site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Membrane Roofing, Metal Roofing, Metal Soffit, and Gutters & Downspouts Package** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings.
07 11 13	Bituminous Damproofing
07 41 13.16	Standing-Seam Metal Roof Panels
07 41 12	Metal Roof Panels
07 42 13.53	Metal Soffit Panels
07 54 19	Polyvinyl-Chloride (PVC) Roofing
07 71 15	Manufactured Roof Specialties – Aluminum Copings
07 72 05	Roof Accessories

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Membrane Roofing, Metal Roofing, Metal Soffit, and Gutters & Downspouts Package scope of work.**
Div. 4	Masonry
Div. 5	Metals
Div. 7	Thermal and Moisture Protection

The **Membrane Roofing, Metal Roofing, Metal Soffit, and Gutters & Downspouts Package** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Membrane Roofing, Metal Roofing, Metal Soffit, and Gutters & Downspouts Package** Subcontractor is responsible for all Work.

7.0 MEMBRANE ROOFING, METAL ROOFING, METAL SOFFIT, AND GUTTERS & DOWNSPOUTS PACKAGE SCOPE OF WORK DESCRIPTION

7.0.1 PVC Membrane Roofing System - This Work shall include providing a complete fully adhered PVC Membrane Roofing System, including but not limited to, fasteners, 60 mil sheet membrane, rigid polyisocyanurate board insulation, sloped tapered insulation, cover boards, bitumen, adhesives, base flashing, prefabricated roof insulation vents, vent through roof (VTR) flashings, prefinished snap-on or face leg hooked to continuous cleat metal copings, break metal, prefabricated boots, etc., compliance with uplift requirements, specified roof warranty, downspouts, gutters, U.L. requirements, sheet metal flashing, membrane flashing, roof curb flashing including counter flashing of prefabricated roof curbs, roof expansion joints, roof walkway pads, prefabricated cant

strips, flood testing, etc., per the contract documents.

7.0.2 Insulation at PVC Membrane Roofing – This Work shall include providing all built-up roofing rigid board insulation and associated adhesives, clips, fasteners, caulking compounds, tape, mastic, etc., per the contract documents.

7.0.3 Standing Seam Metal Roofing - This work shall include providing a complete weather- tight Standing Seam Metal Roof panel system including but not limited to, prefinished metal roofing panels, prefinished perforated soffit panels, high temp ice and water shield, continuous rigid insulation at specified locations, underlayment materials, protection boards, perlite boards, J trim, roof clips, roofing felt, metal fascia, ridge cap, touch-up paint, if required, valley flashing, trim, flashing, gutters, downspouts, gutter outlet strainers, other miscellaneous components, perimeter-flashing, closures, pre-finished metal fascia's, expansion joint covers, closure strips, sealant tape, sealants, mastic, thermal blocks, where required, and other miscellaneous components and materials to comprise a complete Standing Seam Metal roof panel system as designated within the Contract Documents.

7.0.4 Insulation at Metal Roofing – This Work shall include providing all standing seam metal roof rigid board insulation and associated adhesives, clips, fasteners, caulking compounds, tape, mastic, etc., at designated locations within the Contract Documents.

7.0.5 Roofing systems and components shall meet or exceed all performance requirements and ratings as specified in the contract documents and as required by local code and/or local authority having jurisdiction. This includes, but is not limited to: impact resistance, UL Class, wind design and uplift pressure, and fire resistance.

7.0.6 Self-Adhering, High-Temperature Sheet Underlayment –Subcontractor shall furnish and install all self-adhered, high-temperature sheet underlayment in accordance with and in locations as designated within the contract documents.

7.0.7 Sheet Metal Flashing, Trim, Manufactured Roof Accessories, and Roof Expansion Assemblies - This Work shall include providing all prefinished sheet metal flashing and trim work, manufactured roof accessories work and roof expansion assemblies work designated or required within the roof system, including but not limited to, exposed trim, formed aluminum gutters, formed aluminum downspouts, formed scuppers, downspout straps, formed aluminum gravel stops, drip edge, eave flashing, formed pre-finished copings, aluminum roof to wall expansion joint assemblies, aluminum roof to roof expansion joint assemblies, accessories, base flashing, epoxy seam sealers, joint sealants, adhesives, mastic sealants, asphalt mastic, fasteners, etc. as required to complete all sheet metal flashing, trim, manufactured roof accessories and roof expansion assemblies as designated within the Contract Documents. This Work shall also include providing all pre-molded flashing of all applicable roof penetrations, including but not limited to, roof drains, vent stacks, miscellaneous HVAC, plumbing, electrical, etc. roof penetrations, etc. specified to receive pre-molded flashing.

7.0.8 Subcontractor shall supply all requested material samples for review and selection at no additional cost. The color of metal shall be selected by the Architect and/or Owner from the manufacturer's full range of options.

7.0.9 Roof Openings – This Subcontractor shall make necessary cutouts/block-outs at all PVC membrane and metal roofing conditions requiring a cutout/block-out scheduled to receive work required of this subcontract or by other subcontractors at all project locations within the roof system being installed as part of this Scope of Work, per the contract documents. Cutouts/block-outs include openings required for all HVAC, plumbing, fire protection, and electrical work located at built-up roof areas. The respective trade subcontractor requiring a specific cutout/block-out will provide the size and location of these areas for this Subcontractor's installation.

7.0.10 Subcontractor shall seal any MEP roof penetrations per the manufacture's specifications and the contract documents.

7.0.11 This Subcontractor shall install the necessary roofing membrane, sealants, and flashing for proper integration of the Mezzanine door assembly provided and installed by others.

7.0.12 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified pre-construction testing, warranties, elastomeric joint sealants, solvent-release-curing joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. as required to complete this Scope of Work per the contract documents. Include tooling, cleaning, and protection of all sealant joints.

7.0.13 This Subcontractor shall coordinate its prefinished sheet metal work to ensure the same color of material as selected by the Designer is delivered and installed on site.

7.0.14 Gutters & Downspouts – This Work shall include supply and install of all gutters and downspouts, per the contract documents. Subcontractor shall coordinate downspout locations with the Contractor and Roof Leader Drainage System Subcontractor. Subcontractor acknowledges the contract documents may conflict with one another as they pertain to the downspout routing and roof leader drainage tie-in requiring additional and reasonable coordination. Subcontractor shall notify the Contractor prior to changes in routing.

7.0.15 Warranty – This Subcontractor shall provide the specified roof material and installer warranties on the forms required within the Contract Documents.

7.0.16 Final Cleaning – At project completion and before Owner Punch List this Subcontractor shall perform a final cleaning of all materials installed under this Subcontract. This shall include removing debris, dirt, stains, etc. from the Membrane Roofing, Metal Roofing, Metal Soffit, Coping, Gutters & Downspouts, etc. surfaces.

-OTHER SCHEDULE SUMMARY INFORMATION-

The Substantial Completion date for the Roofing Systems Package Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
MEMBRANE ROOFING, METAL ROOFING, METAL SOFFIT, AND GUTTERS & DOWNSPOUTS PACKAGE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

07D SIDING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Siding** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Siding** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
07 46 00	Siding (Fiber Cement)
07 62 00	Sheet Metal Flashing and Trim
07 92 00	Joint Sealants

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Plumbing Systems Scope of Work.**

Div. 4	Masonry
Div. 6	Wood, Plastics, and Composites
Div. 7	Thermal and Moisture Protection

The **Siding** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Siding** Subcontractor is responsible for all Work.

6.0 WOOD, PLASTICS, AND COMPOSITES SCOPE OF WORK DESCRIPTION

6.0.1 Wood Blocking – This Subcontractor shall coordinate all necessary blocking/backing required for this Scope of Work with the General Contractor, Metal Framing, Insulation, Drywall, and Acoustical Ceiling Subcontractor, and Rough Carpentry Subcontractor to not impede siding installation. Subcontractor shall be responsible for communicating and coordinating all required blocking/backing per the manufacturer whether shown within the contract documents or not. Wood blocking / backing to be installed by others.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Subcontractor shall furnish all labor, materials, equipment, tools, taxes, hoisting, lifting, insurance, warranties, and any other incidentals necessary to provide a complete Siding scope of work as specified by the contract documents, authorities having jurisdiction, and noted herein.

7.0.2 Siding – This work shall include a complete Siding Package, including but not limited to, lap siding, shingle siding, vertical siding with battens, smooth batten boards, panel vertical siding, fascia, frieze, trim blocks, plinth blocks, flashing, z-flashing, joint flashing, fasteners, etc. as required for a complete turnkey Siding scope of work, per the contract documents. No rainscreen or PT furring to be installed, full warranty shall be provided without rainscreen.

7.0.3 Subcontractor has included furnish and install of James Hardie ColorPlus materials with caulking and

touch-up paint, per the manufacturer's recommendations and contract documents.

7.0.4 Subcontractor has included furnish and install of PVC trim, per the contract documents.

7.0.5 Subcontractor to furnish and install fasteners per manufacturer's recommendations and the contract documents. Over driving and under driving of fasteners will be the responsibility of this Subcontractor to remedy.

7.0.6 Subcontractor shall perform this scope of work in a manner as to not damage the weather barrier. Subcontractor shall notify the General Contractor of damage to weather barrier if incident occurs, or damage is noticed. Subcontractor shall be responsible for the repair of any weather barrier required due to damage by this Subcontractor.

7.0.7 Subcontractor shall furnish and install this scope of work plumb, level, and ensure all material is new, clean, and free of defects and damage.

7.0.8 Subcontractor shall provide all secondary materials required to install this scope of work, per the manufacturer's recommendations and the contract documents.

7.0.9 Subcontractor shall furnish and install an approved primer and shall be responsible for painting all cut ends of siding, panels, and trims as recommended/required by the manufacturer and contract documents.

7.0.10 Subcontractor shall furnish and install plinth blocks, including but not limited to, all exterior light fixtures, receptacles, switches, vents, pipe penetrations, alarms, fire bells, etc. The block shall be large enough for covers and base plates to sit fully on the block with necessary reveals. All wires are to be pulled thru, so fixture when installed on plinth block is on one (1) piece of siding. This Subcontractor shall be responsible for coordinating locations and sizes of the plinth blocks with General Contractor and associated Subcontractors. This Subcontractor shall install flashing over all plinth blocks as required, per the contract documents and manufacturer.

7.0.11 Subcontractor has included the necessary mobilizations to install roof fascia and trim boards prior to roofing, etc. install for proper sequencing at General Contractor's direction.

7.0.12 Subcontractor will utilize the proper dust collection devices on their saws and wear proper ventilation masks in accordance with OSHA regulation when working with fiber cement materials.

7.0.13 Subcontractor shall execute a "mockup" for this scope of work, per the contract documents.

7.0.14 Flashing – This work shall include a complete Flashing Package, including but not limited to, pre-finished metal flashing, of doors, windows, siding joints (horizontal and vertical), trim joints, transitions to dissimilar materials, louvers, vents, electrical, mechanical, plinth blocks, etc. to ensure weather tightness, per the manufacturer's recommendations and contract documents. Subcontractor shall furnish and install all integral sealants, per the manufacturer's

recommendations and contract documents. Subcontractor shall provide proper joints and flashing sizes as joints will vary based on location and adjacent materials. Full color range of flashing to be submitted for selection by the Owner and Architect.

7.0.15 Subcontractor shall furnish all field bent flashings at recommended flashing locations per the manufacturer and contract documents, including, but not limited to, head flashing, metal flashing between dissimilar materials and at all other horizontal or vertical trim or joints as required for the siding scope of work, which may be in addition to the plan details or areas or reasonably inferred locations. All flashing shall have hemmed edges. This also includes caulking end dams of metal flashing.

7.0.16 Joint Sealants - This work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. that are integral to the siding scope and associated flashings, per the contract documents. Include tooling, cleaning, and protection of all sealant joints.

7.0.17 Subcontractor is responsible for sealant of joints between this scope of work and dissimilar materials, per the manufacturer's recommendations and contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
22A PLUMBING SYSTEMS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

07E CLOSED CELL SPRAY FOAM INSULATION SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Closed Cell Spray Foam Insulation** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Closed Cell Spray Foam Insulation** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
07 21 19.19	Polyurethane Foam Insulation

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Closed Cell Spray Foam Insulation Scope of Work.**
Division 4	Masonry

Division 5	Metals
Division 7	Thermal and Moisture Protection

The **Closed Cell Spray Foam Insulation** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Closed Cell Spray Foam Insulation** Subcontractor is responsible for all Work.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Subcontractor shall furnish all labor, materials, equipment, tools, taxes, hoisting, lifting, insurance, warranties, and any other incidentals necessary to provide a complete Closed Cell Spray Foam Insulation scope of work as specified by the contract documents, authorities having jurisdiction, and noted herein.

7.0.2 Closed Cell Spray Foam Insulation – This work shall include a complete Closed Cell Spray Foam Insulation package, including but not limited to, prep, primer, code required intumescent thermal barrier, etc. per the contract documents and manufacturer's recommendations.

7.0.3 Subcontractor shall achieve the specified R-Value for this scope of work, per the contract documents and authority having jurisdiction.

7.0.4 Subcontractor will notify and coordinate exact locations and R values during the submittal process. All insulation must meet code requirements and authorities having jurisdiction.

7.0.5 Subcontractor shall furnish and install this scope of work at mezzanine metal decking, cold-formed metal trusses, cold-formed metal framed walls, etc. per the contract documents and authority having jurisdiction.

7.0.6 Subcontractor shall extend Closed Cell Spray Foam Insulation beyond top of wall / over the wall top plate per 2018 NCECC as required, per the contract documents and authority having jurisdiction.

7.0.7 Subcontractor shall protect all surrounding areas as required for this scope of work, including but not limited to, finished surfaces, duct work, sprinkler heads, concrete, vents, piping, etc. Subcontractor shall be responsible for the cost of removal / replacement should damage result from execution of this scope of work.

7.0.8 Subcontractor shall patch all penetrations or alterations made by others after initial installation of this scope of work.

7.0.9 Subcontractor has excluded all air/vapor barrier system components outlined in Specifications Section 07 21 19.19 – Polyurethane Foam Insulation including but not limited to materials to bridge and seal air leakage pathways and gaps, material to act as flashings and counter flashings, membrane flashings, transition membranes, etc.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Insulation Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
07E CLOSED CELL SPRAY FOAM INSULATION SYSTEMS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

07F FIREPROOFING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Fireproofing** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Fireproofing** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
07 84 13	Penetration Firestopping
07 84 43	Joint Firestopping

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Fireproofing Scope of Work.**
Division 4	Masonry
Division 5	Metals

Division 6	Wood, Plastics, and Composites
Division 7	Thermal and Moisture Protection
Division 8	Openings
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning (HVAC)
Division 26	Electrical

The **Fireproofing** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Fireproofing** Subcontractor is responsible for all Work.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Firestop Systems – All penetrations through walls, ceilings, and/or floors shall be sealed to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling, and/or floor assembly as acceptable to the General Contractor, Designer, and governing authorities.

7.0.2 This Subcontractor will complete all penetration firestopping and firesafing for penetrations provided as part of this Scope of Work at all wall, floor, and ceiling types. Subcontractor penetrating masonry partitions shall provide properly sized sleeves or core drill penetrations within all masonry walls. All through slab firestopping and sleeves are by the Subcontractor requiring the penetration.

7.0.3 The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted

as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

7.0.4 Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will be installed. All firestopping materials will be supplied by only one of the specified manufacturers. Mixing manufacturers materials will not be permitted. All subcontractors are required to use the same firestopping manufacturer. This Subcontractor shall coordinate with the Drywall, Framing, and Insulation Subcontractor and other MEP trades to ensure a single-source manufactured product is used for firestopping activities.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, elastomeric joint sealants, solvent-release-curing joint sealants, latex joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints.

7.0.1 Subcontractor shall be responsible for properly flashing all exterior penetrations made for installation of this scope of work, per the contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the fireproofing Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
07F FIREPROOFING SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

08A HOLLOW METAL DOOR, FRAME, AND HARDWARE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Hollow Metal Door, Frame, and Hardware** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Hollow Metal Door, Frame, and Hardware** Subcontract Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
08 11 13	Hollow Metal Doors and Frames
08 14 16	Flush Wood Doors
08 31 13	Access Doors and Frames – Non-Rated
08 31 13	Access Doors and Frames
08 35 00	Electric Four-Fold Bay Doors
08 36 20	Sectional Overhead Doors – F.D. High Lift Aluminum-Glass-Electric
08 41 13	Aluminum- Framed Entrances and Storefronts TrFab VG 451/451 T
08 71 00	Door Hardware
08 80 00	Glazing
08 83 00	Mirrors
08 91 19	Fixed Louvres

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Hollow Metal Door, Frame, & Hardware Package scope of work.**
Division 4	Masonry
Division 5	Metals
Division 9	Finishes
Division 26	Electrical

The **Hollow Metal Door, Frame, and Hardware** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Hollow Metal Door, Frame, and Hardware** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

8.0 HOLLOW METAL DOOR, FRAME, & HARDWARE SCOPE OF WORK DESCRIPTION

8.0.1 Hollow Metal Doors and Frames - This Work shall include **furnishing and installing** materials (installation of hollow metal door frames by others) for a complete hollow metal door and hollow metal frame package, including but not limited to, all hollow metal doors, door louvers including insect screens, where required, welded hollow metal frames, jamb anchors, floor anchors, door louvers where required, accessories and miscellaneous incidentals for a complete steel hollow metal door and hollow metal frame system, per the contract documents. All hollow metal doors

shall be pre-machined to accept finish hardware, door louvers, where required, etc. per the contract documents.

8.0.2 Flush Wood Doors - This Work shall include **furnishing and installing** materials for a complete flush wood door system, including but not limited to, all wood doors, glass lite frames and moldings, accessories and miscellaneous incidentals for a complete flush wood door system, per the contract documents. All wood doors shall be pre-machined to accept finish hardware, glass lite frames, door louvers where required, etc. and shall be factory finished, per the contract documents.

8.0.3 Door Hardware - This Work shall include **furnishing and installing** materials for a complete door hardware system, including but not limited to, all specified warranties, all hinges, key cabinet, lock cylinders and keys, lock and latch sets, bolts, mortise locksets and latch sets, exit devices, push/pull units, closers, overhead holders, miscellaneous door control devices, protection plates, weather-stripping for exterior doors, sound stripping for interior doors, silencers, floor stops and wall bumpers, automatic door seals (door bottoms), astragals or meeting seals on pairs of doors, thresholds, maintenance parts kits for locksets, door closers, fasteners, temporary cylinder inserts for construction use, keys, etc. for a complete door hardware system, per the contract documents. All construction and permanent cylinders for hollow metal and wood doors shall be furnished and installed by this Subcontractor.

8.0.4 Subcontractor shall furnish and install all glass and glazing associated with this scope of work tempered, impact rated, etc. per the contract documents.

8.0.5 Subcontractor shall supply all electrified door hardware including but not limited to strikes, hold opens, etc. All electrified door hardware shall be **furnished and installed** as part of this Scope of Work.

8.0.6 All materials (including all hollow metal frames) shall be clearly labeled and marked using door opening designations per the contract documents by this Subcontractor for ease of coordination and installation by this Subcontractor and others.

8.0.7 Subcontractor to verify all fire-ratings, throat sizes, jamb widths, door sizes, hardware prep, etc. prior to placing any orders for the applicable door package. It shall also be the responsibility of this Subcontractor to provide and verify all rough-openings prior-to and during the structural masonry and cold-formed metal framing stages of this project. This Subcontractor shall account for all details that may impact the rough opening sizes.

8.0.8 Provide installation of all required astragals, thresholds, sweeps, weather-stripping, gaskets, seals, smoke stops, louvers as required, and all other door accessories as indicated, per the contract documents.

8.0.9 This Subcontractor shall furnish, deliver, receive, and distribute all doors, frames, and hardware as necessary for facilitation of this scope of work.

8.0.10 This Subcontractor shall install door number labels on all door frames on the top butt hinge location when directed by the Contractor.

8.0.11 Provide Construction Key System as doors are installed in accordance with the Contract Documents. Provide means to lock the building as exterior doors are installed before permanent door hardware is installed. Subcontractor to install permanent cylinders at turnover and provide keys directly to the Owner. Keying shall be coordinated with the contract documents and the Owner.

8.0.12 Furnish and install door silencers prior to grouting door frames if preferred. Remove silencers to allow painting of frames to be completed as directed by the Contractor. Furnish and re-install all door silencers and gasketing after painting has been completed and when directed by the Contractor. If silencers must be installed during door installation to properly adjust the door, then this Subcontractor will include providing silencers again after paint work. This Subcontractor will be responsible for securing and protecting removed silencers. No reimbursement will be provided for lost or damaged silencers by the Contractor or Owner.

8.0.13 All doors and hardware shall be verified for proper orientation and adjusted during installation and adjusted again following completion of final HVAC test & balancing. All doors and hardware will be reviewed and adjusted prior to final building turnover to the owner and again six months after substantial completion in strict accordance with the Contract Documents. These four (4) checks and adjustments shall be included in this Scope of Work. If more stringent requirements are specified, the most stringent requirement shall govern, per the contract documents.

8.0.14 Provide for the undercut of doors as indicated for flooring requirements or air flow needs, per the contract documents. This Subcontractor is responsible for the modification of doors to accommodate undercut needs. Coordinate undercut of doors with pressurization requirements and local and state codes.

8.0.15 Exterior Doors frames and hardware shall be expedited for building close-up and security.

8.0.16 Temporary doors and hardware for all electrical, mechanical, and elevator equipment rooms shall be included in this Subcontract. Temporary doors and hardware shall be installed at the same time as the exterior doors.

8.0.17 Door frames for CMU walls shall be expedited to ensure delivery of frames to meet masonry schedule requirements. Costs to accelerate frames shall be by this Subcontractor.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Hollow Metal Frame, Door, & Hardware** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
08A HOLLOW METAL FRAME, DOOR, & HARDWARE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

08B STOREFRONTS – GLAZING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Storefronts - Glazing** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Aluminum-Framed Entrances and Storefronts Subcontract Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Storefronts – Glazing Package scope of work.**
08 41 13	Aluminum-Framed Entrances and Storefronts
08 80 00	Glazing

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings

Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Storefronts - Glazing Package scope of work.**
Division 4	Masonry
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 7	Thermal and Moisture Protection
Division 8	Openings

The **Storefronts – Glazing** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Storefronts - Glazing** Subcontractor is responsible for all Work.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Joint Sealants - Joint sealant work required of this Subcontract includes all caulking / sealants at the interior and exterior perimeter of all aluminum storefront frames, aluminum windows, and/or at edge of slab conditions as required, per the contract documents and manufacturer's recommendations. Manufacturer's recommendations and warranty shall supersede.

7.0.2 Subcontractor shall provide and install all factory sub-sills, pans, flashings, etc. per the contract documents and manufacturer's recommendations.

7.0.3 Subcontractor shall provide continuous frame fillers for continuous support of backer rod and sealant, per the contract documents.

8.0 ALUMINUM-FRAMED ENTRANCES AND STOREFRONTS SCOPE OF WORK DESCRIPTION

8.0.1 Aluminum Entrances, Storefronts, Aluminum Windows, Aluminum Clad Windows, and Glazing - Subcontractor shall furnish and install a full and complete impact tested and thermally broken exterior storefront and glazing system, per the contract documents and manufacturer's

recommendations. Scope of work to include applicable reinforcing, fasteners, anchors, attachment devices, and all other accessories necessary to complete this scope of work. Provide all shop drawings, manufacturer's warranties, etc. as designated within the Contract Documents.

8.0.2 Door Hardware - This Work shall include furnishing and installing a complete door hardware system for Storefronts and Glazing provided and installed as a part of this Scope of Work, including but not limited to, all specified warranties, all hinges, lock and latch sets, bolts, mortise locksets and latch sets, exit devices, push/pull units, closers, overhead holders, miscellaneous door control devices, protection plates, weather stripping for exterior doors, sound stripping for interior doors, silencers, floor stops and wall bumpers, automatic door seals (door bottoms), gasketing, astragals or meeting seals on pairs of doors, thresholds, maintenance parts kits for locksets, door closers, fasteners, temporary cylinder inserts for construction use, etc. for a complete door hardware system, per the contract documents. Door Hardware Schedule shall be per the Contract Documents.

8.0.3 Electrified Door Hardware System – This Work shall include furnishing and installing all electrified door hardware components and accessories as required to make the aluminum doors completely functional after the completion of this Work. High voltage raceways, wiring, and final connections will be provided to the heads of these doors by the Electrical Subcontractor and is not part of this Scope of Work. This Subcontractor shall carefully coordinate this scope of work with the Drywall, Metal Studs, Insulation, and Acoustical Ceilings Subcontractor, Masonry Subcontractor, and Electrical Subcontractor to ensure the electrified Door Hardware is properly installed in accordance with the manufacturer's recommendations. Reference the contract documents and reviewed submittals for specific door locations having low voltage access control, per the contract documents.

8.0.4 All elements of the storefront system and glazing shall meet the applicable ratings and performance requirements stated in the contract documents, including air and water infiltration, structural requirements, thermal requirements, safety requirements, and must meet all applicable testing requirements.

8.0.5 Subcontractor shall coordinate all keying for this scope of work with the Owner, Architect, Contractor, and the contract documents. Subcontractor shall provide keys for this scope of work.

8.0.6 Any damaged panels and or glass should be reported to the Contractor's Project Superintendent immediately; otherwise, this Subcontractor will be the responsible party until all pieces are installed and signed off by the General Contractor's project superintendent.

8.0.7 This Subcontractor shall receive, unload, and handle material for this scope of work with its own forces.

8.0.8 Provide and install all aluminum windows complete including but not limited to all extruded aluminum frame members, sub-sills, glazing gaskets, removable stops, glass, and fasteners, per the contract documents.

8.0.9 Include all required structural calculation sealed by a registered engineer licensed in North Carolina for all windows and storefront.

8.0.10 Aluminum window units shall meet or exceed all air infiltration tests, water resistance tests, and condensation resistance tests.

8.0.11 In the event replacement of damaged units is required, this Subcontractor shall provide temporary enclosures between the time of removing the existing windows and installing and sealing the new ones.

8.0.12 The Subcontractor shall include conducting all required tests and mockup assemblies and coordinating same with other related trades, per the contract documents.

8.0.13 Subcontractor has included the installation of plywood in window and door openings as required, if Subcontractor's glazing is delayed and the delay of such is the cause of this Subcontractor.

8.0.14 Provide attic stock materials in accordance with the contract documents. Including delivery and off-loading to a designated area or location.

8.0.15 All bent metal and/or break metal including sills, closures, trim, drips, etc. shall be provided as required for a complete and finished installation, per the contract documents and manufacturer's recommendations.

8.0.16 Subcontractor shall provide a 10" ADA compliant bottom rail at all doors per the contract documents.

8.0.17 Subcontractor shall install the Storefront System per the manufacturer's specifications. All glass must be plumb, level, and shimmed so that operation of Storefront Doors and any windows is smooth and that latches work properly (nonbinding). Panel reveals should be equal around all openings.

8.0.18 Provide final adjustment of doors and hardware just prior to Final Occupancy as is acceptable to the General Contractor and the Owner.

8.0.19 Subcontractor shall facilitate all field measuring prior to putting storefront systems into production. Subcontractor is also responsible for measuring and ordering proper size glass/glazing. General Contractor to provide Subcontractor adequate time to field measure. Should the schedule not allow time and field measurements, the General Contractor and Subcontractor will coordinate guaranteed rough openings per the approved storefront shop drawings.

8.0.20 Included in this Scope of Work are all required trips to review and document all openings prior to scheduled installation date. This Subcontractor will verify all framed opening for squareness, plumbness and acceptance of substrate for proper installation of the Work.

8.0.21 Coordinate with appropriate Subcontractors as required for rough-in of raceways, wiring, etc. at

doors and frames furnished and installed under this Scope of Work. This Subcontractor shall cut all holes in aluminum framing systems required for rough-in by others. Layout will be by respective Subcontractors.

8.0.22 Subcontractor shall coordinate with all Subcontractors whose work is directly attached to the systems provided in this Scope of Work.

8.0.23 Subcontractor shall remove all stickers and sticker residue from its product at completion of its scope of work and shall verify prior to demobilization that its product is free and clear of any scratches, dents, or other defects.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Storefronts and Glazing** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
08B STOREFRONTS AND GLAZING SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

08D OVERHEAD SECTIONAL DOORS SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Overhead Sectional Doors** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Overhead Sectional Doors** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings.
08 35 00	Electric Four-Fold Bay Doors
08 36 20	Sectional Overhead Doors – F.D. – High Lift- Aluminum – Glass – Electric

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Overhead Sectional Doors scope of work.**
Division 4	Masonry
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 8	Openings

The **Overhead Sectional Doors** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed above, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify scopes of work for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Overhead Sectional Doors** Subcontractor is responsible for all Work.

6.0 WOOD, PLASTICS, AND COMPOSITES SCOPE OF WORK DESCRIPTION

6.0.1 Wood Blocking - This Subcontractor shall furnish and install all wood blocking and supports required to support all items provided in this Scope of Work.

8.0 OVERHEAD SECTIONAL DOORS SCOPE OF WORK DESCRIPTION

8.0.1 The drawings, details, and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions, or conflicts that prevent a complete and functioning system even though it may not be detailed.

8.0.2 Overhead Section Doors – This Subcontractor shall furnish and install all Electrically Operated Sectional Overhead Doors in accordance with the contract documents. This Work shall include all specified overhead sectional doors, guides, tracks, hoods, operators, motors, controls, locking devices, weather seals, safety sensors, bottom bars, brackets, glazing, stiles, rails, etc. per the contract documents.

8.0.3 Doors shall be complete with all necessary hardware, locking devices, counterbalance mechanism, signage, electric door operators, controls, and other items necessary for a complete operating system, per the contract documents.

8.0.4 This Subcontractor shall provide a minimum of four (4) keys for each door, etc. If additional keys are required by the Contract Documents, this Subcontractor shall be responsible for whichever requirement is more stringent.

8.0.5 Electrical Connections – The Electrical Subcontractor shall supply and install conduit and wire to land the line side high voltage to each door. The Overhead Sectional Doors Subcontractor shall supply and install all other items necessary to provide a complete and operational system including but not limited to all low voltage conduit, boxes, wiring, and connections, per the contract documents.

8.0.6 This Subcontractor shall furnish and install all required supports for scope of work, including but not limited to, anchor bolts, hangers, isolators, channels, angles, embeds, miscellaneous tubes, plates, or any other engineered support required to provide for a complete and operating system.

8.0.7 This Subcontractor shall coordinate electrical requirements with the Electrical Subcontractor and the General Contractor, per the contract documents, prior to ordering materials for this scope of work.

8.0.8 Overhead Sectional Doors shall comply with wind, seismic, impact resistance, structural limits, etc. performance requirements specified by the contract documents without failure due to defective manufacturer, fabrication, installation, or other defects in construction.

8.0.9 Overhead Sectional Doors shall comply with air infiltration and thermal value requirements, per the contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Overhead Sectional Doors** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
08D OVERHEAD SECTIONAL DOORS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

09A METAL STUD FRAMING, INSULATION, DRYWALL SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Metal Stud Framing, Insulation, Drywall** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Metal Stud Framing, Insulation, Drywall** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings.
05 40 00	Cold-Formed Metal Framing
06 16 00	Sheathing
07 21 00	Thermal Insulation
07 21 09	Thermal Insulation – Spray Poly
07 84 13	Penetration Firestopping (As it pertains to Scope Items 7.0.4 & 7.0.5)
09 22 16	Non-Structural Metal Framing
09 29 00	Gypsum Board

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES

Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Metal Stud Framing, Insulation, Drywall scope of work.**
Division 4	Masonry
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 7	Thermal and Moisture Protection
Division 8	Openings
Division 9	Finishes
Division 10	Specialties
Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning (HVAC)
Division 26	Electrical
Division 27	Communications
Division 28	Electronic Safety and Security

The **Metal Stud Framing, Insulation, Drywall** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed above, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Metal Stud Framing, Insulation, Drywall** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the Construction Manager with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the Construction Manager in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use

all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

See below for all safety submittals required throughout the duration of the project:

5.0 METALS SCOPE OF WORK DESCRIPTION

5.0.1 The scope of this subcontract shall be in accordance with ADA and Fair Housing requirements, as well as in accordance with local authority having jurisdiction. Failure to comply with the ADA and Fair Housing regulations will require correction of work-in-place solely at the Subcontractor's expense. This Subcontractor shall reasonably notify the Contractor of any potential problems prior to the installation of its scope of work.

5.0.2 Cold Formed Metal Framing – This Work shall include providing and installing a complete Cold Formed Metal Framing System, including but not limited to, all engineered shop drawings, light gauge structural steel studs with design load and structural analysis data signed and sealed by a qualified professional engineer responsible for preparing the structural analysis, non-load bearing steel stud framing, light and heavy gauge steel studs, steel track, single deflection steel track, metal stud x bracing, metal rafters, bridging, blocking, etc., framing accessories, anchor bolts, expansion anchors, power actuated anchors, mechanical fasteners, clips, galvanizing touch up paint where required, light gauge steel hat and/or furred channels, cold rolled steel channels, miscellaneous light gauge steel components, closure angle at doors and windows, box headers, etc. to complete all cold formed metal framing work, per delegated design.

5.0.3 Subcontractor shall be responsible for stud size, spacing, orientation, etc., per the contract documents, associated UL assemblies, and delegated design.

5.0.4 Subcontractor shall be responsible for furnish and install sealer gaskets in standard widths to match width of bottom track or rim track members, per the contract documents and associated UL assemblies.

5.0.5 Subcontractor shall be responsible for the framing of all soffits, bulkheads, etc. per the contract documents. Subcontractor shall be responsible for parapet metal framing in between integral truss verticals, per the contract documents.

5.0.6 Subcontractor shall be responsible for furnish and install of parapet infill framing between trusses with the top track, per the contract documents. Metal truss supplier shall provide trusses with integral parapet vertical extension to be installed by others.

5.0.7 Subcontractor shall be responsible for furnish and install of flat roof to pitched roof wall infill framing between trusses, per the contract documents. Metal truss supplier shall provide trusses with integral vertical extension to be installed by others.

5.0.8 Subcontractor shall furnish and install metal rafter framing at the Tower area, per the contract documents.

5.0.9 Design shall include notching of studs to by-pass the building structure, support tubing, mechanical, plumbing, sprinkler, or electrical, as required. Structural integrity must be maintained by notching or other means of bracing support around obstacles, per the contract documents.

5.0.10 Subcontractor has included the turnkey furnish and install of X-Bracing with associated end posts, gussets, hold down anchors, flat straps, bridging, fasteners, etc. per the delegated design and contract documents.

5.0.11 Subcontractor shall be responsible for all attachments of this scope of work not furnished or installed by others, including fasteners, hardware, mastic, etc., to slab-on-grade, decking, structural steel, CMU walls, etc. per the contract documents.

5.0.12 Subcontractor shall coordinate stud locations with layout required for integration and attachment of work by others that will attach to stud framing, per the contract documents.

5.0.13 Subcontractor shall be responsible for the installation of all lintels mechanically fastened to metal framing, per the contract documents. Lintels to be provided by others. Subcontractor has included fasteners, per the contract documents. Subcontractor shall coordinate install with the Masonry Subcontractor. Masonry lintels at the tower confirmed to be loose or welded to structural steel.

5.0.14 Subcontractor shall provide all notching of studs to by-pass the building structure, mechanical, plumbing, sprinkler, or electrical, as required.

5.0.15 Subcontractor shall be responsible for delegated design associated with this scope of work, per the contract documents.

5.0.16 Provide all light gauge metal framing structural calculations within four (4) weeks of executed subcontract and receipt of necessary CAD files and design documents.

5.0.17 Cold-Formed Metal Trusses to be furnished and installed by others.

6.0 WOOD, PLASTICS, AND COMPOSITES SCOPE OF WORK DESCRIPTION

6.0.1 Rough Carpentry – This Work shall include providing rough carpentry and sheathing as outlined herein, including but not limited to, plywood sheathing, in-wall wood blocking for casework/millwork, toilet partitions/accessories, lockers, bunk cubbies, television brackets, projector brackets, lockers, range hood, miscellaneous blocking, etc. per the contract documents. A light gage metal blocking system may be used in certain applications if approved by the Designer. All rough carpentry work necessary to install the roofing systems shall be furnished and installed by others. Subcontractor to provide metal stud framed openings in lieu of additional wood blocking. Shims by Storefront Subcontractor.

6.0.2 Sheathing - This Work shall include providing all sheathing, including but not limited to, gypsum sheathing, glass matt sheathing, pressure treated plywood, etc. if required, fasteners, sheathing tape, sealant, etc. as required to provide a complete sheathing system, per the contract documents.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Insulation - This Work shall include providing a complete Insulation System for all buildings, including but not limited to, fiber batt insulation at metal stud framing both faced/unfaced insulation to meet code, all drywall/metal stud partition and ceiling insulation (sound attenuation blankets), where indicated, miscellaneous light gauge metal framing insulation, miscellaneous unfaced filler insulation, interior/exterior rigid insulation as it may apply to this Scope of Work, where specified, seam tape, wire, ties, fire rated insulation, where required, insulation fasteners, z-girts / clips, clips and anchorage devices, mineral wool blanket insulation, insulation at top of wall conditions as required, etc. to complete all insulation system work as designated within the Contract Documents. Cavity wall rigid insulation at CMU-brick veneer and metal stud –brick veneer walls shall be by the Masonry Subcontractor.

7.0.2 Subcontractor shall be responsible for furnish and install of rigid insulation with associated hardware at all locations, per the contract documents, except for the portion exterior walls shown to receive brick. Subcontractor shall coordinate the install of flashing by others with the installation of rigid insulation, per this scope of work. The Masonry Subcontractor shall install rigid insulation at the exterior side of walls scheduled to receive brick.

7.0.3 Sound Batt Insulation – This Subcontractor shall provide and install all sound batt insulation as shown or required by the contract documents.

7.0.4 Fire Resistive Joint Sealants – This Work shall include providing the specified fire stopping sealing system atop all fire rated walls drywall assemblies to the underside of the metal deck as designated on the drawings and as required to meet the specified fire rating, per the contract documents. Provide fire resistive joint sealants at rated walls as designated by the contract documents and as required to meet the specified fire rating.

7.0.5 Subcontractor shall coordinate with MEP trades and General Contractor to ensure a single-source manufactured product is used for firestopping activities. To be coordinated via the submittal process.

