ADDENDUM NUMBER 2
IFB #: 0058040

October 24, 2018

PROJECT: Virginia Polytechnic Institute and State University
Owens Dining Hall – Food Court Main Serving Line
Blacksburg, Virginia 24061

TO ALL BIDDERS:

GENERAL: Addenda are part of the Contract Documents and are issued to amend or interpret the Drawings and Specifications. **The Addenda shall be acknowledged in the Bid Form** in the space provided for addenda acknowledgement.

Addenda list items by Drawings and Specifications. However, only specification items are referenced to Sections. Drawing changes, as well as Specification changes, described in Addenda shall include all Work required by the various trades involved to effect the changes described.

The following addendum includes the Pre-Bid Meeting Notes, Pre-Bid Sign In sheet, and the Lead and Asbestos Report.

OWENS DINING HALL – FOOD COURT MAIN SERVING LINE – PRE-BID QUESTIONS

1. NO PRE-BID QUESTIONS RECEIVED.

OWENS DINING HALL – FOOD COURT MAIN SERVING LINE – PROJECT MANUAL:

1. BID FORM HAS BEEN REPLACED IN ITS ENTIRETY, SEE ATTACHMENT A.
   a. Bid is to be submitted on included bid form. All addenda are to be acknowledged on the bid form.
2. SECTION 01000 – LIST OF DRAWINGS HAS BEEN REPLACED IN ITS ENTIRETY, SEE ATTACHMENT B.

OWENS DINING HALL – FOOD COURT MAIN SERVING LINE – DRAWINGS:

1. DRAWING SET HAS BEEN REISSUED IN ITS ENTIRETY, SEE ATTACHMENT C.
   a. Drawing changes have been clouded, indicated with a revision triangle #1, and identified as Addendum 2 10.22.18.

ADDENDUM #1 – ATTACHMENTS:

1. PROJECT MANUAL - BID FORM – Attachment A
2. PROJECT MANUAL - SECTION 01000 – LIST OF DRAWINGS – Attachment B
3. DRAWING SET WITH REVISIONS DATED 10.22.18 – Attachment C

ALL OTHER TERMS, CONDITIONS AND DESCRIPTIONS REMAIN THE SAME. THE BID DUE DATE AND TIME HAVE BEEN CHANGED **FROM** NOVEMBER 1, 2018 AT 2:00 P.M **TO** NOVEMBER 6, 2018 AT 2:00 P.M. THE BID OPENING DATE AND TIME HAVE BEEN CHANGED **FROM** NOVEMBER 2, 2018 AT 2:00 P.M **TO** NOVEMBER 7, 2018 AT 2:00 P.M.

END OF ADDENDUM NUMBER 2

ADDENDUM 2 - ATTACHMENT A.

DGS-30-220 **Standard Bid Form Format**
(Rev. 04/15)

BID FORM

DATE:

PROJECT: OWENS DINING HALL – FOOD COURT MAIN SERVING LINE
Virginia Polytechnic Institute & State University
IFB Number: 0058040

To: Commonwealth of Virginia
Virginia Polytechnic Institute & State University
Blacksburg, Virginia

In compliance with and subject to your Invitation for Bids and the documents therein specified, all of which are incorporated herein by reference, the undersigned bidder proposes to furnish all labor, equipment, and materials and perform all work necessary for construction of this project, in accordance with the Plans and Specifications cover sheet dated October 5, 2018, and the Addenda noted below, as prepared by Colley Architects, P.C. in Blacksburg, Virginia for the consideration of the following amount:

BASE BID:

PART A: INTERIOR RENOVATION OF OWENS DINING HALL – FOOD COURT MAIN SERVING LINE
Lump sum price for providing and installing all work and materials for a complete installation, and in accordance with the Plans and Specifications. The scope of work includes renovations to the existing eateries in Owens Dining Hall Food Court. Scope of work includes replacement of existing serving line, counter and kneewall, equipment, utility modifications to equipment, new wall and floor tile installation, and selective demolition and modifications to columns in the shops and in the Food Court area.

BASE BID = _____ Dollars $_____.

ADDITIVE BID ITEM:

ADDITIVE BID ITEM #1: PARTIAL REPLACEMENT EXISTING FOOD COURT TILE FLOORING.
Lump sum price for providing and installing all work and materials for a complete installation, and in accordance with the Plans and Specifications. The scope of work includes replacing existing tile flooring with new porcelain tile flooring, specifically indicated in the drawings as Additive Bid – Floor Finish Plan.

ADD. BID ITEM #1 = _____ Dollars $_____.

Contract award will be based on the **TOTAL BASE BID AMOUNT shown above** (including any properly submitted bid modifications) plus as many Additive Bid Items taken in sequence as the Owner in its discretion decides to award.

The undersigned understands that time is of the essence and agrees that the date for Final Completion of the entire project shall be on or before JULY 15, 2019.

ADDENDUM 2 - ATTACHMENT A.

Acknowledgment is made of receipt of the Addenda – list each addenda number to indicate receipt:

_____

_____

If notice of acceptance of this bid is given to the undersigned within 30 days after the date of opening of bids, or any time thereafter before this bid is withdrawn, the undersigned will execute and deliver a contract in the prescribed form (Commonwealth of Virginia Contract Between Owner and Contractor, Form CO-9) within 10 days after the contract has been presented to him for signature. The required payment and performance bonds, on the forms prescribed, shall be delivered to the Owner along with the signed Contract.

Immigration Reform and Control Act of 1986: The undersigned certifies that it does not and shall not during the performance of the Contract for this project violate the provisions of the Federal Immigration Reform and Control Act of 1986, which prohibits employment of illegal aliens, or knowingly employ an unauthorized alien as defined in the Federal Immigration Reform and Control Act of 1986.

DISQUALIFICATION OF CONTRACTORS: By signing this bid or proposal, the undersigned certifies that this Bidder or any officer, director, partner or owner is not currently barred from bidding on contracts by any Agency of the Commonwealth of Virginia, or any public body or agency of another state, or any agency of the federal government, nor is this Bidder a subsidiary or affiliate of any firm/corporation that is currently barred from bidding on contracts by any of the same. We have attached an explanation of any previous disbarment(s) and copies of notice(s) of reinstatement(s).

Either the undersigned or one of the following individuals, if any, is authorized to modify this bid prior to the deadline for receipt of bids by writing the modification and signing his name on the face of the bid, on the envelope in which it is enclosed, on a separate document, or on a document which is telefaxed to the Owner:

_____

_____

_____

ADDENDUM 2 - ATTACHMENT A.

I certify that the firm name given below is the true and complete name of the bidder and that the bidder is legally qualified and licensed by the Virginia Department of Professional and Occupational Regulation, Board for Contractors, to perform all Work included in the scope of the Contract.

Virginia License No. _____

Contractor Class _____

Specialty _____

Valid until _____

FEIN/SSN: _____

Bidder _____
(Name of Firm)

By_____
(Signature)

_____
(Typed Name)

Title _____

If General Partnership (List Partners' Names)

_____

_____

_____

Business Address:

_____

_____

_____

_____

Telephone # _____

FAX # _____

If Corporation, affix Corporate Seal &
list State of Incorporation

State: _____

(Affix Seal)

Virginia State Corporation Commission ID No.: _____; or

If Contractor is a foreign business entity not required to be authorized to transact business in the Commonwealth under Titles 13.1 or 50 of the Code of Virginia, or as otherwise required by law, please provide an explanation as to why such entity is not required to be so authorized: _____
_____
_____.

SECTION 01000 – LIST OF DRAWINGS

Drawings included in the Contract Documents and accompanying these specifications are listed on the Drawings' Cover Sheet and below. The bidder shall be responsible for determining that his bid, including the bids of subcontractors and suppliers incorporated into his bid, is based upon the work described by this specification and all of the drawings listed below:

Cover Sheet
T1 COVER SHEET
T2 GENERAL NOTES + INFORMATION
LS1 LIFE SAFETY PLAN & BUILDING CODE DATA

Architectural:
A1.1 DEMO PLAN
A1.2 DEMO REFLECTED CEILING PLAN
A1.3 NEW WORK OVERALL PLAN
A1.4 NEW WORK REFLECTED CEILING PLAN
A1.5 ENLARGED NEW WORK PLAN
A1.6 ENLARGED NEW WORK PLAN
A1.7 EQUIPMENT & FOOD SHIELD PLAN
A1.8 EQUIPMENT SCHEDULE
A2.1 ELEVATIONS
A2.2 ELEVATIONS
A2.3 ELEVATIONS
A2.4 SECTIONS
A2.5 SECTIONS
A2.6 WALL TYPES
A3.1 FINISH + TILE SCHEDULES
A3.2 FINISH PLAN
A3.3 ADDITIVE BID – FLOOR FINISH PLAN
A4.1 COUNTER SUPPORT FRAME

Plumbing:
P1.1 PLUMBING LEGEND AND NOTES
P1.2 DEMO FLOOR PLAN PLUMBING
P1.3 FLOOR PLAN - PLUMBING
P1.4 FLOOR PLAN - GAS

Mechanical:
M1.1 HVAC LEGEND AND NOTES
M1.2 DEMO FLOOR PLAN - HVAC
M1.3 FLOOR PLAN - HVAC

Electrical:
E1.1 ELECTRICAL LEGEND AND NOTES
E1.2 DEMO FLOOR PLAN - ELECTRICAL
E1.3 FLOOR PLAN - LIGHTING
E1.4 FLOOR PLAN - POWER

END OF SECTION 01000

ADDENDUM 2 - ATTACHMENT C.

Virginia Tech

1 8 7 2

RENOVATIONS TO OWENS HALL

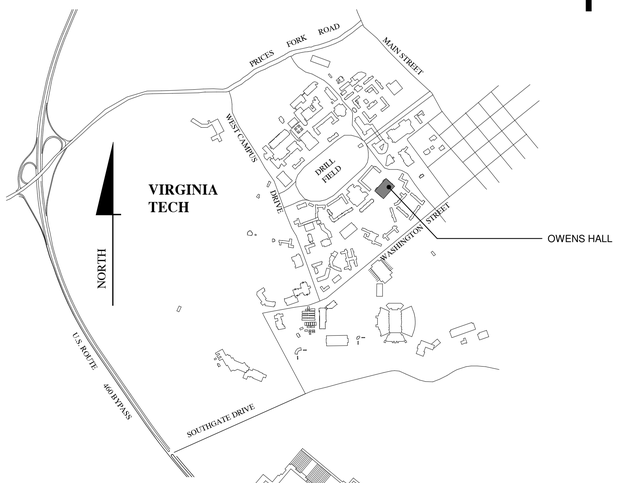
FOOD COURT - SERVING LINE

BUILDING # 195
PROJECT CODE # R-2018-15
IFB # 0058040

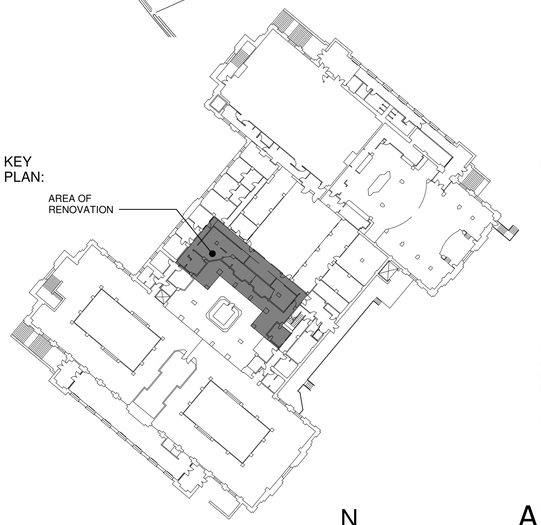
DIVISION OF STUDENT AFFAIRS -
DINING SERVICES

OCTOBER . 05. 2018

LOCATION MAP:



KEY PLAN:



OWENS HALL
FIRST FLOOR

N

PREPARED BY:

colley
architects pc
design | community | environment

SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725
CONTACT: TIM COLLEY , AIA
INFO@COLLEYARCH.COM

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers

15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410

BID SET
ADDENDUM 2

ASBESTOS AND LEAD DISCLOSURE: 1

AN ASBESTOS INSPECTION WAS PERFORMED AND NO ACM WAS FOUND. THE ASBESTOS INSPECTION REPORT IN INCLUDED AS AN APPENDIX TO THE PROJECT SPECIFICATIONS.

AN INSPECTION TO IDENTIFY LEAD CONTAINING OR COATED BUILDING COMPONENTS HAS BEEN CONDUCTED AND CAN BE FOUND IN THE PROJECT SPECIFICATIONS. THIS REPORT IS PROVIDED FOR THE CONTRACTOR'S USE AND MAY NOT BE ALL INCLUSIVE. IT IS THE CONTRACTOR'S RESPONSIBILITY TO COMPLY WITH ALL VIRGINIA OCCUPATIONAL SAFETY AND HEALTH (VOSH) REGULATIONS AS THEY PERTAIN TO EMPLOYEE EXPOSURES TO LEAD. ALL LEAD AND LEAD-COATED BUILDING COMPONENTS SHALL BE RECYCLED TO THE EXTENT POSSIBLE.

SHEET INDEX 1

		95% / BID SET 10.05.18	*ADDENDUM 2 10.22.18
T1	COVER SHEET	X	X
T2	GENERAL NOTES + INFORMATION	X	X
LS1	LIFE SAFETY PLAN & BUILDING CODE DATA	X	X
A1.1	DEMO PLAN	X	X
A1.2	DEMO REFLECTED CEILING PLAN	X	X
A1.3	NEW WORK OVERALL PLAN	X	X
A1.4	NEW WORK REFLECTED CEILING PLAN	X	X
A1.5	ENLARGED NEW WORK PLAN	X	X
A1.6	ENLARGED NEW WORK PLAN	X	X
A1.7	EQUIPMENT & FOOD SHIELD PLAN	X	X
A1.8	EQUIPMENT SCHEDULE	X	X
A2.1	ELEVATIONS	X	X
A2.2	ELEVATIONS	X	X
A2.3	ELEVATIONS	X	X
A2.4	SECTIONS	X	X
A2.5	SECTIONS	X	X
A2.6	WALL TYPES	X	X
A3.1	FINISH + TILE SCHEDULES	X	X
A3.2	FINISH PLAN	X	X
A3.3	ADDITIVE BID - FLOOR FINISH PLAN		X
A4.1	COUNTER SUPPORT FRAME		X
P1.1	PLUMBING LEGEND AND NOTES	X	X
P1.2	DEMO FLOOR PLAN PLUMBING	X	X
P1.3	FLOOR PLAN - PLUMBING	X	X
P1.4	FLOOR PLAN - GAS	X	X
M1.1	HVAC LEGEND AND NOTES	X	X
M1.2	DEMO FLOOR PLAN - HVAC	X	X
M1.3	FLOOR PLAN - HVAC	X	X
E1.1	ELECTRICAL LEGEND AND NOTES	X	X
E1.2	DEMO FLOOR PLAN - ELECTRICAL	X	X
E1.3	FLOOR PLAN - LIGHTING	X	X
E1.4	FLOOR PLAN - POWER	X	X

* ADDENDUM 2 WAS REISSUED IN ITS ENTIRETY. REVISIONS TO SHEETS HAVE BEEN CLOUDED. NOT ALL SHEETS HAVE BEEN REVISED.

OCTOBER . 05. 2018

REVISIONS DATE
ADDENDUM 2 10.22.18

colley
architects pc
design | community | environment

VIRGINIA POLYTECHNIC INSTITUTE & STATE UNIVERSITY

RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

Virginia Tech

SHEET
T1

ADDENDUM 2 - ATTACHMENT C.

ABBREVIATIONS

@	AT	INSUL	INSULATION
ACT	ACOUSTICAL CEILING TILE	INT	INTERIOR
ADJ	ADJUSTABLE		
AFF	ABOVE FINISHED FLOOR	KIT	KITCHEN
AHU	AIR HANDLING UNIT		
ALT	ALTERNATE	LAM	LAMINATE
ALUM	ALUMINUM	LAV	LAVATORY
APPR	APPROXIMATE	LBS	POUNDS
AVG	AVERAGE	LF	LINEAR FOOT/FEET
AWP	ACOUSTICAL WALL PANEL	LVR	LOUVER
BLDG	BUILDING	MAT'L	MATERIAL
BLK	BLOCK	MAX	MAXIMUM
BOT	BOTTOM	MECH	MECHANICAL
BRK	BRICK	MFR	MANUFACTURER
BTWN	BETWEEN	MIN	MINIMUM
		MIR	MIRROR
CAB	CABINET	MISC	MISCELLANEOUS
CJ	CONTROL JOINT	MTL	METAL
CLG	CEILING	NIC	NOT IN CONTRACT
CLOS	CLOSET	NO	NUMBER
CLR	CLEAR	NOM	NOMINAL
CMU	CONCRETE MASONRY UNIT	NTS	NOT TO SCALE
COL	COLUMN		
CONC	CONCRETE	OC	ON CENTER
CONT	CONTINUOUS	OFCI	OWNER FURNISHED
CTL	CARPET TILE		CONTRACTOR
CT	CERAMIC TILE		INSTALL
DEMO	DEMOLISH, DEMOLITION	PC	PRECAST
DEPT	DEPARTMENT	PERF	PERFORATED
DF	DRINKING FOUNTAIN	PLAM	PLASTIC LAMINATE
DIAG	DIAGONAL	PLYWD	PLYWOOD
DIM	DIMENSION	PNL	PANEL
DN	DOWN	PREFAB	PREFABRICATED
DWG	DRAWING	PREFIN	PREFINISHED
		PREP	PREPARE
EA	EACH	PT	PAINT
EIFS	EXTERIOR INSULATION		
	AND FINISH SYSTEM	QT	QUARRY TILE
ELEC	ELECTRICAL	QTY	QUANTITY
EPS	EXPANDED POLYSTYRENE		
EQ	EQUAL	RB	RUBBER BASE
EQUIP	EQUIPMENT	RD	ROOF DRAIN
EXIST	EXISTING	REF	REFERENCE
EXT	EXTERIOR	REFG	REFRIGERATOR
		REQD	REQUIRED
FD	FLOOR DRAIN	RM	ROOM
FF	FINISHED FLOOR	RT	RUBBER TILE
FLR	FLUORESCENT		
FLUR		SIM	SIMILAR
FRP	FIBERGLASS REINFORCED	SPEC	SPECIFICATION
	PLASTIC	SQ	SQUARE
FRT	FIRE RETARDANT TREATED	SS	STAINLESS STEEL
FT	FOOT, FEET	STD	STANDARD
FURR	FURRING	STL	STEEL
		STOR	STORAGE
GA	GAUGE	SUSP	SUSPENDED
GAL	GALLON		
GALV	GALVANIZED	THK	THICKNESS
GB	GRAB BAR	TYP	TYPICAL
GC	GENERAL CONTRACTOR		
GFCMU	GROUND FACE CONCRETE	VAC	VACUUM
	MASONRY UNIT	VB	VAPOR BARRIER/
GL	GLASS		VINYL BASE
GYP	GYPSUM	VCT	VINYL COMPOSITION
			TILE
HBD	HARDBOARD	VEST	VESTIBULE
HDR	HEADER		
HM	HOLLOW	WB	WOOD BASE
HR	HOUR	WC	WATER CLOSET
HT	HEIGHT	WGL	WIRE GLASS
HVAC	HEATING, VENTILATING,	WH	WATER HEATER
HW	AIR CONDITIONING	W/O	WITHOUT
	HOT WATER	WSCT	WAINSCOT
		WT	WEIGHT
IN	INCH		
INFO	INFORMATION		
INST	INSTALLATION		

△1

DESIGN STANDARDS:

VIRGINIA TECH DESIGN GUIDELINES AND CONSTRUCTION STANDARDS

VUSBC	VIRGINIA UNIFORM STATEWIDE BUILDING CODE
ANSI 117.1-2009	ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES
AGA	AMERICAN GAS ASSOCIATION
AMCA	AIR MOVEMENT AND CONTROL ASSOCIATION
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
ARI	AIR-CONDITIONING AND REFRIGERATION INSTITUTE
ASHRAE	AMERICAN SOCIETY OF HEATING REFRIGERATING AND AIR CONDITIONING ENGINEERS
ASPE	AMERICAN SOCIETY OF PLUMBING ENGINEERS
ASSE	AMERICAN SOCIETY OF SANITARY ENGINEERING
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS
IEEE	INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS
MCA	MECHANICAL CONTRACTORS ASSOCIATION
NEC	NATIONAL ELECTRICAL CODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
PDI	PLUMBING AND DRAINAGE INSTITUTE
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
UL	UNDERWRITERS LABORATORIES, INC.

DISPOSAL OF MATERIALS

1. CONTRACTOR SHALL DELIVER ALL SOLID WASTE COLLECTED ON VIRGINIA TECH PROPERTIES TO MONTGOMERY REGIONAL SOLID WASTE AUTHORITY TRANSFER STATION.

GENERAL NOTES

1. ALL CONSTRUCTION, MATERIALS, AND WORKMANSHIP SHALL COMPLY WITH THE BUILDING & PROJECT CODE DATA REFERENCED ON SHEET LS1.

2. ALL WORK TO COMPLY WITH THE VIRGINIA TECH DESIGN AND CONSTRUCTION STANDARDS, REVISED AUGUST 2006.

3. CONTRACTOR MUST FAMILIARIZE THEMSELVES WITH THE PROJECT SITE PRIOR TO SUBMITTING THEIR BID. AS PART OF THE BASE BID CONTRACTOR SHALL INCLUDE PATCHING ANY EXISTING HOLES & PENETRATIONS THROUGH FIRE AND SMOKE WALLS AND BARRIERS IN AREAS OF WORK TO MEET OR EXCEED THE REQUIRED FIRE ASSEMBLY RATING. ALL NEW PENETRATIONS, AS WELL AS EXISTING PENETRATIONS READILY DISCOVERABLE DURING THE COURSE OF PREBID SITE INVESTIGATION, TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. EXISTING NON-DISCOVERABLE PENETRATIONS UNCOVERED DURING THE COURSE OF DEMOLITION TO BE BROUGHT TO THE ATTENTION OF VIRGINIA TECH. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ADJACENT SURFACES. FOLLOW UL ASSEMBLY C-AJ-1140, AS REQUIRED.

4. CONTRACTOR SHALL PROVIDE ALL LABOR, MATERIALS, AND ACCESSORIES FOR WORK INDICATED HEREIN, UNLESS NOTED OTHERWISE. WORK SHALL BE COMPLETE AND IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS, MANUFACTURER'S RECOMMENDATIONS, GENERALLY ACCEPTED INDUSTRY STANDARDS OF WORKMANSHIP AND CARE, AND AS REQUIRED FOR A FINISHED INSTALLATION AND TO OBTAIN A CERTIFICATE OF OCCUPANCY.

5. SUBMITTALS ARE REVIEWED ONLY AS TO GENERAL CONFORMITY WITH DESIGN CONCEPT OF THE PROJECT AND GENERAL COMPLIANCE WITH THE INFORMATION GIVEN IN THE CONTRACT DOCUMENTS. CORRECTIONS AND/OR COMMENTS MADE AS PART OF THIS SUBMITTAL REVIEW DO NOT RELIEVE THE CONTRACTOR OF RESPONSIBILITY FROM CONFORMANCE WITH THE CONTRACT DOCUMENTS, APPLICABLE CODES, AND LAWS - ALL OF WHICH HAVE PRIORITY OVER SPECIFIC SUBMITTAL. THE DESIGN PROFESSIONAL DOES NOT WARRANT OR REPRESENT THAT THE INFORMATION WITHIN THE SUBMITTAL IS EITHER ACCURATE OR COMPLETE. SOLE RESPONSIBILITY FOR CORRECT DESIGN, DETAILS, AND DIMENSIONS SHALL REMAIN WITH THE PARTY PROVIDING THE SUBMITTAL. CONTRACTOR IS RESPONSIBLE FOR ALL DIMENSIONS, QUANTITIES, AND PERFORMANCE REQUIREMENTS TO BE CONFIRMED AND CORRELATED AT THE JOB SITE; FOR ALL INFORMATION THAT PERTAINS SOLELY TO THE FABRICATION PROCESSES OR TO THE TECHNIQUES OF CONSTRUCTION; FOR ALL COORDINATION OF THE WORK OF ALL TRADES; FOR ASSURING CONSISTENCY WITH THE CONTRACT DOCUMENTS; AND FOR PERFORMING THE WORK IN A SAFE AND SATISFACTORY MANNER.

6. EXISTING SQUARE FOOTAGES, DIMENSIONS, TYPES/LOCATIONS OF FIRE-RESISTANCE RATED ASSEMBLIES, AND SIZES/LOCATIONS OF EXISTING EQUIPMENT ARE APPROXIMATE. CONTRACTOR IS RESPONSIBLE FOR THE FIELD VERIFICATION OF ALL SITE CONDITIONS PRIOR TO SUBMITTING A BID. IF CONDITIONS IN FIELD DIFFER FROM THOSE SHOWN, NOTIFY OWNER/ARCHITECT IMMEDIATELY.

7. PROJECT PERMIT WILL BE ISSUED LOCALLY AND INSPECTED BY VIRGINIA TECH PERSONNEL.

8. CONTRACTOR IS SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, SEQUENCING, SITE SAFETY, AND SECURITY FOR THE DURATION OF THE PROJECT.

9. CONTRACTOR SHALL VERIFY THE AVAILABILITY OF EXISTING FACILITIES AND UTILITIES AT THE PROJECT SITE PRIOR TO SUBMITTING A BID. COSTS ASSOCIATED WITH THE USE OF EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

10. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF WORK WITH THE OWNER'S ACTIVITIES AND OTHER TRADES INVOLVED WITH WORK AT THE PROJECT SITE. CONTRACTOR SHALL COORDINATE WORK INCLUDING BUT NOT LIMITED TO ADDITION TO/MODIFICATION OF EXISTING MECHANICAL, ELECTRICAL, PLUMBING, AUTOMATIC SPRINKLER, FIRE ALARM AND FIRE DETECTION SYSTEMS, AND COMMUNICATIONS NETWORK SERVICES (NI&S), AS REQUIRED FOR FINISHED AND FULLY FUNCTIONAL INSTALLATIONS.

11. FIRE-RESISTANCE ASSEMBLIES REQ'D. IN ACCORDANCE WITH ASTME 814 (UL1479) & ASTME 1966 (UL 2079). FIRESTOPPING EQUAL TO 3M COMPANY TYPE CP-25WB+ (WATER BASED AND HALOGEN FREE) NO SAG INTUMESCENT FIRE BARRIER SEALANT, TYPE FS-195+ PIPE WRAP/ STRIP FIRE BARRIER OR CS-195 COMPOSITE SHEET FIRE BARRIER. CONTRACTOR TO INSTALL REQUIRED RATED ASSEMBLY MATERIALS IN STRICT ADHERENCE TO ONE OF THE FOLLOWING UL RATED ASSEMBLIES: C-AJ-1044, C-AJ-1176, C-AJ-1556, C-AJ-2006, C-AJ-2228, C-AJ-3030, C-AJ-3096, C-AJ-5001, C-AJ-7016, W-L-1001, W-L-1054, W-L-2003, W-L-3001, W-L-3065, W-L-5001, W-L-7008, W-L-7051, W-L-7130, OR W-L-8079. THE CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY IF THEY ENCOUNTER A CONDITION NOT COVERED BY ONE OF THE UL ASSEMBLIES LISTED ABOVE. THE APPROPRIATE AMOUNT OF RATED ASSEMBLY MATERIALS SHALL BE BASED ON THE FIRE SEPARATION RATINGS LISTED ON THE BUILDING & PROJECT CODE DATA SHEET LS1 AND THE ATTACHED DRAWINGS. PROVIDE RESTRAINING COLLARS, FASTENERS, AND ALL OTHER COMPONENTS REQUIRED FOR A UL LISTED THROUGH-PENETRATION FIRESTOPPING ASSEMBLY SUITABLE FOR USE IN RATED CONSTRUCTION. CONTRACTOR SHALL SUBMIT UL DESIGNS AND PRODUCT INFORMATION FOR ALL COMPONENTS OF ALL PROPOSED FIRESTOPPING ASSEMBLIES TO THE ARCHITECT & VIRGINIA TECH UNIVERSITY BUILDING OFFICIAL FOR APPROVAL PRIOR TO INCORPORATION INTO WORK. ALL THROUGH-PENETRATION FIRESTOPPING SYSTEMS SHALL BE INSTALLED IN STRICT ACCORDANCE WITH ALL DETAILS OF THE UL LISTING. CONTRACTOR TO RETAIN ALL UL ASSEMBLY INSTRUCTIONS USED IN PROJECT ON SITE AT ALL TIMES.

12. CONTRACTOR SHALL LABEL ALL CONCEALED FIRE WALLS, VERTICAL FIRE SEPARATION ASSEMBLIES, FIRE BARRIERS, FIRE PARTITIONS AND SMOKE BARRIERS ON ASSEMBLIES ABOVE CEILINGS AND ON INSIDE SURFACES OF ALL CEILING ACCESS DOORS PROVIDING ACCESS TO SUCH FIRE RATED ASSEMBLIES. REFERENCE DRAWINGS FOR ASSEMBLY RATING DESIGNATIONS AND TYPES. ALL LETTERING TO BE IN A CONTRASTING AND HIGHLY VISIBLE COLOR TO SURFACE, 3 IN. TALL (1 INCH MIN.) CAPITAL CASE, AND PROVIDED AT HORIZONTAL INTERVALS OF NO MORE THAN 8 FEET.

13. ALL WORK THAT REQUIRES DISABLING OF FIRE AND OTHER EMERGENCY SYSTEMS SHALL BE COORDINATED THROUGH THE VIRGINIA TECH PROJECT MANAGER AND ALL RESPECTIVE VIRGINIA TECH DEPARTMENTS HAVING JURISDICTION PRIOR TO COMMENCING. CONTRACTOR SHALL PROVIDE FIRE ALARM SYSTEM MODIFICATIONS AND FINAL TESTING, INCLUDING VERIFICATION OF THE FINAL CONNECTION AND INTERACTIONS WITH THE EXISTING EMERGENCY AND FIRE SUPPRESSION SYSTEMS AND DEVICES. FINAL TESTING SHALL BE PROVIDED & COORDINATED BY CONTRACTOR AND OBSERVED BY THE DEPUTY STATE FIRE MARSHALL & VIRGINIA TECH UNIVERSITY BUILDING OFFICIAL.

14. MAINTAIN ANY EXISTING FIRE RESISTANCE RATINGS OF STRUCTURAL ELEMENTS AND FIRE SEPARATION ASSEMBLY RATINGS INDICATED BETWEEN NEW WORK AND EXISTING AREAS AND OCCUPANCIES FOR THE DURATION OF THE PROJECT.

15. IF A CONFLICT BETWEEN CONSTRUCTION DOCUMENTS, CODE REQUIREMENTS, AND/OR MANUFACTURER'S DATA SHOULD ARISE, THE MORE STRINGENT SHALL PREVAIL.

16. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING OF STRUCTURAL MEMBERS AND EXISTING & TEMPORARY STRUCTURES AS REQUIRED FOR THE DURATION OF THE WORK. IF CONDITIONS IN FIELD DIFFER FROM THOSE SHOWN, NOTIFY ARCHITECT/ENGINEER IMMEDIATELY.

GENERAL NOTES

18. CONTRACTOR SHALL BE RESPONSIBLE FOR DAILY CLEANUP AND REMOVAL OF DEBRIS FROM SITE.

19. THE CONTRACTOR SHALL COMPLY WITH "VIRGINIA TECH'S SAFETY REQUIREMENTS FOR CONTRACTORS AND SUBCONTRACTORS" PROGRAM WHICH IS INCORPORATED HEREIN BY REFERENCE. A COPY OF THIS PROGRAM IS AVAILABLE FROM THE OWNER OR VIRGINIA TECH ENVIRONMENTAL HEALTH AND SAFETY AT 540-231-3600.

20. CONTRACTOR SHALL ENFORCE THE USE OF PERSONAL PROTECTIVE EQUIPMENT AS REQUIRED BY OSHA FOR INDUSTRIAL HIGH NOISE AREAS.

21. CONTRACTOR'S PERSONNEL SHALL CONDUCT THEMSELVES PROPERLY & MAINTAIN PROPER ATTIRE AT ALL TIMES.

22. NO ASBESTOS CONTAINING MATERIALS SHALL BE USED IN THE COURSE OF THIS WORK.

23. CONTRACTOR SHALL PROTECT COMPLETED WORK FROM DAMAGE FROM ADJACENT ACTIVITIES OR INCLEMENT WEATHER AT ALL TIMES. ITEMS DAMAGED BY CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S EXPENSE & TO SATISFACTION OF OWNER.

24. ALL ROOMS & AREAS ADJOINING WORK AREA TO BE PROTECTED DURING DEMOLITION WORK. CONTRACTOR RESPONSIBLE TO REPAIR, REPLACE AND RESTORE ANY DAMAGE RESULTING FROM WORK TO THE SATISFACTION OF OWNER, AND AT NO ADDITIONAL EXPENSE TO THE OWNER.

25. PRIOR TO ANY CORE DRILLING, CONTRACTOR SHALL PROPERLY SURVEY THE EXISTING FLOOR USING X-RAY, GPR, OR OTHER ACCEPTABLE METHOD TO LOCATE REBAR, STRUCTURAL MEMBERS, IN-SLAB UTILITIES, OR OTHER IN-SLAB OBSTRUCTIONS. ALL CORES TO BE RETAINED & PROVIDED TO THE UNIVERSITY BUILDING OFFICIAL FOR INSPECTION. NOTIFY VIRGINIA TECH RENOVATIONS PROJECT MANAGER AND UNIVERSITY BUILDING OFFICIAL IF ANY REBAR IS CUT OR DAMAGED. ANY STRUCTURAL REMEDIATION REQUIRED DUE TO CONTRACTOR'S NEGLIGENCE SHALL BE PERFORMED BY CONTRACTOR AT NO ADDITIONAL CHARGE TO VIRGINIA TECH.

26. SURFACE FLATNESS FOR ALL CONCRETE SUBFLOORS: GENERAL CONTRACTOR SHALL PATCH AND REPAIR ALL CRACKS, VOIDS AND OTHER IMPERFECTIONS WITH HIGH STRENGTH PORTLAND CEMENT BASED PATCHING MATERIALS. THIS WORK SHALL ALSO INCLUDE REMOVAL OF HIGH SPOTS. SUBFLOOR PREPARATION TO MEET OR EXCEED MANUFACTURER'S SPECIFIC INSTALLATION REQUIREMENTS FOR SPECIFIED FLOORING FINISHES. FOR RESILIENT FLOORING FINISHES, GENERAL CONTRACTOR SHALL PROVIDE A SMOOTH, FLAT, FINISH-READY CONCRETE FLOOR WITH A MAXIMUM TOLERANCE OF +/- 1/8 INCH IN A 10 FOOT RADIUS, PER ASTM F170.

27. ALL NEW & EXIST. GLAZING IN AREAS OF SCOPE OF WORK SHALL BE PROFESSIONALLY CLEANED ON ALL SIDES. CLEANLINESS OF GLAZING TO BE MAINTAINED THROUGH FINAL COMPLETION.

28. INSTALLATION OF METAL FRAMING & MODIFICATIONS TO FRAMING MEMBER SHALL COMPLY WITH VUSBC SECTIONS 2210 & 2211. ALL FRAMING MEMBERS SHALL BE CONTINUOUS LENGTH SINGLE MEMBERS. SPLICING SHALL BE PER ENGINEERED SPECIFICATION & REQUIRES APPROVAL OF UNIVERSITY BUILDING OFFICIAL PRIOR TO INSTALLATION.

29. APPARENT LOW BIDDER SHALL SUBMIT A CONSTRUCTION SCHEDULE FOR OWNER REVIEW WITHIN 5 DAYS OF NOTIFICATION OF LOW BID. THE SCHEDULE SHALL BE BASED UPON THE CRITICAL PATH METHOD IN PDF FORMAT. FAILURE TO SUBMIT SCHEDULE WITHIN TIME NOTED MAY DEEM THE BID AS NON-RESPONSIVE. SCHEDULE MUST BE AGREED UPON PRIOR TO COMMENCEMENT OF WORK.

CLOSE OUT DOCUMENTS

1. CONTRACTOR SHALL PROVIDE ONE (1) COMPREHENSIVE SET OF AS-BUILT DRAWINGS DOCUMENTING IN RED INK ALL AS-BUILT CONDITIONS. AS-BUILT DRAWINGS MARKUPS SHALL BE CLEARLY LEGIBLE ON THE ORIGINAL, UNIVERSITY BUILDING OFFICIAL APPROVED AND STAMPED CONTRACT DOCUMENTS, AND MAINTAINED IN GOOD ORDER AND GOOD CONDITION. MARKUPS TO INCLUDE ALL REPRESENTED DISCIPLINES ON THEIR SPECIFIC SHEETS. AS-BUILT DRAWINGS TO INCLUDE, BUT NOT LIMITED TO, ALL DEVIATIONS FROM CONTRACT DOCUMENT LAYOUTS; LOCATIONS & QUANTITIES OF PIPING, UTILITIES, DEVICES, FIXTURES, ETC.; SPECIFICATIONS, ETC.; RATED ASSEMBLIES, FIRE DAMPERS, ETC.; RFI'S, CHANGE ORDERS, ETC.

2. CONTRACTOR TO PROVIDE OWNER WITH THREE (3) COPIES OF ALL REQUIRED OPERATION AND MAINTENANCE (O&M) MANUALS PRIOR TO PROJECT COMPLETION. MANUALS TO BE IN HARD-BACKED, VINYL, 3-RING BINDERS W/ ONE INCH (1") MINIMUM SPINES. MANUALS SHALL INCLUDE, BUT NOT LIMITED TO, ALL APPROVED SUBMITTAL ITEMS, APPROVED SHOP DRAWINGS, RFI'S W/ ANSWERS, FINAL TAB REPORTS & OTHER ITEMS APPROPRIATE FOR A COMPREHENSIVE REFERENCE DOCUMENT FOR THE LIFE OF THE BUILDING AREA, ETC. GENERAL CONTRACTOR TO ALSO PROVIDE O&M MANUAL IN DIGITAL FORMAT ON A SINGLE CD, TWO (2) COPIES. FORMAT OF DIGITAL COPIES SHALL BE IDENTICAL TO FORMAT OF MANUAL COPIES. MANUAL COPY FORMAT TO INCLUDE :
A - COVER PAGE WITH PROJECT TITLE, PROJECT NUMBER, GENERAL CONTRACTOR, DATE MANUALS PROVIDED.
B - TABLE OF CONTENTS W/ CATEGORIES FOR ARCHITECTURAL, PLUMBING, MECHANICAL & ELECTRICAL ITEMS.
C - TABBED SECTIONS FOR EACH CATEGORY. TABBED SECTIONS TO INCLUDE MANUFACTURER CUT SHEETS FOR ALL FIXTURES, DEVICES, CONTROLS, ACCESSORIES FINISHES, ADHESIVES/MORTARS/GROUTS.

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3. CONTRACTOR SHALL PROVIDE OWNER WITH COMPLETED CO-13 AFFIDAVIT OF PAYMENT OF CLAIMS, HECO-13.2 CERTIFICATE OF COMPLETION BY CONTRACTOR, HECO-13.2A CERTIFICATE OF PARTIAL OR SUBSTANTIAL COMPLETION BY CONTRACTOR.

4. CONTRACTOR SHALL PROVIDE ADDITIONAL ATTIC STOCK OF FINISH MATERIALS FOR FUTURE USE AND ONE (1) COMPREHENSIVE ATTIC STOCK LIST AS STIPULATED BELOW. ALL ATTIC STOCK MATERIALS AND THE ATTIC STOCK LIST SHALL BE DELIVERED TO OWNER AT ONE TIME AND SHALL BE SIGNED BY GENERAL CONTRACTOR AND PROJECT MANAGER AT THE TIME OF DELIVERY AND RECEIPT. ATTIC STOCK LIST SHALL INDICATE DESCRIPTIONS AND REQUIRED QUANTITIES OF MATERIALS LISTED BELOW :
A - ONE (1) GAL OF EACH PAINT, STAIN, & POLYURETHANE TYPE, COLOR, & FINISH.
B - FULL TILES OF CERAMIC & PORCELAIN FINISHES EQUAL TO AT LEAST FIVE PERCENT (5%) OF EACH TYPE, SIZE, & COLOR, BUT NOT LESS THAN FIVE (5) FULL TILES OF EACH TYPE, SIZE, & COLOR.
C - FULL TILES OF FLOORING FINISHES EQUAL TO AT LEAST FIVE PERCENT (5%) OF EACH TYPE, SIZE & COLOR, BUT NOT LESS THAN FIVE (5) FULL TILES OF EACH TYPE, SIZE, & COLOR.
D - FULL WIDTH OF ROLLED GOODS OF FLOORING FINISHES EQUAL TO AT LEAST FIVE PERCENT (5%) OF EACH TYPE, SIZE & COLOR, BUT NOT LESS THAN SIX FEET (6 FT.) IN LENGTH OF FULL WIDTH OF EACH ROLLED GOOD.
E - FIVE PERCENT (5%) MINIMUM OF EACH RUBBER BASE SIZE, TYPE & COLOR, BUT NOT LESS THAN TEN (10) CONTINUOUS LINEAR FEET OF EACH SIZE, TYPE & COLOR.
F - FULL CEILING PANELS EQUAL TO AT LEAST FIVE PERCENT (5%) OF EACH TYPE, SIZE & COLOR, BUT NOT LESS THAN FIVE (5) FULL PANELS OF EACH TYPE, SIZE & COLOR.
G - PROVDIE ONE (1) ADDITTIONAL FIXTURE OF EACH HEAT LAMP TYPE. TO INCLUDE HEAT LAMP FIXTURES AND LUMINARE FIXTURES.

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GENERAL NOTES

PLUMBING / MECHANICAL / ELECTRICAL

GENERAL:

1. CONTRACTOR SHALL BE RESPONSIBLE FOR LABOR, MATERIALS, EQUIPMENT, ANCHORAGE TO STRUCTURE, AND CONNECTIONS REQUIRED FOR THE INSTALLATION OF A COMPLETE AND FUNCTIONAL SYSTEM.

2. CONTRACTOR SHALL COORDINATE WORK WITH THE INSTALLED WORK OF OTHER TRADES.

3. VERIFY "ROUGH-IN" LOCATIONS WITH OWNER PRIOR TO FINAL INSTALLATION.

4. PIPING, DUCTWORK, AND OTHER EQUIPMENT SHALL BE SUPPORTED BY OR ANCHORED TO THE BUILDING STRUCTURE. NON-STRUCTURAL CEILING CONSTRUCTION, NEW OR EXISTING, SHALL NOT BE USED FOR ANCHORING ANY WORK.

5. SYSTEMS AND ACCESSORIES SHALL BE INSTALLED IN A NEAT MANNER CONSISTENT WITH INDUSTRY STANDARDS OF QUALITY AND CARE.

6. CONTRACTOR IS RESPONSIBLE FOR RELOCATING ANY & ALL PIPES, CONDUIT, ELECTRICAL OR OTHER INFRASTRUCTURE ITEMS AS A RESULT OF THEIR BEING UNCOVERED DURING EXECUTION OF THE WORK.

PLUMBING:

1. PLUMBING DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2012 EDITION OF THE INTERNATIONAL PLUMBING CODE (IPC), INCLUDING REFERENCED CODES AND STANDARDS, AND THE REQUIREMENTS OF LOCAL BUILDING OFFICIALS.

2. PLUMBING CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS, AND FIELD CONDITIONS PRIOR TO INSTALLATION.

3. CONTRACTOR SHALL COORDINATE WATER SHUTOFF WITH VIRGINIA TECH PROJECT MANAGER & VIRGINIA TECH UTILITIES FOR INSTALLATION OF VALVES. NOTIFY OWNER FIVE (5) DAYS IN ADVANCE.

4. UPON COMPLETION OF WORK, PLUMBING CONTRACTOR SHALL CONDUCT A TEST. IN THE PRESENCE OF OWNER/ARCHITECT WITH ALL EQUIPMENT AND CONTROLS IN NORMAL OPERATING POSITION. THE SYSTEM SHALL OPERATE QUIETLY & PROPERLY. ADJUSTMENTS AND CORRECTIONS SHALL BE MADE UNTIL SATISFACTORY OPERATION IS ACHIEVED.

5. CONTRACTOR SHALL PROVIDE DOCUMENTATION VERIFYING EXISTING SPRINKLER SYSTEMS ARE COMPLIANT FOR THE REQUIREMENTS OF NEW WORK. FOR SPRINKLER SYSTEMS REQUIRING MODIFICATION, CONTRACTOR SHALL PROVIDE STAMPED & SEALED DRAWINGS BY A PROFESSIONAL ENGINEER LICENSED BY THE COMMONWEALTH OF VIRGINIA FOR UNIVERSITY BUILDING OFFICIAL APPROVAL PRIOR TO EXECUTION OF WORK. CONTRACTOR TO COORDINATE ALL FINAL LOCATIONS FOR EXISTING, MODIFIED AND NEW SPRINKLER HEADS WITH ARCHITECT PRIOR TO SUBMITTING DRAWINGS TO UNIVERSITY BUILDING OFFICIAL. CONTRACTOR SHALL MAKE ALL APPROVED MODIFICATIONS TO EXISTING SPRINKLER SYSTEMS.

MECHANICAL:

1. MECHANICAL DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2012 EDITION OF THE INTERNATIONAL MECHANICAL CODE (IMC), INCLUDING REFERENCED CODES AND STANDARDS, AND THE REQUIREMENTS OF LOCAL BUILDING OFFICIALS.

2. MECHANICAL EQUIPMENT LOCATIONS SHOWN FOR DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS, AND FIELD CONDITIONS PRIOR TO INSTALLATION.

3. SHOP DRAWINGS TO BE PROVIDED FOR APPROVAL FOR ALL DUCTWORK.

4. ALL EXISTING, UNSEALED DUCTWORK IN AREA OF WORK THAT IS READILY DISCOVERABLE DURING THE COURSE OF PRE-BID SITE INVESTIGATIONS SHALL BE SEALED & INSULATED PER 2012 IMC.

ELECTRICAL:

1. COORDINATE WITH ARCHITECT THE EXACT LOCATION OF ANY FIXTURES, ACCESSORIES, OUTLETS, SWITCHES, ETC. PRIOR TO INSTALLATION.

2. ELECTRICAL DESIGN AND INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2011 EDITION OF THE NATIONAL ELECTRICAL CODE (NEC), INCLUDING REFERENCED CODES AND STANDARDS, UTILITY COMPANY REGULATIONS, AND THE REQUIREMENTS OF LOCAL BUILDING OFFICIALS.

3. ELECTRICAL EQUIPMENT LOCATIONS SHOWN FOR DESIGN INTENT ONLY. CONTRACTOR SHALL VERIFY ALL DIMENSIONS, LOCATIONS, AND FIELD CONDITIONS PRIOR TO INSTALLATION.

4. ALL NON-LED LIGHT FIXTURES SHALL BE INSTALLED WITH LAMPS. PROVIDE 10%, BUT NOT LESS THAN FIVE (5), ADDITIONAL LAMPS FOR EACH FIXTURE TYPE FOR FUTURE USE.

5. PROVIDE MEANS OF EGRESS LIGHTING AS INDICATED. MEANS OF EGRESS ILLUMINATION LEVEL SHALL NOT BE LESS THAN 1 FOOT-CANDLE AT FLOOR LEVEL. AN EMERGENCY POWER SYSTEM SHALL PROVIDE POWER FOR A DURATION OF NOT LESS THAN 90 MINUTES AND SHALL ILLUMINATE EXIT ACCESS CORRIDORS, PASSAGEWAYS, AISLES, AND PORTION OF EXTERIOR EXIT DISCHARGE IMMEDIATELY ADJACENT TO EXIT DISCHARGE DOORWAYS.

