#### **SECTION 00 9111 - ADDENDUM NUMBER 1**

#### **PARTICULARS**

- 1.01 DATE: SEPTEMBER 16, 2016
- 1.02 PROJECT: GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)
- 1.03 OWNER'S PROJECT NUMBER: H27-D259-CB
- 1.04 OWNER: UNIVERSITY OF SOUTH CAROLINA
- 1.05 ARCHITECT: GMK ASSOCIATES
- TO: PROSPECTIVE BIDDERS:
- 2.01 THIS ADDENDUM FORMS A PART OF THE CONTRACT DOCUMENTS AND MODIFIES THE ORIGINAL PROCUREMENT DOCUMENTS DATED JULY 25, 2016, WITH AMENDMENTS AND ADDITIONS NOTED BELOW.
- 2.02 ACKNOWLEDGE RECEIPT OF THIS ADDENDUM IN THE SPACE PROVIDED IN THE BID FORM. FAILURE TO DO SO MAY DISQUALIFY THE BIDDER.
- 2.03 THIS ADDENDUM CONSISTS OF 3 PAGE(S) AND THE FOLLOWING ATTACHMENTS:
  - A. Pre-Bid Meeting Sign in Sheet Issued for informational purposes only.
  - B. Specification section 01 5000 Temporary Facilities and Controls.
  - C. SE-659 Construction Services Indefinite Delivery Contract Representative Project Bid Form
  - D. Hazmat Report Issued for informational purposes only.
  - E. Drawing A1.0 Demolition Plans
  - F. Drawing A2.0 Floor Plans
  - G. Drawing A6.0 Enlarged Plans & Interior Elevations
  - H. Drawing A7.0 Reflected Ceiling Plans
  - I. Drawing P0.0 Plumbing schedules, Notes, Legends, Details & Abbreviations
  - J. Drawing P2.1 Partial First Floor, Second Floor & Below Floor Plan Plumbing Renovation
  - K. Drawing M2.1 Partial First Floor and Second Plan HVAC Demolition & Renovation
  - L. Drawing E2.1 Partial First Floor and Second Plan Elec Demolition and Renovation

# CHANGES TO THE PROJECT MANUAL - INTRODUCTORY REQUIREMENTS, PROCUREMENT REQUIREMENTS AND CONTRACTING REQUIREMENTS :

#### 3.01 SE-655 INVITATION FOR CONSTRUCTION SERVICES

- A. Lind Jackson's telephone number is 803-777-3489.
- B. Bid Closing date is changed to Thursday, September 29, 2016 @ 2 PM

# 3.02 SE-659 CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT - REPRESENTATIVE PROJECT BID FORM

- A. Replaced existing form SE-659 with the revised SE-659 form.
- B. Removed Alternate #1 from the scope of the project.
- C. Changed amount of days for bidder to substantially complete the Work from 90 days to 72 days.

#### **CHANGES TO THE PROJECT MANUAL - SPECIFICATIONS:**

## 4.01 SECTION 01 5000 TEMPORARY FACILITIES AND CONTROLS

- A. Replace existing section 01 5000 with the revised section 01 5000 attached.
- B. See sections about Barriers. Waste Removal, and Vehicular Access.

#### **CHANGES TO THE DRAWINGS:**

#### 5.01 DRAWING A1.0 - DEMOLITION PLANS

- A. Replace existing drawing A1.0 with the revised drawing A1.0 attached.
- B. Deleted drawing 2/A1.0 from the scope of work.
- C. Deleted notes 5, 6, & 7 from Phasing Notes.

## 5.02 DRAWING A2.0 -FLOOR PLANS

- A. Replace existing drawing A2.0 with the revised drawing A2.0 attached.
- B. Deleted drawing 2/A2.0 from the scope of work.
- C. Deleted notes 5, 6, & 7 from the Phasing Notes.

## 5.03 DRAWING A6.0 -ENLARGED PLANS AND INTERIOR ELEVATIONS

- A. Replace existing drawing A6.0 with the revised drawing A6.0 attached.
- B. Deleted drawing 15, 16, 17, 18, 19, 20, 21, 22, 23, & 24/A6.0 from the scope of work.
- C. Deleted rooms Mens 209 and Womens 210 from the Finish Schedule and from the scope of work.

#### 5.04 DRAWING A7.0 - REFLECTED CEILING PLANS

- A. Replace existing drawing A7.0 with the revised drawing A7.0 attached.
- B. Deleted drawing 3 & 4/A7.0 from the scope of work.

## 5.05 DRAWING PO.0 - PLUMBING SCHEDULES, NOTES, LEGENDS, DETAILS & ABBREVIATIONS.

- A. Replace existing drawing P0.0 with the revised drawing P0.0 attached.
- B. Delected fixture from plumbing fixture schedule.
- C. Deleted notes 5, 6, & 7 from the phasing notes.

#### 5.06 DRAWING P1.2 - PARTIAL SECOND FLOOR PLAN - PLUMBING DEMOLITION

A. Deleted sheet from scope of work.

# 5.07 DRAWING P2.1 - PARTIAL FIRST FLOOR, SECOND FLOOR & BELOW FLOOR PLAN - PLUMBING RENOVATION

- A. Replace existing drawing P2.1 with the revised drawing P2.1 attached.
- B. Deleted drawing 9, 10, 11, & 12/P2.1 from the scope of work.
- C. Deleted notes 5, 6, & 7 from the Phasing notes.

# 5.08 DRAWING M2.1 - PARTIAL FIRST FLOOR AND SECOND PLAN - HVAC DEMOLITION AND RENOVATION

- A. Replace existing drawing M2.1 with the revised drawing M2.1 attached.
- B. Deleted drawing 2, 3, & 6/M2.1 from the scope of the work.
- C. Deleted notes 5, 6, & 7 from the Phasing notes.

# 5.09 DRAWING E2.1 - PARTIAL FIRST FLOOR AND SECOND FLOOR PLAN - ELEC DEMOLITION AND RENOVATION

- A. Replace existing drawing E2.1 with the revised drawing E2.1 attached.
- B. Deleted drawing 1 & 2/E2.1 from the scope of the work.
- C. Deleted notes 5, 6, & 7 from the Phasing Notes.

#### **CLARIFICATIONS**

- 6.01 ORIGINAL & SUBSEQUENT PLANS ARE AVAILABLE BY GMK ASSOCIATES. CONTRACTOR SHALL REQUEST ACCESS TO A SHAREFILE ACCOUNT VIA EMAILING THE REQUEST TO TWEILAND@GMKA.COM.
- 6.02 SECOND SITE TOUR: TUESDAY, SEPTEMBER 20, 2016 FROM 11:00 AM TO 11:45 AM SHARP.
- 6.03 THIRD AND FINAL SITE TOUR: THURSDAY, SEPTEMBER 22, 2016 FROM 2:45 TO 3:30 PM SHARP.
- 6.04 ALL SITE TOURS WILL BEGIN AT THE FIRST FLOOR (NORTH) LOBBY/HALLWAY AT MCKISSICK NEXT TO THE EXISTING UNI-SEX BATHROOM.
- 6.05 LAST DAY FOR QUESTIONS THURSDAY, SEPTEMBER 22, 2016.
- 6.06 QUESTIONS AND ANSWERS
  - A. Question: We're working on the McKissick Museum bathroom renovations at USC. We are interested in finding information on the existing fire alarm system.
    - 1. Answer: Please be advised that the current Fire Alarm system at McKissick is by Simplex. However, a completely brand new Fire Alarm system is currently Out-For-Bid, which could be an entirely different Fire Alarm Systems, when all is said and done.

## **END OF ADDENDUM NUMBER 1**

# Non Mandatory Pre Bid Sign In Sheet Columbia, South Carolina **University of South Carolina**

Project Name:

General Construction Indefinite Delivery Contract McKissick Museum Bathroom Renovations

Project Number: Pre Bid Date & Time: H27-D259-CB

September 12, 2016 9:30AM 743 Greene St Conf Rm 053

SWMBE MORIN PARIS GALL ACCORDED TO MAIN ST	K.	SWMBE LICKD IZZUTI, LIZZUTI DINE OK SC 25072	USC	Solid structures 2548 mon	SWMBE Aimee Rish USC PACILITIES 743 Greeness	SWM 8 E CHUSSEINAL PENN CONTRACTURS W BAIRNHIME SC 25,002 803 407 9724	SWMBE TAYLOR COMMONS 77 MOS 7001 STANDARS	SWMBE Contractor Indicate Name Company Name Address	
803-256 Mpans@gmka.com	3094 AEVANSO CONTRACTMONERICK	5522 Phindelmydeninet	Ljackson@fmc.sc.edu	0298 Estimation oscilitations into	29208 7-2261 akilopmc, Sciell	F 503 781 4142 BOB @PENN CONTRACTIVES, COM	140/ TAYLUR @ 77/205.00m	Phone # Email	

# Non Mandatory Pre Bid Sign In Sheet Columbia, South Carolina **University of South Carolina**

Project Name:

General Construction Indefinite Delivery Contract McKissick Museum Bathroom Renovations H27-D259-CB

Project Number: Pre Bid Date & Time: September 12, 2016 9:30AM 743 Greene St Conf Rm 053

S W M B E	SWMBE	S W M B E	S W M B. E	S W M B E	S W M B E	S W M B E	S W M B E	S W M B E	SWMBE Contractor Indicate Below
DAY LININGSTON		Andrew Brigman	Jerri Smith	Césa Valacio	GARYMARRAS	ASON PRINSE	Pares osshile	CREC MARTIN	Name
FULLIEWED PAC	First Class Construction	Southern Remarkant Lich 29170	HST (Bus)	CESON Palacio M.S.I Const	GARY MARREAS TROSPECIALTY THE PICKEN 29804	Hammed	77 Plus	7) Pas	Company Name
Rose Rolling	126-85 weekled 803-926.	316 Composed TRE	1745 Greenood Kl	145 GREWWOOD Pol 796-327	FD, BOX 5717	785 HAMMETER CREEK W/63,783.7033 COLLINGUE, SC 803.001.4816		Josephorenz 20	Address
067t	-926-508	518-0386	796-3324	146-386	1508205-508	803.783.7633 803.001.4816	`	1041	Phone #
paraick living ston @	sbross@facon, com	Draw, Sec. LLO @ gmail. Com	796-3324 + Kutzamsiconstan	CESON PARLACIO P	895-507805) GMARO 3750	803.783.7033 803.001.4816 JASON OHAMMER LLC. COM	MARSO 77 Ros com	Grey OFF Passon	Email

# Non Mandatory Pre Bid Sign In Sheet Columbia, South Carolina **University of South Carolina**

Project Name:

General Construction Indefinite Delivery Contract McKissick Museum Bathroom Renovations H27-D259-CB

Project Number: Pre Bid Date & Time:

September 12, 2016 9:30AM 743 Greene St Conf Rm 053

S W M B E	S W M B E	S W M B E	S W M B E	S W M B E	S W M B E	S W M B E	S W M B E	SWMBE	SWMBE Contractor Indicate Below
								Bill Ellson	Name
								1/ Ellson Rest. 2 Remod Lexinato, 2011	Company Name
								70 Box 2312	Address
			4				,	4343	Phone #
								wellison@pauldavis	Email

#### SECTION 01 5000 - TEMPORARY FACILITIES AND CONTROLS

#### **PART 1 GENERAL**

#### 1.01 SECTION INCLUDES

- A. Temporary telecommunications services.
- B. Temporary sanitary facilities.
- C. Temporary Controls: Barriers, enclosures, and fencing.
- D. Security requirements.
- E. Vehicular access and parking.
- F. Waste removal facilities and services.

## 1.02 RELATED REQUIREMENTS

#### 1.03 REFERENCE STANDARDS

A. ASTM E84 - Standard Test Method for Surface Burning Characteristics of Building Materials; 2015a.

## 1.04 TEMPORARY UTILITIES

- A. Owner will provide the following:
  - 1. Electrical power, consisting of connection to existing facilities.
  - 2. Water supply, consisting of connection to existing facilities.
- B. Existing facilities may be used.

## 1.05 TELECOMMUNICATIONS SERVICES

A. Provide, maintain, and pay for telecommunications services to field office at time of project mobilization.

#### 1.06 TEMPORARY SANITARY FACILITIES

- A. Provide and maintain required facilities and enclosures. Provide at time of project mobilization.
- B. Use of existing facilities is not permitted.
- C. Maintain daily in clean and sanitary condition.

#### 1.07 BARRIERS

- A. Provide ramboard protection for all elevator finishes and floors, walls, ceilings for the debris haul route. Debris haul route is located along entire path from project site location in building to debris removal site.
- B. Temporary partitions shall be located to protect the lights in all corridors.
- C. Provide barriers to prevent unauthorized entry to construction areas, to prevent access to areas that could be hazardous to workers or the public, to allow for owner's use of site and to protect existing facilities and adjacent properties from damage from construction operations and demolition.
- D. Provide barricades and covered walkways required by governing authorities for public rights-of-way and for public access to existing building.
- E. Provide protection for plants designated to remain. Replace damaged plants.
- F. Protect non-owned vehicular traffic, stored materials, site, and structures from damage.

#### 1.08 INTERIOR ENCLOSURES

- A. Provide temporary partitions as indicated to separate work areas from Owner-occupied areas, to prevent penetration of dust and moisture into Owner-occupied areas, and to prevent damage to existing materials and equipment.
- B. Construction: Metal stud framing and gypsum board sheet materials with closed joints and sealed edges at intersections with existing surfaces:
  - 1. Maximum flame spread rating of 75 in accordance with ASTM E84.

C. Paint surfaces exposed to view from Owner-occupied areas.

#### 1.09 VEHICULAR ACCESS AND PARKING

- A. Comply with regulations relating to use of streets and sidewalks, access to emergency facilities, and access for emergency vehicles.
- B. Coordinate access and haul routes with governing authorities and Owner.
- C. Provide and maintain access to fire hydrants, free of obstructions.
- D. Provide means of removing mud from vehicle wheels before entering streets.
- E. Owner to provide Contractor with (5) parking hang tags.

#### 1.10 WASTE REMOVAL

- A. The debris removal site is to be at the brick pavers near the rear onto rampon at floor grade.
- B. Provide waste removal facilities and services as required to maintain the site in clean and orderly condition.
- C. Provide containers with lids. Remove trash from site daily.
- D. Open free-fall chutes are not permitted. Terminate closed chutes into appropriate containers with lids.
- E. Debris haul route to remain clean and in orderly condition daily as well as free from debris.

**PART 2 PRODUCTS - NOT USED** 

**PART 3 EXECUTION - NOT USED** 

**END OF SECTION** 

## **SE-659**

# CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT REPRESENTATIVE PROJECT BID FORM

Bidders shall submit bids on only Bid Form SE-659.

BID	SUBMITTED BY:
	(Bidder's Name)
BID	SUBMITTED TO: University of South Carolina
	(Owner's Name)
FOR	: PROJECT NAME: McKissick Museum Bathroom Renovations
	PROJECT NUMBER: H27-N316-CB
<u>OFFE</u>	ER
§ 1.	In response to the Invitation for Indefinite Delivery of Construction Services and in compliance with the Instructions to Bidders for the above-named Project, the undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into a Contract with the Owner on the terms included in the Bidding Documents, and to perform all Work as specified or indicated in the Bidding Documents, for the prices and within the time frames indicated in this Bid and in accordance with the other terms and conditions of the Bidding Documents.
§ 2.	Pursuant to Section 11-32-3030(1) of the SC Code of Laws, as amended, Bidder has submitted Bid Security as follows in the amount and form required by the Bidding Documents:
	☐ Bid Bond with Power of Attorney ☐ Electronic Bid Bond ☐ Cashier's Check (Bidder check one)
§ 3.	Bidder acknowledges the receipt of the following Addenda to the Bidding Documents and has incorporated the effects of said Addenda into this Bid:
	(Bidder, check all that apply. Note, there may be more boxes than actual addenda. Do not check boxes that do not apply)
	ADDENDA:   #1   #2   #3   #4   #5
§ 4.	Bidder accepts all terms and conditions of the Invitation for Bids, including, without limitation, those dealing with the disposition of Bid Security. Bidder agrees that this Bid may not be revoked or withdrawn after the opening of bids, and shall remain open for acceptance for a period of <u>60</u> Days following the Bid Date, or for such longer period of time that Bidder may agree to in writing upon request of the Owner.
§ 5.	Bidder herewith offers to provide all labor, materials, equipment, tools of trades and labor, accessories, appliances, warranties and guarantees, and to pay all royalties, fees, permits, licenses and applicable taxes necessary to complete the following items of construction work:
§ 6.1	REPRESENTATIVE PROJECT WORK DESCRIPTION (as indicated in the Bidding Documents and generally described as follows):  The McKissick Museum Bathroom renovations [seed project] is to provide construction services to renovate several existing bathrooms on the 1st floor, also create a new ADA female restroom and unisex restroom on the 1st floor. The work includes but is not limited to demolition, wall and ceiling work, new finishes, plumbing systems, mechanical systems and electrical systems.
	\$ which sum is hereafter called the Base Bid.  (Bidder - insert Bid Amount for Representative Project on line above)
	This bid price will be used to determine which bidders will receive award of an Indefinite Delivery Contract. The lowest

This bid price will be used to determine which bidders will receive award of an Indefinite Delivery Contract. The lowest responsive and responsible bidder will also receive a Delivery Order to perform the above described work at the price bid. Award and pricing of subsequent Delivery Orders shall be determined by competitive bidding between Indefinite Delivery Contractors receiving an award of an Indefinite Delivery Contract pursuant to this solicitation.

# SE-659 CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT REPRESENTATIVE PROJECT BID FORM

Page BF-1

# **SE-659**

# CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT REPRESENTATIVE PROJECT BID FORM

§ 6.2	BID	ALTERNATES as indicated in the Bidding Documents and generally described as follows:
	AL	TERNATE # 1 (Brief Description):
		☐ ADD TO or ☐ DEDUCT FROM BASE BID: \$
		(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)
	<u>AL</u>	TERNATE # 2 (Brief Description):
		☐ ADD TO or ☐ DEDUCT FROM BASE BID: \$
		(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)
	<u>AL</u>	TERNATE # 3 (Brief Description):
		☐ ADD TO or ☐ DEDUCT FROM BASE BID: \$
		(Bidder to Mark appropriate box to clearly indicate the price adjustment offered for each alternate)
§ 7.		TING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, LE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED: (Owner check box that applies.)
		Bidder shall list on Appendix A to this bid form those subcontractors which bidder intends to use to perform the work requiring the license classification and/or subclassification listed therein. Bidder shall only use the listed subcontractors in performance of such licensed work.
		Bidder is not required to list subcontractors.
§ 8.		ME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES – INDEFINITE DELIVERY NTRACT
	esta succ Con amo day	der agrees that the Date of Commencement of any contract awarded pursuant to the Invitation for Bids shall be blished in the Agreement for Indefinite Delivery of Construction Services to be executed by the Owner and the cessful Bidder. Bidder also agrees that individual Delivery Orders, if any, shall establish the Date of amencement, the time to complete the Work included in the Delivery Order (or the completion date), and the bount, if any, the Owner shall retain from the compensation to be paid as Liquidated Damages for each calendar the actual construction time required to complete the Work exceeds the specified or adjusted time for completion rovided in the Contract Documents.
§ 8.1		ME OF CONTRACT PERFORMANCE AND LIQUIDATED DAMAGES - REPRESENTATIVE OJECT
	a)	<b>CONTRACT TIME:</b> Bidder agrees that the Date of Commencement of the Work shall be established in a Notice to Proceed to be issued by the Owner. Bidder agrees to substantially complete the Work within <u>72</u> Calendar Days from the Date of Commencement, subject to adjustments as provided in the Contract Documents.
	b)	LIQUIDATED DAMAGES: Bidder further agrees that from the compensation to be paid, the Owner shall retain as Liquidated Damages the amount of \$\frac{100.00}{}\$ for each Calendar Day the actual construction time required to achieve Substantial Completion exceeds the specified or adjusted time for Substantial Completion as provided in the Contract Documents. This amount is intended by the parties as the predetermined measure of compensation for actual damages, not as a penalty for nonperformance.

## SE-659

# CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT REPRESENTATIVE PROJECT BID FORM

## § 9. AGREEMENTS

- a) Bidder agrees that this bid is subject to the requirements of the laws of the State of South Carolina.
- b) Bidder agrees that at any time prior to execution of the Construction Services Indefinite Delivery Contract for this Project, this Project may be canceled for the convenience of, and without cost to, the State.
- c) Bidder agrees that neither the State of South Carolina nor any of its agencies, employees or agents shall be responsible for any bid preparation costs, or any costs or charges of any type, should all bids be rejected or the Project canceled for any reason prior to execution of the Construction Services Indefinite Delivery Contract.

## § 10. ELECTRONIC BID BOND

By signing below, the Principal is affirming that the identified electronic bid bond has been executed and that the Principal and Surety are firmly bound unto the State of South Carolina under the terms and conditions of the AIA Document A310, Bid Bond, included in the Bidding Documents.