8.0 OPENINGS SCOPE OF WORK DESCRIPTION

8.0.1 Hollow Metal Frame Installation – This Work shall include **installing** all hollow metal frames furnished by the Hollow Metal Frame, Door, and Hardware Subcontractor which are scheduled or designated within a drywall/metal stud wall assembly, including but not limited to, installing door frames, jamb anchors, floor to frame anchors, etc. to specification requirements and tolerances designated within the provisions of Steel Door Institute 105 and the contract documents. Provide all necessary temporary bracing, spreaders, turnbuckles, wood blocking, miscellaneous hardware,

anchors, and accessories required to properly perform the hollow metal frame installation work. Upon delivery this Subcontractor will be responsible for unloading, staging, and installing all hollow metal frames scheduled within a drywall/metal stud wall assembly. Subcontractor shall provide a designated onsite representative to verify materials being furnished by the Hollow Metal Door, Frame, and Hardware Subcontractor are complete and in accordance with the Contract Documents. Upon completing the on-site verifications, this Subcontractor shall sign-off on delivery tickets and at that time will take responsibility for securing and protecting the applicable hollow metal frame material furnished by others.

8.0.2 Access Doors – This Work shall include the installation of all access doors within a metal stud, or drywall assembly as required by the Plumbing, Fire Protection, HVAC, and Electrical Subcontractors. The Access Doors shall be furnished by the respective Subcontractor requiring this door for installation as part of this Scope of Work. In addition to access panels required for Fire Protection and MEP Subcontractors, this Subcontractor should assume installing at least one (1) access panel in each designated hard ceiling area with an additional panel to be installed in areas exceeding more than twenty (20) linear feet in any direction.

9.0 FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Drywall Construction - This Work shall include providing a complete Gypsum Drywall and Metal Framing System including but not limited to, submittals, scaffolds, material lifts, all light and heavy gauge steel studs, metal stud x bracing, light gauge steel hat and/or furred channels, cold-formed steel channels, miscellaneous light gauge steel components, kickers, supports, track, power actuated anchors, mechanical fasteners, clips, gypsum ceiling clips, galvanizing touch up paint, where required, gypsum board, gypsum board sheathing, moisture resistant sheet rock, cement board, exterior gypsum board sheathing, gypsum joint taping and finishing, gypsum board, tile backer board at wall tile locations, water resistant gypsum backing board, mold resistant gypsum board when complete scheduled dry in is after this work commences, acoustical sealants, angles, clips, hangers, trim, miscellaneous accessories, joint compound, gypsum ceiling metal control joints, wire, ties, corner beads, zip beads, spot grout, where required, fasteners, felt, sealant, and all other materials required to complete all fire rated and non-fire rated gypsum ceilings, walls, and associated light gauge metal framing work, including drywall/metal stud partitions, drywall/metal stud soffits, special drywall/metal stud bulkheads and ceiling systems, etc. as designated within the Contract Documents and delegated design.

9.0.2 Acoustical Panel Ceilings – This Work shall include a complete Acoustical Panel Ceiling System, including but not limited to, acoustical tile, pre-painted metal suspension systems, acoustical sealants, hold down clips, impact clips, where required, impact gypsum board lay-in ceiling system, drywall clips where required, fasteners, ceiling expansion joint covers where required, accessories, cleaning and protection and miscellaneous materials as designated within the contract documents. Additionally, install all hangers, supports, etc. to meet seismic requirements, where required by the technical specifications and/or governing code for all acoustical panel ceiling systems, including but shall not be limited to, all light fixtures, HVAC grilles, tile mounted speakers, and any other grid and/or tile mounted equipment and/or accessories, per the contract documents. Also, provide all cut outs

required for fire protection sprinkler heads, tile mounted speakers and any other device or equipment piece penetrating an acoustical tiled ceiling system.

9.0.3 Subcontractor shall furnish and install all metal furring and furred drywall at CMU walls, per the contract documents.

9.0.4 Subcontractor shall provide rough openings, if required, within an applicable new drywall / metal stud wall / soffit condition to receive work of other trade subcontractors, per the contract documents and coordination with associated subcontractor(s). Subsequent trades to layout required rough openings once this Subcontractor has completed wall layout.

9.0.5 Subcontractor shall be responsible for providing the fire wall stenciling of all fire rated or smoke rated drywall walls, etc. as required by the Contract Documents or Authority Having Jurisdiction.

9.0.6 Subcontractor shall provide the specified gypsum board finish levels at specified locations, per the contract documents.

9.0.7 Subcontractor shall pay particular attention and account for those finishes, equipment, and areas sensitive to airborne dust caused by repairs to finished building areas.

9.0.8 Construct all partitions and ceilings within the tolerances specified, per the Contract Documents. Subcontractor shall be responsible for all remedial work associated with work out of tolerances including, but not limited to, caulking, shimming, filling, skimming, or replacement of work provided as part of this Subcontract or work provided by others as it pertains to this scope of work.

9.0.9 Provide necessary task lighting required for complete installation of this Scope of Work. It is understood that the temporary lighting provided by the Electrical Subcontractor shall not be relied upon for execution of this Subcontractor's scope of work. Final and punch drywall point-up to be completed under permanent lighting.

9.0.10 Subcontractor shall properly stack and store all materials to prevent sagging, damage, and water damage. Subcontractor shall be aware of floor system capacities and shall not overload the capacities of the structural design. Subcontractor shall coordinate location of all material deliveries with the General Contractor's Project Superintendent.

9.0.11 Provide proper ventilation during and following joint treatment applications as it pertains to this scope of work.

9.0.12 Engineering and layout from control lines shall be by this Subcontractor as it pertains to this scope of work.

9.0.13 Subcontractor shall provide all trapezes, hangers, seismic support if required, and additional framing necessary to support this scope of work.

9.0.14 Subcontractor has included control joints in the drywall, per the contract documents and

manufacturer's specifications.

9.0.15 This Subcontractor shall provide all reveals, accessories, trim, and miscellaneous components within the components in this scope and those required to make a smooth transition to adjoining dissimilar materials by others.

9.0.16 This Subcontractor shall provide protection of adjacent surfaces and clean up and dispose of materials (trash, bags, etc.) in area designated by the General Contractor on-site. This shall include furnishing, installation, and removal of poly as required as it pertains to this scope of work.

9.0.17 This Subcontractor shall utilize the latest edition of the U.S. Gypsum Company handbook for installation of gypsum board materials, except where it is found to conflict with the Contract Documents or any governing inspection agency. In this case, the Subcontractor will advise the General Contractor to obtain a ruling from the Architect on the method of construction to be used.

9.0.18 This Subcontractor shall check for compliance (plumb, square, proper alignment, etc.) at each stage of completion (framing, hanging, finishing). Any work that is not within specified tolerances 1/8" in 10' shall be removed and replaced. All interior and exterior studs to be secured to floor and ceiling runners, both sides and top and bottom, prior to drywall installation unless specified otherwise. Under no circumstances are studs to be left loose prior to hanging drywall.

9.0.19 This Subcontractor shall assist the General Contractor in verifying code space requirements prior to framing walls (i.e. 5'-0" turnarounds, 8'-0" corridors, 12"/18" Push/Pull at doors, etc.) Sweep all tracks and shafts clean prior to hanging board. The General Contractor shall sign-off on completion of in-wall prior to any wall being two-sided with drywall.

9.0.20 This Subcontractor shall utilize edge zip bead at all aluminum windows, storefronts, and underside of hard surface sills unless indicated otherwise in the Contract Documents.

9.0.21 This Subcontractor shall coordinate all appropriate means for the attachment and/or installation of louvers, linear diffusers, and items of similar distinction at all locations, per the contract documents.

9.0.22 This Subcontractor shall ensure all damper openings are framed and hung in strict accordance with direction given by General Contractor and associated subcontractors. Subcontractor shall coordinate with the Mechanical Subcontractor as required.

9.0.23 This Subcontractor shall provide all fire rated construction as specified and/or required by the Contract Documents as it pertains to this scope of work, to comply with all prevailing codes, standards, and regulatory agencies. This includes cutting the drywall at the top of any rated and/or smoke wall to the flutes of the decking and/or "dimpling" the drywall into the fireproofing.

9.0.24 This Subcontractor shall provide holes, cutouts, framing, prep work, etc. as required for any penetrations that require framing for installation of others work (i.e., electrical work, mechanical work, miscellaneous specialties, equipment, etc.) to the extent this Subcontractor has not completed their rated assembly work prior to communication or work by others. Cut drywall neatly

to fit around all boxes or penetrations. This Subcontractor shall be responsible for maintaining all U.L. ratings, STC ratings, sound seals, etc. Sealing around penetrations necessary to maintain the integrity of smoke, sound, and fire-rated is by this Subcontractor provided additional penetrations are not made by the subsequent Subcontractor.

9.0.25 Subcontractor shall photo document and clearly communicate drywall patches for reimbursement via Commitment Change Order.

9.0.26 Subcontractor shall provide a minimum of one (1) drywall finisher for all turnover walks performed by the Architect, Owner, and/or Owner Representative(s).

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Metal Stud Framing, Insulation, Drywall, and Suspended Ceilings** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
09J METAL STUD FRAMING, INSULATION, DRYWALL, AND SUSPENDED CEILINGS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

09B ACOUSTICAL CEILINGS SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Acoustical Ceiling** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Acoustical Ceiling** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications and notes included on the Drawings.
09 51 13	Acoustical Panel Ceilings

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Acoustical Ceiling scope of work.**
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 8	Openings
Division 9	Finishes
Division 10	Specialties

Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning (HVAC)
Division 26	Electrical
Division 27	Communications
Division 28	Electronic Safety and Security

The **Acoustical Ceiling** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed above, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Acoustical Ceiling** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the Construction Manager with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the Construction Manager in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

9.0 FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Drywall Construction - This Work shall include providing a complete Gypsum Drywall and Metal Framing System including but not limited to, submittals, scaffolds, material lifts, all light and heavy

gauge steel studs, metal stud x bracing, light gauge steel hat and/or furred channels, cold-formed steel channels, miscellaneous light gauge steel components, kickers, supports, track, power actuated anchors, mechanical fasteners, clips, gypsum ceiling clips, galvanizing touch up paint, where required, gypsum board, gypsum board sheathing, moisture resistant sheet rock, cement board, exterior gypsum board sheathing, gypsum joint taping and finishing, gypsum board, tile backer board at wall tile locations, water resistant gypsum backing board, mold resistant gypsum board when complete scheduled dry in is after this work commences, acoustical sealants, angles, clips, hangers, trim, miscellaneous accessories, joint compound, gypsum ceiling metal control joints, wire, ties, corner beads, zip beads, spot grout, where required, fasteners, felt, sealant, and all other materials required to complete all fire rated and non-fire rated gypsum ceilings, walls, and associated light gauge metal framing work, including drywall/metal stud partitions, drywall/metal stud soffits, special drywall/metal stud bulkheads and ceiling systems, etc. as designated within the Contract Documents and delegated design.

9.0.2 Acoustical Panel Ceilings – This Work shall include a complete Acoustical Panel Ceiling System, including but not limited to, acoustical tile, pre-painted metal suspension systems, acoustical sealants, hold down clips, impact clips, where required, impact gypsum board lay-in ceiling system, drywall clips where required, fasteners, ceiling expansion joint covers where required, accessories, cleaning and protection and miscellaneous materials as designated within the contract documents. Additionally, install all hangers, supports, etc. to meet seismic requirements, where required by the technical specifications and/or governing code for all acoustical panel ceiling systems, including but shall not be limited to, all light fixtures, HVAC grilles, tile mounted speakers, and any other grid and/or tile mounted equipment and/or accessories, per the contract documents. Also, provide all cut outs required for fire protection sprinkler heads, tile mounted speakers and any other device or equipment piece penetrating an acoustical tiled ceiling system.

9.0.3 Subcontractor shall furnish and install all metal furring and furred drywall at CMU walls, per the contract documents.

9.0.4 Subcontractor shall provide rough openings, if required, within an applicable new drywall / metal stud wall / soffit condition to receive work of other trade subcontractors, per the contract documents and coordination with associated subcontractor(s). Subsequent trades to layout required rough openings once this Subcontractor has completed wall layout.

9.0.5 Subcontractor shall be responsible for providing the fire wall stenciling of all fire rated or smoke rated drywall walls, etc. as required by the Contract Documents or Authority Having Jurisdiction.

9.0.6 Subcontractor shall provide the specified gypsum board finish levels at specified locations, per the contract documents.

9.0.7 Subcontractor shall pay particular attention and account for those finishes, equipment, and areas sensitive to airborne dust caused by repairs to finished building areas.

9.0.8 Construct all partitions and ceilings within the tolerances specified, per the Contract Documents. Subcontractor shall be responsible for all remedial work associated with work out of tolerances

including, but not limited to, caulking, shimming, filling, skimming, or replacement of work provided as part of this Subcontract or work provided by others as it pertains to this scope of work.

9.0.9 Provide necessary task lighting required for complete installation of this Scope of Work. It is understood that the temporary lighting provided by the Electrical Subcontractor shall not be relied upon for execution of this Subcontractor's scope of work. Final and punch drywall point-up to be completed under permanent lighting.

9.0.10 Subcontractor shall properly stack and store all materials to prevent sagging, damage, and water damage. Subcontractor shall be aware of floor system capacities and shall not overload the capacities of the structural design. Subcontractor shall coordinate location of all material deliveries with the General Contractor's Project Superintendent.

9.0.11 Provide proper ventilation during and following joint treatment applications as it pertains to this scope of work.

9.0.12 Engineering and layout from control lines shall be by this Subcontractor as it pertains to this scope of work.

9.0.13 Subcontractor shall provide all trapezes, hangers, seismic support if required, and additional framing necessary to support this scope of work.

9.0.14 Subcontractor has included control joints in the drywall, per the contract documents and manufacturer's specifications.

9.0.15 This Subcontractor shall provide all reveals, accessories, trim, and miscellaneous components within the components in this scope and those required to make a smooth transition to adjoining dissimilar materials by others.

9.0.16 This Subcontractor shall provide protection of adjacent surfaces and clean up and dispose of materials (trash, bags, etc.) in area designated by the General Contractor on-site. This shall include furnishing, installation, and removal of poly as required as it pertains to this scope of work.

9.0.17 This Subcontractor shall utilize the latest edition of the U.S. Gypsum Company handbook for installation of gypsum board materials, except where it is found to conflict with the Contract Documents or any governing inspection agency. In this case, the Subcontractor will advise the General Contractor to obtain a ruling from the Architect on the method of construction to be used.

9.0.18 This Subcontractor shall check for compliance (plumb, square, proper alignment, etc.) at each stage of completion (framing, hanging, finishing). Any work that is not within specified tolerances 1/8" in 10' shall be removed and replaced. All interior and exterior studs to be secured to floor and ceiling runners, both sides and top and bottom, prior to drywall installation unless specified otherwise. Under no circumstances are studs to be left loose prior to hanging drywall.

9.0.19 This Subcontractor shall assist the General Contractor in verifying code space requirements prior to

framing walls (i.e. 5'-0" turnarounds, 8'-0" corridors, 12"/18" Push/Pull at doors, etc.) Sweep all tracks and shafts clean prior to hanging board. The General Contractor shall sign-off on completion of in-wall prior to any wall being two-sided with drywall.

9.0.20 This Subcontractor shall utilize edge zip bead at all aluminum windows, storefronts, and underside of hard surface sills unless indicated otherwise in the Contract Documents.

9.0.21 This Subcontractor shall coordinate all appropriate means for the attachment and/or installation of louvers, linear diffusers, and items of similar distinction at all locations, per the contract documents.

9.0.22 This Subcontractor shall ensure all damper openings are framed and hung in strict accordance with direction given by General Contractor and associated subcontractors. Subcontractor shall coordinate with the Mechanical Subcontractor as required.

9.0.23 This Subcontractor shall provide all fire rated construction as specified and/or required by the Contract Documents as it pertains to this scope of work, to comply with all prevailing codes, standards, and regulatory agencies. This includes cutting the drywall at the top of any rated and/or smoke wall to the flutes of the decking and/or "dimpling" the drywall into the fireproofing.

9.0.24 This Subcontractor shall provide holes, cutouts, framing, prep work, etc. as required for any penetrations that require framing for installation of others work (i.e., electrical work, mechanical work, miscellaneous specialties, equipment, etc.) to the extent this Subcontractor has not completed their rated assembly work prior to communication or work by others. Cut drywall neatly to fit around all boxes or penetrations. This Subcontractor shall be responsible for maintaining all U.L. ratings, STC ratings, sound seals, etc. Sealing around penetrations necessary to maintain the integrity of smoke, sound, and fire-rated is by this Subcontractor provided additional penetrations are not made by the subsequent Subcontractor.

9.0.25 Subcontractor shall photo document and clearly communicate drywall patches for reimbursement via Commitment Change Order.

9.0.26 Subcontractor shall provide a minimum of one (1) drywall finisher for all turnover walks performed by the Architect, Owner, and/or Owner Representative(s).

9.0.27 Subcontractor has included four (4) punches/point-ups of the drywall including: first after first coat paint, second after lights are on, third after General Contractor's punch list, and fourth for Owner's punch list, totaling four (4) punches, provided each punch/point-up is thoroughly executed, per the contract documents.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
09B ACOUSTICAL CEILINGS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

09C – RESILIENT FLOORING, CARPET, BASE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Resilient Flooring, Base, and Accessories** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Resilient Flooring, Base, and Accessories** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
09 65 13	Resilient Base and Accessories
09 65 19	Resilient Tile Flooring
09 65 66	Resilient Athletic Flooring

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Resilient Flooring, Base, and Accessories Scope of Work.**

Division 3	Concrete
Division 22	Plumbing

The **Resilient Flooring, Base, and Accessories** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Resilient Flooring, Base, and Accessories** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

9.0 RESILIENT FLOORING SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall furnish and install all Resilient Tile Flooring, per the contract documents and manufacturer's requirements. This includes but is not limited to solid vinyl floor tile (LVT-1, LVT-2, LVT-3, LVT-4, LVT-5, and VCT-1), trowel able leveling and patching compounds, primer, adhesive, transitions, etc. per the contract documents and manufacturer's requirements.

9.0.2 Subcontractor shall furnish and install all Resilient Athletic Flooring, per the contract documents and manufacturer's requirements. This includes but is not limited to rubber sheet flooring (RBF-1, RBF-2, and RBF-3), trowel able leveling and patching compounds, primer, adhesive, transitions, etc. per the contract documents and manufacturer's requirements.

9.0.3 Subcontractor shall furnish and install all Resilient Base and Accessories, per the contract documents and manufacturer's requirements. This includes but is not limited to thermoplastic- rubber base (RB-1 and RB-2) trowel able leveling and patching compounds, primer, adhesive, transitions, etc. per the contract documents and manufacturer's requirements.

9.0.4 By installing product, this Subcontractor accepts the condition of the substrate upon which its products are attached. Should this Subcontractor find any substrate not acceptable, the Subcontractor must let the General Contractor know in a timely manner as not to delay the schedule or installation.

9.0.5 Subcontractor has included cleaning of all adhesives and/or residues from installation of its products, as necessary.

9.0.6 Subcontractor shall provide all product samples and available standard finishes to General Contractor for final selection by Owner and Interior Designer. All samples shall be provided at no additional cost.

9.0.7 Subcontractor shall install flooring continuous under the kitchen and vanity sinks as required to meet accessibility requirements, per the contract documents.

9.0.8 Any variance in color, texture and quality of materials included in this agreement will not be accepted. All materials shall be from the same run/dye lot for the complete project.

9.0.9 Subcontractor is responsible for cutting of flooring around all fixtures, outlets, drains, accessories, etc. to obtain a neat finish.

9.0.10 Subcontractor is responsible for any/all layout of any required patterns.

9.0.11 Any and all floor preparation required to complete this scope of work is included in this agreement, including but not limited to cleaning subsurface, buffing, sanding, scraping, broom sweeping, and removal of all dirt/debris/material, etc. that will cause imperfections in the finish floor materials are the responsibility of this Subcontractor. Floor leveling should be expected and will be the responsibility of this Subcontractor. Any leveling less than ¼" in 10' is the responsibility of this Subcontractor. This also includes the feathering to transition to adjacent floor systems is included in this scope of work. This Subcontractor shall provide all joint preparation required to complete this work (including but not limited to concrete control joints, cracks in slabs etc.) All floor preparation shall be with materials as specified and/or required from manufacturers installation and application requirements.

9.0.12 Provide all caulking and sealant where the materials in this scope of work adjoin dissimilar finishes already in place. This includes but not limited to the following: base of door frames, intersection of dissimilar materials, etc. per the contract documents.

9.0.13 Provide attic stock materials in accordance with the contract documents. Including delivery and off-loading to a designated area or location.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
09C RESILIENT FLOORING, BASE, AND ACCESSORIES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

09D – HARD TILE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Hard Tile** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Hard Tile** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
09 30 13	Ceramic Tiling – Schluter

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Resilient Flooring, Base, and Accessories Scope of Work.**
Division 3	Concrete
Division 9	Finishes
Division 22	Plumbing

The **Hard Tile** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Hard Tile** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

See below for all safety submittals required throughout the duration of the project:

THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Subcontractor shall be responsible for providing all joint sealants, etc. required to complete all work provided as part of this Subcontract, including but not limited to, joint sealant work at expansion or control joints in the tile as recommended by the tile manufacturer.

9.0 RESILIENT FLOORING SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall furnish and install all Hard/Ceramic Tile Flooring, per the contract documents and manufacturer's requirements. trowel able leveling and patching compounds, primer, adhesive,

transitions, etc. per the contract documents and manufacturer's requirements.

9.0.2 By installing product, this Subcontractor accepts the condition of the substrate upon which its products are attached. Should this Subcontractor find any substrate not acceptable, the Subcontractor must let the General Contractor know in a timely manner as not to delay the schedule or installation.

9.0.3 Subcontractor has included cleaning of all adhesives and/or residues from installation of its products, as necessary.

9.0.4 Subcontractor shall provide all product samples and available standard finishes to General Contractor for final selection by Owner and Interior Designer. All samples shall be provided at no additional cost.

9.0.5 Any variance in color, texture and quality of materials included in this agreement will not be accepted. All materials shall be from the same run/dye lot for the complete project.

9.0.6 Subcontractor is responsible for cutting of flooring around all fixtures, outlets, drains, accessories, etc. to obtain a neat finish.

9.0.7 Subcontractor is responsible for any/all layout of any required patterns.

9.0.8 Any and all preparation required to complete this scope of work is included in this agreement, including but not limited to cleaning subsurface, buffing, sanding, scraping, broom sweeping, and removal of all dirt/debris/material, etc. that will cause imperfections in the finish floor materials are the responsibility of this Subcontractor. Floor leveling should be expected and will be the responsibility of this Subcontractor. Any leveling less than ¼" in 10' is the responsibility of this Subcontractor. This also includes the feathering to transition to adjacent floor systems is included in this scope of work. This Subcontractor shall provide all joint preparation required to complete this work (including but not limited to concrete control joints, cracks in slabs etc.) All floor preparation shall be with materials as specified and/or required from manufacturers installation and application requirements.

9.0.9 Provide all caulking and sealant where the materials in this scope of work adjoin dissimilar finishes already in place. This includes but not limited to the following: base of door frames, intersection of dissimilar materials, etc. per the contract documents.

9.0.10 Provide attic stock materials in accordance with the contract documents. Including delivery and off-loading to a designated area or location.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
09C RESILIENT FLOORING, BASE, AND ACCESSORIES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

09H PAINTING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Painting** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Painting** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
07 92 00	Joint Sealants
09 91 12	Painting (Professional Line Products)

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Painting Scope of Work.**
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 8	Openings

Division 9	Finishes

The **Painting** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Painting** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

7.0 JOINT SEALANT SCOPE OF WORK DESCRIPTION

7.0.1 Joint Sealants - This work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. that are integral to the painting scope, per the contract documents. Include tooling, cleaning, and protection of all sealant joints.

7.0.2 Subcontractor is responsible for sealant of joints between this scope of work and dissimilar materials, per the manufacturer's recommendations and contract documents.

7.0.3 Subcontractor is to furnish and install all required caulking at all painted surfaces of the project. These caulked areas are to include, but not be limited to, windows, doors, exterior trim, interior trim, and exterior door sills, etc. Further, if deemed necessary by the General Contractor, this subcontractor shall use caulking compound in a color to match the building finish or of painted nature.

9.0 PAINTING SCOPE OF WORK DESCRIPTION

9.0.1 This Subcontractor shall provide all **Interior** painting and staining. This scope shall include but is not limited to preparation and painting of the following: drywall partitions, ceilings, wood, bulkheads, soffits, fascia, concrete walls/columns, reveals that are not scheduled to be prefinished, doors and window frames which do not have a factory finish, decorative rails, exposed CMU masonry, exposed concrete, unfinished or exposed miscellaneous metal surfaces: examples include structural and miscellaneous steel stairs, stringers, channels, plates, railings, pickets, supports, brackets, grilles and other shop primed miscellaneous metals, etc., exposed steel with or without fireproofing, exposed structure, piping, supports and other non-pre-finished devices in mechanical, electrical, telecom, elevator, other utility areas, etc. per the contract documents.

9.0.2 This Subcontractor shall provide all **Exterior** painting and staining. This shall include preparation and painting of the following: window trim, gypsum board, exterior metals, exterior doors and frames (both interior and exterior sides) which do not have a factory finish, lintels, shelf angles, exposed steel, MEP equipment supports, roof hatches, ceilings, soffits, non-finished roof equipment, exposed rough carpentry and heavy timber, pipe bollards, handrails, ladders, grilles, downspout boots, and all other non-finished surfaces per the contract documents.

9.0.3 This Subcontractor shall examine areas and conditions under which painting work is to be applied and notify General Contractor in writing of conditions detrimental to proper and timely completion of work. Starting of painting work will be construed as acceptance of surfaces and conditions within that area. Do not paint over dirt, rust, scale, grease, moisture, scuffed surfaces, or conditions otherwise detrimental to formation of a durable paint finish.

9.0.4 This Subcontractor shall ensure, at a minimum, that all surfaces to be painted have a complete primer coat of paint and two (2) coats of finish paint. Furthermore, minimum coating thickness as recommended by the coating manufacturer or project specifications must also be achieved. The Painting Subcontractor shall ensure that sufficient time has elapsed between successive coatings to permit proper drying to ensure that application of another coat of paint does not cause lifting or loss of adhesion of the undercoat.

9.0.5 This Subcontractor shall provide all preparation and painting of all exterior gypsum board, exterior CMU/masonry, exterior metals, exterior doors and frames (both interior and exterior sides) which do not have a factory finish, lintels, shelf angles, exposed steel and deck, MEP equipment supports

and pipes, roof hatches, ceilings, soffits, pipe bollards, handrails, ladders, grilles, and all other non-finished surfaces, per the contract documents.

9.0.6 This Subcontractor shall furnish and install all identification of fire and smoke-rated walls per the contract documents. Permanently label fire and smoke rated walls, partitions, and barriers with the words using stenciled lettering. Confirm labeling requirements with the General Contractor to align with all code requirements.

9.0.7 Provide painting of all exposed and covered fire suppression, plumbing, HVAC, electrical, communication, security work, natural gas piping, and other work and equipment including but not limited to pipe, conduit, hangers, exposed steel, iron work, primed metal surfaces, etc. as required by the contract documents including Mechanical, Plumbing, and Electrical specifications and/or local authorities having jurisdiction.

9.0.8 Provide painting of all access doors and frames (even if not shown on the contract documents) on the front and backsides. Subcontractor should also include painting any other specialties noted in documents to be painted.

9.0.9 Provide painting of all walls, ceiling cavities, and any duct, piping, conduit that is visible to include anything behind reveals in acoustical ceiling panels, mechanical louvers, etc. per the contract documents.

9.0.10 Provide all epoxy painting of CMU including block filler. Masonry block filler shall be applied in thick coats and shall result in an even well filled appearance for the masonry block units as shown and specified. This Subcontractor shall notify General Contractor of any block work that is nonconforming prior to painting any finish coats on the masonry.

9.0.11 Provide all preparation and painting of cementitious surfaces of concrete and concrete block, per the contract documents.

9.0.12 Provide surface preparation, priming, and coats of paint specified in addition to shop-priming and surface treatments specified under other sections of the work.

9.0.13 Provide all preparation and painting of stairs to include all exposed metal surfaces. Subcontractor shall assure that finish on subsurface is free of imperfections and clean prior to painting. Cleaning, sanding of rust spots, and prepping subsurface is to be included by this Subcontractor prior to placing paint.

9.0.14 Provide all preparation and painting/staining of wood surfaces and trim including priming, fill holes, and imperfections in finish surfaces.

9.0.15 Provide all elastomeric and high-performance coatings as indicated on the contract documents including epoxy paints. Subcontractor shall assure that finish on subsurface is free of imperfections and clean prior to painting. Cleaning or prepping subsurface to receive these coatings is to be

included by this Subcontractor prior to placing paint. All adjoining surfaces shall be protected by this Subcontractor. High performance coatings shall be installed by a certified subcontractor as indicated in the contract documents.

9.0.16 Subcontractor shall sand, smooth edges, wood fill, dust, varnish and stain/paint, and wax as required all unfinished or primed millwork, architectural woodwork, and trim. Fill all nail holes prior to painting/staining all heavy timber, pressure treated rough carpentry, wood rail, and trim as required by contract documents.

9.0.17 Paint all Electrical and Data Room plywood backboards with appropriate coating unless specified otherwise. Do not paint over fire-retardant verification label on backboards. Do not paint over any code-required labels or equipment identification, performance ratings, name, or nomenclature plates. Do not paint over thermostats, fire alarm devices, sprinkler heads, or any fire safety devices.

9.0.18 Provide painting of all walls, ceiling, exposed structure/misc. steel/pipe/duct/etc., mechanical, plumbing, electrical, fire protection, etc. work in strict accordance with contract documents and as required by authorities having jurisdiction.

9.0.19 This contractor shall provide a separate 2’ wide band of finish paint at ceiling height after first coat to facilitate ceiling grid installation as directed by General Contractor.

9.0.20 Provide painting of all stairwells and stairwell components from the lowest level to the roof. This includes but is not limited to walls, floors, ceilings, stringers, risers, treads, landing, railings, door, and frames (both interior and exterior sides), etc. per the contract documents.

9.0.21 Provide painting of all exterior site item components including but not limited to railings, gates, mechanical and electrical equipment support steel, signage supports, etc. per the contract documents.

9.0.22 Provide painting of all fire suppression, plumbing, HVAC, electrical, communication, electronic safety and security work and other equipment as required by the Contract Documents including Mechanical, Electrical, and Electrical specifications and/or local authorities. This shall include color coding, piping, hangers, conduit, ductwork, standpipes, equipment, etc. Labeling of piping is by others.

9.0.23 The Structural Steel Subcontractor will provide shop primer on structural steel, miscellaneous steel, etc. as specified within the Drawings. Furthermore, the Painting Subcontractor shall reference other Sections contained within the Drawings for other materials (i.e. Hollow metal door frames, etc.) which may be provided by another Trade Subcontractor as shop primed, thus not needing a full primer coat provided by this Scope of Work. However, the Painting Subcontractor shall be responsible for providing primer coats on all materials not being specifically designated to be provided by a specific Trade Subcontractor as shop primed.

9.0.24 The Painting Subcontractor shall include primer touch-up of weld marks created by the Structural

Steel Subcontractor at exposed steel areas scheduled to receive finish painting. The Painting Subcontractor shall also spot prime pre-primed items (i.e. Hollow metal frames, steel, etc.) as necessary prior to the applicable items receiving its first coat of paint as part of this Scope of Work.

9.0.25 All surface prep work required for the proper installation of this Scope of Work shall be provided by this Subcontractor. Miscellaneous prep work shall include but is not limited to the following: cleaning of all substrates, remove all oils, grease, dust, dirt, efflorescence, chalk, residues, incompatible paints and compounds, crack patching, high spot sanding, etc. as required by the Contract Documents. This Subcontractor shall include any prep work or priming of steel or MEP materials that have galvanized coatings to which paint will not adhere. Touch-up of chipped or abraded places on shop primed items is also to be included. Mechanical methods of surface preparation shall be provided as required. Removal and re-installation of doors, if necessary, to paint or seal the top or bottom edges is included in this Scope of Work.

9.0.26 The Final Building Cleaning Subcontractor shall provide the final cleaning of the painting work just prior to final acceptance of this work by the General Contractor, Designer, and Owner. The Painting Subcontractor shall provide the General Contractor with written directions as "how to properly maintain and clean" the applicable painted surfaces to ensure the Final Building Cleaning Subcontractor utilizes the proper materials and techniques when performing the final cleaning of the applicable painted surfaces. Additionally, this Subcontractor shall instruct the Owner's maintenance staff of proper methods to clean and maintain the applicable painted surfaces to maximize the longevity of the applicable paint system.

9.0.27 Prior to the install of any wall coverings (by others), provide all interior caulking and sealant where the materials in this Scope of Work adjoin dissimilar finishes (all painted to painted and painted to unpainted surfaces) already in place installed by others. These areas include, but are not limited to: wall to ceiling drywall or acoustical grid joints, non-rated interior masonry control joints, perimeter of all door and window frames (including inside of exterior storefront windows and doors), and any other painted surface adjoining another finished material, trim, etc.)

9.0.28 Provide all labor and materials required to fill minor dents and dings in hollow metal doors and frames. This is to include sanding smooth to be ready to accept paint. Subcontractor shall notify the General Contractor if any doors or frames are damaged beyond minor Bondo repair work.

9.0.29 Provide attic stock materials in accordance with the contract documents. Including delivery and off-loading to a designated area or location.

9.0.30 All pricing for this scope of work is locked in for the duration of this project, unless noted otherwise in this subcontract agreement. Manufacturers or material price increases, excluding tariffs, will not be considered as an additional reimbursable cost unless specifically stated in this subcontract.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Siding Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
09H PAINTING SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

10K Fire Protection Specialties

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Fire Protection Specialties** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Appliance Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
010 00 00	Fire Protection Specialties

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 4	Masonry
Division 5	Metals
Division 6	Millwork
Division 7	Siding
Division 9	Finishes

Division 10	Specialties & Accessories
Division 12	Furnishings

The Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Fire Protection Specialties Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
010A FIRE PROTECTION SPECIALTIES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

10A SPECIALTIES AND ACCESSORIES

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Specialties and Accessories** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Specialties and Accessories** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
10 21 13.19	Plastic Toilet Compartments
10 26 50	Impact- Resistant Wall Protection
10 28 00	Toilet, Bath, and Laundry Accessories
10 51 13	Metal Lockers – Single Tier
10 51 43	Metal Lockers – Turn Out Gear - LK

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the**

	Specialties and Accessories Scope of Work.
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 9	Finishes

The **Specialties and Accessories** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Specialties and Accessories** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

See below for all safety submittals required throughout the duration of the project:

10.0 SPECIALTIES AND ACCESSORIES SCOPE OF WORK DESCRIPTION

10.0.1 This Subcontractor shall furnish all labor, materials, equipment, tools, taxes, lifting and hoisting, insurance, supervision, and any other incidentals necessary to provide a complete Specialties and Accessories scope of work. This Subcontractor shall be responsible for all toilet compartments, toilet / bath / laundry accessories, fire protection cabinets, metal lockers, and metal storage shelving, etc. as specified in the contract documents, required by Authorities Having Jurisdiction, and as noted herein. The following scope items are not intended to be all-inclusive but are merely used to highlight some of the major scope items.

10.0.2 Toilet Compartments – This Work shall include **furnishing and installing** materials for a complete Toilet Compartment system including but not limited to, all toilet partitions, urinal screens, pilasters, head rails, hinges, latches, door stops, brackets, hardware, fasteners, etc. at all locations, per the Contract Documents.

10.0.3 Toilet, Bath, and Laundry Accessories - This Work shall include **installing** materials provided by the Owner for a complete Toilet, Bath, and Laundry Accessories System, including but not limited to, grab bars, framed mirrors, toilet tissue dispensers, sanitary napkin dispensers, paper towel dispensers and disposal, folding shower seats, shower curtain rods, shelf with mop hooks, robe hooks, under lavatory guards, anchors, fasteners, hardware, miscellaneous accessories, etc. as required to complete all Toilet, Bath, and Laundry Accessories Work at all locations, per the Contract Documents.

10.0.4 Metal Lockers - This Work shall include **furnishing and installing** a complete Locker System, including but not limited to, lockers, recessed door handle and latch, identification plates, hooks, legs, filler panels, combination padlocks, fasteners, anchors, adhesives, miscellaneous accessories, etc. as required to complete all Locker Work at all locations, per the Contract Documents. Men's and Women's Locker room lockers only, Gear room lockers are by the Owner.

10.0.5 Owner Provided, Contractor Installed Items – This Subcontractor shall **install** all items covered under this Scope and noted in the Contract Documents as Owner Provided, Contractor Installed.

10.0.6 This Subcontractor shall take field measurements of existing conditions prior to fabrication and installation of all material to ensure proper fit of all Work included in this Scope.

10.0.7 Subcontractor shall coordinate blocking and rough opening requirements for this scope of work with the General Contractor and Metal Stud Framing Subcontractor.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Sitework Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION

TRADE PACKAGE SCOPE OF WORK

10B SIGNAGE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Signage** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Signage** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
32 17 00	Pavement Markings, Signs, and Specialties

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 10	Specialties
Division 31	Earthwork
Division 32	Exterior Improvements

The **Signage** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the

Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Signage** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal regardless.

10.0 SPECIALTIES AND ACCESSORIES SCOPE OF WORK DESCRIPTION

10.0.1 This Subcontractor shall furnish all labor, materials, equipment, tools, taxes, lifting and hoisting, insurance, supervision, and any other incidentals necessary to provide a complete Specialties and Accessories scope of work. This contractor shall be responsible for all signage and placards as specified in the contract documents, required by Authorities Having Jurisdiction, and as noted herein. The following scope items are not intended to be all-inclusive but are merely used to highlight some of the major scope items.

10.0.2 Owner Provided, Contractor Installed Items – This Subcontractor shall **install** all items covered under this Scope and noted in the Contract Documents as Owner Provided, Contractor Installed.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Signage Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work. Reference Schedule Milestone Table extracted from the Project Schedule below for other specifics related to this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
10B SIGNAGE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

10G Awnings/Canopies SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Awning/Canopies** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Awning/Canopies** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS
This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Div. 31	Sitework

The **Awning/Canopies** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Awning/Canopies** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal regardless.

32.0 AWNING/CANOPIES SCOPE OF WORK

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Signage Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work. Reference Schedule Milestone Table extracted from the Project Schedule below for other specifics related to this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
10G AWNING/CANOPIES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

10H FLAG POLES SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Flag Poles** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Flag Poles** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS
This Subcontractor is responsible for all Division 1 - General Requirements as prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
10 75 16	Flagpoles – Ground Set

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 3	Concrete
Division 26	Electrical
Division 31	Earthwork

The **Flag Poles** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the

Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Flag Poles** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal regardless.