6. CONTRACTOR TO PROVIDE & INSTALL REQUIRED INFRASTRUCTURE TO ACCOMMODATE NI&S DEVICES, WIRELESS & OTHERWISE. COORDINATE LOCATIONS WITH VA TECH. CONDUITS SHALL EITHER BE CONTINUOUS "HOME-RUN" FROM THE TELECOMMUNICATIONS OUTLET BOX TO THE EQUIPMENT ROOM, OR SHALL BE RUN FROM THE OUTLET BOX AND STUBBED OUT WITHIN ONE FOOT (1 FT.) OF A CABLE TRAY THAT RUNS CONTINUOUSLY TO THE EQUIPMENT ROOM. IN THE CASE OF A RENOVATION WHERE THERE IS NO CABLE TRAY AVAILABLE, THE CONDUIT FOR THE OUTLET BOX SHOULD BE ROUTED TO AN ACCESSIBLE CEILING AREA IN THE CORRIDOR. THE CONTRACTOR SHALL COMPLY WITH "VIRGINIA TECH TELECOMMUNICATIONS INFRASTRUCTURE DESIGN GUIDELINES" WHICH IS INCORPORATED HEREIN BY REFERENCE. THE GUIDELINES MAY BE DOWNLOADED FROM HTTP://WWW.NIS.VT.EDU/ABOUT/PUBLICATINOS/CABLINGSTANDARDS.HTML.

7. EXPOSED CONDUIT AND RACEWAY LOCATIONS TO BE COORDINATED WITH ARCHITECT PRIOR TO INSTALLATION. ALL VERTICAL RUNS TO BE HELD TIGHT TO INSIDE CORNERS TO THE GREATEST EXTENT POSSIBLE.

8. IN ALL AREAS OF WORK, ALL VISIBLE OUTLETS, SWITCHES, AND DATA CONNECTORS WITHIN SCOPE OF WORK, BOTH EXISTING TO REMAIN & NEW, SHALL RECEIVE NEW STAINLESS STEEL FACE PLATES & BLACK DEVICES. ALL FACE PLATES SHALL BE SAME PROFILE, FINISH, AND MANUFACTURER. ORIENT SCREW HEADS VERTICALLY.

9. CONTRACTOR SHALL PROVIDE SUBMITTAL WITH SHOP DRAWINGS FOR ALL NEW FIRE ALARM DEVICES.

GENERAL NOTES

ARCHITECTURAL

1. CONTRACTOR SHALL VERIFY ALL CONDITIONS IN THE FIELD PRIOR TO SUBMITTING A BID.

2. DIMENSIONS SHOWN ARE FROM FACE OF EXISTING CONSTRUCTION TO FACE OF EXISTING CONSTRUCTION. NEW CONSTRUCTION DIMENSIONS ARE TO ROUGH FRAMING.

3. MATCH THICKNESS OF NEW AND COMPLETED/EXISTING CONSTRUCTION.

4. PATCH AND REPAIR ALL EXISTING DAMAGED SURFACES WITH SIMILAR MATERIALS TO MATCH NEW WORK, INCLUDING LEVEL OF FINISH.

5. THE OWNER SHALL BE RESPONSIBLE FOR THE FINAL SELECTION OF ALL FIXTURES, FINISHES, PATTERNS, COLORS, AND STYLES FROM THE FULL RANGE OF MANUFACTURER'S AVAILABLE STANDARDS.

6. COORDINATE WITH OWNER THE EXACT TYPE AND FINISHED LOCATION OF ANY EQUIPMENT, FIXTURES, ACCESSORIES, OUTLETS, SWITCHES, ETC.

7. WOOD PRODUCTS SHALL BE FROM SUSTAINABLE SOURCES, SUCH AS FSC CERTIFIED WOOD OR REGIONALLY HARVESTED OR MANUFACTURED WOOD FROM ABUNDANT SPECIES. WOOD PRODUCTS SHALL BE FREE OF UREA-FORMALDEHYDE BINDERS, COPPER OR ARSENIC.

8. ALL CONCEALED WOOD SHALL BE FIRE RESISTANT TREATED WOOD.

DEMOLITION

1. EXISTING DIMENSIONS, SQUARE FOOTAGES, AND SIZES/LOCATION OF EXISTING EQUIPMENT ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY ALL SITE CONDITIONS PRIOR TO SUBMITTING A BID. IF CONDITIONS IN FIELD DIFFER FROM THOSE SHOWN, NOTIFY OWNER/ARCHITECT IMMEDIATELY.

2. CONTRACTOR SHALL VERIFY THE AVAILABILITY OF EXISTING FACILITIES AND UTILITIES AT THE PROJECT SITE PRIOR TO SUBMITTING A BID. COSTS ASSOCIATED WITH THE USE OF EXISTING UTILITIES SHALL BE THE CONTRACTOR'S RESPONSIBILITY.

3. CONTRACTOR SHALL NOTIFY ALL UTILITIES, INCLUDING BUT NOT LIMITED TO WATER/ SEWER, ELECTRIC, GAS, TELEPHONE, HAVING SERVICE CONNECTIONS TO THE EXISTING BUILDING PRIOR TO DEMOLITION TO ENSURE THAT ANY EQUIPMENT HAS BEEN PROPERLY REMOVED, UNPLUGGED, CAPPED/PLUGGED, OR SEALED AS REQUIRED FOR DEMOLITION AND/OR NEW WORK. CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL, CAPPING/PLUGGING, AND SEALING OF SERVICES REMAINING IN WORK AREAS AS REQUIRED FOR DEMOLITION AND/OR NEW WORK.

4. REMOVE EXISTING ITEMS/MATERIALS AS INDICATED AND REQUIRED FOR NEW WORK.

5. REMOVE DEMOLISHED MATERIALS FROM SITE DAILY AFTER ALLOWING OWNER FIRST RIGHT OF REFUSAL FOR ANY SALVAGEABLE MATERIALS.

6. COORDINATE DEMOLITION AND ITEMS TO BE REMOVED WITH NEW WORK AND ITEMS TO BE REPLACED OR RELOCATED.

7. ANY DOOR LOCK HARDWARE & CORES REMOVED SHALL BE TURNED OVER TO THE VIRGINIA TECH KEY SHOP.

8. EXISTING ITEMS TO BE RELOCATED/REINSTALLED SHALL BE REMOVED, STORED, AND PROTECTED BY CONTRACTOR DURING DEMOLITION ACTIVITIES AS REQUIRED FOR REINSTALLATION. ITEMS DAMAGED BY CONTRACTOR SHALL BE REPLACED WITH EQUAL ITEMS APPROVED BY THE OWNER AND AT CONTRACTOR'S EXPENSE.

9. EXISTING ITEMS AND ADJACENT CONSTRUCTION TO REMAIN IN AREAS OF WORK SHALL BE PROTECTED DURING DEMOLITION ACTIVITIES. ITEMS DAMAGED BY CONTRACTOR SHALL BE REPLACED AT CONTRACTOR'S EXPENSE AND TO THE SATISFACTION OF THE OWNER.

10. NOT USED.

11. CONTRACTOR SHALL PROVIDE ADEQUATE BRACING OF STRUCTURAL MEMBERS AND EXISTING/TEMPORARY STRUCTURES, AND PROVIDE ADDITIONAL SHORING DURING DEMOLITION OF EXISTING WALLS, ETC. AS REQUIRED FOR THE DURATION OF THE PROJECT.

12. NO EXISTING STRUCTURAL MEMBERS ARE TO BE CUT, PENETRATED, OR OTHERWISE ALTERED WITHOUT PRIOR WRITTEN APPROVAL OF ARCHITECT/ENGINEER.

13. NOT USED.

14. THE BUILDING WILL BE IN USE FOR THE DURATION OF THE PROJECT. CONTRACTOR IS RESPONSIBLE FOR THE COORDINATION OF WORK WITH OWNER'S ACTIVITIES AND OTHER TRADES INVOLVED WITH WORK AT THE PROJECT SITE. DISRUPTIVE ACTIVITIES TO BE COORDINATED WITH VIRGINIA TECH PROJECT MANAGER PRIOR TO EXECUTION.

15. CONTRACTOR TO PROVIDE A RATED TEMPORARY DUST PARTITION TO LIMIT DUST & DIRT MIGRATION TO AREAS NOT UNDER THE CONTROL OF THE CONTRACTOR. COORDINATE FINAL PARTITION LOCATIONS W/ ARCHITECT & OWNER. PARTITION SHALL STOP THE SPREAD OF DUST AND DEBRIS INTO FOOD PRODUCTION AREAS. SEAL ANY EXISTING DOOR NOT IN SCOPE OF WORK, BUT LOCATED WITHIN PARTITION ENCLOSURE TO MINIMIZE DUST INFILTRATION.
- 3 5/8" 20GA. MTL. WALLS WITH 5/8" TYPE X GYP. BD. AND TAPED JOINTS ON EACH SIDE
- FIRE RATED POLY WILL BE ALLOWED IN AREAS DIRECTED BY OWNER.
- PHASE CONSTRUCTION OF DUST PARTITION TO MAINTAIN FOOD COURT, BACK CORRIDOR, & FARMS & FIELDS ACCESS THROUGH THE END OF THE SCHOOL YEAR.
- OWNER TO PROVIDE DOORS FOR USE IN DUST PARTITION. GC TO RETURN DOORS TO OWNER AT END OF PROJECT.
- DO NOT PERMANENTLY ATTACH TEMPORARY WALLS TO FLOOR OR CEILING
- CONTRACTOR SHALL REPAIR ANY DAMAGE DUE TO DUST PARTITION WALL TO SURROUNDING EXIST. SURFACES AND FINISHES TO MATCH EXISTING ADJACENT SURFACES.
- DOORS TO BE 3' - 0" WIDTH W/ SELF-CLOSING DEVICES.
- CONTRACTOR SHALL EXPECT TO PHASE CONSTRUCTION OF THE DUST PARTITION.

16. CONTRACTOR SHALL PROVIDE AND MAINTAIN CLEAR PATHS OF EGRESS FOR THE DURATION OF THE WORK.

17. ANY REQUIRED MECHANICAL, ELECTRICAL, AND PLUMBING DEMOLITION TO BE PERFORMED IN, OR AFFECTING THE USE OF, ADJACENT SPACES IN THE BUILDING SHALL BE COORDINATED WITH THE OWNER PRIOR TO THE START OF WORK. A MINIMUM OF FIVE (5) DAYS NOTICE IS REQUIRED PRIOR TO ANY UTILITY SHUTDOWN.

18. MAINTAIN WORKING CONDITION OF ANY EXISTING EMERGENCY & FIRE ALARM SYSTEMS AND COMPONENTS FOR THE DURATION OF THE WORK.

19. MAINTAIN ANY EXISTING FIRE RESISTANCE RATINGS OF STRUCTURAL ELEMENTS AND FIRE SEPARATION ASSEMBLY RATINGS INDICATED BETWEEN NEW WORK AND EXISTING AREAS AND OCCUPANCIES FOR THE DURATION OF THE PROJECT.

colley architects pc
design community | environment

SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

REVISIONS	DATE
ADDENDUM 2	10.22.18

GENERAL NOTES + INFORMATION

Virginia Tech

RENOVATIONS TO OWENS HALL

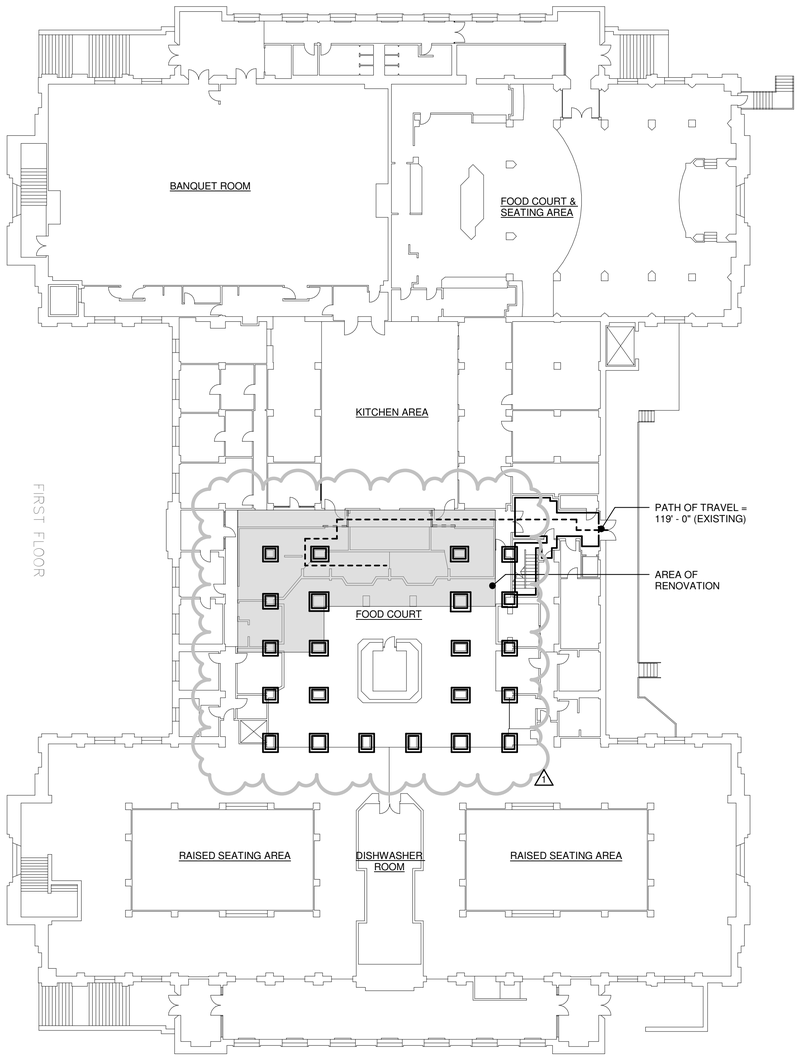
FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	T2

ADDENDUM 2 - ATTACHMENT C.

LIFE SAFETY PLAN



OWENS HALL
FIRST FLOOR

N

LEGEND

- 1 HR. FIRE RATED PARTITION
- 2 HR. FIRE RATED PARTITION
- PATH OF TRAVEL
- AREA OF RENOVATION

DESIGN NARRATIVE

THE PROJECT IS GENERALLY DESCRIBED AS RENOVATIONS TO THE EXISTING EATERIES ALONG THE BACK LINE IN OWENS DINING HALL FOOD COURT. SCOPE OF WORK INCLUDES REPLACEMENT OF EXISTING SERVING LINE, COUNTER AND KNEEWALL, EQUIPMENT, UTILITY MODIFICATIONS TO EQUIPMENT, NEW WALL AND FLOOR TILE INSTALLATION, AND SELECTIVE DEMOLITION AND MODIFICATIONS TO COLUMNS IN THE SHOPS AND IN THE FOOD COURT AREA.

BUILDING & PROJECT CODE DATA

BUILDING DATA

REFERENCE CODES:	VIRGINIA FIRE SAFETY REGULATIONS (VFSR), AS ADOPTED BY THE STATE BOARD OF HOUSING AND COMMUNITY DEVELOPMENT, EFFECTIVE JULY 16, 1982, PART TWO BUILDINGS CONSTRUCTED BEFORE APRIL 12, 1949
ORIGINAL BUILDING CONSTRUCTED:	1938 (APPROXIMATELY)
OCCUPANCY CLASS:	GROUP A BUILDING, SECTION 1300-1
CONSTRUCTION TYPE:	NONCOMBUSTIBLE, SECTION 1301-1 (F)
BUILDING AREA, GROSS:	97,688 SQ. FT. (ALL FLOORS)
FLOOR AREA, GROSS:	48,834 SQ. FT.

PROJECT DATA

REFERENCE CODES:	2012 VIRGINIA REHABILITATION CODE, (VRC, VOLUME II OF THE VUSBC), WORK AREA COMPLIANCE METHOD, LEVEL TWO RENOVATION 2012 INTERNATIONAL EXISTING BUILDING CODE (IEBC), AS REFERENCED IN THE VRC 2012 INTERNATIONAL BUILDING CODE (IBC), AS REFERENCED IN 2012 IEBC 2010 ADA STANDARDS FOR ACCESSIBLE DESIGN (ADAAG) 2009 ICC / ANSI A117.1 (ACCESSIBLE AND USEABLE BUILDINGS AND FACILITIES)
BUILDING NAME:	OWENS HALL
BUILDING NUMBER:	0195
SCOPE OF WORK:	RENOVATION OF EXISTING SPACE
BUILDING OCCUPANCY USE GROUP:	A-2
OCCUPANT LOAD AREA OF WORK:	9 - COMMERCIAL KITCHEN (@ 200 SF GROSS PER OCCUPANT)
SEPARATED MIXED USE:	NON SEPARATED MIXED USE
CONSTRUCTION TYPE:	IIIB
PROJECT AREA:	1,685 SQ. FT.
FIRE SUPPRESSION:	NO
FIRE ALARMS:	YES
METHOD OF COMPLIANCE:	WORK AREA COMPLIANCE METHOD, SECTION 301.1.2

CHAPTER 3, COMPLIANCE METHODS
- SECTION 301.1.2, WORK AREA COMPLIANCE METHOD

CHAPTER 5: CLASSIFICATION OF WORK
- SECTION 504 - ALTERATION LEVEL 2
  - SCOPE OF WORK INCLUDES RECONFIGURATION OF EXISTING FOOD COURT MAIN SERVING LINE. DEMOLITION OF THE EXISTING MAIN SERVING LINE AND THE CONSTRUCTION OF THE NEW SERVING LINE IN GENERALLY THE SAME LOCATION. RENOVATION WILL INCLUDE ADDING NEW PARTIAL HEIGHT WALLS, AND ALTERATIONS TO EXISTING PLUMBING, MECHANICAL, AND ELECTRICAL SYSTEMS TO ACCOMMODATE THE NEW LAYOUT.
  - CHAPTER 7 AND CHAPTER 8 APPLY

CHAPTER 6: REPAIRS
- NO REPAIRS ARE PART OF THIS SCOPE OF WORK, THEREFORE SECTION DOES NOT APPLY.

CHAPTER 7: ALTERATIONS - LEVEL 1
- SECTION 702.1, INTERIOR FINISHES
  - INTERIOR WALL & CEILING MATERIALS & FINISHES SHALL COMPLY WITH 2012 IBC - TABLE 803.9, INTERIOR WALL & CEILING FINISHES PER OCCUPANCY. SEE FINISH SCHEDULE, MATERIAL FINISH NOTES.
- SECTION 702.2, INTERIOR FLOOR FINISH
  - INTERIOR FLOOR COVERING MATERIALS AND FINISHES SHALL COMPLY WITH 2012 IBC - SECTION 804, INTERIOR FLOOR FINISHES. SEE FINISH SCHEDULE, MAT'L FINISH NOTES.
- SECTION 702.3, INTERIOR TRIM
  - INTERIOR TRIM MATERIALS AND FINISHES SHALL COMPLY WITH 2012 IBC - SECTION 806, DECORATIVE MATERIALS AND TRIM. SEE FINISH SCHEDULE, MAT'L FINISH NOTES.
- SECTION 703, FIRE PROTECTION
  - ALTERATIONS WILL COMPLY WITH LEVEL 1 FINISHES REQUIREMENTS AS SHOWN ABOVE. EXISTING LEVEL OF FIRE PROTECTION SHALL BE MAINTAINED.
- SECTION 704, MEANS OF EGRESS
  - MEANS OF EGRESS IS NOT IMPACTED BY RENOVATION..
- SECTION 705.1, ACCESSIBILITY - GENERAL
  - SCOPE OF WORK INCLUDES FLOOR FINISHES WHICH SHALL COMPLY WITH 2012 IBC - CHAPTER 11, ACCESSIBILITY.
- SECTION 705.2, ALTERATIONS AFFECTING AN AREA CONTAINING A PRIMARY FUNCTION
  - AREA OF WORK IS ON THE BUILDING'S EXISTING ACCESSIBLE ROUTE.
- SECTION 706, STRUCTURAL
  - NO STRUCTURAL WORK IS PART OF THIS SCOPE, THEREFORE SECTION DOES NOT APPLY.
- SECTION 707, ENERGY CONSERVATION
  - THERMAL ENVELOPE OF THE BUILDING IS NOT IMPACTED BY THE WORK, THEREFORE SECTION DOES NOT APPLY.

CHAPTER 8: ALTERATIONS - LEVEL 2
- SECTION 801.2, ALTERATION LEVEL 1 COMPLIANCE
  - SEE CHAPTER 7 INFORMATION, ABOVE.
- SECTION 801.3, COMPLIANCE
  - NEW ELEMENTS IN THE SCOPE OF WORK COMPLY WITH 2012 IBC. SEE DRAWINGS AND SPECIFICATIONS.
- SECTION 803, BUILDING ELEMENTS AND MATERIALS
  - SCOPE OF WORK ONLY INCLUDES 803.4, INTERIOR FINISHES. SEE CHAPTER 7 INFORMATION, ABOVE.
- SECTION 804.2, AUTOMATIC SPRINKLER SYSTEMS
  - AUTOMATIC SPRINKLER SYSTEM DOES NOT EXIST AND IS NOT REQUIRED.
- SECTION 804.4, FIRE ALARM AND DETECTION
  - THE EXISTING FIRE ALARM NOTIFICATION DEVICES WILL BE MODIFIED TO SUITE NEW WORK.
- SECTION 805, MEANS OF EGRESS
  - WORK AREA IS OCCUPIED BY ONLY ONE TENANT, THEREFORE SECTION DOES NOT APPLY.
- SECTION 806.1, ACCESSIBILITY - GENERAL
  - SCOPE OF WORK COMPLIES WITH CHAPTER 7 INFORMATION, ABOVE.
- SECTION 807, STRUCTURAL
  - NO STRUCTURAL WORK IN PART OF THIS SCOPE, THEREFORE SECTION DOES NOT APPLY.
- SECTION 808.1, ELECTRICAL - NEW INSTALLATION
  - SCOPE OF WORK WILL BE CONDUCTED IN COMPLIANCE WITH 2011 NEC.
- SECTION 810, PLUMBING
  - NEW PLUMBING WORK WILL BE ADDED PER 2012 VIRGINIA PLUMBING CODE (VPC), SEE PLUMBING SPECIFICATIONS.
- SECTION 811, ENERGY CONSERVATION
  - THERMAL ENVELOPE OF THE BUILDING IS NOT IMPACTED BY THE WORK, THEREFORE SECTION DOES NOT APPLY.

CHAPTERS 9 - 13:
- DOES NOT APPLY TO RENOVATION.

ADAAG COMPLIANT PROVISIONS:
THE FOOD COURT MAIN SERVING LINE IS AN EMPLOYEE WORK AREA ON THE KITCHEN SIDE. FOR THE PUBLIC, THE MAIN SERVING LINE IS ON THE BUILDING ACCESSIBLE ROUTE. ALL TRANSITIONS BETWEEN NEW & EXISTING FINISHES WILL BE ADAAG COMPLIANT.

colley architects pc
design community environment

SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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REVISIONS	DATE
ADDENDUM 2	10.22.18

LIFE SAFETY PLAN & BUILDING CODE DATA

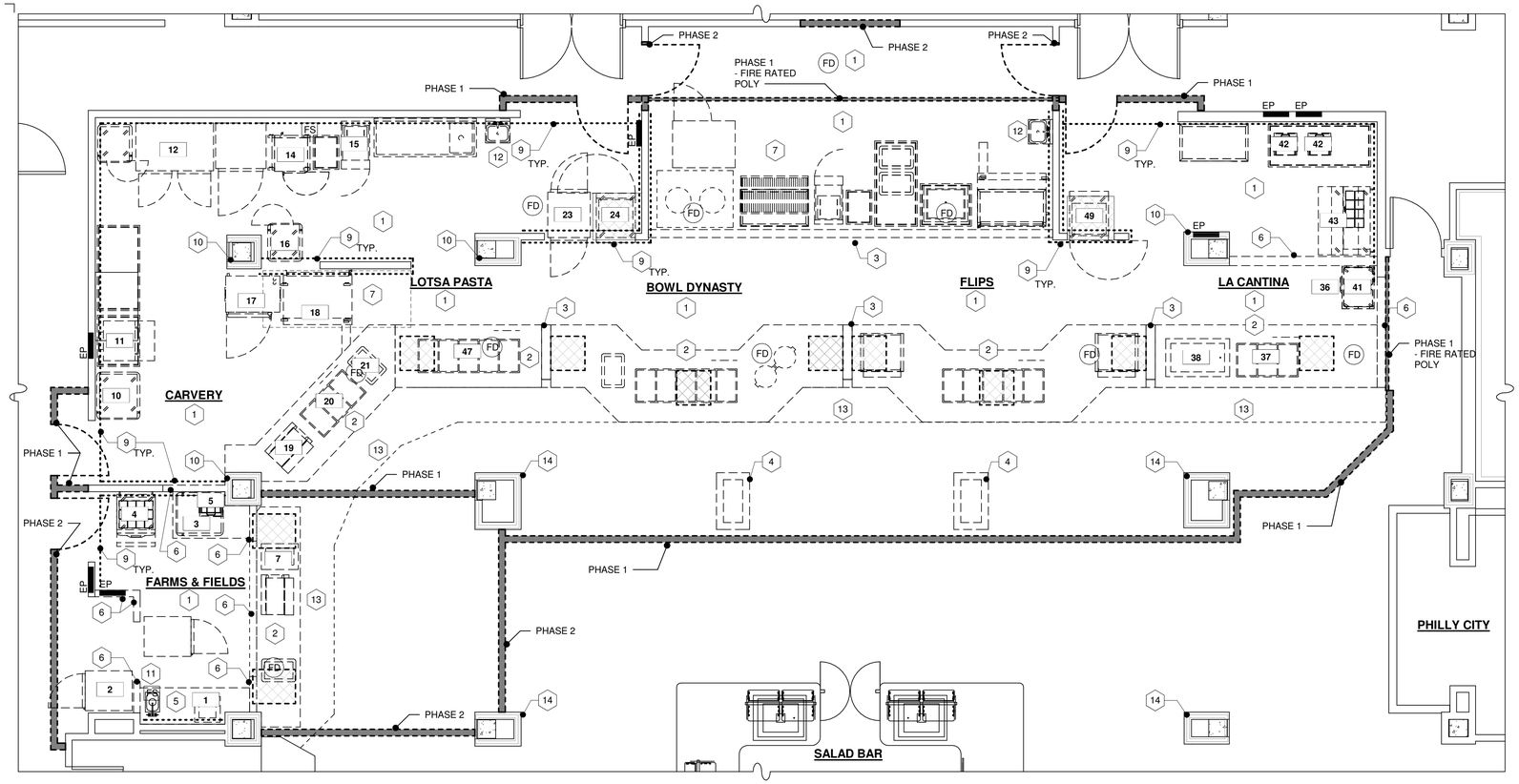
Virginia Tech
RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	LS1

ADDENDUM 2 - ATTACHMENT C.



DEMO PLAN

1 / A1.1 | A1.1 — 1/4" = 1'-0"

GENERAL WORK NOTES

1. ALL NEW & EXISTING PENETRATIONS TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ ADJACENT SURFACES.

2. ALL NEW & EXIST. SURFACES TO REMAIN ARE TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE. REMOVE ALL ABANDONED, FASTENERS, ANCHORS, ETC & PATCH ALL EXIST. SURFACES TO REMAIN & PREP FOR NEW WORK & FINISHES. ALL EXIST. VISIBLE SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.(TYP.)
- SEE FINISH SCHEDULE

3. OWNER TO REMOVE EXIST. EQUIPMENT & STORE. CUT COUNTERTOP AS REQ'D. TO FACILITATE EQUIPMENT REMOVAL. EQUIPMENT SHALL NOT BE DAMAGED DURING REMOVAL.
- SEE PLUMBING
- SEE ELECTRICAL

4. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT THAT SHALL BE STORED ONSITE. OWNER TO REMOVE EXISTING TO OWNERS STORAGE LOCATION. CONTRACTOR SHALL PROVIDE PROTECTIVE LAYER/TARP UNDER EQUIPMENT STORED ONSITE TO PROTECT THE FLOOR. A DUST COVERING SHALL BE PLACED OVER THE EQUIPMENT TO PREVENT CONSTRUCTION DUST FROM SETTLING ON EQUIPMENT. COORD. EXACT STORAGE LOCATION WITH OWNER PRIOR TO SETTING STORAGE AREA.

5. ALL EXIST. UTILITIES TO BE RELOCATED TO ACCOMMODATE NEW CEILING HEIGHTS & NEW WORK. UTILITIES TO INCLUDE, BUT NOT LIMITED TO, ALL PLUMBING, MECHANICAL, ELECTRICAL, PNEUMATIC AND DATA SERVICES.

6. ANSUL PULL STATION & ANSUL BOX LOCATIONS ANTICIPATED TO REMAIN IN EXISTING LOCATIONS. MODIFY AS REQ'D. TO ACCOM. NEW FINISHES.

7. EXIST. PULL STATION & FIRE ALARM DEVICES TO BE MODIFIED AS REQ'D. TO ACCOM. NEW WORK.
- SEE ELECTRICAL

KEYED DEMOLITION NOTES

1. DEMO EXIST. FLOORING, BASE, & TILE SETTING BEDS TO EXPOSE EXIST. CONC. SLAB. EXPECT TWO LAYERS OF QUARRY TILE. REMOVE ALL ASSOCIATED ADHESIVES. PATCH & PREP FOR NEW WORK.

2. DEMO EXIST. COUNTERTOP, CMU KNEEWALL, & CONCRETE EQUIPMENT PADS. PATCH & REPAIR WALLS & FLOORING TO MATCH ADJACENT SURFACES. PATCH & PREP FOR NEW WORK.

3. DEMO EXIST. CMU WALL. PATCH & PREP WALLS & FLOORING FOR NEW WORK.

4. DEMO EXIST. GYP. BD. COLUMNS. MODIFY EXIST. BULKHEAD TO REMAIN. PATCH & PREP FOR NEW WORK.

5. DEMO EXIST. CASEWORK. PATCH & PREP FOR NEW WORK.

6. DEMO EXIST WALLS AS REQ'D. TO ACCOM NW WORK. PATCH & PREP WALLS & FLOORS FOR NEW WORK.

7. EXIST. HOODS TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION.

8. EXIST. GREASE TRAP TO REMAIN.

9. REMOVE EXIST. WALL FINISH TO EXPOSE EXIST STUDS. REPAIR DAMAGED STUDS AS REQ'D. & PREP WALL FOR NEW SHEATHING & FINISHES.
- SEE NEW WORK

10. EXISTING RATED COLUMN SURROUND UL DESIGN X528. REMOVE EXISTING NON-GYP. BD. FINISH ON ALL SIDES AND PATCH ANY EXISTING PENETRATIONS / OPENINGS IN RATED SURROUND & PREP FOR NEW WORK.

11. EXIST. FLOOR SINK / FLOOR DRAIN TO BE MODIFIED AS REQ'D. TO ACCOM. NEW WORK.
- SEE PLUMBING

12. DEMO EXIST. SINKS & MODIFY PLUMBING & WASTE LINES AS REQ'D. PREP FOR NEW WORK.
- SEE PLUMBING

1 13. DEMO EXIST. FLOORING, BASE, & TILE SETTING BEDS TO EXPOSE EXIST. CONC. SLAB. EXPECT TWO LAYERS OF QUARRY TILE. REMOVE ALL ASSOCIATED ADHESIVES. DEMO FOOD COURT TILE TO ALLOW ONE ROW OF NEW TILE INSTALLATION. PATCH & PREP FOR NEW WORK.
- SEE FINISH PLAN

14. EXISTING RATED COLUMN SURROUND UL DESIGN X528. REMOVE EXISTING TILE FINISH ON ALL FOUR SIDES AND PATCH ANY EXISTING PENETRATIONS / OPENINGS IN RATED SURROUND & PREP FOR NEW WORK. NINE FOOD COURT COLUMNS TO HAVE EXISTING TILE REMOVED. SEE SHEET A3.2 FOR ADDITIONAL INFORMATION.

NOTE:

1. SEE SHEET A3.2 FOR ADDITIONAL WORK AT FOOD COURT COLUMNS.

LEGEND

- EXISTING TO REMAIN
- EXISTING TO DEMO
- TEMPORARY DUST PARTITION - COORD. LOCATION & PHASING W/ OWNER PRIOR TO INSTALLATION
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- 1 REMOVE EXIST. WALL FINISH TO EXPOSE EXIST STUDS. REPAIR DAMAGED STUDS AS REQ'D. & PREP WALL FOR NEW SHEATHING & FINISHES. - SEE NEW WORK
- RAISED CONC. PAD TO BE REMOVED
- RAISED CONC. PAD TO REMAIN
- # EQUIP. TAG - EQUIPMENT W/ TAG TO BE REINSTALLED
- FS FD FLOOR SINK / FLOOR DRAIN - SEE PLUMBING
- EP ELECTRICAL PANELS - SEE ELECTRICAL

1/4" = 1' - 0"

0 4 8 12 16

colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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ADDENDUM 2	10.22.18

DEMO PLAN

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

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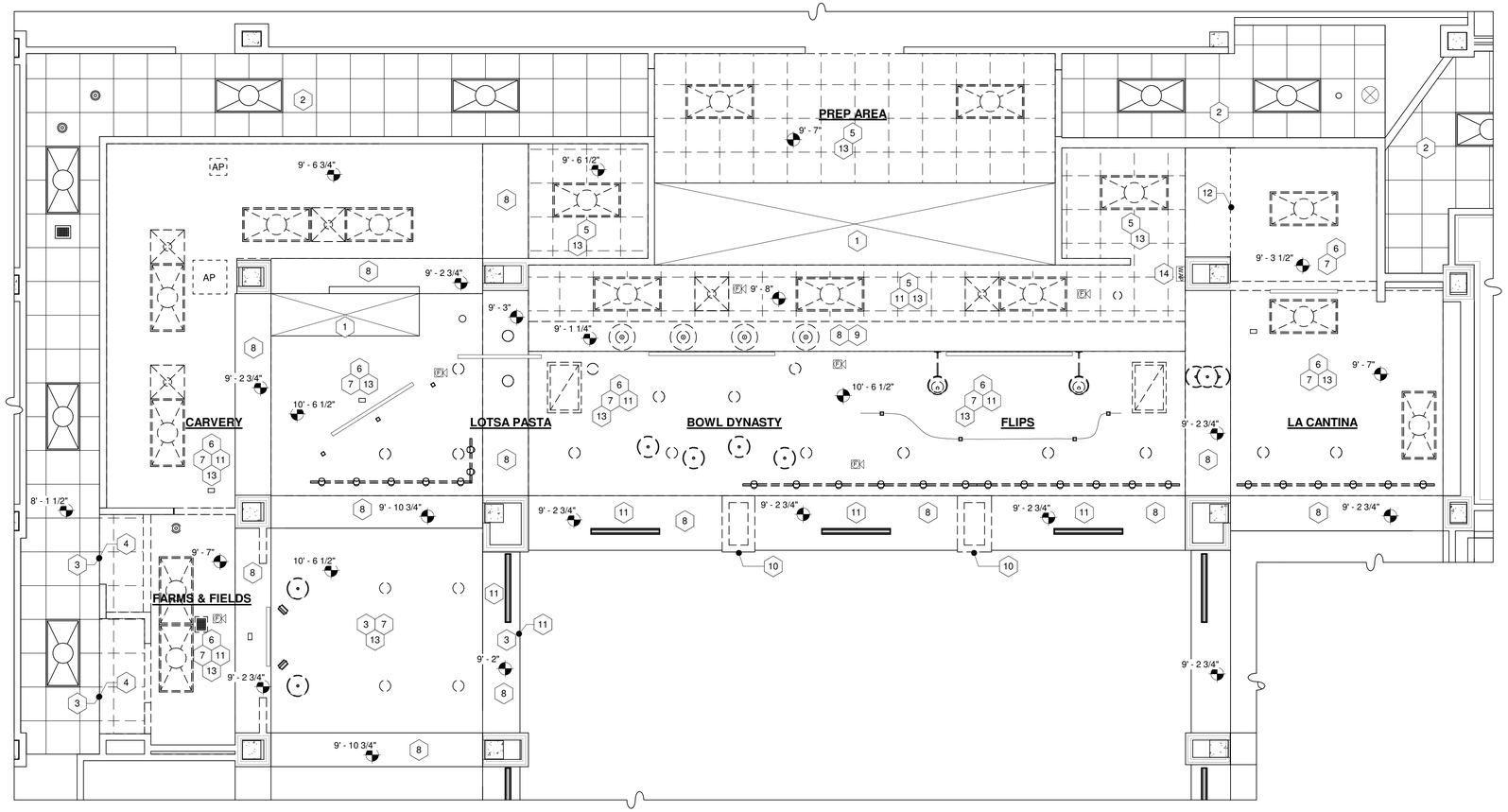
DRAWN	KJC / BHC
JOB	1804
SHEET	A1.1

ADDENDUM 2 - ATTACHMENT C.



DEMO REFLECTED CEILING PLAN

1 / A1.2 | A1.2 | 1/4" = 1'-0"

N

KEYED DEMOLITION NOTES

1. EXIST. HOODS TO REMAIN. PROTECT THROUGHOUT CONSTRUCTION

2. EXIST. CEILING & FIXTURES TO REMAIN

3. EXIST. CEILING TO BE MODIFIED TO ACCOM. NEW WORK

4. DEMO EXIST. CEILING & GRID AS REQ'D. TO ACCOM. NEW WORK. DEMO FULL CEILING TILES TO THE GREATEST EXTENT POSSIBLE. MODIFY EXIST. CEILING & GRID TO REMAIN TO ACCOM. NEW WORK

5. DEMO EXIST. SUSPENDED CEILING GRID & TILE, AND ALL FASTENERS, ANCHORS, CABLES, ETC. TO FULLY EXPOSE DECK ABOVE. PATCH & PREP FOR NEW WORK

6. DEMO EXIST. GYP. BD CEILING, HANGARS, & SUPPORT AS REQ'D. TO ACCOM. NEW WORK. EXIST. FRAMING USED TO SUPPORT NEW CEILINGS TO REMAIN. PATCH & PREP FOR NEW WORK.

7. ALL CEILING MOUNTED BRACKETS, HARDWARE, TRACKS, ETC. TO BE DEMOED. PATCH & PREP CEILING FOR NEW WORK. REMOVE EXIST. SIGNAGE & RETURN TO OWNER. PATCH & PREP BULKHEAD FOR NEW WORK.

8. ALL BULKHEAD MOUNTED BRACKETS, HARDWARE, TRACKS, ETC. TO BE DEMOED. PATCH & PREP CEILING FOR NEW WORK. REMOVE EXIST. SIGNAGE & RETURN TO OWNER. PATCH & PREP BULKHEAD FOR NEW WORK.

9. DEMO EXIST. GYP. BD BULKHEAD, HANGARS, & SUPPORT AS REQ'D. TO ACCOM. NEW WORK

10. DEMO EXIST. COLUMNS TO BE FLUSH WITH UNDERSIDE OF BULKHEAD. SUPPORT EXIST TO REMAIN COLUMN BUILDOUT FROM STRUCTURE ABOVE. PATCH & PREP FOR NEW WORK.

11. DEMO EXIST. HVAC CEILING DEVICE & PROTECT DUCT W/ MIN. MERV 8 FILTER THROUGHOUT CONSTRUCTION.
- SEE MECHANICAL

12. MAINTAIN PORTION OF EXIST. GYP. BOARD CEILING FOR NEW BULKHEAD.
- SEE NEW WORK

13. DEMO EXIST. LIGHT FIXTURES, TO INCLUDE, RECESSED CANS, LAY-IN FIXTURES, HEAT LAMPS, & SURFACE MOUNTED FIXTURES.
- CONTRACTOR SHALL STORE & SURPLUSES HEAT LAMPS PER OWNERS DIRECTIONS.
- SEE ELECTRICAL

14. PROTECT EXIST. NiaS WIRELESS SIGNAL DEVICES.
- SEE ELECTRICAL

GENERAL WORK NOTES

1. ALL NEW & EXISTING PENETRATIONS TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ ADJACENT SURFACES.

2. ALL NEW & EXIST. SURFACES TO REMAIN ARE TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE. REMOVE ALL ABANDONED, FASTENERS, ANCHORS, ETC & PATCH ALL EXIST. SURFACES TO REMAIN & PREP FOR NEW WORK & FINISHES. ALL EXIST. VISIBLE SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.(TYP.)
- SEE FINISH SCHEDULE

3. OWNER TO REMOVE EXIST. EQUIPMENT & STORE. CUT COUNTERTOP AS REQ'D. TO FACILITATE EQUIPMENT REMOVAL. EQUIPMENT SHALL NOT BE DAMAGED DURING REMOVAL.
- SEE PLUMBING
- SEE ELECTRICAL

4. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT THAT SHALL BE STORED ONSITE. OWNER TO REMOVE EXISTING TO OWNERS STORAGE LOCATION. CONTRACTOR SHALL PROVIDE PROTECTIVE LAYER/TARP UNDER EQUIPMENT STORED ONSITE TO PROTECT THE FLOOR. A DUST COVERING SHALL BE PLACED OVER THE EQUIPMENT TO PREVENT CONSTRUCTION DUST FROM SETTLING ON EQUIPMENT. COORD. EXACT STORAGE LOCATION WITH OWNER PRIOR TO SETTING STORAGE AREA.

5. ALL EXIST. UTILITIES TO BE RELOCATED TO ACCOMMODATE NEW CEILING HEIGHTS & NEW WORK. UTILITIES TO INCLUDE, BUT NOT LIMITED TO, ALL PLUMBING, MECHANICAL, ELECTRICAL, PNEUMATIC AND DATA SERVICES.

6. ANSUL PULL STATION & ANSUL BOX LOCATIONS ANTICIPATED TO REMAIN IN EXISTING LOCATIONS. MODIFY AS REQ'D. TO ACCOM. NEW FINISHES.

7. EXIST. PULL STATION & FIRE ALARM DEVICES TO BE MODIFIED AS REQ'D. TO ACCOM. NEW WORK.
- SEE ELECTRICAL

LEGEND

- EXISTING TO REMAIN
- EXISTING TO DEMO
- GYP. BD. CEILING
- ACT CEILING
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- AP — ACCESS PANEL - TO BE REMOVED
- STRIP LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- PENDANT LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- WALL MOUNTED LIGHT FIXTURE
- FA — FIRE ALARM DEVICE - SEE ELECTRICAL
- WAP — WIRELESS ACCESS POINT
- DUPLEX RECEPTACLE
- LIGHT FIXTURE
- CEILING HEIGHT A.F.F.
- DIFFUSER
- RETURN
- LINEAR DIFFUSER
- EXIT SIGN

1/4" = 1' - 0"

0 4 8 12 16

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design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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ADDENDUM 2	10.22.18

DEMO REFLECTED CEILING PLAN

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

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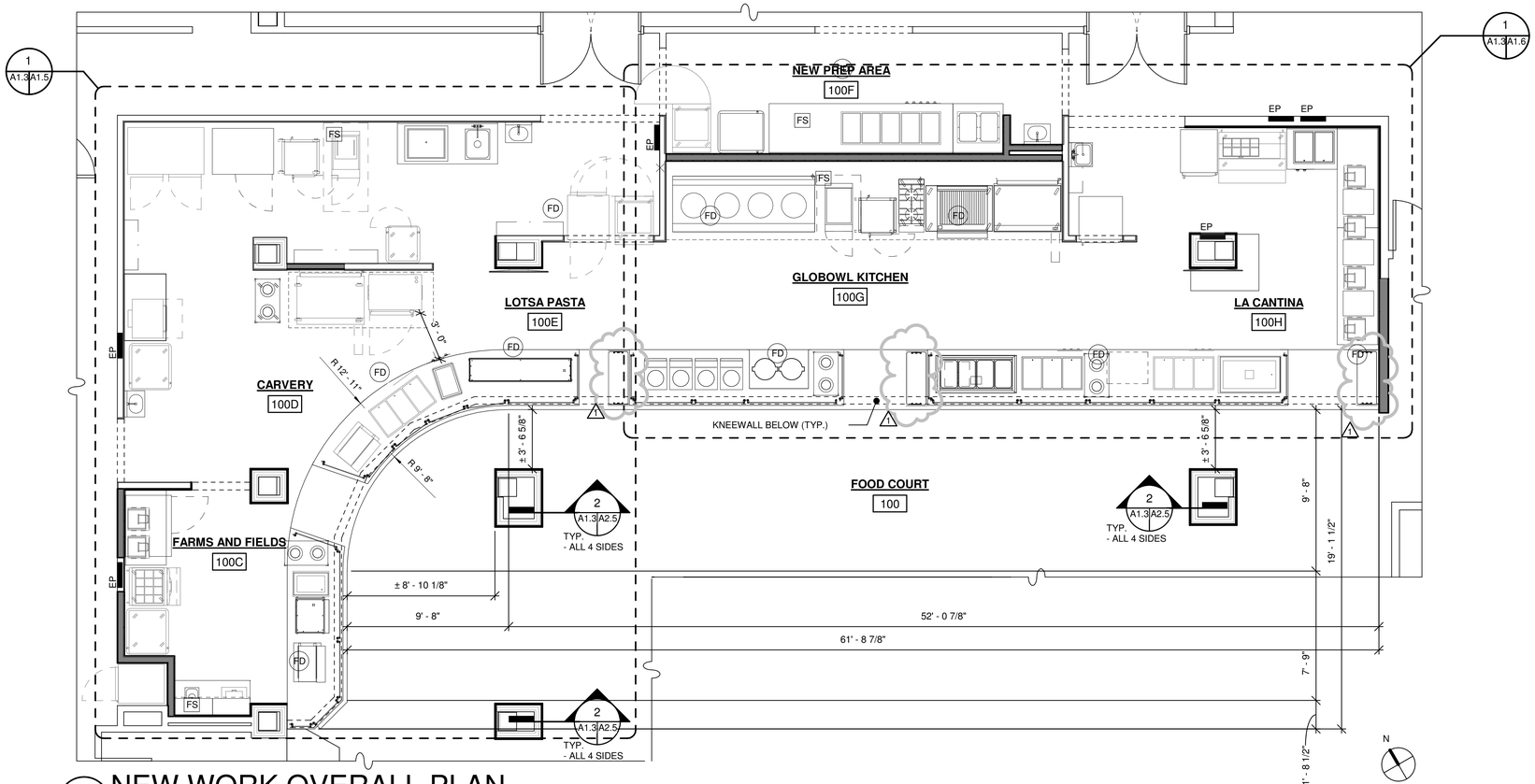
DRAWN	KJC / BHC
JOB	1804
SHEET	A1.2

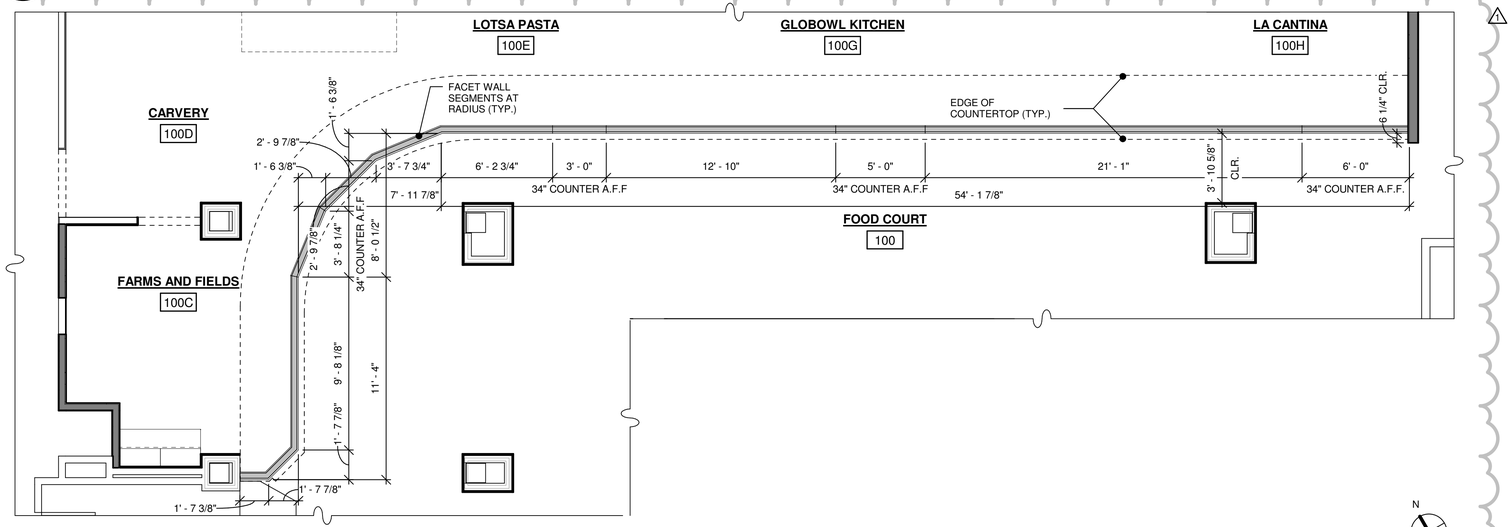
ADDENDUM 2 - ATTACHMENT C.