ELECTRONIC DID DOND NUMBER.	
ELECTRONIC BID BOND NUMBER:SIGNATURE AND TITLE:	
SIGNATURE AND TITLE.	
CONTRACTOR'S CLASSIFICATIONS AND SUBCLASS	IFICATIONS WITH LIMITATION
SC CONTRACTOR'S LICENSE NUMBER(S):	
CLASSIFICATION(S) & LIMITS:	
SUBCLASSIFICATION(S) & LIMITS:	
By signing this Bid, the person signing reaffirms all rep signing and the Bidder, including without limitation, those expressly incorporated by reference.	appearing in Article 2 of the Instructions to Bidders, is
BIDDER'S LEGAL NAME:	
ADDRESS:	
TELEPHONE:	
EMAIL:	
SIGNATURE:	DATE:
PRINT NAME:	
TITLE:	

# SE-659 – APPENDIX A CONSTRUCTION SERVICES INDEFINITE DELIVERY CONTRACT REPRESENTATIVE PROJECT BID FORM

LISTING OF PROPOSED SUBCONTRACTORS PURSUANT TO SECTION 3020(b)(i), CHAPTER 35, TITLE 11 OF THE SOUTH CAROLINA CODE OF LAWS, AS AMENDED.

	Bidder shall use the below-listed Subcontractors in the performance of the Subcontractor Classification work listed:  SUBCONTRACTOR  CLASSIFICATION  By License Classification  and/or Subclassification  (Completed by Owner)	SUBCONTRACTOR'S PRIME CONTRACTOR'S NAME (Must be completed by Bidder)	SUBCONTRACTOR'S PRIME CONTRACTOR'S SC LICENSE NUMBER (Requested, but not Required)
		BASE BID	
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#### INSTRUCTIONS FOR SUBCONTRACTOR LISTING

- **1.** Completing the form above:
  - a. **First Column**: The Owner fills out this column which identifies the contractor/subcontractor specialties for which the bidder must list either a subcontractor or himself as the entity that will perform this work. Subcontractor specialties are identified by contractor license classifications or subclassifications listed in Title 40 of the South Carolina Code of laws. If the owner has not identified a specialty, the bidder does not list a subcontractor
  - b. **Second and Third Columns:** In these columns the Bidder identifies the subcontractors it will use for the work of each specialty listed by the Agency in the First Column. Bidder must identify only the subcontractor(s) who will perform the work and no others. Bidders should make sure that their identification of each subcontractor is clear and unambiguous. A listing that could be any number of different entities may be cause for rejection of the bid as non-responsive. For example, a listing of M&M without more may be problematic if there are multiple different licensed contractors in South Carolina whose names start with M&M.
- 2. Subcontractor Defined: For purposes of subcontractor listing, a Subcontractor is an entity who will perform work or render service to the prime contractor to or about the construction site. Material suppliers, manufacturers, and fabricators that will not perform physical work at the site of the project but will only supply materials or equipment to the bidder or proposed subcontractor(s) are not subcontractors and Bidder should not insert their names in the spaces provided on the Bid Form. Likewise, Bidder should not insert the names of sub-subcontractors in the spaces provided on the Bid Form but only the names of those entities with which Bidder will contract directly.
- 3. Subcontractor Qualifications: Bidder must only list subcontractors who are qualified to perform the work of the listed specialties as specified in the Bidding Documents and who possess a South Carolina Contractor's license with the license classification and/or subclassification identified by the Owner in the first column on the left. If Bidder lists a subcontractor who is not qualified to perform the work, the Bidder will be rejected as non-responsible.
- 4. Use of Own forces: If under the terms of the Bidding Documents, Bidder is qualified to perform the work of a classification listed and Bidder does not intend to subcontract such work, but to use Bidder's own employees to perform such work, the Bidder must insert its own name in the space provided for that classification
- 5. Use of Multiple Subcontractors:
  - a. If Bidder intends to use multiple subcontractors to perform the work of a single classification listing, Bidder must insert the name of each subcontractor Bidder will use, preferably separating the names of each by the word "and". If Bidder intends to use both his own employees to perform a part of the work of a single classification listing and to use one or more subcontractors to perform the remaining work for that classification listing, Bidder must insert his own name and the name of each subcontractor, preferably separating the name of each with the word "and".
  - b. Optional Listing Prohibited: Bidder may not list multiple subcontractors for a classification listing, in a form that provides the Bidder the option, after bid opening or award, to choose to use one or more but not all the listed subcontractors to perform the work for which they are listed. A listing, which on its face requires subsequent explanation to determine whether it is an optional listing, is non-responsive. If Bidder intends to use multiple entities to perform the work for a single classification listing, Bidder must clearly set forth on the bid form such intent. Bidder may accomplish this by simply inserting the word "and" between the names of each entity listed for that specialty. Owner will reject as non-responsive a listing that contains the names of multiple subcontractors separated by a blank space, the word "or", a virgule (that is a /), or any separator that the Owner may reasonably interpret as an optional listing.
- 6. If Bidder is awarded the contract, Bidder must use the listed entities to perform the work for which they are listed. Bidder will not be allowed to substitute another entity as subcontractor in place of a subcontractor listed in Appendix A of the Bid Form except for one or more of the reasons allowed by the SC Code of Laws.
- 7. Bidder's failure to identify an entity (subcontractor or himself) to perform the work of a subcontractor specialty listed in the first column on the left will render the Bid non-responsive.

# UNIVERSITY OF SOUTH CAROLINA Contractor Requirements for Disturbance of Lead Containing Materials

The following contractor requirements exist to ensure that work disturbing lead containing materials at the University of South Carolina occurs in a safe and compliant manner, while minimizing risk to University personnel, property and the environment. You are encouraged to read and understand the OSHA standard for lead in the construction industry, 29CFR 1926.62.

#### **SUBMITTALS**

The following information must be provided to and approved by the University before any disturbance of lead materials may begin.

- 1. Description of each activity where lead materials will be disturbed.
- 2. Description of controls that will be used to minimize the generation of lead dust (i.e. wet methods, ventilation).
- 3. Demonstration that disturbance will not result in airborne concentrations of lead in excess of the OSHA Action Level of 30  $\mu$ g/m³ (i.e. a negative exposure assessment or NEA). Air monitoring data from previous, similar jobs conducted within the past 12 months are acceptable. If you do not have an NEA for the work described, then all work must be maintained under negative pressure and comply with OSHA 1926(e).
- 4. Description of decontamination procedures for personnel, equipment/tools and PPE to prevent the migration of lead materials from the work area.
- 5. Documentation that all personnel that will be involved in lead disturbance are trained in accordance with CFR 1926.62(I).
- 6. Description of process for collection, containerization and on-site management of lead containing waste material.

#### MINIMUM REQUIREMENTS

The University may conduct a safety inspection of your work site at any time. At a minimum, the following items will be inspected. Failure to comply may result in a work stoppage until items are corrected.

- 1. Access to work area must be clearly demarcated and restricted. OSHA-compliant lead work signage must be posted in conspicuous locations.
- 2. When vacuums are used for dust collection, HEPA vacuums must be used. Dry sweeping is prohibited.
- 3. Lead materials that have been removed from structures must be captured so as to prevent contamination of other building materials or the environment. For outdoor work, lead materials may not come in contact with the ground.
- Lead materials that have been removed must be cleaned up promptly (at least daily and before leaving the worksite at any time).
- 5. No lead materials may leave work area outside of impermeable containers. Workers must be adequately decontaminated prior to leaving work area.
- 6. The University will manage the disposal of all hazardous lead waste through its existing Hazardous Waste Management program. The disposal of lead waste not meeting the definition of Hazardous Waste must be coordinated through the University. Minimum requirements for on-site management of lead waste:
  - a. The contractor is responsible for providing containers for the storage of waste/disposal. Containers must be impermeable and capable of being closed.
  - b. Waste container must remain closed at all times unless adding or removing waste.
  - c. Waste container must be labeled with words that describe its contents (i.e. lead paint waste).
  - d. No more than fifty-five (55) gallons of hazardous waste may be accumulated on-site at any one time.

OrderID: 021601847



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077

PHONE: (800) 220-3675 FAX: (856) 786-5974

						/			
Company :	Univ	ersity of	South Carolina	1					Same Different nstructions in Comments**
Street: 7	43 Gr	eene Stree	:t			Third Party	Billing require	es writte	en authorization from third party
City: Co.	lumbi	a	State/Province: SC	Z	ip/P	ostal Code	: 29208		Country: US
Report To	(Name):	USC Hazmat	_	T	elep	hone #: 8	03-509	-33	76
Email Addr	ress: a	sbestos@ma	ilbox.sc.edu	F	ax#	:			Purchase Order:
		ber: Mckissiek	ζ			e Provide I			
U.S. State S	Samples	Taken: SC	Turnarium d Time (7	_				ial/Tax	able Residential/Tax Exempt
3 Hour *For TEM Air	3 hr throu	gh 6 hr, please call ar	Turnaround Time (1 24 Hour 48 Hou head to schedule.*There is a p Analysis completed in accordance.	r remiui	m cha	72 Hour arge for 3 Hou	TEM AHER	Hour A or EP ions loca	A Level II TAT. You will be asked to sign ated in the Analytical Price Guide.
		1 - Bulk (reportin	g limit)					TEM -	
or remaining with a sale of the sale of th		93/116 (<1%)							116 Section 2.5.5.1
☐ PLM EP						LAP Metho			
F. C		(<0.25%)  1000				field Protoc			
			.25%) 🗌 1000 (<0.1%)		***********				/116 Section 2.5.5.2
☐ NIOSH		%) d 198.1 (friable in	NIV)						rechnique Prep Technique
		d 198.6 NOB (nor		ш	I CIVI	Qualitative	via Diop iv	Oth	
OSHA I			, mazic it i					0111	<u>v.</u>
☐ Standar									
X Check F	For Posit	ive Stop – Clearl	y Identify Homogenous	Grou	gu	Date Sam	pled:		
Samplers I		•				mplers Sig			
Sample #	HA#		Sample Location					M	laterial Description
						*			
		W-7- 7-1-1-1							
							100		
	7.77								
Client Sam	ple # (s)	: 0 0	1				То	tal # o	of Samples:
Relinquish			\ \	te:					Time:
Received (				te:	3	16-16	2		Time: 10100
		Instructions:							
			(4)	3	F	( 799	5126	65	1764

Controlled Document - Asbestos COC - R6 - 11/29/2012

Reset Form



Type of Analysis: Lead (Asbestos) Date: 3/15

ROOM 120 EAST WALL         F         G         <1000 SQ F1	Material Sampled
P G <1000 SQ FI	PLASTER
	PLASTER

License # BI-00568

FM# FM00494 **853** 

Signature O.

C MERGNER Requestor

Send lab results in PDF and CSV format as soon as possible to: asbestos@mailbox.sc.edu



EMSL Order: 021601847 Customer ID: UNSC62

**Customer PO:** Project ID:

Attention: USC Hazmat Phone: (803) 777-7000

University of South Carolina (803) 777-3990

743 Greene Street Received Date: 03/16/2016 10:00 AM Columbia, SC 29208

**Analysis Date:** 03/17/2016

Collected Date:

Project: 15 McKissick

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized **Light Microscopy**

			Non-Asbe	<u>stos</u>	<u>Asbestos</u>
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
25	Plaster	Gray/Tan/Beige Non-Fibrous	<1% Cellulose	30% Quartz 70% Non-fibrous (Other)	None Detected
021601847-0001 <b>26</b>	Plaster	Heterogeneous Gray/Tan/Beige	<1% Cellulose	30% Quartz	None Detected
021601847-0002		Non-Fibrous Heterogeneous		70% Non-fibrous (Other)	

Analyst(s)

Scott Combs (2)

Stephen Bennett, Laboratory Manager or Other Approved Signatory

EMSL maintains liability limited to cost of analysis. This report relates only to the samples reported and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities or analytical method limitations. Interpretation and use of test results are the responsibility of the client. This report must not be used by the client to claim product certification, approval, or endorsement by NVLAP, NIST or any agency of the federal government. Non-friable organically bound materials present a problem matrix and therefore EMSL recommends gravimetric reduction prior to analysis. Samples received in good condition unless otherwise noted. Estimated accuracy, precision and uncertainty data available upon request. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample. Reporting limit is 1%

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

Initial Report From: 03/17/2016 09:18:57

OrderID: 021601780



# Asbestos Bulk Building Material Chain of Custody

EMSL Order Number (Lab Use Only):

EMSL ANALYTICAL, INC. 200 ROUTE 130 NORTH CINNAMINSON, NJ 08077

PHONE: (800) 220-3675 FAX: (856) 786-5974

				100	
Company :	Univ	ersity of South C	Carolina	If	EMSL-Bill to:   Same □ Different  Bill to is Different note instructions in Comments**
	STATE OF THE PARTY	eene Street			y Billing requires written authorization from third party
City: Co	lumbi	a State/Prov	ince: SC	Zip/Postal Code	
Report To	(Name):	USC Hazmat		Telephone #:	803-509-3376
		sbestos@mailbox.s	c.edu	Fax #:	Purchase Order:
Project Na	me/Num	ber: Mckissick			Results: 🗌 Fax 🛛 Email
U.S. State	Samples	Taken: SC	1=: /=4		Commercial/Taxable Residential/Tax Exempt
3 Hour	r 3 hr throu uthorization	6 Hour 24 Hour gh 6 hr, please call ahead to schedul form for this service. Analysis com	48 Hour	T) Options* – Ple 72 Hour mium charge for 3 Hour charge with EMSL's Terr	96 Hour 1 Week 2 Week our TEM AHERA or EPA Level II TAT. You will be asked to sign ones and Conditions located in the Analytical Price Guide.
DIMED		1 - Bulk (reporting limit)		d	TEM - Bulk
☐ PLM EP		93/116 (<1%)			3 – EPA 600/R-93/116 Section 2.5.5.1
CONTRACTOR OF THE PERSON OF TH	- between the transfer	(<0.25%)		NY ELAP Meth	col (semi-quantitative)
***		metric 400 (<0.25%) 100			ss – EPA 600/R-93/116 Section 2.5.5.2
	9002 (<1				e via Filtration Prep Technique
		d 198.1 (friable in NY)			e via Drop Mount Prep Technique
		d 198.6 NOB (non-friable-NY)			<u>Other</u>
	ID-191 M				
Standa	ra Adaltic	n Method			
Check F	For Posit	ive Stop – Clearly Identify Ho	omogenous G	roup Date San	npled:
Samplers I	Name:			Samplers Sig	gnature:
Sample #	HA#	Sample	Location		Material Description
			J. P. C. Y.		
			2		
					,
					77.0
Client Sam		-11	•		Total # of Samples:
Relinquish	ed (Clier	it): () les/	Date		Time:
Received (	Lab):	QH.	Date	: 3-14-10	Time: 10130
Comments	/Special	Instructions:			
				CX	1951 257 [ 6986

Controlled Document - Asbestos COC - R6 - 11/29/2012

Reset Form



Area Sample ID A 1	nple 1	Material Sampled		)				
	- 2		Materi	Material Location	F/NF	Cond	Quantity	Pot to Disturb
	2	WHITE CAULK		AROUND TOILET ROOM 113	Ä	Ŋ	<10 LIN FT	TOW
		WHITE CAULK		AROUND TOILET ROOM 113	불	ŋ	<10 LIN FT	LOW
4	ю	WHITE CAULK	(Tor 38)	AROUND TOILET ROOM 113	불	ŋ	<10 LIN FT	LOW
8	4	TEXTURED PLASTER		CEILING OF ROOM 119	L	ŋ	<1000 SQ FT	LOW
м	5	TEXTURED PLASTER		CEILING OF ROOM 119	ш	ŋ	<1000 SQ FT	LOW
В	9	TEXTURED PLASTER		CEILING OF ROOM 114	ш	Ŋ	<1000 SQ FT	LOW
O		SKIM COAT		OVER CONCRETE WALL ROOM 114	ш	O	<1000 SQ FT	LOW
O	ω	SKIM COAT		OVER CONCRETE WALL ROOM 114	ш	O	<1000 SQ FT	TOW
U	o	SKIM COAT		OVER CONCRETE WALL ROOM 114	ш	O	<1000 SQ FT	LOW
0	10	2X2 CEILING TILE		CEILING OF ROOM 113	ш	Q	>5000 SQ FT	LOW
License # BI-00568	0568	FM# FM00494853	353	Signature Off	Requestor	C MEF	C MERGNER	

Send lab results in PDF and CSV format as soon as possible to: asbestos@mailbox.sc.edu

Print Form Reset Form

Sample Analysis
Type of Analysis: Lead / Asbestos Date:

Building #\_\_\_\_\_BUENCKISSICK

Turn Around Time 24 HRS

Area	Sample ID	Material Sampled	Material Location	F/NF	Cond	Quantity	Pot to Disturb
٥	7	2X2 CEILING TILE	CEILING OF ROOM 121	ш	ŋ	<1000 SQ FT	
۵	12	2X2 CEILING TILE	CEILING OF ROOM 120	ш	O	<1000 SQ FT	TOW
ш	13	JOINT COMPOUND	SOUTH WALL RM 121	ш	ŋ	<1000 SQ FT	LOW
ш	14	JOINT COMPOUND	ROOM 120	ш	g	<1000 SQ FT	LOW
ш	15	JOINT COMPOUND	HALLWAY BETWEEN RMS 120/121	ш	ŋ	<1000 SQ FJ	LOW
ш	16	SHEETROCK	SOUTH WALL RM 121	ш	O	<1000 SQ FT	LOW
ш	17	SHEETROCK	ROOM 120	ш	O	<1000 SQ FT	TOW
Щ	18	SHEETROCK	HALLWAY BETWEEN RMS 120/121	ш	O	<1000 SQ FT	LOW
ŋ	19	PLASTER	ROOM 120 EAST WALL	ш	O	<1000 SQ FT	LOW
g	20	PLASTER	ROOM 120 NORTH WALL	ш	O	<1000 SQ FT	LOW

Send lab results in PDF and CSV format as soon as possible to: asbestos@mailbox.sc.edu

C MERGNER Requestor

Signature

FM# FM00494853

License # BI-00568

Print Form

Reset Form

Sample Analysis
Type of Analysis: Lead / Asbestos Date:

Building #\_

Turn Around Time

					Т	_		
Pot to Disturb	TOW	LOW	LOW	ПОМ				
Cond Quantity	<1000 SQ FT	<15 LIN FT	<15 LIN FT	<15 LIN FT				
Cond	Ŋ	Ŋ	Ŋ	Ö				8
F/NF	LL.	Ä	Ä	Ä				
Material Location	ROOM 119 WEST WALL	- ENTRY ROOM 121	ENTRY TO ROOM 119	- (The st) ENTRY TO ROOM 119				
Sample Material Sampled ID	PLASTER	BLACK TRANSISTION STRIP /GL	BLACK TRANSISTION STRIP /GL	BLACK TRANSISTION STRIP /GL				
Sample ID	21	22	23	24				
Area	Ŋ	I	I	I				

Send lab results in PDF and CSV format as soon as possible to: asbestos@mailbox.sc.edu

Requestor

Signature

FM#

License #

# FM00494853

\*FM00494853\*

# **USC Work Order**

Description HAZ MAT SURVEY - MCKISSICK FIRST FLOOR TOILET RENO

Site COLUMBIA Assigned To JPROVENCE

Building 015 MCKISSICK Crew HAZMAT

Floor 01 Room: Start Date Priority 5

Equipment Due date 01-APR-16

Request Date 11-AUG-15 by JOYG

Request # FM00494853 Description HAZ MAT SURVEY - MCKISSICK FIRST FLOOR TOILET RENO

Parent WO #

CP Number 50002818 MCKISSICK FIRST FLOOR TOILET RENOVATIONS

State/Internal Project Number H27-Z233

Requestor Project Manager MERGNER, CHRISTIAN F.

Telephone 777-4569
Alternate Estimated Cost \$ 545.00
Telephone Billing FIXED PRICE

Non-Available Time 53200-W237-57120 (MCKISSICK 1ST FLOOR TOILET

RENOVATIONS)

#### Task List

PLEASE SET-UP HAZMAT SURVEY PROJECT FOR MCKISSICK FIRST FLOOR TOILET RENOVATION. DESIGN IS UNDERWAY, TO BE 100% COMPLETE WITHIN 45-DAYS (SAY: 15-APR-2016). 50% SCHEMATIC DEMO AND PROPOSED PLANS ARE NOW COMPLETED, AND WILL BE FORWARDED TO ERIC MELARO & TY RUSSELL UNDER A SEPARATE EMAIL FOR THEIR REVIEW. THANK YOU.

PLEASE CALL OR WRITE WHEN HAZMAT WOULD LIKE TO WALK THE SPACE TO REVIEW AND DISCUSS THE SCOPE OF WORK, ALONG WITH ANY PAST HISTORY OF HAZMAT RELATED ISSUES OR CONCERNS @ MCKISSICK.

DATE WORK STARTED	CAUSE
DATE WORK COMPLETED	CONDITION

## **EQUIPMENT**

## **CLOSING REMARKS**

## **BENCHSTOCK MATERIALS**

Qty Description Price Per Unit

## Supervisor's Approval

Note Date Title

17-MAR-16 HAZMAT SURVEY RESULTS

SURVEY DATE: 3/11/16 AND 3/15/16

INSPECTOR #: DARRYL WASHINGTON II (BI-00568) AND ERIC MELARO (BI-01296)

STATUS: SCOPE OF WORK CONSISTS OF RENOVATING FIRST FLOOR RESTROOMS. THE FOLLOWING MATERIALS HAVE BEEN TESTED FOR ASBESTOS AND LEAD AND RESULTS FOLLOW.