10.0 FLAG POLES SCOPE OF WORK

10.1 This Subcontractor shall furnish and install Flagpole in accordance with the contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Signage Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work. Reference Schedule Milestone Table extracted from the Project Schedule below for other specifics related to this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
10H FLAG POLES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

11A APPLIANCE SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Appliance** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Appliance Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS
This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
11 30 13	Residential Appliances

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 3	Concrete
Division 4	Masonry
Division 5	Metals
Division 9	Finishes
Division 12	Furnishings
Division 21	Fire Protection

Division 22	Plumbing
Division 26	Electrical
Division 33	Utilities

The Appliance Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
11A APPLIANCE SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

12A WINDOW TREATMENT SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Window Treatments** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Window Treatments** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
12 21 13	Horizontal Aluminum Blinds
12 24 13	Roller Window Shades

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 4	Masonry
Division 5	Metals
Division 6	Woods, Plastics, and Composites
Division 8	Openings
Division 9	Finishes

The **Window Treatments** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Window Treatments** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal regardless.

12.0 FLAG POLES SCOPE OF WORK

12.1 This Subcontractor shall furnish and install Horizontal Aluminum Blinds & Roller Window Shades in accordance with the contract documents.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Signage Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work. Reference Schedule Milestone Table extracted from the Project Schedule below for other specifics related to this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
12A WINDOW TREATMENTS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

21A FIRE SUPPRESSION SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Fire Suppression** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Fire Suppression** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
21 0517	Sleeves and Sleeve Seals for Fire-Suppression Piping
21 0518	Escutcheons for Fire-Suppression Piping General
21 0523	General-Duty Valves for Fire Protection Piping
21 0529	Hangers and Supports for Fire-Suppression Piping and Equipment
21 0553	Identification for Fire-Suppression Piping and Equipment
21 1000	Facility Fire-Suppression Water-Service Piping
21 1313	Wet-Pipe Sprinkler Systems

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES

	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Fire Protection Scope of Work.**
Division 4	Masonry
Division 5	Metals
Division 7	Thermal and Moisture Protection
Division 9	Finishes
Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning (HVAC)
Division 26	Electrical
Division 27	Communications
Division 28	Electronic Safety and Security
Division 33	Utilities

The **Fire Suppression** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Fire Suppression** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use

all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

3.0 CONCRETE SCOPE OF WORK DESCRIPTION

3.0.1 Subcontractor shall coordinate any concrete or masonry penetrations and is responsible for all sleeving/conduit material for operations within its scope of work. Shall the Subcontractor fail to coordinate prior to masonry wall construction it will be the responsibility of this Subcontractor to provide means for proper routing of piping, conduit, or systems per the contract documents at no additional expense to the Contractor. Any penetrations after-the-fact will require coordination with the Contractor and written approval from the Structural Engineer of Record and applicable Subcontractor prior to any cutting, coring, or drilling.

3.0.2 Subcontractor shall furnish, layout, and install all UL listed sleeving at steel decking, CMU walls, shaft walls, etc. for this scope of work. All sleeving materials to be approved prior to procurement and install.

5.0 STRUCTURAL STEEL SCOPE OF WORK DESCRIPTION

5.0.1 Provide a to scale drawing providing dimensioned sizes and locations for all decking openings requiring miscellaneous framed openings during submittals for review and use by other trades as necessary.

5.0.2 Coordinate all routing, required clearances, and openings for this scope of work with the Structural Steel Subcontractor and General Contractor to ensure required clearances are incorporated into Structural Steel design and shop drawings.

5.0.3 Provide scaled drawings providing dimensioned sizes and locations for all openings requiring miscellaneous framed rough openings. Subcontractor shall identify conflicts with structural and light gauge steel and communicate required openings and/or clearances. Provide these drawings and dimensions in a timely manner that will not slow the flow of submittals and production of structural steel.

5.0.4 All welding shall be performed by welders certified for the procedures used.

6.0 WOOD, PLASTICS, AND COMPOSITES SCOPE OF WORK DESCRIPTION

6.0.1 Wood Blocking – The Fire Suppression Subcontractor shall coordinate all required blocking for this Scope of Work with the General Contractor for install by others.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Firestop Systems – All penetrations through walls, ceilings, and/or floors shall be sealed to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling, and/or floor assembly as acceptable to the General Contractor, Designer, and governing authorities.

7.0.2 This Subcontractor will complete all penetration firestopping and firesafing for penetrations provided as part of this Scope of Work at all wall, floor, and ceiling types. Subcontractor penetrating masonry partitions shall provide properly sized sleeves or core drill penetrations within all masonry walls. All through slab firestopping and sleeves are by the Subcontractor requiring the penetration.

7.0.3 The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

7.0.4 Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will be installed. All firestopping materials will be supplied by only one of the specified manufacturers. Mixing manufacturers materials will not be permitted. All subcontractors are required to use the same firestopping manufacturer. This Subcontractor shall coordinate with the Drywall, Framing, and Insulation Subcontractor and other MEP trades to ensure a single source manufactured product is used for firestopping activities.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, elastomeric joint sealants, solvent-release-curing joint sealants, latex joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints.

7.0.6 Subcontractor shall be responsible for properly flashing all exterior penetrations made for installation of this scope of work, per the contract documents.

9.0 INTERIOR FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall be responsible for any associated costs with cutting, patching, and replacement of finishes due to any repairs, errors, or omissions due to the fault of this Subcontractor.

Subcontractor shall be responsible for proof of damage by others that results in cutting, patching, and replacement of finishes.

21.0 FIRE SUPPRESSION SCOPE OF WORK DESCRIPTION

21.0.1 Fire Suppression System – This Work shall include providing a complete turnkey Fire Suppression System as stated within this scope of work and the contract documents.

21.0.2 Fire Suppression Supporting Devices - This Work shall include providing all Fire Suppression related supporting devices, including but not limited to, metal pipe hangers and supports, trapeze pipe hangers, metal framing system, thermal hanger-shield inserts, fastener systems, equipment supports, miscellaneous structural steel supports and/or angle frame supports, etc. per the contract documents.

21.0.3 Codes, Permits and Inspection - All fire suppression work shall meet or exceed all applicable code requirements. Subcontractor shall obtain and pay for all necessary permits, design review fees, and inspections associated with this scope of work.

21.0.4 Wet Pipe Automatic Sprinkler System - This Work shall include a complete Wet Pipe Automatic Sprinkler System for all areas designated within the buildings, including but not limited to, submittal of Sprinkler System shop drawings, calculations, product data, etc. to the State/Local Fire Marshal, local authorities, Owner's insurance company and Designer for review and compliance with NFPA 13 and associated codes/regulations. Subcontractor shall furnish and install the associated piping, risers, fittings, quick response sprinklers, sprinkler heads, sprinkler head cabinets, water flow indicators, tamper switches, fire department connections, inspector's test connections, mechanical valves, gate valves, drain valves, OS&Y valves, check valves, control valves, relief valves, electric alarm bell, etc. in accordance with NFPA, AHJ, and the contract documents.

21.0.5 Fire Suppression System Identification – This Work includes all necessary equipment labels, warning signs and labels, stencils, valve tags, warning tags, signage, etc. per the contract documents and AHJ. Subcontractor shall provide and install all applicable signage indicating the purpose of each control valve, FDC, test connection, main and auxiliary drain, etc., as well as any other signage directly related to the fire sprinkler scope of work and as required by NFPA, contract documents, and the authorities having jurisdiction. This Subcontractor is responsible for providing any and all signage required to be considered in compliance with all local, state, and federal regulations and codes.

21.0.6 Subcontractor shall provide complete shop drawings to General Contractor. The Subcontractor hereby agrees the fire sprinkler permit will be received within sixty (60) days of the contract being executed. The engineered design shall be reviewed by the architect, engineer, authority having jurisdiction, and the Owner's insurance company for compliance.

21.0.7 Subcontractor shall provide adequate fire suppression system shop drawings for a wet pipe automatic sprinkler system accounting for all required areas of the building. The Subcontractor agrees the design shall meet all contract document requirements, as well as any associated local,

state, and federal regulations and/or codes. Should it be determined that the initial design does not adequately meet these requirements, the Subcontractor shall be responsible for revising the design and fulfilling its scope of work at no additional cost to the Contractor.

21.0.8 Coordination with applicable code/regulatory agencies throughout the review and approval of the shop drawings for this Scope of Work is required.

21.0.9 This scope of work begins one foot (1') above finish floor elevation in the Sprinkler Riser Room as required by NFPA, authority having jurisdiction, and the contract documents.

21.0.10 This subcontractor shall coordinate with the Fire Alarm / Electrical subcontractor for the location and monitoring requirements for the Fire Suppression scope of work. Final fire alarm connections shall be provided by the Fire Alarm / Electrical subcontractor.

21.0.11 This subcontractor shall provide and install prefabricated fire pump house and all connections as well as adequate shop drawings stated within the contract documents and specification. Coordinate with Sitework contractor for location.

21.0.12 Subcontractor shall provide and install all required drains and connections, terminated and ready for use, per the contract documents.

21.0.13 Subcontractor shall coordinate points where the fire suppression system drains shall be carefully coordinated with the General Contractor to ensure they drain in acceptable locations.

21.0.14 Subcontractor shall provide and install all piping in sizes required by NFPA, but in no case less than the sizes or material shown in the contract documents and/or the reviewed/returned shop drawings and design submittals. The Subcontractor hereby agrees that piping and fittings will be utilized as applicable per NFPA.

21.0.15 Subcontractor shall provide and install all specialty heads, shutoff valves with tamper switches, etc. on sprinkler pipes serving special use areas, such as shafts, pits, machine rooms, etc. as required by local code, authority having jurisdiction, and the contract documents.

21.0.16 Subcontractor shall provide and install all building interior backflow preventers (non-metered), check valves, double-check valves, control valves, butterfly valves, gate valves, tamper switches, flow switches, and Siamese connection devices as required. This Subcontractor agrees that this also includes providing a backflow preventer permit(s) prior to beginning installation of the backflow preventers. The backflow preventer shall be in accordance with the utility company regulations. Subcontractor has excluded exterior backflow preventers.

21.0.17 Sprinkler piping configuration and layout shall be routed to minimize conflicts with HVAC, Plumbing, and Electrical components and equipment. Sprinkler head layout shall be per RCP, symmetrical with room size and configuration and light fixture pattern and shall be located so conflicts are avoided. Locate sprinkler heads in center of modular tile or in other symmetrical pattern acceptable to the

Designer as designated per the contract documents.

21.0.18 Provide flex whip drops at all lay in acoustical ceilings.

21.0.19 Provide sprinkler heads centered in both directions of acoustical tile. Final adjustment of head locations will commence after the ceiling grid is installed.

21.0.20 This trade shall carefully examine the contract documents in their entirety for this project. No allowance will be made for lack of knowledge of sprinkler work required in coordination with HVAC, Plumbing, Electrical, and other trades, including Owner furnished equipment.

21.0.21 Provide all testing for a complete and acceptable fire suppression system as required by the contract documents and governing authorities.

21.0.22 The design, installation, and proper operation of this system are the responsibility of the Fire Suppression Subcontractor. Fire Suppression Subcontractor is to obtain all necessary approvals for this phase of work including insurance underwriters, governmental agencies, or other authorities as may be required. Subcontractor warrants that system design and installation is in accordance with all codes, industry standards, and good engineering practice.

21.0.23 The Fire Protection Subcontractor shall schedule, with applicable Local and State officials and/or agencies, a final inspection of the Wet Pipe Suppression Sprinkler System, no later than two (2) weeks prior to the time the system is scheduled to be placed into operation. A Contractor's Material & Test Certificate shall be provided to General Contractor upon successfully completing a system test.

21.0.24 Furnish and install all tamper switches, and flow switches required for the Fire Suppression System at building and site utilities.

21.0.25 The Subcontractor shall include all pre-testing and testing requirements needed to achieve temporary and permanent certificates of occupancy, Beneficial Occupancy and Final Acceptance per the Project Construction Schedule.

21.0.26 This Subcontractor is aware of the structural components of the building and has taken this into consideration for layout and location of penetrations. This subcontractor shall coordinate its design and install with all other trades, specifically to include mechanical, plumbing, electrical, structural steel, concrete, etc. to ensure compliance per NFPA 13 and loading for the fire suppression system are accounted for in both design and install.

21.0.27 Subcontractor shall coordinate any rated partition, steel, concrete, or masonry penetrations and is responsible for all sleeving material for operations within its scope of work. Shall the Subcontractor fail to coordinate prior to execution of work by others, it will be the responsibility of this Subcontractor to provide means for proper routing of pipe per the contract documents at no additional expense to the General Contractor. Any penetrations after-the-fact will require

coordination with the General Contractor and written approval from the associated design professional prior to any cutting, coring, or drilling.

21.0.28 Furnish labor and coordination for final fire marshal review and inspection after completion of work. No additional charges will be accepted for mobilizations for these final reviews.

21.0.29 This Subcontractor shall provide PVC Tube mounted adjacent to the riser containing the sprinkler system shop drawings. Provide permanent type charts framed under glass and mounted in accordance with the contract documents or as directed by governing authorities.

21.0.30 This Subcontractor is to meet with and coordinate with the Electrical Subcontractor, Plumbing Subcontractor, and the HVAC Subcontractor to ensure coordination between subcontractors, including all items whether Electrical, Plumbing, HVAC, or fire suppression related will be provided as needed and that the installation of any items will be completed by one or the other Subcontractors without any additional expense to the General Contractor or Owner.

21.0.31 Concrete housekeeping pads, if required for this work will be provided by the Concrete subcontractor and is not part of this Scope of Work. Subcontractor shall coordinate requirements for this scope of work with the General Contractor.

21.0.32 Threading machines shall be placed outside the building or over sand box to absorb cutting oil on concrete or finished floor. Use of Sand Box will require the General Contractor's Superintendent approval. All inside drain barrels or buckets will have a clean plastic tarp underneath to protect flooring and adjacent surroundings from damage. Any damage or staining of any finish products will be repaired or replaced at this subcontractor's expense.

21.0.33 Subcontractor will coordinate, cooperate, and work with the Fire Alarm Subcontractor throughout the duration of the project. This includes but is not limited to; providing and installing all devices and components (tampers, flow switches, electric bells) for inter-lock wiring with the alarm bell or central station monitoring, as required by the local building official. Electrical wiring shall not be considered part of this scope.

21.0.34 Subcontractor shall coordinate all necessary power requirements with the General Contractor and Electrical Subcontractor.

21.0.35 Subcontractor shall ensure that sprinklers and/or pipe in unheated areas subject to freezing shall be protected from freezing and approved by the authority having jurisdiction. Any pipe insulation must be provided and installed by this Subcontractor.

21.0.36 Ensure that all elements of the system(s) are of sufficient capacity to meet the specified performance requirements, per the contract documents.

21.0.37 Subcontractor shall design the Fire Suppression System and equipment arrangements in a fashion to provide maintenance access and service by grouping and positioning valves and fire alarm

connections where possible in accessible locations.

21.0.38 This Subcontractor shall meet and coordinate with the Electrical Subcontractor, HVAC Subcontractor, Plumbing Subcontractor, and the Concrete Foundations Subcontractor to ensure that all underground items and overhead systems are coordinated prior to installation. All systems are to meet code requirements for height/depth, access and service clearances, as well as clearances away from other piping systems or equipment/items provided by other trades, etc. as required by governing authorities. Any additional expenses due to installations that require rework or reinstallation due to this Subcontractor's failure to coordinate or comply with governing authorities' codes and requirements and/or the contract documents shall be the responsibility of this subcontractor.

21.0.39 Subcontractor shall keep and maintain at the jobsite one (1) complete set of Fire Suppression Drawings, which must be used for, the purpose of, recording all changes occurring during the construction of this project. Progress is to be indicated by coloring-in various pipes, ducts, and associated appurtenances exactly as they are erected. These drawings shall be used to produce the final as-built drawings.

21.0.40 Subcontractor shall be responsible for obtaining the necessary fire flow data, GPM and pressure, from the nearest water supply prior to performing hydraulic calculations. The Subcontractor agrees to coordinate with the authority having jurisdiction, General Contractor, and Owner's design team, should it be necessary.

21.0.41 During all commissioning, intermittent and final inspections by local, state or other jurisdictional authorities, this subcontractor shall dedicate necessary personnel, equipment, ladders, sealants, etc. as required to demonstrate the construction of this subcontractor's work and to immediately correct any minor deficiencies of this subcontractor's work as may be noted by the inspecting authority. These personnel shall have no other duties during the inspection.

21.0.42 Furnish spare sprinkler cabinet as specified with spare heads in quantities required by NFPA 13, wrenches for each type of head, etc.; mount cabinet in riser room or as specified by Owner.

21.0.43 Provide all required Owner training on the proper use of system including video taping of training. Provide all operating and maintenance manuals and maintenance services.

21.0.44 Provide all sprinkler head guards where indicated and or required to avoid impact to heads.

21.0.45 This subcontractor shall not be relieved from the responsibility of complying with governing authorities' requirements for installations within this scope of work. This subcontractor is responsible for any errors and omissions as it relates to this scope of work. This subcontractor shall provide a complete and operable system that is acceptable by the General Contractor, Owner, and adheres to the State, Local, and any other governing authorities' code requirements. Any deviations or noncompliance of these codes and/or requirements will be the sole responsibility of this subcontractor to correct at no expense to the General Contractor and Owner.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Fire Suppression Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
21A FIRE SUPPRESSION SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

22A PLUMBING SYSTEMS SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Plumbing Systems** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Plumbing Systems** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
07 72 00	Roof Accessories
07 84 13	Penetration Firestopping
22 00 00	General Plumbing
22 05 13	Common Motor Requirements for Plumbing Equipment
22 05 17	Sleeves and Sleeve Seals for Plumbing Piping
22 05 18	Escutcheons for Plumbing Piping
22 05 23.12	Ball Valves for Plumbing Piping
22 05 23.14	Check Valves for Plumbing Piping
22 05 29	Hangers and Supports for Plumbing Piping and Equipment
22 05 53	Identification for Plumbing Piping and Equipment
22 07 19	Plumbing Piping Insulation
22 08 13	Commissioning of Plumbing Systems

22 11 16	Domestic Water Piping
22 11 19	Domestic Water Piping Specialties
22 11 23	Domestic Water Pumps
22 11 23.21	Inline, Domestic Water Pumps
22 11 24	Facility Natural Gas Piping
22 13 16	Sanitary Waste and Vent Piping
22 13 19	Sanitary Waste Piping Specialties
22 13 19.13	Sanitary Drains
22 13 23	Sanitary Waste Interceptors
22 14 13	Facility Storm Drainage Piping
22 14 23	Storm Drainage Piping Specialties
22 34 00	Fuel Fired, Domestic Water Heaters
22 42 13.13	Commercial Water Closets
22 42 13.16	Commercial Urinals
22 42 16.13	Commercial Lavatories
22 42 16.16	Commercial Sinks
22 45 00	Emergency Plumbing Fixtures
22 47 16	Pressure Water Coolers

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Plumbing Systems Scope of Work.**
Division 3	Concrete
Division 4	Masonry
Division 5	Metals
Division 6	Wood, Plastics, and Composites
Division 7	Thermal and Moisture Protection
Division 9	Finishes
Division 10	Residential Appliances
Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning (HVAC)
Division 26	Electrical
Division 27	Communications
Division 28	Electronic Safety and Security
Division 33	Utilities

The **Plumbing Systems** Subcontractor shall be responsible for complying with the requirements of each

Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **PLUMBING SYSTEMS** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

See below for all safety submittals required throughout the duration of the project:

3.0 CONCRETE SCOPE OF WORK DESCRIPTION

3.0.1 Cast-In-Place Concrete - This Work shall include the providing of all interior and exterior cast-in-place concrete necessary for work provided as part of this Scope of Work, including but shall not be limited to, clean out concrete encasements, trough drain infill, etc. and any other concrete that may be required during placement of work below grade. Equipment Pads clearly defined on the contract documents and communicated by this Subcontractor will be provided by the Concrete Foundations, Walls, & Slabs Subcontractor. This Subcontractor shall be responsible for coordination and layout of the equipment pads. Pads not communicated and coordinated with the General Contractor shall

be provided by the Plumbing Subcontractor.

3.0.2 Concrete Block Outs - Unless noted otherwise, miscellaneous slab on grade block outs, etc. shall be located, furnished, installed, and removed by the Subcontractor requiring a specific slab on grade block out, etc. This Work shall include close coordination, where required, to install plumbing, mechanical, fire protection, and electrical equipment furnished and installed by the respective Trade Subcontractors.

3.0.3 Unless specifically noted otherwise within a Trade Package Scope of Work, all sleeves, conduit, boxes, block outs, or embeds set or cast into concrete, masonry or other work shall be furnished and installed by the Subcontractor requiring these items to complete the installation of its respective work. The set items must be secured in place to prevent movement during the proceeding activity. Additionally, these items shall be provided in a timely manner so as not to delay the concrete, masonry, or other work. In the event the Subcontractor requiring the sleeve(s) or embed(s) fails to provide them in a timely manner, the Subcontractor requiring the sleeve(s) or embed(s) will be required to bear the cost associated with cutting and patching the work to properly install the sleeve(s) or embed(s). Provide coordination drawings for openings. Include rough-opening sizes and locations for roof mounted drains, equipment, etc. for coordination with the Roofing and Structural Steel Subcontractors.

3.0.4 Subcontractor is specifically aware of and accepts their responsibility for underground/under-slab layout for this scope of work and will coordinate with to overlay their work with respect to the work of the other trades.

3.0.5 Subcontractor shall coordinate any concrete or masonry penetrations and is responsible for all sleeving/conduit material for operations within its scope of work. Shall the Subcontractor fail to coordinate prior to footings, building slab, elevated slab, or masonry wall construction it will be the responsibility of this Subcontractor to provide means for proper routing of piping, conduit, or systems per the contract documents at no additional expense to the Contractor. Any penetrations after-the-fact will require coordination with the Contractor and written approval from the Structural Engineer of Record and applicable Subcontractor prior to any cutting, coring, or drilling.

3.0.6 Subcontractor shall furnish, layout, and install all UL listed sleeving at steel decking, CMU walls, shaft walls, etc. for this scope of work. All sleeving materials to be approved prior to procurement and install.

5.0 STRUCTURAL STEEL SCOPE OF WORK DESCRIPTION

5.0.1 Provide a to scale drawing providing dimensioned sizes and locations for all decking openings requiring miscellaneous framed openings during submittals for review and use by other trades as necessary.

5.0.2 Coordinate all routing, required clearances, and openings for this scope of work with the Structural Steel Subcontractor and Contractor to ensure required clearances are incorporated into Structural

Steel design and shop drawings.

5.0.3 Provide scaled drawings providing dimensioned sizes and locations for all openings requiring miscellaneous framed rough openings. Subcontractor shall identify conflicts with structural and light gauge steel and communicate required openings and/or clearances. Provide these drawings and dimensions in a timely manner that will not slow the flow of submittals and production of structural steel.

6.0 WOOD, PLASTICS, AND COMPOSITES SCOPE OF WORK DESCRIPTION

6.0.1 Wood Blocking – The Plumbing Subcontractor shall furnish and install blocking/backing for all plumbing fixtures, pipe supports, water heaters, and other items provided as part of this Scope of Work which attach directly to light gauge metal framing, metal studs, gypsum sheathing, etc. and coordinate with Metal Framing, Insulation, Drywall, and Acoustical Ceiling Subcontractor so as to not impede drywall installation.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Firestop Systems – All penetrations through walls, ceilings, and/or floors shall be sealed to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling, and/or floor assembly as acceptable to the General Contractor, Designer, and governing authorities.

7.0.2 This Subcontractor will complete all penetration firestopping and firesafing for penetrations provided as part of this Scope of Work at all wall, floor, and ceiling types. Subcontractor penetrating (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.) masonry partitions shall provide properly sized sleeves or core drill penetrations within all masonry walls. All through slab firestopping and sleeves are by the Subcontractor requiring the penetration (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.).

7.0.3 The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

7.0.4 Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will be installed. All firestopping materials will be supplied by only one of the specified manufacturers.

Mixing manufacturers materials will not be permitted. All subcontractors are required to use the same firestopping manufacturer. This Subcontractor shall coordinate with the Drywall, Framing, and Insulation Subcontractor and other MEP trades to ensure a single-source manufactured product is used for firestopping activities.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, elastomeric joint sealants, solvent-release-curing joint sealants, latex joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints.

7.0.6 Subcontractor shall be responsible for properly flashing all exterior penetrations made for installation of this scope of work, per the contract documents.

8.0 OPENINGS SCOPE OF WORK DESCRIPTION

8.0.1 This Subcontractor shall furnish and install all access doors required for this scope of work. Subcontractor shall coordinate keying with the General Contractor and Owner. Access doors and panels in walls, ceilings, or other surfaces shall be coordinated with subcontractors providing the substrate. Verify / coordinate a consistent manufacturer via submittal to architect via General Contractor.

9.0 INTERIOR FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall be responsible for any associated costs with cutting, patching, and replacement of finishes due to any repairs, errors, or omissions due to the fault of this Subcontractor. Subcontractor shall be responsible for proof of damage by others that results in cutting, patching, and replacement of finishes.

22.0 PLUMBING SYSTEMS SCOPE OF WORK DESCRIPTION

22.0.1 This Subcontractor shall furnish all labor, materials, tools, taxes, insurance, equipment, hoisting, English speaking supervision, temporary utilities, and any other incidentals necessary to provide a complete turnkey Plumbing Systems Package and related components in accordance with the contract documents as well as the following clarifications.

22.0.2 Subcontractor is to obtain all necessary approvals for this scope of work including insurance underwriters, governmental agencies, or other authorities as may be required. Subcontractor warrants that system installation is in accordance with all codes, industry standards, and good engineering practices.

22.0.3 Subcontractor, Sitework Subcontractor, and General Contractor shall coordinate to verify the top of the next upstream manhole is lower than the building finish floor elevation. General Contractor shall contact engineer immediately for directions on installation if manhole top is equal to or

higher than the finished floor level.

22.0.4 Site Domestic Water and Sanitary Sewer Services - Unless noted otherwise herein, this Work shall include, but is not limited to, providing all necessary testing & inspections, excavation, backfill, piping, fittings, appurtenances, and final connections at location within five (5) feet of building footprint for tie-in with the domestic water and sanitary sewer services as well as the oil interceptor, sediment interceptor, lift station, and roof leader drainage installed by the Sitework subcontractor. All piping and installations within five (5) feet of the building footprint are the responsibility of this Subcontractor.

22.0.5 Identification of Piping Systems - This Work shall include providing identifying devices, including self-adhesive labels, painted stenciling, etc. (as required by the contract documents) for all piping, valves, equipment, etc. provided within this Scope of Work.

22.0.6 Piping Specialties - This Work shall include providing all plumbing related piping specialty equipment where related to the plumbing system, including but not be limited to, strainers, air vents, backflow preventers, thermometers and test wells, pressure gauges and gauge cocks, test plugs for sensing pressure and temperature, pressure reducing valves, expansion tanks, flexible pipe connections, balancing valves, flow measuring stations, water flow readout meters, air separators, suction diffusers, triple duty valves, automatic flow control valves, accessories, etc., as required to comprise a complete Plumbing System. Coordinate all overhead plumbing piping to be located above the bottom cord of all roof joists to avoid conflicts and maintain the highest possible clear height.

22.0.7 Natural Gas System – This Work shall include providing all gas plumbing, including but not limited to piping, fittings, restraints, regulators, pressure reducing valves, shutoff valves, emergency shutoff valves, etc. per the contract documents and AHJ. Subcontractor shall make all terminations and tie-ins to meter assembly, appliances, and equipment, per the contract documents.

22.0.8 Subcontractor has included supply and install of primary and overflow roof drains as well as tie-in to roof leader drainage system as installed by the Sitework subcontractor. Subcontractor shall coordinate setting and flashing of roof drain bodies with the Roofing subcontractor.

22.0.9 Subcontractor shall provide and install concrete rings/donuts at all exterior at-grade plumbing cleanouts, per the contract documents and authority having jurisdiction.

22.0.10 Subcontractor shall furnish labor and material to hook-up and disconnect temporary water and sewer to General Contractor's trailer.

22.0.11 Unless specifically noted otherwise within this Scope of Work, all sleeves or embeds set or cast into concrete, masonry, roofing, or other work shall be furnished and installed by this Subcontractor as it relates to this scope of work. Additionally, these items shall be provided in a timely manner so as not to delay the concrete, masonry, roofing, etc. scopes of work. In the event the Subcontractor requiring the sleeve(s) or embed(s) fails to provide them in a timely manner,

the Subcontractor requiring the sleeve(s) or embed(s) will be required to bear the cost associated with cutting and patching the work as necessary to properly install the sleeve(s) or embed(s).

22.0.12 Valves - This Work shall include providing all plumbing related valves, including but not limited to, gate valves, check valves, backflow preventers, hose and drain valves, plug valves, butterfly valves, relief valves, globe valves, ball valves, post indicator valves, block and bleed valves, temperature control valves, automated actuators, pressure reducing valves, etc. per the Contract Documents.

22.0.13 Plumbing Systems Insulation - This Work shall include supply and install of all Plumbing Systems Insulation, including but not limited to, insulation at domestic hot and cold water piping, hot water recirculating water piping, hot water risers, drain and water supply piping exposed under handicapped lavatories, roof drain piping above ceilings, including underbody of drain, above slab plumbing waste lines, P-traps and horizontal pipe runs to vertical drops receiving discharge from ice machine drains, etc. as required per the Contract Documents. Also provide all insulation, fasteners, shielding, exterior aluminum jacketing, banding, piping insulation rigid supports, adhesive, mastic, and insulating cements as required to complete this Scope of Work. Piping, insulation, and heat tape shall also be furnished and installed by this subcontractor for General Contractor's on-site office trailers.

22.0.14 Domestic Water Systems - This Work shall include the supply and install of a complete Domestic Hot and Cold-Water System, including but not limited to, all piping, fittings, accessories, wall hydrants, hose bibs, loose key handles, vacuum breakers, vacuum relief valves, air chambers, double check type backflow preventers, etc. as designated per the Contract Documents. Maintain proper separation between sewer and water lines and disinfect piping and test as required. This Subcontractor shall provide permanent connection, including but not limited to, trench excavation, trench bedding where required, backfill, compaction, piping, sleeves, fittings, etc., to the site domestic water services as designated per the contract documents.

22.0.15 Water Heaters and Accessories - This Work shall include the supply and install of water heaters per the contract documents.

22.0.16 Subcontractor agrees that all water heaters shall be filled with water and purged at time of installation, if possible, and/or in no event later than electric hook-up. This Subcontractor agrees to coordinate water heater start-up with Electrical Subcontractor and General Contractor.

22.0.17 Plumbing Fixtures and Accessories - This Work shall include the supply and install of all plumbing fixtures and accessories for a turnkey package, including but not limited to, lavatories, toilets, sinks, urinals, bottle filling station(s), water cooler(s), wall hydrants, etc. including supports, trim, grout, caulk, sealants, vacuum breakers, water closet seats, trap primers, water hammer arresters, backflow preventers, chrome plated angle stops, check valves, etc. as designated within the plans and/or specifications. All standard duty and heavy-duty floor cleanouts, per the contract documents. Hose bibbs and wall hydrants per the contract documents.

22.0.18 This scope of work shall include coordinating with Concrete Subcontractor and Flooring

Subcontractor for verification of finished floor elevations to allow proper drainage to drain. Provide final drain elevation adjustments if required prior to final floor finishes. Floor drain and trench drain scope of work shall include, but not be limited to, drain accessories (sediment baskets, strainers, etc.), grates, grills, field welding, epoxy grout fill, setting tabs and frames, templates (if needed), etc. to provide a complete and functional drain system, per the contract documents.

22.0.19 The Plumbing Subcontractor shall schedule, with applicable local and state health officials and/or agencies, a final inspection of the water and sewer systems no later than two (2) weeks prior to the time the system is scheduled to be placed into operation. The Plumbing Subcontractor shall have approved results of water tests, taken as part of this Scope of Work, available for the governing officials/agencies upon arrival on site.

22.0.20 This Subcontractor shall provide and install all hub drains and trap primers for HVAC condensates, per the contract documents. Condensate lines shall be provided and installed by others from HVAC unit to hub drain.

22.0.21 This Subcontractor shall provide roof boots for install by others.

22.0.22 This Subcontractor shall test plumbing underground for leaks and needed repairs prior to slab pour. Subcontractor shall properly cap piping to ensure concrete does not get into the piping during concrete pours.

22.0.23 The Plumbing Subcontractor shall furnish and install all required anchor bolts, hangers, isolators, channels, Unistrut, angles, embeds, and plates as required for a complete plumbing system, per the contract documents.

22.0.24 Codes, Permits and Inspection – All plumbing work shall meet or exceed all applicable code requirements per the contract documents and AHJ.

22.0.25 All penetrations will be sealed to meet code. Pipe or sleeves need to be installed in coordination with the Metal Framing, Insulation, Drywall, and Acoustical Ceiling Subcontractor to eliminate return trips by other trades. If pipes or sleeves are not installed in coordination, this Subcontractor will be responsible for the associated costs.

22.0.26 Subcontractor shall provide all required backflow devices, within the building envelope, for this scope of work, per the contract documents. Subcontractor has included the necessary certification of backflow devices per the authority having jurisdiction.

22.0.27 Video and record the bore of sewer drain and under slab piping to the exterior ground cleanout connection upon completion of work. Furnish a digital video file on flash drive to general contractor for documentation of pipe bore free of obstructions and defects. This documentation of under slab plumbing pipes to be a part of the closeout documentation provided by this Subcontractor.

22.0.28 This Subcontractor acknowledges that its work must be coordinated with work of other trades that are to occupy the same general spaces and further agrees to coordinate its shop drawings, details, and submittals with those of the affected trades to ensure proper fit and coordination with such work. This coordination may require participation in coordination meeting, preinstallation conference and/or assistance with generating a coordinated drawing with multiple other affected trades.

22.0.29 This Subcontractor shall review all applicable Contract Documents to confirm that this scope of work will fit into the space allotted and function in accordance with the design intent of the Contract Documents. All conflicts shall be reported to General Contractor in timely manner to allow corrections to be made accordingly to avoid delaying this scope of work or the overall project schedule. Requests for Information (RFI) shall be submitted in writing to Contractor; Verbal RFIs and/or responses are not acceptable or binding.

22.0.30 The HVAC, Plumbing, Sprinkler, and Electrical Subcontractors shall coordinate their work closely with each other and the Drywall/Acoustical Ceilings Subcontractor as to provide /confirm locations of their ceiling mounted devices. The Plumbing Subcontractor is to meet with and coordinate with the Electrical, HVAC, Utility Piping, and the Sprinkler Subcontractor, to ensure that between the four subcontractors, all items whether Electrical, Plumbing, HVAC, Utility Piping, or fire protection related will be provided as needed and that the installation of any items will be completed by one or the other Subcontractors without any additional expense to the General Contractor or Owner.

22.0.31 Subcontractor shall provide all work required for this scope of work in connection with HVAC, Electrical, Sprinkler, Structural Steel, Concrete, Sitework, etc. scopes of work, including Owner furnished equipment, per the contract documents.

22.0.32 Provide all tagging and identification for this scope of work, per the contract documents.

22.0.33 Provide all testing, inspection, or flushing of piping required for this scope of work, per the contract documents.

22.0.34 Subcontractor is responsible for draining their systems if required by weather conditions.

22.0.35 All piping sizes and material types to be per the contract documents. Should this Subcontractor identify conflicting information within the contract documents it shall be its responsibility to notify the Contractor for clarification.

22.0.36 Hoisting – This Subcontractor shall provide all Hoisting as required to facilitate this scope of work, including but not limited to cranes, hoisting equipment and rigging, insurance, certified operator, inspections, lighting, flagmen, communication devices and all other incidentals required.

22.0.37 Subcontractor has included final connections to all equipment and appliances requiring plumbing and natural gas connections as indicated by the contract documents, whether furnished by this

Subcontractor or others. Subcontractor shall monitor startup of gas appliances.

22.0.38 This Subcontractor shall furnish and install all material and equipment shown on the plans and/or specifications and shall receive and install all equipment, related to plumbing, furnished by owner, as indicated on drawings. This includes all final connections.

22.0.39 Supporting Devices - This Work shall include providing all related supporting devices, including but not limited to, pipe hangers and supports, seismic pipe hangers and supports, if required by the specifications or building code, pipe saddles, vibration isolation hangers, and miscellaneous structural steel supports and/or angle frame supports which are needed to support equipment provided by this Subcontract, whether reflected or not within the Contract Documents and which are not specifically designated to be provided by another Subcontractor. This Subcontractor shall be responsible for obtaining written approval for all attachments (i.e. beam clamps, all thread hangers, Unistrut, clamps, braces, etc.) to other Subcontractors work prior to commencing with the installation of said attachments. Failure to obtain written approval from the respective Subcontractor and/or Designer may result in the GC's rejection of the installation(s). Also install all hanging wires, supports, etc. to meet seismic requirements, where required by the technical specifications and/or governing code for all equipment, etc. provided as part of this Scope of Work, where specific equipment, etc. is scheduled within an acoustical paneled ceiling system, suspended gypsum ceiling system and/or at an exposed structure condition.

22.0.40 This Subcontractor shall be responsible for connecting all work provided as part of this Subcontract to all site utilities and/or plumbing systems (i.e., water, sanitary sewer, gas, roof leader drainage, etc.) such that proper drainage and connections result, particularly when installing condensate drain lines that will be required, in positive drainage.

22.0.41 Subcontractor shall install dishwashers and garbage disposals. All parties agree that both items will be provided and stocked by others. This Subcontractor shall uncrate all dishwashers and disposals and deliver broken-down packing materials to onsite dumpster provided by General Contractor.

22.0.42 Subcontractor shall provide and install all washing machine and ice maker boxes per the contract documents, including as applicable at any rated walls. This shall also include hammer arrestors. This subcontract shall include the knockout of the washer drain cap, prior to washer installation. Final hook-up of washing machine and ice maker by others.

