MEP Engineer

Infrastructure Associates (713) 622-0120 6117 Richmond Ave., Suite 200 Houston, Texas 77057

Dally + Associates (713) 337-8881 9800 Richmond Ave, Suite 460 Houston, Texas 77042



HOUSTON COMMUNITY COLLEGE **CENTRAL CAMPUS**

CULINARY ARTS SHELL **INTERIOR BUILDOUT**

1401 ALABAMA ST HOUSTON, TX 77004

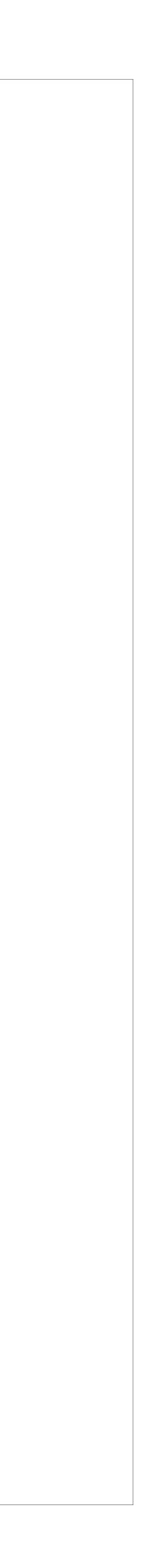


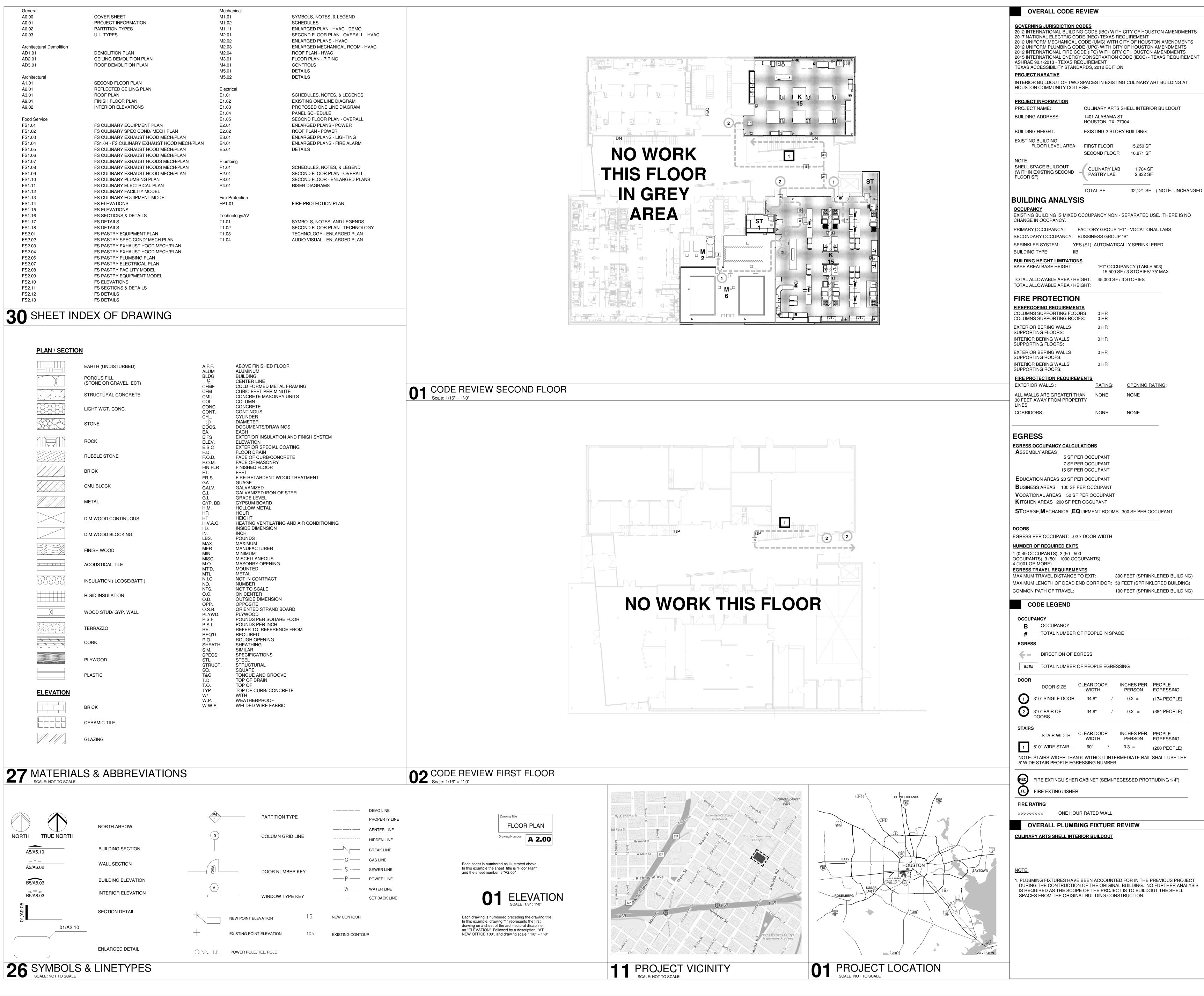
AUTOARCH Architects, LLC.

Structural Engineer

Food Service Food Service Design Consultants (281) 350-2323 9800 Oakridge Dr. The Woodlands, Texas 77380

04/15/20









HCC HOUSTON COMMUNITY COLLEGE

CENTRAL CAMPUS

AUTOARCH Architects, LLC.

6200 Savoy, Suite 100 Houston, TX 77036 t (713) 952-3366 f (713) 952-5002 AUTOARC www.autoarch.net ARCHITECT

CONSULTANTS: MEP ENGINEERS Infrastructure Associates (713) 622-0120 STRUCTURAL ENGINEERS Dally + Associates (713) 337-8881 FOOD SERVICE

Foodservice Design Professionals (281) 350-2323



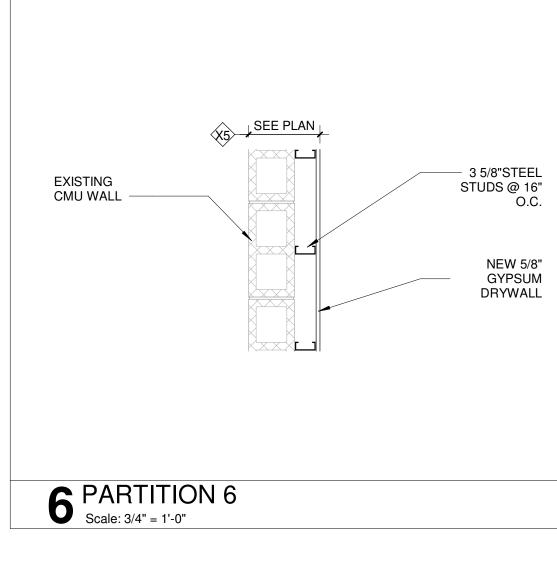


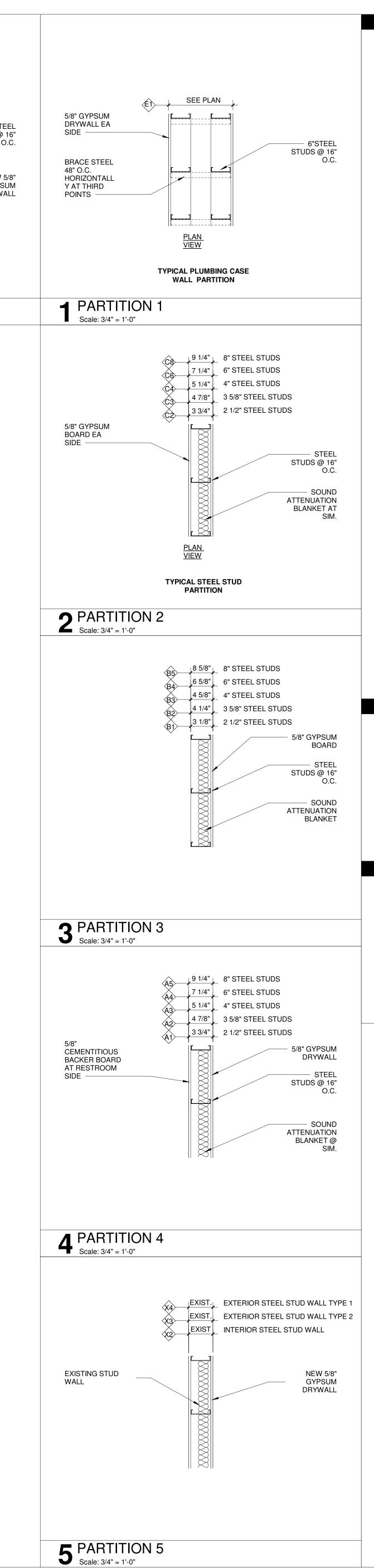
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Project Number	19012				
Drawn By	Author				
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Drawing Title					
PROJECT INFORMATION					
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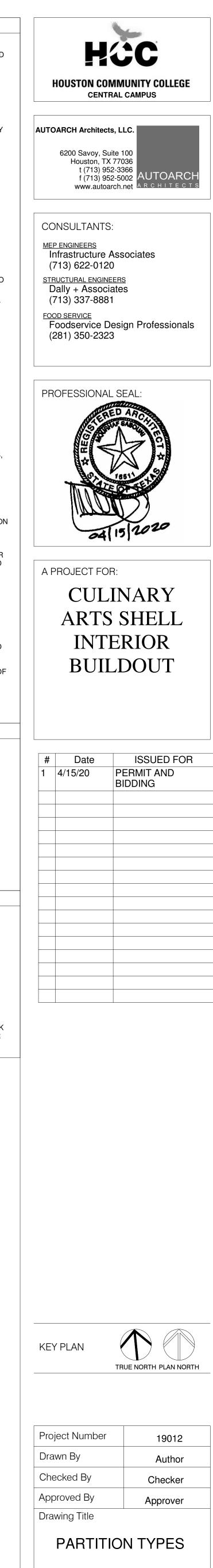
Gl	ENERAL PARTITION NOTES
1.	WALLS SHALL EXTEND FULL HEIGHT FROM FLOOR SLAB TO FLOOR OR ROOF DECK ABOVE UNLESS OTHERWISE NOTED. IN CORRIDORS, EXTEND COLUMN CHASE AND LOCKER WALLS 8" ABOVE CEILING ONLY.
2.	REFER TO OVERALL CODE REVIEW AND FLOOR PLANS FOR INDENTIFICATION AND LOCATION OF ALL FIRE PARTITIONS, FIRE BARIERS AND FIRE WALLS.
3.	SEE WALL SECTIONS AND DETAILS FOR EXTERIOR WALL TYPES.
4.	THESE WALL TYPES ARE GENERAL IN NATURE AND DO NOT COVER EVERY VARIATION THAT MAY OCCUR TRHOUGHT THE PROJECT. SEE WALL SECTIONS AND DETAILS FOR ADDITIONAL INFORMATION.
5.	TYPICAL CMU INTERIOR PARTITIONS SHALL BE UNLESS OTHERWISE NOTED BY WALL TYPE SYMBOLS, WALL SECTIONS OR OTHER DETAILS.
6.	TYPICAL GYPSUM BOARD WALL PARTITION SHALL BE TYPE UNLESS OTHERWISE NOTED BY WALL TYPE SYMBOL, WALL SECTIONS OR OTHER DETAILS.
7.	WALL TYPES MAY NOT HAVE BEEN INCLUDED IN THIS SCHEDULE FOR INTERIOR WALL TYPES WHICH ARE COVERED BY WALL SECTIONS.
8.	THESE WALL TYPES DO NOT SHOW LATERAL BRACING OR WALL REINFORCING. SEE STRUCTURAL AND OTHER DRAWINGS FOR INFORMATION NOT SHOWN.
9.	REFER TO FINISH SCHEDULE AND INTERIOR ELEVATIONS FOR FINISHES TO BE APPLIED TO THESE WALL TYPES.
10.	ALL WALLS WITH FIRE RATINGS INDICATED SHALL BE BUILT IN THE STRICT CONFORMANCE WITH A U.L. TESTED ASSEMBLY OR OTHER TESTED ASSEMBLY WHICH PROVIDES THE FIRE RATING INDICATED.
11.	FURRING CHANNELS AND STUDS SHALL BE 16" O.C. MAXIMUM UNLESS SPECIFICALLY UNLESS OTHERWISE NOTED.
12.	THE GAUGE OF ALL METAL STUDS SHALL BE SIZED SO THAT THE DEFLECTION OF THE WALL SHALL NOT EXCEED 1/240 PER ASTM C645 UNLESS A HEAVIER GAGE IS INDICATED ON THE WALL TYPE OR DETAILS.
13.	IN WALLS WITH SOUND ATTENUATION BLANKETS OR AN STC RATING LISTED; OUTLETS, SWITCHES, ETC., SHALL NOT BE LOCATED BACK TO BACK. OUTLETS SHALL BE OFFSET AND SEALED. PERIMETERS OF WALL (AT SDJACENT WALLS, COLUMNS, CEILINGS, ETC.) SHOULD BE SEALED. ADDITIONALLY, WALL PENETRATIONS SHALL BE SEALED WITH APPROPRIATE TYPE OF ACCOUSTIC SEALANT.
14.	CONTRATOR SHALL PROVIDE SPACE FOR DEFLECTION OF BEAMS, JOISTS, AND STEEL DECK @ TOP OF WALLS THAT RUN TO THE DECK. FILL GAP WITH NON-COMBUSTIBLE, COMPRESSIBLE FILLER ON NON-RATED WALLS AND APPROVED FIRE SAFING ON RATED WALLS - SEE TYP. DETAILS THIS SHEET.
15.	FOR CASES WHEN WALLS ARE INDICATED TO EXTENT FULL HEIGHT TO DECK BUT STOP AT A STRUCTURAL MEMEBER, SEE TYPICAL DETAILS ON THIS SHEET FOR APPROPIATE CLOSURE CONDITIONS. IF EXACT CONDITION IS NOT INDICATED, MODIFY CLOSEST CONDITION FOR SPECIFIC APPLICATION.
16.	PROVIDE 4" HIGH x 18GA. x LENGTH REQUIRED STEEL PLATE BLOCKING OR 2x FRT WOOD BLOCKING IN ALL STUD WALLS WHERE ACCESSSORIES AND ANY OTHER ITEM WHICH REQUIRE SECURE ATTACHMENT TO WALLS.
17.	IN ROOMS WHERE NO FINISH CEILING IS PROVIDED, EXTEND ALL CHASE WALLS FROM FLOOR TO ROOF DECK ABOVE.
18.	PROVIDE CONTINOUS SEALANT AT BASE OF ALL GYPSUM BOARD WALLS (BOTH SIDES), TYPICAL.
19.	UNLESS SPECIFCALLY NOTED TO REMAIN EXPOSED, ENCLOSE ALL VERTICAL MECHANICAL PIPE, RAIN LEADERS, ETC. WITH CHASE WALLS TO MATCH SURROUNDING CONSTRUCTION.
20.	PROVIDE NEW GYPSUM BOARD CASE WALLSOVER ALL INTERIOR FACES OF EXTERIOR WALLS TO REMAIN AND OVER BOTH FACES OF ALL INTERIOR EXISTING PARTITIONS TO REMAIN.
FI	RE RATED PARTITION NOTES
	PICAL FIRE RATED PARTITION NOTES: SEE OVERALL CODE REVIEW FOR CATION OF RATED WALLS:
	IERE FIRE RATED WALLS OF GYPSUM BOARD ON STEEL STUD INSTRUCTION ARE INDICATED, COMPLY WITH THE FOLLOWING:
	A. 1HR - U.L. #U465 (ANY STUD SIZE) B. 2HR - U.L. #U412 (ANY STUD SIZE)

PARTITION TERMINATION NOTES

 USE THESE TYPICAL WALL TERMINATION DETAILS FOR ALL WALLS INDICATED TO EXTEND TO ROOF OR FLOOR DECK ABOVE, UNLESS OTHERWISE NOTED.

2. SEE WALL TYPES FOR ACTUAL WALL CONSTRUCTION.

- 3. AT FIRE WALLS, FIRE SEPARATION WALLS, SMOKE BARRIER WALLS AND WALLS REQUIRED TO RESIST THE PASSAGE OF SMOKE, ALL COMPRESSIBLE, NON-COMPRESSIBLE MATERIALS REFFERENCED IN THE WALL TERMINATION DETAILS SHALL BE MATERIALS PROVIDED IN ACCORDANCE WITH THE APPROVED FIRE RESISIVE JOINT SYSTEM.
- 4. IF A WALL REQUIREING A FIRE RATING IS LOCATED DIRECTLY UNDER A BEAM THE FIRE RATING OF THE WALL SHALL BE MAINTAINED TO THE DECK BY EXTENDING THE WALL AROUND THE BEAM. CONSULT ARCHITECT FOR EXACT REQUIREMENTS TO MAINTAIN RATING.



Drawing Number

A0.02



spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height. ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D25

CONSOLIDATED FABRICATORS CORP. BUILDING PRODUCTS DIV - Type SUPREME D25

QUAIL RUN BUILDING MATERIALS INC - Type SUPREME D25 SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME D25

STEEL CONSTRUCTION SYSTEMS INC - Type SUPREME D25

UNITED METAL PRODUCTS INC - Type SUPREME D25

20. Framing Members — Steel Studs — (As an alternate to Item 2) For use with Items 1M and 4O - channel shaped studs min 1-5/8 in. deep, formed of 25 MSG galv steel, max

3B. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

3D. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach equilibrium moisture content before the installation of materials on either face of the studs. The minimum dry

4. Gypsum Board* — 5/8 in. thick, outer layer paper, glass mat or vinyl surfaced. (Laminated System) Gypsum board applied vertically in two layers. Inner layer attached to stude with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer gypsum board attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC. Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X. Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ConfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LWX, Sheathing Type-DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffi

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR

4A. Gypsum Board* — (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S

4B. Gypsum Board* — (As an alternate to Items 4 and 4A) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR

4C. Gypsum Board* — (As an alternate to Items 4, 4A and 4B) — Two layers of 5/8 in. thick gypsum board applied horizontally or vertically. Inner layer attached to studs with No. 6 by 1 in. long Type S bugle head screws spaced 24 in. OC along the top and bottom tracks starting 2 in. and then 12 in. from the vertical edge. Inner layer screws spaced 24 in. OC along the studs and starting 1-1/4 in. from the horizontal joints when installed horizontally. Outer layer attached to studs with 1-5/8 in. long Type S bugle head screws spaced 16 in. OC along the top and bottom tracks starting 1-3/4 in. from the vertical edge. Outer layer screws spaced 16 in. OC along the studs and starting 1-1/4 in. and then 8 in. from the horizontal joints when installed horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and

veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X, Type X ConfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LWX, Sheathing Type-DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffit-Type LW2X, Veneer Plaster Base - Type LW2X, Sheathing Type-DGLW, Soffit-Type DGLW, Soffi

4D. Gypsum Board* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

4F. Gypsum Board* — (As an alternate to Items 4 through 4E) — 5/8 in. thick, applied vertically or horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed

4G. Gypsum Board* — As an alternate to Item 4 — Nom. 5/8 in. thick, inner layer attached vertically to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs horizontally over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of outer layer must be taped. Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of

4H. Gypsum Board* — (Not Shown) — (As an alternate to Items 4. For direct attachment only to steel studs Item 2B) — For Direct Application to Studs Only- For use as the base layer on one or both sides of the wall. Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-5/8 in. long Type S 12 steel screws spaced 8 in. OC at perimeter and 12 in

4I. Gypsum Board* — (As an alternate to Item 4, not for use with Items 1C and 2C or 1L and 2N) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges

4J. Gypsum Board* - (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2B) - Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the

4K. Gypsum Board — (As an alternate to Items 4 through 4J, not for use with Items 1C and 2C.) — Two layers of nominal 15 mm thick gypsum board applied vertically. Inner layer attached to studs with No. 3.5 x 1-3/8 in. long bugle head, self-drilling screws spaced 23-5/8 in. OC in the field and 15-3/4 in. OC in the perimeter, with the first screw 2 in. from the edge. Outer layer attached to the studs over the inner layer with No. 3.5 x 1-3/4 in. long bugle head, self-drilling screws spaced 11-13/16 in. OC in the field and 7-7/8 in OC in the perimeter, with the first screw 3/4 in. from the edge. Outer layer screws staggered from inner layer screws. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layer staggered one stud cavity. Self-adhesive fiberglass mesh (9x9 mesh) tape, nom 2 in. wide, applied over all joints

4L. Gypsum Board* — (As an alternate to Items 4 through 4K) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with #6 x 1 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Outer layer attached to studs with #6 x 1-5/8 in. long bugle head screws spaced 12 in. OC along the top and bottom tracks and 16 in. OC in the field and along the vertical edges. Vertical joints are centered over studs and staggered between layers and on opposite sides of the wall. Horizontal joints on the face layer are staggered 12 in. from the base layer. Horizontal joints need not to be

4N. Gypsum Board* — (As an alternate to Item 4 through 4M) — For direct application to studs only - Four layers nom. 5/16 in. thick gypsum panels applied vertically or horizontally. When applied horizontally, base layer secured to studs with 1 in. Type S screws spaced 24 in. OC. Second layer installed with joints offset 12 in. from base layer and secured with 1 in. Type S screws spaced 24 in. OC. Fourth layer installed with joints in line with second layer and secured with 1-5/8 in. Type S screws spaced 12 in. OC. For all layers, screws offset 4 in. from previous layer. When applied vertically, base layer secured with 1 in. Type S screws spaced 24 in. OC. Second layer secured with joints offset one stud cavity and secured with 1 in. Type S screws spaced 24 2 in Type S screws spaced 12 in OC. Fourth layer secured wi

40. Gypsum Board* — (As an alternate to Items 4 through 4N) — Two layers of 5/8 in. thick gypsum board applied vertically or horizontally. Inner layer attached to studs with 1 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along top and bottom tracks. Outer layer attached to studs with 1-5/8 in. long Type S screws spaced 16 in. OC in the field and vertical edges and along the top and bottom tracks. Vertical joints are centered over studs and staggered between layers and on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal edge joints and horizontal butt joints in

4P. Wall and Partition Facings and Accessories* — (As an alternate to Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 5. Lead Batten Strips — (Not Shown, For Use With Item 4D) — Lead batten strips, min 1-1/2 in, wide, max 10 ft long with a max thickness of 0.125 in, Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4D) and optional at remaining stud locations. Required behind vertical joints.

5A. Lead Batten Strips — (Not Shown, for use with Item 4H) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 6) and optional at remaining stud locations. 6. Lead Discs or Tabs — (Not Shown, For Use With Item 4D) — Used in lieu of or in addition to the lead batten strips (Item 5) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 4D) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C" 6A. Lead Discs — (Not Shown, for use with Item 4H) — Max 5/16 in. diam by max0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to

have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

7. Mineral and Fiber Board* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC. The required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. HOMASOTE CO — Homasote Type 440-32

7A. Mineral and Fiber Board — (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to studs on one side of the wall in between the wood studs and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board BLUE RIDGE FIBERBOARD INC — SoundStop

8. Furring Channels — (Optional, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. 8A. Framing Members* — (Optional on one or both sides, Not Shown — not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel raming Members as described below a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. b. Steel Framing Members* — Used to attach furring channels (Item 8Aa) to studs. Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels. PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75)

8B. Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire.Gypsum board attached to furring channels as described in Item 4. b. Steel Framing Members* — Used to attach furring channels (Item a) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips. STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8C. Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 8Cb. Ends of adjoining channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. b. Steel Framing Members* — Used to attach furring channels (Item 8Ca) to studs. Clips spaced 48 in. OC, and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. REGUPOL AMERICA — Type SonusClip

8D. Steel Framing Members* — (Optional on one or both sides, Not Shown — Not for use with Items 4D, 4H, 4J, or 4N) — As an alternate to Item 8, furring channels and Steel Framing Members as described below: a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. b. Steel Framing Members* — Used to attach resilient channels (Item 8Da) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw. KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

6. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center. CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

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

OC max. MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™ Track

vith fasteners spaced 24 in. OC max KIRII (HONG KONG) LTD — Type KIRII

TELLING INDUSTRIES L L C — Viper20™ Track asteners spaced 24 in. OC max. CRACO MFG INC - SmartTrack20

than assembly height.

CRACO MFG INC — SmartStud20™

DMFCWBS L L C - ProSTUD MBA METAL FRAMING — ProSTUD RAM SALES L L C — Ram ProSTUD

EB METAL INC - NITROSTUD OLMAR SUPPLY INC - PRIMESTUD

CRACO MFG INC - SmartStud201 ROCKWOOL — Type AFB, min. density 1.69 pcf / 27.0 kg/m3

application only try density of 4.3 pounds per cubic f NÚ-WOOL CO INC - Cellulose Insulation

with Type USGX

optional for use with Type USGX

📊 Design No. U465 October 02, 2019

Nonbearing Wall Rating — 1 HR. * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions

employing the UL or cUL Certification (such as Canada), respectively. 2 3 4 5

1. Floor and Ceiling Runners — (Not Shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC ma

1A. Framing Members* - Floor and Ceiling Runners - (Not Shown) - As an alternate to Item 1 - Channel shaped, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20 STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

1B. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

FUSION BUILDING PRODUCTS — Viper20™ Track

IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track

1C. Floor and Ceiling Runners — (Not Shown) — For use with Item 2C — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC. 1D. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C - ProTRAK MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C — Tri-S ProTRAK

1E. Framing Members* - Floor and Ceiling Runners - Not Shown - In lieu of Items 1 through 1D - For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling FELLING INDUSTRIES L L C — TRUE-TRACK™

1F. Framing Members* - Floor and Ceiling Runners - Not Shown - In lieu of Items 1 through 1E - For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

1G. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 24 in. OC max. STUDCO BUILDING SYSTEMS - CROCSTUD Track

1H. Floor and Ceiling Runners — (Not Shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC. MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

FUSION BUILDING PRODUCTS — Viper20™ Track VT100 IMPERIAL MANUFACTURING GROUP INC — Viper20™ Track VT100

11. Framing Members* - Floor and Ceiling Runners - Not Shown - In lieu of Item 1 - For use with Item 2H, proprietary channel shaped unners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in.

1J. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 — For use with Item 2 L, proprietary channel shaped

runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. STEEL INVESTMENT GROUP L L C — AlphaTRAK 1K. Framing Members* - Floor and Ceiling Runners - Not Shown - In lieu of Item 1 - For use with Item 2M, proprietary channel shaped

unners, 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness), attached to floor and ceiling with CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper X Track

1L. Framing Members* - Floor and Ceiling Runners - Not Shown - In lieu of Item 1 - For use with Item 2N, proprietary channel shaped unners. 1-1/4 in, wide by min 3-5/8 in, deep fabricated from min 0.020 in, thick galv steel, attached to floor and ceiling with fasteners spaced 24 in,

2. Steel Studs — Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. Studs to be cut 3/4 in. less A Framing Members* — Steel Studs — As an alternate to Item 2 — Channel shaped studs min 3-5/8 in deep spaced a max of 24 in OC. Studs

to be cut 3/4 in. less than assembly height. ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20 CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV - Type SUPREME D24/30EQD and Type SUPREME D20

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME D24/30EQD and Type SUPREME D20 SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME D24/30EQD and Type SUPREME D20

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME D24/30EQD and Type SUPREME D20

UNITED METAL PRODUCTS INC — Type SUPREME D24/30EQD and Type SUPREME D20

2B. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC - Viper20™

FUSION BUILDING PRODUCTS — Viper20™

IMPERIAL MANUFACTURING GROUP INC — Viper20™

2C. Steel Studs — (As an alternate to Item 2, For use with Item 1C) — Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height. See materials in Item(s) 4 that require Item 2C studs. 2D. Framing Members* — Steel Studs — As an alternate to Items 2 through 2C — For use with Item 1D and 4G only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. CLARKDIETRICH BUILDING SYSTEMS - CD ProSTUD

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2E. Framing Members* — Steel Studs — As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. TELLING INDUSTRIES L L C — TRUE-STUD™

2F. Framing Members* — Steel Studs — As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. KIRII (HONG KONG) LTD - Type KIRII

2G. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 through 2F — For use with Item 1G. Proprietary channel shaped studs, ninimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height. STUDCO BUILDING SYSTEMS - CROCSTUD

2H. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

relLING INDUSTRIES L L C — Viper20™ 21. Framing Members* — Steel Studs — In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-

protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2J. Framing Members* — Steel Studs — In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosionprotected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height.

2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than

MARINO/WARE, DIV OF WARE INDUSTRIES INC — StudRite™ 2L. Framing Members* — Steel Studs — As an alternate to Items 2 — For use with Item 1J, channel shaped studs, min 3-5/8 in. wide fabricated

from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height STEEL INVESTMENT GROUP L L C — AlphaSTUD

2M. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1K, proprietary channel shaped steel studs, min 1-1/4 in. wide by min 3-5/8 in. deep, fabricated from min 25 MSG (0.018 in. min. bare metal thickness). Studs cut 3/4 in. less in length than

CALIFORNIA EXPANDED METAL PRODUCTS CO - Viper X 2N. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1L, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height.

3. Batts and Blankets* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity.

See Batts and Blankets (BZJZ) category for names of Classified companies.

3A. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft3, in accordance with the application instructions supplied with the product. U S GREENFIBER L L C — INS735, INS745, INS750LD for use with wet or dry application. INS765LD and INS773LD are to be used for dry

3B. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum

3C. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray applied cellulose fiber. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft3. INTERNATIONAL CELLULOSE CORP — Celbar-RL

3D. Batts and Blankets* — For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit between the studs and floor and

See Batts and Blankets (BZJZ) category for names of manufacturers. 3E. Batts and Blankets* — For use with Item 4P, 4R, and 4S. Placed in stud cavities, any min. 3-1/2 in. thick glass fiber insulation bearing the UL

Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.

3F. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — Spray-applied cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. To facilitate the installation of the material, any thin, woven or non-woven netting may be attached by any means possible to the outer face the studs. The material shall reach

tent before the installation of materials on either face of the studs. The minimum dry density shall be 5.79 lbs/ft3. APPLEGATE HOLDINGS L L C — Applegate Advanced Stabilized Cellulose Insulation 4. Gypsum Board* — 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in.

OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to Items 6 (resilient channels) or 6A, 6B, 6C, 6D, or 6E (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC. CABOT MANUFACTURING ULC — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO - Types AG-C, AGX-1, M-Glass, LightRoc

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO - Type DBX-1

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use CERTAINTEED GYPSUM INC — Types 1, EGRG, GlasRoc, Type X, Type X-1, Type C, 5/8" Easi-Lite Type X, Easi-Lite Type X-2

CONTINENTAL BUILDING PRODUCTS OPERATING CO. L L C - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX GEORGIA-PACIFIC GYPSUM L L C — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X,

Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board Type LWX, Veneer Plaster Base Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type LWX, Type DGLW, Water Rated-Type DGLW, Sheathing Type-LW2X, Water Rated - Type LW2X, Sheathing -Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL

NATIONAL GYPSUM CO - Riyadh, Saudi Arabia - Type FR, or WR PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Types PG-C, PG-9, PG-11, PGS-WRS

PANEL REY S A - Types GREX, GRIX, PRC, PRC2, PRX, RHX, MDX, ETX

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air SIAM GYPSUM INDUSTRY (SARABURI) CO LTD - Type EX-

THAI GYPSUM PRODUCTS PCL — Type X, Type C

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG BORAL DRYWALL SFZ LLC — Types C. SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, 4A. Gypsum Board* — (As alternate to Item 4) — Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel study and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally. CERTAINTEED GYPSUM INC — Type X, Type X-1, Type C, Type EGRG/ GlasRoc, GlasRoc-2, Type SilentFX, Easi-Lite Type X-2

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX) CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD GEORGIA-PACIFIC GYPSUM L L C — Types DAP, DAPC, DGG, DS

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL - Type X, Type C UNITED STATES GYPSUM CO - Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with

USG BORAL DRYWALL SFZ LLC — Types C, SCX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5, optional for use with Type USGX) 4B. Gypsum Board* — (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in CGC INC - Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, IP-AR

USG MEXICO S A DE C V — Types AR, IP-AR

4C. Gypsum Board* — As an alternate to Items 4, 4A, and 4B — Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. ntal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing. GEORGIA-PACIFIC GYPSUM L L C — Type DGG, GreenGlass Type X

4D. Gypsum Board* — As an alternate to Items 4, 4A, 4B, and 4C — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 12 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom

edges of the wall for both vertical and horizontal applications. When used in widths other than 48 in, gypsum panels to be installed horizontally. NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSMR-C 4E. Gypsum Board* --- (As an alternate to Items 4 through 4D) --- Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 12 in. OC. NATIONAL GYPSUM CO — Type SBWB

4F. Gypsum Board* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) -

Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. RAY-BAR ENGINEERING CORP — Type RB-LBG 4G. Gypsum Board* — (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC6A, LGFC-C/A NATIONAL GYPSUM CO - Types FSW

UNITED STATES GYPSUM CO — Type SCX

USG BORAL DRYWALL SFZ LLC - Type SCX

4H. Gypsum Board* — (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock ES

4. Gypsum Board* — (As an alternate to Items 4 through 4F) — For use with Items 1E and 2E only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the UNITED STATES GYPSUM CO — Type SCX

USG BORAL DRYWALL SFZ LLC — Type SCX

4J. Gypsum Board* — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A). MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4K. Gypsum Board* — (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) — Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A. CGC INC — Type ULX

4N. Wall and Partition Facings and Accessories* — (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide panels, applied vertically and secured as described in Item 4. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When

4Q. Gypsum Board* — 3/4 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track as described in Item 4 with screw length increased to min. 1- 1/8 in.

4T. Wall and Partition Facings and Accessories* — (As an alternate to 5/8 in. thick board as outlined in Item 4) — Nominal 1-3/8 in. thick, 4 ft wide panels, applied vertically or horizontally. Fastened with #6 x 2 in. long drywall screws spaced 8 in. OC along the perimeter and 12 in. OC in the field.

5. Joint Tape and Compound — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in. wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced. Paper tape and

6. Resilient Channel — (Optional — Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC, flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F, 4J or 4L.

6A. Steel Framing Members* — (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 24 in. OC perpendicular to studs. Channels secured to studs as

described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one

screw on each flange of the channel. Not for use with Items 4F, 4J, or 4L. b. Framing Members* — Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel

6B. Framing Members* — (Not Shown) — (Optional on one or both sides) — As an alternate to Item 6, furring channel and Steel Framing Members as described below:

6C. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining

screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32

a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. Steel Framing Members* — Used to attach furring channels (Item 6Ba) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire Gypsum board attached to furring channels as described in Item 4. Not for

b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to studs. Clips spaced 48 in. OC., and secured to studs with 2 in. coarse drywall screw with 1 in. diam washer through the center hole. Furring channels are friction fitted into clips.

6D. Steel Framing Members* — (Optional, Not Shown) — Furring channels and Steel Framing Members as described below: a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item 6Db. Ends of adjoining

channels overlapped 6 in. and tied together with double strand of No. 18 AWG galvanized steel wire. Gypsum board attached to furring channels as described in Item 4. Not for

b. Steel Framing Members* — UUsed to attach furring channels (Item 6Da) to studs. Clips spaced 48 in. OC, and secured to studs with No.8 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

6E. Steel Framing Members* — (Optional, Not Shown) — Resilient channels and Steel Framing Members as described below: a. Resilient Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC, and perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining

channels overlapped 6 in. and secured in place with two No. 8 15 x 1/2 in. Philips Modified Truss screws spaced 2-1/2 in. from the center of the overlap. Gypsum board attached to resilient channels as described in Item 4. Not for use with Items 4F, 4J, or 4L.

b. Steel Framing Members* — Used to attach resilient channels (Item 6Ea) to studs. Clips spaced 48 in. OC., and secured to studs with No. 8 x 2-1/2 in. coarse drywall screw through the center hole. Resilient channels are secured to clips with one No. 10 x 1/2 in. pan-head self-drilling screw.

7. Wall and Partition Facings and Accessories* — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL

Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

8. Mineral and Fiber Board* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The

ed UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive, Item 11, are required

3A. Mineral and Fiber Board — (Optional, Not Shown) — For optional use as an additional layer on one side of wall - Nom 1/2 in. thick, 4 ft wide, square edge fiber boards applied vertically to study on one side of the wall in between the wood study and the UL Classified Gypsum Board (Item 4). Fiber boards installed with 1-1/4 in. long, Type S steel screws spaced 12 in. OC max, with the last screws spaced 2 in. and 6 in. from edge of board. Gypsum board (Item 4) installed as indicated as to fastener type and spacing, except that

the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. Not evaluated for use with Item 4M.

8B. Mineral and Fiber Board* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The

required UL Classified gypsum board layer is to be installed over the Mineral and Fiber Boards and secured to studs with length of fasteners increased by 1/2 in. over the length specified for installation of the gypsum boards. Batts and Blankets, Item 3, are optional unless otherwise required. Not for use with Items 4F, 4J, 4L, and 4M.

9. Lead Batten Strips — (Not Shown, For Use With Item 4E) — Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the

9A. Lead Batten Strips — (Not Shown, for use with Item 4J) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studi

and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screws at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-2011, Grades "B, C or D". Lead batten

10. Lead Discs or Tabs — (Not Shown, For Use With Item 4E) — Used in lieu of or in addition to the lead batten strips (Item 8) or optional at other locations - Max 3/4 in, diam by

4E) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". 10A. Lead Discs — (Not Shown, for use with Item 4J) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to

max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item

11. Adhesive — Not Shown — (For use with Item 8) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical

12. Wall and Partition Facings and Accessories* - (Optional, Not Shown) - For use with Items 1 to 11, Items 2 to 2J, Item 3, Items 4 to 41, Item 5 and Item 6. For maximum fire

membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 41 shall be installed over the membrane. The additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to Item 41 except the fastener length shall be increased by a

minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3. On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with drywall screws and washers spaced at 16 in.

13. Barrier Mesh — (Optional, Not Shown) - Attached to steel studs on one or both sides of the wall using Barrier Mesh Clips spaced at maximum 12 inches on center vertically, using a flat head type screw penetrating through the steel at least 3/8 of an inch. For Steel Studs less than 0.033 inches in thickness, use self-piercing screws. For Steel Studs

equal to or greater than 0.033 inches in thickness, use steel drill screws (self-tapping). Gypsum Board (Item 4) to be installed directly over the Barrier Mesh using prescribed screw patterns with lengths increased by a minimum 1/8 in. Barrier Mesh may be installed with the long dimension of the diamond pattern positioned vertically or horizontally.

Barrier Mesh joints may occur as butt joints at the framing members and secured using the Barrier Mesh Clips or occur in between framing members as overlapping joints secured using 18 SWG wire ties spaced a maximum 12 in. on center.

OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to Item 4 with the fastener

rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to Item 4I), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor

strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

4P. Gypsum Board* — As an alternate to Item 4. For use with Item 3E, Batts and Blankets* — 5/8 in. thick, 4 ft wide, installed as described in Item 4. UNITED STATES GYPSUM CO — Types ULIX

4R. Gypsum Board* — As an alternate to Item 4D. For use with Item 3E, Batts and Blankets* — 5/8 in. thick, 4 ft wide, installed as described in Item 4. NATIONAL GYPSUM CO — Type FSLX.

4S. Gypsum Board* — As an alternate to Item 4. For use with Item 3E, Batts and Blankets* — 5/8 in. thick, 4 ft wide, installed as described in Item 4A.

40. Gypsum Board* — As an alternate to Items 4, 4A, 4B, and 4C — Two layers Nom. 5/16 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and

applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.

UNITED STATES GYPSUM CO - Type ULX USG MEXICO S A DE C V - Type ULX

RADIATION PROTECTION PRODUCTS INC - Type RPP - Lead Lined Drywal

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type LGFC-C/A

PABCO BUILDING PRODUCTS L L C. DBA PABCO GYPSUM - Type PG-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type PG-13

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Type CLLX.

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 545

joint compound may be omitted when gypsum boards are supplied with square edges.

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM - Type QuietRock QR-500 and QR-510

strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations.

length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board.

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

have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

CLARKDIETRICH BUILDING SYSTEMS — Barrier Mesh, Barrier Mesh Clips

KEENE BUILDING PRODUCTS CO INC — Type RC+ Assurance Clip

PAC INTERNATIONAL L L C — Types RSIC-1, RSIC-1 (2.75)

compound. Screw heads covered with joint compour

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

NATIONAL GYPSUM CO - Types eXP-C, FSK-C, FSW-C

UNITED STATES GYPSUM CO - Types C, IP-X2, IPC-AR

USG MEXICO S A DE C V - Types C, IP-X2, IPC-AR

CERTAINTEED GYPSUM INC - Type FRPC, Type C

AMERICAN GYPSUM CO — Type AG-C

CGC INC — Types C, IP-X2, IPC-AR

PANEL REY S A — Types PRC, PRC2

ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type C

USG BORAL DRYWALL SFZ LLC — Type C

NATIONAL GYPSUM CO — Type FSW

in. wide furring channels.

PLITEQ INC — Type Genie Clip

use with Items 4F, 4J, or 4L.

use with Items 4F, 4J, or 4L.

REGUPOL AMERICA — Type SonusClip

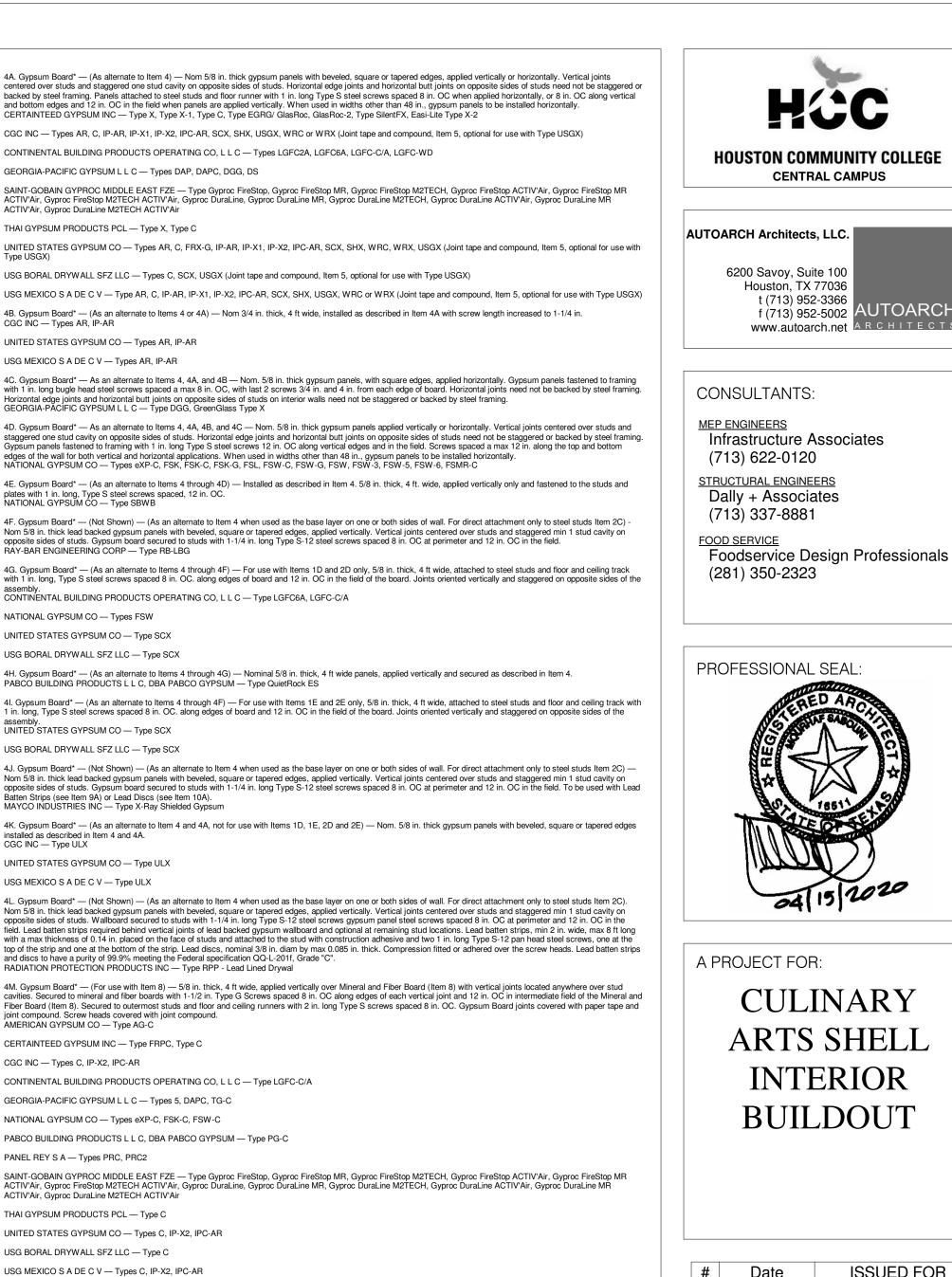
HOMASOTE CO — Homasote Type 440-32

BLUE RIDGE FIBERBOARD INC - SoundStop

HOMASOTE CO — Homasote Type 440-32

edges of Mineral and Fiber Board (Item 8).

MSL — RefleXor membrane, SONOpan panel



ISSUED FOR # Date 4/15/20 PERMIT AND BIDDING

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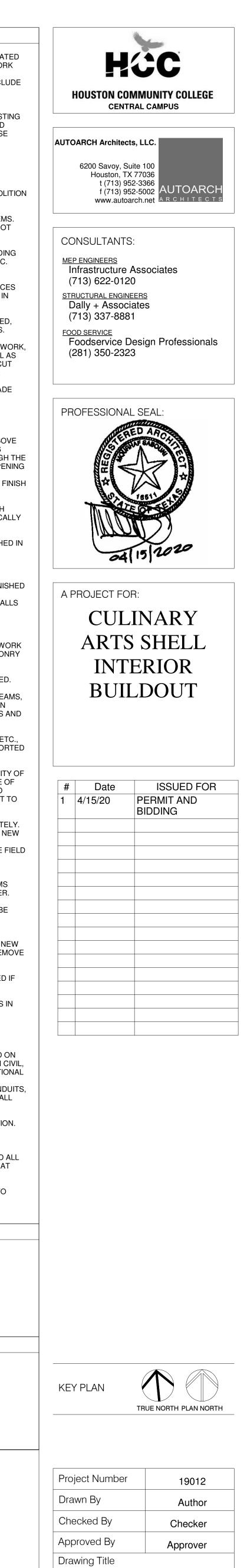
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Drawing Title						
Approved By	Approver					
Checked By	Checker					
Drawn By	Author					
Project Number	19012					

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	GENERAL PLAN DEMOLITION NOTES
	1. ALL WORK SHOWN IS EXISTING TO REAMIN UNLESS NOTED OR INDICATE AS DASHED LINES TO BE REMOVED. THE EXTENT OF DEMOLTION WORK
	SHALL INCLUDE ALL INCIDENTAL DEMOLITION WORK NECESSARY TO PROPERLY PROVIDE ALL NEW WORK SHOWN AND SPECIFIED, TO INCLUE MECHANICAL, ELECTRICAL, AND PLUMBING ITEMS.
	2. DEMOLITION WORK SHOWN IS BASED ON EXISTING DRAWINGS AND INSPECTIONS. THE CONTRACTOR SHALL VISUALLY INSPECT ALL EXISTIN CONDITIONS, AND IS RESPONSIBLE FOR PERFORMING THE INDICATED DEMOLITION WORK EVEN IF ACTUAL CONDITIONS DIFFER FROM THESE SHOWN ON THE DRAWINGS
	3. DEMOLITION CONTRACTOR SHALL COORDINATE WITH NEW WORK SECTIONSFOR ADDITIONAL INFORMATION RELATED TO EXTENT OF DEMOLITION.
	4. REFER TO ALL OTHER DRAWINGS IN THIS SET FOR INCIDENTAL DEMOLIT WORK NOT NOTED ON THE DEMOLITION PLANS.
	5. THE OWNER HAS THE FIRST RIGHT OF REFUSAL OF ALL SALVAGE ITEMS. THE CONTRACTOR SHALL PROPERLY DISPOSE OF ALL DEBRIS. DO NOT STOCKPILE DEBRIS ON SITE.
	 6. ITEMS TO BE DEMOLISHED SHALL BE REMOVED COMPLETELY INCLUDING ALL ANCHORS, HANGERS, FASTENERS, PIPES, CONDUITS, DUCTS, ETC. UNLESS OTHERWISE INDICATED TO BE ABANDONED IN PLACE.
$ 1$	7. CONCRETE SLAB PATCHES MUST BE FLUSH WITH REMAINING SURFACES TO PERMIT APPLICATION OF FINISHES. PROVIDE WELED WIRE MESH IN
	 PATCH AREAS LARGER THAN (4) FOUR SQUARE FEET. 8. CONCRETE SLABS TO REMAIN SHALL BE PATCHED, SCRAPED, LEVELED, AND CLEANED TO PROVIDE A SURFACE SUITABLE FOR NEW FINISHES. WHERE RENOVATED AREAS ARE RECIEVEING NEW UNDERGROUND
	MECHANICAL, PLUMBING, ELECTRICAL OR ADDITIONAL FOUNDATION WO SEE MECHANICAL, PLUMBING AND STRUCTURAL DRAWINGS, AS WELL AS ARCHITECTURAL DRAWINGS TO DETERMINE EXTENT OF REQUIRED CUT AND PATCH OF EXISTING SLAB. CONTRACTOR IS RESPONSIBLE FOR PROVIDING ALL CONCRETE SLAB DEMOLITION AND REPLACEMENT NECESSARY TO INSTALL THE NEW WORK. BACKFILL ALL BELOW GRADE DEMOLITION WORK WITH SUITABLE FILL MEETING STRUCTURAL
	9. PARTITIONS SHOWN TO BE REMOVED SHALL BE CONFIRMED BY THE
	CONTRACTOR AS TO TYPE OF PARTITION AND EXACT LOCATION. COMPLETELY REMOVE PARTITIONS FROM FLOOR TO STRUCTURE ABOVE INCLUDING BASE, ALL FASTENERS, GROUT, SEALANTS, ETC., UNLESS OTHERWISE NOTED. MASONRY PARTITIONS WHICH EXTEND THROUGH T SLAB SHALL BE REMOVED TO 8" BELOW FINISH FLOOR. FILL SLAB OPENI WITH CONCRETE FILL TO RECIEVE FINISH FLOOR. WHERE WALLS SCHEDULED TO BE REMOVED SIT ON SLAB, GRIND SLAB TO RECIEVE FIN
	FLOOR. 10. REMOVE, PATCH AND REPAIR PORTIONS OF WALL PARTITIONS WHICH CONFLICT WITH NEW WORK TO BE INSTALLED, EVEN IF NOT SPECIFICALL
4	NOTED TO BE DEMOLISHED ON PLANS. 11. WALL REMOVED FROM INTERSECTING WALLS SHALL INCLUDE TOOTHED REPLACEMENT OF DAMAGED MASONRY ON WALL TO REMAIN AND REMOVAL OF TIES PROJECTING FROM WALLS. SEE DETAILS FOR ADDITIONAL CONDITIONS.
	12. WALLS TO BE PARTIALLY REMOVED SHALL BE TERMINATED WITH FINISH MASONRY ENDS BY TOOTHING IN NEW MASONRY UNITS, TO MATCH ADJACENT MASONRY. SEE DETAILS FOR OTHER CONDITIONS. NO WALL SHALL BE TERMINATED WITH EXPOSED OPEN CELLS OR DAMAGED MASONRY UNITS.
	 13. WHERE NEW OPENINGS ARE SHOWN IN EXISTING WALL, CAREFULLY REMOVE TO NEAREST JOINT LINE WITHOUT DISTURBING ADJACENT WOR SO THAT NEW WORK CAN BE PATCHED IN TO MATCH. ALL NEW MASONF WORK SHALL BE TOOTHED IN. 14. ALL EXISTING STRUCTURE SHALL REMAIN LINESS OTHERWISE NOTED
	 14. ALL EXISTING STRUCTURE SHALL REMAIN, UNLESS OTHERWISE NOTED. 15. COORDINATE DEMOLITION OF ALL STRUCTURAL ITEMS (COLUMNS, BEAM SLABS, ETC.) WITH STRUCTURAL DRAWINGS. EXTENT OF DEMOLITION AREA SHALL BE IN ACCORDANCE WITH STRUCTURAL REQUIREMENTS AN COORDINATED WITH ALL NEW WORK.
	16. TEMPORARILY SUPPORT ALL BEAMS, LINTELS, PORTIONS OF WALLS ETC TO BE DISTURBED BY DEMOLITION WORK, UNTIL THEY ARE RE-SUPPORT BY NEW WORK.
	17. CONTRACTOR SHALL BE RESPOSIBLE FOR MAINTAINING THE INTEGRITY EXISTING BUILDING ELEMENTS TO REMAIN THROUGHOUT SEQUENCE OF WORK. ANY DAMAGE TO EXISTING BUILDING CONDITIONS SHOWN TO REMAIN SHALL BE RESTORED TO NEW WORK CONDITION AT NO COST TO OWNER.
	18. WINDOWS SCHEDULED FOR REMOVAL SHALL BE REMOVED COMPLETEL FASTENERS MAY BE CUT FLUSH WITH HEAD, JAMBS, AND SILL IF THE NE WINDOW UNIT WILL CONSEAL FASTENER. PROTECT EXISTING SILLS SCHEDULED TO REMAIN. ALL EXISTING WINDOW OPENINGS MUST BE FI MEASURED PRIOR TO SUBMITTAL OF SHOP DRAWINGS.
	19. WHERE FINISHES ARE INDICATED TO BE REMOVED, REMOVAL SHALL INCLUDE ANY GROUT, ADHESIVES, FASTENERS, AND ALL OTHER ITEMS USED TO ATTACH THE FINISHES TO THE SURFACES THAT THEY COVER.
	20. ANY FLOOR AREAS DAMAGED BY DEMOLITION CONTRACTOR SHALL BE PATCHED TO MATCH EXISTING.
	21. WHERE CEILINGS ARE REMOVED, REMOVE ALL CEILING SYSTEMS COMPLETELY INCLUDING GRID, TRIM HANGERS, CLIPS, ETC. WHERE NEW CEILINGS ARE SPECIFIED, NO DOUBLE CEILINGS ARE PERMITTED. REMO
	ALL ORIGINAL CONCEALED CEILINGS WHERE ENCOUNTERED. 22. ALL EXISTING SURFACES TO REMAIN SHALL BE PROTECTED, PATCHED IF DAMAGED AND CLEANED PRIOR TO APPLICATION OF FINISHES.
	23. CONCTRACTOR TO PROTECT ALL EQUIPMENT AND OTHER ELEMENTS IN AREA OF NEW OR DEMOLITION WORK.
	24. REMOVE ALL CURTAINS AND BLINDS IN AREAS OF RENOVATION OR DEMOLITION, UNLESS OTHERWISE NOTED.
	25. REMOVE MECHANICAL, ELECTRICAL AND PLUMBING ITEMS AS NOTED ON MECHNICAL, ELECTRICAL AND PLUMBING PLANS. COORDINATE WITH CIN STRUCTURAL, MECHANICAL, ELECTRICAL, AND PLUMBING FOR ADDITION DEMOLITION NOTES. REMOVAL WORK IS INTENDED TO INCLUDE ALL ASSOCIATED ITEMS SUCH AS ELECTRICAL OUTLETS, SWITCHES, CONDU PIPING, MOUNTING BLOCKS, ETC., AS NOTED. THE CONTRACTOR SHALL DEFERD TO ALL OWN. STRUCTURAL MEDIAN
	REFER TO ALL CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL AND PLUMBING DRAWINGS AND SPECIFICATIONS FOR PROCEDURES CONCERNING RELATED TRADES IN AREAS WHICH REQUIRE DEMOLITION REPAIR AND PATCH ANY AREAS DAMAGED DURING REMOVAL WORK.
	26. WHERE EXISTING WALL FINISHES ARE INCIDATED TO BE REMOVED, REMOVAL SHALL INCLUDE ANY GROUT, ADHESIVES, FASTENERS, AND AL OTHER ITEMS USED TO ATTACH THE FINISHES TO THE SURFACES THAT THEY COVER.
	27. WHERE EXISTING EXTERIOR AND INTERIOR WALLS ARE INDICATED TO REMAIN, REMOVE ALL INTERIOR FINISHES AS WELL AS ANY EXISTING FURRING ON ALL INTERIOR FACES.
	DEMOLITION PLAN LEGEND
	FLOOR AREA TO RECEIVE SELF-LEVELING COMPOUND
	DEMOLITION KEYNOTES D01 PREPARE FLOOR SURFACE FOR RECEIVING SELF-LEVELING COMPOUND
	D02 ADJUST EXISTING DRAINS TO BE FLUSH WITH NEW FLOORING



DEMOLITION PLAN

Drawing Number

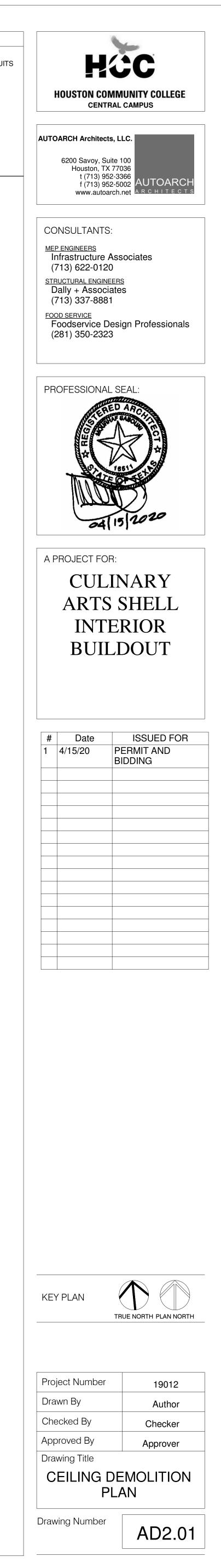
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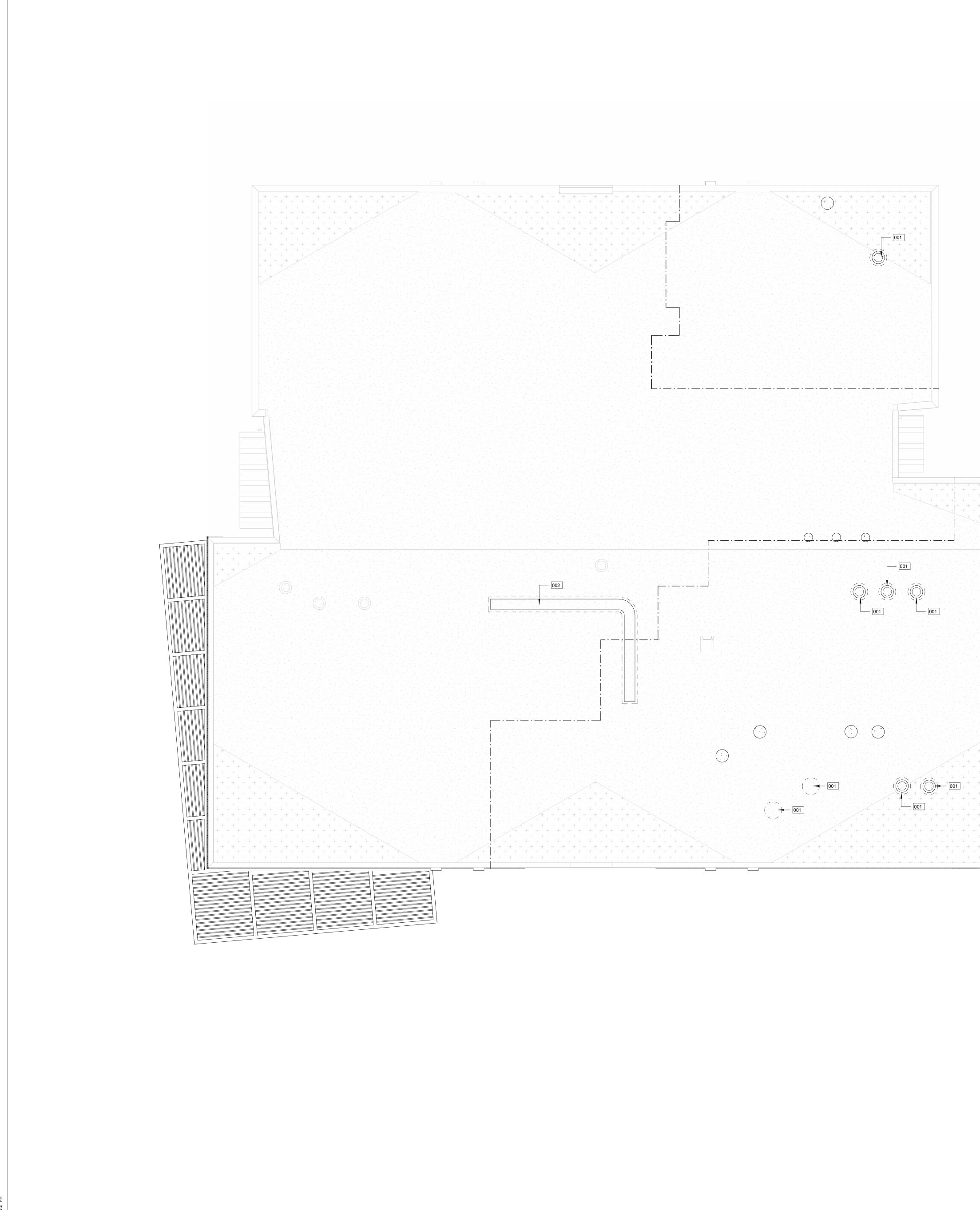


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CEILING DEMOLITION KEYNOTES

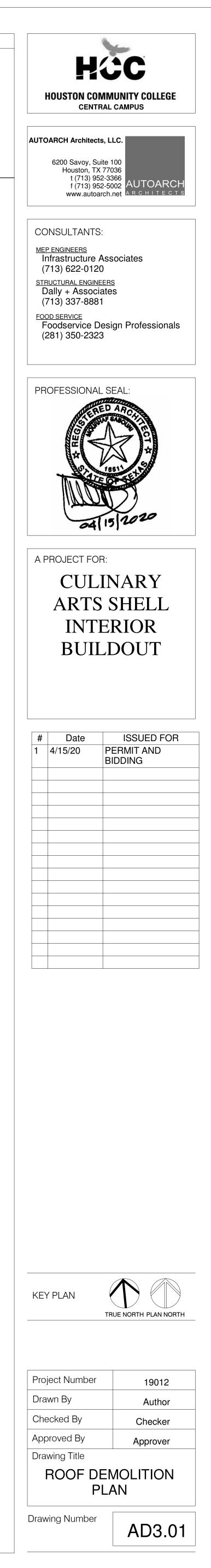
 CONTRACTOR TO REMOVE EXISTING LIGHT FIXTURES PREP CONDUITS AND ELECTRICAL FOR NEW CONDITION
 CONTRACTOR TO PREP EXISTING SPRINKLER LINES FOR NEW CONDITION

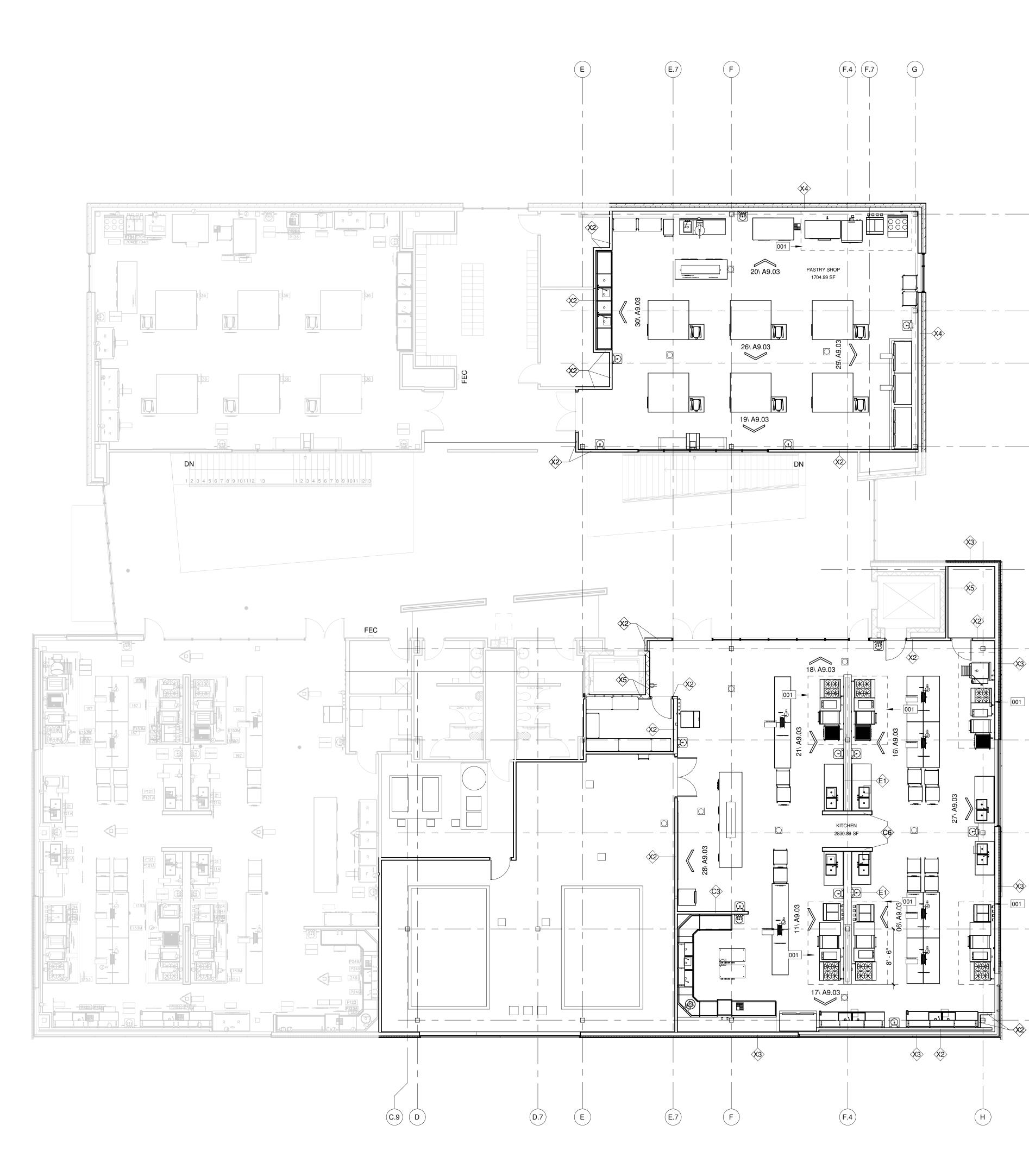




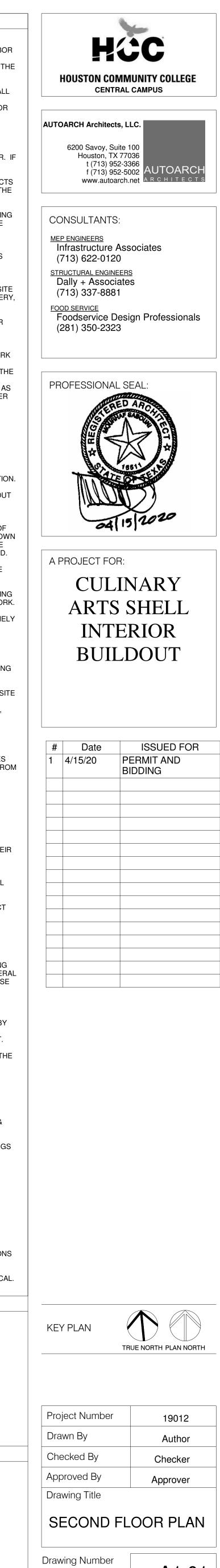
ROOF DEMOLITION KEYNOTES

 CONTRACTOR TO COORDINATE WITH MECHANICAL PLAN TO DEMO NEW OPENINGS FOR NEW PENETRATIONS FOR EXHAUST FLUE
 CONTRACTOR TO COORDINATE WITH MECHANICAL PLANS TO PROVIDE NEW OPENING FOR DUCT AND VENT FOR NEW AHU COORDINATE WITH MECHANICAL.

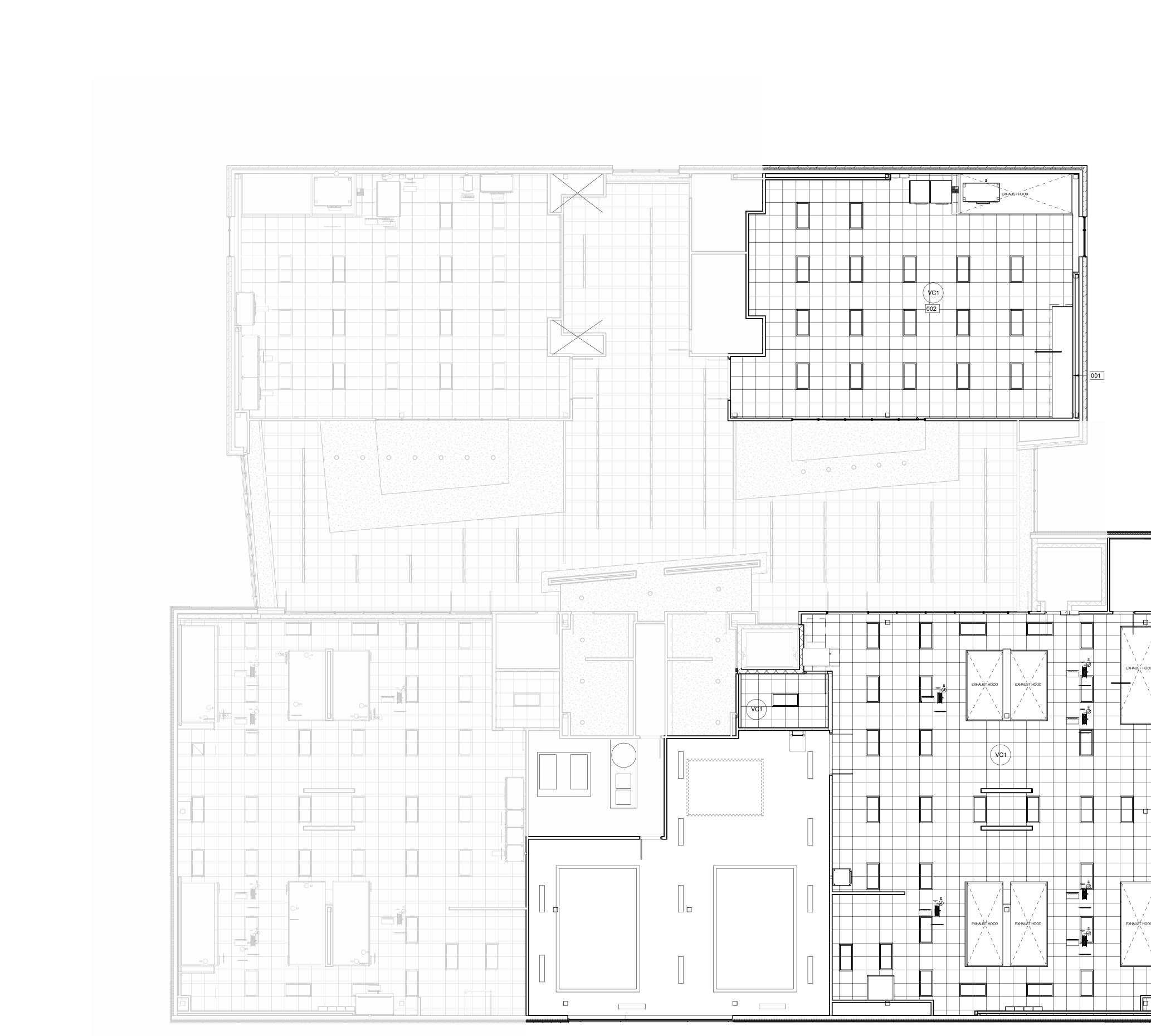




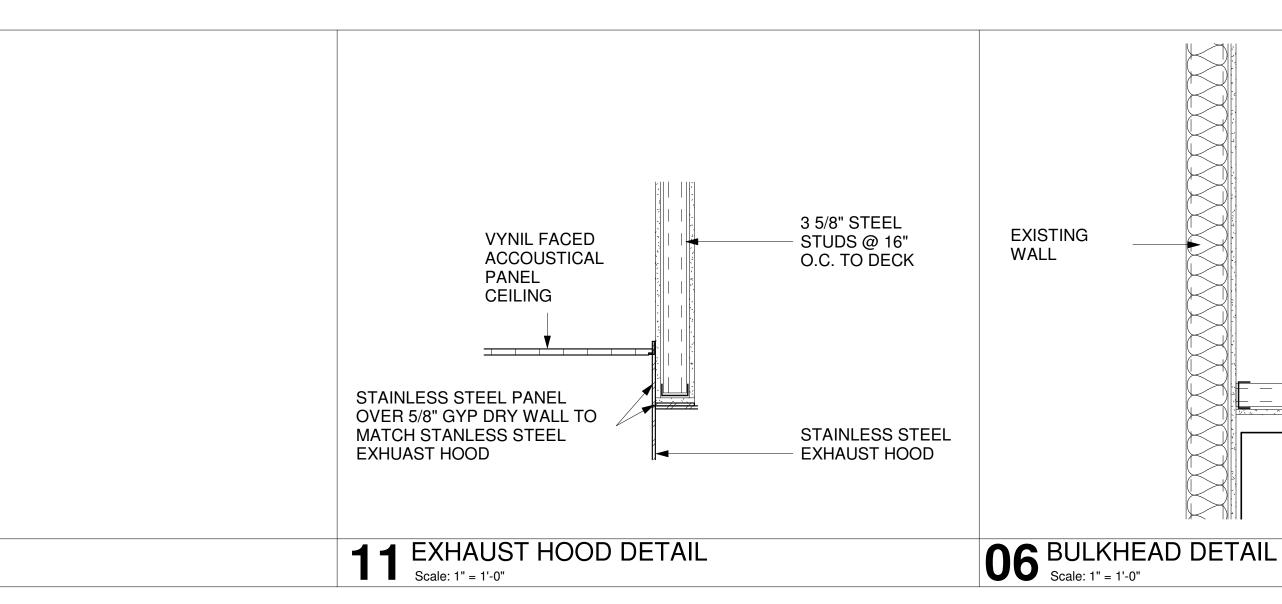
		GENERAL PLAN NOTES
		1. ALL WORK TO BE PERFORMED UNDER THIS CONTRACT SHALL COMPLY WITH THE MOST RECENT EDITION OF THE CITY OF HOUSTON CODE, LABOR LAWS, RULES & REGULATIONS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED PERMITS TO CARRY OUT THE WORK DESCRIBED IN THE CONSTRUCTION DOCUMENTS.
		2. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL EXISTING CONDITIONS. ANY DISCREPANCIES WITH THE DRAWINGS OR DIMENSIONS SHALL BE BROUGHT TO THE ARCHITECTS ATTENTION PRIOR TO CONSTRUCTION.
		3. IF A CONFLICT EXSITS BETWEEN THE DRAWINGS (AND/OR SPECIFICATIONS), THE MORE STRINGENT AND COSTLY REQUIREMENT SHALL APPLY. ITEMS SHOWN ON THE DRAWINGS, BUT NOT SPECIFIED, SHALL APPLY AND BE FURNISHED AND INSTALLED BY THE CONTRACTOR. IF AN ITEM IS SHOWN ON THE DRAWINGS, BUT IS NOT INCLUDED IN THE SPECIFICATIONS, PROVE ITEM OF A QUALITY CONSISTANT WITH THE GENERAL QUALITY OF THE CONTRACT REQUIREMENTS. BRING CONFLICTS BETWEEN THE DRAWING AND SPECIFICATIONS TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY.
	1	 WRITTEN INFORMATION TAKES PRECEDENT OVER DRAWING LINES. BRING CONFLICTS BETWEEN WRITTEN INFORMATION AND DRAWN LINE TO THE ATTENTION OF THE ARCHITECT IMMEDIATELY. IF AN AREA OR SPACE IS SHOWN, BUT IS NOT CLEARLY DEFINED OR INDICATED BY NOTES, PROVIDE THE SAME MATERIALS AND FINSIHES AS SCHEDULED ELSE WHERE IN THE BUILDING FOR THAT SPACE.
		 PRIOR TO SUBMITTAL OF BID, IT IS THE RESPONSIBILITY OF THE CONTRACTOR(S) TO BECOME FAMILIAR WITH ALL CONDITIONS AT THE SITE RELATIVE TO EXISTING WORK, MATERIAL HANDLING, STORAGE & DELIVERY, WORK SPACE AVAILABLE, SAFETY PRECAUTIONS REQUIRED, AND ALL OTHER CONDITIONS NECESSARY TO COMPLETE AN ACCURATE AND COMPLETE BID. NO INCREASE IN PROJECT COST WILL BE ALLOWED FOR FAILURE OF THE GENERAL CONTRACTOR TO KNOW EXISTING SITE CONDITIONS.
	2	7. THE GENERAL CONTRACTOR GUARANTEES & WARRANTS THAT ALL WORK PERFORMED SHALL BE FREE FROM DEFECTS IN MATERIALS & WORKMANSHIP FOR A PERIOD OF ONE YEAR AFTER THE ISSUANCE OF THE CERTIFICATE OF FINAL COMPLETION. ANY DEFECTS OR DAMAGE DISCOVERED DURING SAID PERIOD SHALL BE REPAIRED OR REPLACED AS DIRECTED IN WRITING BY THE ARCHITECT WITH NO COST TO THE OWNER
	3	 OR ARCHITECT. 8. THE GENERAL CONTRACT SHALL INCLUDE IN HIS/HER BID ALL COSTS ASSOCIATED WITH MATERIAL HANDLING, STORAGE AND DELIVERY. 9. THE GENERAL CONTRACTOR SHALL FURNISH & INSTALL ALL ITEMS NECESSARY FOR A COMPLETE INSTALLATION. 10. DO NOT SCALE DRAWINGS. ANY DIMENSIONS NOT INDICATED ON DRAWINGS TO BE CONFIRMED WITH ARCHITECT PRIOR TO CONSTRUCTION.
	———————————————————————————————————————	 NO WORK SHALL BE PERFORMED OUTSIDE THE PROJECT LIMITS WITHOUT PRIOR WRITTEN APPROVAL FROM THE BUILDING OWNER AND/OR ARCHITECT. THE GENERAL CONTRACTOR SHALL REMOVE ALL DEBRIS AT THE END OF FACIL WORKDAY, THE CENERAL CONTRACTOR WITH EURNICHTING (TER OWN)
		 EACH WORKDAY. THE GENERAL CONTRACTOR WILL FURNISH HIS/HER OWN DUMPSTER FOR TRASH & DEBRIS STORAGE UNTIL HE/SHE CAN REMOVE SUCH FROM THE PREMISES. ALL AREAS SHALL BE CLEANED/PROTECTED. 13. ALL WOOD & LUMBER SHALL BE FIRE RETARDANT TREATED AS PER THE REQUIREMENTS OF THE FORT BEND BUILDING CODE. 14. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE WORK OF ALL TRADES AS REQUIRED FOR THE COMPLETION OF WORK.
	(4.6)	 MATERIALS SHALL BE NEW, OF QUALITY SPECIFIED, DELIVERED IN A TIMELY FASHION & AMPLE QUANTITY TO PREVENT DELAY OF WORK. SUBSTITUTIONS REQUIRE PRIOR APPROVAL BY THE ARCHITECT. INSURANCE: THE GENERAL CONTRACTOR & EACH SUB CONTRACTOR SHALL HAVE WORKERS COMPENSATION AS REQUIRED BY LAW & SUFFICIENT PROTECTION FOR CLAIMS FOR PERSONAL INJURY, INCLUDING DEATH, SHOULD THEY ARISE FROM OPERATIONS UNDER CONTRACT. PRIOR TO DEMOLITION, THE GENERAL CONTRACTOR SHALL WALK THE SITE
· — — — — — —	5	 & PROVIDE A WRITTEN LIST TO THE ARCHITECT OF ANY DAMAGE TO EXISTING FINISHES, MISSING EQUIPMENT, NON-OPERATIVE EQUIPMENT, ANY WATER LEAKS, ETC. 18. IT IS THE GENERAL CONTRACTORS RESPONSIBILITY TO SECURE THE PREMISES THROUGHOUT THE DURATION OF THE PROJECT.
1		19. THE GENERAL CONTRACTOR SHALL TAKE THE APPROPRIATE MEASURES TO PROVIDE THE NECESSARY PROTECTION TO THE GENERAL PUBLIC FROM ACCESSING THE SITE AT ALL TIMES.
	6	 20. THE GENERAL CONTRACTOR SHALL PROVIDE A SAFE WORKING ENVIRONMENT AS WELL AS REQUIRED MEANS OF EGRESS FOR ALL PERSONNEL ON THE PROJECT SITE. 21. THE GENERAL CONTRACTOR SHALL PROVIDE THE NECESSARY PROTECTION OF ALL FINISHES THAT ARE TO REMAIN AND ALL AREAS ASSOCIATED WITH THE SCOPE OF THE PROJECT FROM DAMAGE. ANY AREAS DAMAGED DURING CONSTRUCTION SHALL BE RETURNED TO THEIR ODICINAL FINISH
		ORIGINAL FINISH. 22. THERE ARE NO SUBSTITUTIONS ALLOWED UNLESS APPROVED BY THE ARCHITECT. THE GENERAL CONTRACTOR SHALL SUBMIT IN WRITING ALL REQUESTS FOR SUBSTITUTIONS.
·	7	23. THE GENERAL CONTRACTOR SHALL SUBMIT SHOP DRAWINGS, PRODUCT DATA & SAMPLES TO THE ARCHITECT FOR APPROVAL PRIOR TO FABRICATION. SUBCONTRACTORS SHALL VISIT THE PROJECT SITE TO VERIFY CONDITIONS, DIMENSIONS, ETC. THE GENERAL CONTRACTOR SHALL REVIEW ALL SUBMISSIONS PRIOR TO SUBMITTING TO THE ARCHITECT FOR APPROVAL.
(3) 1		24. THE GENERAL CONTRACTOR SHALL INSTALL ALL MATERIALS ACCORDING TO THE MANUFACTURER'S RECOMMENDED SPECIFICATIONS. THE GENERAL CONTRACTOR SHALL SUBMIT IN WRITING TO THE ARCHITECT IF, BECAUSE OF UNFORESEEN CONDITIONS, MATERIALS CANNOT BE INSTALLED ACCORDING TO SPECIFICATIONS PRIOR TO INSTALLATION.
·		 25. THE GENERAL CONTRACTOR SHALL ASSEMBLE ALL REQUIRED GUARANTEES, WARRANTIES & MAINTENANCE CONTRACTS EXECUTED BY EACH OF THE RESPECTIVE MANUFACTURERS, SUPPLIERS & SUBCONTRACTORS AND SUBMIT THE INFORMATION TO THE ARCHITECT. 26. THE GENERAL CONTRACTOR SHALL BRING DISCREPANCIES BETWEEN THE DRAWINGS & SPECIFICATIONS IN WRITING TO THE ATTENTION OF THE
		DRAWINGS & SPECIFICATIONS IN WRITING TO THE ATTENTION OF THE ARCHITECT. 27. ALL PLAN DETAILS & WALL SECTIONS ARE ASSUMED TO BE TYPICAL CONDITIONS UNLESS DETAILED OR NOTED OTHERWISE.
ġ	9	 28. CLOSE WITH FIRE MATERIALS & FIRE SEAL AS REQUIRED; ALL OPENING JOINTS OR GAPS ON FIRE RATED ASSEMBLIES SUCH AS DUCTS, PIPES & CONDUIT PENETRATIONS. 29. THE GENERAL CONTRACTOR SHALL MAINTAIN ALL EXISTING FIRE RATINGS AT NEW CONSTRUCTION. 30. VERIFY OPENINGS FOR PIPES & DUCTS WITH MECHANICAL.
		 31. PROVIDE ACOUSTICAL CAULKING TOP, BOTTOM & BOTH SIDES OF ALL INTERIORS STUD/GYPSUM BOARD WALLS; TYPICAL. 32. ALL HOLLOW METAL DOOR FRAMES ARE TO BE GROUT FILLED.
		 33. PROVIDE "TYPE X" GYPSUM AT ALL REQUIRED RATED WALLS & CEILING ASSEMBLIES. 34. PROVIDE ALL NECESSARY WOOD BLOCKING AT ALL REQUIRED LOCATIONS FOR ERECTION OF EQUIPMENT, SYSTEMS & ACCESSORIES. 35. PROVIDE WATER RESISTANT GYPSUM BOARD AT ALL WET AREAS; TYPICAL.
		PLAN LEGEND
		PARTITION TYPES - RE: A0.02
		FLOOR PLAN KEYNOTES 001 LOCATION OF EXHAUST HOOD ABOVE REFER TO FOOD SERVICE
		DRAWINGS