ASBESTOS SECTION:

WHITE CAULK (WOMEN'S ROOM TOILETS) - NEGATIVE FOR ASBESTOS

TEXTURED PLASTER ( CEILINGS IN ROOMS 114 AND 119 )- NEGATIVE FOR ASBESTOS

SKIM COAT (OVER CONCRETE IN ROOM 114) - NEGATIVE FOR ASBESTOS

2X2 CEILING TILE- NEGATIVE FOR ASBESTOS

JOINT COMPOUND- NEGATIVE FOR ASBESTOS

SHEETROCK- NEGATIVE FOR ASBESTOS

PLASTER- NEGATIVE FOR ASBESTOS

BLACK TRANSITION STRIPS AND GLUE- NEGATIVE FOR ASBESTOS

#### LEAD SECTION:

WHITE CERAMIC WALL TILE ( ROOMS 113 AND 121 )- POSITIVE FOR LEAD

WHITE CERAMIC SINKS (ROOMS 113,114,119 AND 121) - POSITIVE FOR LEAD

WHITE STALL DOORS (ROOM 113)- POSITIVE FOR LEAD

WHITE WOODEN DOOR( ROOM 114 ) - POSITIVE FOR LEAD

GRAY WALL PAINT- NEGATIVE FOR LEAD

WHITE CERAMIC FLOOR TILE- NEGATIVE FOR LEAD

WHITE CERAMIC TOILETS- NEGATIVE FOR LEAD

GRAY METAL DOOR FRAMES- NEGATIVE FOR LEAD

WHITE METAL DOOR FRAMES- NEGATIVE FOR LEAD

BLACK WOODEN SHELVES- NEGATIVE FOR LEAD

GRAY DOOR PAINT (  $ROOM\,121$  ) NEGATIVE FOR LEAD

WHITE DOOR PAINT (ROOM 121)- NEGATIVE FOR LEAD

#### INSPECTOR'S NOTES:

#### ROOM 119 NOTES:

- UNPAINTED CONCRETE FLOORING
- BLACK UNDERCOATING UNDER SINK MATERIAL DEEMED POSITIVE FOR ASBESTOS
- NO CAULKING DETECTED ON SINK

#### ROOM 120 NOTES:

- DUCT WORK ABOVE CEILING DOES NOT HAVE ANY SUSPECT MASTIC ON IT.
- HIGH PLASTER CEILING IN PLACE IS NEGATIVE FOR ASBESTOS

#### ROOM 121 NOTES:

- SOLID WOOD DOOR- NOT SUSPECT FOR ASBESTOS
- HIGH PLASTER CEILING IS NEGATIVE FOR ASBESTOS
- SILICONE CAULK ON SINK- NOT SUSPECT FOR ASBESTOS
- BLACK UNDERCOATING UNDER SINK- DEEMED POSITIVE FOR ASBESTOS
- ENTRY WAY HAS 1X1 CEILING TILE WITH ASBESTOS BROWN MASTIC DETECTED ABOVE SUSPENDED CEILING ROOM 114 NOTES:
- NO CAULK DETECTED ON THE SINK
- BLACK UNDERCOATING UNDER SINK- MATERIAL DEEMED POSITIVE FOR ASBESTOS
- UNPAINTED CONCRETE FLOORING

#### ROOM 113 NOTES:

- NO UNDERCOATING OR CAULK ON THE SINK
- PLASTER ABOVE CEILING IS NEGATIVE FOR ASBESTOS
- DUCTWORK LOCATED IN WALL CAVITY AND COULD NOT BE INSPECTED
- SOLID WOOD DOOR NOT SUSPECT FOR ASBESTOS

#### HALLWAY NOTES:

- 1X1 CEILING TILE WITH BROWN ASBESTOS MASTIC ABOVE SUSPENDED CEILING ATTACHED TO PLASTER CEILING
- 12X12 FLOOR TILE WITH ASBESTOS BLACK MASTIC DETECTED IN HALL NEAR WOMEN' RESTROOM
- WHITE CERAMIC FLOOR TILE IS PRESENT BENEATH THE CARPET IN ROOMS 120 AND HALLWAY OUTSIDE ROOMS 119-121. THE FLOOR TILE IS LAID DIRECTLY OVER CONCRETE AND IS NOT SUSPECT FOR ASBESTOS.

#### GENERAL NOTES:

- MASTIC MAY OR MAY NOT BE DETECTED BEHIND MIRRORS IN THE BATHROOMS. IF MASTIC IS DETECTED DURING RENOVATION, PLEASE STOP WORK AND CALL USC HAZMAT INSPECTORS TO SAMPLE MATERIAL.
- PLUMBING PIPE INSULATION WAS NOT CHECKED BECAUSE IT IS BEHIND WALL CAVITY. ONCE WALL IS OPENED UP, PLEASE CONTACT USC HAZMAT INSPECTORS TO CHECK INSULATION.
- PLUMBING CONNECTIONS WILL BE MADE ABOVE THE BASEMENT CEILING. PER PROJECT MANAGER, THESE AREAS WILL BE INSPECTED AT A LATER DATE ONCE SPECIFIC DETAILS ARE KNOW.

IF YOU ENCOUNTER ANY OTHER MATERIALS IN PLACE AND DEEM THEM SUSPECT FOR ASBESTOS AND/OR LEAD, PLEASE STOP WORK AND CONTACT THE ASBESTOS PROGRAM MANAGER FOR FURTHER TESTING OR ABATEMENT.

PLEASE NOTE THAT THE MATERIAL QUANTITY PROVIDED ON THE FIELD SHEET IS ONLY AN ESTIMATE FOR SAMPLING PURPOSES. THE QUANTITY SHOULD BE FIELD VERIFIED FOR ALL OTHER PURPOSES INCLUDING ABATEMENT.

REFER TO THE SURVEY RESULTS ATTACHED TO THE WORK ORDER FOR DETAILED INFORMATION.

## 30-SEP-15 ASBESTOS SUMMARY FOR MCKISSICK (015) – SEPTEMBER 2015

ASBESTOS HAS BEEN FOUND IN THIS BUILDING. IF DISTURBED, ASBESTOS MAY BE HARMFUL TO YOUR HEALTH.

PLEASE DO NOT DISTURB THE FOLLOWING MATERIALS IN THIS BUILDING AS THEY HAVE BEEN FOUND TO CONTAIN ASBESTOS.

- PIPE INSULATION (AIR CELL, JOINTS AND ELBOWS)
- FLOOR TILE
- BLACK MASTIC UNDER FLOOR TILE
- RESIDUAL BLACK MASTIC ON FLOORING
- BLACK DUCT MASTIC
- OLIVE DUCT MASTIC
- MASTIC HOLDING 1X1 CEILING TILES IN PLACE
- TEXTURED PLASTER

IF A BUILDING MATERIAL IS NOT LISTED, DO NOT ASSUME THAT IT DOES NOT CONTAIN ASBESTOS. IT MAY NOT HAVE BEEN TESTED.

FOR FURTHER INFORMATION, PLEASE CONTACT THE USC HAZMAT PROGRAM.

#### 30-SEP-15 CRAWL SPACE MAY BE CONTAMINATED WITH ASBESTOS

THE SOIL IN CRAWL SPACES MAY BE CONTAMINATED WITH ASBESTOS FROM OLD PIPE INSULATION AND OTHER MATERIALS. PLEASE CONTACT THE USC HAZMAT PROGRAM BEFORE ENTERING THESE CRAWL SPACES.



EMSL Order: 021601780 Customer ID: UNSC62

Customer PO: Project ID:

Attention: USC Hazmat Phone: (803) 777-7000

University of South Carolina Fax: (803) 777-3990

743 Greene Street Received Date: 03/14/2016 10:30 AM Columbia, SC 29208 Analysis Date: 03/14/2016

**Collected Date:** 

Project: 15 McKissick

# Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			stos	<u>Asbestos</u>		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type	
1	White Caulk	Gray/White Non-Fibrous	<1% Cellulose	100% Non-fibrous (Other)	None Detected	
021601780-0001	14/1:' O II	Homogeneous	10/ 0 11 1	4000/ N _ 51 (01)		
2 021601780-0002	White Caulk	Gray/Beige Non-Fibrous Homogeneous	<1% Cellulose <1% Synthetic	100% Non-fibrous (Other)	None Detected	
3	White Caulk	White		100% Non-fibrous (Other)	None Detected	
021601780-0003	Write Cauk	Non-Fibrous Homogeneous		100% Non-librous (Other)	None Detected	
4	Textured Plaster	Gray/Tan/Beige	<1% Cellulose	30% Quartz	None Detected	
921601780-0004	rextured Flaster	Non-Fibrous Heterogeneous	<1% Cellulose	70% Non-fibrous (Other)	None Detected	
	Textured Plaster	Gray/Tan/Beige	<1% Cellulose	30% Quartz	None Detected	
5 021601780-0005	rextured Flaster	Non-Fibrous Heterogeneous	<1% Cellulose	70% Non-fibrous (Other)	None Detected	
6	Textured Plaster	Gray/Tan		30% Quartz	None Detected	
O21601780-0006	restared Flaster	Non-Fibrous Heterogeneous		70% Non-fibrous (Other)	None Detected	
7	Skim Coat	White		10% Ca Carbonate	None Detected	
1	Omin Oddi	Non-Fibrous		90% Non-fibrous (Other)	HONG DELECTED	
021601780-0007		Homogeneous		33,5 . 13		
8	Skim Coat	White		10% Ca Carbonate	None Detected	
-		Non-Fibrous		90% Non-fibrous (Other)		
021601780-0008		Homogeneous				
9	Skim Coat	White		10% Ca Carbonate	None Detected	
		Non-Fibrous		90% Non-fibrous (Other)		
021601780-0009		Homogeneous				
10	2x2 Ceiling Tile	Gray/Tan/White	40% Cellulose	30% Perlite	None Detected	
021601780-0010		Fibrous Homogeneous	20% Min. Wool	10% Non-fibrous (Other)		
11	2x2 Ceiling Tile	Gray/Tan	40% Cellulose	30% Perlite	None Detected	
11	ZAZ Geilling Tile	Fibrous	20% Min. Wool	10% Non-fibrous (Other)	None Detected	
021601780-0011		Homogeneous				
12	2x2 Ceiling Tile	Gray/White	40% Cellulose	30% Perlite	None Detected	
	· ·	Fibrous	20% Min. Wool	10% Non-fibrous (Other)		
021601780-0012		Heterogeneous				
13	Joint Compound	White Non-Fibrous	1% Cellulose	30% Ca Carbonate 69% Non-fibrous (Other)	None Detected	
021601780-0013		Homogeneous				
14	Joint Compound	White Non-Fibrous	<1% Cellulose	30% Ca Carbonate 70% Non-fibrous (Other)	None Detected	
021601780-0014		Homogeneous				
15	Joint Compound	White		30% Ca Carbonate	None Detected	
021601780-0015		Non-Fibrous		70% Non-fibrous (Other)		
16	Sheetrock	Homogeneous Gray	1% Cellulose	98% Non-fibrous (Other)	None Detected	
004004700 0040		Non-Fibrous	1% Glass			
021601780-0016		Homogeneous				

Initial Report From: 03/15/2016 08:31:56

PLM - 1.67 Printed: 3/15/2016 8:32 AM Page 1 of 2



EMSL Order: 021601780 Customer ID: UNSC62

Customer PO: Project ID:

## Test Report: Asbestos Analysis of Bulk Materials via EPA 600/R-93/116 Method using Polarized Light Microscopy

			<u>Asbestos</u>		
Sample	Description	Appearance	% Fibrous	% Non-Fibrous	% Type
17	Sheetrock	Gray/Tan Non-Fibrous	2% Cellulose 1% Glass	97% Non-fibrous (Other)	None Detected
021601780-0017		Homogeneous			
18	Sheetrock	Gray Fibrous	2% Cellulose 1% Glass	97% Non-fibrous (Other)	None Detected
021601780-0018		Heterogeneous			
19	Plaster	Gray/Tan/Beige Non-Fibrous	1% Cellulose	30% Quartz 69% Non-fibrous (Other)	None Detected
021601780-0019		Heterogeneous			
20 021601780-0020	Plaster	Gray/Tan/Beige Non-Fibrous	1% Cellulose	30% Quartz 69% Non-fibrous (Other)	None Detected
	DI 1	Heterogeneous		200/ 0 0 1	
21-Skim Coat	Plaster	White Non-Fibrous		30% Ca Carbonate 70% Non-fibrous (Other)	None Detected
021601780-0021		Homogeneous			
21-Rough Coat	Plaster	Gray/Tan Non-Fibrous		30% Quartz 70% Non-fibrous (Other)	None Detected
021601780-0021A		Heterogeneous			
22-Transition Strip	Black Transition Strip/Glue	Black Non-Fibrous		100% Non-fibrous (Other)	None Detected
021601780-0022		Homogeneous			
22-Mastic	Black Transition Strip/Glue	Yellow/Rust/Orange Non-Fibrous	<1% Cellulose 3% Synthetic	97% Non-fibrous (Other)	None Detected
021601780-0022A		Heterogeneous			
23-Transition Strip	Black Transition Strip/Glue	Black Non-Fibrous		100% Non-fibrous (Other)	None Detected
021601780-0023		Homogeneous			
23-Mastic	Black Transition Strip/Glue	Yellow/Rust/Orange Non-Fibrous	1% Cellulose 3% Synthetic	96% Non-fibrous (Other)	None Detected
021601780-0023A		Heterogeneous	· 		
24-Transition Strip	Black Transition Strip/Glue	Black Non-Fibrous		100% Non-fibrous (Other)	None Detected
021601780-0024		Homogeneous			
24-Mastic	Black Transition Strip/Glue	Yellow Non-Fibrous	<1% Cellulose	100% Non-fibrous (Other)	None Detected
021601780-0024A	· 	Homogeneous			

Analyst(s)

James Cole (10) Scott Combs (18) Stephen Bennett, Laboratory Manager or Other Approved Signatory

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Samples analyzed by EMSL Analytical, Inc. Kernersville, NC NVLAP Lab Code 102104-0, CA ELAP 2689, Virginia 3333-000228, West Virginia LT000321

Initial Report From: 03/15/2016 08:31:56



## **EMSL Analytical, Inc.**

706 Gralin Street, Kernersville, NC 27284 (336) 992-1025 / (336) 992-4175 Phone/Fax:

greensborolab@emsl.com http://www.EMSL.com

EMSL Order: CustomerID:

021601780 UNSC62

CustomerPO: ProjectID:

**USC Hazmat University of South Carolina** 743 Greene Street Columbia, SC 29208

(803) 777-7000 Phone: Fax: (803) 777-3990 Received: 03/14/16 10:30 AM Analysis Date: 3/15/2016

Collected:

Project: 15 McKissick

## Test Report: Asbestos Analysis of Non-Friable Organically Bound Materials by TEM via EPA/600/R-93/116 Section 2.5.5.1

SAMPLE ID	DESCRIPTION	APPEARANCE	% MATRIX MATERIAL	% NON-ASBESTOS FIBERS	ASBESTOS TYPES
3 021601780-0003	White Caulk	White Fibrous Heterogeneous	100	None	No Asbestos Detected
24-Transition Strip 021601780-0024	Black Transition Strip/Glue	Black Fibrous Heterogeneous	100	None	No Asbestos Detected
24-Mastic 021601780-0024A	Black Transition Strip/Glue	Yellow Fibrous Heterogeneous	100	None	No Asbestos Detected

Analyst(s)	
Stephen Bennett (3	3)

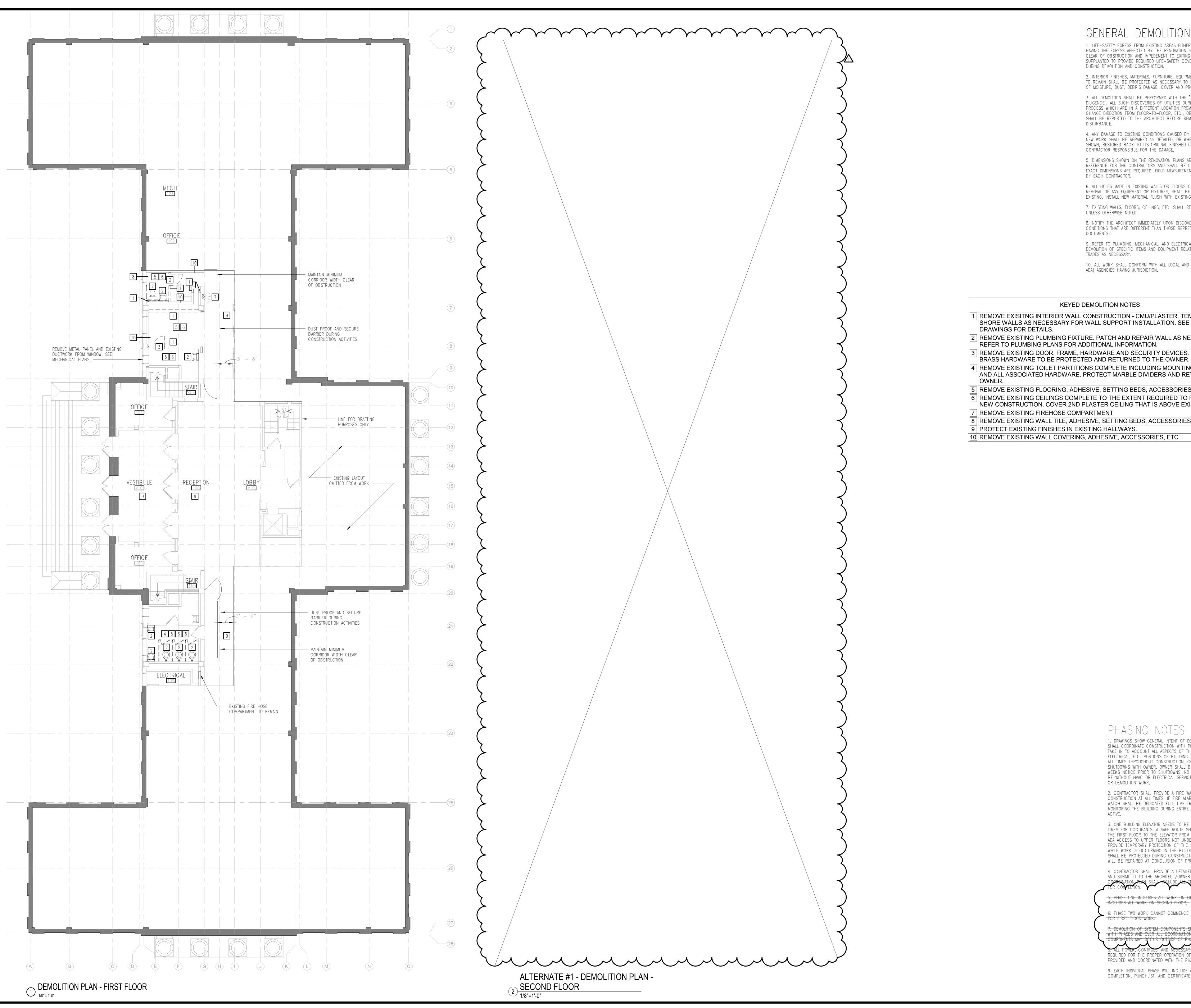
Stephen Bennett, Laboratory Manager or other approved signatory

This laboratory is not responsible for % asbestos in total sample when the residue only is submitted for analysis. The above report relates only to the items tested. This report may not be reproduced, except in full, without written approval by EMSL Analytical, Inc. Samples received in good condition unless otherwise noted. Unless requested by the client, building materials manufactured with multiple layers (i.e. linoleum, wallboard, etc.) are reported as a single sample.

