

ADDENDUM No. 1

Date: November 7, 2019
To: All Bidders
From: **Jenkins•Peer Architects**
Charlotte, N.C.
Re: UNC Charlotte – Residence Hall Phase XVI
SCO ID: 18-18333-02A
JPA Project #: 18NCC016

NOTICE to BIDDERS:

Bidder is hereby notified that this Addendum shall hereby become a part of the Construction Documents and the official Contract Documents, and shall be attached to the Project Manual for the Project.

The following items are intended to revise and clarify the Drawings and the Project Manual.

The bidder shall see that their Sub-Bidders are in full receipt of the information contained herein.

General Note:

This Addendum includes the following groups and subsequent “items” referring to various parts of the Contract Documents. Note that some “items” may refer to Bulletin Drawings or new Specification Sections which are attached at the back of the Addendum.

GENERAL REQUIREMENTS

- 1) PRE-BID MEETING MINUTES (Meeting date November 5, 2019– at UNC Charlotte – Cone 210
 - a) Meeting minutes with Sign-In sheet of attendees attached.
 - b) Good Faith Efforts document for MBE information.
 - c) Map of Starlight Cinema Parking location
 - d) Plan Holder’s List - List of GC’s who have downloaded documents from JPA Sharefile site
- 2) Form Of Proposal: This document is replaced in its entirety to coordinate with revisions to Alternates Section 012300.

PROJECT MANUAL & TECHINCAL SPECIFICATIONS DIVISIONS

- 1) Notice to Bidders – Revised to include extended bid period and new bid date.
- 2) Section 012100 – Allowances: This Section is replaced in its entirety for changes in rock removal allowances.
- 3) Section 012300 – Alternates: This Section is replaced in its entirety for revisions and additions to Schedule of Alternates
- 4) Section 015000 – Temporary Facilities and Controls: This Section is replaced in its entirety for updated contact information for turnover and assumption of rental costs of existing construction perimeter fencing.
- 5) Section 221313 – Facility Sanitary Sewers: This Section is replaced in its entirety for revisions to gravity sewer pipe and fittings material requirements.
- 6) Section 312316 – Controlled Blasting: This Section is added to the Project Manual and Table of Contents

DRAWING SHEETS:

G-301 – Partition Types and Details – Updated with clouded revisions
G-302 – Partition Types and Details – Updated with clouded revisions
C4.00 – Utility Plan - Updated with clouded revisions

RESPONSES TO EMAIL QUESTIONS (NOTE: QUESTIONS AND RESPONSES ARE INCLUDED HERE ONLY IF THEY ARE NOT RESPONDED TO ELSEWHERE IN THIS ADDENDUM):

QUESTION: Article 1.14, A of the Supplemental General Conditions of the contract issued with bid specifications notes a completion date of July 1, 2021. We do not find any reference to the projected award and start date for the project? Can this be provided so we can be able to estimate an actual duration?

RESPONSE: The projected award and start date are dependent on multiple factors outside of the Owner and Designer's control. It is anticipated that the start date will be no later than February 1, 2020 but this could change based on a numb

QUESTION: G301 and G302 call out metal studs to be 25 gauge. Specification 092900, 2.2, B, 1 notes these as 20 gauge. Please advise which is correct.

RESPONSE: Where wall types for acoustic walls require 25 ga. studs, please use 25 ga. as this is inherent to the acoustic properties of the wall. All other interior walls (non-acoustic) shall comply with specification requirements of min. 20 ga. studs.

QUESTION: Specification 092900, 2.4, A notes acoustical insulation is to be 2" mineral fiber unless noted otherwise. Wall types pages Note 11 states 3-1/2" insulation unless noted otherwise. STC designs listed in the wall types range from 2-1/2" (NGC-2386), 3"(NGC-3022) and 3-1/2"(RAL-TL76-155) fiberglass insulation. For thickness of insulation. Which are we to follow Spec, STC Designs, Note 11 on wall types page. Same for type of insulation fiberglass or mineral fiber.

RESPONSE: The drawings and specifications are complementary – not contradictory. Where wall types require different thicknesses of insulation than the specified minimum of 2", then the larger thickness shall be required. Note 11 on the wall type sheets makes no reference to "fiberglass" insulation. Note 11 refers to 'acoustical' insulation and specification Section 092900 defines acoustical insulation as mineral fiber with 3 lbs/cu.ft. maximum density and tested in accordance with ASTM C423. Fiberglass insulation is not acceptable for use as acoustical insulation and acoustic insulation must meet all of the specification requirements for material and testing.

End of ADDENDUM No. 1

Attachments:

- Pre-bid Meeting Sign-in sheet and Minutes
- UNC Charlotte Good Faith Efforts document
- Map of Starlight Cinema parking location
- Plan Holders List
- Revised Notice to Bidders
- Revised Form of Proposal
- Revised Specifications Sections 012100, 012300, 01500 and 221313.
- New Specification Section 312316
- Revised Drawing sheets G-301, G-302 and C4.00

Name	Company	Email	Address	Phone
THOM TACOTT	JPA	ttacott@jenkinspeer.com		704-940-6925
Evelyn Hawkins	JKEI TRUCKING	jkei.safety@gmail.com		980-721-5030
Justin Heitz	Shelco	jheitz@shelcolc.com		704-367-5604
Joe Shelley	Schneider Electric	Joe.Shelley@SE.com		704-634-1685
Chisa Brooks	BROOKES CONSTRUCTION	mbro@buildbrokes.com		704-426-3375
Tim Buck	CADDELL CONST. (GC)	tim.buck@caddell.com		(334) 394-0185
KEVIN Robinson	The Baswell Group	krobinson@thebaswellgroup.com		704-756-2500
Chris Bruner	Gates Construction	Chris.bruner@gatesconst.com		704-361-8462
Will Hudson	Whiting-Turner	william.hudson@whiting-turner.com		704-606-6907
Melinda Orsawa	Remolds Painting	melinda@remoldspainting.com		(910) 593-0300
James Kephussman	Puehler	jkephussman@puehlerconstruction.com		803-553-7488
Justin Dulle	jDulle@puehlerconstruction.com		618	526-3363
JOSE POCASANGRE	BRANCH BUILDS	JOSE.POCASANGRE@BRANCHBUILDS.COM		704-201-9238
Peter Moody	Harkins	p.moody@harkinsbuilders.com		609-744-7791
MICHAEL SMITH	ECS	MICHAEL.SMITH@ECS-CONTRACTS.NET		
KANCEE SULLIVAN	Steeles Mechanical	ksullivan@steelesmechanical.com		803-417-0191
SCOTT OOSTHUYSEN	Cleveland Construction	estimating@clevelandconstruction.com		440-255-8000
Jack Craft	Shiel Sexton Company	jc.craft@shielsexton.com		704-679-4088
Timothy Dinsmore	SKA	tdinsmore@skaeng.com		704-292-9736
DAN NAN DYKE	JPA			
Nike Bedell	BCC			919-901-7129
LAOUCHE COUCH	BCC	lcouch@BAGWILLCONTRACTING.COM		803-818-0596
PAUL FOX	HARKINS BUILDERS	PFox@HARKINSBUILDERS.COM		326-312-6602
DARREL LEE	Global Team Electric	globalteamelectric@gmail.com		704-277-3948
Justin Burgess	Steelworks	jburgess@steel-works.com		804-828-0472
Haley Hassler	BARTON MALAN CO.	haley.hassler@bartonmalan.com		434-561-7480
HARRIS HANOLD	TAYLOR FATHERS	hhanold@taylorfathers.com		980-207-3160
-Jeremy Eudy	Gates Co Inc	jeremy.eudy@gatesconstco.com		704-363-9163
Bob Gates	Gates Co Inc	Bob.gates@gatesconstco.com		704-664-2121
BEANDON REISSER	WALBRIDGE	BREISSER@WALBRIDGE.COM		704-362-4132

Residence Hall Phase XVI

UNC Charlotte

SCO ID#: 18-18333-02A

JPA Project #18NCC016

Pre-Bid Meeting Minutes

November 5, 2019

UNC Charlotte – Cone Building, Rm. 210A

2:00 P.M.

Agenda:

1. Introduction of Project Team
2. Description of the Project
 - a. The project consists of a new Residence Hall of 6 floors and approximately 147,000 sq. ft. and approximately 680 beds. The building will include student sleeping units in traditional double configuration along with three apartments, housing offices, study and recreational lounges, public kitchen, laundry and bathrooms. The building will also include classroom space and utility and accessory spaces for Housing and Residence Life operations. The project will be designed and constructed utilizing the Green Globes Rating/Certification Assessment program developed and administered by Green Building Initiative.
3. Parking & Contractor Offices
 - a. Within the site, Lot 6 with a proper UNCC parking permit, or at the Starlight Cinema
 - i. **UNCC clarified this item and noted that UNCC parking permits are required at all 3 parking locations.**
 - ii. **A map of the location of Starlight Cinema will be included in Addendum 1.**
4. Review of Bidding Requirements:
 - a. Single Prime Bids only (GS 87-1).
 - b. Opening Date: December 3, 2019 at 2:00PM, Cone Center, Rm. 210
 - i. **JPA indicated that a revised Notice to Bidders documenting the change of the bid date would be issued via Addendum 1.**
 - ii. **It was also noted that the forthcoming addendum would include the pre-bid meeting sign in sheet and list of plan holders that have downloaded plans from JPA's Sharefile site.**
 - c. 5% Bid Bond
 - d. 90 day bid hold
 - e. Bid security, Form of Proposal and MBE requirements must be submitted with Bid. All Contractors are cautioned to keep full records on Minority Participation
5. Allowances (Section 012100) & Unit Prices (Section 012200):
 - a. Allowances are part of total base bid number.

UNC Charlotte – Residence Hall Phase XVI
Pre-Bid Meeting Agenda – November 5, 2019
Page 2 of 2

- b. Unit prices are used to establish the cost of additional work beyond the allowance quantity listed.
 - c. All unused portions of allowance values will be returned to the Owner via deductive change order at the end of the project.
6. Time of Completion and Liquidated Damages:
 - a. Completion of project on schedule is critical for UNC Charlotte
 - b. Schedule:
 - i. Notice of Intent: TBD
 - ii. Notice to Proceed: Anticipated February 1, 2020
 - iii. Final Completion: July 1, 2021
 - c. Liquidated damages: \$5,000 per calendar day.
7. Proper submission of Bidder questions: Questions will be accepted via e-mail only and only from General Contractors. Questions submitted to Jenkins Peer directly from sub-contractors, suppliers and manufacturers will be ignored. All questions must be received 10 calendar days prior to Bid opening. No exceptions. Reference the Instructions to Bidders for RFI requirements. For e-mail, use ttonetti@jenkinspeer.com.
 - a. Final addendum will be issued no later than 7 days prior to bid opening.
8. Existing Conditions and Temporary Pedestrian Route
9. Owner Preferred Alternates:
 - a. Provide the following door hardware in lieu of approved equals:
 - i. Medeco Cylinders
 - ii. Sargent exit devices.
 - b. Provide fire alarm system by Simplex in lieu of other approved equals per specification section 28 31 11 and sheet E-001.
 - c. Provide telecommunications system using only those materials listed in Specifications division 27 in lieu of all other specified manufacturers. See also sheet E-001.
 - d. Provide English Edge Pavers by Pine Hall in lieu of all other paver manufacturers specified in Section 32 14 00.
 - e. Provide Open Options for access control per specification section 281300 and sheet E-001.
10. HUB Participation
11. Owner comments
12. Bidders questions
13. Tour of site

UNC Charlotte
“Good Faith Effort” Requirements
(Residence Hall Phase XVI)

This information is provided as a guide for firms who may be new to UNC Charlotte and may not be familiar with our expectations regarding minority business participation on State Construction Contracts. Bidders should be familiar with the ***Guidelines for Recruitment & Selection of Minority Businesses for Participation in State Construction Contracts*** as well as the applicable bid forms.

The minority participation goal for this project is twenty percent (20%).

Identification of HUB Certified/Minority Business Participation form – Only list minority firms that you will use as construction subcontractors, vendors, suppliers or professional service providers on this project. The bidder cannot list himself on this form as he cannot subcontract to himself. **Note:** This form should be submitted with your bid, even if left blank.