31.0 SITEWORK SCOPE OF WORK DESCRIPTION

31.0.1 Excavation, Trenching, Backfilling, Rough Grading and Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, rough grading, shoring and bracing, where required, pumping and dewatering, if required, and compaction work associated with the proper installation of all work required of this Subcontract. Excess excavated material shall be moved to a location specified by the Construction Manager.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Plumbing Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
22A PLUMBING SYSTEMS SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

23A – HEATING, VENTILATING, AND AIR CONDITIONING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Heating, Ventilating, and Air Conditioning** in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Heating, Ventilating, and Air Conditioning** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
23 00 00	General Mechanical
23 00 10	Existing Conditions
23 00 20	Mechanical Demolition
23 05 13	Common Motor Requirements for HVAC Equipment
23 05 16	Expansion Fittings and Loops for HVAC Piping
23 05 17	Sleeves and Sleeve Seals for HVAC Piping
23 05 19	Meters and Gauges for HVAC Piping
23 05 23.12	Ball Valves for HVAC Piping
23 05 23.14	Check Valves for HVAC Piping
23 05 29	Hangers and supports for HVAC Piping and Equipment
23 05 48.13	Vibration Controls for HVAC
23 05 53	Identification for HVAC Piping and Equipment

23 05 93	Testing, Adjusting, and Balancing for HVAC
23 07 13	Duct Insulation
23 07 19	HVAC Piping Insulation
23 08 13	Commissioning of Mechanical Systems
23 09 00	Instrumentation and Control for HVAC
23 21 13	Hydronic Piping
23 21 16	Hydronic Piping Specialties
23 21 23	Hydronic Pumps
23 23 00	Refrigerant Piping
23 25 00	HVAC Water Treatment
23 31 13	Metal Ducts
23 33 00	Air Duct Accessories
23 34 23	HVAC Power Ventilators
23 34 39	High-Volume, Low Speed Fans
23 36 00	Air Terminal Units
23 37 13	Diffusers, Registers, and Grilles
23 41 00	Particulate Air Filtration
23 52 16	Condensing Boilers
23 74 16.11	Packaged Rooftop Air Conditioning Units
23 81 26	Ductless Split-System Air-Conditions

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Subcontractor is responsible for complete Specifications package as it relates to the Heating, Ventilating, and Air Conditioning Systems Package scope of work.**
Division 3	Concrete
Division 4	Masonry
Division 5	Metals
Division 7	Thermal and Moisture Protection
Division 8	Openings
Division 9	Finishes
Division 22	Plumbing
Division 26	Electrical
Division 27	Communications

The **Heating, Ventilating, and Air Conditioning** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their

entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Heating, Ventilating, and Air Conditioning** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise.

3.0 CONCRETE SCOPE OF WORK DESCRIPTION

3.0.1 Cast-In-Place Concrete - Equipment / Housekeeping pads clearly defined within the contract documents or communicated by this Subcontractor will be provided by the Concrete Foundations, Walls, & Slabs Subcontractor. This Subcontractor shall be responsible for coordination and layout of the equipment / housekeeping pads required for this scope of work.

3.0.2 Subcontractor shall coordinate any concrete or masonry penetrations and is responsible for all sleeving/conduit material for operations within its scope of work. Shall the Subcontractor fail to coordinate prior to footings, building slab, elevated slab, or masonry wall construction it will be the responsibility of this Subcontractor to provide means for proper routing of piping, conduit, or systems per the contract documents at no additional expense to the Contractor. Any penetrations after-the-fact will require coordination with the Contractor and written approval from the Structural Engineer of Record and applicable Subcontractor prior to any cutting, coring, or drilling.

3.0.3 Unless specifically noted otherwise within a Trade Package Scope of Work, all sleeves, conduit, boxes, block outs, or embeds set or cast into concrete, masonry or other work shall be furnished and installed by the Subcontractor requiring these items to complete the installation of its respective work. The set items must be secured in place to prevent movement during the proceeding activity. Additionally, these items shall be provided in a timely manner so as not to delay the concrete, masonry, or other work. In the event the Subcontractor requiring the sleeve(s) or embed(s) fails to provide them in a timely manner, the Subcontractor requiring the sleeve(s) or embed(s) will be required to bear the cost associated with cutting and patching the work to properly install the sleeve(s) or embed(s). Provide coordination drawings for openings. Include rough-opening sizes and locations for roof mounted HVAC units for coordination with the Roofing and Structural Steel Subcontractors.

3.0.4 Subcontractor shall furnish, layout, and install all UL listed sleeving at steel decking, CMU walls, shaft walls, etc. for this scope of work. All sleeving materials to be approved prior to procurement and install.

5.0 STRUCTURAL STEEL SCOPE OF WORK DESCRIPTION

5.0.1 Provide a to scale drawing providing dimensioned sizes and locations for all decking openings requiring miscellaneous framed openings during submittals for review and use by other trades as necessary.

5.0.2 Coordinate all routing, required clearances, and openings for this scope of work with the Structural Steel Subcontractor and Contractor to ensure required clearances are incorporated into Structural Steel design and shop drawings.

5.0.3 Provide scaled drawings providing dimensioned sizes and locations for all openings requiring miscellaneous framed rough openings. Subcontractor shall identify conflicts with structural and light gauge steel and communicate required openings and/or clearances. Provide these drawings and dimensions in a timely manner that will not slow the flow of submittals and production of structural steel.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Firestop Systems – All penetrations through walls, ceilings, and/or floors shall be sealed to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling, and/or floor assembly as acceptable to the General Contractor, Designer, and governing authorities.

7.0.2 The HVAC Subcontractor will complete all penetration firestopping and firesafing for penetrations provided as part of this Scope of Work at all wall, floor, and ceiling types. Subcontractor penetrating (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.) masonry partitions shall provide properly sized sleeves or core drill penetrations within all masonry walls. All through slab firestopping and sleeves are by the Subcontractor requiring the penetration (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.).

7.0.3 The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

7.0.4 Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will

be installed. All firestopping materials will be supplied by only one of the specified manufacturers. Mixing manufacturers materials will not be permitted. All subcontractors are required to use the same firestopping manufacturer. This Subcontractor shall coordinate with the Drywall, Framing, and Insulation Subcontractor and other MEP trades to ensure a single source manufactured product is used for firestopping activities.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, elastomeric joint sealants, solvent-release-curing joint sealants, latex joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints.

7.0.6 Subcontractor shall be responsible for properly flashing all exterior penetrations made for installation of this scope of work, per this scope of work and the contract documents.

8.0 OPENINGS SCOPE OF WORK DESCRIPTION

8.0.1 This Subcontractor shall furnish and install all access doors required for this scope of work. Subcontractor shall coordinate keying with the Contractor and Owner. Access doors and panels in walls, ceilings or other surfaces shall be coordinated with subcontractors providing the substrate. Verify / coordinate a consistent manufacturer via submittal to architect via Contractor.

8.0.2 Louvers and Vents – This Work shall include furnishing and installing a complete mechanical and architectural louver and vent system, including but not limited to intake louvers, exhaust louvers, wall vents, etc. with insect screen, bird screen, blank-off panels, fasteners, anchors, gasketing, accessories and miscellaneous incidentals for a complete louvers and vents system, per the contract documents. Subcontractor shall coordinate opening sizes and framing requirements with the Masonry, Metal Stud, and Hollow Metal Door Subcontractors for installation / connection of louvers and vents to framing or openings.

9.0 INTERIOR FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall be responsible for any associated costs with cutting, patching, and replacement of finishes due to any repairs, errors, or omissions due to the fault of this Subcontractor. Subcontractor shall be responsible for proof of damage by others that results in cutting, patching, and replacement of finishes.

23.0 HEATING, VENTILATION, AND AIR CONDITIONING

23.0.1 HVAC Systems – This Work shall include providing a complete HVAC system and related components per this scope of work, the contract documents, applicable building, and HVAC codes, and authorities having jurisdiction for this project.

23.0.2 This Subcontractor shall furnish all labor, materials, tools, taxes, insurance, equipment, hoisting, commissioning, English speaking supervision, temporary utilities, and any other incidentals

necessary to provide a complete HVAC Systems Package in accordance with the contract documents as well as the following clarifications.

23.0.3 Codes, Permits, and Inspections – All HVAC Work shall meet all applicable code requirements. Obtain and pay for all necessary permits, inspection fees, etc. and all other charges for work designated within the contract documents and required by authority having jurisdiction.

23.0.4 The HVAC Subcontractor shall consult the project specific requirements of the contract documents to verify any requirements associated with this trade scope including but not limited to recycling requirements, commissioning requirements, indoor air quality management both during construction and post construction.

23.0.5 Subcontractor shall include providing and installing a complete HVAC system as defined within this Scope of Work, the Project Specifications and Drawings related to the HVAC work of this project. The scope of work includes turnkey HVAC systems. The specifications noted herein are part of this Scope of Work, however it is not intended to be all inclusive. The HVAC Subcontractor is responsible for all mechanical work complete and related work covered under related specification sections.

23.0.6 Provide Building Information Modeling (BIM) Coordination drawings for the HVAC scope of work. If conflicts are found in the field, no additional cost will be accepted for the required relocations of HVAC scope of work due to lack of coordination with other trades.

23.0.7 The coordination (BIM clash detection), installation, startup / commissioning, and verification of the proper operation of equipment provided under this subcontract is the responsibility of this Subcontractor. Initial equipment startup is by this Subcontractor.

23.0.8 This Subcontractor to provide all necessary start-ups of equipment. Provide all testing, balancing, and adjusting of all systems. Final test and balance report to be submitted for approval within one week after field adjustments are completed. But no later than thirty (30) days prior to Substantial Completion date.

23.0.9 This Subcontractor to provide engineer's stamp, if necessary, on shop drawings and submittals.

23.0.10 Subcontractor is to obtain all necessary approvals for this phase of work including insurance underwriters, governmental agencies, or other authorities as may be required. Subcontractor warrants that system installation is in accordance with all codes, industry standards, and contract documents.

23.0.11 Subcontractor shall ensure that all mechanical equipment shall be installed according to contract documents and manufacturer's recommendations. Shall there be a conflict between the contract documents and manufacturer's recommendations for installation; it shall be this Subcontractor's responsibility to notify the General Contractor prior to the installation of any equipment.

23.0.12 Furnish and install all equipment and materials per the contract documents, including but not limited

to: packaged rooftop units and dehumidifiers, rooftop air handling units with curbs, vaults, and batt insulation, fans, exhaust fans, split system HVAC and heat pumps, ductless heat pumps, ductless air handlers, unit electric heaters, gas unit heaters (infrared), condensing boiler, wet rotor pumps, condensate neutralization tank system, air separator system, BACNET interfaces, dryer boxes, filters and filter housings, registers, circulating fans, HVAC equipment disconnects where scheduled with equipment, stainless steel plenums, drop box plenums with drum louvers, sheet metal ductwork, flex duct, fabric ductwork, exterior ductwork, acoustical ductwork, diffusers, air distribution, galvanized ductwork, spiral duct, roof mounted duct and equipment/accessories, insulation, sealing foam, roof curbs (including sloped curbs), roof vaults, roof hoods, louvers, control panels, test and balance, pre-functional equipment checks, equipment start-up for equipment installed under this subcontract, pilot lights, noise and vibration controls, etc. required for this scope of work.

23.0.13 HVAC Supporting Devices - This Work shall include providing all HVAC related supporting devices, including but shall not be limited to, pipe hangers and supports, pipe saddles, vibration isolation hangers, and miscellaneous structural steel supports and/or angle frame supports which are needed to support equipment and or piping provided by this Subcontract, whether reflected or not within the Contract Documents and which are not specifically designated to be provided by another Subcontractor. The HVAC Subcontractor shall be responsible for obtaining written approval, and/or manufacturer's approval for all attachments (i.e. beam clamps, all thread hangers, Uni-strut, clamps, braces, etc.) to other Subcontractors work prior to commencing with the installation of said attachments. Failure to obtain written approval from the respective Subcontractor, manufacturer, and/or Designer may result in rejection of the installation(s). Also, install all hanging wires, supports, etc. to meet requirements as required by the technical specifications and/or governing code for all equipment, etc. as provided as part of this Scope of Work, where specific equipment, etc. is scheduled within an acoustical paneled ceiling system, suspended gypsum ceiling system and/or at an exposed structure condition.

23.0.14 Rooftop Units (RTU) - furnish and install all associated equipment and materials for a complete system, per the contract documents.

23.0.15 Power Ventilators - furnish and install all associated equipment and materials for a complete system, per the contract documents.

23.0.16 Hydronic System – furnish and install all associated equipment and materials for a complete system, per the contract documents.

23.0.17 Variable Air Volume Terminal Units – furnish and install all associated equipment and materials for a complete system, per the contract documents.

23.0.18 Variable Refrigerant Flow System – furnish and install all associated equipment and materials for a complete system, per the contract documents.

23.0.19 Energy Recovery Ventilators - The HVAC Subcontractor shall furnish and install all energy recovery ventilators, including but not limited to filters, motors, controls, fans, dampers, filters, heat wheels,

compressors, packaged refrigerant systems, indirect gas furnaces, enthalpy, wheels, pre-fab roof curbs, etc. per the contract documents.

23.0.20 Ductless Split-System Air Conditioning Units / Split-System Air Conditioners – provide and install all ductless split-system air conditioning units complete and all split-system air conditioners complete including evaporator-fan units, compressor-condenser units in accordance with the contract documents.

23.0.21 Roof Curb Assemblies – The TPO Membrane Roofing Subcontractor(s) shall include flashing all penetrations, equipment roof curbs, and pipe roof curbs scheduled or required within the designated flat or standing seam roof system (if applicable) to accommodate equipment or work provided by this Subcontractor. The PVC Membrane Roofing Subcontractor(s) shall closely coordinate this work with HVAC, Plumbing, and Electrical Subcontractors. All Roof Curbs required to complete or accommodate this scope of work shall be furnished and installed by the HVAC Subcontractor prior to roofing membrane install.

23.0.22 This Subcontractor shall furnish and install condensing units, air handlers, ductless split system units, packaged air-cooled heating and cooling units, air distribution devices, fans, electric unit heaters, wall heaters, coils, etc. per contract documents including all accessories and piping.

23.0.23 Furnish and install all piping as it relates to work within this trade package, including valves, fittings, sleeves, hangers, supports, etc. as required for a complete HVAC system, per the contract documents.

23.0.24 HVAC Subcontractor shall furnish and install all metal duct, duct board, flex duct, diffusers, registers, grilles, heat detectors, hangers, structural support framing, duct and pipe insulation, and their accessories in accordance with contract documents. Flex duct shall be limited to the lengths indicated on the contract documents.

23.0.25 HVAC Subcontractor to furnish and install insulation on all ductwork and piping including mineral wool, elastomeric thermal insulation, removable insulation covers, duct liners, vapor retarders, accessories & attachments as indicated on contract documents.

23.0.26 Subcontractor ensures all dryer exhaust venting and bath exhaust venting shall be installed in accordance with the maximum distances and bends as allowed by the contract documents and applicable building codes.

23.0.27 Subcontractor shall verify and ensure installation of all intake openings are located the minimum distance per code from all exhaust locations.

23.0.28 Subcontractor shall furnish and install all transfer grills, per the contract documents.

23.0.29 Subcontractor shall install refrigerant lines. Refrigerant lines to be installed per the manufacturer's recommendations. Refrigeration service tubing with brazed joints. All refrigerant line piping shall

be in accordance with the contract documents, building codes, and applicable energy codes. The Subcontractor acknowledges that all refrigerant insulation thicknesses have been reviewed and accounted for per all applicable codes.

23.0.30 Coordinate rough-in locations with all substrates as required including but not limited to clearances and openings in roof frames, roof decking, structural steel, masonry walls, metal stud walls and ceilings, etc. with each respective trade subcontractor. Ensure that any wall coring for through wall piping is installed per the architect's guidelines. Cutting of roof membrane by others. Subcontractor shall coordinate termination of roof penetrations with the Contractor and Roofing Subcontractor.

23.0.31 Subcontractor shall coordinate location of rooftop equipment, line-set, etc. locations and penetrations with the Roofing and Electrical subcontractors.

23.0.32 Subcontractor shall furnish and install all dampers for this scope of work including but not limited to barometric dampers, motor operated dampers, radiation dampers, manual volume dampers, low pressure smoke-fire dampers, low pressure fire dampers, smoke-fire dampers with rated access doors or panels per the contract documents and applicable building codes. All actuators on dampers shall be per the contract documents. All dampers shall be UL listed where required.

23.0.33 Duct detectors shall be factory installed in each RTU and wired for unit shutdown and FACP interlock by Electrical / Fire Alarm Subcontractor, as required per the contract documents.

23.0.34 All required thermostats and associated wiring are included in this subcontract agreement.

23.0.35 Supporting Devices - This Work shall include providing all related supporting devices, including but not limited to, hangers and supports, compliance with applicable wind loads, seismic restraints, if required by the specifications or building code, saddles, vibration isolation hangers, This Subcontractor shall be responsible for obtaining written approval for all attachments (i.e. beam clamps, all thread hangers, galvanized angle, Unistrut, clamps, braces, etc.) to other subcontractors work prior to commencing with the installation of said attachments. Failure to obtain written approval from the respective Subcontractor and/or Designer may result in the rejection of the installation(s). Also install all hanging wires, supports, etc. to meet seismic requirements, where required by the technical specifications and/or governing code for all equipment, etc. provided as part of this Scope of Work, where specific equipment, etc. is scheduled within an acoustical paneled ceiling system, suspended gypsum ceiling system and/or at an exposed structure condition. All code required vibration isolation and piping supports are included.

23.0.36 HVAC Subcontractor responsible for furnishing and installing all piping specialties including, but not limited to, escutcheons, floor plates, fittings, flexible pipe connectors, etc. as indicated in the contract documents. Provide and install all required vibration isolation and piping expansion supports.

23.0.37 This Subcontractor to provide cleaning of ductwork as required. This shall include protecting all stored and installed ductwork with temporary dust covers during storage and installation.

23.0.38 Provide all identification or labeling of this trade's work, including but not limited to Equipment Label Schedule, equipment labels, equipment markers, access panels & door markers, warning signs, warning labels, pipe labels, duct labels, valve tags, etc. as required for complete HVAC system labeling and identification.

23.0.39 As-built drawings to be provided where installation differs significantly from design drawings. Other coordination to be performed in onsite meetings. If conflicts are found, no additional costs will be accepted for the required relocation of duct or plenum work due to lack of coordination with other trades. Provide /confirm locations of ceiling mounted devices. Provide a detailed drawing of each mechanical room. Provide layout of concrete equipment pads.

23.0.40 Furnish and install all condensate drain piping, pans, splash blocks, etc. Routing of condensate drains included per the contract documents.

23.0.41 Subcontractor shall furnish and install pumps for condensate lines as needed or required, per the contract documents and authority having jurisdiction.

23.0.42 All conduit and low voltage electrical work associated with this subcontract shall comply with electrical portion of the contract documents.

23.0.43 Materials in each area of the building shall comply with NEMA classifications noted in the plans and specifications. This includes hanger and support materials, conduits, fasteners, joint fillers, etc.

23.0.44 Include providing and installing all disconnects to all HVAC equipment as set forth within the respective equipment schedule and contract documents.

23.0.45 Hoisting – This Subcontractor shall provide all Hoisting as required to facilitate this scope of work, including but not limited to, insurance, certified operator(s), certified riggers, inspections, lighting, flagmen, communication devices and all other incidentals required for safe operations. Note that multiple cranes may be required to meet the project schedule requirements. The use of helicopters for equipment installation/setting is allowable. However, all coordination, permitting, and possible weekend work is by this subcontractor.

23.0.46 Include final low voltage connections to all HVAC equipment, whether furnished by this Subcontractor or the Owner.

23.0.47 SafeAir CO/NO2 Vehicle Exhaust system to be Owner supplied and installed. Subcontractor shall include coordination and tie-in with this scope of work as necessary, per the contract documents and associated manufacturer.

23.0.48 Provide all independent testing, balancing, and adjusting of all systems. Final test and balance certified report to be submitted for approval within two weeks after field adjustments are completed.

23.0.49 Control wiring, CO2 sensors and all line and low voltage control and interlock wiring for all items provided or included within this scope of work shall be provided, as required by the plans and/or specifications, particularly as they concern code compliance. Control wiring not shown as being provided by Electrical Subcontractor shall be provided by the HVAC Subcontractor.

23.0.50 The Electrical Subcontractor will provide electrical service to and final connections for HVAC equipment, etc. provided as part of this Scope of Work, however, any electrical or control service not specifically provided by the Electrical Subcontractor and required by the HVAC Subcontractor shall be provided by the HVAC Subcontractor per contract documents.

23.0.51 The HVAC Subcontractor shall provide all necessary Owner training related to the different mechanical equipment being provided as part of this Scope of Work.

23.0.52 Subcontractor will coordinate, cooperate, and work with the Electrical, Fire Alarm, Plumbing, and Elevator Subcontractors with regards to overlapping scopes of work, involving detectors, modules, relays, etc.

23.0.53 The HVAC, Plumbing, Sprinkler, and Electrical Subcontractors shall coordinate their work closely with each other and the Drywall/Acoustical Ceilings Subcontractor as to provide /confirm locations of their ceiling mounted devices. The Plumbing Subcontractor is to meet with and coordinate with the Electrical, HVAC, Utility Piping, and the Sprinkler Subcontractor, to ensure that between the four subcontractors, all items whether Electrical, Plumbing, HVAC, Utility Piping, or Fire Protection related will be provided as needed and that the installation of any items will be completed by one or the other Subcontractors without any additional expense to the General Contractor or Owner.

23.0.54 This trade shall be responsible for coordinating with other trades work to ensure all conflicts are resolved prior to fabricating equipment and/or materials.

23.0.55 This Subcontractor shall install MEP Systems and equipment arrangements in a fashion to provide maintenance access and service by grouping and positioning valves and fire alarm connections where possible in accessible locations.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Heating, Ventilating, and Air Conditioning** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
23A - HEATING, VENTILATING, AND AIR CONDITIONING SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

26A ELECTRICAL, 27A COMMUNICATIONS, and 28A ELECTRONIC SAFETY & SECURITY SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Electrical, Communications, and Electronic Safety & Security** in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Electrical, Communications, and Electronic Safety & Security** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
26 05 00	General Electrical
26 05 19	Building Wire and Cable
26 05 26	Grounding and Bonding
26 05 29	Supporting Devices
26 05 33	Conduit
26 05 34	Boxes
26 05 48	Vibration and Seismic Controls for Electrical Systems
26 05 53	Electrical Identification
26 05 80	Equipment Wiring Systems
26 08 13	Commissioning of Electrical Systems
26 24 16	Panelboards
26 24 21	Utility Service Entrance

26 27 26	Wiring Devices
26 27 27	Occupancy Sensors
26 28 13	Fuses
26 28 16	Enclosed Switches
26 28 17	Enclosed Circuit Breakers
26 32 13	Diesel Engine Generators
26 36 00	Transfer Switches
26 43 13	Surge Protection Devices
26 51 00	Interior Lighting
27 05 10	Telecommunications Pathways
27 15 00	Data and Voice Communications Circuits
28 05 13	Conductors and Cables for Electronic Safety and Security
28 31 11	Digital, Addressable Fire-Alarm System

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
GEN. NOTE	**This Subcontractor is responsible for complete Specifications package as it relates to the Electrical, Communications, and Electronic Safety and Security scope of work.**
Division 3	Concrete
Division 4	Masonry
Division 5	Metals
Division 7	Thermal and Moisture Protection
Division 8	Openings
Division 9	Finishes
Division 11	Equipment
Division 21	Fire Suppression
Division 22	Plumbing
Division 23	Heating, Ventilating, and Air Conditioning
Division 31	Earthwork

The **Electrical, Communications, and Electronic Safety and Security Subcontractor** shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities

identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Electrical, Communications, and Electronic Safety and Security Subcontractor** is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

3.0 CONCRETE SCOPE OF WORK DESCRIPTION

3.0.1 Cast-In-Place Concrete - Equipment / Housekeeping pads clearly defined within the contract documents or communicated by this Subcontractor will be provided by the Concrete Foundations, Walls, & Slabs Subcontractor. This Subcontractor shall be responsible for coordination and layout of the equipment / housekeeping pads required for this scope of work.

3.0.2 Subcontractor is specifically aware of and accepts their responsibility for underground/under-slab layout for this scope of work and will coordinate with to overlay their work with respect to the work of the other trades.

3.0.3 Subcontractor shall coordinate any concrete or masonry penetrations and is responsible for all sleeving/conduit material for operations within its scope of work. Shall the Subcontractor fail to coordinate prior to footings, building slab, elevated slab, or masonry wall construction it will be the responsibility of this Subcontractor to provide means for proper routing of piping, conduit, or systems per the contract documents at no additional expense to the Contractor. Any penetrations after-the-fact will require coordination with the Contractor and written approval from the Structural Engineer of Record and applicable Subcontractor prior to any cutting, coring, or drilling.

3.0.4 Unless specifically noted otherwise within a Trade Package Scope of Work, all sleeves, conduit, boxes, block outs, or embeds set or cast into concrete, masonry or other work shall be furnished and installed by the Subcontractor requiring these items to complete the installation of its respective work. The set items must be secured in place to prevent movement during the proceeding activity. Additionally, these items shall be provided in a timely manner so as not to delay the concrete, masonry, or other work. In the event the Subcontractor requiring the sleeve(s) or embed(s) fails to provide them in a timely manner, the Subcontractor requiring the sleeve(s) or embed(s) will be required to bear the cost associated with cutting and patching the work to properly install the sleeve(s) or embed(s). Provide coordination drawings for openings. Include rough-opening sizes and locations for roof mounted HVAC units for coordination with the Roofing and Structural Steel Subcontractors.

3.0.5 Subcontractor shall furnish, layout, and install all UL listed sleeving at steel decking, CMU walls, shaft walls, etc. for this scope of work. All sleeving materials to be approved prior to procurement and

install.

3.0.6 Cast-In-Place Concrete and Accessories – This Work shall include furnishing and installing all cast-in-place concrete and accessories, including but not limited to, all concrete materials for foundations, slabs on grade, elevated Lounge slab, elevated slab on metal decking (mezzanine), column block out concrete, stair landing fill, stair pan fill, concrete walls, concrete steps, steel step nosing on grade, interior concrete equipment housekeeping pads, etc. in accordance with the concrete finishes specified, concrete floor sealers, curing compounds, expansion joints, slab on grade vapor barriers, non-shrink grout, saw cut joints, water-stop, diamond dowels, smooth bar dowels , etc. as required to complete this concrete scope of work.

5.0 STRUCTURAL STEEL SCOPE OF WORK DESCRIPTION

5.0.1 Provide a to scale drawing providing dimensioned sizes and locations for all decking openings requiring miscellaneous framed openings during submittals for review and use by other trades as necessary.

5.0.2 Coordinate all routing, required clearances, and openings for this scope of work with the Structural Steel Subcontractor and Contractor to ensure required clearances are incorporated into Structural Steel design and shop drawings.

5.0.3 Provide scaled drawings providing dimensioned sizes and locations for all openings requiring miscellaneous framed rough openings. Subcontractor shall identify conflicts with structural and light gauge steel and communicate required openings and/or clearances. Provide these drawings and dimensions in a timely manner that will not slow the flow of submittals and production of structural steel.

7.0 THERMAL AND MOISTURE PROTECTION SCOPE OF WORK DESCRIPTION

7.0.1 Firestop Systems – All penetrations through walls, ceilings, and/or floors shall be sealed to meet or exceed the requirements of the Contract Documents and all building codes, fire codes, etc., applicable to this project. Additionally, all penetrations shall be sealed with the required firesafing or firestopping materials to meet or exceed the fire rating requirements of the applicable wall, ceiling, and/or floor assembly as acceptable to the General Contractor, Designer, and governing authorities.

7.0.2 The Electrical, Communications, and Electronic Safety and Security Subcontractor will complete all penetration firestopping and firesafing for penetrations provided as part of this Scope of Work at all walls, floor, and ceiling types. Subcontractor penetrating (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.) masonry partitions shall provide properly sized sleeves or core drill penetrations within all masonry walls. All through slab firestopping and sleeves are by the Subcontractor requiring the penetration (HVAC, Plumbing, Electrical, Fire Protection, Security, Controls, etc.).

7.0.3 The installing Subcontractor must provide UL approved details for each firestopping condition. If among the specified firestop manufacturers, no approved firestop assembly exists for non-standard openings in need of firestopping, mock-ups may be required for any proposed engineering judgment designs for approval by the General Contractor, the Architect, the Owner and/or the authority having jurisdiction prior to final firestop installation. Accepted in-place mock-ups will be accepted as final work. All engineering judgements must be sealed by licensed North Carolina engineer provided by the installing Subcontractor.

7.0.4 Firestopping installers must provide proof of Factory Mutual Firm 4991 certification and approval. Work must be performed by installer who must provide evidence that they have been trained and achieved a passing score in a competency-based testing by the manufacturer whose products will be installed. All firestopping materials will be supplied by only one of the specified manufacturers. Mixing manufacturers materials will not be permitted. All subcontractors are required to use the same firestopping manufacturer. This Subcontractor shall coordinate with the Drywall, Framing, and Insulation Subcontractor and other MEP trades to ensure a single-source manufactured product is used for firestopping activities.

7.0.5 Joint Sealants - This Work shall include a complete Joint Sealant System, including but not limited to, all specified warranties, elastomeric joint sealants, solvent-release-curing joint sealants, latex joint sealants, miscellaneous joint sealants, backing, primer, cleaners, bond breaker tape, masking tape, accessory materials, etc. Include tooling, cleaning, and protection of all sealant joints.

7.0.6 Subcontractor shall be responsible for properly flashing all exterior penetrations made for installation of this scope of work, per this scope of work and the contract documents.

8.0 OPENINGS SCOPE OF WORK DESCRIPTION

8.0.1 This Subcontractor shall furnish and install all access doors required for this scope of work. Subcontractor shall coordinate keying with the Contractor and Owner. Access doors and panels in walls, ceilings or other surfaces shall be coordinated with subcontractors providing the substrate. Verify / coordinate a consistent manufacturer via submittal to architect via Contractor.

9.0 INTERIOR FINISHES SCOPE OF WORK DESCRIPTION

9.0.1 Subcontractor shall be responsible for any associated costs with cutting, patching, and replacement of finishes due to any repairs, errors, or omissions due to the fault of this Subcontractor. Subcontractor shall be responsible for proof of damage by others that results in cutting, patching, and replacement of finishes.

26.0 ELECTRICAL SCOPE OF WORK DESCRIPTION

26.0.1 This Subcontractor shall furnish all labor, materials, tools, taxes, insurance, equipment, hoisting, English speaking supervision, temporary utilities, and any other incidentals necessary to provide a complete Electrical Systems Package in accordance with the contract documents as well as the

following clarifications.

26.0.2 The coordination (BIM clash detection), installation, startup, and proper operation of this scope of work is the responsibility of this Subcontractor.

26.0.3 Subcontractor is to obtain all necessary approvals for this scope of work including insurance underwriters, governmental agencies, or other authorities as may be required. Subcontractor warrants that system installation is in accordance with all codes, industry standards, and good engineering practice.

26.0.4 Codes, Permits, and Inspection - All Electrical work shall meet or exceed all applicable code requirements. Obtain and pay for all necessary permits, design review fees, and inspections associated with this work.

26.0.5 This Subcontractor is responsible for all necessary wall or roof cutting and penetrations required for the installation of this scope of work. Subcontractor shall coordinate sequence, termination, and proper waterproofing of penetrations for this scope of work with the Contractor and associated Subcontractors.

26.0.6 All penetrations will be sealed to meet code. Pipes, boxes, or sleeves need to be installed prior to GWB partitions being constructed to eliminate return trips by other trades. If pipes or sleeves are not installed prior to GWB partition construction, it will be this trade's responsibility to perform all patching. Coordinate install of pipes, boxes, and/or sleeves with the Contractor, Masonry, Concrete, Roofing, and Siding trade subcontractors, as necessary. If pipes, boxes, or sleeves are not installed in proper sequence with these trades as necessary to incorporate these components within the building envelope and finishes, it will be this trade's responsibility to perform all patching.

26.0.7 Provide coordination drawings for this scope of work. Coordination drawings to be overlain on other Plumbing, HVAC, Sprinkler, and Reflected Ceiling Drawings for a complete understanding of above ceiling space. If conflicts are found, during or after installation due to lack of coordination with other trades this Subcontractor shall be responsible for the associated costs. Provide and confirm locations of ceiling mounted devices.

26.0.1 Provide all testing and commissioning required for this scope of work per the requirements of the contract documents.

26.0.8 Subcontractor shall be responsible for verifying all requirements and coordinate the exact location of incoming power with the local power company Duke Energy. It shall be this Subcontractor's responsibility to notify the Engineer of Record via the General Contractor should any changes be required.

26.0.9 Electrical System – This Work shall include providing a complete Electrical, Fire Alarm, Security & Structural Cabling package as defined within this Scope of Work, the contract documents related

to the Site & Building Electrical, Fire Alarm, Security & Structural Cabling & Telecommunications, Grounding, Lightning Protection, testing, work of this project.

26.0.10 General - This Work shall include a complete Electrical, Fire Alarm, Security System, and Structural Cabling System, including but not limited to, permits, shop drawings, excavation, trenching, backfilling, compaction, warning tape, cleaning, painting, where required, labels, electrical materials, installation and operating instructions, equipment connections, O & M Manuals, Certificates, sleeves, floor, wall and ceiling access doors and plates, etc., as required to provide a complete functional Site & Building Electrical, Fire Alarm, Security & Structural Cabling System for this project approved by the local or state governing authority.

26.0.11 Electrical, Fire Alarm, Security, and Structural Cabling Work - This Work shall include providing all Electrical, Fire Alarm, Security, and Structural Cabling work including but not limited to, all designated empty conduits with pull strings serving various electrical systems, new service feeders and conduit, telecommunication duct banks, maintenance holes (Cast-in-place or Precast), hand holes, site lighting conduit, flagpole site lighting, future EV charging stations, security system, security cameras, data system, fire main and domestic water hot box heat tape and circuits, primary service feeders, secondary service feeders, wiring, cabling, conduit, junction boxes, pull boxes, accessories and other incidental items to complete all Electrical, Fire Alarm, Security, and Structural Cabling work designated within the Contract Documents.

26.0.12 Where specified for this Scope, provide all exterior lighting fixtures including, but not limited to pole mounted fixtures, bollard fixtures, surface mounted fixtures, ground recessed fixtures, GFI receptacles, pole bases as required or specified, per the contract documents.

26.0.13 Main Service Switchboard - This Work shall include complete main service switchboard, including but shall not be limited to, connections to factory assembled service entrance switchboard with bussing, switches, fuses, ground fault protection system, etc. per the contract documents. Conduits and feeders shall be run as designed and per the contract documents. Subcontractor shall coordinate the exact MCA/MOCP requirements of all equipment with other trades and General Contractor prior to ordering and installing any electrical switchboard or associated panel boards.

26.0.14 Lighting and Power Panel Boards - This Work shall include a complete Lighting and Power Panel Board System, including but shall not be limited to, frames, panels, circuit breakers, bus bar connections, cabinets, wiring, typewritten circuit identification, etc. per the contract documents.

26.0.15 Lightning Protection System – Provide a complete and certified lightning protection system per the contract documents.

26.0.16 Fuses - This Work shall include a complete Fuse System with spare fuse cabinet, per the contract documents.

26.0.17 Raceways - This Work shall include a complete Conduit System, including but shall not be limited to, power poles, cable tray, j-hooks, metallic conduit, electric metallic tubing, galvanized rigid steel

conduit, rigid PVC conduit, plastic conduit, fittings, couplings, connectors, insulated bushings, etc. as specified within the Contract Documents and as required by code. Pull strings shall be provided for all spare or future conduits by this Subcontractor as specified. Subcontractor has included turnkey conduit as required for power to systems provided by other trade subcontractors.

26.0.18 Conductors - This Work shall include a complete Conductor System, including but shall not be limited to, conductors and ground wires, conductor insulation, wire, cables, color coding, etc. per the contract documents.

26.0.19 Busways - This Work shall include a complete Busway System, including but shall not be limited to, conductor bus bars, electrical insulators, enclosures, flanges, elbows, offsets, tees, cable tap boxes, weather heads, transformer connections, power take off sections, reducers, expansion joints, end enclosures, accessories and other components to comprise a complete bus bar system.

26.0.20 Outlets and Device Plates - This Work shall include a complete Outlet and Device Plate System, including but shall not be limited to, cast metal type outlets, plaster rings, floor boxes, covers including blank cover plates over all existing device boxes not being reused and/or abandoned within an existing wall assembly, etc.

26.0.21 Wiring Devices and Device Plates - This Work shall include a complete Device and Device Plate System, including but shall not be limited to, switches, receptacles, device plates including blank plates over all boxes not in use, floor boxes and devices, etc.

26.0.22 Lighting Fixtures and Lamps - This Work shall include a complete Lighting Fixture and Lamp System, including but shall not be limited to, fixtures, lamps, ballasts, fixture supports, etc. This Subcontractor shall provide re-lamping of light fixtures in accordance with contract documents and prior to Owner Final Acceptance and Occupancy as directed by the General Contractor.

26.0.23 Disconnect Switches - This Work shall include a complete Disconnect Switch System, including but not limited to disconnect switches, toggle switches, fuses, etc. Include padlocks and keys for disconnect switches, if applicable, serving designated equipment.

26.0.24 Starters and Controls – Subcontractor shall mount starters furnished by the HVAC and Plumbing subcontractors, the Electrical subcontractor provides all safety switches, wiring, and connections to line side and load side of starters and safety switches complete to HVAC and Plumbing equipment. For resistance type loads where starters or contactors are not required, the Electrical Subcontractor shall provide all power wiring and connections complete to equipment.

26.0.25 Dry Type Transformers - This Work shall include a complete Dry Transformer System, including but shall not be limited to, dry type transformers with enclosures, insulation, electrostatic shields, etc. per the contract documents.

26.0.26 Pull Boxes, Junction Boxes and Fittings - This Work shall include a complete Pull Box, Junction Box and Fitting System per the contract documents.

26.0.27 Grounding and Bonding - This Work shall include a complete Grounding and Bonding System, including but shall not be limited to ground rods, connections, chemical welds, grounding of all motors and electrical equipment, communication systems, etc. as specified by the Contract Documents. Subcontractor shall coordinate specific grounding and bonding requirements with the Contractor and associated trade subcontractors.

26.0.28 Equipment Identification - This Work shall include a complete Equipment Identification System, including but shall not be limited to, all engraved laminated plastic plates, directory frames and directory cards, etc. per the contract documents and AHJ. Engraved laminated plastic plates shall identify all electric apparatus. Also, all circuits shall have typewritten identification.

26.0.29 Plywood Backboards – This Work shall include providing and installing all required fire treated plywood backboards in phone and data areas per the Contract Documents.

26.0.30 Subcontractor shall provide electrical service to and final electrical connection of food service equipment for complete operating installation.

26.0.31 Building systems will be made operational to perform other trade's work at no additional costs to the General Contractor or Owner to maintain the specified warranties/guarantees. This trade shall provide all service and maintenance.

26.0.32 Electrical Supporting Devices - This Work shall include providing all electrical related supporting devices, including but shall not be limited to, hangers and supports, seismic hangers and supports, hanger saddles, vibration isolation hangers, and miscellaneous structural steel supports and/or angle frame supports which are needed to support equipment provided by this Subcontract, whether reflected or not within the Contract Documents and which are not specifically designated to be provided by another Subcontractor. Subcontractor shall be responsible for obtaining written approval for all attachments (i.e. beam clamps, all thread hangers, uni-strut, clamps, braces, etc.) to other Subcontractors work prior to commencing with the installation of said attachments. Failure to obtain written approval from the respective Subcontractor and/or Designer may result in the Contractor's rejection of the installation(s). Also install all hanging wires, supports, etc. to meet seismic requirements, where required by the technical specifications and/or governing code for all equipment, etc. provided as part of this Scope of Work, where specific equipment, etc. is scheduled within an acoustical paneled ceiling system, suspended gypsum ceiling system and/or at an exposed structure condition.

