



HOUSTON COMMUNITY COLLEGE
CENTRAL CAMPUS

**CULINARY ARTS SHELL
INTERIOR BUILDOUT**

1401 ALABAMA ST
HOUSTON, TX 77004



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04/15/20



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 BULKHEAD TO FINISH FACE OF BULKHEAD.
5. PROVIDE 1/2" REVEALS BETWEEN DISSIMILAR MATERIALS ON THE SAME PLANE AS THE CEILING.
6. IN AREAS OF EXPOSED CEILING, PAINT EXPOSED STRUCTURE, UNDERSIDE OF DECK, SPRINKLER PIPING, CONDUIT AND ALL MISCELLANEOUS OVERHEAD ITEMS, COLORS THAT SHALL BE SELECTED BY ARCHITECT.
7. ALL GRIDDED CEILING SHALL BE 2X2 VINYL FACE ACOUSTICAL CEILING U.O.N.
8. ALL GRAY AREAS ARE AREA OF NO WORK.

CEILING PLAN KEYNOTES

- 001 REFER TO 06/A2.01 FOR BULKHEAD THIS LOCATION
- 002 CONTRACTOR TO PROVIDE 50% SQUARE LAY-IN VINYL TILES AND 50% BEVELED REGULAR TILES IN RANDOM PATTERN FOR ACOUSTICS IN THE CEILING



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PROFESSIONAL SEAL:

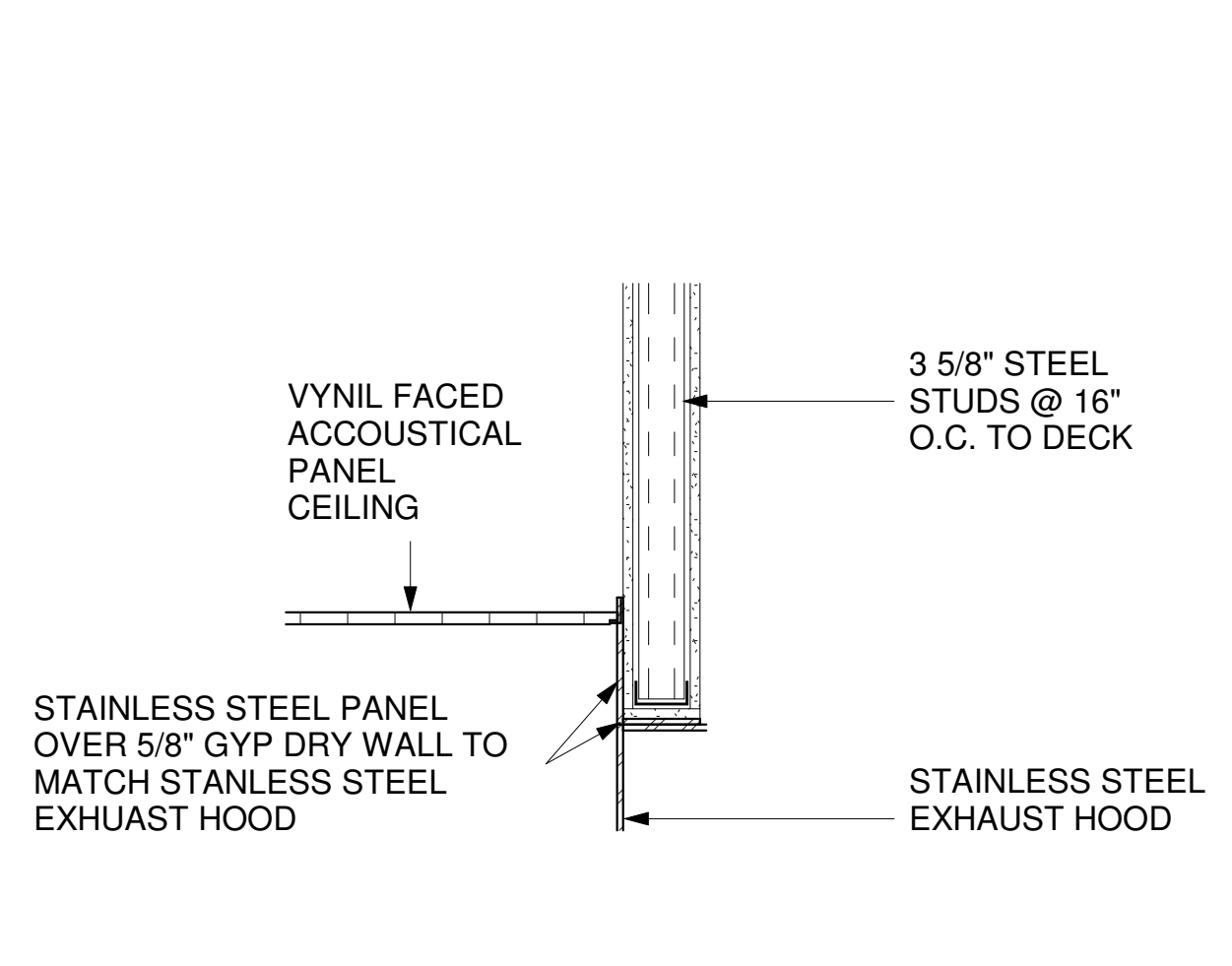


A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

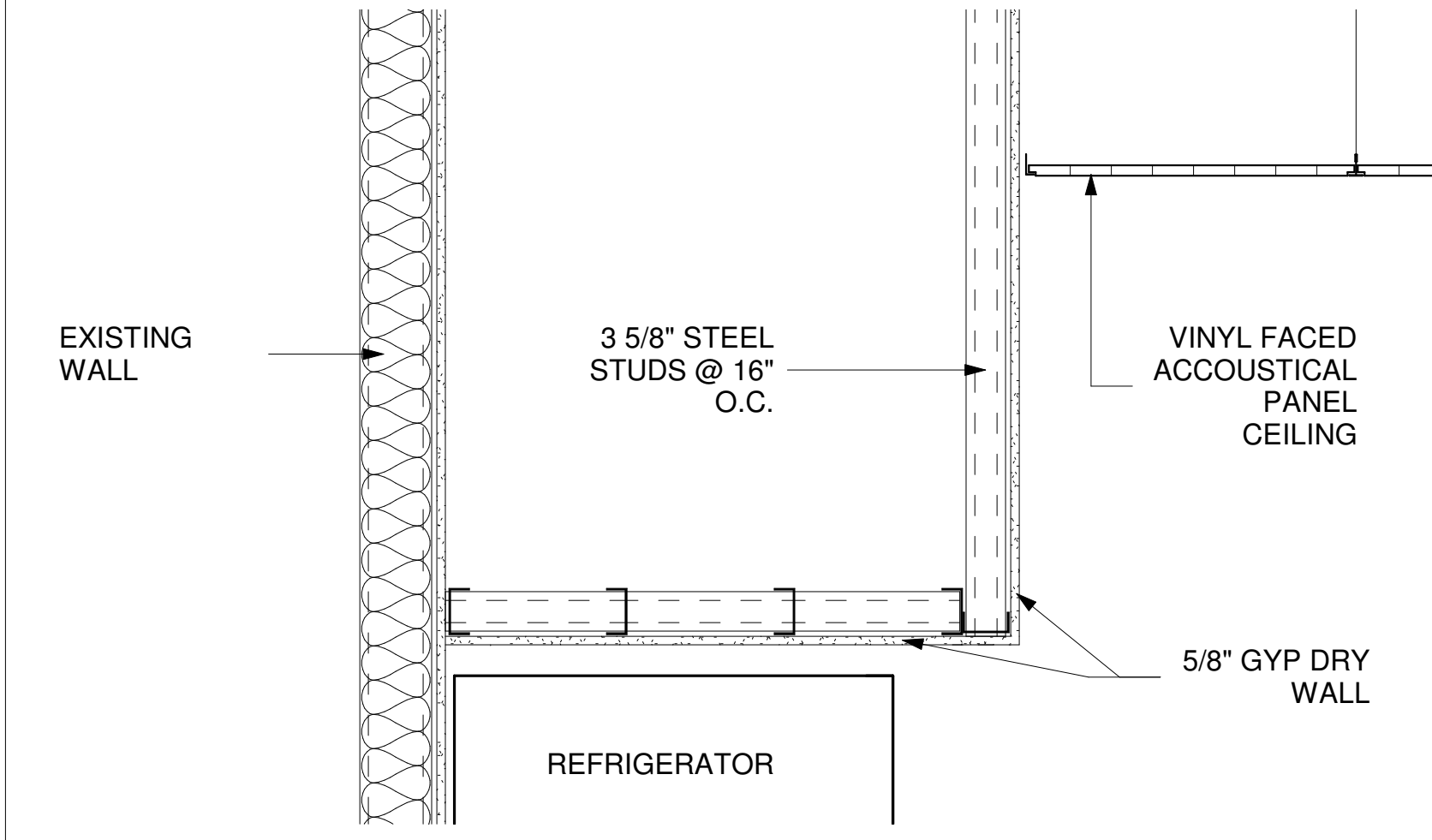
#	Date	ISSUED FOR
1	4/15/20	PERMIT AND BIDDING