Samples analyzed by EMSL Analytical, Inc. Kernersville, NC

Initial report from 03/15/2016 16:19:23

Reading No	Time Type	Duration Units	Sequence	Component	Substrate	Side Condition	n Color	Site	Inspector	Floor Room Misc 1	Misc 2 Results	Denth Index	Action Level PbC	PbC Error PbL	PbL Error PbK	PbK Error
	3/11/2016 10:54 PAINT	1.28 mg / cm ^2		calibrate	Jubiliate	Side Condition		south energy	melaro	Tidoi Room Wisc 1	Negative	1.55	0.7 < LOD	0.26 < LOD	0.26 < LOD	
	3/11/2016 13:53 PAINT	1.27 mg / cm ^2		calibrate				mckissick	melaro		Negative	1.04	0.7 0.3		0.18 < LOD	
	3/11/2016 14:07 PAINT	20 mg / cm ^2		wall tile	ceramic	good	white		melaro	121	Null	2.25	0.7 0.19			
	3/11/2016 14:08 PAINT	3.82 mg / cm ^2		wall tile	ceramic	good	white		melaro	121	Positive	2.41	0.7 1		0.2 1.3	
	3/11/2016 14:08 PAINT	12.93 mg / cm ^2		wall tile	ceramic	good	white		melaro	121	Positive	2.09	0.7 0.8			
	3/11/2016 14:09 PAINT	3.64 mg / cm ^2		wall	concrete	good	gray	mckissick	melaro	121	Null	5.47	0.7 0.07			
	3/11/2016 14:09 PAINT	1.82 mg / cm ^2		wall	concrete	good	grav	mckissick	melaro	121	Null	3.37	0.7 0.04			
	3/11/2016 14:10 PAINT	5.09 mg / cm ^2		wall	concrete	good	gray	mckissick	melaro	121	Negative	6.58	0.7 0.08			
	3/11/2016 14:13 PAINT	3.27 mg / cm ^2		wall	concrete	good	gray	mckissick	melaro	121	Negative	0.55	0.7 0.00			
	3/11/2016 14:14 PAINT	2.01 mg / cm ^2		wall	concrete	good	gray	mckissick	melaro	121	Null	4.09	0.7 0.07			
	3/11/2016 14:14 PAINT	3.64 mg / cm ^2		wall	concrete			mckissick	melaro	121		5.89	0.7 0.07			
	3/11/2016 14:14 PAINT	5.09 mg / cm ^2		floor tile	ceramic	good	gray white		melaro	121	Negative Negative	10	0.7 < LOD	0.12 0.11	0.16 < LOD	
	3/11/2016 14:15 PAINT			floor tile		good	white		melaro	121		4.2	0.7 < LOD			
		4.56 mg / cm ^2			ceramic	good					Negative					
	3/11/2016 14:16 PAINT	4.37 mg / cm ^2		floor tile	ceramic	good	white		melaro	121	Negative	2.14				-
	3/11/2016 14:16 PAINT	0.55 mg / cm ^2		sink	ceramic	good	white		melaro	121	Positive	1.76	0.7 31.7		4 31.7	
	3/11/2016 14:16 PAINT	0.54 mg / cm ^2		sink	ceramic	good	white		melaro	121	Positive	2.16	0.7 34.2		7.4 34.2	
	3/11/2016 14:16 PAINT	1.28 mg / cm ^2		toilet	ceramic	good	white		melaro	121	Negative	3.46	0.7 0.06			
	3/11/2016 14:17 PAINT	0.37 mg / cm ^2		toilet	ceramic	good	white		melaro	121	Null	1	0.7 0.01			
	3/11/2016 14:17 PAINT	0.55 mg / cm ^2		toilet	ceramic	good	white		melaro	121	Null	4.37	0.7 0.06			
	3/11/2016 14:17 PAINT	1.28 mg / cm ^2		toilet	ceramic	good	white		melaro	121	Negative	1	0.7 0.01		0.03 < LOD	
	3/11/2016 14:17 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	121	Negative	1	0.7 0			
	3/11/2016 14:17 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	121	Negative	2.25	0.7 0.02			
	3/11/2016 14:18 PAINT	1.28 mg / cm ^2		door frame	metal	good	gray	mckissick	melaro	121	Negative	1.54	0.7 0.01			
	3/11/2016 14:18 PAINT	1.27 mg / cm ^2		door frame	metal	good	gray	mckissick	melaro	121	Negative	3.91	0.7 0.08			
	3/11/2016 14:18 PAINT	1.27 mg / cm ^2		door	metal	good	gray	mckissick	melaro	121	Negative	1	0.7 0			
38	3/11/2016 14:18 PAINT	1.28 mg / cm ^2	Final	door	metal	good	gray	mckissick	melaro	121	Negative	1	0.7 0			
	3/11/2016 14:19 PAINT	1.27 mg / cm ^2		door	metal	good	white		melaro	121	Negative	1	0.7 0			
	3/11/2016 14:19 PAINT	1.27 mg / cm ^2		door	metal	good	white	mckissick	melaro	121	Negative	1	0.7 0			
41	3/11/2016 14:22 PAINT	20 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.28	0.7 0.03	0.02 0.03	0.02 0.4	1 0.4
42	3/11/2016 14:24 PAINT	20 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.28	0.7 0.02	0.02 0.02	0.02 0.6	5 0.4
43	3/11/2016 14:25 PAINT	10.54 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.61	0.7 0.04	0.02 0.04	0.02 0.17	7 0.53
44	3/11/2016 14:26 PAINT	20 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.89	0.7 0.06	0.02 0.06	0.02 0.5	0.4
45	3/11/2016 14:27 PAINT	20 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.38	0.7 0.04	0.02 0.04	0.02 0.5	0.4
46	3/11/2016 14:29 PAINT	11.63 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.53	0.7 0.04	0.02 0.04	0.02 0.15	0.51
47	3/11/2016 14:29 PAINT	3.28 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	1.7	0.7 0.05	0.04 0.05	0.04 < LOD	0
48	3/11/2016 14:29 PAINT	4.71 mg / cm ^2	Final	wall	plaster	good	gray	mckissick	melaro	119	Negative	2.36	0.7 < LOD	0 0.06	0.04 < LOD	0
49	3/11/2016 14:31 PAINT	0.54 mg / cm ^2	Final	sink	porcelin	good	white	mckissick	melaro	119	Positive	2.14	0.7 37.1	27.4 10.1	8.1 37.1	L 27.4
50	3/11/2016 14:31 PAINT	1.27 mg / cm ^2		shelf	wood	good	black	mckissick	melaro	119	Negative	1	0.7 0	0.02 0	0.02 0.19	1.36
51	3/11/2016 14:31 PAINT	1.27 mg / cm ^2	Final	shelf	wood	good	black	mckissick	melaro	119	Negative	1	0.7 0	0.02 0	0.02 0.23	3 1.61
52	3/11/2016 14:32 PAINT	0.73 mg / cm ^2		shelf	wood	good	black	mckissick	melaro	119	Null	1	0.7 0	0.03 0	0.03 < LOD	0
53	3/11/2016 14:32 PAINT	0.55 mg / cm ^2		shelf	wood	good	black	mckissick	melaro	119	Null	1	0.7 0			
	3/11/2016 14:32 PAINT	1.09 mg / cm ^2		shelf	wood	good	black	mckissick	melaro	119	Negative	1	0.7 0	0.02 0	0.02 0.5	
	3/11/2016 15:00 PAINT	5.64 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Null	3	0.7 0.03			
	3/11/2016 15:01 PAINT	15.42 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Null	7.94	0.7 0.8			3 0.4
	3/11/2016 15:04 PAINT	5.28 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Negative	7.84	0.7 0.05			
	3/11/2016 15:04 PAINT	4.73 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Negative	3.62	0.7 0.03			
	3/11/2016 15:04 PAINT	3.09 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Null	3.56	0.7 0.08			
	3/11/2016 15:05 PAINT	9.83 mg / cm ^2		wall	plaster	good	gray	mckissick	melaro	113	Negative	4.08	0.7 0.08			
	3/11/2016 15:06 PAINT	0.73 mg / cm ^2		stall door	wood	good	white		melaro	113	Positive	2.67	0.7 3.3			
	3/11/2016 15:06 PAINT	0.73 mg / cm ^2		stall door	wood	good	white		melaro	113	Positive	3.07	0.7 4.4			
	3/11/2016 15:06 PAINT	0.55 mg / cm ^2		sink	porcelin	good	white		melaro	113	Positive	1.75	0.7 7.1			
	3/11/2016 15:07 PAINT	1.09 mg / cm ^2		toilet	porcelin	good	white		melaro	113	Negative	4.79	0.7 0.08			
	3/11/2016 15:07 PAINT	1.09 mg / cm ^2		toilet	porcelin	good	white		melaro	113	Negative	2.7	0.7 0.08		0.14 < LOD	0
	3/11/2016 15:07 PAINT	1.09 mg / cm ^2		toilet			white		melaro	113	-	2.7	0.7 0.02			
					porcelin	good				113	Negative	5.02	0.7 5.8		3.2 3.7	
	3/11/2016 15:08 PAINT	1.09 mg / cm ^2		door	wood	good	white		melaro		Positive					
	3/11/2016 15:08 PAINT	2.18 mg / cm ^2		door	wood	good	gray	mckissick	melaro	113	Positive	9.18	0.7 3		1.8 3	
	3/11/2016 15:10 PAINT	3.28 mg / cm ^2		door frame	metal	good	gray	mckissick	melaro	113	Negative	5.49	0.7 0.4			
	3/11/2016 15:10 PAINT	1.27 mg / cm ^2		door frame	metal	good	gray	mckissick	melaro	113	Negative	3.28	0.7 0.2			
	3/11/2016 15:11 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	113	Negative	2.1	0.7 0.2			
	3/11/2016 15:11 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	113	Negative	1.54	0.7 0.16			
	3/11/2016 15:11 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	114	Negative	3.38	0.7 0.3		0.35 0.6	
	3/11/2016 15:11 PAINT	1.27 mg / cm ^2		door frame	metal	good	white		melaro	114	Negative	3	0.7 0.25			
	3/11/2016 15:12 PAINT	1.26 mg / cm ^2		door	wood	good	white		melaro	114	Positive	5.11	0.7 4.3		2.3 3	
	3/11/2016 15:13 PAINT	1.28 mg / cm ^2		door frame	metal	good	gray	mckissick	melaro	114	Negative	1.18	0.7 0.07			
77	3/11/2016 15:13 PAINT	3.62 mg / cm ^2	Final	wall	concrete	good	gray	mckissick	melaro	114	Negative	1.7	0.7 0.04			
78	3/11/2016 15:14 PAINT	7.84 mg / cm ^2	Final	wall	concrete	good	gray	mckissick	melaro	114	Negative	1	0.7 0.02	0.02 0.02	0.02 0.04	1 0.63
79	3/11/2016 15:14 PAINT	4.91 mg / cm ^2		wall	concrete	good	gray	mckissick	melaro	114	Negative	1.67	0.7 0.07		0.04 0.3	
80	3/11/2016 15:34 PAINT	1.27 mg / cm ^2	Final	calibrate			green	mckissick	melaro		Negative	1.11	0.7 0.4	0.2 0.4	0.2 < LOD	0
81	3/11/2016 15:35 PAINT	1.63 mg / cm ^2	Final	calibrate			green	mckissick	melaro		Negative	1	0.7 0.3	0.16 0.3	0.16 < LOD	0



# GENERAL DEMOLITION NOTES:

1. LIFE-SAFETY EGRESS FROM EXISTING AREAS EITHER RENOVATED OR HAVING THE EGRESS AFFECTED BY THE RENOVATION SHALL BE MAINTAINED CLEAR OF OBSTRUCTION AND IMPEDEMENT TO EXITING AND SHALL BE SUPPLANTED TO PROVIDE REQUIRED LIFE-SAFETY COVERAGE AT ALL TIMES DURING DEMOLITION AND CONSTRUCTION.

2. INTERIOR FINISHES, MATERIALS, FURNITURE, EQUIPMENT, ETC IN BUILDINGS TO REMAIN SHALL BE PROTECTED AS NECESSARY TO ELIMINATE POSSIBILITY OF MOISTURE, DUST, DEBRIS DAMAGE. COVER AND PROTECT AS NECESSARY.

3. ALL DEMOLITION SHALL BE PERFORMED WITH THE "DUE CARE AND DILIGENCE". ALL SUCH DISCOVERIES OF UTILITIES DURING THE DEMOLITION PROCESS WHICH ARE IN A DIFFERENT LOCATION FROM THAT INDICATED, CHANGE DIRECTION FROM FLOOR-TO-FLOOR, ETC., OR ARE UNIDENTIFIED, SHALL BE REPORTED TO THE ARCHITECT BEFORE REMOVAL OR

4. ANY DAMAGE TO EXISTING CONDITIONS CAUSED BY DEMOLITION AND/OR NEW WORK SHALL BE REPAIRED AS DETAILED, OR WHERE NO DETAIL IS SHOWN, RESTORED BACK TO ITS ORIGINAL FINISHED CONDITION, BY THE CONTRACTOR RESPONSIBLE FOR THE DAMAGE.

5. DIMENSIONS SHOWN ON THE RENOVATION PLANS ARE SHOWN AS A REFERENCE FOR THE CONTRACTORS AND SHALL BE CONSIDERED +/-, IF EXACT DIMENSIONS ARE REQUIRED, FIELD MEASUREMENTS SHALL BE TAKEN BY EACH CONTRACTOR.

6. ALL HOLES MADE IN EXISTING WALLS OR FLOORS OR MADE BY THE REMOVAL OF ANY EQUIPMENT OR FIXTURES, SHALL BE PATCHED TO MATCH EXISTING, INSTALL NEW MATERIAL FLUSH WITH EXISTING ON BOTH SIDES.

7. EXISTING WALLS, FLOORS, CEILINGS, ETC. SHALL REMAIN UNDISTURBED UNLESS OTHERWISE NOTED.

8. NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT ARE DIFFERENT THAN THOSE REPRESENTED BY THESE

DOCUMENTS. 9. REFER TO PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS FOR

DEMOLITION OF SPECIFIC ITEMS AND EQUIPMENT RELATED TO RESPECTIVE TRADES AS NECESSARY.

10. ALL WORK SHALL CONFORM WITH ALL LOCAL AND FEDERAL (INCLUDING ADA) AGENCIES HAVING JURISDICTION.

# **KEYED DEMOLITION NOTES**

- 1 REMOVE EXISITNG INTERIOR WALL CONSTRUCTION CMU/PLASTER. TEMPORARILY SHORE WALLS AS NECESSARY FOR WALL SUPPORT INSTALLATION. SEE STRUCTURAL DRAWINGS FOR DETAILS.
- 2 REMOVE EXISTING PLUMBING FIXTURE. PATCH AND REPAIR WALL AS NECESSARY.
- REFER TO PLUMBING PLANS FOR ADDITIONAL INFORMATION. 3 REMOVE EXISTING DOOR, FRAME, HARDWARE AND SECURITY DEVICES. EXISTING
- 4 REMOVE EXISTING TOILET PARTITIONS COMPLETE INCLUDING MOUNTING BRACKETS AND ALL ASSOCIATED HARDWARE. PROTECT MARBLE DIVIDERS AND RETURN TO THE
- 5 REMOVE EXISTING FLOORING, ADHESIVE, SETTING BEDS, ACCESSORIES, ETC. 6 REMOVE EXISTING CEILINGS COMPLETE TO THE EXTENT REQUIRED TO FACILITATE
- NEW CONSTRUCTION. COVER 2ND PLASTER CEILING THAT IS ABOVE EXISTING ACT.
- 7 REMOVE EXISTING FIREHOSE COMPARTMENT
- 8 REMOVE EXISTING WALL TILE, ADHESIVE, SETTING BEDS, ACCESSORIES, ETC.
- 9 PROTECT EXISTING FINISHES IN EXISTING HALLWAYS.
- 10 REMOVE EXISTING WALL COVERING, ADHESIVE, ACCESSORIES, ETC.

1. DRAWINGS SHOW GENERAL INTENT OF DESIGN. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH PHASING. PHASING SHALL TAKE IN TO ACCOUNT ALL ASPECTS OF THE JOB INCLUDING HVAC. ELECTRICAL, ETC. PORTIONS OF BUILDING SHALL BE OCCUPIED AT ALL TIMES THROUGHOUT CONSTRUCTION. COORDINATE PHASING AND SHUTDOWNS WITH OWNER. OWNER SHALL BE PROVIDED WITH TWO WEEKS NOTICE PRIOR TO SHUTDOWNS. NO OCCUPIED FLOOR SHALL BE WITHOUT HVAC OR ELECTRICAL SERVICE DURING CONSTRUCTION OR DEMOLITION WORK.

2. CONTRACTOR SHALL PROVIDE A FIRE WATCH DURING ENTIRE CONSTRUCTION AT ALL TIMES. IF FIRE ALARM ISN'T ACTIVE, FIRE WATCH SHALL BE DEDICATED FULL TIME TRAINED PERSONNEL MONITORING THE BUILDING DURING ENTIRE TIME FIRE ALARM ISN'T

3. ONE BUILDING ELEVATOR NEEDS TO BE MAINTAINED AT ALL TIMES FOR OCCUPANTS. A SAFE ROUTE SHALL BE PROVIDED ON THE FIRST FLOOR TO THE ELEVATOR FROM THE PARKING LOT FOR ADA ACCESS TO UPPER FLOORS NOT UNDER CONSTRUCTION. PROVIDE TEMPORARY PROTECTION OF THE INGRESS/EGRESS PATH WHILE WORK IS OCCURRING IN THE BUILDING THIS FLEVATOR SHALL BE PROTECTED DURING CONSTRUCTION AND ALL DAMAGE WILL BE REPAIRED AT CONCLUSION OF PROJECT.

4. CONTRACTOR SHALL PROVIDE A DETAILED COORDINATION PLAN AND SUBMIT IT TO THE ARCHITECT/OWNER FOR APPROVAL.

5. PHASE ONE INCLUDES ALL WORK ON FIRST FLOOR. PHASE TWO INCLUDES ALL WORK ON SECOND FLOOR. -6. PHASE TWO WORK CANNOT COMMENCE UNTIL C/O IS ACHIEVED

7. DEMOLITION OF SYSTEM COMPONENTS SHALL BE COORDINATED WITH PHASES AND OVER ALL COORDINATION PLAN. DEMOLITION OF REQUIRED FOR THE PROPER OPERATION OF EQUIPMENT SHALL BE

FOR FIRST FLOOR WORK.

9. EACH INDIVIDUAL PHASE WILL INCLUDE A SUBSTANTIAL COMPLETION, PUNCHLIST, AND CERTIFICATE OF OCCUPANCY.

PROVIDED AND COORDINATED WITH THE PHASING.

ASSOCIATES, INC.

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ARCHITECTURAL DIVISION. ANYONE DUPLICATED, REPRODUCING OR CAUSING TO BE REPRODUCED THE WHOLE OR PART OF THESE DRAWINGS OR THE DESIGN THEREON WITHOUT THE PERMISSION OF THE ARCHITECT WILL BE SUBJECT TO LEGAL ACTION.

consultants

project number



arrowood arrowood

USC CAMPUS PLANNING AND CONSTRUCTION 743 GREENE STREET COLUMBIA, SC 29208



GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)

GMK PROJECT # 16013.01 STATE PROJECT #H27-D259-CB seals/signature







CONSTRUCTION DOCUMENTS

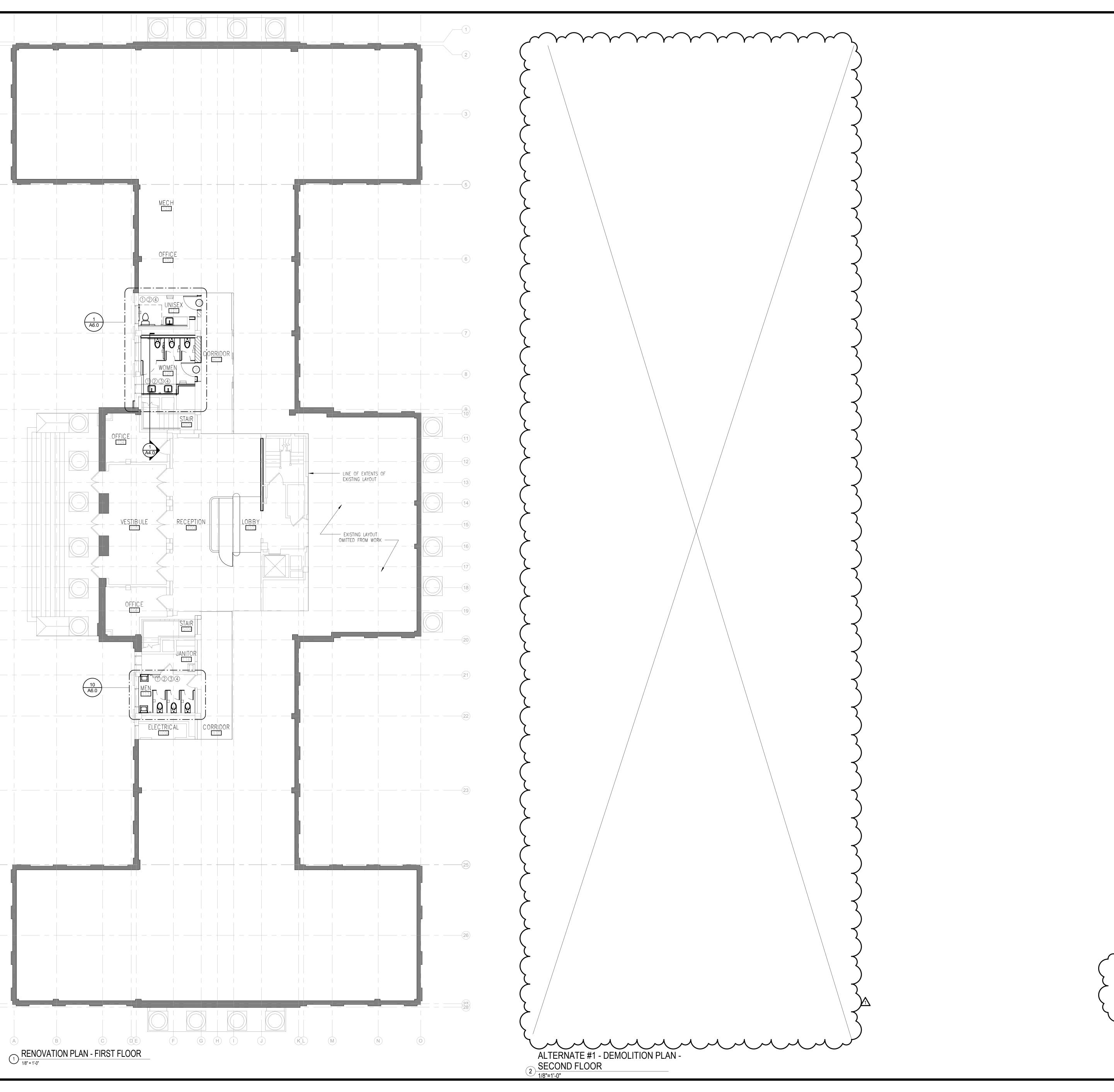
07/25/16

er	item	date
7	Addendum Number 1	9/16/16

**DEMOLITION PLAN** 

drawn by MAP

sheet number



# <u>general note</u>

1. NOTIFY THE ARCHITECT IMMEDIATELY UPON DISCOVERY OF EXISTING CONDITIONS THAT ARE CONTRARY TO THOSE REPRESENTED WITHIN THE

2. NEW WORK SHALL ALIGN WITH AND MATCH EXISTING WORK EXCEPT WHERE OTHERWISE DIMENSIONED AND DETAILED.

3. ALL NEW VERTICAL AND HORIZONTAL DUCTS, PIPES, CONDUITS, ETC. (WHETHER SHOWN OR NOT) IN FINISHED ROOMS OR AREAS THROUGH OUT BUILDING, NOT CONCEALED, SHALL BE FURRED IN, AND FINISHED TO MATCH ROOM FINISH.