26.0.33 Building Automation System - This Work shall include providing a complete Building Automation System, Direct Digital Control System, Energy Management and Measurement System for the Heating, Ventilating, and Air Conditioning systems including but not limited to, wire, conduit and junction boxes at applicable building locations (reference following paragraph for further clarification), control devices, control cabinets, networking and software interface capability, installation of duct mounted smoke detectors furnished by this Subcontractor, personal computer work stations, fire stats, thermostats, contacts, pressure sensors, pressure transmitter, temperature sensors, control valves, dampers and actuators, network terminal, software, DDC

panels, digital controllers, testing, guarantees, maintenance and training and all other requirements to provide the Owner with a complete and operational system as specified within the Contract Documents.

26.0.34 This Subcontractor shall provide timely electrical service to and final connections for the HVAC equipment required to properly condition the building to accommodate the installation of the building's interior finishes. This work shall be accomplished so this equipment can be made permanently operational by no later than ten (10) calendar days prior to the commencement of the finishes within the building.

26.0.35 Lighting Control System- This Work shall include providing a complete direct Digital Lighting Control for the designated lighting systems, including but not limited to, wire, conduit and junction boxes at applicable building locations (reference following paragraph for further clarification), control devices, control cabinets, networking and software interface capability, personal computer work stations, network terminal, software, DDC panels, digital controllers, testing, guarantees, maintenance and training and all other requirements to provide the Owner with a complete and operational system as specified within the contract documents. Subcontractor is fully responsible for the interfacing and integration of the Lighting Control Systems with the BAS.

26.0.36 Control Wiring Conduit (masonry/drywall partition wall) Rough-ins - The Electrical, Fire Alarm, Security & Structural Cabling Subcontractor is responsible for furnishing and installing all in wall (masonry and drywall/metal stud wall assemblies) rough-in EMT conduit, miscellaneous device plates, device boxes, junction boxes and associated accessories to accommodate the HVAC control, Building Automation, Energy Measurement, Management Systems, Lighting Controls, Building Dashboard, etc. The extent of the installation shall be limited to installations within wall assemblies with conduits extending a minimum of six (6) inches from the face and/or top of the wall above the finish ceiling for future connection. Lighting Controls and low voltage wiring shall be provided by this Subcontractor. During the submittal phase of the project, the HVAC Subcontractor will provide all in wall rough-in locations to this Subcontractor.

26.0.37 Subcontractor shall coordinate this work with the HVAC Subcontractor, Masonry Subcontractor, Drywall, Metal Studs & Insulation Subcontractor, and General Contractor so that no adverse schedule delay occurs. It is this Subcontractor's responsibility to ascertain the quantity and cost of all in wall HVAC related wiring conduit and junction box drops included within this scope of work. Reference the Mechanical and Electrical contract documents for additional information and locations.

26.0.38 Subcontractor shall provide electrical power to all heat tape provided and installed by others.

26.0.39 Subcontractor responsible for all wiring and conduit to the SafeAir control panel, per the contract documents. SafeAir system supplied and installed by the Owner.

26.0.40 Subcontractor will provide electrical service to and final connections for tamper switches, flow switches, alarm bell, and other electrical devices provided by the Fire Protection Subcontractor.

26.0.41 Subcontractor shall provide electrical service to and final connections for all HVAC equipment, etc. provided by the HVAC Subcontractor and Owner, per the contract documents.

26.0.42 Subcontractor shall provide electrical service to and final connections for plumbing equipment, plumbing fixtures, water heaters, etc. provided by the Plumbing Subcontractor, per the contract documents.

26.0.43 Include power for all overhead doors even if power isn't shown on electrical drawings. Refer to Architectural drawings for locations; coordinate all work with Overhead Door Subcontractor and General Contractor.

26.0.44 This Subcontractor shall include cut outs and mounting for devices in ceiling tile required to complete this Scope of Work.

26.0.45 Subcontractor will provide and maintain a complete temporary power and lighting service including, but not limited to service power pole, distribution panels, lights, boxes, conduit, final connections, maintenance, re-lamping, etc. within the building and other incidentals necessary to furnish and install a temporary power supply to service the Construction at General Contractor's request.

26.0.46 Diesel Generator – This Subcontractor shall furnish and install a complete generator package per the contract documents. Generator package should include all materials, installation, start-up, testing, UL listings, associated specification requirements, associated gear and switching, sound attenuated enclosure, vibration isolation, fuel tanks (including fuel), batteries, alternators, cooling systems, controllers, overcurrent and fault protection, electronics, solid state breakers (including spares), jacket water heaters, guard systems, fuel oil cooler, exhaust manifold and turbo charger blankets, alarm and lamp indicator systems as specified, gauges and gauge panels, accessories, full tank of diesel, etc. This Subcontractor shall provide all required Owner training and maintenance periods as specified.

26.0.47 EV Charging Stations – Provide and install distribution with conduit and wiring for future EV Charging stations, per the contract documents.

26.0.48 The HVAC, Plumbing, Fire Protection, and Electrical Subcontractors shall coordinate their work closely with each other and the Drywall/Acoustical Ceilings Subcontractor as to provide /confirm locations of their ceiling mounted devices. The Plumbing Subcontractor is to meet with and coordinate with the Electrical, HVAC, Utility Piping, and the Fire Protection Subcontractor, to ensure that between the four subcontractors, all items whether Electrical, Plumbing, HVAC, Utility Piping, or Fire Protection related will be provided as needed and that the installation of any items will be completed by one or the other Subcontractors without any additional expense to the General Contractor or Owner.

26.0.49 This Subcontractor is to meet with and coordinate with the HVAC, Plumbing, Utility Piping, Fire

Protection, Overhead Door, Hollow Metal Door Frame & Hardware, Storefront, etc. Subcontractors to ensure that a complete system will be provided as designed and that the installation of any ancillary items will be completed by one or the other Subcontractors without any additional expense to the Construction Manager or Owner.

26.0.50 This Subcontractor has included turnkey supply and install of emergency push buttons and timers for applicable natural gas appliances.

26.0.51 This Subcontractor has included adequate temporary power with final connections for the Contractor's office trailer(s). This includes all heat traces as necessary on all trailer MEPF components to prevent freezing.

26.0.52 Subcontractor has included all applicable connections to all related components involving the fire sprinkler system, HVAC system, and electrical system, including alarms, switches, tampers, shutdowns, dampers, etc., as well as any other related scopes of work.

27.0 COMMUNICATIONS

27.0.1 Structured Cable – This Work includes a complete and operational Data and Voice Communications System including but is not limited to multi pair horizontal cabling, wiring, telecommunications closets builds, data relay rack frames, pre-finished backboards, vertical wire management, data outlet jacks, raceways, ladder trays, j-hook pathways, data outlets jacks, patch panels, patch cables, interior cables, wireless access point outlets, termination and testing, grounding system, backbone cabling, backboxes, conduit, cable tray, penetrations, and pathways per the contract documents.

27.0.2 Subcontractor shall furnish and install individual and combination telecommunications/data outlets, per the contract documents.

27.0.3 Subcontractor shall furnish and install termination devices, racks, and premises wiring for telephone and data communication circuits by certified manufacturers and contract installers with certification and testing of all equipment and cabling.

28.0 ELECTRONIC SAFETY AND SECURITY

28.0.1 Fire Alarm System – This Work includes a complete and operational Fire Alarm system including but is not limited to FACP, control panels, addressable interface device, digital alarm communicator transmitter, conduit, wiring, cabling, manual stations, remote annunciator, annunciators, batteries and battery back-ups, boosters, input and output modules, relays, recalls, signal devices, notification appliances, strobes, horns, magnetic door holders, pull stations, smoke detectors, heat detectors, duct detectors, hot box temperature sensor, certification, testing, BDA/ERRC monitoring including bypass key and power, etc. per the contract documents. Include Emergency Responder Radio Coverage system to be fully integrated as part of the Fire Alarm system as required by the AHJ and contract documents.

28.0.2 Subcontractor has included conduit, wiring, junction boxes, and final connections for monitoring of the fire service PIVs and applicable water service components.

28.0.3 Subcontractor shall provide interface and connections for HVAC unit shutdown where required per the contract documents and authorities having jurisdiction. This Subcontractor agrees that it is its own responsibility to coordinate all such connections with the HVAC Subcontractor and General Contractor prior to installation.

28.0.4 Subcontractor shall provide low voltage surge protectors and high voltage surge protectors for each fire alarm panel, per the contract documents.

28.0.5 Subcontractor shall furnish and install all fire alarm components with applicable UL ratings per the contract documents, approved submittals, and authority having jurisdiction.

28.0.6 Subcontractor shall schedule, with applicable local and state officials and/or agencies, a final inspection of the fire alarm system no later than two (2) weeks prior to the time the system is scheduled to be placed into operation.

28.0.7 BDA/Emergency Responder Radio Coverage – Subcontractor has included initial survey at two (2) separate times during construction.

28.0.8 Subcontractor has included 2” conduit for dedicated phone line for fire protection dialer and backup line from exterior cabinet to FACP.

28.0.9 Subcontractor shall coordinate all necessary power requirements with the General Contractor and Electrical Subcontractor for this scope of work.

28.0.10 Subcontractor will coordinate, cooperate, and work with the Fire Protection, HVAC, and Electrical subcontractors with regards to overlapping scopes of work throughout the duration of the project.

28.0.11 Subcontractor is responsible for providing all signage and/or permanent identification applicable to its scope of work required to be considered in compliance with all local, state, and federal regulations/codes.

28.0.12 Subcontractor shall coordinate any rated partition, steel, concrete, or masonry penetrations and is responsible for all sleeving material for operations within its scope of work. Shall this Subcontractor fail to coordinate prior to execution of work by others, it will be the responsibility of this Subcontractor to provide means for proper routing of their system per the contract documents at no additional expense to the General Contractor. Any penetrations after-the-fact will require coordination with the Contractor and written approval prior to any cutting, coring, or drilling.

28.0.13 Subcontractor shall provide training and support for Owner and end user per the contract documents.

28.0.14 Subcontractor shall perform all programing and commissioning necessary for turnkey operation of this scope of work in coordination with the Owner and property management.

28.0.15 Security System - This Work shall include a complete security system, including but not limited to, access control, intercom communication system, uninterrupted power system, interfaces, wire and cable, conduit, junction boxes, back boxes, detection devices, control panels, software, key readers, testing, accessories, etc. to comprise a complete security system.

28.0.16 Operable Doors/Electronic Hardware -- Step down transformers, micro switches, card readers, control wiring, and battery back-up, etc. shall be provided by this Subcontractor. Subcontractor shall supply and install all conduit rough-ins, junction boxes, power hookups, etc. for all electrically operated and control hardware, auto door operators, strike, operator, etc. Coordinate requirements and quantity with the Contract Documents. This Subcontractor shall coordinate and work with the Hollow Metal Door, Frame, and Hardware and Storefront Subcontractors to ensure complete and proper operation of all door and security systems.

31.0 SITEWORK SCOPE OF WORK DESCRIPTION

31.0.1 This Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. If for some reason an item of scope is included inadvertently in this scope of work and another trade package scope of work, this Subcontractor shall be responsible for including the subject scope of work within its base bid proposal.

31.0.2 Excavation, Trenching, Backfilling, Fine Grading and Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, fine grading, shoring and bracing, where required, pumping and dewatering, if required, and compaction work associated with the proper installation of all work required of this Subcontract. Excess excavated material shall be moved to a location specified by the Construction Manager.

31.0.3 Site Electrical Work - This work shall include providing all site electrical work and conduit with pull strings, including but not limited to, primary and secondary service feeders and conductors, utility provided site lighting, sewage pump station, exterior signage, flagpole lighting, fire main and domestic water hot box heat tape and circuits, future EV charging stations, diesel generator with transfer switch, temp power and lighting, telephone and data service provider, etc. with associated duct bank concrete, wiring, cabling, conduit, junction boxes, pull boxes, accessories and other incidental items to complete all site electrical work designated within the Contract Documents or Design Criteria Narrative.

31.0.4 Site Lighting - Provide and install all conduit for Duke Energy provided site lighting package, per the Contract Documents and Duke's specifications. Subcontractor to coordinate this work with Contractor and Duke.

31.0.5 Site Utilities Electrical and Communication Work – This Work shall include final wiring of all site utility related electrical items. This includes, but is not limited to, all tamper switches, flow switches, pump alarms, sump pump controls and power, heat traces, hotbox heaters, RPZ and backflow heating elements and switches, associated conduits/wireways, final connections, integration with fire alarm and other control panels, etc. Provide 4-inch diameter conduits from the property line demark point to the building service backboard location in Demarc Room as approved by the local telephone/ fiber utility. Provide hand holes for pulling every 300'-0" and at every 180 degrees of offsets in run or as required by Utility Company.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Electrical Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
26A ELECTRICAL, 27A COMMUNICATIONS, AND 28A ELECTRONIC SAFETY & SECURITY SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

31A, 32A, & 33A – EARTHWORK, EXTERIOR IMPROVEMENTS, & UTILITIES SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Earthwork, Exterior Improvements, & Utilities Package** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Earthwork, Exterior Improvements, & Utilities Package** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
31 20 00	Earthwork
31 25 00	Erosion Control
32 12 16	Asphalt Pavement
32 13 13	Site Concrete
32 17 00	Pavement Markings, Signs and Specialties
32 31 19F	Decorative Metal Fences and Gates – Montage II Classic 4-Rail
33 10 00	Exterior Water System
33 30 00	Sanitary Sewerage
33 32 00	Grinder Pump Station
33 41 00	Storm Drainage

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Earthwork, Exterior Improvements, & Utilities scope of work.**
Division 3	Concrete
Division 21	Fire Suppression
Division 22	Plumbing
Division 26	Electrical
Division 32	Exterior Improvements
Division 33	Utilities

The **Earthwork, Exterior Improvements, & Utilities** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Earthwork, Exterior Improvements, & Utilities** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise.

See below for all safety submittals required throughout the duration of the project:

SURVEYING

2.0.1 This Subcontractor is responsible for all Surveying work related to this scope of work required by the contract documents as well as herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work. Includes as-builts for this scope of work as required by the contract documents and AHJ.

2.0.2 This Subcontractor is responsible for all layout work, field engineering including vertical control, providing and maintaining lines and batter boards, protection of survey pins provided by others and coordination between its Subcontractors and other on-site subcontractors for all aspects

covered under this Scope of Work. Initial building corners and control points will be established by the Contractor for use by this Subcontractor to complete this Scope of Work.

2.0.3 Subcontractor shall utilize the services of a Professional Licensed Surveyor to establish control of the site.

2.0.4 The surveying scope of this project includes but is not limited to all layout, grade staking, and field engineering necessary to build the civil portion of the project. Subcontractor shall demonstrate the accuracy of the control and shall be ultimately responsible for its correctness for the duration of the project.

2.0.5 For duration of the project, Subcontractor shall establish, maintain, and verify correct horizontal and vertical control of the site and place benchmarks where visible for use by others.

2.0.6 This scope includes the location and staking of all civil components, including but not limited to LOD, silt fence, tree protection, ponds, sediment traps, setbacks, offsets, site grades, site paving, site stormwater system components, flag poles, all wet / dry utility installations etc. as it pertains to this scope of work per the contract documents.

2.0.7 Subcontractor shall assume reasonable responsibility of protecting these stakes and restoring the same if any stakes are damaged, removed, stolen, relocated, etc. at no additional cost.

2.0.8 Includes certification of building pad elevation(s). Building pad acceptance shall be based on verification of the building pad elevations by this Subcontractor via the certification process.

31.0 MASS / FINE GRADING SCOPE OF WORK

31.0.1 This Subcontractor is responsible for all earthwork required by the contract documents as well as herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

31.0.2 This Subcontractor shall provide a level pad with adequate gravel and/or base for the Contractor's temporary jobsite trailer at no additional cost to the Contractor. The location of the trailer pad will be determined between the Contractor and Subcontractor onsite.

31.0.3 Verification of Grading Design - Subcontractor has verified that the finished grades set forth in the contract documents, including the spoils from the work of others, reflect an export site and that no additional cost will arise out of necessary export of usable soils.

31.0.4 Verification of Existing Grades - This Subcontractor shall assume all responsibility for determining if existing grades/contours are in conformance with the information reflected within the Contract Documents. Contractor shall be notified in writing of the Subcontractor's acceptance or rejection of the existing topographical information prior to commencement of any grading operations. Failure to check the existing contours, etc., and once the site work grading operations begin shall forfeit

Subcontractor's right to make any claim for existing conditions which may differ from those outlined within the contract documents.

31.0.5 Clearing and Grubbing - This Work shall include but not be limited to, all layout, tree marking, protection of trees throughout the duration of the site work, tree removal, vegetation removal, topsoil removal and stockpiling at area designated by Contractor, clearing and grubbing work, demolition, tree protection fencing at all designated sites. Unless advised otherwise by Contractor, all resultant debris generated during the clearing and grubbing process including all trees, stumps, vegetation, etc. shall be removed and disposed of off-site at the cost of this Subcontractor.

31.0.6 Topsoil - This Work shall include, but not be limited to, stockpiling all stripped topsoil in a location(s) determined by Contractor and contract documents. This Subcontractor will redistribute/respread topsoil in all open/common areas. Subcontractor shall remove excess from the site as directed by the Contractor.

31.0.7 Earthwork - This Work shall include all earthwork and site grading work, including but not limited to, all topsoil stripping, storing, curb and gutter, paving, building slab backfill, cutting and filling, rough grading, surface roughening, and dust control measures, along with all minor dewatering work as required to maintain the Project Construction Schedule. It is understood that while screening of topsoil is excluded, no rocks or gravel larger than 2" shall remain in seeded and or landscaped areas.

31.0.8 Coordinate final grades with follow-on subcontractors where required including but not limited to: Irrigation and Landscaping, Concrete Foundations Walls and Slabs, Concrete Paving, and others where subgrade coordination is required.

31.0.9 Subgrade/Final Grade Preparation - This Work shall include, but not be limited to, cutting, filling, compacting, and grading work necessary to accommodate all asphalt and concrete paved areas including light duty and heavy duty asphalt paved drives/parking areas, etc., concrete sidewalks, concrete medians/islands, site concrete pads, building concrete slabs, etc. to the underside of the concrete slab/pad base course, concrete sidewalk, or applicable graded aggregate base (GAB) course.

31.0.10 Final grades shall be to within plus or minus one tenth of one foot for each system's subgrade elevation and/or finished grade elevation depending upon the work requirement (most stringent of specifications shall govern). Subcontractor shall coordinate with the Contractor and associated Subcontractors.

31.0.11 Excavation, Trenching, Backfilling, Fine Grading, & Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, fine grading, shoring, and bracing, where required, compaction work associated with the proper installation of all work required of this Subcontract. and all minor dewatering work as required to maintain the Project Construction Schedule and complete this Scope of Work. Heavy groundwater dewatering is excluded. All excavation, trenching, backfilling, fine grading, and compaction work shall be completed in accordance with the use of safe excavation practices, governed by the Occupational Safety and Health Administration (OSHA).

31.0.12 In all areas receiving fill materials, the soil shall be proof rolled and approved by the 3rd Party Geotech prior to the placement of any fill material. All fill material is to be tested and compaction approved as the work is placed and completed. All fill shall be compacted as required by the contract documents and the local governing authority.

31.0.13 Prior to use, borrow material, if required, must be approved by the 3rd Party Geotech designated for the project.

31.0.14 Advanced preventive measures to anticipate rainfall and then minor dewatering work as required to maintain the Project Construction Schedule and complete this Scope of Work are included in this Subcontract. Dewatering to be completed immediately after weather events.

31.0.15 Fill that is too wet for proper compaction shall be disked, harrowed, or otherwise dried to a proper moisture content for compaction to the required density. If the fill material cannot be dried as needed to maintain the project schedule, it shall be removed and replaced with drier fill or reconditioned with lime per approved Unit Prices and 3rd Party Geotech's recommendations. If drying operations result in a stoppage in production, it may be determined that drying efforts shall continue and be paid as part of an allowance per approved drying unit rates.

31.0.16 Fill that is too dry for proper compaction shall be wetted to achieve the required moisture content for compaction to the required density, per the contract documents and 3rd Party Geotech. Subcontractor has included the necessary measures to wet fill soils as necessary per the 3rd Party Geotech.

31.0.17 This Subcontractor shall leave all areas of the project in a condition that will naturally drain. If water accumulates, this Subcontractor shall be responsible for dewatering as required to maintain the Construction Schedule at no additional cost. Additionally, as a wet weather prevention measure, this Subcontractor shall compact, drum roll and slick off all work areas each day with a slick drum roller to seal off the graded substrate to help keep water from penetrating into the soil which may impede construction work due to inclement weather.

31.0.18 This Subcontractor is responsible for removing spoils generated by other trades. Any trades generating spoils will locate them to a single central location designated by Contractor for use on-site or removal by this Subcontractor.

31.0.19 Dust and Mud Control – While onsite, this subcontractor shall provide water truck equipment and associated manpower as required by Contractor, 3rd Party Geotech, OSHA, or Owner to ensure that dust and/or mud is properly controlled on the project site.

31.0.20 Classified and Unclassified Portions of the Sitework – below is a summary of the responsibilities associated with potential sitework variables. The term Classified means that variables leading to additional work shall be the responsibility of the Owner through the Contractor. The term Unclassified means any variables leading to additional work shall be the responsibility of the

Subcontractor at no additional cost to the Owner or the General Contractor:

i. Groundwater - Classified
ii. Undercut of In-situ Material beyond the scope of Contract Scope– Classified
iii. Unsuitable Soils not Suitable for Fill – Classified
iv. Mass Rock, Rib rock and trench rock – Classified.

EROSION & SEDIMENT CONTROL / TEMP SEEDING SCOPE OF WORK

31.0.21 This Subcontractor is responsible for all Work described in the contract documents as well as herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

31.0.22 Subcontractor shall have on staff or shall hire a properly credentialed SWPPP technician to ensure compliance with all State stormwater regulations and to conduct regular inspections for the duration of the stormwater permit. Inspections by Subcontractor / reporting by Contractor.

31.0.23 This Work shall include, but not be limited to, providing, installing, maintaining for the duration of the project, and removing - all sediment barriers, silt fencing, diversion ditches, silt sacks, temporary filter berm basin, inlet sediment traps, baffles. limits of disturbance, storm drain outlet protection items, temporary seeding of all disturbed areas due to installation of this scope, construction edifices, and temporary construction entrance/exits. ALL REQUIRED EROSION CONTROL MEASURES (I.E. SILT FENCING, TEMP SEDIMENT TRAPS, ETC.) SHALL BE INSTALLED PRIOR TO COMMENCING WITH ON-SITE GRADING OPERATIONS. Comply with all NCDEQ and other AHJ (City of Wilmington, NCDOT, etc.) requirements as needed to perform this work. Includes removal of all temporary erosion control materials from the site when AHJ(s) permits removal.

31.0.24 All silt fence posts will have impalement protection caps installed for the length of their service life.

31.0.25 This Subcontractor shall be responsible for ensuring the adjacent roadways are kept free of mud and debris, during execution of this scope of work. River Road shall be kept to the satisfaction of Contractor and/or the local governing authority associated with the project while this subcontractor is onsite.

31.0.26 This Subcontractor shall be responsible for temporary seeding and tacking all disturbed areas in accordance with the seeding schedule provided in the plans and specifications. All seeding, matting, mulching, and tacking shall take place as soon as possible and as governed per NCDEQ requirements.

31.0.27 This Subcontractor shall fine grade all affected areas that are damaged due to removing the erosion control devices, silt accumulation, etc. to receive permanent grassing by the Landscaping and Irrigation Subcontractor. Coordinate as required with Landscaping and Irrigation subcontractors as required for meeting required finish grades at all areas.

31.0.28 This Subcontractor shall be responsible for providing, installing, maintaining, and removing all concrete waste and wash-out facilities per the plans and specifications. This scope shall include, but not be limited to, all sheeting, sandbagging, liners, excavations, signage, and maintenance of all such

materials for the duration of the project. This area will be removed prior to substantial completion.

31.0.29 Construction entrances shall be installed and maintained by this Subcontractor until such time they must be removed, per the contract documents. Removal is also by this Subcontractor.

32.0 ASPHALT PAVING SCOPE OF WORK

32.0.1 Fine Grading - This Work shall include, but not be limited to, fine grading of all subgrade and stone base as required for this scope of work, per the contract documents.

32.0.2 Stone Base – This work shall include, but not be limited to, furnishing, and installing all stone base including hauling, placement, roll-in, compaction, grading, and maintaining stone base for asphalt, concrete paving, and curb / gutter scope of work, per the contract documents.

32.0.3 Hot-Mix Asphalt Paving - This Work shall include, but not be limited to, all heavy duty and light duty asphalt pavements, mountable curbing, fine grading, compacted stone base, base coarse aggregate, if specified, bituminous tack coat, bituminous hot plant asphaltic binder and wearing courses, etc. in thickness shown and as required to provide complete asphalt pavement systems, per the contract documents. Additionally, provide mechanical broom cleaning, etc. of the asphalt binder or wear course prior to placement of final lift asphalt surface, etc. as required by the contract documents.

32.0.4 Adjustment of Tops/Grates/Covers - The Subcontractor shall adjust to appropriate finish grade elevations all tops, grates, and covers associated with the sanitary sewer manholes, catch basins, drop inlets, grate inlets, meter valve boxes, site utilities, etc. located within or directly in contact with an asphalt and concrete pavement system.

32.0.5 Striping & Signage Package – This work shall include, but not be limited to, asphalt striping, directional striping, handicapped striping, parking striping, traffic and parking signage, etc. for a complete striping and traffic/parking signage package, per the contract documents. Thermoplastic striping included as required by AHJ.

32.0.6 This Subcontractor shall ensure that all work is to provide positive drainage without interruption or ponding of water. If ponding or “bird-bathing” occurs, this Subcontractor is responsible for making all repairs necessary to eliminate bird-bathing and achieve final acceptance by the Civil Engineer and Owner.

32.0.7 Repairs of concrete and adjacent structures damaged during installation of this scope of work shall be this Subcontractor's responsibility.

32.0.8 This Subcontractor shall provide proper (as determined by site-superintendent, governing authorities, and OSHA requirements) traffic plan and control services utilizing 3rd party as necessary while performing any work in roadways, thoroughfares, or within DOT right of ways.

32.0.9 Sawcut existing pavement at the junction where the new pavement ties into the existing pavement.

32.0.10 Paving for light duty areas will take place in one (1) mobilization at the same time as surface course for heavy duty areas.

32.0.11 Paving for heavy duty areas will take place at two (2) separate mobilizations: one for intermediate course and one (1) for surface course.

32.0.12 This is a lump sum contract and quantities are per the contract documents. Payment or final contract values will not be based on verification of final quantities.

32.0.13 The paving price in this subcontract is based on the **April 2024 NCDOT** monthly terminal asphalt binder price of **$593.75 per liquid ton.** Any adjustments (up or down) that need to be made will be negotiated and reconciled prior to completion of each paving exercise.

32.0.14 Sawcut existing pavement at the junction where the new pavement ties into the existing pavement.

33.0 SITE UTILITIES SCOPE OF WORK

33.0.1 Excavation, Trenching, Backfilling, Fine Grading & Compaction - This Work shall include, but not be limited to, all excavation, trenching, backfilling, fine grading, shoring, and bracing, where required, pumping and dewatering, if required, and compaction work associated with the proper installation of all work required of this Subcontract. All excavation, trenching, backfilling, fine grading and compaction work shall be completed in accordance with the use of safe excavation practices, governed by the Occupational Safety and Health Administration (OSHA). Permits and Inspections by AHJs for Site Utilities are to be provided by this Subcontractor.

33.0.2 All bedding and fill material shall be compacted, tamped (at specified lift increments) and approved by the 3rd Party Geotech prior to the placement of any additional fill material being placed atop a previous fill lift. All fill material is to be tested and compaction approved as the work is placed and completed. All fill shall be compacted to 95% standard proctor or to a greater as required by the contract documents or the local governing authority.

33.0.3 All excavations shall be backfilled and compacted back to specified elevations, per the contract documents.

33.0.4 Site Utility Related Concrete – This Work shall include, but not be limited to, all site utility concrete, concrete thrust blocks, concrete valve box encasements, structure foundations, concrete cleanout encasements, etc., including reinforcing steel for concrete work required within this Scope of Work and any cast in place concrete work required to provide a complete system, per the contract documents.

33.0.5 This Subcontractor shall provide and coordinate public utility locating services as part of this scope of work. No work shall commence without location complete and locate ticket submitted to Contractor. No machine excavation is permitted within three feet (3') of either side of utility locate

lines. Potholing and hand-digging may be required and will be performed in compliance with all OSHA and Contractor requirements. Specifically, this Subcontract shall pothole and hand-dig as necessary near natural gas lines. Utility line strikes, should they occur, are to be reported immediately upon occurrence to Contractor and the governing Utility Company.

33.0.6 Subcontractor shall coordinate and all required inspections and certifications as required by the contract documents and AHJ.

33.0.7 This Subcontractor shall schedule, with applicable local and state health officials and/or agencies, all final inspections of the water and sewer systems no later than four (4) weeks prior to the time the system is to be put into operation. This Subcontractor shall have approved results of water tests, taken under this Subcontract, available for the officials/agencies upon arrival on-site. Additionally, a Contractor's Material & Test Certificate shall be provided to the Contractor upon successfully completing a fire and domestic water main flush test. Provide As-Built Data as required prior to the time the inspections are scheduled.

33.0.8 Subcontractor has included all pressure testing as required by the Contract Documents and AHJ.

A. <u>STORM DRAINGE SYSTEM</u>

33.0.9 This Work shall include, but not be limited to, the providing of a complete storm drainage system including all piping work, temporary berms, drainage structures and piping, grate inlets, drop inlets, trench drains, storm drain outlet protection, detention pond baffles, pond kits, permanent connections to existing storm drainage structures and piping, #57 Stone where required, concrete work applicable to the storm drainage system, head walls, concrete flared end sections, rip rap, diversion ditches, junction boxes, reinforcing steel for cast in place concrete work within this scope of work, where required, and any other incidentals which may be required for a completely functional storm drainage system.

33.0.10 It shall be this Subcontractor's responsibility to install the storm drainage system in accordance with the invert elevations indicated within the Contract Documents to ensure that the site storm drainage system performs as designed. Should any invert or profile discrepancies occur, this Subcontractor shall immediately advise Contractor, in writing, prior to proceeding. Protect all inlets as needed per Erosion Control requirements and NCDEQ requirements.

33.0.11 Underground Rain Leader Drainage Systems - This Work shall include, but not be limited to, the providing of a complete underground rain leader drainage system including all piping work, pipe fittings, lawn inlets, where required, provision and installation of permanent connections / tie-in fittings / boots to downspouts, concrete work applicable to the underground rain leader drainage system and any other incidentals which may be required for a completely functional underground rain leader drainage system. Underground rain leaders are to be connected to the building downspouts complete with a downspout connector adapter / boot. Final connection of downspouts to connector adapter to be provided and installed by this Subcontractor. This Subcontractor shall coordinate roof leader details and installation with Concrete Subcontractor as necessary for location

and sizes of block-outs as required.

33.0.12 Tops, Frames and Grates - The Work shall include, but not be limited to, providing all tops, steel frames, and grates for each respective structure / manhole requiring a specific type, top, and grate. Work to be per contract documents and AHJ.

33.0.13 Storm Drainage Maintenance and Cleaning – This Subcontractor shall perform interim and final cleaning of storm drainage pipes, grate inlets, drop inlets, curb inlets, etc. and remove all mud and debris prior to final acceptance.

33.0.14 Storm Drainage Related Concrete – This Work shall include, but not be limited to, all structure foundations, concrete encasements, culverts, etc., reinforcing steel for concrete work required within this Scope of Work and any cast in place concrete work required to provide a complete storm drainage system, per the contract documents. This Subcontractor shall include concrete rings at asphalt paving areas around all clean-outs, hand-holes, manholes, valve boxes, etc. associated with this scope of work.

B. <u>SANITARY SEWER SYSTEM</u>

33.0.15 This Work shall include, but not be limited to, provision and installation of duplex sanitary sewer pump station, Oil-Sand separator, force main piping, sewer piping, sewer manhole or blind pipe connections, trench stone bedding for sewer pipe, where specified, #57 stone manhole bedding, piping work, rubberized boots, manholes, outside drop manholes, manhole frames and covers, air/vacuum relief valves, where required, detector wire and tape, and related piping, clean outs, where required, joint fittings, permanent connection to existing manhole structure, modifications to existing manholes, and testing as required by the Contract Documents or the local or state governing agency having jurisdiction over this Work, such that the sanitary system is completed as designated within the Contract Documents for permanent tie-in within plus or minus five feet (+/- 5’-0”) of the building by the Plumbing Subcontractor.

33.0.16 It shall be the Subcontractor’s responsibility to install the sanitary sewer system in accordance with the inverts and profiles illustrated in the Contract Documents and to ensure that the sewer system performs as designed and aligns with the plumbing design, per the contract documents.

33.0.17 This scope includes the complete boring operation of all sanitary sewer force main that runs beneath Watercraft Ferry Ave and River Road including all traffic control, AHJ & utility coordination, robust public and worker safety measures, 811 locates, and all other activities required of this undertaking.

33.0.18 Connection to domestic water or sanitary sewer piping is to be performed by the last subcontractor arriving at the point of tie-in or coordinated or by whichever party holds the applicable license. Should a discrepancy be discovered regarding the tie-in invert elevation or locations for the new system, the Contractor shall be notified in writing for direction prior to the work proceeding.

33.0.19 At completion of site utility work, Subcontractor shall participate in an onsite meeting with all applicable parties to review and address the required steps and checklists for successful and timely commissioning of utilities.

C. DOMESTIC WATER & FIRE WATER DISTRIBUTION

33.0.20 This Work shall include, but not be limited to, fire water tap connections, all trench stone bedding for water piping work, where specified, domestic water piping work, fire main water piping work, gate valves, post indicator valves, fire hydrants, double check backflow preventers, fire water main water flush testing, joint fittings, reducers, reduced pressure backflow device with weather proof hot boxes (incl. heaters) and backflow preventer with weather proof hot box (incl. heaters), water valve boxes, water meter assemblies, meter box encasements, detection wire and tape, thrust blocks, fire main meter detector, if specified, fire main backflow preventer assembly and concrete vault or weather proof hot box, if specified, and cleaning and testing as required by the Contract Documents or the local or state governing agency having jurisdiction over this Work, such that the domestic water and fire water distribution system is completed as designated within the Contract Documents.

33.0.21 The Fire Main(s) shall be brought into building at the indicated locations per the contract documents and capped at one foot above finished floor (1'-0") for permanent tie-in by the Fire Protection Subcontractors. Domestic water system service(s) shall be brought to within (5'-0") from the building at indicated locations per the contract documents and capped for permanent tie-in by the Plumbing Subcontractor. Coordination of location and routing between Plumbing and Fire Water Distribution System plans and civil/utility plans is by this Subcontractor. Coordinate locations and installation with the Concrete Subcontractor as required. Coordinate all electrical and fire alarm requirements for hot-boxes or other system components as required with the Electrical Subcontractor. Flush all domestic and fire distribution lines prior to closure/capping per regulatory requirements and provide test/flush reports at completion of flush. The Fire Protection Subcontractor, Contractor, and Fire Marshal must be in attendance to witness the flushing of the fire mains.

33.0.22 This scope includes the complete boring operation of all water lines that run beneath River Road including all traffic control, AHJ & utility coordination, robust public and worker safety measures, 811 locates, and all other activities required of this undertaking.

33.0.23 At completion of utility scopes, Subcontractor shall participate in an onsite meeting with all applicable parties to review and address the required steps and checklists for successful and timely commissioning of utilities.

33.0.24 Subcontractor shall be responsible for the necessary permits with the New Hanover County Fire Marshall's Office for installation and inspection of the Fire Main. Subcontractor shall be responsible for all corrective work associated with rework resulting from insufficient coordination with and inspection by the AHJ.

17.0 SCOPE OF WORK CLARIFICATIONS AND/OR OTHER REQUIREMENTS

17.0.1 LEED - Subcontractor has read and fully understands the LEED requirements of this project and has included all necessary costs to achieve the desired LEED-Silver rating within this Subcontract, per the contract documents.

17.0.2 Subcontractor shall abide by Contractor's Waste Management Plan as it applies to this scope of work per the contract documents and LEED certification requirements. Subcontractor shall be responsible for all associated costs due to violation of Contractor's Waste Management Plan.

17.0.3 This Subcontractor shall submit a site-specific safety plan and QC plan for approval by Contractor prior to start of work.

17.0.4 Submittals related to this scope of work shall be made to Contractor within **ten (10) calendar days** of contract execution and so as not to delay the project schedule. Subcontractor field supervision shall have hard copies of all approved submittal documents readily available onsite and are expected to reference approved submittal documents and cross-check installations as part of Subcontractor's own self-performed QA/QC program.

17.0.5 Subcontractor accepts responsibility for drawing notes where "Contractor" is stated in the contract documents as it pertains to this scope of work.

17.0.6 Utility Coordination - Immediately upon award, Subcontractor shall assist the General Contractor and Owner, with advanced coordination of all site utilities – including but not limited to Duke Energy, CFPUA, The City of Wilmington, and Piedmont Gas.

17.0.7 Preconstruction Meetings - Attendees MUST be the assigned personnel that will be performing scope discussed. If your scope consists of multiple crews or trades with separate supervision, all supervisors will be required to attend.

17.0.8 This subcontractor is responsible for attending meetings and/or corresponding with Project Superintendent to allow adequate time for ordering and delivery of materials and for providing adequate manpower to meet project schedule.

17.0.9 All employees must be recognized by the Contractor's Project Superintendent at the start of work every day.

17.0.10 SDS Forms will be required upon commencement of work with daily PTP and morning huddles with Contractor's Project Superintendent.

17.0.11 Subcontractor will provide its own trash containers for their daily use, clearly labeled with their company name. This trash container shall be emptied into Contractor's trash container **daily** and shall not include hazardous waste or personal trash. Project Dumpster(s) will be provided by

Contractor.

17.0.12 Subcontractor is required to attend weekly job-site meetings. Failure to attend job-site meetings may result in a penalty of $500.00 per meeting missed. Attendee must speak English and have the authority to make decisions / possess prior knowledge of the scope of work and schedule, as well as potential future CO work.

17.0.13 Warranties and close-out manuals shall be per the project specifications and shall be provided at the 50% complete mark of overall project completion.

17.0.14 The project site shall be open for Subcontractor work from **7:00am-5:00pm, Monday-Friday**, unless otherwise directed by the Project Superintendent. The site will be open on Saturdays for make-up days. No work, deliveries, pickups, or subcontractor presence shall be allowed outside of normal site hours without prior approval from Contractor's Project Superintendent and Project Manager.

17.0.15 Overtime required to meet the contract schedule is included in this Subcontract Agreement. No additional monies will be added for overtime. This subcontractor shall work whatever hours necessary to meet the contract schedule.