1 A1.3 A1.5 — 1 A1.3 A1.6

NEW WORK OVERALL PLAN

1 A1.3 A1.3 1/4" = 1'-0"



NEW WORK - KNEEWALL PLAN

2 A1.3 A1.3 1/4" = 1'-0"

NOTE:

1. SEE SHEET A3.2 FOR ADDITIONAL WORK AT FOOD COURT COLUMNS.
2. SERVING COUNTER HEIGHT 36" A.F.F. UNLESS NOTED OTHERWISE.

LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION
- EP — ELECTRICAL PANELS - SEE ELECTRICAL
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- FS / FD — FLOOR SINK / FLOOR DRAIN - SEE PLUMBING

1/4" = 1' - 0"

0 4 8 12 16

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design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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NEW WORK OVERALL PLAN

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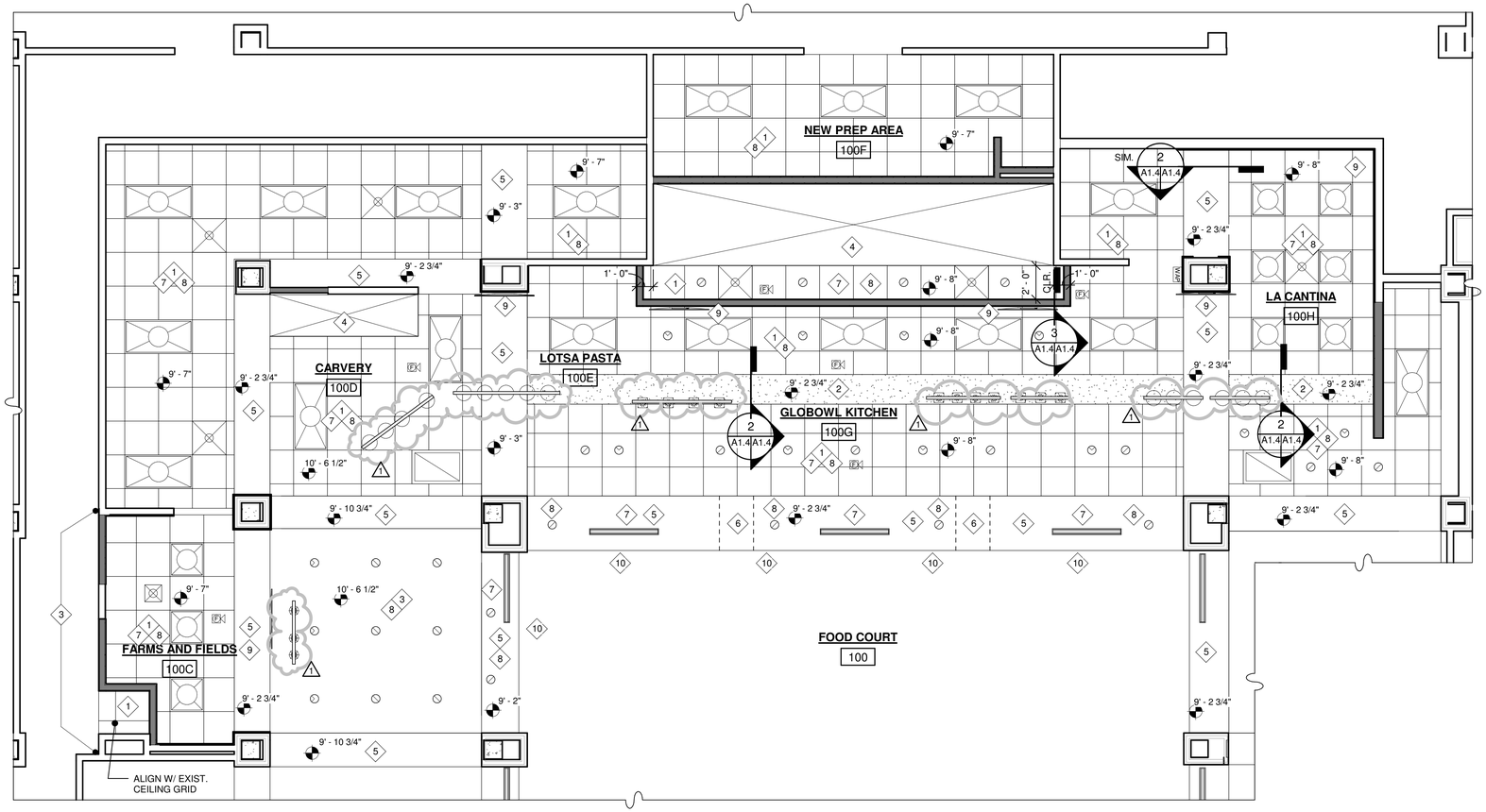
JOB	1804
SHEET	A1.3



KEYED REFLECTED CEILING PLAN NOTES

1. PROVIDE & INSTALL CEILING GRID & TILE
- SEE FINISH SCHEDULE

2. PROVIDE & INSTALL NEW GYP. BOARD BULKHEAD
- SEE FINISH SCHEDULE

3. MODIFY EXIST. CEILING AS REQ'D. TO ACCOMMODATE NEW WORK.

4. EXIST. HOOD TO REMAIN.

5. EXIST. BULKHEAD TO RECEIVE NEW FINISHES. PATCH BULKHEADS WHERE MODIFIED FOR NEW WORK.

6. EXIST. BULKHEAD TO BE REPAIRED WHERE EXIST. COLUMN BUILDOUTS WERE REMOVED.

7. PROVIDE & INSTALL NEW HVAC DEVICE.
- SEE MECHANICAL

8. PROVIDE & INSTALL NEW LIGHT FIXTURES.
- SEE ELECTRICAL

9. INSTALL OWNER PROVIDED MONITOR MOUNT. MONITOR MOUNT SHALL BE INSTALLED TO EXIST. STRUCTURE PER MANUF. INSTALLATION INSTRUCTION. PROVIDE & INSTALL 2" X 6" MIN. FRT WOOD BLOCKING 24" WIDE X 36" TALL AT MONITOR LOCATIONS. PROVIDE & INSTALL POWER & DATA AS REQ'D. TO ACCOM. OWNER PROVIDED MONITORS.
- SEE ELECTRICAL

10. PROVIDE POWER & DATA ROUGH-IN FOR ALL CEILING & BULKHEAD MOUNTED AV EQUIPMENT & OWNER SIGNAGE. COORDINATE LOCATION W/ OWNER & ARCHITECT PRIOR TO INSTALLATION.
- SEE ELECTRICAL

GENERAL NEW WORK NOTES

1. CONTRACTOR SHALL PROTECT ALL AREAS ADJACENT TO AREA OF RENOVATION, TO INCLUDE AREAS ABOVE AND BELOW WORK AREA. DAMAGE RESULTING FROM WORK TO BE REPAIRED OR REPLACED AT SOLE COST TO CONTRACTOR & TO SATISFACTION OF THE OWNER.

2. INSTALL & MAKE ALL FINAL CONNECTIONS TO NEW & EXIST. EQUIPMENT.
- SEE EQUIPMENT SCHEDULE

3. ALL NEW & EXISTING PENETRATIONS TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ ADJACENT SURFACES.

4. ALL NEW & EXIST. SURFACES TO REMAIN ARE TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE. REMOVE ALL ABANDONED, FASTENERS, ANCHORS, ETC & PATCH ALL EXIST. SURFACES TO REMAIN & PREP FOR NEW WORK & FINISHES. ALL EXIST. VISIBLE SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.(TYP.)
- SEE FINISH SCHEDULE

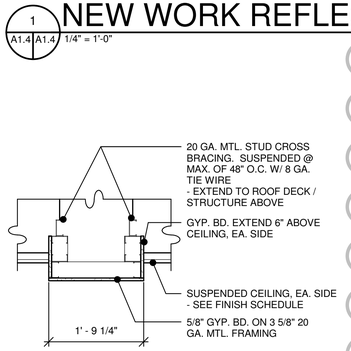
5. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT THAT SHALL BE STORED ONSITE. OWNER TO REMOVE EXISTING TO OWNERS STORAGE LOCATION. CONTRACTOR SHALL PROVIDE PROTECTIVE LAYER/TARP UNDER EQUIPMENT STORED ONSITE TO PROTECT THE FLOOR. A DUST COVERING SHALL BE PLACED OVER THE EQUIPMENT TO PREVENT CONSTRUCTION DUST FROM SETTLING ON EQUIPMENT. COORD. EXACT STORAGE LOCATION WITH OWNER PRIOR TO SETTING STORAGE AREA.

6. ALL EXIST. UTILITIES TO BE RELOCATED TO ACCOMMODATE NEW CEILING HEIGHTS & NEW WORK. UTILITIES TO INCLUDE, BUT NOT LIMITED TO, ALL PLUMBING, MECHANICAL, ELECTRICAL, PNEUMATIC AND DATA SERVICES.

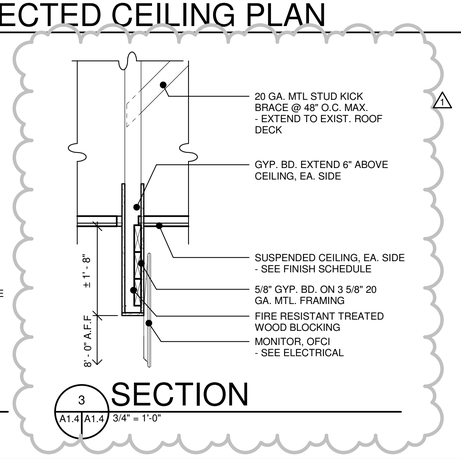
7. CONTRACTOR TO INSTALL NEW UTILITIES AS REQ'D. TO ACCOM. NEW EQUIPMENT, SIGNAGE, & MONITORS. CONFIRM LOCATION WITH OWNER & ARCHITECT PRIOR TO INSTALLATION.
- SEE EQUIPMENT SCHEDULE
- SEE PLUMBING
- SEE ELECTRICAL

1 NEW WORK REFLECTED CEILING PLAN
1 / A1.4 A1.4 — 1/4" = 1'-0"

N



2 SECTION
2 / A1.4 A1.4 — 3/4" = 1'-0"



3 SECTION
3 / A1.4 A1.4 — 3/4" = 1'-0"

LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION
- NEW GYP. BD. CEILING / BULKHEAD
- SUSPENDED CEILING
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- PENDANT LIGHT FIXTURE - HEAT LAMPS & NON HEAT LAMPS - SEE ELECTRICAL
- RECESSED CAN LIGHT FIXTURE - SEE ELECTRICAL
- FIRE ALARM DEVICE - SEE ELECTRICAL
- WAP — WIRELESS ACCESS POINT
- LIGHT FIXTURE - SEE ELECTRICAL
- LIGHT FIXTURE - SEE ELECTRICAL
- HVAC DEVICE - SEE MECHANICAL
- HVAC DEVICE - SEE MECHANICAL
- HVAC DEVICE - SEE MECHANICAL
- CEILING HEIGHT A.F.F.

1/4" = 1' - 0"
0 4 8 12 16

colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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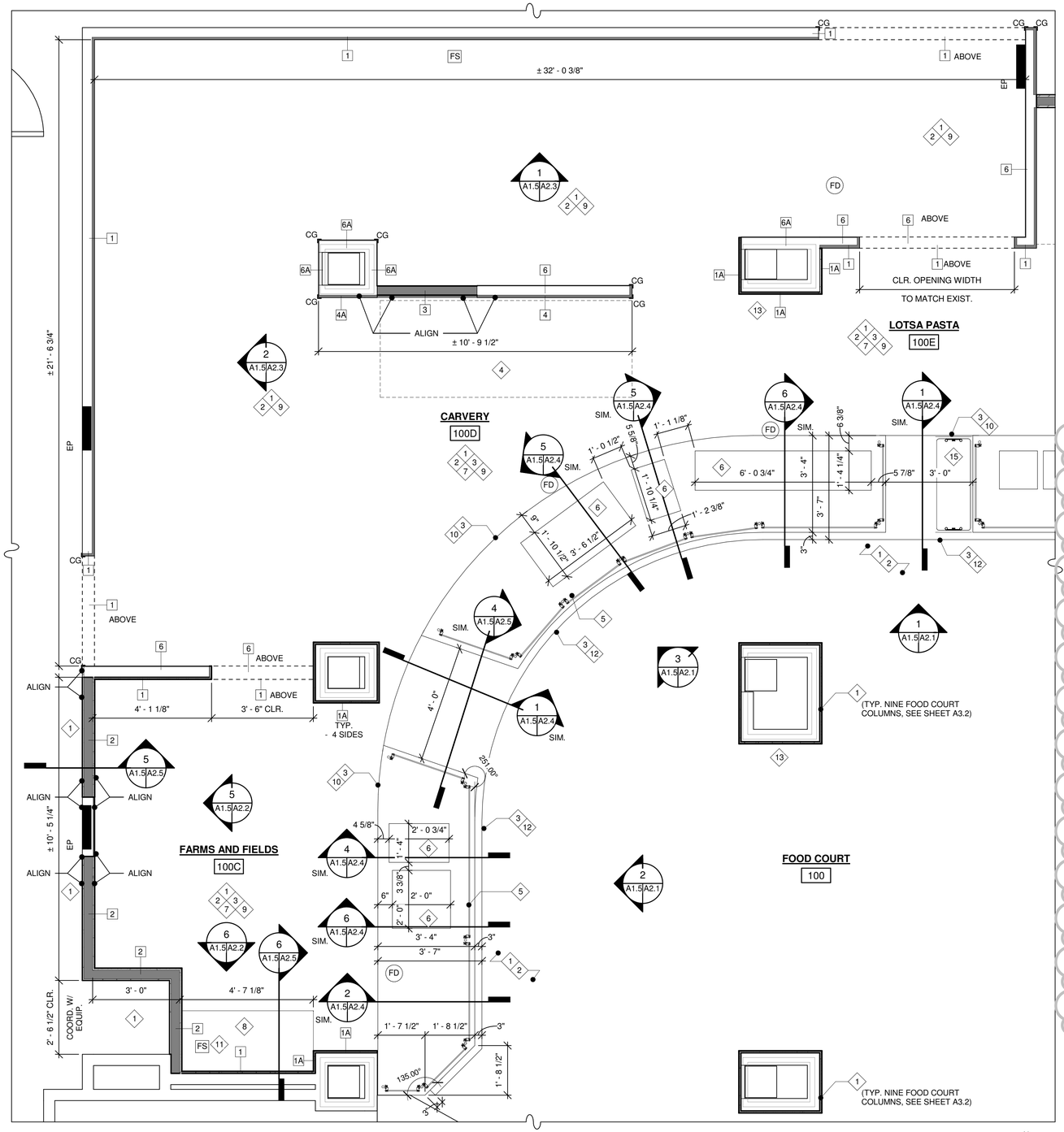

ENLARGED PARTIAL NEW WORK PLAN

1 A1.3 A1.5 1/2" = 1'-0"

KEYED NEW WORK NOTES

1. PROVIDE & INSTALL NEW FINISHES.
- SEE FINISH SCHEDULE & FINISH PLAN

2. LEVEL FLOOR AS REQ'D. TO ACCOM. NEW WORK. TRANSITIONS FROM EXIST. TO NEW TILE SHALL BE FLUSH.
- SEE FINISH SCHEDULE

3. PROVIDE & INSTALL UNDERCOUNTER KNEEWALL, COUNTERTOP SUPPORT, CASEWORK, & COUNTERTOP
- SEE FINISH SCHEDULE

4. EXIST. HOOD TO REMAIN.

5. PROVIDE & INSTALL FOOD SHIELDS.
- SEE FINISH SCHEDULE

6. COUNTERTOP CUTOUT FOR EQUIPMENT INSTALLATION. CUTOUT SIZE SHALL ACCOM. HEAT RESISTANT TAPE & CAULKING. VERIFY CUTOUT SIZE & LOCATION PRIOR TO COMMENCING WORK.
- SEE EQUIPMENT SCHEDULE
- SEE FINISH SCHEDULE

7. PROVIDE & INSTALL HOT FRAMES AT KITCHEN EQUIPMENT.
- SEE EQUIPMENT PLAN
- SEE FINISH NOTES

8. PROVIDE & INSTALL CASEWORK & COUNTERTOP.
- SEE CASEWORK SPECIFICATIONS
- SEE FINISH SCHEDULE

9. PROVIDE & INSTALL KITCHEN EQUIPMENT.
- SEE EQUIPMENT SCHEDULE

10. PROVIDE & INSTALL STAINLESS STEEL COUNTERTOP SUPPORT FRAME.
- SEE COUNTERTOP SUPPORT SPECIFICATION

11. PROVIDE & INSTALL NEW FLOOR SINK / FLOOR DRAIN. MODIFY PIPING TO ACCOM. NEW WORK.
- SEE PLUMBING

12. PROVIDE UNDERCOUNTER LED LIGHTING AT COUNTERTOP.
- SEE ELECTRICAL

13. OWNER PROVIDED CONTRACTOR INSTALLED DIGITAL SIGNAGE. PROVIDE & INSTALL POWER, DATA & AV INFRASTRUCTURE & FIRE RESISTANT WOOD BLOCKING.
- COORD. SIGNAGE & BLOCKING HEIGHT W/ OWNER & ARCHITECT PRIOR TO INSTALLATION
- BLOCKING SHALL BE MIN. 2' WIDE X 3' TALL. COORD. HEIGHT OF BLOCKING W/ EQUIPMENT, ARCHITECT & OWNER
- SEE ELECTRICAL

14. STOP TILE AT ELECTRIC PANEL AND FRAME ALL 4 SIDES OF ELECTRIC PANEL WITH CORNER TRIM - CT-1.
- SEE TILE SCHEDULE

15. PROVIDE & INSTALL GLASS FOOD SHIELDS.
- SEE FINISH SCHEDULE

GENERAL NEW WORK NOTES

1. CONTRACTOR SHALL PROTECT ALL AREAS ADJACENT TO AREA OF RENOVATION, TO INCLUDE AREAS ABOVE AND BELOW WORK AREA. DAMAGE RESULTING FROM WORK TO BE REPAIRED OR REPLACED AT SOLE COST TO CONTRACTOR & TO SATISFACTION OF THE OWNER.

2. INSTALL & MAKE ALL FINAL CONNECTIONS TO NEW & EXIST. EQUIPMENT.
- SEE EQUIPMENT SCHEDULE

3. ALL NEW & EXISTING PENETRATIONS TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ ADJACENT SURFACES.

4. ALL NEW & EXIST. SURFACES TO REMAIN ARE TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE. REMOVE ALL ABANDONED, FASTENERS, ANCHORS, ETC & PATCH ALL EXIST. SURFACES TO REMAIN & PREP FOR NEW WORK & FINISHES. ALL EXIST. VISIBLE SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.(TYP.)
- SEE FINISH SCHEDULE

5. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT THAT SHALL BE STORED ONSITE. OWNER TO REMOVE EXISTING TO OWNERS STORAGE LOCATION. CONTRACTOR SHALL PROVIDE PROTECTIVE LAYER/TARP UNDER EQUIPMENT STORED ONSITE TO PROTECT THE FLOOR. A DUST COVERING SHALL BE PLACED OVER THE EQUIPMENT TO PREVENT CONSTRUCTION DUST FROM SETTLING ON EQUIPMENT. COORD. EXACT STORAGE LOCATION WITH OWNER PRIOR TO SETTING STORAGE AREA.

6. ALL EXIST. UTILITIES TO BE RELOCATED TO ACCOMMODATE NEW CEILING HEIGHTS & NEW WORK. UTILITIES TO INCLUDE, BUT NOT LIMITED TO, ALL PLUMBING, MECHANICAL, ELECTRICAL, PNEUMATIC AND DATA SERVICES.

7. CONTRACTOR TO INSTALL NEW UTILITIES AS REQ'D. TO ACCOM. NEW EQUIPMENT, SIGNAGE, & MONITORS. CONFIRM LOCATION WITH OWNER & ARCHITECT PRIOR TO INSTALLATION.
- SEE EQUIPMENT SCHEDULE
- SEE PLUMBING
- SEE ELECTRICAL

NOTE:

1. SEE SHEET A3.2 FOR ADDITIONAL WORK AT FOOD COURT COLUMNS.

LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION
- EP — ELECTRICAL PANELS - SEE ELECTRICAL
- 1 — WALL TYPE
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- CG — CORNER GUARD - SEE FINISH SCHEDULE
- FS / FD — FLOOR SINK / FLOOR DRAIN - SEE PLUMBING

1/2" = 1' - 0"

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colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

REVISIONS	DATE
ADDENDUM 2	10.22.18

ENLARGED NEW WORK PLAN

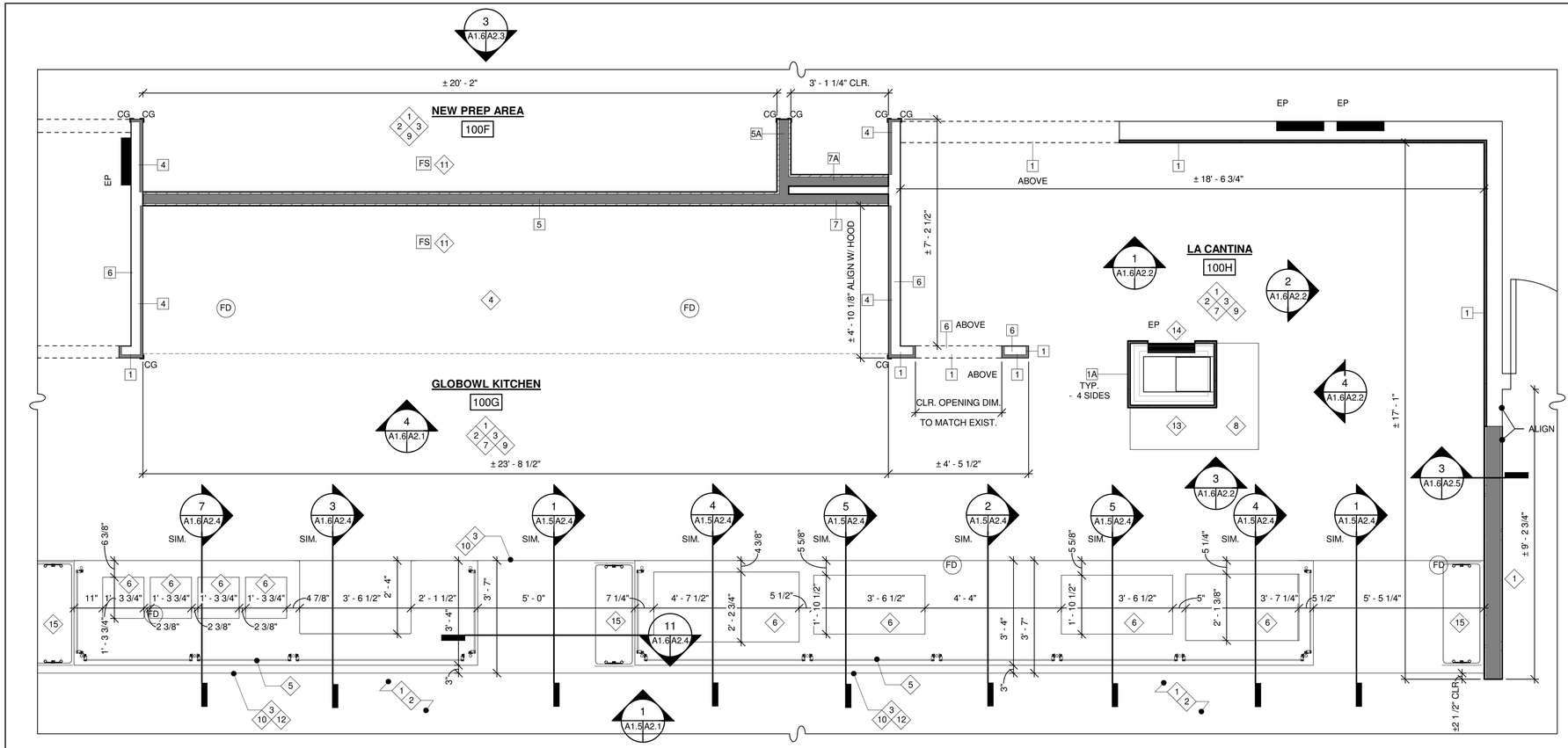
Virginia Tech
RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	A1.5

ADDENDUM 2 - ATTACHMENT C.



1 A1.3 | A1.6 1/2" = 1'-0"

ENLARGED PARTIAL NEW WORK PLAN

N

KEYED NEW WORK NOTES

1. PROVIDE & INSTALL NEW FINISHES.
- SEE FINISH SCHEDULE & FINISH PLAN

2. LEVEL FLOOR AS REQ'D. TO ACCOM. NEW WORK. TRANSITIONS FROM EXIST. TO NEW TILE SHALL BE FLUSH.
- SEE FINISH SCHEDULE

3. PROVIDE & INSTALL UNDERCOUNTER KNEEWALL, COUNTERTOP SUPPORT, CASEWORK, & COUNTERTOP
- SEE FINISH SCHEDULE

4. EXIST. HOOD TO REMAIN.

5. PROVIDE & INSTALL FOOD SHIELDS.
- SEE FINISH SCHEDULE

6. COUNTERTOP CUTOUT FOR EQUIPMENT INSTALLATION. CUTOUT SIZE SHALL ACCOM. HEAT RESISTANT TAPE & CAULKING. VERIFY CUTOUT SIZE & LOCATION PRIOR TO COMMENCING WORK.
- SEE EQUIPMENT SCHEDULE
- SEE FINISH SCHEDULE

7. PROVIDE & INSTALL HOT FRAMES AT KITCHEN EQUIPMENT.
- SEE EQUIPMENT PLAN
- SEE FINISH NOTES

8. PROVIDE & INSTALL CASEWORK & COUNTERTOP.
- SEE CASEWORK SPECIFICATIONS
- SEE FINISH SCHEDULE

9. PROVIDE & INSTALL KITCHEN EQUIPMENT.
- SEE EQUIPMENT SCHEDULE

10. PROVIDE & INSTALL STAINLESS STEEL COUNTERTOP SUPPORT FRAME.
- SEE COUNTERTOP SUPPORT SPECIFICATION

11. PROVIDE & INSTALL NEW FLOOR SINK / FLOOR DRAIN. MODIFY PIPING TO ACCOM. NEW WORK.
- SEE PLUMBING

12. PROVIDE UNDERCOUNTER LED LIGHTING AT COUNTERTOP.
- SEE ELECTRICAL

13. OWNER PROVIDED CONTRACTOR INSTALLED DIGITAL SIGNAGE. PROVIDE & INSTALL POWER, DATA & AV INFRASTRUCTURE & FIRE RESISTANT WOOD BLOCKING.
- COORD. SIGNAGE & BLOCKING HEIGHT W/ OWNER & ARCHITECT PRIOR TO INSTALLATION
- BLOCKING SHALL BE MIN. 2' WIDE X 3' TALL. COORD. HEIGHT OF BLOCKING W/ EQUIPMENT, ARCHITECT & OWNER
- SEE ELECTRICAL

14. STOP TILE AT ELECTRIC PANEL AND FRAME ALL 4 SIDES OF ELECTRIC PANEL WITH CORNER TRIM - CT-1.
- SEE TILE SCHEDULE

15. PROVIDE & INSTALL GLASS FOOD SHIELDS.
- SEE FINISH SCHEDULE

GENERAL NEW WORK NOTES

1. CONTRACTOR SHALL PROTECT ALL AREAS ADJACENT TO AREA OF RENOVATION, TO INCLUDE AREAS ABOVE AND BELOW WORK AREA. DAMAGE RESULTING FROM WORK TO BE REPAIRED OR REPLACED AT SOLE COST TO CONTRACTOR & TO SATISFACTION OF THE OWNER.

2. INSTALL & MAKE ALL FINAL CONNECTIONS TO NEW & EXIST. EQUIPMENT.
- SEE EQUIPMENT SCHEDULE

3. ALL NEW & EXISTING PENETRATIONS TO BE SEALED AS REQ'D. TO MAINTAIN REQ'D. FIRE RESISTANCE RATINGS. FILL FLOOR PENETRATIONS WITH NON-SHRINK GROUT AS REQ'D. GROUT TO HAVE NO GAPS AND BE FLUSH W/ ADJACENT SURFACES.

4. ALL NEW & EXIST. SURFACES TO REMAIN ARE TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE. REMOVE ALL ABANDONED, FASTENERS, ANCHORS, ETC & PATCH ALL EXIST. SURFACES TO REMAIN & PREP FOR NEW WORK & FINISHES. ALL EXIST. VISIBLE SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.(TYP.)
- SEE FINISH SCHEDULE

5. CONTRACTOR SHALL PROTECT ALL EXISTING EQUIPMENT THAT SHALL BE STORED ONSITE. OWNER TO REMOVE EXISTING TO OWNERS STORAGE LOCATION. CONTRACTOR SHALL PROVIDE PROTECTIVE LAYER/TARP UNDER EQUIPMENT STORED ONSITE TO PROTECT THE FLOOR. A DUST COVERING SHALL BE PLACED OVER THE EQUIPMENT TO PREVENT CONSTRUCTION DUST FROM SETTLING ON EQUIPMENT. COORD. EXACT STORAGE LOCATION WITH OWNER PRIOR TO SETTING STORAGE AREA.

6. ALL EXIST. UTILITIES TO BE RELOCATED TO ACCOMMODATE NEW CEILING HEIGHTS & NEW WORK. UTILITIES TO INCLUDE, BUT NOT LIMITED TO, ALL PLUMBING, MECHANICAL, ELECTRICAL, PNEUMATIC AND DATA SERVICES.

7. CONTRACTOR TO INSTALL NEW UTILITIES AS REQ'D. TO ACCOM. NEW EQUIPMENT, SIGNAGE, & MONITORS. CONFIRM LOCATION WITH OWNER & ARCHITECT PRIOR TO INSTALLATION.
- SEE EQUIPMENT SCHEDULE
- SEE PLUMBING
- SEE ELECTRICAL

NOTE:

1. SEE SHEET A3.2 FOR ADDITIONAL WORK AT FOOD COURT COLUMNS.

LEGEND

- EXISTING TO REMAIN
- NEW CONSTRUCTION
- EP — ELECTRICAL PANELS - SEE ELECTRICAL
- 1 — WALL TYPE
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- CG — CORNER GUARD - SEE FINISH SCHEDULE
- FS / FD — FLOOR SINK / FLOOR DRAIN - SEE PLUMBING

1/2" = 1' - 0"

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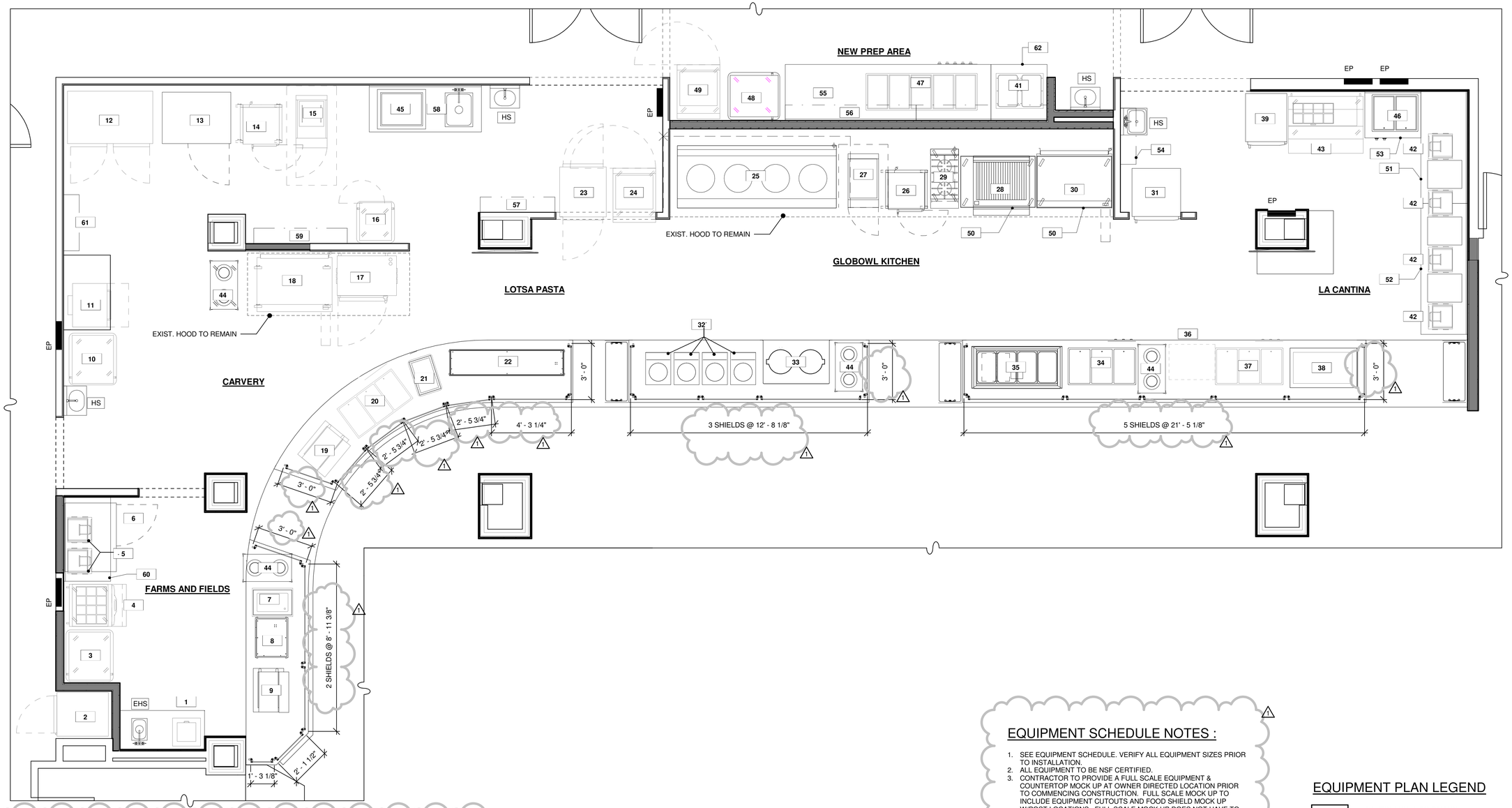

1 A1.7 A1.7 3/8" = 1'-0"

EQUIPMENT & FOOD SHIELD PLAN

EQUIPMENT SCHEDULE NOTES :

1. SEE EQUIPMENT SCHEDULE. VERIFY ALL EQUIPMENT SIZES PRIOR TO INSTALLATION.
2. ALL EQUIPMENT TO BE NSF CERTIFIED.
3. CONTRACTOR TO PROVIDE A FULL SCALE EQUIPMENT & COUNTERTOP MOCK UP AT OWNER DIRECTED LOCATION PRIOR TO COMMENCING CONSTRUCTION. FULL SCALE MOCK UP TO INCLUDE EQUIPMENT CUTOUTS AND FOOD SHIELD MOCK UP W/POST LOCATIONS. FULL SCALE MOCK UP DOES NOT HAVE TO UTILIZE SAME MATERIALS & EQUIPMENT AS FINISHED PROJECT, BUT MUST BE REPRESENTATIVE OF ACTUAL SIZE AND SPACE .
4. DURING CONSTRUCTION CONTRACTOR TO PROVIDE 1/4" MIN. MDF COUNTERTOP TEMPLATE TO INCLUDE EQUIPMENT CUTOUTS AND FOOD SHIELD MOCK UP W/POST LOCATIONS FOR OWNER APPROVAL PRIOR TO INSTALLING COUNTERTOP.
5. UNLESS NOTED OTHERWISE, EQUIPMENT SHALL BE PROVIDED BY OWNER. CONTRACTOR RESPONSIBLE FOR ALL HOOK UPS.
6. CONTRACTOR TO VERIFY ALL UTILITY CONNECTIONS & LOCATIONS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
7. INSTALL ALL EQUIPMENT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
8. VERIFY EQUIPMENT SIZE AND COUNTERTOP CUTOUT LOCATIONS. CUTOUT SIZES SHALL ACCOMMODATE NOMEX TAPE INSTALLATION.
9. PROVIDE & INSTALL HOT FRAMES, SEE FINISH NOTES.
10. WATER FILTRATION SYSTEMS TO BE LOCATED BEHIND EQUIPMENT. COORDINATE LOCATIONS WITH OWNER PRIOR TO ROUGH IN.
11. OFOI - OWNER FURNISHED OWNER INSTALLED
12. OFCI - OWNER FURNISHED CONTRACTOR INSTALLED
13. CFCI - CONTRACTOR FURNISHED CONTRACTOR INSTALLED
14. CUSTOM WORK TABLES, WORK TABLES, & STAINLESS STEEL COUNTERTOPS SHALL HAVE 5" BACKSPLASH. BACKSPLASH & SIDES ADJACENT TO WALLS SHALL BE CAULKED WITH NSF CERTIFIED CAULKING.
15. AT WALL MOUNTED SHELVING PROVIDE & INSTALL FRT WOOD BLOCKING, 2" X 6" MIN., BLOCKING SHALL EXTEND THE LENGTH OF THE SHELVING.

EQUIPMENT PLAN LEGEND

- EXISTING WALL TO REMAIN
- NEW WALL
- 1 HR FIRE RESISTANCE RATING
- 2 HR FIRE RESISTANCE RATING
- # — EQUIPMENT TAG -SEE EQUIPMENT SCHEDULE
- EHS — EXISTING HAND SINK - SEE PLUMBING
- HS — HAND SINK - SEE PLUMBING
- EP — ELECTRICAL PANELS - SEE ELECTRICAL

DO NOT SCALE EQUIPMENT PLAN

colley architects pc
design community environment

SUITE 301 620 N. MAIN STREET
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EQUIPMENT & FOOD SHIELD PLAN

Virginia Tech

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ADDENDUM 2 - ATTACHMENT C.

EQUIPMENT SCHEDULE

MARK	EQUIPMENT NAME	MANUFACTURER	MODEL	SIZE			ELECTRICAL					PLUMBING			GAS		STATUS	FURNISHED & INSTALLED BY	COMMENTS/QUESTIONS
				WIDTH	DEPTH	HEIGHT	VOLTS	AMPS	PHASE	KW	RECPT TYPE	HW	CW	DRAIN	SIZE	BTU/HR			
FRANKS																			
2	REFRIGERATOR	HOBART	DAF1	27 3/8"	35"	82 1/2"	120	10.4			5-20R						EXIST.	OFCI	
FARMS AND FIELDS																			
1	ICE CREAM FREEZER	PERLICK	8000UL	16 1/8"	16 1/8"	26 3/4"	120	1.6			5-20R						EXIST.	OFCI	
3	WARMER	F.W.E.	TS-1826-18D	30 1/2"	33 1/4"	69 1/2"	120	10			5-205						EXIST.	OFCI	
4	PREP COOLER	VICTORY	UR-27-SAL	27"	35"	42 1/4"	120	5.7			5-20R						EXIST.	OFCI	
5	PANINI PRESS	DOUGHPRO	CSD1515	19 5/16"	24 1/2"		120	18.3			5-30R						EXIST.	OFCI	2 INDIVIDUAL PRESSES SHOWN
6	UNDERCOUNTER REFRIGERATOR	TRAULSEN	TU044HT	44"	34"	33 7/10"	120	6.3			5-20R						NEW	OFCI	
7	COLD WELL	RANDELL	9918SCA	26"	17 1/2"	27 1/2"	120	5			5-20R			SEE COMMENTS			EXIST.	OFCI	VALVE DRAIN PROVIDED WITH UNIT FOR EXTENSION TO FLOOR SINK
8	SOLERA DROP IN MERCHANDISER	BSI	HTD-INF-NF-24	23 15/16"	25 11/16"		120	4.5			5-20R						NEW	OFCI	
9	CARVING STATION WITH HEAT LAMP	HANSON	DLM/BB/300ST	24"	20"		120			.5	5-20R						NEW	OFCI	
60	STAINLESS STEEL COUNTERTOP	ADVANCE TABCO	CUSTOM VCTF-304	42"	30"	1 1/2"	120				5-20R						NEW	CFCI	CUSTOM SIZE TOP W/ STAINLESS STEEL ADJUSTABLE BULLET FEET TA-20-4
CARVERY																			
10	WARMER	F.W.E.	TS-1826-18D	30 1/2"	33 1/4"	69 1/2"	120	11			5-20R						EXIST.	OFCI	
11	OVEN	MERRYCHEF	EIKON E5	28"	27 13/16"	25 5/16"	208	30	1	6.2	6-30R						EXIST.	OFCI	PLACE ON EXIST. ROLLING SS TABLE
12	FREEZER	HOBART	DAF2	54 3/4"	35"	82 1/2"	120	15			5-20R						EXIST.	OFCI	
13	UNDERCOUNTER REFRIGERATOR	TRAULSEN	UHT32-R	32"	31 3/8"	33 5/8"	120	10.6			5-20R						NEW	OFCI	W/ OFCI METRO SMARTLEVER - SM863042-KIT, SM863042-ADD, & SMW42 ABOVE
14	STEAMER (DBL. STACK)	ACCU-STEAM	E62083E150 DBL	23 1/4"	30 1/2"	30 3/8"	208	42	3		15-50R		3/4"	3/4"			EXIST.	OFCI	BARB FRONT MOUNTED DRAIN - EACH UNIT, WATER CONNECTION 3/4" MALE GARDEN HOSE
15	PASTA COOKER	FRYMASTER	8BCSC	18"	32 3/4"	49"	208	42	1	8	6-50R	1/2"	1/2"	(2) 1 1 /2"			EXIST.	OFCI	1/4" COLD WATER SOLENOID
16	WARMER	F.W.E.	PS-1220-15	24 1/2"	26 3/4"	57 1/2"	120	10.8			5-20R						EXIST.	OFCI	
17	ROTISSERIE	HOBART	HR7	38 7/8"	34"	38 3/8"	208	42.8	1		6-50R						EXIST.	OFCI	
18	GRIDDLE	ACCU-STEAM	GGF1201A4850-S2	48 1/4"	38 5/16"	42 3/8"	120			.3	5-20R						EXIST.	OFCI	
19	CARVING STATION WITH HEAT LAMP	HATCO	GRS-24-I	24"	19 1/2"	5 3/8"	120	2.9			5-20R						EXIST.	OFCI	
20	HOT WELL	WELLS	MOD-300DM	43 1/2"	23 5/8"	9 3/4"	208	13	1		6-20R			1/2"			EXIST.	OFCI	
21	HOT WELL	ATLAS	WIH-D-1	24"	16"	16 1/2"	120			1				1/2"			EXIST.	OFCI	
45	DROP-IN COLD WELL	WELLS	RCP-200	31"	25 3/8"	24 1/2"	120	5.5						1"			NEW	OFCI	CONTRACTOR SHALL INSTALL IN WORKTABLE
58	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	CUSTOM KLAG-11B-306L-X	30"	30"	35 1/2"											NEW	CFCI	CUSTOM TABLE, W/ 16" X 20" X 12 INTEGRAL SINK, SPLASH GUARD AT SINK, MODIFIED TO HOLD DROP IN EQ. #45, COORD. HAT CHANNEL STUDS SUPPORT EQUIPMENT
59	STAINLESS STEEL SHELF	ADVANCE TABCO	WS-10-60-16	60"	10"	10"											NEW	CFCI	4 SHELVES, COORD. MOUNTING HEIGHT PRIOR TO INSTALLATION
61	STAINLESS STEEL SHELF	ADVANCE TABCO	WS-10-36-16	36"	10"	10"											NEW	CFCI	4 SHELVES, COORD. MOUNTING HEIGHT PRIOR TO INSTALLATION
LOTSA PASTA																			
22	HEATED SHELVES	HATCO	GRSB-72-F	72 3/4"	16 1/4"	4 7/8"	120	7.2			5-20R						NEW	OFCI	
23	2 DOOR REFRIGERATOR	TRAULSEN	RHT132WPUT-HHS	29 7/8"	37 15/16"	83 1/4"	120	7.2			5-20R						EXIST.	OFCI	
24	WARMER	DELFIELD	SLHPT29-GS				115/208	1.6-2.0			10-20R						EXIST.	OFCI	
57	STAINLESS STEEL SHELF	ADVANCE TABCO	WS-10-48-16	48"	10"	10"											NEW	CFCI	4 SHELVES, COORD. MOUNTING HEIGHT PRIOR TO INSTALLATION
GLOBOWL KITCHEN																			
25	CHINESE RANGE	JADE TITAN	JCR-4	102"	40"	62 3/4"	120	.2			5-20R	(2) 1/2"	(2) 1/2"	2"	1 1/4"	400,000	NEW	OFCI	1 1/4" GAS REGULATOR, 1/2" CW MANIFOLD CONNECTION, 1 FAUCET PER 2-HOLE
26	STEAMER	ACCUTEMP	E62083E150	23 1/4"	30 1/2"	30 3/8"	208		3	15	15-50R		3/4"	3/4"			NEW	OFCI	BARB FRONT MOUNTED DRAIN, WATER CONNECTION 3/4" MALE GARDEN HOSE
27	FRYER	PITCO	SSH75R	19 5/8"	38 11/32"	54 13/32"	120	.7			5-20R				3/4"	125,000	NEW	OFCI	
28	BROILER	JADE TITAN	JMRH-36B	36"	38"	72 1/2"	120			.3	5-20R				3/4"	90,000	NEW	OFCI	1" GAS REGULATOR, SITS ON EQUIP. #50
29	RANGE	JADE TITAN	JTRH-2	18"	38"	66 1/2"	120			.3	5-20R				(2) 35	70,000	NEW	OFCI	1" GAS REGULATOR
30	GRIDDLE	ACCU-STEAM	GGF1201A4850-S2	48 1/4"	38 5/16"	42 3/8"	120			.3	5-20R				3/4"	85,000	NEW	OFCI	SITS ON EQUIP. #50
31	REFRIGERATOR	VICTORY	RS-1D-S1-EW-HD	31 1/4"	35"	84 1/4"	120	9.8		2.5	5-20R						NEW	OFCI	
32	DROP-IN INDUCTION WOK	COOKTEK	MWDG2500	16 1/2"	16 1/2"	6 1/8"	208	12			6-20R						NEW	OFCI	4 INDIVIDUAL WOKS SHOWN
33	RICE WARMER	TOWN	RICEMASTER 56916S	18 1/4"	18 1/4"	12 1/2"	120			.01	5-20R						NEW	OFCI	2 INDIVIDUAL WARMERS SHOWN
34	HOT WELL	WELLS	MOD-300DM	43 1/2"	23 5/8"	9 3/4"	208		1	.9	6-20R			1/2"			NEW	OFCI	
35	COLD WELL	RANDELL	9957FA	56 3/8"	28 5/16"	27"	120	9			5-15R			1/2"			NEW	OFCI	
50	REFRIGERATED DRAWER	RANDELL	FX-1CS-290	48"	33"	23 5/16"	120	7			5-20R						NEW	OFCI	
LA CANTINA																			
36	FOOD WARMER DRAWER	HATCO	HDW-2	29 1/2"	22 5/8"	21 1/8"	208	4.3	1	.9	6-15R						EXIST.	OFCI	
37	HOT WELL	WELLS	MOD-300DM	43 1/2"	23 5/8"	9 3/4"	208		3	.7			1/2"	1/2"			EXIST.	OFCI	AUTOMATIC WATER FILL REFER TO OPERATORS MANUAL
38	LOW TEMP. COLDWELL	TEMPEST AIRE	DI-2037-TA	45"	26 3/4"	25 3/4"	120	12			5-15R						EXIST.	OFCI	
39	REACH-IN WARMING CABINET	VICTORY	HSD-1D-1	26 1/2"	35"	84 1/4"	208		1	1.5	6-20R						NEW	OFCI	
42	PANINI PRESS	DOUGHPRO	CSD1515	19 5/16"	24 1/2"		120	18.3			5-30R						EXIST.	OFCI	
43	PREP. COOLER	BEVERAGE AIR	SPED48-08C-2	48"	37 7/8"	41 11/16"		7.5			5-205						EXIST.	OFCI	
46	DROP IN HOT WELL	WELLS	MOD-200DM	29 1/2"	23 5/8"	9 3/4"	208		1	1.2	6-15R			1/2"			NEW	OFCI	CONTRACTOR SHALL INSTALL IN WORKTABLE
51	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	TKSS-306	30"	72"	35 1/2"											NEW	CFCI	
52	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	TKSS-307	30"	84"	35 1/2"											NEW	CFCI	
53	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	CUSTOM TKSS-303	30"	36"	35 1/2"											NEW	CFCI	CUSTOM TABLE MODIFIED TO HOLD DROP IN EQ. #46, COORD. HAT CHANNEL STUDS SUPPORT EQUIPMENT
54	STAINLESS STEEL SHELF	ADVANCE TABCO	WS-10-36-16	36"	10"	10"											NEW	CFCI	2 SHELVES, COORD. MOUNTING HEIGHT PRIOR TO INSTALLATION
NEW PREP AREA																			
41	HOT WELL	DUKE	E302M	30 3/8"	29 7/16"	34"	208		1	1.2							EXIST.	OFCI	CONTRACTOR SHALL INSTALL IN WORKTABLE
47	HOT WELL	WELLS	MOD500	71 1/2"	23 5/8"	9 3/4"	208		1	1.2			1/2"	1/2"			EXIST.	OFCI	CONTRACTOR SHALL INSTALL IN WORKTABLE, AUTOMATIC WATER FILL, REFER TO OPERATORS MANAUL
48	WARMER	F.W.E.	TS-1826-18	30 1/2"	33 1/4"	69 1/2"	120	11									NEW	OFCI	
49	WARMER	DELFIELD	SLHPT29-GS				115/208	1.6-2.0	1								EXIST.	OFCI	
55	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	CUSTOM TKSS-3611	36"	132"	35 1/2"											NEW	CFCI	CUSTOM TABLE MODIFIED TO HOLD DROP IN EQ. #47, COORD. HAT CHANNEL STUDS SUPPORT EQUIPMENT
56	STAINLESS STEEL SHELF	ADVANCE TABCO	WS-10-84-16	84"	10"	10"											NEW	CFCI	4 SHELVES, COORD. MOUNTING HEIGHT PRIOR TO INSTALLATION
62	STAINLESS STEEL WORK TABLE	ADVANCE TABCO	CUSTOM TKSS-363	36"	36"	23 1/2"											NEW	CFCI	CUSTOM TABLE MODIFIED TO HOLD DROP IN EQ. #41, COORD. HAT CHANNEL STUDS SUPPORT EQUIPMENT
44	PLATE DISPENSER	TBD	TBD	EX.	EX.	EX.											NEW	OFOI	UNDERCOUNTER, NO UTILITIES

EQUIPMENT SCHEDULE NOTES :

1. SEE EQUIPMENT SCHEDULE. VERIFY ALL EQUIPMENT SIZES PRIOR TO INSTALLATION.
2. ALL EQUIPMENT TO BE NSF CERTIFIED.
3. CONTRACTOR TO PROVIDE A FULL SCALE EQUIPMENT & COUNTERTOP MOCK UP AT OWNER DIRECTED LOCATION PRIOR TO COMMENCING CONSTRUCTION. FULL SCALE MOCK UP TO INCLUDE EQUIPMENT CUTOUTS AND FOOD SHIELD MOCK UP W/POST LOCATIONS. FULL SCALE MOCK UP DOES NOT HAVE TO UTILIZE SAME MATERIALS & EQUIPMENT AS FINISHED PROJECT, BUT MUST BE REPRESENTATIVE OF ACTUAL SIZE AND SPACE .
4. DURING CONSTRUCTION CONTRACTOR TO PROVIDE 1/4" MIN. MDF COUNTERTOP TEMPLATE TO INCLUDE EQUIPMENT CUTOUTS AND FOOD SHIELD MOCK UP W/POST LOCATIONS FOR OWNER APPROVAL PRIOR TO INSTALLING COUNTERTOP.
5. UNLESS NOTED OTHERWISE, EQUIPMENT SHALL BE PROVIDED BY OWNER. CONTRACTOR RESPONSIBLE FOR ALL HOOK UPS.
6. CONTRACTOR TO VERIFY ALL UTILITY CONNECTIONS & LOCATIONS WITH EQUIPMENT SUPPLIER PRIOR TO ROUGH-IN.
7. INSTALL ALL EQUIPMENT PER MANUFACTURERS INSTALLATION INSTRUCTIONS.
8. VERIFY EQUIPMENT SIZE AND COUNTERTOP CUTOUT LOCATIONS. CUTOUT SIZES SHALL ACCOMMODATE NOMEX TAPE INSTALLATION.
9. PROVIDE & INSTALL HOT FRAMES, SEE FINISH NOTES.
10. WATER FILTRATION SYSTEMS TO BE LOCATED BEHIND EQUIPMENT. COORDINATE LOCATIONS WITH OWNER PRIOR TO ROUGH IN.
11. OFOI - OWNER FURNISHED OWNER INSTALLED
12. OFCI - OWNER FURNISHED CONTRACTOR INSTALLED
13. CFCI - CONTRACTOR FURNISHED CONTRACTOR INSTALLED
14. CUSTOM WORK TABLES, WORK TABLES, & STAINLESS STEEL COUNTERTOPS SHALL HAVE 5" BACKSPLASH. BACKSPLASH & SIDES ADJACENT TO WALLS SHALL BE CAULKED WITH NSF CERTIFIED CAULKING.
15. AT WALL MOUNTED SHELVING PROVIDE & INSTALL FRT WOOD BLOCKING, 2" X 6" MIN., BLOCKING SHALL EXTEND THE LENGTH OF THE SHELVING.