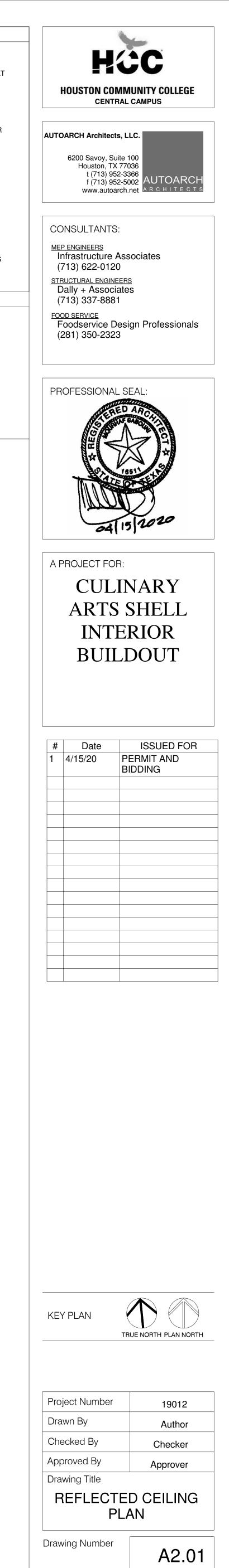
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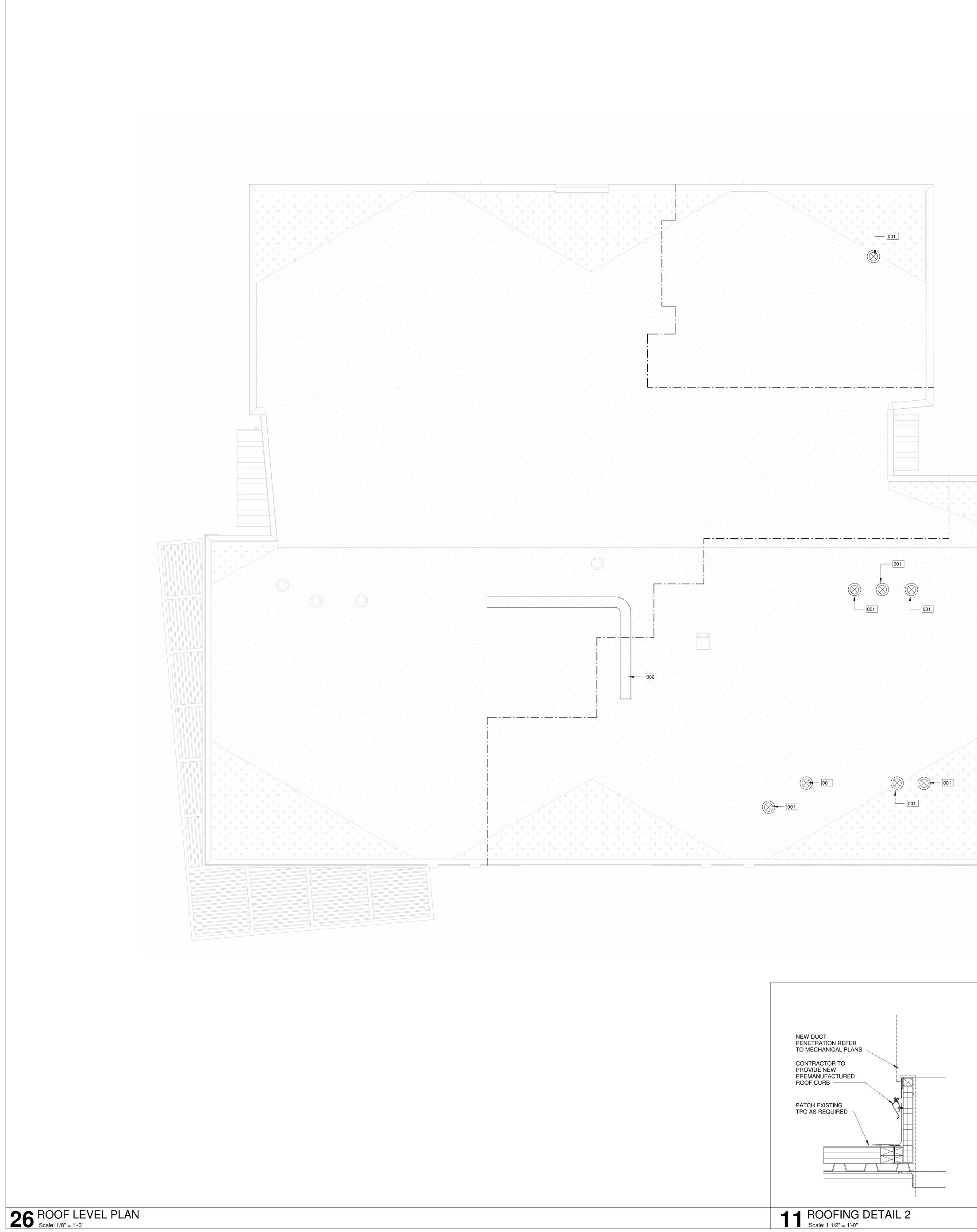


27 REFLECTED CEILING PLAN - LEVEL 2 Scale: 1/8" = 1'-0"



	GENERAL REFLECTED CEILING PLAN NOTES 1. TYPICAL CEILING HEIGHT SHALL BE 10°-0" UNLESS OTHERWISE NOTED ON REFLECTED CEILING PLANS. REFER TO TYPICAL DETAIL 11/A2.01 AT ALL STAINLESS STEEL EXHAUST HOODS. 2. REFER TO ELECTRICAL DRAWINGS FOR LIGHT PATTERN AND EXIT LIGHT LOCATIONS. NOTIFY ARCHITECT OF DISCREPANCIES PRIOR TO SHOP DRAWINGS. 3. REFER TO MECHANICAL, ELECTRICAL, AND PLUMBING DRAWINGS FOR ITEMS NOT SHOWN ON CEILING PLAN. GRILLES, SPEAKERS, SPRINKLERS, HEAT & SMOKE DETECTORS, SHALL BE CENTERED IN TILES UNLESS OTHERWISE NOTED. 4. ALL BULKHEAD DIMENSIONS ARE FROM FINISH FACE OF WALL OR BULKHEAS, THEAT & SMOKE DETECTORS, SHALL BE CENTERED IN TILES UNLESS OTHERWISE NOTED. 4. ALL BULKHEAD DIMENSIONS ARE FROM FINISH FACE OF WALL OR BULKHEAD TO FINISH FACE OF BULKHEAD. 5. PROVIDE 1/2" REVEALS BETWEEN DISSIMILAR MATERIALS ON THE SAME PLANE AS THE CEILINGS. 6. IN AREAS OF EXPOSED CEILING, PAINT EXPOSED STRUCTURE, UNDERESIDE OF DECK, SPRINKLER PIPING, CONDUIT AND ALL MISCELLANEOUS OVERHEAD ITEMS, COLORS THAT SHALL BE SELECTED BY ARCHITECT. 7. ALL GRIDED CEILING SHALL BE 2X2 VYNIL FACE ACOUSTICAL CEILINGS U.O.N. 8. ALL GRAY AREAS ARE AREA OF NO WORK. CEILING PLAN KEYNOTES 01 01 01 REFER TO 06/A2.01 FOR BULKHEAD THIS LOCATION 02 CONTRACTOR TO PROVIDE 50%
3 5/8" STEEL STUDS @ 16" O.C. VINYL FACED ACCOUSTICAL PANEL CEILING 5/8" GYP DRY WALL REFRIGERATOR	



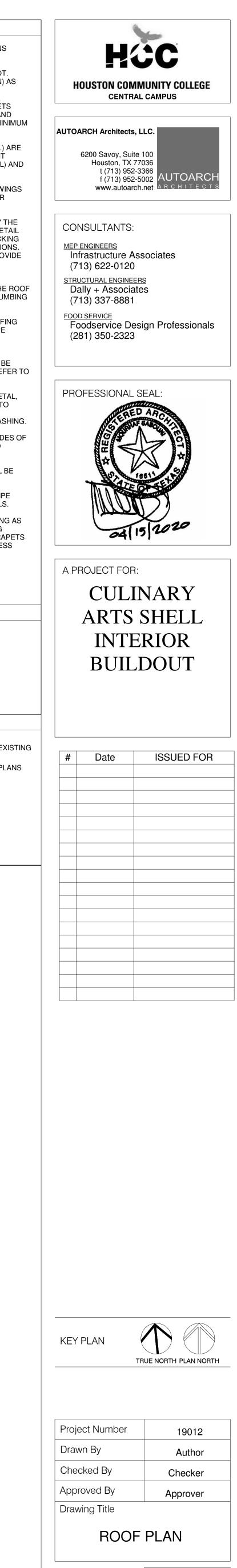


 GI	ENERAL ROOF PLAN NOTES
 •	
1.	DETAILS INDICATED ARE TYPICAL FOR SIMILAR ROOFING CONDITIONS UNLESS OTHERWISE NOTED.
2.	UNLESS OTHERWISE NOTED, MINIMUM ROOF SLOPE IS 1/4" PER FOOT. PROVIDE TAPERED INSULATION (EVEN IF NOT SHOWN ON THIS PLAN) AS REQUIRED TO MAINTAIN REQUIRED SLOPE TO ROOF DRAINS AND ELEMINATE ANY AREAS OF POTENTIAL STANDING WATER. PROVIDE TAPERED INSULATION (MINUM 1/4" PER FOOT SLOPE) AT ALL CRICKETS INDICATED TO DRAINS. COORDINATE HEIGHTS OF ALL FLASHINGS AND EXPANSION JOINT CAPS WITH TAPERED INSULATION TO MAINTAIN MINIMUM DIMENSIONS DETAILED.
3.	ALL ROOF PENETRATIONS AND ACCESSORIES (DRAINS, VENTS, ETC.) ARE TO BE INSTALLED AND FLASHED IN COMPLIANCE WITH THE CURRENT EDITIONS OF THE N.R.C.A. (ROOFING AND WATERPROOFING MANUAL) AND S.M.A.C.N.A. (ARCHITECTUAL SHEEL METAL MANUAL).
4.	COORDINATE WITH MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ITEMS (INCLUDING UNIT SIZES AND LOCATIONS) NOT SHOWN OR SCHEMATICALLY SHOWN ON ROOF PLANS.
5.	CURBS FOR ROOF TOP MECHANICAL EQUIPMENT ARE PROVIDED BY THE MECHANICAL CONTRACTOR. REFER TO TYPICAL CURB FLASHING DETAIL FOR BLOCKING AND FLASHING REQUIREMENTS. PROVIDE ALL BLOCKING NECESSARY TO ACHIEVE LEVEL MECHANICAL CURBS AT ALL LOCATIONS. MAINTAIN MINIMUN 8" FROM TOP OF CURB TO ADJACENT ROOF. PROVIDE TAPERED CRICKETS(MINIMM 1/2" PER FOOT SLOPE) AROUND ALL MECHANICAL EQUIPMENT CURBS.
6.	THE ROOF DRAIN AND MECHANICAL UNIT LOCATIONS SHOWN ON THE ROOPLAN ARE APPROXIMATE. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS.
7.	PRIOR TO FLASHING OVERFLOW ROOF SCUPPERS AND DRAIN, ROOFING CONTRACTOR SHALL BE REQUIRED TO CONFIRM MAXIUM DRAIN PIPE HIEGHT OF 2" ABOVE THE ROOF IN ACCORDANCE WITH PLUMING DRAWINGS AND BUILDING CODE.
8.	START TAPERED INSULATION AT SUMP PLATES. INSULATION SHALL BE TAPERED DOWN FROM ALL (4) FOUR SIDES OF INDICATED SUMP. REFER TO TYPICAL ROOF DRAIN DETAIL A
9.	IN ACCORDANCE WITH SPECIFICATIONS SECTION 07 62 00 SHEET METAL, FLASHING AND TRIM, ROOFING CONTRACTOR SHALL BE REQUIRED TO PROVIDE A RECIEVER FLASHING TO MASONRY CONTRACTOR FOR INSTALLTION. ROOFER TO SOLDER JOINTS IN STAINLESS STEEL FLASHING
10.	PROVIDE WALKWAY PROTECTION WHERE INDICATED AND AT ALL SIDES OF MECHANICAL ROOF TOP UNITS REQUIRING SEVICE AND AT TOP AND BOTTOM OF ROOF STAIRS.
11.	ALL ROOF TOP EQUIPMENT (EXCLUDING PREFINISHED ITEMS) SHALL BE FIELD PAINTED.
12.	WHERE INDICATED, REFER TO PLUMBING DRAWINGS FOR RADON PIPE DETAIL. FLASHING SHALL BE IN ACCORDANCE WITH TYPICAL DETAILS.
13.	CONTRACTOR IS RESPONSIBLE FOR PROVIDING FRT WOOD BLOCKING AS REQUIRED TO ACCOMMODATE ALL PROFILES OF FINISHED ROOFING INCLUDING AT CRICKETS AND TAPERED INSULATION AT WALLS, PARAPETS AND GRAVEL STOPS. GRAVEL STOPS AT GUTTER SHALL BE STAINLESS STEEL WITH SOLDERED JOINTS.
14.	COORDINATE HOSE BIB LOCATIONS ON ROOF WITH MEP PLANS.
R	DOF LEGEND
	NEW EXHAUST EQUIPMENT (REFER TO MEP)
	BOUNDARY OF WORK BELOW

ROOF PLAN KEYNOTES

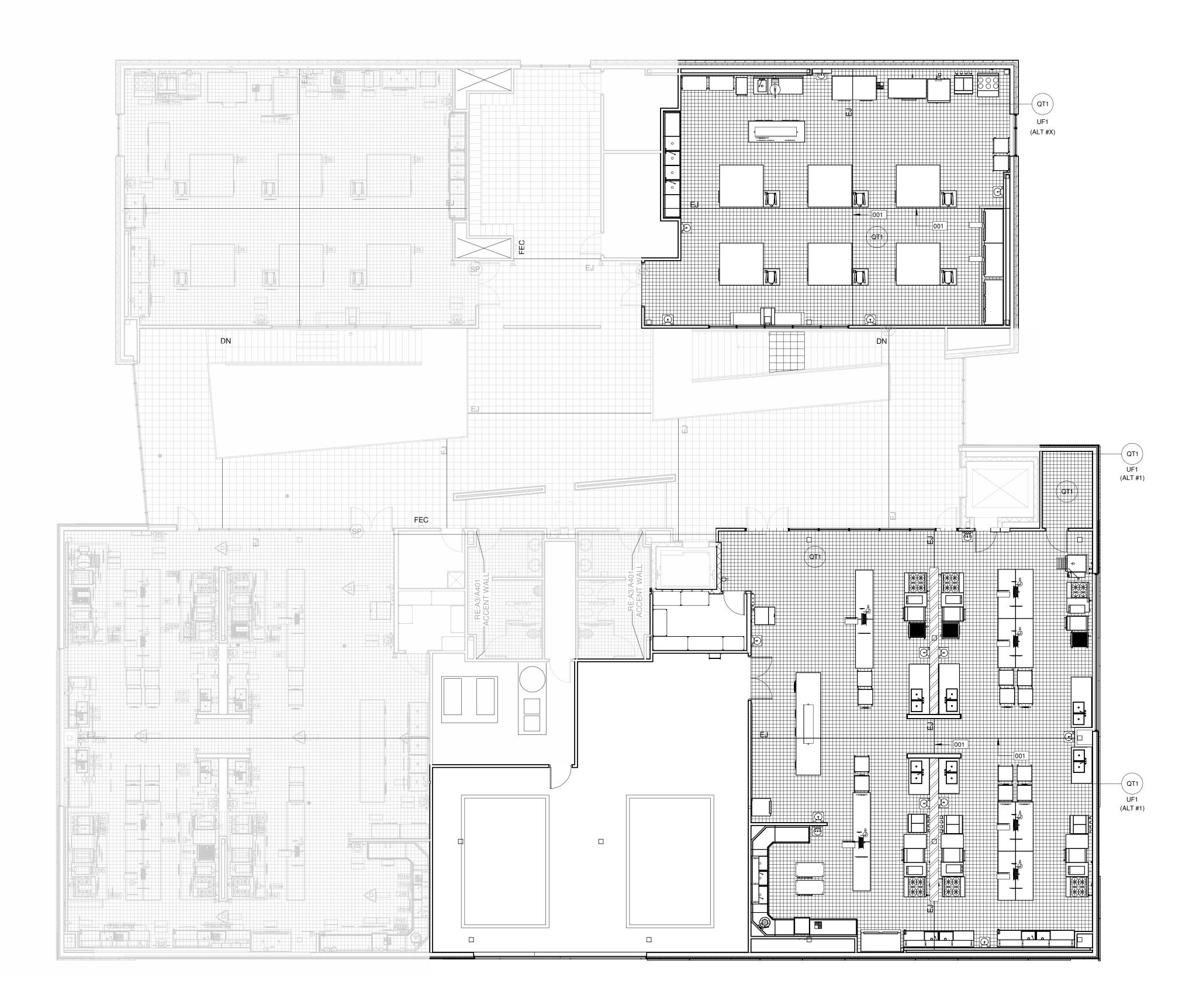
001	NEW EXHAUST VENT PENETRATION CONTRACTOR TO PATCH EXI ROOF AND PROVIDE BRACING AS REQUIRED
002	NEW VENT AND DUCT FOR NEW AHU REFER TO MECHANICAL PLA

NEW PIPE PENTRATION REFER TO MECHANICAL PLANS FOR MORE DETAILS
CONTRACTOR TO PROVIDE NEW PIPE PENETRATION PATCH EXISTING ROOF AS REQUIRED
06 ROOF DETAIL 1 Scale: 1 1/2" = 1'-0"



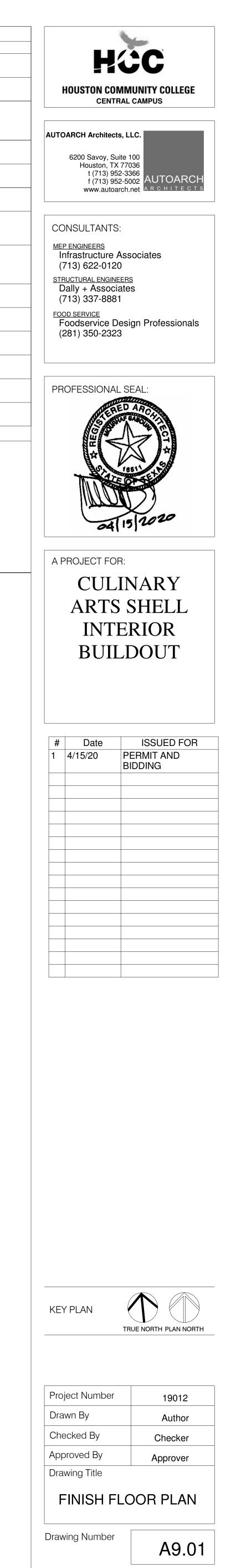
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A3.01



	FINI	SHES LEGEND			
	Mark	MATERIAL	COLOR	MANUF.	REMARKS
PAINT	(PNT1)	Paint (field)	WHITE	SHERWIN WILLIAMS	-
ΡA	PNT2	Paint (accent)	WHITE	SHERWIN WILLIAMS	-
CERAMIC	(CT1)	Subway Tile	0190 - ARCTIC WHITE (3"x6" SUBWAY TILE)	DAL-TILE	-
OTHER	(FRP1)	Fiberglass Panel	WHITE	MARLITE	-
ЧТО	(SSP1)	Stainless Steel Panel	STAINLESS STEEL	-	-
SE	(RB1)	Rubber Base	131 - BISQUE	ROPPE	-
BASE	CB1	Ceramic Base	0190 - ARCTIC WHITE (3'X6" SUBWAY TILE)	DAL-TILE	-
CEILINGO	VC1	Vinyl faced Accoustical ceiling Tiles	WHITE	ARMSTRONG	-
	QT1	Quary Tile	OQ42 - ARRID GRAY	DAL-TILE	-
LLUC	UF1	Urethane Flooring System	-	-	-
	CG	CORNER GUARD	STAINLESS STEEL	-	-
MISCELLANEOUS	TEP	TILE EDGE PROTECTION	STAINLESS STEEL	SCHLUTER SYSTEMS	-
SCELLA	EGR1)	EPOXY GROUT	TBD	MAPEI	-
MIS	EGR2	EPOXY GROUT	TBD	MAPEI	-

001 PROVIDE EXPANSION AT QUARY TILE THIS LOCATION





		 ALL ROI ALL ALL GU ALL GU TILI EXF FLA ALL FLA ALL ANI 	UNDED EDGES 1" TH GROUTED TILES SH CORNERS SHALL F ARDS E EDGE PROTECTIO PSOED EDGES NT ALL EXPOSED CO COLUMNS WITHIN MES SHALL RECEIV	VALL SHALL HAVE ST HICK PROVIDED. HALL BE EPOXY. RECIEVE 1 1/2" x 1 1/2" IN SHALL BE USED AT OLUMN WHITE THE COOKING PREPI VE STAINLESS STEEL HALL RECIEVE TILE S	'x 4' STAINLESS FALL TILE CORN ERATION AREA N COLUMN WRAP	STEEL CORNER IERS AND NEXT TO GAS
	BASE OTHER CERAMIC PAINT	PNT1 PNT2 CT1 FRP1 SSP1 RB1 CB1	Paint (field)Paint (accent)Subway TileFiberglass PanelStainless Steel PanelRubber BaseCeramic Base	WHITE WHITE 0190 - ARCTIC WHITE (3"x6" SUBWAY TILE) WHITE STAINLESS STEEL 131 - BISQUE 0190 - ARCTIC WHITE (3'X6" SUBWAY TILE)	SHERWIN WILLIAMSSHERWIN WILLIAMSDAL-TILEMARLITE-ROPPEDAL-TILE	- -
	MISCELLANEOUS FLOORING CEILINGS	VC1 QT1 UF1 CG (CG) (EGR1) EGR2	Vinyl faced Accoustical ceiling Tiles Quary Tile Urethane Flooring System CORNER GUARD CORNER GUARD TILE EDGE PROTECTION EPOXY GROUT EPOXY GROUT	WHITE OQ42 - ARRID GRAY TBD STAINLESS STEEL STAINLESS STEEL TBD TBD	ARMSTRONG DAL-TILE BASF MASTER BUILDER SOLUTIONS - SCHLUTER SYSTEMS MAPEI MAPEI	
(SSP1)						

 1/8"

 I/8"

 RNER

 AS

 JAMB

CONSULTANTS: <u>MEP ENGINEERS</u> Infrastructure Associates (713) 622-0120 <u>STRUCTURAL ENGINEERS</u> Dally + Associates (713) 337-8881 <u>FOOD SERVICE</u> Foodservice Design Professionals (281) 350-2323

PROFESSIONAL SEAL:

A PROJECT FOR: CULINARY ARTS SHELL INTERIOR BUILDOUT

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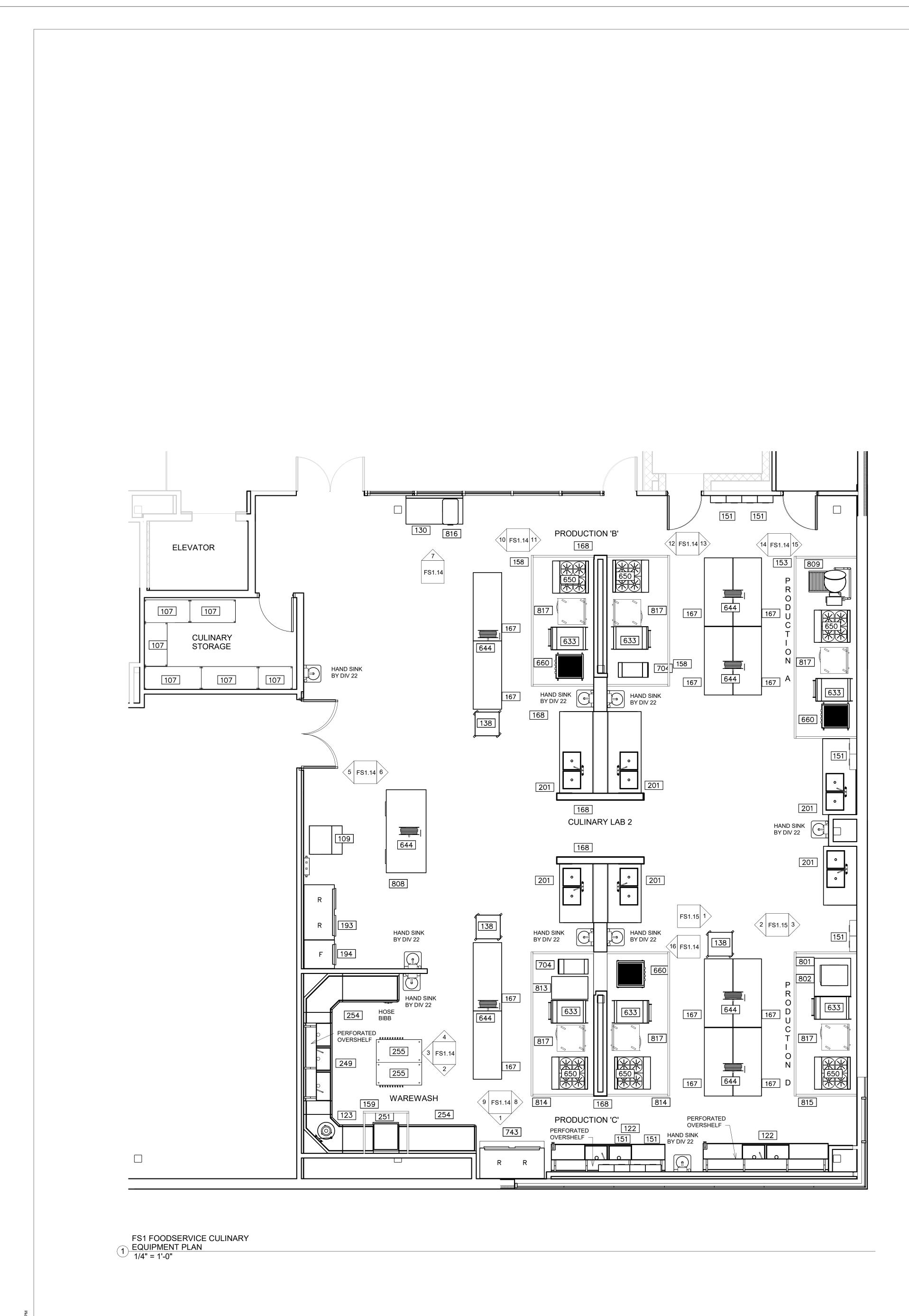
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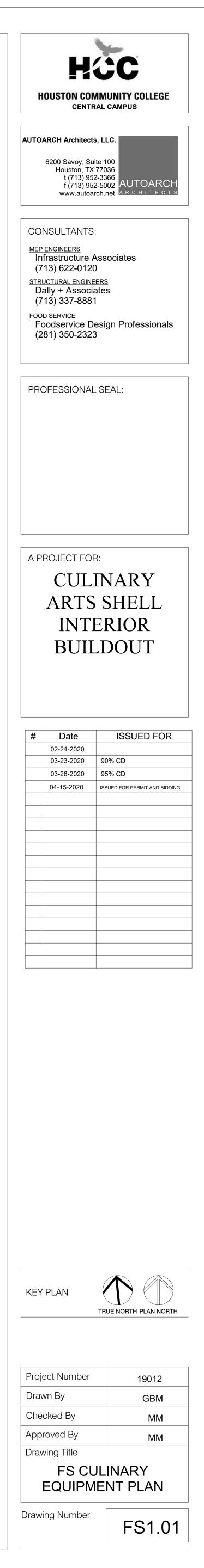
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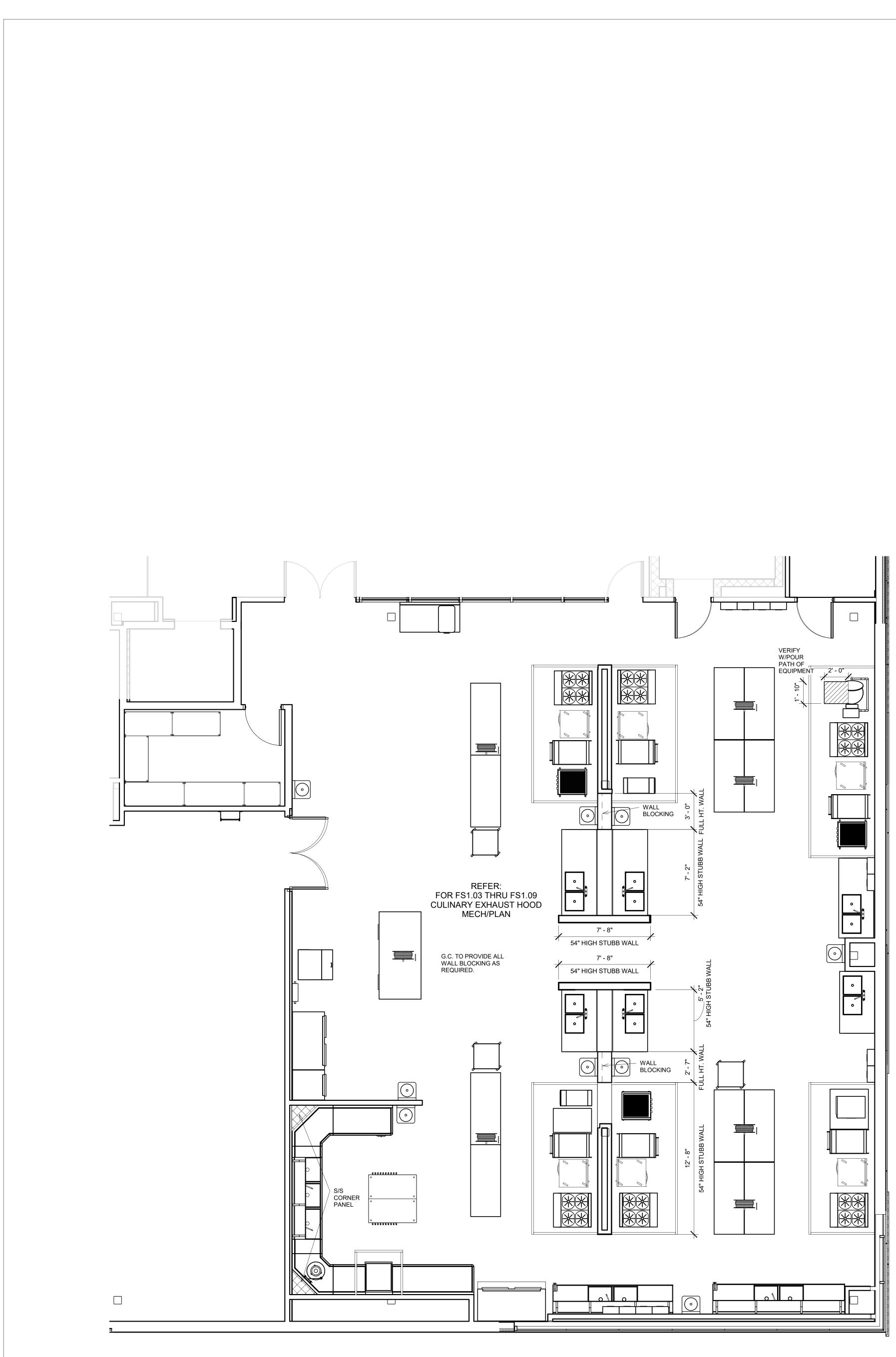
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Checked By	Checker
Approved By	Approver
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INTERIOR EI	LEVATIONS
Drawing Number	A9.02

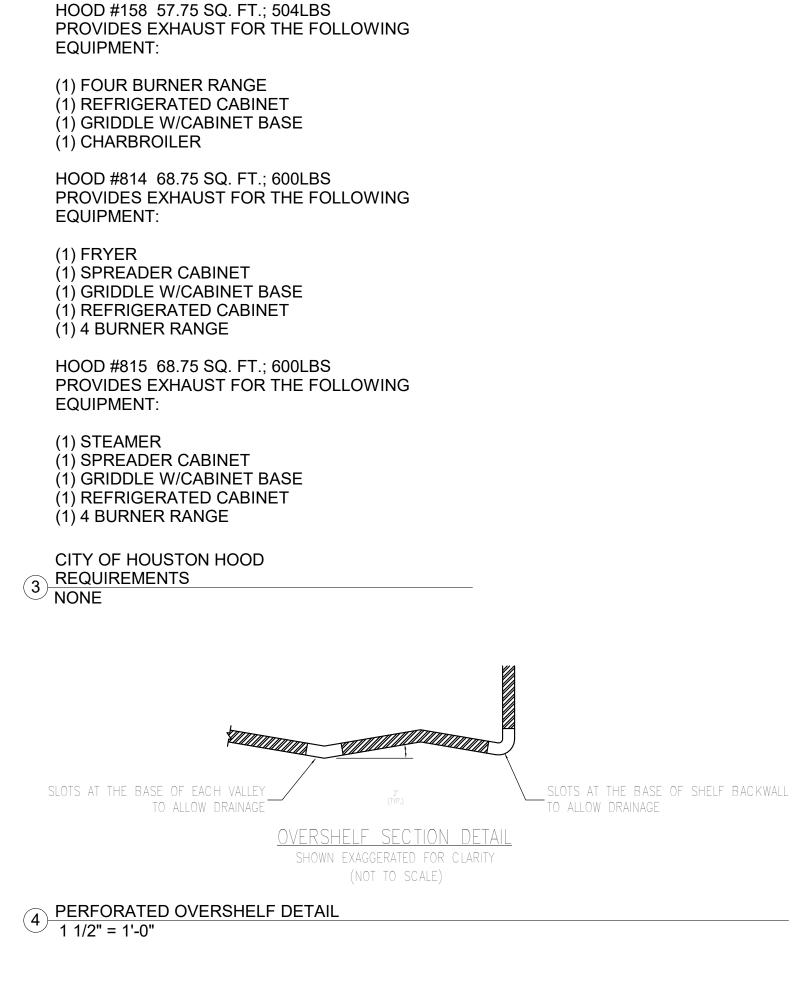


FDP ITEM	QTY	FDP DESCRIPTION	FDP REMARKS	MFR	MODEL
	QTT				MODEL
107	6	DRY STORAGE SHELVING		METRO	METRO MAX 'Q'
109	1	ICE MACHINE W/ BIN		MANITOWOC	IY-0454A
122	2	TWO COMPARTMENT SINK		CUSTOM FABRICATED	
123	1	DISPOSER - 3HP		MASTER DISPOSER	C-3-LBC-18-CCRMS-PF
130	1	WORKTABLE		CUSTOM FABRICATED	
138	3	PAN RACK			
151	6	FIRE PROTECTION SYSTEM		ANSUL	R102
153	1	EXHAUST HOOD			
158	2	EXHAUST HOOD			
159	1	CONDENSATE HOOD		ACCUREX	XD1
167	12	MOBILE WORKTABLE		CUSTOM FABRICATED	
168	5	S/S WALL CAP		CUSTOM FABRICATED	
193	1	REACH-IN REFRIGERATOR - 2DR		TRAULSEN	RHT 132WUT HHS
194	1	REACH-IN FREEZER - 1DR		TRAULSEN	RLT 132WUT HHS
201	6	WORK STATION		CUSTOM FABRICATED	
249	1	THREE COMPARTMENT SINK W/DISPOSER		CUSTOM FABRICATED	
251	1	DISHMACHINE - AM15T		HOBART	AM15T
254	2	SOILED & CLEAN DISHTABLE		CUSTOM FABRICATED	
255	2	MOBILE UTENSIL SHELF		METRO	METROMAX 'Q'
633	6	GRIDDLE W/ CABINET BASE		GARLAND	C24836-1-1
644	7	QUAD ELECTRIC CORD REEL	PROVIDED BY DIV. 26; COORDINATE CORD LENGTH WITH OWNERS		
650	6	FOUR BURNER RANGE		GARLAND	M44RC-E
660	3	CHARBROILER		GARLAND	MST24BE
704	2	SINGLE FRYER		VULCAN	1GR45A w/Casters no Basket Li
743	1	ROLL-IN REFRIGERATED CABINET-2DR		TRAULSEN	RRI 232HUT FHS
801	1	SPREADER CABINET		CUSTOM FABRICATED	
802	1	STEAMER	COUNTER TOP	CLEVELAND	22CET3.1
808	1	DEMO COUNTER		CUSTOM FABRICATED	
809	1	40 GAL KETTLE		GROEN	DH-40
813	1	SPREADER CABINET		CUSTOM FABRICATED	
814	2	EXHAUST HOOD		ACCUREX	
815	1	EXHAUST HOOD		ACCUREX	XXDW
816	1	ICE CREAM FREEZER	EXISTING	EXISTING	RELOCATE
817	6	WORKTOP REFRIGERATOR	TRUE TWT-27-HC	TRUE	TWT-27-HC









HOOD #153 69.6 SQ. FT.; 696LBS PROVIDES EXHAUST FOR THE FOLLOWING EQUIPMENT:

(1) 40 GALLON KETTLE

(1) 4 BURNER RANGE

(1) CHARBROILER

(1) REFRIGERATED CABINET (1) GRIDDLE W/CABINET BASE

<u>**Clearance requirement:**</u> Where the hood is installed less than 18" from a combustible or semi-combustible surface Chapter 5, Section 508, subsection 508.4 of the Uniform Mechanical Code requires a 3" clearance or air space containing material as specified for one-hour fire resistive construction. Provide U-shaped 3" high S/S trim and 3M Fire Barrier Duct Wrap 15A in a manner as prescribed by the manufacturer. This requirement of 3" trim and duct wrap also applies to the top of the hood where it is installed less than 18" from the finished ceiling.

UL LISTED NUMBER FOR ALL HOODS IS "710"

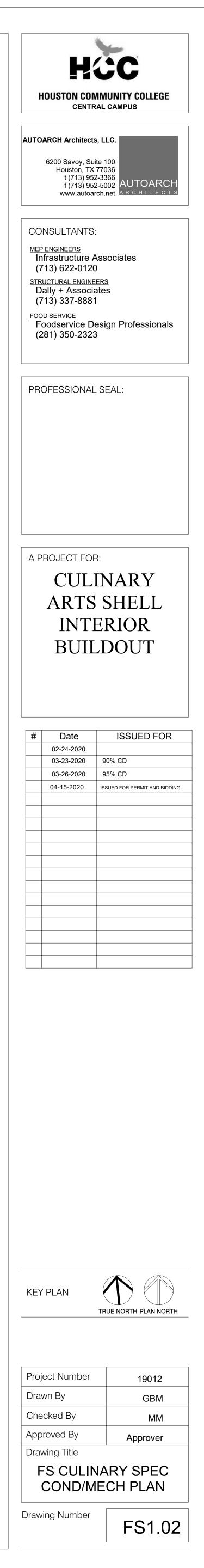
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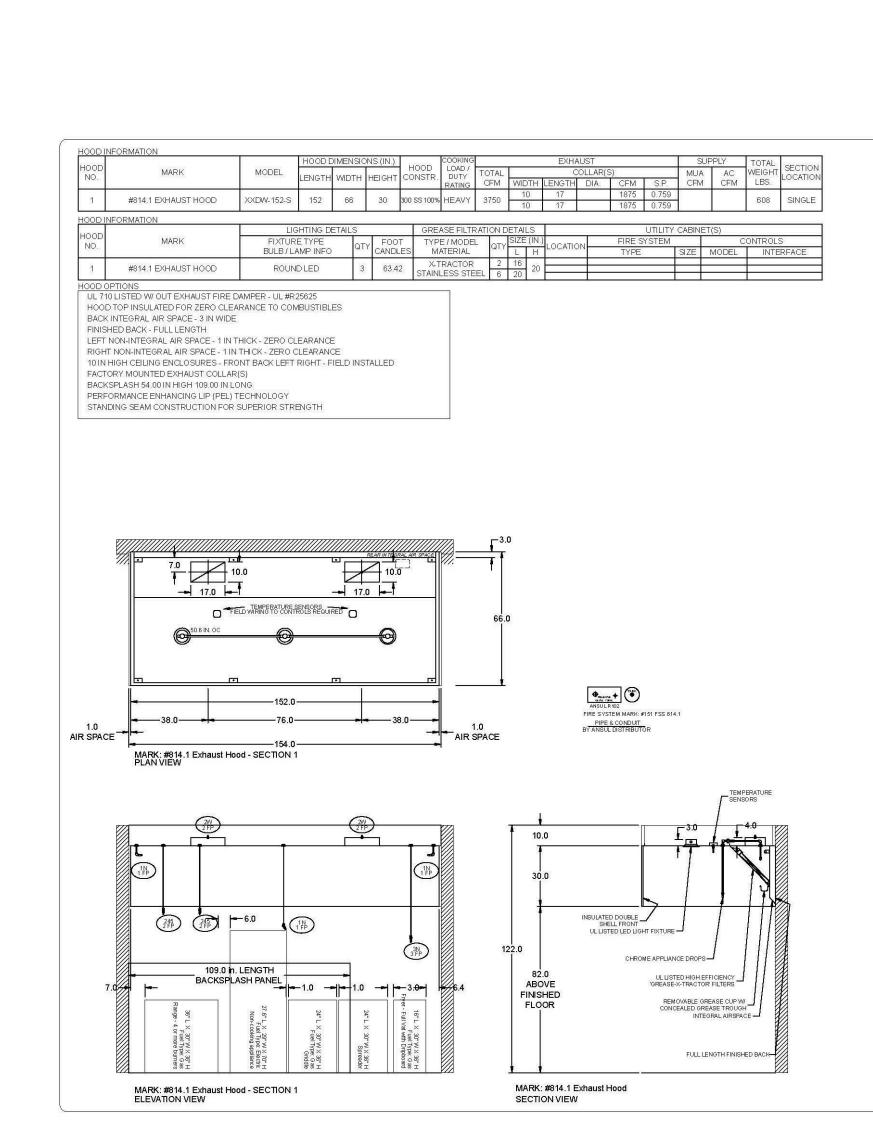
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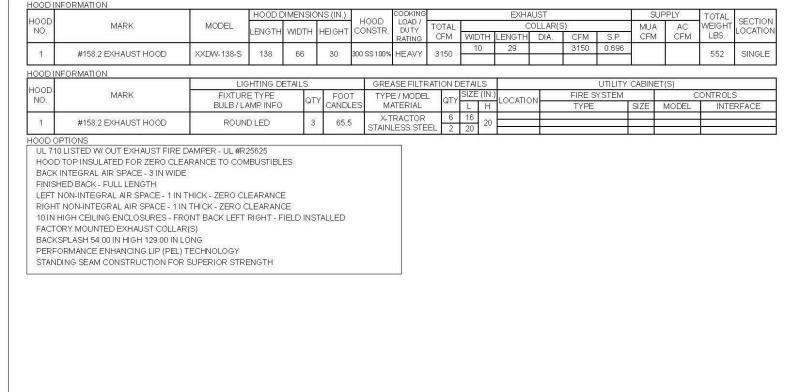
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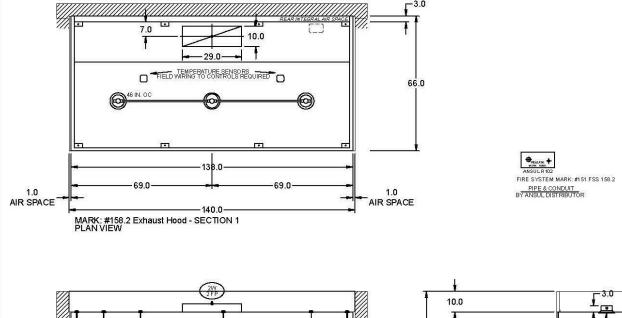
APPROVED EQUAL: AVTEC, MOD-U-

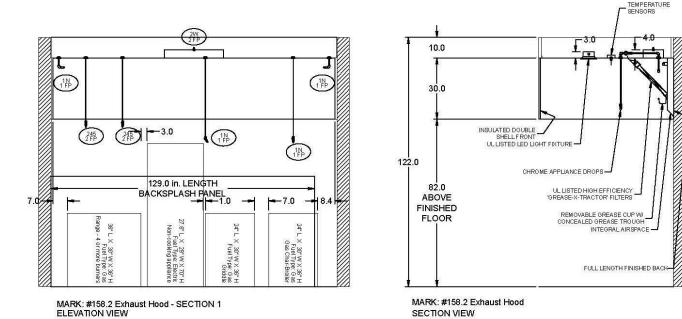
MODEL: SUPPLY & EXHAUST MODEL

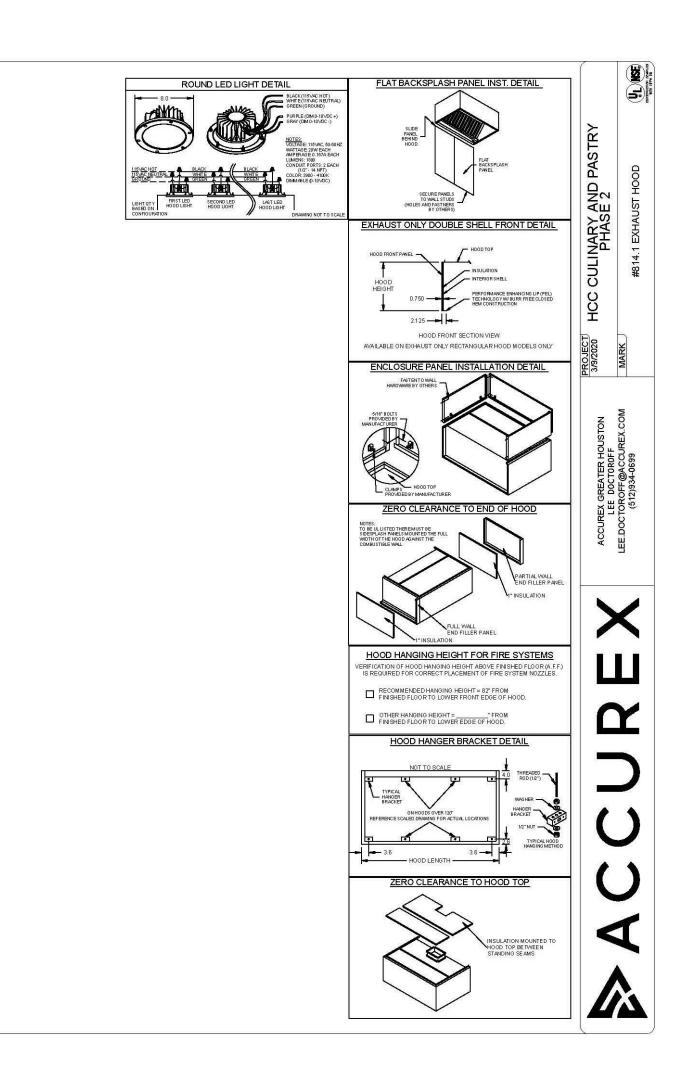


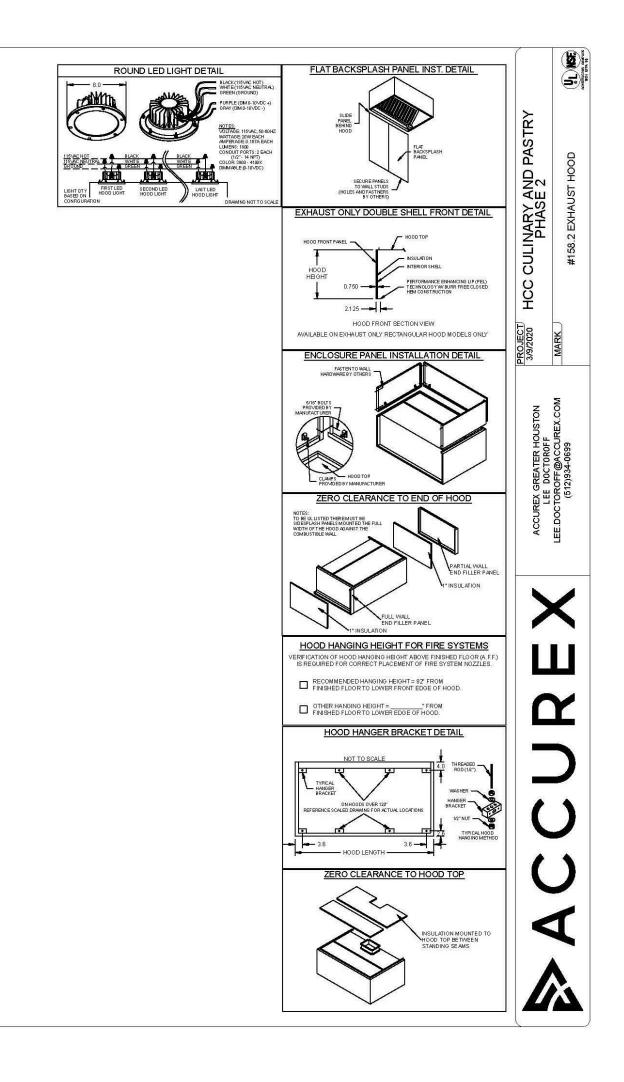


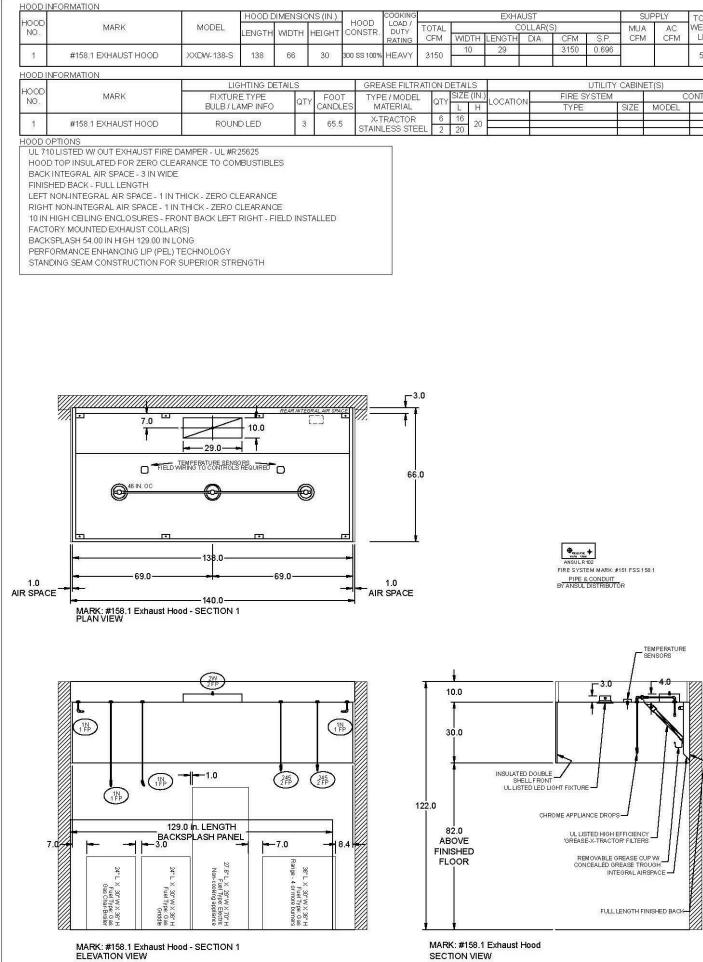


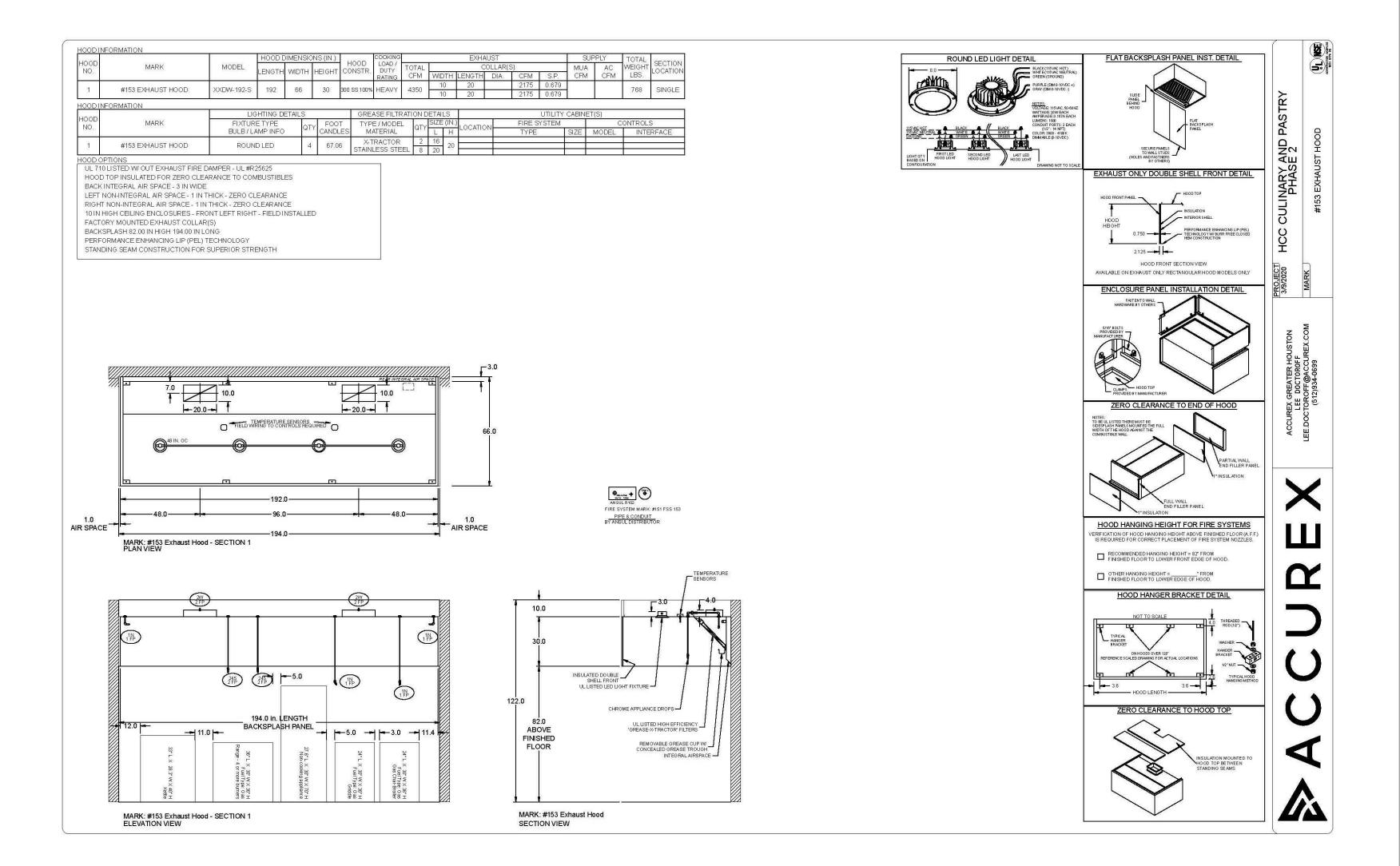




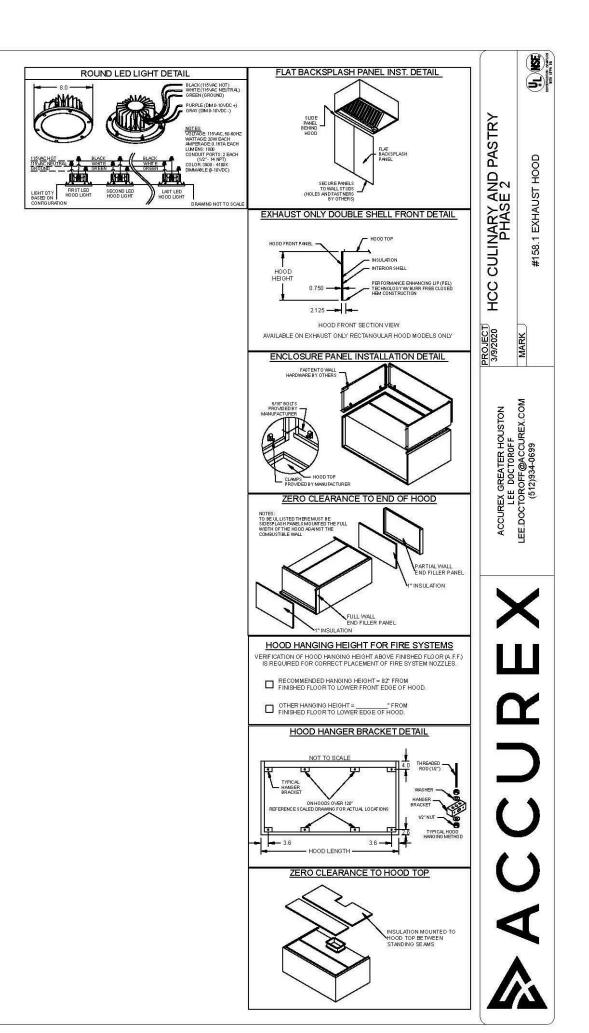




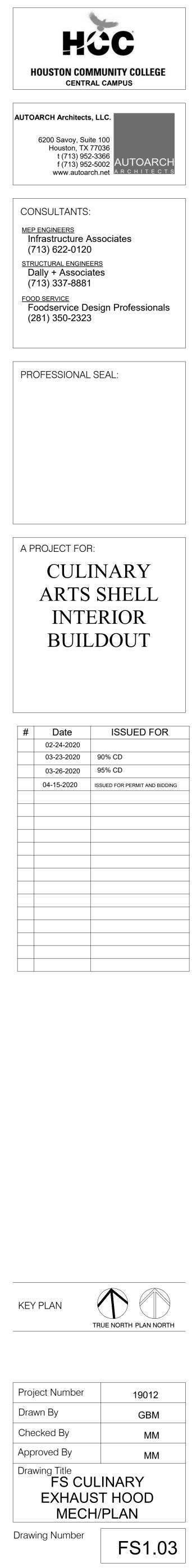


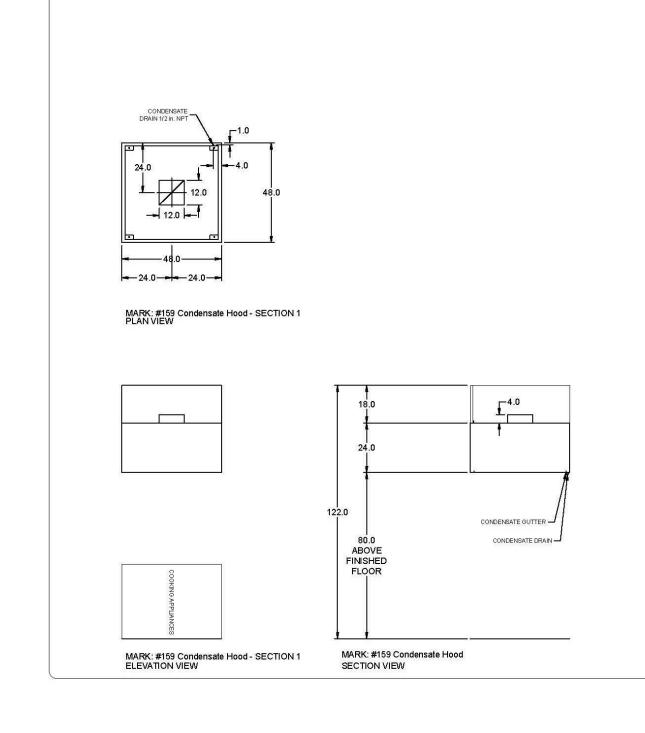


				EXHA	UST			9	UPPLY	TOTAL	OFOTION
TOT	AL	1		C	OLLAR(S	S)		MUA	AC	WEIGHT	SECTION
CF	M	WID	TH	LENGTH	DIA.	CFM	S.P.	CFN	1 CFM	LBS.	LOCATION
0.44		1	C	29		3150	0.696	1		550	
31	50							1		552	SINGLE
							17	21.12			
ATIC	N D	ETAIL					UTILITY	CABIN			
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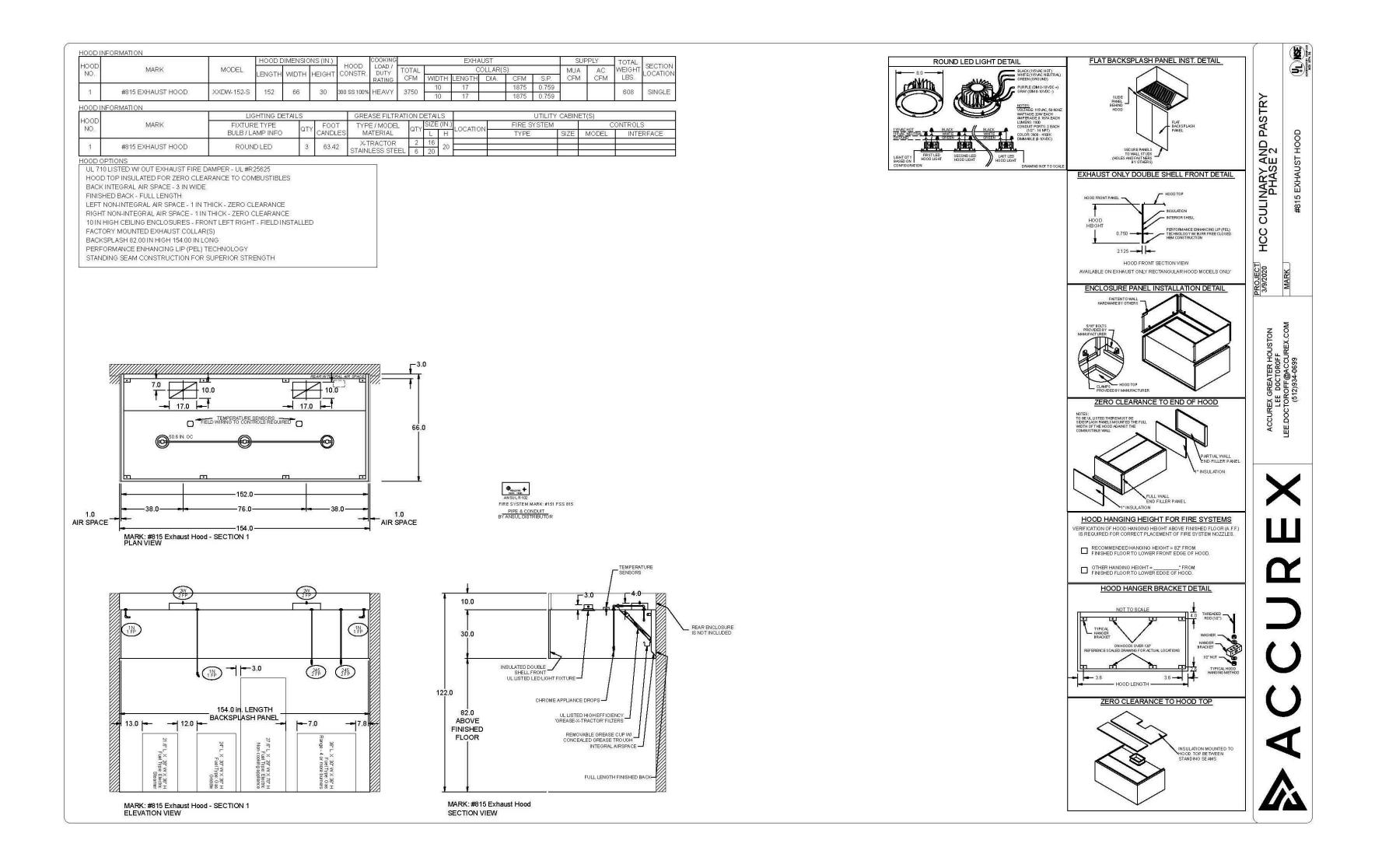


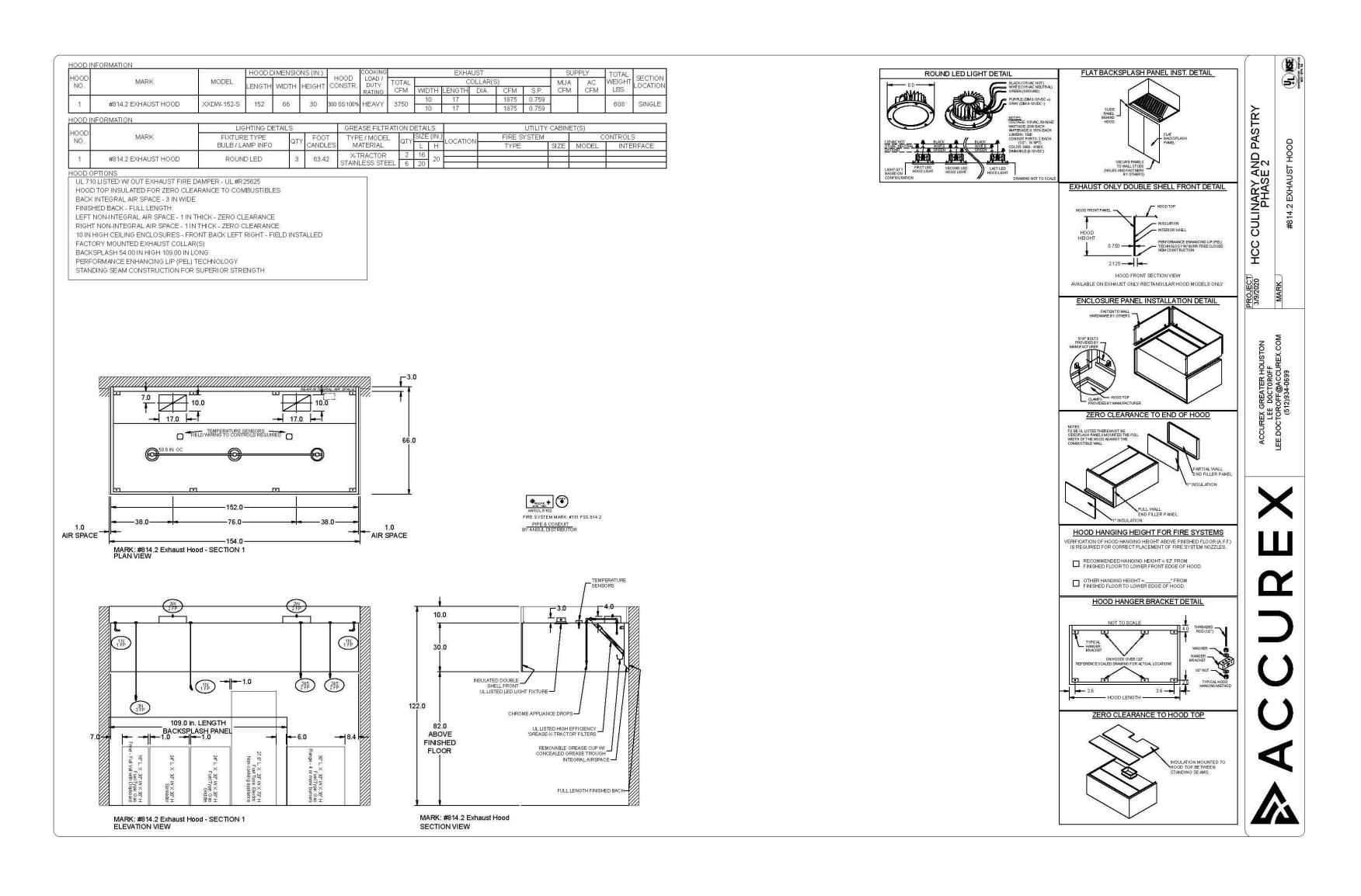
: FDP Project Number : Project Name : Project Location / : PM / APM

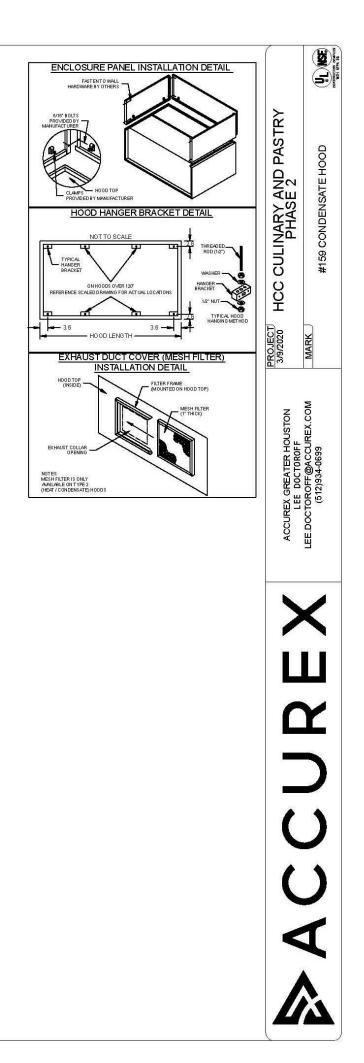


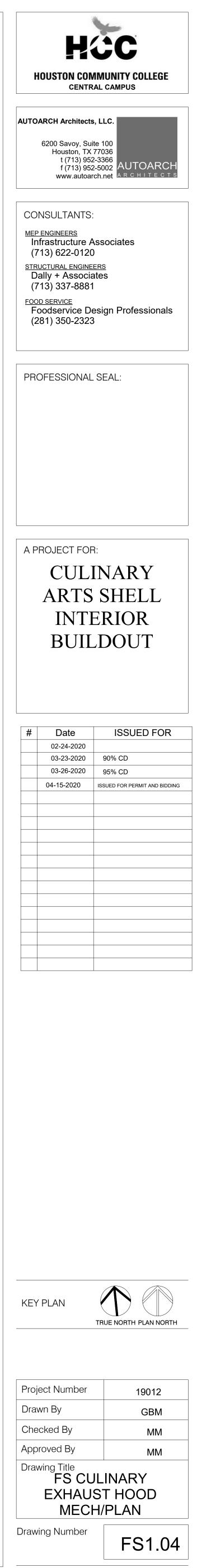


			HOOD	DIMENSIC	NS (IN.)	LIGOD	COOKING			EXHA	UST			SU	PPLY	TOTAL	OFOTION
HOOD NO.	MARK	MODEL				HOOD CONSTR.	LOAD / DUTY	TOTAL)	C	OLLAR(S	S)		MUA	AC	WEIGHT	SECTION
140.			LENGTH	WIDTH	HEIGHT	CONOTIX.	RATING	CFM	WIDTH	LENGTH	DIA.	CFM	S.P.	CFM	CFM	LBS.	LOOMION
1	#159 CONDENSATE HOOD	XD1-48-S	48.00	48	24	300 SS 100%	0	600	12	12		600	0.043			144	SINGLE
3	#100 CONDENSALETICOD	701-40-0	40.00	40	47	300 00 100 10	<u>0</u> :	000								1777	ONVOLL
HOODIN	IFORMATION																
		Ĺ	GHTING D	ETAILS		BAFI	FLE FILTR	ATION D	ETAILS				UTILITY	CABINET	T(S)		
HOOD NO.	MARK	FIXTUR	RETYPE	. QT	V FOO	T TYP	E/MODE	L QTY	SIZE (IN		N	FIRE S	YSTEM	1	C	CONTROL	S
NO.		BULB / L	AMP INFC		CAND	ES M	ATERIAL	GIT	LH	LOCATIC		TYPE		SIZE	MODEL	INTE	RFACE
1	#159 CONDENSATE HOOD										-						
No.	INTER CONDENSATE THE OB																
HOOD O	PTIONS																
18 IN H	HIGH CEILING ENCLOSURES - FRO	ONT LEFT RIGH	T - FIELD I	NSTALLE	D												
FACTO	DRY MOUNTED EXHAUST COLLAR	(S)															
MESH	FILTER(S) INCLUDED TO COVER I	DUCT OPENING	S(S)														









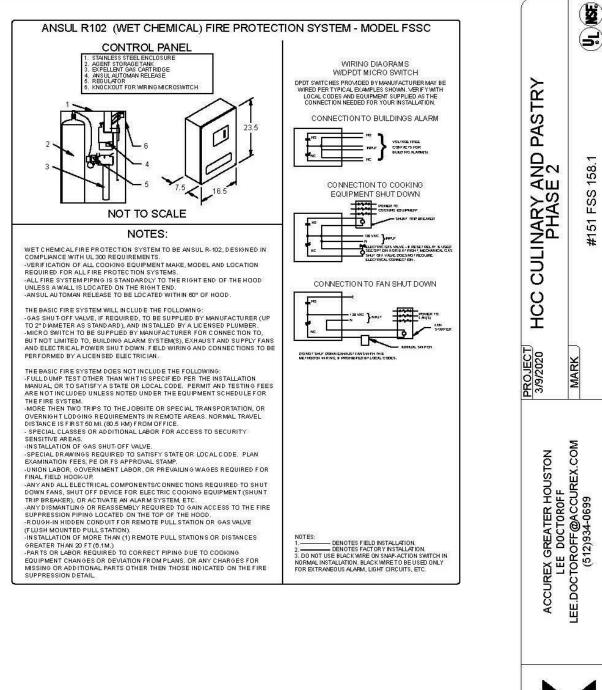
#151 FSS FIRE SYSTEM OPTIC

FIRE SYSTEM INFORMATION

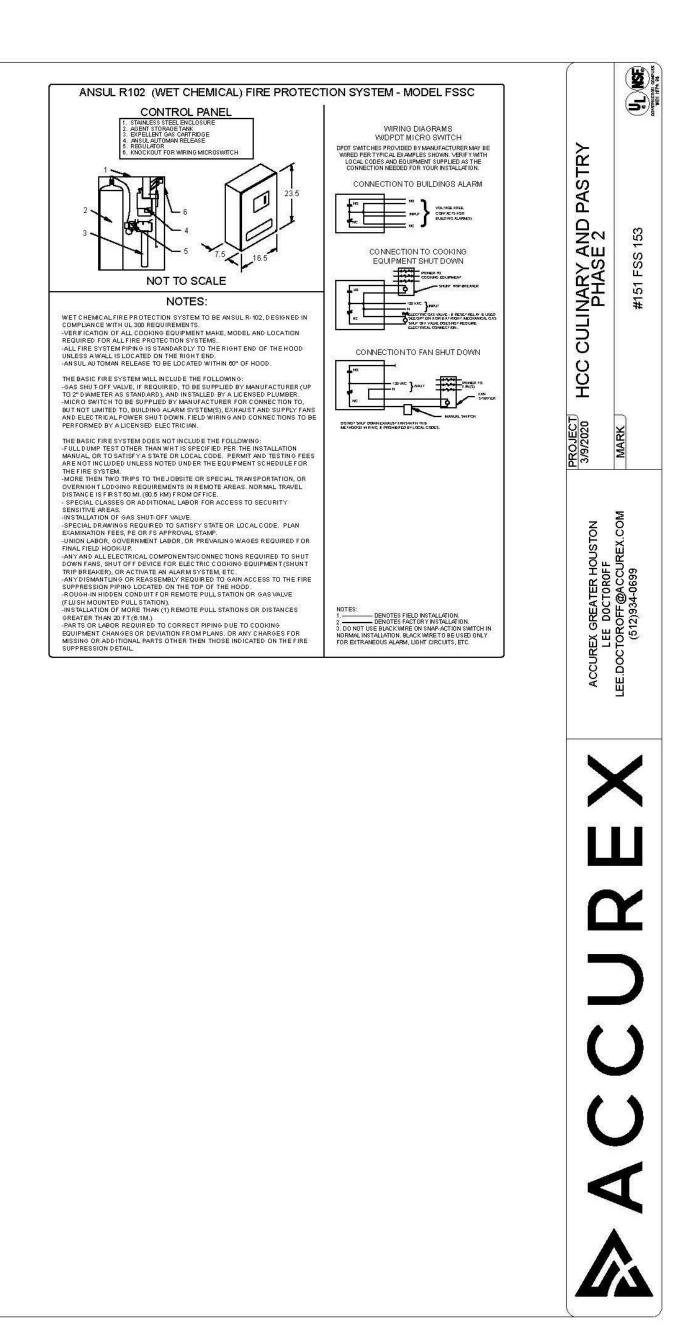
CHROME SLEEVE K-CLASS PORTAB METAL BLOW-OFF GAS VALVE - INCL HOOD SUPPRESS REMOTE PULL ST

	MODEL		FLOW F	POINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	MODEL	LOCATION	HOODS	PCU	LINE	DETECTION	WARK(S) FROTECTED BY FIRE STSTEW
#151 FSS 158.1	ANSUL R-102	REMOTE MOUNTED	10 UTILIZED		CONTINUOUS	S FUSIBLE LINK	#158.1 EXHAUST HOOD SECTION 1
H101100 100.1	WET CHEMICAL	REMOTEMOORTED	11 AVAILABLE		001411140000	STOOLDEE EINIK	
FEM OPTIONS AND AC		ITH DETECTION AND FACTORY	COORDINATED INS	TALL)	·]	
STALLATION (INCLUDE	S PRE-PIPED HOOD(S) W ORY PROVIDED APPLIAN(COORDINATED INS)TALL)			
STALLATION (INCLUDE E SLEEVES FOR FACT BLOW-OFF CAPS - INC	S PRE-PIPED HOOD(S) W ORY PROVIDED APPLIANC LUDED						
STALLATION (INCLUDE E SLEEVES FOR FACT BLOW-OFF CAPS - INC VE - INCLUDED - MEC	S PRE-PIPED HOOD(S) W ORY PROVIDED APPLIANC LUDED	CES DROPS - INCLUDED E, 2", (ANSUL) - PART# ANSULM					

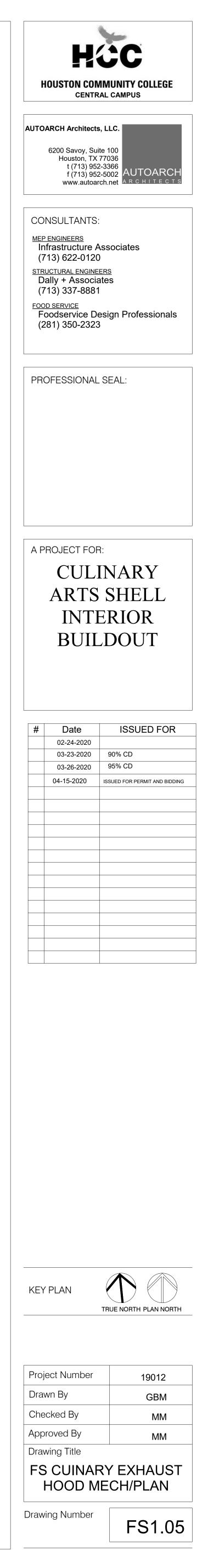
A A B DIZ		LOCATION	FLOW PC	DINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	MODEL	LOCATION	HOODS	PCU	LINE	DETECTION	MARK(S) PROTECTED BY FIRE STSTEM
#151 FSS 153	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	12 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#153 EXHAUST HOOD SECTION 1
SYSTEM OPTIONS AND AC				AL1.3	1		
waterseen - receiver from the a-	- monte a superior and a set of the set	TH DETECTION AND FACTORY	COURDINATED INST	ALL)			
ROME SLEEVES FOR FACT	FORY PROVIDED APPLIANC	CES DROPS - INCLUDED					
LASS PORTABLE FIRE EXT	TINGUISHER - QTY OF 1						
TAL BLOW-OFF CAPS - INC	LUDED						
S VALVE - INCLUDED - MEC	CHANICAL SHUTOFF VALVE	, 2", (ANSUL) - PART# ANSULM	ECHSHUTOFFVALVE2	200			
		0.0.T.N.W(0)]					
OD SUPPRESSION AGENT	- INCLUDED - 6 GAL [(2)	3.UTANK(S)]					