4. ALL NEW PARTIITIONS, UNLESS OTHERWISE SHOWN OR DETAILED, SHALL BE METAL STUDS OF THICKNESS TO ADEQUATELY COVER PIPING, CONDUITS, ETC.

5. PROVIDE AN EDGE STRIP, AS DETAILED, UNDER ALL DOORS WHERE NEW OR EXISITNG FINISHES AND ADJACENT FLOOR ARE AT DIFFERENT LEVELS AND WHERE ADJACENT FLOOR FINISHES ARE OF DIFFERENT MATERIALS. SEE DETAIL

6. EXISTING DOORS, WHICH SWING INTO ROOMS WHERE NEW FLOOR FINISH IS ABOVE ADJACENT FLOORS, SHALL BE CUT OFF AT BOTTOM TO CLEAR NEW FINISHED FLOOR. DOOR BOTTOM SHALL BE SEALED AND FINISHED TO MATCH

7. OFFSET ALL DOORS 6" FROM ADJACENT WALLS UNLESS OTHERWISE NOTED.

8. NEW TILE FINISHES APPLIED TO EXISTING WALLS AND PARTITIONS SHALL BE APPLIED DIRECTLY TO PLASTER OR GYP. BD. WALLS BY THE THIN SET METHOD. NEW PARTITIONS AND CLOSURES OF OPENINGS IN ROOMS HAVING TILE BASE AND/OR TILE WAINSCOT SHALL BE FINISHED WITH TILE TO MATCH EXISTING. WHEN TILE CANNOT BE MATCHED, FURNISH ARCHITECT WITH SAMPLES OF EXISTING TILE TO PERMIT SELECTION OF SUBSTITUTE TILE.

9. PROVIDE ACCESS PANELS, 24" X 24", OR OF SIZES REQUIRED, WHERE PLUMBING AND HEATING VALVES, WATER SWITCHES, OXYGEN PRESSURE SWITCHES, VENTILATION SPLITTER DAMPERS, ETC. ARE SHOW ON PLUMBING, HEATING, AND VENTILATION DRAWINGS, SUCH ACCESS PANELS TO BE INSTALLED IN THE FOLLOWING:

(A) SUSPENDED PLASTER OR GYPSUM WALLBOARD CEILINGS

(B) METAL STUD OR MASONRY PARTITIONS

10. WHEREVER EXISTING EQUIPMENT, PIPING, DUCTS, ETC. ARE REQUIRED TO BE REMOVED, SUCH REMOVAL SHALL INCLUDE ALL ANCHORS, HANGERS, FOUNDATIONS, ETC. AFTER REMOVAL, FLOORS, WALLS AND CEILINGS SHALL BE FINISHED TO MATCH ADJOINGING SURFACES OR AS INDICATED ON ROOM FINISH SCHEDULE.

11. WALL ASSEMBLIES SHALL BE MAINTAINED AT ALL RECESSED FIRE EXTINGUISHER CABINETS AND ALL RECESSED EQUIPMENT.

12. WHERE PAINT IS CALLED FOR ON WALLS IN RENOVATED ROOMS IN THE EXISTING BUILDING, ALL WALLS ARE TO BE PAINTED.

13. WHERE NO PAINT IS INDICATED IN AREAS WHERE PATCHING IS REQUIRED, NEW WORK IS TO BE PAINTED TO MATCH EXISTING ADJOINING SURFACES.

14. WHERE THE ROOM FINISH SCHEDULE CALLS FOR A NEW CEILING, THE EXISTING CEILING AND SUSPENSION SYSTEM IS TO BE COMPLETELY REMOVED.

15. PROVIDE FIRE EXTINGUISHING CABINETS OF THE TYPE SPECIFIED. REFER TO FLOOR PLANS (A2.0) FOR LOCATIONS.

16. WHERE THE ROOM FINISH SCHEDULE FOR EXISTING CONSTRUCTION CALLS FOR A NEW MATERIAL, THE ENTIRE ROOM IS TO RECEIVE THE NEW MATERIAL. WHERE THE ROOM FINISH SCHEDULE CALLS FOR BOTH PATCHING AND A NEW MATERIAL, THE NEW MATERIAL IS LIMITED TO AREAS OF NEW CONSTRUCTION WITHIN THAT ROOM ONLY.

17. SUPPLY BLOCKING AT ALL WALL HUNG EQUIPMENT (I.E., GRAB BARS, CASEWORK, MEDICAL EQUIPMENT, ETC.)

18. WHERE A NEW DOOR, VIEW WINDOW OR OPENING IS CUT THROUGH AN EXISTING MASONRY WALL, PROVIDE A LOOSE LINTEL AS REQUIRED ON THE LOOSE LINTEL SCHEDULE INDICATED ON THE STRUCTURAL DRAWINGS.

19. ALL DIMENSIONS SHOWN IN RENOVATED AREAS ARE TO BE VERIFIED IN THE FIELD BEFORE PROCEEDING WITH WORK.

20. IN ALL ROOMS BELOW AREAS WHICH RECEIVE UNDER FLOOR SERVICES,

REMOVE A PORTION OF EXISTING CEILING AS REQUIRED. PATCH FINISHES TO MATCH EXISTING OR AS INDICATED ON ROOM FINISH SCHEDULE.

21. WHERE THE ROOM FINISH SCHEDULE CALLS FOR A ROOM TO BE PAINTED AND THAT ROOM CONTAINS WALL PAPER AND/OR VINYL, CHAIR RAILS, THESE SHALL BE COMPLETELY REMOVED FROM WALLS AND ANY HOLES OR BUMPS SHALL BE FILLED OR SANDED SMOOTH BEFORE APPLYING NEW COAT OF PAINT.

22. ALL SHAFT PARTITIONS EXTEND FROM FLOOR SLAB TO UNDERSIDE OF SLAB ABOVE. EXPOSED BEAMS WITHIN SHAFTS ARE TO BE FIREPROOFED WITH 2-HOUR GYP. BD. ENCLOSURE.

23. THE FIRE RATINGS OF ALL FIRE RATED WALLS SHALL BE STENCILED ABOVE CEILINGS, EACH SIDE OF WALL, BOTH SIDES OF CORRIDORS AND AS REQ'D BY IBC

# FLOOR AND WALL PREPARATION NOTES

- PREPARE EXISTING FLOOR SLABS FOR INSTALLATION OF NEW FLOOR FINISHESPER MANUFACTURER'S RECOMMENDATIONS. GRIND EXISTING SLABS SMOOTH AND LEVEL. USE THIN LEVELING TOPPING AS NECESSARY. FILL ALL VOIDS OR EXISTING PENETRATIONS WITH CONCRETE SUPPORTED FROM BELOW AS NECESSARY.
- 2 PREPARE EXISTING WALLS FOR INSTALLATION OF NEW WALL FINISHES PER MANUFACTURER'S RECOMMENDATIONS. WHERE A NEW WALL ABUTS AN EXISTING WALL FLUSH, FINISH FOR CONCEALED AND CONTINUOUS FLUSH APPEARANCE. FILL ALL VOIDS, CRACKS, PEELS, SPAWLS FLAKES, ETC. WITH PLASTER AS NECESSARY.
- ③ NEW TOILET ROOM PARTITIONS. SEE A6.0.
- ④ PATCH, REPAIR, AND PAINT EXISTING PLASTER TO REMAIN.

# PHASING NOTES

1. DRAWINGS SHOW GENERAL INTENT OF DESIGN. CONTRACTOR SHALL COORDINATE CONSTRUCTION WITH PHASING. PHASING SHALL TAKE IN TO ACCOUNT ALL ASPECTS OF THE JOB INCLUDING HVAC, ELECTRICAL, ETC. PORTIONS OF BUILDING SHALL BE OCCUPIED AT ALL TIMES THROUGHOUT CONSTRUCTION. COORDINATE PHASING AND SHUTDOWNS WITH OWNER. OWNER SHALL BE PROVIDED WITH TWO WEEKS NOTICE PRIOR TO SHUTDOWNS. NO OCCUPIED FLOOR SHALL BE WITHOUT HVAC OR ELECTRICAL SERVICE DURING CONSTRUCTION OR DEMOLITION WORK.

2. CONTRACTOR SHALL PROVIDE A FIRE WATCH DURING ENTIRE CONSTRUCTION AT ALL TIMES. IF FIRE ALARM ISN'T ACTIVE, FIRE WATCH SHALL BE DEDICATED FULL TIME TRAINED PERSONNEL MONITORING THE BUILDING DURING ENTIRE TIME FIRE ALARM ISN'T ACTIVE

3. ONE BUILDING ELEVATOR NEEDS TO BE MAINTAINED AT ALL TIMES FOR OCCUPANTS. A SAFE ROUTE SHALL BE PROVIDED ON THE FIRST FLOOR TO THE ELEVATOR FROM THE PARKING LOT FOR ADA ACCESS TO UPPER FLOORS NOT UNDER CONSTRUCTION. PROVIDE TEMPORARY PROTECTION OF THE INGRESS/EGRESS PATH WHILE WORK IS OCCURRING IN THE BUILDING. THIS ELEVATOR SHALL BE PROTECTED DURING CONSTRUCTION AND ALL DAMAGE WILL BE REPAIRED AT CONCLUSION OF PROJECT.

4. CONTRACTOR SHALL PROVIDE A DETAILED COORDINATION PLAN AND SUBMIT IT TO THE ARCHITECT/OWNER FOR APPROVAL.

5. PHASE ONE INCLUDES ALL WORK ON FIRST FLOOR. PHASE TWO-INCLUDES ALL WORK ON SECOND FLOOR.

6. PHASE TWO WORK CANNOT COMMENCE UNTIL C/O IS ACHIEVED FOR FIRST FLOOR WORK.

7. DEMOLITION OF SYSTEM COMPONENTS SHALL BE COORDINATED WITH PHASES AND OVER ALL COORDINATION PLAN. DEMOLITION OF COMPONENTS MAY OCCUR OUTSIDE OF PHASES AS NECESSARY.

8. ALL POWER, CONTROLS, AND NECESSARY COMPONENTS REQUIRED FOR THE PROPER OPERATION OF EQUIPMENT SHALL BE

9. EACH INDIVIDUAL PHASE WILL INCLUDE A SUBSTANTIAL COMPLETION, PUNCHLIST, AND CERTIFICATE OF OCCUPANCY.

PROVIDED AND COORDINATED WITH THE PHASING.

ASSOCIATES, INC.

Architects/Engineers/Planners 1201 Main Street, Suite 2100 Columbia, S.C. 29201 tel. 803-256-0000 fax 803-255-7243

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arrowood arrowood

USC CAMPUS PLANNING AND CONSTRUCTION 743 GREENE STREET COLUMBIA, SC 29208



GENERAL CONSTRUCTION
INDEFINITE DELIVERY CONTRACT
(MCKISSICK MUSEUM BATHROOM
RENOVATIONS)

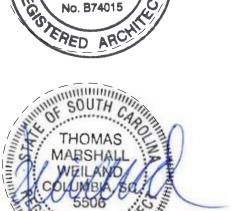
GMK PROJECT # 16013.01 STATE PROJECT #H27-D259-CB

Seals/signature

OF SOUTH CARO
GMK ASSOCIATES
ARCHITECTURAL

DIVISION, INC.

Columbia, SC



09/16/2016

CONSTRUCTION DOCUMENTS

07/25/16

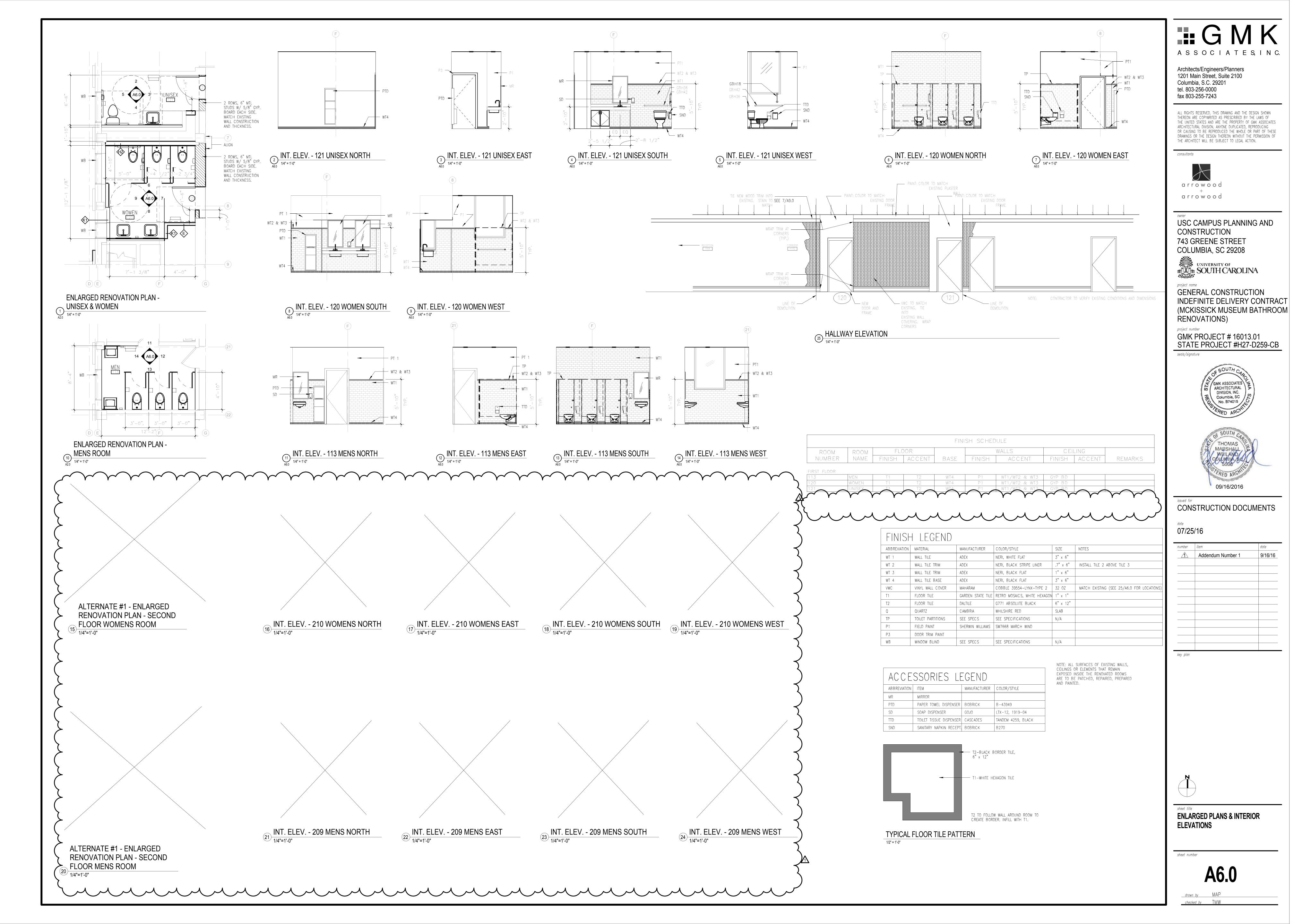
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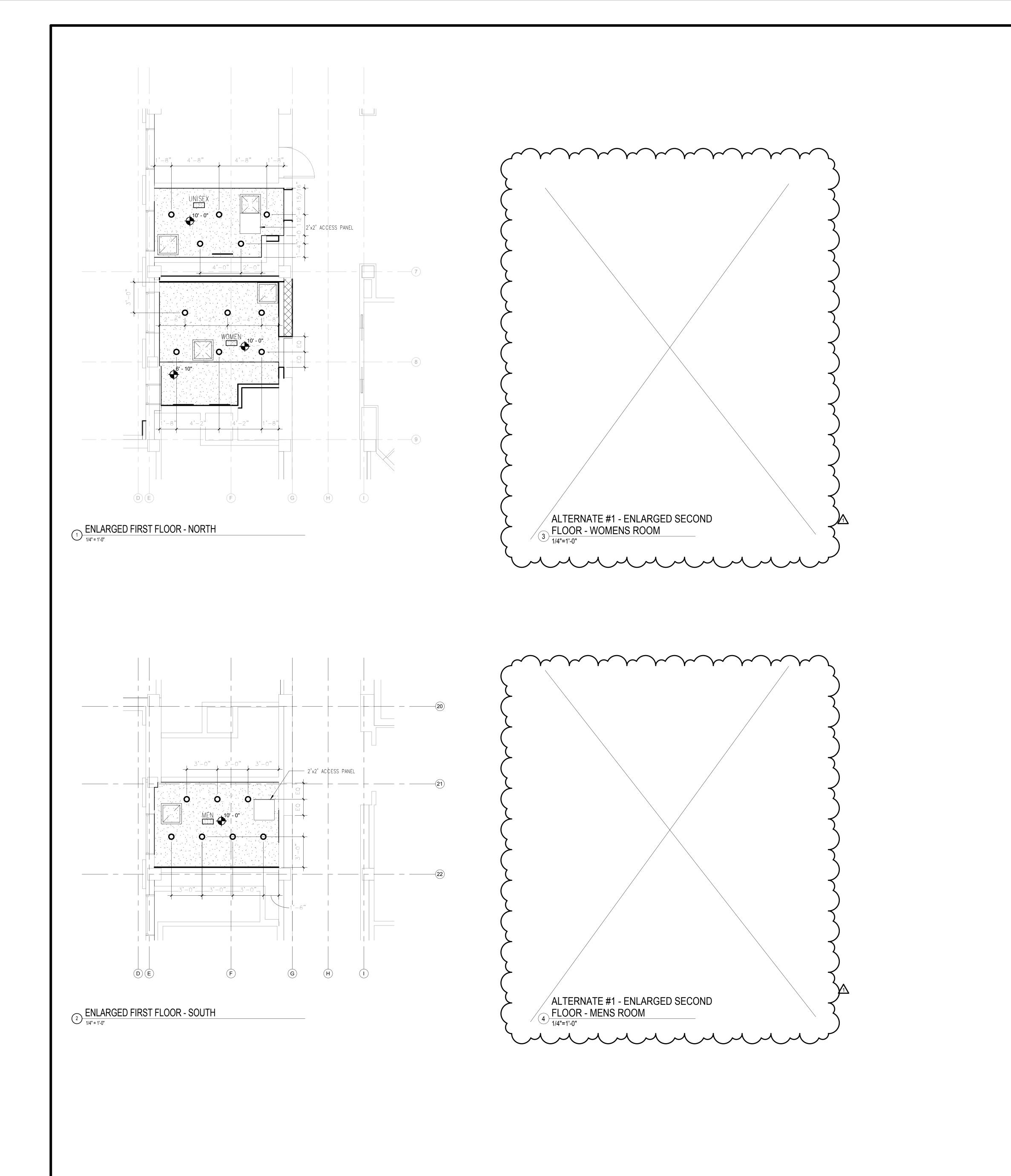
FLOOR PLANS

sheet number

A2.0

drawn by MAP







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743 GREENE STREET
COLUMBIA, SC 29208



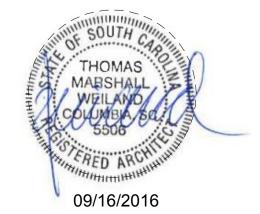
GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)

GMK PROJECT # 16013.01 STATE PROJECT #H27-D259-CB

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project number





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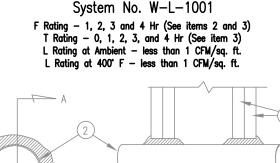
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REFLECTED CEILING PLAN

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A7.

<u>drawn by</u> MAF



Wall Assembly — The 1, 2, 3, or 4 hour fire—rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Designs in the UL Fire Resistance Directory and shall include the following construction features: A. Studs — Wall framing may consist of either wood or steel channel studs. Wood studs (max 2 hour

fire rated assemblies) or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC with nom 2 by 4 in. lumber end plates and cross braces. Steel studs to be min 3-5/8 in. wide by 1-3/8 in. deep channels spaced max 24 in. OC. Wallboard, Gypsum\* — Nom 1/2 or 5/8 in. thick, 4 ft. wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max diam

Pipe or conduit - Nom 12 in. diam (or smaller) Schedule 10 (or heavier) steel pipe, nom 12 in. diam (or smaller) service weight (or heavier) cast iron soil pipe, nom 12 in. diam (or smaller) Class 50 (or heavier) ductile iron pressure pipe, nom 6 in. (or smaller) steel conduit, nom 4 in. diam (or smaller) steel electrical metallic tubing, nom 6 in. diam (or smaller) Type L or (or heavier) copper tubing or nom 1 in. diam (or smaller) flexible steel conduit. When copper pipe is used, max F Rating of firestop system (Item 3) is 2 r. Steel pipes or conduits larger than nom 4 in. diam may only be used in walls constructed using steel channel studs. A max of one pipe or conduit is permitted in the firestop system. Pipe or conduit to be nstalled near center of stud cavity width and to be rigidly supported on both sides of wall assembly. Fill, Void or Cavity Material\* - Caulk - Caulk fill material installed to completely fill annular space betwee pipe or conduit and gypsum wallboard and with a min 1/4 in. diam bead of caulk applied to perimeter of

sipe or conduit at its egress from the wall. Caulk installed symmetrically on both sides of wall assembly The hourly F Rating of the firestop system is DEPENDENT upon the hourly fire rating of the wall assembly in which it is installed, as shown in the following table. The hourly T rating of the firestop system is dependent upon the type or size of the pipe or conduit and the hourly fire rating of the wall assembly in Max Pipe or conduit Diam, In.