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

11 EXHAUST HOOD DETAIL
 Scale: 1" = 1'-0"



06 BULKHEAD DETAIL
 Scale: 1" = 1'-0"



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

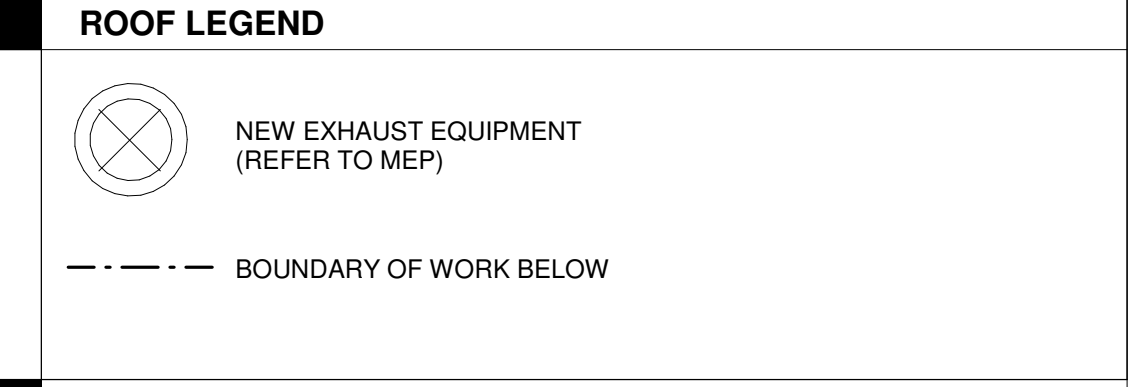
Drawing Title
REFLECTED CEILING PLAN

Drawing Number
A2.01

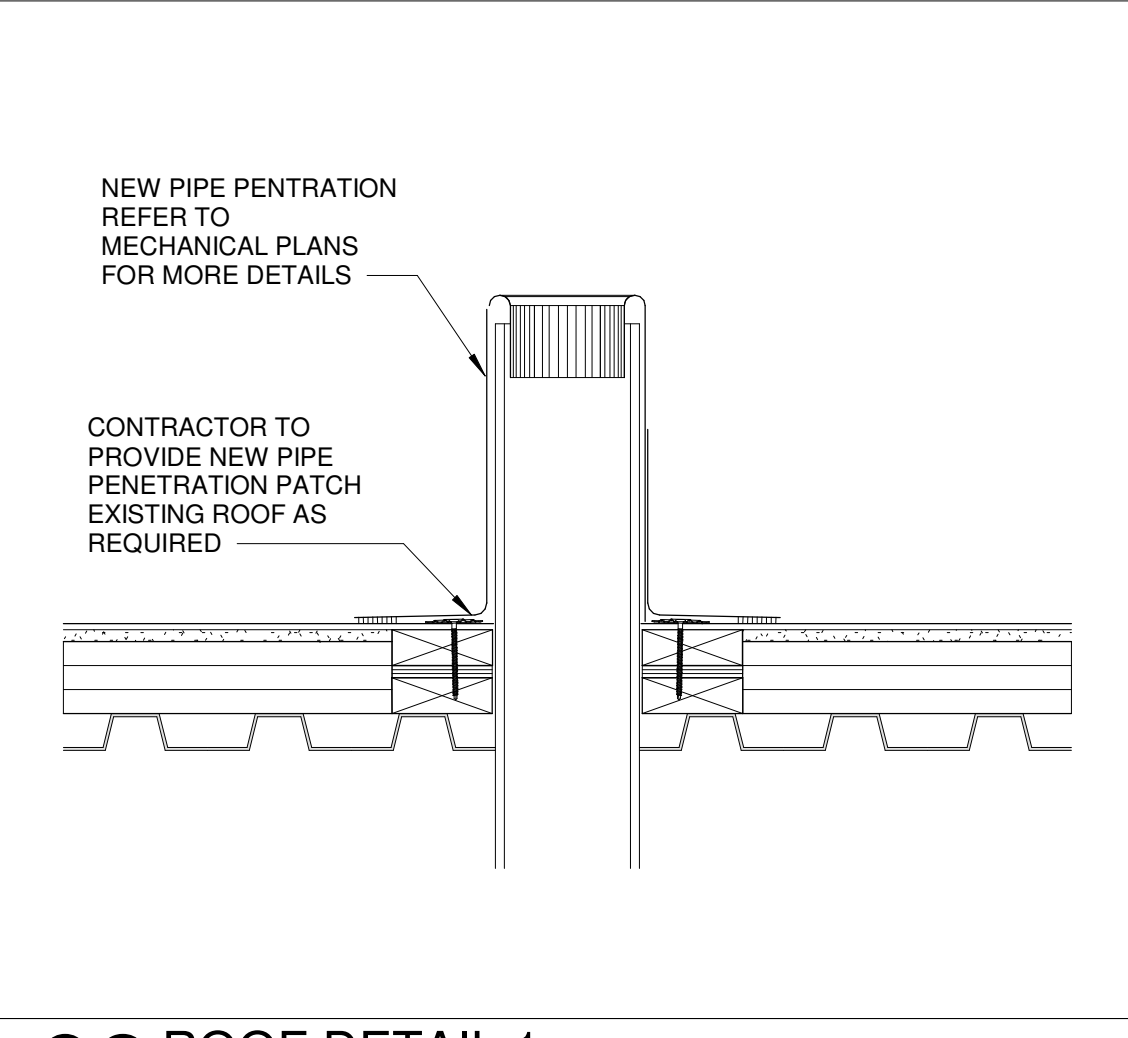
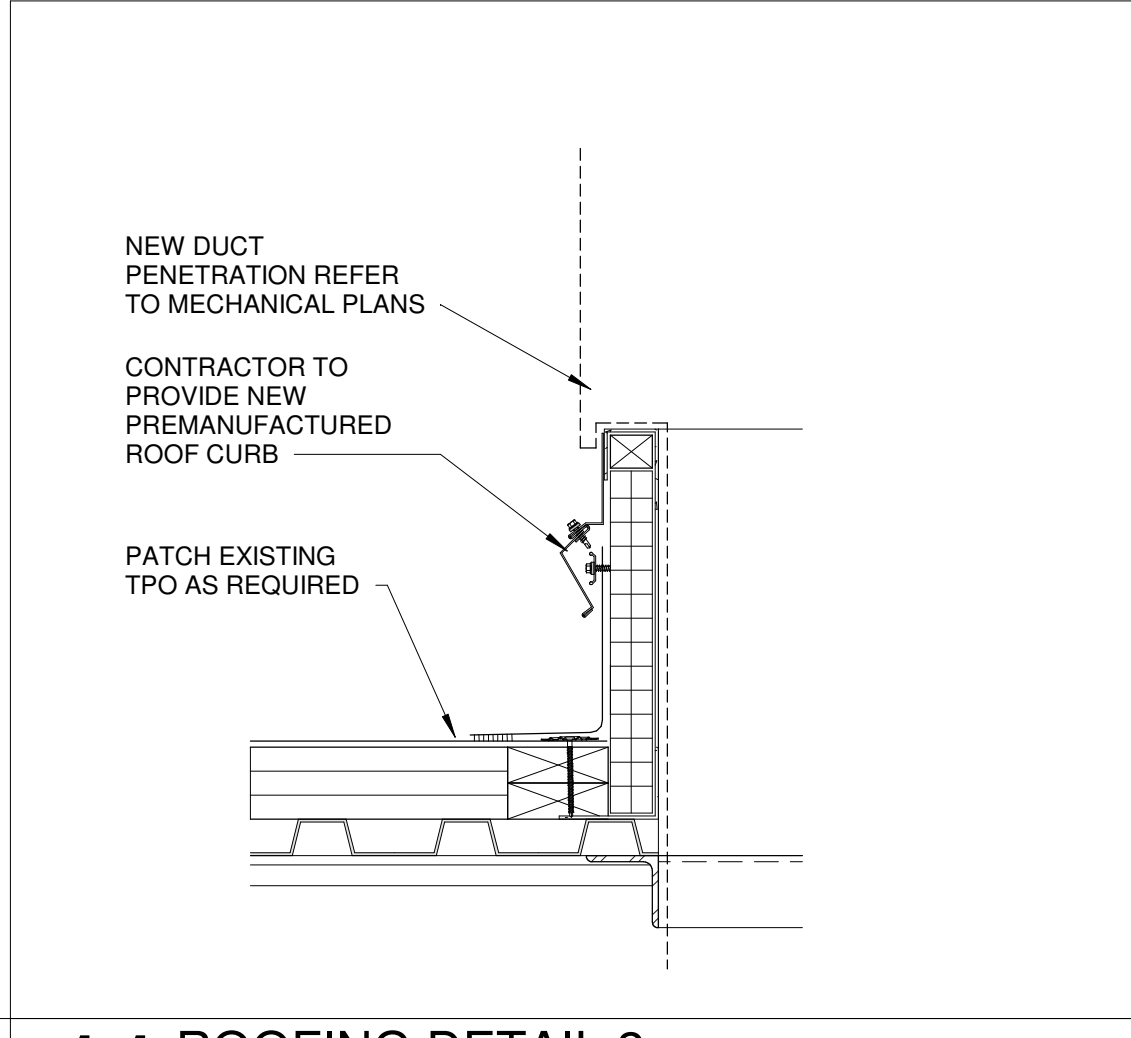
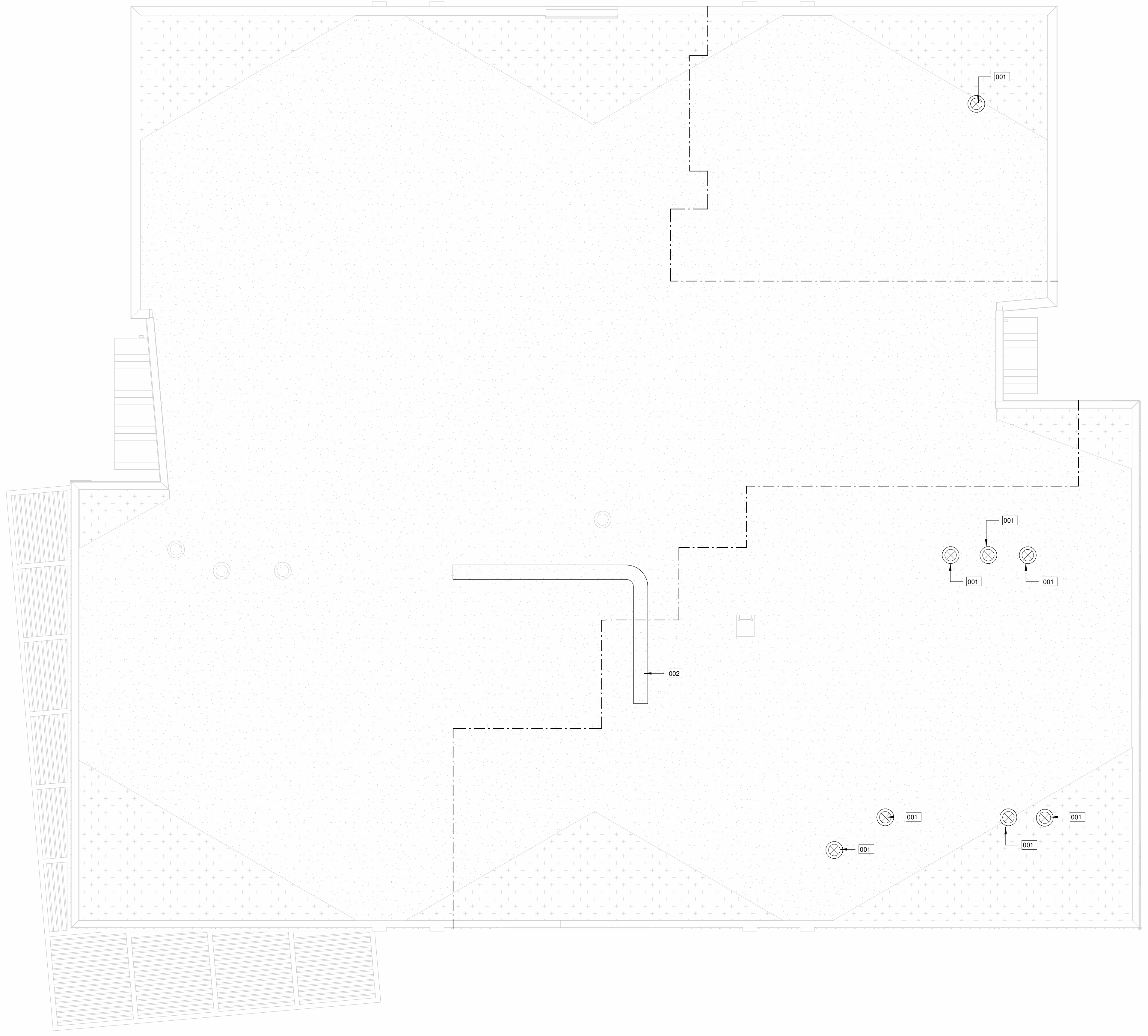
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Project Number	19012
Drawn By	Author
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Approved By	Approver
Drawing Title	ROOF PLAN

- GENERAL ROOF PLAN NOTES**
- DETAILS INDICATED ARE TYPICAL FOR SIMILAR ROOFING CONDITIONS UNLESS OTHERWISE NOTED.
 - 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 ELIMINATE ANY AREAS OF POTENTIAL STANDING WATER. PROVIDE TAPERED INSULATION (MINIMUM 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.
 - 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. (ARCHITECTURAL SHEET METAL MANUAL).
 - COORDINATE WITH MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ITEMS (INCLUDING UNIT SIZES AND LOCATIONS) NOT SHOWN OR SCHEMATICALLY SHOWN ON ROOF PLANS.
 - 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 MINIMUM 8" FROM TOP OF CURB TO ADJACENT ROOF. PROVIDE TAPERED CRICKETS (MINIMUM 1/2" PER FOOT SLOPE) AROUND ALL MECHANICAL EQUIPMENT CURBS.
 - THE ROOF DRAIN AND MECHANICAL UNIT LOCATIONS SHOWN ON THE ROOF PLAN ARE APPROXIMATE. COORDINATE WITH MECHANICAL AND PLUMBING DRAWINGS FOR EXACT LOCATIONS.
 - PRIOR TO FLASHING OVERFLOW ROOF SCUPPERS AND DRAIN, ROOFING CONTRACTOR SHALL BE REQUIRED TO CONFIRM MAXIMUM DRAIN PIPE HEIGHT OF 2" ABOVE THE ROOF IN ACCORDANCE WITH PLUMBING DRAWINGS AND BUILDING CODE.
 - 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-1.
 - IN ACCORDANCE WITH SPECIFICATIONS SECTION 07 62 00 SHEET METAL FLASHING AND TRIM, ROOFING CONTRACTOR SHALL BE REQUIRED TO PROVIDE A RECEIVER FLASHING TO MASONRY CONTRACTOR FOR INSTALLATION. ROOFER TO SOLDER JOINTS IN STAINLESS STEEL FLASHING.
 - PROVIDE WALKWAY PROTECTION WHERE INDICATED AND AT ALL SIDES OF MECHANICAL ROOF TOP UNITS REQUIRING SERVICE AND AT TOP AND BOTTOM OF ROOF STAIRS.
 - ALL ROOF TOP EQUIPMENT (EXCLUDING PREFINISHED ITEMS) SHALL BE FIELD PAINTED.
 - WHERE INDICATED, REFER TO PLUMBING DRAWINGS FOR RADON PIPE DETAIL. FLASHING SHALL BE IN ACCORDANCE WITH TYPICAL DETAILS.
 - 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.
 - COORDINATE HOSE BIB LOCATIONS ON ROOF WITH MEP PLANS.