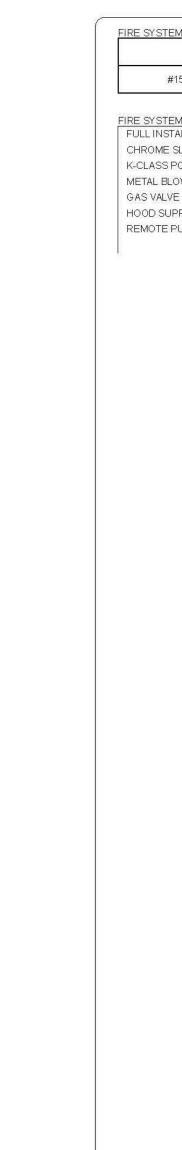












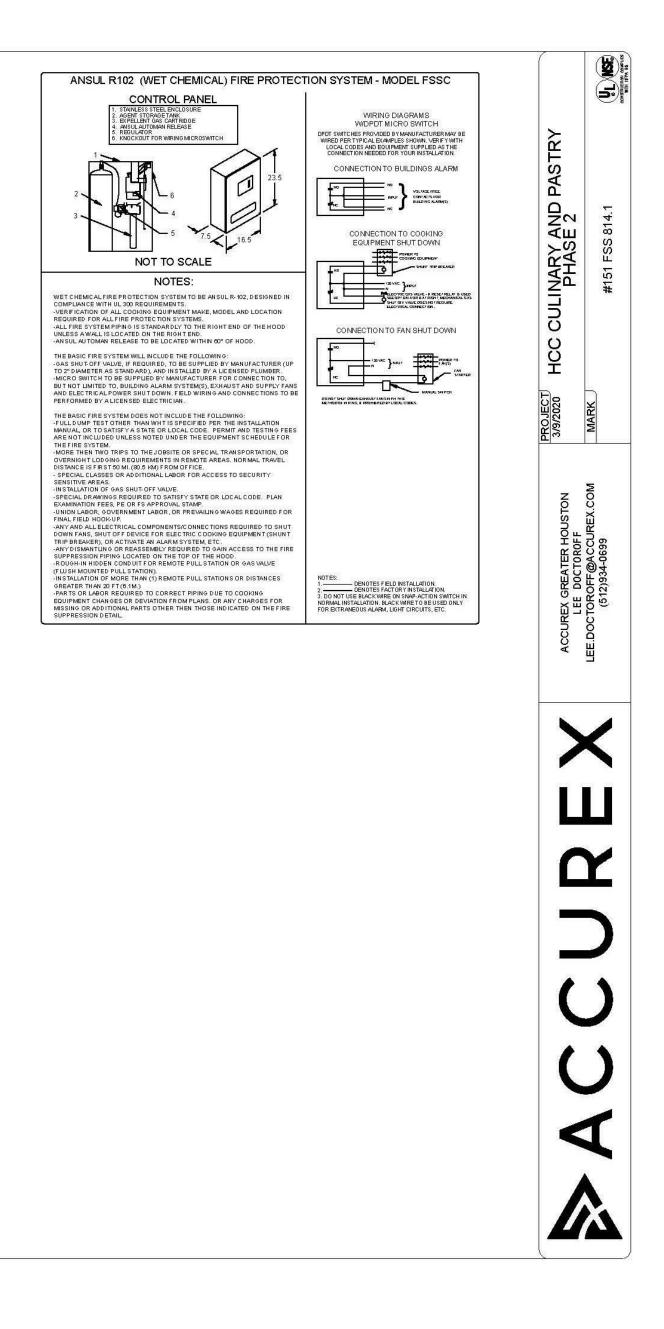
FIRE SYSTE FULL INST CHROME S K-CLASS F METAL BLO GAS VALVE HOOD SUPP

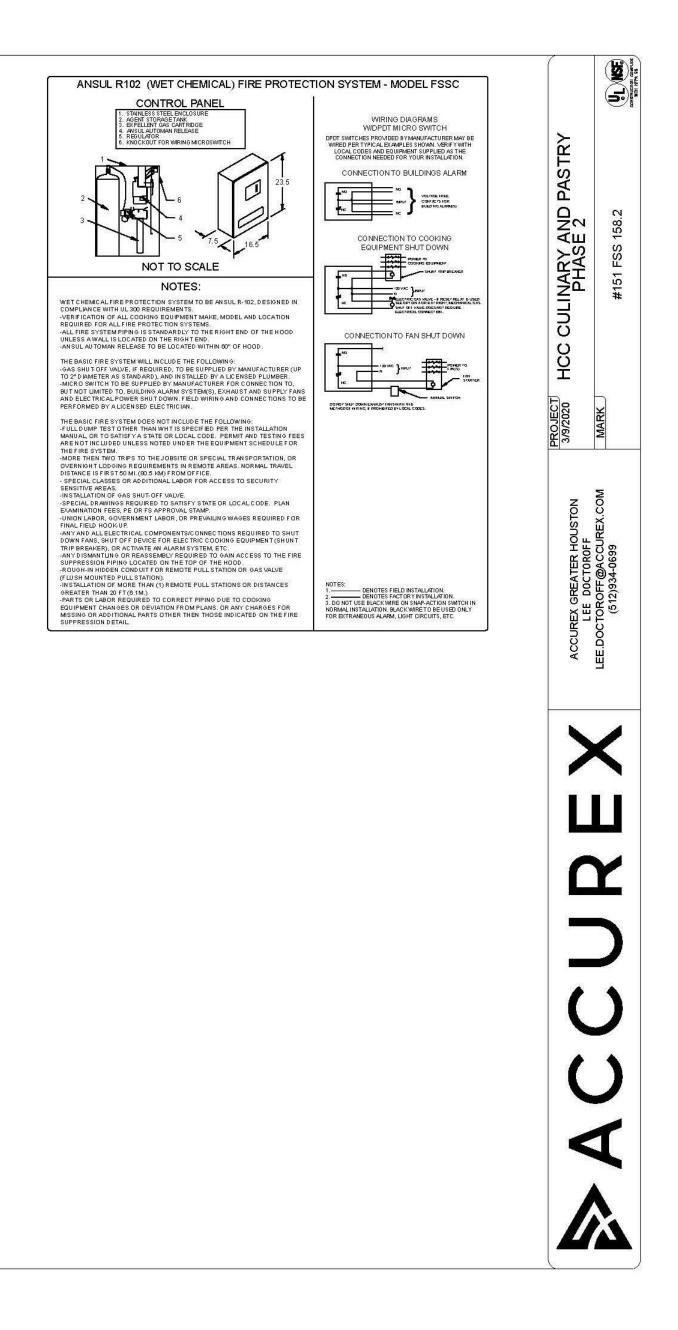
MARK	MODEL	LOCATION	FLOW F	POINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
TADALALA	MODEL	ECOMION	HOODS	PCU	LINE	DETECTION	
#151 FSS 814.1	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	14 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#814.1 EXHAUST HOOD SECTION 1
	S PRE-PIPED HOOD(S) W ORY PROVIDED APPLIAN INGUISHER - QTY OF 1	ITH DETECTION AND FACTOR	COORDINATED INS)TALL)			
	HANICAL SHUTOFF VALV INCLUDED - 6 GAL [(2)	E, 2", (ANSUL) - PART# ANSULM	ECHSHUTOFFVALV	E200			
		T SINGLE POINT OF EGRESS					

MARK	MODEL	LOCATION	FLOW P	POINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	WODEL	LOCATION	HOODS	PCU	LINE	DETECTION	MARA(3) FROTECTED BT FIRE STSTEM
#151 FSS 158.2	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	10 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#158.2 EXHAUST HOOD SECTION 1
STEM OPTIONS AND ACC							
				TALLY	4	1	
LL INSTALLATION (INCLUDES	SPRE-PIPED HOOD(S) W	ITH DETECTION AND FACTORY	COORDINATED INS	TALL)]	
	S PRE-PIPED HOOD(S) W DRY PROVIDED APPLIAN(COORDINATED INS	TALL)]	
LL INSTALLATION (INCLUDES ROME SLEEVES FOR FACTO	S PRE-PIPED HOOD(S) W DRY PROVIDED APPLIAN NGUISHER - QTY OF 1		COORDINATED INS	TALL)			
LL INSTALLATION (INCLUDES ROME SLEEVES FOR FACTO CLASS PORTABLE FIRE EXTIN TAL BLOW-OFF CAPS - INCL	S PRE-PIPED HOOD(S) W ORY PROVIDED APPLIANC NGUISHER - QTY OF 1 UDED						

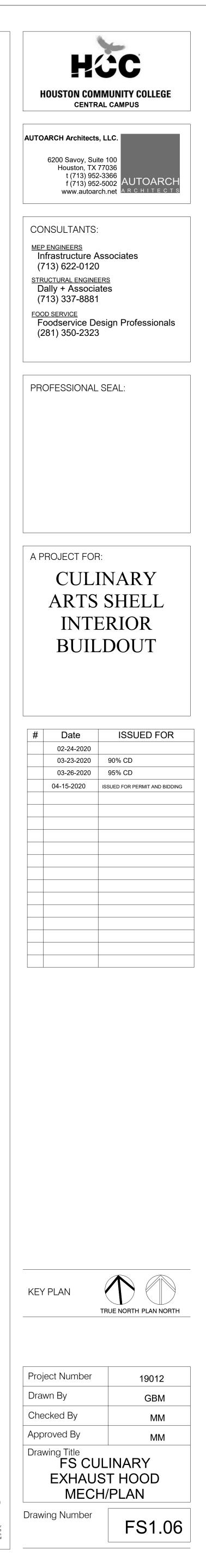
REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

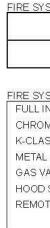
FIRE SYSTEM INFORMATION







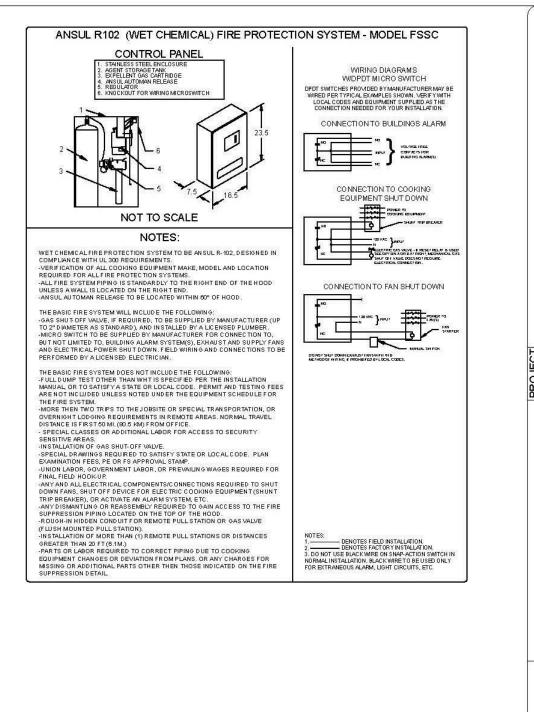


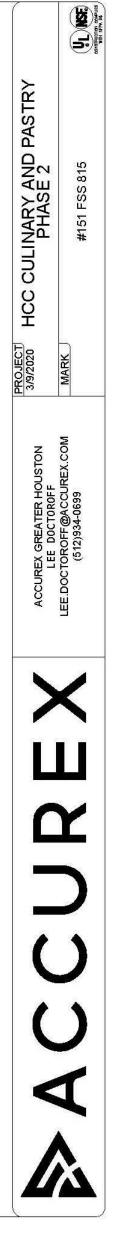


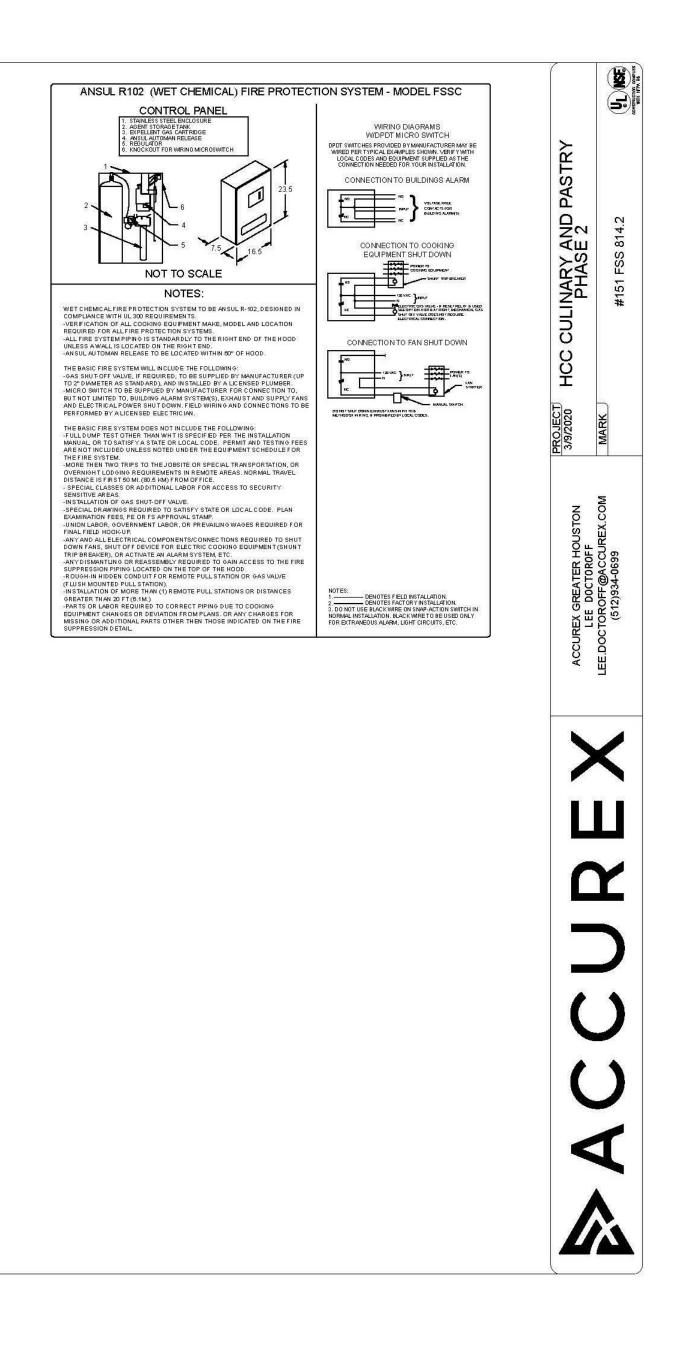
MARK	MODEL	LOCATION	FLOW P	OINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	MODEL	LUCATION	HOODS	PCU	LINE	DETECTION	WARK(S) FROTECTED BT FIRE STSTEW
#151 FSS 815	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	11 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#815 EXHAUST HOOD SECTION 1
SYSTEM OPTIONS AND AC	CESSORIES						
		/ITH DETECTION AND FACTORY	COORDINATED INS	TALL)	-		
ROME SLEEVES FOR FACT	ORY PROVIDED APPLIAN	CES DROPS - INCLUDED					
CLASS PORTABLE FIRE EXT	INGUISHER - QTY OF 1						
TAL BLOW-OFF CAPS - INC	LUDED						
S VALVE - INCLUDED - MEC	HANICAL SHUTOFF VALV	E, 2", (ANSUL) - PART# ANSULM	ECHSHUTOFFVALVE	200			
OD SUPPRESSION AGENT	- INCLUDED - 3 GAL - [(1)	3.0 TANK(S)]					

HOOD SUPPRESSION AGENT - INCLUDED - 3 GAL. - [(1) 3.0 TANK(S)] REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

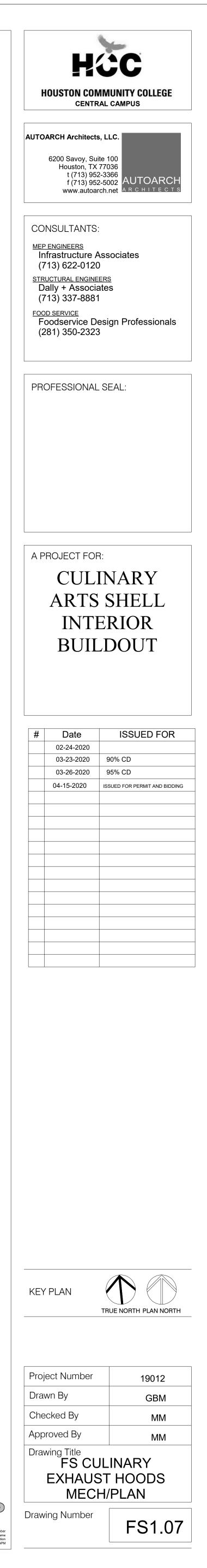
MARK	MODEL	LOCATION	FLOW P	OINTS	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
MARK	MUDEL	LOCATION	HOODS	PCU	LINE	DETECTION	MARK(S) FROTECTED BT FIRE STSTEM
#151 FSS 814.2	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	14 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#814.2 EXHAUST HOOD SECTION 1
ROME SLEEVES FOR FAC	ES PRE-PIPED HOOD(S) W	ITH DETECTION AND FACTORY CES DROPS - INCLUDED	COORDINATED INS	TALL)			
LASS FUR IADLE FIRE EA							
TAL BLOW-OFF CAPS - INC	LUDED						
TAL BLOW-OFF CAPS - INC	and a second second and a second second contract the second second second second second second second second se	E, 2", (ANSUL) - PART# ANSULM	ECHSHUTOFFVALVE	200			
TAL BLOW-OFF CAPS - INC	HANICAL SHUTOFF VALVE		ECHSHUTOFFVALVE	200			

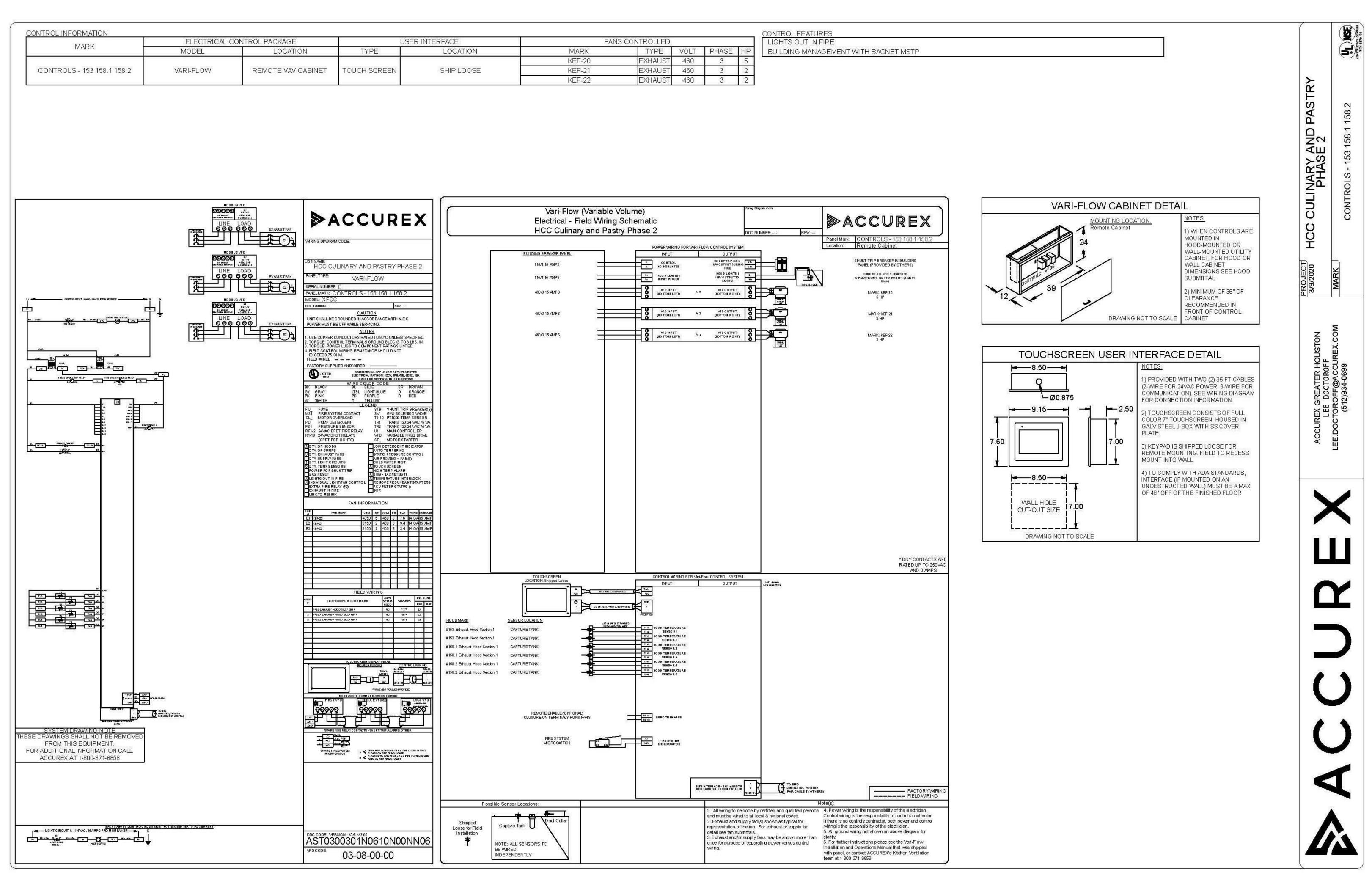






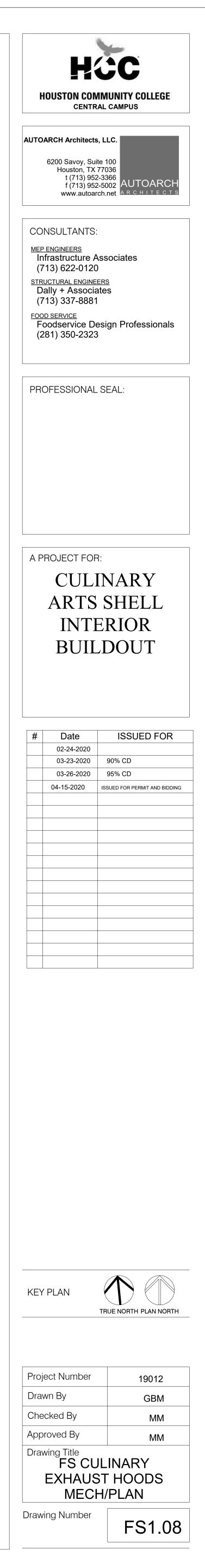


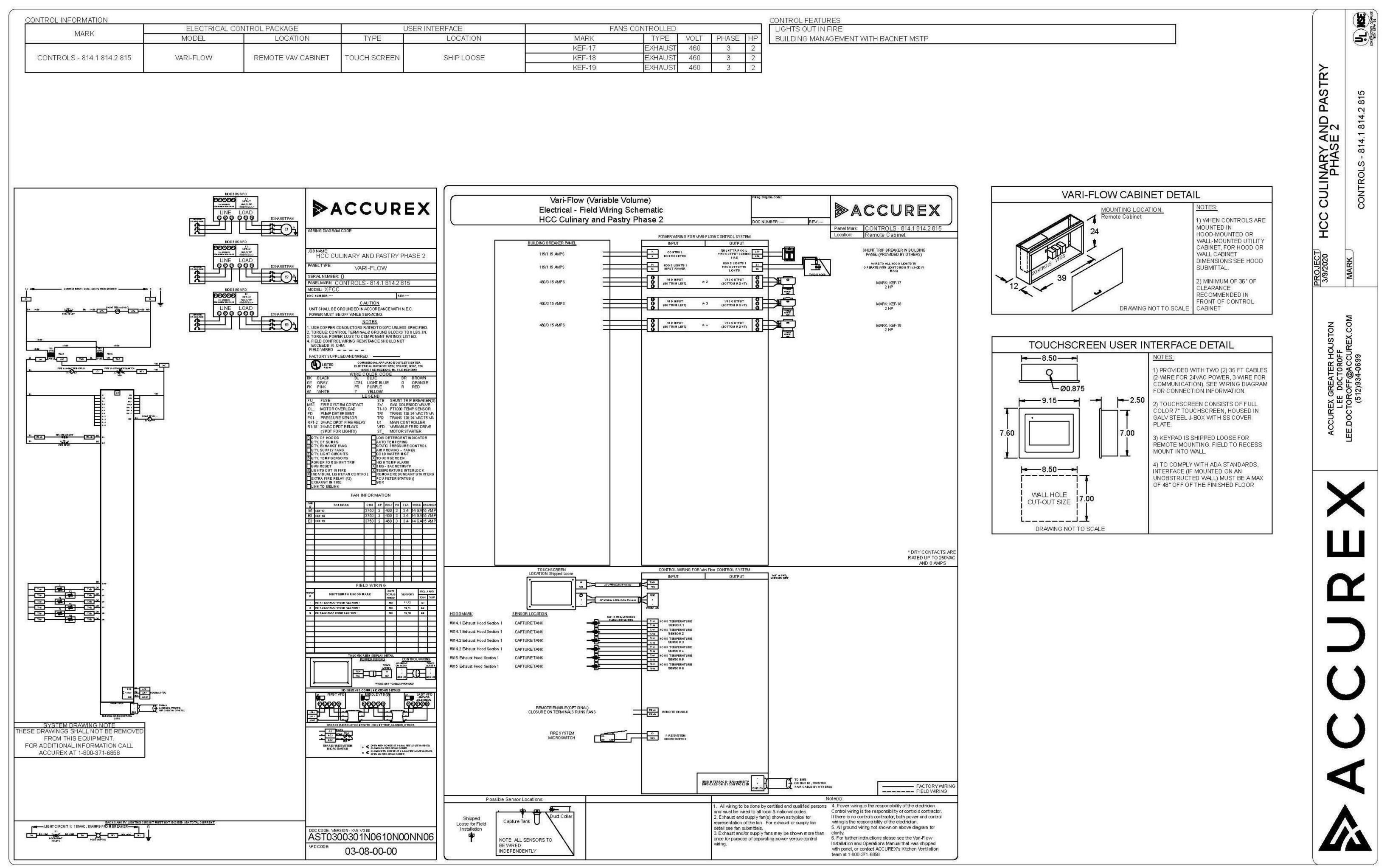




USER	INTERFACE	FAN	IS CONTROLLED			-	LIGHTS OUT IN FIRE
'PE	LOCATION	MARK	TYPE	VOLT	PHASE	HP	BUILDING MANAGEMENT WITH
		KEF-20	EXHAUST	460	3	5	
SCREEN	SHIP LOOSE	KEF-21	EXHAUST	460	3	2	
	- 1.200 A.L.Berninerker Albertalin of A	KEF-22	EXHAUST	460	3	2	

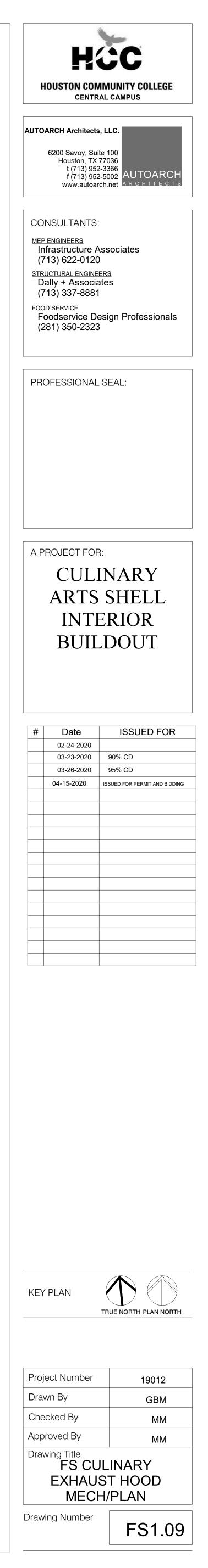
F : FDP Project Number : Project Name : Project Location / : PM / APM

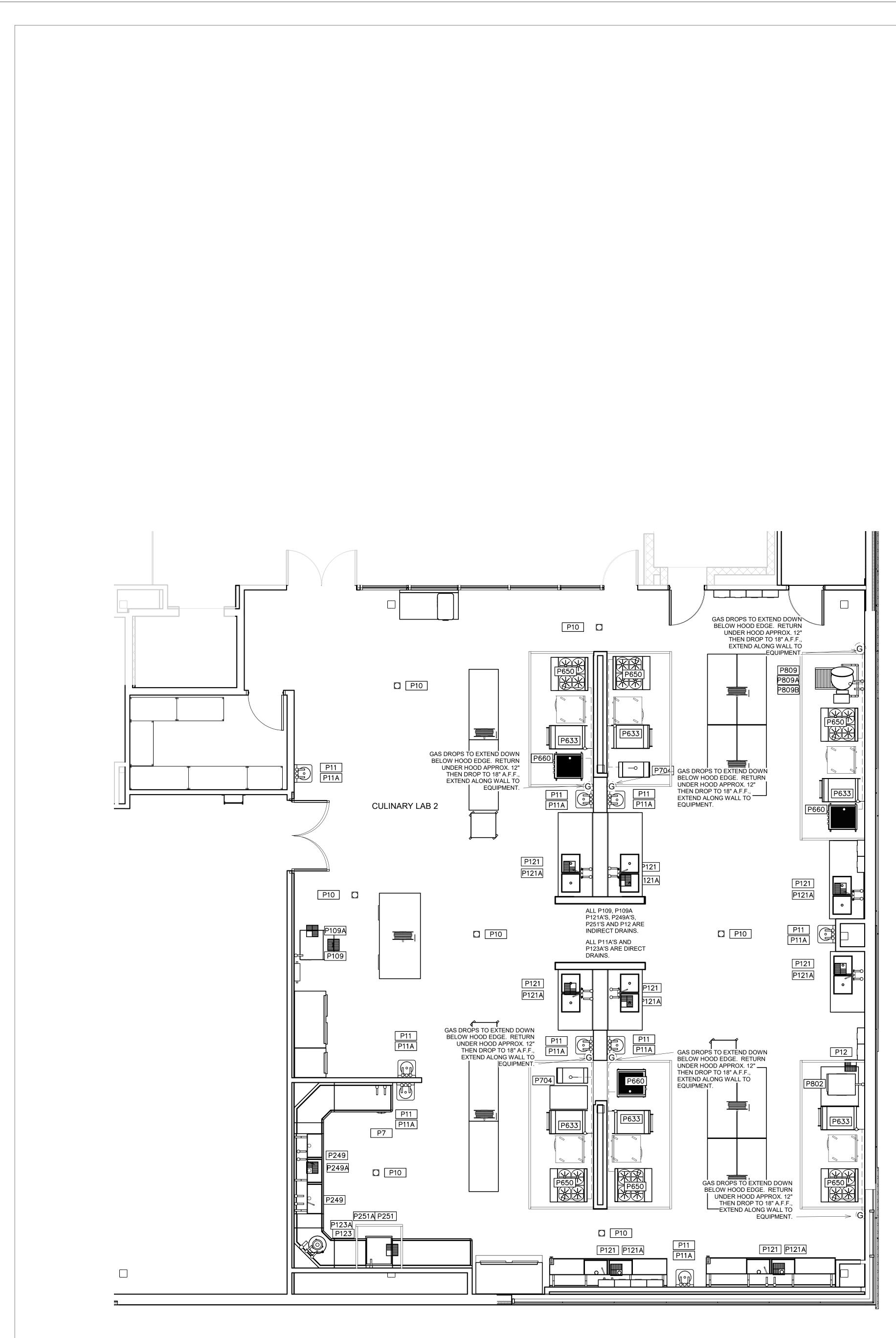




ί	JSER INTERFACE	FANS	S CONTROLLED				CONTROL FEATURES
Έ	LOCATION	MARK	TYPE	VOLT	PHASE	HP	BUILDING MANAGEMENT WITH B
		KEF-17	EXHAUST	460	3	2	
CREEN	SHIP LOOSE	KEF-18	EXHAUST	460	3	2	
10 - C - C - C - C - C - C - C - C - C -	ming performance permitting Add Phases 2014 (add)	KEF-19	EXHAUST	460	3	2	

FDP Project Number : FDP Project Name : Project Name : Project Location / : PM/ APM





FS1B FOODSERVICE CULINARY 1 <u>PLUMBING PLAN</u> 1/4" = 1'-0"

2 PLUMBING GENERAL NOTES NONE

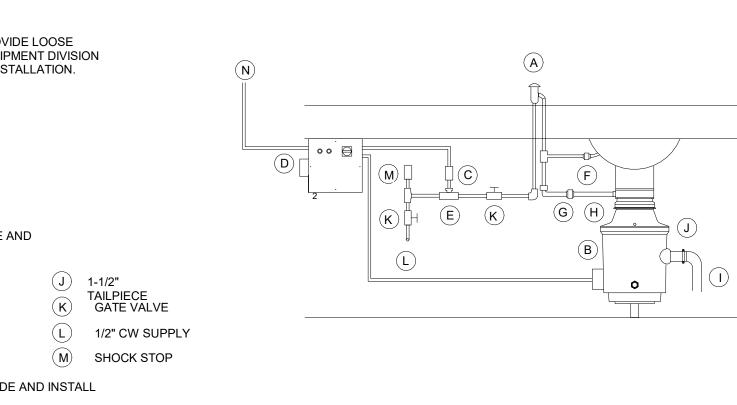
- INSTALLED BY DIVISION 22.
- GAS VALVE BY DIVISION 22.
- GREASE TRAP AND/OR INTERCEPTOR.

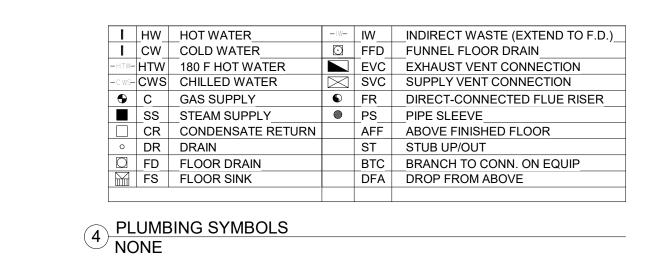
- DIV. 22 TO PROVIDE HOT WATER TEMPERING VALVE, IF REQ'D.
- FOODSERVICE EQUIPMENT.
- SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 22.

- EQUIPMENT SUPPLIER'S DIMENSIONED SHOP DRAWINGS.
- 3 PLUMBING COORDINATION NOTES N.T.S.
- REFER TO MECHANICAL DRAWINGS. NOTE: REFER TO ELECTRICAL/MECHANICAL DRAWINGS FOR REQUIREMENTS OF EXHAUST
- NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT
- 5 DISPOSER DETAIL N.T.S.
- DIVISION 26 TO PROVIDE AND INSTALL (N) POWER SUPPLY
- (H) 1/2" CW (I) 2" DRAIN LINE
- (G) FLOW CONTROL
- INSTALL (F) 1/2" CW INLET
- (E) SOLENOID VALVE DIVISION 22 TO PROVIDE AND
- (C) TIME DELAY (D) CONTROL PANEL
- (B) DISPOSER
- (A) VACUUM BREAKER

SECTION 11 40 00 TO PROVIDE LOOSE WITH FOODSERVICE EQUIPMENT DIVISION 22 AND 26 TO PROVIDE INSTALLATION.

FOODSERVICE PLUMBING SCHEDULE								
FPD PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS		
		-				-		
P7	3/4"	H & C WATER	HOSE BIBB	WALL	18"	BTC: RE: NOTE #3		
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING		
P11	3/4"	H & C WATER	FAUCET	WALL	18"	FURNISHED BY SECTION 11 40 00: INSTALLED BY DIV: 22		
P11A	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	FURNISHED BY SECTION 11 40 00: INSTALLED BY DIV: 22		
P12	12"SQ.	FLOOR SINK	EQUIPMENT	FLOOR	0"	3/4 GRATE - RE: NOTE #4		
P109	3/4"	COLD WATER	WATER FILTER / ICE	WALL	60"	BTC: RE: NOTE #3 & #17		
P109A	(2) 12"SQ.	FLOOR SINKS	ICE MACHINE	FLOOR	0"	FULL & 3/4 GRATE - RE: NOTE #4		
P121	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3		
P121A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	3/4 GRATE - RE: NOTE #4		
P123	3/4"	H & C WATER	FAUCET / DISPOSER	WALL	13"	BTC: RE: NOTE #3 & #7		
P123A	2"	DIRECT DRAIN	DISPOSER	WALL	10"	BTC: RE: NOTE #3 & #8		
P249	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3		
P249A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	THREE QUARTER GRATE		
P251	12"SQ.	FLOOR SINK	DISHMACHINE	FLOOR	0"	3/4 GRATE - RE: NOTE #4		
P251A	3/4"	HOT WATER	DISHMACHINE	WALL	18"	BTC; RE: NOTE #3 & #16, 140 DEG. MIN.		
P633	3/4"	NATURAL GAS	GRIDDLE	WALL	18"	BTC: RE: NOTE #3 - 90 MBTU/HR		
P650	1 1/4"	NATURAL GAS	RANGE	WALL	18"	BTC: RE: NOTE #3 & #9 - 180 MBTU/HR		
P660	3/4"	NATURAL GAS	CHARBROILER	WALL	18"	BTC: RE: NOTE #3 - 76 MBTU/HR		
P704	1/2"	NATURAL GAS	FRYER	WALL	24"	BTC: RE: NOTE #3 & #9 120 MBTU /HR EA.		
P802	3/4"	COLD WATER	STEAMER	WALL	18"	BTC: RE: NOTE #3 - INTERCONNECT THRU FILTER		
P809	4"	FUNNEL DRAIN	KETTLE TRENCH LINER	FLOOR	-9"	BTC; RE: NOTE #3; CRITICAL LOCATION		
P809A	3/4"	H & C WATER	KETTLE	WALL	18"	BTC: RE: NOTE #3		
P809B	3/4"	NATURAL GAS	KETTLE	WALL	18"	BTC: RE: NOTE #3 - 100 MBTU/HR		



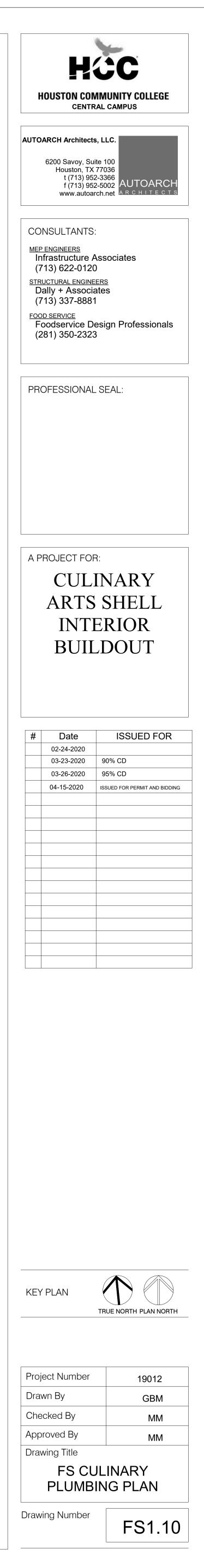


FURNISHED BY DIVISION 22. FOR ADDTIONAL WATER AND DRAIN REQUIRMENTS

FANS AND MAKE-UP AIR HANDLERS AND LOCATION OF AN INTERLOCK AND START/STOP CONTROLS TO BE LOCATED WITHIN FOODSERVICE AREA BY DIVISION 26.

- 1. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE FOODSERVICE
- 2. DIMENSIONS INDICATED ARE TO BE VERIFIED BY FOODSERVICE EQUIPMENT
- SUPPLIER AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS. 3. ACCESSORIES PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY
- 4. DRAINAGE AND PIPING SYSTEMS TO BE CLEANED PRIOR TO FINAL CONNECTION WITH
- 5. HAND LAVATORY PROVIDED AND INSTALLED BY DIVISION 22.
- 6. JANITOR SINK/FAUCET PROVIDED AND INSTALLED BY DIVISION 22.
- 7. INTERCONNECTION OF 1/2" CW TO PRE-RINSE AND DISPOSER'S CONE/BODY INLETS PIPED THRU SOLENOID AND VACUUM BREAKER BY DIVISION 22.
- ** 8. ENGINEER TO VERIFY W/ LOCAL CODE TO BYPASS OR PIPE THRU
- 9. 6" W.C. AT EQUIPMENT. MECHANICAL GAS SHUT-OFF VALVE BY SECTION 11 40 00. FINAL CONNECTION TO EQUIPMENT AND INSTALLATION OF MECHANICAL
- 10. ALL EXHAUST HOOD CONNECTIONS AND CONDENSATE CONNECTIONS FURNISHED

- 11. ALL EXPOSED FIRE SYSTEM PIPING TO BE CHROME PLATED OR STAINLESS STEEL.
- 12. NUMBER NOT USED.
- 13. ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL CONNECTION BY DIVISION 22.
- 14. NUMBER NOT USED.
- 15. QUICK DISCONNECTS TO BE SUPPLIED BY SECTION 11 40 00 W/ALL GAS & WATER EQUIPMENT. 16. PROTECTIVE DEVICES TO PROTECT AGAINST BACK FLOW. BACK SYPHONAGE SHALL BE
- INSTALLED AT ALL FIXTURES AND EQUIPMENT WHERE BACKFLOW AND/OR BACKSYPHONAGE MAY OCCUR AND WHERE A MINIMUM AIR GAP CANNOT BE PROVIDED BETWEEN THE WATER TO THE FIXTURE OR EQUIPMENT AND ITS FLOOD/LEVEL RIM. TO BE PROVIDED AND INSTALLED BY DIVISION 22. VACUUM BREAKERS, WHEN FURNISHED WITH EQUIPMENT, SHALL OVERRIDE ABOVE, IF ACCEPTABLE WITH APPLICABLE CODES, BUT DIV. 22 TO PIPE WHEN NOT PREPIPED BY FACTORY. INTERCONNECT THRU WATER FILTER TO EQUIPMENT BY DIVISION 22.
- 17. BACKFLOW PREVENTION BY DIVISION 22





2 ELECTRICAL GENERAL NOTES NONE

13. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT. 14. EMPTY CONDUIT RUN FROM CASHIER STATION TO MANAGERS OFFICE FOR POS SYSTEM BY DIVISION 26. LOCATION OF MANAGER'S OFFICE TO BE VERIFIED.

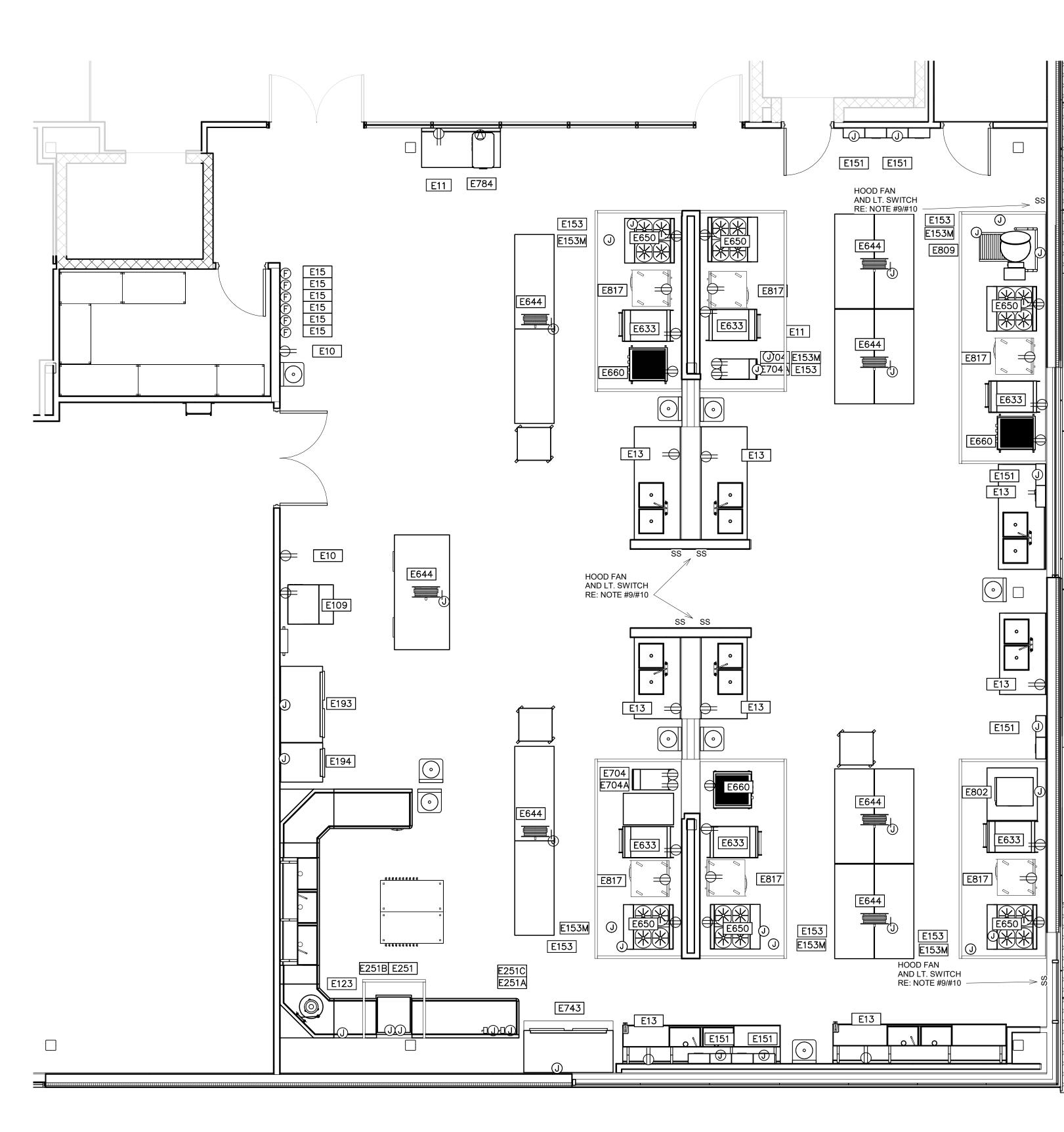
- CONNECTION BY DIVISION 26.
- 12. RECEPTACLE(S) TO BE PRE-WIRED TO JUNCTION BOX OR LOAD CENTER FOR FINAL
- 11. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIP(S) AND BUILDING ALARM - BY DIVISION 26.
- 10. INTERCONNECT TO EXHAUST HOOD LIGHT(S) AND SWITCH BY DIVISION 26.
- 9. INTERCONNECT TO EXHAUST HOOD FAN(S) AND SWITCH BY DIVISION 26.
- FINAL CONNECTION BY DIVISION 26. 8. N/A
- 7. DOOR HEATER(S), LIGHT(S), COIL(S) AND PRESSURE RELIEF PORT(S) PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLY BY SECTION 14 00 00.
- WITHIN ELECTRICAL PANEL BOX FOR SHUT-DOWN DURING FIRE MODE BY DIVISION 26.
- 6. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOOD TO EXTEND TO SHUNT TRIP BREAKERS
- SECTION 11 40 00. FIELD INSTALLED BY DIVISION 26. 5. STAINLESS STEEL DISCONNECT SWITCH PROVIDED AND INSTALLED BY DIVISION 26.
- 4. ACCESSORIES AND FITTINGS PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY
- 3. DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND/OR FIELD CONDITIONS.
- 2. VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ENGINEERING DRAWINGS.
- 1. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS.

∽⊕ SCR FUF CON CS DIR 20 A 障 dr (MO SIN SIN FR PMR PED JBJUNCJBJUNC

DRAWINGS.

1 <u>ELECTRICAL PLAN</u> 1/4" = 1'-0"

FS1C FOODSERVICE CULINARY



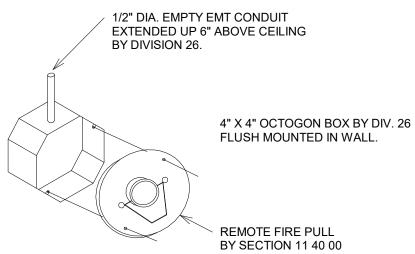
					FOODSERVICE ELECTRICAL S	CHEDULE		
FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
					1			1
E 40		40.04	400	4			0.4"	
E10	DR	16.0A	120	1		WALL	24"	
E11	DR	16.0A	120	1		WALL	40"	MOUNT HORIZONTAL
E13	WPR	16.0A	120	1		WALL	48"	
E15	JB				REMOTE FIRE PULL	WALL	48"	RE: NOTE #11 - RECESSED JB - EXTEND TO FIRE SYSTEM FOR HOOD
E109	DR	16.0A	120	1	ICE MACHINE	WALL	60"	
E123	JB	3.0HP	208	3	DISPOSER	WALL	24"	BTC; RE: NOTE #4 - CONNECT THRU C.P. TO DISPOSER
E151	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #11
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #10
E153M	JB	1.0A	120	1	TEMPERATURE SENSOR	CLG	DFA	BTC; RE: NOTE #4, #6 & #9
E193	JB	11.0A	120	1	REFRIGERATOR	WALL	90"	
E194	JB	11.5A	120	1	FREEZER	WALL	90"	
E251	JB				DISHMACHINE	WALL	24"	BTC; RE: NOTE #4 - INTERCONNECT TO E251A
E251A	JB/DS	11.6A	480	3	DISHMACHINE	WALL	54"	BTC; RE: NOTE #4 & #5 - INTERCONNECT TO E251
E251B	JB				BOOSTER HEATER	WALL	24"	BTC; RE: NOTE #4 - INTERCONNECT TO E251C
E251C	JB/DS	13.0KW	480	3	BOOSTER HEATER	WALL	54"	BTC; RE: NOTE #4 & #5 - INTERCONNECT TO E251B
E633	DR	1.0A	120	1	ELECTRONIC IGNITION	WALL	24"	SHUNT TRIP BREAKER
E644	JB	16.0A	120	1	EQUIPMENT	CLG	VERIFY	BTC; PROVIDED AND INSTALLED BY DIV. 26
E650	DR	3.4A	120	1	RANGE	WALL	24"	SHUNT TRIP BREAKER
E660	DR	1.0A	120	1	CHARBROILER	WALL	24"	SHUNT TRIP BREAKER
E704	DR	1.0A	120	1	FRYER	WALL	24"	SHUNT TRIP BREAKER PROVIDED AND INSTALLED BY DIVISION 26
E704A	DR	8.0A	120	1	FILTER	WALL	24"	SHUNT TRIP BREAKER PROVIDED AND INSTALLED BY DIVISION 26
E743	JB	11.4A	120	1	REFRIGERATOR	WALL	90"	
E784	SR	15.0A	208	1	ICE CREAM FREEZER	WALL	47"	MOUNT HORIZONTAL
E802	JB	34.4A	240	3	STEAMER - COUNTER TOP	WALL	24"	BTC; RE: NOTE #4 - SHUNT TRIP BREAKEF
E809	JB	5.0A	120	1	KETTLE	WALL	24"	SHUNT TRIP BREAKER
E817	DR	3.0A	120	1	WORKTOP REFRIGERATOR	WALL	24"	

CONDUIT STUB BTC ON RECEPT FURNISH WITH EQUIPMENT	СС	сс	CONDUIT FOR COMPUTER CABLES
CONDUIT STUB UP/OUT FOR DIRECT CONNECTION		втс	BRANCH TO CONNECTION ON EQUIPMENT
20 AMP DUPLEX RECEPTACLE (MOUNT HORIZONTAL)	Þ	WPR	20 AMP WEATHERPROOF RECEPTACLE (SPRING COVER)
SINGLE PURPOSE RECEPTACLE	/	FPB	FIRE PROTECTION BUZZER
SINGLE PURPOSE RECPT. 208V 1PH	\otimes	BSC	BEVERAGE SYSTEM CONDUIT
FLUSH FLOOR RECEPTACLE		DFA	DROP FROM ABOVE
PEDESTAL MOUNTED RECPTACLE		AFF	ABOVE FINISH FLOOR
DROP CORD RECEPTACLE	•	CS/JB	JUNCTION BOX ON PEDSTAL
JUNCTION BOX ON CEILING	L	DS	DISCONNECT SWITCH
JUNCTION BOX IN WALL			
JUNCTION BOX WITH DISCONNECT BY DIV.26	Ō	JB/DS	CONDUIT STUB-UP WITH DISCONNECTI BY DIV.26

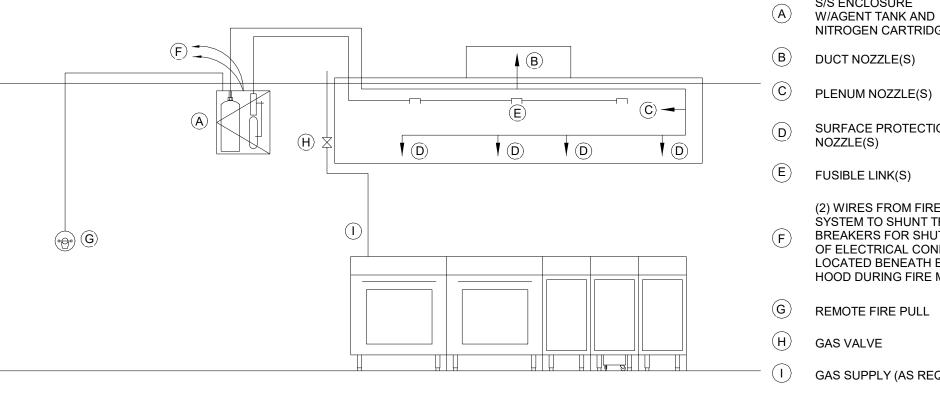
(4) ELECTRICAL SYMBOLS NONE

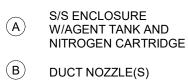
NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDTIONAL REQUIREMENTS REFER TO ELECTRICAL ENGINEER'S

3 ELECTRICAL COORDINATION NOTES



 $(5) \frac{\text{RECESSED FIRE PULL DETAIL}}{\text{N.T.S.}}$





SURFACE PROTECTION

NOZZLE(S)

E FUSIBLE LINK(S) (2) WIRES FROM FIRE SYSTEM TO SHUNT TRIP BREAKERS FOR SHUT DWON OF ELECTRICAL CONNECTIONS LOCATED BENEATH EXHAUST

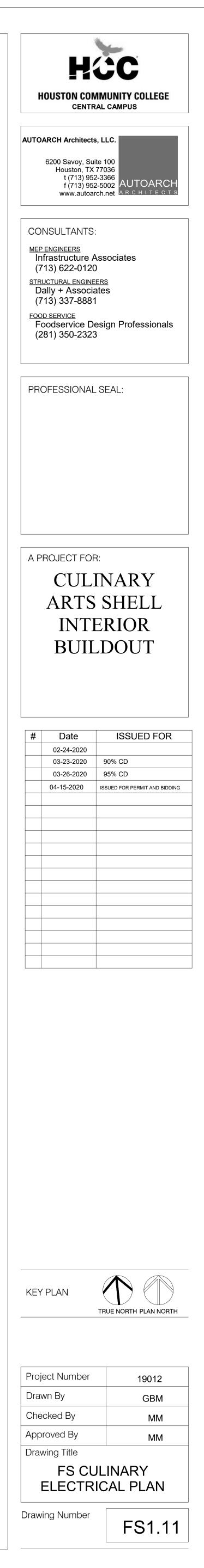
HOOD DURING FIRE MODE

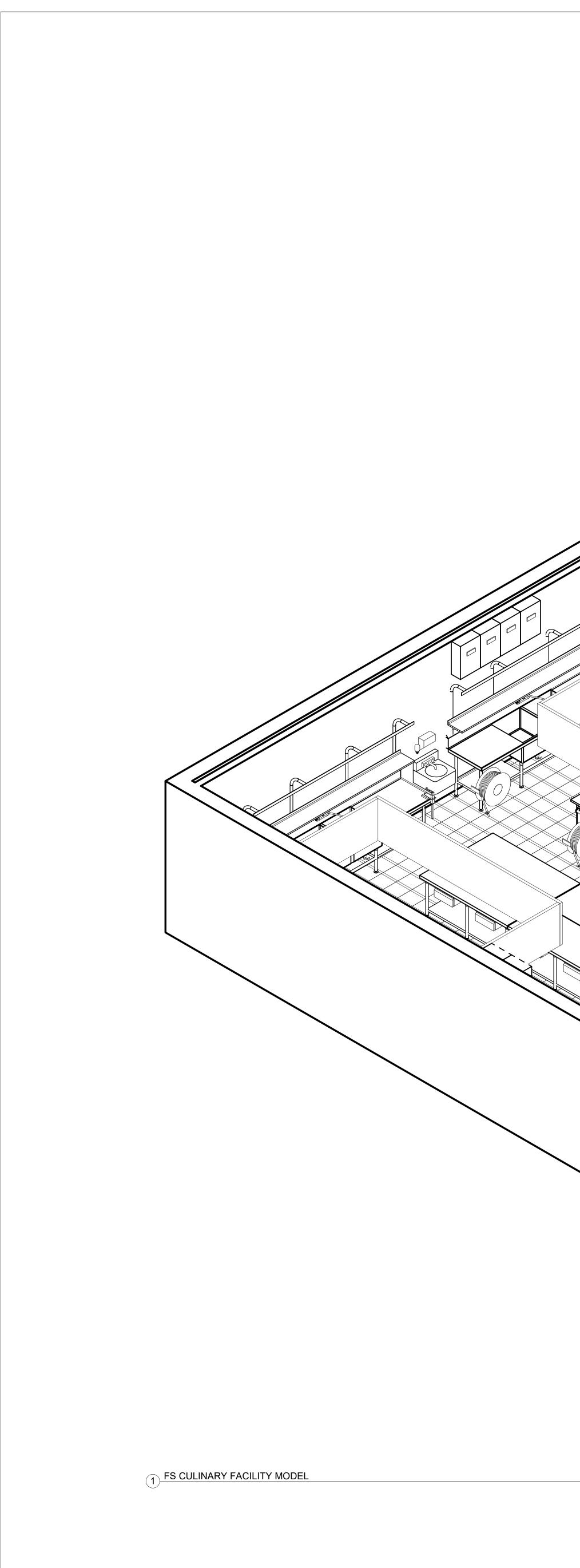
REMOTE FIRE PULL

(H) GAS VALVE

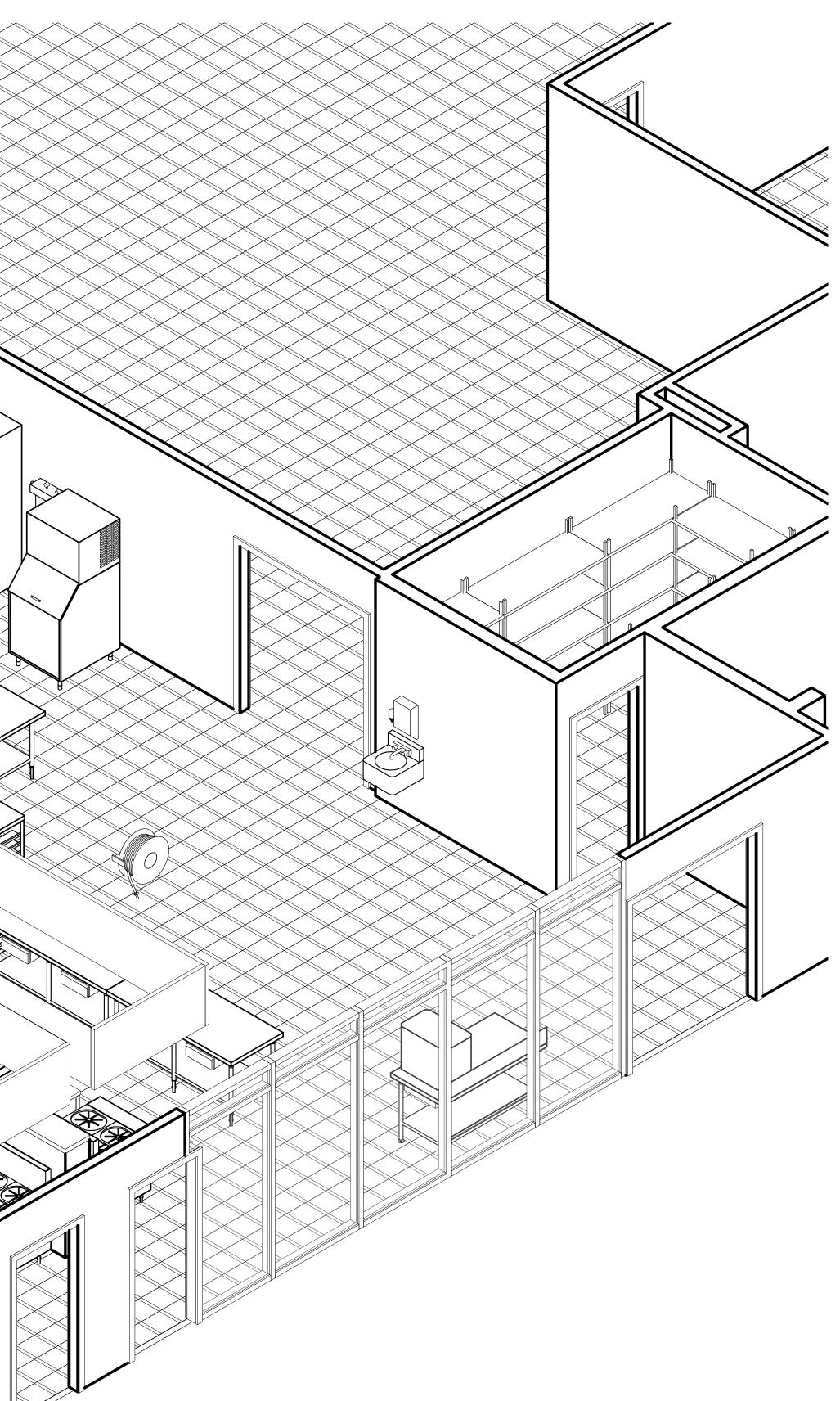
(I) GAS SUPPLY (AS REQUIRED)

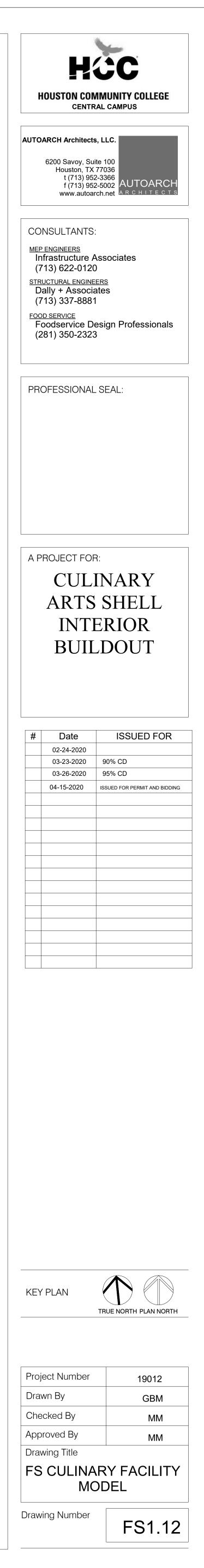
6 FIRE SUPRESSION TYPICAL DETAIL N.T.S.

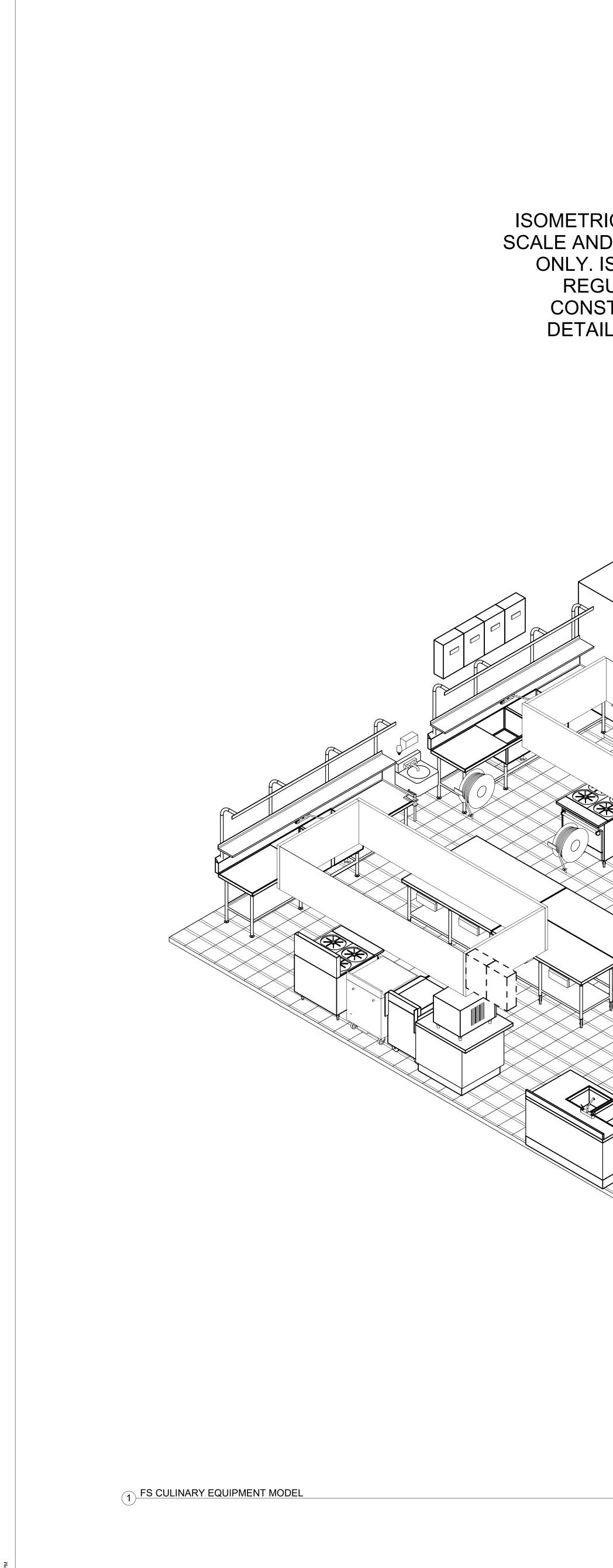




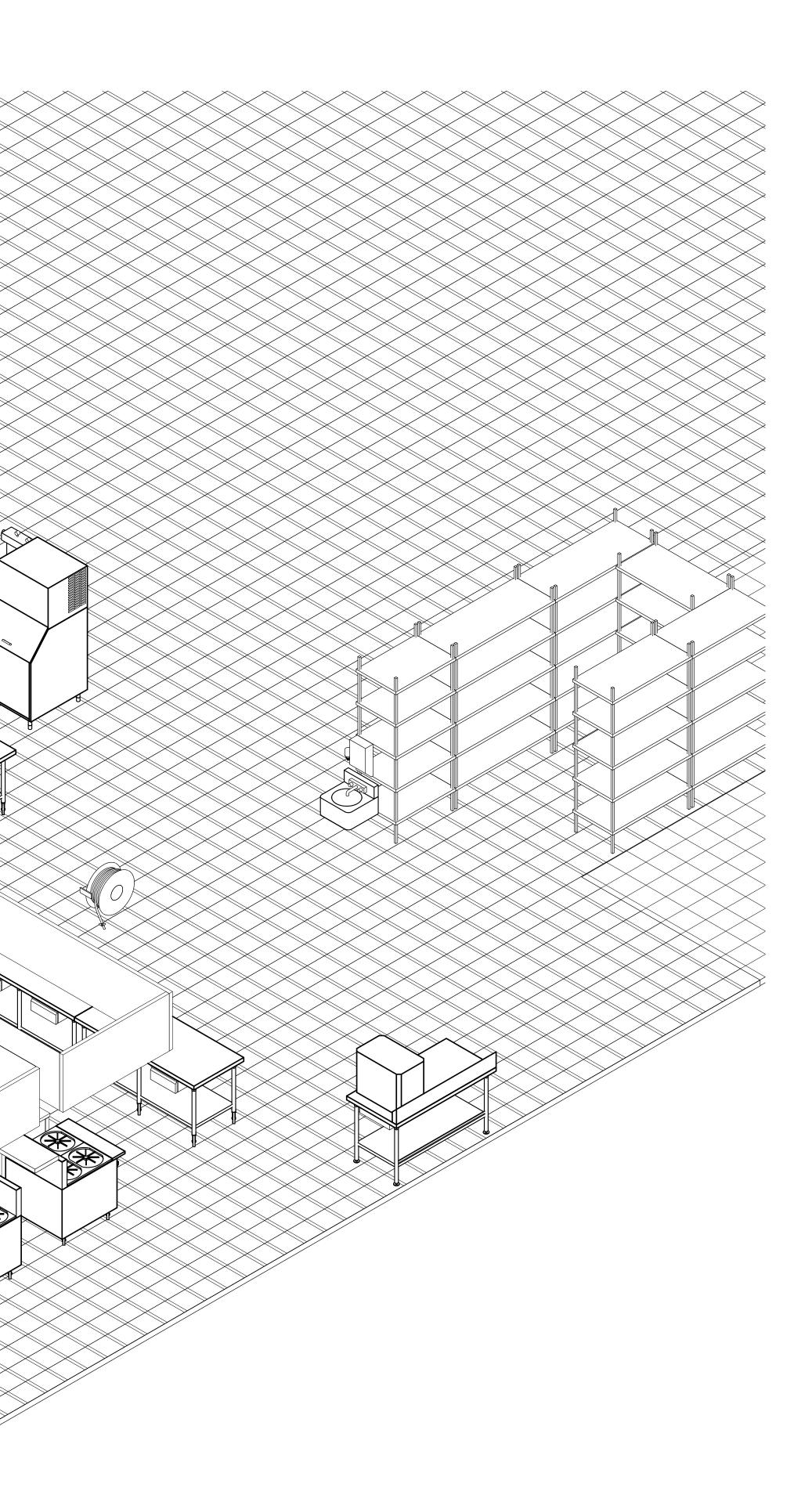
ISOMETRIC VIEWS WITHIN THIS DRAWING ARE NOT TO SCALE AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ISOMETRIC VIEWS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMITTING, NOR CONSTRUCTION. REFER TO FLOOR PLANS AND DETAILS FOR SPECIFIC PROJECT INFORMATION

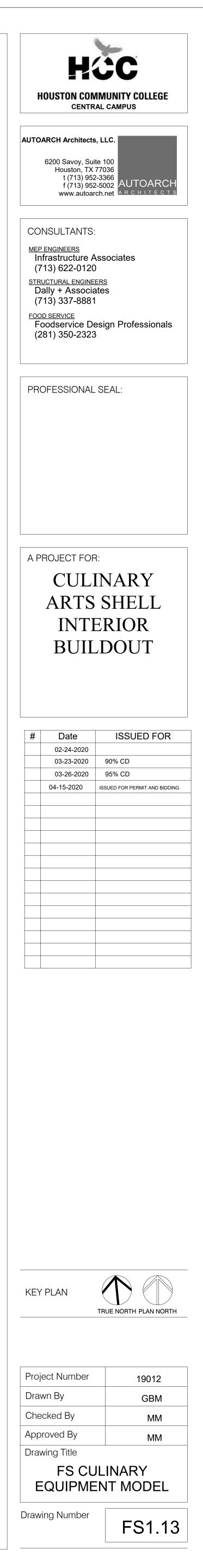


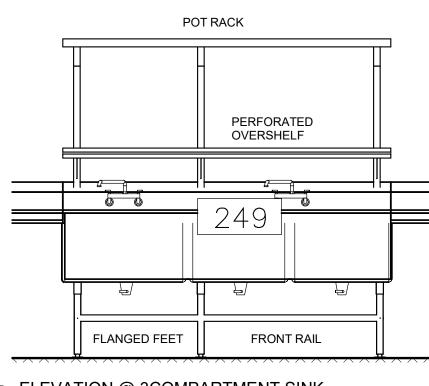


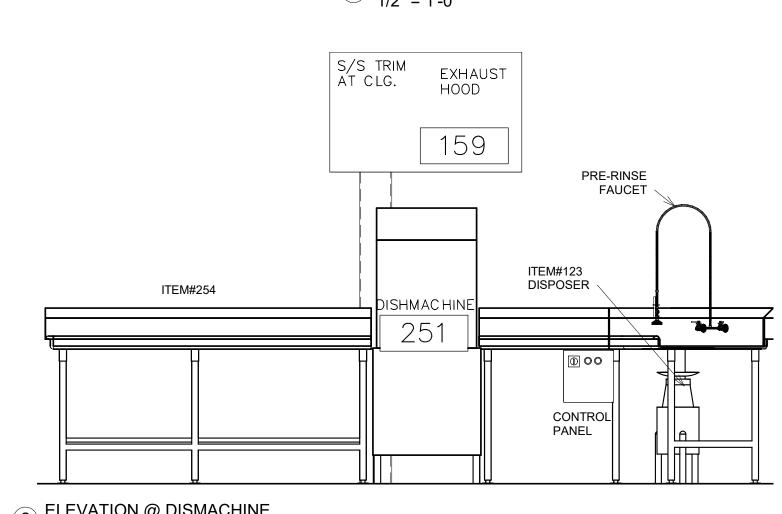


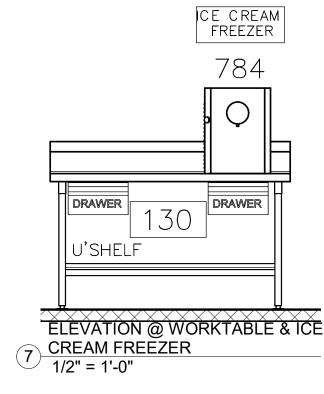
ISOMETRIC VIEWS WITHIN THIS DRAWING ARE NOT TO SCALE AND ARE PROVIDED FOR REFERENCE PURPOSES ONLY. ISOMETRIC VIEWS ARE NOT INTENDED FOR REGULATORY APPROVAL, PERMITTING, NOR CONSTRUCTION, REFER TO FLOOR PLANS AND DETAILS FOR SPECIFIC PROJECT INFORMATION



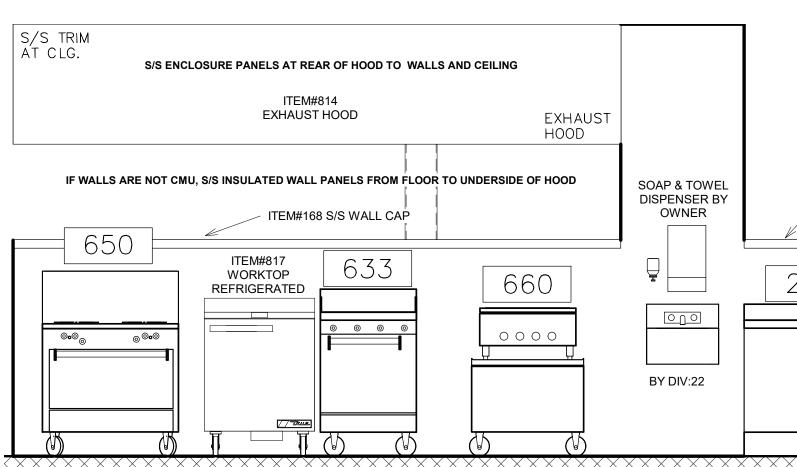




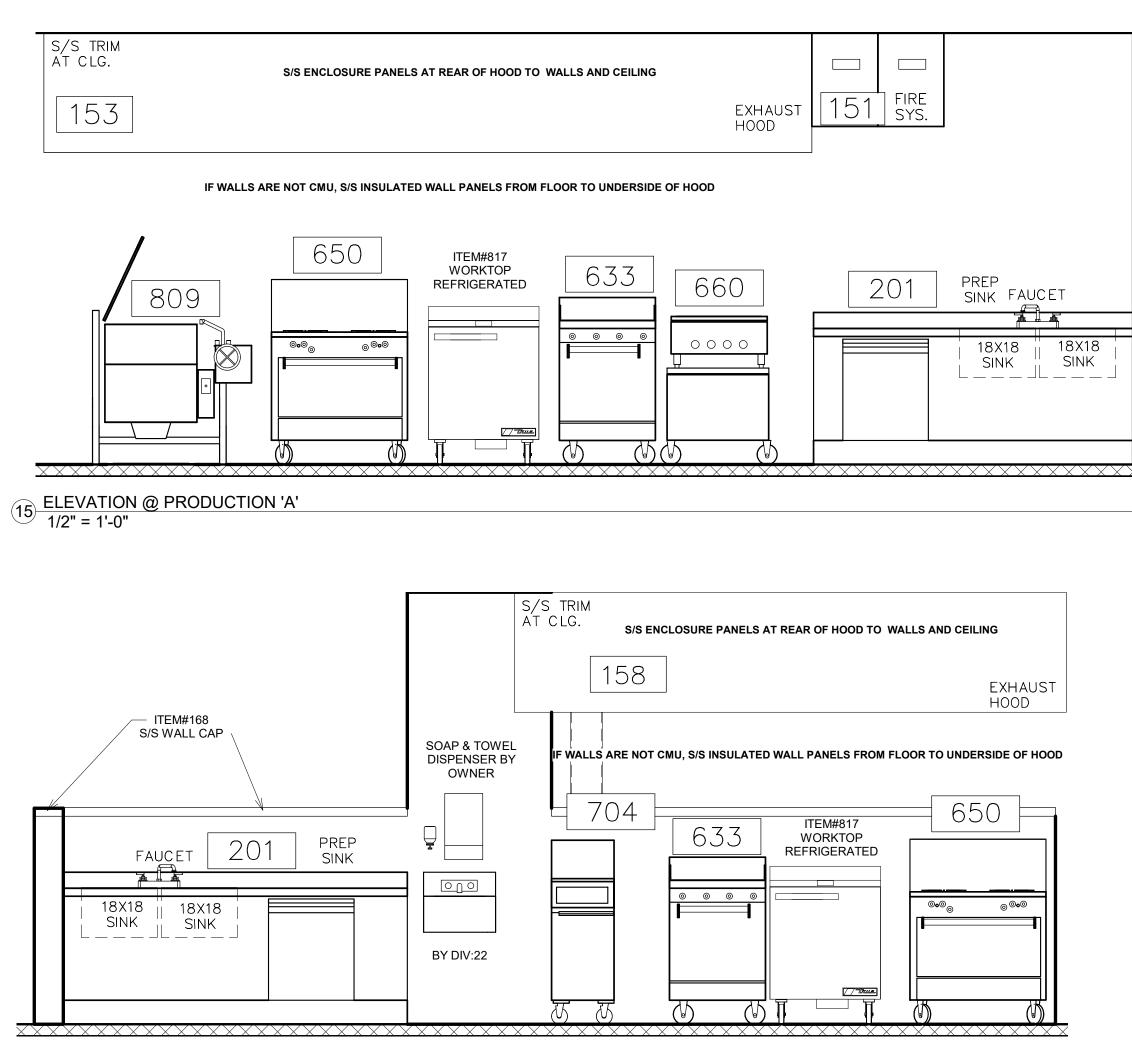






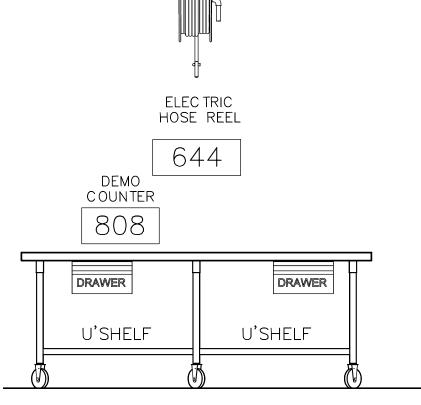


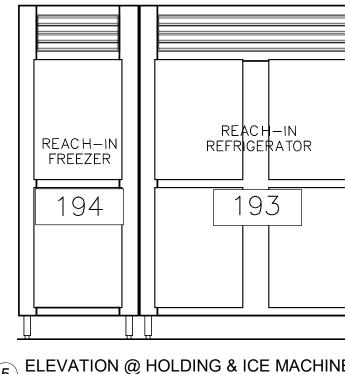
12 ELEVATION @ PRODUCTION 'B' 2 1/2" = 1'-0"

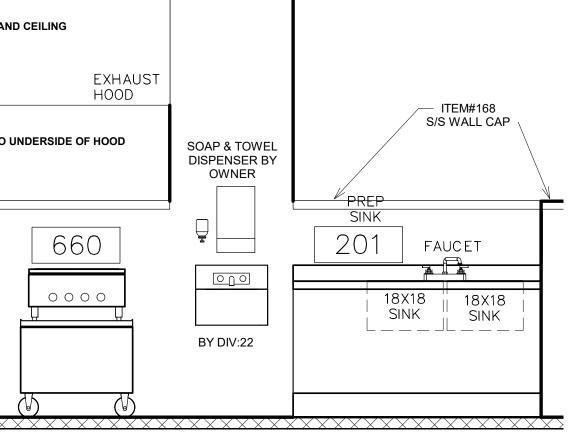


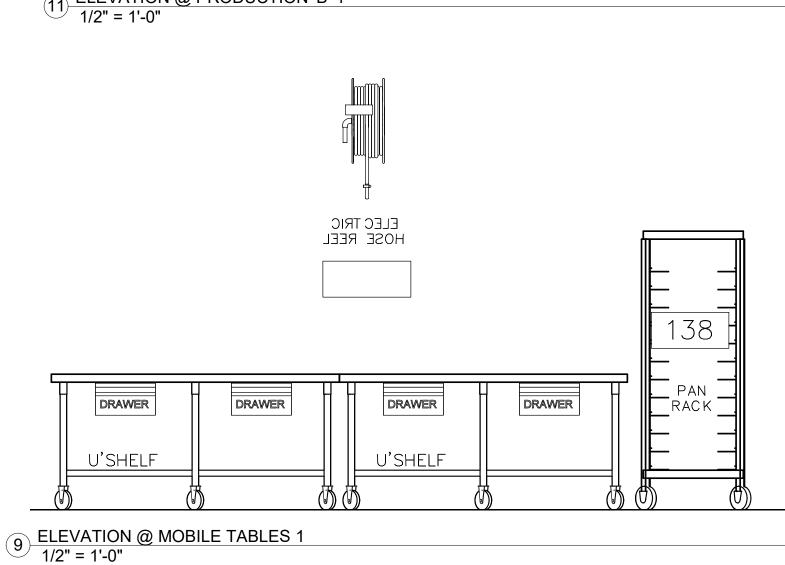
2 ELEVATION @ DISMACHINE 1/2" = 1'-0"