17.0.16 **Minimum (5) day work weeks.** Necessary labor to meet schedule is included. No additional cost will be accepted for additional labor.

17.0.17 This Subcontractor has included all required mobilizations to fully perform and execute the agreed upon scope of work. Shall additional mobilizations be requested or required of the Subcontractor or due to non-performance, these shall be at no additional cost to the Contractor.

17.0.18 Subcontractor shall warranty all labor for the minimum duration as outlined by the Prime Contract and the contract documents. Subcontractor shall warranty all materials as specified in the contract documents and/or by the applicable product's manufacturer.

17.0.19 Project specific traffic control shall be provided by this Subcontractor. In addition, this Subcontractor shall stagger shipments/deliveries to prevent "stacking" of trucks on City/State/Federal roadways unless critical to the job schedule. Subcontractor shall coordinate deliveries with Contractor's Project Superintendent regarding hours and restrictions.

17.0.20 Subcontractor shall be responsible street cleaning and debris removal resulting from this scope of work.

17.0.21 Due to site conditions, onsite parking areas are extremely limited and during some portions of the work, as designated by the Project Superintendent, onsite parking of personal vehicles or work vehicles not in use may be restricted. During those periods, parking without permission would result in vehicles being towed at Subcontractor's expense. Additionally, onsite storage of materials will also be limited, and Conex containers will only be allowed by prior approval from the Project Superintendent.

17.0.22 Site Usage & Logistics - Due to limited space Contractor reserves the right to require on time deliveries for this scope of work. Subcontractor shall be responsible for coordinating the logistics and storage of all deliveries with the Contractor's Project Superintendent. Material left exposed to the elements shall be cleaned, if deemed necessary by the Contractor, prior to the material being installed.

17.0.23 Subcontractor is aware of limited site access and staging and shall provide their own off-site storage as necessary. All tower crane hoisting shall be scheduled in advance and coordinated with Contractor's Project Superintendent.

17.0.24 Subcontractor's resources and outsourced delivery trucks by others are considered the responsibility of the Subcontractor.

17.0.25 Subcontractor to coordinate access to each building with the Contractor's Project Superintendent to avoid damage to work in place including but not limited to curb, site utilities, doors, windows, etc.

17.0.26 It is understood there may be utilities (new or existing), equipment, or other trades potentially in the way during operations performed by this Subcontractor. This Subcontractor agrees to coordinate as necessary to work around all obstacles to meet the requirements of the schedule.

17.0.27 Street Cleaning – This subcontract is responsible to provide a water truck and broom tractor for the purpose of cleaning mud and sediment from the adjacent streets due to this subcontractor's scope of work and as required by the Construction Manager.

17.0.28 This Subcontractor shall provide heat trace/controls and insulation for hot box and other systems as indicated on the Contract Documents. Power & connection by Electrical Subcontractor.

17.0.29 This Subcontractor shall assist the Contractor with access to temporary water as needed for Contractor's office trailer and construction.

17.0.30 This Subcontractor shall be responsible for all underground locating, private orotherwise, required to complete this Scope of Work.

17.0.31 It is understood there may be utilities (new or existing), equipment, or other trades potentially in the way during operations performed by this Subcontractor. This Subcontractor agrees to coordinate as necessary to work around all obstacles to meet the requirements of the schedule.

17.0.32 Special inspections - As Special inspections will be required on this project, it will be the responsibility of this Subcontractor to provide supervision to accompany inspectors in coordination with Contractor's Project Superintendent. Any deficiencies noted shall be corrected at the time of inspection. If Subcontractor is unable to make the correction during the inspection and a deficiency is placed on a non-compliant list, this Subcontractor will have no more than **seventy-two (72) hours**

to make the correction and schedule the reinspection to have the item removed from the non-compliant list. All non-complaint items shall be reported to the Contractor's Project Superintendent as soon as possible and before the close of business on the day of inspection. Failure to make corrections as stated above could result in a stop work order until corrections are made.

17.0.33 It is understood to pick up all 8-unit prices in Specifications.

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the **Earthwork, Exterior Improvements, & Utilities** Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.
If requested, the cost of the Performance and Payment Bonds (amount as provided) will be reimbursed to the Subcontractor based on the following revised contract revision noted below:

Subcontractor shall provide Performance and Payment Bonds, if required, each with a penal amount equal to 100% of the Subcontract Amount, on forms acceptable to the General Contractor. The premium for these bonds shall be paid by Subcontractor and the cost thereof shall be invoiced separately to the General Contractor based on the Subcontractor providing an actual paid receipt from its surety agent. The value of the Performance and Payment bond in all cases shall not be more than the Subcontractor's bid alternate amount submitted for these bonds. If the bond(s) value is more than the bid amount submitted for these bonds, the Subcontractor shall pay the difference to its surety agent at its cost.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
31A, 32A, & 33A – EARTHWORK, EXTERIOR IMPROVEMENTS, & UTILITIES SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

31B PEST CONTROL SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Pest Control** Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, supervision including, but not limited to management, superintendent, foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the Pest Control Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS
This Subcontractor is responsible for all Division 1 - General Requirements prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility
This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
Gen. Note	**Specifications are included on the Drawings**
31 31 16	Termite Control

Secondary Responsibility
This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
Gen. Note	**Specifications are included on the Drawings**
Division 31	Earthwork
Division 32	Exterior Improvements

The **Pest Control** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

31.0 TERMITE TREATMENT SCOPE OF WORK DESCRIPTION

31.0.1 Subcontractor shall perform the termite soil treatment for this project.

31.0.2 Based upon the specifications for this project the Subcontractor shall utilize Premise Pre-construction Termiticide manufactured by Bayer and diluted in water to .05% active ingredient. Product is applied to the soil at a rate of one (1) gallon per ten (10) SF beneath slabs; four (4) gallons per 10 LF along foundation walls and other slab penetrations. Subcontractor will utilize their own water source.

31.0.3 Subcontractor shall include twelve (12) months of continuing service from the General Contractor's date of Substantial Completion. This continuing service shall include monitoring, inspection, and re-treatment for occurrences of all termite activity. The Subcontractor agrees to provide a continuing service agreement stating services, obligations, conditions, and terms for the agreement period, as well as terms for future renewal options.

31.0.4 Subcontractor hereby agrees that the applicable warranty may be renewed annually for a period of (5) years following the date of issuance with the mutual consent of both parties and provided that the Owner pays an annual renewal fee. Should the Owner fail to pay the renewal fee within sixty (60) days after the anniversary of the warranty it shall void the warranty without privilege of reinstatement. This Subcontractor reserves the right to revise the annual renewal fee as of anniversary date.

31.0.5 Subcontractor shall provide a written one (1) year warranty, with the option to be renewed annually for a five (5) year bond, on manufacturer's standard form, signed by the applicator and subcontractor, certifying that termite control work, consisting of applied soil termiticide, will prevent infestation of subterranean termites. If subterranean termite activity or damage is discovered during the warranty period, the Subcontractor shall re-treat soil and repair or replace damage caused by termite infestation. Bond shall be renewable by Owner and transferrable upon sale of property.

31.0.6 Subcontractor shall provide treatment tickets to the General Contractor after each treatment, properly labeled by location, building information, etc. for verification.

END OF SECTION

TRADE PACKAGE SCOPE OF WORK:
31B PEST CONTROL SUBCONTRACT

TRADE PACKAGE SCOPE OF WORK

32E LANDSCAPING SUBCONTRACT

Furnish all labor, materials, tools, taxes, safety, insurances, equipment, hoisting, cranes, supervision, and all other incidentals necessary to accomplish all **Landscaping** Subcontract Work in accordance with all Contract Documents and as defined within **Trade Package General Scope Requirements** and this Scope of Work.

Subcontractors/Suppliers performing work on multiple portions of the project site (i.e., buildings, parking area, site, etc.) shall provide separate equipment, hoisting, cranes, full-time English-speaking supervision including, but not limited to management, superintendent, on site foreman, tradesman, laborers, etc. for each portion unless agreed to otherwise in writing by the General Contractor. If the project needs and schedule are not being met to the satisfaction of the General Contractor, written approval will be rescinded, and the original staffing requirements shall be provided by the Subcontractor.

Project Specifications for the **Landscaping** Scope of Work are listed below. This Subcontractor or Supplier shall carefully examine all specification sections and drawings within the Contract Documents and be responsible for all work described within this Scope of Work and as required on the project.

PROJECT SPECIFICATIONS

This Subcontractor is responsible for all Division 1 - General Requirements as listed below prepared by the Architect, Design Consultants, and/or General Contractor or as designated elsewhere within the Technical Specifications or Drawings as applicable to this Trade Package Scope of Work.

Primary Responsibility

This Subcontractor is responsible for all Primary Specification Responsibilities listed below unless this Scope of Work specifically states otherwise.

PRIMARY TECHNICAL SPECIFICATION RESPONSIBILITIES (PROJECT MANUAL)	
	Specifications are included on the Drawings
31 22 00	Grading
32 92 00	Turf & Grass / Section 329300 Plants
32 93 00	Exterior Plants

Secondary Responsibility

This Subcontractor is responsible for all Secondary Specification Responsibilities listed below to the extent applicable, or defined, within this Scope of Work.

SECONDARY TECHNICAL SPECIFICATION RESPONSIBILITIES	
	Specifications are included on the Drawings
Gen. Note	**This Subcontractor is responsible for complete Specifications package as it relates to the Landscaping Scope of Work.**
Division 31	Earthwork
Division 32	Exterior Improvements

Division 33	Utilities

The **Landscaping** Subcontractor shall be responsible for complying with the requirements of each Scope of Work Description / Clarification Section listed below, **even if** those requirements are not shown within the Specification Sections listed above.

This Subcontractor shall be responsible for all Primary Specification Responsibilities identified above in their entirety. All costs associated with Primary Specification Responsibilities shall be included in this Subcontractor's Scope of Work and reflected in bid amount.

This Subcontractor shall be at least partially responsible for Secondary Specification Responsibilities identified above. The Secondary Specifications identify work scopes for which this Subcontractor is not wholly responsible but shall be applicable as it relates to the execution of Primary Specification Responsibilities. This may include a varying degree of responsibility from simple coordination to performing entire portions of work. The Secondary Specifications are not intended to be all inclusive and shall not limit the Subcontractor in any way with regards to installation of work identified in Primary Specification Responsibilities.

The **Landscaping** Subcontractor is responsible for all Work described herein and below unless specifically noted otherwise to be part of another Subcontractor's Scope of Work.

Prior to commencing with the installation of any work, this Subcontractor shall field verify and provide the General Contractor with written confirmation that all areas scheduled to receive the materials provided as part of this Scope of Work are in a condition acceptable to this Subcontractor. Failure to notify the General Contractor in writing of such acceptance prior to commencing any work shall constitute this Subcontractor's acceptance of the applicable areas.

The drawings, details and specifications do not necessarily indicate or describe all work required for the full performance and completion of the requirements of the Contract Documents. This Subcontractor shall use all reasonable care to include those items necessary and/or implied to fill foreseeable gaps, omissions or conflicts that prevent a complete and functioning system even though it may not be detailed.

Provide all shop drawings, stamped drawings, calculations, submittals, samples, mock-ups, certificates, qualifications, etc. as required for approval by Architect/Engineer, and/or local governing authorities in a timely manner to avoid delaying the project.

See below for all safety submittals required throughout the duration of the project:

32.0 LANDSCAPING SCOPE OF WORK DESCRIPTION

32.0.1 The Landscaping Subcontractor is responsible for all layout for all aspects covered under this Scope of Work.

32.0.2 The Grading Subcontractor shall be responsible for re-spreading topsoil at all on-site disturbed areas to receive permanent grassing or sod work being provided by the Landscaping Subcontractor. Grading subcontractor shall deliver all areas to within 0.10" of finished grade. Excess excavated materials including subsoil, etc. shall be evenly distributed on site (re-spread, compacted and fine graded) at on-site locations designated by the Subcontractor.

32.0.3 Scope of work includes tilling of all beds, planting soil mix at bed areas, fertilizer amendment at bed areas, staking of all trees, Star-Green Professional Weed Barrier with 3" of river wash stone within 3' of FDC on building and fire hydrant, and per-emergent herbicide at mulched areas. All sod areas to be prepped with a Harley rake and fertilized.

32.0.4 Fine Grading – Prior to applying grass seed and/or sod, the Landscaping Subcontractor shall fine grade, apply soil amendments to topsoil and rockhound all disturbed on site areas which receives re-spread topsoil by the Sitework Subcontractor. **All rocks within the re-spread topsoil greater than or equal to two (2") inches in diameter shall be removed by the Sitework Subcontractor. All rocks less than two (2") inches in diameter shall be rock hounded and removed from the respread topsoil by the Landscaping Subcontractor.**

32.0.5 Provide and install 3" of brown pine bark mulch over the specified Star-Green Professional Weed Barrier with all beds to receive specified / shown depth connected in one plant bed. Buffer plantings will receive mulch rings around each shrub/tree as per details on Sheet LS100.

32.0.6 Sodded areas - This Work shall include mulching, soil amendments, fertilizer, lime, watering, etc. at all areas disturbed by on site construction activities.

32.0.7 Trees and Plantings - This Work shall include providing all trees and plantings complete, including but shall not be limited to, specified warranty, trees, shrubs, plantings, planting soil mix including adding specified soil amendments, etc., burlap, filter fabrics, stakes and deadman, anchors, guys and wire ties, hoses, drainage gravel, mulch, anti-desiccants, fertilizer, watering, maintenance, etc. at all on site locations designated to receive trees and plantings.

32.0.8 Prior to receiving the one (1) year Final Acceptance Certificate from the Contractor and/or Owner, the Landscaping Subcontractor shall remove and dispose of off-site at the expense of the Landscaping Subcontractor all guy wires and stakes and any other temporary appurtenance which were installed and left in place until Final Acceptance.

32.0.9 **Call 811 and locate all underground utilities before performing any excavation.**

32.0.10 **Scope of work includes the maintenance of all trees, shrubs, ground cover and lawn areas by watering as required for a period of 18 months following inspection and acceptance of plant material including all trees, shrubs, ground cover and lawn areas. Reference Sheet LS100.**

—OTHER SCHEDULE SUMMARY INFORMATION—

The Substantial Completion date for the Landscape Subcontractor is as reflected within the Construction Schedule. Special attention should be directed to the Construction Schedule for project sequencing requirements which are a requirement of this Scope of Work.

END OF SECTION
TRADE PACKAGE SCOPE OF WORK:
32E LANDSCAPING SUBCONTRACT

11. Pre-Construction RFI Form

SAMET CORPORATION

PRECON REQUEST FOR INFORMATION

DCR/RFI NUMBER:

JOB NUMBER:

SUBJECT:

DATE:

PROJECT TITLE:

PREPARED BY:

TO:

PHONE:

EMAIL:

SPECIFICATION SECTION	DISCIPLINE	REFERENCE DRAWING	CATEGORY

QUESTION & CLARIFICATION

DATE REQUIRED:

SUGGESTION

ANSWER COMPANY:

ANSWERED BY:

DATE ANSWERED:

RESPONSE

12. Trade Partner Pre-Award Meeting

TRADE PARTNER PRE-AWARD MEETING

<Trade Package Name>			
(Insert Division(s)) / (Insert Package Name)			
Project Name:	New Hanover County Fire Station – Gordon Road		
Project Number:	23-072	Meeting Date/ Time:	XX/XX/XXXX XX:XX am/pm

Attendees: ***List all meeting participants or attach sign-in sheet***

Name	Company

Name	Company

1. Bid Proposal

Bid Amount $ _____

Standard Alternates

Alternate No. 1:	$	
Alternate No. 2:	$	
Alternate No. 3:	$	

Other Alternates

	$	
	$	
	$	
	$	

Voluntary Alternates ❑ Yes ❑ No

Unit prices

Item	Price	Unit Measure
See Site Unit Prices on bid form	$0	See Bid Form

Labor Rates

Position Description	Price	Unit Measure
	$	
	$	
	$	

$
$

Allowances – Included in base proposal amount? ❑ Yes ❑ No

#	Description	Cost
1		
2		
3		

Permits are included in the base proposal amount? ❑ Yes ❑ No

See Remarks for any comments regarding Section 1? ❑ ***Yes*** ❑ ***No***

2. General Conditions

Indicate document has been read/reviewed, understood and included as part of the bid.

		Document Date	Yes	No	N/A
a.	Bidder is pre-qualified with Samet		❑	❑	❑
b.	Form of agreement between Contractor and Subcontractor		❑	❑	❑
c.	Purchase Order agreement (if applicable)		❑	❑	❑
d.	General Conditions of the Contract for Construction		❑	❑	❑
e.	Bid # / Specifications		❑	❑	❑
f.	Bid Drawings		❑	❑	❑
g.	Bid Clarifications		❑	❑	❑
h.	Addenda Number (1)		❑	❑	❑
	Number (2)		❑	❑	❑
	Number (3)		❑	❑	❑
	Number (4)		❑	❑	❑
	Number (5)		❑	❑	❑
i.	Other		❑	❑	❑
j.	Bidder accepts Samet Terms & Conditions of Agreement		❑	❑	❑
k.	Exceptions or Exclusion to above items		❑	❑	❑

See Remarks for any comments regarding Section 2? ❑ ***Yes*** ❑ ***No***

3. Scope of Work Document Review

Note any issues:

Item #	Comment

4. Payment of Invoices

a. Invoices are to be submitted to:
Accts@sametcorp.com

b. Invoices are due on the **20th** day of the month

c. Required documentation with all invoices are noted below and samples provided to Trade Partner:

	Yes	No	To Be Issued
Application & Certification for Payment with Lien waiver	❑	❑	❑
List of Second Tier Subcontracts and Suppliers	❑	❑	❑
Understand the requirements for the payment application process, preparation of the schedule of values and timely completion of closeout document preparation?	❑	❑	❑

See Remarks for any comments regarding Section 4? ❑ ***Yes*** ❑ ***No***

5. Change Order Procedures

a. % of mark up: Self Performed xx% Labor xx% Material

b. % of mark up: Sub-subcontractor xx% Labor xx% Material

c. Authorization process reviewed ❑ Yes ❑ No

d. Who at Samet can authorize your request: _____

e. Who at your company may submit and approve a request: _____

See Remarks for any comments regarding Section 5? ❑ ***Yes*** ❑ ***No***

6. Proposed Subcontractors/Suppliers

Proposed Major Subs/Suppliers

_____

_____

_____

Proposed Workforce Diversity, Small Business Subs/Suppliers

_____

_____

_____

See Remarks for any comments regarding Section 6? ❑ ***Yes*** ❑ ***No***

7. Bonding & Insurance

	Yes	No	N/A
a. Insurance requirements reviewed and example of completed COI provided to Trade Partner	❑	❑	❑
b. Professional Liability insurance requirements reviewed and within required limits	❑	❑	❑
i. Sealed design documents, submitted by a registered design professional, etc. are to be provided for design services	❑	❑	❑
c. Subcontract Payment/Performance Bond required (attach)	❑	❑	❑
d. Bid Bond Included	❑	❑	❑

e. Bonding Company Name: _____

See Remarks for any comments regarding Section 7? ❑ ***Yes*** ❑ ***No***

8. Safety Procedures / Requirements

	Yes	No	N/A
f. Completed Contractor Safety Certificate on file?	❑	❑	❑
g. Bidder's current EMR rating: _____			
h. Daily clean up included per Samet requirements?	❑	❑	❑

i. Bidder's Safety Representative:

_____ _____ _____
(name) *(phone)* *(e-mail)*

See Remarks for any comments regarding Section 8? ❑ ***Yes*** ❑ ***No***

9. Schedule Requirements

	Yes	No	N/A
a. Project Construction Schedule understood and accepted	❑	❑	❑

b. Project Substantial Completion Date – Base Bid: _____ (date)

c. Bidder's proposed schedule durations: (record on lines below)

Shop Drawings/Submittals _____

Material/Equipment Delivery _____

Installation/Erection _____

Long Lead Items _____

d. All costs included to meet schedule (i.e. overtime/shift time)	❑	❑	❑
e. Overtime for shut-downs and work in existing facilities included	❑	❑	❑
f. Bidder has the manpower to perform the work	❑	❑	❑

See Remarks for any comments regarding Section 9? ❑ ***Yes*** ❑ ***No***

10. Submittals / Document Control

a. Proposed time frames for submittals if different than schedule:
   Shop drawings _____
   Coordination Drawings _____
   Product Data _____
   Fabrication and Delivery _____
b. Number of copies to be submitted: _____
c. Transmittal procedures reviewed ❑Yes ❑No ❑N/A
d. How will bidder monitor document control _____

_____

See Remarks for any comments regarding Section 10? ❑ ***Yes*** ❑ ***No***

11. Building Information Modeling

	Yes	No	N/A
a. BIM project requirements understood and accepted?	❑	❑	❑

See Remarks for any comments regarding Section 11? ❑ ***Yes*** ❑ ***No***

12. Product Substitutions – N/A

Product substitutions are not accepted post bid.

See Remarks for any comments regarding Section 12? ❑ ***Yes*** ❑ ***No***

13. Liquidated Damages

	Yes	No	N/A
a. Bidder understands role in preventing	❑	❑	❑
b. Bidder understands consequences of incurring	❑	❑	❑

See Remarks for any comments regarding Section 13? ❑ ***Yes*** ❑ ***No***

14. Recycling

a. This site recycles all materials noted below. Material is to be properly separated and placed in the dumpster(s) provided by Samet. Bidder is responsible for ensuring daily compliance:

❑ Brick ❑ Cardboard ❑ Concrete Block
❑ Gypsum ❑ Metals ❑ Wood Pallets
❑ Other _____

See Remarks for any comments regarding Section 14? ❑ ***Yes*** ❑ ***No***

15. Site Logistics

a. Bidder's site requirements (check those that apply):

❑ Site Trailer ❑ Parking
❑ Staging ❑ Hoisting
❑ Other: _____

b. Temporary facilities, utilities, power, storage, access, security, etc. reviewed ❑ Yes ❑ No
c. Temporary protection plan _____
d. Temporary heating/cooling/electric procedures _____
e. Have you made a site visit? ❑ Yes ❑ No

See Remarks for any comments regarding Section 15? ❑ ***Yes*** ❑ ***No***

16. Project Meetings

a. Meeting(s) Schedule (day/time): (Time TBD)

b. Location: _____

c. Who will attend _____
(must be a person with decision making authority)

17. Contacts for Project

All communication shall go through the **Samet Corporation**; any communication given or received from a third party to the Subcontractor/Supplier will not be recognized by Samet Corporation. This is to ensure the Samet Corporation is involved in all Project processes and decisions.

Trade Partner Info:	**Name**	**Cell**	**E-mail**
Samet Team Info:	**Name**	**Cell**	**E-mail**

REMARKS: (Attach additional pages if required, checked items require bidder follow-up)

Follow up	Remarks
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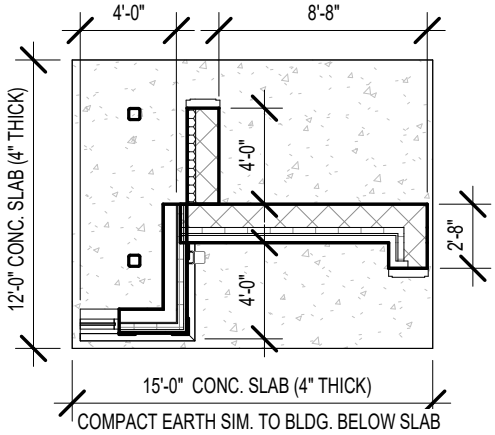
Acknowledgement:

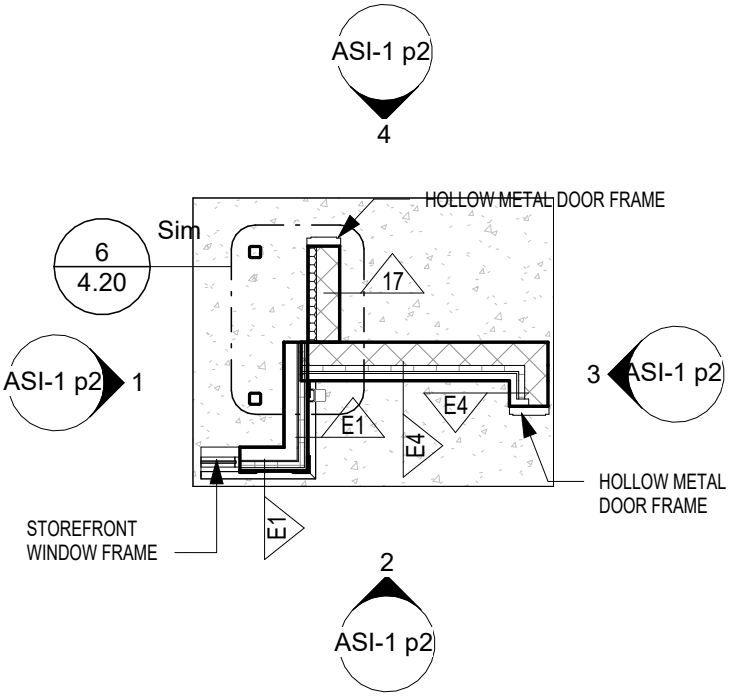
This is to acknowledge that the items detailed on this Agenda have been reviewed with me and I have had the opportunity to ask any questions I may have had during the review.

For:	_____	For:	_____
Signature:	_____	Signature:	_____
Print Name:	_____	Print Name:	_____
Date:	_____	Date:	_____

END OF AGENDA

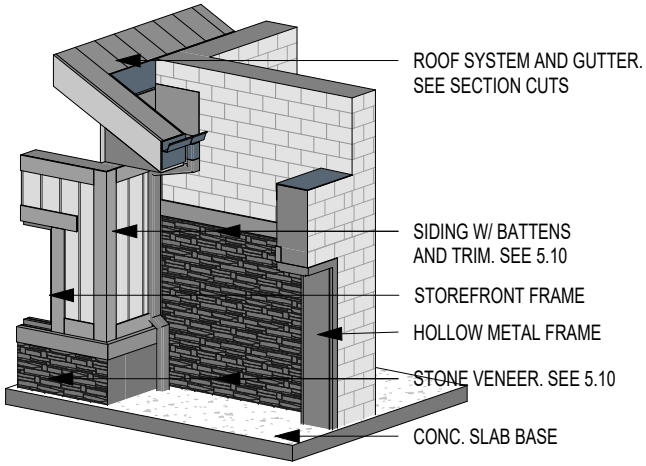


1 MOCKUP DIM PLAN
1/8" = 1'-0"

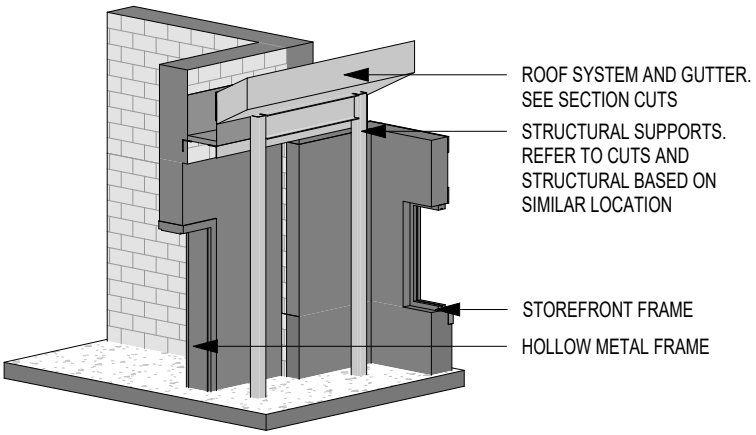


2 MOCKUP NOTES PLAN
1/8" = 1'-0"

NOTE:
SEE SHEETS 4.73 & 4.75 FOR WALL TYPES AND OPENING DETAILS

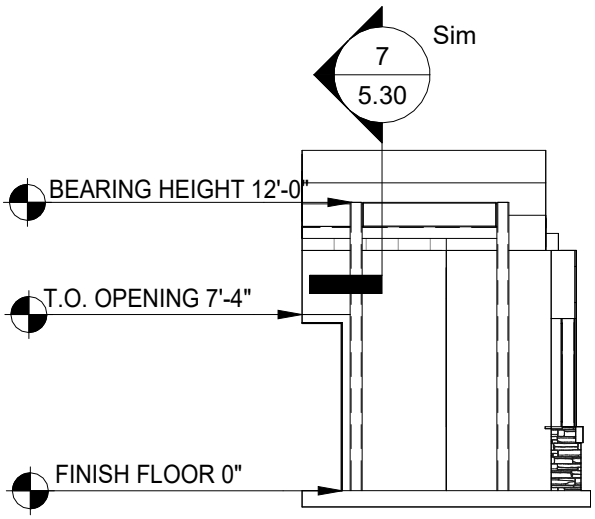


3 MOCKUP FRONT 3D

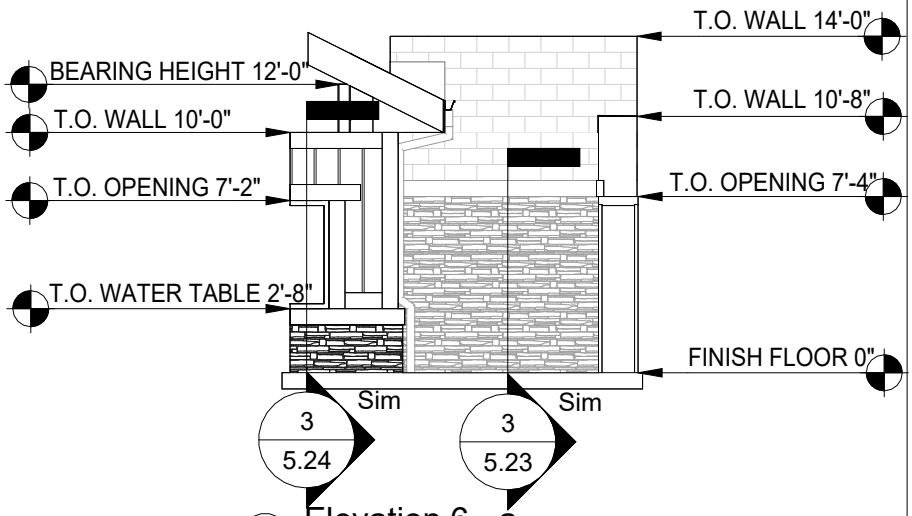


4 MOCKUP REAR 3D

Stewart · Cooper · Newell Architects	REFERENCE SHEET NO. AS NOTED MOCKUP PLAN, ELEVATION, AND DETAILS	4/18/2024
GORDON ROAD FIRE DEPARTMENT	ARCHITECTURAL SUPPLEMENTAL INSTRUCTIONS (ASI)	ASI-1 p1

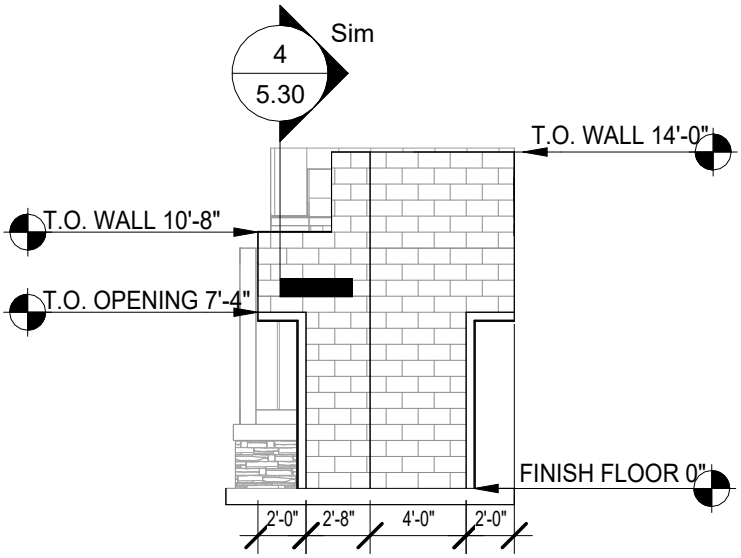


1 Elevation 5 - a
1/8" = 1'-0"

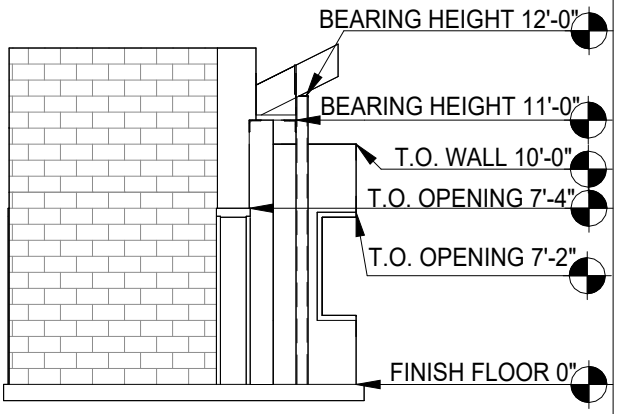


2 Elevation 6 - a
1/8" = 1'-0"

NOTE:
SEE SHEETS 4.73 & 4.75 FOR WALL TYPES AND OPENING DETAILS



3 Elevation 7 - a
1/8" = 1'-0"



4 Elevation 8 - a
1/8" = 1'-0"

Stewart · Cooper · Newell Architects	REFERENCE SHEET NO. AS NOTED MOCKUP PLAN, ELEVATION, AND DETAILS	4/18/2024
GORDON ROAD FIRE DEPARTMENT	ARCHITECTURAL SUPPLEMENTAL INSTRUCTIONS (ASI)	ASI-1 p2

SECTION 083620 - SECTIONAL OVERHEAD DOORS – F. D.
(High Lift, Alum, Glass, Electric)

PART 1 - GENERAL

1.1 RELATED DOCUMENTS

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

1.2 SUMMARY

A. This Section includes electrically operated sectional overhead doors.

B. Related Sections include the following:

1. Division 5 Section "Metal Fabrications" for miscellaneous steel supports.
2. Division 16 Sections for electrical service and connections for powered operators and accessories.

1.3 DEFINITIONS

A. Operation Cycle: One cycle of a door is complete when it is moved from the closed position to the fully open position and returned to the closed position.

1.4 PERFORMANCE REQUIREMENTS

A. Structural Performance: Provide sectional overhead doors capable of withstanding the effects of gravity loads and the following loads and stresses without evidencing permanent deformation of door components:

1. Wind Loads: Determine loads based on the following minimum design wind pressures:
   a. Uniform pressure, acting inward and outward, as indicated on Structural drawings (Components and Cladding Wind Pressures, Wall Zone 5) unless indicated otherwise on the drawings.
2. Air Infiltration: Maximum rate not more than indicated when tested according to ASTM E 283.
   a. Maximum Rate: 0.08 cfm (0.038 L/s) at 15 mph (24 km/h).
3. Impact Test for Flying Debris: Where required by code, comply with ASTM E 1996, tested according to ASTM E 1886.
   a. Level of Protection: Enhanced Protection.
   b. Wind Zone: As indicated on the drawings or as required by governing building code.

B. Operation-Cycle Requirements: Provide sectional overhead door components and operators capable of operating for not less than 25,000 cycles.

1.5 SUBMITTALS

A. Product Data: For each type and size of sectional overhead door and accessory. Include the following:

1. Summary of forces and loads on walls and jambs.
2. Motors: Show nameplate data and ratings, characteristics, and mounting arrangements.

B. Shop Drawings: For special components and installations not dimensioned or detailed in manufacturer's product data.

C. Samples for Initial Selection: For units with factory-applied color finishes – where indicated.

D. Samples for Verification: For each type of exposed finish required, prepared on Samples of size indicated below.

1. Frame: 6 inches (150 mm) long.
2. Panel: 6 inches (150 mm) square.

E. Qualification Data: For Installer.

1.6 QUALITY ASSURANCE

A. Installer Qualifications: Manufacturer's authorized representative who is trained and approved for both installation and maintenance of units required for this Project.

B. Source Limitations: Obtain sectional overhead doors through one source from a single manufacturer.

1. Obtain operators and controls from sectional overhead door manufacturer.

C. Product Options: Drawings indicate size, profiles, and dimensional requirements of sectional overhead doors and accessories and are based on the specific system indicated. Other manufacturers' systems with equal performance and dimensional characteristics may be considered. Refer to Division 1 Section "Product Requirements."

D. Electrical Components, Devices, and Accessories: Listed and labeled as defined in NFPA 70, Article 100.

PART 2 - PRODUCTS

2.1 MANUFACTURERS

A. Manufacturers: Subject to compliance with requirements, provide products by one of the following:

1. Aluminum Doors with Glazed and/or with Aluminum Panels: As indicated on drawings.
   a. Clopay Building Products Company; a Griffon Company - Model EX904U Extreme Series w/ Heavy Duty Jackshaft Operator or the equal by the following manufacturers:
   b. Arm-R-Lite.
   c. Haas Door; a Nofziger Company.
   d. Wayne-Dalton Corp.
   e. Raynor.
   f. Overhead Door Corp.
   g. Windsor Door; a MAGNARAX Corporation.

2.2 ALUMINUM DOOR SECTIONS

A. Construct door sections with extruded-aluminum shapes, complying with ASTM B 221 (ASTM B 221M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, with wall thickness not less than 0.065 inch (1.6 mm) for door section 1-3/4 inches (44 mm) deep. Fabricate sections with stile and rail dimensions and profiles shown. Join stiles and rails by welding or with concealed, 1/4-inch- (6-mm-) minimum diameter, aluminum or nonmagnetic stainless-steel through bolts, full height of door section. Form meeting rails to provide a weathertight-seal joint. Provide reinforcement for hardware attachment.

B. Fabricate panels of aluminum sheet, where or if indicated on drawings, complying with ASTM B 209 (ASTM B 209M), alloy and temper recommended by aluminum producer and finisher for type of use and finish indicated, not less than 0.040 inch (1.0 mm) thick, set in continuous vinyl channel retained with rigid, snap-in, extruded-vinyl moldings or with rubber or neoprene glazing gasket with aluminum stop.

C. Finish designations prefixed by AA comply with the system established by the Aluminum Association for designating aluminum finishes.

D. Class II, Clear Anodic Finish: AA-M12C22A31 (Mechanical Finish: nonspecular as fabricated; Chemical Finish: etched, medium matte; Anodic Coating: Architectural Class II, clear coating 0.010 mm or thicker) complying with AAMA 611.

E. Powder-Coat Finish: Where indicated on drawings, use manufacturer's standard powder-coat finish consisting of primer and topcoat according to coating manufacturer's written instructions for cleaning, pretreatment, application, thermosetting, and minimum dry film thickness.

1. Color and Gloss: Match Architect's sample or As selected by Architect from manufacturer's full range.

2.3 TRACKS, SUPPORTS, AND ACCESSORIES

A. Tracks: Manufacturer's standard, 3 inch galvanized steel track system, sized for door size and weight, designed for lift type indicated and clearances shown, and complying with ASTM A 653/A 653M for minimum G60 (Z180) zinc coating. Provide complete track assembly including brackets, bracing, and reinforcement for rigid support of ball-bearing roller guides for required door type and size. Slot vertical sections of track spaced at 2 inches (51

mm) apart for door-drop safety device. Slope tracks at proper angle from vertical or design to ensure tight closure at jambs when door unit is closed. Weld or bolt to track supports.