1 or 2 3 or 4

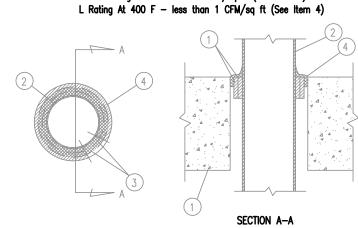
0+, 1 or 2

3 or 4

+When copper pipe is used, T Rating is 0 hr. Minnesota Mining & Mfg. Co. — CP 25WB+. \*Bearing the UL Classification Marking.

of opening is 13-1/2 in.

# System No. WL1052 F Rating - 2, 3 AND 4 Hr T Rating — 0 Hr L Rating At Ambient - 2 CFM/sq ft (See Item 4)



floor or wall assembly is 4-1/2 in. for 2 and 3 hr F Ratings and 5-1/2 in. for 4 hr F Rating. Wall may also be constructed of any UL Classified Concrete Blocks\*. Max diam of circular opening is 13-1/2 in. See Concrete Blocks (CAZT category in the Fire Resistance Directory for names of manufacturers. Steel Pipe or Conduit - Nom 12 in. diam (or smaller) Schedule 10 or heavier steel pipe, nom 6 in. diam (or smaller) steel conduit or nom 4 in. diam (or smaller) steel EMT. Max one pipe or conduit per opening, centered in opening. Min clearance between pipe or conduit and sides of through opening is 1/4 in. Max clearance between pipe or conduit and sides of through opening is 1-3/4 in for 2 hr F rating and 3/4 in. for 3 and 4 hr F ratings. Pipe or conduit to be rigidly supported on both sides of floor or

3. Fill, Void or Cavity Material\* — Wrap Strip — Nom 1/4 in. thick intumescent elastomeric material faced or one side with aluminum foil, supplied in 2 in. wide strips. For the 2 and 3 hr F Ratings, min 1 in. wide strip(s) wrapped around pipe/conduit (foil side exposed) until OD of wrap strip is equal to or max 3/16 in. less than ID of circular through opening. Wrap strip tightly bound with steel tie wire or pressure sensitive tape and slid into through opening such that the top edge of the wrap strip(s) is recessed 1/4 in. from the top surface of floor or, in wall assemblies, such that the wrap strip(s) is centered in the wall thickness. For the 4 hr F Rating, nom 2 in. wide strip(s) wrapped around pipe/conduit (foil side exposed) on each side of the floor or wall assembly until OD of wrap strip is equal to or max 3/16 in. less than ID of circular through opening. Wrap strip tightly bound with steel tie wire or pressure sensitive tape and slid into through opening on each side of floor or wall assembly such that the exposed edges are recessed 1/4 in. from the floor or wall surfaces.

Minnesota Mining & Mfg. Co. — Types FS-195, FS-195+
Fill, Void or Cavity Material\* — Caulk — Nom 1/4 in. thickness of caulk to be applied to the exposed edges of the wrap strip and to fill all voids between the pipe/conduit and the periphery of the through opening. For 2 or 3 hour F rating in floor assemblies, caulk to be installed flush with top surface of floor. For wall assemblies and for the 4 hour F Rating in floor assemblies, caulk to be applied on both

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3. ONE BUILDING ELEVATOR NEEDS TO BE MAINTAINED AT ALL TIMES FOR OCCUPANTS. A SAFE ROUTE SHALL BE PROVIDED ON THE FIRST FLOOR TO THE ELEVATOR FROM TEH PARKING LOT FOR ADA ACCESS TO UPPER FLOORS NOT UNDER CONSTRUCTION. PROVIDE TEMPORARY PROTECTION OF THE INGRESS/EGRESS PATH WHILE WORK IS OCCURRING IN THE BUILDING. THIS ELEVATOR SHALL BE PROTECTED DURING CONSTRUCTION AND ALL DAMAGE WILL BE REPAIRED AT CONCLUSION OF PROJECT.

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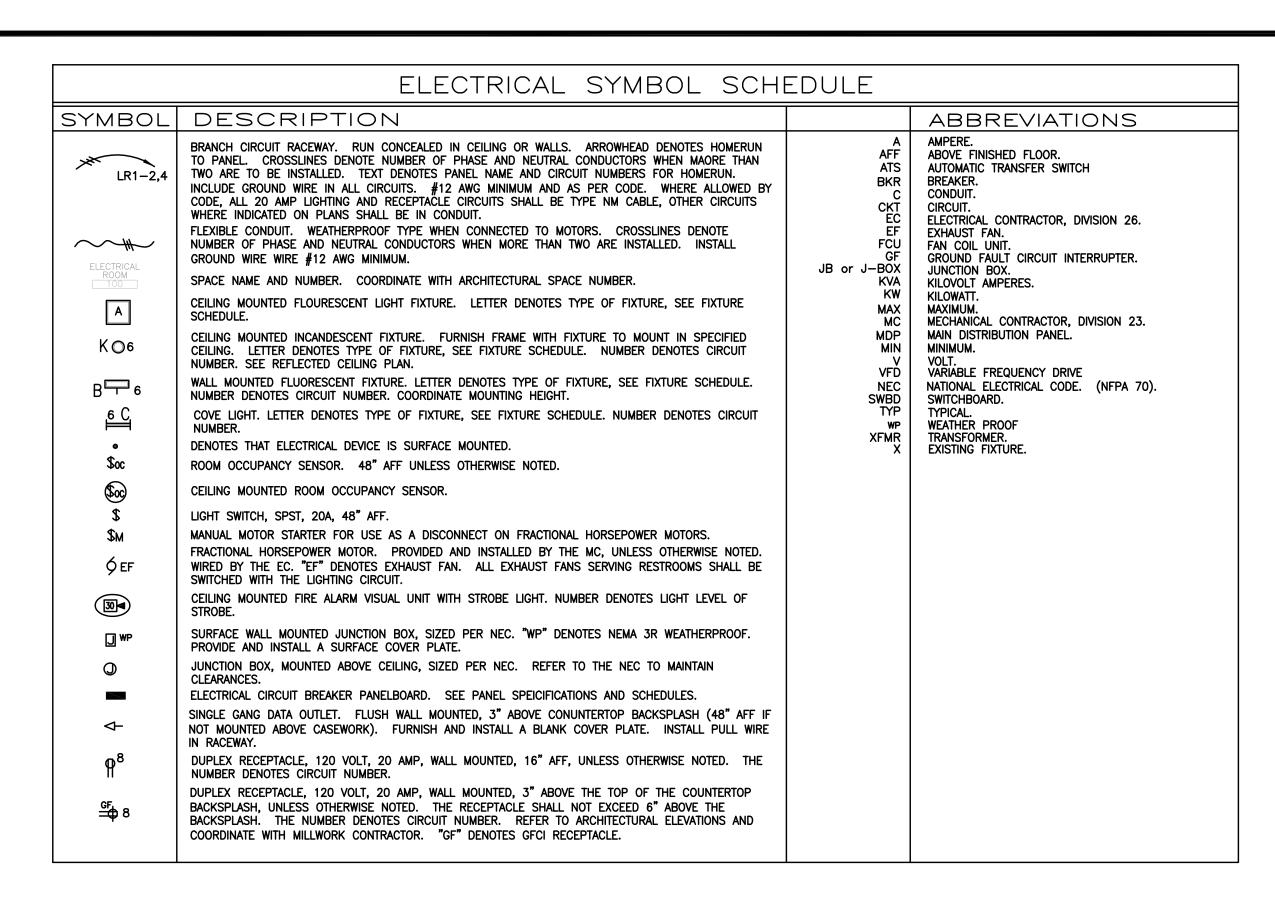
AND COORDINATED WITH THE PHASING.

—J-BOX COVER J-BOX CIRCUIT CONTENTS MARKED WITH INDELIBLE INK ALL EXPOSED J-BOXES, NOT INCLUDING ELECTRICAL OR

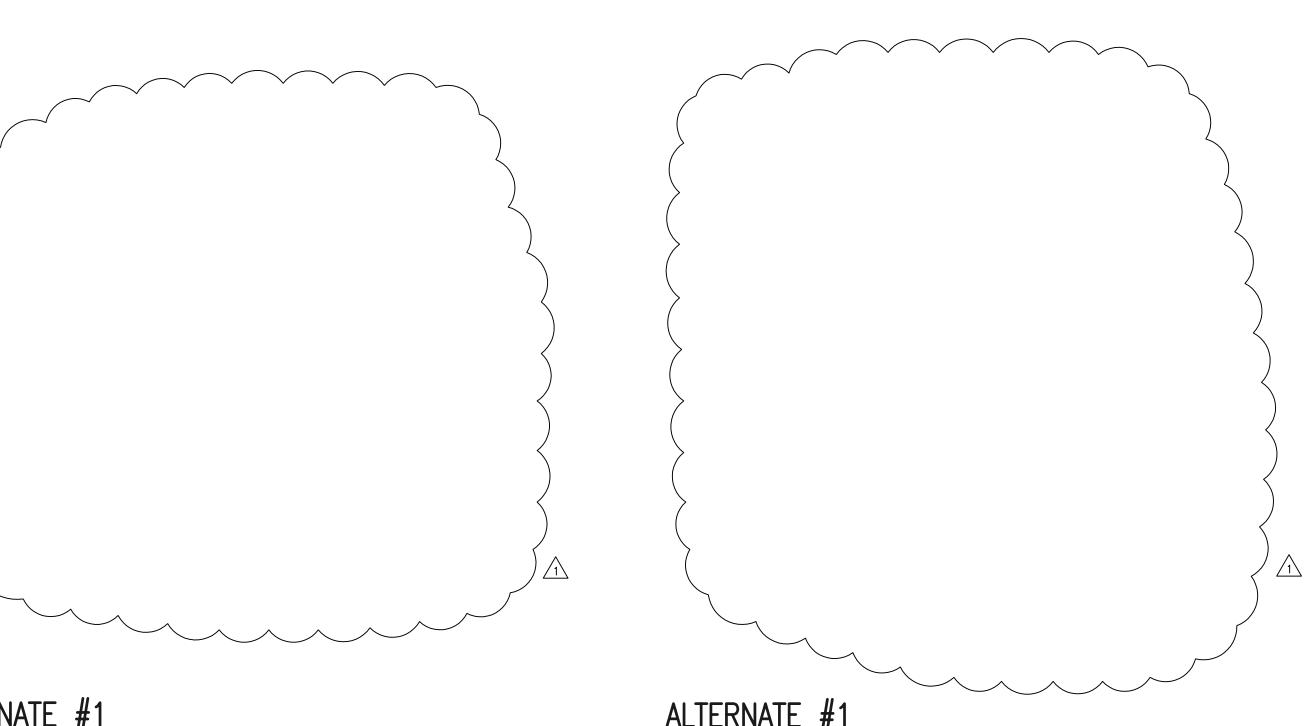
MECHANICAL ROOMS, SHALL BE MARKED ON THE INSIDE COVER. ALL OTHERS SHALL BE MARKED ON THE

ALL J-BOXES CONTAINING FIRE ALARM CIRCUITS SHALL BE PAINTED RED. J-BOX COVER DETAIL

ALL CONDUIT SHALL BE INSTALLED IN A NEAT AND ORDERLY MANNER, PERPENDICULAR TO ALL BUILDING WALLS AND BEAMS AND SHALL COMPLY STRICTLY WITH ALL CODES AND REQUIREMENTS OF THE NEC, NFPA, UL AND SBCCI WITH NO EXCEPTIONS.



LIGHT FIXTURE SCHEDULE							
	TYPE	DESCRIPTION	CATALOG NO.	LAMPS			
	A	LED 2' x 2' RECESSED GRID LAY—IN CEILING FIXTURE.	COLUMBIA# LJT22-40HLG-FSA2125-EU 120 VOLT	LED			
	A2	LED 2' × 2' RECESSED GRID LAY-IN CEILING FIXTURE WITH EMERGENCY BATTERY PACK.	COLUMBIA# LJT22-40HLG-FSA2125-EU-ELL14 120 VOLT	LED			
	K1 o	8" LED, CLEAR LENS, RECESSED, ROUND, WET LOCATION DOWNLIGHT WITH CLEAR OPEN REFLECTOR. 120V	SPECTRUM #SGELEDOS-30L-40KE1-CR SPECTRUM TRIM #AR82230S-SG-WL	LED			
	K2 <b>o</b>	8" LED, CLEAR LENS, RECESSED, ROUND, WET LOCATION DOWNLIGHT WITH CLEAR OPEN REFLECTOR AND EMERGENCY BATTERY PACK. 120V	SPECTRUM #SGELEDOS-30L-40KE1-EM-CR SPECTRUM TRIM #AR82230S-SG-WL	LED			
	w_P	WALL MOUNTED DECORATIVE BATHROOM LED FIXTURE.	ILEX #PS1 POEHLMANN SCONCE/PS1-WM-S0-BN-HA	1-50W E11			
	W1	WALL MOUNTED DECORATIVE BATHROOM LED FIXTURE.	ASBURY DOUBLE SCONE #68030073-SNCK	LED			



GN1. REMOVE ALL ABANDONED WIRING IN PROJECT LIMITS ABOVE CEILING PLENUM TO SOURCE OF SUPPLY. GN2. REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. GN3. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVICING EQUIPMENT THAT HAS BEEN REMOVED.

GN4. DISCONNECT AND REMOVE ABANDONED LUMINARIES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER ACCESSORIES. GN5. ALL REMOVED EQUIPMENT SHALL BE TRANSPORTED TO THE OWNER'S STORAGE FACILITY BY THE CONTRACTOR. ALL EQUIPMENT/ITEMS THAT THE OWNER DOES NOT WANT TO RETAIN OWNERSHIP SHALL BECOME PROPERTY OF THE CONTRACTOR AND CONTRACTOR SHALL TRANSPORT OFF SITE AND DISPOSE.

**DEMOLITION NOTES (DN):** DN1. EXISTING ELECTRICAL ELEMENTS SHALL REMAIN AS—IS UNLESS OTHERWISE NOTED. DN2. EXISTING SWITCH, FACE PLATE, BACKBOX AND SWITCH LEG SHALL BE DISCONNECTED, REMOVED, AND DISPOSED.

LIGHTING SWITCH LEG SHALL BE DISCONNECTED, REMOVED, AND DISPOSED BACK TO SOURCE J-BOX. RE-CIRCUIT AS REQUIRED TO MAINTAIN SERVICE TO ALL EXISTING TO REMAIN DOWNSTREAM DEVICES. DN4. DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICE. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED BACK TO SOURCE J-BOX. RE-CIRCUIT AS REQUIRED TO MAINTAIN SERVICE TO ALL EXISTING TO REMAIN DOWNSTREAM DEVICES.

DN3. EXISTING LIGHT FIXTURE SHALL BE DISCONNECTED. REMOVED. AND DISPOSED. EXISTING LIGHTING CIRCUIT AND

RN1. EC SHALL CONNECT TO EXISTING LIGHTING CIRCUIT IN SPACE FROM DEMOLITION. RN2. OCCUPANCY SENSOR SHALL BE DUAL TECHNOLOGY FOR PASSIVE INFRARED AND

ULTRASONIC MOTION DETECTION AND A 30 MINUTE TIMEOUT. RN3. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR RN4. CONNECT TO NEW FIRE DEVICE TO EXISTING FIRE ALARM CONTROLLER AND MAKE OPERABLE. COORDINATE.

GENERAL NOTES (GN): GN1. REMOVE ALL ABANDONED WIRING IN PROJECT LIMITS ABOVE CEILING PLENUM TO SOURCE OF SUPPLY. GN2. REMOVE EXPOSED ABANDONED CONDUIT, INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILING FINISHES. GN3. DISCONNECT AND REMOVE ELECTRICAL DEVICES AND EQUIPMENT SERVICING EQUIPMENT THAT HAS BEEN REMOVED. GN4. DISCONNECT AND REMOVE ABANDONED LUMINARIES. REMOVE BRACKETS, STEMS, HANGERS, AND OTHER

GN5. THE INSTALLATION AND REMOVAL OF ALL VOICE/DATA WIRE SHALL BE BY THE EC. COORDINATE. GN6. ALL REMOVED EQUIPMENT SHALL BE TRANSPORTED TO THE OWNER'S STORAGE FACILITY BY THE CONTRACTOR. ALL EQUIPMENT/ITEMS THAT THE OWNER DOES NOT WANT TO RETAIN OWNERSHIP SHALL BECOME PROPERTY OF THE CONTRACTOR AND CONTRACTOR SHALL TRANSPORT OFF SITE AND DISPOSE.