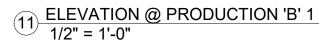


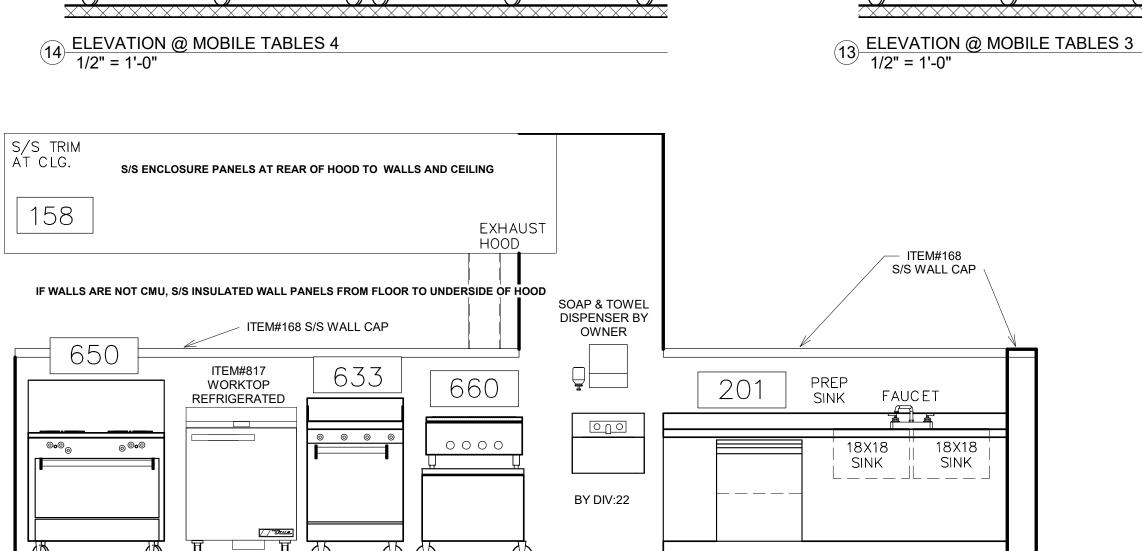


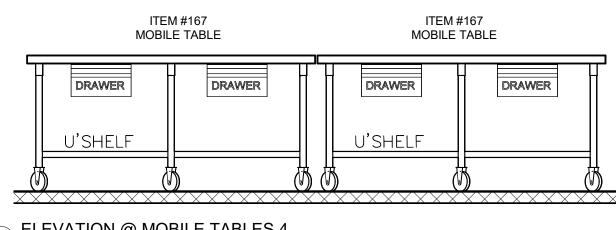




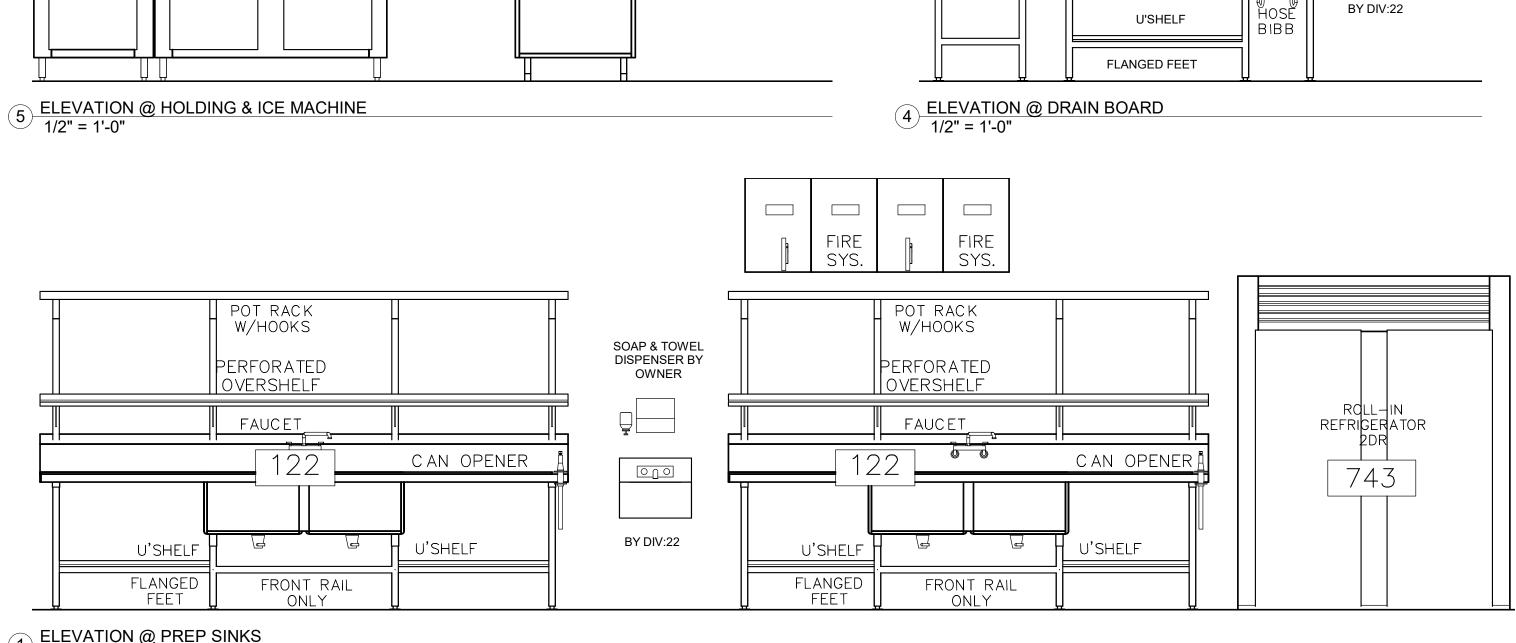








1 ELEVATION @ PREP SINKS 1/2" = 1'-0"

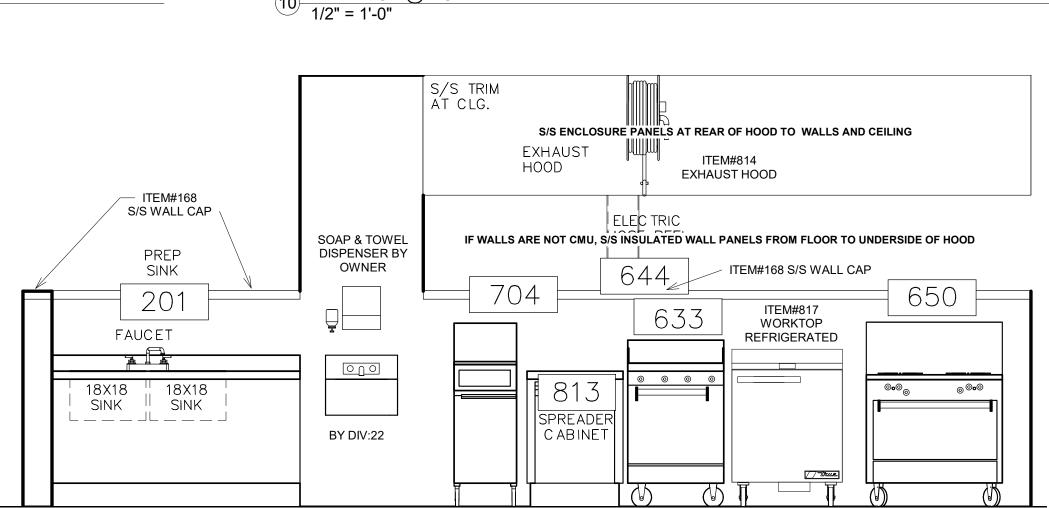


8 ELEVATION @ PRODUCTION 'C' 1 1/2" = 1'-0"

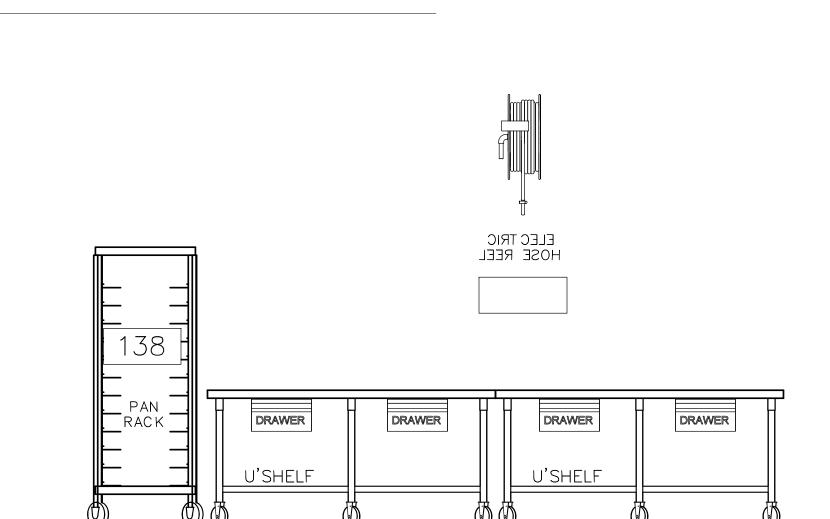
109

ICE

MACHINE



ELEVATION @ MOBILE TABLES 2

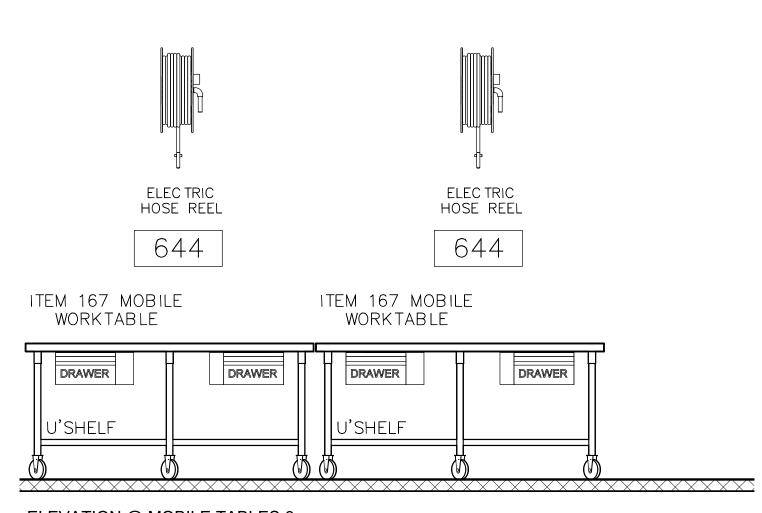


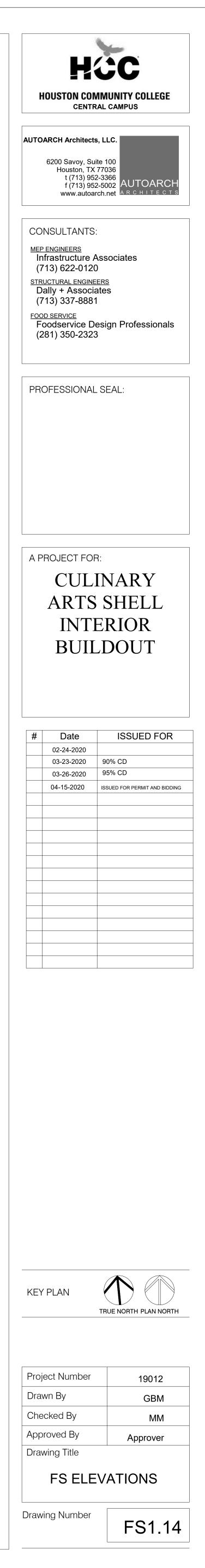
ITEM#254

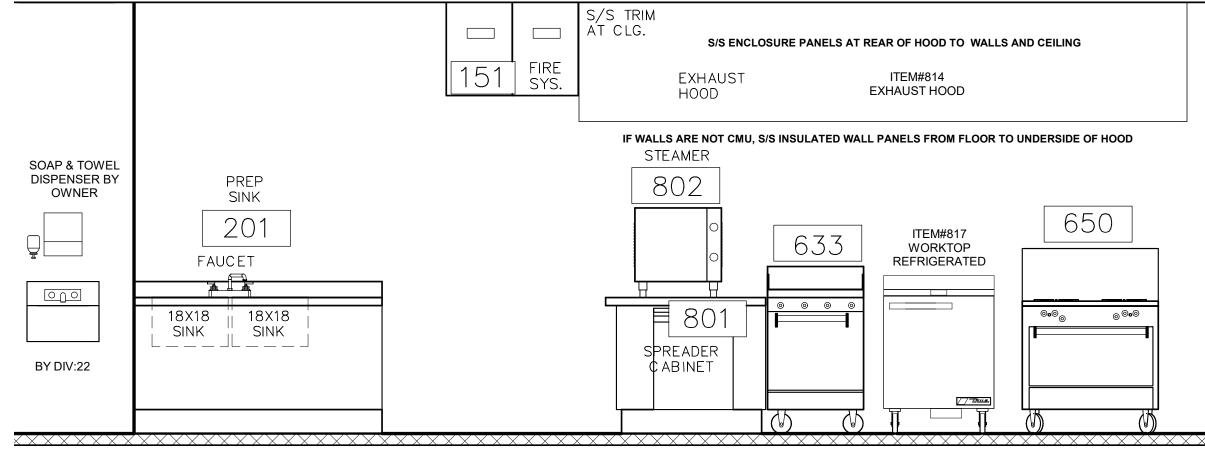
SOAP & TOWEL DISPENSER BY

OWNER

၀႐၀



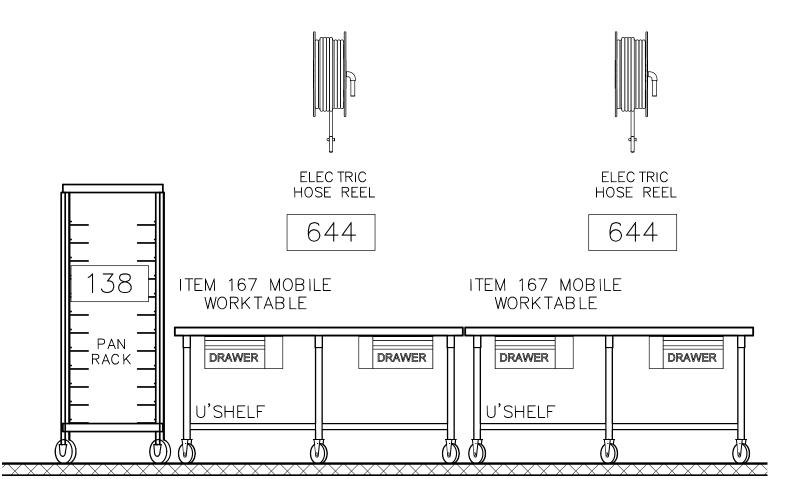




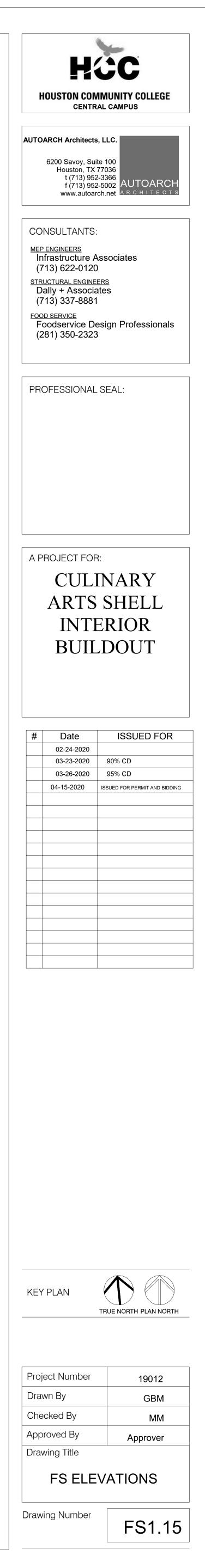
3 ELEVATION @ PRODUCTION 'D' 1/2" = 1'-0"

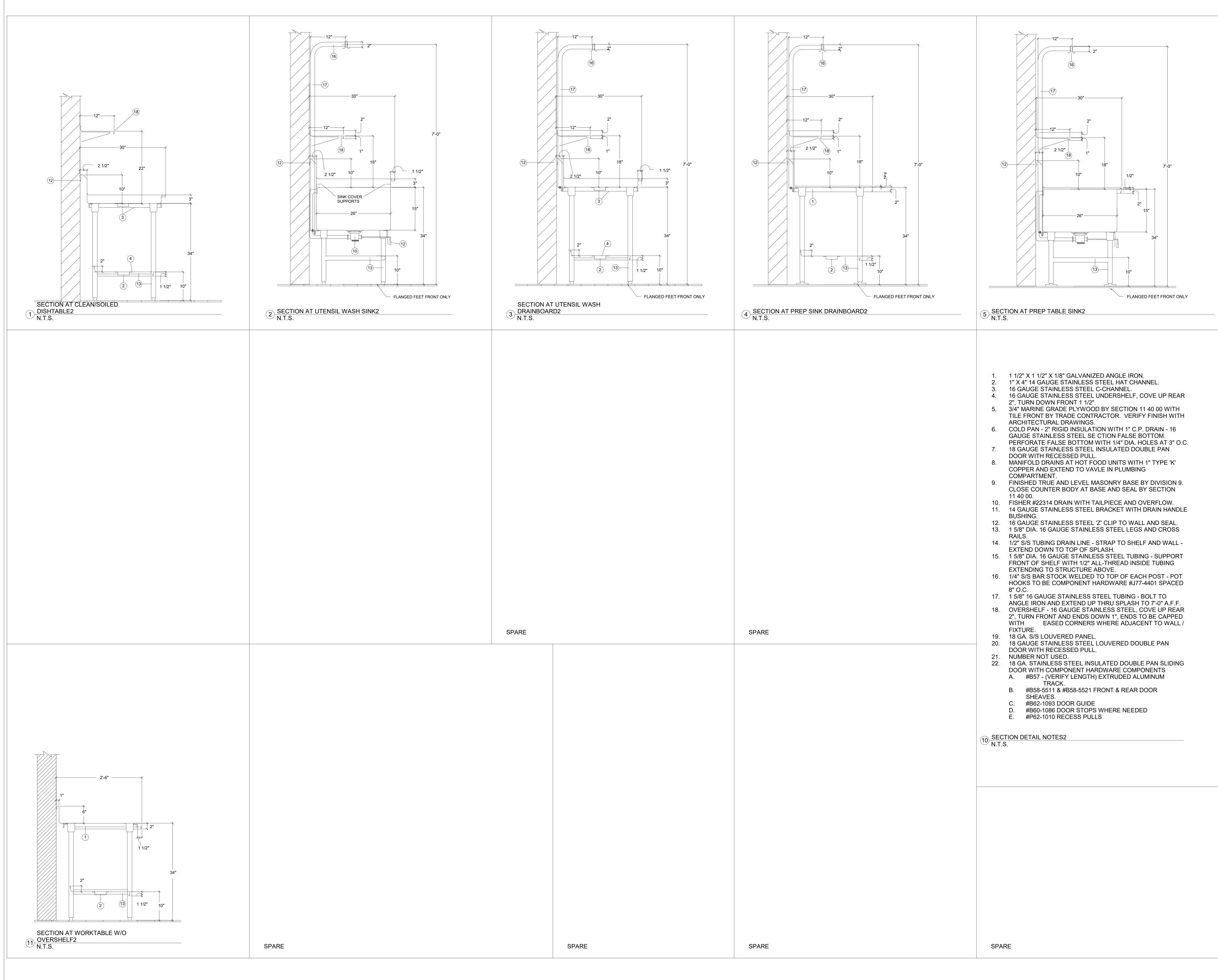
ITEM #167 MOBILE TABLE	ITEM #167 MOBILE TABLE				
U'SHELF	DRAWER U'SHELF				

2 ELEVATION @ MOBILE TABLES 6 1/2" = 1'-0"



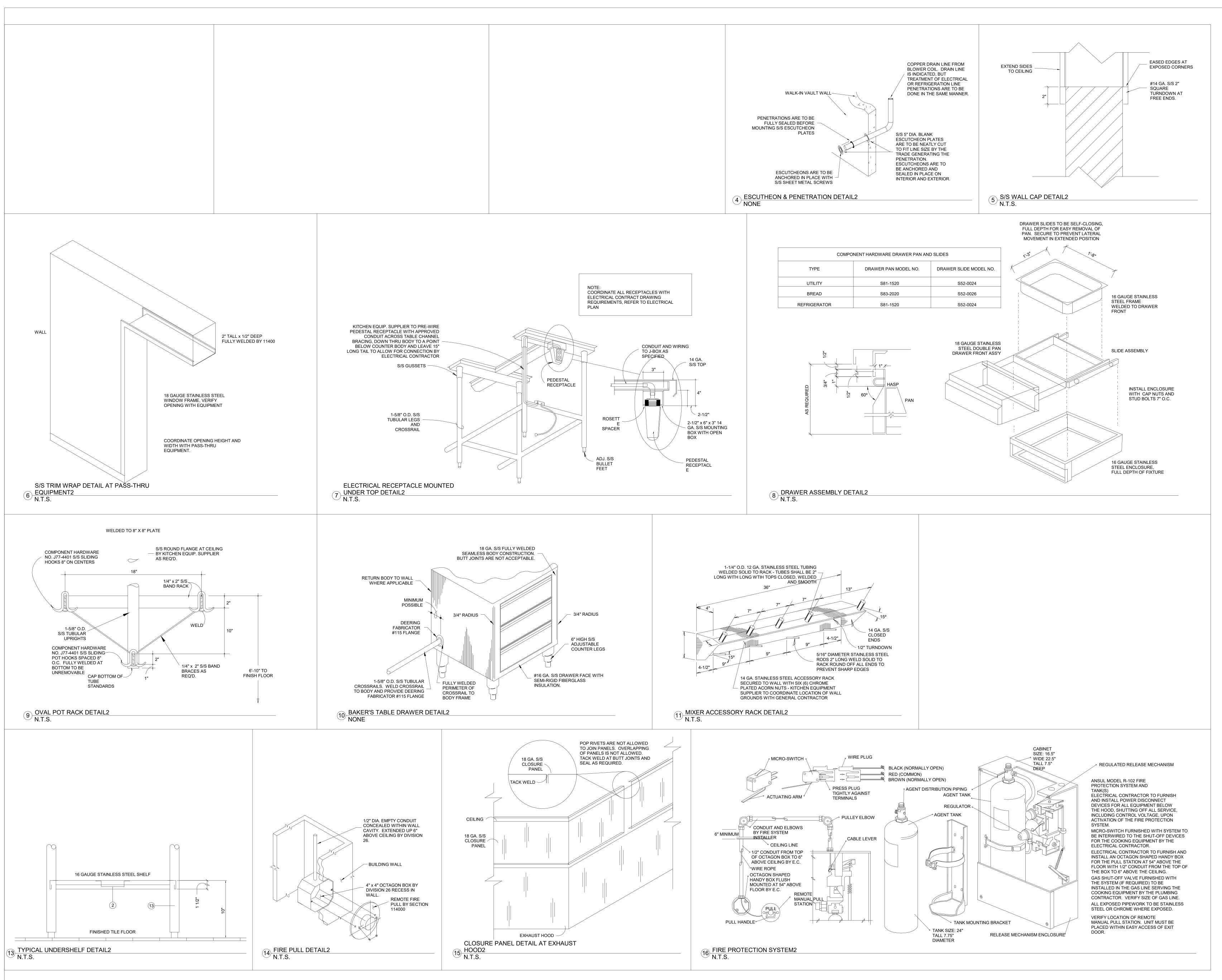
1 ELEVATION @ MOBILE TABLES 5 1/2" = 1'-0"





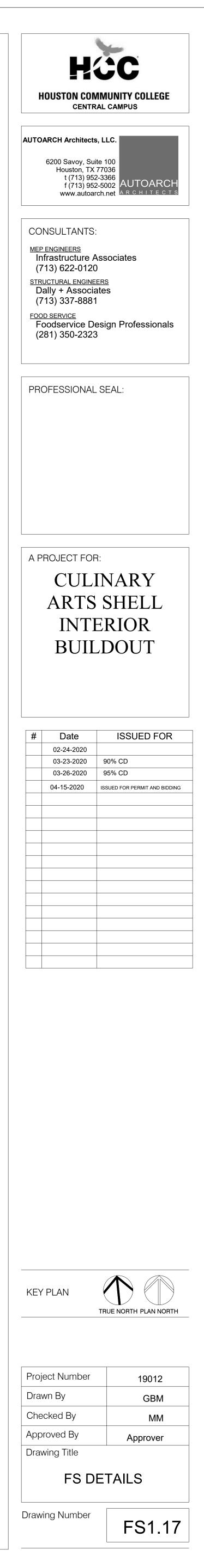
2020 3:28:24 PN

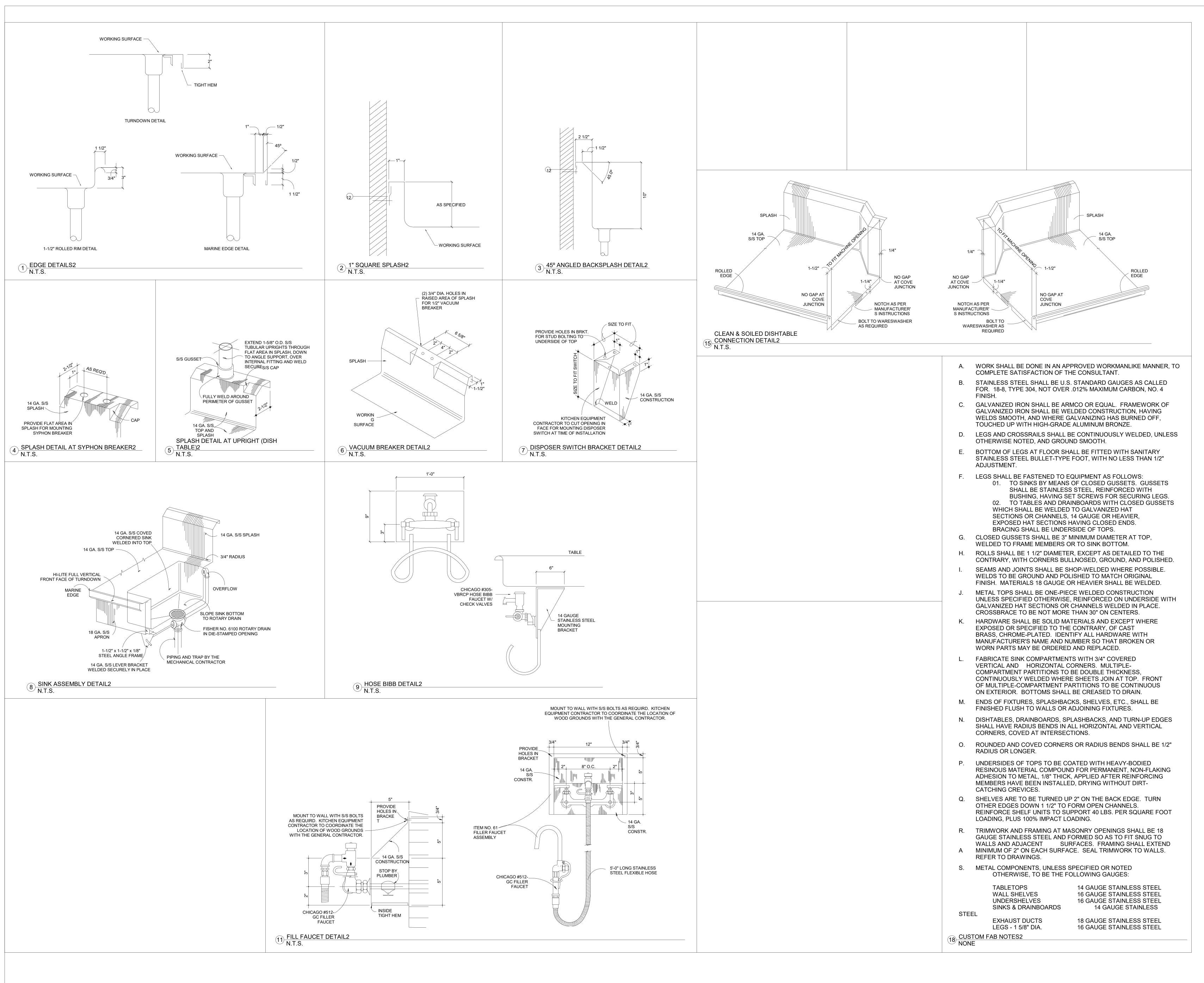
H	– – Iouston cor	CCC MMUNITY COLLEGE RAL CAMPUS
AUTO	ARCH Architect 6200 Savoy, Su Houston, TX	s, LLC. ite 100 77036 2-3366 2-5002 AUTOARCH
MEP In (7 <u>STR</u> D (7 <u>FOC</u>	NSULTANTS <u>engineers</u> frastructure / 13) 622-0120 <u>uctural engine</u> ally + Associa 13) 337-888 <u>D service</u> podservice D 281) 350-2323	Associates) <u>EERS</u> ates 1 esign Professionals
PR	OFESSIONAL	_ SEAL:
AP	ARTS INT	R: INARY SHELL ERIOR LDOUT
#	Date 02-24-2020 03-23-2020 03-26-2020 04-15-2020	ISSUED FOR 90% CD 95% CD ISSUED FOR PERMIT AND BIDDING
KEY	' PLAN	TRUE NORTH PLAN NORTH
Drav Che App		19012 GBM MM Approver
Draw	ing Number	FS1.16



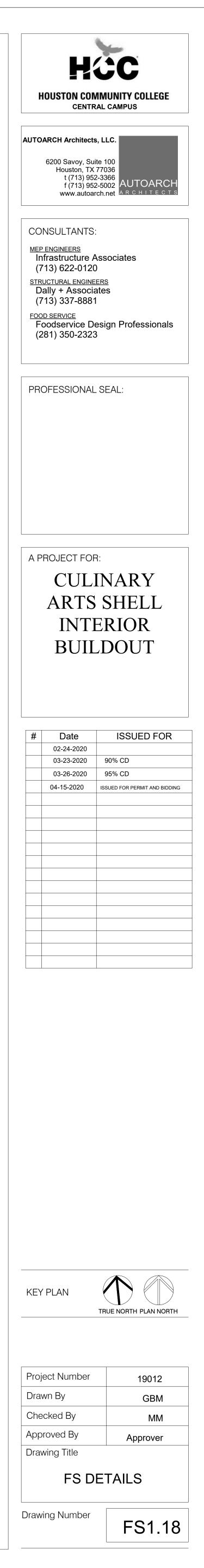
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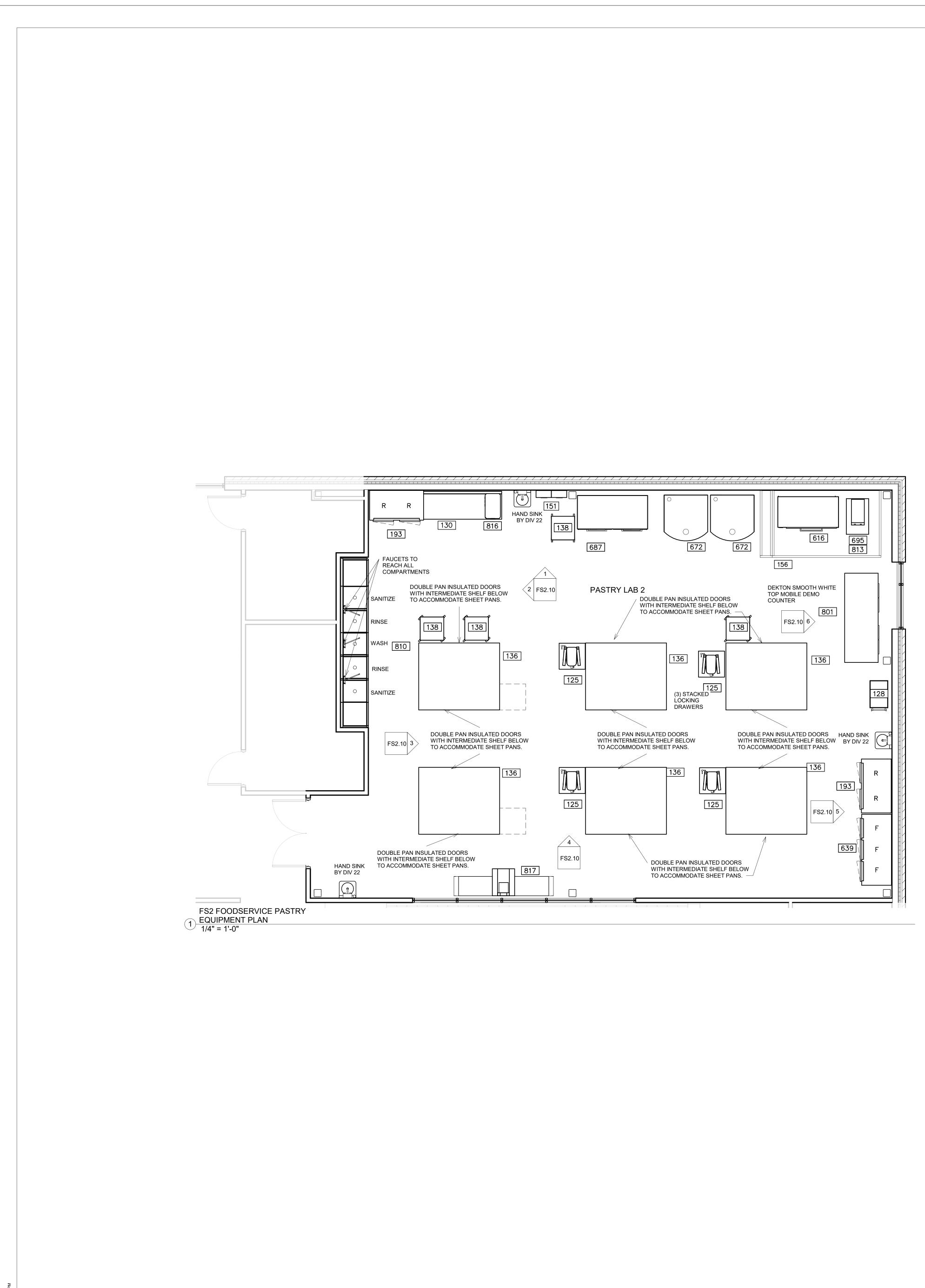
4/20/20 3:20:2



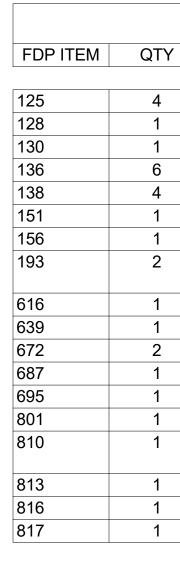


2020 3:28:27 P

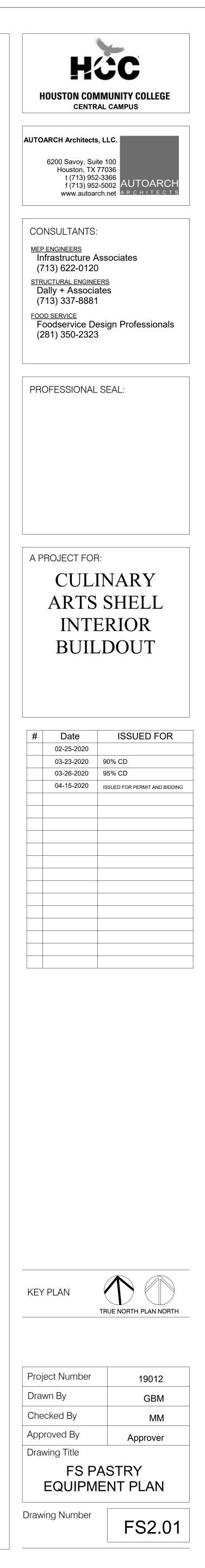


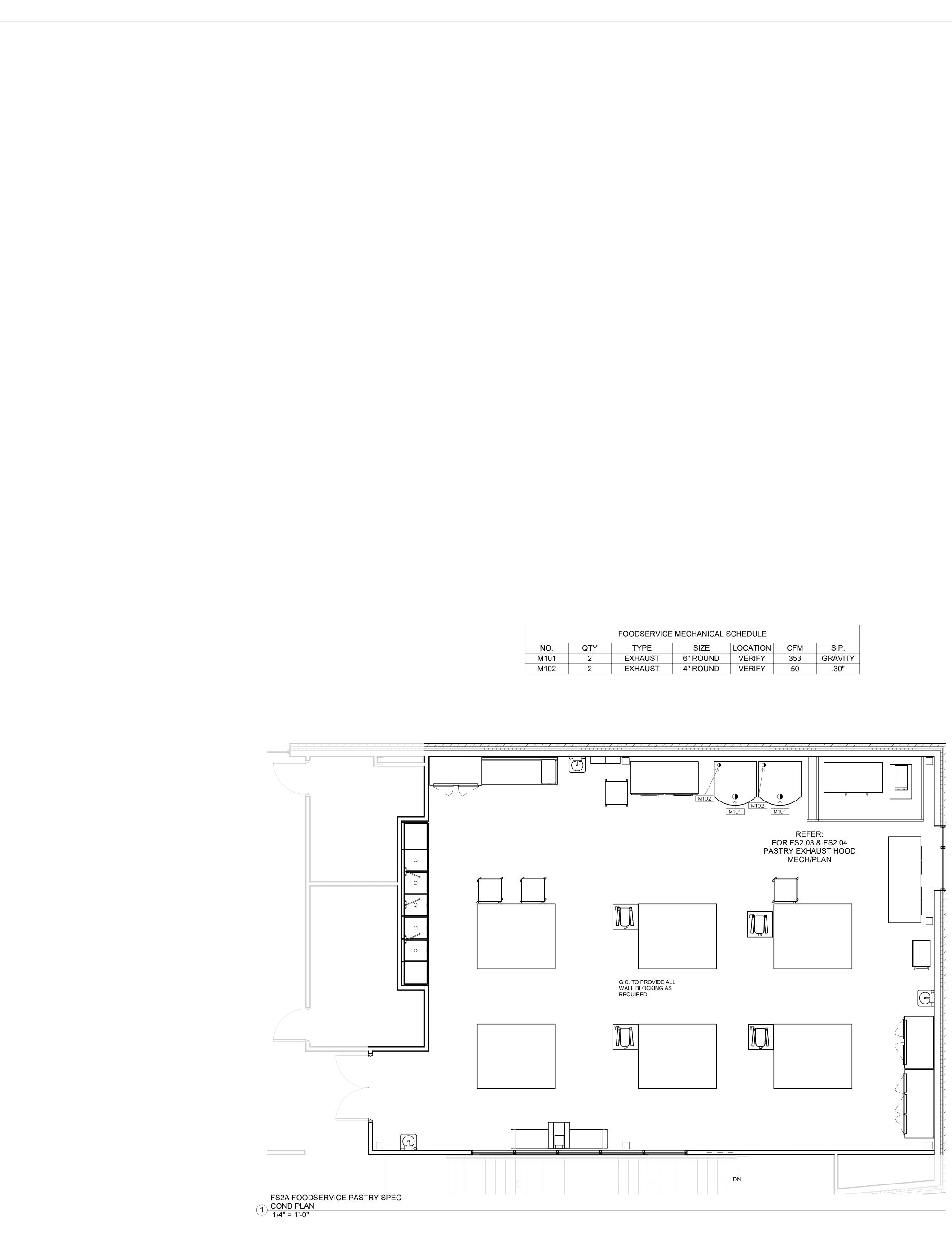


I/2020 3:56:40 F



	FOODSERVICE EQUIPMENT SCHEDULE								
(FDP DESCRIPTION	FDP REMARKS	MFR	MODEL					
	20 QT. MIXER W/STAND		HOBART	HL200					
	UTILITY CART		LAKESIDE	743					
	WORKTABLE		CUSTOM FABRICATED						
	BAKER'S TABLE		CUSTOM FABRICATED						
	PAN RACK		CRES COR	207-UA-12AC					
	FIRE PROTECTION SYSTEM		ANSUL	R102					
	EXHAUST HOOD		ACCUREX						
	REACH-IN REFRIGERATOR - 2DR		TRAULSEN	RHT 2-32-WUT-HHS					
	FOUR DECK OVEN		REVENT	US 4 DECK 3 PAN					
	REACH-IN FREEZER - NARROW		TRAULSEN	RLT 332NUT-HHS					
	ROTATING RACK OVEN		REVENT	ONE 39/G/S W/'S'					
	PROOFER		REVENT	P7121					
	INDUCTION RANGE		EXISTING/RELOCATE						
	DEMO COUNTER		CUSTOM FABRICATED						
	FIVE COMPARTMENT SINK	(5) 24" X 26" 15" DEEP WITH ROUNDED INTERNAL EDGES	CUSTOM FABRICATED						
	SPREADER CABINET		CUSTOM FABRICATED						
	ICE CREAM FREEZER	EXISTING	EXISTING/RELOCATE						
	SHEETER	EXISTING	EXISTING/RELOCATE						





		FOODSERVICE	MECHANICAL S	CHEDULE		
NO.	QTY	TYPE	SIZE	LOCATION	CFM	S.P.
M101	2	EXHAUST	6" ROUND	VERIFY	353	GRAVITY
M102	2	EXHAUST	4" ROUND	VERIFY	50	.30"



CITY OF HOUSTON HOOD 3 REQUIREMENTS NONE

(1) INDUCTION RANGE (1) SPREADER CABINET (1) 4 DECK OVEN

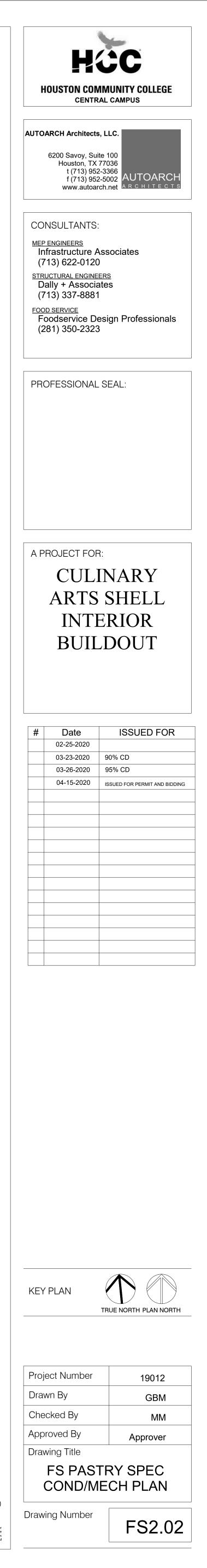
HOOD #156 65 SQ. FT.; 479 LBS. PROVIDES EXHAUST FOR THE FOLLOWING EQUIPMENT:

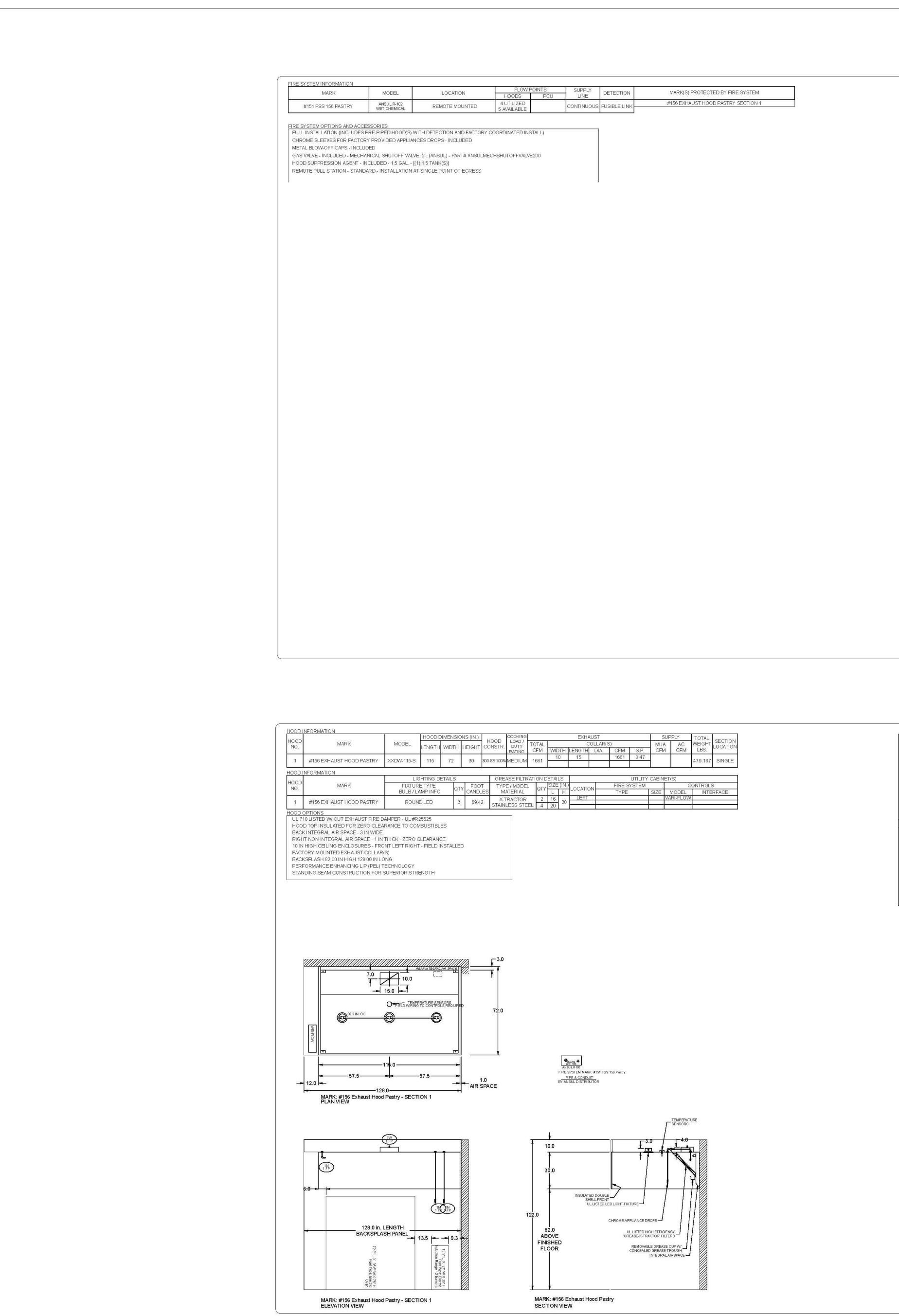
SERVE MODEL: SUPPLY & EXHAUST MODEL NOTATED IN SPECIFICATIONS: **<u>Clearance requirement:</u>** Where the hood is installed less than 18" from a combustible or semi-combustible surface Chapter 5, Section 508, subsection 508.4 of the Uniform Mechanical Code requires a 3" clearance or air space containing material as specified for one-hour fire resistive construction. Provide U-shaped 3" high S/S trim and 3M Fire Barrier Duct Wrap 15A in a manner as prescribed by the manufacturer. This requirement of 3" trim and duct wrap also applies to the top of the hood where it is installed less than 18" from the finished ceiling.

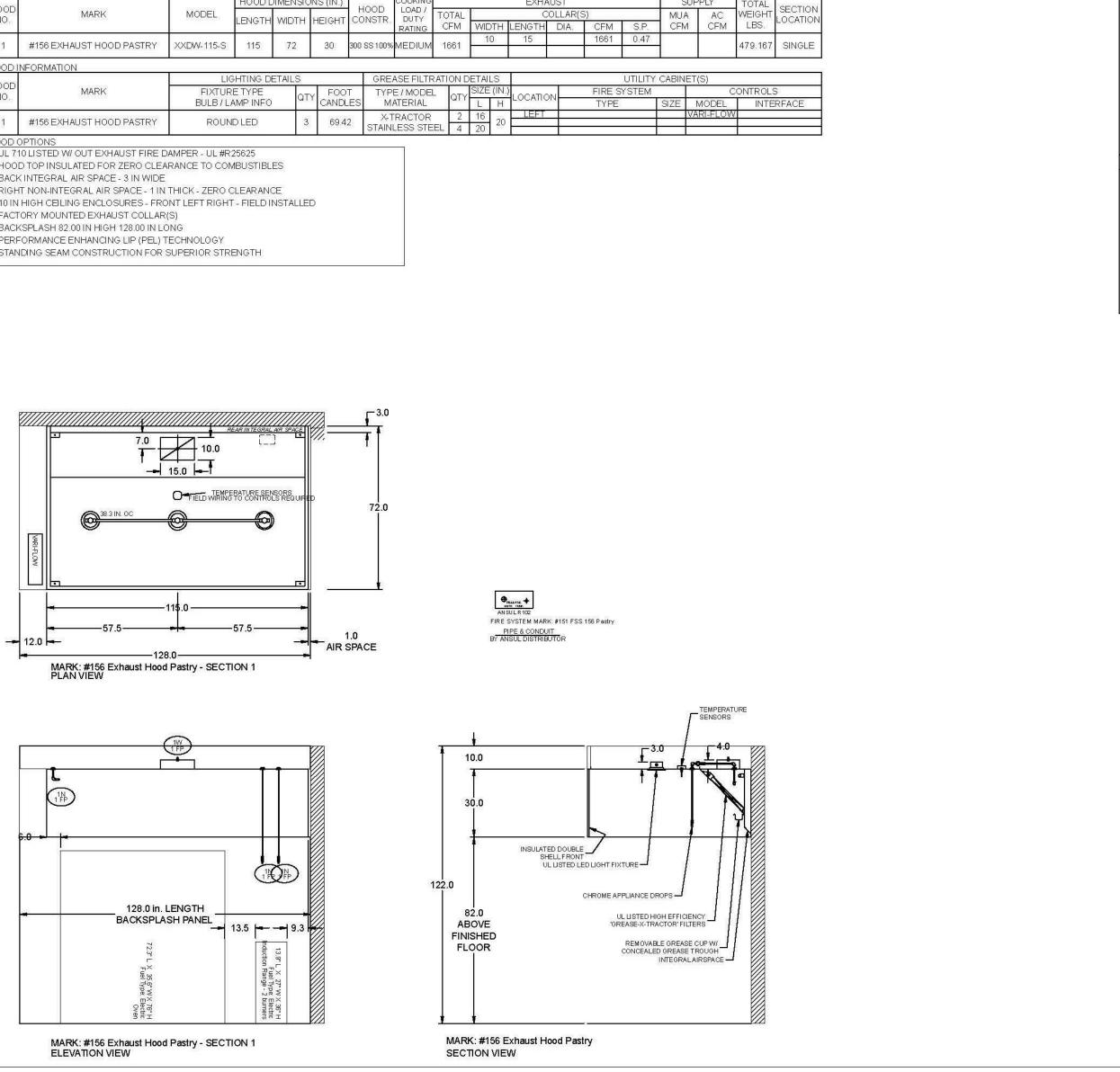
UL LISTED NUMBER FOR ALL HOODS IS "710"

MANUFACTURER: ACCUREX

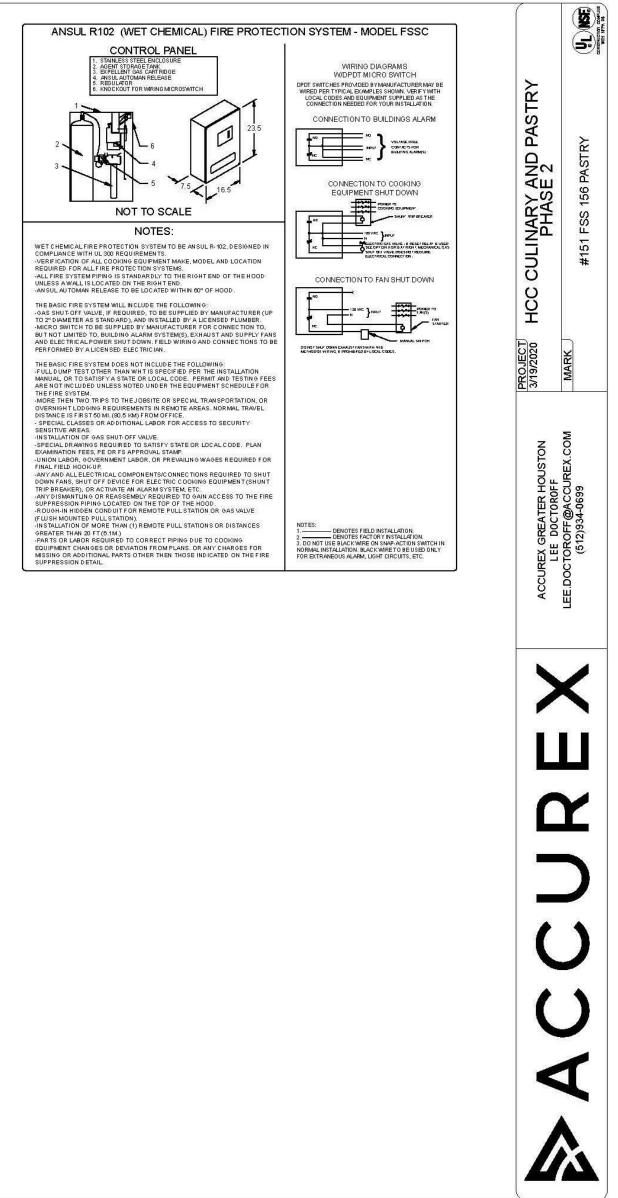
APPROVED EQUAL: AVTEC, MOD-U-

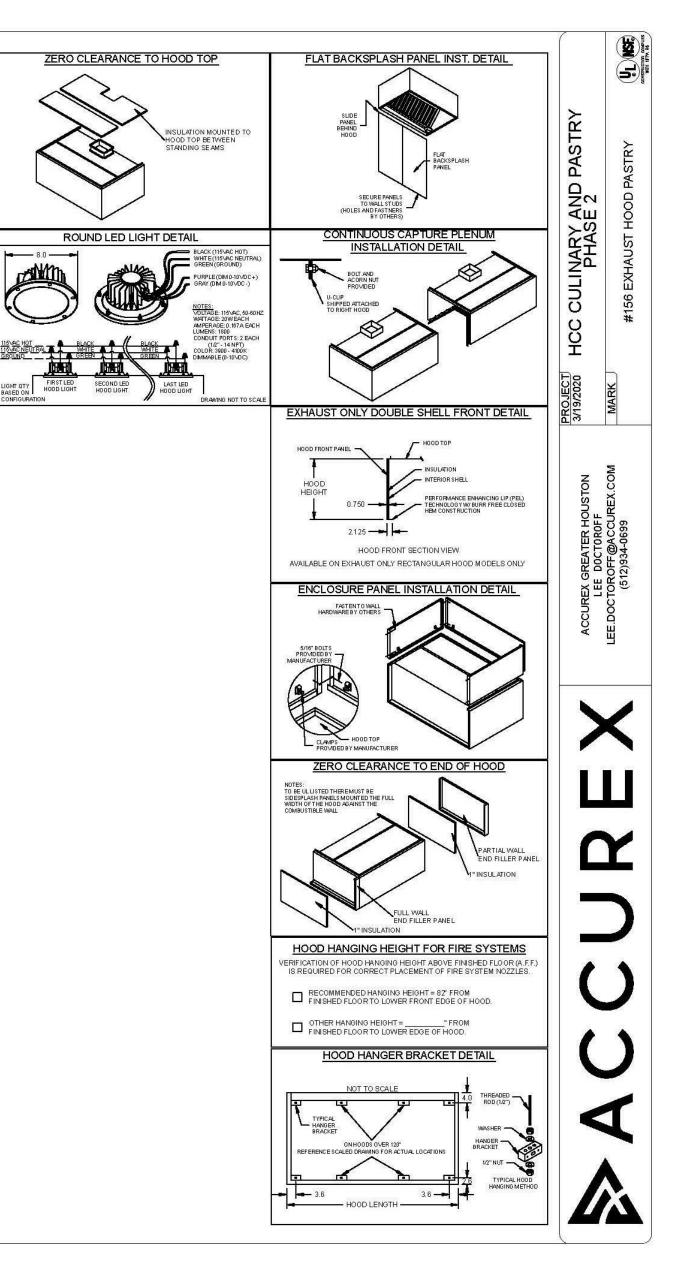




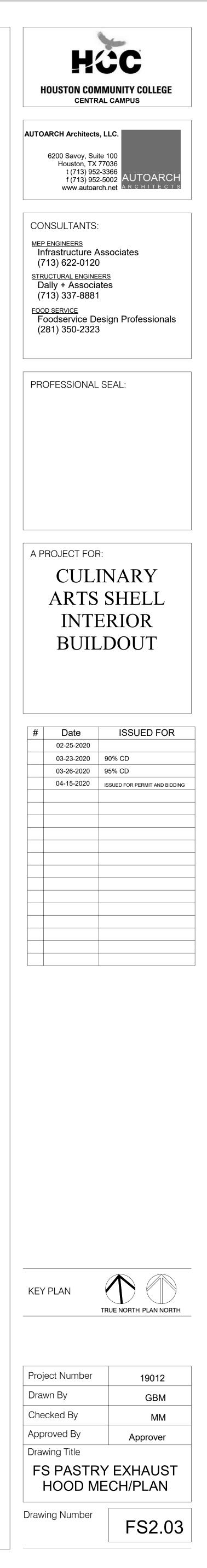


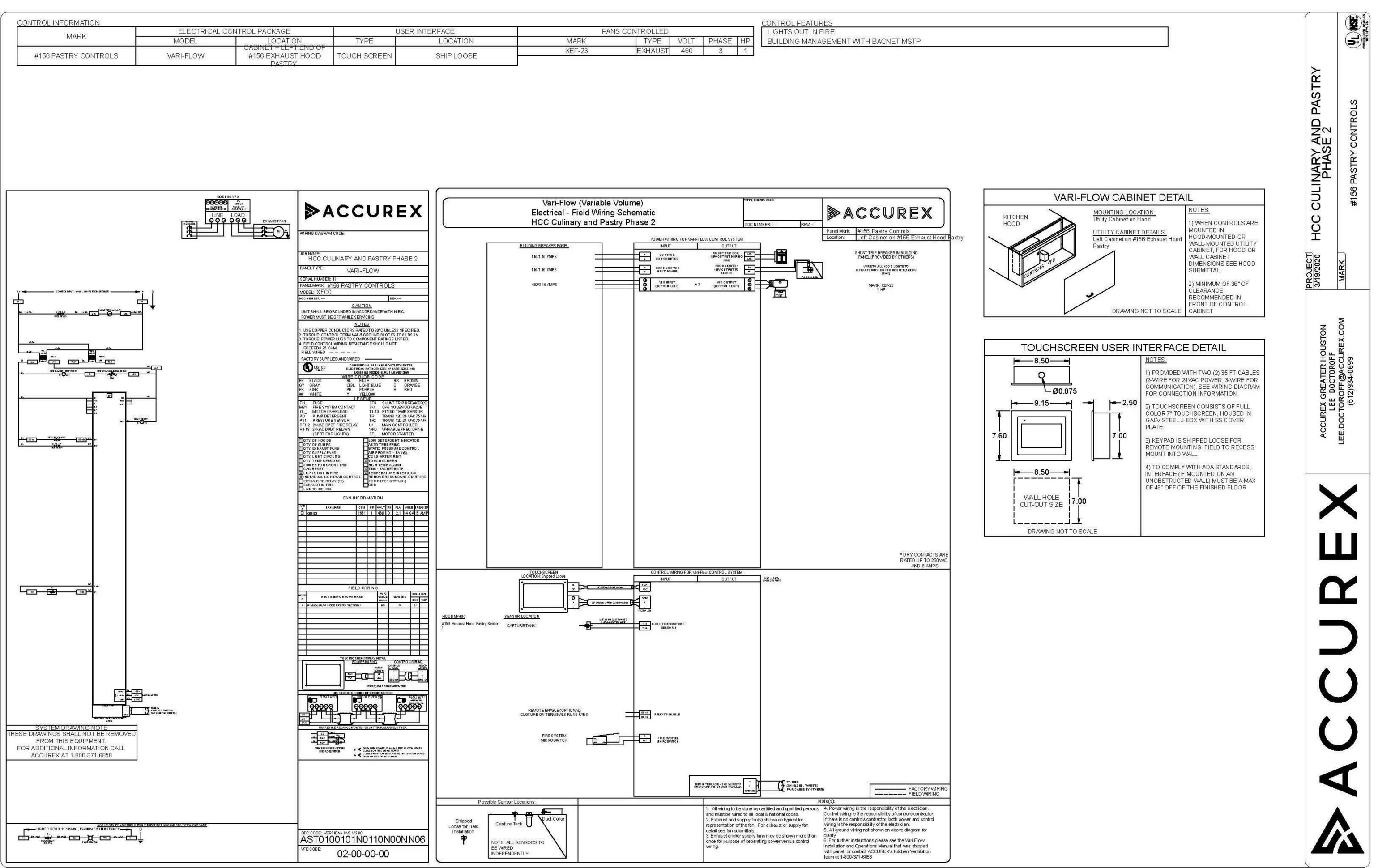
ORMATION			1	Sec Martinet Seco			
RK	MODEL	LOCATION	FLOW F HOODS	POINTS PCU	SUPPLY	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
56 PASTRY	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	4 UTILIZED 5 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#156 EXHAUST HOOD PASTRY SECTION 1
	Y PROVIDED APPLIAN	/ITH DETECTION AND FACTORY CES DROPS - INCLUDED	COORDINATED INS	TALL)			
	NICAL SHUTOFF VALV	E, 2", (ANSUL) - PART# ANSULME 1) 1.5 TANK(S)]	ECHSHUTOFFVALVE	200			
STATION - STANE	ARD - INSTALLATION A	T SINGLE POINT OF EGRESS					





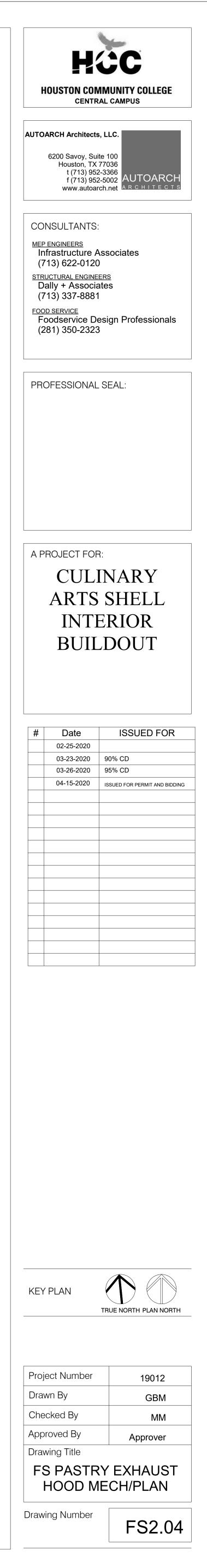


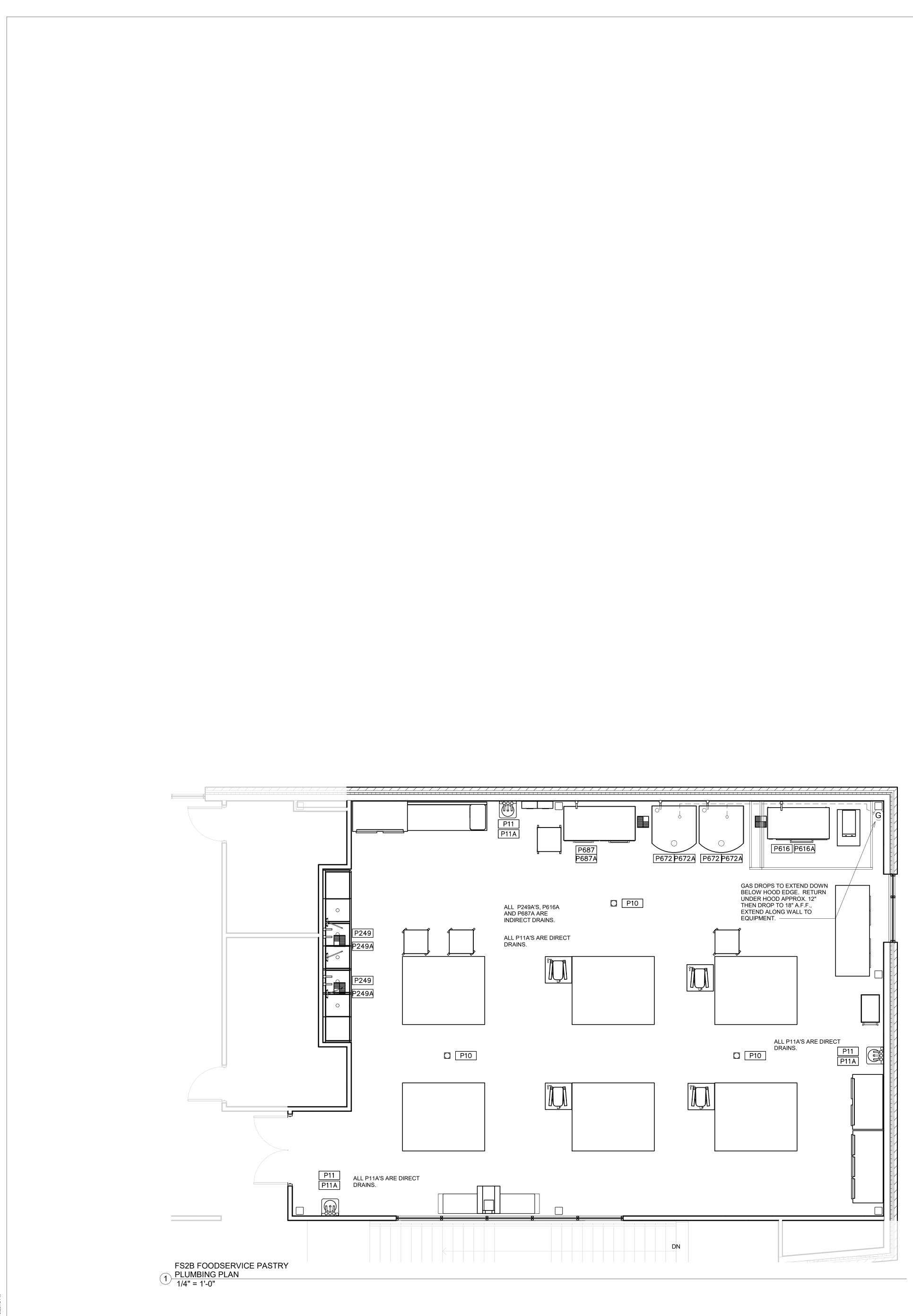




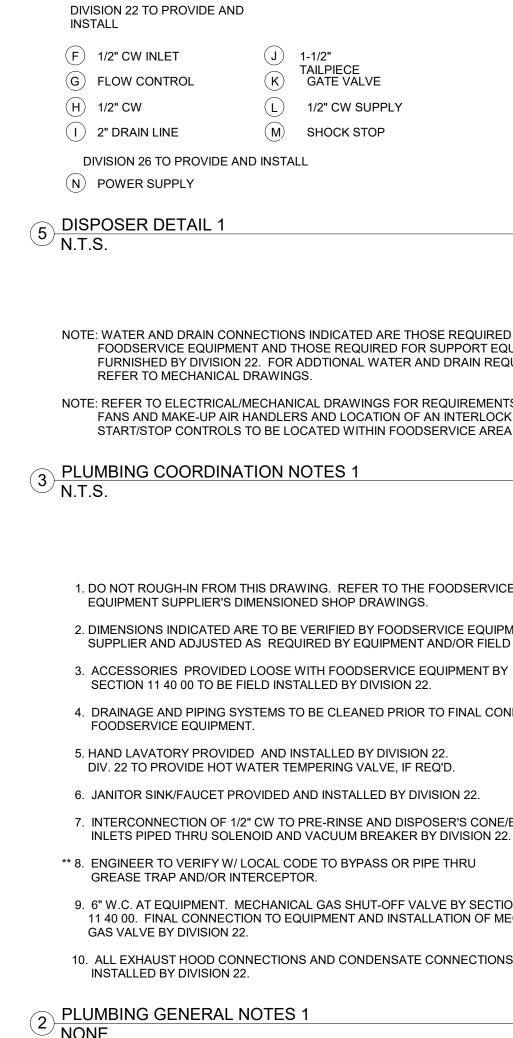
							CONTROL FEATURES
USE	R INTERFACE	FAN	LIGHTS OUT IN FIRE				
TYPE	LOCATION	MARK	TYPE	VOLT	PHASE	HP	BUILDING MANAGEMENT WITH BAC
TOUCH SCREEN	SHIPLOOSE	KEF-23	EXHAUST	460	3	1	
TOUCHOURLEN	SIM ECCOE						







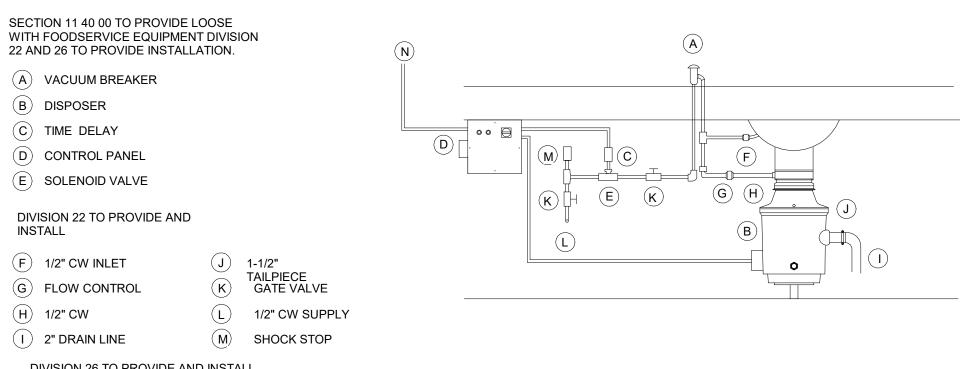
\bigcirc	PLUMBING GEN
2	PLUMBING GEN



(B) DISPOSER

C) TIME DELAY

	FOODSERVICE PLUMBING SCHEDULE								
0	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS			
	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING			
	3/4"	H & C WATER	FAUCET	WALL	18"				
	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"				
	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3			
	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	THREE QUARTER GRATE			
	3/4"	COLD WATER	DECK OVEN	WALL	60"	BTC: RE: NOTE #3			
	12"	FLOOR SINK	DECK OVEN	FLOOR	0"	BTC: RE: NOTE #3			
	3/4"	NATURAL GAS	ROTATING RACK OVEN	WALL	18"	BTC: RE: NOTE #3 - 85MBTU/HR			
	3/4"	COLD WATER	ROTATING RACK OVEN	WALL	60"	BTC: RE: NOTE #3			
	1/2"	COLD WATER	PROOFER	WALL	60"	BTC: RE: NOTE #3 & #17			
	12"SQ.	FLOOR SINKS	PROOFER	FLOOR	0"	3/4 GRATE - RE: NOTE #4			



FPD PNO F

P10

P11 P11A

P249

P249A P616 P616A P672

P672A P687 P687A

NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 22. FOR ADDTIONAL WATER AND DRAIN REQUIRMENTS

NOTE: REFER TO ELECTRICAL/MECHANICAL DRAWINGS FOR REQUIREMENTS OF EXHAUST FANS AND MAKE-UP AIR HANDLERS AND LOCATION OF AN INTERLOCK AND START/STOP CONTROLS TO BE LOCATED WITHIN FOODSERVICE AREA BY DIVISION 26.

1. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE FOODSERVICE

- 2. DIMENSIONS INDICATED ARE TO BE VERIFIED BY FOODSERVICE EQUIPMENT SUPPLIER AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.
- SECTION 11 40 00 TO BE FIELD INSTALLED BY DIVISION 22. 4. DRAINAGE AND PIPING SYSTEMS TO BE CLEANED PRIOR TO FINAL CONNECTION WITH
- 5. HAND LAVATORY PROVIDED AND INSTALLED BY DIVISION 22.

6. JANITOR SINK/FAUCET PROVIDED AND INSTALLED BY DIVISION 22.

- 7. INTERCONNECTION OF 1/2" CW TO PRE-RINSE AND DISPOSER'S CONE/BODY INLETS PIPED THRU SOLENOID AND VACUUM BREAKER BY DIVISION 22. ** 8. ENGINEER TO VERIFY W/ LOCAL CODE TO BYPASS OR PIPE THRU
- 9. 6" W.C. AT EQUIPMENT. MECHANICAL GAS SHUT-OFF VALVE BY SECTION 11 40 00. FINAL CONNECTION TO EQUIPMENT AND INSTALLATION OF MECHANICAL
- 10. ALL EXHAUST HOOD CONNECTIONS AND CONDENSATE CONNECTIONS FURNISHED

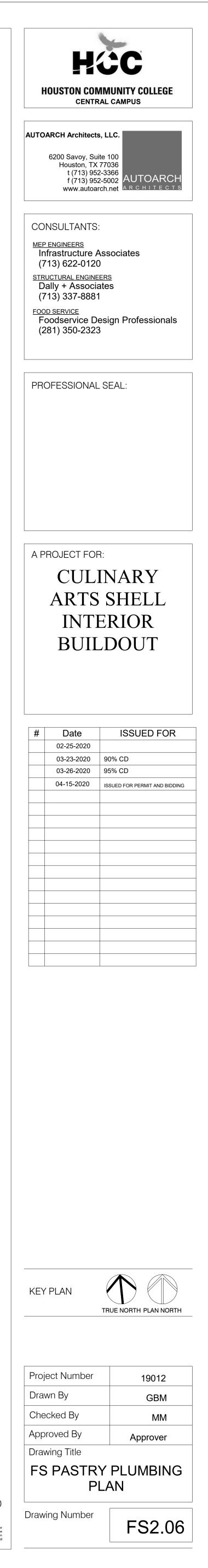
HW_HOT WATER_ IW___INDIRECT WASTE (EXTEND TO F.D.)__ CW COLD WATER FFD FUNNEL FLOOR DRAIN HTW 180 F HOT WATER EVC EXHAUST VENT CONNECTION SVC SUPPLY VENT CONNECTION GAS SUPPLY FR DIRECT-CONNECTED FLUE RISER SS STEAM SUPPLY PS PIPE SLEEVE AFF ABOVE FINISHED FLOOR CR CONDENSATE RETURN • DR DRAIN ST STUB UP/OUT BTC BRANCH TO CONN. ON EQUIP DFA DROP FROM ABOVE FS FLOOR SINK

4 PLUMBING SYMBOLS 1 NONE

- 11. ALL EXPOSED FIRE SYSTEM PIPING TO BE CHROME PLATED OR STAINLESS STEEL.
- 12. NUMBER NOT USED.
- 13. ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL CONNECTION BY DIVISION 22.
- 14. NUMBER NOT USED.
- 15. QUICK DISCONNECTS TO BE SUPPLIED BY SECTION 11 40 00 W/ALL GAS & WATER EQUIPMENT. 16. PROTECTIVE DEVICES TO PROTECT AGAINST BACK FLOW. BACK SYPHONAGE SHALL BE INSTALLED AT ALL FIXTURES AND EQUIPMENT WHERE BACKFLOW AND/OR BACKSYPHONAGE
- MAY OCCUR AND WHERE A MINIMUM AIR GAP CANNOT BE PROVIDED BETWEEN THE WATER TO THE FIXTURE OR EQUIPMENT AND ITS FLOOD/LEVEL RIM. TO BE PROVIDED AND INSTALLED BY DIVISION 22. VACUUM BREAKERS, WHEN FURNISHED WITH EQUIPMENT, SHALL OVERRIDE ABOVE, IF ACCEPTABLE WITH APPLICABLE CODES, BUT DIV. 22 TO PIPE WHEN NOT PREPIPED BY FACTORY. INTERCONNECT THRU WATER FILTER TO EQUIPMENT BY DIVISION 22.
- 17. BACKFLOW PREVENTION BY DIVISION 22

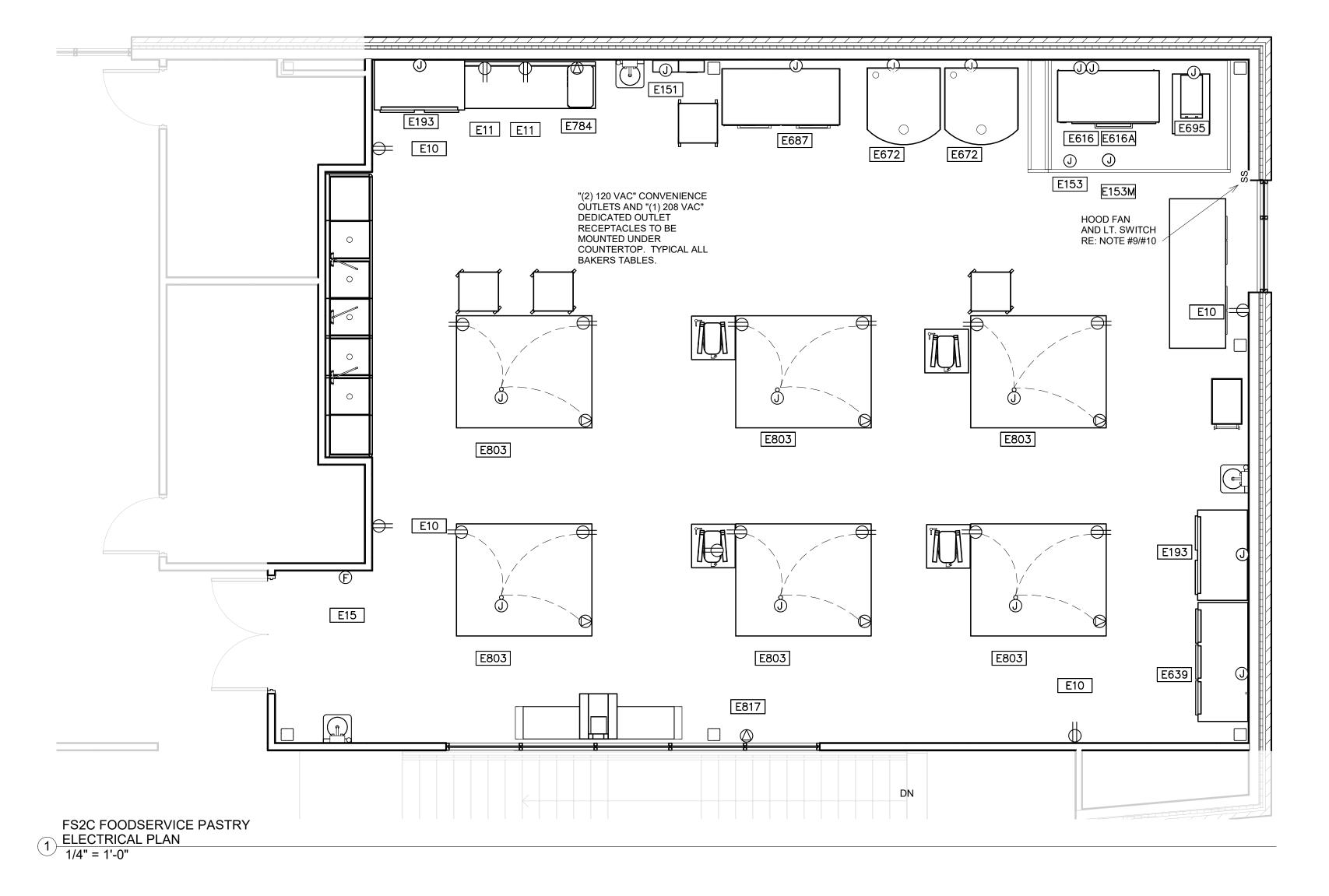
NERAL NOTES 1





2 ELECTRICAL GENERAL NOTES 1 NONE

- 14. EMPTY CONDUIT RUN FROM CASHIER STATION TO MANAGERS OFFICE FOR POS SYSTEM BY DIVISION 26. LOCATION OF MANAGER'S OFFICE TO BE VERIFIED.
- CONNECTION BY DIVISION 26. 13. SECTION 11 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT.
- 12. RECEPTACLE(S) TO BE PRE-WIRED TO JUNCTION BOX OR LOAD CENTER FOR FINAL
- 11. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIP(S) AND BUILDING ALARM - BY DIVISION 26.
- 10. INTERCONNECT TO EXHAUST HOOD LIGHT(S) AND SWITCH BY DIVISION 26.
- 9. INTERCONNECT TO EXHAUST HOOD FAN(S) AND SWITCH BY DIVISION 26.
- 8. N/A
- FINAL CONNECTION BY DIVISION 26.
- DOOR HEATER(S), LIGHT(S), COIL(S) AND PRESSURE RELIEF PORT(S) PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLY BY SECTION 14 00 00.
- 6. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOOD TO EXTEND TO SHUNT TRIP BREAKERS WITHIN ELECTRICAL PANEL BOX FOR SHUT-DOWN DURING FIRE MODE - BY DIVISION 26.
- 5. STAINLESS STEEL DISCONNECT SWITCH PROVIDED AND INSTALLED BY DIVISION 26.
- 4. ACCESSORIES AND FITTINGS PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY SECTION 11 40 00. FIELD INSTALLED BY DIVISION 26.
- REQUIRED BY FOODSERVICE EQUIPMENT AND/OR FIELD CONDITIONS.
- 3. DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS
- 2. VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ENGINEERING DRAWINGS.
- 1. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS.



3 ELECTRICAL COORDINATION NOTES 1

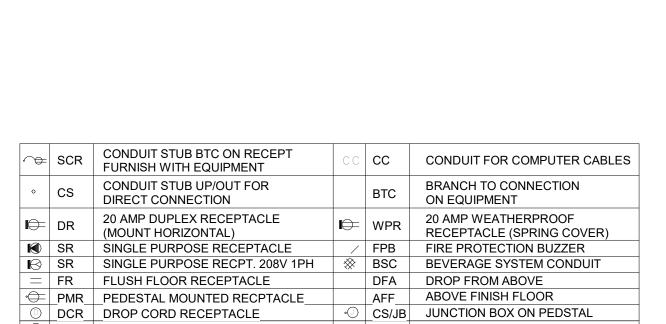
DRAWINGS.

FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDTIONAL REQUIREMENTS REFER TO ELECTRICAL ENGINEER'S

NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED

4 ELECTRICAL SYMBOLS 1 NONE

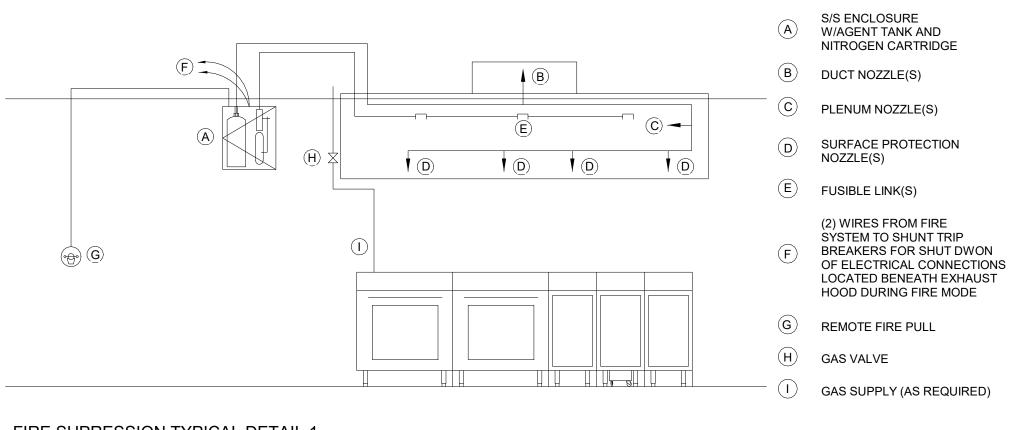
Þ	DR	20 AMP DUPLEX RECEPTACLE	I€=	WPR	20 AMP WEATHERPROOF
•		(MOUNT HORIZONTAL)	•	VVIIX	RECEPTACLE (SPRING COVER)
	SR	SINGLE PURPOSE RECEPTACLE	/	FPB	FIRE PROTECTION BUZZER
${\bf B}$	SR	SINGLE PURPOSE RECPT. 208V 1PH	\otimes	BSC	BEVERAGE SYSTEM CONDUIT
=	FR	FLUSH FLOOR RECEPTACLE		DFA	DROP FROM ABOVE
÷	PMR	PEDESTAL MOUNTED RECPTACLE		AFF	ABOVE FINISH FLOOR
\bigcirc	DCR	DROP CORD RECEPTACLE	•	CS/JB	JUNCTION BOX ON PEDSTAL
\odot	JB	JUNCTION BOX ON CEILING		DS	DISCONNECT SWITCH
\square	JB	JUNCTION BOX IN WALL			
Ū		JUNCTION BOX WITH	Ō		CONDUIT STUB-UP
L C L	JB/DS	DISCONNECT BY DIV.26		JB/DS	WITH DISCONNECTI BY DIV.26



					FOODSERVICE ELECTRICAL	CONEDULE		
FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS
E10	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"	
E11	DR	16.0A	120	1	CONVENIENCE	WALL	47"	MOUNT HORIZONTAL
E15	JB				REMOTE FIRE PULL	WALL	48"	RE: NOTE #11 - RECESSED JB - EXTEND TO FIRE SYSTEM FOR HOOD
E151	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #11
E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #10
E153M	JB	1.0A	120	1	TEMPERATURE SENSOR	CLG	DFA	BTC; RE: NOTE #4, #6 & #9
E193	JB	8.2A	120	1	REFRIGERATOR	WALL	90"	
E616	JB	33.3KW	208	3	DECK OVEN	WALL	36"	BTC; RE: NOTE #4
E616A	JB	11.0KW	208	3	DECK OVEN	WALL	36"	BTC; RE: NOTE #4
E639	JB	16.0A	208	1	FREEZER	WALL	90"	COORDINATE NEMA PLUG
E672	JB	15.0A	208	3	ROTATING RACK OVEN	WALL	24"	BTC; RE: NOTE #4 - SHUNT TRIP BREAKE
E687	JB	15.0A	208	3	PROOFER	WALL	85"	
E695	JB	22.0A	200V-240V	1	EQUIPMENT	WALL	24"	SHUNT TRIP BREAKER BTC; RE: NOTE #4
E784	SR	15.0A	208	1	ICE CREAM FREEZER	WALL	47"	MOUNT HORIZONTAL
E803	JB	30.0A	208	1	TABLE RECEPTACLES	FLOOR	4"	
E817	DR	16.0A	480	3	DOUGH SHEETER	WALL	24"	CONFIRM NEMA CONFIGURATION W/DIV. 26

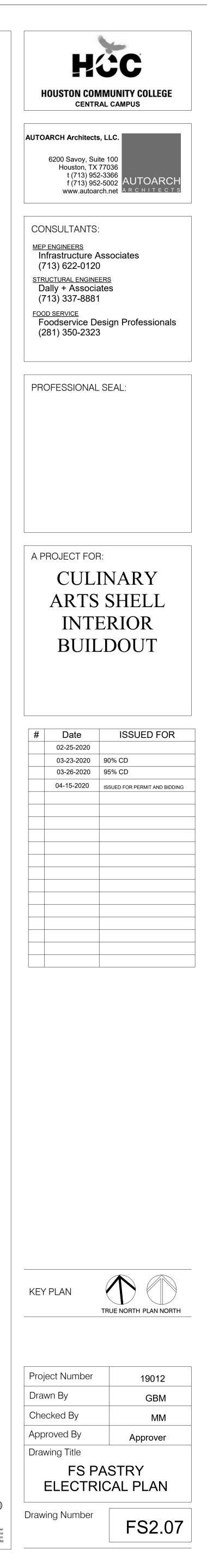
1/2" DIA. EMPTY EMT CONDUIT EXTENDED UP 6" ABOVE CEILING BY DIVISION 26. 4" X 4" OCTOGON BOX BY DIV. 26 FLUSH MOUNTED IN WALL. REMOTE FIRE PULL BY SECTION 11 40 00

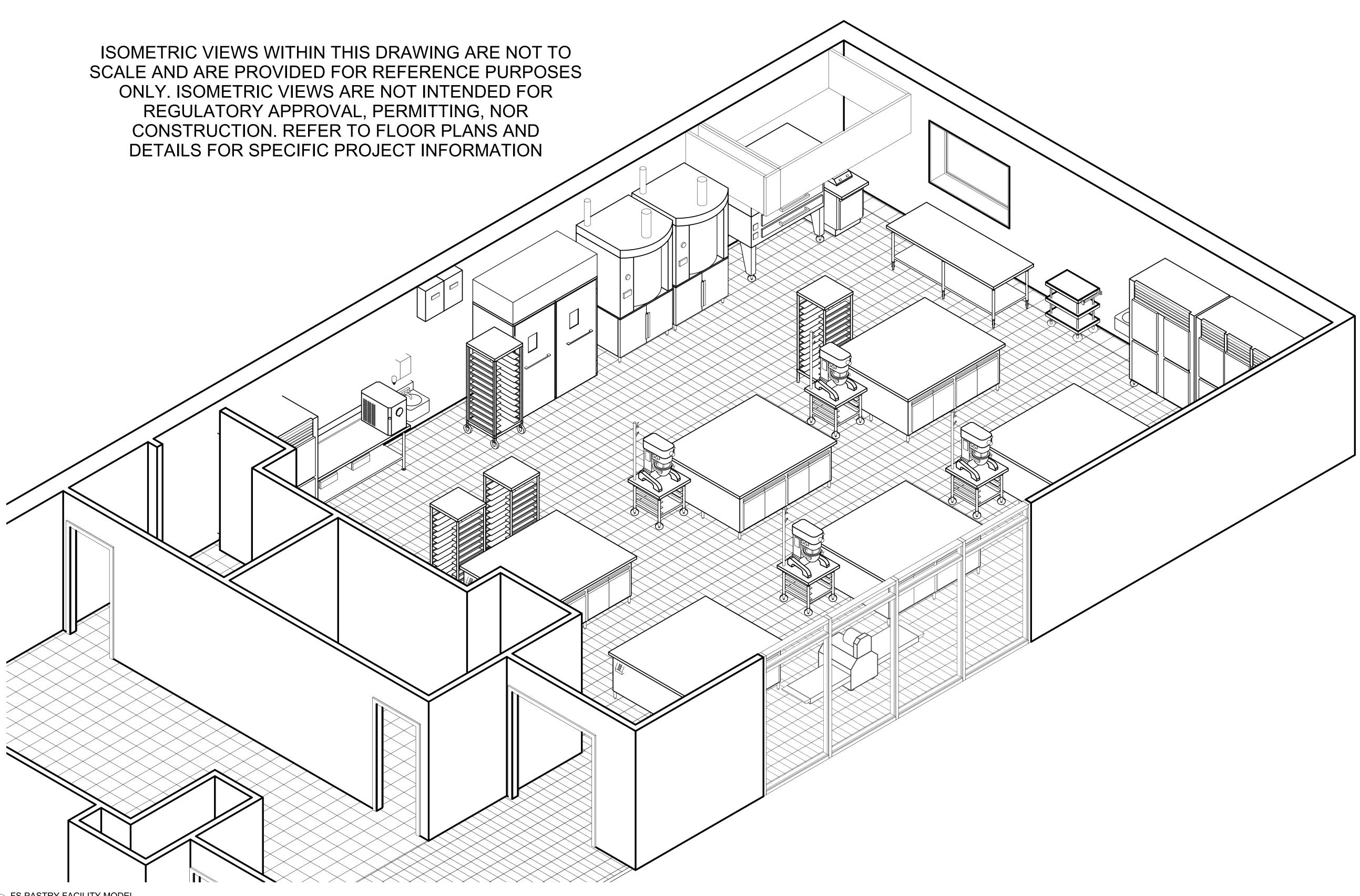
5 RECESSED FIRE PULL DETAIL 1 N.T.S.



6 FIRE SUPRESSION TYPICAL DETAIL 1 N.T.S.

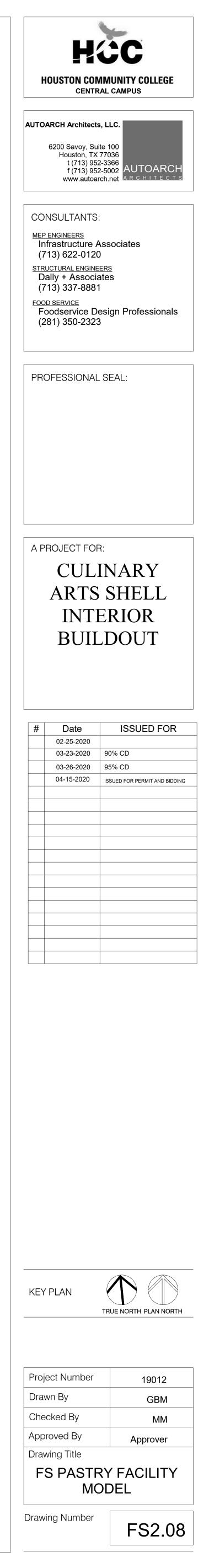


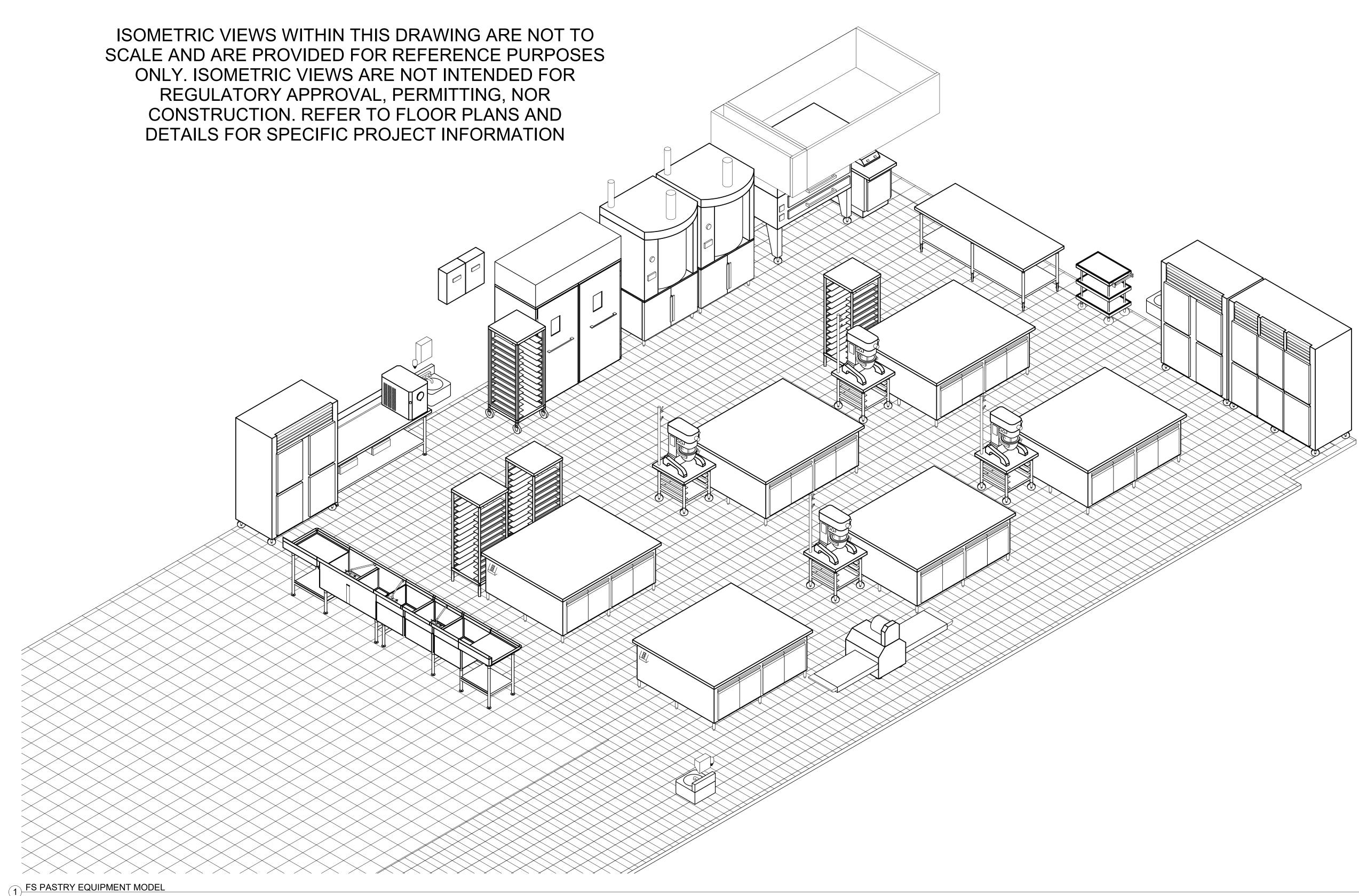


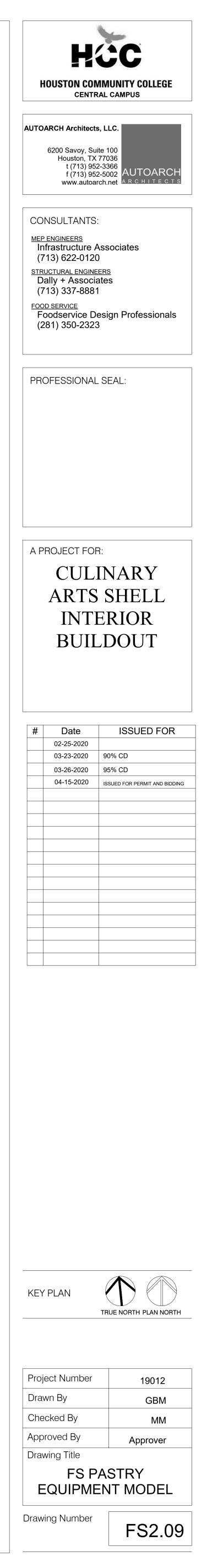


1 FS PASTRY FACILITY MODEL

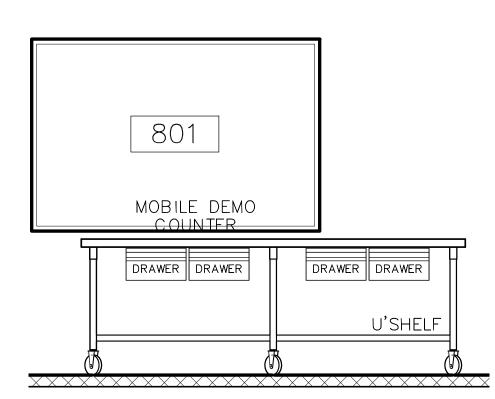


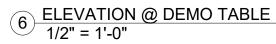


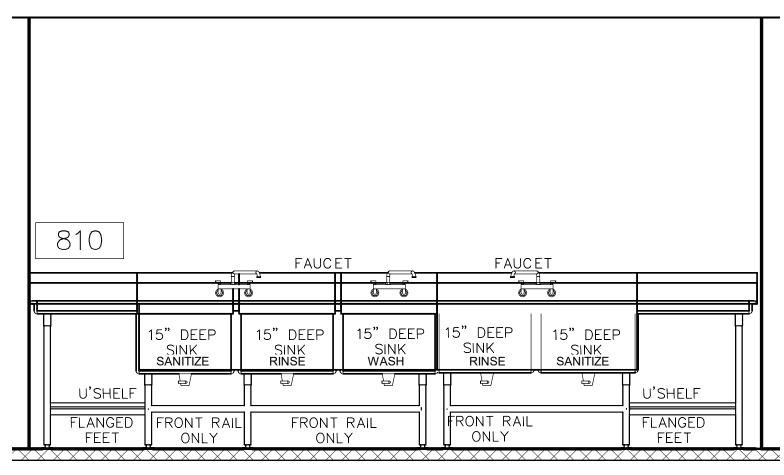




: FDP Project Number :: Project Name :: Project Location / ... : PM / APM

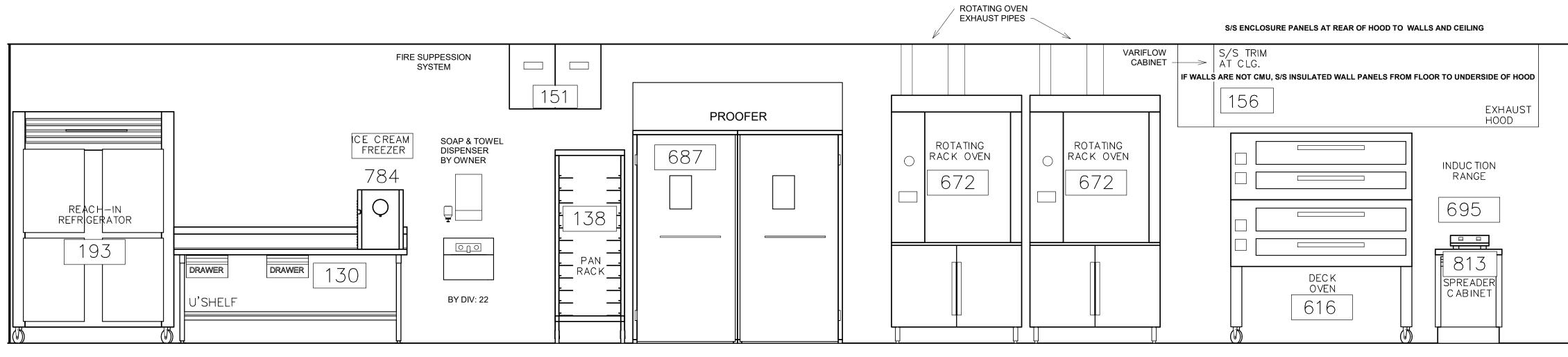




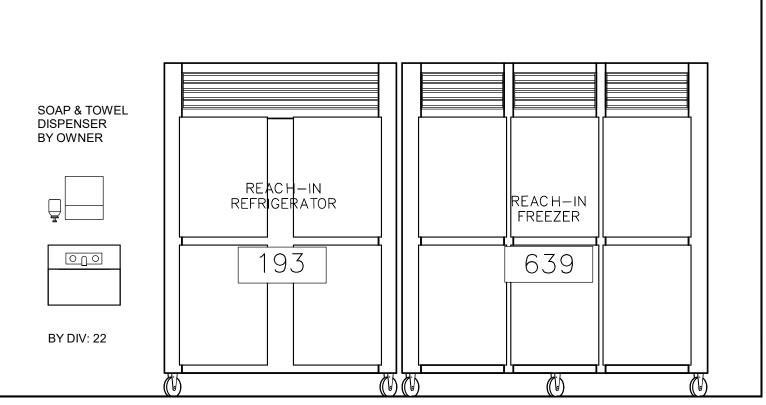


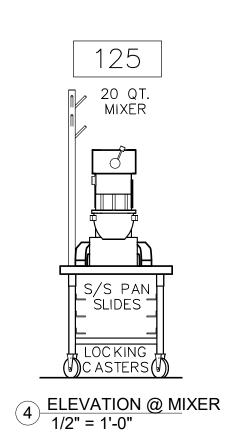
2 ELEVATION @ 5COMPARTMENT SINK 1/2" = 1'-0"

1) ELEVATION @ PRODUCTION 1/2" = 1'-0"

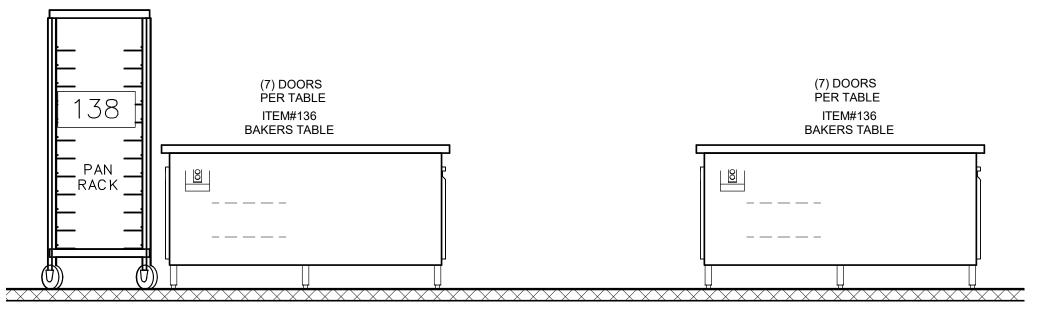


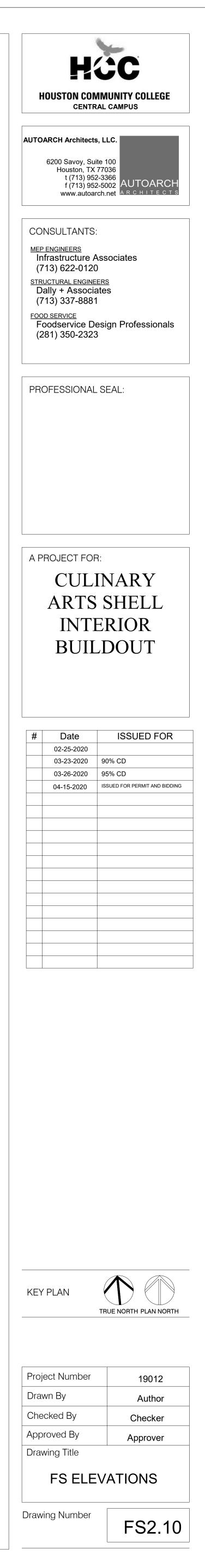
5 ELEVATION @ HOLDING 1/2" = 1'-0"

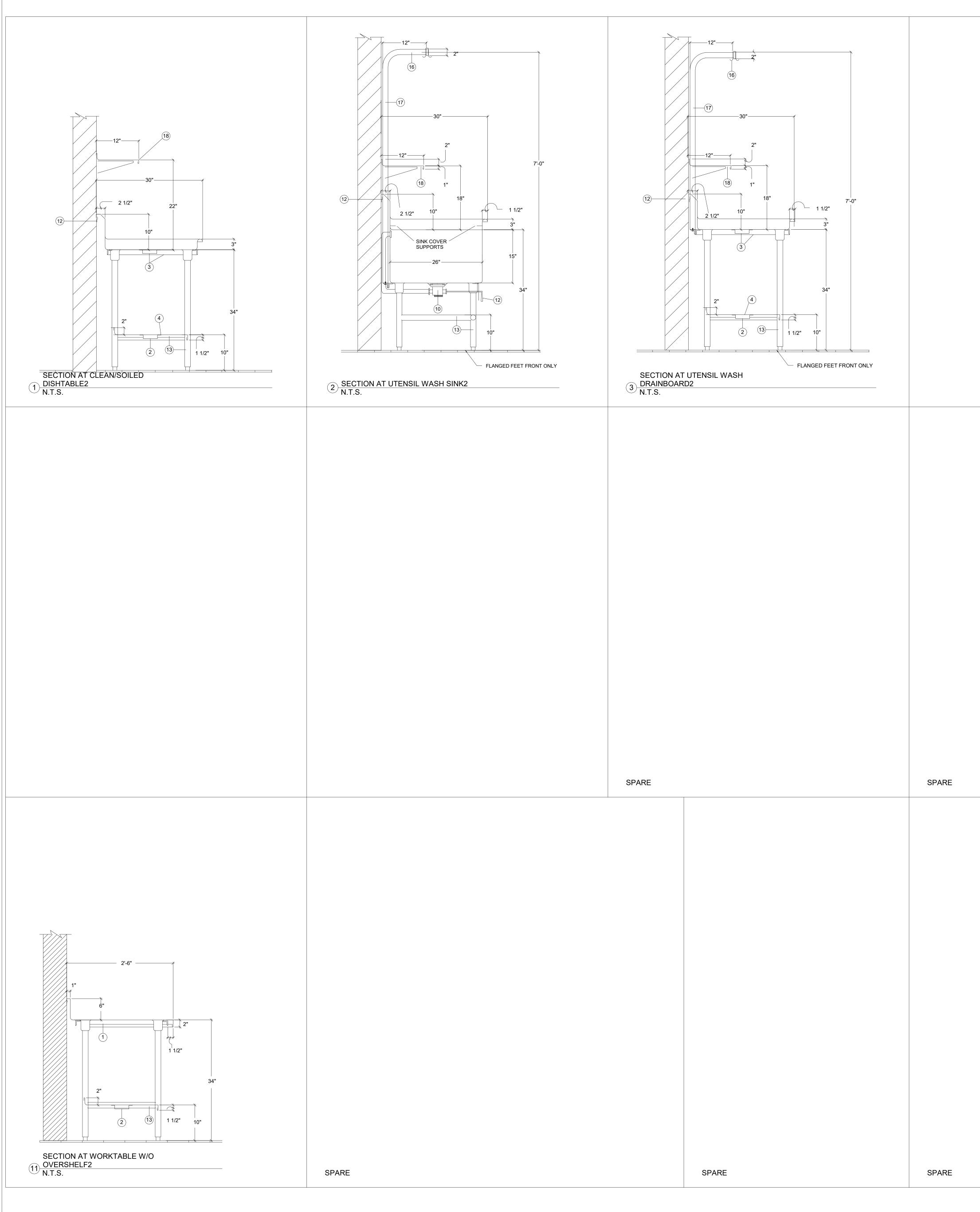




3 ELEVATION @ BAKERS TABLES 1/2" = 1'-0"





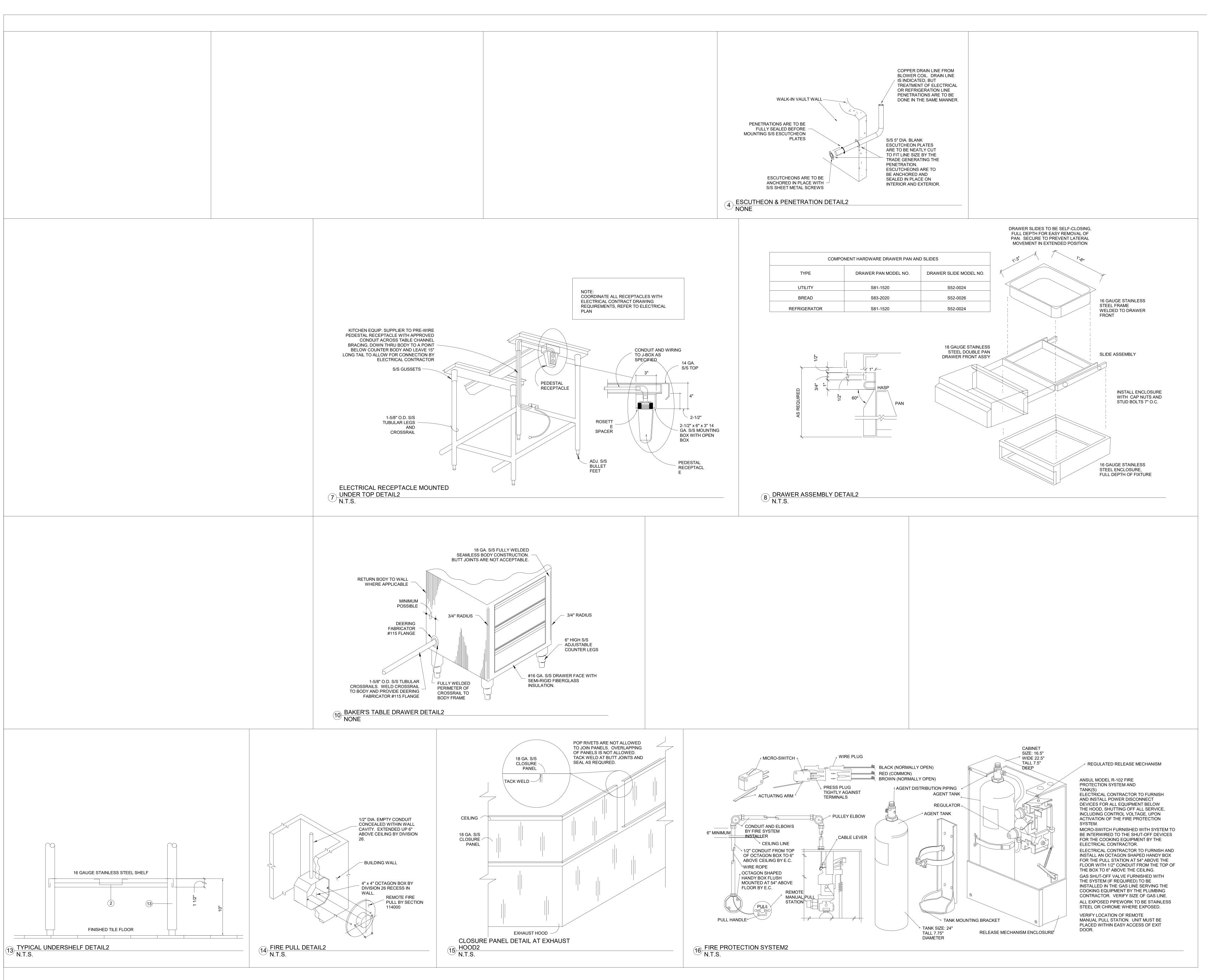


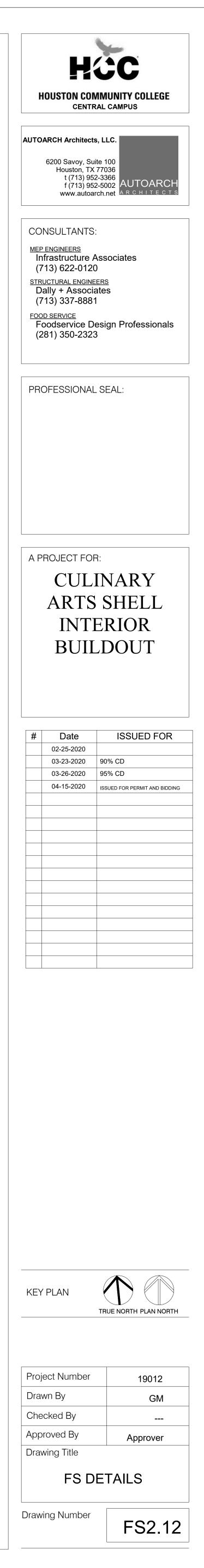
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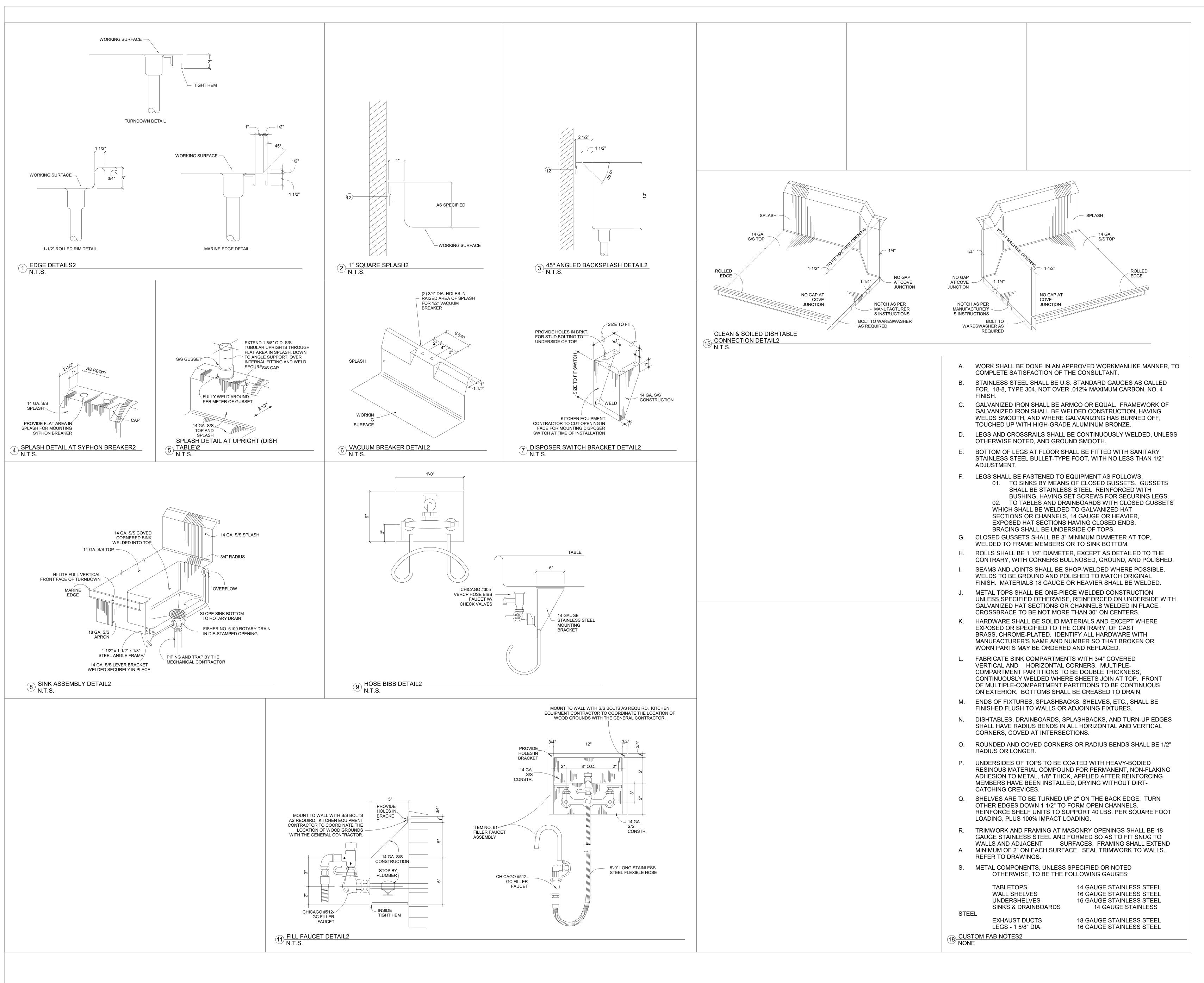
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 1.112" X 112" X 1/8" GALVANIZED ANGLE IRON. 1.12" X 114 GAUGE STAINLESS STEEL HAT CHANNEL. 3.6 GAUGE STAINLESS STEEL C-CHANNEL. 3.6 GAUGE STAINLESS STEEL C-CHANNEL. 3.34" MARINE GRADE PLYWOOD BY SECTION 11 40 00 WITH THE FRONT BY TRADE CONTRACTOR. VERIFY FINISH WITH ACHITECTURAL DRAWINGS. 6 GOLD EAN. 2" REID INSULATION WITH 1" C P. DRAIN - 16 GAUGE STAINLESS STEEL SE CTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1" C P. DRAIN - 16 GAUGE STAINLESS STEEL SE CTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1" C P. DRAIN - 16 GAUGE STAINLESS STEEL INSULATED DOUBLE FAN DOOR WITH RECESSED PULL. 8 MANFOLD DRAINS AT HOT FOOD UNITS WITH 1" TYPE 'K COPPER AND EXTEND TO VAVLE IN PLUMBING COMPARTMENT. 9. FINISHED TRUE AND LEVEL MASONRY BASE BY DIVISION 9. CLOSE COUNTER BODY AT BASE AND SEAL BY SECTION 1140 00. 10.FIRHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW. 11 46 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS. 17.9'SIS TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH. 15 16" DA 116 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS. 17.9'SIS TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH. 16" 16 GAUGE STAINLESS STEEL LOUNG - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7-0" A.F. ROWT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE. 17.9'SIS TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH. 16 GAUGE STAINLESS STEEL LOUNG - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7-0" A.F. ROWT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO COMPORENT HARDWARE ADJACENT TO WALL FIXTURE. 18 GA AUGE STAINLESS STEEL LOUVERED PANEL. 18 GAUGE STAINLESS STEEL INDURES DOUBL
SPARE

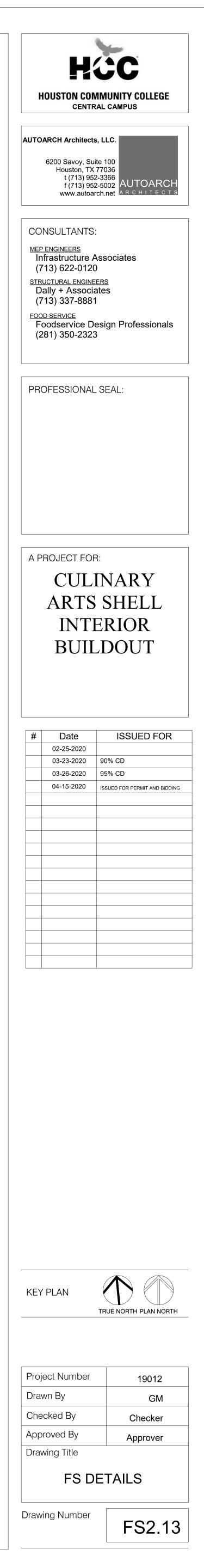
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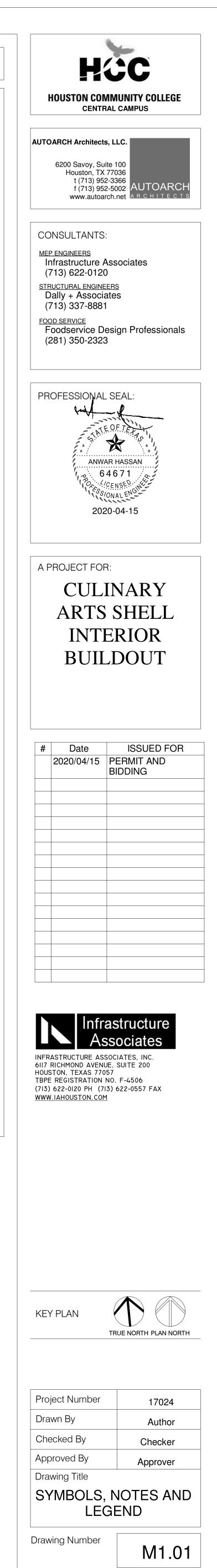


	ABBREVIAT	IONS LE	GEND		Μ	ECHANICAL	_ SYMBOLS LEGE	END	
ACRONYM	DESCRIPTION	ACRONYM	DESCRIPTION		SUPPLY AIR DUCT UP (PLAN)	A X CFM	DIFFUSER TYPE AND CFM		CHECK VALVE, SWING GATE
°F	FAHRENHEIT	FAS	FIRE ALARM SYSTEM					→£	ANGLE PRESSURE RELIEF VALVE
AC	AIR CONDITIONING	FCU	FAN COIL UNIT		SUPPLY AIR DUCT DOWN (PLAN)	1	THERMOSTAT - MOUNT 48" AFF UNO		ANGLE FRESSURE RELIEF VALVE
AHU	AIR HANDLING UNIT	FPM	FEET PER MINUTE		RETURN OR OUTSIDE AIR DUCT UP (PLAN)	H	HUMIDISTAT	₽RV	PRESSURE REDUCING VALVE
AI	ANALOG INPUT	FPT	FAN POWER TERMINAL		RETURN OR OUTSIDE AIR DUCT DOWN (PLAN)	F	FIRESTAT		LOCK SHIELD
ALT	ALTITUDE	GPM	GALLON PER MINUTE		EXHAUST AIR DUCT UP (PLAN)	Tall	THERMOSTAT/ CO2 SENSOR/ HUMIDISTAT		QUICK OPENING/CLOSING VALVE
A0	ANALOG OUTPUT	HP	HORSE POWER		EXHAUST AIR DUCT OF (FLAN)	TCH	MOUNT 48" AFF UNO		QUICK OFENING/CLOSING VALVE
APPROX ATM	APPROXIMATE ATMOSPHERE	HVAC HWR	HEATING VENTILATION AND AIR CONDITIONING HOT WATER RETURN		EXHAUST AIR DUCT DOWN (PLAN)	SD	SMOKE DETECTOR	X	PRESSURE REGULATOR
ATM	AVERAGE	HWS	HOT WATER RETORN		RETURN AIR/TRANSFER AIR BOOT		PIPE UP	→ + → + →	STRAINER W/BLOW DOWN VALVE
B	BOILER	ISP	INTERNAL STATIC PRESSURE	X	CEILING SUPPLY AIR DEVICE		PIPE DOWN		THREE-WAY VALVE (ELECTRIC)
BARO	BAROMETER (-TRIC)	Kw	KILOWATT					<u> </u>	
BAS	BUILDING AUTOMATION SYSTEM	LAT	LEAVING AIR TEMPERATURE		SIDEWALL SUPPLY/EXHAUST REGISTER		САР		TWO-WAY VALVE (ELECTRIC)
ВНР	BRAKE HORSE POWER	LHG	LATENT HEAT GIANT		CEILING RETURN AIR / EXHAUST REGISTER		90° ELBOW	$\rightarrowtail \boxtimes \boxtimes \boxtimes \vdash$	FLEXIBLE CONNECTION
BI	BINARY INPUT	LWT	LEAVING WATER TEMPERATURE		RETURN AIR GRILLE WITH BOOT		45° ELBOW	EJ	EXPANSION JOINT
во	BINARY OUTPUT	MUA	MAKEUP AIR UNIT						THERMOMETER
BTU	BRITISH THERMAL UNIT	MX	MIXING AIR		BRANCH DUCT TAP		45° ELBOW DOWN (OGEE)	5-+ ¹ +-3	THERMOMETER
BTUH	BRITISH THERMAL UNIT/HOURS	NA	NOT APPLICABLE		DUCT SPLIT WITHOUT VANES		TEE	₩ ×-+∠∕-+×	THERMOMETER WELL
CFM	CUBIC FEET PER MINUTE	NO.	NUMBER		ACCESS DOOR		TEE UP	, , , , , , , , , , , , , , , , , , ,	TEST PLUG
СНШР	CHILL WATER PUMP	0/A	OUTSIDE AIR		TRANSITION IN DUCT		TEE DOWN	Q Q	PRESSURE GAUGE W/GAUGE COCK
CHWR	CHILL WATER RETURN	OAHU	OUTSIDE AIR HANDLING UNIT					×+++×	
CHWS	CHILL WATER SUPPLY	PSI	POUNDS PER SQUARE INCH RETURN AIR		DUCT WITH SPIN-IN CONNECTOR		TOP CONNECTION		MANUAL AIR VENT
COEFF CRAC	COEFFICIENT COMPUTER AIR CONDITIONER	RA REV	REVOLUTIONS	ΑΡ	FLEXIBLE DUCT CONN. TO RECTANGULAR ACCESS PANEL		CROSS		AUTOMATIC AIR VENT
СТ	COOLING TOWER	RTU	ROOF TOP UNIT		DUCT ELBOW WITH TURNING VANES		UNION (SCREWED)	S	SOLENOID VALVE
CU	CONDENSING UNIT	S/A	SUPPLY AIR						
CV	CONSTANT VOLUME	SG	SPECIFIC GRAVITY		DUCT ELBOW WITHOUT VANES		UNION (FLANGED)	FS *	FLOW SWITCH
CWP	CONDENSER WATER PUMP	SHG	SENSIBLE HEAT GAIN		FLEXIBLE CONNECTION, FLEXIBLE DUCT	T T	DUCT MOUNTED TEMPERATURE SENSOR		TEMPERATURE AND PRESSURE RELIEF VALVE
CWR	CONDENSER WATER RETURN	SP	STATIC PRESSURE	¬VD	VOLUME DAMPER	P +	DUCT MOUNTED PRESSURE SENSOR	<u>نام الم</u>	STEAM TRAP
CWS	CONDENSER WATER SUPPLY	SPEC	SPECIFICATION	M					
DB	DRY BULB	ТСН	THERMOSTAT/ CO2 SENSOR/ HUMIDISTAT		MOTORIZED VOLUME DAMPER		DUCT MOUNTED SMOKE DETECTOR	μ	STEAM MOISTURE SEPARATOR
DI	DIGITAL INPUT	T-STAT	THERMOSTAT	F-	FIRE DAMPER		PIPE BREAK		CONTROL, ELECTRIC-PNEUMATIC
DO	DIGITAL OUTPUT	TYP.	TYPICAL		SMOKE DAMPER		CONCENTRIC REDUCER	, PE,	CONTROL, PNEUMATIC-ELECTRIC
EAT		UH			COMBINATION FIRE/SMOKE DAMPER		ECCENTRIC REDUCER	×	RED. PRESS PRINCIPAL
EMC	ELECTRONICALLY COMMUTATED MOTOR			FS		L L		A l	BACKFLOW PREVENTER
ESP EWT	EXTERNAL STATIC PRESSURE ENTERING WATER TEMPERATURE	VFD WB	VARIABLE FREQUENCY DRIVE WET BULB		AIR FLOW MONITORING STATION		END SUCTION PUMP		PRIMARY CHILLED WATER RETURN
EX	EXHAUST AIR				AIR PRESSURE DIFFERENTIAL SWITCH		BALL VALVE	è PCHWS →	PRIMARY CHILLED WATER SUPPLY
NOTE:				μ μ μ μ μ μ μ μ μ μ μ μ μ	RISE IN DUCT ELEVATION		BUTTERFLY VALVE	← CWR	CONDENSER WATER RETURN
	MS NECESSARILY USED.				DROP IN DUCT ELEVATION	~~	ISOLATION VALVE		CONDENSER WATER SUPPLY
				SD DIM.	SPLITTER DAMPER - DIMENSION AS NOTED ON DRAWING		GATE VALVE WITH QUICK DISCONNECT		HOT WATER RETURN
				(BDD)	BACK DRAFT DAMPER		TWO-WAY VALVE	→ HHWS	HOT WATER SUPPLY
				UCD I"	UNDERCUT DOOR I"		THREE-WAY VALVE	CD	CONDENSATE DRAIN
				RE: I/M-7	REFER TO DETAIL #I ON DRAWING M-7		BALANCING VALVE	K SS S	SECONDARY CHILLED WATER RETURN
						→ → → MPS → →	MEDIUM PRESSURE STEAM SUPPLY		SECONDARY CHILLED WATER SUPPLY
					FLOW METER				CONDENSATING PIPE
					CO2 SENSOR	REF	REFRIGERANT PIPE		
				NOTE					

NOTE: NOT ALL ITEMS NECESSARILY USED.

MECHANICAL GENERAL NOTES

- SEE ARCHITECTURAL PLANS FOR TYPE OF CEILING. FOR LOCATIONS OF WALL MOUNTED DEVICES AND LOCATION HEIGHTS COORDINATE WITH ARCH, 2. DO NOT OPERATE AIR HANDLERS, FAN COIL UNITS, OR EXHAUST FANS UNTIL ALL INTERIOR
- CLEANING AND PAINTING IS COMPLETE. THE CLEANING OF FOULED COILS OR FAN ASSEMBLIES DUE TO PAINT OR CONSTRUCTION DEBRIS WILL BE THE RESPONSIBILITY OF THE HVAC CONTRACTOR. RECTANGULAR, OR ROUND DUCT SIZES INDICATED ARE ACTUAL SHEET METAL DIMENSIONS IN
- INCHES ALL ROUND DUCT SIZES INDICATE NET FREE INSIDE DIAMETER AND DO NOT ACCOUNT FOR ANY INSULATION. ROUND DUCTS ARE EXTERNALLY INSULATED PER SPECIFICATIONS.
- SCHEDULED MANUFACTURERS ARE BASIS OF DESIGN. SEE SPECIFICATIONS FOR OTHER ACCEPTABLE MANUFACTURERS. 5. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL
- ARRANGEMENT AND SPACE ALLOCATION. VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTIONS IN ORDER TO ACCOMMODATE THE EXACT EQUIPMENT TO BE INSTALLED.
- REFER TO SPECIFICATIONS FOR SUPPORTS, ANCHOR BOLTS AND HANGERS FOR ALL EQUIPMENT. OTHER MISCELLANEOUS STEEL BRACING, SUPPORTS, AND REINFORCING STEEL REQUIRED TO SUPPORT EQUIPMENT SHALL BE FURNISHED AS PART OF THE SCOPE OF WORK OF DIVISION I5. INSTALL SMOKE DETECTORS IN CONFORMANCE WITH 2015 IMC WITH
- CITY OF STAFFORD, TX AMENDMENTS. 8. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS
- AND AUTHORITIES HAVING JURISDICTION. 9. ALL SUPPLY AND RETURN AIR DUCTS LOCATED IN UNCONDITIONED ATTICS OR OUTSIDE SHALL BE INSULATED (R-5 UNCONDITIONED AND R-8 OUTSIDE BUILDINGS).
- 10. FLEX DUCTS SHALL BE SAME SIZE AS DIFFUSER NECKS.
- II. SEAL ALL PENETRATIONS OF FLOORS, SMOKE WALLS, FIRE WALLS, LAB WALLS, AND EXTERIOR WALLS. 12. ARCHITECT SHALL APPROVE ALL THERMOSTAT OR TEMPERATURE SENSOR LOCATIONS.
- 13. DO NOT RUN DUCT OR PIPE OVER ELECTRICAL PANELS.
- 14. COORDINATE EXACT LOCATION OF EQUIPMENT, DUCTWORK, AIR DEVICES, AND THERMOSTATS WITH ARCHITECTURAL, STRUCTURAL AND REFLECTED CEILING PLANS. 15. ALL PENETRATIONS IN RATED WALLS SHALL BE SEALED WITH AN APPROVED FIRE RETARDENT
- SEALANT. 16. ALL DUCT RUN-OUTS TO SUPPLY AND EXHAUST, DIFFUSERS AND REGISTERS, SHALL HAVE
- MANUAL BALANCING DAMPERS. PROVIDE YOUNG REGULATORS WHERE CEILING IS INACCESSIBLE.
- 17. ALL DUCTWORK SHALL BE IN ACCORDANCE WITH LATEST SMACNA STANDARDS. 18. SECURE ALL PERMITS AND PROVIDE ANY REQUIRED TEMPORARY UTILITIES.
- 19. GUARANTEE LABOR AND MATERIAL FOR I YEAR AND PER DIV.I.
- 20. PROVIDE AUTOMATIC AIR VENTS ON ALL HIGH POINTS OF PIPING SYSTEMS AND DRAIN VALVED CONNECTIONS AT ALL LOW POINTS OF PIPING SYSTEMS.
- 21. REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SCOPE OF WORK AND REQUIRED INSTALLATION. 22. VERIFY FINAL LOCATION OF THERMOSTATS WITH ARCHITECT AND BUILDING ENGINEER PRIOR
- TO INSTALLATION. 23. ALL FLEXIBLE DUCT SHALL BE UL 181, CLASS I AIR DUCT BLACK LINER. MAXIMUM LENGTH OF FLEXIBLE DUCT SHALL NOT EXCEED 6'-0". PROVIDE RIGID ROUND INSULATED AIR DUCT RUNOUT AS REQUIRED. FLEXIBLE DUCT SHALL HAVE THE EQUIVALENT OF ONLY TWO 90 DEG. ELBOWS MAXIMUM. FLEXIBLE DUCT SIZE SHALL MATCH THE DIFFUSER NECK SIZE.
- 24. THE AIR QUANTITIES SHOWN ON THE DRAWINGS FOR INDIVIDUAL OUTLETS MAY BE CHANGED TO OBTAIN UNIFORM TEMPERATURE WITHIN EACH SPACE OR ZONE, BUT THE TOTAL AIR QUANTITY SHOWN FOR EACH ZONE MUST BE OBTAINED.
- 25. PROVIDE SMOKE DETECTOR FOR ALL UNITS WITH CAPACITY OF 2000 CFM AND HIGHER AS REQUIRED BY CODE. COORDINATE WITH 2015 IMC SECTION 606.
- 26. WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE RECORD DRAWINGS OF THE ACTUAL INSTALLATION SHALL BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER. RECORD DRAWINGS SHALL INCLUDE AS A MINIMUM THE LOCATION AND PERFORMANCE DATA ON EACH PIECE OF EQUIPMENT, GENERAL CONFIGURATION OF DUCT AND PIPE DISTRIBUTION SYSTEM INCLUDING SIZES, AND THE TERMINAL AIR OR WATER DESIGN FLOW RATES.
- 27. OPERATING AND MAINTENANCE MANUALS SHALL BE PROVIDED TO THE BUILDING OWNER OR THE DESIGNATED REPRESENTATIVE OF THE BUILDING OWNER WITHIN 90 DAYS AFTER THE DATE OF SYSTEM ACCEPTANCE. THESE MANUALS SHALL BE IN ACCORDANCE WITH INDUSTRY-ACCEPTED STANDARDS (SEE APPENDIX E), AND SHALL INCLUDE, AT A MINIMUM, THE FOLLOWING: (A) SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE. (B) OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
- (C) NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY. (D) HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SET-POINTS SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN PROGRAMMING COMMENTS. (E) A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SUGGESTED SET-POINTS.
- 28. HOT WATER PIPE INSULATION SHALL BE MINIMUM 1.5" IF THE PIPE DIAMETER IS LESS THAN I-1/2", 2" IF THE PIPE DIAMETER IS BIGGER THAN I-1/2".
- 29. THE CONTRACTOR TO ENSURE THAT ALL DUCTWORK EITHER STORED ON SITE OR INSTALLED IN THE BUILDING IS THOROUGHLY, SEALED TO PROTECT AGAINST DIRT AND MOISTURE UNTIL SUCH TIME THAT THE BUILDING IS DEEMED BY THE OWNER TO BE ADEQUATELY CLEAN TO ALLOW FOR START-UP OF THE ASSOCIATED AIR HANDLING EQUIPMENT. IF DUCTWORK IS NOT BE SEALED AS SPECIFIED, THEN THE CONTRACTOR TO HAVE SUCH DUCTWORK PROFESSIONALLY CLEANED TO AN AS-NEW CONDITION AT NO COST TO THE OWNER.
- 30. NO PORTION OF THE TOTAL CONTRACT WILL BE DECLARED SUBSTANTIALLY COMPLETE UNTIL THE AUTOMATIC TEMPERATURE CONTROL SYSTEM HAS BEEN DEMONSTRATED TO BE COMPLETE AND FUNCTIONING AS INTENDED. THE TEMPERATURE CONTROL SYSTEM WILL BE COMPLETE AND FUNCTIONING AS INTENDED WHEN ALL OF THE SPACE TEMPERATURES ARE MAINTAINED AT PLUS OR MINUS TWO DEGREES OF SET POINT.
- 31. LOCATE VALVES WITHIN 18 INCHES OF CEILING SO THAT THEY ARE WITHIN REACH.
- 32. ALL EXPOSED PIPING INTERIOR AND EXTERIOR SHALL BE PAINTED. INTERIOR COLOR SHALL BE ACCORDING TO THE ADOPTED COLOR CODES AND SHALL BE APPROPRIATELY LABELED AT INTERVIEWS IN SPECIFIED HEIGHT LETTERS. PIPING EXPOSED TO VIEW SHALL BE PAINTED TO COMPLY TO COLOR SCHEME PER SPECIFICATIONS. PIPING ON ROOF/EXTERIOR SHALL BE PAINTED WITH EPOXY POLYURETHANE INDUSTRIAL COATING.



UNIT NO.	LOCATION	SERVING	TYPE	
				LE
AHU-2-3	MECH ROOM	LEVEL-2	HORI. DRAW THRU	

NOTES:

2. FAN MOTORS SHALL BE INVERTER DUTY RATED SUITABLE FOR WORKING WTH VFD. 3. PROVIDE FLAT 2" MERV-II FILTER FOR ALL UNITS.

4. PROVIDE STAINLESS STEEL DRAIN PAN.

5. MOTORS SHALL BE PREMIUM EFFICIENCY TYPE(PER LATEST IEC CODE)

6. PROVIDE UNIT WITH 2" SPRING FAN ISOLATION AND BASE 6" RAILS. 7. PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT TO TURN OFF UNIT IF SMOKE IS DETECTED.

8. EXTERNAL STATIC PRESSURE DOES NOT INCUDE FILTER LOSSES.

10. PROVIDE UNIT WITH MIXING BOX, MOTORIZED RETURN AIR AND OUTSIDE AIR DAMPERS.

I. PROVIDE OUTSIDE AIR DAMPER SIZED FOR 100% OUTSIDE AIR ECONOMIZER

		Н	OT V	VATE	RC		L SCH	IED	ULI	Ξ				
PLAN MARK	SERVING	AIR VOLUME (CFM)	WIDTH (IN)	HEIGHT (IN)	EAT (F)	LAT (F)	CAPACITY (MBH)	EWT (F)	LWT (F)	GPM	MAX ROWS	MAX WATER PRESSURE DROP (FT)	MAX AIR PRESSURE DROP (IN H20)	NOTES
HWC-2-8	PASTRY LAB	3000	26	16	50	75	81.0	150	130	8.1	2	10	0.35	ALL
HWC-2-9	SPECIALITY LAB	3750	32	16	50	75	101.2	150	130	10.1	2	10	0.35	ALL
HWC-2-10	SPECIALITY LAB	3750	32	16	50	75	101.2	150	130	10.1	2	10	0.35	ALL
HWC-2-II	SPECIALITY LAB	3750	32	16	50	75	101.2	150	130	10.1	2	10	0.35	ALL
HWC-2-12	SPECIALITY LAB	4350	36	16	50	75	117.4	150	130	11.8	2	10	0.35	ALL
HWC-2-13	SPECIALITY LAB	3150	26	16	50	75	85.0	150	130	8.5	2	10	0.35	ALL
HWC-2-14	SPECIALITY LAB	3150	28	16	50	75	85.0	150	130	8.5	2	10	0.35	ALL
														1

DIFFUSER NECK-DU	CT SIZE SCHEDULE
SUPPLY AIR (CFM)	DIFFUSER NECK AND BRANCH DUCT SIZE
0 - 100	6"Ø
101 - 200	8"Ø
201 - 300	10"Ø
301 - 400	I2"Ø
401 - 800	14"Ø

												AI	R HAN	DLING	UNIT	SCH	EDUL	E																		
Τ					SUPP	LY AIR FAN								CHILL	ED WAT	ER COIL											нот и	ATER COIL					·,	ELECT	RICAL	
	М	AX DIMENSIC		SUPPLY AIRFLOW	OUTSIDE AIRFLOW		, FAN TYP	E.S.P (IN	MIN ROW	S MAX FINS PER INCH		SENSIBLE	MAX. FACE	ENTERI TEMPEI				WATER FLOW	EWT	LWT	MAX.	P. D.	MIN	MAX FINS	CAPACITY	MAX. FACE	ENTERING AIR TEMPERATURE		WATER FLOW	EWT	LWT	MAX.	1	FAN MOTOR	V/PH/HZ	NOTES
-	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	RATE (CFM)	RATE (CFM)	CONFIGURATIO	N	└ WG)		PER INCH	(BTUH)	(BTUH)	VELOCITY (FPM)	DB (°F)	WB (°F)	DB (°F)	WB (°F)	(GPM)	(°F)	(°F)	AIR IN.	WTR FT.	ROWS	PER INCH	(BTUH)	VELOCITY (FPM)	DB (°F)	DB (°F)	(GPM)	(°F)	(°F)	AIR IN.	WTR FT.	- (HP)		
IRU	137	102	90	20,000	20000	TOP REAR	AIRFOIL	_ 3.15	8.0	12.0	1937000	975000	450	96.0	80.0	53.0	52.9	240.1	45	61	1.3	15	1.0	9.0	696000	450	20.0	50.0	47.4	150	120	0.1	10	25.0	460/3/60	ALL
																																	L'	<u> </u>		

I. UNITS SHALL BE EQUIPPED WITH VARIABLE FREQUENCY DRIVE CAPABLE OF REDUCING FAN SPEED TO 30% OF THE DESIGN SPEED FOR ALL UNITS.

9. PROVIDE UNIT WITH FREEZE PROTECTION PUMP. SIZE PUMP FOR 50 GPM, 25 FT HEAD AND 1/2 HP MOTOR POWERED AT 115V / I PH / 60HZ.

				FAI	N SCH	HED	ULE				
		AIR VOLUME			E.S.P.		MOTOR				
PLAN MARK	SERVING	(CFM)	FAN TYPE	DRIVE TYPE	IN WG	HP	V/P/Hz	RPM	MANUFACTURER & MODEL	LOCATION	REMARKS
KEF-I6	DISH WASHER	250	UP-BLAST	DIRECT	0.5	1/10	120/1/60	1725	ACCUREX XRUD	ROOF	I, 2, 3, 4
KEF-I7	CULINARY LAB	3750	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-I8	CULINARY LAB	3750	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-I9	CULINARY LAB	3750	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-20	CULINARY LAB	4350	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-2I	CULINARY LAB	3150	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-22	CULINARY LAB	3150	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-23	PASTRY LAB	3000	UP-BLAST	DIRECT	I.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-24	PASTRY LAB	350	UP-BLAST	DIRECT	0.75	1/10	120/1/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-25	PASTRY LAB	350	UP-BLAST	DIRECT	0.75	1/10	120/1/60	1725	ACCUREX XRUD	ROOF	ALL
											<u> </u>

NOTES: I. FAN SHALL BE SUITABLE FOR OUTDOOR INSTALLATION AND OPERATION. PROVIDE MANUFACTURER'S SUPPLIED 14" HIGH ROOF CURB AND INSECT SCREEN. REFER SPECIFICATIONS FOR WIND SPEED REQUIREMENTS.
 PROVIDE MOTORIZED DAMPER FOR UNIT WITH 300+ CFM. PROVIDE BACK-DRAFT DAMPER ON UNITS WITH LESS THAN 300 CFM. MOTORIZED DAMPER SHALL CLOSE WHEN ASSOCIATED FAN IS DE-ENERGIZED.
 PROVIDE UNIT WITH SINGLE POINT ELECTRICAL CONNECTION AND DISCONNECT SWITCH. 5. PROVIDE FAN WITH VFD. FAN SPEED TO BE CONTROLLED BY EXISTING KITCHEN VENTILATION CONTROLS SYSTEM.

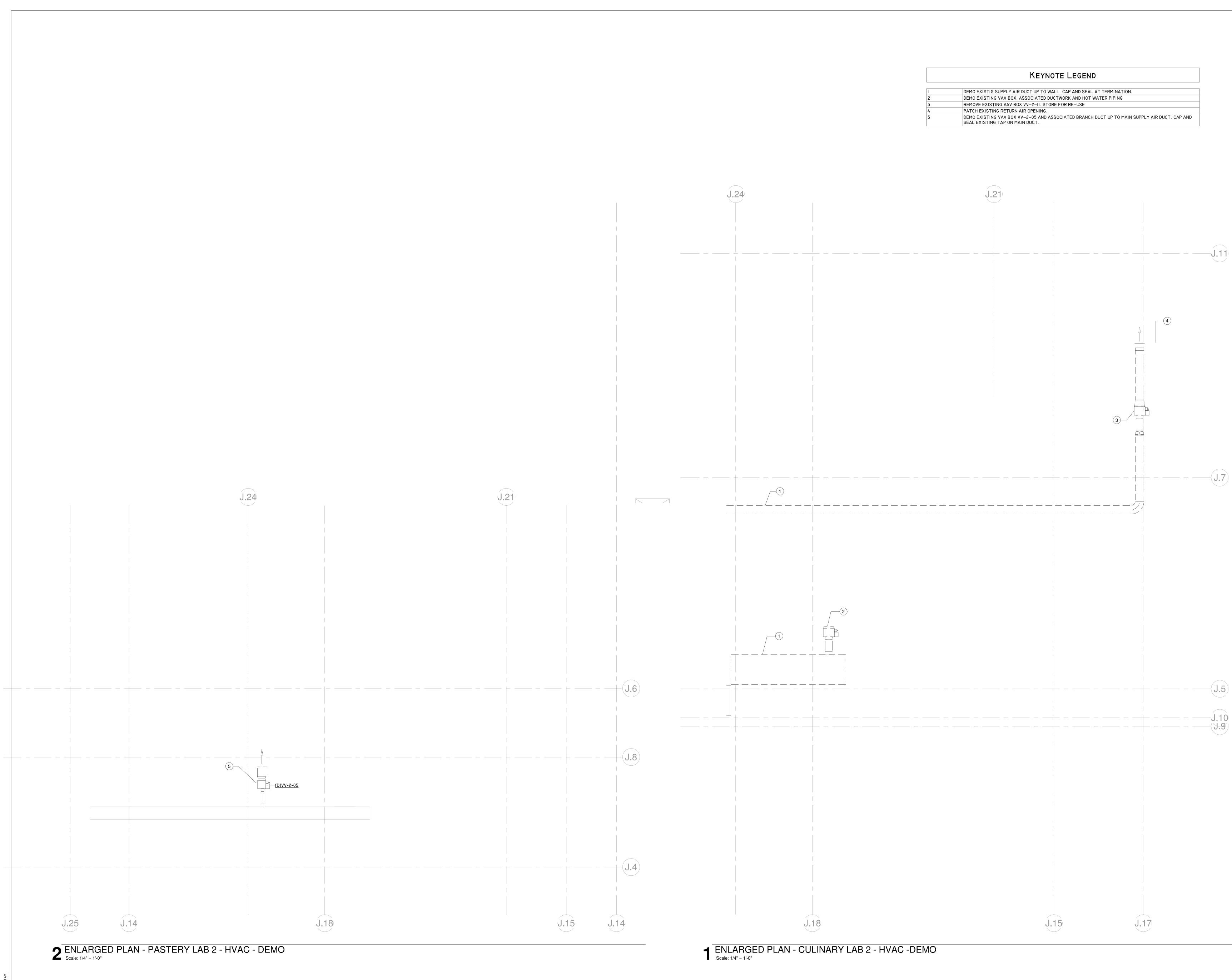
PLAN		MAX AIR		DIMENS	IONS			
MARK	SERVING	FLOW (CFM)	THROAT	CURB CAB	WEATHERHOOD	HEIGHT BASE	MAKE AND MODEL	REMARKS
GV-I	AHU-2-3	20,000	60"X96"	68"XI04"	74"XII0"	42-1/2"	GREENHECK - WIH	ALL

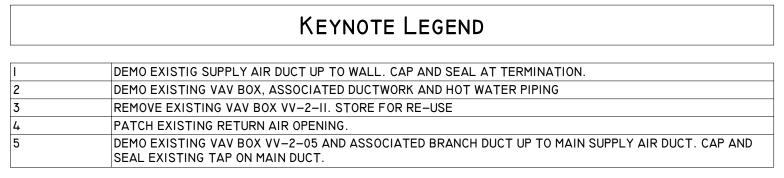
			AIR	DEVI	CE SCHED	ULE		
MARK	MAKE	TYPE	MODEL	FACE SIZE (INCH)	NECK SIZE	MATERIAL	MOUNTING	REMARKS
A	PRICE	SUPPLY	ASPD	24"X24"	SEE NECK SCHEDULE	ALUMINUM	CEILING	1,2,3,4
NOTES: I. 2. 3. 4.	PROVIDE ROU REFER TO P	LANS FOR A E CEILING TY	IR FLOW RA	TE. NAL ARCHITE	AIR DIFFUSERS WHERE NECE CTURAL PLANS.	SSARY.		

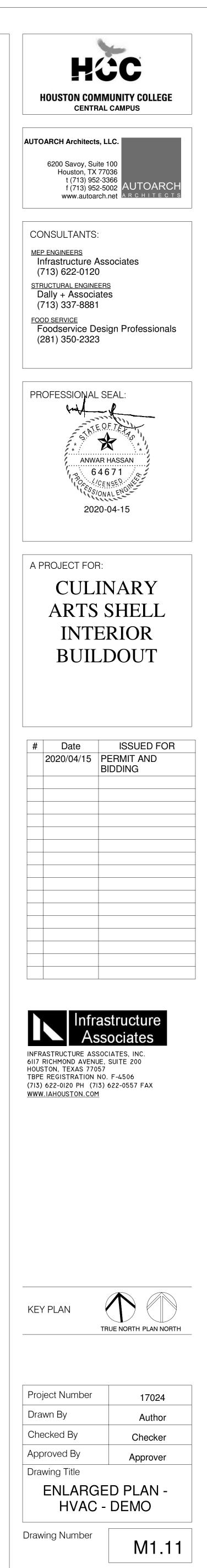
		FAI	N SCH	IED	ULE		
OLUME			E.S.P.		MOTOR		
FM)	FAN TYPE	DRIVE TYPE	IN WG	HP	V/P/Hz	RPM	MANUFACTURER & MODE
50	UP-BLAST	DIRECT	0.5	1/10	120/1/60	1725	ACCUREX XRUD

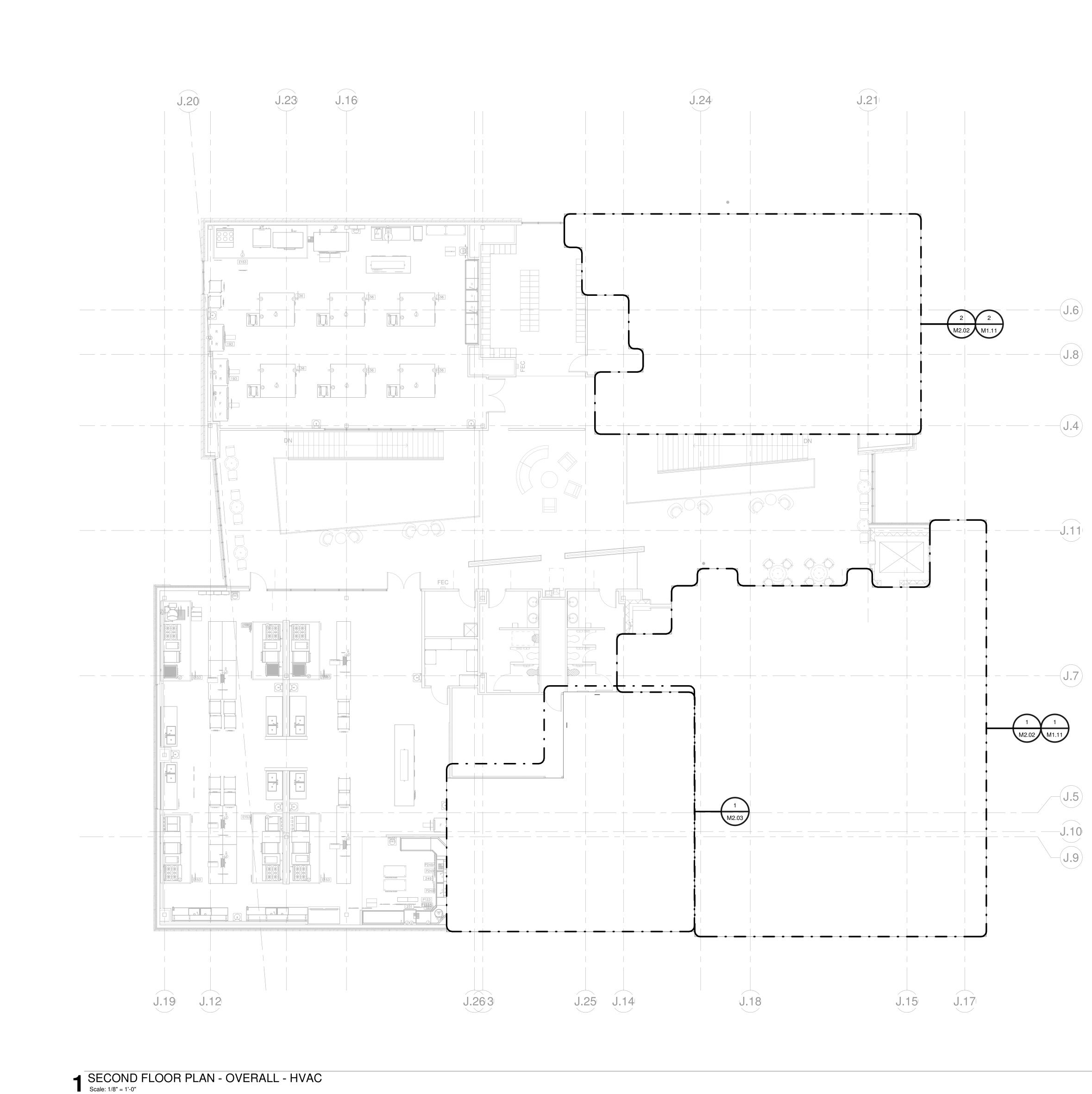
					SIZI	E (IN)	MAKE	
PLAN MARK	SERVED BY	LOCATION	MAX CFM	MIN CFM	WIDTH (IN)	HEIGHT (IN)	AND MODEL	NOTE
AFMS-2-8	AHU-I-I	PASTRY LAB	3000	0	26	16	EBTRON - GTCII6PC	ALL
AFMS-2-9	AHU-2-I, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTCII6PC	ALL
AFMS-2-I0	AHU-2-I, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTCII6PC	ALL
AFMS-2-II	AHU-2-I, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTCII6PC	ALL
AFMS-2-I2	AHU-2-I, 2-2	SPECIALITY LAB	4350	0	36	16	EBTRON - GTCII6PC	ALL
AFMS-2-I3	AHU-2-I, 2-2	SPECIALITY LAB	3150	0	26	16	EBTRON - GTCII6PC	ALL
AFMS-2-14	AHU-2-I, 2-2	SPECIALITY LAB	3150	0	28	16	EBTRON - GTCII6PC	ALL

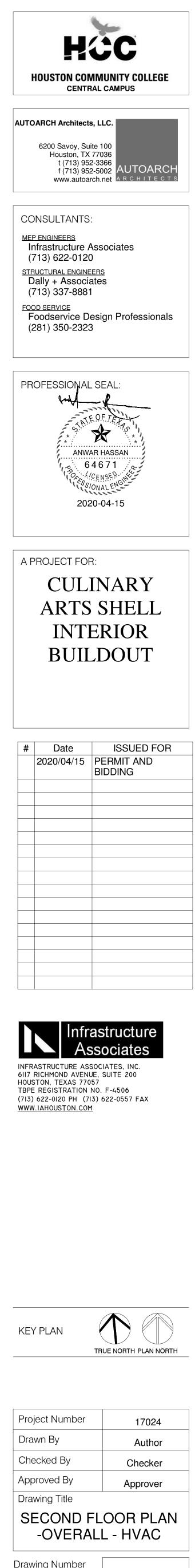
____ HCC HOUSTON COMMUNITY COLLEGE TES CENTRAL CAMPUS LL AUTOARCH Architects, LLC. 6200 Savoy, Suite 100 Houston, TX 77036 t (713) 952-3366 UTOAR f (713) 952-5002 🥻 www.autoarch.net CONSULTANTS: MEP ENGINEERS Infrastructure Associates (713) 622-0120 STRUCTURAL ENGINEERS Dally + Associates (713) 337-8881 FOOD SERVICE Foodservice Design Professionals (281) 350-2323 _____ PROFESSIONAL SEAL: _____ Mino / X ANWAR HASSAN 64671 CENSED _____ _____ 2020-04-15 A PROJECT FOR: CULINARY ARTS SHELL INTERIOR BUILDOUT ISSUED FOR # Date 2020/04/15 PERMIT AND BIDDING \bigcirc KEY PLAN Project Number Drawn By Checked By Approved By Drawing Title SCHEDULES Drawing Number M1.02



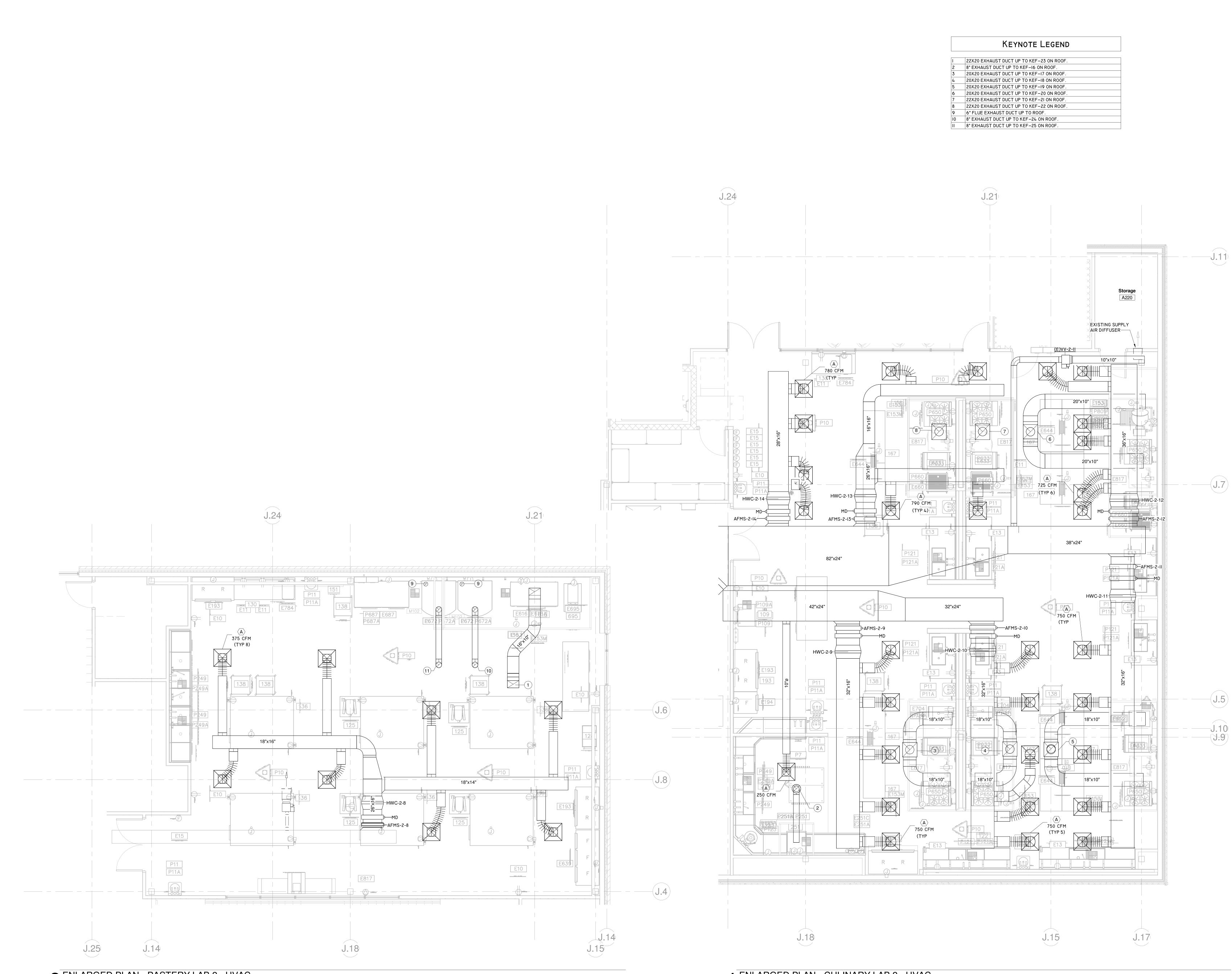








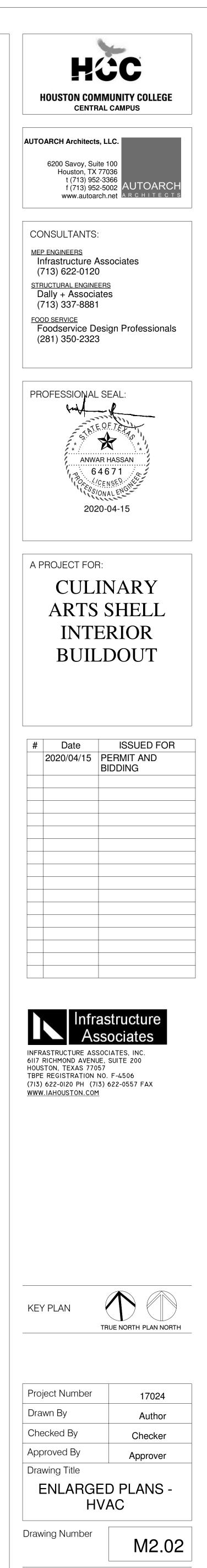
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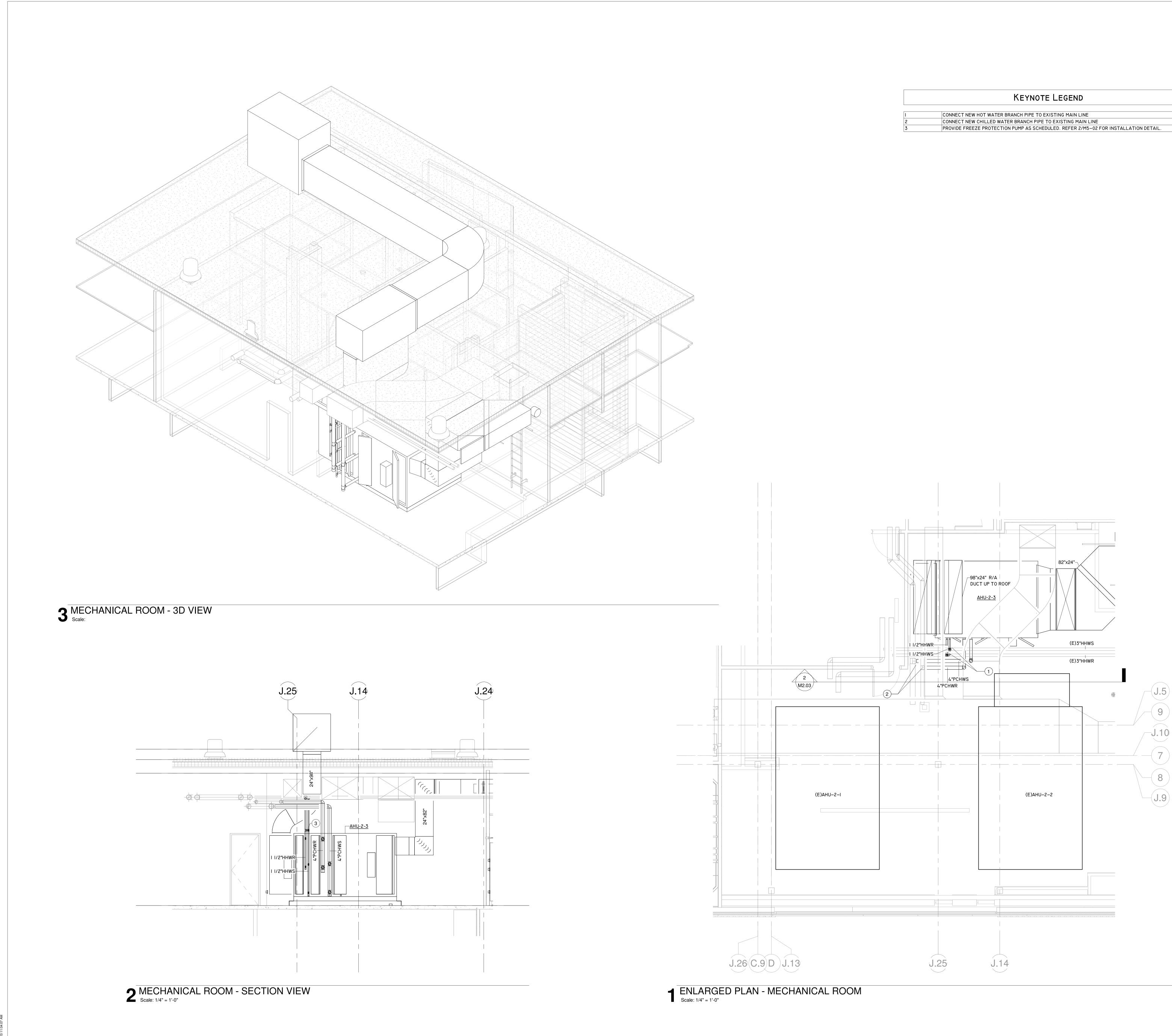


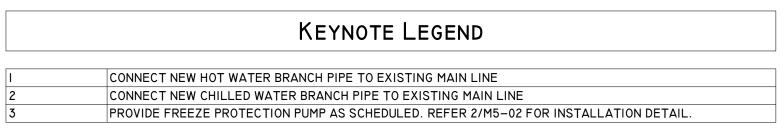
2 ENLARGED PLAN - PASTERY LAB 2 - HVAC Scale: 1/4" = 1'-0"

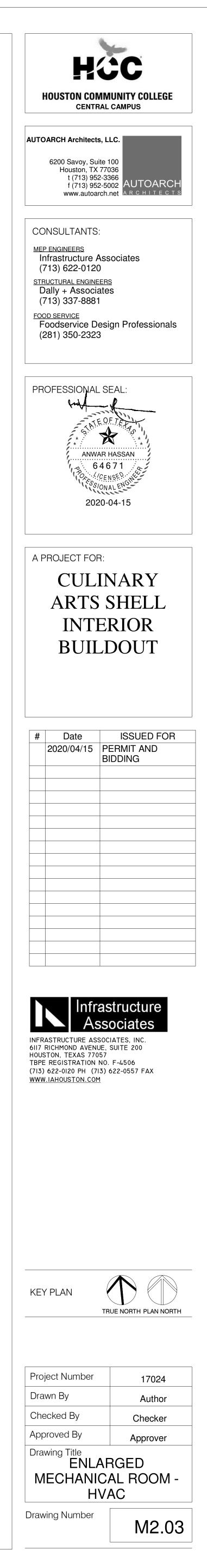
	Keynote Legend
	22X20 EXHAUST DUCT UP TO KEF-23 ON ROOF.
2	8" EXHAUST DUCT UP TO KEF-I6 ON ROOF.
3	20X20 EXHAUST DUCT UP TO KEF-I7 ON ROOF.
4	20X20 EXHAUST DUCT UP TO KEF-18 ON ROOF.
5	20X20 EXHAUST DUCT UP TO KEF-I9 ON ROOF.
6	20X20 EXHAUST DUCT UP TO KEF-20 ON ROOF.
7	22X20 EXHAUST DUCT UP TO KEF-2I ON ROOF.
8	22X20 EXHAUST DUCT UP TO KEF-22 ON ROOF.
9	6" FLUE EXHAUST DUCT UP TO ROOF.
10	8" EXHAUST DUCT UP TO KEF-24 ON ROOF.
11	8" EXHAUST DUCT UP TO KEF-25 ON ROOF.