Affidavit A – Listing of Good Faith Efforts – the bidder is certifying that he has made a good faith effort to comply under those areas checked on the form. Do not check a Good Faith Effort item unless you can provide the following;

1. Contacting 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 or proposal date** and notifying them of the nature and scope of the work to be performed.
Copies of written (emailed or faxed) notification to minority businesses and copies of quotes/proposals received for work solicited to minority businesses. Notification should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.
Be sure to maintain a telephone log to confirm that minority firms received your Invitation For Bid (IFB). The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged receipt of your IFB. ***Also maintain a telephone log to confirm that minority firms acknowledged a “bid/no bid” to your IFB.*** The log should contain the date contacted, telephone number, and name of the individual representing the minority firm who acknowledged “bid/no bid” to your IFB.
2. Making 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 bid or proposals are due.
Copies of written (emailed or faxed) notification to minority businesses should include, at a minimum, project location, location where plans and specifications may be obtained or viewed, trade or scopes of work for which subcontracts are being solicited, contact person within the prime contractor organization.
3. Breaking down or combining elements of work into economically feasible units to facilitate minority participation.
Document steps taken to segment elements of work into economically feasible units to meet minority business availability. Identify sub-contractors/suppliers/consultants and scope of work involved in segmenting.

Be sure that you are soliciting quotes from **at least** three (3) minority firms in scopes of work that typically have adequate numbers of minority firms available that can perform the work required (hauling, concrete, flooring, masonry, painting, electrical suppliers, etc.). Do not solicit quotes from minority firms in those scopes of work that typically do not have minority firms available that can perform the work

required (elevators, fire suppression systems, roofing, etc.). If there are minority firms that you typically use on your projects then by all means, feel free to use them, if you are sure you are receiving reasonable pricing and quality work.

4. Working with minority trade, community or contractor organization identified by the Office for Historically Underutilized Businesses (HUB) and included in the bid documents that provide assistance in recruitment of minority businesses. **Note 1:** Posting of your bid to Minority plan rooms does not satisfy this requirement. **Note 2:** Working with the UNC Charlotte HUB Coordinator does not satisfy this requirement.

Provide a copy of meeting minutes between prime contractor and minority trade, community or contractor organization. At minimum the following topics should be discussed/reviewed during the meeting: project location; location where plans and specifications may be obtained or viewed; trade or scopes of work for which subcontracts are being solicited; bonding requirements; insurance requirements; prime contractor's contact person; minority trade, community or contractor organization contact person; strategies to segment elements of the work into economically feasible units to meet minority business availability; strategies to increase minority business utilization through joint ventures and/or partnerships; notification that the meeting will be counted toward the contractor's good faith effort.

Maintain a copy of the request, and have the date, telephone number and name of the individual who acknowledged receipt of your request and information regarding any/all assistance provided by the organization

5. Attending any pre-bid meetings scheduled by the public owner.
Attendance will be verified by conference sign-in sheet.
6. Providing assistance in getting required bonding or insurance or providing alternatives to bonding or insurance for subcontractors.
Have documentation describing the type of assistance provided or offered to minority businesses. Provide names and contacts of minority businesses to which assistance was offered and names of the contact person of bonding companies or financial institutions offering assistance.
Be sure to mention that assistance with bonding and/or insurance will be provided in your IFB.
7. Negotiating in good faith with interested minority businesses and not rejecting 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.
Document number of bids received from minority businesses in the trade or scopes of work for which subcontracts are being solicited, the number of minority businesses that submitted low bids or proposals, the number of minority businesses the bidder has offered to negotiate prices or services, and the number of minority businesses the bidder has agreed to utilize on the project, outline steps taken.
8. Providing 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 or assisting minority businesses in obtaining the same unit pricing with the bidders supplier.
Document names, addresses and telephone numbers of minority businesses to which assistance was offered, outline steps taken. Give dates assistance was offered and document outcome.
Be sure to mention that assistance with equipment, loan capital, lines of credit or joint pay agreements to secure loans, supplies, or letters of credit will be provided in your IFB.
9. Negotiating 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.

Provide a copy of joint venture or partnership arrangements between bidder and minority businesses.

10. Providing quick pay agreements and policies to enable minority contractors and suppliers to meet cash-flow demands.

Be sure to mention that quick pay agreements will be provided to assist contractors with cash-flow demands in your IFB. Do not include stipulations that require the contractor to prove they need the quick pay.

Provide a copy of quick pay agreements and/or policies and document the number of minority businesses that will utilize the quick pay agreement. Provide a copy of the quick pay agreement between bidder and minority businesses.

Net 30 or 45 is not quick pay.

Quick Pay will be paid whether or not the General Contractor has been paid or the Owner has approved the minority subcontractor's work.

Note: Referencing the Good Faith Efforts listed above in your IFB is not enough. You must be able to document your efforts.

Affidavit B – Intent to Perform Contract with Own Workforce – In making this certification the bidder is stating that he 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 own current workforce. The bidder agrees to make a Good Faith Effort to utilize minority suppliers where possible. **“Self-performing”** means the contractor has all equipment, personnel and supplies on hand to perform the contract. If the contractor needs to purchase supplies or rent equipment and operators to perform the work, then the contractor **is not** self-performing and should make efforts to purchase supplies or equipment, or temporary labor from minority firms. **Note:** No other Affidavits are required if the Bidder meets this criteria.

Affidavit C – Portion of the Work to be Performed by HUB Certified/Minority Businesses – This form is to be submitted only by the apparent lowest responsible, responsive bidder with equal to or greater than 10% minority participation.

Affidavit D – Good Faith Efforts – This form is to be submitted only by the apparent lowest responsible, responsive bidder with less than 10% minority participation along with their backup documentation.

Minority-owned Pre-qualified Bidders – **must also** meet the minority participation goals set for the project. Work performed by the minority-owned pre-qualified bidder will be counted towards the minority participation goal **only if** the minority contractor is **self-performing** and submitted Affidavit B.

Certification Requirements – Ensure the minority firms you contact for subcontracting opportunities are listed in the Statewide Uniform Certification (SWUC) Vendor database as **only firms** listed in the SWUC Vendor database, at the time of contract award, **will be counted** towards the minority participation goal for this project. Go to <https://www.ips.state.nc.us/vendor/searchvendor.aspx?t=h> for access to the SWUC Vendor database.

Assistance:

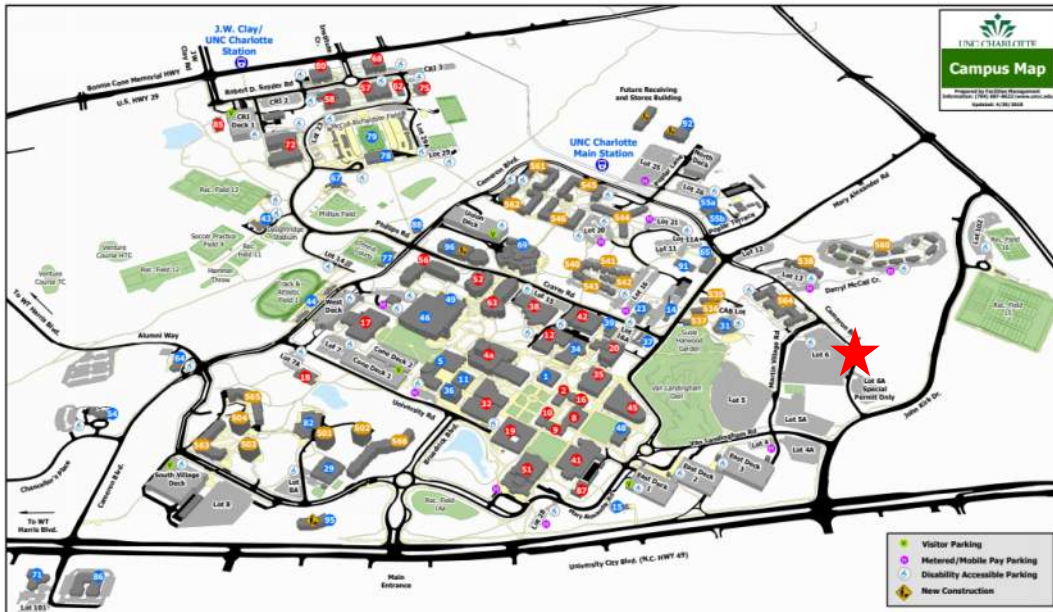
Email the UNC Charlotte HUB Coordinator, Dorothy Vick (704-687-0527), **no later than 12:00 Noon, Thursday, November 14, 2019** to dlvick@unc.edu (**Email Subject: Residence Hall Phase XVI**) for the following;

1. **Assistance in finding certified minority firms who have worked on UNC Charlotte projects and who can perform the scopes of work (site work, concrete, electrical, etc.) you are seeking, and/or**
2. **A list of minority trade, community or contractor organizations** identified by the Office for Historically Underutilized Businesses that provide assistance in recruitment of minority businesses.



Parking

- Within the site or Lot 6 (based on time of year), or at the Starlight Cinema; permit required at all locations



NOVEMBER 5, 2019 | CONE 210A

PRE-BID MEETING



UNC CHARLOTTE RESIDENCE HALL PHXVI

UNC Charlotte Phase XVI Plan Holders

Branch Builds	angieo@branchbuilds.com	
Harkins Builders	srubins@harkinsbuilders.com	
Samet	blyons@sametcorp.com	
Shelco	jheitz@shelcollc.com	
ShielSexton	sdowning@shielsexton.com	
Caddell	stephanie.lowery@caddell.com	
Turner	clotte@tcco.com	
New Atlantic	jcrompton@new-atlantic.net	
Cleveland	lchimiak@clevelandconstruction.com	
Walbridge	gkeresi@walbridge.com	
Poettker Construction	jdulle@poettkerconstruction.com	
Barton Malow	josh.spencer@bartonmalow.com	

NOTICE TO BIDDERS

Sealed bids will be received by the University of North Carolina at Charlotte in Charlotte, NC, up to **2:00 p.m. Tuesday, December 3, 2019** in Room 210 of the Cone Center building (#5 on the campus map – <http://facilities.uncc.edu/maps>) and immediately thereafter publicly opened and read for the furnishing of labor, material and equipment for the:

Residence Hall Phase 16
SCO ID# 18-18333-02A

The project consists of a new Residence Hall of 6 floors and approximately 147,000 sq. ft. and 680 beds. The building will include student sleeping units in traditional double configuration along with three apartments, housing offices, study and recreational lounges, public kitchen, laundry and bathrooms. The building will also include classroom space and utility and accessory spaces for Housing and Residence Life operations. The project will be designed and constructed utilizing the Green Globes Rating/Certification Assessment program developed and administered by Green Building Initiative.

Bids will be received for Single-Prime contract from licensed General Contractors only.

All proposals shall be lump sum.

Non-Mandatory Pre-Bid Meeting

A Non-mandatory Pre-bid meeting will be held for all interested bidders at **2:00 p.m. Tuesday, November 5, 2019** in room Cone 210A of the Cone University Center (#05 on the campus map). Visitor parking is available in Cone Deck. The meeting will address project specific questions, issues, bidding procedures and bid forms. This meeting is open to the public.

Complete plans, specifications and contract documents will be open for inspection at the following:

1. Jenkins Peer Architects, 112 South Tryon Street, Suite 1300, Charlotte, NC 28284, Phone: (704)372-6665
2. Owner – UNC Charlotte, Facilities Management/Police Building, 2nd floor – Capital Projects, 9151 Cameron Blvd, Charlotte, NC 28223, Phone: (704) 687-0615

Digital copies of the plans, specifications and contract documents will be available at the following:

- Jenkins-Peer Architects, Thom Tonetti at ttonetti@jenkinspeer.com
- Construct Connect at content@constructconnect.com, (800) 364-2059
- North Carolina Offices of Dodge Data & Analytics (formerly McGraw-Hill Construction) (800) 393-6343 – <http://construction.com/dodge>
- Metrolina Minority Contractors Association (MMCA), mmca@mmcaofcharlotte.org.
- Richa Graphics Plan Room: <https://planroom.richa.com/pnonline/index.asp>
- The Bluebook Building and Construction Network: www.thebluebook.com

Hard copies of the design documents can also be obtained for a refundable deposit of Two Hundred Fifty Dollars (\$250.00) in cash or by certified check per set. Deposit fee will be returned upon receipt of a clean set of documents in good condition within ten (10) days after bid date. Contact Thom Tonetti at tonetti@jenkinspeer.com for instructions to obtain hard copies.

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 *Affidavit B* as applicable. Forms and instructions are included within the Proposal Form in the bid documents. Failure to complete these forms is grounds for rejection of the bid. (GS143-128.2c Effective 1/1/2002.)

All contractors and sub-contractors are hereby notified that they must have proper license as required under the state laws governing their respective trades.

General contractors are notified that Chapter 87, Article 1, General Statutes of North Carolina, will be observed in receiving and awarding general contracts. General contractors submitting bids on this project must have license classification for Building Contractor – Unlimited.