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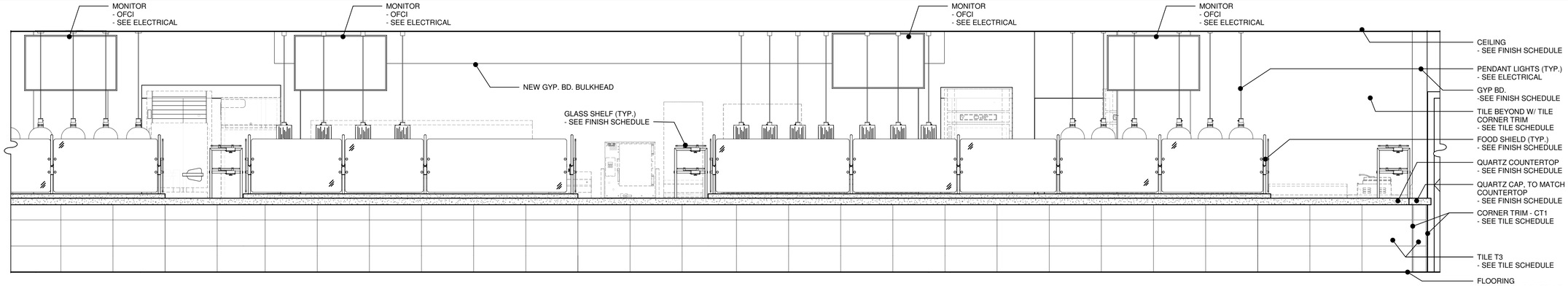
REVISIONS	DATE
ADDENDUM 2	10.22.18

EQUIPMENT SCHEDULE

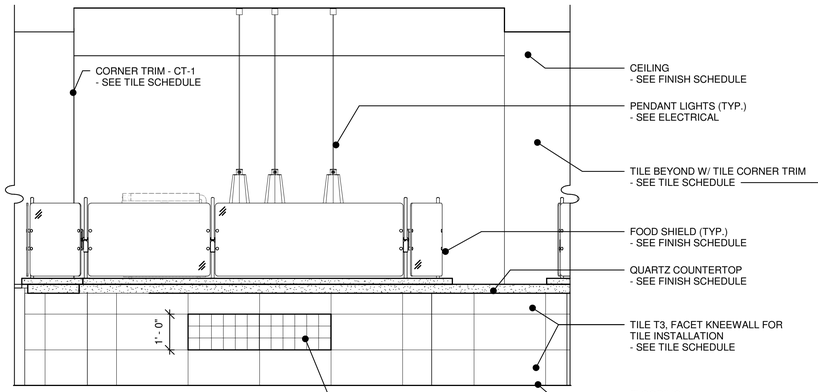
Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	A1.8



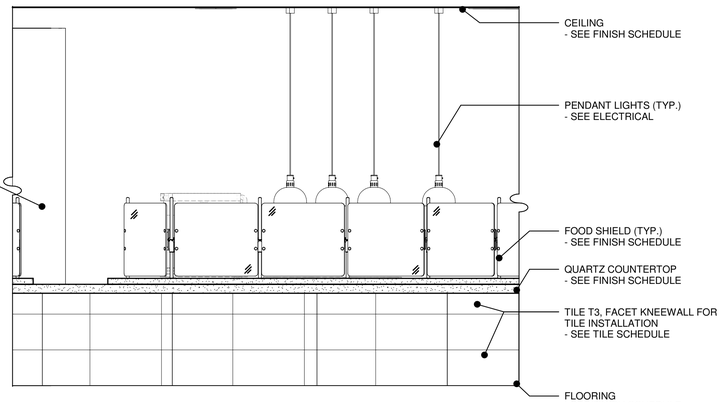
1 ELEVATION - GLOBOWL KITCHEN

A1.5 | A2.1 — 1/2" = 1'-0"



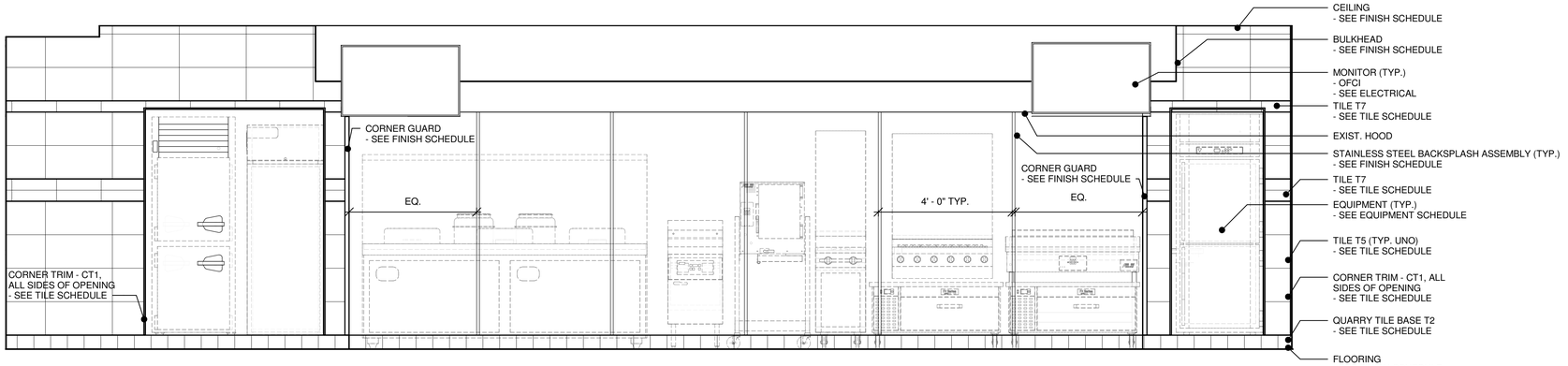
2 ELEVATION - FARMS AND FIELDS

A1.5 | A2.1 — 1/2" = 1'-0"



3 ELEVATION - CARVERY

A1.5 | A2.1 — 1/2" = 1'-0"



4 ELEVATION - GLOWBOWL KIT. HOOD

A1.6 | A2.1 — 1/2" = 1'-0"

1/2" = 1' - 0"

0 2 4 6 8

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ELEVATIONS

Virginia Tech

RENOVATIONS TO OWENS HALL

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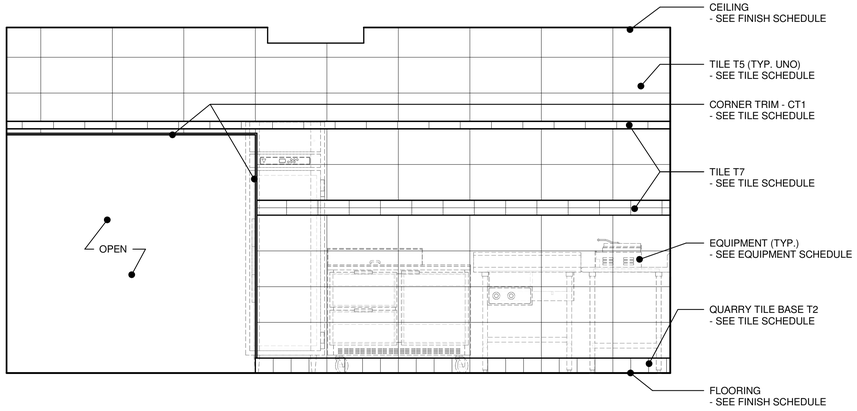
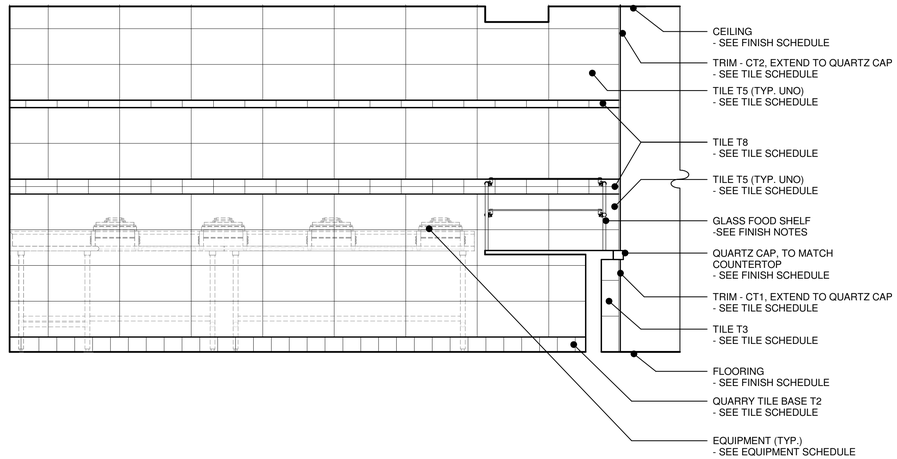
DRAWN	KJC / BHC
JOB	1804
SHEET	A2.1

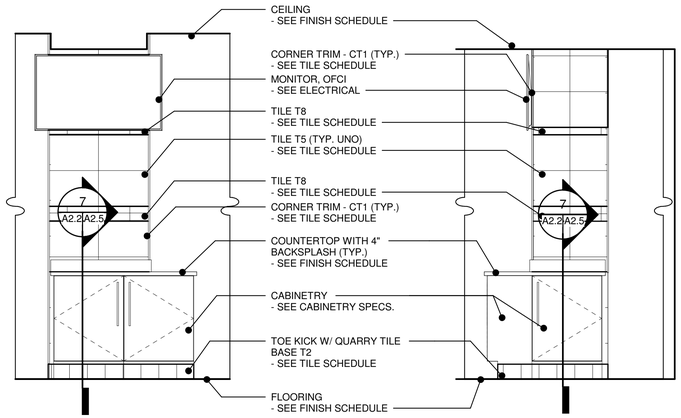
ADDENDUM 2 - ATTACHMENT C.



1 A1.6 A2.2 ELEVATION
1/2" = 1'-0"

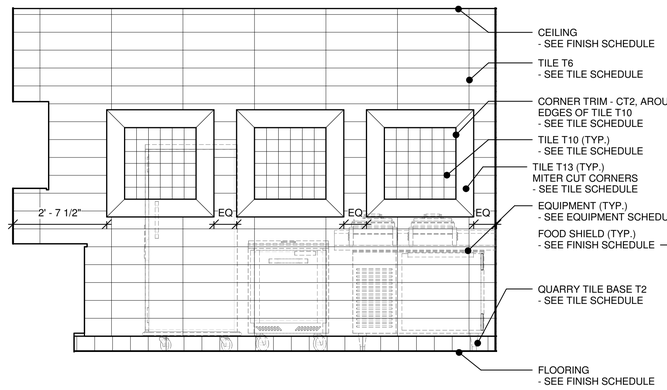


2 A1.6 A2.2 ELEVATION
1/2" = 1'-0"

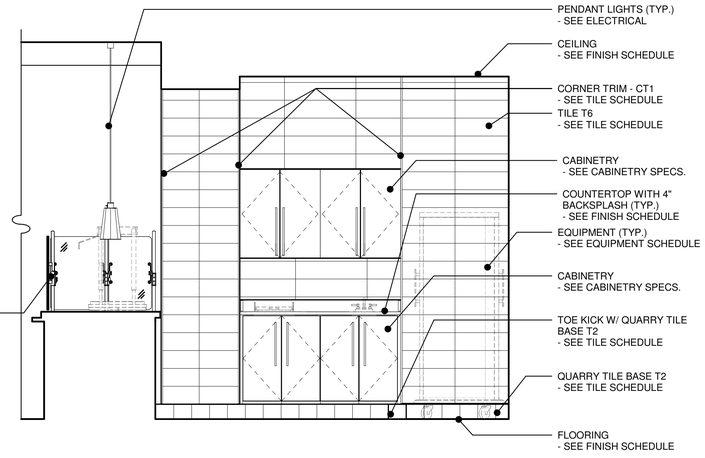


3 A1.6 A2.2 ELEVATION
1/2" = 1'-0"

4 A1.6 A2.2 ELEVATION
1/2" = 1'-0"



5 A1.5 A2.2 ELEVATION
1/2" = 1'-0"



6 A1.5 A2.2 ELEVATION
1/2" = 1'-0"

1/2" = 1' - 0"
0 2 4 6 8

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ELEVATIONS

Virginia Tech
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FOOD COURT - SERVING LINE
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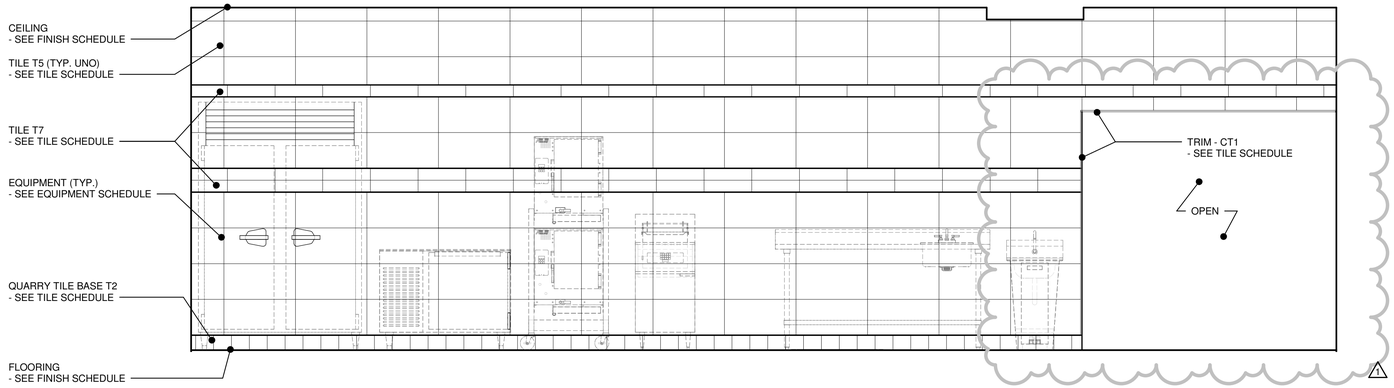
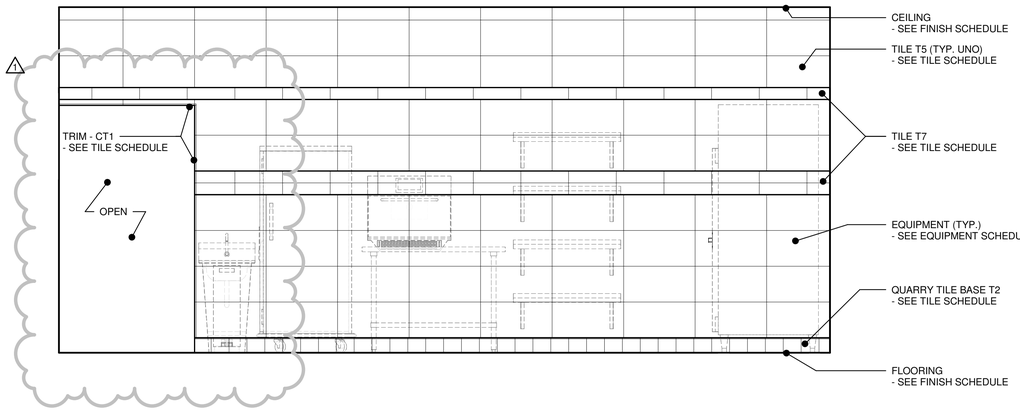
SCALE	AS NOTED
DRAWN	KJC / BHC
OB	1804
SHEET	A2.2

ADDENDUM 2 - ATTACHMENT C.



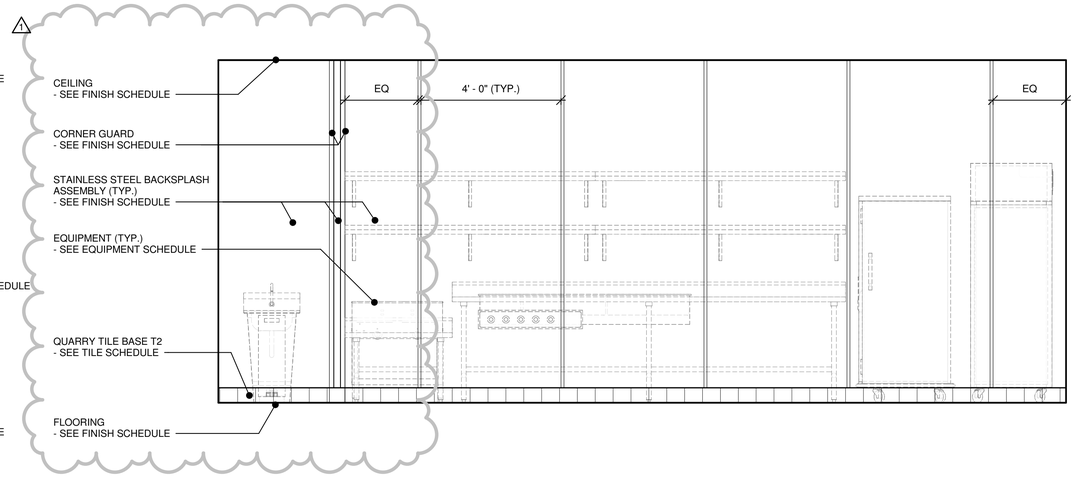
1 A1.5 A2.3 ELEVATION

1/2" = 1'-0"



2 A1.5 A2.3 ELEVATION

1/2" = 1'-0"



3 A1.6 A2.3 ELEVATION

1/2" = 1'-0"

1/2" = 1' - 0"

0 2 4 6 8

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ELEVATIONS

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JOB	1804
SHEET	A2.3

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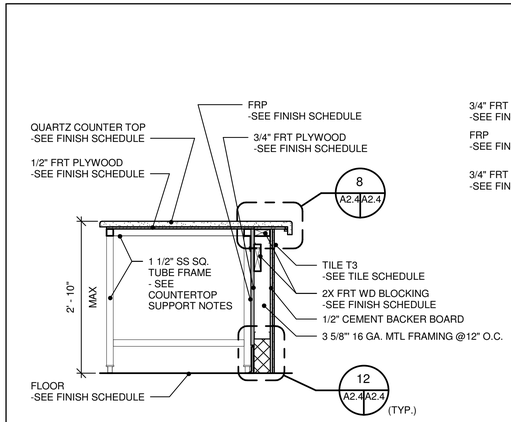
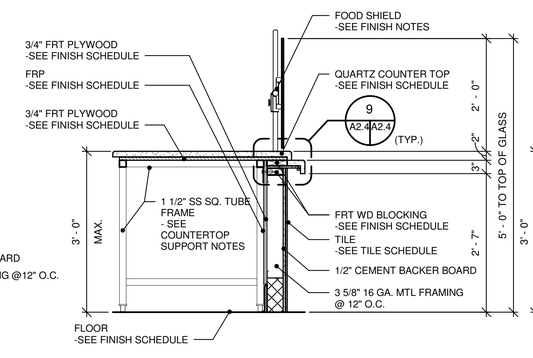
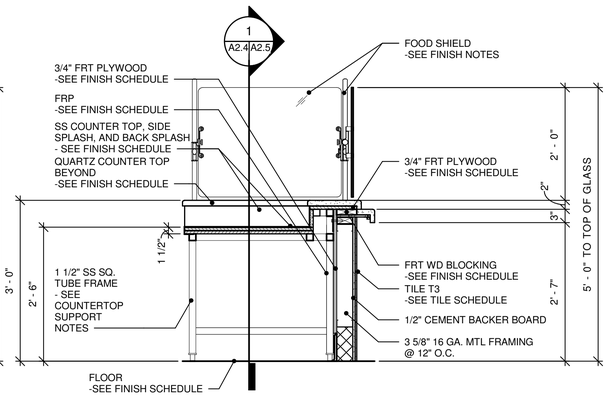


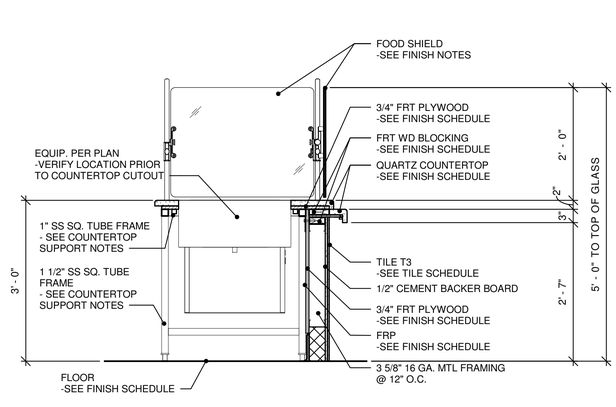
1 A1.5 A2.4 SECTION
3/4" = 1'-0"



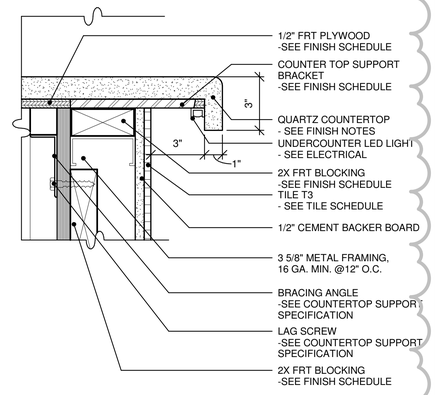
2 A1.5 A2.4 SECTION
3/4" = 1'-0"



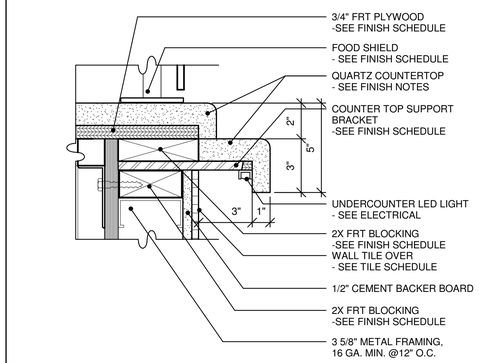
3 A1.6 A2.4 SECTION
3/4" = 1'-0"



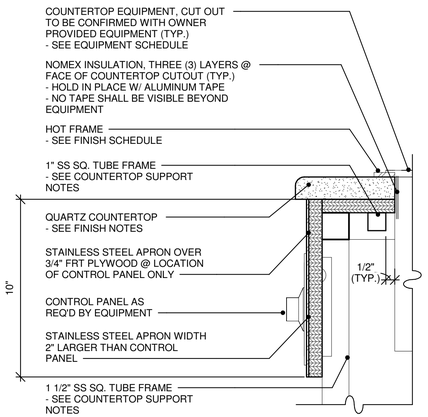
4 A1.5 A2.4 SECTION
3/4" = 1'-0"



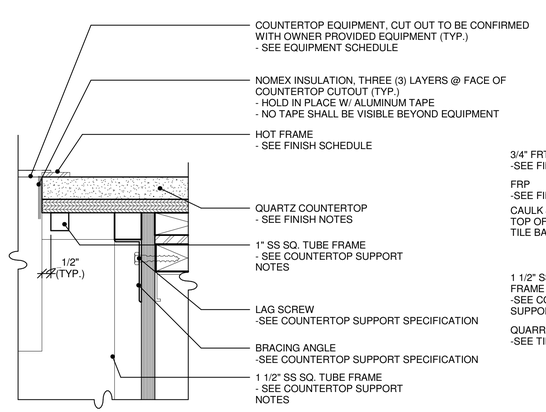
8 A2.4 A2.4 DETAIL - NOSING
3" = 1'-0"



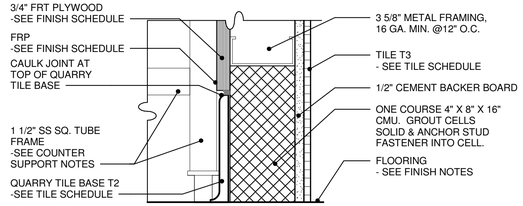
9 A2.4 A2.4 DETAIL - NOSING
3" = 1'-0"



10 A2.4 A2.4 DETAIL - SS APRON
3" = 1'-0"



11 A1.6 A2.4 DETAIL
3" = 1'-0"



12 A2.4 A2.4 DETAIL - BASE
3" = 1'-0"

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SECTIONS

Virginia Tech
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BLACKSBURG . VIRGINIA

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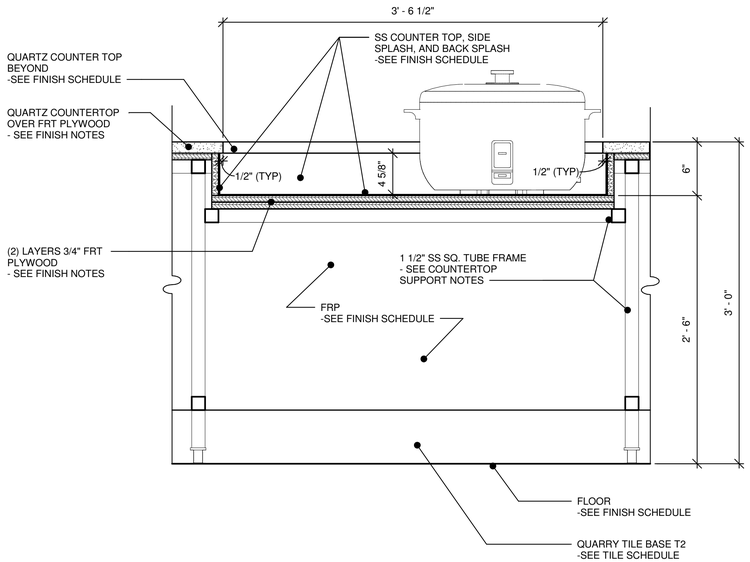
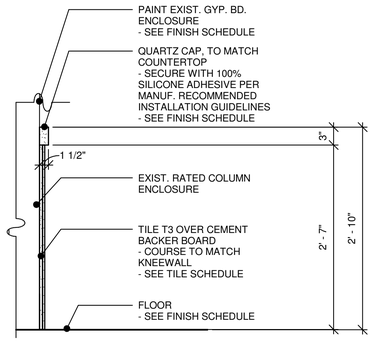
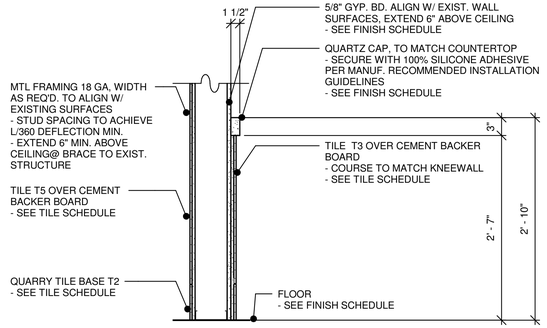
DRAWN	KJC / BHC
JOB	1804
SHEET	A2.4



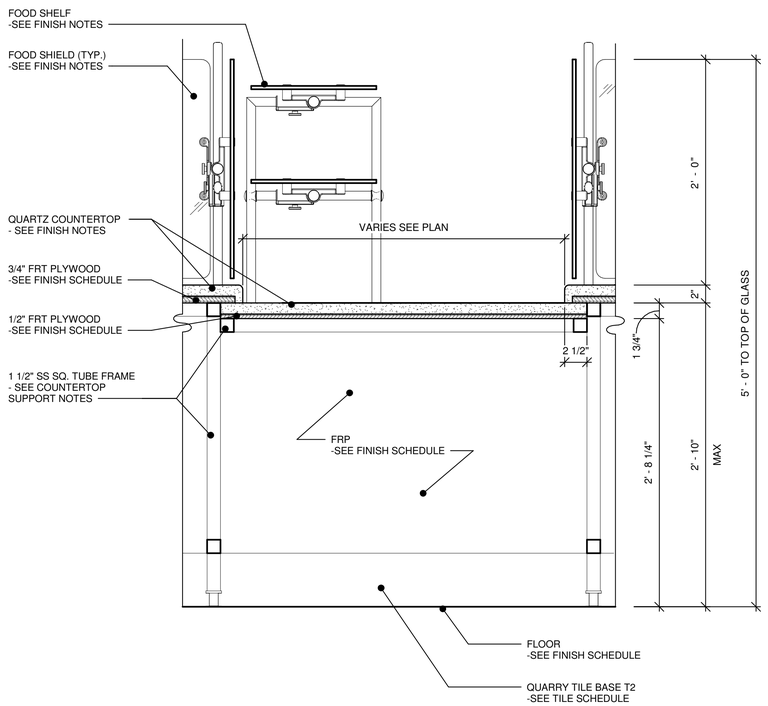
1 A2.4 A2.5 SECTION 1 1/2" = 1'-0"



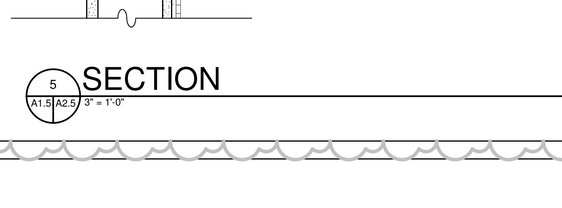
2 A1.3 A2.5 SECTION 1" = 1'-0"



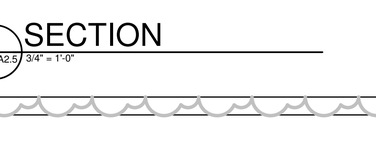
3 A1.6 A2.5 SECTION 1" = 1'-0"



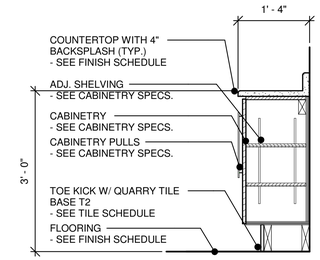
4 A1.5 A2.5 SECTION 1 1/2" = 1'-0"



5 A1.5 A2.5 SECTION 3" = 1'-0"



6 A1.5 A2.5 SECTION 3/4" = 1'-0"



7 A2.2 A2.5 SECTION 3/4" = 1'-0"

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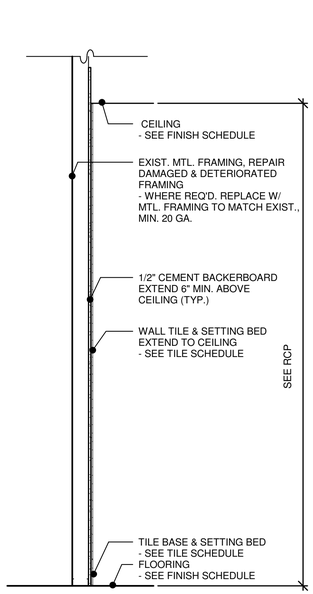
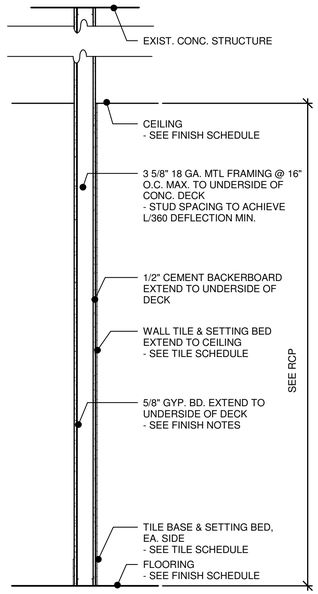
ADDENDUM 2 - ATTACHMENT C.



1

1A SAME AS 1 EXCEPT PATCH & PREP EXIST. RATED GYP. BOARD COLUMN ENCLOSURE



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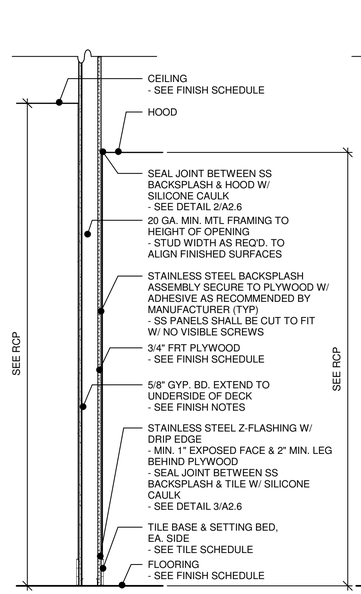

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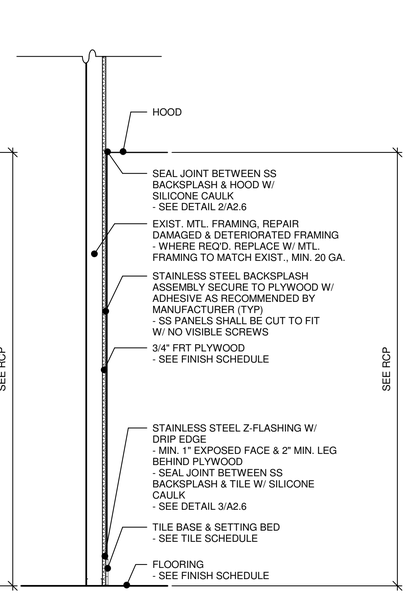
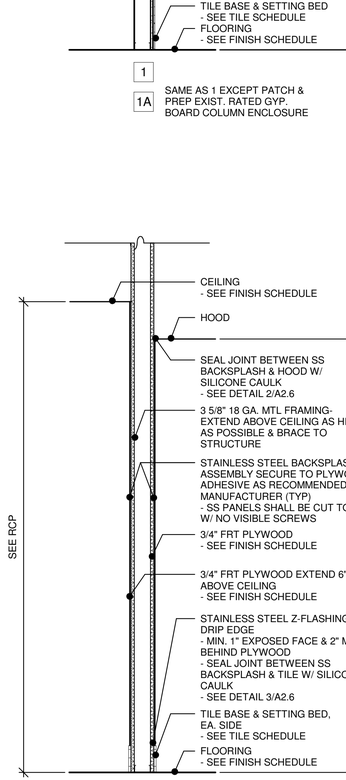


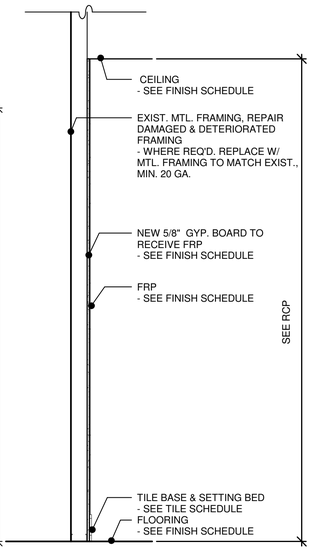
4

4A SAME AS 4 EXCEPT INSTALL FRT PLYWOOD OVER RATED GYP. BOARD ENCLOSURE



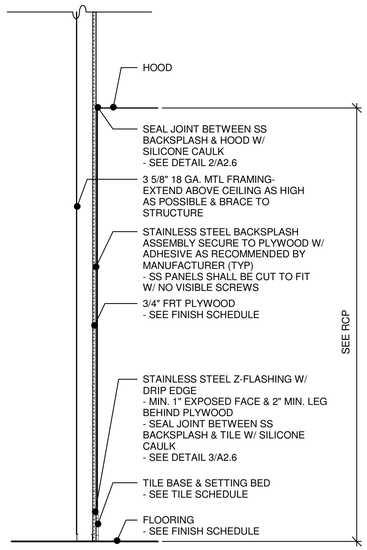
5

5A SAME AS 5 EXCEPT NO HOOD



6

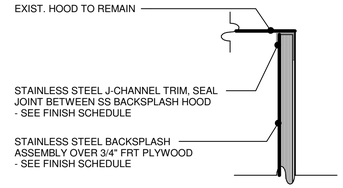
6A SAME AS 6 EXCEPT PATCH & PREP EXIST. RATED GYP. BOARD COLUMN ENCLOSURE



7

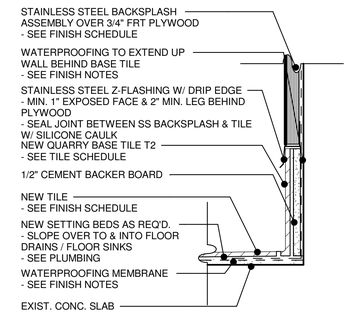
7A SAME AS 7 EXCEPT NO HOOD

1 A2.6 A2.6 WALL TYPES
3/4" = 1'-0"



DETAIL - STAINLESS STEEL - BACKSPLASH HEAD

2 A2.6 A2.6 3" = 1'-0"



DETAIL - STAINLESS STEEL - BACKSPLASH BASE

3 A2.6 A2.6 3" = 1'-0"

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WALL TYPES

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SHEET	A2.6

ADDENDUM 2 - ATTACHMENT C.

FINSH SCHEDULE

ROOM NO.	ROOM NAME	FLOOR FINISH	BASE MATERIAL	WALL FINISH	CEILING MATERIAL	CEILING HEIGHT
100	FOOD COURT	EXIST. / NEW TILE	TILE / QUARRY TILE	TILE / PAINT	GYP. BD.	EXIST.
100C	FARMS AND FIELDS	QUARRY TILE	QUARRY TILE	TILE / PAINT	SPECTRATILE / GYP. BD.	SEE RCP
100D	CARVERY	QUARRY TILE	QUARRY TILE	TILE / PAINT / STAINLESS STEEL / FRP	SPECTRATILE / GYP. BD.	SEE RCP
100E	LOTSA PASTA	QUARRY TILE	QUARRY TILE	TILE / PAINT	SPECTRATILE / GYP. BD.	SEE RCP
100F	NEW PREP AREA	QUARRY TILE	QUARRY TILE	TILE / PAINT / STAINLESS STEEL	SPECTRATILE / GYP. BD.	SEE RCP
100G	GLOBOWL KITCHEN	QUARRY TILE	QUARRY TILE	TILE / PAINT / STAINLESS STEEL	SPECTRATILE / GYP. BD.	SEE RCP
100H	LA CANTINA	QUARRY TILE	QUARRY TILE	TILE / PAINT FRP	SPECTRATILE / GYP. BD.	SEE RCP

FINISH NOTES

TABLE 803.9, INTERIOR WALL FINISHES PER OCCUPANCY - OCCUPANCY = A-2 - ALL FINISHES AND MATERIALS SHALL BE MINIMUM CLASS B (UNLESS NOTED OTHERWISE) MATERIALS W/ FLAME SPREAD INDEX 26-75, AND SMOKE-DEVELOPMENT INDEX 0-450.
SECTION 804, INTERIOR FLOOR FINISHES - OCCUPANCY = A-2 - ALL INTERIOR FLOOR COVERING MATERIALS SHALL COMPLY W/ CPSC 16 CFR PART 1630 OR ASTM D 2859. ALL INTERIOR FLOOR FINISHES AND FLOOR COVERING MATERIALS SHALL WITHSTAND A MINIMUM CRITICAL RADIANT FLUX NOT LESS THAN CLASS II.

TILE:
- SEE TILE SCHEDULE

QUARRY TILE:
- SEE TILE SCHEDULE

COUNTERTOP:
- SOLID SURFACE QUARTZ - NSF/ANSI STANDARD 512 COMPLIANT - 3 CM. MIN THICKNESS UNLESS NOTED OTHERWISE, 2 CM. MIN. THICKNESS BACKSPLASH, AS MANUFACTURED BY CAMBRIA, CAMBRIAN COLLECTION, COLOR CANTERBURY, PENCIL ROUND EDGE PROFILE , UNLESS OTHERWISE INDICATED. FRONT APRON TO BE BUILT UP. QUARTZ TO BE INSTALLED OVER FIRE RESISTANT EXTERIOR GRADE PLYWOOD SHEATHING.

1. CONTRACTOR TO PROVIDE MIN. 6" X 6" SAMPLE FOR ARCHITECTS APPROVAL.
2. ENGINEERED QUARTZ SOLID SURFACE MATERIAL CONSISTING OF 93 PERCENT QUARTZ AGGREGATE BLENDED WITH 7 PERCENT RESINS, ADDITIVES, AND ENVIRONMENTALLY SAFE NON-FADE PIGMENTS. QUARTZ SURFACES TO BE NSF/ANSI 51 CERTIFIED FOR FOOD CONTACT, FOR ALL FOOD TYPES.
3. SEAL COUNTERTOP PER MANUF. INSTALLATION INSTRUCTIONS
4. PROVIDE 2" DIA. GROMMET WHERE ELECTRICAL CORDS, UTILITIES, ETC. MUST PASS THROUGH COUNTERTOP. HOLES SHALL HAVE EASED EDGES & POLISHED FINISH. COORD. EXACT LOCATIONS W/ OWNER PRIOR TO INSTALLATION.
5. COUNTERTOP EQUIPMENT CUTOUTS SHALL HAVE RADIUS CORNERS AND EASED EDGES WITH POLISHED FINISH. COORD. EXACT LOCATIONS W/ OWNER PRIOR TO INSTALLATION.
6. AT LOCATIONS OF HOTWELLS PROVIDE HOT FRAMES.

COUNTERTOP SUPPORT BRACKET:
- KNEE WALL COUNTERTOP SUPPORT BRACKET, MANUF. BY ORGINALGRANITEBRACKET.COM, 7" LONG X 2 1/2" WIDE X 1/2" THICK SPACED @ 20" O.C. MAX.