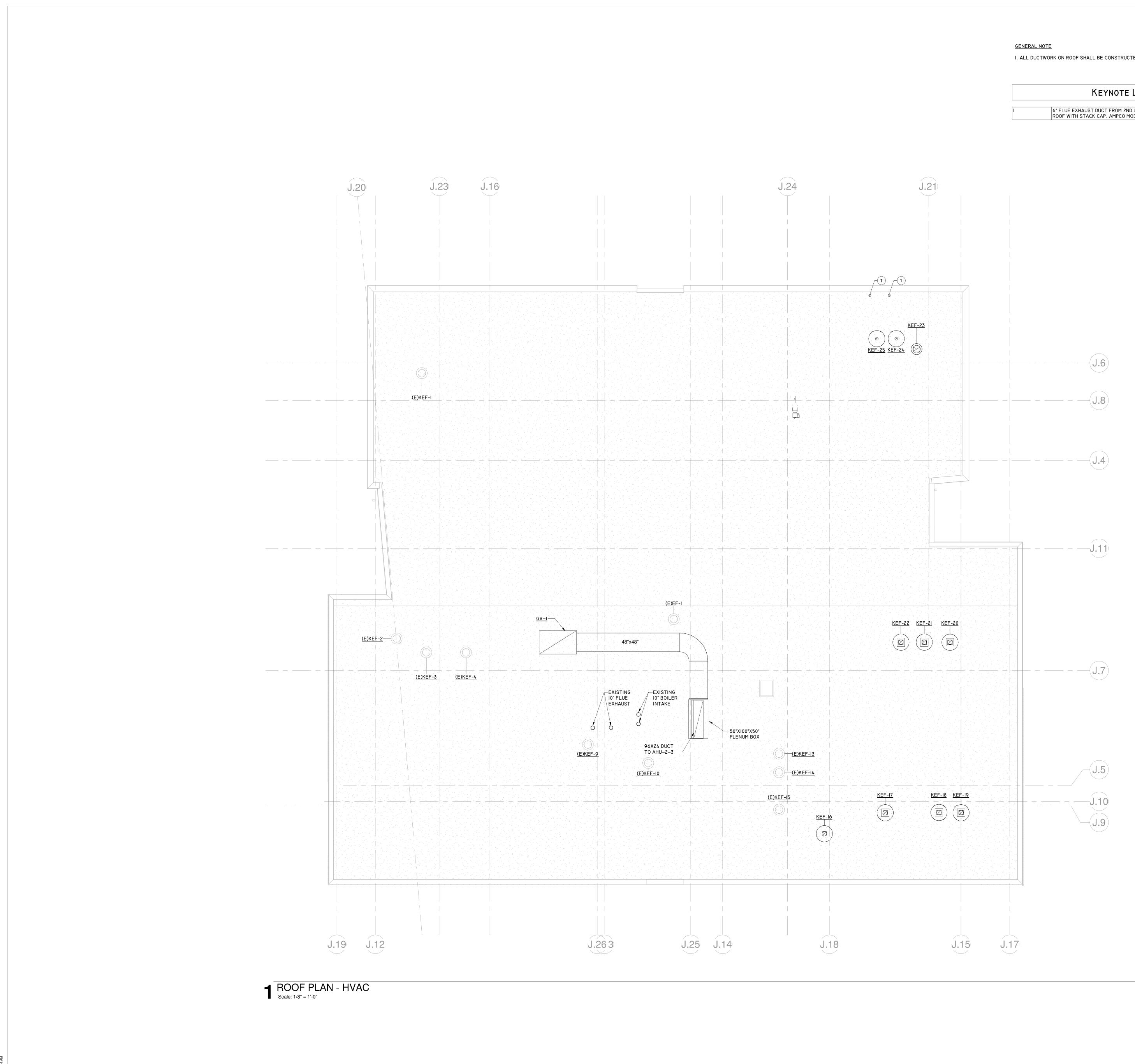
ENLARGED PLAN - CULINARY LAB 2 - HVAC Scale: 1/4" = 1'-0"





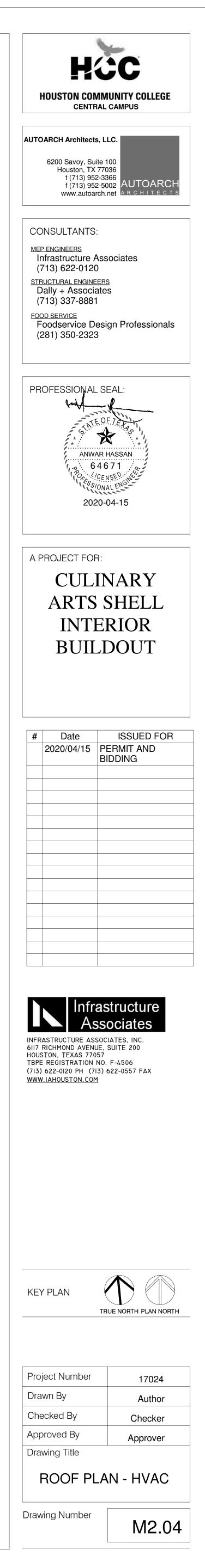


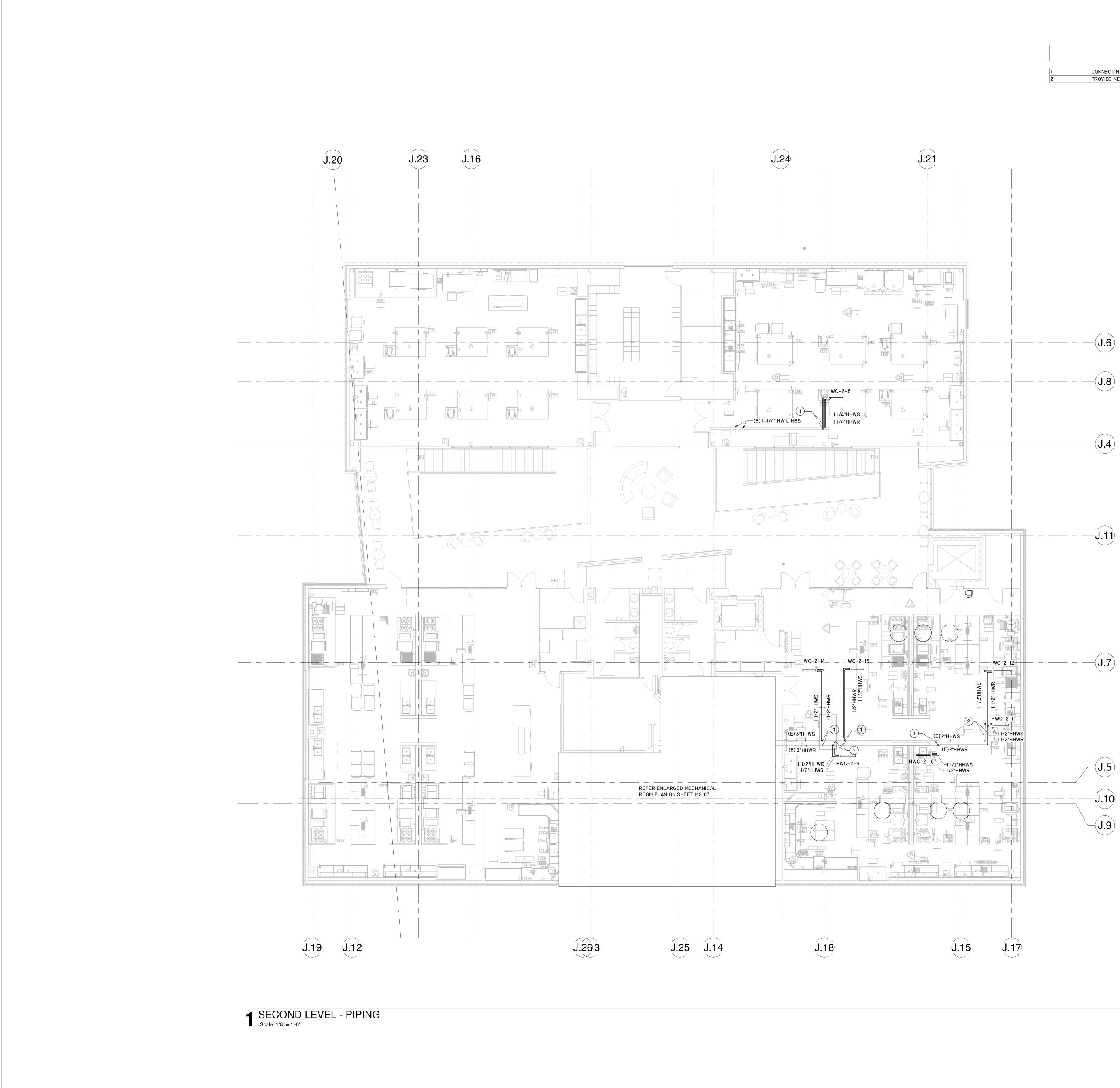


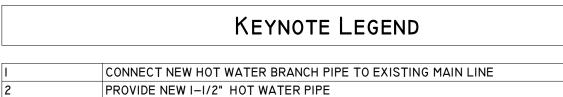


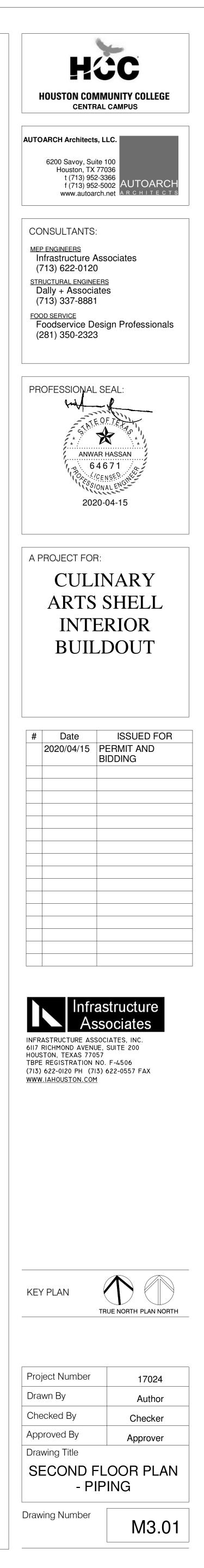
I. ALL DUCTWORK ON ROOF SHALL BE CONSTRUCTED OF 16 GAUGE STAINLESS STEEL.

	Keynote Legend
I	6" FLUE EXHAUST DUCT FROM 2ND LEVEL. TERMINATE 3 FT ABOVE FINISHED ROOF WITH STACK CAP. AMPCO MODEL P-SK OR APPROVED EQUAL.









	ATDALS SYMDALS & ADDDEVIATIONS
	NTROLS SYMBOLS & ABBREVIATIONS
ECM	ELECTRONICALLY COMMUTATED MOTOR
AO	ANALOG OUTPUT POINT
AI	ANALOG INPUT POINT
DO/BO	DIGITAL OUTPUT POINT
DI/BI	DIGITAL INPUT POINT
	AIR FLOW SENSOR
—(TS)	TEMPERATURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
(SP)	STATIC PRESSURE SENSOR
—(PS)	PRESSURE SWITCH
—(FZ)	FREEZE STAT
—(M)	MOTOR ACTUATOR
ФX	MODULATOR CONTROL VALVE
ΠX	SOLENOID OR ON/OFF CONTROL VALVE
VFD	VARIABLE FREQUENCY DRIVE CONTROL
SCR	SILICONE CONTROLLER RECTIFIER MOTOR CONTROL
$-\bigcirc$	PRESSURE GAUGE
	THERMOMETER
DT	DUCT TEMPERATURE
DH	DUCT HUMIDITY
SPT	STATIC PRESSURE TRANSMITTER
DSD	DUCT SMOKE DETECTOR
AFMS	AIRFLOW MEASURING STATION
MD	MOTORIZED DAMPER
MCV	MOTORIZED CONTROL VALUE
DP	DIFFERENTIAL PRESSURE
CSR	CURRENT RELAY SWITCH
HSL	HIGH STATIC LIMIT
LSL	LOW STATIC LIMIT

SEQUENCE OF OPERATION

DEGREE F, ADJUSTABLE).

SETPOINT OF I.0 W.G.

SYSTEM SHALL RESET THE SUPPLY AIR TEMPERATURE UP 0.1°F (ADJUSTABLE). IF COOLING REQUEST IS GREATER THAN SETPOINT, THE DDC SYSTEM SHALL RESET THE SUPPLY AIR TEMPERATURE DOWN 0.1°F (ADJUSTABLE).

SAFETIES SHALL BE SENT TO THE DDC. AN ALARM SHALL BE SENT TO THE DDC.

SEND AN ALARM TO THE DDC.

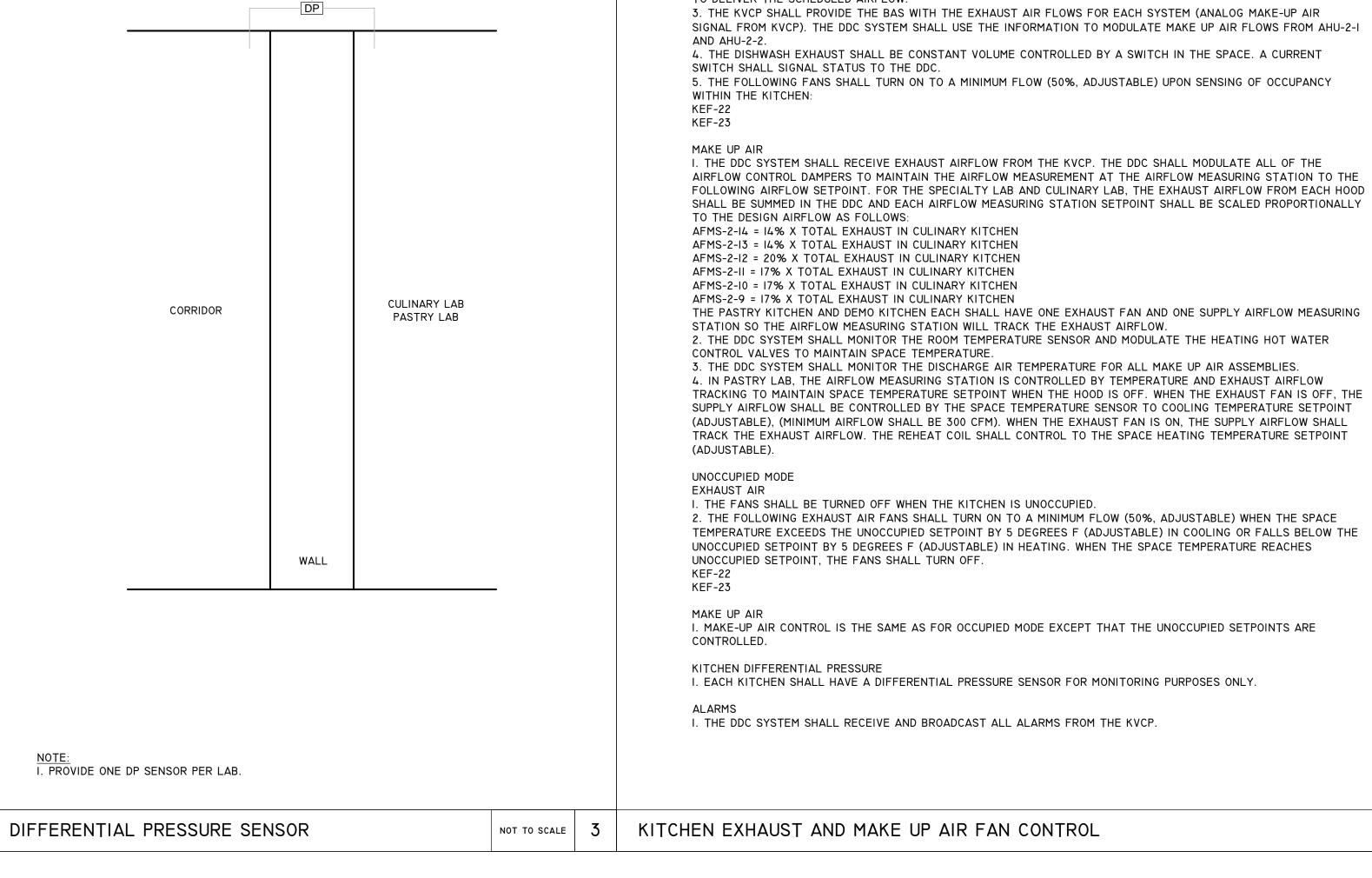
SIGNAL AND DE-ENERGIZE THE SUPPLY FAN.

- 6. A CURRENT SENSOR SHALL BE USED BY THE DDC SYSTEM TO CONFIRM THE FAN IS IN THE DESIRED STATE (I.E. ON OR OFF). THE DDC SYSTEM SHALL GENERATE AN ALARM IF STATUS DEVIATES FROM DDC START/STOP CONTROL
- 5. UPON SENSING A DROP IN PREHEAT TEMPERATURE TO 35 DEGREE F, A MANUAL-RESET LOW TEMPERATURE THERMOSTAT LOCATED ON THE DISCHARGE SIDE OF THE PRE-HEAT COIL SHALL, THROUGH HARD-WIRE INTERLOCK, DE-ENERGIZE THE SUPPLY FAN, CLOSE THE OUTSIDE AIR DAMPER, OPEN THE CHW VALVE FULLY, AND
- THE SUPPLY FAN WHENEVER STATIC PRESSURE EXCEEDS NEGATIVE 2" W.G. (FIELD ADJUSTABLE), AND 3. SMOKE DETECTORS LOCATED IN THE FAN DISCHARGE SHALL, THROUGH THE FIRE ALARM SYSTEM, DE-ENERGIZE THE SUPPLY FAN WHENEVER PRODUCTS OF COMBUSTION ARE SENSED. 4. EACH FILTER BANK (MERV-7 AND MERV-13 IS CONSIDERED TWO BANKS) WILL HAVE A DIFFERENTIAL PRESSURE SWITCH TO INDICATE HIGH DIFFERENTIAL PRESSURE ACROSS THE FILTERS. THE SWITCH SHALL BE AN ALARM INPUT TO THE DDC SYSTEM. INITIAL SET POINT TO BE 0.6 W.G. FOR MERV-7 AND 0.75 W.G. FOR MERV-I3.
- IF THE NUMBER OF COOLING REQUEST EXCEEDS THE SETPOINT PLUS [3] (ADJUSTABLE), THE DDC SYSTEM SHALL RESET THE SUPPLY AIR TEMPERATURE TO 53°F AND RESTART SUPPLY AIR TEMPERATURE SETPOINT SEQUENCE. I. A HIGH STATIC PRESSURE LIMIT SWITCH LOCATED IN THE FAN DISCHARGE SHALL BE HARD-WIRED TO DE-ENERGIZE THE SUPPLY FAN WHENEVER STATIC PRESSURE EXCEEDS 4.5 W.G. (FIELD ADJUSTABLE), AND AN ALARM 2. A LOW STATIC PRESSURE LIMIT SWITCH LOCATED IN THE FAN INTAKE SHALL BE HARD-WIRED TO DE-ENERGIZE
- 6. SUPPLY AIR TEMPERATURE RESET. DDC SHALL REVIEW AIR TERMINAL COOLING LOOPOUT (% OF COOLING) AT 5 MINUTE INCREMENTS TO RESET SUPPLY AIR TEMPERATURE SETPOINT. THE SUPPLY AIR TEMPERATURE SHALL BE ALLOWED TO RANGE BETWEEN 53°F AND 63°F (ADJUSTABLE). A PID LOOP OUTPUTING PERCENT OF COOLING DEMAND NECESSARY TO MAINTAIN THE NUMBER OF COOLING REQUEST SETPOINT OF [4] (ADJUSTABLE). IF NUMBER OF COOLING REQUEST IS LESS THAN OR EQUAL TO THE NUMBER OF COOLING REQUEST SETPOINT, THE DDC
- 90% OR LESS OF FULL OPEN. THE SYSTEM SHALL MAINTAIN A MINIMUM SUPPLY AIR STATIC PRESSURE
- DUCT STATIC PRESSURE SETPOINT. THE DDC SHALL RESET SUPPLY AIR STATIC PRESSURE SETPOINT IN SMALL INCREMENTS AT 15 MINUTE INTERVALS. RESET THE SETPOINT ONE INCREMENT UP OR DOWN TO MAINTAIN ALL MOTORIZED VOLUME DAMPERS AT
- 5. SUPPLY DUCT STATIC PRESSURE SENSOR(S) SHALL BE LOCATED APPROXIMATELY AT 2/3RD LENGTH OF THE SUPPLY AIR DUCT.. THE DDC SHALL SELECT THE LOWEST OF THE PRESSURE SIGNALS TO MODULATE THE SUPPLY FAN VFD TO MAINTAIN
- DDC, MODULATE THE NORMALLY CLOSED HEATING VALVE TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT (50
- 3. A DUCT AVERAGING TEMPERATURE SENSOR LOCATED DOWNSTREAM OF THE COOLING COIL SHALL, THROUGH THE DDC, MODULATE THE NORMALLY OPEN CHW VALVE TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT (53F, ADJUSTABLE, REFERENCE AIR HANDLING UNIT SCHEDULE). 4. A DUCT AVERAGING TEMPERATURE SENSOR LOCATED DOWNSTREAM OF THE HEATING COIL SHALL, THROUGH THE
- OPEN. WHEN THE UNIT IS STOPPED, THE CHW VALVE AND OA DAMPER SHALL CLOSE.
- VARIABLE FREQUENCY DRIVE, MERV-7 AND 13 FILTERS, AND HEATING AND COOLING COILS. 2. THE UNIT SHALL BE STARTED AND STOPPED THROUGH THE DDC. WHEN THE UNIT IS ENERGIZED, THE ELECTRONICALLY ACTUATED CHILLED (CHW) VALVE SHALL BE ALLOWED TO MODULATE AND THE OA DAMPER SHALL

EXISTING

BAS

I. EACH AIR HANDLING UNIT SYSTEM SHALL BE A DRAW-THROUGH VAV TYPE, CONSISTING OF A SUPPLY FAN WITH



SEQUENCE OF OPERATION: OCCUPANCY SHALL BE DETERMINED BY AN OCCUPANCY SENSOR MOUNTED IN THE SPACE. THE CONTRACTOR SHALL CONNECT THE LIGHTING CONTROLLER (PROVIDED UNDER DIVISION 26) TO THE DDC FOR OCCUPANCY STATUS SUCH THAT WHEN ALL OCCUPANCY SENSORS ARE INDICATING UNOCCUPIED STATE THE KVCP SHALL ENTER UNOCCUPIED MODE. OCCUPIED MODE EXHAUST AIR I. THE KITCHEN EXHAUST FANS SHALL BE CONTROLLED BY THE EXISTING KITCHEN VENTILATION CONTROL PANEL (KVCP). 2. THE EXHAUST AIR FANS SHALL MODULATE SPEED BASED ON EXHAUST AIR TEMPERATURE SENSOR MOUNTED WITHIN THE HOOD CANOPIES BY THE KVCP. THE EXHAUST FAN VFD SHALL BE ADJUSTED (GAIN AND BIAS) DURING TAB WORK TO DELIVER THE SCHEDULED AIRFLOW. 3. THE KVCP SHALL PROVIDE THE BAS WITH THE EXHAUST AIR FLOWS FOR EACH SYSTEM (ANALOG MAKE-UP AIR SIGNAL FROM KVCP). THE DDC SYSTEM SHALL USE THE INFORMATION TO MODULATE MAKE UP AIR FLOWS FROM AHU-2-I 4. THE DISHWASH EXHAUST SHALL BE CONSTANT VOLUME CONTROLLED BY A SWITCH IN THE SPACE. A CURRENT 5. THE FOLLOWING FANS SHALL TURN ON TO A MINIMUM FLOW (50%, ADJUSTABLE) UPON SENSING OF OCCUPANCY

EXISTING

BAS

 \langle DI \rangle

DP

MERV 13

_ __ __ -

(AO)

OUTSIDE

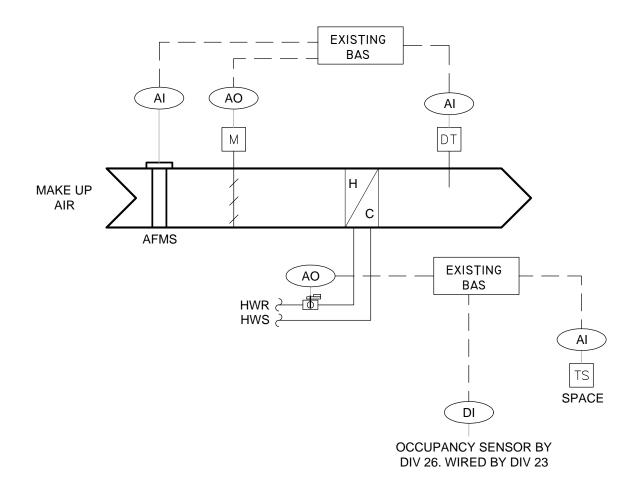
AIR

MD

DP

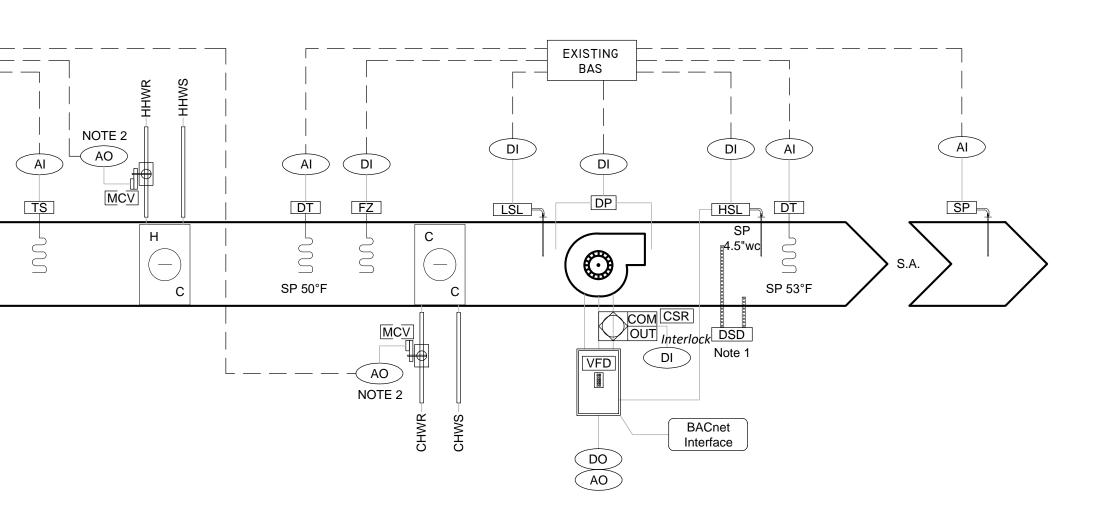
MERV 7

CONT	CONTROL POINTS SUMMARY													
KITCHEN VENTILATION CONTROL	OUT	ΓPUT	INF	PUT	SOFT	NARE								
SYSTEM	DIGITAL	ANALOG	DIGITAL	ANALOG	GRAPHIC	ALARM								
					Х									
EXHAUST FAN FLOW (CFM)				Х										
EXHAUST FAN VFD		Х												
EXHAUST FAN VFD FAILURE						Х								
EXHAUST FAN REMOTE ENABLE	Х													
HOOD TEMPERATURE SENSOR				Х										
HOOD TEMPERATURE SENSOR FAILURE						Х								
HOOD HIGH TEMPERATURE ALARM						Х								
HOOD FIRE ALARM						Х								
BMS COMMUNICATION ALARM						Х								
MAKE UP AIR AFMS		Х		Х										
HOT WATER COIL		Х		Х										
OCCUPANCY STATUS			Х											
DISHWASHER HOOD FAN			Х											



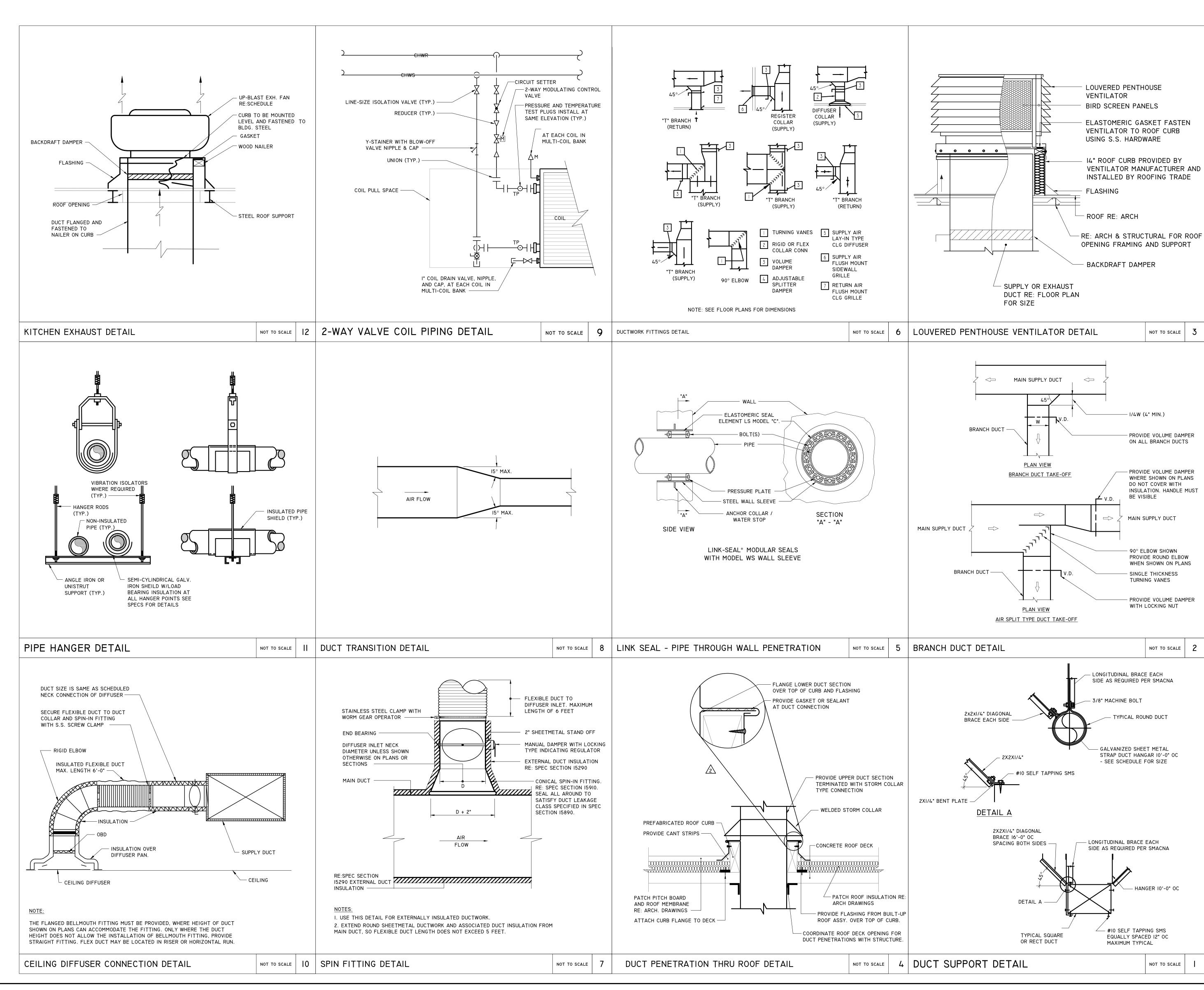
NOT TO SCALE

	רטס	OUTPUT INPUT				NARE
AHU-2-3	DIGITAL	ANALOG	DIGITAL	ANALOG	GRAPHIC	ALARM
					X	
SUPPLY FAN START/STOP	X					
SUPPLY FAN VFD		Х				
SUPPLY FAN DIFFERENTIAL PRESSURE			Х			
CHILLED WATER VALVE		Х				
COLD DECK TEMPERATURE				X		
SUPPLY DUCT STATIC PRESSURE				Х		
HIGH STATIC PRESSURE LIMIT SWITCH			Х			Х
VFD FAILURE			Х			Х
FILTER GAUGE			Х			Х
OUTSIDE AIR DAMPER		Х				Х
LOW STATIC PRESSURE SWITCH			Х			Х
HOT WATER VALVE		Х				
HOT DECK TEMPERATURE				X		
FREEZE STAT			Х			Х



1. DUCT SMOKE DETECTOR FURNISHED, MOUNTED, AND WIRED FOR UNIT SHUT-DOWN BY DIVISION 26. 2. PROVIDE 2 WAY MODULATING CONTROL VALVE UNLESS OTHERWISE INDICATED ON SCHEDULE OR IN SEQUENCE OF OPERATION.

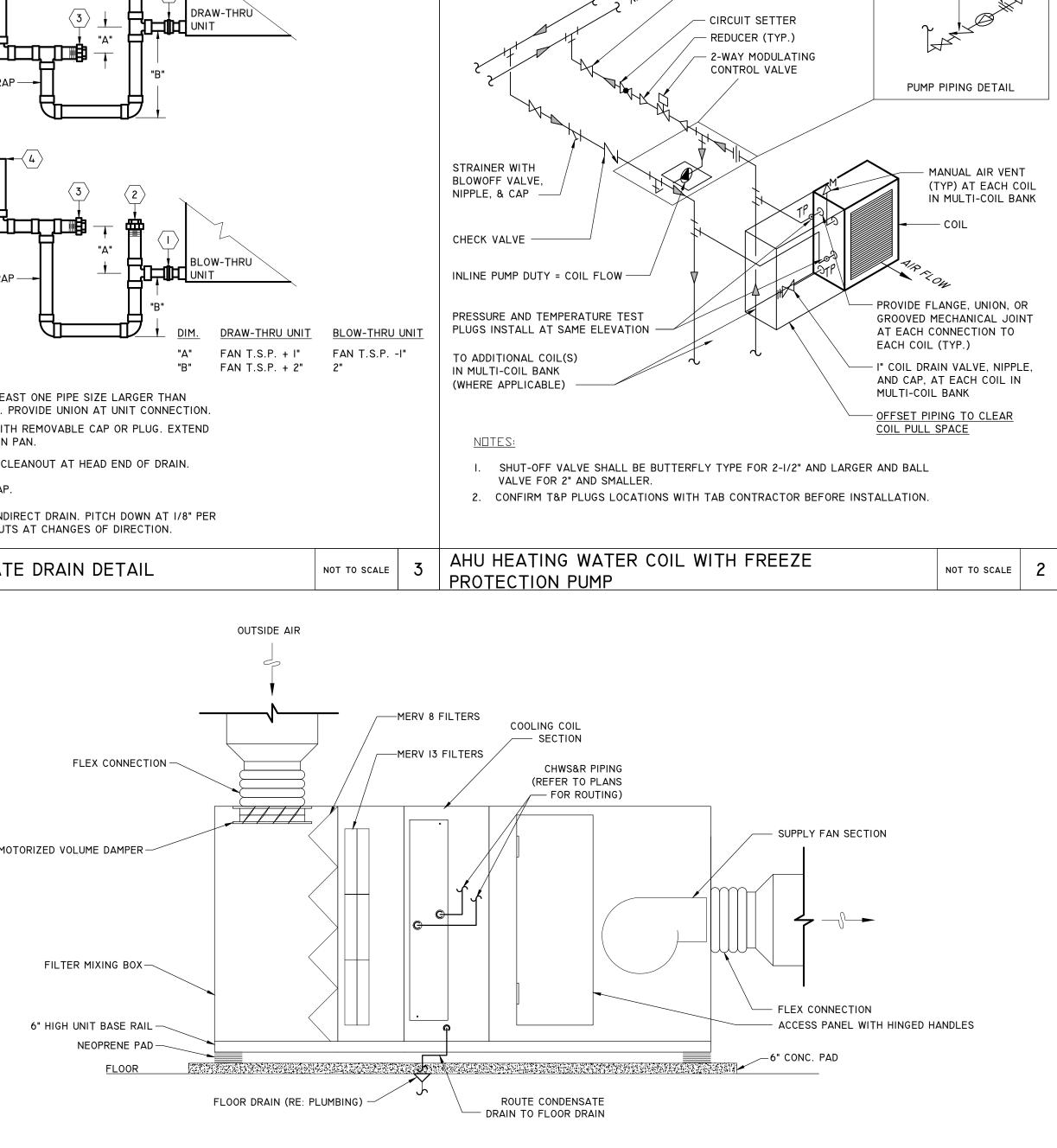
HCC HOUSTON COMMUNITY COLLEGE CENTRAL CAMPUS AUTOARCH Architects, LLC. 6200 Savoy, Suite 100 Houston, TX 77036 t (713) 952-3366 f (713) 952-5002 www.autoarch.net CONSULTANTS MEP ENGINEERS Infrastructure Associates (713) 622-0120 STRUCTURAL ENGINEERS Dally + Associates (713) 337-8881 FOOD SERVICE Foodservice Design Professionals (281) 350-2323 **PROFESSIONAL SEAL** May X ANWAR HASSAN 64671 CENSED 2020-04-15 A PROJECT FOR: CULINARY **ARTS SHELL** INTERIOR BUILDOUT **ISSUED FOR** # Date 2020/04/15 PERMIT AND BIDDING KEY PLAN Project Number Drawn By Checked By Approved By Drawing Title CONTROLS Drawing Number M4.01



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KEYED NOTES: I SIZE DRAIN PIPING AT LEAST ON DRAIN PAN CONNECTION. PROVID I DRAIN PAN CONNECTION. PROVID I QUPSTREAM CLEANOUT WITH REMONDANCE TOP RIM OF DRAIN PAN. I DOWNSTREAM PLUGGED CLEANOUT I OPEN VENT - DO NOT CAP. I FOOT. PROVIDE CLEANOUTS AT CONDENCATE ON
YPICAL CONDENSATE DI
MOTORIZE
F
6" I
NOTES:
I. PROVIDE IONIZATION TYPE SM 2. REFER TO ENLARGED MECHAN



TYPE SMOKE DETECTORS AS REQUIRED IN DUCT. D MECHANICAL PLANS FOR DUCT AND PIPE ROUTING

TYPICAL CHILLED WATER VAV AHU DETAIL

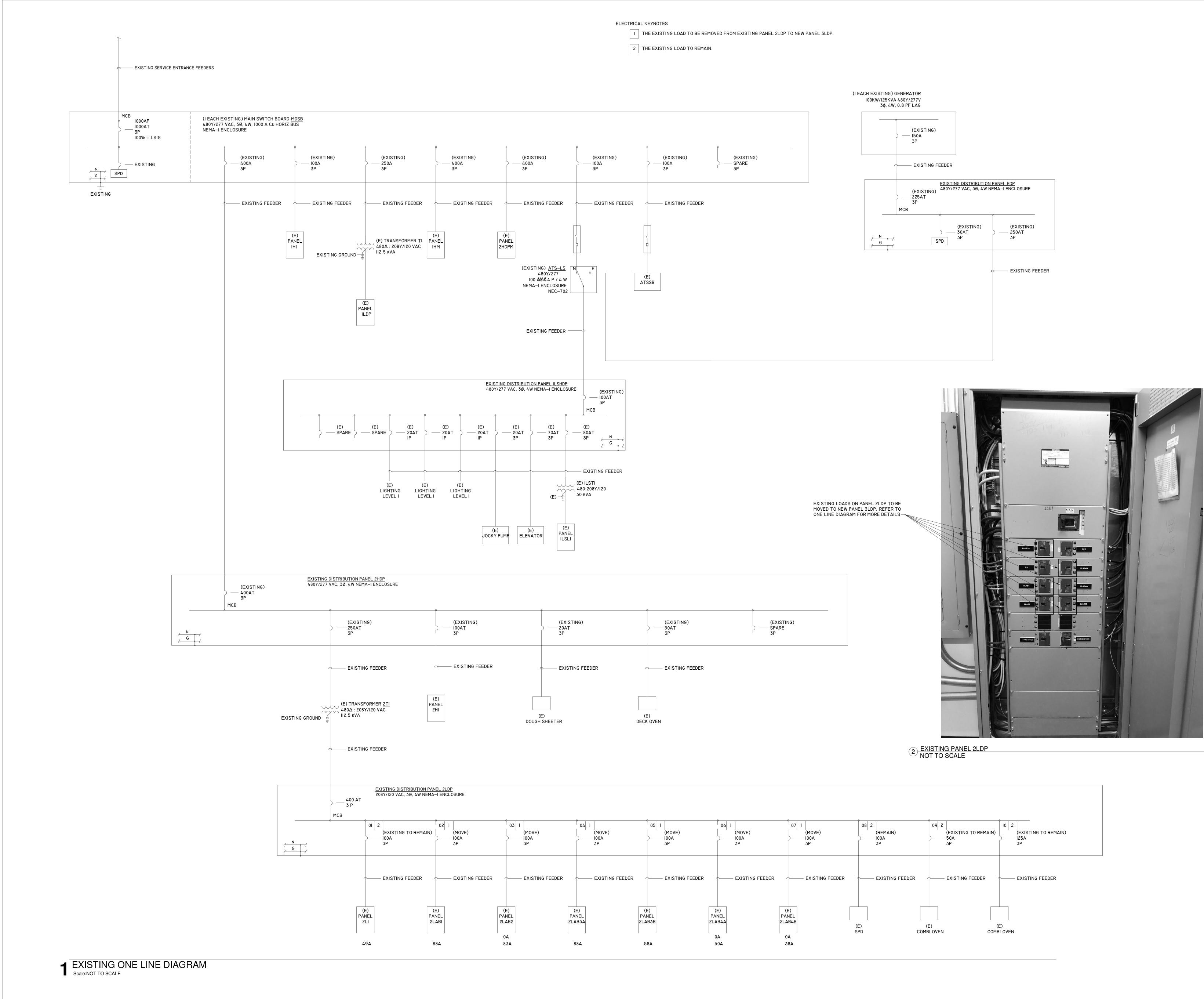
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UNION

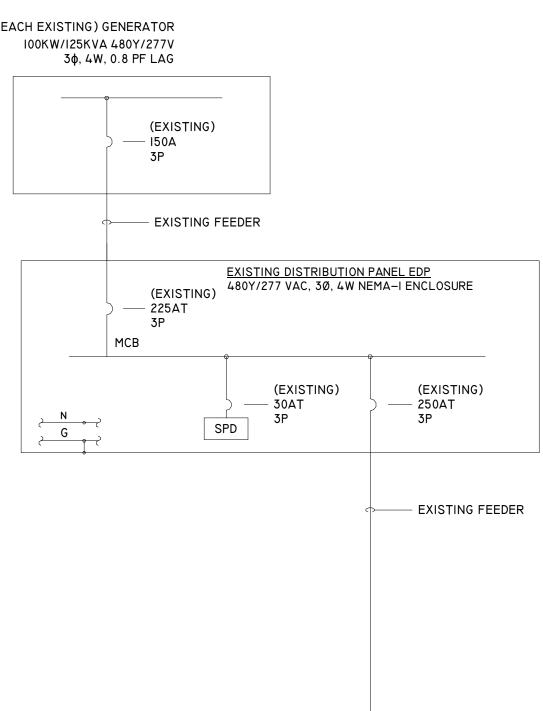
CHECK VALVE

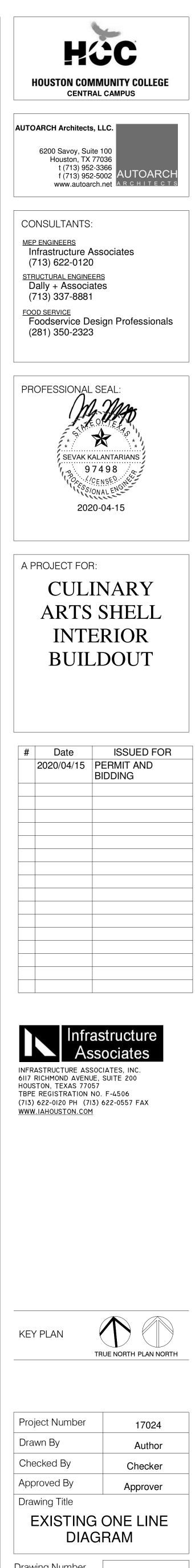
— ISOLATION VALVE (TYP.)

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01	2 (EXISTING TO REMAIN) — 100A 3P	02 I (MOVE) 	03 (MOVE) 	04 (MOVE) 	05 I (MOVE) 	06 (MOVE) 	07 (MOV
	— EXISTING FEEDER		R OPPENDENTING FEEL	DER O EXISTING I	FEEDER O- EXISTING	FEEDER O EXISTING	FEEDER O EXIS
EL	PA	E) NEL .ABI	(E) PANEL 2LAB2	(E) PANEL 2LAB3A	(E) PANEL 2LAB3B	(E) PANEL 2LAB4A	(E) PANEL 2LAB4B
Δ	8	38A	0A 83A	88A	58A	0A 50A	0A 38A



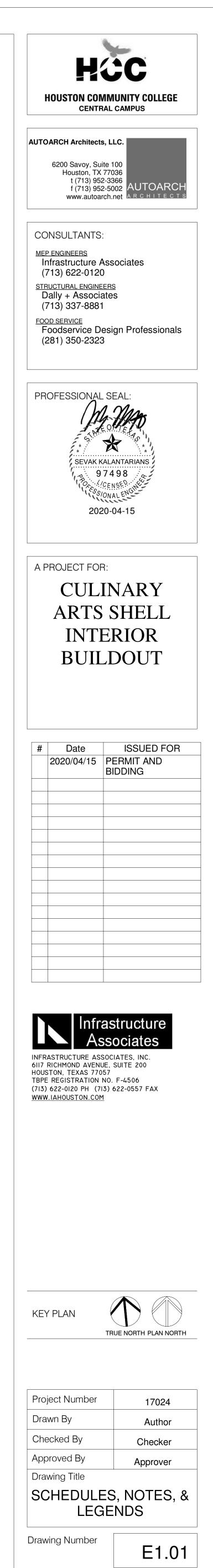


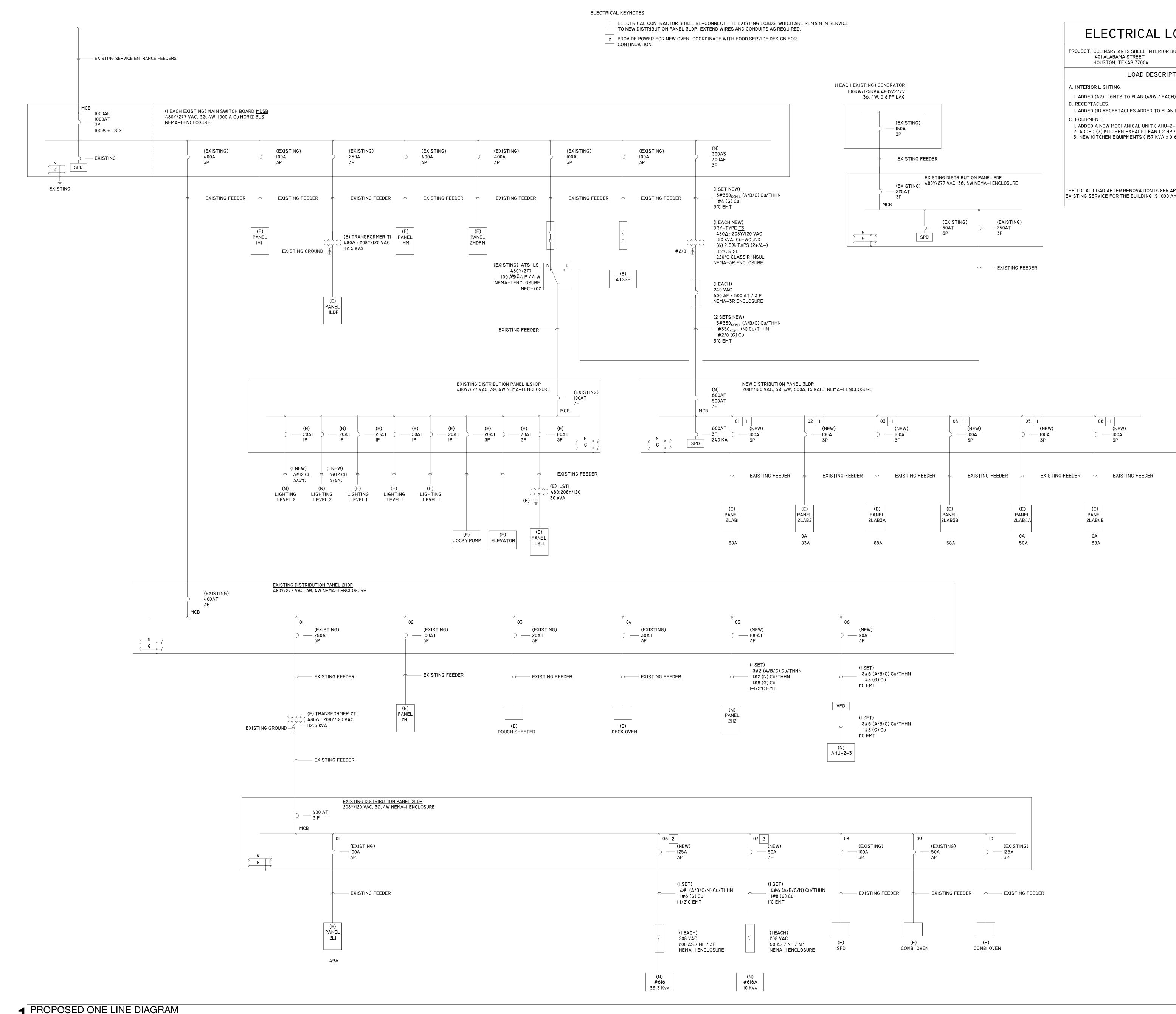
Drawing Number E1.02

ELECTRICAL GENERAL N	OTES AND SPECIFICATIONS			ELEC
(BOOKS SPECIFICATIONS S	UPERCEDE ANY NOTES BELOW)	SYMBOL	DESCRIPTION	SYMBOL
SCOPE: THIS DIVISION SHALL INCLUDE ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED FOR COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM. PROJECT INCLUDES	20. SWITCHES: FURNISH AND INSTALL ALL FUSIBLE AND NON-FUSIBLE SWITCHES AS REQUIRED BY CODES, WHETHER OR NOT SHOWN AND/OR NOTED. SWITCHES SHALL BE:	HA-I,3,	HOME RUN TO PANEL <u>HA</u> , CIRCUITS I, 3, 5 USING 3#12 (H), 3#12 (N), 1#12 (G), 3/4" C (UNLESS OTHERWISE NOTED) EACH CIRCUIT WILL HAVE ITS OWN NEUTRAL	<u>HA</u>
LATION OF NEW ELECTRICAL DISTRIBUTION SYSTEM, HVAC SYSTEM CONNECTIONS, GHTING SYSTEM, NEW RECEPTACLES AND OUTLETS, FIRE ALARM AND CATION SYSTEM, AND OTHER ELECTRICAL WORK AS INDICATED ON THE PLANS.	 A. HEAVY DUTY WITH NEMA-I OR 3R ENCLOSURE, AS REQUIRED, AND BE PROVIDED WITH PAD-LOCKING FEATURE. B. PROVIDED AT EACH MOTOR THAT IS OUT OF SIGHT OF THE SWITCH OR PANEL FROM WHICH FED: 	xx () \ominus	ROUND LUMINAIRE RECESSED OR SUSPENDED FROM ABOVE OPEN = DOWN-LIGHT, HALF-SHADED = WALL-WASHER	DA
ACTOR SHALL PROVIDE CONDUITS, CONDUCTORS FOR POWER, CONTROLS, AND NG, LIGHTING CONTACTOR AND CONTACT CLOSURES, AND ALL REQUIRED	AND BE NON-FUSIBLE DISCONNECT FOR SUCH USE. C. SWITCH MANUFACTURER SHALL BE GE, WESTINGHOUSE, OR SQUARE D.		XX = TYPE ON LUMINAIRE SCHEDULE	
RATUS REQUIRED FOR FULL OPERATION OF THE ELECTRICAL SYSTEM. VISIT AND FAMILIARIZATION: CONTRACTORS PROPOSING TO UNDERTAKE WORK	 D. DISCONNECT SWITCHES INSTALLED OUTSIDE THE BUILDING SHALL BE IN NEMA-3 ENCLOSURES. E. FUSIBLE SWITCH-STARTER UNITS: EACH UNIT SHALL BE TOTALLY ENCLOSED AND 	×× ()-	ROUND WALL-MOUNTED LUMINAIRE SUSPENDED FROM SIDE ARM XX = TYPE ON LUMINAIRE SCHEDULE	
THIS DIVISION SHALL VISIT THE SITE OF THE WORK, AND FULLY INFORM LIVES OF ALL CONDITIONS THAT AFFECT THE WORK, OR COST THEREOF.	EFFECTIVELY BARRIERED, MANUALLY OPERATED QUICK-MAKE, QUICK BREAK, HORSEPOWER RATED STARTER. PROVIDE CLASS R TYPE REJECTION FUSE CLIPS.	xx	24"X48" TROFFER LUMINAIRE RECESSED OR SUSPENDED FROM ABOVE XX = TYPE ON LUMINAIRE SCHEDULE	
ACTOR SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS AS RELATED TO THE ONDITIONS. ANY DISCREPANCY SHALL BE REPORTED TO THE ENGINEER.	F. IDENTIFY EACH DEVICE WITH NAMEPLATE SHOWING THE LOAD SERVED, MATCHING THE EXISTING NAMEPLATES.			
TCE: CONSIDERATION WILL NOT BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING THE AMOUNT OF WORK TO BE PERFORMED. TENDER OF A PROPOSAL SHALL CONVEY	21. WIRING DEVICES: FURNISH AND INSTALL ALL WIRING DEVICES AS INDICATED ON THE DRAWINGS. DEVICES SHALL IN ALL CASES BE SUITABLE FOR THE USE INTENDED AND SHALL HAVE VOLTAGE AND			
AGREEMENT TO ALL ITEMS AND CONDITIONS SPECIFIED, INDICATED ON THE WINGS, AND/OR REQUIRED BY NATURE OF THE SITE. REPANCIES: SHOULD CONTRACTOR FIND DISCREPANCIES OR OMISSIONS IN THE	CURRENT RATINGS ADEQUATE FOR THE LOADS TO BE SERVED. A. MOUNTING: HEIGHTS OF ALL DEVICES ARE FROM FINISH FLOOR TO CENTERLINE OF DEVICE.	XI 🐼 文 X2	EXIT SIGN WITH DIRECTIONAL ARROWS AS INDICATED, I OR 2 FACE, UNIVERSAL MOUNT XI OR X2 = TYPE ON LUMINAIRE SCHEDULE	Μ
ACT DOCUMENTS, OR BE IN DOUBT AS TO THE INTENT THEREOF, HE SHALL IATELY OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE SUBMITTING	DEVICES SHOWN ON THE DRAWINGS IN GROUPS OF TWO OR MORE SHALL BE LOCATED HORIZONTALLY IN SUCH A MANNER AS TO BE CLOSE AS POSSIBLE FROM THE CENTERLINE OF THE FIRST DEVICE TO THE CENTERLINE OF THE NEXT DEVICE UNLESS OTHERWISE NOTES.	XX 🕎	EMERGENCY EGRESS ONLY LUMINAIRE SURFACE MOUNTED FROM BACK	SD
POSAL FOR WORK IN THIS DIVISION. OLITION: ALL ELECTRICAL COMPONENTS OF THE EXISTING SYSTEM WHICH ARE NOT	 B. WALL SWITCHES: SHALL BE LEVITON DECORA TYPE, WHITE IN COLOR. USE CORRESPONDING DOUBLE POLE. THREE-WAY, FOUR-WAY, KEYED AND DIMMER SWITCHES WHERE NOTES. MOUNT 		XX = TYPE ON LUMINAIRE SCHEDULE NEMA 5–20R DUPLEX RECEPTACLE, MOUNTED 18" AFF (UON)	
ZED FOR NEW CONFIGURATION SHALL BE REMOVED AND DISPOSED OF BY RACTOR. REFER TO DEMOLITION NOTES AND DRAWINGS FOR EXTENT OF WORK.	AT 3'-10" A.F.F. AND WITHIN 6" OF ADJACENT DOOR JAMB, UNLESS OTHERWISE NOTED. USE "KEYED" SWITCHES IN LOCATIONS INDICATED.	\rightarrow	WP = WEATHER PROOF, GFI = GFCI PROTECTED, IG = ISOLATED GROUND PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER	HD
PLACING OF MATERIALS AND EQUIPMENT: ALL ELECTRICAL APPARATUS SHALL BE .ED AT THE PROPER TIME DURING PROGRESS OF CONSTRUCTION. COORDINATE	C. CONVENIENCE OUTLETS: SHALL BE GROUNDING TYPE, 20 AMP, 125 VOLT, LEVITON, WHITE COLOR. WEATHERPROOF DUPLEX OUTLETS SHALL BE LEVITON 5342 WITH SIERRA NO. WPD-8	+	NEMA 5–20R QUADRAPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WP = WEATHER PROOF, GFI = GFCI PROTECTED, IG = ISOLATED GROUND	DD
PERATIONS WITH OTHER CRAFTS. REQUIREMENTS: CONTRACTOR FOR WORK UNDER THIS DIVISION SHALL BE FULLY	PLATE. MOUNT AT 18" A.F.F., UNLESS OTHERWISE NOTED. PROVIDE NEMA 5–20R DEVICES UNLESS OTHERWISE INDICATED. PROVIDE SPECIFICATION (SPEC) GRADE HEAVY DUTY STRAIGHT		PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER SIMPLEX RECEPTACLE, MOUNTED I8" AFF (UON) WITH INDICATED CONFIGURATION	
ISIBLE FOR DETERMINING IN ADVANCE OF PURCHASE THAT EQUIPMENT AND ALS PROPOSED FOR INSTALLATION SHALL FIT INTO THE CONFINES INDICATED.	BLADE DEVICES UNLESS OTHERWISE NOTED. PROVIDE HOSPITAL GRADE DEVICES WHERE INDICATED, OR AS REQUIRED BY CODES.	L6−30	(E.G. L6–30R = NEMA TWISTLOCK, 250 VAC, 30 A) PROVIDE WITH SS–302 COVERPLATE AND CIRCUIT NUMBER	R
FACTURERS' LITERATURE: DELIVER ALL PRINTED TAGS, INSTRUCTIONS, CERTIFIED INGS, PARTS LISTED, CERTIFICATES, ETC., SUPPLIED WITH EQUIPMENT ITEMS, TO	D. ACCEPTABLE ALTERNATE MANUFACTURERS: SHALL BE LSI, H.E. WILLIAMS, HUBBELL, P&S AND BRYANT, PROVIDED THEIR DEVICES ARE OF THE SAME TYPE AND QUALITY AND THAT ONLY ONE MANUFACTURED QUALL DE USED TURQUEUE THE WORK.	∇	FLUSH FLOOR BOX WITH WIRING DEVICES AS INDICATED ON PLANS HUBBELL SYSTEM ONE ONLY	FS
OWNER. ES, PERMITS, AND FEES: WORK UNDER THIS DIVISION SHALL BE CONSTRUCTED IN CT. CONFORMANCE WITH REDTINENT REQUISIONS OF CITY AND STATE BUILDING	MANUFACTURER SHALL BE USED THROUGHOUT THE WORK. E. PLATES: SHALL BE MATCHING TYPE FOR FINISHED AREAS AND GALVANIZED STEEL FOR AREAS WITH EXPOSED CONDUCT, PROVIDE STAND ESS STEEL BLATES FOR FLUSH MOUNTED DEVICES			
CT CONFORMANCE WITH PERTINENT PROVISIONS OF CITY AND STATE BUILDING S. ALL WORK SHALL COMPLY WITH THE 2017 EDITION OF NATIONAL ELECTRIC CODE	WITH EXPOSED CONDUIT. PROVIDE STAINLESS STEEL PLATES FOR FLUSH MOUNTED DEVICES. PROVIDE CAST ALUMINUM WET LOCATION TYPE COVER PLATES WITH HINGED COVERS FOR DEVICES LOCATED OUTSIDE. CANC OUTLETS CROUPED TOCETHER UNDER A SINGLE WALL	(J)	JUNCTION BOX	TS
ALL WORK SHALL COMPLY WITH THE 2017 EDITION OF NATIONAL ELECTRIC CODE NEC). DBTAIN ALL REQUIRED PERMITS. PAY ALL LEGAL FEES FOR PERMITS AND	DEVICES LOCATED OUTSIDE. GANG OUTLETS GROUPED TOGETHER UNDER A SINGLE WALL PLATE. F. INCANDESCENT DIMMERS: I20V SLIDE TO OFF, DECORA STYLE SIMILAR TO SWITCHES, WITH	I I I	LIGHT SWITCH RATED I20/277 VAC, MOUNTED 42" AFF (UON), SINGLE-POLE (UON) 2 = 2-POLE, 3 = 3-WAY, 4 = 4-WAY, D = DIMMER, M = MOTOR-RATED W/ OL,	AV 3
INSPECTIONS BY AUTHORITIES HAVING JURISDICTION. ALL WORK SHALL COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING	F. INCANDESCENT DIMMERS: 120V SLIDE TO OFF, DECORA STYLE SIMILAR TO SWITCHES, WITH WATTAGE AS REQUIRED PER MANUFACTURER'S RECOMMENDATIONS. POWER FAILURE MEMORY. RFI SUPPRESSION. WHERE SWITCHES ARE SHOWN NEXT TO DIMMERS, PROVIDE MULTI-GANG	\$ _{xx}	WP = WEATHER PROOF, R = RED COLOR, K = KEYED, VS = INTEGRAL VACANCY SENSOR, OS = INTEGRAL OCCUPANCY SENSOR	
JURISDICTION. FING AND PATCHING:	COVER PLATES. PROVIDE DIMMERS WITH IVORY FINISH, SAME AS SWITCHES UNLESS OTHERWISE DIRECTED.			3
CONTRACTOR FOR THIS DIVISION SHALL LAYOUT TO DIMENSION AND LOCATIONS, CUT AND PATCH ALL OPENINGS ON SURFACES TO BE FORMED, FRAMED, OR CUT.	G. INSTALL WIRING DEVICES AND ACCESSORIES PLUMB AND LEVEL, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC AND IN	(os) (Sos)	CEILING OR WALL MOUNTED OCCUPANCY SENSOR LIGHTING CONTROL WITH PASSIVE INFRARED AND ULTRASOUND DUAL TECHNOLOGY, 20 A RATED	А
SHOULD CONTRACTOR FOR THIS DIVISION FAIL TO ADHERE WITH THIS REQUIREMENT, AS WORK PROGRESSES, ANY OPENINGS SHALL BE CUT AND PATCHED BY GENERAL	ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO FULFILL PROJECT REQUIREMENTS. H. TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH	ти∨	TV OUTLET I-GANG BACKBOX, +42" AFF (UON), SS-302 COVER I" C WITH PULL STRING ROUTED IN CONDUITS BACK TO SERVER ROOM <u>MEASURED</u> DEVICES AND LOW-VOLTAGE	FACP
CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR FOR THIS DIVISION. TECTION OF APPARATUS: TAKE ALL PRECAUTIONS NECESSARY FOR PROPER	EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE VALUES FOR WIRING DEVICES. I. COORDINATE WITH OTHER WORK, INCLUDING PAINTING, ELECTRICAL BOXES AND WIRING		CABLING BY TELECOM CONTRACTOR WALL TELEPHONE OUTLET I-GANG BACKBOX, +42" AFF (UON), SS-302 COVER I" C WITH	
CTION OF NEW EQUIPMENT, APPARATUS, AND MATERIALS FROM DAMAGE. FAILURE SO WILL BE CAUSE FOR REJECTION OF ANY ITEM COMING UNDER QUESTION.	INSTALLATIONS, AS NECESSARY TO INTERFACE INSTALLATION OF WIRING DEVICES WITH OTHER WORK.	w 🛡	PULL STRING ROUTED IN CONDUITS BACK TO SERVER ROOM <u>MEASURED</u> DEVICES AND LOW- VOLTAGE CABLING BY TELECOM CONTRACTOR	FAAP
OP DRAWINGS: CONTRACTOR FOR THIS DIVISION SHALL SUBMIT SHOP DRAWINGS AND TALOGUE DATA ON ALL MAJOR ITEMS OF EQUIPMENT AND SYSTEMS AND OTHER	J. INSTALL WIRING DEVICES AFTER WIRING WORK IS COMPLETED. INSTALL ONLY IN ELECTRICAL BOXES THAT ARE CLEAN; FREE FROM EXCESS BUILDING MATERIALS, DIRT, AND DEBRIS.	xx V	DEVICES AND LOW-VOLTAGE CABLING BY TELECOM CONTRACTOR. XX - DENOTES NUMBER OF CAT6E CABLES	Sv
ERIAL REQUESTED BY ARCHITECT/ENGINEER. SUBMIT PRODUCT DATA FOR TCHBOARDS, PANELBOARDS, TRANSFORMERS, WIRES, CABLE, SUPPORTING DEVICES, NTIFICATION COMPONENTS, LIGHT FIXTURES, FIRE ALARM SYSTEM AND COMPONENTS,	INSTALL WALL PLATES AFTER PAINTING WORK IS COMPLETED. K. NO RECEPTACLE OR SWITCH OUTLETS SHALL BE MOUNTED BACK TO BACK. A MINIMUM OF ONE (I) STUD MUST BE BETWEEN OUTLETS.			
RING DEVICES, MULTI-OUTLET RACEWAYS, CABINETS, AND BOXES. SUBMIT SIX COPIES THIN THIRTY (30) DAYS AFTER CONTRACT AWARD, AND IN NOT MORE THAN TWO GROUPS	 INSTALL RECEPTACLES WITH GROUND PIN UP. INSTALL SWITCHES WITH THE "ON" POSITION UP. ALL EXTERIOR DEVICES TO BE WEATHER PROOF AND EXTERIOR RECEPTACLES SHALL BE A GFCI 			(s)
SUBMITTALS. SUBMITTALS SHALL CONSIST OF LAYOUTS, WORKING DRAWINGS, CUTS, O OPERATING AND PERFORMANCE DATA. ALLOW FOUR (4) WEEKS FOR REVIEW AND	TYPE DEVICE. N. ALL 120-VOLT RECEPTACLES OUTLETS LOCATED WITHIN SIX FEET OF SINKS SHALL HAVE	_	MULTIOUTLET ASSEMBLY (PLUG MOLD) AS SPECIFIED ON PLANS WITH DEVICE TYPES AND QUANTITIES INDICATED ON PLANS	В
OF THE SHOP DRAWINGS BY ENGINEER. AND WORKMANSHIP: ALL MATERIALS AND EQUIPMENT SHALL BE NEW, OF BEST	GROUND FAULT CIRCUIT INTERRUPTION PROTECTION. GROUND FAULT OUTLETS SHALL BE CONNECTED ON DEDICATED NEUTRAL WIRE SERVING ONLY THE INDIVIDUAL OUTLET WITH THE	EPO	EMERGENCY POWER OFF, MUSHROOM HEAD, MAINTAINED CONTACT PUSH BUTTON	<pre>(M)</pre>
E OF STANDARD MANUFACTURE. APPROVED BY UL, AND BE SO LABELED. FOR WIRE CABLE, MARKED AS REQUIRED BY ART. 310–2, NEC. INSTALLED BY SKILLED	GROUND FAULT PROTECTION. 0. USE JUMBO SIZE WALL PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS.			
CIAN, WORKING UNDER THE DIRECT SUPERVISION OF COMPETENT EXPERIENCED I AND/OR SUPERINTENDENT. PRODUCTS SHALL BE INSTALLED IN A THOROUGH	 P. DO NOT SHARE NEUTRAL CONDUCTORS ON DIMMERS. 22. PANELBOARD: PANELBOARDS SHALL BE GE TYPE AL, AQ, OR AE OR APPROVED EQUAL. REFER TO 		PHOTOELECTRIC SENSOR AIMED NORTH	KP
ANLIKE MANNER, PRESENTING A NEAT, CLEAN-CUT APPEARANCE WHEN ETED. ANY PART OR PARTS NOT MEETING THIS REQUIREMENT SHALL BE REPLACED	CONSTRUCTION DOCUMENTS FOR THE TYPE AND NUMBER OF BRANCH CIRCUIT BREAKERS. ALL PANELBOARD BUSSING SHALL BE COPPER. PANELBOARDS SHALL BE IN OUTDOOR ENCLOSURE WHERE	ТС	TIME CLOCK, ASTRONOMIC/MULTI-POLE CONTACTOR	(DC)
JILT WITHOUT EXTRA EXPENSE TO OWNER. TION OF EXISTING: PLENUM CABLE SHALL BE PROPERLY SECURED ABOVE CEILING PLICABLE CODES.	INSTALLED OUTDOOR. MINIMUM INTERRUPTING RATING FOR PANELS SHALL BE AS INDICATED ON DRAWINGS. 23. TRANSFORMERS: DRY TYPE, TWO_WINDING OF THE SIZE AND ELECTRICAL CHARACTERISTICS			
G METHODS: THE DRAWINGS ARE DIAGRAMMATIC AND ARE INTENDED TO SHOW THE FIONS OF EQUIPMENT AND ARRANGEMENT OF CIRCUITS ONLY. EXACT LOCATIONS	SHOWN AND SCHEDULED ON DRAWINGS. TRANSFORMERS SHALL BE EQUIPPED WITH 2 2–1/2% TAPS ABOVE AND BELOW RATING. TRANSFORMERS SHALL HAVE A BONDING JUMPER INSTALLED BETWEEN		POWER COMPANY POWER METER	
L BE DETERMINED BY ACTUAL MEASUREMENT AT THE SITE. CONTRACTOR SHALL BE Y RESPONSIBLE FOR ALL RISES, DROPS, OFFSETS, ETC. NECESSARY TO AVOID	THE SECONDARY NEUTRAL TERMINAL AND METAL CASE, AND SHALL INCLUDE A GROUND TERMINAL OF PROPER SIZE TO RECEIVE GROUND CONDUCTOR. TRANSFORMERS SHALL BE RATED AT FULL LOAD	<u>CHA</u> 24 COIL 277 VAC	LIGHTING CONTACTOR	(ML)
NFLICT WITH STRUCTURAL MEMBERS, AND SIMILAR ITEMS, WHEN INSTALLING ECTRICAL CONDUITS. INSTALL EXPOSED CONDUIT AS SHOWN OR NOTED, PARALLEL TO	IN A 40°C AMBIENT WITH 30°C ULTIMATE HOT SPOT TEMPERATURE RISE ALLOWANCE, WITH CLASS F INSULATION HAVING A UL 185°C RATING LIMITING SYSTEM TEMPERATURE TO 115°C ON UNITS	LC 30 AS	<u>CHA</u> = CONTACTOR NAME, COIL = COIL CONTROL VOLTAGE, VAC = VOLTAGE RATING, AS = CURRENT RATINGS, P = POLE COUNT, NEMA-# = ENCLOSURE TYPE	(DH)
RIZONTAL AND VERTICAL LINES OF STRUCTURES. MAKE BENDS WITH 90 DEGREE TURN LY, OR WITH APPROVED FITTINGS.	SMALLER THAN 15 KVA AND CLASS H INSULATION HAVING UL 220°C RATING LIMIT SYSTEM TEMPERATURE TO 150°C ON 15 KVA AND LARGER UNITS. PROVIDE COPPER WINDINGS.	NEMA-I		
NDUIT: FURNISH A COMPLETE RACEWAY SYSTEM FOR BUT NOT LIMITED TO FEEDER, ANCH CIRCUITS, CONTROL WIRING, AND AUXILIARY SYSTEM WIRING.	24. FUSES: FUSES IN MAIN, FEEDER, AND BRANCH CIRCUIT SWITCHES, RATED 600 AMPS AND BELOW, FEEDING MOTORS, TRANSFORMERS, AND GENERAL PURPOSE CIRCUITS (UNLESS OTHERWISE	240 VAC 60 AF	CIRCUIT BREAKER, MOLDED-CASE, THERMO-MAGNETIC (UON) VAC = VOLTAGE RATING, AF = FRAME SIZE, AT = TRIP SETTING, P = POLE COUNT,	
USE LIQUID TIGHT FLEXIBLE METAL CONDUIT AND FITTINGS FOR ALL MOTORIZED CONNECTIONS, WHERE EQUIPMENT IS SUBJECT TO MOVEMENT, OR LOCATED OUTDOOR.	SPECIFIED), SHALL BE UL LISTED AND LABELED AS CURRENT LIMITING, TIME-DELAY, 200,000 A.I.C., CLASS RK-5 FUSES SHALL BE BUSSMAN TYPE FRN-R (250V), AND FRS-R (600V).	О АТ СВ З Р NEMA−I	NEMA- = ENCLOSURE TYPE (WHEN APPLICABLE)	<u>TLA</u> DRY-1
WHERE ENTERING PANELS, PULL BOXES, J-BOXES, OR OUTLET BOXES, SECURED IN PLACE WITH WITH LOCK-NUTS INSIDE AND OUTSIDE, AND INSULATED BUSHING INSIDE. BENDS AND OFFSETS MADE WITH APPROVED TOOLS ONLY. BENDS OR OFFSETS IN	25. GROUNDING: ALL CONDUIT WORK, MOTOR, STARTERS, AND OTHER ELECTRICAL EQUIPMENT WIRED AND CONNECTED BY THIS CONTRACTOR SHALL BE EFFECTIVELY AND PERMANENTLY GROUNDED IN	240 VAC	DISCONNECT SWITCH	480: 208Y/
WHICH THE PIPE IS CRUSHED OR DEFORMED SHALL NOT BE INSTALLED. USE EMT FOR INTERIOR DRY LOCATIONS, PVC FOR UNDERGROUND INSTALLATION, AND	FULL ACCORDANCE WITH NEC 250. 26. OTHER MATERIALS: FURNISH AND INSTALL ALL OTHER MATERIALS SUCH AS HARDWARE, TAPE, CLAMPS, CONNECTORS, FITTINGS, SUPPORTS, AND ALL OTHER APPURTENANCES REQUIRED TO		VAC = VOLTAGE RATING, AS = SWITCH CURRENT RATING, AF = FUSE SIZE/TYPE (E.G. DETD)	± 45 κV/ ΝΕΜΑ−.
IGID GALVANIZED STEEL FOR EXPOSED LOCATIONS SUBJECT TO DAMAGE. TAND JUNCTION BOXES: FURNISH AND INSTALL ALL JUNCTION BOXES REQUIRED TO	COMPLETE THE WORK TO THE FULL INTENT OF THE CONTRACT. TERMINAL LUGS SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.	☐ 3 P NEMA−I	P = POLE COUNT, NEMA- = ENCLOSURE TYPE (WHEN APPLICABLE)	VFD
LITATE INSTALLATION OF THE VARIOUS CONDUIT SYSTEMS. JUNCTION BOXES SHALL JITABLE FOR ENVIRONMENT AND APPLICATION USED FOR.	 27. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPERATURE, CO2, AND HUMIDITY SENSOR STUB-UPS FOR THE MECHANICAL HVAC SYSTEM. REFER TO MECHANICAL PRINTS FOR SENSOR 	کے 240 VAC		
AND CABLE: ALL WIRE AND CABLE SHALL: BE NEW AND OF SOFT DRAWN, ANNEALED, COPPER HAVING A CONDUCTIVITY OF NOT	QUANTITY AND LOCATIONS. 28. ELECTRICAL CONTRACTOR WILL CONNECT ALL LOW VOLTAGE PLUMBING CONTRACTOR SUPPLIED	60 AF 40 AT #I	COMBINATION CIRCUIT BREAKER, MOTOR CONTROLLER, AND THERMAL OVERLOAD VAC = VOLTAGE RATING, AF = FRAME SIZE, AT = TRIP SETTING, NEMA-# = MOTOR STARTER SIZE/TYPE (E.G. FVNR), HOA = SELECTOR SWITCH TYPE,	
THAN 98% OF THAT OF PURE COPPER; EACH WIRE CONTINUOUS WITHOUT WELD, CE OR JOINT THROUGHOUT ITS LENGTH; UNIFORM IN CROSS SECTION AND FREE	TRANSFORMERS (FOR AUTOMATIC FLUSH) TO THE NEAREST I20V CIRCUIT (OR IF INDICATED ON PLANS WITH A CIRCUIT NUMBER). CONTRACTOR TO ASSUME ONE TRANSFORMER PER BATHROOM.		P = POLE COUNT, NEMA- = ENCLOSURE TYPE (WHEN APPLICABLE)	+
FROM FLAWS, SCALES, AND OTHER IMPERFECTIONS. UNLESS OTHERWISE SPECIFIED OR NOTED, WIRES SHALL BE #12 AWG (FOR PHASE,	THE PLUMBING CONTRACTOR WILL BE RESPONSIBLE FOR LOW VOLTAGE WIRING TO THE FIXTURES. 29. SWITCHGEAR AND DISTRIBUTION PANELS: SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS	GENERAL NOTES:		
NEUTRAL, AND GROUND CONDUCTORS) TYPE THW, THWN, THHN, AS MANUFACTURED BY TRIANGLE, GENERAL ELECTRIC, OKONITE, OR ANACONDA.	OF POTENTIAL ELECTRIC ARC FLASH HAZARDS. THE MARKING SHALL BE LOCATED SO AS TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR		D MAY CONTAIN SYMBOLS THAT ARE NOT USED ON ALL DRAWINGS. DEFINITIONS ARE NOT COMPREHENSIVE, AND NOT ALL ABBREVIATIONS MAY APPLY TO ALL DRA	WINGS SUBMIT FO
ALL WIRE #8 AND LARGER SHALL BE STRANDED. NOT BE DRAWN INTO A CONDUIT UNTIL ALL WORK WHICH MAY CAUSE INJURY TO	MAINTENANCE OF THE EQUIPMENT, NEC 110.16. 30. ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL GTD'S	ABBREVIATIONS, A	S THESE WILL NOT CONSTITUTE DISMISSAL OF CONTRACTOR RESPONSIBILITY. TES FOR RECEPTACLES, SWITCHES, AND DATA SHALL BE SS-302 (UON).	
INSULATION IS COMPLETE. WHERE TWO OR MORE CIRCUITS RUN TO A SINGLE OUTLET BOX, TAG EACH CIRCUIT AS A GUIDE.	(GENERATOR TRANSFER DEVICES), LIGHTING CONTROL EQUIPMENT, LOW VOLTAGE TRANSFORMERS AND OTHER ELECTRICAL ITEMS WHICH ARE ABOVE CEILINGS. THESE DEVICES SIMILAR TO	4. PROVIDE DECOR	RA STYPE SWITCHES FOR LIGHT SWITCHES THAT ARE NOT OCCUPANCY SENSOR TYPE.	
HAVE ALL STRANDED CONDUCTORS FURNISHED WITH COPPER CONNECTING LUGS, DRILLED, OR REAMED THE FULL DIAMETER OF THE BARE CONDUCTORS. MAINS AND FEEDERS SHALL BE RUN THEIR ENTIRE LENGTH IN CONTINUOUS PIECES WITHOUT	ELECTRICAL JUNCTION BOXES ARE NOT ALLOWED BY NEC TO BE ABOVE HARD CEILINGS. THE ARCHITECT/OWNER WILL NOT ALLOW THE INSTALLATION OF ACCESS PANELS IN THE CEILINGS. BE			
JOINTS OR SPLICES. NTIFICATION OF CONDUCTORS AND PANELBOARD ELEMENTS:	AWARE THAT EQUIPMENT IN THOSE AREAS OF HARD CEILINGS WILL HAVE TO BE REMOTELY LOCATED TO THE NEAREST ACOUSTICAL LAY-IN CEILING AREAS. 31. ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES,			
. EACH AND EVERY MAIN AND FEEDER CONDUCTOR SHALL BE IDENTIFIED AT EACH OUTLET POINT WHERE SUCH CONDUCTOR TERMINATES. FEEDER BUNDLES PASSING	APPLIANCES, FIXTURES, OR EQUIPMENT SHALL BE SOLD OR INSTALLED IN THE CITY UNLESS THEY ARE IN CONFORMANCE WITH THE PROVISIONS OF THIS CODE. THE LAWS OF THE STATE OF TEXAS			
THROUGH A JUNCTION OR SUPPORT BOX SHALL ALSO BE IDENTIFIED WITHIN SUCH ENCLOSURE, BUT MAY BE IDENTIFIED IN SUCH LOCATIONS AS A GROUP.	AND ANY APPLICABLE RULES AND REGULATIONS ISSUED UNDER THE AUTHORITY OF THE STATE STATUTES. THE MAKER'S NAME, TRADEMARK, OR OTHER IDENTIFICATION SYMBOL SHALL BE PLACED			
B. IDENTIFY BY USE OF PERMANENT TYPE BANDS, BRADY, OR T AND B. A DEFINITE NUMBER AND/OR LETTER CODE SHALL BE EMPLOYED AND BE UNIFORM THROUGHOUT	ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND			
EACH CONDUCTOR. C. IDENTIFY EACH SWITCH, INCLUDING MAIN DISCONNECT AND MOTOR STARTER WITH	EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.			
WHITE-ON-BLACK NAMEPLATE, EACH HAVING I/4" HIGH LETTERS. NEATLY AND SECURELY ADHERE NAMEPLATES TO THE UNIT.	3I. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING ALL CONDUIT ROUTING TO ANY MECHANICAL ROOF TOP EQUIPMENT AND ROUTE THE CONDUIT THRU THE EQUIPMENT CURB SO			
	THERE IS NOT A SEPARATE ROOF PENETRATION.			
		-		

	ICAL SYMBOL LEGEND	
SYMBOL		ABBREVIATION DEFINITIONS
	LIGHTING CLASS PANEL	2SIW TWO-SPEED, ONE-WINDING MOTOR
DA	HA = PANEL NAME CHARACTERISTICS AS INDICATED ON ONE LINE DIAGRAM AND PANEL SCHEDULE DISTRIBUTION CLASS PANEL	2S2W TWO-SPEED, TWO-WINDING MOTOR (A ABANDONED TO REMOVE A PHASE "A" IN THREE-PHASE SYSTEM
	DA = PANEL NAME CHARACTERISTICS AS INDICATED ON ONE LINE DIAGRAM	A AMPERES AF AMPERE FUSE OR FRAME RATING
O 	CONDUIT TURNING UP CONDUIT TURNING DOWN	AFCI ARC FAULT CIRCUIT INTERRUPTER AFF ABOVE FINISHED FLOOR AT AMPERE TRIP SETTING
OH	WEATHER HEAD FOR CONNECTING OVER HEAD CONDUCTORS	AFG ABOVE FINISHED GRADE B PHASE "B" IN THREE-PHASE SYSTEM
	20" Cu CHATWORTH GROUNDING BUSBAR 40153–020 TMGB PATTERN, 4" W x I/4" H, 20"L,	BF BALLAST FACTOR BFC BELOW FINISHED CEILING BFF BELOW FINISHED FLOOR
	INSULATED STANDOFFS, PRE-DRILLED & TAP AS REQUIRED FOR CONDUCTORS	BFG BELOW FINISHED GRADE C PHASE "C" IN THREE-PHASE SYSTEM C CONDUIT
М	FIRE ALARM MANUAL PULL STATION WITH TAMPER COVER	CB CIRCUIT BREAKER CH CONSTANT HORSE POWER (2SIW MOTOR)
SD	FIRE ALARM SMOKE DETECTOR, CEILING MOUNTED	CKT CIRCUIT CS COMBINATION STARTER (MOTOR STARTER / DISCONNECT) CT CONSTANT TORQUE (2SIW MOTOR)
HD	FIRE ALARM HEAT DETECTOR, CEILING MOUNTED	CT CURRENT TRANSFORMER (D) EXISTING TO BE DEMOLISHED OR REMOVED DETD DUAL ELEMENT, TIME DELAY
DD	FIRE ALARM DUCT-MOUNTED SMOKE DETECTOR	DS DISCONNECT SWITCH (E EXISTING TO REMAIN
		EMT ELECTRICAL METALLIC TUBING EPM ELECTRONIC POWER METER FAAP FIRE ALARM ANNUNCIATOR PANEL
R	FIRE ALARM SUPERVISORY SHUTDOWN RELAY	FACP FIRE ALARM CONTROL PANEL FVNR FULL VOLTAGE NON-REVERSING
FS	FIRE ALARM FIRE-WATER FLOW SWITCH	G GROUND GEC GROUNDING ELECTRODE CONDUCTOR GFI/GFCI GROUND FAULT CIRCUIT INTERRUPTER
TS	FIRE ALARM FIRE-WATER TAMPER SWITCH	HMTHARMONIC-MITIGATING TRANSFORMERHOAHAND / OFF / AUTO SWITCH (FOR FVNR CONTACTOR)HLOAHIGH / LOW / OFF / AUTO (FOR 2SIW OR 2S2W CONTACTOR)
AV	FIRE ALARM AUDIO/VISUAL HORN/STROBE	IG ISOLATED GROUND J/ JAMMING RATIO KAIC KILO AMPERE INTERRUPTING CAPACITY
V 3	FIRE ALARM VISUAL STROBE	KCMIL KILO CIRCULAR MILS KVA KILO VOLT AMPERES COMPLEX OR APPARENT POWER KVAR KILO VOLT AMPERES REACTIVE POWER
A	FIRE ALARM SPEAKER	kW KILO WATT REAL POWER LI HOT LEG I IN SINGLE-PHASE SYSTEM < 250 VAC L HOT LEG 2 IN SINGLE-PHASE SYSTEM < 250 VAC
FACP	FIRE ALARM CONTROL PANEL	LSI+G LONG TERM, SHORT TERM, INSTANTANEOUS, AND GROUND-FAULT MCB MAIN CIRCUIT BREAKER MCC MOTOR CONTROL CENTER MLO MAIN LUGS ONLY
FAAP	FIRE ALARM REMOTE ANNUNCIATOR PANEL	(N NEW N NEUTRAL
Sv	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED WALL-MOUNTED VOLUME CONTROL ADJACENT TO LIGHT SWITCH (UON)	NEC NATIONAL ELECTRICAL CODE (NFPA 70) NEMA NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION NF NON-FUSIBLE NFPA NATIONAL FIRE PROTECTION ASSOCIATION
S	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED	NSL NON-SWITCHED HOT LEG OFCI OWNER FURNISHED, CONTRACTOR INSTALLED OS OCCUPANCY SENSOR
В	PUBLIC ADDRESS INTERCOM CALL BUTTON, WALL-MOUNTED 42" AFF	P POLES PF POWER FACTOR PFCC POWER FACTOR CORRECTION CAPACITOR PVC POLY VINYL CHLORIDE
$\langle M \rangle$	INTRUSION ALARM MOTION DETECTOR	PT POTENTIAL TRANSFORMER RAL RIGID ALUMINUM RGS RIGID GALVANIZED STEEL
KP	INTRUSION ALARM NUMERIC KEY-PAD	SEC SECTION OF LIGHTING-CLASS PANEL SPD SURGE PROTECTION DEVICE SS- STAINLESS STEEL, "xxx" = AUSTENITIC ALLOY TYPE (E.G. 304)
	INTRUSION ALARM DOOR CONTACTOR	ST SHUNT-TRIP FOR CIRCUIT BREAKER THD TOTAL HARMONIC DISTORTION TVSS TRANSIENT VOLTAGE SURGE SUPPRESSION TYP TYPICAL
(CR)	ACCESS CONTROL CARD READER	UON UNLESS OTHERWISE NOTED V VOLTS VAC VOLTS, ALTERNATING CURRENT
	ACCESS CONTROL MAGNETIC DOOR LOCK	VDC VOLTS, DIRECT CURRENT VFCI VENDOR FURNISHED, CONTRACTOR INSTALLED VFD VARIABLE FREQUENCY DRIVE
ЮН	ACCESS CONTROL DOOR HOLD-OPEN	VS VACANCY SENSOR VT VARIABLE TORQUE (2SIW MOTOR) W WIRES, NOT INCLUDING GEC
	VIDEO SURVEILLANCE CCTV CAMERA	WP WEATHER PROOF # AMERICAN WIRE GAGE Ø PHASE
<u>ТLA</u> DRY-TYPE 480: 208Y/I20 VAC 45 кVA NEMA-2	TRANSFORMER = <u>TLA</u> TRANSFORMER NAME TYPE = TRANSFORMER TYPE (E.G. DRY-TYPE, HARMONIC-MITIGATING), VAC = WINDING VOLTAGES (PRIMARY : SECONDARY), KVA = CONTINUOUS CAPACITY, TAPS = QUANTITY/DEVIATION OF TAPS, RISE = TEMP RISE, INSUL = INSULATION CLASS, WOUND = WINDING MATERIAL/CONFIGURATION, NEMA- = ENCLOSURE TYPE	μF MICRO FARAD Ω OHMS
VFD	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECTING MEANS, VFCI	
(HP)	MOTOR, SINGLE OR THREE PHASE HP = HORSE POWER	
+	EQUIPMENT CONNECTION	

S. SUBMIT FORMAL REQUEST FOR INFORMATION WHEN ENCOUNTERING CONFLICTS OR AMBIGUOUS SYMBOLS OR



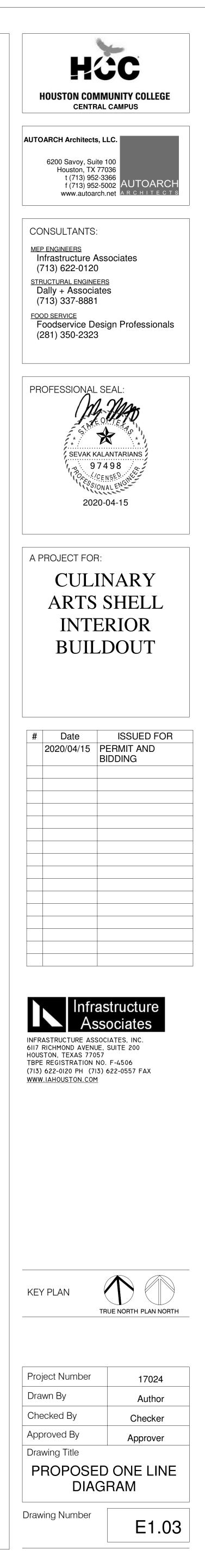


ELECTRICAL LOAD ANALYSIS

PROJECT: CULINARY ARTS SHELL INTERIOR BUILDOUT KVA ADDED LOAD DESCRIPTION I. ADDED (47) LIGHTS TO PLAN (49W / EACH) +2.3 KVA I. ADDED (II) RECEPTACLES ADDED TO PLAN 180 W / EACH +2 KVA I. ADDED A NEW MECHANICAL UNIT (AHU-2-3 – 25 HP) +30 KVA 2. ADDED (7) KITCHEN EXHAUST FAN (2 HP / EACH) +20 KVA 3. NEW KITCHEN EQUIPMENTS (157 KVA x 0.65) +102 KVA TOTAL LOAD ADDED (KVA) +156 KVA TOTAL AMP ADDED (AMP) +188 AMP

EXISTING LOAD (AMP) 667 AMP

THE TOTAL LOAD AFTER RENOVATION IS 855 AMP. EXISTING SERVICE FOR THE BUILDING IS 1000 AMP @ 480Y/277 VAC 3¢, 4W.