Each proposal shall be accompanied by a cash deposit or a certified check drawn on some bank or trust company, insured by the Federal Deposit Insurance Corporation, of an amount equal to not less than five percent (5%) of the proposal, or in lieu thereof a bidder may offer a bid bond of five percent (5%) of the bid executed by a surety company licensed under the laws of North Carolina to execute the contract in accordance with the bid bond. Said deposit shall be retained by the owner as liquidated damages in event of failure of the successful bidder to execute the contract within ten days after the award or to give satisfactory surety as required by law.

A performance bond and a payment bond will be required for one hundred percent (100%) of the contract price.

Payment will be made based on ninety-five percent (95%) of monthly estimates and final payment made upon completion and acceptance of work.

No bid may be withdrawn after the scheduled closing time for the receipt of bids for a period of 90 days.

The owner reserves the right to reject any or all bids and to waive informalities.

Bidders who will not attend the Bid Opening need to ensure their sealed bids are delivered **no later than 12:00 p.m.** December 3, 2019 to the following:

Mailed Proposals:

Attn: Ms. Joyce Clay – Capital Projects
The University of North Carolina at Charlotte
Facilities Management – Capital Projects
9201 University City Blvd.
Charlotte, NC 28223-0001

OR

Hand-Delivered:

Attn: Ms. Joyce Clay – Capital Projects
The University of North Carolina at Charlotte
Facilities Management/Police Building
2nd Floor – Capital Projects
9151 Cameron Blvd.
Charlotte, NC 28223
(704) 687-0615

Designer:
Jenkins Peer Architects

Owner:
University of North Carolina at Charlotte

112 S Tryon St, Ste. 1300, Charlotte, NC 28284

9201 University City Blvd. Charlotte, NC 28223

704-372-6665

704-687-0615

FORM OF PROPOSAL

Residence Hall Phase 16

University of North Carolina at Charlotte

18-18333-02A

Contract: General Construction

Bidder: _____

Date: _____

The undersigned, as bidder, hereby declares that the only person or persons interested in this proposal as principal or principals is or are named herein and that no other person than herein mentioned has any interest in this proposal or in the contract to be entered into; that this proposal is made without connection with any other person, company or parties making a bid or proposal; and that it is in all respects fair and in good faith without collusion or fraud. The bidder further declares that he has examined the site of the work and the contract documents relative thereto, and has read all special provisions furnished prior to the opening of bids; that he has satisfied himself relative to the work to be performed. The bidder further declares that he and his subcontractors have fully complied with NCGS 64, Article 2 in regards to E-Verification as required by Section 2.(c) of Session Law 2013-418, codified as N.C. Gen. Stat. § 143-129(j).

The Bidder proposes and agrees if this proposal is accepted to contract with the

State of North Carolina through the University of North Carolina at Charlotte

in the form of contract specified below, to furnish all necessary materials, equipment, machinery, tools, apparatus, means of transportation and labor necessary to complete the abatement and complete building demolition of Moore Hall on the UNC Charlotte campus to allow construction of the new Phase 16 Residence Hall.

in full in complete accordance with the plans, specifications and contract documents, to the full and entire satisfaction of the State of North Carolina, and the University of North Carolina at Charlotte and Jenkins Peer Architects with a definite understanding that no money will be allowed for extra work except as set forth in the General Conditions and the contract documents, for the sum of:

SINGLE PRIME CONTRACT:

Base Bid:

_____ Dollars(\$)

General Subcontractor:

_____ Lic _____

Plumbing Subcontractor:

_____ Lic _____

Mechanical Subcontractor:

_____ Lic _____

Electrical Subcontractor:

_____ Lic _____

GS143-128(d) requires all single prime bidders to identify their subcontractors for the above subdivisions of work. A contractor whose bid is accepted shall not substitute any person as subcontractor in the place of the subcontractor listed in the original bid, except (i) if the listed subcontractor's bid is later determined by the contractor to be non-responsible or non-responsive or the listed subcontractor refuses to enter into a contract for the complete performance of the bid work, or (ii) with the approval of the awarding authority for good cause shown by the contractor.

UNIT PRICES

Unit prices quoted and accepted shall apply throughout the life of the contract, except as otherwise specifically noted. Unit prices shall be applied, as appropriate, to compute the total value of changes in the base bid quantity of the work all in accordance with the contract documents.

GENERAL CONTRACT:

Unit Price No. 1A: Trench Rock Excavation and Replacement with Fill: Removal and disposal including replacement with stockpiled suitable material as specified in Section 312000 per cu. yd.

Unit Price (\$)_____

Unit Price No. 1B: Trench Rock Excavation and Replacement with Fill: Removal and disposal including replacement with borrowed suitable material as specified in Section 312000 per cu. yd.

Unit Price (\$)_____

Unit Price No. 2A: Mass Rock Removal and Replacement with Fill: Removal and disposal including replacement with stockpiled suitable material as specified in Section 312000 per cu. yd.

Unit Price (\$)_____

Unit Price No. 2B: Mass Rock Removal and Replacement with Fill: Removal and disposal including replacement with borrowed suitable material as specified in Section 312000 per cu. yd.

Unit Price (\$)_____

Unit Price No. 3A: Unsuitable Soil Removal and Replacement with Fill: Removal and disposal including replacement with stockpiled suitable material as specified in Section 312000 per cu. yd..

Unit Price (\$)_____

Unit Price No. 3B: Unsuitable Soil Removal and Replacement with Fill: Removal and disposal including replacement with borrowed suitable material as specified in Section 312000 per cu. yd.

Unit Price No. 4: Unsuitable Soil Removal and Haul –off (no replacement): Removal and disposal only per cu. Yd.

Unit Price (\$)_____

Unit Price No. 5: Exit signs. Provide unit price to include device, 100 ft. of conduit and conductors and all associated labor.

Unit Price (\$)_____

Unit Price No. 6: Electrical Outlets: Provide unit price to include 20 A circuit, device, breaker, 100 ft. of conduit and conductors and all associated labor..

Unit Price (\$)_____

Unit Price No. 7: Data Outlets: Provide unit price to include device, 100 ft. of conduit and cable and all associated labor.

Unit Price (\$)_____

ALTERNATES:

Should any of the alternates as described in the contract documents be accepted, the amount written below shall be the amount to be "added to" or "deducted from" the base bid. (Strike out "Add" or "Deduct" as appropriate.)

GENERAL CONTRACT:

Alternate No. 1 – Provide all landscape as indicated on sheets L1.00 and L1.01 and as specified in Division 32 specifications. Base bid is all landscape provided and installed by Owner.

(Add) *(Deduct)* _____ Dollars(\$)

Alternate No. 2 – Decorative Stone on Lobby Roof: Provide large size, natural, smooth, water-worn grey ballast at a rate of 1,000 lbs. per square at lobby roof. See A1 & A3/A-521 & C1/A-551

(Add) *(Deduct)* _____ Dollars(\$)

Alternate No. 3 – Cast Iron Plumbing Waste Pipe: Provide service weight cast iron no-hub pipe and fittings (CISPI 310) with neoprene gasket/stainless steel clamp joints (ASTM C1540-15) in lieu of base bid PVC pipe and fittings. See sheet P-001.

(Add) *(Deduct)* _____ Dollars(\$)

Alternate No. 4 – Provide type "L" hard drawn seamless copper tubing (ASTM B 88 and cast copper alloy fittings (ASME B16.18) Joints 1" and smaller shall be lead tin/silver solder joints (ASTM B 32). Joints 1-1/4" and larger shall be BCUP silver/phosphorous/copper brazed joints (AWS5.8) in lieu of base bid CPVC. See sheet P-001.

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 5: Telecom path from Sanford Hall manhole to MDF. See sheets E-001 and E-010

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 6: Provide solid surface countertops at all public restrooms in lieu of base bid plastic laminate tops.

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 7: Lightning Protection per specification section 26 41 13 and sheets E-001 and E-206

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 8: Generator Load Bank System – Mobile generator load bank system in lieu of base bid static load bank. See sheets E-001, E-100 and E-703.

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 9: All finish door hardware. Base bid is Owner provides and installs all finish door hardware.

(Add) *(Deduct)* _____ Dollars (\$)

Alternate No. 9A (Owner Preferred): Provide the following door hardware in lieu of approved equals:

Medeco Cylinders

Sargent exit devices.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 10 (Owner Preferred): Provide fire alarm system by Simplex in lieu of other approved equals per specification section 28 31 11 and sheet E-001.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 11 (Owner Preferred): Provide telecommunications system using only those materials listed in Specifications division 27 in lieu of all other specified manufacturers. See also sheet E-001.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 12 (Owner Preferred): Provide English Edge Pavers by Pine Hall in lieu of all other paver manufacturers specified in Section 32 14 00.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 13: (Owner Preferred): Provide Open Options for access control per specification section 281300 and sheet E-001.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 14: Provide cultured marble window sills in lieu of base bid abuse-resistant gypsum board.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 15: Provide all window blinds and shades as indicated on the drawings and as specified in Sections 122113 and 122413. Base bid is all blinds and shades furnished and installed by Owner.

(Add) *(Deduct)* _____ Dollars (\$) _____

Alternate No. 16: Provide all flooring and associated base as shown on the drawings and specified in sections 093000, 096500, 096800, and 096813. Base bid is Owner furnishes and installs all flooring. (Wall tile and all areas of sealed concrete floor treatment are included in base bid)

(Add) *(Deduct)* _____ Dollars (\$) _____

The bidder further proposes and agrees hereby to commence work under this contract on a date to be specified in a written order of the designer and shall fully complete all work thereunder within the time specified in the Supplementary General Conditions Article 23. Applicable liquidated damages amount is also stated in the Supplementary General Conditions Article 23.

MINORITY BUSINESS PARTICIPATION REQUIREMENTS

Provide with the bid - Under GS 143-128.2(c) the undersigned bidder shall identify **on its bid** (Identification of Minority Business Participation Form) the minority businesses that it will use on the project with the total dollar value of the bids that will be performed by the minority businesses. **Also** list the good faith efforts (Affidavit **A**) made to solicit minority participation in the bid effort.

NOTE: A contractor that performs all of the work with its own workforce may submit an Affidavit (**B**) to that effect in lieu of Affidavit (**A**) required above. The MB Participation Form must still be submitted even if there is zero participation.

After the bid opening - The Owner will consider all bids and alternates and determine the lowest responsible, responsive bidder. Upon notification of being the apparent low bidder, the bidder shall then file within 72 hours of the notification of being the apparent lowest bidder, the following:

An Affidavit (**C**) that includes a description of the portion of work to be executed by minority businesses, expressed as a percentage of the total contract price, which is equal to or more than the 10% goal established. This affidavit shall give rise to the presumption that the bidder has made the required good faith effort and Affidavit **D** is not necessary;

*** OR ***

If less than the 10% goal, Affidavit (**D**) of its good faith effort to meet the goal shall be provided. The document must include evidence of all good faith efforts that were implemented, including any advertisements, solicitations and other specific actions demonstrating recruitment and selection of minority businesses for participation in the contract.

Note: Bidders must always submit **with their bid** the Identification of Minority Business Participation Form listing all MB contractors, vendors and suppliers that will be used. If there is no MB participation, then enter none or zero on the form. Affidavit A or Affidavit B, as applicable, also must be submitted with the bid. Failure to file a required affidavit or documentation with the bid or after being notified apparent low bidder is grounds for rejection of the bid.

Proposal Signature Page

The undersigned further agrees that in the case of failure on his part to execute the said contract and the bonds within ten (10) consecutive calendar days after being given written notice of the award of contract, the certified check, cash or bid bond accompanying this bid shall be paid into the funds of the owner's account set aside for the project, as liquidated damages for such failure; otherwise the certified check, cash or bid bond accompanying this proposal shall be returned to the undersigned.

Respectfully submitted this day of _____

(Name of firm or corporation making bid)

WITNESS:

By: _____
Signature

(Proprietorship or Partnership)

Name: _____
Print or type

Title _____
(Owner/Partner/Pres./V.Pres)

Address _____

ATTEST:

By: _____

License No. _____

Title: _____
(Corp. Sec. or Asst. Sec. only)

Federal I.D. No. _____

Email Address: _____

(CORPORATE SEAL)

Addendum received and used in computing bid:

Addendum No. 1 ____ Addendum No. 3 ____ Addendum No. 5 ____ Addendum No. 6 ____

Addendum No. 2 ____ Addendum No. 4 ____ Addendum No. 6 ____ Addendum No. 7 ____

SECTION 01 21 00 - ALLOWANCES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Cash allowances.

1.2 RELATED REQUIREMENTS

- A. Section 01 26 00 - Contract Modification Procedures: Additional payment and modification procedures.