HOT FRAMES:
- AS MANUFACTURED BY SURFACE LINK. INSULATED STAINLESS STEEL HOT FRAMES. 304 STAINLESS STEEL - BRUSHED, 16 GAUGE, ADHESIVE BOTTOM, 1/8" THICK, HEAT RESISTANT NSF & FDA APPROVED FOOD GRADE SILICONE TO SEAL UNDER & AROUND HOT FRAMES PERIMETER. EXTEND 1/2" BEYOND KITCHEN EQUIPMENT. CONTRACTOR SHALL SUBMIT FULL SHOP DRAWINGS FOR APPROVAL. DRAWINGS SHALL INCLUDE OVERALL DIMENSIONS & CUTOUT DIMENSIONS.
- INSTALL AT ALL HOT WELL, HEATED SHIELDS, DROP IN WOK'S, AND DROP IN MERCHANDISERS.

PAINT:
- P1 - SHERWIN WILLIAMS - COLOR TO BE SELECTED BY OWNER - BULKHEAD ABOVE
- P2 - SHERWIN WILLIAMS - COLOR TO BE SELECTED BY OWNER - BULKHEAD ABOVE
- P3 - SHERWIN WILLIAMS - COLOR TO BE SELECTED BY OWNER - GYP. BOARD CEILING
- P4 - SHERWIN WILLIAMS - COLOR TO BE SELECTED BY OWNER - FOOD COURT COLUMNS / WALL
- P5 - SHERWIN WILLIAMS - COLOR TO BE SELECTED BY OWNER - FOOD COURT BULKHEADS

1. ALL EXIST. & NEW BULKHEADS AND GYP. BOARD CEILINGS IN AREA OF RENOVATION SHALL RECEIVE A NEW PAINT FINISH.
2. ALL PAINTED SURFACES TO RECEIVE ONE (1) COAT NO/LOW VOC PRIMER & TWO (2) COATS NO/LOW VOC EGGSHELL PAINT. ALL VISIBLE CMU, CONCRETE, VENEER PLASTER & GYP. BD. SURFACES TO RECEIVE PAINT FINISH UNLESS NOTED OTHERWISE.
3. SURFACES TO REMAIN & BE RE-FINISHED TO BE FREE OF ALL EXIST. OR NEW BUILD-UPS, DRIPS, ETC. TO PROVIDE A SMOOTH, PROFESSIONAL APPEARANCE.
4. ALL EXPOSED STRUCTURE, PIPING, ETC. TO BE PAINTED TO MATCH SURROUNDING FINISHES. COORD. COLORS W/ OWNER & ARCHITECT.
5. ALL EXISTING AND NEW EXPOSED PIPING, INSULATION, CONDUIT, SHEET METAL, ETC. TO REMAIN SHALL BE PAINTED TO MATCH ADJACENT SURFACES. COORDINATE W/ ARCHITECT.
6. ALL EXIST. BULKHEADS, COLUMNS, WALLS AND PLASTER SURFACES TO REMAIN IN AREAS OF NEW WORK TO RECEIVE NEW FINISHES.
7. EXIST. GYP. BD. CEILINGS & SOFFITS TO RECEIVE NEW PAINT AS INDICATED ON FINISH SCHEDULE & FINISH PLANS.
8. NON-FACTORY STAINED FINISHES TO RECEIVE STAIN AS MANUFACTURED BY EGGERS INDUSTRIES OR APPROVED EQUIVALENT & TWO COATS NO/LOW VOC, WATER BASED POLYURETHANE, SHEEN TO BE SELECT BY ARCHITECT, OR APPROVED EQUAL. APPLY ALL FINISHES PER MANUFACTURER'S SPECIFIC INSTRUCTIONS FOR A CONSISTENT APPEARANCE FREE OF BRUSH MARKS, ETC.

SUSPENDED CEILING TILE & GRID:
- SPECTRATILE FINALE SPT6020P, WATERPROOF, SMOOTH FINISH, 2' X 2' SQUARE TILE, COLOR WHITE. GRID TO BE ARMSTRONG AL PRELUDE PLUS XL 15/16. ALL ALUMINUM EXPOSED TEE. FIRE AND SMOKE CLASS A.
- TO THE GREATEST EXTENT POSSIBLE IT IS EXPECTED NEW CEILING HEIGHTS WILL BE SIMILAR TO EXIST. CEILING HEIGHTS.

FIRE RESISTANT TREATED WOOD (FRT):
- ALL CONCEALED WOOD, BLOCKING, PLYWOOD, ETC. TO BE FIRE RESISTANT TREATED WOOD OR WOOD PRIMED W/ FIRE RESISTANT PAINT ON ALL SURFACES & EDGES.
- PLYWOOD SHEATHING SHALL BE EXTERIOR GRADE FIRE RESISTANT TREATED WOOD, 3/4" OR 1/2" AS IDENTIFIED.
- WOOD BLOCKING SHALL BE MIN. 2" X 6" FIRE RESISTANT WOOD BLOCKING,MONITOR BLOCKING TO EXTEND 2' WIDE X 3' TALL MIN. TO THE GREATEST EXTENT POSSIBLE. COORDINATE AV & MONITOR BLOCKING LOCATIONS W/ OWNER & ARCHITECT PRIOR TO INSTALLATION.

FIBERGLASS REINFORCED PLASTIC (FRP):
- PANOLAM. MINIMUM WALL PANEL THICKNESS OF .09", SURFACE BURNING CLASS A RATING, NSF/ANSI 35 CERTIFIED. COLOR WHITE, SMOOTH FINISH. BUTT JOINT NON-CORNER PANELS TO HAVE A SMOOTH AND FLUSH JOINT W/ NO VISIBLE GAPS OR OVERLAPS. CORNER JOINTS SHALL UTILIZE CORNER TRIM PIECES. FRP INSTALLATION TO INCLUDE ALL NECESSARY TRIMS, INSIDE & OUTSIDE CORNER TRIM, MOLDINGS & APPURTENANCES REQ'D FOR A COMPLETE INSTALLATION. FRP ADHESIVE SHALL BE SUITABLE FOR A COMMERCIAL KITCHEN ENVIRONMENT.
- ALL PLYWOOD BELOW SERVING LINE SHALL BE FINISHED WITH FRP.
- ALL PLYWOOD EDGES EXPOSED TO KITCHEN AREA SHALL HAVE 3 MM PVC EDGEBANDING, COLOR TO MATCH FRP.

STAINLESS STEEL CORNER GUARD:
- CG1 - STAINLESS STEEL CORNER GUARD - 18 GA. 1.5" WINGS, 90°. TYPE 304 SATIN FINISH. FULL HEIGHT, MECHANICALLY ATTACHED W/ #8 COUNTERSUNK DRILLED OVAL HEAD SCREW.

GYPSUM BOARD:
- ALL GYPSUM BOARD (GYP. BD.) SHALL BE 5/8" GOLD BOND HI-IMPACT XP GYPSUM BOARD OR APPROVED EQUAL.

FOOD SHIELDS:
- FOOD SHIELDS SHALL BE CONTRACTOR PROVIDED CONTRACTOR INSTALLED. CONTRACTOR TO COORDINATE WITH MANUFACTURER FOR POTENTIAL ADDITIONAL LEAD TIME AS REQUIRED.
FOOD SHIELDS SHALL BE BSI ZGUARD, ZG9500-4 W/ 1" POSTS
- 3/8" THICK FRONT & END PANEL GLASS, W/ 1" RADIUS CORNERS
- FITTINGS TO HAVE BRUSHED ALUMINUM FINISH
- POST MATERIAL STAINLESS STEEL WITH A BRUSHED SATIN FINISHED.
- MOUNTING OPTION - INSTALL ABOVE COUNTER W/ NARROW FLANGE MW2, PER MANUF. RECOMMENDED INSTALLATION INSTRUCTIONS.
- SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL.

GLASS FOOD SHELF:
- CONTRACTOR PROVIDED CONTRACTOR INSTALLED. CONTRACTOR TO COORDINATE WITH MANUFACTURER FOR POTENTIAL ADDITIONAL LEAD TIME AS REQUIRED.
- BSI ZGUARD TWO-TIER DISPLAY SHELF - ZG9930-3, 38" LENGTH
- BRUSHED ALUMINUM FINISH, 1/4" TEMPERED GLASS WITH 1" RADIUS CORNERS, ABOVE COUNTER MW2 NARROW FLANGE INSTALLATION.
- SHOP DRAWINGS SHALL BE PROVIDED FOR REVIEW AND APPROVAL.

STAINLESS STEEL BACKSPLASH ASSEMBLY:
- STAINLESS SUPPLY - 18 GA. 304 STAINLESS STEEL W/ #4 BRUSHED FINISH OVER 3/4" FRT PLYWOOD. 1" WIDE VISIBLE T-MOULDING TRIM BETWEEN PANELS, MECHANICALLY FASTEN TRIM TO PLYWOOD SHEATHING. FASTENERS TO BE STAINLESS STEEL. SEAL STAINLESS STEEL BACKSPLASH AT HOOD & AT BASE USING SILICONE CAULK.
- STAINLESS STEEL Z-FLASHING W/ DRIP EDGE W/ MIN. 1" EXPOSED FACE & 2" MIN. LEG BEHIND PLYWOOD @ JOINT BETWEEN QUARRY TILE BASE & BACKSPLASH ASSEMBLY.

STAINLESS STEEL CORNER TRIM:
- STAINLESS STEEL J-CHANNEL 304 FINISH W/ 1 1/2" VISIBLE LEG. MECHANICALLY FASTEN J-CHANNEL TO WALL STRUCTURE. J-CHANNEL TO WRAP PLYWOOD SHEATHING & STAINLESS STEEL BACKSPLASH ASSEMBLY. FASTENERS TO BE STAINLESS STEEL.

STAINLESS STEEL COUNTERTOP @ RICE WARMER:
- MANUF. BY STAINLESS SUPPLY, OR APPROVED EQUAL, STAINLESS STEEL COUNTER TOP, APRON, SIDESPLASH AND BACKSPLASH. 16 GA 304 18/8 STAINLESS STEEL, NSF CERTIFIED. MATTE FINISH. SQUARE EDGE RETURN. INSTALL PER MANUF.

SELF LEVELING COMPOUND:
BASIS OF DESIGN IS CEMENT BASED SELF LEVELING ARDEX K15 OR APPROVED EQUAL. SUBMIT MANUFACTURER'S PRODUCT DATA AND INSTALLATION INSTRUCTIONS FOR EACH MATERIAL AND PRODUCT USED. INCLUDE MANUFACTURER'S MATERIAL SAFETY DATA SHEETS. PRODUCT MUST HAVE A HYDRAULIC CEMENT-BASED INORGANIC BINDER CONTENT AS THE PRIMARY BINDER WHICH INCLUDES PORTLAND CEMENT PER ASTM C150. STANDARD SPECIFICATION FOR PORTLAND CEMENT AND OTHER SPECIALTY HYDRAULIC CEMENTS. GYPSUM-BASED PRODUCTS ARE NOT ACCEPTABLE. FOLLOW MANUFACTURERS GUIDELINES FOR PREPARATION, APPLICATION, FIELD CONTROL, & TOLERANCES.

PERFORATED METAL VENT:
- MCNICHOLS PERFORATED METAL, 16 GA, 1/8" X 1" ROUND END SLOT, STAGGERED, 44% OPEN AREA, ITEM 16890016M2. 12" X 12" VENT LOCATED ON SIDE OF CASEWORK. INSTALL ON INSIDE FACE OF CASEWORK.

TILE SCHEDULE

MARK	SIZE	MANUFACTURER	STYLE	COLOR	GROUT COLOR	GROUT WIDTH	COMMENTS
T1	6" X 6"	DALTILE	QUARRY TILE	ARID GRAY 0Q42	47 CHARCOAL	1/4"	KITCHEN FLOOR
T2	5" X 6"	DALTILE	QUARRY TILE	ARID GRAY 0Q42 - Q-3565	47 CHARCOAL	1/4"	KITCHEN FLOOR
T3	12" x 24"	CROSSVILLE	ALTERED STATE	COPPER CORE AV344 UPS	115 TRUFFLE	1/8"	KNEEWALL/FOOD COURT FLOOR
T4	NOT USED						
T5	12" X 24"	DALTILE	SHOWSCAPE - REVERSE DOT	ALMOND SH10 - GLOSS	115 TRUFFLE	1/16"	WALL
T6	6" X 24"	WONDER PORCELAIN	RANCH WOOD	RW04 WARM BROWN	106 WALNUT	1/8"	WALL
T7	4" X 16"	DALTILE	ELEVARE	CACAO EL45 - GLOSS	115 TRUFFLE	1/16"	ACCENT WALL TILE
T8	2 1/2" X 10 1/2"	QUINTESSENZA CERAMICHE (MOSAIC COMMERCIAL SOLUTIONS	CROMIA	BRONZO	115 TRUFFLE	1/16"	ACCENT WALL TILE
T9	4" X 4" MOSAIC ON 12" X 12" SHEET	CROSSVILLE	CONVERGENCE	SEPIA CON03	106 WALNUT	PER MANUF.	KNEEWALL
T10	4" X 4" MOSAIC ON 12" X 12" SHEET	CROSSVILLE	CONVERGENCE	SEPIA CON03	106 WALNUT	PER MANUF.	ACCENT WALL TILE
T11	12" X 24"	ATLAS CONCORDE	CHESTER	SADDLE	115 TRUFFLE	1/8"	FOOD COURT FLOOR - ADDITIVE BID
T12	MATCH EXIST.	MATCH EXIST.	MATCH EXIST.	MATCH EXIST.	MATCH EXIST.	MATCH EXIST.	FOOD COURT FLOOR
T13	6" X 48"	WONDER PORCELAIN	RANCH WOOD	RW04 WARM BROWN	106 WALNUT	1/8"	ACCENT WALL

GENERAL TILE FINISH NOTES

1. **CONTRACTOR TO COORDINATE WITH TILE MANUFACTURERS FOR POTENTIAL ADDITIONAL LEAD TIME AS REQUIRED.**
2. NEW FINISHED TILE FLOOR HEIGHT TO MATCH EXISTING FLOOR HEIGHT. TRANSITIONS BETWEEN EXIST. AND NEW TILE TO BE FLUSH WITH NO HEIGHT TRANSITIONS.
3. ALL TILE SYSTEM COMPONENTS TO BE INSTALLED PER MOST CURRENT EDITION OF TCNA (TILE COUNCIL OF NORTH AMERICA) REQUIREMENTS & MANUFACTURER'S SPECIFIC GUIDELINES. ALL METHODS WILL UTILIZE EPOXY GROUT.
4. MORTARS, GROUTS, CAULKS, ADHESIVES AND SIMILAR PRODUCTS TO BE NO/LOW VOC TO THE GREATEST EXTENT POSSIBLE. TECHNICAL DATA SHEETS (TDS) AND MATERIAL SAFETY DATA SHEETS (MSDS) SHALL BE PROVIDED TO ASSURE COMPLIANCE.
5. ALL FLOOR TILE, WATERPROOFING MEMBRANES & SETTING BEDS TO PROVIDE POSITIVE SLOPE AS REQ'D. OVER TO & INTO ALL FLOOR DRAINS.
6. WATERPROOFING MEMBRANE TO BE LATICRETE HYDROBAN, OR APPROVED EQUAL. MEMBRANE TO BE APPLIED CONTINUOUSLY TO COVER ENTIRE FLOOR AREA AND TO BE AN INTEGRAL COMPONENT OF THE FLOOR TILE & SETTING BED SYSTEM AND INTEGRATE PROPERLY WITH MORTAR, GROUT AND ALL OTHER COMPONENT MATERIALS. EXTEND WATERPROOFING UP WALL TO HEIGHT OF BASE TILE. AT SINK LOCATIONS EXTEND WATERPROOFING 12" MIN. ABOVE SINK & 12" MIN. TO EACH SIDE OF SINK.
7. THIN SET SHALL BE LATICRETE 254 PLATINUM OR APPROVED EQUAL.
8. THICK BED MORTAR SHALL BE LATICRETE 3701 FORTIFIED MORTAR BED OR APPROVED EQUAL.
9. GROUT SHALL BE LATICRETE SPECTRALOCK 2000 IG EPOXY GROUT INDUSTRIAL - XP 2000 HIGH PERFORMANCE INDUSTRIAL EPOXY LIQUIDS AND XP 2000 HIGH PERFORMANCE INDUSTRIAL EPOXY POWDER.
10. MORTARS AND ADHESIVES SHALL BE LATICRETE PRODUCTS SUITABLE FOR COMMERCIAL KITCHEN INSTALLATION WITH EPOXY GROUT FOR A COMPLETE SYSTEMS WARRANTY.
11. CONTRACTOR SHALL FOLLOW ALL SPECIFICATIONS, CERTIFICATIONS, ETC. AS REQ'D. TO OBTAIN A FULL LATICRETE SYSTEMS WARRANTY.
12. FOR FLOOR LEVELING SEE FINISH NOTES.

QUARRY TILE FINISH NOTES

1. CONTRACTOR SHALL PROVIDE SUBMITTAL TO INCLUDE PHYSICAL TILE & BASE SAMPLE & GROUT TYPE AND COLOR.
2. ALIGN FLOOR GROUT JOINTS & BASE GROUT JOINTS TO THE GREATEST EXTENT POSSIBLE.
3. QUARRY TILE TO BE SEALED ALONG TOP EDGE. PREVENT ADHESION OR STAINING OF EXPOSED TILE SURFACES BY GROUT, PROTECT EXPOSED SURFACES OF TILE AGAINST ADHERENCE OF MORTAR AND GROUT BY PRE-COATING TILES WITH A CONTINUOUS FILM OF TEMPORARY PROTECTIVE COATING, TAKING CARE NOT TO COAT UNEXPOSED TILE SURFACES. GROUT RELEASE PROVIDE WATER BASED PENETRATING SEALER/GROUT RELEASE EQUAL TO AQUA MIX "SEALERS CHOICE 15 GOLD" FOR UNGLAZED QUARRY TILE WITH EPOXY GROUT.

CERAMIC & PORCELAIN TILE FINISH NOTES

1. CONTRACTOR SHALL PROVIDE A 36" X 36" MIN. MOCK UP OF ALL FLOOR & WALL TILE LAYOUTS FOR APPROVAL BY OWNER PRIOR TO INITIATING TILE WORK.
2. CONTRACTOR SHALL PROVIDE SUBMITTAL TO INCLUDE PHYSICAL TILE & BASE SAMPLE & GROUT TYPE AND COLOR.
3. TILE CORNER TRIM:
4. - CT1 - ALL OUTSIDE TILE TO TILE CORNERS SHALL HAVE SCHLUTER STRIPS INSTALLED. SCHLUTER SYSTEMS, BRUSHED STAINLESS STEEL QUADEC Q125EB WITH CORNER TRIM PIECES. INSTALL PER MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. CONTRACTOR TO PROVIDE SCHLUTER SAMPLES TO ARCHITECT FOR APPROVAL.
5. - CT 2 - TO BE SCHLUTER SYSTEMS, BRUSHED STAINLESS STEEL JOLLY. INSTALL PER MANUFACTURER'S SPECIFIC INSTALLATION INSTRUCTIONS. CONTRACTOR TO PROVIDE SCHLUTER SAMPLES TO ARCHITECT FOR APPROVAL.

CABINETRY SPECIFICATIONS

1. PREFINISHED PLASTIC LAMINATE CASEWORK WITH OVERLAY DOORS. ALL SURFACES OF CABINETS TO HAVE PLASTIC LAMINATE FINISHES, UNLESS OTHERWISE INDICATED.
2. CONTRACTOR SHALL SUBMIT SHOP DRAWINGS FOR CASEWORK AND COUNTERTOPS SHOWING PLAN VIEW, ELEVATIONS, DETAILS, SECTIONS, SIZES, INSTALLATION NUMBERING SYSTEM, AND METHOD OF ATTACHMENT. INCLUDE LAYOUT OF CASEWORK WITH RELATION TO OTHER BUILDING COMPONENTS AND COORDINATION WITH OTHER TRADES. CONTRACTOR SHALL PROVIDE FINISHES SAMPLES TO ARCHITECT FOR APPROVAL.
3. MATERIALS: LUMBER SHALL BE PROPERLY AIR DRIED & SCIENTIFICALLY KILN-DRIED IN A CONTROLLED PRE-DRYER & KILNS TO A MOISTURE CONTENT OF 6% TO 8%, THEN TEMPERED BEFORE FABRICATION. PREFINISHED PLYWOOD WITH MAPLE ROTARY CUT VENEER, AA FACE GRADE, BACK GRADE 1 PLYWOOD CORE.
4. EDGES: SHALL BE EDGE BANDED W/ PLASTIC LAMINATE, COLOR TO MATCH EXTERIOR LAMINATE SURFACE.
5. DOORS: SHALL BE 3/4" MIN THICK OVERLAY SOLID WOOD CONSTRUCTION W/ FRAMELESS CONCEALED HINGES (EUROPEAN TYPE): B01602, 120 DEGREES OF OPENING, SELF CLOSING. ALL DOORS TO EXPOSE A UNIFORM 3/16" REVEAL. TWO DOORS WILL BE USED ON CASES ABOVE 24" IN WIDTH. EDGEBANDING SHALL BE APPLIED TO ALL FOUR SIDES OF DOOR PANEL.
6. SHELVES: MATERIALS SHALL BE 3/4" MIN. THICK PLYWOOD W/ FRP FINISHES ON ALL SIDES. SHELVES SHALL BE ADJUSTABLE ON METAL PLUG CLIPS AND SHALL BE ROUTED BENEATH FOR A POSITIVE STOP FEATURE.
7. SIDES: SHALL BE 3/4" MIN. THICK PLYWOOD W/ PLASTIC LAMINATE FINISH ON ALL VISIBLE SURFACES. TONGUE & GROOVE CONSTRUCTION W/ADHESIVE.
8. BOTTOMS OF BASE CABINETS: MATERIALS SHALL BE 11/16" MIN. PLYWOOD SURFACES INSIDE AND OUTSIDE W/ PLASTIC LAMINATE ON ALL EXPOSED FACES. BOTTOMS SHALL BE DOWELED & GLUED TO THE CABINET SIDES.
9. BACKS: SHALL BE 5/32" MINIMUM HARDBOARD, SURFACED W/ PLASTIC LAMINATE. BACKS SHALL BE TONGUED AND GROOVED INTO CABINET SIDES, GLUED & PINNED IN PLACE.
10. TOE BASE: SEPARATE TOE BASE WILL BE A CONTINUOUS LADDER TYPE, CONSTRUCTED OF 3/4" EXTERIOR GRADE PLYWOOD. CABINET SIDE WILL NOT BE ALLOWED TO DIRECTLY CONTACT THE FLOOR. EXPOSED SURFACE TO BE COVERED W/ QUARRY TILE BASE. BASE TO BE INSTALLED BY OTHER TRADE. TOE KICK HEIGHT TO ACCOMMODATE FULL HEIGHT QUARRY TILE BASE.
11. FILLER PANELS: SHALL BE 3/4" MIN THICK SOLID WOOD CONSTRUCTION LIKE DOOR CONSTRUCTION. FINISHES TO MATCH ADJACENT CABINETRY SURFACES. COORD. WITH ARCHITECT.
12. PULLS TO BE HAFELE, 117.05.640 (14 5/8" LONG) AT DOORS,STAINLESS STEEL HANDLES IN MATTE FINISH. CONTRACTOR TO PROVIDE SAMPLE OF PULL FOR FINAL APPROVAL. PULLS TO BE INSTALLED VERTICALLY.
13. COUNTERTOP: SEE FINISH SCHEDULE
14. FIRE-RETARDANT-TREATED WOOD: HANDLE, STORE, AND INSTALL FIRE-RETARDANT-TREATED WOOD TO COMPLY WITH RECOMMENDATIONS OF CHEMICAL TREATMENT MANUFACTURER, INCLUDING THOSE FOR ADHESIVES USED TO INSTALL WOODWORK. ANCHOR WOODWORK TO ANCHORS OR BLOCKING BUILT IN OR DIRECTLY ATTACHED TO SUBSTRATES. SECURE TO GROUNDS, STRIPPING AND BLOCKING WITH COUNTERSUNK, CONCEALED FASTENERS AND BLIND NAILING AS REQUIRED FOR COMPLETE INSTALLATION. USE FINE FINISHING NAILS FOR EXPOSED NAILING, COUNTERSUNK AND FILLED FLUSH WITH WOODWORK AND MATCHING FINAL FINISH WHERE TRANSPARENT FINISH IS INDICATED.
15. PLASTIC LAMINATE (PLAM) FINISHES TO BE WILSONART OR APPROVED EQUAL. CONTRACTOR SHALL PROVIDE 6" X 6" MIN. PHYSICAL FINISH SAMPLES FOR APPROVAL TO ARCHITECT.
16. - PL1 - WILSONART, OILED BRONZE 6200, EXTERIOR CASEWORK SURFACES - LA CANTINA & FARMS & FIELDS.
17. - FINISH INTERIOR OF CASEWORK, INTERIOR FACE OF CASEWORK DOORS, & SHELVES TO BE FRP, SEE FINISH NOTES.

colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

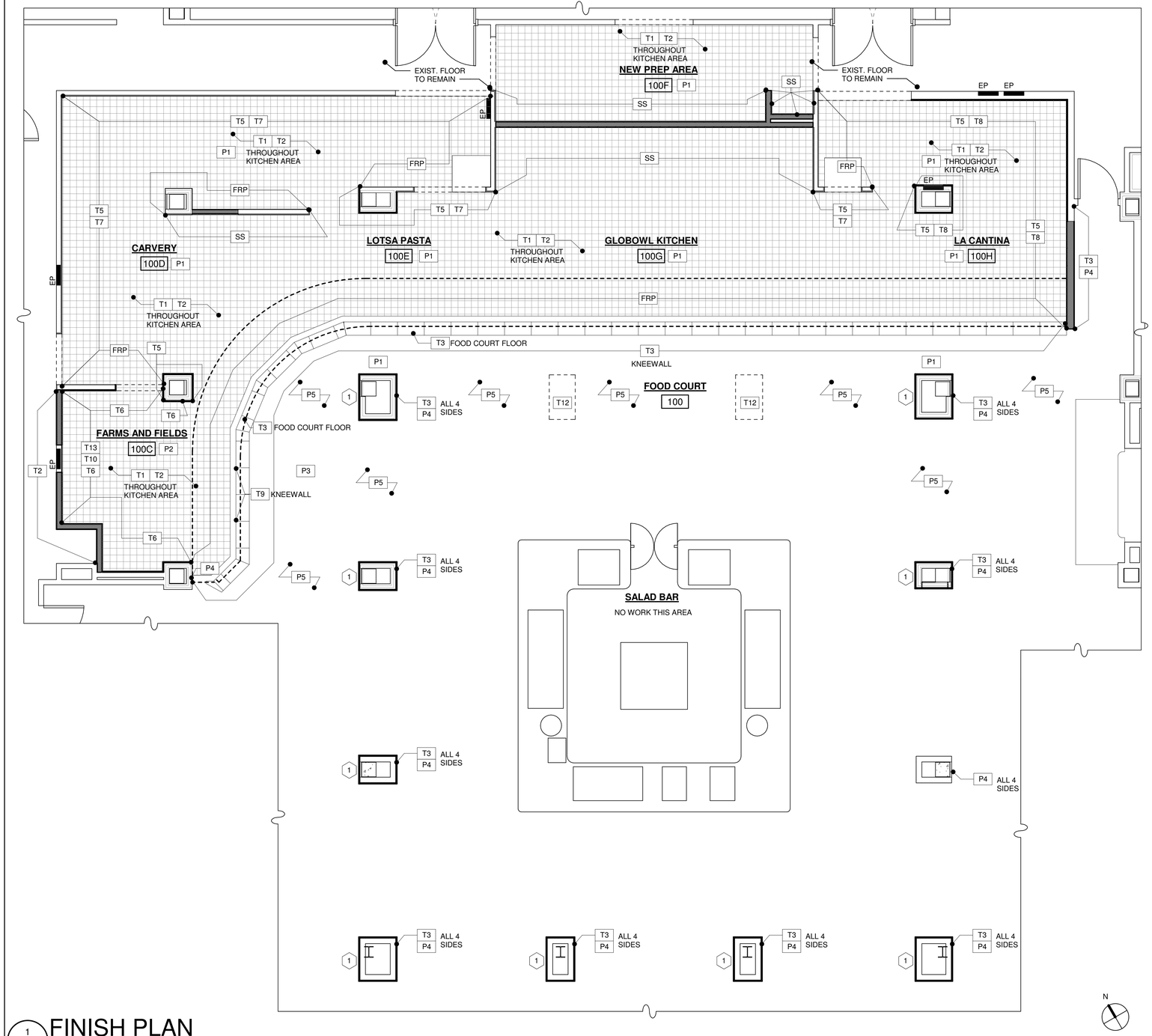
REVISIONS	DATE
ADDENDUM 2	10.22.18

FINISH + TILE SCHEDULES

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	A3.1

ADDENDUM 2 - ATTACHMENT C.



1 A3.2 A3.2 FINISH PLAN
1/4" = 1'-0"

FOOD COURT COLUMN NOTES

1. EXISTING RATED COLUMN SURROUND UL DESIGN X528. REMOVE EXISTING TILE FINISH PATCH ANY EXISTING PENETRATIONS / OPENINGS IN RATED SURROUND & PREP FOR NEW WORK. NINE FOOD COURT COLUMNS TO HAVE EXISTING TILE REMOVED. SEE SHEET A3.2 FOR ADDITIONAL INFORMATION. INSTALL NEW TILE & QUARTZ APRON PER SECTION, SEE SHEET A2.5.

FINISH PLAN LEGEND

- EXISTING WALL TO REMAIN
- NEW WALL
- EXTENT OF NEW QUARRY TILE FINISH - SEE TILE SCHEDULE
- SS — STAINLESS STEEL BACKSPLASH ASSEMBLY -SEE FINISH SCHEDULE
- FRP — FRP WALL PANEL -SEE FINISH SCHEDULE
- T# — TILE -SEE TILE SCHEDULE
- P# — PAINT -SEE FINISH NOTES
- EP — ELECTRICAL PANELS - SEE ELECTRICAL

EXIST. & NEW BULKHEAD & GYP. BD. CEILINGS IN AREA OF RENOVATION SHALL BE PAINTED.

1/4" = 1' - 0"

0 4 8 12 16

colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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REVISIONS	DATE
ADDENDUM 2	10.22.18

FINISH PLAN

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

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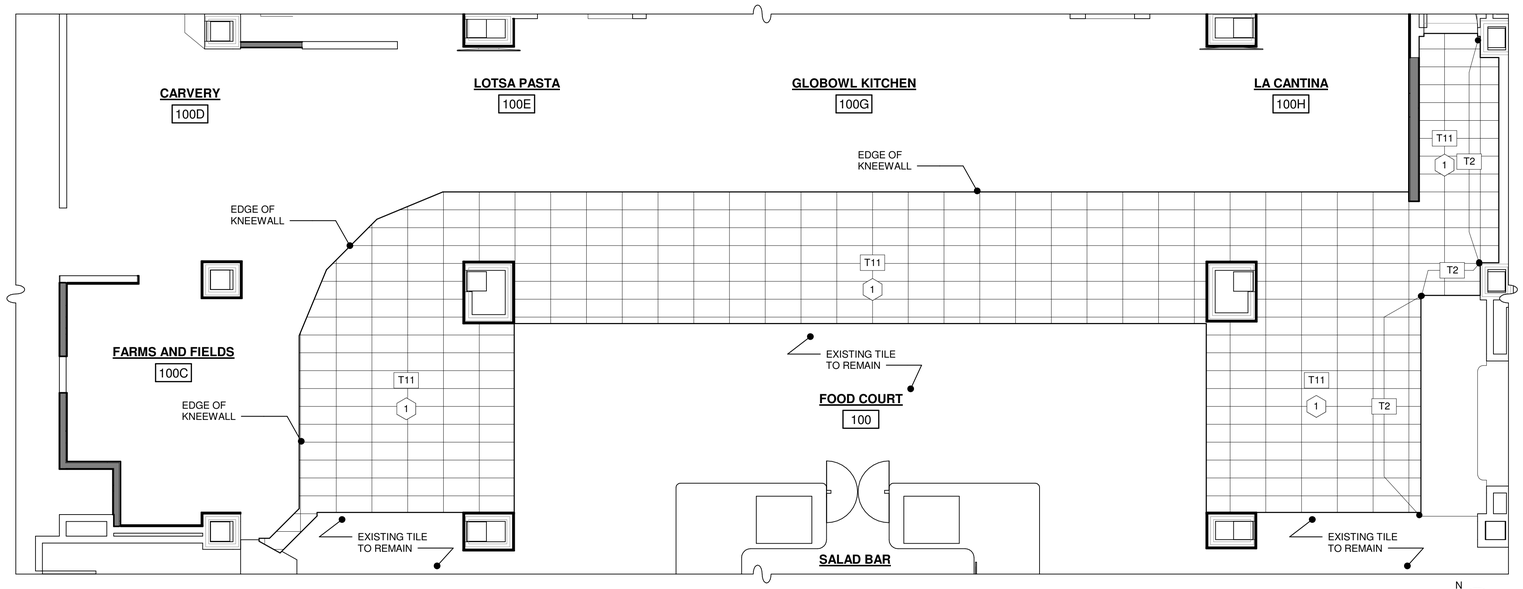
ADDENDUM 2 - ATTACHMENT C.



1 / A3.3 A3.3 ADDITIVE BID - FLOOR FINISH PLAN

1/4" = 1'-0"

ADDITIVE BID PLAN NOTES

1. DEMO EXIST. FLOORING, BASE TILE, & TILE SETTING BEDS TO EXPOSE EXIST. CONC. SLAB IN AREA INDICATED BY NEW TILE T11. EXPECT TWO LAYERS OF QUARRY TILE. REMOVE ALL ASSOCIATED ADHESIVES. PROVIDE & INSTALL NEW FLOOR TILE & GROUT AS INDICATED. IF ADDITIVE BID IS SELECTED SINGLE ROW OF T3 FLOOR TILE WILL BE REPLACED BY TILE T11.
- SEE TILE SCHEDULE & NOTES

FINISH PLAN LEGEND

- EXISTING WALL TO REMAIN
- NEW WALL
- EXTENT OF NEW QUARRY TILE FINISH - SEE TILE SCHEDULE
- SS — STAINLESS STEEL BACKSPLASH ASSEMBLY -SEE FINISH SCHEDULE
- FRP — FRP WALL PANEL -SEE FINISH SCHEDULE
- T# — TILE -SEE TILE SCHEDULE
- P# — PAINT -SEE FINISH NOTES
- EP — ELECTRICAL PANELS - SEE ELECTRICAL

EXIST. & NEW BULKHEAD & GYP. BD. CEILINGS IN AREA OF RENOVATION SHALL BE PAINTED.

1/4" = 1' - 0"

0 4 8 12 16

colley architects pc
design community environment

SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

REVISIONS	DATE
ADDENDUM 2	10.22.18

ADDITIVE BID - FLOOR FINISH PLAN

Virginia Tech

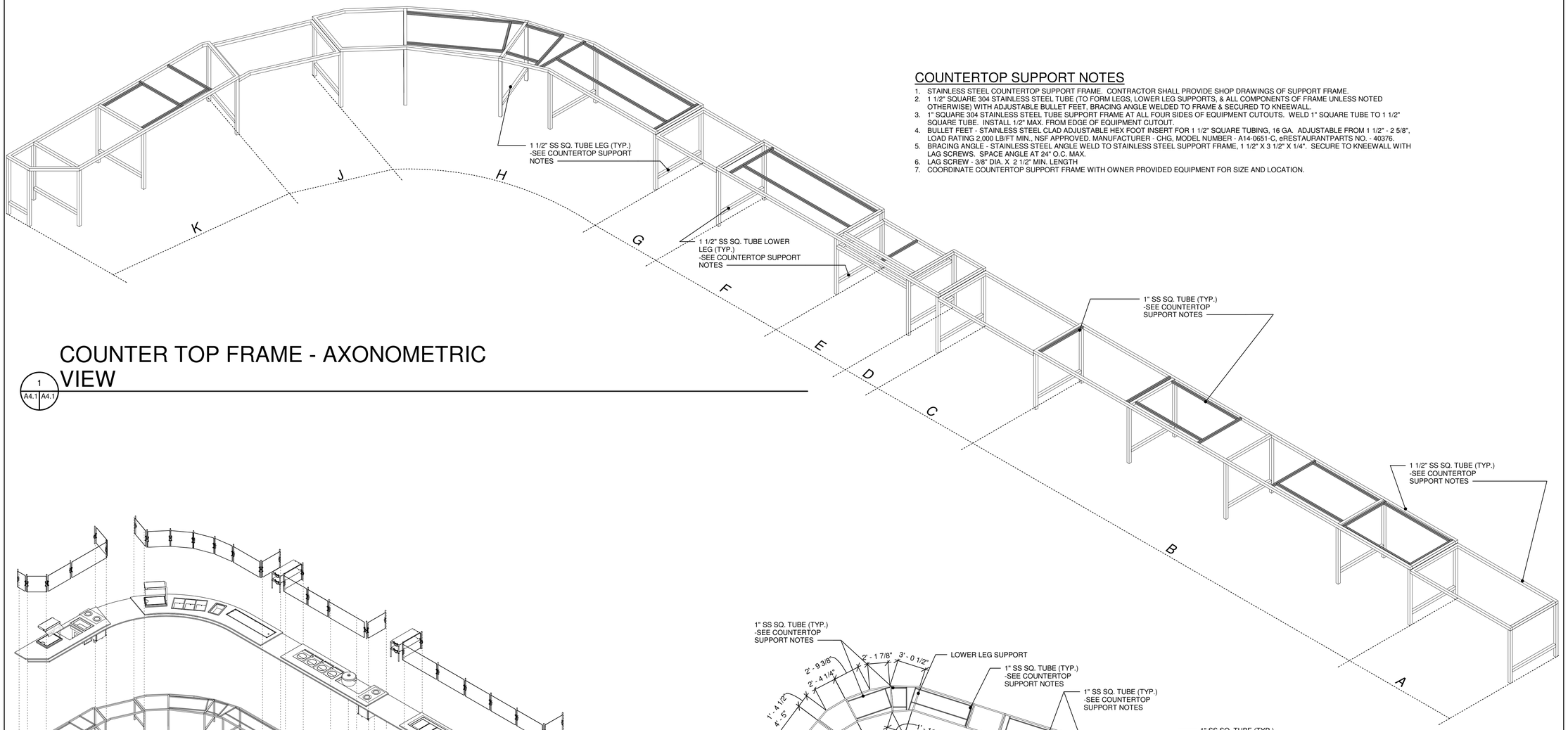
RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	KJC / BHC
JOB	1804
SHEET	A3.3

ADDENDUM 2 - ATTACHMENT C.

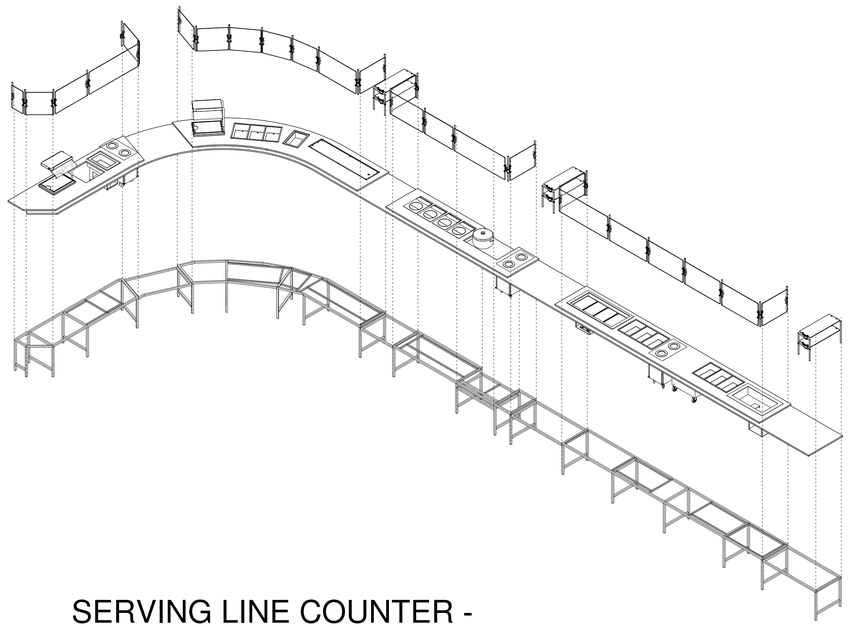


COUNTERTOP SUPPORT NOTES

1. STAINLESS STEEL COUNTERTOP SUPPORT FRAME. CONTRACTOR SHALL PROVIDE SHOP DRAWINGS OF SUPPORT FRAME.
2. 1 1/2" SQUARE 304 STAINLESS STEEL TUBE (TO FORM LEGS, LOWER LEG SUPPORTS, & ALL COMPONENTS OF FRAME UNLESS NOTED OTHERWISE) WITH ADJUSTABLE BULLET FEET, BRACING ANGLE WELDED TO FRAME & SECURED TO KNEEWALL.
3. 1" SQUARE 304 STAINLESS STEEL TUBE SUPPORT FRAME AT ALL FOUR SIDES OF EQUIPMENT CUTOUTS. WELD 1" SQUARE TUBE TO 1 1/2" SQUARE TUBE. INSTALL 1/2" MAX. FROM EDGE OF EQUIPMENT CUTOUT.
4. BULLET FEET - STAINLESS STEEL CLAD ADJUSTABLE HEX FOOT INSERT FOR 1 1/2" SQUARE TUBING, 16 GA. ADJUSTABLE FROM 1 1/2" - 2 5/8", LOAD RATING 2,000 LB/FT MIN., NSF APPROVED. MANUFACTURER - CHG, MODEL NUMBER - A14-0651-C, eRESTAURANTPARTS NO. - 40376.
5. BRACING ANGLE - STAINLESS STEEL ANGLE WELD TO STAINLESS STEEL SUPPORT FRAME, 1 1/2" X 3 1/2" X 1/4". SECURE TO KNEEWALL WITH LAG SCREWS. SPACE ANGLE AT 24" O.C. MAX.
6. LAG SCREW - 3/8" DIA. X 2 1/2" MIN. LENGTH
7. COORDINATE COUNTERTOP SUPPORT FRAME WITH OWNER PROVIDED EQUIPMENT FOR SIZE AND LOCATION.