	L: 2H1		IRFACE			IEUTRAL			INT SPD			NEM			100 A	BUS	3 ø	4 WIRE
L AINE	L. 2111 MT	G: FL	USH	BUS:	X S	YS GND	OP	Т:	FTL	E	ENCL:	TYPE	1	MA	N: CU/SN		14	KAIC
LOCATI	ON: ELEC ROOM	ST	RUT		18	SO GND			FUSIBLE			STEE	L		100 A	MLO	480Y/277	VOLT
FED FR	OM:		1						1									
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / F	, CKT NO		A VA)	E (kV	3 /A)	C (kV		CKT NO	Ρ/	TRIP RATE	LOAD TYPE	L	OAD DESCRIPTION		WIRE SIZE
3-#12, 1-#12, 1-#12, 3/4"C	(E) DISHWASHER	Q	20 / 3	3 1	3.0	1.0					2	1 /	20	L	(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
				- 3			3.0	1.0			4	1 /	20	L	(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
				- 5					3.0	1.0	6	1 /	20	L	(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
3-#12, 1-#12, 1-#12, 3/4"C	(E) BOOSTER HEATER E251/B&C RM A218	Q	20 / 3	3 7	3.0	1.0					8	1 /	20	L	(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
				- 9			3.0	1.0			10	1 /	20	L	(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
				- 11					3.0	1.0	12	1 /	20		(E) LIGHTING			1-#12, 1-#12, 1-#12, 3/4"
3-#12, 1-#12, 1-#12, 3/4"C	(E) DOUGH SHEETER	Q	20 / 3	3 13	4.4	0.0					14	1	20		SPARE			
				- 15			4.4	0.6			16	1 /	20		、 ,	- PASTRY LAB 2		1-#12, 1-#12, 1-#12, 3/4"
				- 17					4.4	1.0	18	1 /	20		· ,	- CULINARY LAB 2		1-#12, 1-#12, 1-#12, 3/4"
	SPARE		30 3	3 19	0.0	4.3					20	3 /	20	Q	(N) BOOSTER	HEATER - LAB 2		3-#12, 1-#12, 1-#12, 3/4"
				- 21			0.0	4.3			22							
									0.0	4.3	24							
3-#12, 1-#12, 1-#12, 3/4"C	(N) DISHWASHER - LAB 2	Q	20 / 3		3.0	4.4					26	3 /	20	K	(N) DOUGH SH	HEETER		3-#12, 1-#12, 1-#12, 3/4"
							3.0	4.4			28							
									3.0	4.4	30							
	SPARE		20	• • •	0.0	0.0					32	1	20		SPARE			
	SPARE		20				0.0	0.0			34	1	20		SPARE			
	SPARE		20						0.0	0.0	36	1	20		SPARE			
	SPARE		20		0.0	0.0					38	-	20		SPARE			
	SPARE		20				0.0	0.0			40	1	20		SPARE			
	SPARE		20	1 41	-				0.0	0.0	42	1	20		SPARE			
				otal Load		kVA	25		25 k									
			To	tal Amps	s: 87	7 A .	89		91	A								
							LOAD AI		S									
	LOAD TYPE	CC	NNECTED		FACTOR		DEM									TOTALS		
	L		74		125.00%	,		93	29 VA									
RECEPTACLE	R			0 VA	0.00%				0 VA				CC		ED LOAD (kV	,		
EQUIPMENT	Q		532	00 VA	100.00%	,		532	00 VA						ND LOAD (kV	•		
	C			0 VA	0.00%				0 VA							•		
HEATING	H			0 VA	0.00%				0 VA					DEMAN	D CURRENT (A) 91 A		
MOTOR	M			0 VA	0.00%				0 VA									
ARGEST MOTOR	G			0 VA	0.00%				0 VA									
KITCHEN	K		132	96 VA	100.00%	•		132	96 VA									
EXISTING	X			0 VA	0.00%				0 VA									

ALL WIRING FOR 20A/1P CKT. SHALL CONSIST OF 2#12, 1#12G IN 3/4"C UNLESS OTHERWISE NOTED. * PROVIDE A BREAKER WITH GFCI ** ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR

	EL: 2H2 ON: ELEC ROOM	MTG:	SURI FLUS STRU	SH		X S	IEUTRAL SYS GND SO GND		:	INT SPD FTL FUSIBLE	E	ENCL:	NEMA TYPE 1 STEEL	MAIN:	100 A CU/SN 100 A	BUS MCB	3 Ø 14 480Y/2	4 WIRE KAIC 77 VOLT
WIRE SIZE	LOAD DESCRIPTION	L		TRIP RATE / P	CKT NO		A VA)	B (kVA		(k)		CKT NO	P / TRIP	LOAD TYPE	L	OAD DESCRIPTION		WIRE SIZE
3-#12, 1-#12, 1-#12, 3/4"C	(N) KEE-17		M	15 / 3	1	0.9	0.9		ч	(11)		2	3 / 15		KEF-18			3-#12, 1-#12, 1-#12, 3/4"C
						0.0	0.0	0.9	0.9			4			1121 10			
					5				0.0	0.9	0.9	6						
3-#12, 1-#12, 1-#12, 3/4"C	(N) KEF-19		M	15 / 3		0.9	0.9					8	3 / 15	M (N	KEF-20			3-#12, 1-#12, 1-#12, 3/4"0
					9			0.9	0.9			10						
					11					0.9	0.9	12						
3-#12, 1-#12, 1-#12, 3/4"C	(N) KEF-21		М	15 / 3	13	0.9	0.9					14	3 / 15	M (N	KEF-22			3-#12, 1-#12, 1-#12, 3/4"C
					15			0.9	0.9			16						
					17					0.9	0.9	18						
3-#12, 1-#12, 1-#12, 3/4"C	(N) KEF-23		M	15 / 3	19	0.8						20	/					
					21			0.8				22	/					
					23					0.8		24	/					
				/	25							26	/					
				/	27							28	/					
				/	29							30	/					
				/	31							32	/					
				/	33							34	/					
				/	35							36	/					
				/	37							38	/					
				/	39							40	/					
				/	41							42	/					
				To	al Load:	: 61	kVA	6 kV	'A	6 k	XΑ							
				Tota	al Amps:	2	3 A	23 A	Ą	23	3 A							
								LOAD AN		S								
	LOAD TYPE		CONI	NECTED		FACTOF	2	DEMA	ND							TOTALS		
LIGHTING	L					0.00%				0 VA								
RECEPTACLE	R				0 VA	0.00%				0 VA			C		LOAD (kVA			
EQUIPMENT	Q				0 VA	0.00%				0 VA					LOAD (kVA			
COOLING	C				0 VA	0.00%				0 VA			CO		CURRENT (A			
HEATING	H				0 VA	0.00%				0 VA				DEMAND	CURRENT (A) 23 A		
MOTOR	M					100.00%	>		193	800 VA								
ARGEST MOTOR	G				0 VA	0.00%				0 VA								
KITCHEN	K				0 VA	0.00%				0 VA								
EXISTING NOTES:	X				0 VA	0.00%				0 VA								

ALL WIRING FOR 20A/1P CKT. SHALL CONSIST OF 2#12, 1#12G IN 3/4"C UNLESS OTHERWISE NOTED. * PROVIDE A BREAKER WITH GFCI ** ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR

			C 11	RFACE		100% N			- ı	INT SPD			NEM	ΛΔ		100 A	3 ø 4 WIRE
PANE	EL: 2LAB4B	MTG	X FLL	-	SUS:		YS GND		: x			NCL:	TYPE		МА	BUS –	10 KAIC
	ION: CULINARY LAB 2	wird.		RUT			SO GND	OFT		FUSIBLE			STE		11/-	100 A MLO	208Y/120 VOLT
FED FR		l								IOOIDEE			0121				
WIRE SIZE	LOAD DESCRIPTION		LOAD TYPE		CKT NO		A VA)	B (kVA		C (kV		CKT NO			LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"C	RANGE E650		Q	20 / 1	1	0.8	1.3	(- y	(· ~)	2	1 /	20		HOOD LIGHTS AND TEMP SENSOR	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12, 3/4 0	SHUNT TRIP BREAKER		Q		3	0.0	1.5	0.0	0.4			4	1 /	20	.,	CONVENIENCE OUTLET - E13	1-#12, 1-#12, 1-#12
 1 #10 1 #10 1 #10 2///"()	WORKTOP REFRIGERATOR - 817		Q	20 / 1	5			0.0	0.4	0.4	0.4	6	1 /	20		WORKTOP REFRIGERATOR - 817	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12, 3/4 0	SHUNT TRIP BREAKER				7	0.0	0.0			0.4	0.4	8				SHUNT TRIP BREAKER	
 1 #10 1 #10 1 #10 2///"()	WORKTOP REFRIGERATOR - 817		Q	20 / 1	9	0.0	0.0	0.4	0.1			10	1 /	20		ELECTRONIC IGNITION - E633	1-#12, 1-#12, 1-#12
1-#12, 1-#12, 1-#12, 3/4 0	SHUNT TRIP BREAKER				11			0.4	0.1	0.0	0.0	12				SHUNT TRIP BREAKER	
	HOOD LIGHTS AND TEMP SENSOR		Q; K	20 / 1	13	1.3	0.2			0.0	0.0	14	1 /			ELECTRONIC IGNITION - E633	1-#12, 1-#12, 1-#12
, , ,	HOOD LIGHTS AND TEMP SENSOR		Q; K	20 / 1	15	1.5	0.2	1.3	0.0			16				SHUNT TRIP BREAKER	
								1.3	0.0	10	1.0		-			RECEPT - FRYER - E704	
1-#12, 1-#12, 1-#12, 3/4"C	SHUNT TRIP BREAKER		K	20 / 1	17 19	0.0	0.0			1.0	1.0	18	1 /	20		SHUNT TRIP BREAKER	1-#12, 1-#12, 1-#12
					-	0.0	0.0	1.0	1.0			20					
1-#12, 1-#12, 1-#12, 3/4"C			K	20 / 1	21			1.0	1.0	0.0	0.0	22	/	20		RECEPT - FILTER - E704	1-#12, 1-#12, 1-#12
	SHUNT TRIP BREAKER				23	4.4	0.4			0.0	0.0	24				SHUNT TRIP BREAKER	
1-#12, 1-#12, 1-#12, 3/4"C			K	20 / 1	25	1.4	0.4					26	1 /	20		RANGE - E650	1-#12, 1-#12, 1-#12
	CONVENIENCE OUTLET - E13		R	20 / 1	27			0.4	0.0			28				SHUNT TRIP BREAKER	
	ELECTRIC CORD REEL - E644		R	20 / 1	29					1.9	0.2	30	3 /			STEAMER - COUNTER TOP	3-#8, 1-#8, 1-#10,
	ELECTRIC CORD REEL - E644		R	20 / 1	31	1.9	0.2					32					
	ELECTRIC CORD REEL - E644		R	20 / 1	33			1.9	0.2			34					
	ELECTRIC CORD REEL - E644		R	20 / 1	35					1.9	0.0	36				SHUNT TRIP BREAKER	
1-#12, 1-#12, 1-#12, 3/4"C	FREEZER PROTECTION PUMP		Q	20 / 1	37	0.5	0.0					38	1			SPARE	
	SPARE			20 1	39			0.0	0.0			40	1			SPARE	
	SPARE			20 1	41					0.0	0.0	42	1			SPARE	
	SPARE			20 1	43	0.0	0.0					44	1			SPARE	
	SPARE			20 1	45			0.0	0.0			46	1			SPARE	
	SPARE			20 1	47					0.0	0.0	48	1			SPARE	
	SPARE			20 1	49	0.0	0.0					50	1			SPARE	
	SPARE			20 1				0.0	0.0			52	1	-		SPARE	
	SPARE			20 1	53					0.0	0.0	54	1			SPARE	
	SPARE			20 1	55	0.0	0.0					56	1			SPARE	
	SPARE			20 1	57			0.0	0.0			58	1			SPARE	
	SPARE			20 1						0.0	0.0	60	1	20		SPARE	
					al Loa		κVA	7 kV		7 k'							
				Tota	Amp:	s: 6	7 A	54 A		56	Α						
		•						OAD AN		S							
	LOAD TYPE		CO	NNECTED		FACTOF	1	DEMA	ND							TOTALS	
IGHTING	L) VA	0.00%				0 VA							
RECEPTACLE	R			8400		100.00%				00 VA				C		TED LOAD (kVA) 21 kVA	
EQUIPMENT	Q			4000		100.00%	,		40	00 VA						AND LOAD (kVA) 18 kVA	
COOLING	С) VA	0.00%				0 VA						D CURRENT (A) 59 A	
HEATING	Н			() VA	0.00%				0 VA					DEMAN	ID CURRENT (A) 50 A	
MOTOR	Μ			() VA	0.00%				0 VA							
LARGEST MOTOR	G			() VA	0.00%				0 VA							
KITCHEN	К			8808	3 VA	65.00%			57	25 VA							
EXISTING	X			() VA	0.00%				0 VA							

	EL: 2LAB4B ON: CULINARY LAB 2 OM:	MTG:	X FLU STF		BUS:	X S	IEUTRAL SYS GND SO GND	OP	Τ: Χ	INT SPD FTL FUSIBLE	E	NCL:	NEMA TYPE 1 STEEL	MAI	100 A CU/SN 100 A	BUS	3 ø 10 208Y/12	4 WIRE KAIC VOLT
WIRE SIZE	LOAD DESCRIPTION		LOAD TYPE	TRIP RATE	P CK NO		A VA)	E (k)	B √A)	C (kV		CKT NO	P / TRIP RATE	LOAD TYPE	LC	DAD DESCRIPTION		WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"C	RANGE - E650		Q	20 /	1 1	0.8	1.3				-	2	1 / 20	Q; K	HOOD LIGHTS /	AND TEMP SENSOR		1-#12, 1-#12, 1-#12, 3/4"C
	SHUNT TRIP BREAKER				3			0.0	0.4			4	1 / 20	R	CONVENIENCE	OUTLET - E13		1-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	WORKTOP REFRIGERATOR - 817		Q	20 /	1 5					0.4	0.4	6	1 / 20	Q	WORKTOP REF	RIGERATOR - 817		1-#12, 1-#12, 1-#12, 3/4"C
	SHUNT TRIP BREAKER				7	0.0	0.0					8			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C	WORKTOP REFRIGERATOR - 817		Q	20 /	1 9			0.4	0.1			10	1 / 20	Q	ELECTRONIC IC	GNITION - E633		1-#12, 1-#12, 1-#12, 3/4"C
	SHUNT TRIP BREAKER				11					0.0	0.0	12			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C	HOOD LIGHTS AND TEMP SENSOR		Q; K	20 /	1 13	1.3	0.2					14	1 / 20	Q	ELECTRONIC IC	GNITION - E633		1-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	HOOD LIGHTS AND TEMP SENSOR		Q; K	20 /	1 15			1.3	0.0			16			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C			К	20 /	1 17					1.0	1.0	18	1 / 20		RECEPT - FRYE	-		1-#12, 1-#12, 1-#12, 3/4"C
	SHUNT TRIP BREAKER				19	0.0	0.0					20			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C			К	20 /	1 21			1.0	1.0			22	1 / 20		RECEPT - FILTE			1-#12, 1-#12, 1-#12, 3/4"C
	SHUNT TRIP BREAKER				23					0.0	0.0	24			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C			К	20 /	1 25	1.4	0.4					26	1 / 20		RANGE - E650			1-#12, 1-#12, 1-#12, 3/4"C
, , ,	CONVENIENCE OUTLET - E13		R		1 27			0.4	0.0			28			SHUNT TRIP BF			
	ELECTRIC CORD REEL - E644		R	20 /	1 29					1.9	0.2	30	3 / 40	Q	STEAMER - CO	UNTER TOP		3-#8, 1-#8, 1-#10, 3/4"C
	ELECTRIC CORD REEL - E644		R	20 /	1 31	1.9	0.2					32						
	ELECTRIC CORD REEL - E644		R	/	1 33			1.9	0.2			34						
	ELECTRIC CORD REEL - E644		R		1 35					1.9	0.0	36			SHUNT TRIP BF	REAKER		
1-#12, 1-#12, 1-#12, 3/4"C	FREEZER PROTECTION PUMP		Q	20 /	1 37	0.5	0.0					38	1 20		SPARE			
	SPARE			20				0.0	0.0			40	1 20		SPARE			
	SPARE			20						0.0	0.0	42	1 20		SPARE			
	SPARE			20			0.0					44	1 20		SPARE			
	SPARE			20				0.0	0.0	0.0	0.0	46	1 20		SPARE			
	SPARE				1 47		0.0			0.0	0.0	48	1 20		SPARE			
	SPARE			20			0.0	0.0	0.0			50	1 20		SPARE			
	SPARE			20				0.0	0.0	0.0	0.0	52	1 20		SPARE			
	SPARE			20			0.0			0.0	0.0	54	1 20		SPARE			
	SPARE SPARE			20			0.0	0.0	0.0			56	1 20		SPARE SPARE			
	SPARE			20				0.0	0.0	0.0	0.0	58	1 20 1 20		SPARE			
	SPARE						kVA	7 4	VA	0.0 7 kV	0.0	60	1 20		SPARE			
					Total Loa		7 A			56								
					otal Amp	5. 0			+ A NALYSIS		л							
	LOAD TYPE		00	INECTE		FACTOF			IAND	ر ا					т	OTALS		
LIGHTING					0 VA	0.00%	•			0 VA					•			
RECEPTACLE	R				3400 VA	100.00%	,		84	0 VA 00 VA			C.		ED LOAD (kVA)	21 kVA		
	Q				4000 VA	100.00%				00 VA 00 VA			0		ND LOAD (kVA)			
	C				0 VA	0.00%	·			0 VA			CO		D CURRENT (A)			
HEATING	¥				0 VA 0 VA	0.00%				0 VA 0 VA					D CURRENT (A)			
MOTOR	M				0 VA	0.00%				0 VA								
ARGEST MOTOR	G				0 VA	0.00%				0 VA								
KITCHEN	K				3808 VA	65.00%			57	25 VA								
EXISTING	X				0 VA	0.00%				0 VA								
NOTES:	1	I																

ALL WIRING FOR 20A/1P CKT. SHALL CONSIST OF 2#12, 1#12G IN 3/4"C UNLESS OTHERWISE NOTED. * PROVIDE A BREAKER WITH GFCI ** ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR

*** REFER TO FOOD SERVICE DESIGN FOR THE CONNECTION PRIOR TO INSTALLATION

PANEL:	2I AB2	2	X SURFACE		100% N	IEUTRAL		INT	Г SPD		NE	MA			100 A	BUS 3	ø 4 WIRE
FANEL.	ZLADZ	MTG:	FLUSH	BUS:	X S	SYS GND	OPT:	FT	L	ENCL	: TYF	PE 1	M	AIN:	CU/SN	500	10 KAIC
LOCATION:	ELEC ROOM				1	SO GND		FU	SIBLE		STI	EEL			100 A	MLO 208	3Y/120 VO
FED FROM:	1																
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA	A)	B (kVA	N)		C VA)	CKT NO			LOAD TYPE	LC	DAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	1	0.4	0.6					2	2 /	20	K	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	3			0.4	0.6			4						
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	5					0.4	0.6	6	2 /	20	К	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	7	0.4	0.6					8						
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	9			0.4	0.6			10	2 /	20	К	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES UC REF	R	20 / 1	11					0.4	0.6	12						
2-#12, 1-#12, 1-#12, 3/4"C	FREEZER - E639	Q	20 / 2	13	1.7	0.6					14	2 /	20	K	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
				15			1.7	0.6			16						
1-#12, 1-#12, 1-#12, 3/4"C	RECEPT - PASTRY LAB 2	R	20 / 1	17					0.7	0.6	18	2 /	20	K	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	RECEPTACLES - E11	R	20 / 1	19	0.2	0.6					20						
3-#12, 1-#12, 1-#12, 3/4"C	PROOFER - E687	К	20 / 3	21			1.8	0.6			22	2 /	20	K	TABLE	MIXER	2-#12, 1-#12, 1-#12, 3/4"C
				23					1.8	0.6	24						
				25	1.8	1.6					26	2 /	20	Q	ICE CR	EAM FREEZER - E784	2-#12, 1-#12, 1-#12, 3/4"C
1-#12, 1-#12, 1-#12, 3/4"C	REFRIGERATOR - E193	Q	20 / 1	27			1.0	1.6			28						
	REFRIGERATOR - E193	Q	20 / 1	29					1.0	0.0	30				SPACE		
	RECEPT - TEACHER STATION	R	20 / 1	31	0.2	0.0					32				SPACE		
1-#12, 1-#12, 1-#12, 3/4"C		R	20 / 1	33			0.2	0.5			34	1 /	20	М	(N) KEF		1-#12, 1-#12, 1-#12, 3/4"C
	HOOD LIGHTS AND TEMP	Q; K	20 / 1	35				0.0	1.3	0.5	36	1 /	20	M	(N) KEF		1-#12, 1-#12, 1-#12, 3/4"C
	ROTATING RACK OVEN - E672		20 / 3	37	1.8	1.8					38	3 /	20	K	. ,	NG RACK OVEN - E672	
				39	1.0	-	1.8	1.8			40						
				41			1.0	1.0	1.8	1.8	42						
	SHUNT TRIP BREAKER			43	0.0	0.0			1.0	1.0	44				SHUNT	TRIP BREAKER	
	SPARE		20 1	45	0.0		0.0	2.3			46	3 /	30	К		TION RANGE - E695	3-#10, 1-#10, 1-#10, 3/4"C
	SPARE		20 1	47			0.0	2.0	0.0	2.3	48					TONTIANGE 2000	
	SPARE		20 1	49	0.0	2.3			0.0	2.0	50						
	SPARE		20 1	51	0.0		0.0	0.0			52				SHUNT	TRIP BREAKER	
	SPARE		20 1	53			0.0	0.0	0.0	0.0	54	1			SPARE		
	SPARE		20 1	55	0.0	0.0			0.0	0.0	56	3			SPARE		
	SPARE			57	0.0		0.0	0.0			58				SFARE		
	SPARE		20 1	57			0.0	0.0	0.0	0.0	60						
	SPARE		-		14 k\	/^	10 10	()	0.0	0.0	60						
				al Load:			16 kV 131 /			kVA 0 A							
			TOLA	I Amps:	121				120	UA							
	OAD TYPE		CONNECT		FACTO										T	DTALS	
LIGHTING			CONNECT	0 VA	0.00%		DEIVIA										
												~~~					
RECEPTACLE	R			3420 VA	100.00%			3420							AD (kVA)		
EQUIPMENT	Q			3532 VA	100.00%			8532 \							AD (kVA)		
	C			0 VA	0.00%			0 \							RENT (A)		
HEATING	H			0 VA	0.00%			0				D	-MAN	UCUR	RENT (A)	93 A	
MOTOR	M			1000 VA	100.00%			1000 \									
LARGEST MOTOR	G			0 VA	0.00%			0 \									
KITCHEN	K		3	1645 VA	65.00%			20569									
EXISTING	X			0 VA	0.00%			0 \	VA								

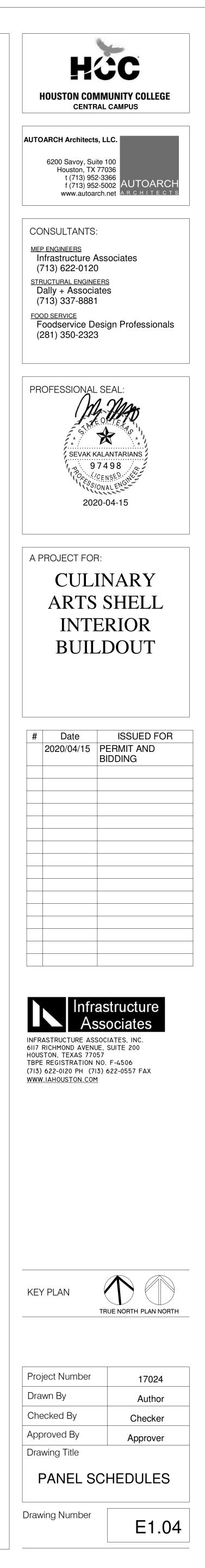
*** REFER TO FOOD SERVICE DESIGN FOR THE CONNECTION PRIOR TO INSTALLATION

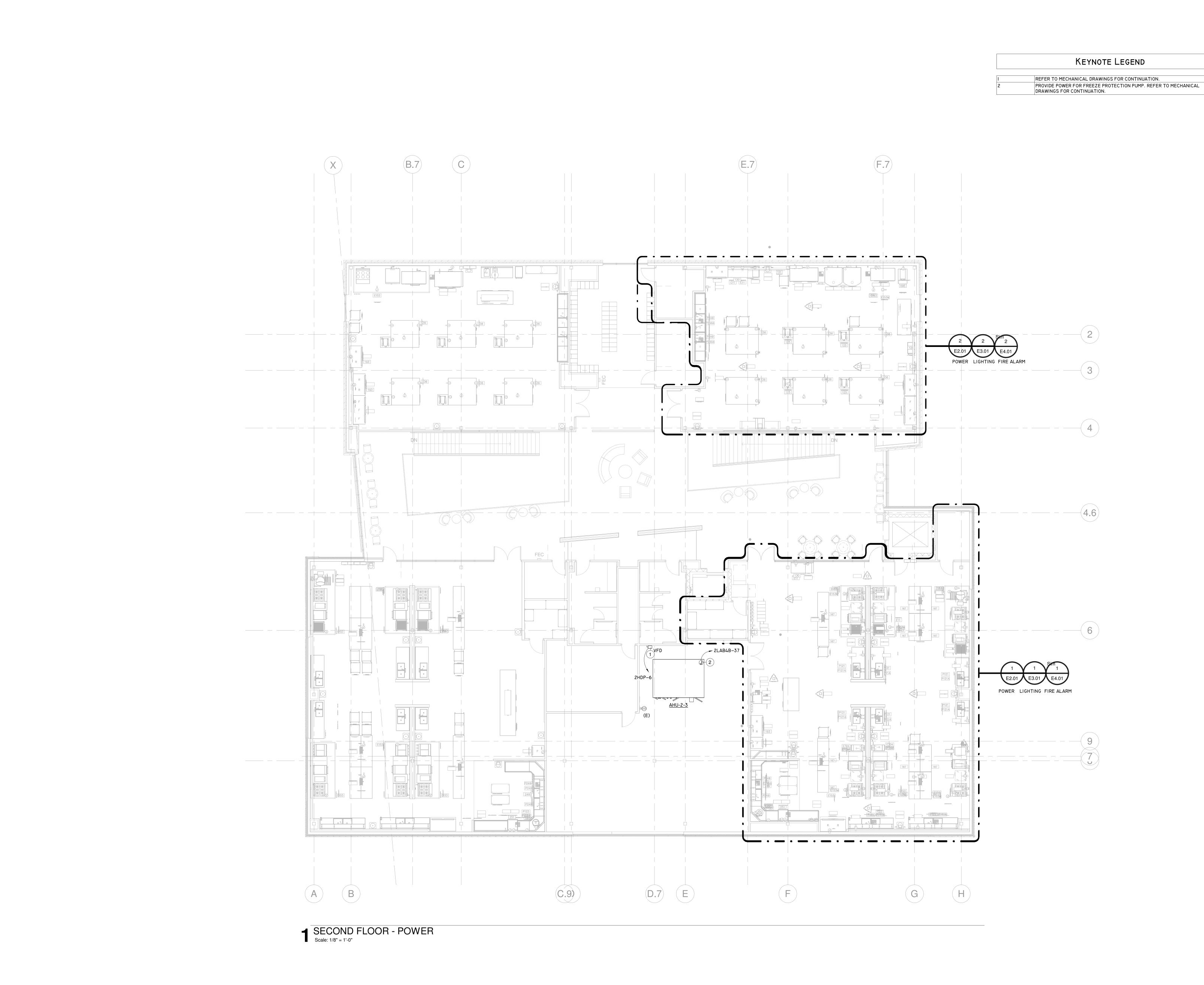
PANEI ·	2LAB4A		SURFACE	L		NEUTR			NT SPD			MA			100 A	BUS 3	<b>ø</b> 4	WIRE
		MTG:	X FLUSH	BUS:		SYS GN				ENC		PE 1	M		CU/SN		10	KAIC
LOCATION: FED FROM:	CULINARY LAB 2					ISO GN	D	F	USIBLE		ST	EEL			100 A	MLO	208Y/120	VO
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	۵ (kV)		B (kVA	<b>)</b>	C (kV		CKT NO			LOAD TYPE	LC	DAD DESCRIPTION		WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"C	BANGE - E650	Q	20 / 1	1	0.4	0.4	(	-7	(	,	2	1 /	20		RANGE	- E650	1-#12	2, 1-#12, 1-#12, 3/4
	SHUNT TRIP BREAKER			3	0.1	0.1	0.0	0.0			4					TRIP BREAKER		
1-#12, 1-#12, 1-#12, 3/4"C	WORKTOP REFRIGERATOR	. Q	20 / 1	5			0.0	0.0	0.4	0.4	6	1 /	20	0		TOP REFRIGERATOR	- 1-#12	2, 1-#12, 1-#12, 3/4
	SHUNT TRIP BREAKER	. <del>.</del>		7	0.0	0.0			0.1	0.1	8		-			TRIP BREAKER		
1-#12, 1-#12, 1-#12, 3/4"C	WORKTOP REFRIGERATOR		20 / 1	9	0.0	0.0	0.4	0.6			10	1 /	20	Q	KETTLE		1-#12	2, 1-#12, 1-#12, 3/4
	SHUNT TRIP BREAKER	. Q		11			0.4	0.0	0.0	0.0	12					TRIP BREAKER	1 11 12	
1-#12, 1-#12, 1-#12, 3/4"C	HOOD LIGHTS AND TEMP	Q; K	20 / 1	13	1.3	0.2			0.0	0.0	14	1 /	20			RONIC IGNITION - E6	33 1_#12	2, 1-#12, 1-#12, 3/4
1-#12, 1-#12, 1-#12, 3/4"C	FREEZER - E194	Q, K	20 / 1	15	1.0	0.2	1.4	0.0			16					TRIP BREAKER	55 1-#12	., 1-#12, 1-#12, 0/4
1-#12, 1-#12, 1-#12, 3/4"C		Q	20 / 1	17			1.4	0.0	0.2	1.2	18	1 /	20	 K		LIGHTS AND TEMP	1 #10	
1-#12, 1-#12, 1-#12, 3/4 0	SHUNT TRIP BREAKER			17	0.0	1.3			0.2	1.2	-	1 /				LIGHTS AND TEMP		, , ,
					0.0	1.3	0.0	0.4			20		20	<u> </u>				2, 1-#12, 1-#12, 3/4
, , ,	E11 - CONVENIENCE OUTLET	R	20 / 1	21			0.2	0.4	1.0	0.0	22	1 /	20	Q	RANGE		1-#12	2, 1-#12, 1-#12, 3/4
2-#12, 1-#12, 1-#12, 3/4"C	ICE CREAM FREEZER - E784	Q	20 / 2	23	1.0	<u> </u>			1.6	0.0	24						00 4 440	
				25	1.6	0.1					26	1 /	20			RONIC IGNITION - E6	33 1-#12	2, 1-#12, 1-#12, 3/4
1-#12, 1-#12, 1-#12, 3/4"C	REFRIGERATOR - E193	Q	20 / 1	27			1.3	0.0			28					TRIP BREAKER		
1-#12, 1-#12, 1-#12, 3/4"C	ICE MACHINE - E109	Q	20 / 1	29					0.2	0.1	30	1 /	20	Q		OILER - E660	1-#12	2, 1-#12, 1-#12, 3/4
	SHUNT TRIP BREAKER			31	0.0	0.0					32					TRIP BREAKER		
	CONVENIENCE OUTLET - E13	R	20 / 1	33			0.4	0.4			34	1 /	20	R		NIENCE OUTLET - E		2, 1-#12, 1-#12, 3/4
, , ,	ELECTRIC CORD REEL - E644	R	20 / 1	35					1.9	1.9	36	1 /	20	R	ELECTE	RIC CORD REEL - E6	44 1-#12	2, 1-#12, 1-#12, 3/4
1-#12, 1-#12, 1-#12, 3/4"C	ELECTRIC CORD REEL - E644	R	20 / 1	37	1.9	0.5					38	1 /	20	R	CONVE	NIENCE OUTLET - E	10 1-#12	2, 1-#12, 1-#12, 3/4
3-#10, 1-#10, 1-#10, 3/4"C	DISPOSAL - E123	Q	25 / 3	39			1.3	0.5			40	1 /	20	М	KEF-16		1-#12	2, 1-#12, 1-#12, 3/4
				41					1.3	0.0	42	1	20		SPARE			
				43	1.3	0.0					44	1	20		SPARE			
	SPARE		20 1	45			0.0	0.0			46	1	20		SPARE			
	SPARE		20 1	47					0.0	0.0	48	1	20		SPARE			
	SPARE		20 1	49	0.0	0.0					50	1	20		SPARE			
	SPARE		20 1	51			0.0	0.0			52	1	20		SPARE			
	SPARE		20 1	53					0.0	0.0	54	1	20		SPARE			
	SPARE		20 1	55	0.0	0.0					56	1	20		SPARE			
	SPARE		20 1	57			0.0	0.0			58	1	20		SPARE			
	SPARE		20 1	59					0.0	0.0	60	1	20		SPARE			
	1		Tota	al Load:	9 k'	VA	7 kV/	A	9 k'	VA					1			
			Tota	I Amps:	79	A	56 A	١	79	A	1							
						I	OAD ANA	ALYSIS	3									
L	OAD TYPE		CONNECT	ED	FACTO	R	DEMA	ND							т	OTALS		
IGHTING	L			0 VA	0.00%	, o		0	VA									
RECEPTACLE	R		7	7200 VA	100.00	%		7200	) VA			CON	NECT	ED LOA	D (kVA)	25 kVA		
EQUIPMENT	Q			3520 VA	100.00			13520							D (kVA)			
COOLING	C			0 VA	0.00%				VA						ENT (A)			
IEATING	H			0 VA	0.00%				VA						ENT (A)			
MOTOR	M			500 VA	100.00				VA			51			(~)			
ARGEST MOTOR	G			0 VA	0.00%				) VA									
(ITCHEN	K			3720 VA	80.00%			2976										
EXISTING	X		,	0 VA	0.00%				VA VA									

*** REFER TO FOOD SERVICE DESIGN FOR THE CONNECTION PRIOR TO INSTALLATION

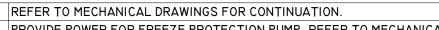
	DIST PANEL: 3LDP LOCATION: ELEC ROOM FED FROM:	X SURFAC	AD	ISC	S GND OPT: O GND	INT SPD FTL EN FUSIBLE	CL: NEMA TYPE 1 STEEL	600 A MAIN: CU/SN 600 A	BUS ³ MCB 2 LSIG	ø 4 14 208Y/120	WIRE KAIC VO
CKT NO	LOAD DESCRIPTION		FRAME (A)	RATIN (A)		TYPE	LOAD (kVA)		WIRE SIZE		NOTES
1	(E) EXISTING PANEL 2LAB1		100 A	100 /			32	3-#2,	1-#2, 1-#8, 1 1/2"C		
2	(E) EXISTING PANEL 2LAB2		100 A	100 /	A 3		30	3-#2,	1-#2, 1-#8, 1 1/2"C		
3	(E) EXISTING PANEL 2LAB3A		100 A	100 /	A 3		31	3-#2,	1-#2, 1-#8, 1 1/2"C		
4	(E) EXISTING PANEL 2LAB3B		100 A	100 /	A 3		20	3-#2,	1-#2, 1-#8, 1 1/2"C		
5	(E) EXISTING PANEL 2LAB4A		100 A	100 /	A 3		18	3-#2,	1-#2, 1-#8, 1 1/2"C		
6	(E) EXISTING PANEL 2LAB4B		100 A	100 /	A 3		13	3-#2,	1-#2, 1-#8, 1 1/2"C		
7									С		
8									С		
9									С		
10									С		
11									С		
12									С		
13									С		
14									С		
15									С		
16									С		
17									С		
18									С		
19									С		
20									С		
						Total Conn. Load:	144				
						Total Amps:	399				
	LOAD TYPE	CONNEC	TED I	FACTOR	DEMA	ND		Т	OTALS		
IGHTI	NG L	0 VA		0.00%	0 VA	۱					
ECEF	TACLE R	0 VA		0.00%	0 VA	\	CON	NECTED LOAD (kVA)	144 kVA		
QUIPI	MENT Q	143768	VA	100.00%	143768	VA	[	DEMAND LOAD (kVA)	) 144 kVA		
OOLI	NG C	0 VA		0.00%	0 VA	\	CONN	ECTED CURRENT (A)	) 399 A		
EATIN	IG H	0 VA		0.00%	0 VA	\		EMAND CURRENT (A)			
IOTOF	R M	0 VA		0.00%	0 VA	N					
ARGE	ST MOTOR G	0 VA		0.00%	0 VA						
ITCHE		0 VA		0.00%	0 VA						
XISTI		0 VA		0.00%	0 VA						

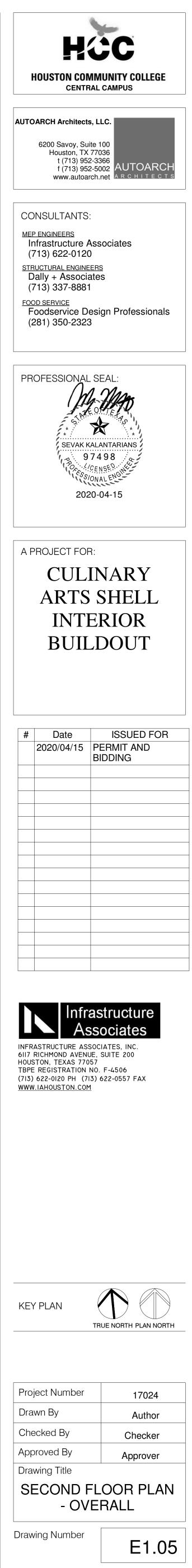
	LOAD TYPE
LIGHTING	L
RECEPTACLE	R
EQUIPMENT	Q
COOLING	C
HEATING	Н
MOTOR	Μ
LARGEST MOTOR	G
KITCHEN	K
EXISTING	X





Keynote Legend





					FOODSERVICE ELECTRICAL	SCHEDULE								FOODSERVICE ELECTRICAL	SCHEDULE		
FDP ENO	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELOC	FDP EAFF	FDP EREMARKS	FDP ENG	FDP ECONN	FDP ELOAD	FDP EVOLT	FDP EPH	FDP ESERVICE TO	FDP ELO	C FDP EAFF	FDP EREMARKS
E10	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"		E10	DR	16.0A	120	1	CONVENIENCE OUTLET	WALL	24"	
E11	DR	16.0A	120	1	CONVENIENCE	WALL	40"	MOUNT HORIZONTAL	E11	DR	16.0A	120	1	CONVENIENCE	WALL	47"	MOUNT HORIZONTAL
E13	WPR	16.0A	120	1	CONVENIENCE OUTLET	WALL	48"		E15	JB				REMOTE FIRE PULL	WALL	48"	RE: NOTE #11 - RECESSED JB - EXTEND
E15	JB				REMOTE FIRE PULL	WALL	48"	RE: NOTE #11 - RECESSED JB -									TO FIRE SYSTEM FOR HOOD
								EXTEND	E151	JB	1.0A	120	1	FIRE PROT. SYSTEM	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #11
E109	DR	16.0A	120		ICE MACHINE	WALL	60"	IO FIRE SYSTEM FOR HOOD	E153	JB	10.0A	120	1	HOOD LIGHTS	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #10
E123	JB	3.0HP	208	3	DISPOSER	WALL	24"	BTC; RE: NOTE #4 - CONNECT THRU C.P.	E153M	JB	1.0A	120	1	TEMPERATURE SENSOR	CLG	DFA	BTC; RE: NOTE #4, #6 & #9
								TO DISPOSER	E193	JB	8.2A	120	1	REFRIGERATOR	WALL	90"	
E151	JB	1.0A	120		FIRE PROT. SYSTEM	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #11	E616 *	JB	33.3KW	208	3	PIZZA DECK OVEN	WALL	36"	BTC; RE: NOTE #4
E153	JB	10.0A	120		HOOD LIGHTS	CLG	DFA	BTC; RE: NOTE #4, #6, #9 & #10	E616A *	JB	11.0KW	208	3	PIZZA DECK OVEN	WALL	36"	BTC; RE: NOTE #4
E153M	JB	1.0A	120	1	TEMPERATURE SENSOR		DFA	BTC; RE: NOTE #4, #6 & #9	E639	JB	16.0A	208	1	FREEZER	WALL	90"	COORDINATE NEMA PLUG
E193	JB	11.0A	120	1	REFRIGERATOR		90"		E672	JB	15.0A	208	3	ROTATING RACK OVEN	WALL	24"	BTC; RE: NOTE #4 - SHUNT TRIP BREAKER
E194	JB	11.5A	120	1	FREEZER	WALL	90"		E687	JB	15.0A	208	3	PROOFER	WALL	85"	
E251	JB				DISHMACHINE	WALL	24"	BTC; RE: NOTE #4 - INTERCONNECT TO	E695	JB	22.0A	200V-240V	/ 1	EQUIPMENT	WALL	24"	SHUNT TRIP BREAKER BTC; RE: NOTE #4
								E251A	E784	SR	15.0A	208	1	ICE CREAM FREEZER	WALL	47"	MOUNT HORIZONTAL
E251A	JB/DS	11.6A	480	3	DISHMACHINE	WALL	54"	BTC; RE: NOTE #4 & #5 - INTERCONNECT TO E251	E803	JB	30.0A	208	1	TABLE RECEPTACLES	FLOOR	4"	
E251B	JB				BOOSTER HEATER	WALL	24"	BTC; RE: NOTE #4 - INTERCONNECT TO E251C	E817	DR	16.0A	480	3	DOUGH SHEETER	WALL	24"	CONFIRM NEMA CONFIGURATION W/DIV. 26
E251C	JB/DS	13.0KW	480		BOOSTER HEATER		54"	BTC; RE: NOTE #4 & #5 - INTERCONNECT TO E251B									
E633	DR	1.0A	120	1	ELECTRONIC IGNITION	WALL	24"	SHUNT TRIP BREAKER									
E644	JB	16.0A	120	1	EQUIPMENT	CLG	VERIFY	BTC; PROVIDED AND INSTALLED BY DIV. 26									
E650	DR	3.4A	120	1	RANGE	WALL	24"	SHUNT TRIP BREAKER									
E660	DR	1.0A	120	1	CHARBROILER	WALL	24"	SHUNT TRIP BREAKER									
E704	DR	1.0A	120	1	FRYER	WALL	24"	SHUNT TRIP BREAKER PROVIDED AND INSTALLED BY DIVISION 26									
E704A	DR	8.0A	120	1	FILTER	WALL	24"	SHUNT TRIP BREAKER PROVIDED AND INSTALLED BY DIVISION 26									
E743	JB	11.4A	120	1	REFRIGERATOR	WALL	90"										
E784	SR	15.0A	208	1	ICE CREAM FREEZER	WALL	47"	MOUNT HORIZONTAL									
E802	JB	34.4A	240	3	STEAMER - COUNTER TOP	WALL	24"	BTC; RE: NOTE #4 - SHUNT TRIP BREAKER									
E809	JB	5.0A	120	1	KETTLE	WALL	24"	SHUNT TRIP BREAKER									
E817	DR	3.0A	120	1	WORKTOP REFRIGERATOR	WALL	24"										

FOODSERVICE ELECTRICAL GENERAL NOTES

I. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS.

2. VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ENGINEERING DRAWINGS. 3. DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND/OR FIELD CONDITIONS. 4. ACCESSORIES AND FITTINGS PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY SECTION II 40 00. FIELD INSTALLED BY DIVISION 26.

5. STAINLESS STEEL DISCONNECT SWITCH PROVIDED AND INSTALLED BY DIVISION 26. 6. ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOOD TO EXTEND TO SHUNT TRIP BREAKERS WITHIN ELECTRICAL PANEL BOX FOR SHUT-DOWN DURING FIRE

MODE – BY DIVISION 26. 7. DOOR HEATER(S), LIGHT(S), COIL(S) AND PRESSURE RELIEF PORT(S) PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLY BY SECTION 14 00 00. FINAL CONNECTION BY DIVISION 26.

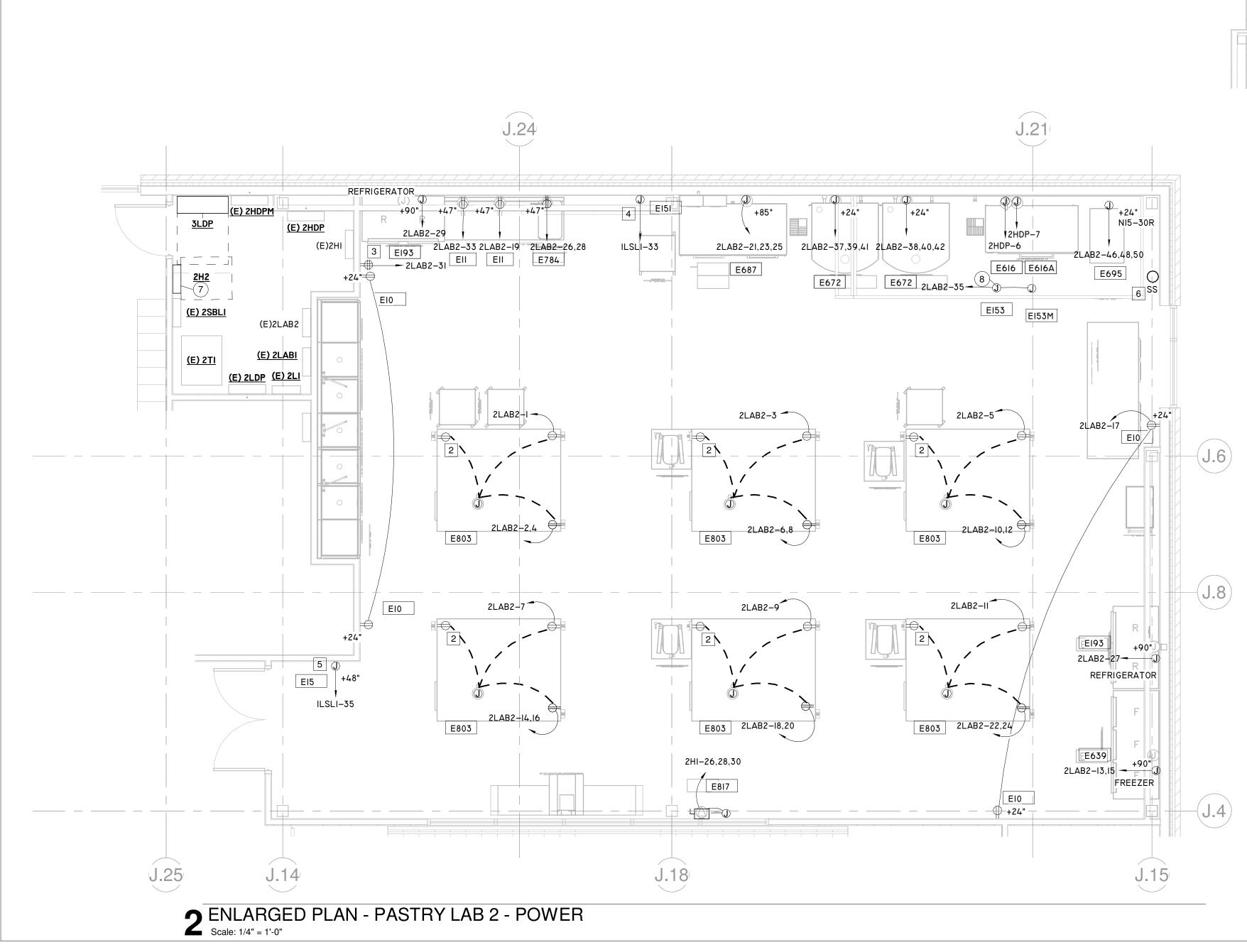
8. N/A

9. INTERCONNECT TO EXHAUST HOOD FAN(S) AND SWITCH BY DIVISION 26. IO. INTERCONNECT TO EXHAUST HOOD LIGHT(S) AND SWITCH BY DIVISION 26.

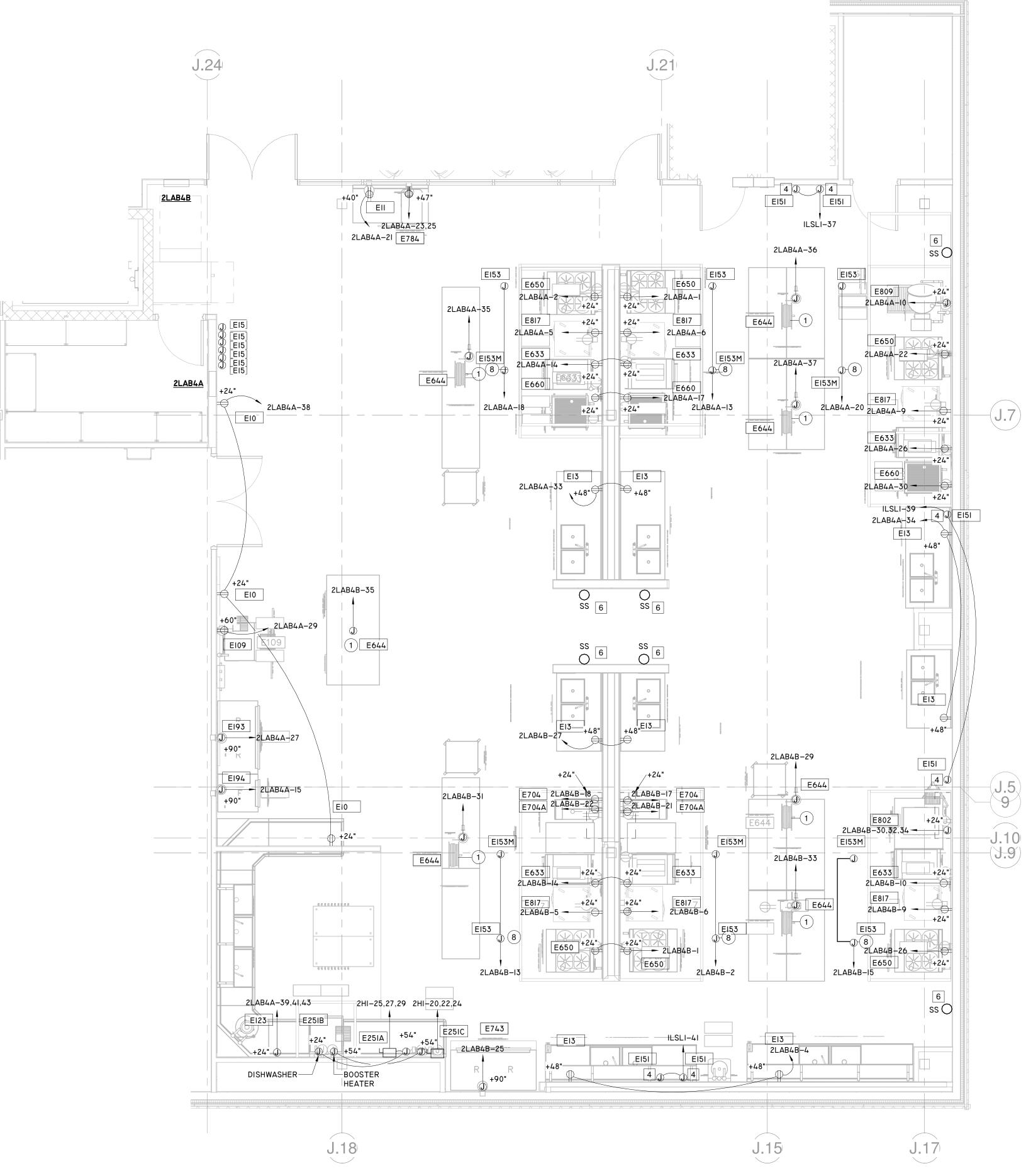
II. INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIP(S) AND BUILDING ALARM - BY DIVISION 26. 12. RECEPTACLE(S) TO BE PRE-WIRED TO JUNCTION BOX OR LOAD CENTER FOR FINAL CONNECTION BY DIVISION 26.

13. SECTION II 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT. 14. EMPTY CONDUIT RUN FROM CASHIER STATION TO MANAGERS OFFICE FOR POS SYSTEM BY DIVISION 26. LOCATION OF MANAGER'S OFFICE TO BE VERIFIED.

	Keynote Legend
I	PROVIDE STAINLESS STEEL CORD REELS SIMILAR TO HUBBEL #HBLSS45I23 WITH HBL5369C.
2	SEE RECEPTACLE DETAILS ON 7 ON SHEET E5.01.
3	RECEPTACLE FOR TEACHER STATION. COORDINATE WITH ARCHITECTURAL ELEVATION AND A/V FOR ADDITION REQUIREMENT.
4	PROVIDE POWER FOR FIRE PROTECTION SYSTEM FROM EMERGENCY PANEL ILSLI. REFER TO FOODSERVICE DRAWINGS FOR CONTIL
5	PROVIDE POWER FOR GAS SHUT VALVE EPO FROM EMERGENCY PANEL ILSLI. ELECTRICAL CONTRACTOR SHALL VERIFY LOCATION
6	HOOD FAN AND LIGHT SWITCH. REFER TO FOODSERVICE DRAWING FOR CONTINUATION.
7	ELECTRICAL CONTRACTOR SHALL RELOCATE THE LIGHTING SWITCH IN ELECTRICAL ROOM TO MAKE SPACE FOR PANEL 2H2.
8	PROVIDE POWER FOR HOOD LIGHT AND TEMPERATURE SENSOR. COORDINATE WITH FOODSERVICE DESIGN FOR CONTINUATION.



FINUATION. ON OF PANEL ILSLI.



ELECTRICAL GENERAL KITCHEN NOTES

- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS. VERIFY ALL ELECTRICAL CHARACTERISTICS WITH ARCHITECT'S ENGINEERING DRAWINGS.
- DIMENSIONS INDICATED ARE TO BE VERIFIED BY CONTRACTOR AND ADJUSTED AS REQUIRED BY FOODSERVICE EQUIPMENT AND/OR FIELD CONDITIONS.
- ACCESSORIES AND FITTINGS PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT BY SECTION II 40 00. FIELD 4. INSTALLED BY DIVISION 26. STAINLESS STEEL DISCONNECT SWITCH PROVIDED AND INSTALLED BY DIVISION 26.
- ALL ELECTRICAL CONNECTIONS BENEATH EXHAUST HOOD TO EXTEND TO SHUNT TRIP BREAKERS WITHIN ELECTRICAL PANEL BOX FOR SHUT-DOWN DURING FIRE MODE - BY DIVISION 26.
- DOOR HEATER(S) LIGHT(S) AND PRESSURE RELIEF PORT(S) PRE-WIRED TO JUNCTION BOX AT TOP OF COLD STORAGE ASSEMBLY BY SECTION 14 00 00. FINAL CONNECTION BY DIVISION 26
- (7) WIRES AND CONDUIT FROM CONDENSOR JUNCTION BOX AT COLD STORAGE REFRIGERATION RACK TO EVAPORATOR COIL JUNCTION BOX BY DIVISION 26.
- INTERCONNECT TO EXHAUST HOOD FAN(S) AND SWITCH BY DIVISION 26. INTERCONNECT TO EXHAUST HOOD LIGHT(S) AND SWITCH BY DIVISION 26.
- INTERCONNECT FIRE PROTECTION SYSTEM TO PANEL BOX SHUNT TRIP(S) AND BUILDING ALARM BY DIVISION 26. RECEPTACLE(S) TO BE PRE-WIRED TO JUNCTION BOX OR LOAD CENTER FOR FINAL CONNECTION BY DIVISION 26.
- SECTION II 40 00 TO VERIFY UTILITY REQUIREMENTS OF EXISTING EQUIPMENT. EMPTY CONDUIT RUN FROM CASHIER STATION TO MANAGERS OFFICE FOR POS SYSTEM BY DIVISION 26. LOCATION 14. OF MANAGER'S OFFICE TO BE VERIFIED.

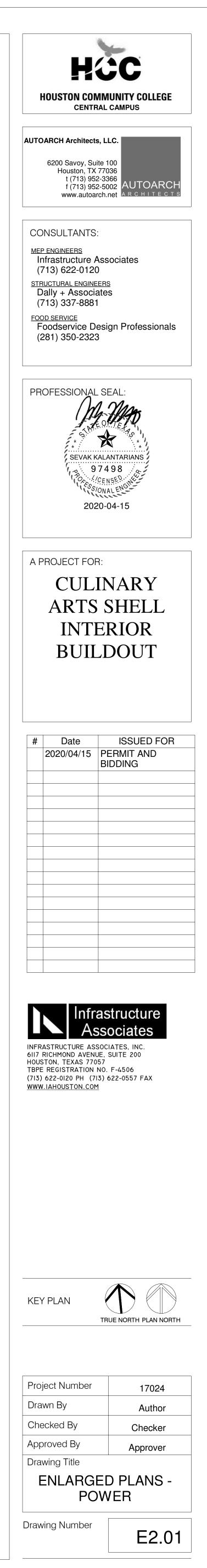
### FIRE ALARM

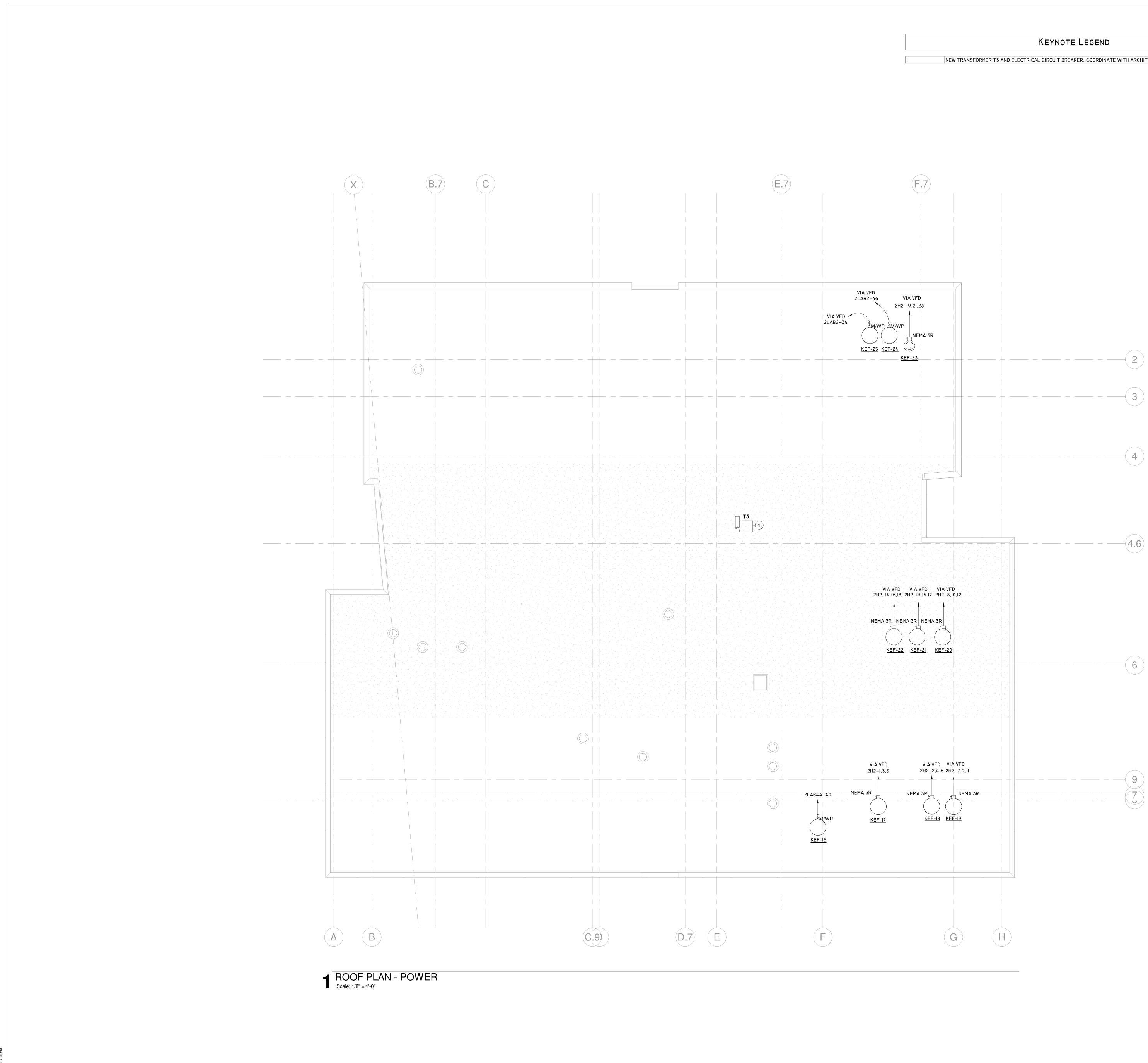
IT IS THE FIRE ALARM CONTRACTORS RESPONSIBILITY TO ENSURE THAT THE HOOD EQUIPMENT FIRE EXTINGUISHING SYSTEM (ANSUL SYSTEM) IS INTERCONNECTED TO THE FUEL/CURRENT SUPPLY SO THAT IT AUTOMATICALLY SHUTS DOWN SUPPLY TO ALL EQUIPMENT UNDER THE HOOD AND SUPPLY FANS FOR THE HOOD WHEN THE SYSTEM IS ACTUATED. SOLENOID VALVES CONTROLLING FUEL GAS SUPPLY TO UNDER-HOOD EQUIPMENT AND CIRCUITS FEEDING ELECTRICAL HEATING UNDER-HOOD EQUIPMENT SHALL BE CIRCUITED THROUGH PANEL LS, SUB-FED BY A SHUNT-TRIP BREAKER. REFER TO THE UNIFORM MECHANICAL CODE SECTION 510.2.4.2, NEC AND NFPA FOR APPLICABLE REQUIREMENTS. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATION WITH THE FIRE ALARM CONTRACTOR AND INSTALLATION OF SHUNT TRIPS AND ANY NECESSARY APPARATUSES FOR THE AUTOMATIC SHUTDOWN OF THE KITCHEN HOOD FANS AND DEVICES UNDER THE HOOD UPON ACTIVATION OF THIS SYSTEM. COORDINATE THIS WORK WITH THE FOOD SERVICE CONSULTANT. GENERAL NOTES:

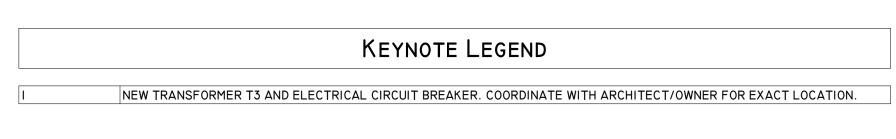
ALL RECEPTACLES COVER PLATES IN THE KITCHEN WILL BE 302-STAINLESS STEEL. ALL RECEPTACLES IN THE LABS WILL BE GFI TYPE.

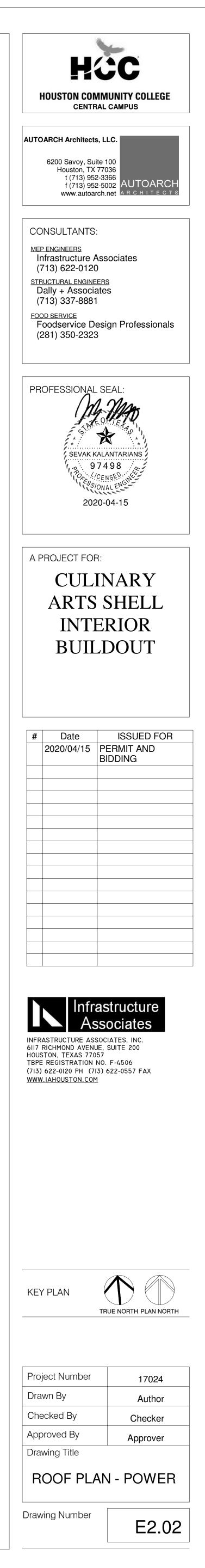
THE ELECTRICAL, CONTRACTOR WILL COORDINATE WITH THE KITCHEN CONSULTANT PLANS FOR FURTHER REQUIREMENTS AND CLARIFICATIONS. THE GENERAL CONTRACTOR MUST NOTIFY THE ARCHITECT/ENGINEER OF ANY CONFLICTS WHICH MAY ARISE BEFORE ANY WORK OR ROUGH-INS ARE MADE.