1.3 LUMP SUM AND QUANTITY OF WORK (UNIT-COST) ALLOWANCES

- A. Where applicable, allowance shall include cost to the Contractor of specific products and materials ordered by the Owner or selected by the Design Professional under allowance and shall include taxes, freight, and delivery to the Project site.
- B. The Contractor's costs for receiving and handling at the Project site, labor, installation, overhead and profit, and similar costs related to products and materials ordered by the Owner or selected by the Design Professional under allowance shall be included as part of the Contract Sum and not part of the allowance.
- C. Quantity of Work Unit Cost Allowances: The total value of the allowance shall be determined by the quantity indicated in the allowance description multiplied by the unit price provided on the contractor's bid form.
- E. Differences in costs will be adjusted by Change Order.

1.2 ADJUSTMENT OF ALLOWANCES

- A. Allowance Adjustment: To adjust allowance amounts and scope of Work, prepare a Change Order proposal based on the difference between purchase amount and the allowance, multiplied by final measurement of work-in-place where applicable. If applicable, include reasonable allowances for cutting losses, tolerances, mixing wastes, normal product imperfections, and similar margins.
 1. Include installation costs in purchase amount only where indicated as part of the allowance.
 2. If requested, prepare explanation and documentation to substantiate distribution of overhead costs and other margins claimed.
 3. Submit substantiation of a change in scope of work, if any, claimed in Change Orders related to unit-cost allowances.
 4. The Owner reserves the right to establish the quantity of work-in-place by independent quantity survey, measure, or count.
 5. No change to the Contractor's indirect expense is permitted for selection of higher- or lower-priced materials or systems of the same scope and nature as originally indicated.

1.4 SUBMITTALS

- A. Submit invoices or delivery slips to show actual quantities of materials delivered to the site for use in fulfillment of each allowance.
- B. Coordinate and process submittals for allowance items in same manner as for other portions of the Work.

1.5 ALLOWANCES SCHEDULE

- A. Allowance No. 1A: Trench Rock Excavation and Replacement with Fill: Provide allowance for removal and disposal of 50 cubic yards including replacement with stockpiled suitable material as specified in Section 312000
- B. Allowance No. 1B: Trench Rock Excavation and Replacement with Fill: Provide allowance for removal and disposal of 50 cubic yards including replacement with borrowed suitable material as specified in Section 312000. (This allowance will only be used if stockpiled material from site cut operations is exhausted)
- C. Allowance No.2A: Mass Rock Removal and Replacement with Fill: Provide allowance for removal and disposal of 1000 cubic yards including replacement with stockpiled suitable material as specified in Section 312000.
- D. Allowance No.2B: Mass Rock Removal and Replacement with Fill: Provide allowance for removal and disposal of 1000 cubic yards including replacement with suitable material as specified in Section 312000. (This allowance will only be used if stockpiled material from site cut operations is exhausted)
- E. Allowance No. 3A: Unsuitable Soil Removal and Replacement with Fill: Provide allowance for removal and disposal of 500 cubic yards including replacement with stockpiled suitable material as specified in Section 312000.
- F. Allowance No. 3B: Unsuitable Soil Removal and Replacement with Fill: Provide allowance for removal and disposal of 500 cubic yards including replacement with borrowed suitable material as specified in Section 312000. (This allowance will only be used if stockpiled material from site cut operations is exhausted)
- G. Allowance No. 4: Unsuitable Soil Removal and Haul –off (no replacement): Provide allowance of 500 cu. yds for removal and disposal only.
- H. Allowance No. 5: Exit signs. Provide allowance for 5 additional than what are shown on the documents. Allowance includes device, 100 ft. of conduit and conductors and all associated labor.
- I. Allowance No. 6: Electrical Outlets: Provide allowance for 5 additional duplex on 20 A circuit than what are shown on the documents. Allowance includes device, breaker, 100 ft. of conduit and conductors and all associated labor.

- J. Allowance No. 7: Data Outlets: Provide allowance for 5 additional than what are shown on the documents. Allowance includes device, 100 ft. of conduit and cable and all associated labor.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 21 00

ROCK EXCAVATION APPROVAL FORM

Project: _____

Number: _____
Date: _____

The following quantities of rock, as defined in the Specifications and by the Geotechnical Engineer, have been calculated as needing to be excavated and removed.

Location: _____

Type: (Circle one) Trench Open

Equipment Used: _____

Location of Excavation: _____

Bid Price: \$_____ /CY

Total Price: \$_____

Total Quantities: _____ CY

The above quantities and prices of rock excavation have been verified as being true and accurate for the area described.

Note further information on the back of this sheet.

Geotechnical Engineer (define)

BY: _____

Date: _____

Civil Engineer (define)

BY: _____

Date: _____

Prime Contractor (define)

BY: _____

Date: _____

Subcontractor (define)

BY: _____

Date: _____

UNCC Representative

BY: _____

Date: _____

UNSUITABLE SOIL EXCAVATION APPROVAL FORM

Project: _____

Number: _____
Date: _____

The following quantities of unsuitable soil, as defined in the Specifications and by the Geotechnical Engineer, have been calculated as needing to be excavated and removed.

Location: _____

Type: (Circle one) Trench Open

Equipment Used: _____

Location of Excavation: _____

Bid Price: \$_____ /CY

Total Price: \$_____

Total Quantities: _____ CY

The above quantities and prices of unsuitable soil excavation have been verified as being true and accurate for the area described.

Note further information on the back of this sheet.

Geotechnical Engineer (define)

BY: _____

Date: _____

Civil Engineer (define)

BY: _____

Date: _____

Prime Contractor (define)

BY: _____

Date: _____

Subcontractor (define)

BY: _____

Date: _____

UNCC Representative

BY: _____

Date: _____

SECTION 01 23 00 - ALTERNATES

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Alternate submission procedures.
- B. Documentation of changes to Contract Sum and Contract Time.

1.2 RELATED REQUIREMENTS

- A. Instructions to Bidders and General Conditions of the Contract (OC-15): Instructions for preparation of pricing for alternates.
- B. Bid Forms: List of alternates on the Bid Form.

1.3 ACCEPTANCE OF ALTERNATES

- A. Alternates quoted on Bid Forms will be reviewed and accepted or rejected at Owner's option. Accepted alternates will be identified in the Owner-Contractor Agreement.
- B. Coordinate related work and modify surrounding work to integrate the Work of each alternate
- C. Proposed cost of each Alternate is turnkey and includes all material, labor, overhead, profit, freight etc. No additional costs will be accepted for any accepted alternate other than the cost included on the bid form.

1.4 SCHEDULE OF ALTERNATES

- A. Alternate No. 1: Provide all landscape as indicated on sheets L1.00 and L1.01 and as specified in Division 32 specifications. Base bid is all landscape provided and installed by Owner.
- B. Alternate No. 2 – Decorative Stone on Lobby Roof: Provide large size, natural, smooth, water-worn grey ballast at a rate of 1,000 lbs. per square at lobby roof. See A1 & A3/A-521 & C1/A-551
- C. Alternate No. 3 – Cast Iron Plumbing Waste Pipe: Provide service weight cast iron no-hub pipe and fittings (CISPI 310) with neoprene gasket/stainless steel clamp joints (ASTM C1540-15) in lieu of base bid PVC pipe and fittings. See sheet P-001.
- D. Alternate No. 4 – Provide type “L” hard drawn seamless copper tubing (ASTM B 88 and cast copper alloy fittings (ASME B16.18) Joints 1” and smaller shall be lead tin/silver solder joints (ASTM B 32). Joints 1-1/4” and larger shall be BCUP silver/phosphorous/copper brazed joints (AWS5.8) in lieu of base bid CPVC. See sheet P-001.

- E. Alternate No. 5: Telecom path from Sanford Hall manhole to MDF. See sheets E-001 and E-010
- F. Alternate No. 6: Provide solid surface countertops at all public restrooms in lieu of base bid plastic laminate tops.
- G. Alternate No. 7: Lightning Protection per specification section 26 41 13 and sheets E-001 and E-206
- H. Alternate No. 8: Generator Load Bank System – Mobile generator load bank system in lieu of base bid static load bank. See sheets E-001, E-100 and E-703.
- I. Alternate 9: All finish door hardware. Base bid is Owner provides and installs all finish door hardware.
- J. Alternate No. 9A (Owner Preferred): Provide the following door hardware in lieu of approved equals:
 - Medeco Cylinders
 - Sargent exit devices.
- K. Alternate No. 10 (Owner Preferred): Provide fire alarm system by Simplex in lieu of other approved equals per specification section 28 31 11 and sheet E-001.
- L. Alternate No. 11 (Owner Preferred): Provide telecommunications system using only those materials listed in Specifications division 27 in lieu of all other specified manufacturers. See also sheet E-001.
- M. Alternate No. 12 (Owner Preferred): Provide English Edge Pavers by Pine Hall in lieu of all other paver manufacturers specified in Section 32 14 00.
- N. Alternate No. 13: (Owner Preferred): Provide Open Options for access control per specification section 281300 and sheet E-001.
- O. Alternate No. 14: Provide cultured marble window sills in lieu of base bid abuse-resistant gypsum board.
- P. Alternate No. 15: Provide all window blinds and shades as indicated on the drawings and as specified in Sections 122113 and 122413. Base bid is all blinds and shades furnished and installed by Owner.
- Q. Alternate No. 16: Provide all flooring and associated base as shown on the drawings and specified in sections 093000, 096500, 096800, and 096813. Base bid is Owner furnishes and installs all flooring. (Wall tile and all areas of sealed concrete floor treatment are included in base bid)

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 23 00

SECTION 01 50 00 - TEMPORARY FACILITIES AND CONTROLS

PART 1 - GENERAL

1.1 SECTION INCLUDES

- A. Temporary Controls: Barriers and fencing.
- B. Stairs, ramps, scaffolding and ramps.
- C. Vehicular access and parking.
- D. Waste removal facilities and services.
- E. Project identification sign.
- F. Field offices.
- G. Toilet facilities

1.2 BARRIERS

- A. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public and to protect existing facilities and adjacent properties from damage from construction operations.
- B. Provide barricades required by for public rights-of-way.
- C. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

1.3 FENCING

- A. The General Contractor shall provide a suitable construction fence around work area within contract limits, located so as to permit sufficient area for storage of materials and conduct of work by all trades.
 - 1. The GC shall coordinate with Federal Rent A Fence – (800-260-8301; contact – Charlie Byrd) to assume responsibility and contractual rental obligations for site perimeter construction fence and temporary pedestrian route fencing and barricades around South Village Dining Hall.that are currently in use. GC shall modify fence and associated installations as needed to comply with requirements indicated in the Contact Documents for this project.
- B. Materials and methods of fence construction shall be adequate to provide for the safety and security of the project site and shall be the General Contractor's responsibility to select; however as a minimum standard, fence shall be chain link type, minimum six feet high, consisting of 9

gauge wire fabric supported on posts set firmly in the ground at 10 feet o.c. minimum and a top rail. Provide gates as required. The University will provide the General Contractor with a gate lock and keys for the site fence. No barbed wire will be permitted.

- C. Screening: Provide screening over all chain link fencing as approved by the Architect and the University.
- D. Remove and relocate fence when it interferes with the work of any trade.
- E. Keep gates closed at all times and locked during non-working hours. Owner shall be given copy of key to gate.

1.4 WATER CONTROL AND USAGE

- A. The General Contractor or each subcontractor, as the case may be, shall provide water control for all work performed under the contract. Furnish all labor and necessary equipment and provide all necessary products for the temporary control of surface water and seepage water during construction. Furnish and operate pumps and other equipment required to keep all excavations, pits, and trenches free from water at all times. Dikes and ditches shall be constructed around excavations and elsewhere as necessary to prevent surface water from flooding the excavations or standing in areas adjacent to excavations, in work areas or in product storage areas. The GC shall take all necessary precautions to protect adjacent areas and properties from damage. He shall not divert water onto adjacent areas and properties at points other than that which would be considered the natural flow, prior to construction, without the expressed consent of the Owner in writing with a copy to Architect. He shall take steps to prevent the erosion of soil, earth and other material and the conduction of the eroded materials onto adjacent properties, and shall be responsible for the removal of such materials, the restoration of adjacent areas to their original condition, and at the proper time, the removal of all water control means and methods.
- B. Water Service: The Owner shall pay for water service use charges for water used by all entities for construction operations.