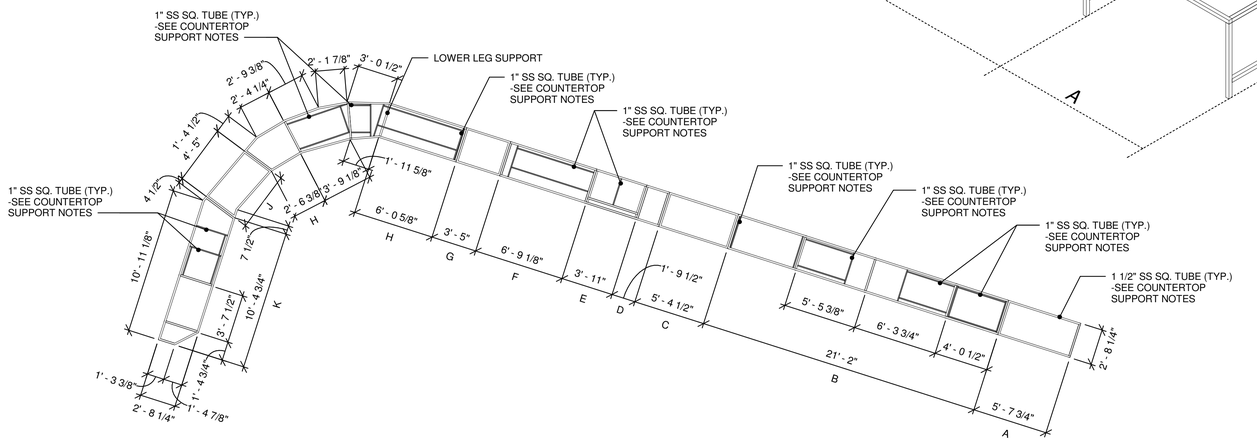
COUNTER TOP FRAME - AXONOMETRIC VIEW

1 / A4.1 | A4.1



SERVING LINE COUNTER - AXONOMETRIC VIEW

2 / A4.1 | A4.1



COUNTER TOP FRAME - PLAN

3 / A4.1 | A4.1

colley architects pc
design community environment

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COUNTER SUPPORT FRAME

Virginia Tech

RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05. 2018
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JOB	1804
SHEET	A4.1

PLUMBING SYSTEMS NOTES & SPECIFICATIONS

1. CODES, STANDARDS AND REGULATIONS: Materials, Equipment, Installation, Disinfection and Testing shall be in compliance with, but not limited to, the following codes and standards:
   A. Local Codes or Ordinances.
   B. Virginia Construction Code (VCC).
   C. Piping, fittings, pump systems, equipment and fixtures that are connected to potable water system shall meet the 1996 Safe Water Drinking Act and the 2011 Reduction of Lead in Drinking Water Act, and where applicable shall meet NSF Standard 61 and shall be labeled and certified.
2. SHOP DRAWINGS: Furnish six copies of plumbing materials and equipment to Architect for review.
3. DESCRIPTION OF WORK:
   A. The work includes providing a complete plumbing system including, but not necessarily restricted to, the following:
      (1) Sanitary sewer system to a point within building walls.
      (2) Domestic water system to a point within building walls.
      (3) Natural gas piping system.
      (4) Installation and connections to equipment furnished by Owner.
      (5) Connections to fixtures and equipment provided under other sections of these specifications.
      (6) Miscellaneous work as described herein, as shown on drawings, and as required for a complete system.
4. PIPE AND EQUIPMENT SUPPORTS, PIPE SLEEVES AND WALL CEILING PLATES :
   A. Provide in accordance with the Virginia Construction Code.
   B. Pipe Sleeves:
      1. Provide sleeves for piping and conduit passing through concrete floor slabs and concrete, masonry, tile, and gypsum wall construction. Sleeves shall not be provided for piping and conduit running embedded in concrete or slab on grade, except that copper piping shall require sleeves through slabs on grade. Sleeves through structural members shall be only as directed by Architect. In interior wall, provide 1/4 inch space all around between sleeve and conduit, piping, or insulation of piping.
      2. Sleeves in mechanical rooms with floor drains or hose bibbs shall extend 4 inches above floor. Provide flanges or flashing rings with sleeves in floors with waterproof membrane and clamp or flash into the membrane. Provide sleeves flush with floor in other rooms.
      3. Sleeves shall be constructed of 20 gage galvanized sheet steel with lock seam joints for all sleeves set in concrete floor slabs terminating flush with the floor. All other sleeves shall be constructed of galvanized steel pipe unless otherwise indicated.
5. SOIL, WASTE AND VENT PIPING:
   A. Cast Iron Soil Pipe and Fitting: Pipe shall be bell and spigot, modified hub, or plain end (no-hub) as required by selected jointing method. Pipe and fittings shall be listed by NSF International, IAPMO, ICC or other third party organization that is accredited as an ANSI-Guide 65 organization as listed on www.ansi.org.
      (1) Material (Pipe and Fittings): ASTM A888, ASTM A74 or CISPI 301, service weight.
      (2) Joints: Provide any one of the following types to suit pipe furnished.
         a. Mechanical, compression-type (ASTM C564) molded neoprene gasket. Gaskets shall suit class of pipe being jointed. Dual-service gaskets will not be accepted.
         b. Mechanical: Mechanical joint coupling (ASTM C564 and ASTM C1277) shall consist of a stainless steel coupling and neoprene gaskets (ASTM C564) (CSA CAN/CSA-B602). Do not install below grade.
      (3) Coating: Provide a heavy coat of asphalt or bitumastic paint on pipe buried in earth or installed in cinders or concrete construction.
      (4) Cast Iron Soil Pipe Markings: All cast iron soil pipe shall be clearly marked with the manufacturer's name, country of origin, eight-digit date code, pipe diameter and length, relevant ASTM standard and registered trademark of the third party certifier.
      (5) Material Test Reports: Supplier of cast iron soil pipe shall be able to supply material test reports in accordance with the relevant ASTM standard and shall include testing and analysis on radioactivity, dimensional characteristics, tensile strength and chemical/metallurgical content. Suppliers shall also supply MSDS sheets on all coatings.
   B. Steel Pipe and Fittings: Vent piping
      (1) Pipe Galvanized: ASTM A 53, Schedule 40.
      (2) Fittings--Sanitary Vent Piping: Malleable iron, ASME B16.3, or cast iron, ASME B16.4. All to be same kind.
      (3) Joints: Threads shall conform to ASME B1.20.1. Pipe-joint compound or tape shall be applied on the male threads only.
   C. Plastic Pipe: May be used for piping above ground and below ground. Foam core piping is not acceptable. All plastic pipe, fittings and components shall be third party certified to NSF 14. PVC shall not be used in return air plenums.
      (1) Pipe: PVC Schedule 40 DWV, ASTM D 2665.
      (2) Fittings: PVC Schedule 40 ASTM D3311 fittings for solvent joints.
      (3) Joints: ASTM F656 purple primer, solvent ASTM D2564 (not purple in color), joints made in accordance with ASTM D2855.
6. INTERIOR DOMESTIC WATER PIPING:
   A. Copper Tube and Fittings:
      (1) Tube: ASTM B88, Certified Copper Tubing (Not Standard Tube)
         a. Above ground floor: Type L, hard drawn.
         b. Below ground floor: Type K, hard drawn.
      (2) Fittings: Wrought copper, ASME B16.22 or cast copper alloy ASME B16.18.
      (3) Joints:
         a. Above ground floor: ASTM B32 lead free solder, ASTM B813 lead free flux. Lead free shall mean less than 0.2 percent lead.
         b. Below ground floor: Brazed with AWS A5.8 filler metal (lead free).
7. INTERIOR GAS PIPING: Natural Gas
   A. Pipe: Black steel, ASTM A 53 Grade B or A 106, Schedule 40.
   B. Nipples: Steel, ASTM A733, Schedule 40.
   C. Fittings, 2 Inches and Smaller: Malleable iron, ASME B16.3. (Threaded)
   D. Joints: Threaded ends (ASME B1.20.1). Pipe-joint compound or tape applied to male threads only (Lochinvar use NO Teflon tape); welded. Do not use gas fitters cement, except on outlet caps.
   E. Gas piping installed in concealed locations shall not have unions, tubing fittings or running threads.
8. VALVES: (DOMESTIC WATER)
   A. Gate valves (Rising Stem): Valves 2 1/2 inch and smaller shall be Class 125 rising stem, union bonnet, solid wedge and manufactured in accordance with MSS-SP 80. Body, bonnet and wedge shall be of bronze ASTM B-62. Stems shall be of dezincification-resistant silicon bronze ASTM B-371 or low-zinc alloy B-99, non-asbestos packing and malleable or ductile iron handwheel. Where higher operating pressures approach 150 psi, Class 150 union bonnet valves of like construction shall be used. Valve ends shall be threaded or solder-type. [Class 125 NIBCO T124 (threaded); Class 150 NIBCO T134 (threaded), S134 (solder)]
   B. Ball valves: Valves 2 1/2 inch and smaller shall be rated 150 psi SWP and 600 psi non-shock WOG and shall have 2 piece cast bronze bodies, TFE seats, full port, separate packnut with adjustable stem packing, anti-blowout stems and chrome-plated brass/bronze ball. Valve ends shall have full depth ANSI threads or extended solder connections and be manufactured to comply with MSS-SP110. [NIBCO T585-70 (threaded); S585-70 (solder)]
      Note: Where piping is insulated, ball valves shall be equipped with 2" extended handles of non-thermal conductive material. Also, provide a protective sleeve that allows operation of the valve without breaking the vapor seal or disturbing the insulation. Memory stops, which are fully adjustable after insulation is applied, shall be included. [NIBCO T585/70NS (threaded); S585-0NS (solder)]
   C. Globe valves: Valves 2-1/2 inch and smaller shall be Class 125 and manufactured in accordance with MSS-SP80, body and bonnet shall to be of bronze ASTM B-62. Stems shall be of dezincification-resistant silicon bronze ASTM B-371 or low-zinc alloy B-99, non-asbestos packing, TFE seat disc and malleable or ductile iron handwheel. Where higher operating pressures approach 150 psi, Class 150 union bonnet valves of the like construction shall be used. Valve ends shall be threaded or solder-type. [Class 125 NIBCO globe T211-Y (threaded); S211-Y (solder); Class 150 NIBCO globe T235-Y (threaded); S235-Y (solder)]
   D. Check valves: Valves 2 inch and smaller shall be type inline lift, Class 125, threaded or solder ends; ASTM A582 stainless steel stem, 316 stainless steel spring, and ASTM A276 stainless steel seat screws; TFE disc and seat ring; bodies and end conforming to ASTM B-584 bronze, spring actuated type disc. (Nibco T-480, S-480)
   E. Hose bibbs and hose-end drain valves: (Equipment rooms and similar spaces). Watts LFSC-5 1/2 inch, Matco-Norca 646 RLF or equal rough brass, lead-free.
   F. Shock absorbers: Josam "Absorbotron" 75000 Series, Smith 5000 Series "Hydrotrols", Zurn Z1700 "Shoktrols", Wade "Shokstop", or equal, lead-free, stainless steel. SA-A Max. 11 SFU. Provide on both hot and cold water branches. Job fabricated air chambers will not be permitted. O-ring type shock absorbers will not be accepted. (ASME/ANSI A112.26.1 OR ASSE 1010)
   G. Tempering Valve--Individual Fixture (Watts or Equal): Provide Watts Model Series LFUSG-B-M2 under-sink Guardian ASSE 1070 thermostatic tempering valve for single lavatory and hand sink. Provide at all lavatory and hand sink locations including kitchen hand sinks applications. Set valve for minimum 105 Deg. F., maximum 109 Deg. F.
   H. Balancing valves shall be circuit setters as manufactured by (Bell and Gossett) (Watts) or equal, and shall be a balancing valve of all bronze construction. Valve shall have pressure taps with built-in check valves to determine pressure drop across valve. The pressure drop and the setting of the valve shall determine the actual system flow rate requirement. Valve shall be furnished with adjustable memory stop and preformed polyurethane insulation suitable for use on domestic hot water and cold water systems. Unit to be suitable for 125 psi working pressure at 250 Deg. F. operating temperature.
9. VALVES: Natural Gas
   A. General: Each item shall have threaded or flanged, connections as applicable to match joints specified for its respective service.
   B. Gas Valves
      (1) 4 Inches and Smaller: Bronze two piece ball valve, chrome plated ball, AGA & Underwriters Laboratories listed.
      (2) Automatic Valve: Provided by kitchen equipment supplier, installed by Contractor. Location as indicated on drawings for use with fire suppression systems.
10. BACKFLOW PREVENTERS:
    A. Provide backflow prevention devices at all locations shown or specified. Device shall be same size as line in which installed. Listed below is a list of connection to the potable water system that shall be protected against backflow or back siphonage:
       (1) Hose Vacuum Breaker Type (ASSE 1011; CSA CAN/CSA-B64.2): Watts No. LF8A, LF8AC (chrome finished) or equal, lead free, with non-removable feature. Hose bibbs and sinks with threaded outlets
       (2) Intermediate atmospheric vent continuous pressure type (ASSE 1024; CSA CAN/CSA-B64.6): Watts No. LF7R lead-free or equal.
          a. Kitchen Equipment Auto-Fill
11. STRAINERS:
    A. Install on inlet of reduced pressure zone, backflow preventer, double check backflow preventers, suction side of pumps and where shown on drawings. Strainer element shall be removable without disconnection piping. Suitable for 125 psi working pressure. Provide with bronze or stainless steel screen with valved and capped blow-off outlet.
       (1) Water: 2-1/2 inch and smaller, 20 mesh screen.
       (2) Body: 3 inch or smaller, brass or bronze.
12. PLUMBING FIXTURES:
    A. General: Fixtures equal to those as hereinafter specified shall be furnished and installed complete with all supplies, waste and vent connections, all fittings, all necessary hangers and supports, bolt caps, faucets, valves and traps. All trim shall be brass with polished chromium plated finish with chrome setscrew escutcheon at wall, except fixture supply pipes may be chromium plated copper with chrome setscrew escutcheons at wall. Traps shall be (17 gauge) cast brass with cleanout plug. All fixtures shall be white. Handicapped lavatories and sinks shall have both water supplies and trap insulated and wrapped with Handy-Shield (by Plumberex). Color shall be white and fasteners shall remain out of sight.
    B. Provide lock-shield, loose-key or screw driver pattern polished chromium plated angle stops, with each sink faucet plumbing fixture.
    C. Fixtures:

Designation	Standard Fixture Type
HS	Hand Sink: Eagle Model HSA-10-FA-P foot operated pedestal 304 stainless steel sink, all welded construction, 14-3/4 inch x 13-1/2 inch with backsplash mount gooseneck faucet, 1-1/2 basket drain and 1-1/2" outlet. Faucet operated by foot valve. Provide tailpiece and p-trap options through Eagle Group. Provide special order side splashes. Mount fixture to wall per manufacturer's instructions.

1

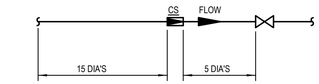
13. CLEANOUTS:
    A. Same size as pipe served up to 4 inches. Cleanouts shall be easily accessible. All cleanout plugs shall be bronze, set in graphite grease. (ASTM A74, ASME A112.3.1, ASME A112.36.2M) Covers shall be set flush with finished floor or wall. Provide carpet markers in all carpeted areas.
       (1) Base of vertical stacks: Josam 58600-COT with stainless steel wall cover. Located 24 inches above floor.
       (2) Horizontal pipes above grade: Cleanouts shall be ferrule with bronze screw plug in fitting or tapped cast iron ferrule with bronze plug.
       (3) Floors: Floor cleanouts shall have cast iron body, bronze plug, and ABS or cast iron frame with round or square adjustable heavy-duty scoriated secured nickel bronze top.
          a. Mechanical rooms and heavy traffic floors: Josam Series 55000-X-2-SD cast iron floor cleanout with secured heavy-duty round or square bronze tractor cover.
          b. Light traffic floors: Josam Series 55000 cast iron floor cleanout with secured round or square covers of satin bronze for finished concrete floors and satin finish nikaloy elsewhere.
14. FLOOR DRAINS:
    A. All floor drains shall be furnished with 4-inch deep seal P-trap. All floor drains shall conform to ASME A112.6.3 or CSA B79.
    B. Kitchen Rooms: Josam 30000-E Series coated cast iron floor drain, adjustable satin Nikaloy secured round or square tractor strainer, and perforated stainless steel basket.
    C. Trap Sealer: Sure Seal Model SS pre-assembled inline floor drain trap sealer. Sealer shall be constructed of high density polyethylene (HDPE) housing and keeper pin, heavy duty silicone diaphragm and soft EPDM sealing gaskets. Rated for floor ASSE-1072 AF-GW third party testing and listed by IAPMO. Provide in all floor drains.
15. FLOOR SINKS:
    A. Provide suitable clamping device and extensions if required, where installed in connection with waterproofing membrane. All floor sinks shall be furnished complete with 4-inch deep seal P-trap. (ASME A112.6.7)
    B. Kitchen: Josam Series 49360 with cast iron body, acid-resisting interior, internal dome strainer and non-traffic cast iron acid-resisting, anti-tilting grate. See drawings for additional grate requirements.
16. INSULATION:
    A. All domestic water piping, all horizontal sanitary piping above Kitchen or Dining Areas and all horizontal storm piping above lowest floor including roof drains from underside of deck to just below fitting at top of vertical portion of stack and fittings at top and bottom of vertical sections of horizontal offsets shall be insulated. Insulation shall be Johns Manville, Owens Corning, or Armstrong. All materials and PVC type fitting covers used shall have composite flame_spread rating not exceeding 25 and a smoke_developed rating not exceeding 50, as tested under procedure ASTM E_84, NFPA 90A and 90B.
    B. Piping insulation: Fiberglass insulation shall be 1 inch thick (1.5 inch thick for soil and storm water piping 8 inch and larger) and shall have a minimum thermal resistance (R) of 4.0 per inch of thickness at a mean temperature of 75 deg. F. Fiberglass insulation shall have a white kraft bonded to aluminum foil, reinforced with fiberglass yarn jacket, lap joints, tape and seal.
17. INSTALLATION:
    A. General:
       (1) Suspended horizontal piping shall be supported by adjustable wrought steel clevis hangers. Where supports bear on copper pipe, they shall be copper plated. Where supports bear on insulated piping, provide insulation shield. Chain, strap, wire or other makeshift devices will not be permitted as hangers or supports.
       (2) Install branch piping for water, waste and gas, from the respective piping systems and connect to all fixtures, valves, cocks, outlets, casework, cabinets and equipment, including those furnished by the Owner or specified in other sections of these specifications.
       (3) Install trim and fittings provided with casework, cabinets and laboratories, including those furnished by the Owner, but not installed at point of fabrication.
       (4) Welded joints shall be fusion welded by qualified welders in accordance with ANSI B31.1 Section 6, unless otherwise required. Mitering or notching pipe to form elbows and tees, and drilling or punching to make connections will not be permitted.
       (5) Compression gasket joints for cast iron sewer pipe shall be made with neoprene compression gaskets conforming to ASTM C564.
       (6) No-hub joints for cast iron pipes shall be made with neoprene gaskets (ASTM C564) and stainless steel clamps conforming to ASTM C564 and ASTM C1277.
       (7) Mechanical joints elastomeric sealing sleeve for cast iron pipe shall be in accordance with ASTM C564.
       (8) Solvent cement for PVC piping shall be handled in accordance with ASTM F402.
       (9) Plastic pipe shall not be located in return air ceiling plenums.
       (10) Plastic pipe shall not penetrate a fire assembly or smokestop.
       (11) Provide chrome plated escutcheons at all locations where piping penetrates floors, walls and ceilings in exposed locations, except in Mechanical Rooms.
       (12) Where supports bear on insulated piping, provide insulation shields.
    B. Piping shall conform to the following:
       (1) Waste Conductors:
          a. Slope soil and waste piping as follows:

Pipe Size	Minimum Pitch
Soil, waste and vent	
2-1/2 inch & smaller	1/4" to the foot
3 inch & larger	1/8" to the foot

          b. Changes in direction of piping shall be made with fittings.
          c. Contractor is cautioned to verify invert of sanitary sewer and to coordinate inverts of new work to suit conditions encountered.
          d. Sanitary sewer shall be provided complete with all plumbing fixtures, drains, etc., properly connected and vented in accordance with the applicable codes. All vents through the roof shall extend twelve inches above the roof.
       (2) Domestic Water:
          a. Grade all lines to facilitate drainage. Provide hosed-end drain valves at locations indicated on the drawings. All unnecessary traps in circulating lines shall be avoided.
          b. Connect branch lines at bottom of main serving fixtures below and pitch down so that main may be drained through fixture. Connect branch lines to top of main serving only fixtures located on floor above.
       (3) Gas:
          a. Install gas piping with plugged drip pockets at low points and ahead of the connection to each piece of equipment. Entire gas piping installation shall be in accordance with requirements of Virginia Construction Code.
          b. Minimum slope shall be 1/4 inch per fifteen feet in direction opposite flow.
          c. Shut-off cock shall be provided at each burner, if not provided with the respective equipment.
    C. Bonding of Gas Piping: All metal gas piping attached to the building shall be bonded in accordance with the requirements of the current edition of NFPA 70, Article 250.104(B) and Section 26 05 26 of the Electrical Specifications.
18. PROTECTION OF ELECTRICAL EQUIPMENT:
    A. Plumbing and sprinkler piping shall NOT be installed directly over electrical panelboards, switchboards or motor control centers, unless the pipe is a minimum of 6 feet above the electrical equipment or above a structural ceiling (concrete cap or similar). If compliance with this requirement is not possible, notify the engineer immediately. If the piping is directly above and at least 6 feet above the electrical equipment, provide a galvanized steel drain pan installed directly under the piping. Drain pan shall have minimum 2 inch high sides with a drain pipe connection at the lowest point and shall be full width of the electrical equipment being protected. Extend drain pipe to exterior or to nearest floor drain.
19. TESTS:
    A. General: Contractor shall provide all instruments, materials, and labor required. Tests shall be made in the presence of the Owner or Authority having jurisdiction, or as otherwise directed by the Architect who shall be given five (5) days notice by this Contractor of his readiness to perform such tests. Any leaks that develop during the tests shall be repaired by remaking the joint or replacing pipe and fittings. Temporary caulking will not be permitted. No piping shall be insulated or concealed until it has been tested, with results acceptable to the Architect. Air testing will be acceptable where permitted by the Virginia Construction Code. Do NOT perform air testing on systems where plastic piping, including CPVC and PEX piping, are installed. Test systems either in its entirety or in sections.
    B. Soil, Waste and Vent Systems: Conduct tests before trenches are backfilled or fixtures are connected. Conduct water test as directed in accordance with the Virginia Construction Code and this specification.
    C. Water Test: If entire system is tested, tightly close all openings in pipes except highest opening and fill system with water to point of overflow. If system is tested in sections, tightly plug each opening except highest opening of section under test, fill each section with water and test with at least 10-foot head of water. In testing successive sections, test at least upper 10 feet of next preceding section so that each joint or pipe except uppermost 10-foot head of water. Keep water in system, or in portion under test, for at least 15 minutes before inspection starts. System shall then be tight at all joints.
    D. Potable Water System: Test after installation of piping and domestic water heaters, but before piping is concealed, before covering is applied and before plumbing fixtures are connected. Fill systems with water and maintain hydrostatic pressure of 125 psig or at 50 percent higher than actual operating pressure which ever is greater for one hour during inspection and prove tight without any loss of pressure.
    E. Gas System: Gas piping shall be tested and inspected in accordance with Virginia Construction Code.
    F. Optional tests for connections to existing systems: After installation of piping and connecting to existing systems, and where herein before specified tests are impractical, test all new piping under actual operating conditions and prove tight to the satisfaction of the Architect.
20. DISINFECTION: After tests have been successively completed, thoroughly flush and disinfect the interior domestic water distribution system in accordance with the Virginia Construction Code.
21. CLEANING:
    A. Remove trash, plaster, dust, paint spots and all foreign matter from inside and outside of all fixtures and equipment.
    B. The Contractor shall check each length of pipe before it is put in place to make certain there is not foreign material (stones, sand, etc.) in the systems. Provide temporary bypass around equipment if or as required. All plumbing pipes shall be thoroughly flushed with water to remove construction debris before final connections are made to equipment and fixtures.
22. REPORTS: Report of cleaning, sterilizing and testing: Contractor shall verify in writing before completion of the job that all specified cleaning procedures, tests and sterilizing have been performed, with results as specified or as required by codes.

FIXTURE CONNECTION SCHEDULE

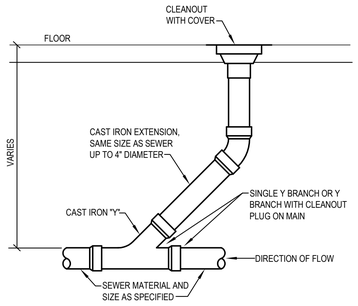
MARK	FIXTURE	WASTE	VENT	COLD	HOT	REMARKS
HS	HAND SINK (SINGLE COMPARTMENT)	1 1/2"	1 1/2"	1/2"	1/2"	PEDESTAL WITH FOOT PEDAL, WALL ATTACHED, EAGLE MODEL P1916-LRS



NOTE:
1. THERE SHALL BE UNINTERRUPTED STRAIGHT PIPE 5 DIAMETERS OF PIPE DOWNSTREAM AND 15 DIAMETERS OF PIPE UPSTREAM FROM EACH CIRCUIT SETTER. BALANCE VALVE SHALL BE ADJUSTED TO PROVIDE GPM INDICATED AT EACH CIRCUIT SETTER.
2. THE ENTIRE CIRCUIT SETTER SHALL BE INSULATED WITH REMOVABLE SECTIONS OF PIPE INSULATION SIZED TO OVERLAP THE CONNECTED PIPE INSULATION. INSULATION SHALL OVERLAP 3 INCHES.

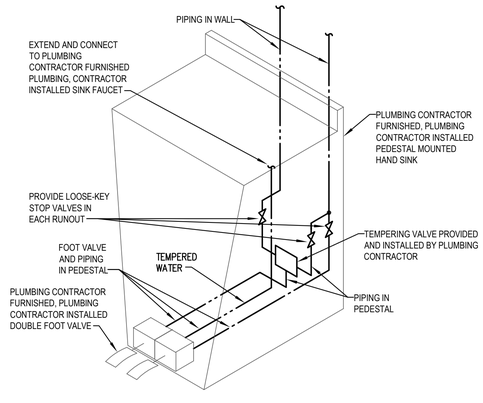
CIRCUIT SETTER DETAIL

SCHEMATIC



CLEANOUT DETAIL

NO SCALE



FOOT VALVE PIPING DETAIL

NO SCALE

PLUMBING LEGEND

ABOVE	ABV	
BELOW	BEL	
CEILING	CLG	
CIRCUIT SETTER		CS(GPM)
CLEANOUT	CO	
IN HORIZONTAL OR BELOW FLOOR		CO
IN VERTICAL OR FLUSH WITH FLOOR		CO
DIAMETER	DIA	
DIRECTION OF FLOW		
DIRECTION OF SLOPE DOWN		
DOMESTIC COLD WATER PIPE, NEW	CW	
EXISTING TO REMAIN	CW	EX
DOMESTIC HOT WATER PIPE, NEW	HW	
EXISTING TO REMAIN	HW	EX
DOMESTIC HOT WATER CIRCULATING PIPE, NEW	HWR	
EXISTING TO REMAIN	HWR	EX
DOWN	DN	
EXISTING	EX	
FLOOR	FL	
FLOOR DRAIN	FD	FD
FLOOR SINK (NO GRATE)	FS	FS
FROM	FR	
GAS COCK		
GATE VALVE	GV	
HAND SINK	HS	
HOT AND COLD WATER	H&CW	
INDIRECT WASTE PIPE	ID	ID
INLET WITH P-TRAP		
NATURAL GAS PIPE, NEW	G	G
EXISTING TO REMAIN	G	EX G
NEW CONNECTED TO EXISTING		
PIPING INDICATION WITH RESPECT TO WATER FLOW		
CONNECTION (BOTTOM,TEE OR TOP)		
TURN DOWN OR FROM BELOW		
TURN UP OR DOWN		
TURN UP OR FROM ABOVE		
SHOCK ABSORBER	SA	
VENT PIPE, NEW	V	
EXISTING TO REMAIN	V	EX
WASTE PIPE	W	
EXISTING TO REMAIN	W	EX W

GENERAL PLUMBING NOTES:

1. MAKE PIPING CONNECTIONS AS REQUIRED TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCH MAINS, ELBOWS AND CONNECTIONS ARE NOT SHOWN.
2. CHECK WITH ARCHITECTURAL WORKING DRAWING BEFORE ROUGHING-IN PLUMBING FIXTURES.
3. SLOPES AND INVERT ELEVATIONS OF SEWERS, MANHOLES, ETC., SHALL BE ESTABLISHED AND VERIFIED BY CONTRACTOR BEFORE ANY PIPING IS INSTALLED IN ORDER THAT PROPER SLOPE WILL BE MAINTAINED AND NECESSARY INVERT ELEVATIONS OBTAINED.
4. ALL PIPES SHALL BE COORDINATED WITH OTHER NEW AND EXISTING DUCTS, PIPES, LIGHTS, STRUCTURAL SYSTEM, CEILING SUPPORTS AND FRAMING BEFORE INSTALLATION. MINOR PIPE OFFSETS SHALL BE PROVIDED AS REQUIRED. MEASUREMENTS FOR VERTICAL CLEARANCES SHALL BE TAKEN AT THE JOB SITE BEFORE INSTALLATION OF ANY PIPING.
5. WASTE PIPE BELOW FLOOR, VENT PIPING ABOVE CEILING, PIPING OFFSET FOR CLARITY.
6. DOMESTIC WATER PIPING SHALL BE INSTALLED ABOVE CEILINGS UNLESS NOTED OTHERWISE. DOMESTIC WATER PIPING SHOWN IN PIPE CHASE WALLS SHALL BE INSTALLED IN CHASE SPACE, PIPING OFFSET FOR CLARITY.
7. DOMESTIC WATER PIPING SHALL NOT BE INSTALLED IN LOCATIONS SUBJECT TO FREEZING OR SPACES EXTERIOR TO BUILDING INSULATION.
8. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS. COORDINATE HOT AND COLD WATER, SANITARY WASTE AND VENT PIPING AND ROUGH-IN INSTALLATION WITH ALL EQUIPMENT MANUFACTURERS' REQUIREMENTS.
9. MATERIALS AND INSTALLATION SHALL COMPLY WITH LOCAL CODES, APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION, LOCAL UTILITY REGULATIONS AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
10. WHERE PIPE CONNECTIONS ARE SHOWN CONNECTING TO EXISTING, CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND CONNECTION SIZES PRIOR TO INSTALLATION.
11. LIMITS OF CONTRACT: DOMESTIC WATER SERVICE AND SANITARY PIPING SHALL BE EXTENDED UNDER THIS SECTION OF THE SPECIFICATIONS TO POINTS WITHIN THE BUILDING LINES, UNLESS OTHERWISE INDICATED ON THE DRAWINGS, WHERE THE PIPES SHALL BE CAPPED OR PLUGGED AND LEFT READY FOR CONNECTION AND EXTENSION BY OTHERS, AND THE LOCATIONS MARKED WITH APPROVED MEANS.
12. INFORMATION ON EXISTING PLUMBING SHOWN WAS OBTAINED FROM PLANS DATED APRIL 24, 1991. THE CONTRACTOR SHALL ADJUST WORK AS REQUIRED TO SUIT ACTUAL LOCATIONS IF DIFFERENT FROM CONTRACT DOCUMENTS.
13. PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE INSTALLATION OF PIPES WITH ELECTRICAL PANELS WHEN SHOWN NEAR PANELS OR OVER ELECTRICAL ROOMS.

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
Comm. No.: 18101.14

colley architects pc design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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ADDENDUM 2	10.22.18

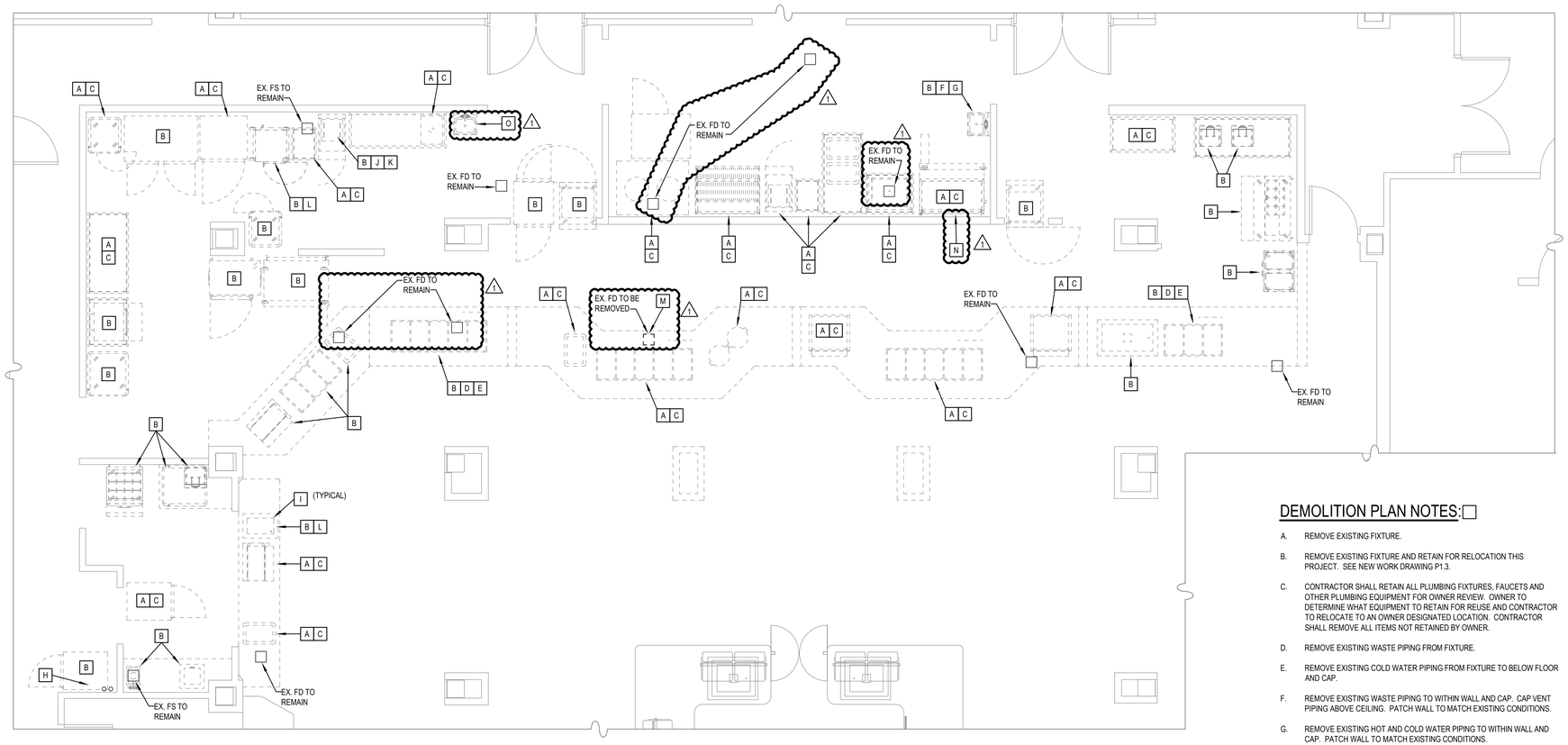
PLUMBING LEGEND AND NOTES

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05 .2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	DHH
JOB	1804
SHEET	

P1.1

ADDENDUM 2 - ATTACHMENT C.



DEMOLITION FLOOR PLAN - PLUMBING

SCALE: 1/4" = 1'-0"

DEMOLITION PLAN NOTES:

A. REMOVE EXISTING FIXTURE.

B. REMOVE EXISTING FIXTURE AND RETAIN FOR RELOCATION THIS PROJECT. SEE NEW WORK DRAWING P1.3.

C. CONTRACTOR SHALL RETAIN ALL PLUMBING FIXTURES, FAUCETS AND OTHER PLUMBING EQUIPMENT FOR OWNER REVIEW. OWNER TO DETERMINE WHAT EQUIPMENT TO RETAIN FOR REUSE AND CONTRACTOR TO RELOCATE TO AN OWNER DESIGNATED LOCATION. CONTRACTOR SHALL REMOVE ALL ITEMS NOT RETAINED BY OWNER.

D. REMOVE EXISTING WASTE PIPING FROM FIXTURE.

E. REMOVE EXISTING COLD WATER PIPING FROM FIXTURE TO BELOW FLOOR AND CAP.

F. REMOVE EXISTING WASTE PIPING TO WITHIN WALL AND CAP. CAP VENT PIPING ABOVE CEILING. PATCH WALL TO MATCH EXISTING CONDITIONS.

G. REMOVE EXISTING HOT AND COLD WATER PIPING TO WITHIN WALL AND CAP. PATCH WALL TO MATCH EXISTING CONDITIONS.

H. REMOVE EXISTING VALVES AND PIPING STUBBED UP IN THIS AREA. CAP BELOW FLOOR.

I. ALL EQUIPMENT WITH TAG NUMBER TO BE REUSED / RELOCATED. ALL EXISTING EQUIPMENT WITH NO TAG NUMBER TO BE REMOVED. SEE SHEET A1.2 FOR ALL TAGGED EQUIPMENT LOCATIONS.

J. REMOVE EXISTING HOT AND COLD WATER PIPING FROM FIXTURE TO WALL AND CAP FOR CONNECTION TO RELOCATED PASTA COOKER. REMOVE EXISTING 1/4" FROM SOLENOID TO FIXTURE.

K. REMOVE TWO (2) 1-1/4" DRAINS FROM FIXTURE BOWLS TO WALL AND CAP FOR CONNECTION TO RELOCATED FIXTURE.

L. REMOVE DRAIN FROM FIXTURE.

M. REMOVE EXISTING FLOOR DRAIN. CAP BELOW FLOOR. PATCH FLOOR TO MATCH EXISTING CONDITIONS.

N. GAS CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING AUTOMATIC GAS VALVE. RELOCATE TO POSITION THAT VALVE MAY BE ACCESSED. COORDINATE LOCATION WITH ARCHITECT.

O. REMOVE EXISTING SINK. CAP EXISTING H&CW AND WASTE PIPING FOR CONNECTION TO NEW SINK. SEE SHEET P1.3 FOR NEW WORK.

1/4" = 1' - 0"

0 4 8 12 16

LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410

Comm. No.: 18101.14

colley architects pc design community | environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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DEMO FLOOR PLAN - PLUMBING

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG - VIRGINIA

DATE	OCTOBER . 05 .2018
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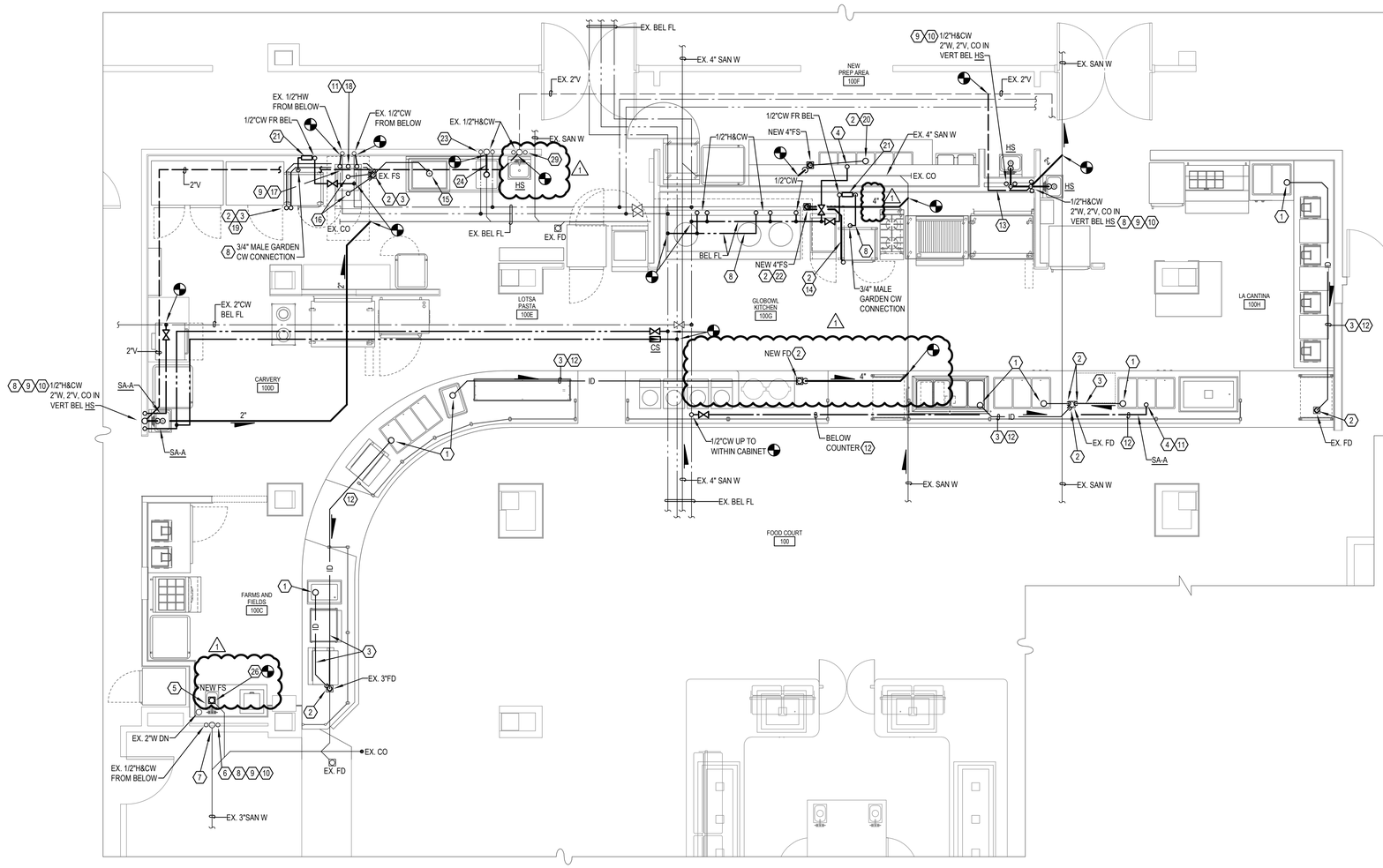
JOB	1804
SHEET	P1.2



FLOOR PLAN - PLUMBING

SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. EXTEND 1/2" INDIRECT VALVED DRAIN IN HARD COPPER FROM FIXTURE TO EXISTING FLOOR DRAIN.
2. TERMINATE INDIRECT DRAIN 3 PIPE DIAMETERS ABOVE FLOOR DRAIN OR FLOOR SINK.
3. DRAIN SHALL HAVE A MINIMUM SLOPE OF 2 PERCENT.
4. 1/2" VALVED COLD WATER TO AUTOFILL.
5. RELOCATE EXISTING HAND WASH SINK IN NEW COUNTER.
6. MODIFY EXISTING HOT AND COLD WATER PIPING CONNECTIONS FOR RELOCATED HAND SINK.
7. MODIFY EXISTING WASTE AND VENT CONNECTIONS FOR RELOCATED HAND SINK.
8. PROVIDE SHOCK ABSORBER SA-A FOR EACH RISER. PROVIDE ACCESS.
9. PROVIDE NEW LOOSE KEY STOP(S), CONNECTOR(S) AND ESCUTCHEONS.
10. PROVIDE WATER TEMPERING VALVE, WATTS MODEL SERIES USG-B ASSE 1070 AND CSA B-125 THERMOSTATIC MIXING VALVE BELOW SINK. SET FOR 110° F.
11. PROVIDE WATTS MODEL LF7R DOUBLE CHECK BACKFLOW PREVENTER FOR COLD WATER SERVICE. EXTEND DRAIN TO NEAREST FLOOR DRAIN, ASSE 1024.
12. COORDINATE PIPING LOCATION WITH ARCHITECT FOR COURSE THRU CABINETRY.
13. EXTEND NEW 2" VENT PIPING TO EXISTING VENT PIPING OF SAME SIZE.
14. EXTEND 3/4" BARB INDIRECT DRAIN IN HARD COPPER FROM FIXTURE TO NEW FLOOR SINK.
15. EXTEND 1" INDIRECT VALVED DRAIN FROM FIXTURE IN HARD COPPER TO EXISTING FLOOR SINK.
16. EXTEND TWO (2) 1 1/4" INDIRECT DRAINS WITH 3/4" BARB CONNECTIONS IN HARD COPPER FROM FIXTURE TO EXISTING FLOOR SINK.
17. PROVIDE .38" HOT AND COLD WATER FAUCET CONNECTIONS FROM 3/4" MALE GARDEN CONNECTION.
18. PROVIDE 1/4" COLD WATER SOLENOID CONNECTION TO PASTA COOKER.
19. EXTEND TWO (2) 3/4" INDIRECT DRAINS IN HARD COPPER FROM STEAMER FRONT TO EXISTING FLOOR SINK.
20. EXTEND 1" INDIRECT DRAIN IN HARD COPPER FROM FIXTURE TO NEW FLOOR DRAIN.
21. PROVIDE NEW WATER FILTER AND INSTALL PER MANUFACTURER'S RECOMMENDATIONS. MOUNT ON NEW WALL.
22. EXTEND 2" INDIRECT DRAIN IN HARD COPPER FROM FIXTURE TO NEW FLOOR SINK.
23. MODIFY RUNOUTS FOR FAUCET CONNECTIONS.
24. EXTEND NEW 1 1/2" WASTE CONNECTION TO EXISTING WASTE/VENT RISER IN WALL. COORDINATE WITH WORK TABLE SHELF.

1

25. ALL EXISTING FLOOR DRAINS AND FLOOR SINKS SHALL BE THOROUGHLY CLEANED AND RODDED TO ASSURE FULL FLOW.
26. MODIFY CONNECTION OF NEW FLOOR SINK TO EXISTING SANITARY WASTE.
27. CONTRACTOR SHALL PROVIDE NEW FLOOR DRAIN TOPS FOR ALL EXISTING DRAINS. STYLE SHALL CLOSELY MATCH NEW FLOOR DRAIN TOPS.
28. ALL EXISTING AND NEW FLOOR DRAINS AND FLOOR SINKS SHALL BE INTEGRATED WITH NEW FLOOR FINISH.
29. MODIFY EXISTING ROUGH-INS AS REQUIRED TO CONNECT NEW HS TO EXISTING ROUGH-INS. PATCH WALL TO MATCH EXISTING CONDITIONS. PROVIDE NEW LOOSE KEY STOPS, CONNECTORS AND ESCUTCHEONS. PROVIDE NEW TEMPERING VALVE, WATTS USG-B SERIES, ASSE 1070 AND CSA B-125 THERMOSTATIC MIXING VALVE BELOW SINK. SET FOR 110° F.

1/4" = 1' - 0"

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LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
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Roanoke, Virginia 24011 Fax: (540) 344-3410
Comm. No.: 18101.14

colley architects pc
design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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ADDENDUM 2	10.22.18

FLOOR PLAN - PLUMBING

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG , VIRGINIA

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SHEET	P1.3

ADDENDUM 2 - ATTACHMENT C.

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
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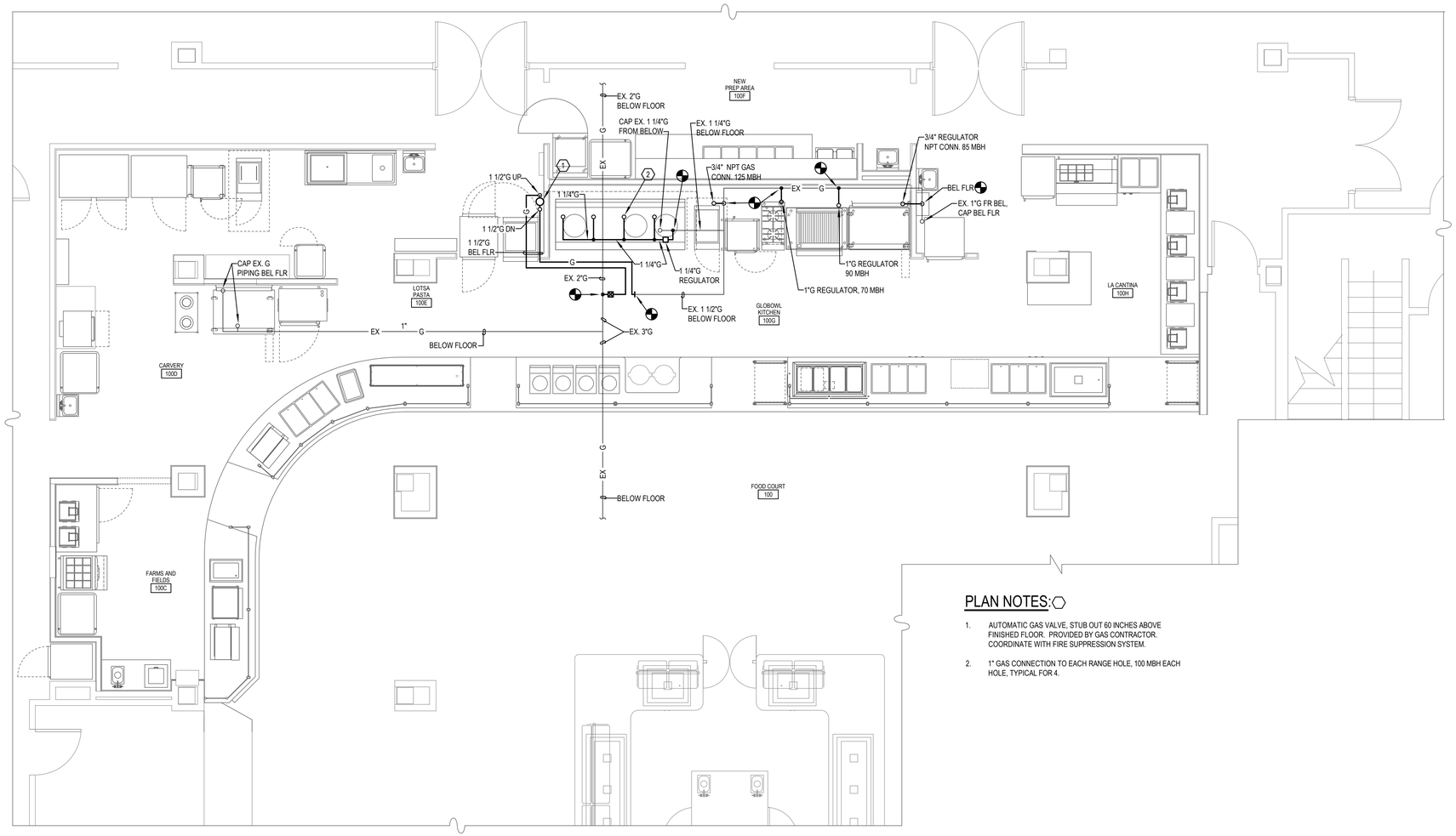

FLOOR PLAN - GAS

SCALE: 1/4" = 1'-0"

PLAN NOTES:⬠

1. AUTOMATIC GAS VALVE, STUB OUT 60 INCHES ABOVE FINISHED FLOOR. PROVIDED BY GAS CONTRACTOR. COORDINATE WITH FIRE SUPPRESSION SYSTEM.
2. 1" GAS CONNECTION TO EACH RANGE HOLE, 100 MBH EACH HOLE, TYPICAL FOR 4.

1/4" = 1' - 0"
0 4 8 12 16

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design community | environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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FLOOR PLAN - GAS

Virginia Tech
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DATE	OCTOBER . 05 .2018
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DRAWN	DHH
JOB	1804
SHEET	P1.4

ADDENDUM 2 - ATTACHMENT C.

SPECIFICATIONS FOR HVAC WORK:

1. SCOPE OF THE WORK: Work shall include removal and replacement of existing air distribution devices and associated work required and as indicated on the plans. Provide supervision, labor, material, equipment, machinery, plant and items necessary for complete systems tested and ready for operation.

2. REGULATIONS: Materials and installation shall comply with local codes, applicable provisions of latest edition of National Fire Protection Association, local utility regulations and governmental departments having jurisdiction.

3. DRAWINGS: These drawings are diagrammatic and indicate general arrangement of systems and work included. Where variances occur include the items of better quality, greater quantity or higher cost.

4. COORDINATION OF WORK: The Contractor shall be responsible for the coordination and proper relation of his work to the building structure and to the work of other trades. Contractor shall provide dimensions and locations of all openings, shafts and similar items to the proper trades and shall install work as required so as not to delay the building construction. The Contractor is responsible for damage caused by his work or workmen. Repairing of damaged work shall be done by the Contractor at no additional cost.

5. VISITING THE SITE: Each Contractor shall be responsible for visiting the site before pricing the job to familiarize himself with all existing conditions to be met in the execution of the work under this contract. No additional compensation will be allowed relating to site conditions.

6. INTERRUPTION OF SERVICES: Interruptions of service to existing systems shall be coordinated with the Owner as to time and duration. The Contractor shall be responsible for any interruptions to service and shall repair any damages to existing systems caused by his operations.

7. WORK IN OCCUPIED AREAS: Work in occupied areas shall be coordinated with the Occupant and Owner as to time and duration. The Contractor shall protect the occupied area and shall be responsible for cleaning and repairing any damages caused by his work. Safety of building occupants shall be assured at all times. Tools, material, dirt and debris shall be removed from occupied areas whenever work areas are left unattended.