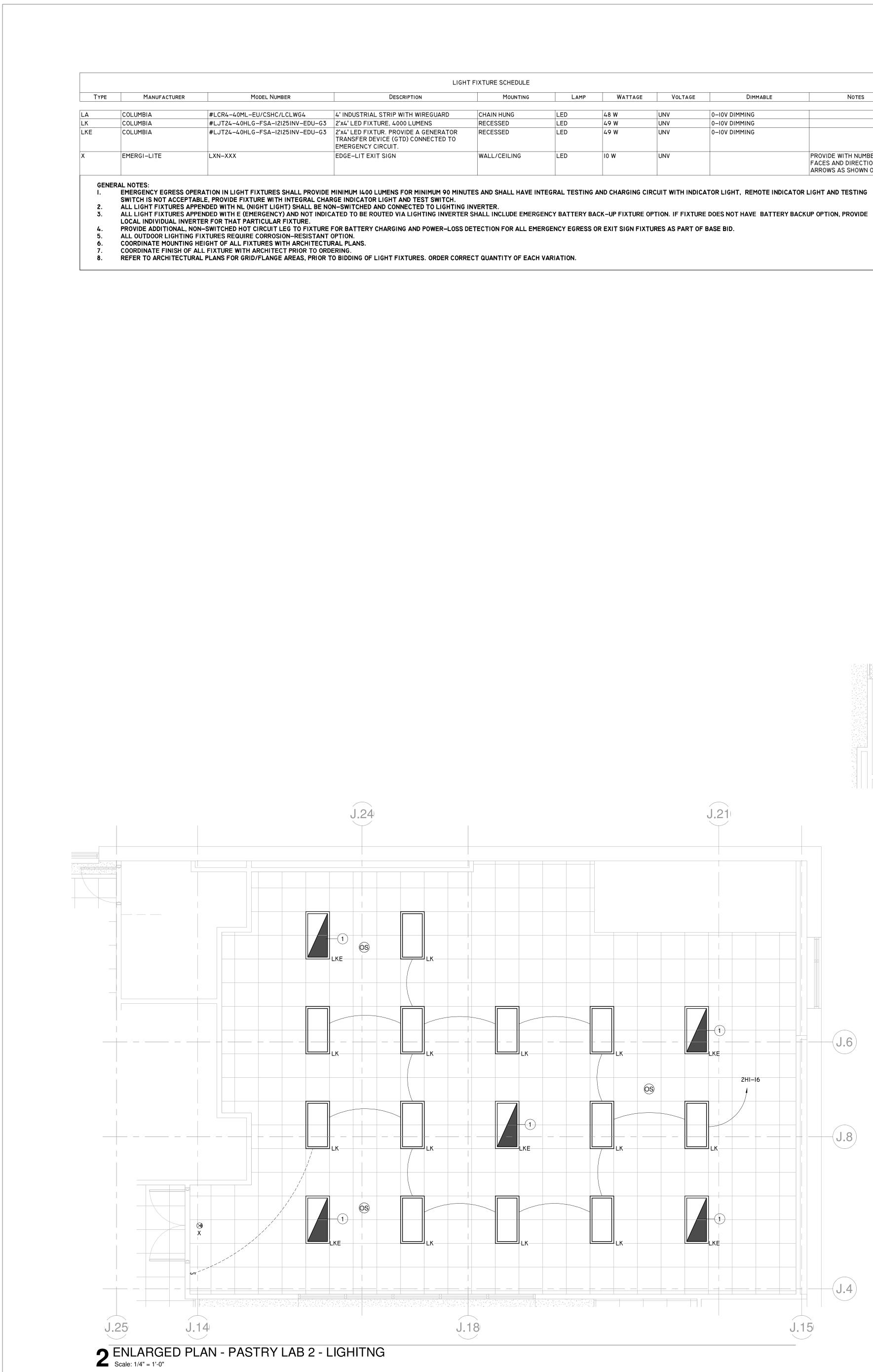
### ENLARGED PLAN - CULINARY LAB 2 - POWER



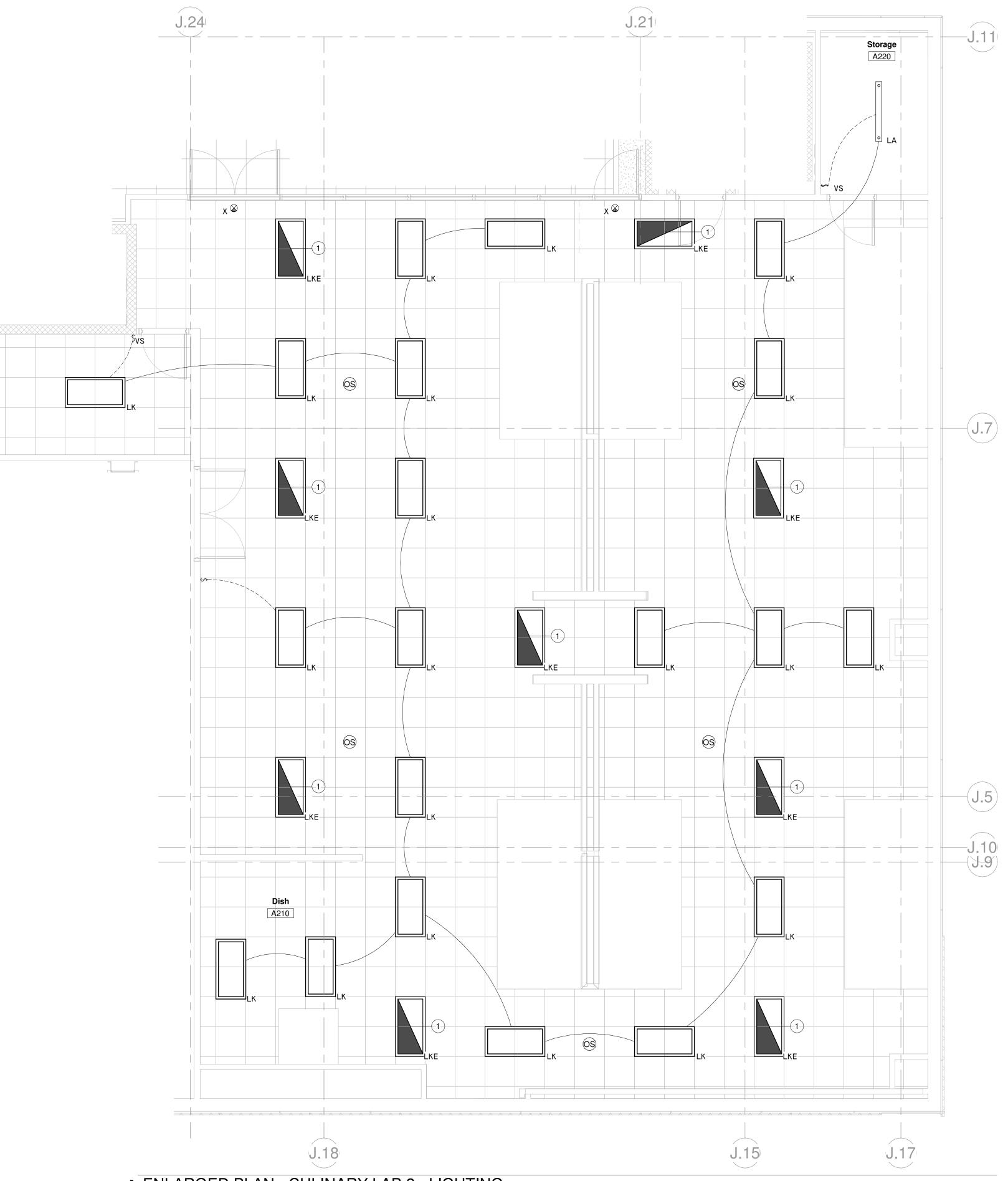




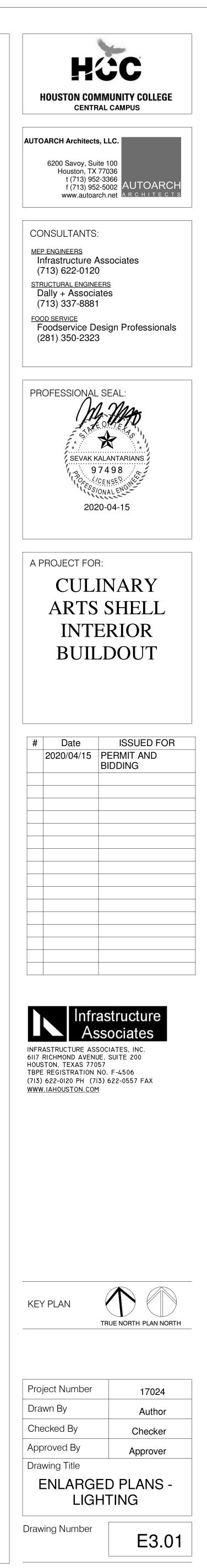


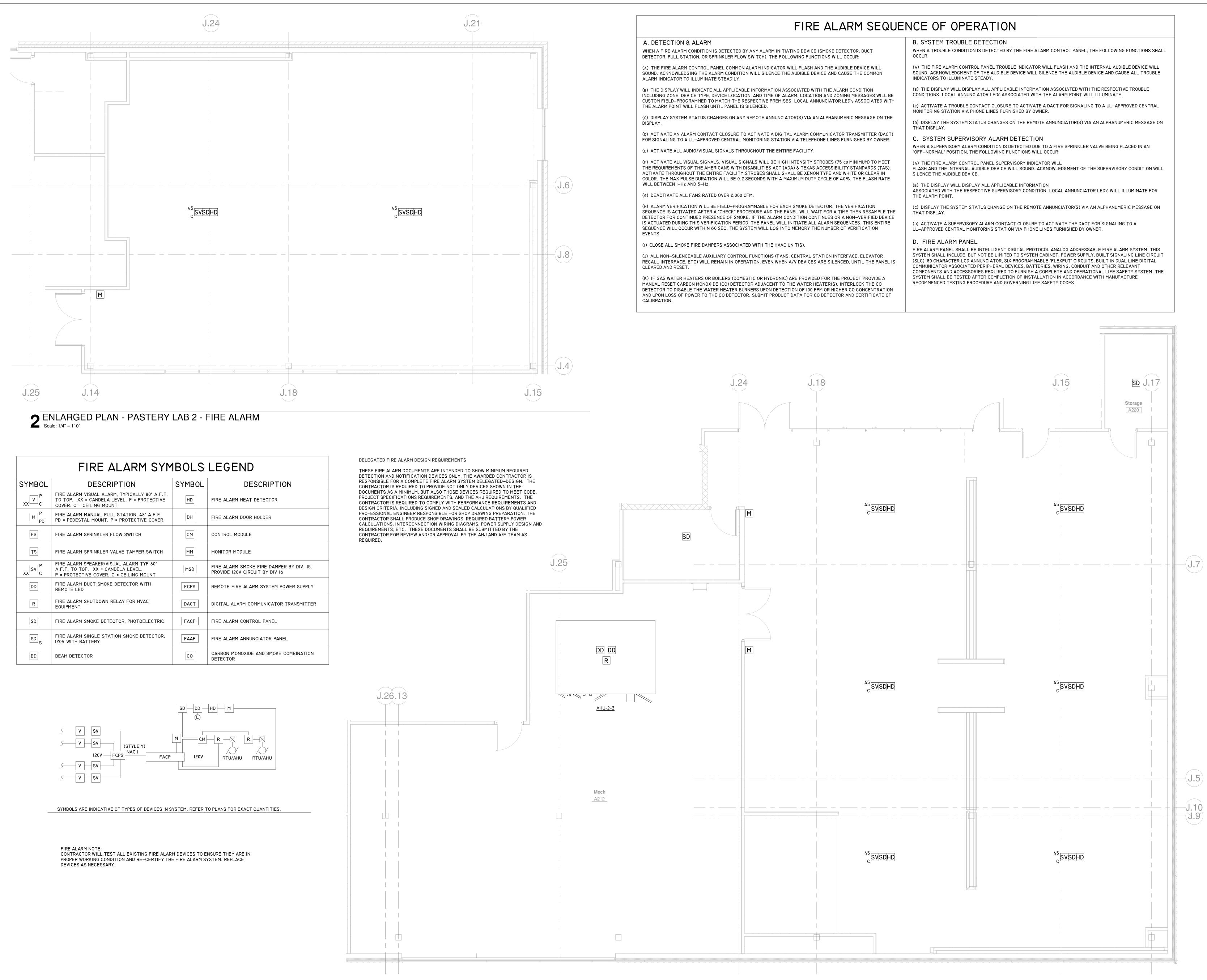


MOUNTING	LAMP	WATTAGE	VOLTAGE	DIMMABLE	NOTES
I HUNG	LED	48 W	UNV	0-IOV DIMMING	
SSED	LED	49 W	UNV	0-IOV DIMMING	
SSED	LED	49 W	UNV	0-IOV DIMMING	
/CEILING	LED	10 W	UNV		PROVIDE WITH NUMBER OF
					FACES AND DIRECTIONAL

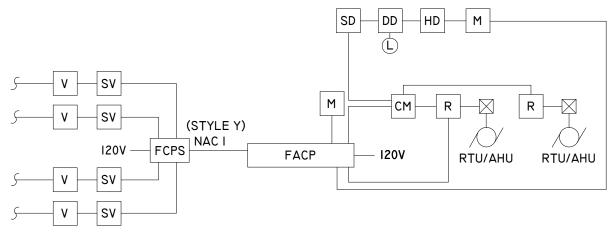






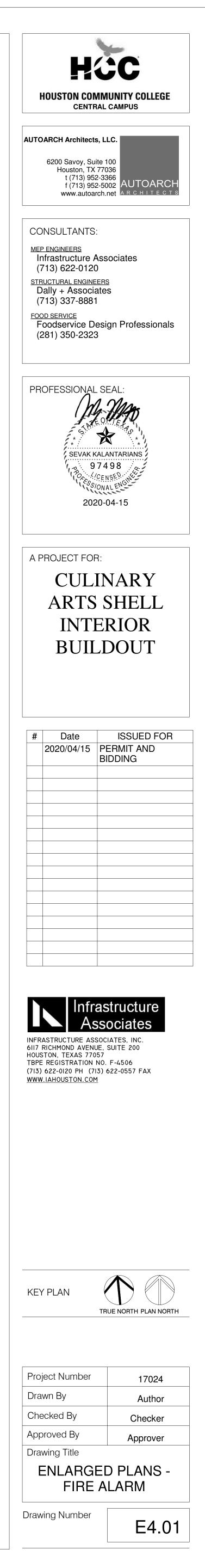


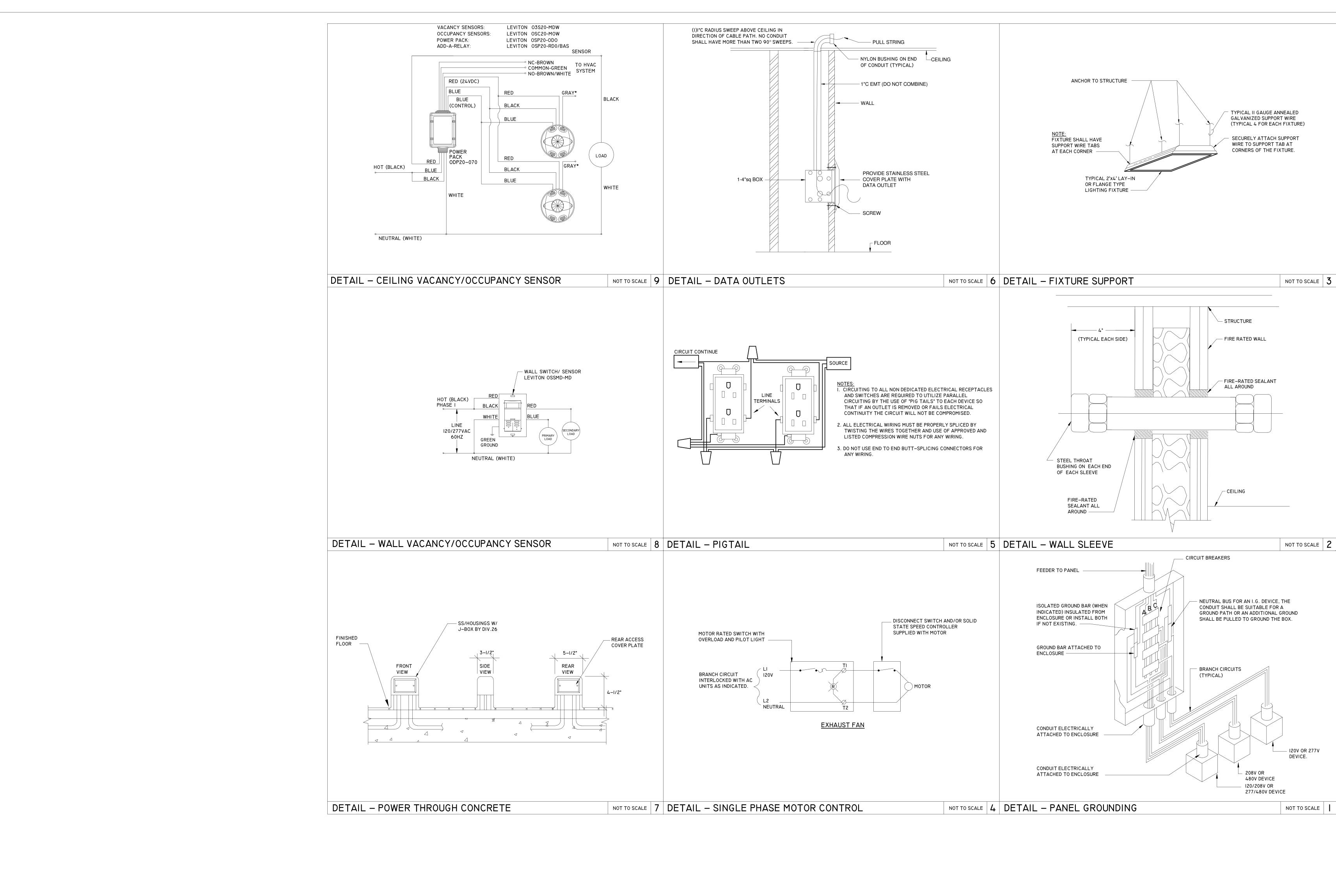
	FIRE ALARM SYMBOLS LEGEND											
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION									
XX V C	FIRE ALARM VISUAL ALARM, TYPICALLY 80" A.F.F. TO TOP. XX = CANDELA LEVEL. P = PROTECTIVE COVER. C = CEILING MOUNT	HD	FIRE ALARM HEAT DETECTOR									
M P PD	FIRE ALARM MANUAL PULL STATION, 48" A.F.F. PD = PEDESTAL MOUNT. P = PROTECTIVE COVER.	DH	FIRE ALARM DOOR HOLDER									
FS	FIRE ALARM SPRINKLER FLOW SWITCH	СМ	CONTROL MODULE									
TS	FIRE ALARM SPRINKLER VALVE TAMPER SWITCH	MM	MONITOR MODULE									
XX SV C	FIRE ALARM <u>SPEAKER</u> /VISUAL ALARM TYP 80" A.F.F. TO TOP. XX = CANDELA LEVEL. P = PROTECTIVE COVER. C = CEILING MOUNT	MSD	FIRE ALARM SMOKE FIRE DAMPER BY DIV. 15. PROVIDE 120V CIRCUIT BY DIV 16									
DD	FIRE ALARM DUCT SMOKE DETECTOR WITH REMOTE LED	FCPS	REMOTE FIRE ALARM SYSTEM POWER SUPPLY									
R	FIRE ALARM SHUTDOWN RELAY FOR HVAC EQUIPMENT	DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER									
SD	FIRE ALARM SMOKE DETECTOR, PHOTOELECTRIC	FACP	FIRE ALARM CONTROL PANEL									
SDS	FIRE ALARM SINGLE STATION SMOKE DETECTOR, I20V WITH BATTERY	FAAP	FIRE ALARM ANNUNCIATOR PANEL									
BD	BEAM DETECTOR	СО	CARBON MONOXIDE AND SMOKE COMBINATION DETECTOR									



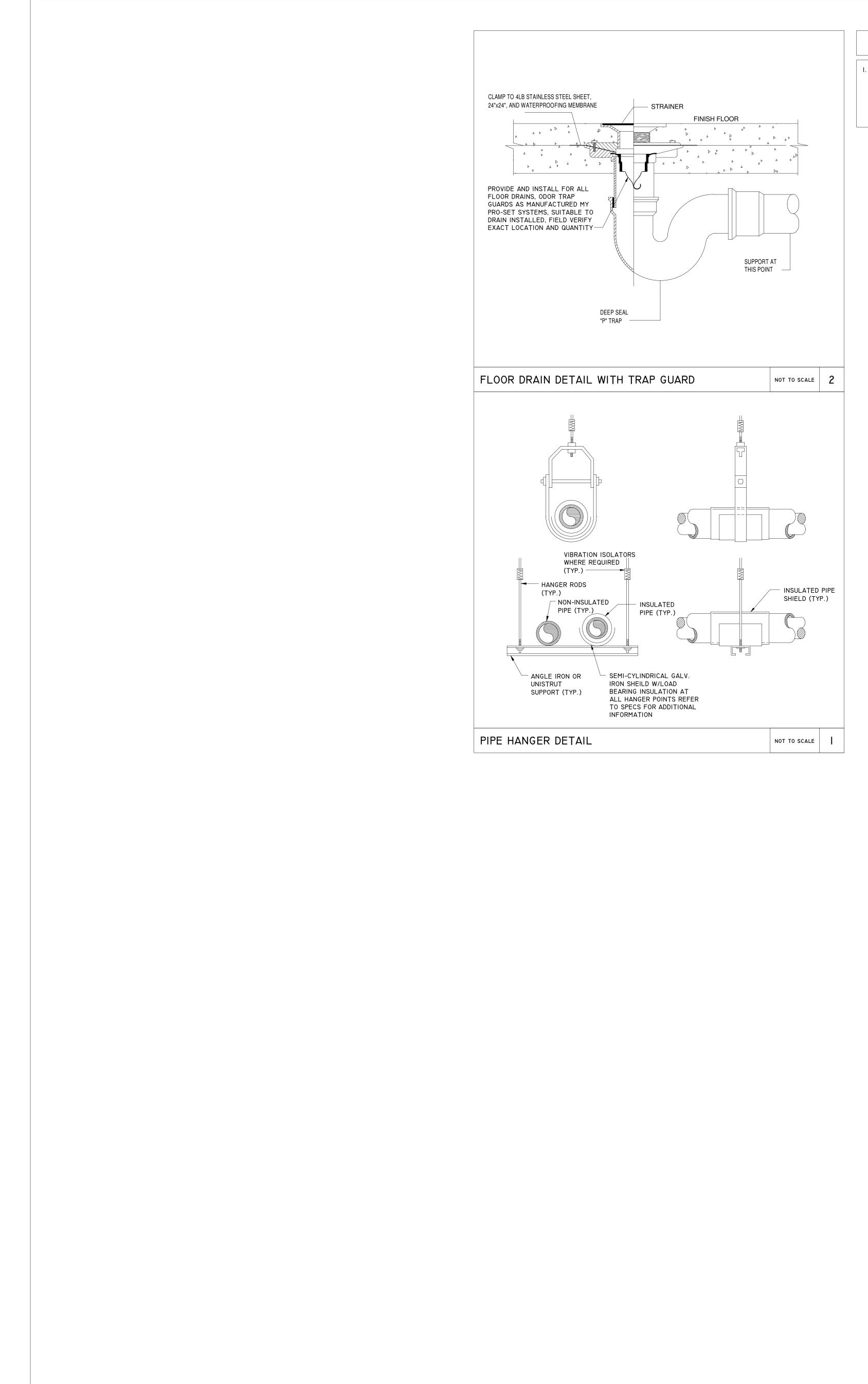
### ◀ ENLARGED PLAN - CULINARY LAB 2- FIRE ALARM

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





HCC HOUSTON COMMUNITY COLLEGE **CENTRAL CAMPUS** AUTOARCH Architects, LLC. 6200 Savoy, Suite 100 Houston, TX 77036 t (713) 952-3366 f (713) 952-5002 www.autoarch.net CONSULTANTS: MEP ENGINEERS Infrastructure Associates (713) 622-0120 <u>STRUCTURAL ENGINEERS</u> Dally + Associates (713) 337-8881 FOOD SERVICE Foodservice Design Professionals (281) 350-2323 PROFESSIONAL SEAL: M. Man  $\mathbf{X}$ SEVAK KALANTARIANS 97498 S'ONAL ENG 2020-04-15 A PROJECT FOR: CULINARY **ARTS SHELL** INTERIOR BUILDOUT # Date **ISSUED FOR** 2020/04/15 PERMIT AND BIDDING nfrastructure Associates INFRASTRUCTURE ASSOCIATES, INC. 6117 RICHMOND AVENUE, SUITE 200 HOUSTON, TEXAS 77057 TBPE REGISTRATION NO. F-4506 (713) 622-0120 PH (713) 622-0557 FAX WWW.IAHOUSTON.COM KEY PLAN TRUE NORTH PLAN NORTH Project Number 17024 Drawn By Author Checked By Checker Approved By Approver Drawing Title DETAILS Drawing Number E5.01



### GRADE OF HORIZONTAL DRAINAGE

I. HORIZONTAL DRAINAGE PIPING SHALL RUN IN PRACTICAL ALIGNMENT AND UNIFORM SLOPE OF NOT ONE-FOURTH (I/4) OF AN INCH PER FOOT OR TWO PERCENT (2) TOWARD POINT OF DISPOSAL PROV IT IS IMPRACTICAL DUE TO THE DEPTH OF THE STREET SEWER OR TO THE STRUCTURAL FEATURES ARRANGEMENT OF ANY BUILDING OR STRUCTURE TO OBTAIN A SLOPE OF ONE-FOURTH (I/4) OF AN TWO PERCENT, ANY SUCH PIPE OR PIPING FOUR (4) INCHES OR LARGER IN DIAMETER MAY HAVE A S THAN ONE EIGHTH (I/8) OF AN INCH OR ONE (I) PERCENT, WHEN FIRST APPROVED BY THE ADMINIST AUTHORITY.

### PIPING MATERIALS

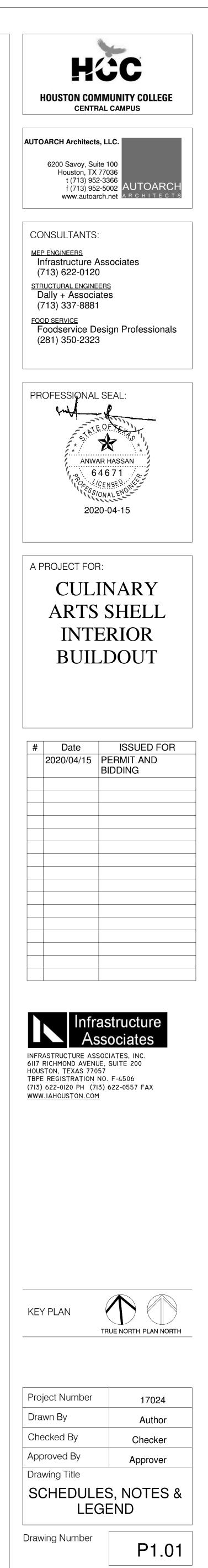
- SANITARY WASTE AND VENT PIPING : (BELOW GRADE) SCHEDULE 40 PVC, CONFORM TO ASTM D-I785 SOIL AND WASTE VENT PIPING. FITTINGS SHAL MATERIAL WITH SOLVENT CEMENT TYPE JOINTS.
- 2. SANITARY WASTE AND VENT PIPING : (ABOVE SLAB ONLY) PIPE: CAST IRON ASTM A 74, HUBLESS, SERVICE WEIGHT.
- JOINTS: NO HUB, ASTM C 564 NEOPRENE GASKETS AND STANDARD STAINLESS STEEL CLAMP ASSEMBLIES CONSTRUCTED OF TYPE 300 SERIES STAINLESS STEEL. CLAMP ASSEMBLIES SHA 1680 WHERE REQUIRED BY THE ADMINISTRATIVE AUTHORITY. FITTINGS: CAST IRON, ASTM A 888 DRAINAGE PATTERN.
- DOMESTIC WATER: TYPE "L" COPPER TUBING WITH WROUGHT COPPER FITTINGS AND 95/5 (TIN/ANTIMONY) SOLDE
- NATURAL GAS: (ABOVE GRADE) SCHEDULE 40 BLACK STEEL WITH CLASS I50 BLACK MALLEABLE IRON WELDED FITTINGS. ROC SHALL BE PAINTED WITH GALVANIC PAINT, PRIMED WITH ALKYD-BASE PRIMER AND 2 LAYERS COATS.
   NOTE: SCREWED JOINTS WILL NOT BE PERMITTED.
- A. ALL WELDING FITTINGS SHALL BE FACTORY–MADE AND SHALL BE FULL LINE SIZE, FOR EA ETC., WITH REDUCERS AFTER FITTINGS, IF REQUIRED.

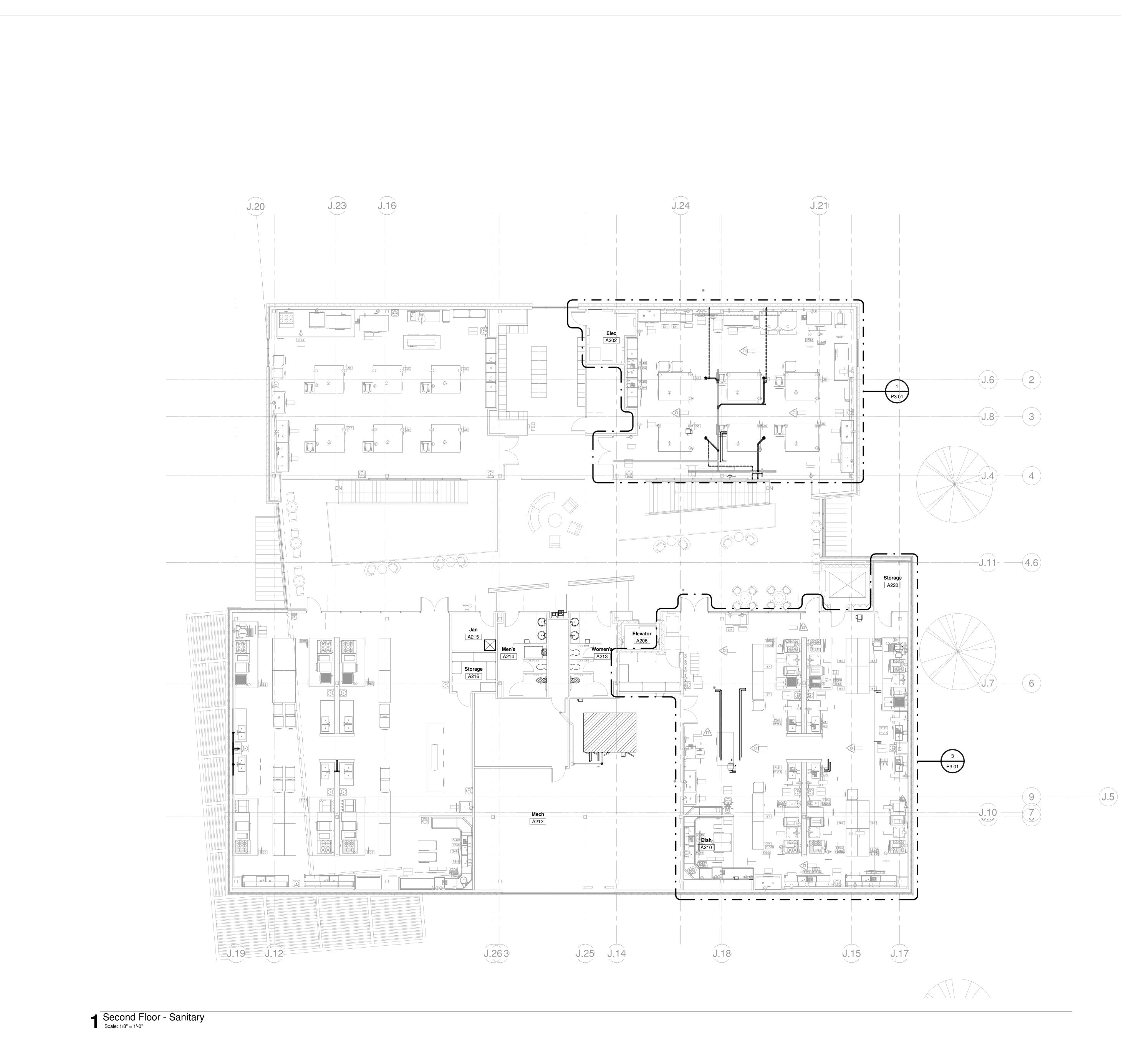
### DISREGARD LEGEND ITEMS NOT INDICATED ON DRAW NEW PLUMBING FIXT T ====SAN / S==== SANITARY WASTE ===STORM / ST=== STORM DRAINAGE LI CONDENSATE DRAIN GREASE WASTE ____GW____ ____AW_____ ACID WASTE ____CHEM-W=____ CHEMICAL WASTE VENT _____V______V _FIRE__ FIRE LINE _____DIS_____ DEIONIZED WATER S _____DIR_____ DEIONIZED WATER R SOFT WATER ______SW______ DOMESTIC COLD WAT _____CW_____ DOMESTIC HOT WAT DOMESTIC HOT WATE _____TW_____ TEMPERED WATER PI _____TWR_____ TEMPERED WATER RE NON POTABLE WATER _____=____NPW(C)_____=_____ _____HPW(H) _____ NON POTABLE WATER DEIONIZED WATER _____ DI _____ _____NG / G _____ NATURAL GAS NATURAL GAS _____LA_____ _____VAC == NATURAL GAS _____N2 ____ NATURAL GAS FLOOR CLEAN OUT FCO EXTERIOR CLEANOUT ECO 🛛 WCO WALL CLEANOUT 🛡 FD FLOOR DRAIN 🖺 FS FLOOR SINK RISER IDENTIFICATIO ELBOW UP ELBOW DOWN CAP AND SEAL BALL VALVE ₽_₽ 🔹 🖙 B.V. BALANCING VALVE GAS VALVE 👦 🚥 C.V. CHECK VALVE SOLENOID VALVE ÷ FLOW SWITCH ΤP AUTOMATIC TRAP PR BFP BACKFLOW PREVENTE VTR VENT THROUGH ROOF F.F.L. FINISHED FLOOR LEV INVERT LEVEL I.L. A.R.F. ABOVE FINISHED ROO EXISTING TO REMAIN (E) (OF) OVERFLOW STORM D PRIMARY STORM DRA (P)

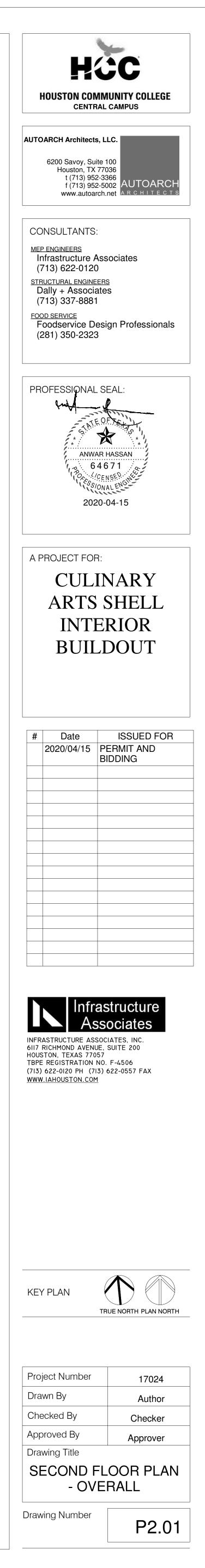
T.A.S

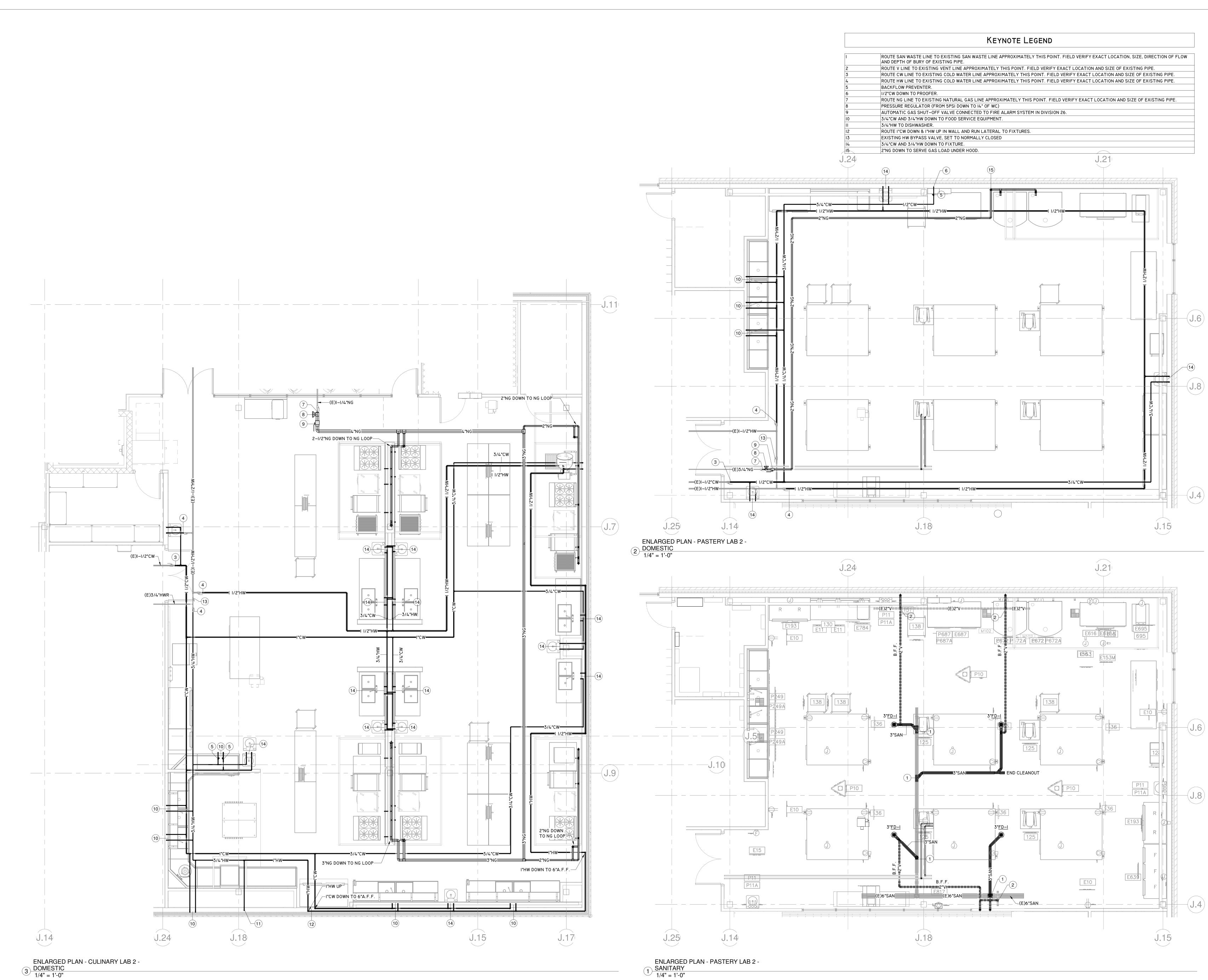
### PLUMBING LEGEND & ABBRE

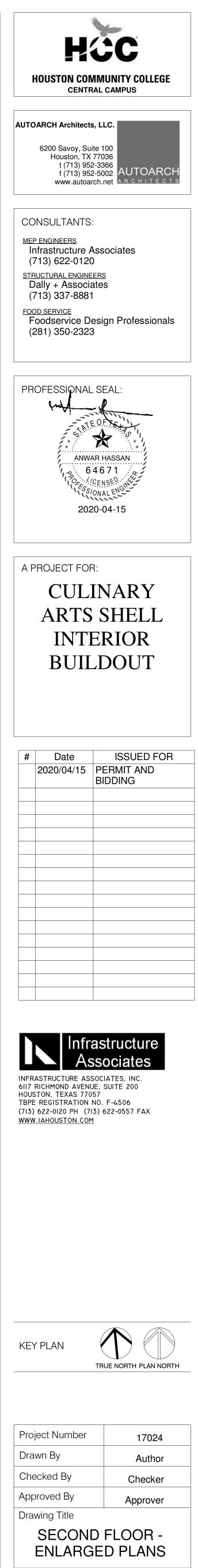
AINAGE PIPING				P	LUMBIN	IG FIXTURE SCHEDULE
UNIFORM SLOPE OF NOT LESS THAN INT OF DISPOSAL PROVIDED THAT, WHERE STRUCTURAL FEATURES OR TO THE NE–FOURTH (I/4) OF AN INCH PER FOOT OR IAMETER MAY HAVE A SLOPE OF NOT LESS OVED BY THE ADMINISTRATIVE	MARK <u>FD-I</u>	DESCRIPTION FLOOR DRAIN		SS	CONNECTION SV CW HW 2"	REMARKS  2005-B-NB. J.R. SMITH, DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER HEAD 6" DIAMETER TYPE "A" NICKEL BRONZE STRAINER.  INSTALL COMPLETE WITH PROSET TRAP GUARD, EXCEPT FOR SHOWER
IALS						DRAIN       GENERAL NOTES       BOOK SPECIFICATION         SUPERCEDE ANY NOTES BELOW
PIPING. FITTINGS SHALL BE COMPATIBLE					CLOSE AS POSSIBL (STRUCTURAL FOU THOSE SHOWN, TH	ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL OFFSETS. INSTALL PIPING AS LE TO LOCATIONS SHOWN. WHERE INTERFERENCE'S WITH COMPONENTS OF OTHER TRADE'S WORK JNDATIONS OR OTHER BUILDING ELEMENTS) REQUIRE ROUTINGS AND LOCATIONS THAT VARY FROM IE CONTRACTOR SHALL OBTAIN PROJECT ENGINEER'S APPROVAL PRIOR TO INSTALLATION. NO SHALL BE GRANTED FOR THESE CHANGES.
AINLESS STEEL CLAMP AND SOLID SHIELD CLAMP ASSEMBLIES SHALL CONFORM TO FM			;		SERVICES AND UTI PROCEED WITH CA DAMAGED WITH A I	G EXCAVATIONS OR DEMOLITION OF ANY NATURE WHATSOEVER, CONTRACTOR SHALL LOCATE ALL ILITIES OCCURRING WITHIN THE BOUNDS OF THE PROJECT. THE CONTRACTOR SHALL THEN UTION IN HIS WORK SO THAT NO UTILITY OR LINE SERVING AREAS THAT ARE TO REMAIN BE RESULTANT LOSS OF SERVICE. VERIFY THE SOURCE AND SERVICE OF EACH AND EVERY LINE D RECORD SERVICE, SIZE AND LOCATION ON RECORD DRAWINGS.
5 (TIN/ANTIMONY) SOLDER JOINTS.				4.	SHALL ALLOW INS PROVIDE CLEANOU	NG PIPING USING DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS. LOCATION OF ALL PIPING TALLATION OF FIXTURES WITHOUT THE NEED TO FURR-OUT WALLS. ITS IN EXCESS OF THOSE SHOWN WHICH ARE REQUIRED BY THE PLUMBING CODE. CONTRACTOR
I WELDED FITTINGS. ROOF MOUNTED PIPING E PRIMER AND 2 LAYERS YELLOW GALVANIC TOP					CLEANOUT ACID W	COVER STATING WHAT SYSTEM IT IS SERVING. <u>(CLEANOUT SANITARY, CLEANOUT GREASE WASTE,</u> <u>ASTE.)</u> RE SUPPLY AND DRAIN SERVICES ARE NOT SHOWN DUE TO DRAWING SPACE LIMITATIONS. THIS
					CONTRACTOR SHA	LL PROVIDE ALL SERVICES FOR A COMPLETE FIRST CLASS INSTALLATION. TALL ALL NECESSARY VALVES, TRAPS, GAUGES, STRAINERS, UNIONS, ETC. FOR EACH PIECE OF IG PLUMBING CONNECTIONS TO FACILITATE PROPER FUNCTIONING AND SERVICING.
FULL LINE SIZE, FOR EACH TEE, BRANCH, ELBOW				7.	SEAL ALL PENETR	ATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS WITH A UL LISTED ASSEMBLY TO PROVIDE FO OR GREATER THAN THE RATING OF THE WALL, FLOOR OR CEILING.
& ABBREVIATIONS					IMPLEMENTING HIS VISITED THE PREM PROPERLY ACCOM	R SHALL VISIT THE SITE AND ASCERTAIN FOR HIMSELF THE CONDITIONS TO BE MET THERE IN S WORK AND MAKE DUE PROVISIONS FOR THE SAME. IT IS ASSUMED THAT THE CONTRACTOR HAS HISES AND THAT HIS COST ESTIMATE COVERS ALL NECESSARY LABOR AND MATERIALS TO PLISH HIS WORK. FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH THIS REQUIREMENT INSIDERED. JUSTIFICATION FOR OMISSIONS OF FAULTY WORK OF FOR THE BAYMENT OF ADDITIONAL
T INDICATED ON DRAWINGS					COMPENSATION.	NSIDERED JUSTIFICATION FOR OMISSIONS OR FAULTY WORK OR FOR THE PAYMENT OF ADDITIONAL
NEW PLUMBING FIXTURE SANITARY WASTE						STING AND FUTURE GRADES WITHIN AREAS WHERE WORK IS BEING DONE.
STORM DRAINAGE LINE						CATION OF EQUIPMENT PRIOR TO INSTALLATION OF FLOOR DRAINS AND FLOOR SINKS. RELOCATION MENT SHALL BE AT CONTRACTORS EXPENSE.
CONDENSATE DRAIN LINE				11.	PROVIDE A KEYED	ACCESS PANELS FOR ALL VALVES AND APPARATUSES THAT REQUIRE MAINTENANCE.
GREASE WASTE						ARRESTOR SHALL BE INSTALLED FOR ALL SINGLE AND MULTIPLE FIXTURE BRANCH LINES. WATER
CHEMICAL WASTE						E 1010. PROVIDE FOR HOT WATER AND COLD WATER LINES AND REFER TO WATER HAMMER FOR MORE INFORMATION AND SIZING.
VENT				13.	INSULATE PIPING	AS FOLLOWS:
FIRE LINE DEIONIZED WATER SUPPLY					DOMESTIC COLD V	NATER PIPING: APOR SEAL ALL COLD AND SOFTENED WATER PIPE WITH GLASS FIBER PIPE INSULATION.
DEIONIZED WATER RETURN						PIPING EXPOSED TO THE EXTERIOR SHALL BE PROVIDED WITH ALUMINUM).
SOFT WATER					DOMESTIC HOT W	ATER PIPING: DT WATER PIPE WITH GLASS FIBER PIPE INSULATION WITH FACTORY-APPLIED WHITE JACKET.
DOMESTIC COLD WATER PIPING DOMESTIC HOT WATER PIPING					DRAINS:	APOR SEAL ALL ABOVEGROUND P-TRAPS AND HORIZONTAL DRAIN PIPING RECEIVING
DOMESTIC HOT WATER RETURN PIPING					CONDENSATE OR	ICE MAKER DRAINAGE WITH I/2" GLASS PER FIBER INSULATION. APOR SEAL ROOF DRAIN AND OVERFLOW ROOF DRAIN SUMP, PIPING AND FITTINGS FROM
TEMPERED WATER PIPING					DRAIN TO VERTIC	AL LEADER WITH I/2" GLASS FIBER INSULATION.
TEMPERED WATER RETURN PIPING NON POTABLE WATER (COLD)					INSULATE ALL EX	LE LAVATORIES AND SINKS: (POSED DRAIN PIPING AND WATER SUPPLY PIPING BENEATH A.D.A. COMPLIANT LAVATORIES
NON POTABLE WATER (HOT)					& SINKS WITH FUI OR MCGUIRE.	LLY MOLDED CLOSED CELL VINYL INSULATION KIT AS MANUFACTURED BY TRUEBRO, BROCAR
			I			ED PIPE AS FOLLOWS:
NATURAL GAS						ON SOIL PIPING SHALL BE SUPPORTED AT LEAST AT EVERY OTHER JOINT EXCEPT THAT WHEN THE
NATURAL GAS					SUPPORTS SHALL	TH BETWEEN SUPPORTS EXCEEDS FOUR FEET, THEY SHALL BE PROVIDED AT EACH JOINT. ALSO BE PROVIDED AT EACH HORIZONTAL BRANCH CONNECTION. SUPPORTS SHALL BE PLACED
NATURAL GAS					IMMEDIATELY ADJ MOVEMENT.	ACENT TO THE COUPLING. SUSPENDED LINES SHALL BE BRACED TO PREVENT HORIZONTAL
FLOOR CLEAN OUT EXTERIOR CLEANOUT						HALL BE SUPPORTED AT NOT MORE THAN SIX FOOT INTERVALS FOR PIPING I-1/2" AND SMALLER AND /ALS FOR PIPING 2" AND LARGER IN DIAMETER.
WALL CLEANOUT						N-INSULATED COPPER PIPING SHALL HAVE A COPPER FINISH. IN POTENTIALLY DAMP LOCATIONS,
FLOOR DRAIN					STEEL PIPING SHA	OPPER PIPING HANGERS OR SUPPORTS SHALL BE PLASTIC-COATED. LL BE SUPPORTED AT INTERVALS OF NO GREATER THAN 6 FEET FOR I/2" PIPING, 8 FEET FOR 3/4" &
FLOOR SINK RISER IDENTIFICATION						ET FOR I-I/4" AND LARGER PIPING.
ELBOW UP					VERTICAL PIPING: PROVIDE RISER CL	AMP AT BASE AND AT EACH FLOOR LEVEL
ELBOW DOWN			1		MARKING AND IDE	
CAP AND SEAL BALL VALVE						PE WITH LABELING AT THE FOLLOWING LOCATIONS: H TAKE-OFF FROM A MAIN
BALANCING VALVE						F A WALL PENETRATION TRAIGHT RUN OF PIPE
GAS VALVE						CONNECTIONS IF MORE THAN 10' FROM A BRANCH TAKE-OFF
CHECK VALVE SOLENOID VALVE					DOMESTIC HOT WA	ATER: RED WATER TEMPERATURE ON DOMESTIC HOT WATER SUPPLY AND RETURN LINES.
FLOW SWITCH					INDICATE FLOW D	IRECTION WITH ARROWS ON DOMESTIC HOT WATER SUPPLY AND RETURN LINES.
AUTOMATIC TRAP PRIMER					MEDIUM PRESSURE MEDIUM PRESSURE	E GAS PIPING: EGAS PIPING (I4" WIC TO 5 PI) SHALL BE IDENTIFIED BY THE STATEMENT, "WARNING TO 5 PI
BACKFLOW PREVENTER					NATURAL GAS." TI	HESE LABELS SHALL BE PLACED AT INTERVALS NOT EXCEEDING 30 FEET. ALL REGULATORS IN LINES SHALL HAVE IDENTIFICATION TAGS IN ACCORDANCE WITH APPLICABLE CODES.
FINISHED FLOOR LEVEL				6.	SLEEVES:	
INVERT LEVEL						UL FIRE RATED ASSEMBLIES WERE PIPES PENETRATE ABOVE GRADE FLOORS. IL FIRE RATED ASSEMBLIES WERE PIPES PENETRATE FIRE RATED WALLS.
ABOVE FINISHED ROOF					WHERE PIPING PAS	SSES THROUGH NON CEILING OR WALL, CLOSE OFF SPACE BETWEEN PIPE OR DUCT AND
EXISTING TO REMAIN OVERFLOW STORM DRAINAGE					REMAINDER OF WA	
PRIMARY STORM DRAINAGE					INSTALL CHROME	OR STAINLESS STEEL ESCUTCHEONS WHERE PIPING PASSES THROUGH FINISHED SURFACES.
TEXAS ACCESSIBILITY STANDARDS						



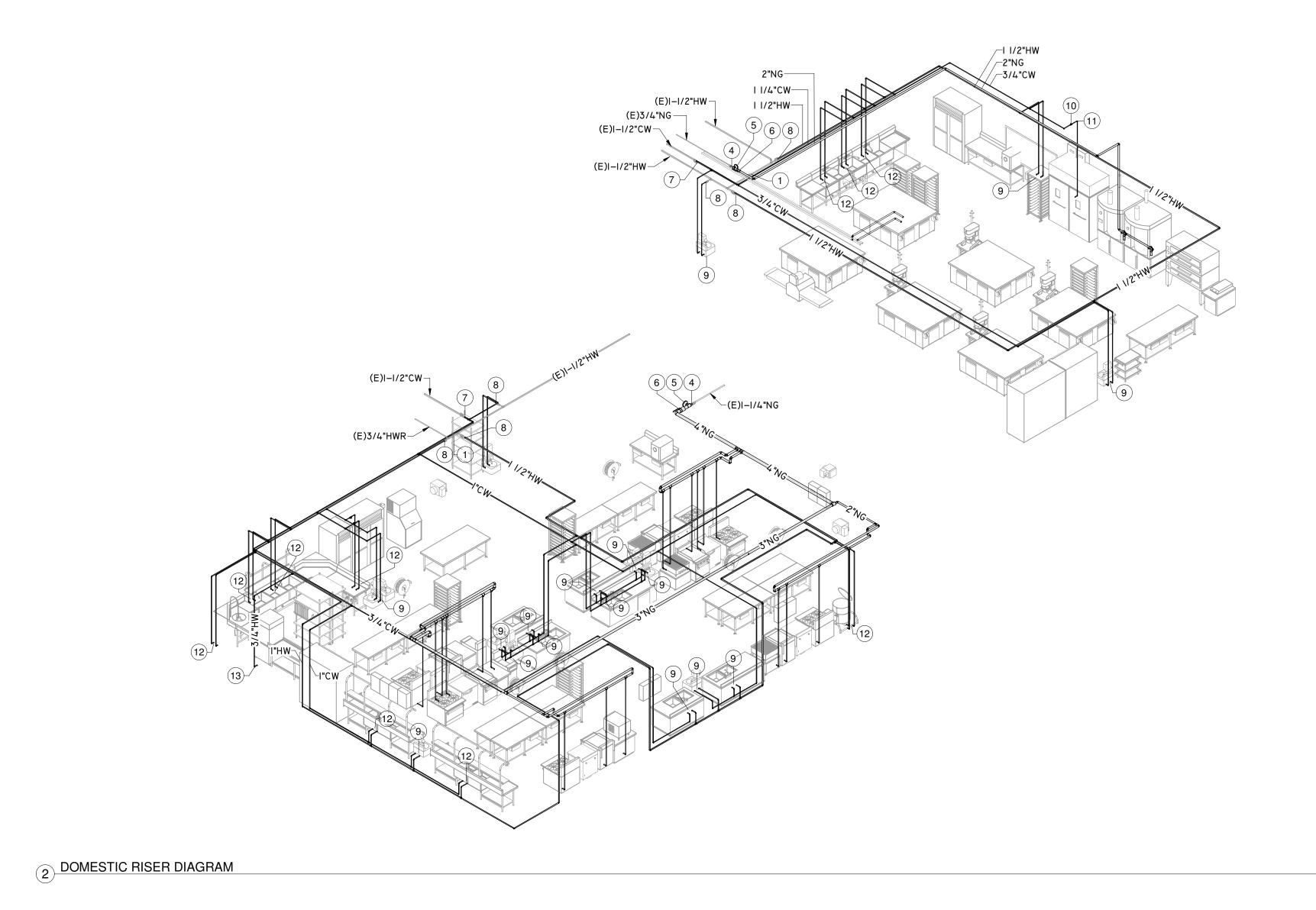






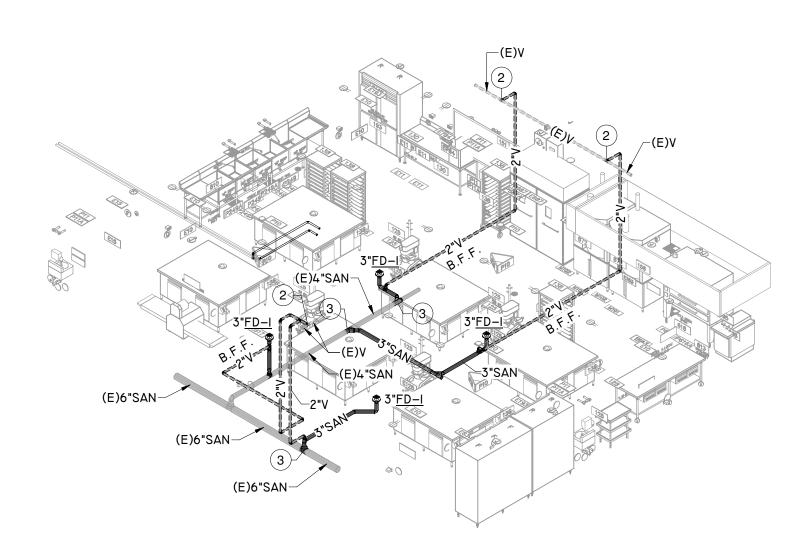


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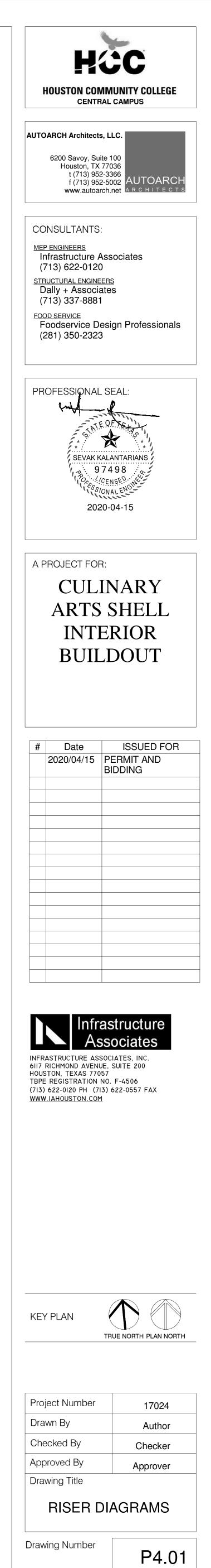


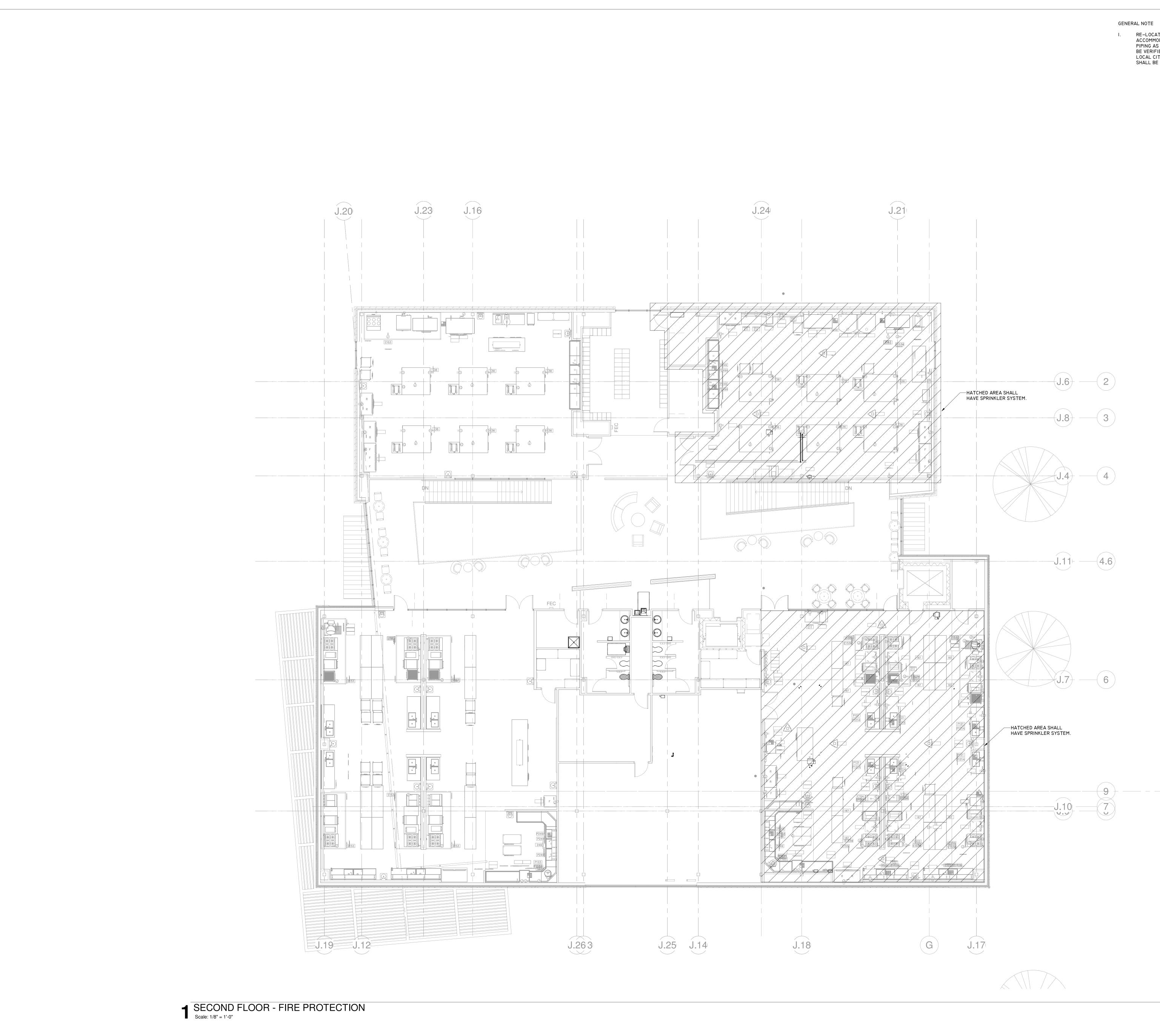
### Keynote Legend

- EXISTING HW BYPASS VALVE, SET TO NORMALLY CLOSED ROUTE V LINE TO EXISTING VENT LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
- ROUTE SAN WASTE LINE TO EXISTING SAN WASTE LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION, SIZE, DIRECTION OF FLOW AND DEPTH OF BURY OF EXISTING PIPE. ROUTE NG LINE TO EXISTING NATURAL GAS LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
- PRESSURE REGULATOR (FROM 5PSI DOWN TO 14" OF WC) AUTOMATIC GAS SHUT-OFF VALVE CONNECTED TO FIRE ALARM SYSTEM IN DIVISION 26.
- ROUTE CW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE. ROUTE HW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
- 3/4"CW AND 3/4"HW DOWN TO FIXTURE.
- BACKFLOW PREVENTER.
- I/2"CW DOWN TO PROOFER. 3/4"CW AND 3/4"HW DOWN TO FOOD SERVICE EQUIPMENT.
- 13 3/4"HW TO DISHWASHER.



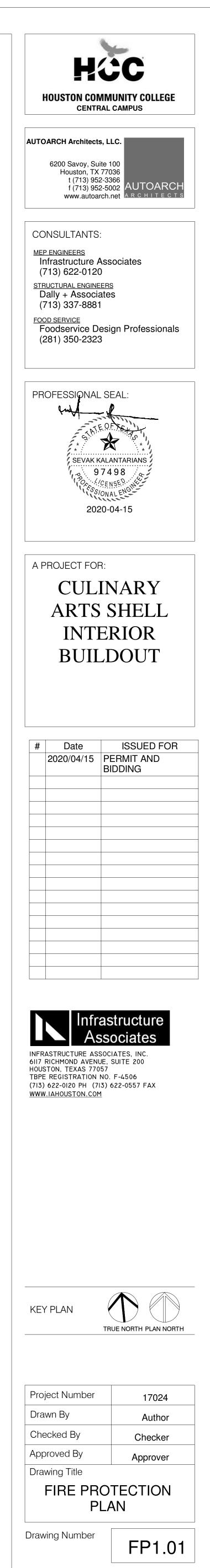
1 SANITARY RISER DIAGRAM

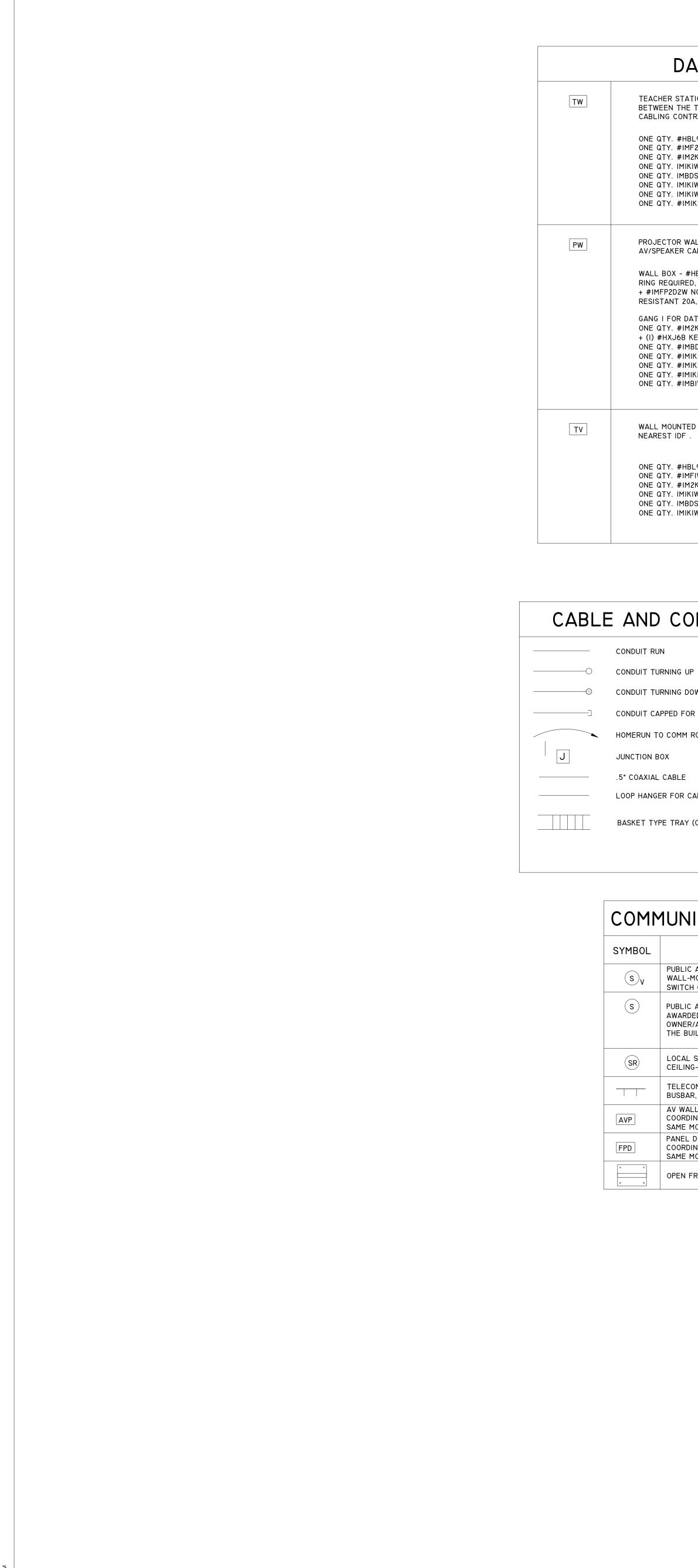




RE-LOCATE EXISTING FIRE SPRINKLER HEADS IN THIS AREA TO ACCOMMODATE THE NEW WALLS AND CEILING GRID. ADJUST PIPING AS NECESSARY. LOCATIONS OF SPRINKLER HEADS SHALL BE VERIFIED AND DESIGNED IN ACCORDANCE WITH NFPA I3, AND LOCAL CITY FIRE DEPARTMENT. SPRINKLER SPACING AND PIPING SHALL BE DESIGNED BY A LOCAL RME.

-J.5





	DATA SYMBOL LEGEND	
BETWEEN	R STATION. CONTRACTOR WILL PROVIDE AND INSTALL ALL NEC N THE TEACHER STATION AND THE PROJECTOR WALL STATION CONTRACTOR WILL PROVIDE CAT6 CABLING TO NEAREST IDF	AND SPEAKERS. DATA
ONE QTY ONE QTY ONE QTY ONE QTY ONE QTY ONE QTY	<ul> <li><i>X</i>. #HBL985 2G DEEP WALL BOX WITH 2-INCH KO</li> <li><i>X</i>. #IMF2W WALL PLATE TO ACCEPT HUBBELL MODULES</li> <li><i>X</i>. #IM2KIW 2-PORTS MODULE FOR (2) #HXJ6B RJ45 DATA JACK</li> <li><i>X</i>. IMIKIW SINGLE KEYSTONE OPENING FOR (1) #SFHCI4W HDMI F</li> <li><i>X</i>. IMBDSIW MODULE OPENING FOR (1) I5-PIN VGA PIN #I5GCI0 F-</li> <li><i>X</i>. IMIKIW SINGLE KEYSTONE OPENING FOR (1) # SF35STW 3.5MI</li> <li><i>X</i>. IMIKIW FOR (1) #SFUSBAA3BK USB A-A</li> <li><i>X</i>. #IMIKIW FOR (1) #SFUSBAB3BK USB A-B</li> </ul>	EED THRU -F COUPLER OR BY OTHERS
-	OR WALL LOCATION. CONTRACTOR WILL PROVIDE AND INSTALI KER CABLING BETWEEN THE TEACHER DESK AND PROJECTOR/	
RING REQ + #IMFP2	DX - #HBL985 2G DEEP BOX WITH 2" KO, SPECIFY 2 QTY. EC TO QUIRED, UTILIZES WALL BOARD + (I) #HBL989 INTERNAL DIVIDE 2D2W NON-METALLIC 4G WALL PLATE, PROVIDES (2) GANGS PO NT 20A, 125V DECORATOR DUPLEX + (2) GANGS FOR HUBBELL I	ER WER FOR #DR20WHI TAMPER
ONE QTY + (I) #HX ONE QTY ONE QTY ONE QTY ONE QTY	FOR DATA/AV: 7. #IM2KIW PROVIDES (2) KEYSTONE OPENINGS FOR (1) HDMI FE KJ6B KEYSTONE TYPE CAT 6 RJ45 JACKS 7. #IMBDSIW FRAME FOR (1) VGA I5-PIN #I5GCI0 F-F COUPLER ( 7. #IMIKIW FOR (1) #SFUSBAA3BK USB A-A 7. #IMIKIW FOR (1) #SFUSBAB3BK USB A-B 7. #IMIKIW FOR (1) #SF35STW 3.5MM 7. #IMBIW BLANK	
WALL MO NEAREST	DUNTED TELEVISION. DATA CABLING CONTRACTOR WILL PROVID	DE CAT6 CABLING TO
ONE QTY.	7. #HBL985 2G DEEP WALL BOX WITH 2-INCH KO 7. #IMFIW WALL PLATE TO ACCEPT HUBBELL MODULES	

	DATA OUTLE	T SCH	IEDULE
SYMBOL	DESCRIPTION	CABLE QTY.	MOUNTING/REMARKS
$\square$	4"x4"x2-I/4" DATA OUTLET BACKBOX WITH I" CONDUIT AND PULL STRING TO NEAREST ACCESSIBLE CEILING. DUAL GANG BOX 4"X4"X3.5" AT AVI/AV2 STATIONS	х	18" AFF, DATA OUTLET ONLY (REFER TO DETAILS)
c 🖂	CEILING OUTLET (SINGLE)	2	FLUSH CEILING MOUNT, FIELD COORDINATE EXACT LOCATION.
x [>]	2-GANG BACKBOX WITH I-GANG REDUCER AS REQUIRED, SS-302 COVER PULL STRING ROUTED IN CONDUITS BACK TO SERVER ROOM WITH MEASURED I"C WITH DEVICES AND LOW-VOLTAGE CABLING BY TELECOM CONTRACTOR. RE:8/T6.02	Х	18" AFF UNLESS INDICATED OTHERWISE ON FLOOR PLANS, DATA OUTLET ONLY (REFER TO DETAILS)
	D2VI - TWO DATA/NETWORK; ONE VOICE CONNECTION D2 - TWO DATA CONNECTION VI - SINGLE VOICE/TELEPHONE CONNECTION PA - PUBLIC ADDRESS P - DEDICATED ANALOG PHONE/VOICE CONDUIT AV - AUDIO/VISUAL DATA		
	DURESS BUTTON; 2-GANG BACKBOX WITH I-GANG REDUCER AS REQUIRED. PROVIDE WITH I"C WITH PULLSTRING	I	MOUNT ON WALL; COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
τν 🖂	WALL MOUNTED TV	I	MOUNT ON WALL; COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
PW	WALL MOUNTED PROJECTOR	Ι	MOUNT ON WALL; COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
A	MOUNTED AT NO HIGHER THAN 12' AFF. I"C WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	Ι	MOUNT IN CEILING; WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
AW	WIRELESS ACCESS POINT OUTLET BACKBOX WALL MOUNTED AT 12'AFF. I"C WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	I	MOUNT IN WALL; WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
AEX	EXTERIOR WIRELESS ACCESS POINT OUTLET BACKBOX WALL MOUNTED AT 12'AFF TO 15' AFF. I"C WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	I	MOUNT IN WALL; WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
$\bigtriangledown$	FLUSH FLOOR BOX WITH WIRING DEVICES AS INDICATED ON PLANS.	х	MOUNT IN FLOOR FLUSH; FIELD COORDINATE EXACT LOCATION
			·

AND	CONDUIT	PATHWAY

ONE QTY. #IM2KIW I-PORT MODULE FOR (I) #HXJ6B RJ45 DATA JACKS

ONE QTY. IMIKIW SINGLE KEYSTONE OPENING FOR (I) # SF35STW 3.5MM

ONE QTY. IMIKIW SINGLE KEYSTONE OPENING FOR (I) #SFHCI4W HDMI FEED THRU

ONE QTY. IMBDSIW MODULE OPENING FOR (I) 15-PIN VGA PIN #15GC10 F-F COUPLER OR BY OTHERS

CONDUIT RUN

CONDUIT TURNING DOWN

CONDUIT CAPPED FOR FUTURE.

HOMERUN TO COMM ROOM INDICATED. NO CONDUIT SIZE DENOTES I".

JUNCTION BOX

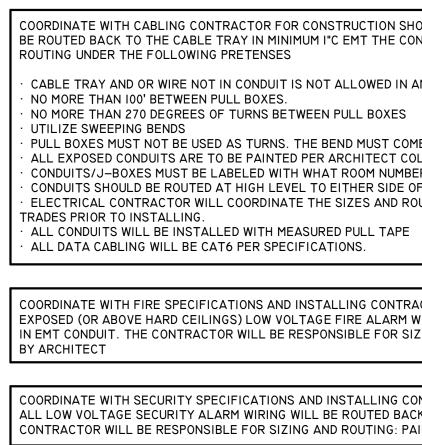
.5" COAXIAL CABLE

LOOP HANGER FOR CABLE PATHWAY

BASKET TYPE TRAY (CABLE TRAY)

		LA MD M/ MF NFF
COMM	UNICATIONS SYMBOLS	OS PA PB PII
YMBOL	DESCRIPTION	RE RG SC
Sv	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED WALL-MOUNTED VOLUME CONTROL ADJACENT TO LIGHT SWITCH (UON)	S/I SM SPA
S	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED. THE AWARDED CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT TO PROVIDE THE SAME MODEL WHICH THE BUILDING HAVE ON THE LAB I	TB TB TCP TG TM( TY
SR	LOCAL SOUND REINFORCEMENT SPEAKER, CEILING-MOUNTED	UL UO UP
	TELECOMMUNICATIONS GROUNDING BUSBAR, +84" AFF	UT VD VL4
AVP	AV WALL PLATE. THE AWARDED CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT TO PROVIDE THE SAME MODEL WHICH THE BUILDING HAVE ON THE LAB I	WA
FPD	PANEL DISPLAY. THE AWARDED CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT TO PROVIDE THE SAME MODEL WHICH THE BUILDING HAVE ON THE LAB I	
• • •	OPEN FRAME RELAY RACK	

ABE	BREVIATION DEFINITIONS	
ACS	ACCESS CONTROL SYSTEM	
ADA	AMERICANS WITH DISABILITIES ACT	
AFF	ABOVE FINISHED FLOOR	
AP	ACCESS POINT	
С.	CONDUIT	
CATV	COMMUNITY ANTENNA TELEVISION	
ССТУ	CLOSED CIRCUIT TELEVISION	
CR	CARD READER	
CX	COAXIAL CABLE	
DC	DOOR CONTACT	
(D)	TO BE DEMOLISHED	
(E)	EXISTING	
FACP	FIRE ALARM CONTROL PANEL	
FUTURE	ITEM NOT PROVIDED IN THIS PROJECT. A PLACE HOLDER TO	
HVAC	SHOW SPACE FOR MATERIAL TO BE INSTALLED IN THE FUTURE HEATING, VENTILATION, & AIR CONDITIONING	
HISD	HEATING, VENTILATION, & AIR CONDITIONING HOUSTON INDEPENDENT SCHOOL DISTRICT	
IDF	INTERMEDIATE DISTRIBUTION FACILITY	
IMO	INFORMATION MEDIA OUTLET	
IP	INTERNET PROTOCOL	
IT	INFORMATION TECHNOLOGY	
KEY	INTRUSION DETECTION KEYPAD	
LAN	LOCAL AREA NETWORK	
MD	MOTION DETECTOR	
MDF	MAIN DISTRIBUTION FACILITY	
M/M	MULTIMODE	
MM	MULTIMODE	
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	
NIC	NOT IN CONTRACT	
OSP	OUTSIDE PLANT	
PA	PUBLIC ADDRESS	
PBX	PRIVATE BRANCH EXCHANGE	
PIR	PASSIVE INFRARED	
REX RGS	REQUEST-TO-EXIT RIGID GALVANIZED STEEL	
SCP	SECURITY CONTROL PANEL	
S/M	SINGLEMODE	
SM	SINGLEMODE	
SPARE	PRODUCTS OR MATERIAL PROVIDED BY PROJECT TO ACCOMODATE	
-	ANTICIPATED GROWTH	
ТВВ	TELECOMMUNICATIONS BONDING BACKBONE	
TBD	TO BE DETERMINED	
TCP/IP	TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL	
TGB	TELECOMMUNICATIONS GROUND BUSBAR	
TMGB	TELECOMMUNICATIONS MAIN GROUND BUSBAR	
TYP	TYPICAL	
UL	UNDERWRITERS LABORATORIES, INC.	
UON		
UPS	UNINTERRUPTIBLE POWER SUPPLY	
UTP	UNSHIELDED TWISTED PAIR	
VDS	VIDEO DISTRIBUTION SYSTEM (PUSH-VIDEO SYSTEM)	
VLAN WAN	VIRTUAL LAN	
WAIN	WIDE AREA NETWORK	



## SECURITY SYMBOL LEGEND

M INTRU	SION ALARM MOTION DETECTOR
KP INTRU	SION ALARM NUMERIC KEY-PAD
ES ELECT	RONIC STRIKE
ML ELECT	ROMAGNETIC LOCK
CR CARD	READER
	SS CONTROL DOOR HOLD-OPEN. COORDINATE WITH FIRE ALARM RACTOR LOCATIONS AND REQUIRED SEQUENCING.
B PUSH	BUTTON DOOR RELEASE
MS IP ADD	PRESSABLE MASTER STATION
DS IP ADD	PRESSABLE FLUSH MOUNT DOOR STATION
(RX) REQUE	EST TO EXIT MOTION SENSOR
-CAM- VIDEO	CAMERA
	SURVEILLANCE CCTV CAMERA
WALL EQUAL	T TYPE TRAY WITH U-SHAPED ROUND WIRE MESH MOUNTED FROM OR INVERTED "T" MOUNTS. I2"W X 4"H,: CHALFANT WMST4I2S OR BASKET MAY BE UTILIZED FOR SECURITY AND TELECOM. FIRE 1 WIRING MUST BE A SEPARATELY INDEPENDENTLY SUPPORTED M

## TELECOM GENERAL NOTES

I. ALL CONDUIT AND RACEWAY SHALL BE UNEXPOSED WHEREVER POSSIBLE EXPOSED CONDUIT SHALL BE PAINTED TO MATCH SURROUNDING STRUCTURE. COORDINATE WITH ARCHITECT AND OWNER FOR PAINT COLOR.

2. UNLESS OTHERWISE NOTED, HORIZONTAL DATA CABLE SHALL BE INSTALLED IN CONDUIT OR CABLE HANGER. IN AREAS WITH EXPOSED CEILING, CABLE SHALL BE DISTRIBUTED IN CONDUIT FROM DEVICE TO DESIGNATED COMM (IT) ROOM IN CONDUIT. IN AREAS WITH NON-EXPOSED CEILING, CONDUIT SHALL BE PROVIDED FROM WORK AREA OUTLET TO CEILING. THEN CABLE HANGERS SHALL BE USED TO DISTRIBUTE CABLE FROM CONDUIT TO DESIGNATED COMM (IT) ROOM. 3. CONDUIT SHALL BE SIZED PER ANSI/TIA/EIA 569-B, WITH A MINIMUM SIZE OF

ONE-INCH. 4. CONTRACTOR SHALL COORDINATE ACTUAL CONDUIT AND CABLE HANGER PATHWAY ROUTES WITH ALL OTHER TRADES. CONTRACTOR SHALL ENSURE COMPLIANCE WITH APPLICATION SPECIFICATIONS FOR CONDUIT AND CABLE INSTALLATION/OPERATION.

5. ELECTRICAL POWER CABLES AND CONDUITS SHALL NOT BE INSTALLED IN OR ATTACHED TO CABLE TRAYS.

6. CONTRACTOR SHALL NOT ABANDON WIRING, CONDUIT, J-BOXES, OR DEVICES IN PLACE. UNUSED EQUIPMENT AND SUPPORTS SHALL BE REMOVED AND DISPOSED

7. TELECOMMUNICATION OUTLET BOXES SHALL BE: - 4 IN. SQ. BY 2 I/2 IN. DEEP UNLESS NOTED OTHERWISE ALL COVERS OR PLATES SHALL BE DESIGNED TO FIT ONE-GANG OR

TWO-GANG OUTLET BOXES - PLASTER RINGS ARE NOT SUITABLE FOR SECURING SERVICE CONNECTORS - BUSHING CONNECTORS SHALL BE PROVIDED TO ALL OUTLET BOXES FLUSH WITH THE FINISHED WALL

8. ALL TELECOMMUNICATION CONDUITS SHALL BE PROVIDED WITH A MEASURED PULL TAPE.

9. NO MORE THAN 100' BETWEEN PULL BOXES.

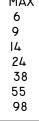
10. NO MORE THAN 270 DEGREES OF TURNS BETWEEN PULL BOXES. II. UTILIZE SWEEPING BENDS.

12. PULL BOXES MUST NOT BE USED AS TURNS. THE BEND MUST COME BEFORE OR AFTER THE PULL BOX.

I3. CONDUITS/J-BOXES MUST BE LABELED WITH WHAT ROOM NUMBERS THEY ARE FEEDING AND WHAT SYSTEM.

14. CONDUITS SHOULD BE ROUTED AT HIGH LEVEL TO EITHER SIDE OF THE CORRIDOR. I5. UTILIZE THE FOLLOWING CONDUIT SIZES BASED ON NUMBER OF DATA CABLES IN THE CONDUIT.

SIZE OF CONDUIT MAX # OF CAT6 CABLES



OORDINATE WITH CABLING CONTRACTOR FOR CONSTRUCTION SHOP DRAWINGS ALL LOW VOLTAGE DATA CABLES WILL BE ROUTED BACK TO THE CABLE TRAY IN MINIMUM I"C EMT THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND

CABLE TRAY AND OR WIRE NOT IN CONDUIT IS NOT ALLOWED IN ANY EXPOSED AREAS

1.25" 1.5"

2.5"

PULL BOXES MUST NOT BE USED AS TURNS. THE BEND MUST COME BEFORE OR AFTER THE PULL BOX. ALL EXPOSED CONDUITS ARE TO BE PAINTED PER ARCHITECT COLOR SELECTION.

CONDUITS/J-BOXES MUST BE LABELED WITH WHAT ROOM NUMBERS THEY ARE FEEDING AND WHAT SYSTEM. CONDUITS SHOULD BE ROUTED AT HIGH LEVEL TO EITHER SIDE OF THE CORRIDOR. ELECTRICAL CONTRACTOR WILL COORDINATE THE SIZES AND ROUTING WITH THE DATA CONTRACTOR AND OTHER

COORDINATE WITH FIRE SPECIFICATIONS AND INSTALLING CONTRACTOR FOR CONSTRUCTION SHOP DRAWINGS ALL EXPOSED (OR ABOVE HARD CEILINGS) LOW VOLTAGE FIRE ALARM WIRING WILL BE ROUTED BACK TO THE FACP ROOM IN EMT CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND ROUTING: PAINT AND LABEL AS REQUIRED

COORDINATE WITH SECURITY SPECIFICATIONS AND INSTALLING CONTRACTOR FOR CONSTRUCTION SHOP DRAWINGS ALL LOW VOLTAGE SECURITY ALARM WIRING WILL BE ROUTED BACK TO THE MDF ROOM IN EMT CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND ROUTING: PAINT AND LABEL AS REQUIRED BY ARCHITECT

## SECURITY GENERAL NOTES

- ALL SECURITY SYSTEM EQUIPMENT, FURNISHINGS, CONDUIT, CABLING AND OTHER RELATED MATERIALS AND INTERFACES SHALL BE INSTALLED IN ACCORDANCE WITH PROJECT CONSTRUCTION SCHEDULES.
- 2. SECURITY SYSTEM EQUIPMENT, FURNISHINGS, CONDUIT, CABLING AND OTHER RELATED MATERIALS SHALL BE INSTALLED AS SHOWN.
- 3. EQUIPMENT MOUNTING PLYWOOD SHALL BE 3/4" AND SHALL BE COVERED WITH WHITE INTUMESCENT PAINT.
- 4. ALL CONDUIT (NEW) SHALL NOT BE LESS THAN 3/4" DIAMETER AND NO MORE THAN 40% FILLED.
- 5. ALL SECURITY EQUIPMENT ENCLOSURES AND CABINETS ARE TO BE TAMPER PROTECTED AND CONNECTED TO INDIVIDUAL MONITOR POINTS.
- 6. CONTRACTOR SHALL FURNISH AND INSTALL ALL CABLING AND CONDUIT FROM SECURITY DEVICE LOCATIONS TO DESIGNATED ROOMS AND CLOSETS. CABLING SHALL BE OF APPROPRIATE TYPE AND GAUGE AS REQUIRED BY THE MANUFACTURER, FOR PROPER SYSTEM OPERATION. CONTRACTOR SHALL ENSURE CABLES TO EACH DEVICE PROVIDES SUFFICIENT VOLTAGE, OR SIGNAL STRENGTH TO OPERATE WITHIN MANUFACTURERS SPECIFIED LIMITS.
- 7. CONTRACTOR SHALL COORDINATE EXACT DEVICE MOUNTING LOCATIONS WITH ARCHITECT AND OTHER TRADES PRIOR TO INSTALLATION OF DEVICES AND RELATED INFRASTRUCTURE.
- 8. INTRUSION DETECTION SYSTEM CONTRACTOR SHALL PROVIDE A COMPLETE AND FULLY FUNCTIONING SECURITY SYSTEM INCLUDING BUT NOT LIMITED TO ALL SECURITY DEVICES, WIRING AND COMMISSIONING OF SECURITY SYSTEM.
- 9. INTRUSION DETECTION SYSTEM CONTRACTOR SHALL PROVIDE ALL PROGRAMMING OF SECURITY SYSTEM AND DEVICES.
- 10. ALL DOOR CONTACTS SHALL BE RECESSED IN DOOR FRAME WHENEVER POSSIBLE AND SHALL MATCH COLOR OF DOOR FRAME.
- II. ALL DOORS SHALL BE ADDRESSED SEPARATELY. DOUBLE DOORS TO BE WIRED IN SERIES AND IDENTIFIED AS SINGLE ZONE.
- 12. CONTRACTOR SHALL PROVIDE SECURITY JUNCTION BOXES AND CONDUIT PATHWAY ROUTED TO NEAREST COMMUNICATION ROOM FOR FUTURE SECURITY INSTALLATIONS AS ILLUSTRATED IN DRAWING SET.
- 13. CONTRACTOR SHALL PROVIDE A COMPLETE INSTALLATION OF ALL SECURITY DEVICES, WIRING AND COMMISSIONING OF INTRUSION DETECTION SYSTEMS.
- 14. CONTRACTOR SHALL PROVIDE A COMPLETE INSTALLATION OF ALL SECURITY
- DEVICES, WIRING AND COMMISSIONING OF ACCESS CONTROL DOORS. 15. CONTRACTOR SHALL PROVIDE ALL PROGRAMMING OF INTRUSION DETECTION
- SYSTEM AND DEVICES. 16. CONTRACTOR SHALL PROVIDE ALL PROGRAMMING OF ACCESS CONTROL SYSTEM AND DEVICES.