1.5 STAIRS, RAMPS, SCAFFOLDING AND HOISTS

- A. Each subcontractor shall provide and maintain temporary scaffolding, ramps, and runways as required.
- B. Hoisting of materials and equipment shall be provided by the contractor requiring such hoisting.
- C. All apparatus, equipment, and construction included in this article shall be in accordance with all applicable state and local laws.
- D. The GC shall provide roof protection as necessary where scaffolds and chutes are used.

1.6 VEHICULAR ACCESS AND PARKING

- A. Coordinate access and haul routes with governing authorities and Owner.
- B. Provide and maintain access to fire hydrants, free of obstructions.
- C. Provide temporary parking areas to accommodate construction personnel. When site parking is not available, contractor employees will park vehicles in parking lots designated by University of North Carolina at Charlotte.
- D. Contractors shall park within the limits of the construction site, at Starlight Theater or at Lot 6 (summer months only with pass provided by University).
- E. The cost of parking for all construction vehicles is the responsibility of the contractor(s).

1.7 TREE AND PLANT PROTECTION

- A. GC and sub-contractors are hereby reminded and cautioned that care shall be exercised to protect trees and plants, which are to remain during the progress of the Project. Suitable barriers shall be provided around all trees and plants that are to remain and which are in the construction area and product handling area. All damage to such trees and plants shall be repaired; broken limbs properly and neatly pruned and painted with pruning paint; all trunk damage neatly dressed and painted with pruning paint. Any trees and plants which are excessively damaged shall be replaced in like, kind, size, and species by the GC at no additional cost. All work shall be by a recognized and approved nursery.
- B. All grading around trees and plants to remain shall be such that the root system shall not be disturbed. Earth shall not be temporarily piled around trees and plants, nor shall earth be graded to the trees and plants above the natural root depth for that particular species.
- C. Established trees and plants, which are in the way of construction and which are in the material handling areas, shall be removed and stored for future replanting. The services of a recognized and approved nursery shall be employed to remove the trees and plants and prepare them for storage. Removed trees and plants shall be properly balled and burlapped in accordance with their size. During the time of storage, they shall be properly watered and cared for in accordance with the instructions from the nursery. After the construction work is completed, the stored trees and plants shall be replanted, and those trees and plants not replanted shall be disposed of as directed by the Owner.

1.8 ACCESS ROADS AND PARKING AREAS

- A. The GC shall provide and maintain for the duration of the Contract, a graded and graveled site access road within the boundaries of construction limits for the use of himself, his subcontractors, his product suppliers as the case may be. Additional access ways shall be furnished and maintained to the product storage areas and the work itself. All access roads and ways shall be properly maintained for passage during all weather conditions while work is being performed.
- B. Additional access roads and parking areas shall be furnished and maintained during all weather conditions for the use of the Owner, Owner's visitors, and other persons and services having

proper business at the Project until permanent roads and parking areas are provided.

- C. Should access roads not be located for permanent roads, they shall be removed, prepared for grassing, and grassed. Otherwise, they shall be prepared for permanent roads.
- D. Coordinate access and haul routes with governing authorities and Owner.
- E. Provide and maintain access to fire hydrants, free of obstructions.
- F. The GC shall be responsible for keeping streets and surrounding sidewalks free from mud, dirt and debris at all times and shall remove the aforementioned from streets and sidewalks daily or as often as necessary to keep streets clean. If the GC fails to keep streets clean and clear, the Owner may remove mud, dirt and debris or have it removed. The cost of this removal may be deducted from any amounts due or to become due to the GC.
- G. Provide and maintain temporary sidewalks, fences, or other structures required by law so as to not obstruct or interfere with traffic in public streets, walkways or private right-of-way. Leave an unobstructed way along public and private places for pedestrians and vehicles.
- H. Provide emergency egress from existing occupied areas at all times as required by authorities having jurisdiction. Maintain egress path in compliance with requirements of North Carolina State Building Code requirements.

1.9 WASTE REMOVAL

- A. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- B. Remove trash from site periodically.

1.10 PROJECT IDENTIFICATION

- A. A shop drawing of the project identification sign must be approved by the University prior to fabrication. No directional signs will be permitted without the University's permission. Contractors are not permitted to install any sign, anywhere on the site, off the site on University property, or on any equipment on the site, without explicit written approval of the Owner. See enclosed University project sign detail.
- B. Location of any sign shall be approved by the Owner. Should any sign be moved from its initial location, the new location shall be approved by the Owner. All signs shall be maintained by the project expeditor in first class condition throughout the Contract by repainting, repairing, and re-erecting as necessary and as required. Sign shall be fabricated as indicated on the attachment at the end of this Section.

1.11 FIELD OFFICE AND SHEDS

- A. Location of all temporary offices and storage sheds shall be approved by the Architect and

owner.

- B. Storage Sheds shall be provided and maintained by the GC and/or subcontractors in accordance with the requirements of the Contract Documents. Open trailers and flat beds for materials storage are prohibited unless authorized in writing by the Owner.
- C. General Contractor's Field Office: The GC shall provide and maintain, as part of the Contract, a weathertight and secure office for his daily use and for meeting space. Office shall have lighting, electrical outlets, telephone and facsimile machine, heating, cooling and be equipped with sturdy furniture, drawing rack and drawing display table. Office shall have an illuminated and ventilated toilet room containing 1 water closet, 1 lavatory with mirror and a supply of toilet tissue, paper towels and liquid hand soap. The office shall be large enough for the GC's own use and for use as a coordination office to include meeting space with tables and chairs for 12 people. All utilities, supplies, cleaning, and maintenance shall be by the GC as part of the Work and at no additional cost. Provide telephone service as called for hereinbefore. All temporary offices and conference areas shall be smoke free.

1.12 FIRST AID KITS

- A. General Contractor and each Prime Subcontractor shall provide adequate provisioned first aid kits on the Project site for personnel employed by him and for the convenience of workmen employed by their Sub-subcontractors.

1.13 TOILET FACILITIES

- A. Sanitary Facilities: Provide temporary toilets, wash facilities, and drinking water for use of construction personnel. Comply with requirements of authorities having jurisdiction for type, number, location, operation, and maintenance of fixtures and facilities.

1.14 REMOVAL OF UTILITIES, FACILITIES, AND CONTROLS

- A. Remove temporary utilities, equipment, facilities, materials, prior to Final Acceptance.
- B. Remove underground installations to a minimum depth of 2 feet.
- C. Clean and repair damage caused by installation or use of temporary work.

PART 2 - PRODUCTS - NOT USED

PART 3 - EXECUTION - NOT USED

END OF SECTION 01 50 00

SECTION 221313 - FACILITY SANITARY SEWERS

PART 1 - GENERAL

1.1 SUMMARY

- A. Section Includes:
 - 1. Ductile-iron, gravity sewer pipe and fittings.
 - 2. Cleanouts.
 - 3. Manholes.
 - 4. Concrete.

1.2 ACTION SUBMITTALS

- A. Product Data: For the following:
 - 1. Pipe and fittings.
 - 2. Cleanouts.
- B. Shop Drawings: For manholes. Include plans, elevations, sections, details, and frames and covers.

1.3 INFORMATIONAL SUBMITTALS

- A. Coordination Drawings:
 - 1. Show pipe sizes, locations, and elevations. Show other piping in same trench and clearances from sewer system piping. Indicate interface and spatial relationship between manholes, piping, and proximate structures.
- B. Product Certificates: For each type of pipe and fitting.
- C. Field quality-control reports.

1.4 DELIVERY, STORAGE, AND HANDLING

- A. Protect pipe, pipe fittings, and seals from dirt and damage.
- B. Handle manholes according to manufacturer's written rigging instructions.

1.5 FIELD CONDITIONS

- A. Interruption of Existing Sanitary Sewerage Service: Do not interrupt service to facilities occupied by Owner or others unless permitted under the following conditions and then only after arranging to provide temporary service according to requirements indicated:

1. Notify Owner no fewer than two days in advance of proposed interruption of service.
2. Do not proceed with interruption of service without Owner's written permission.

PART 2 - PRODUCTS

2.1 DUCTILE-IRON, GRAVITY SEWER PIPE AND FITTINGS

- A. Pipe: ASTM A 746, for push-on joints.
- B. Standard Fittings: AWWA C110/A21.10, ductile or gray iron, for push-on joints.
- C. Compact Fittings: AWWA C153/A21.53, ductile iron, for push-on joints.
- D. Gaskets: AWWA C111/A21.11, rubber.

2.2 CLEANOUTS

A. Cast-Iron Cleanouts:

1. Description: ASME A112.36.2M, round, gray-iron housing with clamping device and round, secured, scoriated, gray-iron cover. Include gray-iron ferrule with inside calk or spigot connection and countersunk, tapered-thread, brass closure plug.
2. Manufacturers: Subject to compliance with requirements, available manufacturers offering products that may be incorporated into the Work include, but are not limited to the following:
 - a. Jay R. Smith Mfg. Co.
 - b. Josam Company.
 - c. MIFAB, Inc.
 - d. Tyler Pipe; a subsidiary of McWane Inc.
 - e. Watts; a Watts Water Technologies company.
 - f. Zurn Industries, LLC.
3. Top-Loading Classification(s): Light Duty Medium Duty Heavy Duty and Extra-Heavy Duty.
4. Sewer Pipe Fitting and Riser to Cleanout: ASTM A 74, Service class, cast-iron soil pipe and fittings.

2.3 MANHOLES

A. Designed Precast Concrete Manholes:

1. Description: ASTM C 913; designed according to ASTM C 890 for A-16 (ASSHTO HS20-44 in AASHTO HL), heavy-traffic, structural loading; of depth, shape, and dimensions indicated, with provision for sealant joints.

2. Ballast: Increase thickness of one or more precast concrete sections or add concrete to manhole as required to prevent flotation.
3. Joint Sealant: ASTM C 990, bitumen or butyl rubber.
4. Resilient Pipe Connectors: ASTM C 923, cast or fitted into manhole walls, for each pipe connection.
5. Steps: ASTM A 615/A 615M, deformed, 1/2-inch steel reinforcing rods encased in ASTM D 4101, PP; wide enough to allow worker to place both feet on one step and designed to prevent lateral slippage off step. Cast or anchor steps into sidewalls at 12- to 16-inch intervals. Omit steps if total depth from floor of manhole to finished grade is less than 60 inches.
6. Grade Rings: Reinforced-concrete rings, 6- to 9-inch total thickness, with diameter matching manhole frame and cover, and with height as required to adjust manhole frame and cover to indicated elevation and slope.

B. Manhole Frames and Covers:

1. Description: Ferrous; 24-inch ID by 7- to 9-inch riser, with 4-inch-minimum-width flange and 26-inch-diameter cover. Include indented top design with lettering cast into cover, using wording equivalent to "SANITARY SEWER."
2. Material: ASTM A 536, Grade 60-40-18 ductile or ASTM A 48/A 48M, Class 35 gray iron unless otherwise indicated.

2.4 CONCRETE

A. General: Cast-in-place concrete complying with ACI 318, ACI 350, and the following:

1. Cement: ASTM C 150/C 150M, Type II.
2. Fine Aggregate: ASTM C 33/C 33M, sand.
3. Coarse Aggregate: ASTM C 33/C 33M, crushed gravel.
4. Water: Potable.

B. Portland Cement Design Mix: 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio.

C. Manhole Channels and Benches: Factory or field formed from concrete. Portland cement design mix, 4000 psi minimum, with 0.45 maximum water/cementitious materials ratio. Include channels and benches in manholes.

1. Channels: Concrete invert, formed to same width as connected piping, with height of vertical sides to three-fourths of pipe diameter. Form curved channels with smooth, uniform radius and slope.
 - a. Invert Slope: 1 percent through manhole.
2. Benches: Concrete, sloped to drain into channel.
 - a. Slope: 4 percent.

PART 3 - EXECUTION

3.1 EARTHWORK

- A. Excavating, trenching, and backfilling are specified in Section 312000 "Earth Moving."

3.2 PIPING INSTALLATION

- A. General Locations and Arrangements: Drawing plans and details to indicate general location and arrangement of underground sanitary sewer piping. Location and arrangement of piping layout take into account design considerations. Install piping as indicated, to extent practical. Where specific installation is not indicated, follow piping manufacturer's written instructions.
- B. Install piping beginning at low point, true to grades and alignment indicated with unbroken continuity of invert. Place bell ends of piping facing upstream. Install gaskets, seals, sleeves, and couplings according to manufacturer's written instructions for using lubricants, cements, and other installation requirements.
- C. Install manholes for changes in direction unless fittings are indicated. Use fittings for branch connections unless direct tap into existing sewer is indicated.
- D. Install proper size increasers, reducers, and couplings where different sizes or materials of pipes and fittings are connected. Reducing size of piping in direction of flow is prohibited.
- E. Install gravity-flow, nonpressure, drainage piping according to the following:
 - 1. Install piping with 36-inch minimum cover.
 - 2. Install ductile-iron, gravity sewer piping according to ASTM A 746.
- F. Clear interior of piping and manholes of dirt and superfluous material as work progresses. Maintain swab or drag in piping, and pull past each joint as it is completed. Place plug in end of incomplete piping at end of day and when work stops.