8. ACCESSIBILITY: Locate equipment which must be serviced or maintained in fully accessible positions where possible. Otherwise, furnish access panels of sufficient size and located so that the concealed equipment can be serviced.

9. FOUNDATION PADS AND ROUGH-IN: Provide 4-inch high concrete foundation pads for floor-mounted equipment. Rough-in openings shall align vertically and horizontally with building structure. Wall-mounted thermostats shall be mounted 5'-4" above finished floor to bottom of thermostat.

10. SLEEVES: Locate sleeves during normal course of work. Provide sleeves for piping passing through concrete floor slabs and concrete, masonry, tile and gypsum wall construction. Sleeves shall not be required for piping embedded in concrete or slab on grade, except that copper piping shall require sleeves through slabs on grade. Sleeves placed in exterior walls below grade shall be watertight. Where sleeves are located through fire-rated walls or floors, the sleeve assemblies shall maintain the fire rating of the wall or floor. Sleeves shall be constructed of 20 gauge galvanized steel with lock seam joints for all sleeves set in concrete floor slabs. All other sleeves shall be constructed of galvanized steel pipe.

11. CUTTING AND PATCHING: The Contractor shall provide all cutting and patching necessary to install his work. Patching shall match adjacent surfaces. No structural members shall be cut without the approval of the Architect.

12. CLEANING: Equipment and piping shall be cleaned to remove foreign materials. Provide temporary filters for air units that are operated during construction. Plug or cap openings in equipment, ductwork, piping and materials until connection is made to the system. Remove from the premises all unused material and debris resulting from the performance of HVAC work.

13. WIRING: Starters that are specified to be furnished as an integral part of the mechanical equipment shall be complete with properly sized overload heaters. Temperature control wiring, equipment control wiring and control interlock wiring for mechanical equipment shall be furnished by the Mechanical Contractor. Control wiring shall not include any wiring which carries motor current. All wiring shall be in metal conduit and shall comply with the Electrical specifications.

14. START-UP: Packaged air conditioners and the chiller shall include factory Start-Up and verification by a trained and certified Factory Representative of the equipment manufacturer. Start-Up and verification reports shall be included with bound sets of Operating and Maintenance Instructions.

15. QUIET OPERATION: Systems shall operate under conditions of load without unusual or excessive noise or vibration. Unusual or excessive noise or vibration shall be corrected.

16. TESTING AND BALANCING: The Contractor shall provide the services of an independent firm certified by the AABC or NEBB to adjust and balance the HVAC equipment to assure that the proper sequence of control is established and operating in a safe manner. The AABC or NEBB certified firm shall balance the airflow for the rooftop unit and fans and shall be balanced for the CFM as indicated on the drawings. The AABC or NEBB certified firm shall guarantee that all testing adjusting and balancing work shall be performed in accordance with NEBB Procedural Standards for Testing and Adjusting and Balancing of Environmental Systems. SHOP DRAWING REQUIRED for Testing and Balancing Report.

17. INSTRUCTIONS TO OWNER: Instruct the Owner in the proper operation and maintenance of the mechanical systems until the Owner is fully prepared to operate and maintain the systems. However, length of instruction time shall be limited to one (1) full day.

18. OPERATING AND MAINTENANCE: Provide the Owner with three (3) bound sets of Operating and Maintenance Instructions for all HVAC equipment and controls.

19. GUARANTEE: Equipment, materials and labor required by these contract drawings shall be guaranteed to be free from defective materials or workmanship for one (1) year after final acceptance of the project unless specified for a longer period in other portions of the specifications. Defective materials or workmanship occurring during this period shall be corrected at no additional cost.

20. PAINTING: General - Paint mechanical equipment and materials (where not concealed). Painting (in concealed spaces) shall be limited to equipment and materials not otherwise protected from rusting such as hangers and supports. Paint shall be products of Sherwin-Williams, Pittsburgh, Pratt-Lambert or equal. Surface preparation, priming and paint application shall be in accordance with the manufacturer's instructions. Galvanized surfaces shall be pretreated with a phosphoric acid cleaning solution and primed. After preparation each item shall be painted, except color of paint for equipment and material where not concealed shall be as selected by the Owner's Representative. Items not concealed in rooms shall be painted of the same color to match adjacent walls or ceilings. Painting is not required of items with a factory-finish coat. Patch painting is required of any damaged areas to match factory-finish coat. Nameplates on equipment shall not be painted.

21. IDENTIFICATION OF PIPES AND EQUIPMENT: Each major piece of equipment, such as piping shall be identified by marking that will read the same as the identification shown on the drawings. Stencil letters shall be 2 inches high upper case painted with white enamel on equipment and black enamel on piping and conduit. Identification shall be painted on each pipe or conduit where exposed or accessible and shall be placed every 15 feet along the pipe or conduit.

22. AIR DEVICES (SHOP DRAWING REQUIRED)

    A. Diffusers, registers and grilles shall be Price or equal unless noted otherwise. Ceiling devices shall have white baked enamel finish. All other devices shall have prime finish.

    B. Square ceiling diffusers shall be Model SCDA full louver face sized for direct lay-in mount for inverted T-bar ceiling without panel extensions. Provide opposed blade manual damper, equalizing deflectors and square to round neck adaptor. Construction shall be steel with mitered blade joints. Square ceiling diffusers for hard surface ceilings shall be surface mount type of similar style, Series, construction and appearance as lay-in units.

    C. Custom Flow Architectural Slot Diffusers shall be Jet Slot type as manufactured by Price or approved equal with extruded aluminum air deflector frames, coated steel air pattern controllers (room-side adjustable) easily removable without tools, factory mounted end caps, exposed flange frame (EF), custom baked enamel finish (as selected by Architect), 1-1/2" slot width (selected to match existing conditions), single layer pattern controller, and custom engineered plenum to match existing conditions. Contractor shall coordinate closely with existing linear diffusers to provide the best match possible.

    D. Return air lay-in filter grilles shall be Model A700FF aluminum construction for lay-in inverted Tee Bar ceiling. Blades shall be 40 degrees deflection. Grilles shall have hinged frame with MERV 8 filters of standard size.

23. DUCTWORK

    A. General: Ductwork shall be zinc-coated sheet steel or aluminum, constructed and installed as recommended by the latest edition of SMACNA.Coat all interior surfaces of rigid fabricated and pre-manufactured duct and accessories with one coat of foster 40-20 fungicidal protective finish as manufactured by foster products corporation or provide ductwork with agion anti-microbial coated steel/aluminum.

    B. Duct clearance shall be established at the job site before any ducts are fabricated. The Contractor will not be allowed any extra costs for ducts fabricated and then found not to fit.

    C. Manual volume control dampers shall have accessible operating mechanism. Blade height shall not exceed 8 inches.

    D. Air deflectors shall be provided in all square elbows and duct-mounted supply outlets.

    E. Hinged access doors shall be provided in accordance with NFPA 90A at all automatic dampers, fire dampers, heaters, thermostats, on each side of air handling unit and other apparatus requiring service and inspection in the duct system. Access doors shall be 15" x 18" or as large as practical.

    F. Provide flexible duct connections to air handling equipment.

    G. Duct supports shall consist of not less than 1" x 16-gauge galvanized strap iron hangers spaced not over 4'-0" on center.

    H. Flexible ducts shall be flexible metal or metal and neoprene-coated canvas hose insulated with 1" thick fiberglass with vinyl vapor barrier. All round duct take-offs shall be made with spin-in fittings with balancing damper. The duct diameter shall match the air diffuser size unless otherwise indicated.

24. THERMAL COVERING (SHOP DRAWING REQUIRED):

    A. Insulation shall be Johns Manville, Owens Corning, Armstrong or equal. Insulation shall not be applied until after the equipment, pipes or ducts to be insulated have proven satisfactory under tests. All materials used shall have composite flame-spread rating not exceeding 25 and a smoke-developed rating not exceeding 50.

    B. Supply air ductwork shall be insulated with 1 lb. density, flexible type, 1-1/2" thick with factory applied facing of 0.7 mil foil-scrim-white kraft paper jacket effectively vapor sealed. Faced Duct Wrap Fiberglass Insulation - FRK Type 100, ASTMC 553-92 (Blanket, Flexible), Density 1 pcf, k = 0.31, for temperatures up to 250 Deg. F.

    C. Piping: Insulation shall be installed in conformance with the manufacturer's recommendations.

    D. Fiberglass pipe insulation shall have a white kraft bonded to aluminum foil, reinforced with fiberglass yarn jacket. Elastomeric insulation shall be constructed of a closed cell structure to effectively retard the flow of moisture vapor and serve as a vapor barrier. Insulation thickness and type for various piping systems shall be as indicated in the following table (Pipe Size/Insulation Thickness).

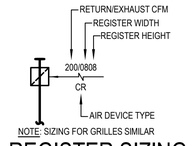
PIPE SIZE/INSULATION THICKNESS (1)

System	Temp. Range (Deg. F)	Less than 1"	1" to 1-1/4"	1-1/2" to 3"	4" to 6"	8" & above	Ins. Type (2)
Heating Water	140-200	1.5	1.5	2.0	2.0	2.0	A

Notes:
(1) Minimum thickness for insulation listed in preceding table is based on Thermal Conductivity, 'K', not exceeding 0.27 Btu per inch/hr x sq. ft. x Deg. F. based on Mean Temperature of 75 Deg. F. Insulation with greater thermal conductivity shall have increased thickness to provide same performance characteristics as specified.
(2) A - Fiberglass type insulation; B - Elastomeric type insulation.
(3) Insulate both liquid and suction lines of refrigerant piping located outdoors and in mechanical rooms.

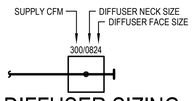
    E. Fiberglass pipe insulation fittings shall be covered with pre-molded PVC fitting covers. Jackets on fiberglass pipe insulation below 80 Deg. F. shall be vapor sealed using self-sealing lap, lap seal gun or adhesive. All insulation joints, laps, voids, punctures and end tapers shall be sealed with 1/32" thickness of vapor adhesive. A 12" long, 1/2 section of hydrous calcium silicate or foamglas insulation shall be used between hangers and piping. On pipe, sizes 1-1/2" and below, hydrous calcium silicate or foamglas will not be required. All piping shall have load-distributing galvanized 16 gauge metal shields installed around the lower half of the insulation.

    F. Ductwork: All supply ducts shall be insulated. Insulation shall be flexible duct insulation meeting ASTM C 533. Insulation shall have a factory-applied facing of foil-scrim-kraft paper jacket reinforced with fiberglass yarn mesh. Insulation shall be secured to rectangular ducts by impaling over metal stick clips spaced 12" center each way. Round duct insulation shall be secured with No. 18 gauge copperweld wire spaced not over 18" on center. Where insulation joints occur, facing tabs shall be lapped not less than 2"; all joints, voids and punctures in facing shall be effectively vapor sealed with Foster Vapor-Safe or Vapor-Fas adhesive. Insulation for all other ductwork shall be 1-1/2" thick and shall have a minimum total thermal resistance (R) of 5.6 at a mean temperature of 75 Deg. F.



NOTE: SIZING FOR GRILLES SIMILAR

REGISTER SIZING
NO SCALE



DIFFUSER SIZING
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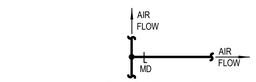
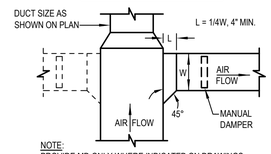


SINGLE LINE REPRESENTATION



NOTE:
PROVIDE MD ONLY WHERE INDICATED ON DRAWINGS.

LATERAL BRANCH DUCT DETAIL
SCHEMATIC

GENERAL NOTES:

1. ALL DUCTWORK AND PIPES SHALL BE COORDINATED WITH OTHER NEW AND EXISTING DUCTS, PIPES, LIGHTS, STRUCTURAL SYSTEM, CEILING SUPPORTS AND FRAMING BEFORE INSTALLATION. MINOR DUCT AND PIPE OFFSETS AND MINOR DUCT TRANSITIONS SHALL BE PROVIDED AS REQUIRED. WHERE TRANSITIONS ARE REQUIRED, CROSS SECTIONAL AREA OF DUCT SHALL NOT BE REDUCED. MEASUREMENTS FOR VERTICAL CLEARANCES OF DUCTWORK SHALL BE TAKEN AT THE JOB SITE BEFORE FABRICATION OF ANY DUCTWORK.
2. ALL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S PUBLISHED INSTRUCTIONS.
3. MATERIALS AND INSTALLATION SHALL COMPLY WITH LOCAL CODES, APPLICABLE PROVISIONS OF LATEST EDITION OF NATIONAL FIRE PROTECTION ASSOCIATION, LOCAL UTILITY REGULATIONS AND GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
4. CONTRACTOR SHALL SEAL PENETRATIONS IN EXISTING WALLS AS REQUIRED TO COMPLY WITH EXISTING WALL RATINGS.
5. VERIFY WALL OPENINGS WITH STRUCTURE.
6. VERIFY THE FINAL LOCATION OF ALL THERMOSTATS, TEMPERATURE SENSORS, PANELS AND CONTROL INSTRUMENTS WITH THE ARCHITECT AND OWNER PRIOR TO ROUGH-IN.
7. VERIFY LOCATIONS OF NEW AND EXISTING EQUIPMENT AND ROUTE OF DUCTWORK WITH EXISTING CONDITIONS.
8. ALL CUTTING AND PATCHING FOR THE INSTALLATION OF NEW WORK IN EXISTING BUILDING SHALL BE DONE BY THE GENERAL CONTRACTOR.
9. REFER TO ARCHITECTURAL, STRUCTURAL AND ELECTRICAL DRAWINGS TO COORDINATE THE EXACT LOCATIONS OF DIFFUSERS, REGISTERS, GRILLES, PIPING AND OTHER MECHANICAL EQUIPMENT WITH CEILING GRID, LIGHTS, BEAMS AND OTHER BUILDING COMPONENTS.
10. CONTRACTOR SHALL PROVIDE AND INSTALL ALL SUPPORTS REQUIRED TO MOUNT MECHANICAL EQUIPMENT, PIPING AND DUCTWORK.
11. WHERE PIPE AND DUCT CONNECTIONS ARE SHOWN CONNECTING TO EXISTING, CONTRACTOR SHALL DETERMINE EXACT LOCATIONS AND CONNECTION SIZES PRIOR TO INSTALLATION.
12. DUCTWORK SHALL BE ZINC-COATED SHEET STEEL OR ALUMINUM, CONSTRUCTED AND INSTALLED AS RECOMMENDED BY THE LATEST EDITION OF SMACNA "HVAC DUCT CONSTRUCTION STANDARDS". COAT ALL INTERIOR SURFACES OF RIGID FABRICATED AND PRE-MANUFACTURED DUCT AND ACCESSORIES WITH ONE COAT OF FOSTER 40-20 FUNGICIDAL PROTECTIVE FINISH AS MANUFACTURED BY FOSTER PRODUCTS CORPORATION OR PROVIDE DUCTWORK WITH AGION ANTI-MICROBIAL COATED STEEL/ALUMINUM.
13. FLEXIBLE DUCTS SHALL BE FLEXIBLE METAL OR METAL AND NEOPRENE-COATED CANVAS HOSE INSULATED WITH 1" THICK FIBERGLASS WITH VINYL VAPOR BARRIER. ALL ROUND DUCT TAKE-OFFS SHALL BE MADE WITH SPIN-IN FITTINGS WITH 45 DEG. EXTRACTOR AND BALANCING DAMPER. THE DUCT DIAMETER SHALL MATCH THE AIR DIFFUSER SIZE UNLESS OTHERWISE INDICATED.
14. PROVIDE FLEXIBLE DUCT CONNECTIONS BETWEEN THE SUPPLY AND RETURN DUCTS FROM THE AIR UNITS. FLEXIBLE CONNECTIONS SHALL BE WEATHERTIGHT WHEN EXPOSED.
15. PROVIDE AIR TIGHT SEAL BETWEEN DUCTWORK AND FIRE PARTITIONS/WALLS WITH FIRE RESISTANT MATERIAL.
16. SUPPLY AIR DUCTWORK SHALL BE INSULATED WITH 1 LB. DENSITY, FLEXIBLE TYPE, 1-1/2" THICK WITH FACTORY APPLIED FACING OF 0.7 MIL FOIL-SCRIM-WHITE KRAFT PAPER JACKET EFFECTIVELY VAPOR SEALED.
17. NEW DUCT AND PIPE INSULATION SHALL BE AS SPECIFIED AND SHALL BE SEALED TO EXISTING. INSULATION THAT IS DAMAGED OR REMOVED FOR NEW WORK SHALL BE REPLACED, REPAIRED AND SEALED AS REQUIRED.
18. ALL CEILING DIFFUSERS SHALL BE 4-WAY THROW TYPE UNLESS NOTED OTHERWISE.
19. CEILING DIFFUSERS SHALL BE PRICE SQUARE LOUVER FACE, LAY-IN, ADJUSTABLE TYPE COMPLETE WITH EQUALIZING DEFLECTORS AND VOLUME CONTROL UNITS. FINISH SHALL BE WHITE.
20. RETURN GRILLES AND REGISTERS SHALL BE PRICE SERIES 635, 45 DEGREE DEFLECTION. DAMPERS FOR REGISTERS SHALL BE FACE OPERATED AND OPPOSED BLADE TYPE.
21. AIR DEFLECTORS SHALL BE INSTALLED IN ALL SQUARE ELBOWS.
22. CEILING GRID AND OTHER ITEMS SHALL NOT BE SUPPORTED FROM OR IN CONTACT WITH MECHANICAL EQUIPMENT. CONDUIT, WIRING, PIPING AND SUPPORTS SHALL NOT BE LOCATED IN FRONT OF FAN COIL ACCESS PANELS.
23. DUCTWORK AND PIPING SHALL NOT BE INSTALLED ABOVE ELECTRICAL PANELS. COORDINATE INSTALLATION OF DUCTWORK AND PIPING WITH ELECTRICAL PANELS WHEN SHOWN NEAR PANELS OR OVER ELECTRICAL ROOMS.
24. INSTRUCT THE OWNER IN THE PROPER OPERATION AND MAINTENANCE OF THE MECHANICAL SYSTEMS UNTIL THE OWNER IS FULLY PREPARED TO OPERATE AND MAINTAIN THE MECHANICAL SYSTEM. HOWEVER, LENGTH OF INSTRUCTION TIME SHALL BE LIMITED TO ONE DAY.
25. EQUIPMENT, MATERIALS AND LABOR REQUIRED BY THESE CONTRACT DRAWINGS SHALL BE GUARANTEED TO BE FREE FROM DEFECTIVE MATERIALS OR WORKMANSHIP FOR ONE YEAR AFTER FINAL ACCEPTANCE OF THE PROJECT UNLESS SPECIFIED OTHERWISE. DEFECTIVE MATERIALS OR WORKMANSHIP OCCURRING DURING THIS PERIOD SHALL BE CORRECTED AT NO ADDITIONAL COST.
26. ALL NEW RIGID SUPPLY AND EXHAUST DUCTWORK SHALL BE INTERNALLY COATED WITH ANTI-MICROBIAL PAINT IN STRICT ACCORDANCE WITH THE UNIVERSITY'S CURRENT STANDARDS.

DEMOLITION NOTES:

1. THE CONTRACTOR SHALL REMOVE OR ALTER AS NECESSARY ALL EXISTING PIPING, EQUIPMENT, EQUIPMENT FOUNDATIONS, AND APPURTENANCES THAT ARE NOT REQUIRED FOR THE EXISTING SYSTEMS TO REMAIN. CONTRACTOR SHALL VISIT THE SITE TO DETERMINE THE SCOPE OF THIS WORK AND VERIFY EXISTING CONDITIONS PRIOR TO SUBMITTING BIDS.
2. EXISTING EQUIPMENT SHALL BE TURNED OVER TO THE OWNER, UNLESS DIRECTED OTHERWISE AND LOCATED AS DIRECTED BY THE OWNER. ALL OTHER ITEMS TO BE REMOVED SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND REMOVED FROM THE PREMISES.
3. INSULATION ON EXISTING PIPING OR DUCTWORK THAT IS DAMAGED OR REMOVED DUE TO THE DEMOLITION WORK SHALL BE REPLACED AND SEALED AS REQUIRED TO PROVIDE CONTINUOUS COVERAGE.

HVAC LEGEND

ABOVE	ABV
ABOVE FINISHED FLOOR	AFF
AIR CONDITIONING UNIT	AC
AIR HANDLING UNIT	AHU
ANCHOR	
BELOW	BEL
BETWEEN	BET
CAPACITY	CAP
CEILING	CLG
CEILING GRILLE	CG
CEILING REGISTER	CR
CUBIC FEET PER MINUTE	CFM
DEGREES FAHRENHEIT	°F
DIAMETER	DIA
DIRECTION OF FLOW	
DIRECTION OF SLOPE DOWN	
DOWN	DN
DRY BULB	DB
DUCT SLOPE DOWN	DN
DUCT SLOPE UP	UP
DUCT TRANSITION	
DUCTWORK (NEW)	
ACOUSTIC LINED	
RETURN & EXHAUST	
SUPPLY	
WATERTIGHT	
DUCTWORK (EXISTING TO REMAIN)	EX
RETURN	EX R
EXHAUST	EX E
SUPPLY	EX S
DUCTWORK (EXISTING TO BE REMOVED)	
EACH EXISTING, REMOVE FROM THIS POINT	EA
FAN COIL UNIT	FC
FEET	FT
FEET PER MINUTE	FPM
FIRE DAMPER	FD
FIRE/SMOKE DAMPER	FSD
FIRESTAT	FS
FLEXIBLE DUCT CONNECTION	
FLEXIBLE DUCT RUNOUT	
FLEXIBLE PIPE CONNECTION	
FLOOR	FL
FROM	FRM
GALLONS	GAL
GALLONS PER MINUTE	GPM
INCH	IN
INLINE EXHAUST FAN	IEF
KILOWATT	KW
MANUAL DAMPER	MD
MOTOR OPERATED DAMPER	MOD
NEW CONNECTED TO EXISTING	
NORMALLY CLOSED	NC
NORMALLY OPEN	NO
OUTDOOR AIR	OA
RETURN AIR	RA
REVOLUTIONS PER MINUTE	RPM
STATIC PRESSURE	SP
WALL HEATER	WH
WET BULB	WB

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
Comm. No.: 18101.14

colley architects pc design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA . 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

REVISIONS	DATE

HVAC LEGEND AND NOTES

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05 .2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	MEH
JOB	1804
SHEET	

M1.1

ADDENDUM 2 - ATTACHMENT C.

LAWRENCE PERRY & ASSOCIATES
Consulting Engineers

15 E Salem Avenue SE, Suite 101
Roanoke, Virginia 24011

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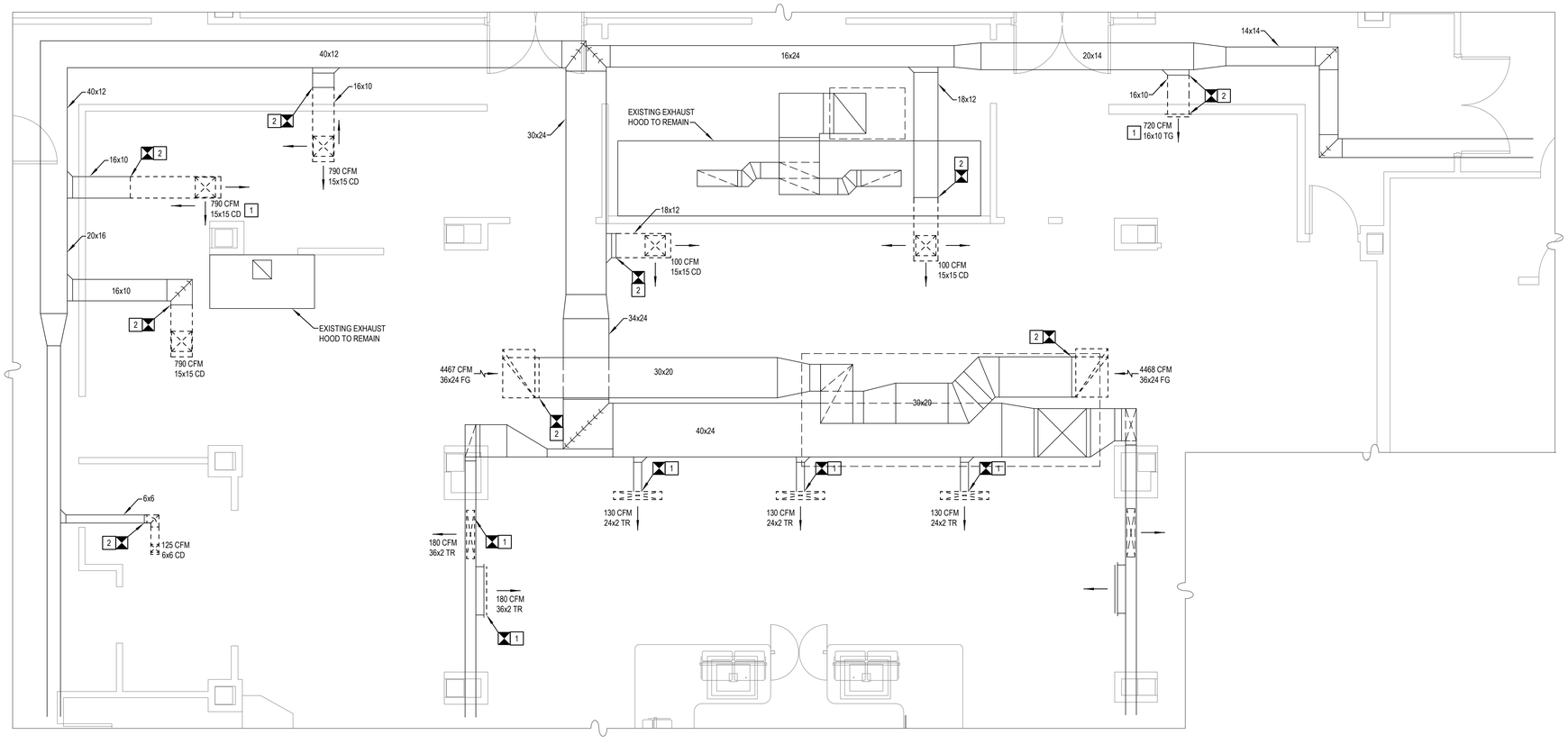

DEMOLITION FLOOR PLAN - HVAC

SCALE: 1/4" = 1'-0"

PLAN NOTES:

1. REMOVE EXISTING LINEAR CEILING DEVICE AND ASSOCIATED VERTICAL CONNECTION TO BRANCH DUCT. CLEAN AND PREPARE FOR CONNECTION TO NEW WORK. INCREASE CEILING OPENING SIZE AS REQUIRED FOR NEW AIR DEVICE.
2. REMOVE EXISTING DUCTWORK, ASSOCIATED INSULATION, AND CEILING DEVICE TO THE EXTENT SHOWN. CLEAN AND PREPARE FOR CONNECTION TO NEW WORK.

1/4" = 1' - 0"

0 4 8 12 16

DEMO FLOOR PLAN - HVAC

Virginia Tech
RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05 .2018
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SCALE	AS NOTED
DRAWN	MEH
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SHEET	M1.2

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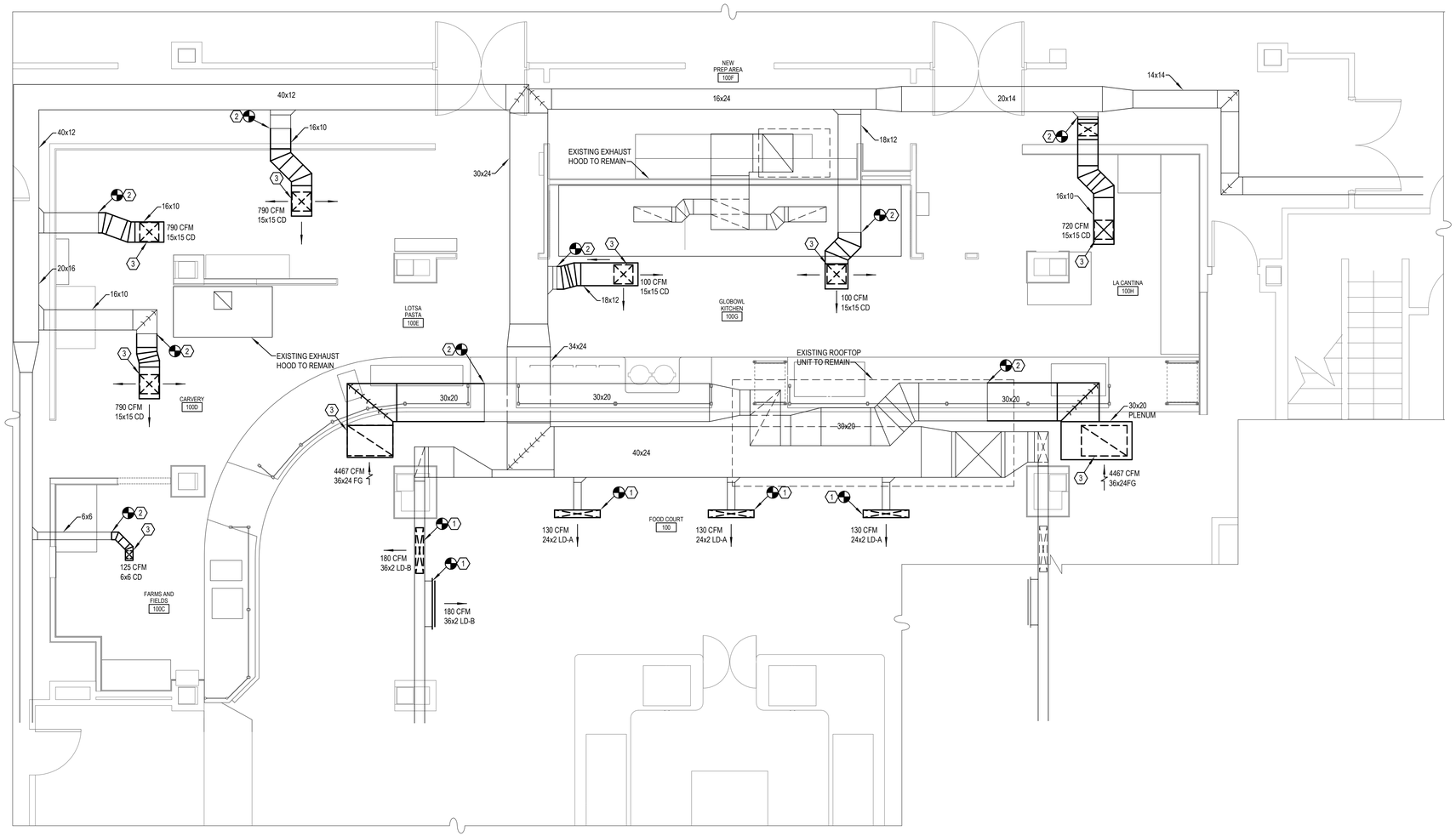

FLOOR PLAN - HVAC

SCALE: 1/4" = 1'-0"

PLAN NOTES:⬡

1. INSTALL NEW CEILING DEVICE AND CONNECT TO FULL SIZE OF EXISTING BRANCH DUCT. PATCH AND REPAIR CEILING TO MATCH EXISTING. BALANCE DEVICE FOR THE AIRFLOW INDICATED.
2. EXTEND DUCTWORK AS SHOWN.
3. CONNECT TO NEW CEILING DEVICE.

1/4" = 1' - 0"

0 4 8 12 16

FLOOR PLAN - HVAC

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG , VIRGINIA

DATE	OCTOBER , 05 ,2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	MEH
JOB	1804
SHEET	M1.3

EXISTING PANEL FC

VOLTAGE: 208Y/120V
SYSTEM: 3PH, 4W
SOLID NEUTRAL: YES

MAIN: 400A MLO
BUS RATING: 400A
GROUND BUS: YES

INTEGRAL SPD: NO
MOUNTING: FLUSH
INTERRUPT RATING: 10,000 AIC

CKT	LOAD SERVED	BKR	PHASE	NEUT	GND	COND	DMD	L1	L2	L3	CKT	LOAD SERVED	BKR	PHASE	NEUT	GND	COND	DMD	L1	L2	L3
1	PANNI PRESS LA CANTINA	25/1	#10	#10	#10	3/4"	K	2.2			2	PANNI PRESS LA CANTINA	25/1	#10	#10	#10	3/4"	K	2.2		
3	PANNI PRESS LA CANTINA	25/1	#10	#10	#10	3/4"	K		2.2		4	PANNI PRESS LA CANTINA	25/1	#10	#10	#10	3/4"	K		2.2	
5	PREP COOLER LA CANTINA	20/1	#12	#12	#12	3/4"	K			.9	6	WARMING CABINET LA CANTINA	20/2	#12	"	#12	3/4"	K			.75
7	SPACE ONLY	-	-	-	-	-	-	-			8	"	-	#12	-	-	-	K	.75		
9	SPACE ONLY	-	-	-	-	-	-		-		10	COLD WELL GLOWBOWL	20/1	#12	#12	#12	3/4"	K		1.08	
11	STEAMER GLOWBOWL	50/3	#8	#8	#10	1"	K			5	12	INDUCTION WOK GLOWBOWL	20/2	#12	"	#12	3/4"	K			1.25
13	"	-	#8	-	-	-	K	5			14	"	-	#12	-	-	-	K	1.25		
15	"	-	#8	-	-	-	K		5		16	INDUCTION WOK GLOWBOWL	20/2	#12	"	#12	3/4"	K		1.25	
17	INDUCTION WOK GLOWBOWL	20/2	#12	"	#12	3/4"	K			1.25	18	"	-	#12	-	-	-	K			1.25
19	"	-	#12	-	-	-	K	1.25			20	FOOR WARMER DRAWER LA CANTINA	15/2	#12	"	#12	3/4"	K	.45		
21	INDUCTION WOK GLOWBOWL	20/2	#12	"	#12	3/4"	K		1.25		22	"	-	#12	-	-	-	K		.45	
23	"	-	#12	-	-	-	K			1.25	24	HOT WELL GLOWBOWL	15/3	#12	-	#12	3/4"	K			1.2
25	HOT WELL LA CANTINA	20/2	#12	"	#12	3/4"	K	1.35			26	"	-	#12	-	-	-	K	1.2		
27	"	-	#12	-	-	-	K		1.35		28	"	-	#12	-	-	-	K		1.2	
29	RICE WARMERS GLOWBOWL	20/1	#12	#12	#12	3/4"	K			.38	30	RECEPTACLE	20/1	#12	#12	#12	3/4"	R			.18
31	LIGHTS	20/1	#12	#12	#12	3/4"	L	1.25			32	RECEPTACLE	20/1	#12	#12	#12	3/4"	R	.18		
33	SPACE ONLY	-	-	-	-	-	-		-		34	RECEPTACLE	20/1	#12	#12	#12	3/4"	R		.18	
35	SPACE ONLY	-	-	-	-	-	-			-	36	RECEPTACLE	20/1	#12	#12	#12	3/4"	R			.18
37	SPACE ONLY	-	-	-	-	-	-	-			38	PREP COOLER	20/1	#12	#12	#12	3/4"	-	.68		
39	"	-	#8	-	-	-	K		4		40	SPARE	20/1	-	-	-	-	-		-	
41	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K			2.89	42	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K			2.89
43	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K	2.89			44	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K	2.89		
45	RECEPTACLE	20/1	#12	#12	#12	3/4"	K		.18		46	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K		2.89	
47	30 AMP RECEPTACLE	30/1	#10	#10	#10	3/4"	K			2.89	48	SPARE	20/1	-	-	-	-	-			-
49	SPACE ONLY	-	-	-	-	-	-	-			50	SPARE	20/1	-	-	-	-	-	-		
51	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K		.75		52	HOT WELL	20/2	#12	-	#12	3/4"	K		1.2	
53	MERCHANDISER	20/1	#12	#12	#12	3/4"	K			.88	54	"	-	#12	-	-	-	K			1.2
55	HOT WELL	20/2	#12	"	#12	3/4"	K	1.2			56	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K	.75		
57	"	-	#12	-	-	-	K		1.2		58	FOOD WARMER	15/2	#12	"	#12	3/4"	K		.5	
59	HOT SHELVES	20/1	#12	#12	#12	3/4"	K			1.28	60	"	-	#12	-	-	-	K			.5
61	ORDER DEVICES	20/1	#12	#12	#12	3/4"	R	.36			62	ORDER DEVICES	20/1	#12	#12	#12	3/4"	R	.54		
63	ORDER DEVICES	20/1	#12	#12	#12	3/4"	R		.54		64	ORDER DEVICES	20/1	#12	#12	#12	3/4"	R		.36	
65	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K			1.5	66	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K			1.25
67	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K	1			68	HEAT LAMPS	20/1	#12	#12	#12	3/4"	K	1.26		
69	MONITORS	20/1	#12	#12	#12	3/4"	C		.8		70	MONITORS	20/1	#12	#12	#12	3/4"	C		.8	
71	MONITORS	20/1	#12	#12	#12	3/4"	C			.8	72	MONITORS	20/1	#12	#12	#12	3/4"	C			.8
73	HANGING LAMPS AT COUNTER	20/1	#12	#12	#12	3/4"	L	.85			74	COLDWELL AND REFRIGERATOR	20/1	#12	#12	#12	3/4"	K	1.44		
75	COOLER AND REFRIGERATOR	20/1	#12	#12	#12	3/4"	K		1.44		76	WARMER	20/1	#12	#12	#12	3/4"	K		1.2	
77	PANINI PRESS	25/1	#10	#10	#10	3/4"	K			2.2	78	PANINI PRESS	25/1	#10	#10	#10	3/4"	K			2.2
79	WARMER	20/1	#12	#12	#12	3/4"	K	1.32			80	PREP COOLER, RECEPTACLES	20/1	#12	#12	#12	3/4"	K	.36		
81	UNDER COUNTER LIGHTING	20/1	#12	#12	#12	3/4"	-		.28		82	SPACE ONLY	-	-	-	-	-	-		-	
83	SPARE	-	-	-	-	-	-			-	84	SPACE ONLY	-	-	-	-	-	-			-

NOTE: EXISTING PANEL-FC IS A 400 AMP 3PH 120/208 VOLT PANEL FED AT 400 AMPS. PANEL IS AN 84 CIRCUIT SQUARE D TYPE NQ. THE PANEL CONTAINS 30 1 POLE 20 AMP BREAKERS. USE THESE BREAKERS AND ADD BREAKERS AS REQUIRED BY THIS SCHEDULE.

PHASE LOAD TOTALS: 32.62 | 32.3 | 34.87

LOADS (KVA)	CONNECTED	DEMAND FACTOR	DEMAND
LIGHTING	2.1	1.25	2.63
REC TO 10 KVA	2.52	1.0	2.52
REC REMAINING	0	0.5	0
SPACE HEATING	0	0.0	0
AIR CONDITIONING	0	1.0	0
NON-SEASONAL MOTORS	0	1.0	0
LARGEST MOTOR	0	0.25	0
WATER HEATING	0	1.0	0

LOADS (KVA)	CONNECTED	DEMAND FACTOR	DEMAND	
KITCHEN EQUIPMENT	91.01	0.65	59.16	
CONTINUOUS	3.2	1.25	4	
NON-CONTINUOUS	0	1.0	0	
DEMAND	0	1.0	0	
TOTAL CONNECTED LOAD	98.8	KVA	274.5	AMPS
MIN. FEEDER / PANEL CAPACITY	68.3	KVA	189.8	AMPS
OVERALL DEMAND FACTOR	0.69			

GENERAL NOTES:

1. LOAD SIDE CONDUCTOR AND CONDUIT SIZES FROM DISCONNECT SWITCHES TO EQUIPMENT SHALL BE THE SAME AS LINE SIDE CONDUCTORS AND CONDUIT.
2. CAREFULLY COORDINATE ALL ELECTRICAL EQUIPMENT LOCATIONS WITH DUCTWORK, PIPING, KITCHEN EQUIPMENT AND MECHANICAL EQUIPMENT. MAINTAIN ALL CLEARANCES AND SPACES REQUIRED BY THE NEC.
3. WHERE MULTIPLE CIRCUITS ARE COMBINED IN A SINGLE CONDUIT, DERATE CONDUCTORS PER THE NEC.
4. CAREFULLY COORDINATE LOCATIONS OF ALL LIGHTING FIXTURES, OCCUPANCY SENSORS, HEAT DETECTORS, FIRE ALARM NOTIFICATION APPLIANCES AND OTHER ELECTRICAL CEILING DEVICES WITH SPRINKLER HEADS AND HVAC CEILING DEVICES.
5. FOR ALL EXISTING OUTLET BOXES THAT ARE NOT BEING REUSED, PROVIDE BLANK COVER PLATE TO MATCH NEW WALL PLATES IN THAT AREA.
6. MODIFY EXISTING PANEL SCHEDULES TO ACCURATELY REFLECT ALL CHANGES MADE AS PART OF THIS CONTRACT. ALL NEW BREAKERS IN EXISTING PANELS SHALL MATCH EXISTING AIC. PANEL SCHEDULES SHALL BE TYPED.
7. ALL DEVICES, OUTLET BOXES CONDUIT, WIRE AND SUPPORTING DEVICES NOT BEING REUSED SHALL BE REMOVED.
8. ALL DEVICES SHOWN MOUNTED ON NEW OR EXISTING WALLS SHALL BE FLUSH MOUNTED. THE COVERING ON EXISTING WALLS WILL BE REMOVED EXPOSING THE STUDS SO NEW OUTLET BOXES MAY BE FLUSH MOUNTED BEFORE NEW WALL SURFACES ARE INSTALLED.
9. WHERE BREAKERS ARE REMOVED FROM EXISTING PANELS OR CIRCUITS ARE DISCONNECTED PROVIDE A NEW TYPE WRITTEN DIRECTORY DEPICTING THE CURRENT USE FOR EACH CIRCUIT BREAKER REMAINING IN THE PANEL. ALL EXISTING CIRCUITS REMAINING IN USE IN EXISTING PANELBOARDS SHALL BE TRACED AND VERIFIED.
10. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING BID IN ORDER TO VERIFY ALL EXISTING CONDITIONS, TO DETERMINE THE FULL EXTENT OF DEMOLITION WORK REQUIRED, AND TO DETERMINE THE FULL EXTENT OF RELOCATION AND MODIFICATION WORK REQUIRED FOR ELECTRICAL WORK (DUE TO OTHER DISCIPLINES INTERFERING OR ANY OTHER REASON). EXISTING SPACE IS TIGHT IN MANY AREAS (PARTICULARLY ABOVE CEILINGS), AND THE CONTRACTOR SHALL BE FULLY RESPONSIBLE TO COORDINATE ALL ELECTRICAL WORK WITH BOTH NEW AND EXISTING PIPING, DUCTWORK, CONDUIT, ETC. NO CHANGE ORDERS WILL BE APPROVED FOR ADDITIONAL WORK DUE TO THE CONTRACTOR NEGLECTING TO VISIT THE SITE AND GATHER ALL NECESSARY INFORMATION.
11. UNLESS INDICATED OTHERWISE, ALL EXIT SIGNS AND THE VOLTAGE SENSING TERMINALS OF ALL EMERGENCY BATTERY PACKS AND GTD'S SHALL BE CONNECTED AHEAD OF ALL SWITCHES, RELAYS, SENSORS AND POWER PACKS WITH 2 #12 AND 1 #12 GROUND IN 1/2" CONDUIT.
12. ALL EMERGENCY LIGHTING FIXTURES SHALL BE MARKED SO AS TO BE IDENTIFIED BY VISUAL INSPECTION FOR TESTING PURPOSES. IDENTIFICATION SHALL BE BY ONE 1/2" RED SELF-STICK DOT ON THE VERTICAL PORTION OF LOUVER OR ON THE TOP OF THE LENS.
13. PROVIDE ALL 120-VOLT POWER NEEDED FOR THE FIRE ALARM SYSTEM. PROVIDE CIRCUIT BREAKER LOCKS AND CLEARLY INDICATE IN THE DIRECTORY THAT THEY ARE FIRE ALARM CIRCUITS. PROVIDE RED BREAKER, RED BREAKER LOCK OR RED DOT ON DEAD FRONT COVER BESIDE BREAKER. POWER SUPPLY QUANTITIES SHALL BE DETERMINED BY THE FIRE ALARM SUPPLIER AND INCLUDED IN BID. ALL POWER SUPPLIES SHALL BE LOCATED IN UTILITY-TYPE SPACES (MECH/ELEC/COMM ROOMS, HOUSEKEEPING CLOSETS, TRASH ROOMS, ETC.).
14. WHERE RE-USE OF EXISTING CONDUIT, WIRING AND/OR OUTLET BOXES IS INDICATED, ALSO PROVIDE NEW MATERIALS IF NECESSARY. IF NEW EXPOSED MATERIALS ARE NEEDED, USE SURFACE RACEWAY (SINGLE-CHANNEL EXCEPT WHERE SPECIFICALLY INDICATED OTHERWISE), EXCEPT EXPOSED CONDUIT AND BOXES MAY BE USED IN UNFINISHED AREAS (MECHANICAL/ELECTRICAL/IT ROOMS, STORAGE AND HOUSEKEEPING CLOSETS, ETC.).

NO FIRE WALLS ARE BEING PENETRATED UNDER THIS PROJECT.

ELECTRICAL LEGEND

MTG. HGT.	SYMBOL	DESCRIPTION
	(1)	PLAN NOTE DESIGNATION.
	(A1)	LIGHTING FIXTURE TYPE DESIGNATION.
		LIGHTING FIXTURE, LED OR FLUORESCENT, CEILING MOUNTED. SYMBOL SIZE VARIES WITH LIGHTING FIXTURE TYPE.
		LIGHTING FIXTURE, LED OR FLUORESCENT, CEILING MOUNTED WITH INTEGRAL EMERGENCY LED DRIVER OR BATTERY BALLAST OR CONNECTED ON EMERGENCY CIRCUIT. (TYPICAL FOR ALL LIGHTING FIXTURES)
		LIGHTING FIXTURE, LED, INCANDESCENT, FLUORESCENT OR HID, CEILING MOUNTED.
		LIGHTING FIXTURE, WALL WASHER TYPE, LED, INCANDESCENT, FLUORESCENT OR HID, CEILING MOUNTED. OPEN SIDE INDICATES DIRECTION OF MAXIMUM LIGHT DISTRIBUTION.
		EXIT SIGN, CEILING MOUNTED. SHADED QUADRANT(S) INDICATES FACE(S). PROVIDE ARROWS AS INDICATED ON DRAWINGS. LIGHTING FIXTURE TYPE "X1", UNO.
4'-0"	$a	GENERAL USE SWITCH, SINGLE POLE. LOWER CASE ALPHABETIC SUBSCRIPT, WHERE SHOWN, INDICATES LOADS CONTROLLED. (TYPICAL FOR ALL SWITCHES)
AS NOTED		RECEPTACLE, DUPLEX, WALL. ALPHA-NUMERIC OR NUMERIC SUBSCRIPT, WHERE SHOWN, INDICATES CIRCUIT. (TYPICAL FOR ALL RECEPTACLES)
		RECEPTACLE, DUPLEX, CEILING.
		RECEPTACLE, DUPLEX GFCI, WALL.
AS NOTED		RECEPTACLE, SPECIAL PURPOSE, WALL.
1'-4" TO BOT		COMPUTER OUTLET, WALL.
		COMPUTER OUTLET, CEILING.
	(S)	SMOKE DETECTOR, CEILING.
	(H)	HEAT DETECTOR, CEILING.
6'-0"		208/120 VOLT PANELBOARD.
5'-0"	N/3/60	NON-FUSIBLE SAFETY SWITCH, WALL OR EQUIPMENT MOUNTED. NUMBER INDICATES NON-FUSED/3-POLE/60 AMP RATING.
		CONDUIT CONCEALED IN WALL OR ABOVE CEILING.
	GTD	GENERATOR TRANSFER DEVICE.
8'-0" TO TOP	F	FIRE ALARM HORN OR SPEAKER WITH INTEGRAL VISUAL DEVICE, WALL.