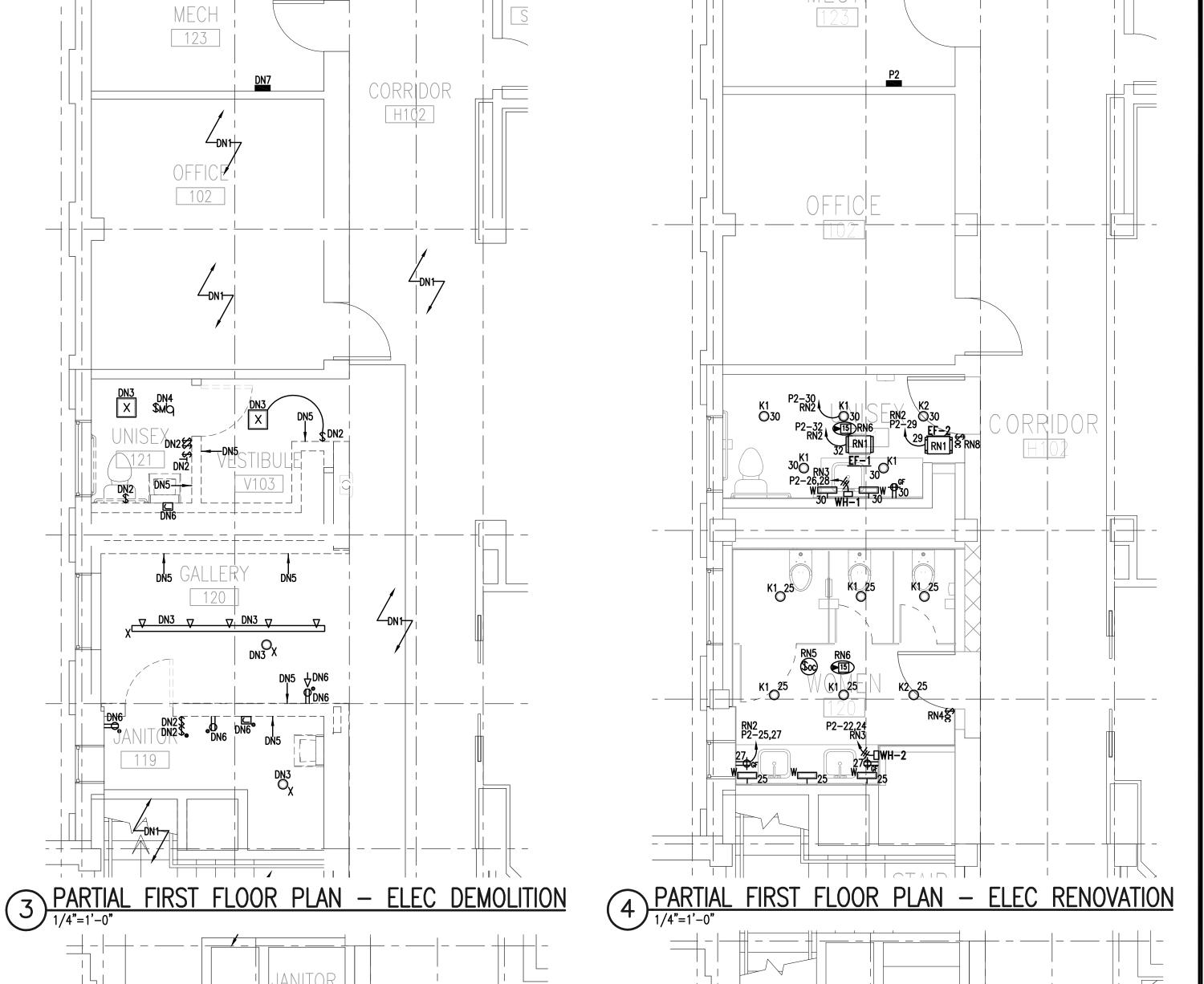
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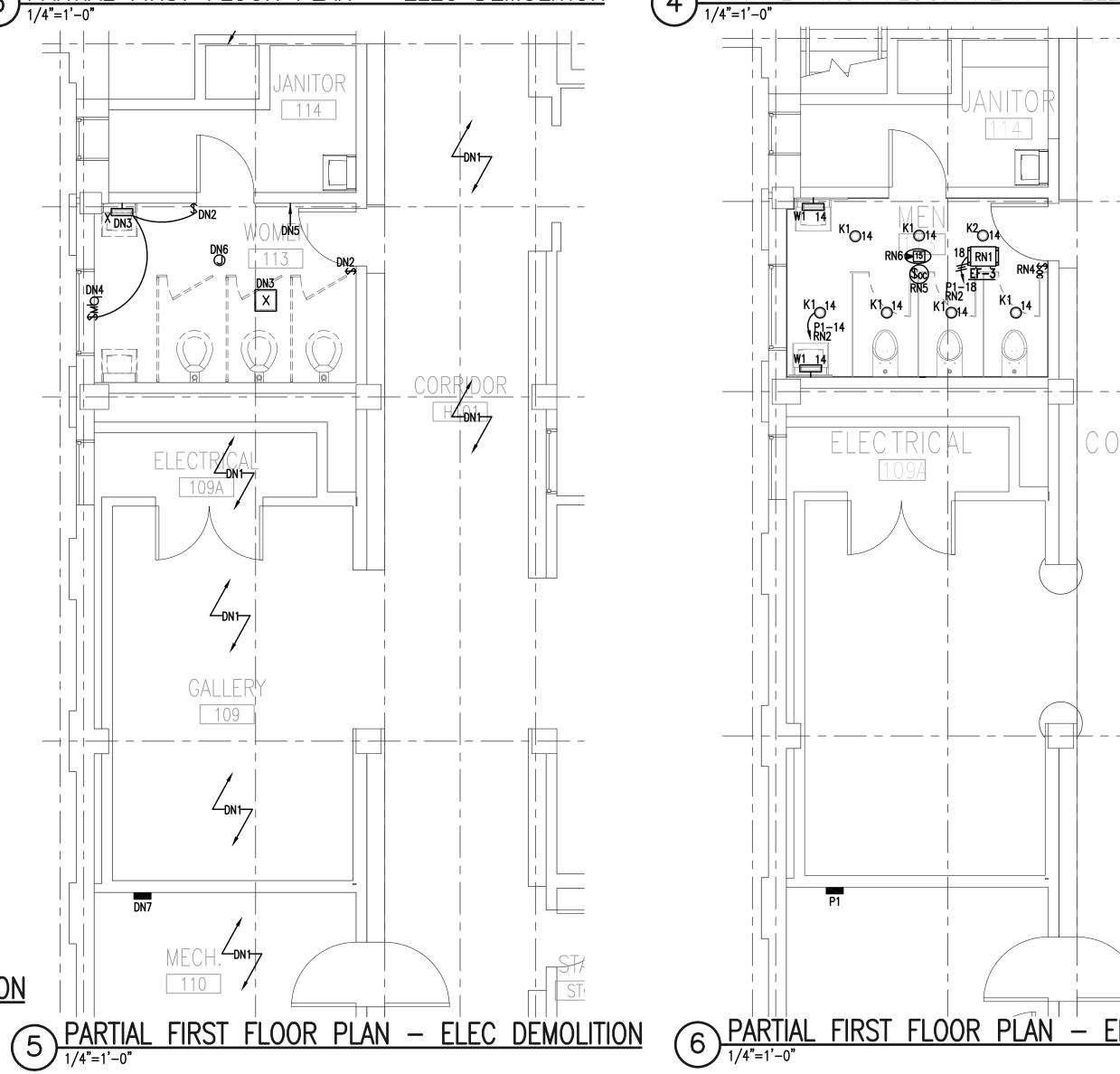
DN3. EXISTING LIGHT FIXTURE SHALL BE DISCONNECTED, REMOVED, AND DISPOSED. EXISTING LIGHTING CIRCUIT AND LIGHTING SWITCH LEG SHALL BE DISCONNECTED, REMOVED, AND DISPOSED BACK TO SOURCE J-BOX. RE-CIRCUIT AS REQUIRED TO MAINTAIN SERVICE TO ALL EXISTING TO REMAIN DOWNSTREAM DEVICES.

DN4. EXISTING EXHAUST FAN SHALL BE REMOVED BY MC. DISCONNECT AND REMOVE EXISTING BRANCH CIRCUIT. EXISTING CONDUIT AND WIRE SHALL BE REMOVED BACK TO SOURCE PANEL OR J-BOX. COORDINATE. DN5. ALL ELECTRICAL SYSTEM ELEMENTS ON REMOVED WALLS SHALL BE REMOVED, REMOVE BACKBOX, SUPPLY CONDUIT AND CONDUCTORS BACK TO THE NEXT J-BOX. RE-CIRCUIT AS REQUIRED TO MAINTAIN SERVICE TO ALL EXISTING TO REMAIN

DN6. DISCONNECT AND REMOVE EXISTING ELECTRICAL DEVICE. CONDUIT, WIRE, AND BACKBOX SHALL BE REMOVED BACK TO

SOURCE J-BOX. RE-CIRCUIT AS REQUIRED TO MAINTAIN SERVICE TO ALL EXISTING TO REMAIN DOWNSTREAM DEVICES. DN7. EXISTING ELECTRICAL PANEL SHALL REMAIN AS—IS UNLESS OTHERWISE NOTED.





RENOVATION NOTES (RN):

OPERABLE. COORDINATE.

RN1. HVAC UNIT LOCATED ABOVE CEILING, DISCONNECT FURNISHED AND INSTALLED BY MC

RN3. EC SHALL FURNISH AND INSTALL AN 20A/240V/1P BREAKER IN EXISTING BREAKER

REMAIN IN PLACE WITH OR WITHOUT THE LOCK INSTALLED PER NEC 422.31(B).

RN4. OCCUPANCY SENSOR SHALL BE DUAL TECHNOLOGY FOR PASSIVE INFRARED AND

RN6. CONNECT TO NEW FIRE DEVICE TO EXISTING FIRE ALARM CONTROLLER AND MAKE

RN2. EC SHALL CONNECT TO EXISTING SPARE BREAKER IN EXISTING PANEL.

ULTRASONIC MOTION DETECTION AND A 30 MINUTE TIMEOUT.

RN5. CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR

WIRED BY EC. EC SHALL INTERLOCK EXHAUST FAN CONTROL WITH LIGHT SWITCH.

SPACES OF EXISTING PANEL P1 TO FEED UNDERCOUNTER TANKLESS WATER HEATER.

CIRCUIT BREAKER SHALL BE CAPABLE OF BEING LOCKED IN THE OPEN POSITION AND

ASSOCIATES, INC.

Design/Planning/Construction 1201 Main Street, Suite 2100 Columbia, S.C. 29201 tel. 803-256-0000 fax 803-255-7243

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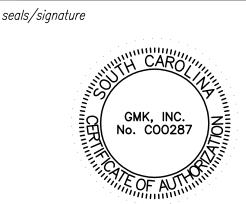
arrowood

USC CAMPUS PLANNING AND CONSTRUCTION 743 GREENE STREET



proiect name GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)

state project number PROJECT #H27-D259-CB PROJECT #16013.01





**CONSTRUCTION DOCUMENTS** 

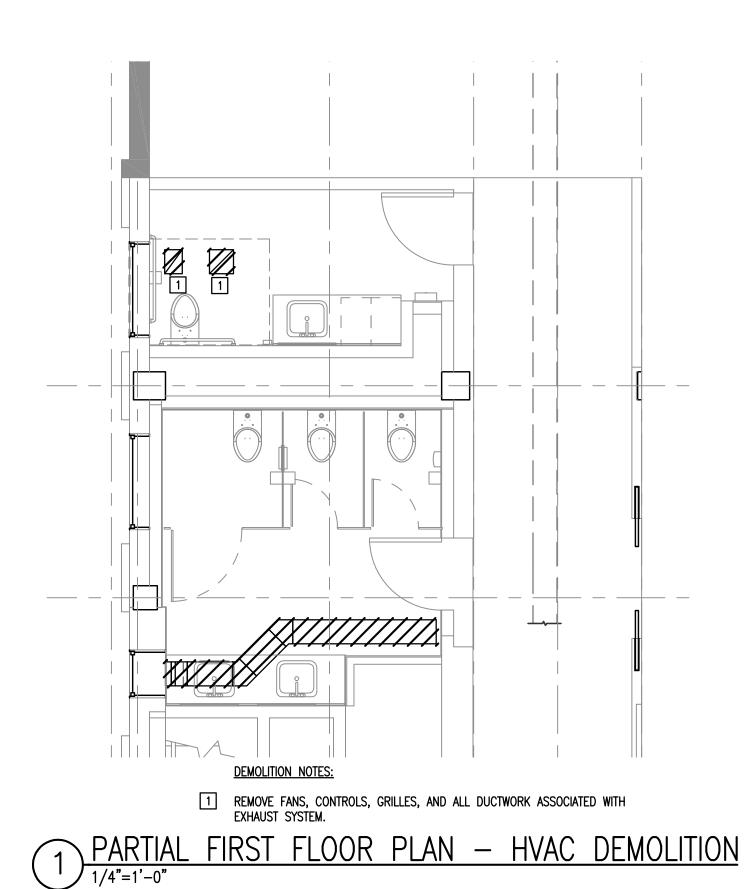
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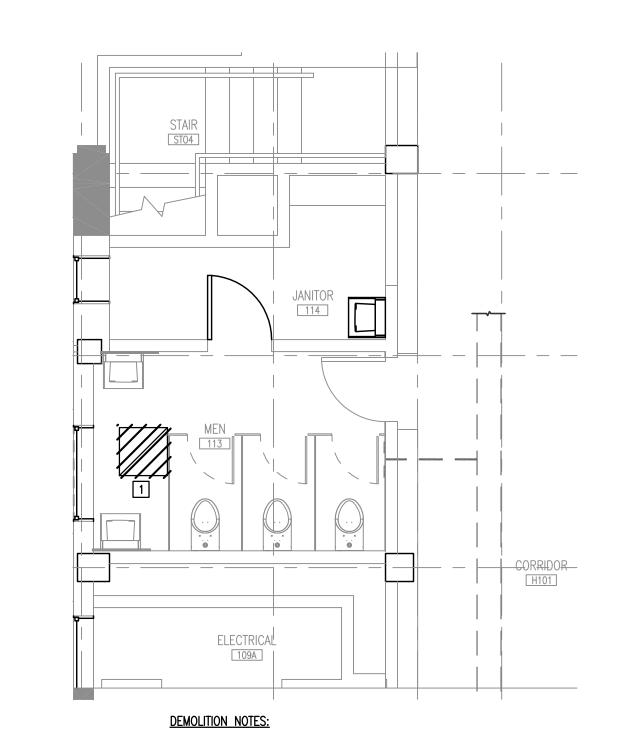
number	item	date
1	Addendum #1	09/16/2016

sheet title PARTIAL FIRST AND SECOND FLOOR PLAN - ELEC DEMOLITION AND RENOVATION

sheet number

checked by JBF

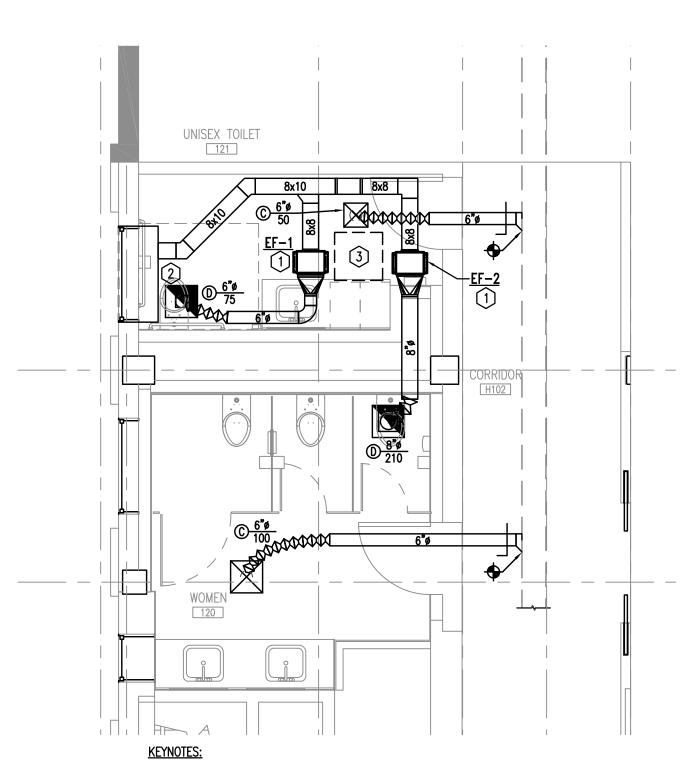




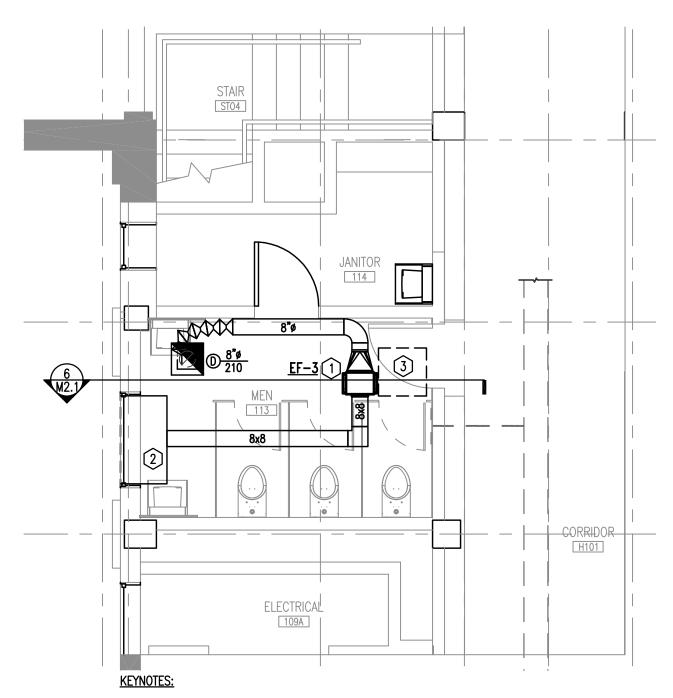
REMOVE FANS, CONTROLS, GRILLES, AND ALL DUCTWORK ASSOCIATED WITH EXHAUST SYSTEM.

PARTIAL FIRST FLOOR PLAN — HVAC DEMOLITION

1/4"=1'-0"

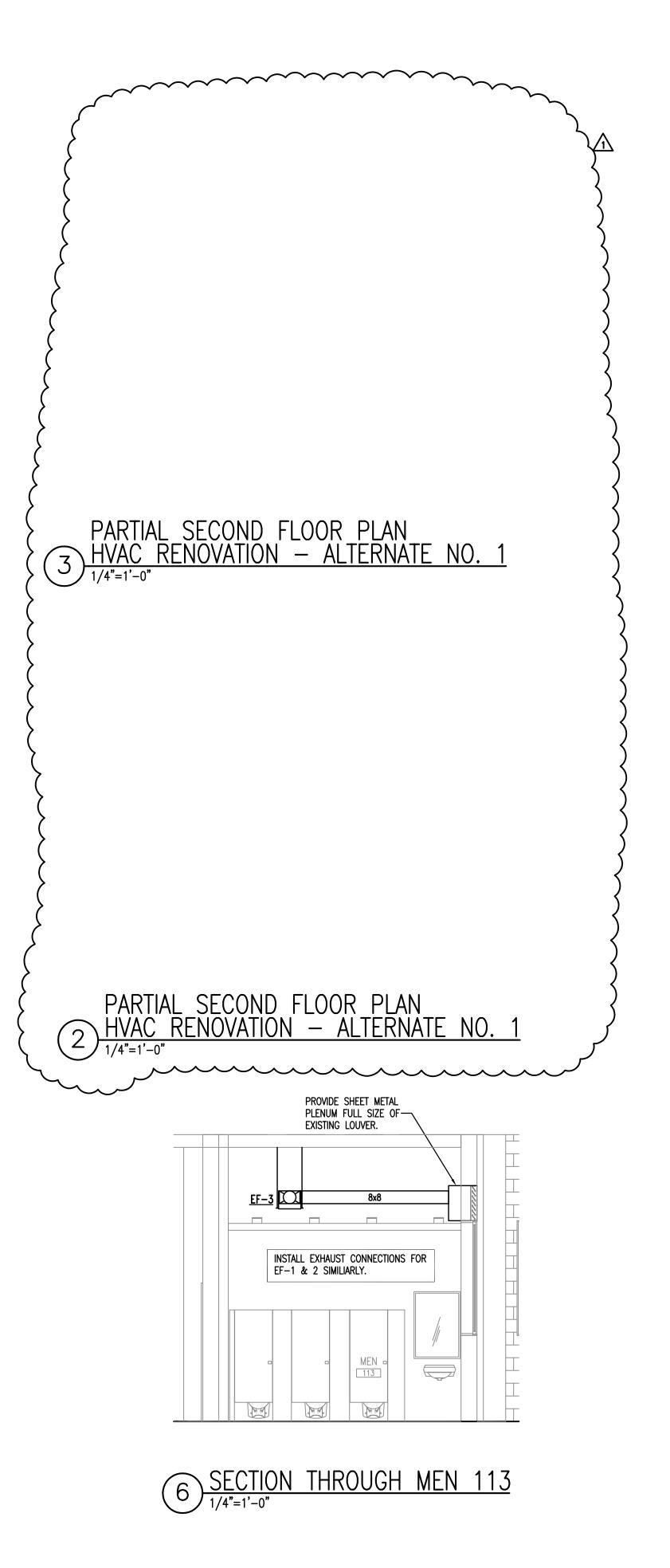


- PROVIDE NEW EXHAUST FAN AT LOCATION INDICATED. INTERLOCK CONTROL OF EXHAUST FAN WITH LIGHT SWITCH. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE SHEET METAL PLENUM FULL SIZE OF EXISTING WINDOW LOUVER. CONNECT PLENUM TO EXISTING LOUVER AND SEAL. REFER TO SECTION FOR ADDITIONAL INFORMATION.
- ACCESS DOOR FOR ACCESS TO EXHAUST FAN. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION.
- 2 PARTIAL FIRST FLOOR PLAN HVAC RENOVATION 1/4"=1'-0"



- PROVIDE NEW EXHAUST FAN AT LOCATION INDICATED. INTERLOCK CONTROL OF EXHAUST FAN WITH LIGHT SWITCH. REFER TO ELECTRICAL DRAWINGS FOR ADDITIONAL INFORMATION.
- PROVIDE SHEET METAL PLENUM FULL SIZE OF EXISTING WINDOW LOUVER. CONNECT PLENUM TO EXISTING LOUVER AND SEAL. REFER TO SECTION FOR ADDITIONAL INFORMATION.
- 3 ACCESS DOOR FOR ACCESS TO EXHAUST FAN. REFER TO ARCHITECTURAL DRAWINGS FOR

5 PARTIAL FIRST FLOOR PLAN - HVAC RENOVATION



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5. PHASE ONE INCLUDES ALL WORK ON FIRST FLOOR. PHASE TWO INCLUDES ALL WORK ON SECOND FLOOR.

6. PHASE TWO WORK CANNOT COMMENCE UNTIL C/O IS ACHIEVED FOR FIRST FLOOR WORK.

7. DEMOLITION OF SYSTEM COMPONENTS SHALL BE COORDINATED WITH PHASES AND OVER ALL—COORDINATION PLAN. DEMOLITION OF COMPONENTS MAY OCCUR OUTSIDE OF PHASES AS—NECESSARY.

8. ALL POWER, CONTROLS, AND NECESSARY COMPONENTS REQUIRED FOR THE PROPER OPERATION

9. EACH INDIVIDUAL PHASE WILL INCLUDE A SUBSTANTIAL COMPLETION, PUNCHLIST, AND CERTIFICATE OF OCCUPANCY.

OF EQUIPMENT SHALL BE PROVIDED AND COORDINATED WITH THE PHASING.

PARTIAL FIRST FLOOR AND SECOND PLAN - HVAC DEMOLITION AND RENOVATION

ASSOCIATES, INC.

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USC CAMPUS PLANNING AND

GENERAL CONSTRUCTION
INDEFINITE DELIVERY CONTRACT
(MCKISSICK MUSEUM
BATHROOM RENOVATIONS)

CONSTRUCTION 743 GREENE STREET COLUMBIA, SC 29208

state project number

seals/signature

PROJECT #H27-D259-CB

CONSTRUCTION DOCUMENTS

09/16/2016

<sup>date</sup> JULY 25, 2016

ADDENDUM NO. 1

PROJECT #16013.01

Design/Planning/Construction 1201 Main Street, Suite 2100

ARCHITECT WILL BE SUBJECT TO LEGAL ACTION.