1. Provide tracks configured for the following lift types:
    a. High.

B. Track Reinforcement and Supports: Galvanized steel track reinforcement and support members, complying with ASTM A 36/A 36M and ASTM A 123/A 123M. Secure, reinforce, and support tracks as required for door size and weight to provide strength and rigidity without sag, sway, and vibration during opening and closing of doors.

1. Support and attach tracks to opening jambs with continuous angle welded to tracks and attached to wall. Support horizontal (ceiling) tracks with continuous angle welded to track and supported by laterally braced attachments to overhead structural members at curve and end of tracks.
    a. Repair galvanized coating on tracks according to ASTM A 780.

C. Weatherseals: Replaceable, adjustable, continuous, compressible weather-stripping gaskets of flexible vinyl, rubber, or neoprene fitted to bottom and top of overhead door.

1. Provide motor-operated doors with combination bottom weatherseal and sensor edge.
2. Provide continuous flexible seals at door jambs for a weathertight installation.

D. Full-Vision Panels: Manufacturer's standard, tubular, aluminum-framed section fully glazed with ¼” thick, clear DSB glass set in vinyl, rubber, or neoprene glazing channel and with removable extruded-vinyl or aluminum stops.

1. Where door unit is power operated, provide safety interlock switch to disengage power supply when pass door is locked.

2.4 HARDWARE

A. General: Provide heavy-duty, corrosion-resistant hardware, with hot-dip galvanized, stainless-steel, or other corrosion-resistant fasteners, to suit door type.

B. Hinges: Heavy-duty galvanized steel hinges of not less than 0.0747-inch- (1.9-mm-) thick, uncoated steel at each end stile and at each intermediate stile, according to manufacturer's written recommendations for door size. Attach hinges to door sections through stiles and rails with bolts and lock nuts or lock washers and nuts. Use rivets or self-tapping fasteners where access to nuts is not possible. Provide double-end hinges where required, for doors exceeding 16 feet (4.87 m) in width, unless otherwise recommended by door manufacturer.

C. Rollers: Heavy-duty rollers with steel ball bearings in case-hardened steel races, mounted with varying projections to suit slope of track. Extend roller shaft through both hinges where double hinges are required. Provide 3-inch- (75-mm-) diameter roller tires for 3-inch- (75-mm-) wide track.

1. Tire Material: Case-hardened steel.

D. Push/Pull Handles: For push-up-operated or emergency-operated doors, provide galvanized steel lifting handles on each side of door.

E. Slide Bolt: Fabricate with side-locking bolts to engage through slots in tracks for locking by padlock, located on single-jamb side, operable from inside only.

F. Fabricate locking device assembly with lock, spring-loaded dead bolt, operating handle, cam plate, and adjustable locking bar to engage through slots in tracks.

1. Locking Bars: Single-jamb side operable from inside only.

G. Chain Lock Keeper: Suitable for padlock.

H. If door unit is power operated, provide safety interlock switch to disengage power supply when door is locked.

2.5 COUNTERBALANCE MECHANISM

A. Torsion Spring: Counterbalance mechanism consisting of adjustable-tension torsion springs fabricated from oil-tempered-steel wire complying with ASTM A 229/A 229M, Class II, mounted on a cross-header tube or steel shaft. Connect to door with galvanized aircraft-type lift

cables with cable safety factor of at least 5 to 1. Provide springs calibrated for a minimum of 25,000 cycles.

B. Cable Drums: Cast-aluminum or gray-iron casting cable drums grooved to receive cable. Mount counterbalance mechanism with manufacturer's standard ball-bearing brackets at each end of shaft. Provide one additional midpoint bracket for shafts up to 16 feet (4.87 m) long and two additional brackets at one-third points to support shafts more than 16 feet (4.87 m) long unless closer spacing is recommended by door manufacturer.

C. Cable Safety Device: Include a spring-loaded, steel or bronze cam mounted to bottom door roller assembly on each side and designed to automatically stop door if either cable breaks.

D. Bracket: Provide anchor support bracket as required to connect stationary end of spring to the wall and to level shaft and prevent sag.

E. Provide a spring bumper at each horizontal track to cushion door at end of opening operation.

2.6 ELECTRIC DOOR OPERATORS, CONTROLS, SAFETY LIGHTS

A. General: Provide electric door operator assembly of size and capacity recommended and provided by door manufacturer for door and operation-cycle requirements specified, with electric motor and factory-prewired motor controls, starter, gear-reduction unit, solenoid-operated brake, clutch, remote-control stations, control devices, integral gearing for locking door, and accessories required for proper operation.

B. Comply with NFPA 70.

C. Disconnect Device: Hand-operated disconnect device or mechanism for automatically engaging chain-and-sprocket operator and releasing brake for emergency manual operation while disconnecting motor without affecting timing of limit switch. Mount disconnect device and operator so they are accessible from floor level. Include interlock device to automatically prevent motor from operating when emergency operator is engaged.

D. Design operator so motor may be removed without disturbing limit-switch adjustment and without affecting emergency auxiliary operator.

E. Provide control equipment complying with NEMA ICS 1, NEMA ICS 2, and NEMA ICS 6, with NFPA 70, Class 2 control circuit, maximum 24-V, ac or dc.

F. Door-Operator Type: Unit consisting of electric motor and the following:

1. Jackshaft hoist type, with gear reduction, chain-drive intermediate reduction, roller-chain final drive connected to counterbalance shaft, auxiliary chain hoist, and floor-level quick release for manual operation.

G. Electric Motors: High-starting torque, reversible, continuous-duty, Class A insulated, electric motors complying with NEMA MG 1, with overload protection, sized to start, accelerate, and operate door in either direction from any position, at not less than 2/3 fps (0.2 m/s) and not more than 1 fps (0.3 m/s), without exceeding nameplate ratings or service factor.

1. Type: Polyphase, medium-induction type.
2. Service Factor: Comply with NEMA MG 1, unless otherwise indicated.
3. Coordinate wiring requirements and electrical characteristics of motors with building electrical system.
4. Provide totally enclosed, nonventilated or fan-cooled motor, fitted with plugged drain, and controller with NEMA ICS 6, Type 4 enclosure where indicated.

H. Remote-Control Station: Momentary-contact, three-button control station with push-button controls labeled "Open," "Close," and "Stop."

1. Provide full-guarded, standard-duty, recessed-mounted, weatherproof-type exterior unit with NEMA ICS 6, Type 4, enclosure.

I. Obstruction Detection Device: Provide each motorized door with indicated external automatic safety sensor capable of protecting full width of door opening. Activation of sensor immediately stops and reverses downward door travel.

1. Photoelectric Sensor: Manufacturer's standard system designed to detect an obstruction in door opening without contact between door and obstruction.

a. Provide two (2) sets of photoelectric sensors for each door.
b. Self-Monitoring Type: Designed to interface with door operator control circuit to detect damage to or disconnection of sensing device. When self-monitoring feature is activated, door closes only with sustained pressure on close button.
c. Mount one (1) set of sensors at 32" above finish floor.
d. Mount one (1) set of sensors at a height above finish floor to be determined by the Owner at the time of installation.

2. Pressure-Sensor Edge: Provide each motorized door with an automatic safety sensor edge, located within astragal or weather stripping mounted to bottom bar. Contact with sensor immediately stops and reverses downward door travel. Connect to control circuit using j-boxes, 4 wire cords, 4 wire coiling cords, etc., as required for correct operation without interfering with photoelectric sensors.
   a. Provide electrically actuated automatic bottom bar.
      1) Self-Monitoring Type: Four-wire configured device.

J. Limit Switches: Adjustable switches interlocked with motor controls and set to automatically stop door at fully opened and fully closed positions. Provide an auxiliary limit switch on the up limit to automatically turn off the red signal light and illuminate the green light when the door is in its fully open position.

K. Radio Control: Radio control system consisting of the following:
1. Three-channel, universal coaxial receiver to open, close, and stop door; one per operator.
2. Provide two (2) multifunction handheld remote control units for each overhead door.
3. Provide remote, extended height, antenna mounting kits.

L. Safety Lights: Provide a Red and Green LED Signal Light with each door (NUMBER). Interconnect the Signal Light with the operation of the door so that the red light is on when the door is closed and whenever the door is in motion, and the green light is on only when the door is fully open. The door subcontractor shall be responsible for all low voltage wiring and connections between the door motor operator, the signal lights, and all other control accessories located at each door opening.

Basis of Design Trilite, Inc. model SG30-LED www.triliteinc.com.

PART 3 - EXECUTION

3.1 INSTALLATION

A. General: Install door, track, and operating equipment complete with necessary hardware, jamb and head molding strips, anchors, inserts, hangers, and equipment supports according to Shop Drawings, manufacturer's written instructions, and as specified.

B. Fasten vertical track assembly to framing, spaced not less than 24 inches (600 mm) apart. Hang horizontal track from structural overhead framing with angle or channel hangers fastened to framing by welding or bolting or both. Provide sway bracing, diagonal bracing, and reinforcement as required for rigid installation of track and door-operating equipment.

3.2 STARTUP SERVICES

A. Engage a factory-authorized service representative to perform startup services.
1. Complete installation and startup checks according to manufacturer's written instructions.
2. Test and adjust controls and safeties. Replace damaged and malfunctioning controls and equipment.

3.3 ADJUSTING

A. Lubricate bearings and sliding parts; adjust doors to operate easily, free from warp, twist, or distortion and with weathertight fit around entire perimeter.

B. Adjust belt-driven motors as follows:
1. Use adjustable motor-mounting bases for belt-driven motors.
2. Align pulleys and install belts.
3. Tension belt according to manufacturer's written instructions.

C. Touch-up Painting: Immediately after welding galvanized track to track supports, clean field welds and abraded galvanized surfaces and repair galvanizing to comply with ASTM A 780.

3.4 DEMONSTRATION

A. Engage a factory-authorized service representative to train Owner's maintenance personnel to adjust, operate, and maintain sectional overhead doors. Refer to Division 1 Section "Closeout Procedures/Demonstration and Training."

END OF SECTION 083620

GENERAL NOTES

A. COORDINATE LOCATIONS OF CEILING MOUNTED DEVICES WITH ALL OTHER TRADES (ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, TECHNOLOGY, ETC).

B. ANY DIRECTION GIVEN IN THE FIELD THAT DEVIATES FROM THE CONSTRUCTION DOCUMENTS MUST BE DOCUMENTED AND VERIFIED WITH THE ENGINEER.

C. PROVIDE ALL REQUIRED HARDWARE FOR A COMPLETE INSTALLATION.

D. IF A CONTRADICTION OF DIRECTION IS IDENTIFIED WITHIN THE RESPONSIBILITY MATRIX, DRAWINGS AND/OR SPECIFICATIONS, CONTRACTOR SHALL REQUEST CLARIFICATION PRIOR TO FINALIZING BID OR INCLUDE THE HIGHER COST OPTION IN THEIR BID.

E. EACH 4" LOW VOLTAGE SITE CONDUIT SHALL BE PROVIDED WITH 3" 3-CELL FABRIC MESH INNERDUCT.

F. ALL CONDUITS SHALL BE CONCEALED UNLESS OTHERWISE NOTED. WHERE CONDUITS ARE TO BE INSTALLED IN EXPOSED CEILINGS, CONDUITS SHALL BE INSTALLED TIGHT TO STRUCTURE AND PAINTED TO MATCH ADJACENT SURFACE.

G. NO SECTION OF LOW VOLTAGE CONDUIT SHALL CONTAIN MORE THAN (2) 90° BENDS, OR EQUIVALENT BETWEEN PULL POINTS. PROVIDE PULL BOX SIZED PER NEC OR AS INDICATED.

H. NO SECTION OF LOW VOLTAGE CONDUIT SHALL BE LONGER THAN 100'-0" BETWEEN PULL POINTS. PROVIDE PULL BOX SIZED PER NEC OR AS INDICATED.

I. ELECTRICAL CONTRACTOR SHALL COORDINATE EXACT CONDUIT ROUTING FOR TELECOMMUNICATIONS HORIZONTAL CABLING WITH STRUCTURED CABLING CONTRACTOR PRIOR TO INSTALLATION.

J. ALL CONDUITS 2" AND LARGER SHALL BE LABELED ON BOTH ENDS INDICATING SOURCE AND DESTINATION.

K. ALL JUNCTION BOXES MOUNTED IN EXTERIOR WALLS SHALL BE WEATHERPROOF AND GASKETED.

L. ELECTRICAL CONTRACTOR SHALL PROVIDE PULLSTRINGS (INTERIOR) OR MULE TAPE (EXTERIOR) FOR ALL CONDUITS TO BE UTILIZED FOR LOW VOLTAGE SYSTEMS.

M. ELECTRICAL CONTRACTOR SHALL MAINTAIN FIRE RATINGS OF WALLS, PARTITIONS, FLOORS OR CEILINGS PER NEC & IBC WHEN INSTALLING RECESSED BOXES. BOXES IN RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE NOT LESS THAN 24". THE HORIZONTAL DISTANCE MAY BE REDUCED, BUT SHALL NOT BE LESS THAN THE DEPTH OF THE WALL CAVITY, WHERE FILLED WITH CELLULOSE LOOSE FILL, ROCKWOOL OR SLAG MINERAL WOOL INSULATION OR WHERE PROTECTED BY LISTED PUTTY PADS OR OTHER LISTED MATERIALS/METHODS. ELECTRICAL CONTRACTOR SHALL PROVIDE LISTED PUTTY PADS AS REQUIRED. IN NO CASE SHALL THE AGGREGATE AREA OF OPENINGS EXCEED 100 SQUARE INCHES IN ANY 100 SQUARE FEET OF WALL SPACE. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH LOW VOLTAGE CONTRACTOR TO VERIFY FINAL INSTALLATION WILL SATISFY CODE REQUIREMENTS.

N. INSTALLATION OF AC VOLTAGE CABLING IN LOW VOLTAGE PATHWAYS IS NOT ACCEPTABLE.

O. CABLING SHALL PASS STRAIGHT THROUGH ANY PULL BOX. CHANGE OF DIRECTION IN A PULL BOX IS NOT ACCEPTABLE.

P. CONDUITS SHALL NOT EXCEED A MAXIMUM 40% FILL RATIO.

Q. FACEPLATES SHALL MATCH ADJACENT ELECTRICAL DEVICES. FINAL COLOR AND FINISH TO BE APPROVED BY ARCHITECT AND OWNER.
R. ALL FACEPLATES AND PATCH PANELS SHALL UTILIZE MODULAR JACKS.

S. ALL CABLING SHALL BE PLENUM RATED UNLESS OTHERWISE NOTED.

T. ALL CABLING, TERMINATIONS AND HOUSINGS ARE TO BE RATED FOR THE ENVIRONMENTS IN WHICH THEY ARE INSTALLED.

U. CABLING SHALL NOT BE PAINTED. MANUFACTURERS WARRANTY MAY BE VOIDED.

V. DO NOT INSTALL BRUISED, KINKED, SCORED, DEFORMED, OR ABRADED CABLE. REMOVE AND DISCARD CABLE IF DAMAGED DURING INSTALLATION AND REPLACE IT WITH NEW CABLE.

W. TERMINATE ALL CABLING ON DEDICATED SYSTEM PATCH PANEL. (WIRELESS, DATA, SECURITY, ETC.)

X. PROVIDE OUTSIDE PLANT CATEGORY CABLING FOR IN/UNDERSLAB OR OUTDOOR APPLICATIONS. CONDUIT CONTAINING OUTSIDE PLANT CABLING SHALL BE EXTENDED TO LOCAL TELECOMMUNICATIONS ROOM. INDOOR/OUTDOOR CATEGORY CABLING IS AN ACCEPTABLE ALTERNATIVE.

Y. ALL CABLING SHALL BE TERMINATED, TESTED AND LABELED PER SPECIFICATIONS. ALL LABELING SHALL BE MACHINE PRINTED. HAND WRITTEN LABELS ARE NOT ACCEPTABLE.

Z. PROVIDE PATCH CORD FOR EACH TERMINATED PORT IN TELECOMMUNICATIONS ROOM. COORDINATE EXACT LENGTH WITH OWNER.

AA. PROVIDE EQUIPMENT CORD FOR EACH WIRELESS ACCESS POINT AND NETWORK CAMERA. COORDINATE EXACT LENGTH WITH OWNER.

BB. PROVIDE SURGE SUPPRESSION MODULE AT DEVICES UTILIZING IN/UNDERSLAB CONDUIT AND EXTERIOR WIRELESS ACCESS POINT, CAMERA, AND NETWORK SPEAKER LOCATIONS. DITEK: DTK-MRJPOES OR APPROVED EQUAL. REFER TO EXTERIOR NETWORK DEVICE DETAIL. PROVIDE 24 CHANNEL, RACK MOUNTED SURGE SUPPRESSION AT RACK LOCATION FOR NETWORK PROTECTION. DITEK: DTK-RM24NETS OR APPROVED EQUAL. PROVIDE PATCH CORDS AS REQUIRED. INSTALL SURGE SUPPRESSION DEVICES WITHIN 24" OF BUILDING ENTRY OR EQUIPMENT ENCLOSURE.

CC. ALL PENETRATIONS THROUGH RATED WALLS MUST BE FIRESTOPPED.

DD. PROVIDE METALLIC J-HOOKS FOR CABLING IN ACCESSIBLE CEILING SPACES WITHOUT CABLE TRAY, BETWEEN CONDUITS, AND BETWEEN CONDUITS AND CABLE TRAY AT 3'-5' IRREGULAR INTERVALS. PANDUIT, COOPER B-LINE, NVENT CADDY, OR APPROVED EQUAL.

EE. THE USE OF J-HOOKS IN EXPOSED CEILING AREAS IS NOT ACCEPTABLE. PROVIDE CONDUIT OR SOLID BOTTOM CABLE TRAY. CONDUITS AND/OR SOLID BOTTOM CABLE TRAY SHALL BE PAINTED TO MATCH ADJACENT SURFACE.

FF. THE USE OF J-HOOKS ABOVE INACCESSIBLE CEILING AREAS IS NOT ACCEPTABLE. PROVIDE CONDUIT.

GG. NYLON CABLE TIE WRAPS ARE NOT ACCEPTABLE FOR BINDING OR SECURING CABLE BUNDLES. UTILIZE HOOK AND LOOP STRAPS TO SECURE CABLING IN TELECOMMUNICATIONS ROOM. STRAPS SHALL BE EVENLY SPACED THROUGHOUT THE DRESSED LENGTH AND PLENUM RATED WHERE APPLICABLE.

HH. PROVIDE (2) CATEGORY 6 CABLES TO EACH FIRE ALARM CONTROL PANEL FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. EXTEND INCOMING ANALOG DEMARK TO LOCAL TELECOMMUNICATIONS ROOM AS REQUIRED. COORDINATE LOCATION AND REQUIREMENTS WITH FIRE ALARM CONTRACTOR.

II. PROVIDE (2) CATEGORY 6 CABLES TO EACH SECURITY ALARM PANEL FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. EXTEND INCOMING ANALOG DEMARK TO LOCAL TELECOMMUNICATIONS ROOM AS REQUIRED. COORDINATE LOCATION AND REQUIREMENTS WITH OWNER'S SECURITY CONTRACTOR.

JJ. PROVIDE (2) CATEGORY 6 CABLES TO PURVIS ALERT SYSTEM CONTROLLER FOR NETWORK INTERFACE. COORDINATE LOCATION AND REQUIREMENTS WITH PURVIS CONTRACTOR. ADDITIONAL CABLING FOR PURVIS SYSTEM SHALL BE BY PURVIS CONTRACTOR

KK. PROVIDE (1) CATEGORY 6 CABLE TO EACH HVAC CONTROLLER (JACE) FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. COORDINATE LOCATION AND REQUIREMENTS WITH HVAC CONTRACTOR

LL. PROVIDE (1) CATEGORY 6 CABLE TO EACH LIGHTING CONTROL PANEL FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. COORDINATE LOCATION AND REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

MM. PROVIDE (1) CATEGORY 6 CABLE TO MAIN SWITCHBOARD FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. COORDINATE LOCATION AND REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

NN. PROVIDE (1) CATEGORY 6 CABLE TO EACH AUTOMATIC TRANSFER SWITCH FROM LOCAL TELECOMMUNICATIONS ROOM FOR NETWORK INTERFACE. COORDINATE LOCATION AND REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

SYMBOLS:

SYMBOL	DESCRIPTION
(#)	NETWORK OUTLET. STANDARD HEIGHT (+18" AFF). ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1.25" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE TWO (2) CATEGORY 6 CABLES (UNLESS OTHERWISE INDICATED BY SUBSCRIPT) AND 4-PORT FACEPLATE.
	NETWORK WALL PHONE OUTLET. ELEVATED HEIGHT (+42" AFF). ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (1) CATEGORY 6 CABLE AND PHONE WALL MOUNT FACEPLATE.
RS	ROOM RESERVATION OUTLET. ELEVATED HEIGHT (+48" AFF). ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (1) CATEGORY 6 CABLE.
WAP	WIRELESS ACCESS POINT CONNECTION (CEILING). STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6A CABLES FOR EACH WIRELESS ACCESS POINT CONNECTION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE ABOVE CEILING BRACKET AND SURFACE BOX. REFER TO WIRELESS ACCESS POINT DETAIL (ACCESSIBLE CEILING). STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 3'-0" EQUIPMENT CORD. WIRELESS ACCESS POINT EQUIPMENT SHALL BE OWNER FURNISHED, CONTRACTOR INSTALLED. COORDINATE WITH OWNER EXACT LOCATION AND MOUNTING METHOD OF WIRELESS ACCESS POINT EQUIPMENT.
WAP	WIRELESS ACCESS POINT CONNECTION (WALL-MOUNT, 10' AFF). ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1.25" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. REFER TO WIRELESS ACCESS POINT DETAIL (WALL-MOUNT). STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6A CABLES FOR EACH WIRELESS ACCESS POINT CONNECTION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE 6" EQUIPMENT CORD. WIRELESS ACCESS POINT EQUIPMENT SHALL BE OWNER FURNISHED, CONTRACTOR INSTALLED. COORDINATE WITH OWNER EXACT LOCATION AND MOUNTING METHOD OF WIRELESS ACCESS POINT EQUIPMENT.
TV	STANDARD TV OUTLET. ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1.25" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6 CABLES AND (1) SERIES-6 COAXIAL CABLE. REFER TO DISPLAY DETAIL FOR ADDITIONAL INFORMATION.
AV1	TV OUTLET WITH AV. ELECTRICAL CONTRACTOR SHALL PROVIDE RECESSED AV WALL BOX, 2" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK AND AV CABLING, 2" CONDUIT TO ASSOCIATED WALL PLATE FOR AV CABLING, 0.75" CONDUIT FOR POWER AND DUPLEX RECEPTACLE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6 CABLES, (1) SERIES-6 COAXIAL CABLE, AND BRUSHED CABLE PASSTHROUGH . REFER TO AV DISPLAY DETAIL FOR ADDITIONAL INFORMATION.
AV2	TV OUTLET WITH AV. ELECTRICAL CONTRACTOR SHALL PROVIDE RECESSED AV WALL BOX, 2" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE FOR NETWORK AND AV CABLING, 1-1/4" CONDUIT TO ASSOCIATED FLOOR BOX FOR AV CABLING, 0.75" CONDUIT FOR POWER AND DUPLEX RECEPTACLE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (4) CATEGORY 6 CABLES, (1) SERIES-6 COAXIAL CABLE, AND BRUSHED CABLE PASSTHROUGH TO FLOORBOX. REFER TO AV DISPLAY DETAIL FOR ADDITIONAL INFORMATION.
FB6	6-GANG MULTI-SERVICE FLOOR BOX. ELECTRICAL CONTRACTOR SHALL PROVIDE FLOOR BOX, COVER, CONDUITS, ELECTRICAL DEVICES AND ASSOCIATED MOUNTING PLATES FOR A COMPLETE INSTALLATION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (4) CATEGORY 6 CABLES. LEGRAND: EVOLUTION EFB6S-OG OR APPROVED EQUAL.
FB8	6-GANG MULTI-SERVICE FLOOR BOX. ELECTRICAL CONTRACTOR SHALL PROVIDE FLOOR BOX, COVER, CONDUITS, ELECTRICAL DEVICES AND ASSOCIATED MOUNTING PLATES FOR A COMPLETE INSTALLATION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (4) CATEGORY 6 CABLES. SEE DETAIL ON SHEET T5.02. FSR FL-500P-4-B OR APPROVED EQUAL.
	CONDUIT/SLEEVE. 4" UNLESS OTHERWISE NOTED.
	LADDER RUNWAY IN TELECOMMUNICATIONS ROOMS.
WM FRONT R1 WM	TWO-POST EQUIPMENT RACK WITH VERTICAL WIRE MANAGEMENT. PROVIDED BY TELECOMMUNICATIONS CONTRACTOR.
	3/4" A/C GRADE FIRE-RATED PLYWOOD. MOUNT VERTICALLY TO WALLS WITH BOTTOM EDGE 8" AFF AND GRADE "A" SURFACE EXPOSED. FIRE RATING STAMP MUST REMAIN VISIBLE.
PBB	PRIMARY BONDING BUSBAR
X	DRAWING NOTE

SYMBOLS:

SYMBOL	DESCRIPTION
	NETWORK CAMERA OUTLET. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6 CABLES FOR EACH CAMERA LOCATION. WHEN INSTALLED IN HARD/OPEN CEILING, ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX WITH 1-GANG TRIM RING AND 1" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. REFER TO CAMERA DETAIL (HARD/OPEN CEILING). WHEN INSTALLED IN ACCESSIBLE CEILING, STRUCTURED CABLING CONTRACTOR SHALL PROVIDE ABOVE CEILING BRACKET AND SURFACE BOX. REFER TO CAMERA DETAIL (ACCESSIBLE CEILING).
	NETWORK CAMERA OUTLET (EXTERIOR WALL). ELECTRICAL CONTRACTOR SHALL PROVIDE 12"x12"x6" DEEP JUNCTION BOX ON INTERIOR SIDE, 1" SLEEVE TO EXTERIOR AND 1.25" CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE (2) CATEGORY 6 CABLES FOR EACH CAMERA LOCATION. STRUCTURED CABLING CONTRACTOR SHALL PROVIDE SURGE PROTECTION AND 1'-0" EQUIPMENT CORD. REFER TO EXTERIOR NETWORK DEVICE DETAIL ON SHEET T5.03.
CR	CARD READER. ELECTRICAL CONTRACTOR SHALL PROVIDE 2-GANG JUNCTION BOX AND 3/4" CONDUIT TO ACCESS CONTROL JUNCTION BOX ON SECURE SIDE OF DOOR. SECURITY CONTRACTOR SHALL PROVIDE DEVICE AND CABLING.
DC	DOOR CONTACT. ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" CONDUIT TO ACCESS CONTROL JUNCTION BOX ON SECURE SIDE OF DOOR. SECURITY CONTRACTOR SHALL PROVIDE DEVICE AND CABLING.
EL	ELECTRIFIED LOCKSET. ELECTRICAL CONTRACTOR SHALL PROVIDE 3/4" CONDUIT WITH PULL STRING IN DOOR FRAME TO ACCESS CONTROL JUNCTION BOX ON SECURE SIDE OF DOOR. HARDWARE CONTRACTOR SHALL PROVIDE DEVICE AND SECURITY CONTRACTOR SHALL PROVIDE CABLINING.

SECURITY GENERAL NOTES

A. ACCESS CONTROL SYSTEM: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL ACCESS CONTROL SYSTEM PATHWAYS. CABLING AND DEVICES ARE OUTSIDE OF THE CONTRACTOR'S SCOPE AND WILL BE PROVIDED UNDER A SEPARATE CONTRACT BY THE OWNER'S SECURITY VENDOR.

B. SECURITY CAMERA SYSTEM: THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE INSTALLATION OF ALL CAMERA SYSTEM PATHWAYS AND CABLING. CAMERAS ARE OUTSIDE OF THE CONTRACTOR'S SCOPE AND WILL BE PROVIDED UNDER A SEPARATE CONTRACT BY THE OWNER'S SECURITY VENDOR.

C. CAMERA LOCATIONS ARE SHOWN FOR REFERENCE AND INDICATE GENERAL OUTLET LOCATION.

D. ALL EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S WRITTEN INSTRUCTIONS.

E. PATHWAYS SHALL BE CONCEALED WITHIN WALLS WHEREVER POSSIBLE. CONDUIT SHALL BE INSTALLED ABOVE HARD-CEILINGS OR INACCESSIBLE AREAS TO THE CLOSEST APPROVED TECHNOLOGY CABLE SUPPORT SYSTEM (CABLE TRAY OR J-HOOKS). BRIDLE RINGS SHALL NOT BE INSTALLED. SECURITY SYSTEM CABLES SHALL HAVE A DEFINED AREA IN THE CABLE SUPPORT SYSTEM AND SHALL NOT COMMINGLE WITH OTHER SYSTEMS CABLES. AC VOLTAGE SHALL NOT BE INSTALLED IN THE TECHNOLOGY CABLE SUPPORT SYSTEM.

F. CONDUIT BODIES (LB, LR, LL, TEES, ETC.) OF ANY TYPE OR MANUFACTURER SHALL NOT BE INSTALLED FOR ANY SECURITY OR TECHNOLOGY CABLING.

ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE	MH	MANHOLE
ADA	AMERICANS WITH DISABILITIES ACT	MIN	MINIMUM
AFF	ABOVE FINISHED FLOOR (ELEVATION TAKEN FROM FINISHED FLOOR)	NEC	NATIONAL ELECTRICAL CODE
		NVR	NETWORK VIDEO RECORDER
AFG	ABOVE FINISHED GRADE (ELEVATION TAKEN FROM FINISHED GRADE)	OSP	OUTSIDE PLANT
		PBB	PRIMARY BONDING BUSBAR
AV	AUDIO/VISUAL	PDU	POWER DISTRIBUTION UNIT
AVC	AUDIO/VISUAL CONTRACTOR	PoE	POWER OVER ETHERNET
AWG	AMERICAN WIRE GAUGE	PVC	POLYVINYL CHLORIDE
BOCT	BOTTOM OF CABLE TRAY	QTY	QUANTITY
C	CONDUIT	SBB	SECONDARY BONDING BUSBAR
CAM	CAMERA	SC	SECURITY CONTRACTOR
CATV	CABLE TELEVISION	SQ	SQUARE
CLG	CEILING	SPECS	SPECIFICATIONS
CMU	CONCRETE MASONRY UNIT	TC	TELECOMMUNICATIONS CONTRACTOR
EC	ELECTRICAL CONTRACTOR	TELECOM	TELECOMMUNICATIONS
ETR	EXISTING TO REMAIN	TBB	TELECOMMUNICATIONS BONDING BACKBONE
EXT	EXTERIOR		
EV	ELECTRIC VEHICLE CHARGER	TTB	TELEPHONE TERMINAL BACKBOARD
FACP	FIRE ALARM CONTROL PANEL	TYP	TYPICAL
GYP	GYPSUM BOARD	UON	UNLESS OTHERWISE NOTED
HDMI	HIGH DEFINITION MULTIMEDIA INTERFACE	UPS	UNINTERRUPTIBLE POWER SUPPLY
HDTV	HIGH DEFINITION TELEVISION	VoIP	VOICE OVER INTERNET PROTOCOL
HH	HANDHOLE	WAP	WIRELESS ACCESS POINT
IoT	INTERNET OF THINGS	WM	WIRE MANAGEMENT
IP	INTERNET PROTOCOL	WP	WEATHERPROOF
J-BOX	JUNCTION BOX	#D	QUANTITY OF DATA CONNECTIONS
		#V	QUANTITY OF VOICE CONNECTIONS

TELECOMMUNICATIONS STANDARDS:

INSTALLATION SHALL CONFORM TO THE FOLLOWING STANDARDS:

A. TIA-568.0-E (GENERIC TELECOMMUNICATIONS CABLING FOR CUSTOMER PREMISES)

B. TIA-568.1-E (COMMERCIAL BUILDING TELECOMMUNICATIONS CABLING)

C. TIA-568.2-D (BALANCED TWISTED-PAIR TELECOMMUNICATIONS CABLING AND COMPONENTS)

D. TIA-568.3-E (OPTICAL FIBER CABLING AND COMPONENTS)

E. TIA-569-E (TELECOMMUNICATIONS PATHWAYS AND SPACES)

F. TIA-606-D (ADMINISTRATION STANDARD FOR TELECOMMUNCATIONS INFRASTRUCTURE)

G. TIA-607-D (TELECOMMUNICATIONS BONDING AND GROUNDING FOR CUSTOMER PREMISES)

CABLE SERVICE LOOP SCHEDULE

CABLE	SOURCE	DESTINATION	NOTES
HORIZONTAL - COPPER - DATA	10'-0"	1'-6"	
HORIZONTAL - COPPER - WAP	10'-0"	20'-0"	
HORIZONTAL - COPPER - CAMERA	10'-0"	20'-0"	
HORIZONTAL - COAXIAL	10'-0"	1'-6"	

NOTES:
A. UTILIZE FIGURE EIGHT CONFIGURATION FOR LARGE SERVICE LOOPS.
B. COIL CABLING FOR FIELD DEVICE LOCATIONS AT CABLE TRAY/J-HOOKS ABOVE ACCESSIBLE CEILING.
C. PROVIDE 20'-0" SERVICE LOOP WERE A ROOM IS UTILIZED AS A PULL POINT AND NO TERMINATIONS ARE MADE.

CABLE COLORS

DATA:	BLUE CAT6 CABLE - BLUE JACK
WIRELESS ACCESS:	WHITE CAT6A CABLE - YELLOW JACK
CAMERAS:	BLUE CAT6 CABLE - ORANGE JACK
DOOR ACCESS:	BLUE CAT6 CABLE - BLUE JACK
COAXIAL:	BLACK SERIES-6 CABLE

CONDUIT CAPACITY SCHEDULE

CONDUIT		1.25"	1.50"	2.00"	2.50"	3.00"	4.00"
CABLES		7	10	18	25	40	70

NOTES:
A. UPSIZE CONDUIT TO NEXT SIZE SHOWN IN THIS SCHEDULE WHEN CABLE CAPACITY HAS BEEN EXCEEDED.
B. CONDUIT CAPACITY CALCULATED WITH 0.30" O.D. CATEGORY CABLE AT 40% FILL RATIO.

CONDUIT/SLEEVE SCHEDULE

TRAINING RMS.	(2) 2" CONDUITS TO CABLE TRAY/J-HOOKS IN ACCESSIBLE CEILING SPACE IN CORRIDOR.
OFFICES	(2) 2" CONDUITS TO CABLE TRAY/J-HOOKS IN ACCESSIBLE CEILING SPACE IN CORRIDOR.
WORKSPACES	(2) 2" CONDUITS TO CABLE TRAY/J-HOOKS IN ACCESSIBLE CEILING SPACE IN CORRIDOR.
CONFERENCE RMS.	(2) 2" CONDUITS TO CABLE TRAY/J-HOOKS IN ACCESSIBLE CEILING SPACE IN CORRIDOR.
VESTIBULES	(1) 2" CONDUIT TO CABLE TRAY/J-HOOKS IN ACCESSIBLE CEILING SPACE IN CORRIDOR.

ADDITIONAL REQUIREMENTS:

A. PROVIDE A MINIMUM OF (2) 4" CONDUITS BETWEEN ALL ACCESSIBLE CEILING SPACES SEPARATED BY A HARD CEILING GREATER THAN 3'-0" UNLESS OTHERWISE NOTED. REFER TO TELECOMMUNICATIONS CONDUIT CAPACITY SCHEDULE.

B. PROVIDE A MINIMUM OF (1) 2" CONDUIT BETWEEN ALL ACCESSIBLE CEILING SPACES SEPARATED BY A WALL THAT IS CONSTRUCTED TO DECK UNLESS OTHERWISE NOTED. REFER TO TELECOMMUNICATIONS CONDUIT CAPACITY SCHEDULE.

PULL BOX SIZING SCHEDULE

CONDUIT	PULL BOX WIDTH	PULL BOX LENGTH	PULL BOX DEPTH	PULL BOX WITH MULTIPLE CONDUITS (NOTE A)
1.00"	4.00"	16.00"	3.00"	2.00"
1.25"	6.00"	20.00"	3.00"	3.00"
1.50"	8.00"	27.00"	4.00"	4.00"
2.00"	8.00"	36.00"	4.00"	5.00"
2.50"	10.00"	42.00"	5.00"	6.00"
3.00"	12.00"	48.00"	5.00"	6.00"
4.00"	15.00"	60.00"	8.00"	8.00"

NOTES:
A. FOR EACH ADDITIONAL CONDUIT, ADD INDICATED DIMENSION TO PULL BOX WIDTH.
B. SIZING INDICATED IS FOR MINIMUM PULL BOX SIZE. INCREASE AS REQUIRED.