- ROOF PLAN KEYNOTES**
- 001 NEW EXHAUST VENT PENETRATION CONTRACTOR TO PATCH EXISTING ROOF AND PROVIDE BRACING AS REQUIRED
- 002 NEW VENT AND DUCT FOR NEW AHU REFER TO MECHANICAL PLANS





FINISHES LEGEND				
Mark	MATERIAL	COLOR	MANUF.	REMARKS
PNT1	Paint (field)	WHITE	SHERWIN WILLIAMS	-
PNT2	Paint (accent)	WHITE	SHERWIN WILLIAMS	-
CT1	Subway Tile	0190 - ARCTIC WHITE (3'x6" SUBWAY TILE)	DAL-TILE	-
FRP1	Fiberglass Panel	WHITE	MARLITE	-
SSP1	Stainless Steel Panel	STAINLESS STEEL	-	-
RB1	Rubber Base	131 - BISQUE	ROPPE	-
CB1	Ceramic Base	0190 - ARCTIC WHITE (3'x6" SUBWAY TILE)	DAL-TILE	-
VC1	Vinyl faced Acoustical ceiling Tiles	WHITE	ARMSTRONG	-
QT1	Quary Tile	Q042 - ARRID GRAY	DAL-TILE	-
UF1	Urethane Flooring System	-	-	-
CG	CORNER GUARD	STAINLESS STEEL	-	-
TEP	TILE EDGE PROTECTION	STAINLESS STEEL	SCHLUTER SYSTEMS	-
EGR1	EPOXY GROUT	TBD	MAPEI	-
EGR2	EPOXY GROUT	TBD	MAPEI	-

FLOORPLAN KEYNOTES

001 PROVIDE EXPANSION AT QUARY TILE THIS LOCATION

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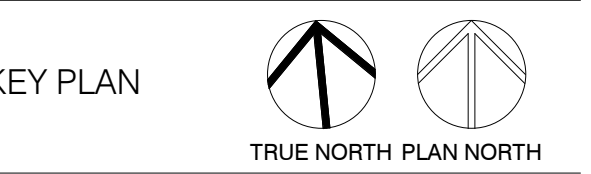
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PROFESSIONAL SEAL:

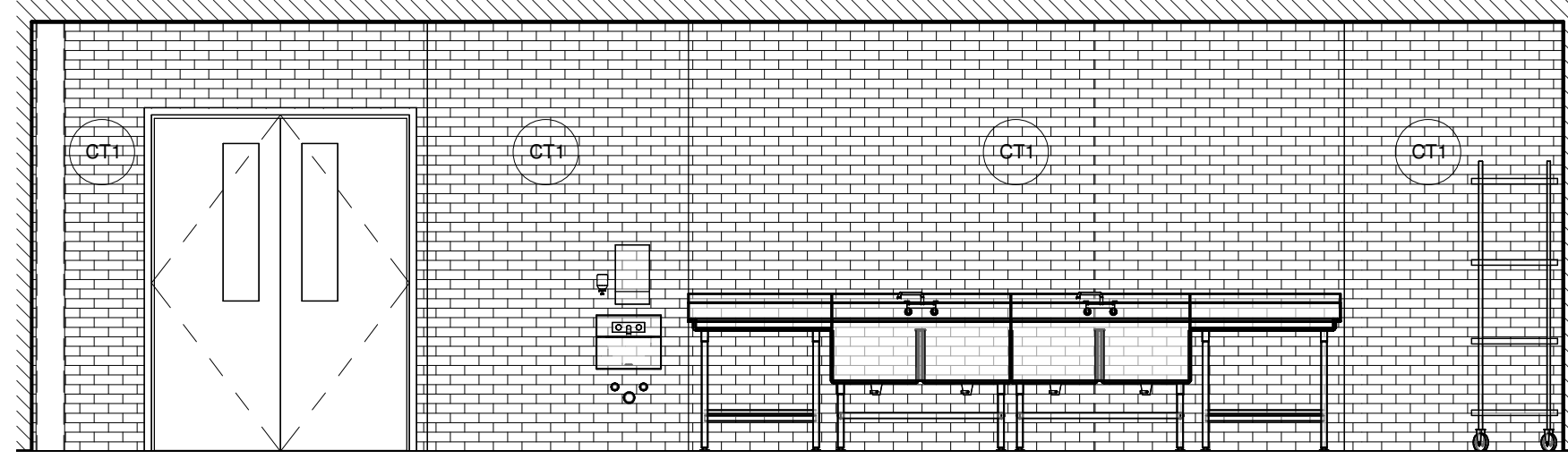
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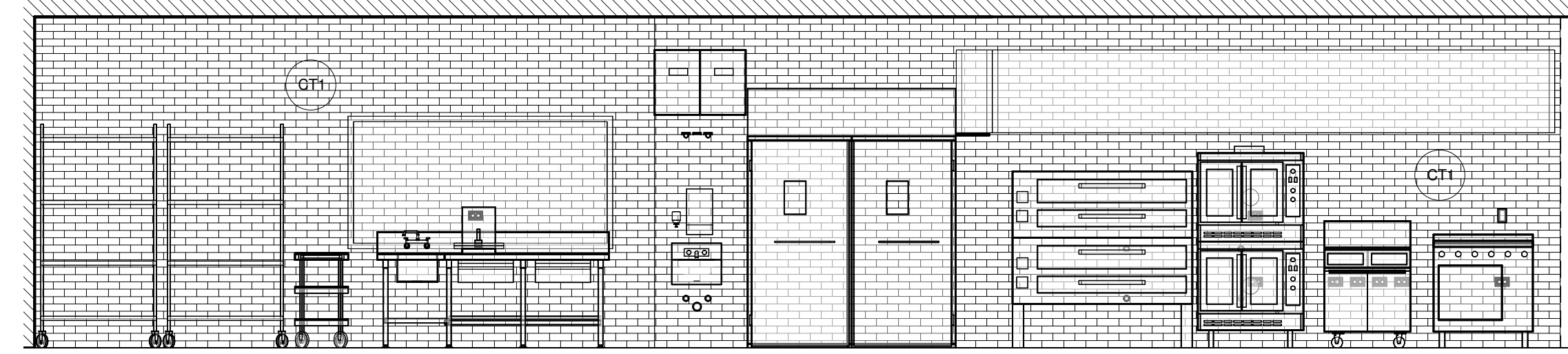
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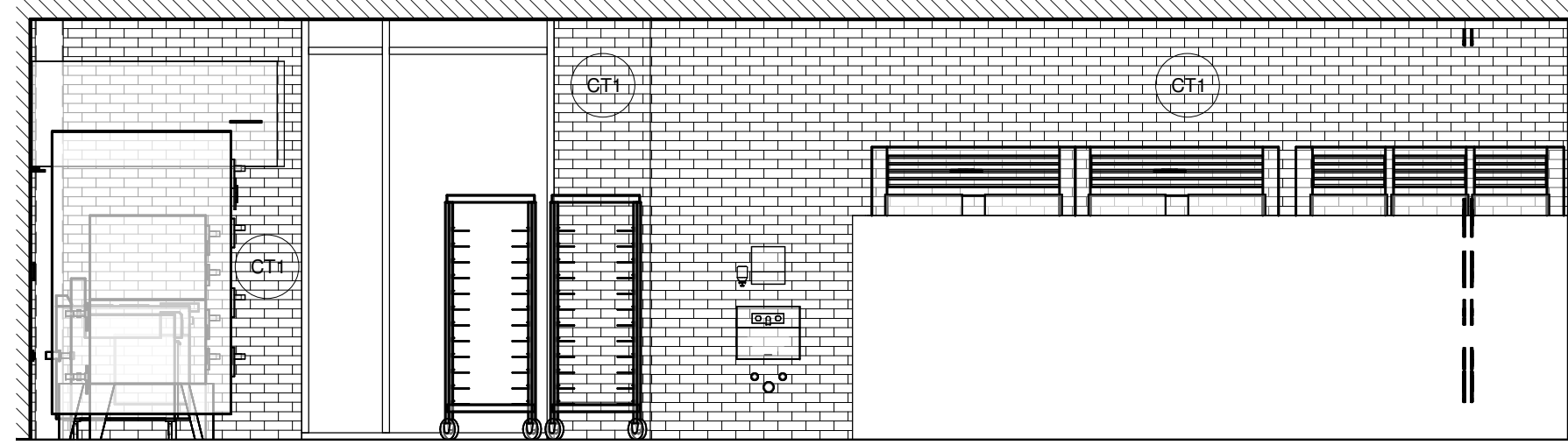
Project Number	19012
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Drawing Title	FINISH FLOOR PLAN
Drawing Number	A9.01



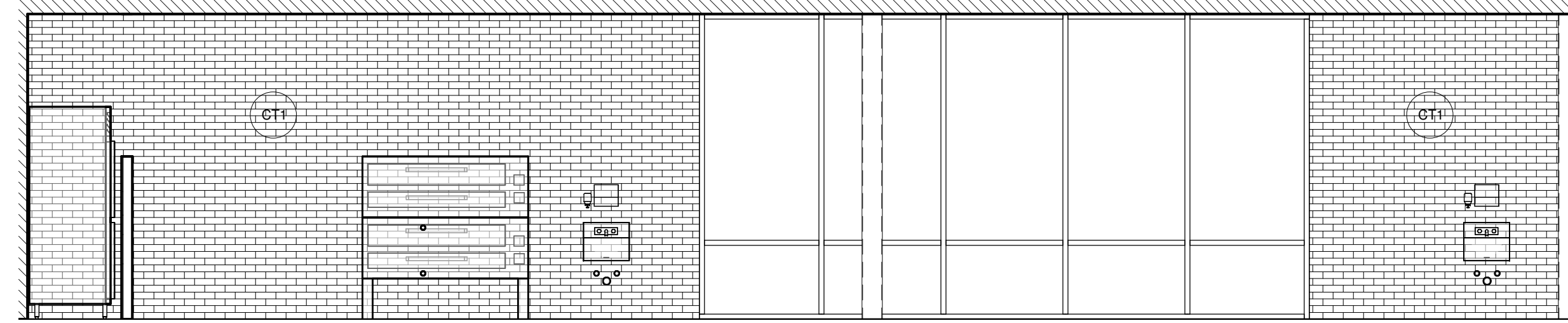
30 Elevation 1
Scale: 1/4" = 1'-0"