3.3 PIPE JOINT CONSTRUCTION

- A. Join gravity-flow, nonpressure, drainage piping according to the following:
 - 1. Join ductile-iron, gravity sewer piping according to AWWA C600 for push-on joints.
 - 2. Join dissimilar pipe materials with nonpressure-type, flexible couplings.

3.4 MANHOLE INSTALLATION

- A. General: Install manholes complete with appurtenances and accessories indicated.
- B. Install precast concrete manhole sections with sealants according to ASTM C 891.

- C. Form continuous concrete channels and benches between inlets and outlet.
- D. Set tops of frames and covers flush with finished surface of manholes that occur in pavements. Set tops 3 inches above finished surface elsewhere unless otherwise indicated.

3.5 CONCRETE PLACEMENT

- A. Place cast-in-place concrete according to ACI 318.

3.6 CLEANOUT INSTALLATION

- A. Install cleanouts and riser extensions from sewer pipes to cleanouts at grade. Use cast-iron soil pipe fittings in sewer pipes at branches for cleanouts, and use cast-iron soil pipe for riser extensions to cleanouts. Install piping so cleanouts open in direction of flow in sewer pipe.
 - 1. Use Light-Duty, top-loading classification cleanouts in earth or unpaved foot-traffic areas.
 - 2. Use Medium-Duty, top-loading classification cleanouts in paved foot-traffic areas.
 - 3. Use Heavy-Duty, top-loading classification cleanouts in vehicle-traffic service areas.
 - 4. Use Extra-Heavy-Duty, top-loading classification cleanouts in roads.
- B. Set cleanout frames and covers in earth in cast-in-place-concrete block, 18 by 18 by 12 inches deep. Set with tops 1 inch above surrounding grade.
- C. Set cleanout frames and covers in concrete pavement and roads with tops flush with pavement surface.

3.7 CONNECTIONS

- A. Connect nonpressure, gravity-flow drainage piping to building's sanitary building drains specified in Section 221316 "Sanitary Waste and Vent Piping."
- B. Make connections to existing piping and underground manholes.
 - 1. Use commercially manufactured wye fittings for piping branch connections. Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye fitting plus 6-inch overlap with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
 - 2. Make branch connections from side into existing piping, NPS 4 to NPS 20. Remove section of existing pipe, install wye fitting into existing piping, and encase entire wye with not less than 6 inches of concrete with 28-day compressive strength of 3000 psi.
 - 3. Make branch connections from side into existing piping, NPS 21 or larger, or to underground manholes by cutting opening into existing unit large enough to

allow 3 inches of concrete to be packed around entering connection. Cut end of connection pipe passing through pipe or structure wall to conform to shape of, and be flush with, inside wall unless otherwise indicated. On outside of pipe or manhole wall, encase entering connection in 6 inches of concrete for minimum length of 12 inches to provide additional support of collar from connection to undisturbed ground.

- a. Use concrete that will attain a minimum 28-day compressive strength of 3000 psi unless otherwise indicated.
 - b. Use epoxy-bonding compound as interface between new and existing concrete and piping materials.
4. Protect existing piping and manholes to prevent concrete or debris from entering while making tap connections. Remove debris or other extraneous material that may accumulate.

3.8 IDENTIFICATION

- A. Comply with requirements in Section 312000 "Earth Moving" for underground utility identification devices. Arrange for installation of green warning tapes directly over piping and at outside edges of underground manholes.
1. Use detectable warning tape over nonferrous piping and over edges of underground manholes.
 2. Provide insulated copper wire (14 gauge) suitable for direct burial along entire length of exterior sanitary sewer piping and daylight at all cleanouts and manholes.

3.9 FIELD QUALITY CONTROL

- A. Inspect interior of piping to determine whether line displacement or other damage has occurred. Inspect after approximately 24 inches of backfill is in place, and again at completion of Project.
1. Submit separate report for each system inspection.
 2. Defects requiring correction include the following:
 - a. Alignment: Less than full diameter of inside of pipe is visible between structures.
 - b. Deflection: Flexible piping with deflection that prevents passage of ball or cylinder of size not less than 92.5 percent of piping diameter.
 - c. Damage: Crushed, broken, cracked, or otherwise damaged piping.
 - d. Infiltration: Water leakage into piping.
 - e. Exfiltration: Water leakage from or around piping.
 3. Replace defective piping using new materials, and repeat inspections until defects are within allowances specified.
 4. Reinspect and repeat procedure until results are satisfactory.

- B. Test new piping systems, and parts of existing systems that have been altered, extended, or repaired, for leaks and defects.
 - 1. Do not enclose, cover, or put into service before inspection and approval.
 - 2. Test completed piping systems according to requirements of authorities having jurisdiction.
 - 3. Schedule tests and inspections by authorities having jurisdiction with at least 24 hours' advance notice.
 - 4. Submit separate report for each test.
 - 5. Air Tests: Test sanitary sewerage according to requirements of authorities having jurisdiction, UNI-B-6.:
 - a.
 - 6. Manholes: Perform hydraulic test according to ASTM C 969.
- C. Leaks and loss in test pressure constitute defects that must be repaired.
- D. Replace leaking piping using new materials, and repeat testing until leakage is within allowances specified.

3.10 CLEANING

- A. Clean dirt and superfluous material from interior of piping. Flush with potable water.

END OF SECTION 221313

SECTION 312316 - CONTROLLED BLASTING

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Section includes, but is not limited to, the following major items:
 - 1. Blasting consultant.
 - 2. Preparation of blasting program.
 - 3. Preblast survey.
 - 4. Trial blasting.
 - 5. Vibration control and monitoring of blasting.
 - 6. Scaling and stabilization
 - 7. Cleanup and repair of damage caused by blasting.
- B. Controlled blasting shall be performed as established by these specifications in order to accomplish the excavation required by the Contract Documents.
- C. Provide all labor, materials, equipment, tools, superintendence, transportation, services, and operations to complete the work under this section.

1.02 RELATED SECTIONS

- A. Section 01310 - Structural Submittals.

1.03 DEFINITIONS

- A. Controlled blasting is defined as the use of commercial explosives to loosen rock and other material so that it may be removed with power equipment while maintaining the safety of and preventing injury or damage to all personnel, structures, and facilities within the range of the blast. The blasting shall be performed in a manner that will minimize damage to the rock behind the limiting lines of the excavation as shown on the Drawings.

1.04 BLAST VIBRATION LIMITS

- A. Blasting vibrations as recorded adjacent to the foundation of the nearest aboveground structure shall be limited as follows:
 - 1. A peak particle velocity (on any component of a 3-component particle velocity recording seismograph) of 1.0 inches per second maximum is allowed.
- B. Since the existing structures are, in many cases, very close to the blasting area, very slight changes in any blasting variable will result in large changes in vibration intensities. Modification of the blasting method and reduction of the explosive charge weight per delay shall be used to ensure that the above limits are met.

- C. The maximum peak particle velocity may be increased with the written approval of the Contractor's consultant providing that the Contractor and his consultant prove that no damage to existing structures will result.

1.05 AIR BLAST LIMITS

- A. Air blast from blasting shall be controlled such that:
 - 1. The maximum allowable air blast at any inhabited structure resulting from blasting operations shall not exceed 130 decibels peak when measured by an instrument having a flat response (plus or minus 3 decibels) over the range of at least 6 to 200 Hz.
 - 2. The maximum allowable air blast at any construction resulting from blasting operations shall not exceed 140 decibels peak when measured by an instrument having a flat response (plus or minus 3 decibels) over the range of at least 6 to 200 Hz.

1.06 SUBMITTALS

- A. Submit names and qualifications of the blasting consultant and the seismic monitoring consultant for approval prior to commencement of construction.
- B. Submit the blasting program developed by the blasting consultant and approved by the Contractor to the Architect fourteen days prior to any blasting. A revised blasting program shall be submitted if subsequent changes are made in the approved program.
- C. Submit results of the preblast survey.
- D. Submit blasting plan for trial blasts 7 days prior to blasting. Submit results of trial blasts with evaluation and recommendations of blasting consultant upon completion of trial blasts and before any production blasts.
- E. Submit blasting log and reports at the conclusion of each blast, except the report on the air blasts may be on a monthly basis.

1.07 QUALITY ASSURANCE

- A. Blasting shall be performed by a qualified explosives specialist, employed by the Contractor.
- C. Contractor shall have a Registration Certificate and each employee engaged in the blasting activity shall carry a valid identification card issued by the Division of Fire Prevention or by the appropriate regulatory agency.
- D. Contractor shall retain a recognized blasting consultant to prepare the blasting program and to supervise and assist in monitoring the blasting.
- E. Contractor's blasting consultant shall recommend a blasting program to the Contractor. Criteria for the selection of this program shall be the protection of the adjacent rock mass,

prevention of damage to existing structures, and the prevention of any interruption in their services.

- F. Blasting program shall include, but not limited to, data on the locations, hole size, depth, over depth, pattern and inclination of the blast holes, the type, strength, amount, distribution, and powder factor for the explosives used, per hole and per blast, the sequence and pattern of delays, maximum amount of explosives in any one delay period, depth of rock, and depth of overburden, if any, and the description and purpose of special methods to be used. This data shall be reviewed and approved by the Contractor before being submitted to the Architect.
- G. Seismographic monitoring shall be performed by a qualified consultant specialized in seismic monitoring of excavation blasting at the adjacent buildings listed above. Air blast shall be monitored with an approved instrument having the required frequency response and capable of providing a permanent record of the air blast effects. During the trial blasting and production blasting, a record shall be made of the peak particle velocities and all blast levels caused by the blasting. This data is to be included in the blasting report.
- H. Contractor shall maintain a daily log for ready inspection by the Architect/Structural Engineer. A form acceptable to the Architect/Structural Engineer, shall be used to record each blast and included the daily log.
- I. Nothing presented in this section in any way relieves the Contractor of any responsibilities for any damage to the existing structures or utilities in the area of blasting.

1.08 JOB CONDITIONS

- A. Take all precautions necessary to prevent personal injury, damage to real or personal property, or interference with use and enjoyment of any property resulting from blasting or the vibration or concussion caused by blasting in the performance of this contract. These precautions shall include, but are not limited to, investigations by the Contractor to establish limits of the size and nature of individual blasts which may be safely accomplished without damage or interference with the use of property.
- B. Immediately inform the Architect/Structural Engineer in writing of all matters concerning complaints and claims between the public, or government, and the Contractor. If the Contractor causes damage, injury or interference, as stated herein, Contractor shall modify his blasting procedures.
- C. Contractor assumes full responsibility for operating all equipment and performing all blasting in conformance with Federal and State laws, and regulations prescribed by any other Governmental authority limiting the amount of vibration or concussion.
- D. Contractor shall assume all liability for all personal injury, any damage to real or personal property, or interference with the use or enjoyment of any property by reason of blasting or the resulting vibration or concussion.

PART 2 PRODUCTS

2.01 EXPLOSION AND FIRING DEVICES

- A. Explosion and firing devices shall be:
 - 1. Of a type that is commercially available.
 - 2. Suitable for the use intended.
 - 3. In a condition resulting from proper storage and maintenance.

2.02 BLASTING MAT

- A. Blasting mat shall be a size and type to be suitable for the use intended.

PART 3 EXECUTION

3.01 PREBLAST SURVEY

- A. Contractor's seismic monitoring consultant shall conduct a preblast survey of the surrounding structures within 300 feet of any blasting operation and document their condition before any blasting begins. The documentation will include written descriptions, and photographs of the structures, and measures of obvious signs of structural distress such as cracks. The buildings to be surveyed and monitored during blasting are:
 - a. Levine Hall
 - b. South Village Dining Hall (SOVI)
 - c. Housing and Residence Life (HRL)
 - d. Sanford Hall
- B. If necessary, gauge marks will be located over existing cracks at selected locations to be measured before and after blasting to determine if widening or displacement has taken place.
- C. Before carrying out the inspection, Contractor shall notify the University and request permission to carry out the inspection.