Project No.
1738

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CASTLE HAYNES FIRE DEPARTMENT

TELECOM LEGEND AND NOTES

Sheet No.
T0.01

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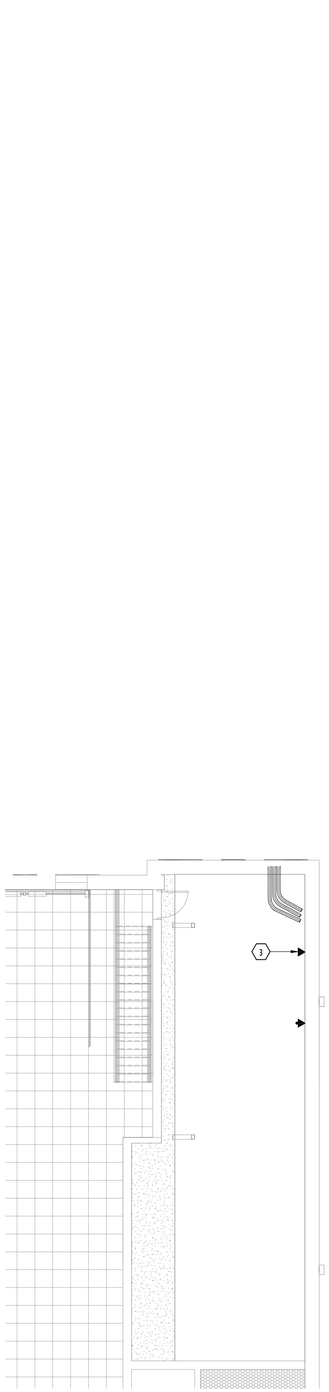

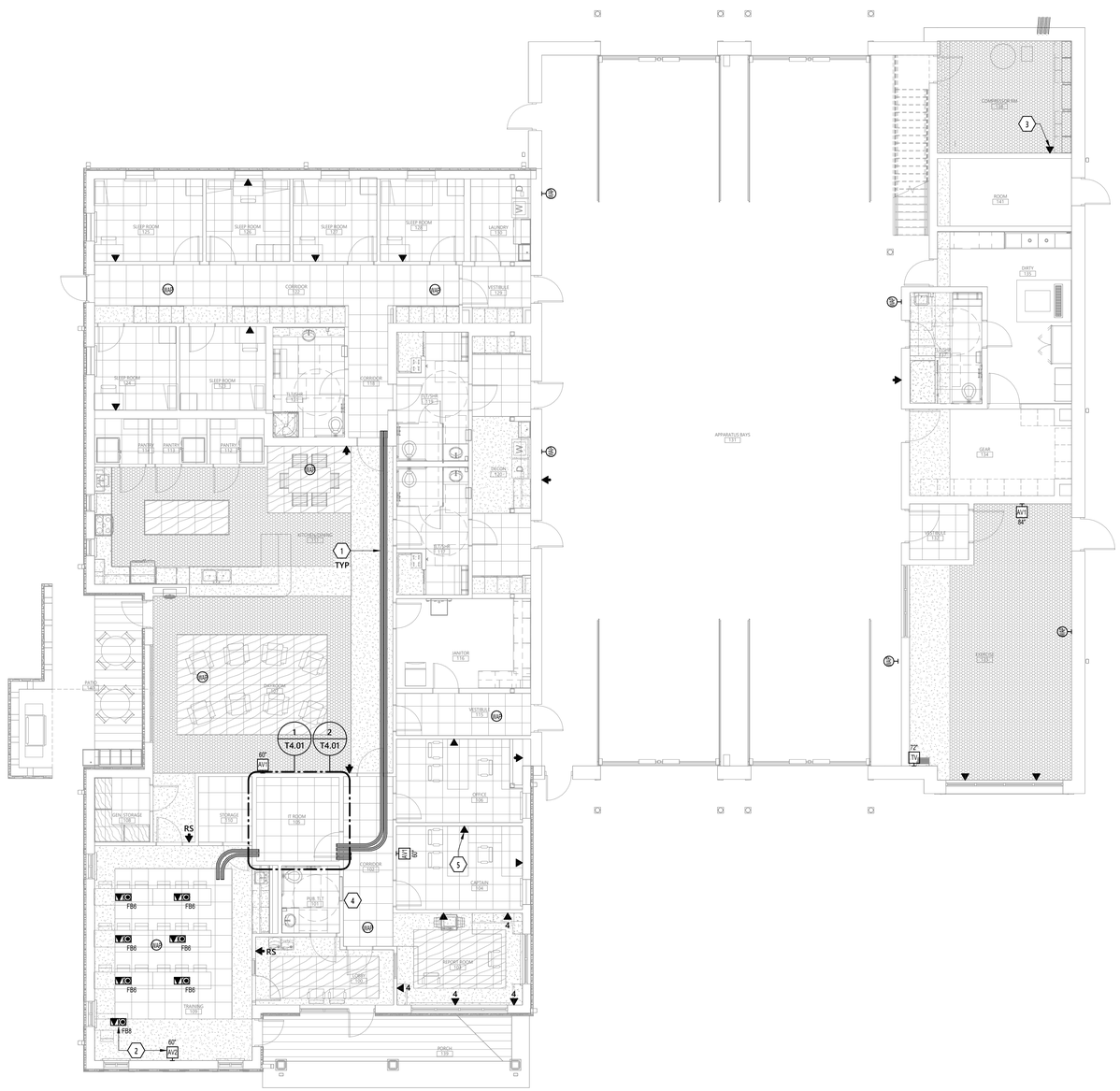

2 MEZZANINE NETWORK PLAN

1/8" = 1'-0"

1 FIRST FLOOR NETWORK PLAN

1/8" = 1'-0"

Ref North

GENERAL NOTES:

A. THERE SHALL BE NO EXPOSED CABLING IN APPARATUS BAY. ALL CABLING IN BAY MUST BE INSTALLED IN CONDUIT.

B. IN AREAS WITH DROP CEILING, UTILIZE J-HOOKS ABOVE ACCESSIBLE CEILING FOR HORIZONTAL CABLE DISTRIBUTION.

KEYED NOTES:

1. PROVIDE 4" CONDUITS DEDICATED FOR LOW-VOLTAGE TELECOMMUNICATIONS CABLING. INSTALL CONDUITS ABOVE CEILING AS INDICATED.
2. PROVIDE 1-1/4" CONDUIT CONNECTION BETWEEN FLOOR BOX AND AV BACKBOX. REFER TO DETAIL ON SHEET T5.02.
3. COORDINATE LOCATION OF OUTLETS IN UTILITY SPACES WITH RESPECTIVE TRADES PRIOR TO ROUGH-IN.
4. SPACE RESERVED FOR FIRE ALARM CONTROL PANEL (FACP). PROVIDE (2) CATEGORY 6 CABLES AND JACKS INSIDE FACP FOR NETWORK INTERFACE.
5. INTERFACE FOR "AV1" BACKBOX. REFER TO DETAIL 3 ON SHEET T5.02.

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NETWORK PLANS

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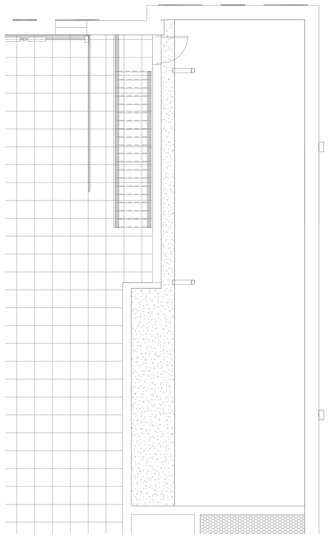
GENERAL NOTES:

A. THERE SHALL BE NO EXPOSED CABLING IN APPARATUS BAY. ALL CABLING IN BAY MUST BE INSTALLED IN CONDUIT.

KEYED NOTES:

1. WALL-MOUNTED ACCESS CONTROL PANEL (BY OWNER'S SECURITY VENDOR) LOCATED IN IT ROOM 105.



2 MEZZANINE SECURITY PLAN
1/8" = 1'-0"



1 FIRST FLOOR SECURITY PLAN
1/8" = 1'-0"

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SECURITY PLANS

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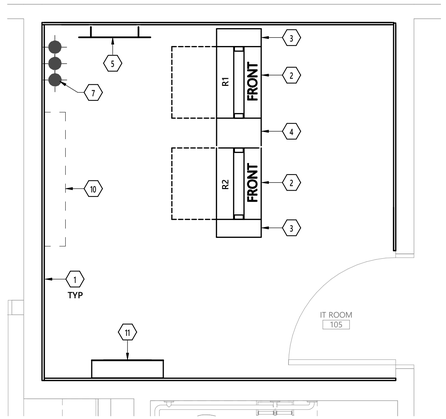
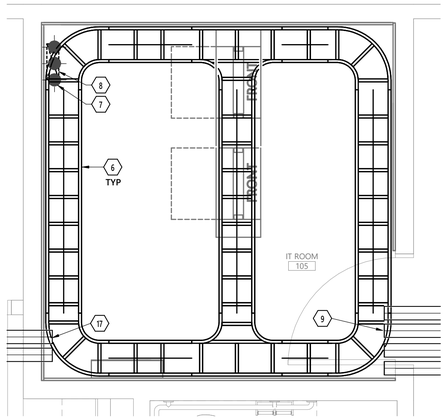
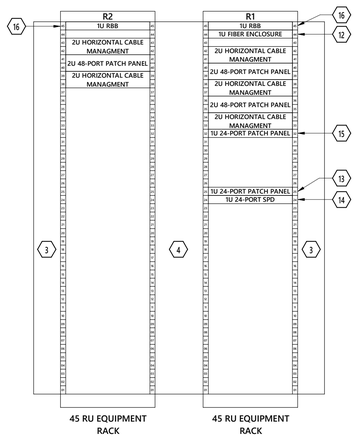


1 IT ROOM 105 - ENLARGED EQUIPMENT PLAN
1/2" = 1'-0"



2 IT ROOM 105 - ENLARGED PATHWAY PLAN
1/2" = 1'-0"



3 EQUIPMENT RACK ELEVATION
NO SCALE

GENERAL NOTES:

A. PROVIDE D-RINGS AS NEEDED TO DRESS CABLING RUN ALONG TTB.

KEYED NOTES:

1. PROVIDE TELECOM TERMINAL BACKBOARD (TTB) ALONG ALL WALLS OF TELECOM ROOM. ENSURE FIRE RATING STAMP IS VISIBLE. DO NOT PAINT.
2. PROVIDE 45RU 2-POST EQUIPMENT RACK. SECURE TO FLOOR PER MANUFACTURER'S INSTRUCTIONS.
3. PROVIDE 6" VERTICAL CABLE MANAGEMENT ON THE END OF EACH ROW OF EQUIPMENT RACKS.
4. PROVIDE 10" VERTICAL CABLE MANAGEMENT BETWEEN EQUIPMENT RACKS.
5. PROVIDE PRIMARY BONDING BUSBAR (PBB) MOUNTED TO TBB AT 6' AFF.
6. PROVIDE 12" WIDE LADDER-TYPE CABLE RUNWAY MOUNTED HORIZONTALLY AT 7' 6" AFF. SECURE TO WALLS AND EQUIPMENT RACKS PER MANUFACTURER'S INSTRUCTIONS.
7. PROVIDE THREE (3) 4" SERVICE ENTRANCE CONDUITS FROM COMMUNICATIONS HANDHOLE TO TELECOM ROOM, STUBBED UP THROUGH FLOOR SLAB. PROVIDE 3" 3-CELL FABRIC MESH INNERDUCT IN EACH CONDUIT. REFER TO ELECTRICAL SITE PLAN FOR ROUTING INFORMATION.
8. PROVIDE 12" WIDE LADDER-TYPE CABLE RUNWAY MOUNTED VERTICALLY TO TTB BETWEEN SERVICE ENTRANCE CONDUITS AND HORIZONTAL CABLE RUNWAY.
9. PROVIDE FOUR (4) 4" CONDUITS THROUGH WALL AT 10' 8" AFF. TWO (2) WILL SLEEVE INTO ADJACENT CORRIDOR 102. TWO (2) WILL CONTINIUE TO CORRIDOR 118. REFER TO FLOORPLANS FOR ROUTING.
10. SPACE RESERVED FOR WALL-MOUNTED SERVICE PROVIDER AND DEMARCATION EQUIPMENT.
11. WALL-MOUNTED ELECTRONIC SECURITY EQUIPMENT, BY OWNER'S SECURITY CONTRACTOR.
12. PROVIDE 1RU FIBER ENCLOSURE FOR INCOMING SERVICE. PROVIDE COUPLER PANELS FOR DUPLEX LC-TYPE CONNECTORS.
13. PROVIDE 1RU 24-PORT CAT6 PATCH PANEL DEDICATED FOR CAMERA CABLING.
14. PROVIDE 1RU 24-PORT SURGE PROTECTION DEVICE FOR CAT6 CAMERA CABLING. BOND TO RBB PER TIA-607.
15. PROVIDE 1RU 24-PORT CAT6A PATCH PANEL DEDICATED FOR WAP CABLING.
16. PROVIDE 1R RACK BONDING BUSBAR MOUNTED TO THE REAR SIDE OF THE EQUIPMENT RACK. BOND PER TIA-607.
17. PROVIDE TWO (2) 4" CONDUITS THROUGH WALL AT 10' 8" AFF. INTO ADJACENT TRAINING ROOM 109.

Ref North

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CASTLE HAYNES FIRE DEPARTMENT

TELECOM ENLARGED PLANS

Sheet No.
T4.01

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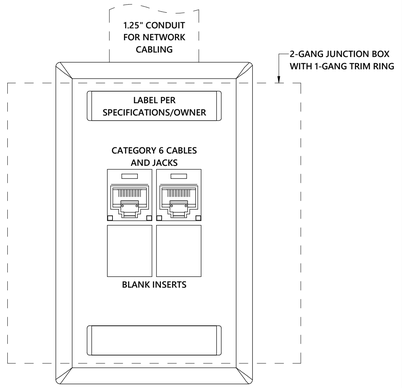
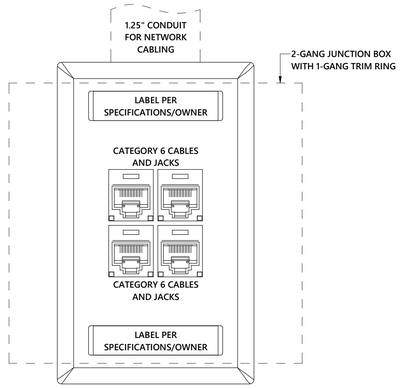
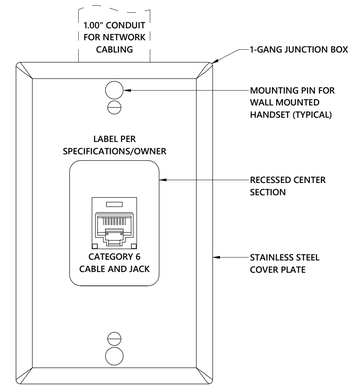


1 NETWORK OUTLET DETAIL - 2 PORT
NOT TO SCALE

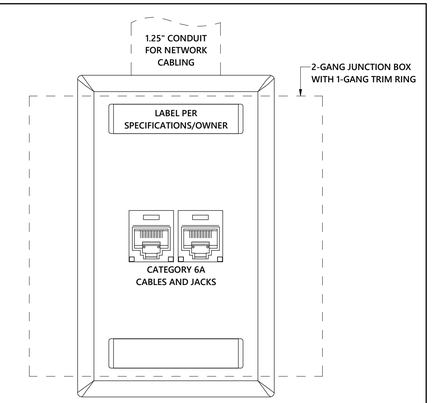


2 NETWORK OUTLET DETAIL - 4 PORT
NOT TO SCALE

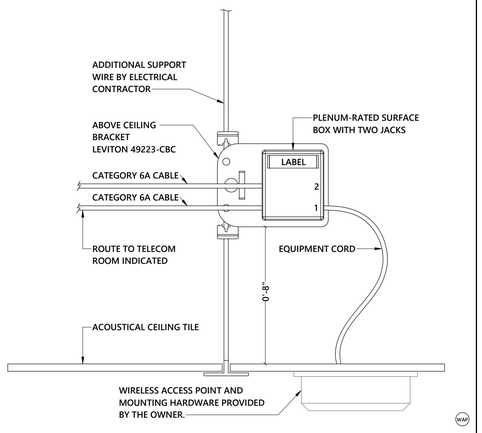


PANDUIT: KWPK6 OR APPROVED EQUAL

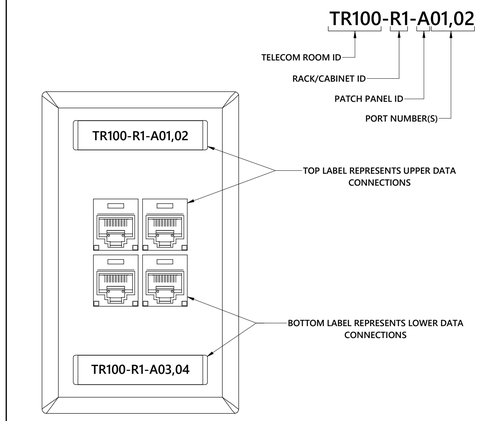
3 WALL PHONE OUTLET DETAIL
NOT TO SCALE



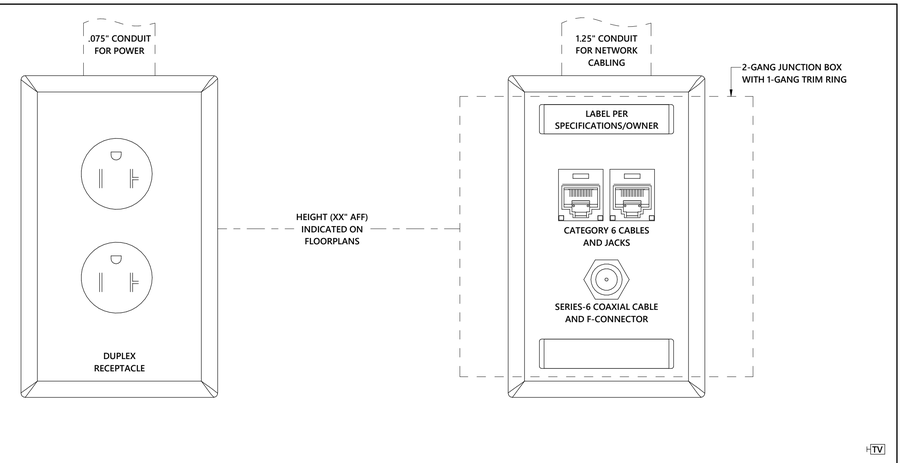
4 WIRELESS ACCESS POINT DETAIL (WALL-MOUNT)
NOT TO SCALE



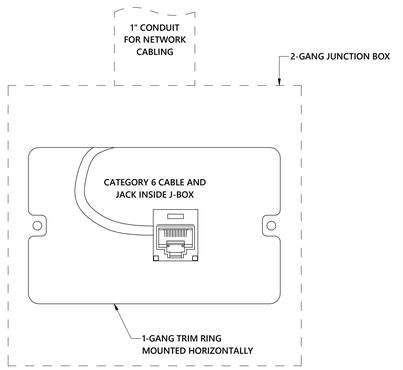
5 WIRELESS ACCESS POINT DETAIL (ACCESSIBLE CEILING)
NOT TO SCALE



6 NETWORK OUTLET LABELING DETAIL
NOT TO SCALE



7 TV OUTLET DETAIL
NOT TO SCALE



NOTES:
1. OWNER-PROVIDED ROOM SCHEDULER WILL MOUNT DIRECTLY TO TRIM RING.
2. PROVIDE WITH 6" PATCH CORD FOR CONNECTION TO DEVICE.

8 NETWORK OUTLET DETAIL - ROOM SCHEDULER
NOT TO SCALE

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CASTLE HAYNES FIRE DEPARTMENT

TELECOM DETAILS

Sheet No.
T5.01

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GENERAL NOTES:

A. BASIS OF DESIGN: FSR FL-500P-4-B OR APPROVED EQUAL. PROVIDE HARDWARE AS REQUIRED TO CONNECT DEVICES AND CONDUITS AS INDICATED.

B. PROVIDE (2) 5-20R RECEPTACLES.

C. PROVIDE ALL INSTALLATION HARDWARE AS REQUIRED.

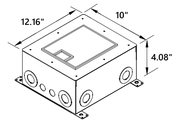
D. ROUTE STRUCTURED CABLING TO TELECOMMUNICATIONS ROOM INDICATED.

E. FLOOR BOX & COVER, CONDUIT, RECEPTACLES AND POWER WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.

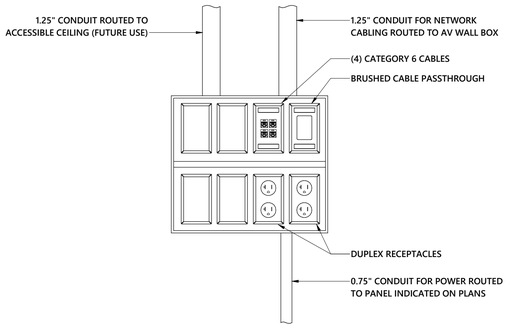
F. STRUCTURED CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY STRUTURED CABLING CONTRACTOR.

G. A/V CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY AV CONTRACTOR.

H. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.



DIMENSIONAL VIEW



FB8

1 8-GANG MULTI-SERVICE FLOOR BOX
NOT TO SCALE

GENERAL NOTES:

A. BASIS OF DESIGN: LEGRAND EVOLUTION FLOOR BOX EFB6S-OG OR APPROVED EQUAL. PROVIDE HARDWARE AS REQUIRED TO CONNECT DEVICES AND CONDUITS AS INDICATED.

B. PROVIDE (2) 5-20R RECEPTACLES.

C. PROVIDE ALL INSTALLATION HARDWARE AS REQUIRED.

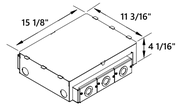
D. ROUTE STRUCTURED CABLING TO TELECOMMUNICATIONS ROOM INDICATED.

E. FLOOR BOX & COVER, CONDUIT, RECEPTACLES AND POWER WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.

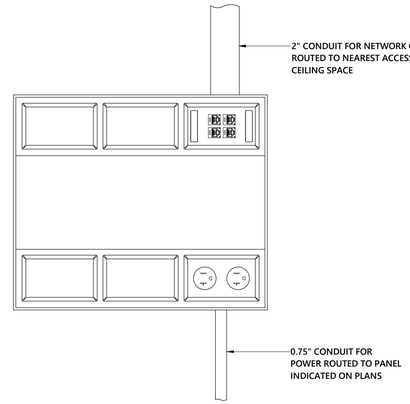
F. STRUCTURED CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY STRUCTURED CABLING CONTRACTOR.

G. A/V CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY AV CONTRACTOR.

H. COORDINATE EXACT LOCATION WITH ARCHITECT PRIOR TO INSTALLATION.



DIMENSIONAL VIEW



FB6

2 6-GANG MULTI-SERVICE FLOOR BOX
NOT TO SCALE

GENERAL NOTES:

A. BASIS OF DESIGN: LEGRAND EVOLUTION WALL BOX EFSB4 OR APPROVED EQUAL. PROVIDE HARDWARE AS REQUIRED TO CONNECT DEVICES AND CONDUITS AS INDICATED.

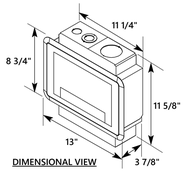
B. PROVIDE (2) 5-20R RECEPTACLES.

C. PROVIDE INSTALLATION HARDWARE AS REQUIRED. COORDINATE WITH ARCHITECTURAL DRAWINGS.

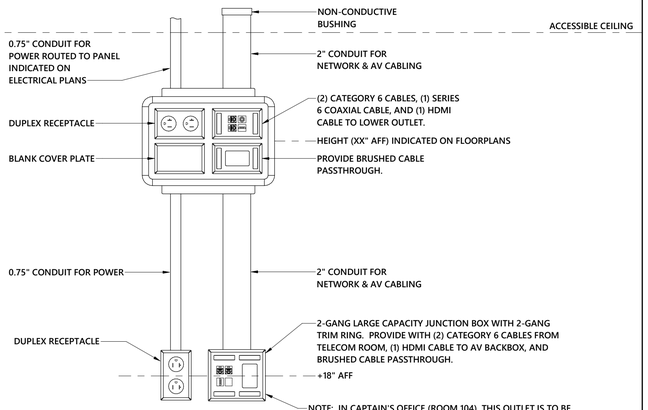
D. ROUTE STRUCTURED CABLING TO TELECOMMUNICATIONS ROOM INDICATED.

E. WALL BOX, CONDUIT, RECEPTACLES AND POWER WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.

F. STRUCTURED CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY STRUTURED CABLING CONTRACTOR.



DIMENSIONAL VIEW



AV1

3 AV BACKBOX WITH WALL PLATE DETAIL
NOT TO SCALE

GENERAL NOTES:

A. BASIS OF DESIGN: LEGRAND WMPAC526 WALL BOX OR APPROVED EQUAL. PROVIDE HARDWARE AS REQUIRED TO CONNECT DEVICES AND CONDUITS AS INDICATED.

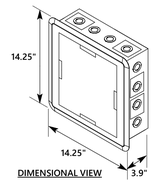
B. PROVIDE (1) 5-20R RECEPTACLE.

C. PROVIDE INSTALLATION HARDWARE AS REQUIRED. COORDINATE WITH ARCHITECTURAL DRAWINGS.

D. ROUTE STRUCTURED CABLING TO TELECOMMUNICATIONS ROOM INDICATED.

E. WALL BOX, FLOOR BOX, CONDUIT, RECEPTACLES AND POWER WIRING SHALL BE PROVIDED BY ELECTRICAL CONTRACTOR.

F. STRUCTURED CABLING AND ASSOCIATED HARDWARE SHALL BE PROVIDED BY STRUCTURED CABLING CONTRACTOR.



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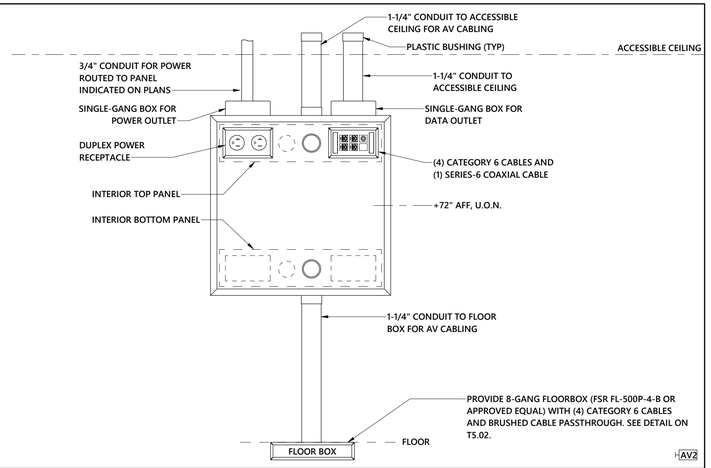
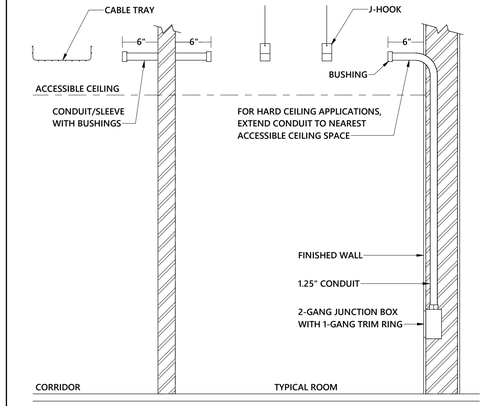
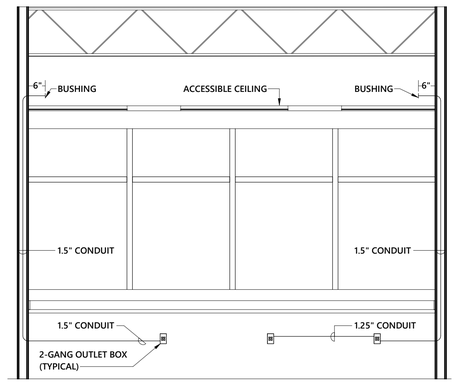


AV2

4 AV BACKBOX WITH FLOOR BOX DETAIL
NOT TO SCALE



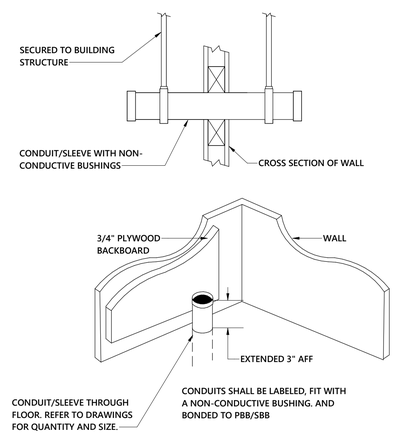
5 NETWORK OUTLET STUB UP DETAIL
NOT TO SCALE



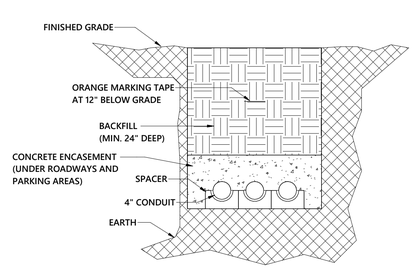
GENERAL NOTES:

A. FOR HARD CEILING APPLICATIONS, EXTEND CONDUIT TO NEAREST ACCESSIBLE CEILING SPACE.
B. NO MORE THAN (2) CONSECUTIVE JUNCTION BOXES MAY BE SERVED HORIZONTALLY.

6 NETWORK OUTLETS UNDER WINDOW DETAIL
NOT TO SCALE



7 TELECOMMUNICATIONS CONDUIT/SLEEVE DETAIL
NOT TO SCALE



NOTES:
A. PROVIDE 3" 3-CELL FABRIC MESH INNERDUCT WITH PULL TAPE IN EACH 4" SITE CONDUIT.
B. PROVIDE MINIMUM 3" OF SEPARATION BETWEEN CONDUITS IN DUCTBANK.
C. PROVIDE ALL CONDUITS WITH DUCT PLUGS ON BOTH ENDS.
D. PROVIDE TRACER WIRE IN ONE CONDUIT IN THE DUCTBANK.
E. CONDUIT BEND RAIUS SHALL BE NO LESS THAN 10 TIMES THE CONDUIT OUTER DIAMETER.

8 3-WAY 4" TELECOM DUCTBANK DETAIL
NOT TO SCALE

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TELECOM DETAILS

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T5.02

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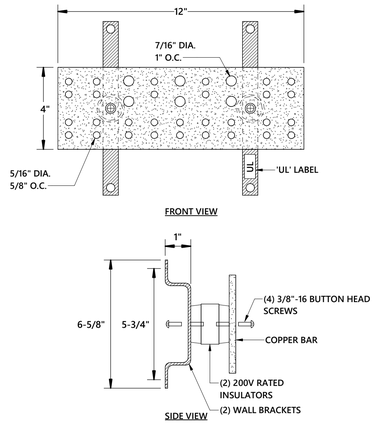
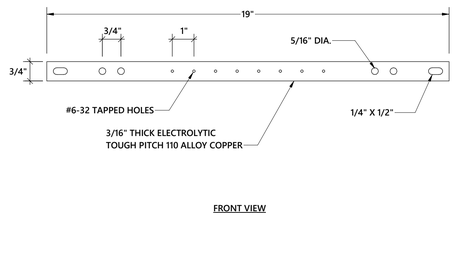


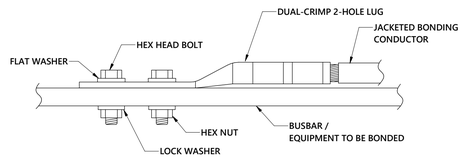
CPI: 40153-012 OR APPROVED EQUAL

1 PRIMARY BONDING BUSBAR 'PBB'
NOT TO SCALE



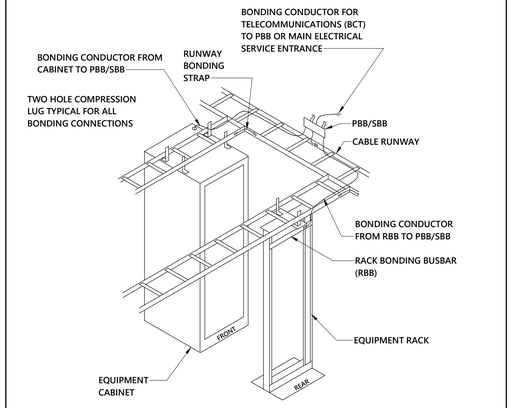
CPI: 10610-019 OR APPROVED EQUAL

2 RACK BONDING BUSBAR 'RBB'
NOT TO SCALE

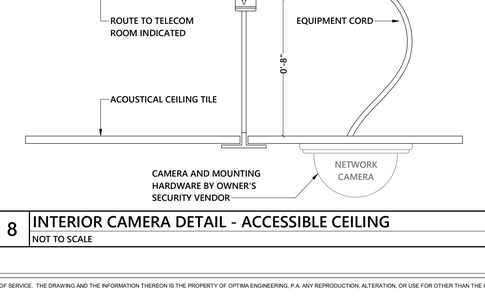


INSTALLATION NOTES:
1. PROVIDE APPROPRIATELY SIZED LUG FOR BONDING CONDUCTOR.
2. PROVIDE APPROPRIATELY SIZED BOLTS WITH A MINUMUM OF TWO EXPOSED THREADS.
3. REMOVE PAINT FROM MATING SURFACE IN AREA OF LUG CONTACT.
4. APPLY ANTI-OXIDANT COMPOUND TO MATING SURFACE AND WIPE CLEAN EXCESS COMPOUND.

3 2-HOLE GROUNDING LUG TERMINATION
NOT TO SCALE



4 CABLE TRAY BONDING AND GROUNDING
NOT TO SCALE



TELECOMMUNICATIONS GROUNDING LEGEND

PBB	PRIMARY BONDING BUSBAR
SBB	SECONDARY BONDING BUSBAR
TBB	TELECOMMUNICATIONS BONDING BACKBONE. SIZE PER TABLE ON THIS SHEET.
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR. PROVIDE A MINIMUM #6 AWG GROUND.
BC	BONDING CONDUCTOR. PROVIDE A MINIMUM #6 AWG GROUND.
ACEG	ALTERNATING CURRENT EQUIPMENT GROUND. PROVIDE A MINIMUM #6 AWG GROUND.
BCT	BONDING CONDUCTOR FOR TELECOMMUNICATIONS. PROVIDE A MINIMUM #3/0 AWG GROUND IN 3/4" C.
RBB	RACK BONDING BUSBAR

5 TYPICAL PBB CONNECTIONS
NOT TO SCALE

TELECOM BACKBONE BONDING (TBB) CONDUCTOR SIZE VS LENGTH TABLE

TBB/GE LINEAR LENGTH (FT)	TBB/GE SIZE (AWG)
13	6
14-20	4
21-26	3
27-33	2
34-41	1
42-52	1/0
53-66	2/0
67-84	3/0
85-105	4/0
106-125	250 kcmil
126-150	300 kcmil
151-175	350 kcmil
176-250	500 kcmil
251-300	600 kcmil
GREATER THAN 301	750 kcmil

NOTES:
A. TBB SIZING TABLE PER LATEST EDITION OF TIA-607-D.
B. THE MINIMUM TBB CONDUCTOR SIZE SHALL BE A NO. 6 AMERICAN WIRE GAUGE (AWG).

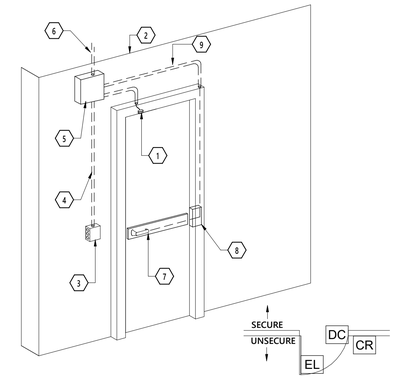
6 TELECOM BACKBONE BONDING (TBB) TABLE
NOT TO SCALE

GENERAL NOTES:
A. DOOR DETAIL INDICATES DOOR HANDLE OR CRASHBAR ON SECURED SIDE OF DOOR FOR REFERENCE ONLY. LOCK POWER WILL VARY DEPENDING ON LOCK TYPE AND DOOR HARDWARE. CONTRACTOR SHALL CROSS REFERENCE WITH DOOR HARDWARE SCHEDULE/SPECIFICATIONS TO CONFIRM FINAL REQUIREMENTS.

B. ALL CONDUITS SHALL BE CONCEALED; UNLESS OTHERWISE NOTED

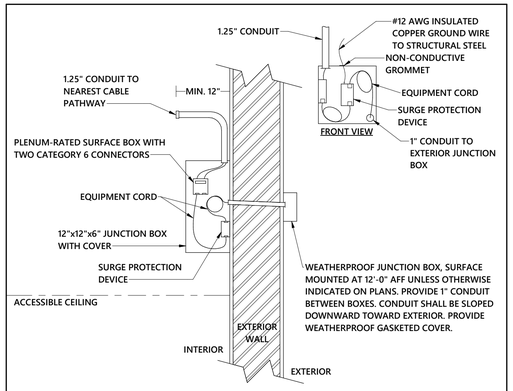
C. PROVIDE AND INSTALL PULL STRINGS IN ALL CONDUITS.

KEYNOTES: (#)
1. DOOR CONTACT: PROVIDE FLUSH MOUNTED DOOR STATUS MONITOR.
2. DOOR CONTACT CONDUIT: PROVIDE 3/4"C. FROM DOOR FRAME TO SECURITY ENCLOSURE ABOVE DOOR.
3. CARD READER: PROVIDE 4"X4"X2-1/8" FLUSH BACK-BOX AND SINGLE GANG MUD RING MOUNTED ON NON-SECURED SIDE OF DOOR AT 42" AFF.
4. CARD READER CONDUIT: PROVIDE 3/4"C. FROM JUNCTION BOX TO SECURITY ENCLOSURE ABOVE DOOR.
5. SECURITY ENCLOSURE ABOVE DOOR ON SECURE SIDE: PROVIDE 12"X12"X4" PAINTABLE ENCLOSURE MOUNTED ABOVE FINISHED ACCESSIBLE CEILING OR 10' AFF IN AREAS WITHOUT A CEILING ON SECURED SIDE OF DOOR.
6. SECURITY ENCLOSURE CONDUIT: PROVIDE 3/4"C. TO NEAREST ACCESSIBLE CEILING, CABLE TRAY OR TELECOM ROOM.
7. ELECTRIFIED LOCKSET: ELECTRIFIED LOCKSET WITH INTEGRATED REX SWITCH, SHOWN FOR REFERENCE ONLY.
8. POWER TRANSFER HINGE: HINGE WITH ISOLATED ELECTRICAL CONNECTIVITY, SHOWN FOR REFERENCE ONLY.
9. POWER TRANSFER HINGE CONDUIT/ELECTRIFIED LOCKSET CONDUIT: PROVIDE 3/4"C. FROM DOOR FRAME TO SECURITY ENCLOSURE.



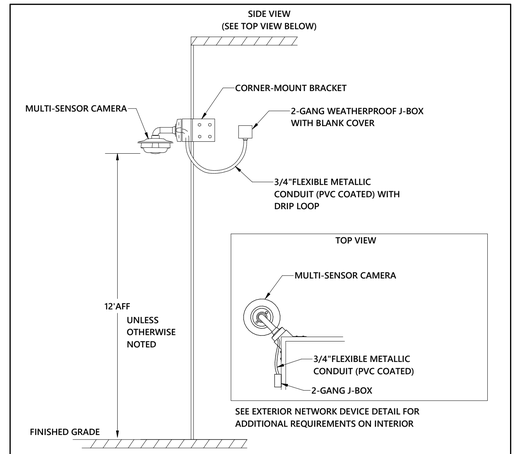
7 SINGLE DOOR - ELECTRIFIED HARWARE W/INTEGRATED REX
NOT TO SCALE

8 INTERIOR CAMERA DETAIL - ACCESSIBLE CEILING
NOT TO SCALE



GENERAL NOTES:
A. ALL DEVICES MUST BE SECURED INSIDE JUNCTION BOX.
B. EQUIPMENT CORD BETWEEN CAMERA AND SURGE PROTECTION DEVICE MUST BE MINIMUM 3' IN LENGTH.
C. SURGE PROTECTION DEVICE MUST BE GROUNDED WITHIN 10' OF ENTERING BUILDING.

9 EXTERIOR NETWORK DEVICE DETAIL
NOT TO SCALE



10 EXTERIOR CAMERA - CORNER MOUNT MULTI-SENSOR
NOT TO SCALE

Project No.
1738

Date:
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TELECOM DETAILS

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T5.03

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