Columbia, S.C. 29201 tel. 803-256-0000

fax 803-255-7243

sheet number

key plan

M2.1

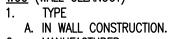
drawn by JDR checked by JWB

# PLUMBING GENERAL NOTES

- LOCATE SHUT-OFF VALVE ABOVE CEILING AND IN LOCATIONS ACCESSIBLE FOR SERVICE, LOCATION SHALL COMPLY WITH THE REQUIREMENTS OF ALL CODES REFERENCED HEREIN. PROVIDE CEILING MARKERS FOR LOCATION IDENTIFICATION.
- ALL SANITARY DRAINAGE PIPING 3" AND LARGER SHALL SLOPE 1/8" PER FOOT UNLESS NOTED OTHERWISE. ALL SANITARY DRAINAGE PIPING 2-1/2" AND SMALLER SHALL SLOPE 1/4" PER FOOT UNLESS NOTED OTHERWISE.
- ALL DRAINAGE PIPING AND PRESSURE SYSTEM PIPING SHALL BE RUN AS HIGH AS POSSIBLE TO BOTTOM OF STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE PIPE ROUTING WITH ALL OTHER TRADES.
- THE FOLLOWING PLUMBING SYSTEMS SHALL BE INSULATED: COLD WATER AND HOT WATER
- IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO VERIFY THAT ITEMS TO BE FURNISHED FIT THE SPACE AVAILABLE.
- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND DO NOT SHOW EXACT LOCATIONS OF FIXTURES AND EQUIPMENT. ALL OFFSETS AND FITTINGS FOR COMPLETE INSTALLATION MAY NOT BE DEFINED ON THE DRAWINGS. CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING EXACT DIMENSIONS AT THE BUILDING AND ANY NECESSARY CHANGES MADE IN ACCORDANCE WITH STRUCTURAL CONDITIONS, EQUIPMENT TO BE INSTALLED AND COORDINATION WITH OTHER SYSTEMS. IF CONFLICTS CANNOT BE RESOLVED THEY SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER.
- CONTRACTOR SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS INSOFAR AS THEY APPLY: NFPA 99, 2012 INTERNATIONAL BUILDING AND PLUMBING CODES.
- CONTRACTOR SHALL SECURE ALL PERMITS, INSPECTIONS, LICENSES AND TESTS REQUIRED FOR THIS WORK AND PAY ALL FEES IN CONNECTION THEREWITH.
- ALL MATERIALS SHALL BEAR THE MANUFACTURER'S NAME, TRADE NAME AND BE U.L. LABELED IF REQUIRED BY CODE. UNLESS SPECIFICALLY INDICATED OTHERWISE, ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN ACCORDANCE WITH THE RECOMMENDATIONS OF THE MANUFACTURER. ALL EQUIPMENT OF A SIMILAR TYPE SHALL BE OF THE SAME MANUFACTURER.
- D. CONTRACTOR SHALL LOCATE AND SIZE ALL OPENINGS REQUIRED FOR PLUMBING EQUIPMENT AND PIPING.
- CONTRACTOR SHALL PROVIDE AND LOCATE SLEEVES, INSERTS AND COVER PLATES REQUIRED BEFORE THE FLOOR AND WALLS ARE BUILT OR SHALL BE RESPONSIBLE FOR THE COST OF CUTTING AND PATCHING REQUIRED FOR PIPES WHERE SLEEVES AND INSERTS WERE NOT INSTALLED OR WHERE THEY WERE INCORRECTLY LOCATED.
- . THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE MEANS, METHODS, TECHNIQUES, SEQUENCES OR PROCEDURES OF CONSTRUCTION SELECTED BY THE CONTRACTOR OR OF THE SAFETY PRECAUTIONS AND PROGRAMS INCIDENTAL TO THE WORK OF THE CONTRACTOR. THE ENGINEER SHALL NOT BE RESPONSIBLE FOR THE FAILURE OF THE CONTRACTOR TO PERFORM THE CONSTRUCTION WORK IN ACCORDANCE WITH THE DRAWINGS.
- CONTRACTOR SHALL MAKE PROVISIONS FOR EXPANSION LOOPS WHERE NECESSARY WHETHER OR NOT SHOWN ON DRAWINGS.
- 14. OFFSET WATER AND WASTE PIPING AS NECESSARY TO AVOID CONFLICTS WITH DUCTWORK.
- 15. IT IS THE INTENT AND MEANING OF THE DRAWINGS TO PROVIDE COMPLETE AND OPERABLE PLUMBING AND DRAINAGE SYSTEMS.
- 16. ALL PLUMBING LINE SIZE REDUCTIONS SHALL BE MADE WITH REDUCERS AND/OR REDUCING FITTINGS.
- 7. ALL WALL HUNG FIXTURES SHALL BE SEALED BETWEEN WALL AND FIXTURES WITH WHITE SILICONE CAULKING.
- 18. ALL COUNTER MOUNTED FIXTURE RIMS SHALL BE SEALED WITH SILICONE CAULKING.

PLUMBING FIXTURE SCHEDULE	
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- WC-1; WATER CLOSET (WALL HUNG)
- A. KOHLER K-4325 SIPHON JET, ELONGATED BOWL, VITREOUS CHINA.
- A. BENEKE 523-SS WHITE SOLID PLASTIC ELONGATED OPEN FRONT, STAINLESS STEEL POST, SELF-SUSTAINING CHECK HINGES.
- 3. CONNECTION
- A. 3" WASTE. 1" COLD WATER. 4. MOUNTING
- A. WALL 16" TO RIM. 5. FLUSH VALVE
- A. SLOAN MODEL ECOS 8111-1.6/1.1, DUAL FLUSH, BATTERY POWERED, SENSOR OPERATED, ELECTRONIC FLUSH VALVE, 1.6 OR 1.1 GAL PER FLUSH, CHROME PLATED FINISH.
- B. VANDAL RESISTANT ANGLE STOP C. MANUAL OVERRIDE BUTTON
- 6. CARRIER A. SIMILAR TO J.R. SMITH SERIES 200.
- WC-1A; WATER CLOSET (ADA-WALL HUNG)
- A. SIMILAR TO  $\underline{WC-1}$ . 2. MOUNTING A. WALL 17" TO RIM.
- L-1A; LAVATORY (ADA UNDERMOUNT COUNTER)
- A. KOHLER K-2196 VITREOUS CHINA. 2. CONNECTION A. 1-1/4" WASTE, 1/2" CW, 1/2" HW.
- 3. MOUNTING A. UNDERMOUNT COUNTER AS SHOWN ON ARCH. DRAWINGS. MIN. CABINET SIZE 24"
- A. LAVATORY FAUCET, DELTA MODEL 597LF—SSMPU, SINGLE LEVER STYLE HANDLE, SINGLE HOLE, METAL POP-UP, BRILLIANCE STAINLESS FINISH.
- B. AERATOR, DELTA MODEL RP60729, 0.5 GPM FLOW. 5. Supplies
- A. MCGUIRE 165LK WITH LOOSE KEY STOPS.
- A. MCGUIRE 155WC 1-1/4" W/ OPEN GRID STRAINER & 1-1/4" OFFSET TAILPIECE.
- A. MCGUIRE 8872 1-1/4" P-TRAP WITH C.O. PLUG. 8. INSULATION
- A. ALL EXPOSED PIPING BENEATH WITH HANDI LAV-GUARD MODEL 102. WCO (WALL CLEANOUT)



- MANUFACTURER A. JAY R. SMITH
- . Standard A. ASME A112.36.2M, MODEL #4551
- 4. MATERIAL A. CAST IRON BODY.
- SHAPE A. SQUARE
- 6. COVER FINISH A. SQUARE POLISHED BRONZE FRAME & COVER FLUSH WITH WALL FINISH.
- 7. CLOSURE PLUG A. PLASTIC COUNTERSUNK



A. KOHLER K-6393 ELONGATED BOWL, VITREOUS CHINA, DUAL FLUSH, 1.6 OR 1.1 GAL PER FLUSH. A. BEMIS 1950SS WHITE SOLID PLASTIC ELONGATED OPEN FRONT W/ COVER, STAINLESS STEEL POST

L-ZA; LAVATORY (ADA WALL HUNG)

A. LAVATORY FAUCET, DELTA MODEL 597LF—SSMPU, SINGLE LEVER STYLE HANDLE, SINGLE HOLE, METAL

A. MCGUIRE 155WC 1-1/4" W/ OPEN GRID STRAINER & 1-1/4" OFFSET TAILPIECE.

A. ALL EXPOSED PIPING BENEATH WITH HANDI LAV-GUARD MODEL 102.

- B. STAINLESS STEEL SELF-SUSTAINING HINGES.
- A. KOHLER GP1034693-CP LEFT-HAND B. CHROME FINISH
- 4. CONNECTION

A. KOHLER K-2822.

A. 24"x23"x7-7/16".

A. 1-1/4" WASTE, 1/2" CW.

POP-UP, BRILLIANCE STAINLESS FINISH. B. AERATOR, DELTA MODEL RP60729, 0.5 GPM FLOW.

A. MCGUIRE 165LK WITH LOOSE KEY STOPS.

A. MCGUIRE 8872 1-1/4" P-TRAP WITH C.O. PLUG.

A. WALL 34" AFF TO RIM.

3. CONNECTION

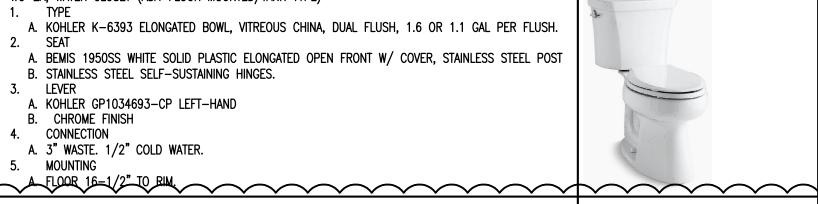
4. MOUNTING

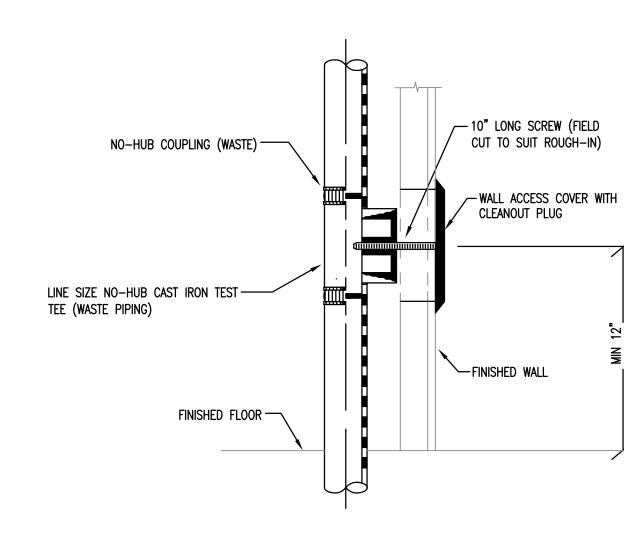
9. INSULATION

5. FITTING

2. SIZE

A. 3" WASTE. 1/2" COLD WATER. MOUNTING







	PLUMBING LEGEND					
SYMBOL	DESCRIPTION		SYMBOL	DESCRIPTION		
	COLD WATER LINE - NEW (CW)		<u></u>	PIPE BREAK OR CONTINUATION		
cw	COLD WATER LINE — EXISTING (CW)		—∞	P-TRAP		
<b>нw</b>	HOT WATER LINE — EXISTING (HW)			END CAP		
	SANITARY WASTE LINE — NEW (S/W)		wco —j	WALL CLEANOUT		
SAN	SANITARY WASTE LINE — EXISTING (S/W)		co ——	INLINE CLEANOUT		
SAN	SANITARY WASTE LINE — DEMOLISHED (S/W)			BALL VALVE		
	SANITARY VENT LINE (V) — NEW		<b>+</b>	POINT OF CONNECTION — NEW TO EXISTING		
	PIPE DOWN OR DROP (DN OR DROP)		////	AREA TO DEMOLISH		
<u> </u>	PIPE UP					

WATER HEATER SCHEDULE												
TAG NO.	LOCATION	TYPE	CAPACITY	FLOW RATE RISE KW	KW		ELECTRICA ARACTERIS		MANUFACTURER	MODEL NO.	REMARKS	
					<b>'</b> F		VOLTS	PHASE	HERTZ			
WH-1	UNISEX 121	ELECT.	TANKLESS	0.5 GPM	64°	4.8	240	1ø	60	EEMAX	EX48	1,2
WH-2	WOMEN 120	ELECT.	TANKLESS	0.5 GPM	64°	4.8	240	1ø	60	EEMAX	EX48 DL	1,2
IOTES:												

. COMPLY WITH CURRENT ASHRAE/IESNA 90.1. 2. INSTALL IN COMPLIANCE PER STATE & LOCAL CODE

WATER-HAMMER ARRESTER SCHEDULE							
PDI UNITS	Α	В	С	D	E	F	
FIXTURE UNITS	1-11	12-32	33-60	61-113	114-154	155-330	

PIPE IDENTIFICATION SCHEDULE					
SERVICE TYPE	DECAL IDENTIFICATION	TAPE COLOR			
COLD WATER SERVICE	COLD WATER SUPPLY	GREEN			
HOT WATER	DOMESTIC HOT WATER	YELLOW			
DIDE CITES A A /A" TO C" LICE O A /A" LETTERING					

1. PIPE SIZES 1-1/4" TO 6", USE 2-1/4" LETTERING. 2. PIPE SIZES 1" OR LESS, USE 1-1/4" LETTERING.

	ABBREVI	ATTON	S *
ABV AD AFF BFP CA CI CONN CW DI DN ELEV ET FD FL FT GPH HWR IE L-# MA MAX MIN MPT MSB-# N/A	Above Access Door Above Finished Floor Backflow Preventer Compressed Air Cast Iron Column Line Connection Cold Water De—ionized Water Down Elevation Expansion Tank Electric Water Cooler Floor Drain Floor Feet Gallons Per Hour Gallons Per Minute Hot Water Hot Water Hot Water Return Invert Elevation Lavatory Medical Air Maximum Minimum Male Pipe Thread Mop Sink Basin Not Applicable	NC NIC NO NPT NTS OFST OX PRV PSI RD SA SH SS ST TEMP TOS TYP VAC VB WC WB WC #	Normally Closed Not in Contract Normally Open National Pipe Thread Not To Scale Over Flow Storm Drain Oxygen Pump — No. Pressure Reducing Val Pounds Per Square In Roof Drain Shock Absorber Shower Sink Stainless Steel Storm Drain Standard Temperature Top of Steel Typical Urinal Vacuum

FIXT	TURE S	SIZE S	SCHED	ULE
MARK	WASTE	VENT	CW	HW
WC (VALVE)	3"	2"	1"	
LAV	2"	1 1/2"	1/2"	1/2"
U	2"	1 1/2"	3/4"	
SK	2"	1 1/2"	1/2"	1/2"
NOTE: USE	THESE SIZES FOR	FIXTURE CONNECTION	IS UNLESS OTHER	RWISE NOTED

# PLUMBING SPECIFICATIONS

A. <u>Plumbing Piping</u>

4. MEDICAL GAS PIPE

- 1. SANITARY ABOVE & BELOW GROUND A. CISPI 301 HUBLESS CAST IRON
- 2. WATER PIPING, BURIED WITHIN 5 FEET OF BUILDING:
- A. (PIPING 2-1/2 INCH OR SMALLER ) COPPER PIPE: ASTM B 42, HARD DRAWN. FITTINGS:
- ASME B16.18, CAST COPPER ALLOY OR ASME B16.22 WROUGHT COPPER & BRONZE. JOINTS: ASTM B 32, ALLOY SN95 SOLDER.
- 3. WATER ABOVE GROUND A. ASTM B 88, TYPE L, HARD DRAWN, COPPER WATER TUBE WITH ASTM B 16.22 WROUGHT COPPER FITTINGS, & 95-5 SOLDERED JOINTS.
- A. ASTM 819, TYPE K, HARD DRAWN, COPPER PIPE CLEANED & CAPPED FOR OXYGEN & VACUUM SERVICE, WITH ASTM B 16.22 WROUGHT COPPER FITTINGS, & AWS A5.8 BCuP-3 SILVER BRAZE JOINTS.
- 3. INSULATION A. COLD WATER, 1/2" FIBERGLASS.
- B. HOT WATER, 1" FIBERGLASS. C. HOT WATER RETURN, 1" FIBERGLASS.

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ASSOCIATES, INC.

Design/Planning/Construction 1201 Main Street, Suite 2100 Columbia, S.C. 29201 tel. 803-256-0000 fax 803-255-7243

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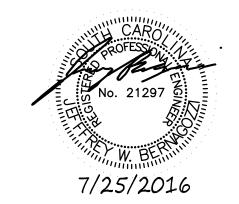


GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)

state project number PROJECT #H27-D259-CB PROJECT #16013.01

seals/signature





CONSTRUCTION DOCUMENTS

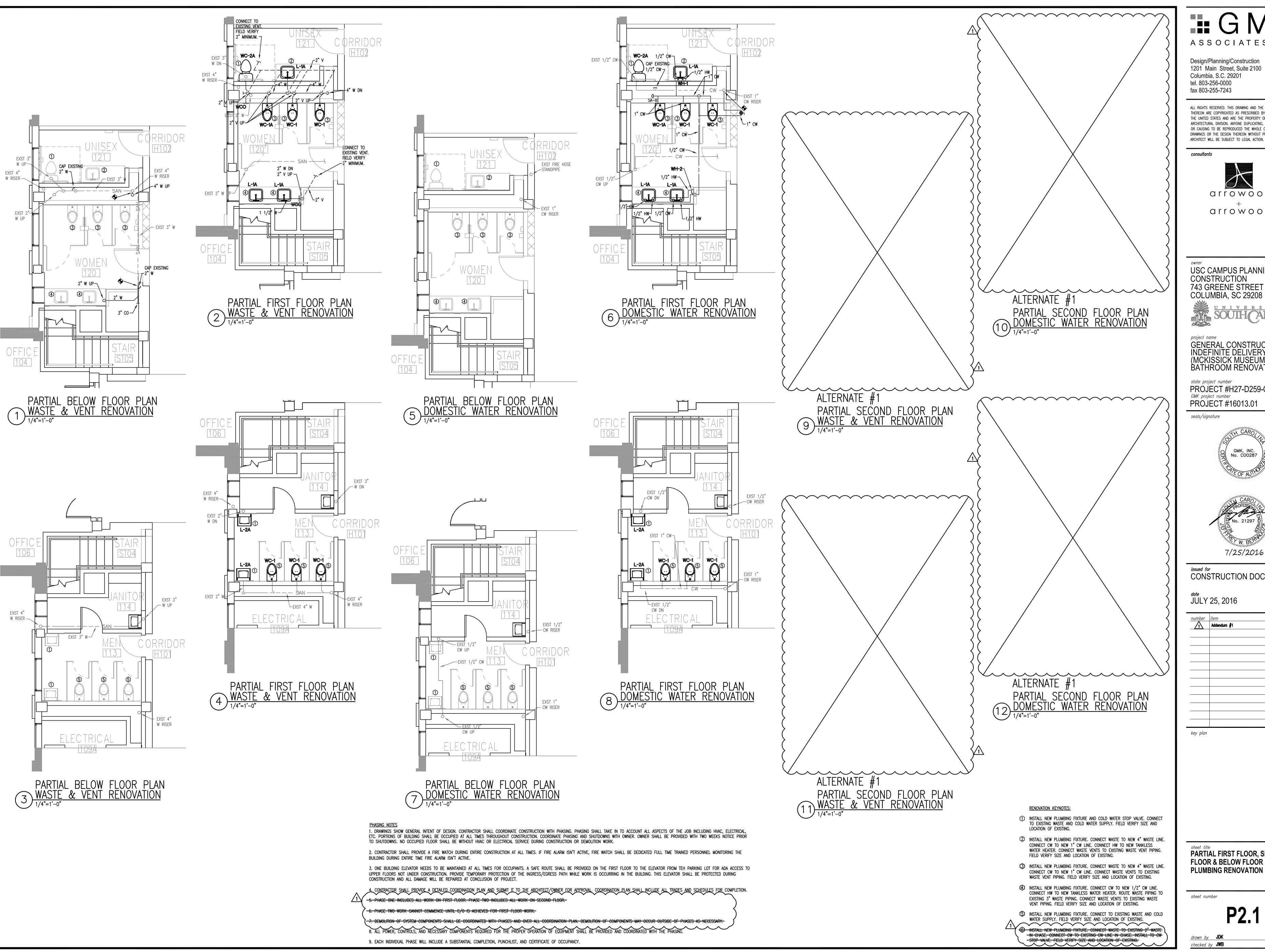
JULY 25, 2016

<u>number</u>	item	date
<u>/1</u>	Addendum #1	09/16/20

PLUMBING SCHEDULES, NOTES, LEGENDS, DETAILS & ABBREVIATIONS

sheet number

drawn by JDK checked by JWB



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GENERAL CONSTRUCTION INDEFINITE DELIVERY CONTRACT (MCKISSICK MUSEUM BATHROOM RENOVATIONS)

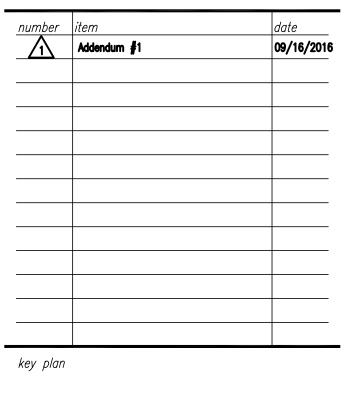
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issued for CONSTRUCTION DOCUMENTS

<sup>date</sup> JULY 25, 2016



PARTIAL FIRST FLOOR, SECOND FLOOR & BELOW FLOOR PLAN -

drawn by JDK checked by JWB