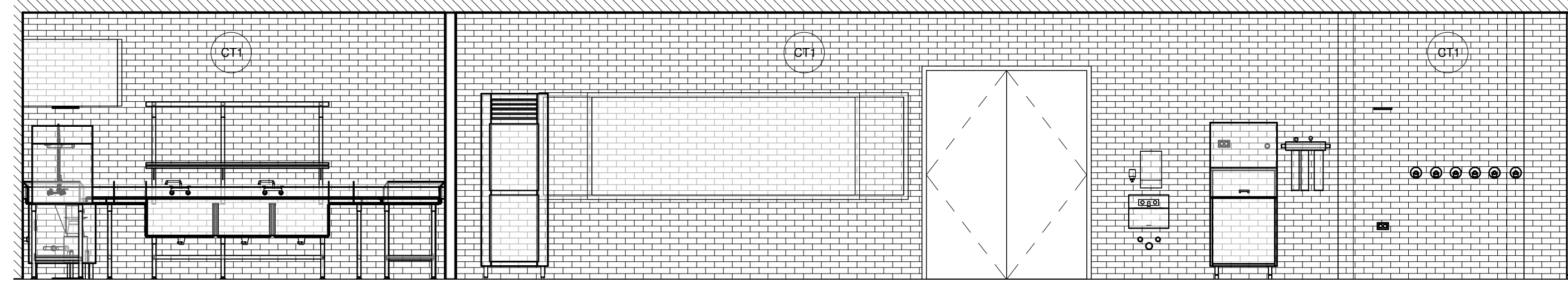
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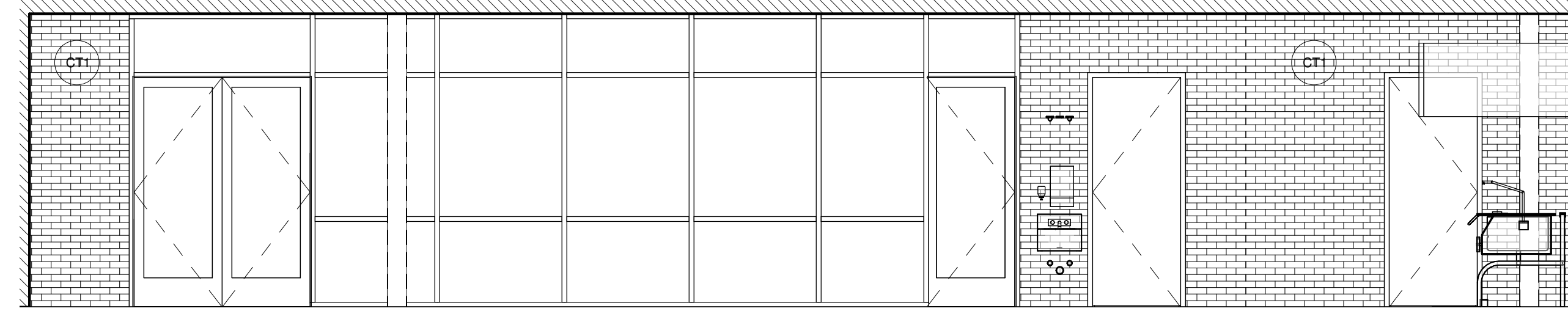
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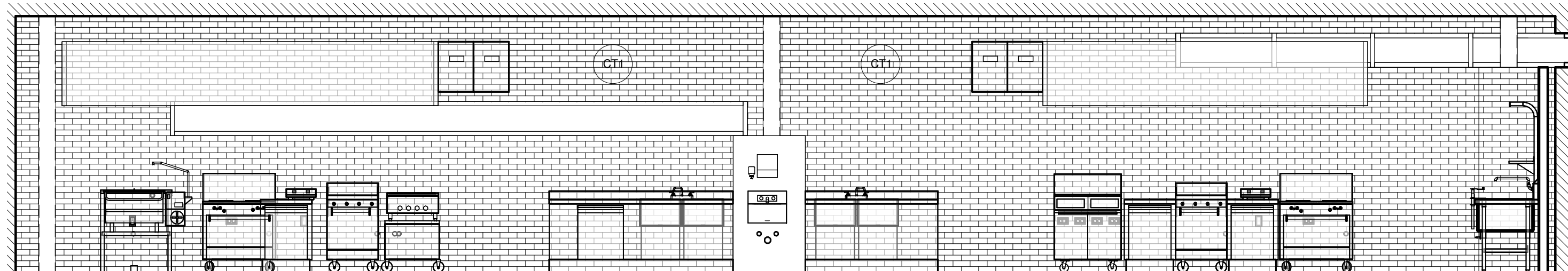
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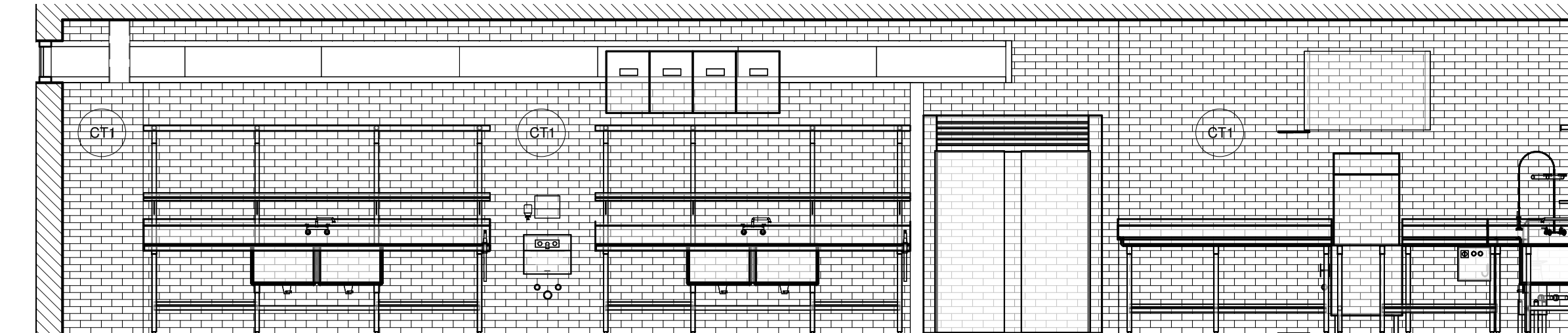
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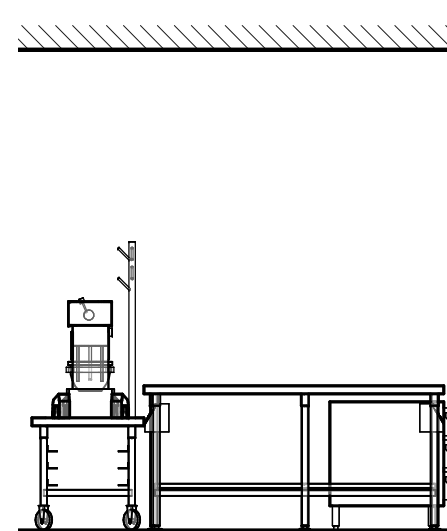
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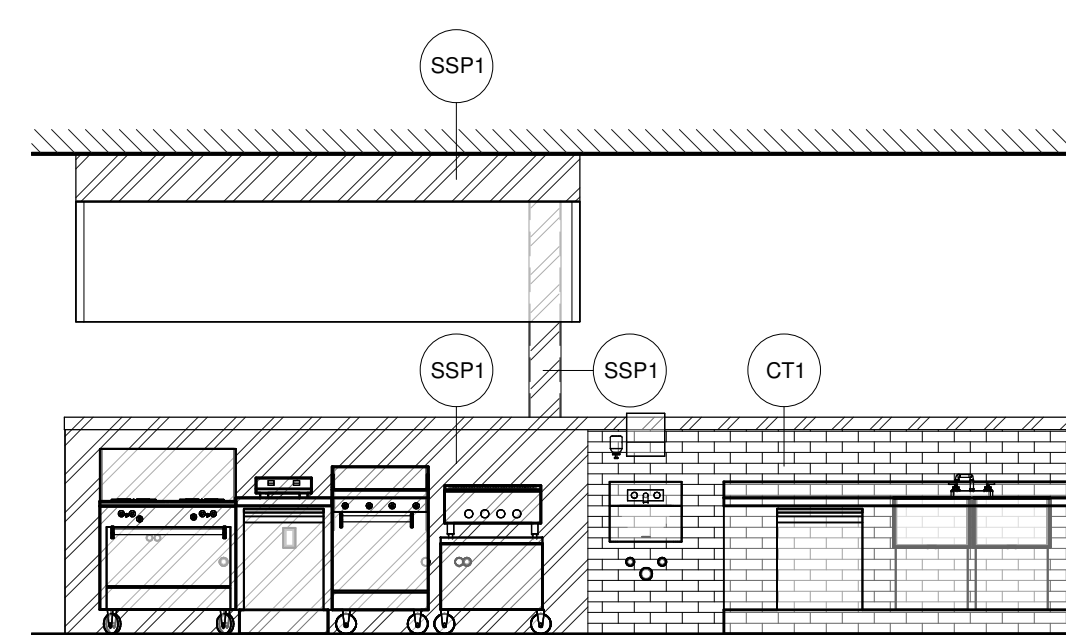
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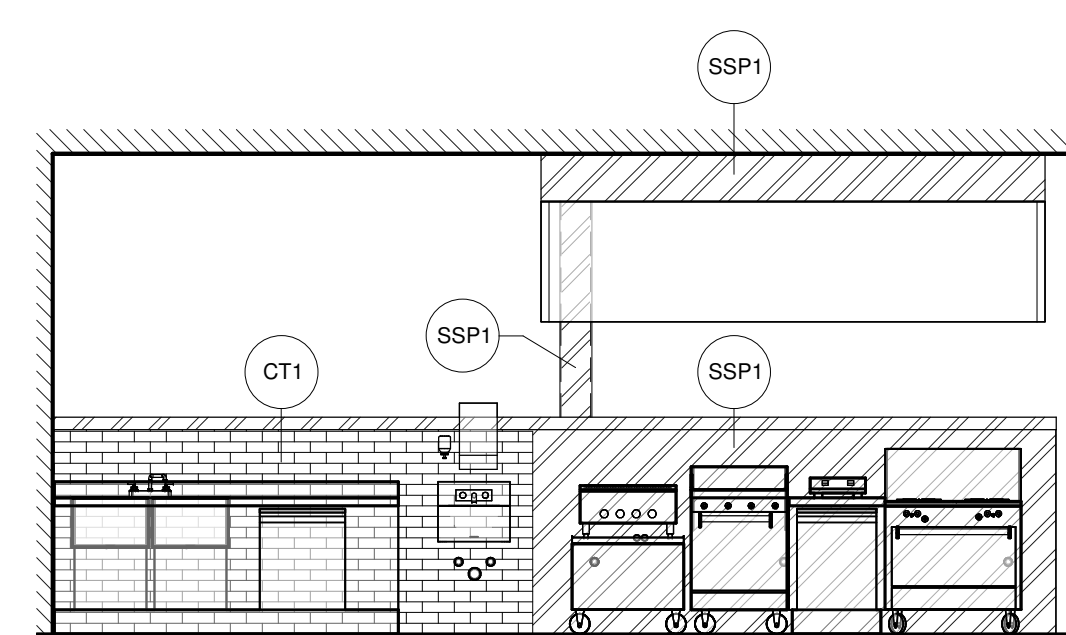
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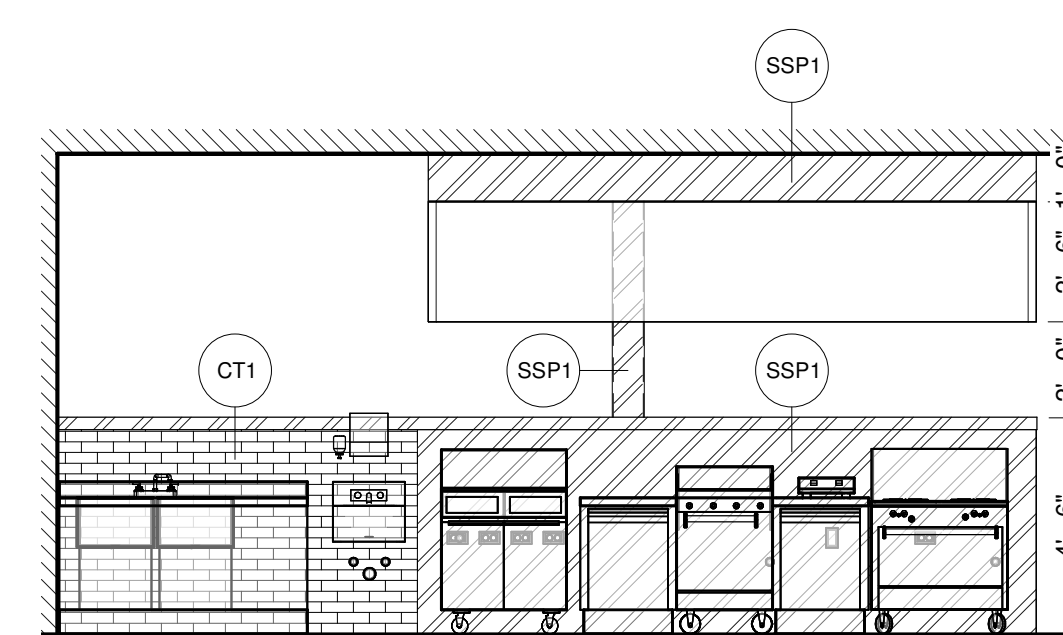
26 Elevation 5
Scale: 1/4" = 1'-0"



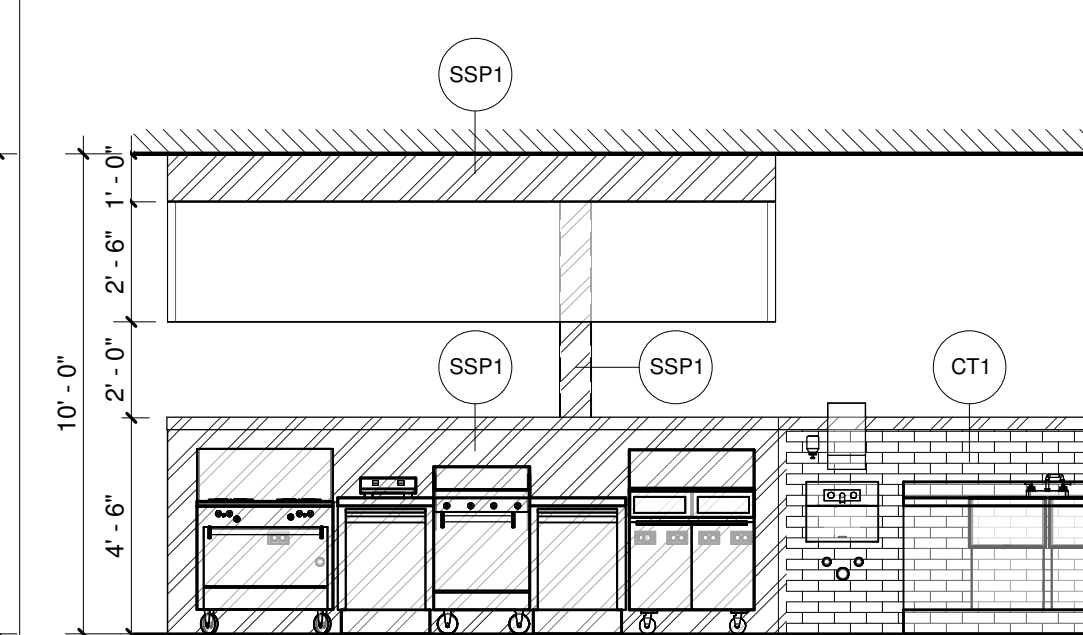
21 Elevation 10
Scale: 1/4" = 1'-0"



16 Elevation 11
Scale: 1/4" = 1'-0"



11 Elevation 12
Scale: 1/4" = 1'-0"



06 Elevation 13
Scale: 1/4" = 1'-0"

GENERAL FINISH NOTES

- ALL PARTIAL HEIGHT WALL SHALL HAVE STAINLESS STEEL CAP WITH 1/8" ROUNDED EDGES 1" THICK PROVIDED.
- ALL GROUTED TILES SHALL BE EPOXY.
- ALL CORNERS SHALL RECEIVE 1 1/2" x 1 1/2" x 4" STAINLESS STEEL CORNER GUARDS
- TILE EDGE PROTECTION SHALL BE USED AT ALL TILE CORNERS AND EXPOSED EDGES
- PAINTE ALL EXPOSED COLUMN WHITE
- ALL COLUMNS WITHIN THE COOKING PREPERATION AREA NEXT TO GAS FLAMES SHALL RECEIVE STAINLESS STEEL COLUMN WRAP
- ALL WINDOW AREAS SHALL RECIEVE TILE SIMILAR TO WALL AT HEAD, JAMB AND SILL

FINISHES LEGEND

Mark	MATERIAL	COLOR	MANUF.	REMARKS
(PNT1)	Paint (field)	WHITE	SHERWIN WILLIAMS	-
(PNT2)	Paint (accent)	WHITE	SHERWIN WILLIAMS	-
(CT1)	Subway Tile	0190 - ARCTIC WHITE (3"x6" SUBWAY TILE)	DAL-TILE	-
(FRP1)	Fiberglass Panel	WHITE	MARLITE	-
(SSP1)	Stainless Steel Panel	STAINLESS STEEL	-	-
(RB1)	Rubber Base	131 - BISQUE	ROPPE	-
(CB1)	Ceramic Base	0190 - ARCTIC WHITE (3"x6" SUBWAY TILE)	DAL-TILE	-
(VC1)	Vinyl faced Acoustical ceiling Tiles	WHITE	ARMSTRONG	-
(QT1)	Quary Tile	OQ42 - ARRID GRAY	DAL-TILE	-
(UF1)	Urethane Flooring System	TBD	BASF MASTER BUILDER SOLUTIONS	-
(CG)	CORNER GUARD	STAINLESS STEEL	-	-
(TEP)	TILE EDGE PROTECTION	STAINLESS STEEL	SCHLUTER SYSTEMS	-
(EGR1)	EPOXY GROUT	TBD	MAPEI	-
(EGR2)	EPOXY GROUT	TBD	MAPEI	-