3.02 TRIAL BLASTING

- A. Conduct trial blasting as directed by the Contractor's consultant before general excavation blasting may commence. The maximum explosive charge weight per delay period utilized shall be limited to the amount submitted in the approved blasting program.
- B. Trial blasting shall consist of determining the relationship between peak particle velocities and weight of the explosive charges by a planned program of trial blasts. Beginning with small weights of explosive, successively greater explosive weights shall be detonated and the particle velocities measured at several distances from the blast. The trial blasting and field observations are intended to develop a relationship between size of the explosive charge, distance from the explosion, and particle velocity. This data shall be used as a basis for controlling the blasting program.
- C. The initial blasts in any blasting area shall be considered trial blasts. These trial blasts will be monitored, at nearest structures, and modification of the maximum explosive charge weight

per delay may be allowed providing that the vibration effects, at the nearest structure, are maintained below the specified levels. These modifications to the maximum charge weight per delay will only be allowed on the advice of the seismic monitoring consultant and with the approval of the Architect/Structural Engineer.

- D. Contractor will not be allowed to drill ahead of the trial blast area until the section has been excavated and evaluated by the Blasting Consultant.

3.03 GENERAL BLASTING PROCEDURES

- A. A blast shall be defined as a predetermined number of shots. A minimum delay time of 8 milliseconds shall elapse between each individual shot within a blast. The interval between individual shots may be increased or decreased if requested by the Contractor's consultant. Contractor must, however, remain within the specified vibration limits.

3.06 CONTROL OF FLY ROCK

- A. Blasts shall be designed to prevent fly rock. Contractor shall use adequate, good quality stemming material and the covering of blasts, where necessary, with blasting mats or an adequate direct cover will be required.

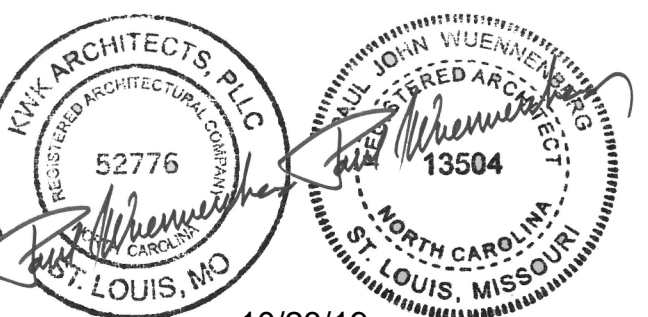
3.07 SCALING AND STABILIZATION

- A. All rock on the cut face that is loose, hanging, or which creates a potentially dangerous situation shall be removed or stabilized during or upon completion of the excavation in each lift. Drilling of the next lift will not be allowed until this work has been completed.
- B. The slopes shall be scaled throughout the span of the contract and at such frequency as required to remove all hazardous loose rock or overhangs. The slopes shall be hand scaled using a suitable standard steel mine scaling rod, or other methods such as machine scaling, hydraulic splitters, or light blasting.
- C. Payment for scaling shall be included in the price for excavation.
- D. If in-place stabilization is required, as determined by Inspection/Testing Agency, rock bolting or other approved stabilization techniques will be used. Stabilization necessitated, in the opinion of the Architect/Structural Engineer, by the Contractor's blasting operations, shall be performed at the Contractor's expense.

3.08 CLEAN UP

- A. Remove material and restore site as directed in other sections of these specifications.
- B. Repair or replace items, structures, and facilities damaged by blasting.

END OF SECTION



10/23/19



UNC CHARLOTTE
Charlotte, NC
RESIDENCE HALL
PHASE XVI

SCO ID: 18-18333-02A

TAG	DESCRIPTION	DATE
1	Addendum 1	11/6/19

Project: 18NCC016
Drawn By: Designer
Checked By: Checker
Date: 10/23/19
Jenkins • Peer Architects © copyright 2018

PARTITION TYPES & DETAILS



HARD BID SET

G-301

WALL & PARTITION TAG LEGEND			
WALL/PARTITION SIZE	MODIFIER DESIGNATION		
STRUCTURAL OR NON-STRUCTURAL MATERIAL TYPE	S3.2a	-	NON RATED
		a	1/2 HOUR RATED
		b	1 HOUR RATED FIRE PARTITION
		c	1 HOUR RATED FIRE BARRIER
		d	2 HOUR RATED
			WALL/PARTITION TYPE

WALL & PARTITION SIZE AND TYPE LEGEND			
F STEEL STUD FURRING	H SHAFTWALL	C CAST IN PLACE CONCRETE	
F0 = 7/8"	F3 = 3/5/8"	H2 = 2 1/2"	C4 = 4"
F1 = 1 5/8"		H4 = 4"	C10 = 10"
F2 = 2 1/2"			C6 = 6"
			C12 = 12"
			C8 = 8"
S STEEL STUD NON-BEARING	D DBL STEEL STUD NON-BEARING	M CONCRETE MASONRY	
S1 = 1 5/8"	S4 = 4"	M4 = 3 5/8"	M10 = 9 5/8"
S2 = 2 1/2"	S6 = 6"	M6 = 5 5/8"	M12 = 11 5/8"
S3 = 3 5/8"	S8 = 8"	D1 = (2) 1 5/8"	
		D3 = (2) 3 5/8"	
		D1&3 = 1 5/8" & 3 5/8"	

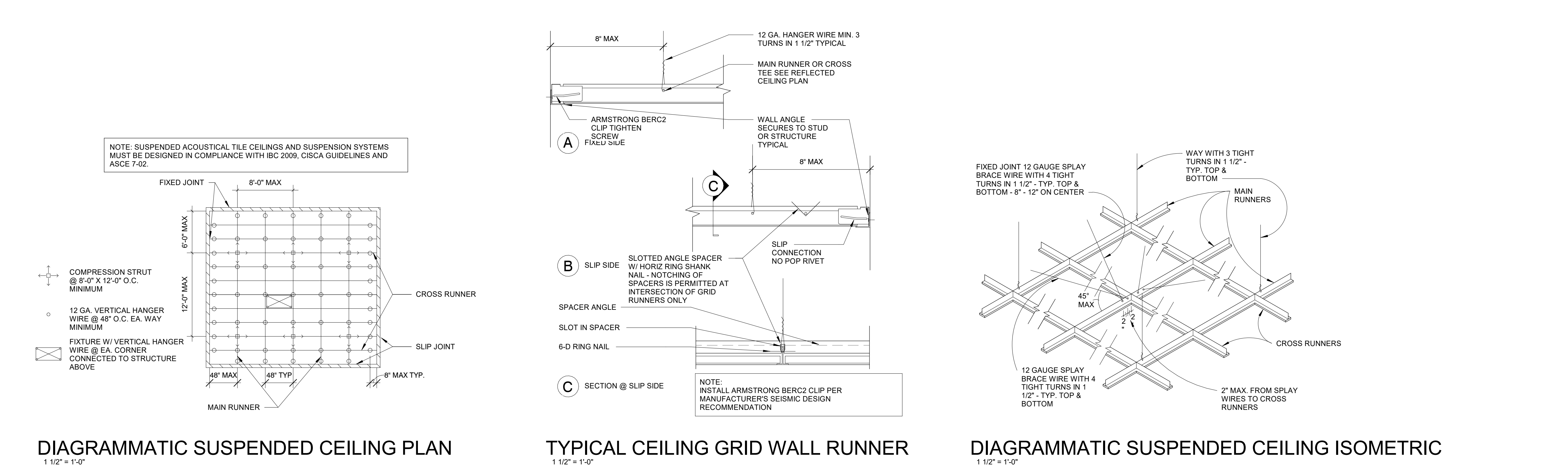
NOTE:
DIMENSIONS ONLY INDICATE THE STRUCTURAL/NON-STRUCTURAL COMPONENT OF THE WALL OR PARTITION ASSEMBLY. FINISHES OF THE PARTITIONS ARE NOT INCLUDED IN THE DIMENSIONS.

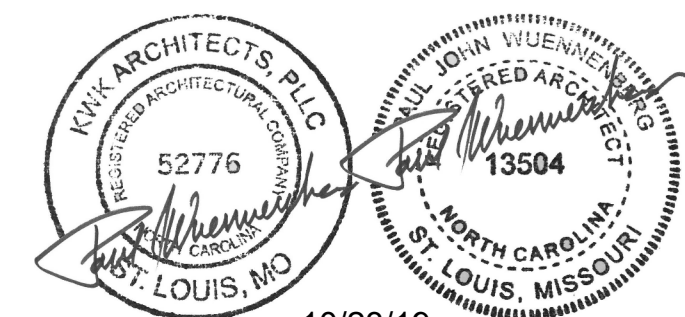
WALL & PARTITION NOTES

- REFERENCE FLOOR PLANS FOR CORRESPONDING WALL TAGS.
- REFERENCE FINISH SCHEDULE FOR WALL FINISHES.
- REFERENCE BUILDING SECTIONS AND WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION TYPES.
- ALL GYPSUM WALL BOARD IS 5/8" THICK UNLESS OTHERWISE INDICATED.
- PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD IN RESTROOMS, AT KITCHEN AREAS, AND JANITOR CLOSETS UNLESS INDICATED OTHERWISE ON THE FINISH SCHEDULE.
- PROVIDE TILE BACKER BOARD FOR ALL METAL STUD WALLS AND PARTITION THAT ARE TO RECEIVE CERAMIC TILE FINISH IN LIEU OF GYPSUM WALL BOARD.
- ALL PARTITIONS ARE TO BE BRACED TO STRUCTURE AS SPECIFIED.
- ALL PARTITIONS TO EXTEND A MINIMUM OF 4" ABOVE FINISHED CEILING UNLESS OTHERWISE INDICATED.
- ALL FIRE-RATED WALLS AND SMOKE WALLS ARE TO BE SEALED TO DECK ABOVE AND ALL PENETRATIONS SEALED.
- ALL RATED, ACOUSTICALLY INSULATED, AND WALLS SURROUNDING NEGATIVE PRESSURED ROOMS TO EXTEND FULL HEIGHT (FLOOR TO DECK) UNLESS OTHERWISE INDICATED.
- ALL ACOUSTICAL BATT INSULATION IS 3 1/2" UNLESS OTHERWISE INDICATED.
- WHERE WALLS ARE SCHEDULED WITH ACOUSTICAL BATT, PENETRATIONS SHALL BE TREATED PER TYPICAL ACOUSTICAL DETAILS ON SHEET G-302.
- ALLOW 1/4" GAP AT BASE AND HEAD TRACK FOR ALL ACOUSTICALLY RATED PARTITION TYPES. SEAL GAP WITH ACOUSTICAL SEALANT, TYPICAL.
- REFERENCE U.L. DETAIL SHEETS FOR U.L. DETAILS.
- PROVIDE TYPE "X" GYPSUM BOARD AT ALL RATED PARTITIONS / WALLS.

NON-RATED, NON-BEARING		NON-RATED, NON-BEARING CHASE WALL	
<p>S1.1 1 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = 42 (NGC 2385)</p> <p>S3.1 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = 42 (NGC 2385)</p> <p>S6.1 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>S3.2 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = 47 (NGC 2386)</p> <p>S6.2 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = 47 (NGC 2386)</p>	<p>S3.6 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>CH3.1 3 5/8" STL STUD, 18 GAUGE @ 16" O.C. 0 HR STC = 59 (USG-020241)</p>

NON-RATED, NON-BEARING FURRING WALL				
<p>F0.1 7/8" HAT CHANNEL, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>F1.1 1 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F2.1 2 1/2" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F3.1 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F6.1 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>F1.2 1 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F2.2 2 1/2" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F3.2 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F6.2 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>F1.3 1 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F2.3 2 1/2" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F3.3 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F6.3 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>	<p>F1.4 1 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F2.4 2 1/2" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F3.4 3 5/8" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p> <p>F6.4 6" STL STUD, 25 GAUGE @ 16" O.C. 0 HR STC = --</p>





10/23/19



SCO ID: 18-18333-02A

TAG	DESCRIPTION	DATE
1	Addendum 1	11/6/19

Project: 18NCC016
Drawn By: Designer
Checked By: Checker
Date: 10/23/19
Jenkins • Peer Architects © copyright 2018