EXISTING PANEL HG3

VOLTAGE: 208Y/120V
SYSTEM: 3PH, 4W
SOLID NEUTRAL: YES

MAIN: 225A MLO
BUS RATING: 225A
GROUND BUS: YES

INTEGRAL SPD: NO
MOUNTING: SURFACE
INTERRUPT RATING: 10,000 AIC

CKT	LOAD SERVED	BKR	PHASE	NEUT	GND	COND	DMD	L1	L2	L3	CKT	LOAD SERVED	BKR	PHASE	NEUT	GND	COND	DMD	L1	L2	L3
1	FREEZER LOTS A PASTA-NOTE 1	20/1	#12	#12	#12	3/4"	K	1.8			2	REFRIGERATOR, COLD PAN NOTE 1	20/1	#12	#12	#12	1/2"	K	1.02		
3	PASTA COOKER	50/2	#8	"	#10	3/4"	-		4		4	GRIDDLE - NOTE 1	20/1	#12	#12	#12	1/2"	K		1.5	
5	"	-	#8	-	-	-	-			4	6	ROTISSIRE - NOTE 5	50/2	#8	"	#10	3/4"	K			4.46
7	WARMER - NOTE 1	20/2	#12	#12	#12	3/4"	K	.47			8	"	-	#8	-	-	-	K	4.46		
9	"	-	#12	-	-	-	K		.47		10	2 DOOR REFRIG- NOTE 1	20/1	#12	#12	#12	1/2"	K		.86	
11	REFRIGERATOR NOTE- 1	20/1	#12	#12	#12	1/2"	K			1.27	12	30 AMP RECEPTACLE O COLUMN - NOTE3	30/1	#10	#10	#10	3/4"	K			2.5
13	WARMER NOTE 1	20/1	#12	#12	#12	1/2"	K	1.32			14	30 AMP RECEPTACLE O COLUMN - NOTE 3	30/1	#10	#10	#10	3/4"	K	2.5		
15	RECEPTACLE	20/1	#12	#12	#12	1/2"	R		.36		16	STEAMER - NOTE 4	50/3	#8	#8	#10	1"	K		5	
17	SPARE	20/1	-	-	-	-	-			-	18	"	-	#8	-	-	-	K			5
19	WARMER - NOTE 1	20/1	#12	#12	#12	1/2"	K	1.88			20	"	-	#8	-	-	-	K	5		
21	WARMER NOTE - 1	20/1	#12	#12	#12	1/2"	K		1.3		22	SPARE - NOTE 2	20/1	-	-	-	-	-		-	
23	ORDER DEVICES	20/1	#12	#12	#12	1/2"	R			.36	24	HOT WELL - NOTE 1	20/1	#12	#12	#12	1/2"	K			.96
25	OVEN CARVERY - NOTE 2	50/3	#8	"	#10	3/4"	K	5			26	BROILER, GRIDDLE - NOTE 1	20/1	#12	#12	#12	1/2"	K	.5		
27	"	-	#8	-	-	-	K		5		28	HOT WELL - NOTE 1	20/1	#12	#12	#12	1/2"	K		.96	
29	"	-	#8	-	-	-	K			5	30	RECEPTACLES	20/1	#12	#12	#12	1/2"	R			.36

PHASE LOAD TOTALS: 23.95 | 19.09 | 23.91

LOADS (KVA)	CONNECTED	DEMAND FACTOR	DEMAND
LIGHTING	0	1.25	0
REC TO 10 KVA	.72	1.0	.72
REC REMAINING	0	0.5	0
SPACE HEATING	0	0.0	0
AIR CONDITIONING	0	1.0	0
NON-SEASONAL MOTORS	0	1.0	0
LARGEST MOTOR	0	0.25	0
WATER HEATING	0	1.0	0

LOADS (KVA)	CONNECTED	DEMAND FACTOR	DEMAND	
KITCHEN EQUIPMENT	66.23	0.65	43.05	
CONTINUOUS	0	1.25	0	
NON-CONTINUOUS	0	1.0	0	
DEMAND	0	1.0	0	
TOTAL CONNECTED LOAD	67	KVA	186	AMPS
MIN. FEEDER / PANEL CAPACITY	43.8	KVA	121.6	AMPS
OVERALL DEMAND FACTOR	0.65			

EXISTING PANEL-HG3 NOTES:

1. EXISTING BREAKER, NEW CONDUIT AND WIRE.
2. REMOVE A 2 POLE 40 AMP BREAKER AND INSTALL A 2 POLE 50 AMP BREAKER.
3. REMOVE A 1 POLE 20 AMP BREAKER AND INSTALL A 1 POLE 30 AMP BREAKER.
4. REMOVE (1) 1 POLE 20 AMP BREAKER AND (1) 2 POLE 30 AMP BREAKER AND INSTALL A 3 POLE 50 AMP BREAKER.
5. REMOVE A 2 POLE 20 AMP BREAKER AND INSTALL A 2 POLE 50 AMP BREAKER.

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
Comm. No.: 18101.14

colley architects pc design community environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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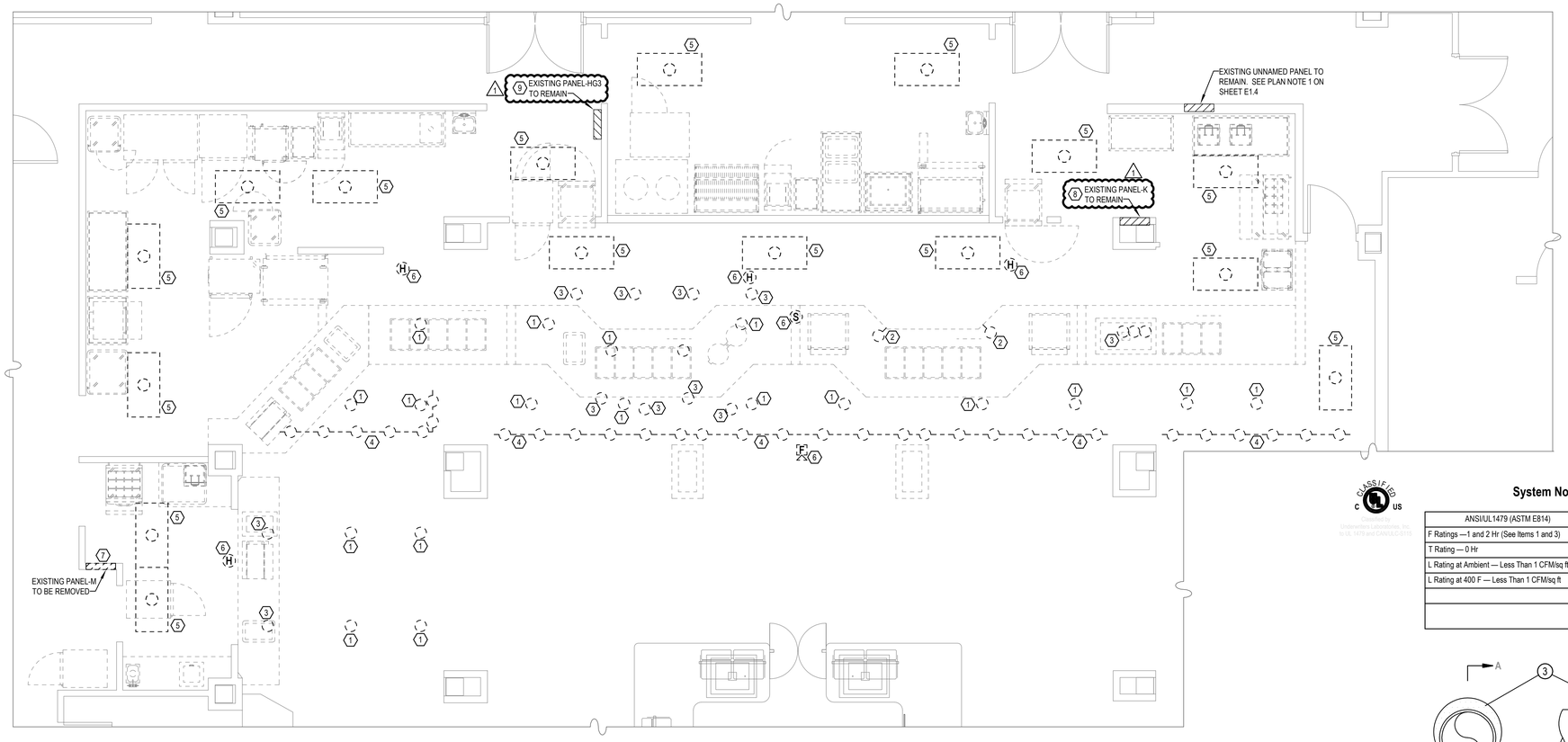
REVISIONS	DATE
ADDENDUM 2	10.22.18

ELECTRICAL LEGEND AND NOTES

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05 .2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	WDC
JOB	1804
SHEET	E1.1

ADDENDUM 2 - ATTACHMENT C.



DEMOLITION FLOOR PLAN - ELECTRICAL

SCALE: 1/4" = 1'-0"

PLAN NOTES:

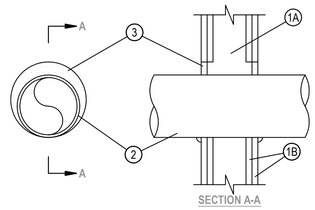
1. REMOVE RECESSED DOWN LIGHTS.
2. REMOVE WALL MOUNTED FIXTURE.
3. REMOVE PENDANT LIGHT FIXTURE.
4. REMOVE LIGHT TRACK AND ALL FIXTURES.
5. REMOVE RECESSED FLUORESCENT FIXTURE.
6. REMOVE EXISTING FIRE ALARM DEVICE AND STORE FOR REINSTALLATION. MAINTAIN FIRE ALARM SYSTEM CONTINUITY WHILE DEVICES ARE OUT.
7. REMOVE PANEL-M AND ALL ASSOCIATED CONDUIT WHERE ACCESSIBLE AND WIRE. PANEL FEEDS EQUIPMENT IN THE IMMEDIATE AREA. CONTRACTOR SHALL TRACE AND LOCATE FEEDER SERVING PANEL-M DISCONNECT PANEL FEEDER FROM BREAKER AND REMOVE EXISTING CONDUCTORS FROM BREAKER TO PANEL. PROVIDE NEW TYPEWRITTEN DIRECTORY FOR PANEL FEEDING PANEL-M AND LABEL CIRCUIT AS SPARE. REMOVE CONDUIT WHERE ACCESSIBLE.
8. EXISTING PANEL-K FEEDS MOSTLY COOKING EQUIPMENT IN THE IMMEDIATE AREA OF THE PANEL. CONTRACTOR SHALL TRACE ALL CIRCUITS AND REMOVE THOSE WITHIN THE RENOVATION AREA. ALL CIRCUITS REMOVED SHALL BECOME SPARE UNLESS NOTED TO BE REUSED ON THE POWER PLAN. REMOVE ALL CONDUIT AND WIRE FOR CIRCUITS TO BE REMOVED. PROVIDE NEW TYPEWRITTEN DIRECTORY INDICATING CIRCUITS THAT BECOME SPARE AND THOSE THAT FEED OUTSIDE THE RENOVATION AREA THAT MUST REMAIN.
8. EXISTING PANEL-HG3 FEEDS MOSTLY COOKING EQUIPMENT IN THE IMMEDIATE AREA OF THE PANEL. CONTRACTOR SHALL TRACE ALL CIRCUITS AND REMOVE THOSE WITHIN THE RENOVATION AREA. ALL CIRCUITS REMOVED SHALL BECOME SPARE UNLESS NOTED TO BE REUSED ON THE POWER PLAN. REMOVE ALL CONDUIT AND WIRE FOR CIRCUITS TO BE REMOVED. PROVIDE NEW TYPEWRITTEN DIRECTORY INDICATING CIRCUITS THAT BECOME SPARE AND THOSE THAT FEED OUTSIDE THE RENOVATION AREA THAT MUST REMAIN.

GENERAL POWER DEMOLITION NOTE:

1. REMOVE ALL EXISTING DEVICES IN THE RENOVATION AREA. REMOVE ALL CONDUIT, OUTLET BOXES AND DEVICES NOT INDICATED TO BE REUSED.

System No. W-L-1054

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Ratings —1 and 2 Hr (See Items 1 and 3)	F Ratings — 1 and 2 Hr (See Items 1 and 3)
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating at Ambient — Less Than 1 CFM/sq ft	FH Ratings —1 and 2 Hr (See Items 1 and 3)
L Rating at 400 F — Less Than 1 CFM/sq ft	FTH Rating — 0 Hr
	L Rating at Ambient — Less Than 1 CFM/sq ft
	L Rating at 400 F — Less Than 1 CFM/sq ft



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. When steel studs are used and the diam of opening exceeds the width of stud cavity, the opening shall be framed on all sides using lengths of steel stud installed between the vertical studs and screw-attached to the steel studs at each end. The framed opening in the wall shall be 4 to 6 in. (102 to 152 mm) wider and 4 to 6 in. (102 to 152 mm) higher than the diam of the penetrating item such that, when the penetrating item is installed in the opening, a 2 to 3 in. (51 to 76 mm) clearance is present between the penetrating item and the framing on all four sides.
   B. Gypsum Board* — 5/8 in. (16 mm) thick, 4 ft (122 cm) wide with square or tapered edges. The gypsum board 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 of opening is 32-1/4 in. (819 mm) for steel stud walls. Max diam of opening is 14-1/2 in. (368 mm) for wood stud walls.

   The F and FH Ratings of the firestop system are equal to the fire rating of the wall assembly.

2. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min 0 in. to max 2-1/4 in. (57 mm). Pipe may be installed with continuous point contact. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 30 in. (762 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 30 in. (762 mm) diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. (102 mm) diam (or smaller) steel electrical metallic tubing or 6 in. (152 mm) . diam steel conduit.
   D. Copper Tubing — Nom 6 in. (152 mm) diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 6 in. (152 mm) diam (or smaller) regular (or heavier) copper pipe.
3. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within the annulus, flush with both surfaces of wall. At the point or continuous contact locations between pipe and wall, a min 1/2 in. (13 mm) diam bead of fill material shall be applied at the pipe wall interface on both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-One Sealant or FS-ONE MAX Intumescent Sealant

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.

CONDUIT PENETRATION DETAIL

NO SCALE

1/4" = 1' - 0"

0 4 8 12 16

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410

Comm. No.: 18101.14

colley architects pc design community | environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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REVISIONS	DATE
ADDENDUM 2	10.22.18

DEMO FLOOR PLAN - ELECTRICAL

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
BLACKSBURG . VIRGINIA

DATE	OCTOBER . 05 .2018
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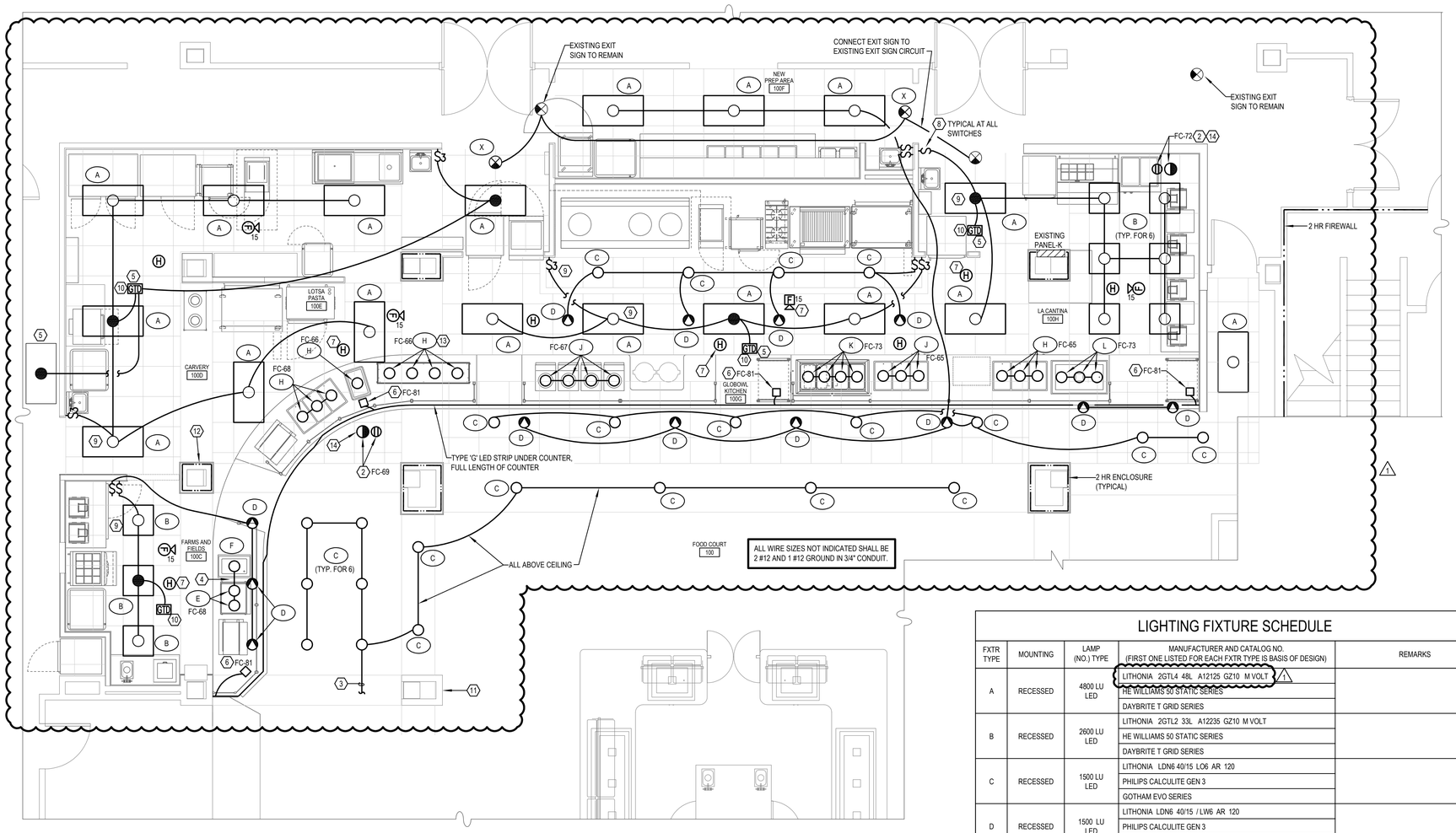
DRAWN	WDC
JOB	1804
SHEET	

E1.2



FLOOR PLAN - LIGHTING

SCALE: 1/4" = 1'-0"

LIGHTING FIXTURE SCHEDULE

FXTR TYPE	MOUNTING	LAMP (NO.) TYPE	MANUFACTURER AND CATALOG NO. (FIRST ONE LISTED FOR EACH FXTR TYPE IS BASIS OF DESIGN)	REMARKS
A	RECESSED	4800 LU LED	LITHONIA 2GTL4 48L A12125 GZ10 M VOLT (1)	
			HE WILLIAMS 50 STATIC SERIES	
			DAYBRITE T GRID SERIES	
B	RECESSED	2600 LU LED	LITHONIA 2GTL2 33L A12235 GZ10 M VOLT	
			HE WILLIAMS 50 STATIC SERIES	
			DAYBRITE T GRID SERIES	
C	RECESSED	1500 LU LED	LITHONIA LDN6 40/15 LO6 AR 120	
			PHILIPS CALCULITE GEN 3	
			GOTHAM EVO SERIES	
D	RECESSED	1500 LU LED	LITHONIA LDN6 40/15 / LW6 AR 120	
			PHILIPS CALCULITE GEN 3	
			GOTHAM INCITO SERIES	
E	PENDANT	250 W HEAT	HATCO DL-1400 REMOTE SW WHITE TRACK	BLACK CORD, ANTIQUE BRONZE COLOR
			CRESCOR IFW SERIES	
			HANSON CB SERIES	
F	PENDANT	14 W LED	HATCO DDL 1400 REMOTE SW WHITE TRACK	BLACK CORD , ANTIQUE BRONZE COLOR
			CRESCOR IFW SERIES	
			HANSON CB SERIES	
G	SURFACE	LED	NORA NULB SERIES LED LIGHT BAR OR APPROVED EQUAL	SEE FIXTURE SCHEDULE NOTE
H	PENDANT	250 WATT HEAT	HATCO DL-750, WHITE TRACK	BLACK CORD PROVIDE CTL SWITCH OPTION
			HANSON CB SERIES	
			CRESCOR IFW SERIES	
J	PENDANT	250 WATT HEAT	HATCO DL1200, WHITE TRACK	BLACK CORD PROVIDE CTL SWITCH OPTION
			HANSON CB SERIES	
			CRESCOR IFW SERIES	
K	PENDANT	14 W LED	HATCO DL 1200, WHITE TRACK	BLACK CORD PROVIDE CTL SWITCH OPTION
			HANSON CB SERIES	
			CRESCOE IFW SERIES	
L	PENDANT	14 W LED	HATCO DL-750, WHITE TRACK	BLACK CORD PROVIDE CTL SWITCH OPTION
			HANSON CB SERIES	
			CRESCOR IFW SERIES	
X	WALL CEILING	LED	LITHONIA LQM S W 3 5R 120/277	
			PHILIPS LEWR SERIES	
			EVENLITE TLX SERIES	

FIXTURE SCHEDULE NOTE:

TYPE 'G' LED LIGHT BARS SHALL BE PROVIDED IN LENGTHS AS REQUIRED TO PROVIDE CONTINUOUS LENGTH OF COUNTER. PROVIDE ALL CONNECTORS REQUIRED TO CONNECT FIXTURE LENGTHS. MOUNT LED LIGHT BAR UNDER FRONT EDGE OF COUNTER. INSTALL LED BAR AND DRIVERS AND CONNECT IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.

PLAN NOTES:

1. NOT USED.
2. MOUNT IN NEW BULKHEAD OR FACE OF CEILING TILE. SUPPORT BOXES FLUSH FROM STRUCTURE.
3. CONNECT TO EXISTING CIRCUIT SLA-34 THAT IS ROUTED THROUGH EXISTING LIGHTING CONTACTOR. CIRCUIT IS EXISTING FROM REMOVED FIXTURES.
4. TYPE 'E' AND 'F' AT THIS LOCATION ARE ON THE SAME TRACK.
5. EXISTING FIXTURE ON CIRCUIT EP-5 IN 75KVA INVERTER PANEL IN BASEMENT. EXTEND FROM THIS FIXTURE TO ALL GTD UNITS ON THIS PLAN WITH 2 #12 AND 1 #2 GROUND IN 3/4" CONDUIT.
6. 100 WATT DRIVER FOR TYPE 'G' UNDER COUNTER FIXTURES. MOUNT DRIVER ON KNEE WALL UNDER COUNTERTOP. DRIVER SHALL BE NORA NATL-5100HW OR EQUAL AND SHALL BE COMPATIBLE WITH TYPE 'G' PROVIDED. CONNECT ALL DRIVERS TO CIRCUIT INDICATED.
7. EXISTING FIRE ALARM DEVICE REINSTALLED.
8. ALL SWITCHES SHALL BE FLUSH MOUNTED WITH NO EXPOSED CONDUIT.
9. CONNECT TO CIRCUIT FC-31.
10. MOUNT GTD ABOVE CEILING AND CONNECT IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
11. NINE (9) COLUMNS WILL RECEIVE A NEW TILE FINISH. SOME COLUMNS HAVE EXISTING OUTLETS. THE EXISTING OUTLETS SHALL BE MODIFIED/EXTENDED TO BE FLUSH WITH THE NEW FINISH. IF DEVICES ARE NOT IN GOOD SHAPE, REPLACE THEM. REFER TO ARCHITECTURAL SHEET A3-2 FOR LOCATION OF COLUMNS.
12. NOT USED.
13. SPACE PENDANT FIXTURES EQUALLY OVER EQUIPMENT.
14. STUB 1" CONDUIT FROM DATA BOX INTO ACCESSIBLE CEILING SPACE AND BUSH.

1/4" = 1' - 0"

0 4 8 12 16

LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
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colley architects pc
design community | environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

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REVISIONS	DATE
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FLOOR PLAN - LIGHTING

Virginia Tech
RENOVATIONS TO OWENS HALL
FOOD COURT - SERVING LINE
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DATE	OCTOBER . 05 .2018
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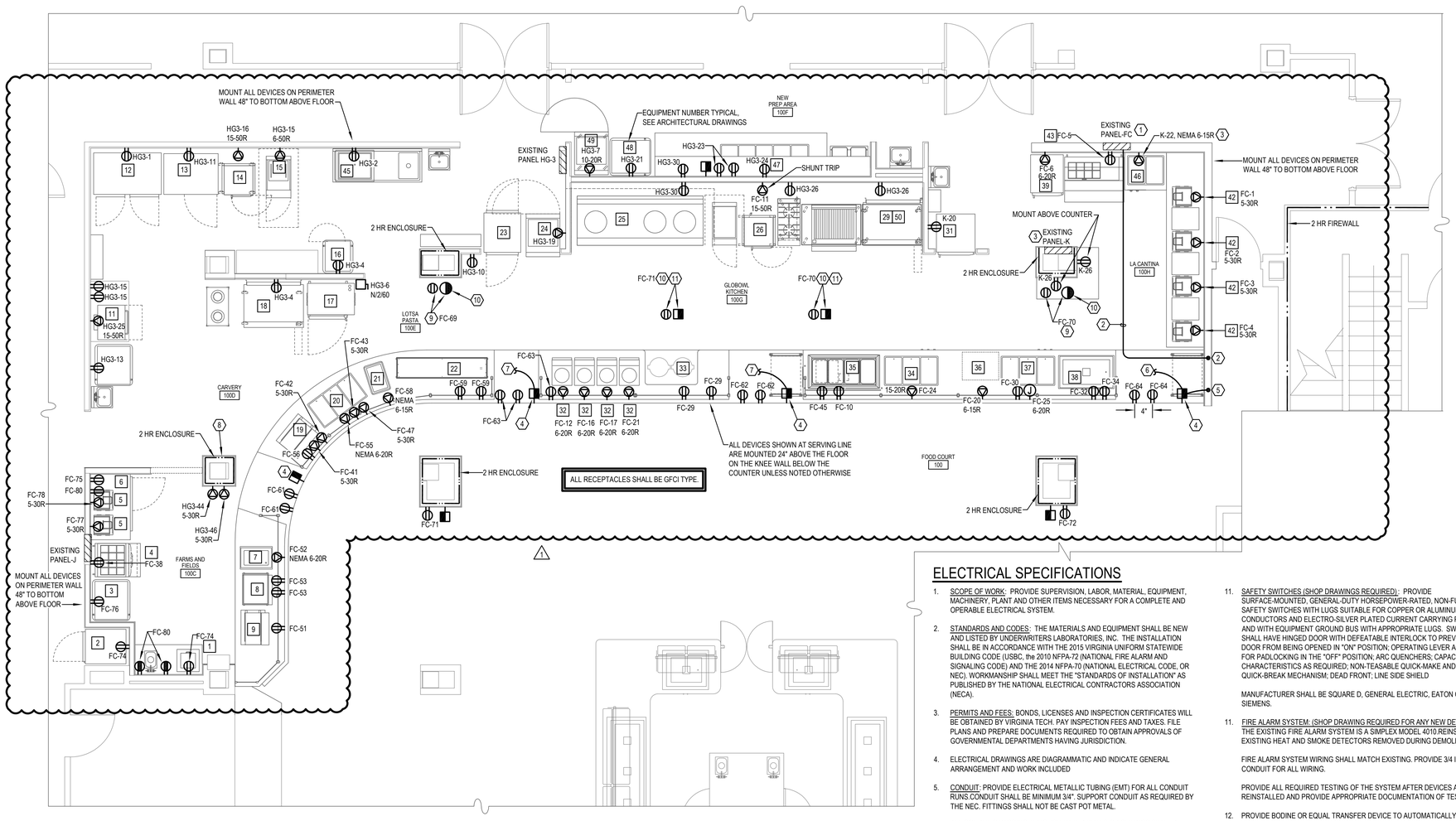
SCALE	AS NOTED
DRAWN	WDC
JOB	1804
SHEET	E1.3

ADDENDUM 2 - ATTACHMENT C.



FLOOR PLAN - POWER

SCALE: 1/4" = 1'-0"

PLAN NOTES:⬡

1. EXISTING 84 CIRCUIT PANEL INSTALLED BY VIRGINIA TECH. LABEL PANEL AS PANEL-FC. SEE PANEL SCHEDULE FOR DETAILS.
2. ALL CIRCUITS FOR COUNTER OUTLETS SERVED FROM PANEL-FC SHALL BE ROUTED ABOVE THE CEILING AND DOWN IN NEW WALL AND THROUGH NEW CASEWORK TO OUTLETS. KEEP CONDUIT ON WALL AT FRONT OF COUNTER. MULTIPLE CIRCUITS MAY BE RUN IN THE SAME CONDUIT. IF MORE THAN 3 CONDUCTORS ARE INSTALLED IN ONE CONDUIT THE CONDUCTORS SHALL BE UPSIZED IN ACCORDANCE WITH THE NEC.
3. PANEL-K IS A SQUARE D NQOD. REMOVE 2 1 POLE 20 AMP BREAKERS (CIRCUITS 22,24) AND INSTALL A 2 POLE 15 AMP BREAKER AND CONNECT RECEPTACLE WITH 2 #12 AND 1 #12 GROUND.
4. ALL DATA OUTLETS SHALL BE 2 GANG BOXES WITH SINGLE GANG ADAPTERS FOR COVER PLATES. JACKS, COVER PLATES AND WIRING BY OTHERS.
5. PROVIDE 1" CONDUIT WITH PULL STRING UP IN NEW WALL TO CEILING SPACE. BUS END OF CONDUIT.
6. 1" CONDUIT WITH PULL STRING TO NEXT DATA OUTLET ON KNEE WALL.
7. 3/4" CONDUIT WITH PULL STRING TO NEXT DATA OUTLET ON KNEE WALL.
8. EXISTING POWER OUTLETS FOR MONITOR IN COLUMN SHALL REMAIN. PROVIDE NEW RECEPTACLE AND COVER PLATE.
9. FLUSH MOUNT IN BOTTOM OF BULKHEAD.
10. STUB 1" CONDUIT FROM DATA BOX INTO ACCESSIBLE CEILING SPACE AND BUSH.
11. MOUNT IN NEW BULKHEAD OR FACE OF CEILING TILE. SUPPORT BOXES FLUSH FROM STRUCTURE.

ELECTRICAL SPECIFICATIONS

1. SCOPE OF WORK: PROVIDE SUPERVISION, LABOR, MATERIAL, EQUIPMENT, MACHINERY, PLANT AND OTHER ITEMS NECESSARY FOR A COMPLETE AND OPERABLE ELECTRICAL SYSTEM.
2. STANDARDS AND CODES: THE MATERIALS AND EQUIPMENT SHALL BE NEW AND LISTED BY UNDERWRITERS LABORATORIES, INC. THE INSTALLATION SHALL BE IN ACCORDANCE WITH THE 2015 VIRGINIA UNIFORM STATEWIDE BUILDING CODE (USBC, the 2010 NFPA-72 (NATIONAL FIRE ALARM AND SIGNALING CODE) AND THE 2014 NFPA-70 (NATIONAL ELECTRICAL CODE, OR NEC). WORKMANSHIP SHALL MEET THE "STANDARDS OF INSTALLATION" AS PUBLISHED BY THE NATIONAL ELECTRICAL CONTRACTORS ASSOCIATION (NECA).
3. PERMITS AND FEES: BONDS, LICENSES AND INSPECTION CERTIFICATES WILL BE OBTAINED BY VIRGINIA TECH. PAY INSPECTION FEES AND TAXES. FILE PLANS AND PREPARE DOCUMENTS REQUIRED TO OBTAIN APPROVALS OF GOVERNMENTAL DEPARTMENTS HAVING JURISDICTION.
4. ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT AND WORK INCLUDED
5. CONDUIT: PROVIDE ELECTRICAL METALLIC TUBING (EMT) FOR ALL CONDUIT RUNS.CONDUIT SHALL BE MINIMUM 3/4". SUPPORT CONDUIT AS REQUIRED BY THE NEC. FITTINGS SHALL NOT BE CAST POT METAL.

   ALL CONDUITS PASSING THROUGH RATED WALLS OR CEILINGS SHALL BE SLEEVED AND PACKED WITH U.L. LISTED SEALANT TO MAINTAIN RATING.
6. JUNCTION, OUTLET AND PULL BOXES: PROVIDE JUNCTION, OUTLET AND PULL BOXES FOR CONNECTIONS TO EQUIPMENT AND AS REQUIRED BY THE NEC. BOXES SHALL BE STEEL UNLESS REQUIRED OTHERWISE BY ENVIRONMENT.PROVIDE CAST BOXES WHERE EXTERIOR.
7. HANGERS AND SUPPORTS: PROVIDE ALL HANGERS, SUPPORTS, ANCHORS, SLEEVES AND SEALS AS REQUIRED BY THE NEC.
8. GROUNDING: PROVIDE AN EQUIPMENT GROUNDING SYSTEM INSTALLED TO METALLIC STRUCTURES. ENCLOSURES, RACEWAYS, JUNCTION BOXES, OUTLET BOXES, PULL BOXES, CABINETS, AND OTHER CONDUCTIVE ITEMS IN CLOSE PROXIMITY TO ELECTRICAL CIRCUITS.
9. WIRING: PROVIDE COPPER CONDUCTORS, THHN/THWN OR THHN/THWN-2, 600 VOLT. WIRING SHALL BE COLOR-CODED TO IDENTIFY PHASES, NEUTRAL AND GROUND. MATCH EXISTING BUILDING WIRING COLOR-CODING. NUMBER 12 AWG SHALL BE THE SMALLEST SIZE WIRE USED. CONDUCTORS 10 AWG AND SMALLER SHALL BE SOLID. DO NOT INSTALL A SHARED NEUTRAL ON ANY CIRCUIT.
10. WIRING DEVICES (SHOP DRAWINGS REQUIRED): WIRING DEVICES SHALL BE GRAY AND SHALL BE INDUSTRIAL SPECIFICATION GRADE. BACK WIRING IS NOT ALLOWED. SWITCHES SHALL BE TUMBLER TYPE, 20 AMP, LIGHTING, GROUNDED, RATED 120/277 VOLT. RECEPTACLES SHALL BE NEMA 5-20R GROUNDED. SPECIAL PURPOSE AND GROUND FAULT RECEPTACLES SHALL BE BY SAME MANUFACTURER AS DUPLEX RECEPTACLES. GFCI TYPE DUPLEX RECEPTACLES SHALL BE RATED 5 MILLIAMPS, AND SHALL BE READILY ACCESSIBLE WHERE REQUIRED BY NEC 210.8. WIRING DEVICE WALLPLATES SHALL BE SATIN STAINLESS STEEL AND SHALL BE BY SAME MANUFACTURER AS WIRING DEVICES.

    PROVIDE A LABEL ON ALL SWITCHES AND RECEPTACLES INDICATING PANELBOARD AND CIRCUIT THAT FEEDS THE DEVICE.LABELS SHALL BE SELF-STICK AND SHALL BE MADE WITH A TAPE GUN WITH MINIMUM 3/16 INCH HIGH LETTERS IN RED ON A WHITE BACKGROUND.

    WIRING DEVICE MANUFACTURER SHALL BE BRYANT, EATON ARROW/HART, HUBBELL, LEVITON OR PASS & SEYMOUR
11. SAFETY SWITCHES (SHOP DRAWINGS REQUIRED): PROVIDE SURFACE-MOUNTED, GENERAL-DUTY HORSEPOWER-RATED, NON-FUSIBLE SAFETY SWITCHES WITH LUGS SUITABLE FOR COPPER OR ALUMINUM CONDUCTORS AND ELECTRO-SILVER PLATED CURRENT CARRYING PARTS, AND WITH EQUIPMENT GROUND BUS WITH APPROPRIATE LUGS. SWITCHES SHALL HAVE HINGED DOOR WITH DEFEATABLE INTERLOCK TO PREVENT DOOR FROM BEING OPENED IN "ON" POSITION; OPERATING LEVER ARRANGED FOR PADLOCKING IN THE "OFF" POSITION; ARC QUENCHERS; CAPACITY AND CHARACTERISTICS AS REQUIRED; NON-TEASABLE QUICK-MAKE AND QUICK-BREAK MECHANISM; DEAD FRONT; LINE SIDE SHIELD

    MANUFACTURER SHALL BE SQUARE D, GENERAL ELECTRIC, EATON OR SIEMENS.
11. FIRE ALARM SYSTEM: (SHOP DRAWING REQUIRED FOR ANY NEW DEVICES): THE EXISTING FIRE ALARM SYSTEM IS A SIMPLEX MODEL 4010.REINSTALL EXISTING HEAT AND SMOKE DETECTORS REMOVED DURING DEMOLITION.

    FIRE ALARM SYSTEM WIRING SHALL MATCH EXISTING. PROVIDE 3/4 INCH EMT CONDUIT FOR ALL WIRING.

    PROVIDE ALL REQUIRED TESTING OF THE SYSTEM AFTER DEVICES ARE REINSTALLED AND PROVIDE APPROPRIATE DOCUMENTATION OF TESTING.
12. PROVIDE BODINE OR EQUAL TRANSFER DEVICE TO AUTOMATICALLY SWITCH POWER FOR LIGHTING FROM NORMAL TO INVERTER SYSTEM WHEN NORMAL POWER FAILS. MOUNT ABOVE CEILING ADJACENT TO THE FIXTURE. CONNECT IN ACCORDANCE WITH MANUFACTURER'S DIRECTIONS.
13. LIGHTING (SHOP DRAWINGS REQUIRED): PROVIDE FIXTURES AS INDICATED ON THE DRAWINGS. MANUFACTURERS SHALL BE AS INDICATED ON THE DRAWINGS OR EQUAL. FIXTURES SHALL BE COMPLETE WITH REQUIRED SOCKETS, WIRING, CLASSWARE, REFLECTORS, HANGERS, FITTINGS AND MOUNTING TRIM. FIXTURES SHALL BE CLEANED, PROVIDE PROPER TRIM, FRAMES, MOUNTING DEVICES, CONFIGURATION AND ACCESSORIES REQUIRED TO PROPERLY INSTALL FIXTURES IN THE BUILDING CONSTRUCTION.

    A. CATALOG NUMBERS OF FIXTURES SCHEDULED ARE TO ESTABLISH A TYPE OF FIXTURE, NOT TO DETERMINE A METHOD OF MOUNTING.

    B. ADDITIONAL REQUIREMENTS FOR LED LUMINAIRES: COLOR TEMPERATURE SHALL BE 4000K WITH MINIMUM CRI OF 80, UNLESS INDICATED OTHERWISE.

    C. LED'S SHALL BE BINNED WITHIN A MAXIMUM THREE-STEP MACADAM ELLIPSE TO ENSURE COLOR CONSISTENCY AMONGST LUMINAIRES OF THE SAME TYPE.

    D. MERCURY-FREE, LEAD-FREE, ROHS COMPLIANT.

    E. COMPLIANT WITH FCC 47 CFR PART 15 NON-CONSUMER RFI/EMI STANDARDS.

    F. LIGHT OUTPUT SHALL BE MEASURED USING THE ABSOLUTE PHOTOMETRY METHOD FOLLOWING IES LM-79 AND LM-80 REQUIREMENTS AND GUIDELINES.

    G. LUMINAIRES SHALL MAINTAIN AT LEAST 70% LUMEN OUTPUT (L70) FOR A MINIMUM OF 50,000 HOURS.

    H. LUMEN OUTPUT SHALL NOT DEPRECIATE MORE THAN 20% AFTER 10,000 HOURS OF USE.

    I. THERMALLY DESIGNED TO NOT EXCEED THE MAXIMUM JUNCTION TEMPERATURE OF THE LED FOR THE AMBIENT TEMPERATURE OF THE LOCATION IN WHICH THE LUMINAIRE IS TO BE INSTALLED. RATED CASE TEMPERATURE SHALL BE SUITABLE FOR OPERATION IN THE AMBIENT TEMPERATURES TYPICALLY FOUND IN THE INTENDED INSTALLATION.

    J. LUMINAIRES SHALL OPERATE NORMALLY FOR INPUT VOLTAGE FLUCTUATIONS OF PLUS OR MINUS 10%.

    K. MAXIMUM TOTAL HARMONIC DISTORTION (THD) OF 10% AT FULL INPUT POWER AND ACROSS SPECIFIED VOLTAGE RANGE.

    L. ALL CONNECTIONS TO LUMINAIRES SHALL BE REVERSE-POLARITY PROTECTED AND PROVIDE HIGH VOLTAGE PROTECTION IN THE EVENT THAT CONNECTIONS ARE REVERSED OR SHORTED DURING INSTALLATION.

    M. THE FAILURE OF ONE INDIVIDUAL LED SHALL NOT AFFECT THE OPERATION OF THE REMAINING LED'S IN THE LUMINAIRE.

    N. ALL DRIVERS SHALL COMPLY WITH NEMA 410-2011 FOR INRUSH CURRENT.

    O. REQUIREMENTS FOR LED DRIVERS:
    (1) UNLESS SPECIFICALLY INDICATED OTHERWISE, SHALL BE OF THE 0-10V DIMMING TYPE DOWN TO 10% LIGHT LEVEL. THE PERFORMANCE CURVES FOR THE 0-10V CONTROL AND THE 0-10V DRIVERS SHALL NOT BOTH BE LOGARITHMIC. DIMMING SHALL OCCUR DOWN TO THE MINIMUM LEVEL WITH NO VISIBLE FLICKER OR "POPCORN EFFECT". "POPCORN EFFECT" IS WHEN THE LUMINAIRE IS ON A PRESET DIMMED LEVEL, AND THE LED'S GO TO 100% PRIOR TO RETURNING TO THE PRESET LEVEL WHEN POWER IS RETURNED TO THE FIXTURE.
    (2) SHALL HAVE RATED LIFE OF MINIMUM 50,000 HOURS.
    (3) SHALL HAVE MINIMUM POWER FACTOR OF 0.9 AND MAXIMUM CREST FACTOR OF 1.5 AT FULL INPUT POWER AND ACROSS SPECIFIED VOLTAGE RANGE.
    (4) SHALL OPERATE NORMALLY FOR INPUT VOLTAGE FLUCTUATIONS OF PLUS OR MINUS 10%.
    (5) SHALL HAVE MAXIMUM TOTAL HARMONIC DISTORTION (THD) OF 10% AT FULL INPUT POWER AND ACROSS SPECIFIED VOLTAGE RANGE.
    (6) SHALL HAVE POLARIZED QUICK-DISCONNECTS FOR WIRING CONNECTIONS FOR FIELD MAINTENANCE.
    (7) SHALL HAVE BUILT-IN FUSE PROTECTION, WITH ALL POWER SUPPLY OUTPUTS EITHER FUSE PROTECTED OR POLYMERIC POSITIVE TEMPERATURE COEFFICIENT (PTC)-PROTECTED PER CLASS 2 UL LISTING.
14. FIRE ALARM SYSTEM EXPANSION (SHOP DRAWINGS REQUIRED): THE EXISTING FIRE ALARM SYSTEM IS A SIMPLEX MODEL 4010. PROVIDE ALL REQUIRED CARDS, EXPANSION MODULES AND OTHER ITEMS REQUIRED TO PROVIDE A COMPLETE OPERABLE SYSTEM AFTER THE RELOCATION. PROVIDE ALL REQUIRED TESTING OF THE SYSTEM AND PROVIDE APPROPRIATE DOCUMENTATION OF TESTING.

    FIRE ALARM SYSTEM WIRING SHALL MATCH EXISTING. WIRING MAY BE EXPOSED ABOVE LAY IN CEILINGS BUT SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE THE CEILING AND SHALL NOT LAY ON THE CEILING. WIRING IN WALLS OR ABOVE NON ACCESSIBLE CEILINGS SHALL BE IN 1/2 INCH EMT CONDUIT.
15. GENERATOR TRANSFER DEVICES

    A. GENERATOR TRANSFER DEVICE (GTD), SINGLE FIXTURE: PROVIDE EGRESS LIGHTING WITH A GENERATOR TRANSFER DEVICE. THE DEVICE SHALL AUTOMATICALLY ENERGIZE LAMPS CONNECTED TO 100% OUTPUT REGARDLESS OF PRIOR ON/OFF/DIMMED STATE UPON LOSS OF UTILITY-CONNECTED POWER. THE DEVICE SHALL BYPASS LOCAL CONTROLS WHEN NORMAL UTILITY POWER IS LOST, SHALL AUTOMATICALLY TRANSFER POWER TO THE GENERATOR OR CENTRAL INVERTER CIRCUIT INDICATED DURING THE UTILITY OUTAGE, AND SHALL AUTOMATICALLY TRANSFER POWER BACK TO THE NORMAL CIRCUIT WHEN UTILITY POWER IS RESTORED. THE DEVICE SHALL CONSIST OF RELAY SWITCHING CIRCUITRY AND FUSING CONTAINED IN ONE STEEL ENCLOSURE; SHALL OPERATE AT 120/277 VAC 60 HZ AND SHALL HAVE ALL INPUTS FUSED TO 3A MAX. THE DEVICE SHALL BE UL LISTED FOR INSTALLATION INSIDE, ON TOP OF OR REMOTE FROM THE LIGHTING FIXTURE.

    THE ABOVE IS PHILIPS BODINE GTD.

    B. GENERATOR TRANSFER DEVICE (GTD), MULTIPLE FIXTURES: PROVIDE EGRESS LIGHTING WITH A GENERATOR TRANSFER DEVICE. THE DEVICE SHALL AUTOMATICALLY ENERGIZE LAMPS CONNECTED TO 100% OUTPUT REGARDLESS OF PRIOR ON/OFF/DIMMED STATE UPON LOSS OF UTILITY-CONNECTED POWER. THE DEVICE SHALL BYPASS LOCAL CONTROLS WHEN NORMAL UTILITY POWER IS LOST, SHALL AUTOMATICALLY TRANSFER POWER TO THE GENERATOR OR CENTRAL INVERTER CIRCUIT INDICATED DURING THE UTILITY OUTAGE, AND SHALL AUTOMATICALLY TRANSFER POWER BACK TO THE NORMAL CIRCUIT WHEN UTILITY POWER IS RESTORED. THE DEVICE SHALL CONSIST OF RELAY SWITCHING CIRCUITRY, A TEST SWITCH, NORMAL AND ALTERNATE POWER INDICATOR LIGHTS CONTAINED IN ONE STEEL ENCLOSURE; SHALL SENSE NORMAL POWER AT 120/277 VAC 60 HZ AND SHALL BE RATED FOR 120/277 VAC 20A LIGHTING LOAD. THE DEVICE SHALL BE UL LISTED FOR INSTALLATION INDOOR OR DAMP LOCATIONS.

THE ABOVE IS PHILIPS BODINE GTD20A.

1/4" = 1' - 0"

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LPA
LAWRENCE PERRY & ASSOCIATES
Consulting Engineers
15 E Salem Avenue SE, Suite 101 Ph: (540) 342-1816
Roanoke, Virginia 24011 Fax: (540) 344-3410
Comm. No.: 18101.14

colley architects pc
design community | environment
SUITE 301 620 N. MAIN STREET
BLACKSBURG, VA : 24060
P. 540.953.ARCH (2724)
F. 540.953.2725

BID SET

REVISIONS	DATE
ADDENDUM 2	10.22.18

Virginia Tech
RENOVATIONS TO OWENS HALL

FOOD COURT - SERVING LINE

BLACKSBURG . VIRGINIA

FLOOR PLAN - POWER

DATE	OCTOBER . 05 .2018
PROJECT CODE	R-2018-15
SCALE	AS NOTED
DRAWN	WDC
JOB	1804
SHEET	

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