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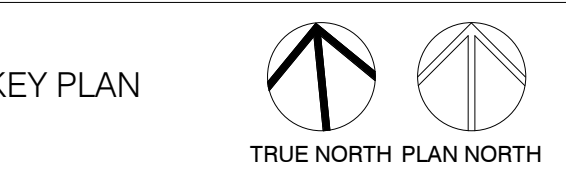
FOOD SERVICE
Foodservice Design Professionals
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A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
1	4/15/20	PERMIT AND BIDDING



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

INTERIOR ELEVATIONS

Drawing Number **A9.02**

4/15/2020 11:28 AM

CONSULTANTS:

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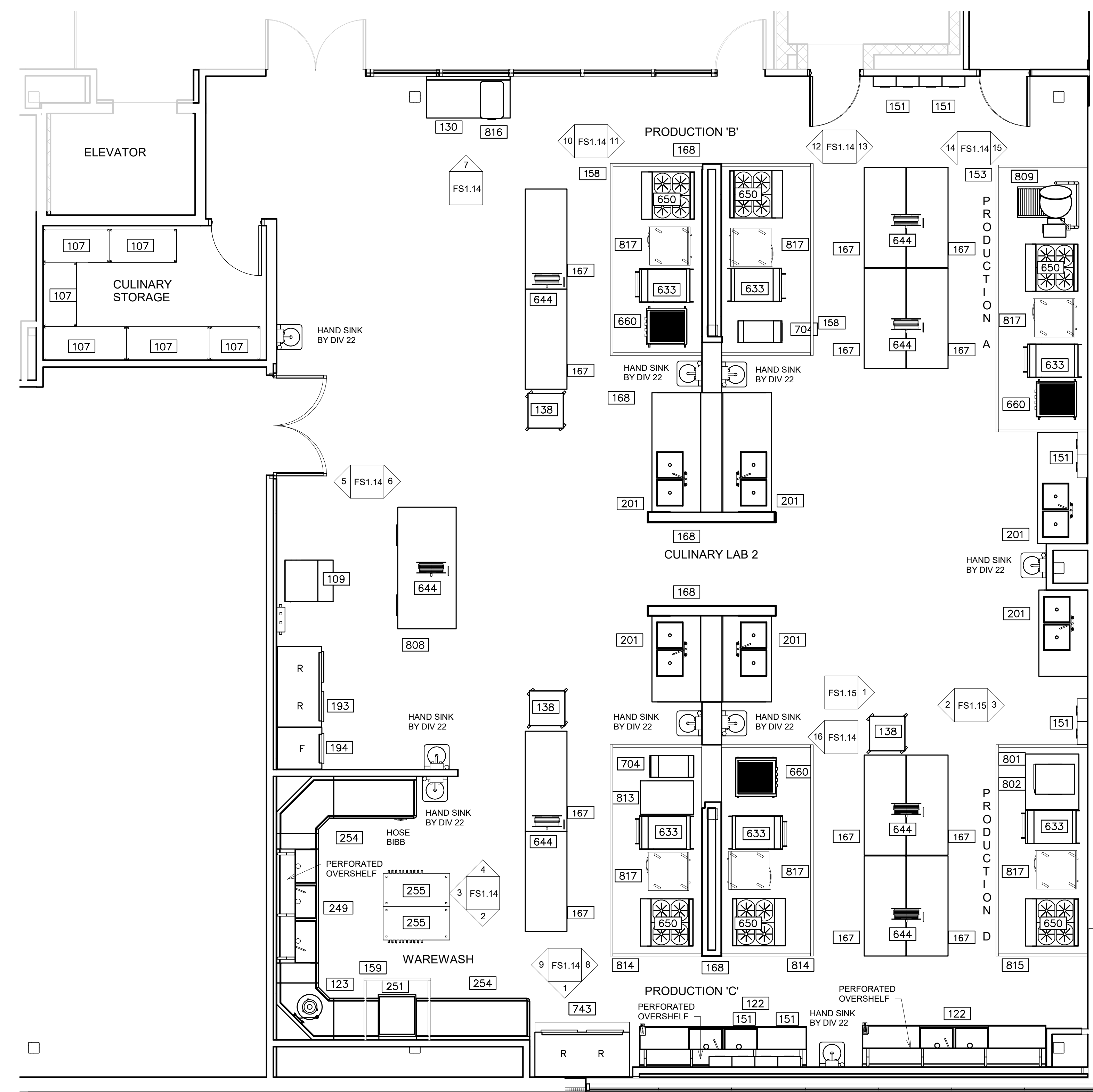
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	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



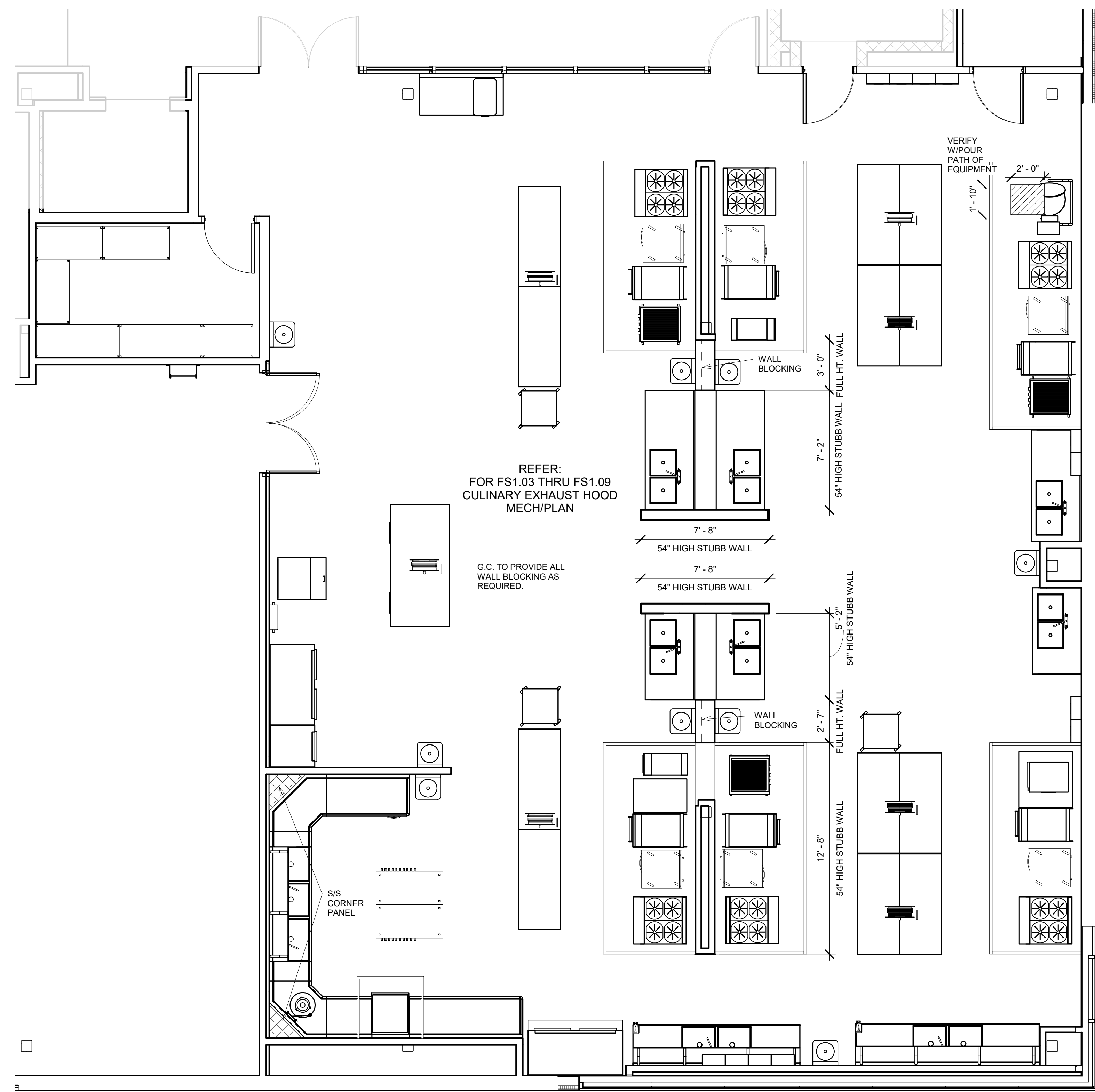
FS1 FOODSERVICE CULINARY
EQUIPMENT PLAN
1/4" = 1'-0"

FOODSERVICE EQUIPMENT SCHEDULE					
FDP ITEM	QTY	FDP DESCRIPTION	FDP REMARKS	MFR	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		HOBERT	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 Lift
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

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	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

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Checked By	MM
Approved By	Approver

FS CULINARY SPEC
COND/MECH PLAN



UL LISTED NUMBER FOR ALL HOODS IS "710"

MANUFACTURER: ACCUREX
 APPROVED EQUAL: AVTEC, MOD-U-SERVE
 MODEL: SUPPLY & EXHAUST MODEL NOTATED IN SPECIFICATIONS.
Clearance requirement: 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.

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

- (1) 40 GALLON KETTLE
- (1) 4 BURNER RANGE
- (1) REFRIGERATED CABINET
- (1) GRIDDLE W/CABINET BASE
- (1) CHARBROILER

HOOD #158 57.75 SQ. FT.; 504LBS
 PROVIDES EXHAUST FOR THE FOLLOWING EQUIPMENT:

- (1) FOUR BURNER RANGE
- (1) REFRIGERATED CABINET
- (1) GRIDDLE W/CABINET BASE
- (1) CHARBROILER

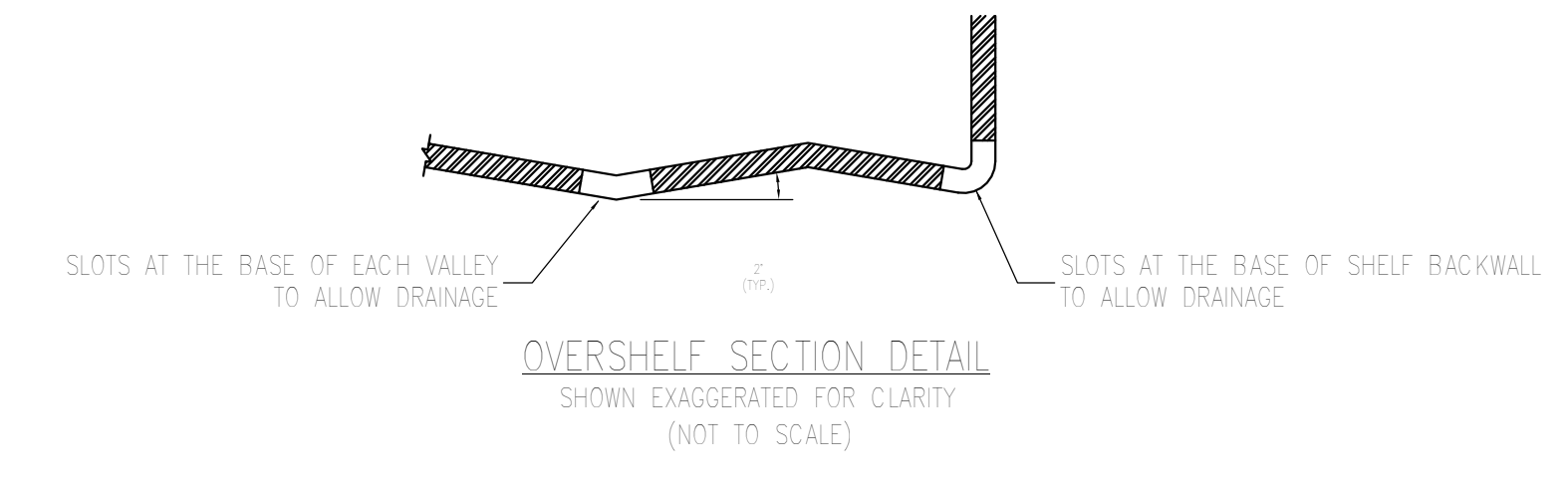
HOOD #814 68.75 SQ. FT.; 600LBS
 PROVIDES EXHAUST FOR THE FOLLOWING EQUIPMENT:

- (1) FRYER
- (1) SPREADER CABINET
- (1) GRIDDLE W/CABINET BASE
- (1) REFRIGERATED CABINET
- (1) 4 BURNER RANGE

HOOD #815 68.75 SQ. FT.; 600LBS
 PROVIDES EXHAUST FOR THE FOLLOWING EQUIPMENT:

- (1) STEAMER
- (1) SPREADER CABINET
- (1) GRIDDLE W/CABINET BASE
- (1) REFRIGERATED CABINET
- (1) 4 BURNER RANGE

CITY OF HOUSTON HOOD REQUIREMENTS
 NONE



PERFORATED OVERSHELF DETAIL
 1 1/2" = 1'-0"

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	04-15-2020	ISSUED FOR PERMIT AND BIDDING



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
**FS CULINARY
EXHAUST HOOD
MECH/PLAN**

Drawing Number
FS1.03

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN)	HOOD CONSTR.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	EXHAUST COLLARS	SUPPLY	TOTAL WEIGHT (LBS)	SECTION LOCATION
1	#181	EXHAUST HOOD	XSDM-181-S	138	66	30	88	88	88	3150	3150	552	SINGLE