PARTITION TYPES & DETAILS



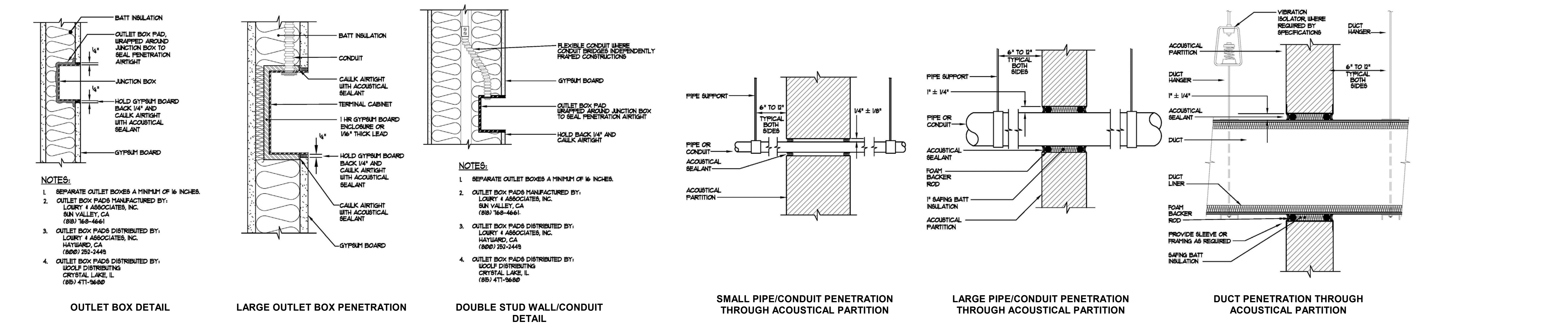
HARD BID SET

G-302

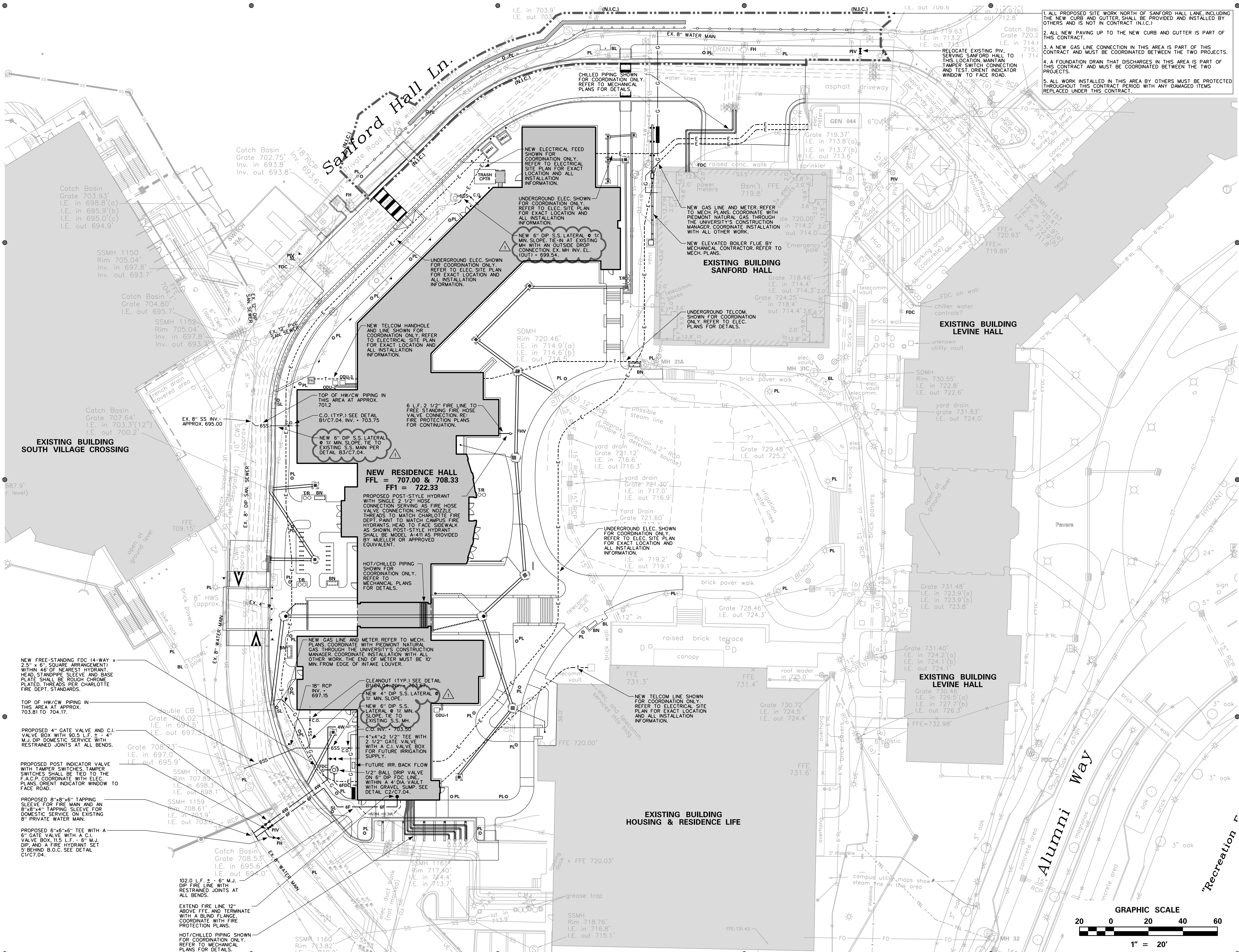
WALL & PARTITION TAG LEGEND			
WALL/PARTITION SIZE		MODIFIER DESIGNATION	
STRUCTURAL OR NON-STRUCTURAL MATERIAL TYPE			
-- = NON RATED a = 1/2 HOUR RATED b = 1 HOUR RATED FIRE PARTITION c = 1 HOUR RATED FIRE BARRIER d = 2 HOUR RATED WALL/PARTITION TYPE			
WALL & PARTITION SIZE AND TYPE LEGEND			
F STEEL STUD WALL F0 = 7/8" F1 = 1 5/8" F2 = 2 1/2"	H SHAFTWALL H3 = 3 5/8" H4 = 4"	C CAST IN PLACE CONCRETE C4 = 4" C6 = 6" C8 = 8"	C10 = 10" C12 = 12"
S STEEL STUD NON-BEARING S1 = 1 5/8" S2 = 2 1/2" S3 = 3 5/8"	S4 = 4" S6 = 6" S8 = 8"	D DBL STEEL STUD NON-BEARING D1 = (2) 1 5/8" D3 = (2) 1 3/8" D1&3 = 1 5/8" & 3 5/8"	M CONCRETE MASONRY M4 = 3 5/8" M6 = 5 5/8" M8 = 7 5/8" M10 = 9 5/8" M12 = 11 5/8"
NOTE: DIMENSIONS ONLY INDICATE THE STRUCTURAL/NON-STRUCTURAL COMPONENT OF THE WALL OR PARTITION ASSEMBLY. FINISHES OF THE PARTITIONS ARE NOT INCLUDED IN THE DIMENSIONS.			
WALL & PARTITION NOTES			
1. REFERENCE FLOOR PLANS FOR CORRESPONDING WALL TAGS. 2. REFERENCE FINISH SCHEDULE FOR WALL FINISHES. 3. REFERENCE BUILDING SECTIONS AND WALL SECTIONS FOR EXTERIOR WALL CONSTRUCTION TYPES. 4. ALL GYPSUM WALL BOARD IS 5/8" THICK UNLESS OTHERWISE INDICATED. 5. PROVIDE MOISTURE RESISTANT GYPSUM WALL BOARD IN RESTROOMS, AT KITCHEN AREAS, AND JANITOR CLOSETS UNLESS INDICATED OTHERWISE ON THE FINISH SCHEDULE. 6. PROVIDE TILE BACKER BOARD FOR ALL METAL STUD WALLS AND PARTITION THAT ARE TO RECEIVE CERAMIC TILE FINISH IN LIEU OF GYPSUM WALL BOARD. 7. ALL PARTITIONS ARE TO BE BRACED TO STRUCTURE AS SPECIFIED. 8. ALL PARTITIONS TO EXTEND A MINIMUM OF 4" ABOVE FINISHED CEILING UNLESS OTHERWISE INDICATED. 9. ALL FIRE-RATED WALLS AND SMOKE WALLS ARE TO BE SEALED TO DECK ABOVE AND ALL PENETRATIONS SEALED. 10. ALL RATED, ACOUSTICALLY INSULATED, AND WALLS SURROUNDING NEGATIVE PRESSURED ROOMS TO EXTEND FULL HEIGHT (FLOOR TO DECK) UNLESS OTHERWISE INDICATED. 11. ALL ACOUSTICAL BATT INSULATION IS 3 1/2" UNLESS OTHERWISE INDICATED. 12. WHERE WALLS ARE SCHEDULED WITH ACOUSTICAL BATT, PENETRATIONS SHALL BE TREATED PER "TYPICAL ACOUSTICAL DETAILS" ON SHEET G-302. 13. ALLOW 1/4" GAP AT BASE AND HEAD TRACK FOR ALL ACOUSTICALLY RATED PARTITION TYPES. SEAL GAP WITH ACOUSTICAL SEALANT, TYPICAL. 14. REFERENCE U.L. DETAIL SHEET(S) FOR U.L. DETAILS. 15. PROVIDE TYPE "X" GYPSUM BOARD AT ALL RATED PARTITIONS / WALLS.			

RATED, NON-BEARING				

RATED, NON-BEARING SHAFT		RATED, BEARING CONCRETE



TYPICAL ACOUSTICAL DETAILS
1 1/2" = 1'-0"



1. ALL PROPOSED SITE WORK NORTH OF SANFORD HALL LANE, INCLUDING THE NEW CURB AND GUTTER, SHALL BE PROVIDED AND INSTALLED BY OTHERS AND IS NOT IN CONTRACT (N.I.C.)
2. ALL NEW PAVING UP TO THE NEW CURB AND GUTTER IS PART OF THIS CONTRACT.
3. A NEW GAS LINE CONNECTION IN THIS AREA IS PART OF THIS CONTRACT AND MUST BE COORDINATED BETWEEN THE TWO PROJECTS.
4. A FOUNDATION DRAIN THAT DISCHARGES IN THIS AREA IS PART OF THIS CONTRACT AND MUST BE COORDINATED BETWEEN THE TWO PROJECTS.
5. ALL WORK INSTALLED IN THIS AREA BY OTHERS MUST BE PROTECTED THROUGHOUT THIS CONTRACT PERIOD WITH ANY DAMAGED ITEMS REPLACED UNDER THIS CONTRACT.

Jenkins • Peer Architects
 112 South Tryon Street, Suite 1300
 Charlotte, North Carolina 28284
 (t) 704/372-6665

KWK ARCHITECTS
 103 West Lockwood, Suite 218
 St. Louis, Missouri 63119
 (t) 314/942-8810

STANLEY D. LINDSEY & ASSOCIATES, LTD.
 Civil Engineer
 NC License # C-1863
 1347 Harding Place, Suite 201
 Charlotte, North Carolina 28204
 (t) 704/333-3122

SKA CONSULTING ENGINEERS, INC.
 Structural Engineer
 NC License # C-05058
 4651 Charlotte Park Drive, Suite 150
 Charlotte, North Carolina 28217
 (t) 704/424-9663

OPTIMA ENGINEERING, PA
 Mechanical, Electrical, Plumbing +
 Fire Protection Engineering
 NC License # C-0914
 1927 South Tryon Street, Suite 300
 Charlotte, North Carolina 28203
 (t) 704/338-1292

LANDESSIGN, INC.
 Landscape Design
 NC License # C-06558
 223 North Graham Street
 Charlotte, NC 28202
 (t) 704/333-0325



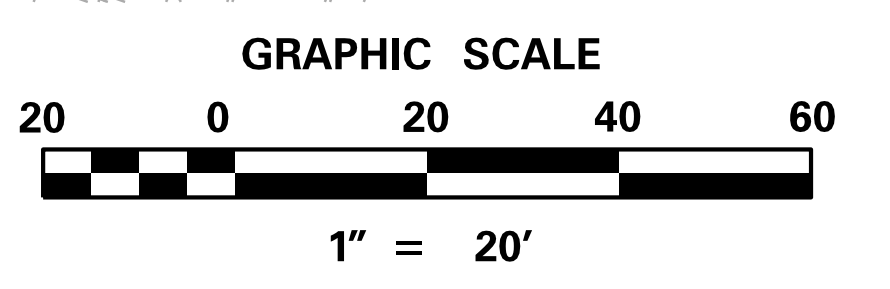
UNC CHARLOTTE
 Charlotte, NC
 RESIDENCE HALL
 PHASE XVI

SCO ID: 18-18333-02A

TAG	DESCRIPTION	DATE
1	ADDENDUM 1	11/06/19

Project: JPA:18NCC016; SDL 18018
 Drawn By: S.H.D.
 Checked By: J.I.S.
 Date: 10/23/19
 Jenkins • Peer Architects © copyright 2018

UTILITY PLAN



TRUE NORTH

HARD BID SET

C4.00

06-NOV-2019 12:41 P:\2018\2018.03 UNCC Phase XVI\CADD Files\X4\C400.dgn