HOOD NO.	MARK	FINISH TYPE	BLU-LAMP HGD	FTY	FOOT CATCHER	GREASE FILTERATION DETAILS	LOCATION	FIRE SYSTEM	UTILITY CABINET(S)	CONTROLS			
1	#181	EXHAUST HOOD	ROUNDED	3	8K-42	A-TRACTOR A-TRACTOR	2	2	24	TYPE	SIZE	MODEL	INTERFACE

HOOD OPTIONS:
UL TESTED W/OUT EXHAUST FIRE DAMPER - UL W/ESD
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3" IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
RIGHT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
18" HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKSLASH 14.0" HIGH 120.0" IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN)	HOOD CONSTR.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	EXHAUST COLLARS	SUPPLY	TOTAL WEIGHT (LBS)	SECTION LOCATION
1	#181	EXHAUST HOOD	XSDM-181-S	138	66	30	88	88	88	3150	3150	552	SINGLE

HOOD NO.	MARK	FINISH TYPE	BLU-LAMP HGD	FTY	FOOT CATCHER	GREASE FILTERATION DETAILS	LOCATION	FIRE SYSTEM	UTILITY CABINET(S)	CONTROLS			
1	#181	EXHAUST HOOD	ROUNDED	3	8K-42	A-TRACTOR A-TRACTOR	2	2	24	TYPE	SIZE	MODEL	INTERFACE

HOOD OPTIONS:
UL TESTED W/OUT EXHAUST FIRE DAMPER - UL W/ESD
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3" IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
RIGHT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
18" HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKSLASH 14.0" HIGH 120.0" IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN)	HOOD CONSTR.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	EXHAUST COLLARS	SUPPLY	TOTAL WEIGHT (LBS)	SECTION LOCATION
1	#182	EXHAUST HOOD	XSDM-182-S	138	66	30	88	88	88	3150	3150	552	SINGLE

HOOD NO.	MARK	FINISH TYPE	BLU-LAMP HGD	FTY	FOOT CATCHER	GREASE FILTERATION DETAILS	LOCATION	FIRE SYSTEM	UTILITY CABINET(S)	CONTROLS			
1	#182	EXHAUST HOOD	ROUNDED	3	8K-42	A-TRACTOR A-TRACTOR	2	2	24	TYPE	SIZE	MODEL	INTERFACE

HOOD OPTIONS:
UL TESTED W/OUT EXHAUST FIRE DAMPER - UL W/ESD
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3" IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
RIGHT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
18" HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKSLASH 14.0" HIGH 120.0" IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN)	HOOD CONSTR.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	EXHAUST COLLARS	SUPPLY	TOTAL WEIGHT (LBS)	SECTION LOCATION
1	#181	EXHAUST HOOD	XSDM-181-S	138	66	30	88	88	88	3150	3150	552	SINGLE

HOOD NO.	MARK	FINISH TYPE	BLU-LAMP HGD	FTY	FOOT CATCHER	GREASE FILTERATION DETAILS	LOCATION	FIRE SYSTEM	UTILITY CABINET(S)	CONTROLS			
1	#181	EXHAUST HOOD	ROUNDED	3	8K-42	A-TRACTOR A-TRACTOR	2	2	24	TYPE	SIZE	MODEL	INTERFACE

HOOD OPTIONS:
UL TESTED W/OUT EXHAUST FIRE DAMPER - UL W/ESD
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3" IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
RIGHT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
18" HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKSLASH 14.0" HIGH 120.0" IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN)	HOOD CONSTR.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	HOOD COOR. DIM.	EXHAUST COLLARS	SUPPLY	TOTAL WEIGHT (LBS)	SECTION LOCATION
1	#182	EXHAUST HOOD	XSDM-182-S	138	66	30	88	88	88	3150	3150	552	SINGLE

HOOD NO.	MARK	FINISH TYPE	BLU-LAMP HGD	FTY	FOOT CATCHER	GREASE FILTERATION DETAILS	LOCATION	FIRE SYSTEM	UTILITY CABINET(S)	CONTROLS			
1	#182	EXHAUST HOOD	ROUNDED	3	8K-42	A-TRACTOR A-TRACTOR	2	2	24	TYPE	SIZE	MODEL	INTERFACE

HOOD OPTIONS:
UL TESTED W/OUT EXHAUST FIRE DAMPER - UL W/ESD
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3" IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTERGRAL AIR SPACE - 1" IN THICK - ZERO CLEARANCE
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18" HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKSLASH 14.0" HIGH 120.0" IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

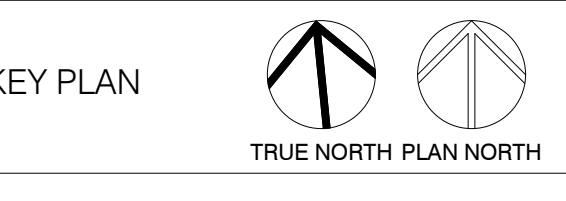
HCC CULINARY AND PASTRY PHASE 2
#181 EXHAUST HOOD
ACCUREX
ACCUREX ENGINEERING
11111 ACCUREX DRIVE, HOUSTON, TX 77036
TEL: 281-444-1111
WWW.ACCUREX.COM

HCC CULINARY AND PASTRY PHASE 2
#182 EXHAUST HOOD
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TEL: 281-444-1111
WWW.ACCUREX.COM

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

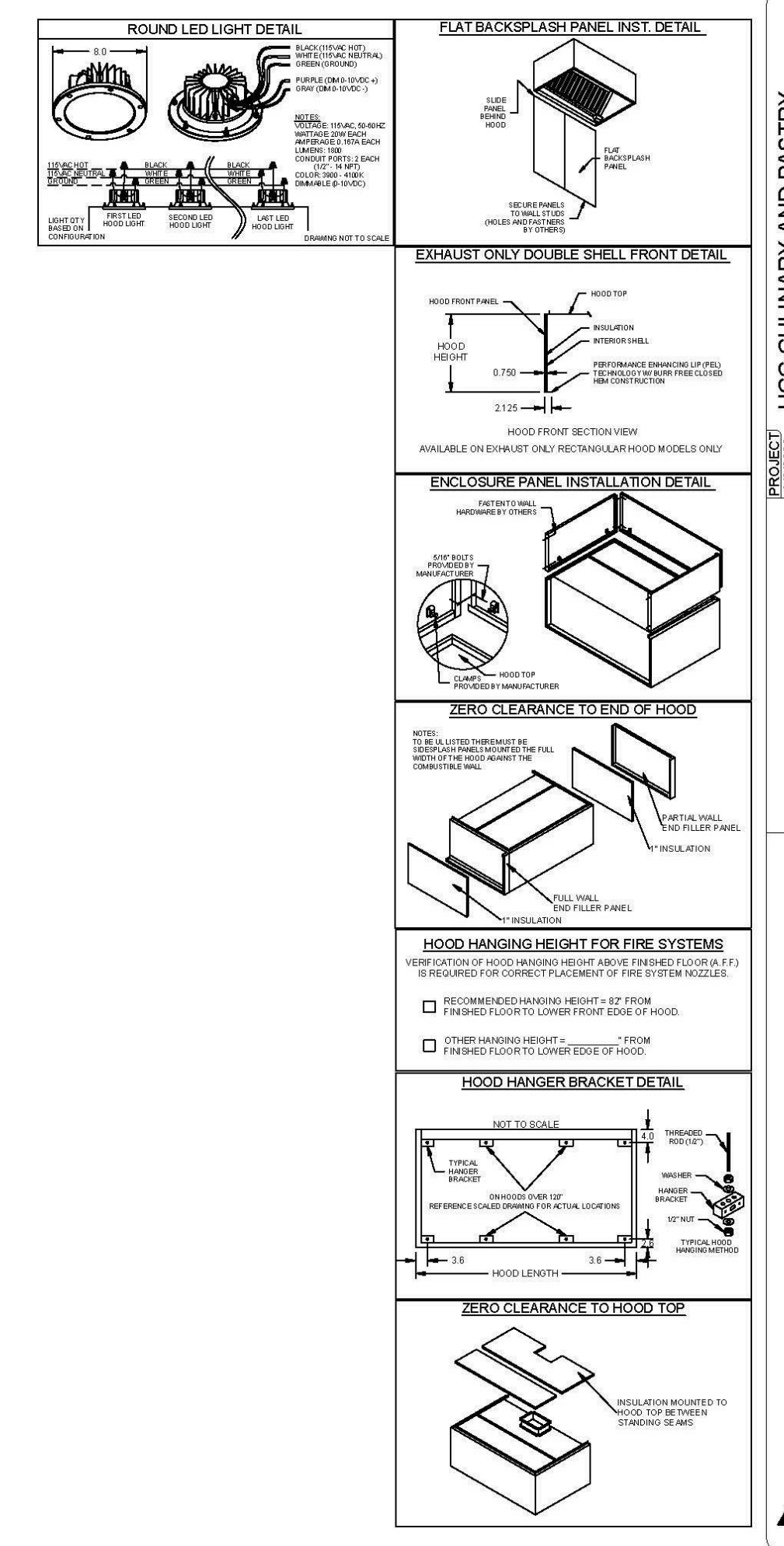
Drawing Title
FS CULINARY EXHAUST HOOD MECH/PLAN

Drawing Number
FS1.04

HOOD INFORMATION		HOOD DIMENSIONS (IN)				COOKING UNIT		EXHAUST COLLAR			SUPPLY		TOTAL	SECTION		
HOOD NO.	MARK	MODEL	LENGTH	WIDTH	HEIGHT	COOKING UNIT	WIDTH	DEPTH	DA	CEM	SP	MAJ. CDM	AC. CDM	WEIGHT LBS.	LOCATION	
1	#115 EXHAUST HOOD	JGDW-153-S	152	66	30	88	88	18	17	17	17	153	17	17	608	SINGLE

HOOD INFORMATION		LIGHTING DETAILS		GREASE FILTRATION DETAILS		UTILITY CABINETS		CONTROLS	
HOOD NO.	MARK	FIXTURE TYPE	FOOT CANT	TYPE	MODEL	TYPE	MODEL	TYPE	MODEL
1	#115 EXHAUST HOOD	ROUND LED	3	83.42	X-TRACTOR	2	10	20	

HOOD OPTIONS:
UL LISTED BY OUT EXHAUST FIRE DAMPER - UL #26257
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3 IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE
RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE
18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
BACKGLASS 54 IN HIGH 1000 IN LONG
PERFORMANCE ENHANCING LEAF-FILL TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH

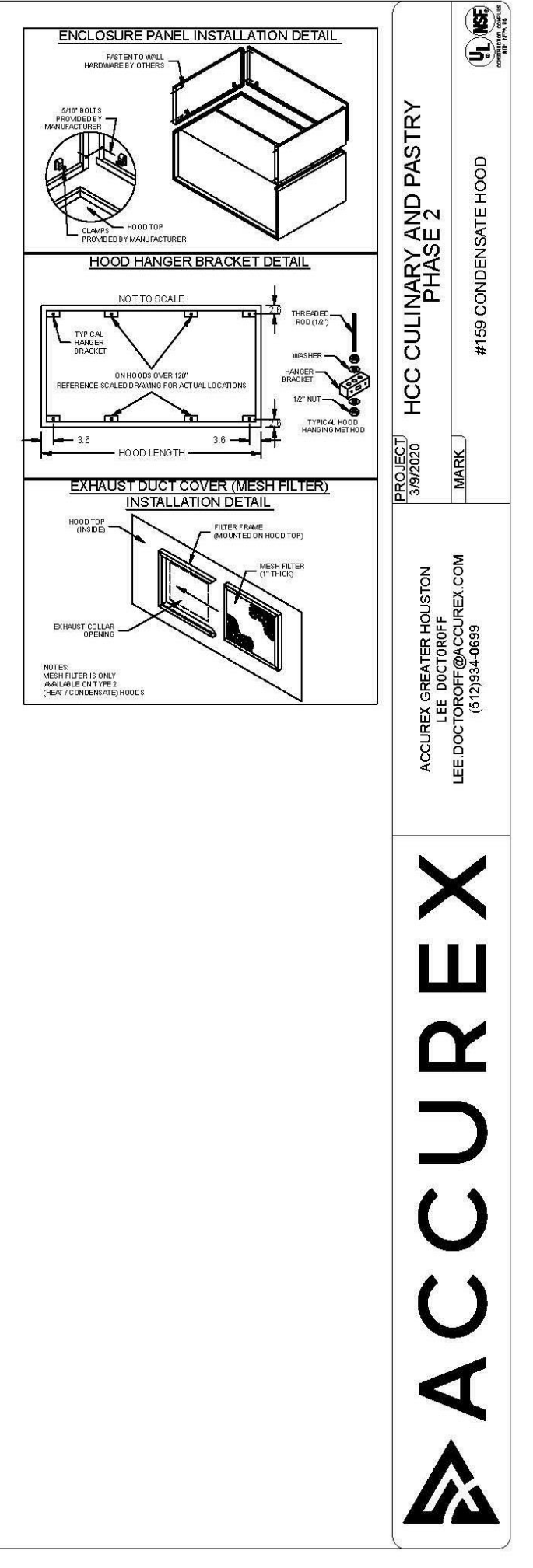


PROJECT: 19012 FS CULINARY ARTS SHELL INTERIOR BUILDOUT
 SHEET: FS1.04
 HCC CULINARY AND PASTRY PHASE 2
 #115 EXHAUST HOOD
 ACCUREX
 ACCUREX CONSULTING SOLUTION
 LEE.DOC@ACCUREX.COM
 (713) 622-0120

HOOD INFORMATION		HOOD DIMENSIONS (IN)				COOKING UNIT		EXHAUST COLLAR			SUPPLY		TOTAL	SECTION		
HOOD NO.	MARK	MODEL	LENGTH	WIDTH	HEIGHT	COOKING UNIT	WIDTH	DEPTH	DA	CEM	SP	MAJ. CDM	AC. CDM	WEIGHT LBS.	LOCATION	
1	#159 CONDENSATE HOOD	KD1-48-S	48.00	48	24	88	88	18	17	17	17	153	17	17	144	SINGLE

HOOD INFORMATION		LIGHTING DETAILS		GREASE FILTRATION DETAILS		UTILITY CABINETS		CONTROLS	
HOOD NO.	MARK	FIXTURE TYPE	FOOT CANT	TYPE	MODEL	TYPE	MODEL	TYPE	MODEL
1	#159 CONDENSATE HOOD	ROUND LED	0	600					

HOOD OPTIONS:
18 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
MESH FILTER(S) INCLUDED TO COVER DUCT OPENING(S)

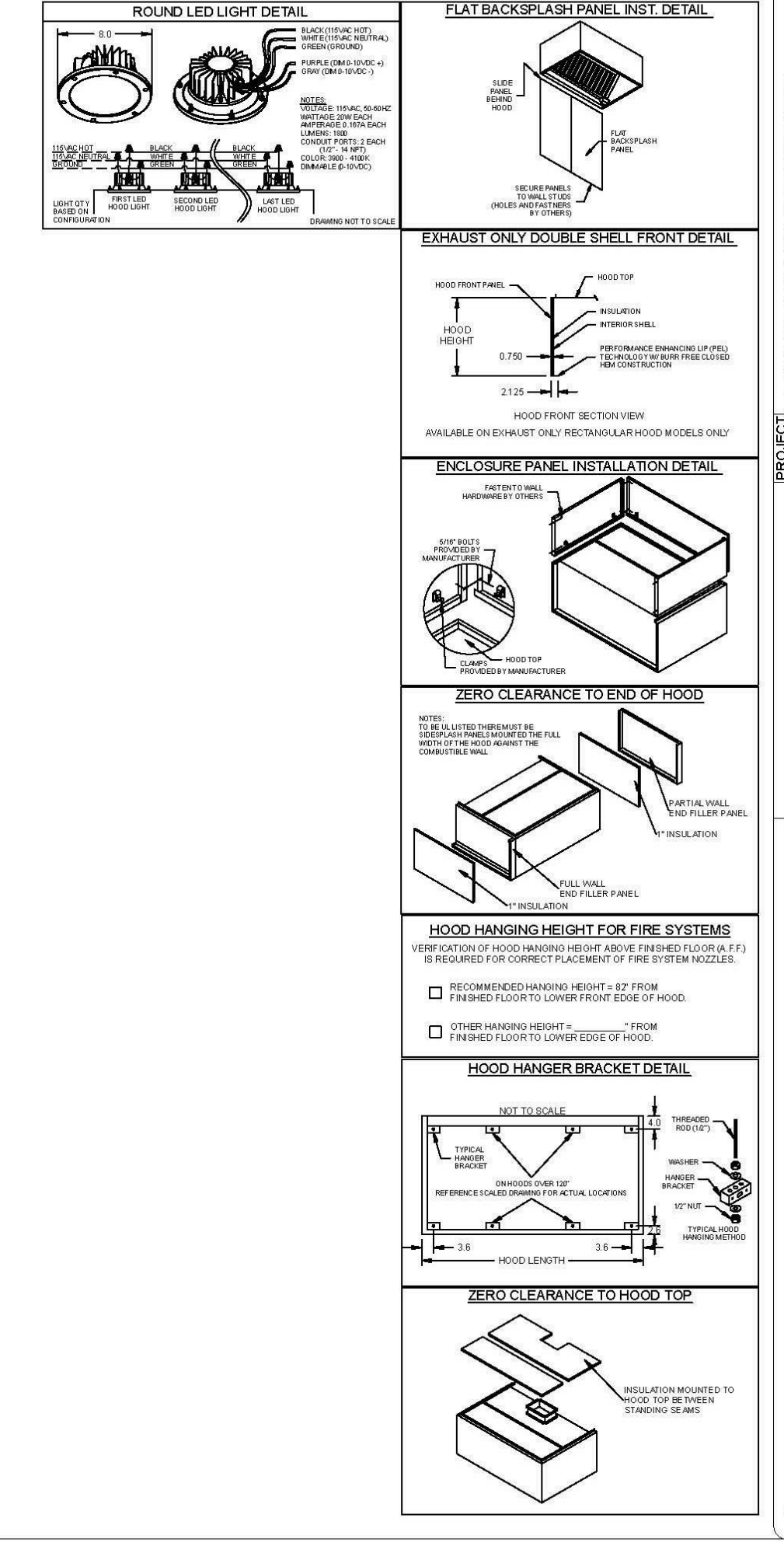


PROJECT: 19012 FS CULINARY ARTS SHELL INTERIOR BUILDOUT
 SHEET: FS1.04
 HCC CULINARY AND PASTRY PHASE 2
 #159 CONDENSATE HOOD
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 (713) 622-0120

HOOD INFORMATION		HOOD DIMENSIONS (IN)				COOKING UNIT		EXHAUST COLLAR			SUPPLY		TOTAL	SECTION		
HOOD NO.	MARK	MODEL	LENGTH	WIDTH	HEIGHT	COOKING UNIT	WIDTH	DEPTH	DA	CEM	SP	MAJ. CDM	AC. CDM	WEIGHT LBS.	LOCATION	
1	#114.2 EXHAUST HOOD	JGDW-153-S	152	66	30	88	88	18	17	17	17	153	17	17	608	SINGLE

HOOD INFORMATION		LIGHTING DETAILS		GREASE FILTRATION DETAILS		UTILITY CABINETS		CONTROLS	
HOOD NO.	MARK	FIXTURE TYPE	FOOT CANT	TYPE	MODEL	TYPE	MODEL	TYPE	MODEL
1	#114.2 EXHAUST HOOD	ROUND LED	3	83.42	X-TRACTOR	2	10	20	

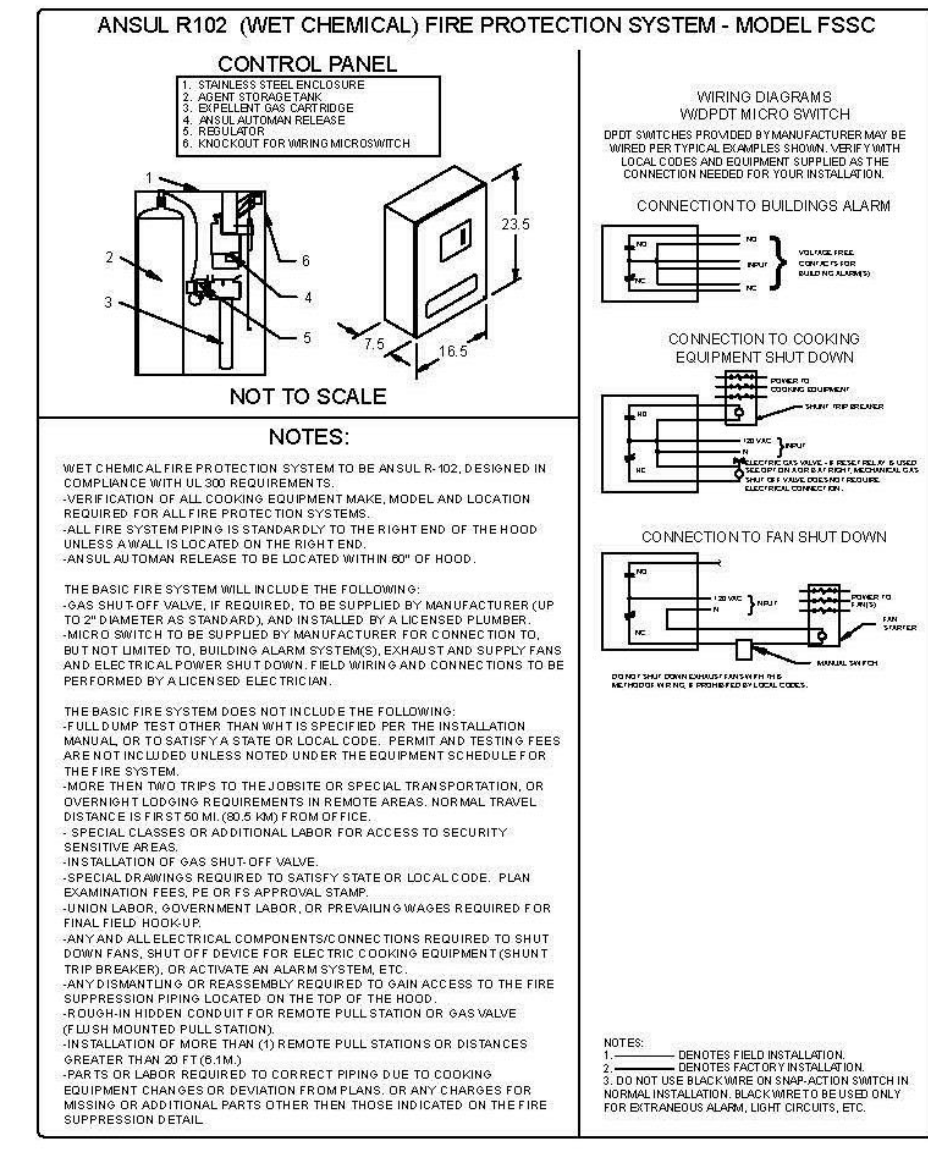
HOOD OPTIONS:
UL LISTED BY OUT EXHAUST FIRE DAMPER - UL #26257
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3 IN WIDE
FINISHED BACK - FULL LENGTH
LEFT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE
RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK - ZERO CLEARANCE
18 IN HIGH CEILING ENCLOSURES - FRONT BACK LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLAR(S)
BACKGLASS 54 IN HIGH 1000 IN LONG
PERFORMANCE ENHANCING LEAF-FILL TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



PROJECT: 19012 FS CULINARY ARTS SHELL INTERIOR BUILDOUT
 SHEET: FS1.04
 HCC CULINARY AND PASTRY PHASE 2
 #114.2 EXHAUST HOOD
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 ACCUREX CONSULTING SOLUTION
 LEE.DOC@ACCUREX.COM
 (713) 622-0120

FIRE SYSTEM INFORMATION							
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 158.1	ANSUL R102 WET CHEMICAL	REMOTE MOUNTED	11 UTILIZED 1 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#158.1 EXHAUST HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES
 FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 METAL BLOWOFF CAPS - INCLUDED
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 HOOD SUPPRESSION AGENT - INCLUDED - 3 GAL. - (1) 3.0 TANK(S)
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

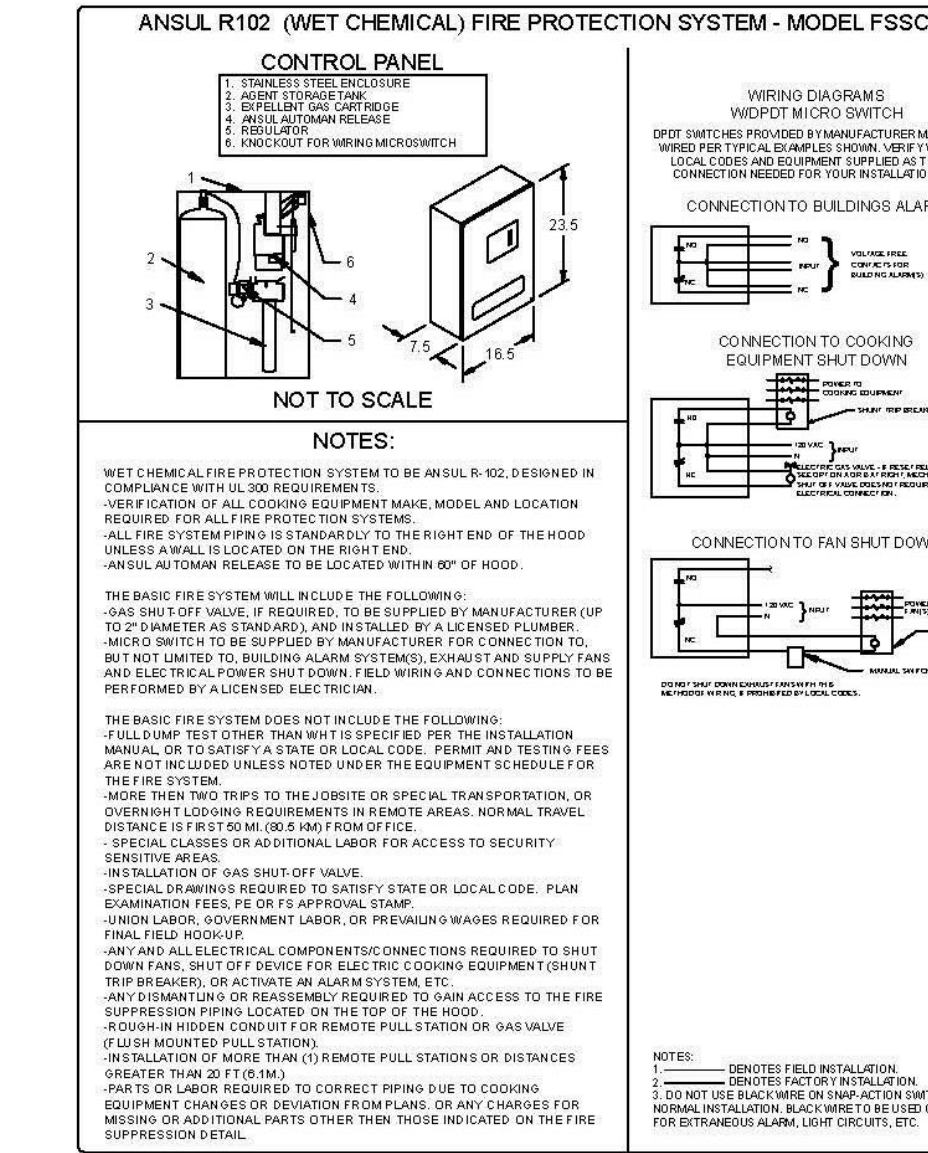


NOTES:
 WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R102, AS DESIGNED IN COMPLIANCE WITH UL 170B REQUIREMENTS.
 ALL FIRE SYSTEM PARTS TO BE MANUFACTURED TO THE RIGHT END OF THE HOOD HOODS OR OTHER LOCATION AS SPECIFIED BY THE MANUFACTURER.
 THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
 - 2" GAS VALVE - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 - HOOD SUPPRESSION AGENT - INCLUDED - 3 GAL. - (1) 3.0 TANK(S)
 - REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS
 - CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 - METAL BLOWOFF CAPS - INCLUDED
 - GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 - HOOD SUPPRESSION AGENT - INCLUDED - 3 GAL. - (1) 3.0 TANK(S)
 - REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

ACCUREX
 PROJECT: HCC CULINARY AND PASTRY PHASE 2
 #151 FSS 158.1
 ACCUREX (P) 281.4689
 LEE.DOCUTOFF@ACCUREX.COM
 (713) 281-4689

FIRE SYSTEM INFORMATION							
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 153	ANSUL R102 WET CHEMICAL	REMOTE MOUNTED	12 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#153 EXHAUST HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES
 FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1
 METAL BLOWOFF CAPS - INCLUDED
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 HOOD SUPPRESSION AGENT - INCLUDED - 6 GAL. - (2) 3.0 TANK(S)
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



NOTES:
 WET CHEMICAL FIRE PROTECTION SYSTEM TO BE ANSUL R102, AS DESIGNED IN COMPLIANCE WITH UL 170B REQUIREMENTS.
 ALL FIRE SYSTEM PARTS TO BE MANUFACTURED TO THE RIGHT END OF THE HOOD HOODS OR OTHER LOCATION AS SPECIFIED BY THE MANUFACTURER.
 THE BASIC FIRE SYSTEM WILL INCLUDE THE FOLLOWING:
 - 2" GAS VALVE - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 - HOOD SUPPRESSION AGENT - INCLUDED - 6 GAL. - (2) 3.0 TANK(S)
 - REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS
 - CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 - K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1
 - METAL BLOWOFF CAPS - INCLUDED
 - GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2", (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 - HOOD SUPPRESSION AGENT - INCLUDED - 6 GAL. - (2) 3.0 TANK(S)
 - REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS

ACCUREX
 PROJECT: HCC CULINARY AND PASTRY PHASE 2
 #151 FSS 153
 ACCUREX (P) 281.4689
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STRUCTURAL ENGINEERS
 Daily + Associates
 (713) 337-8881
FOOD SERVICE
 Foodservice Design Professionals
 (281) 350-2323

PROFESSIONAL SEAL:

A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

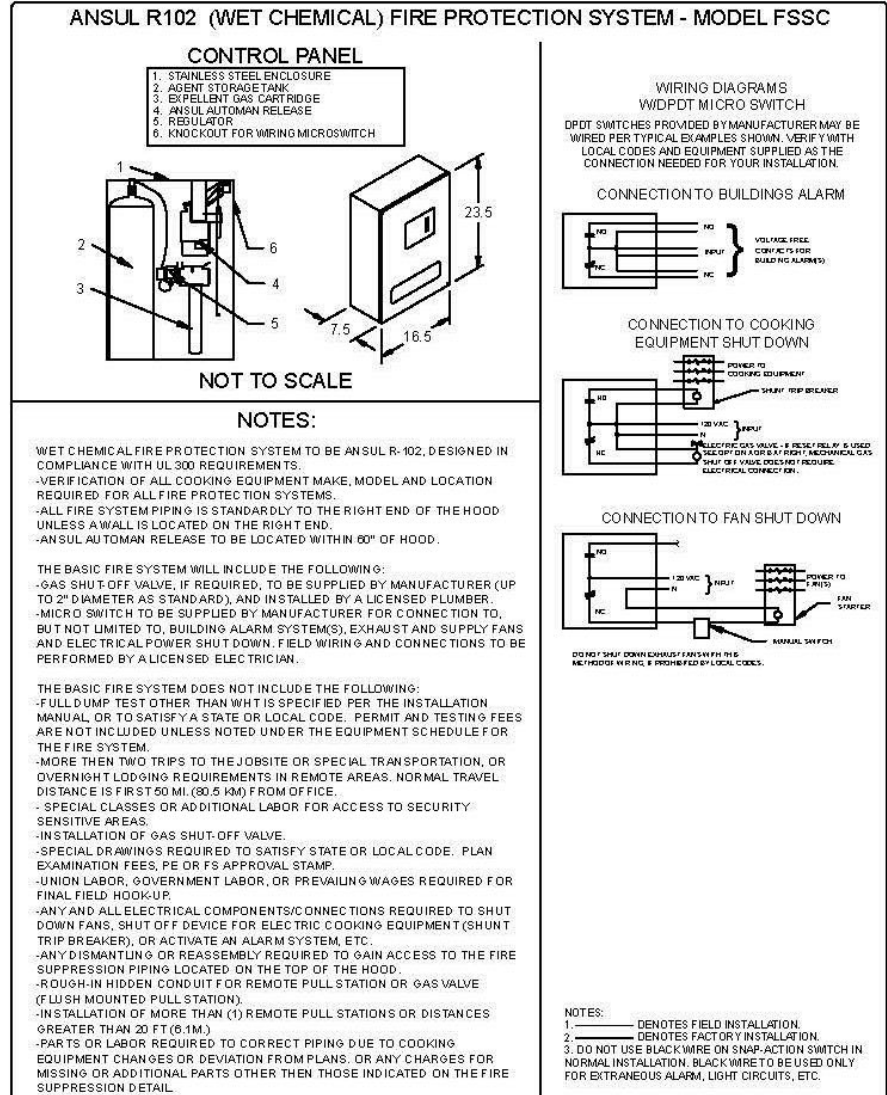
Drawing Title
FS CULINARY EXHAUST HOOD MECH/PLAN

Drawing Number
FS1.05



FIRE SYSTEM INFORMATION							
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 814.1	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	14 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#614.1 EXHAUST HOOD SECTION 1

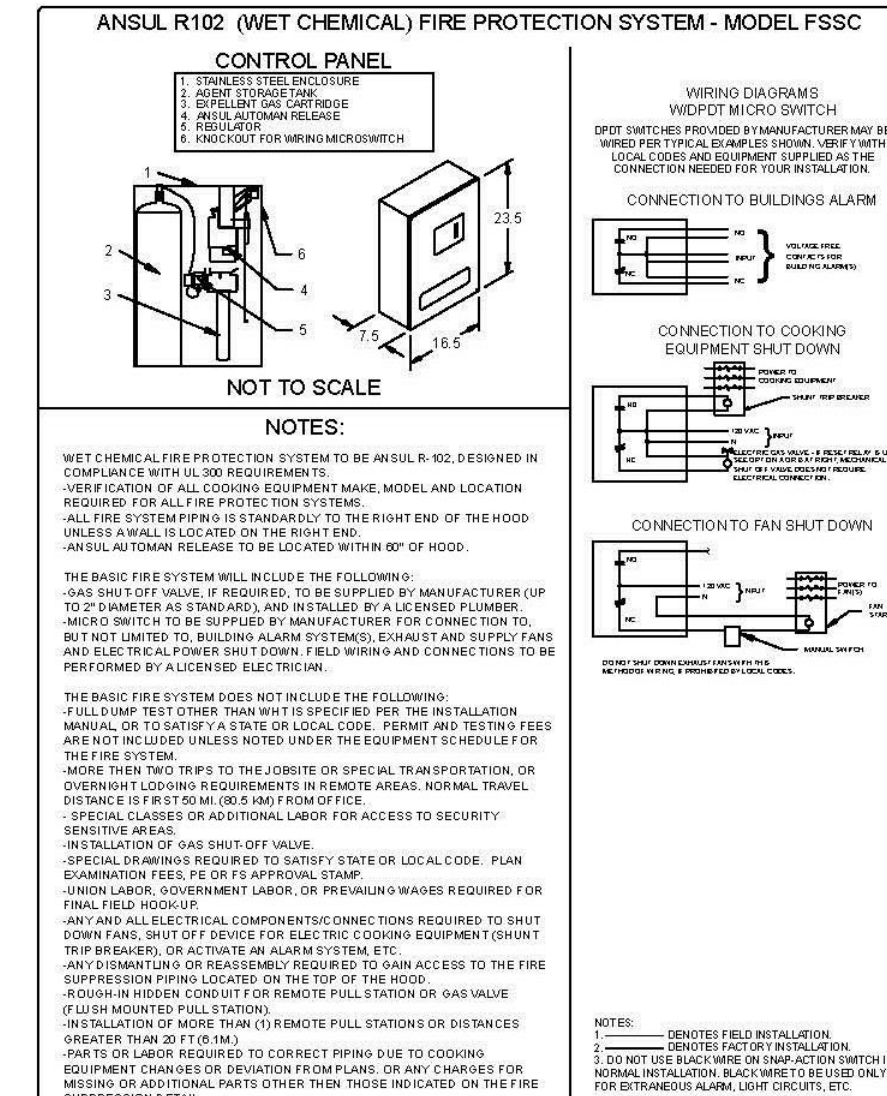
FIRE SYSTEM OPTIONS AND ACCESSORIES
 FULL INSTALLATION (INCLUDES PRE-PIPED HOODS) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1
 METAL BLOW-OFF CAPS - INCLUDED
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 HOOD SUPPRESSION AGENT - INCLUDED - 5.0 GAL. - (2) 3.0 TANK(S)
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



PROJECT: 3/30/2020 HCC CULINARY AND PASTRY PHASE 2
 ACCUREX GREATER HOUSTON LEE DOUGLASS ST. HOUSTON, TX 77002
 LEE.DOO@ACCUREX.COM (512)934-0899
 MARK: #151 FSS 814.1
ACCUREX

FIRE SYSTEM INFORMATION							
MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 158.2	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	10 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSIBLE LINK	#158.2 EXHAUST HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES
 FULL INSTALLATION (INCLUDES PRE-PIPED HOODS) WITH DETECTION AND FACTORY COORDINATED INSTALL)
 CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED
 K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1
 METAL BLOW-OFF CAPS - INCLUDED
 GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200
 HOOD SUPPRESSION AGENT - INCLUDED - 5.0 GAL. - (1) 3.0 TANK(S)
 REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



PROJECT: 3/30/2020 HCC CULINARY AND PASTRY PHASE 2
 ACCUREX GREATER HOUSTON LEE DOUGLASS ST. HOUSTON, TX 77002
 LEE.DOO@ACCUREX.COM (512)934-0899
 MARK: #151 FSS 158.2
ACCUREX



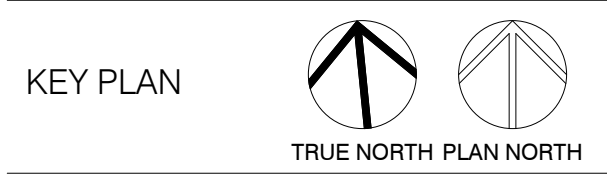
AUTOARCH Architects, LLC.
 6200 Savoy, Suite 100
 Houston, TX 77036
 (713) 952-3366
 (713) 952-5002
 www.autoarch.net

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 Infrastructure Associates
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STRUCTURAL ENGINEERS
 Daily + Associates
 (713) 337-8881
FOODSERVICE
 Foodservice Design Professionals
 (281) 350-2323

PROFESSIONAL SEAL:

A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
FS CULINARY EXHAUST HOOD MECH/PLAN

Drawing Number
FS1.06





HOUSTON COMMUNITY COLLEGE
CENTRAL CAMPUS

AUTOARCH Architects, LLC.

6200 Savoy, Suite 100
Houston, TX 77036
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www.autoarch.net



CONSULTANTS:

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(281) 350-2323

PROFESSIONAL SEAL:

A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 515	ANSUL R102 WET CHEMICAL	REMOTE MOUNTED	11 UTILIZED 11 AVAILABLE		CONTINUOUS	FUSEBLE LINK	#815 EXHAUST HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)

CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED

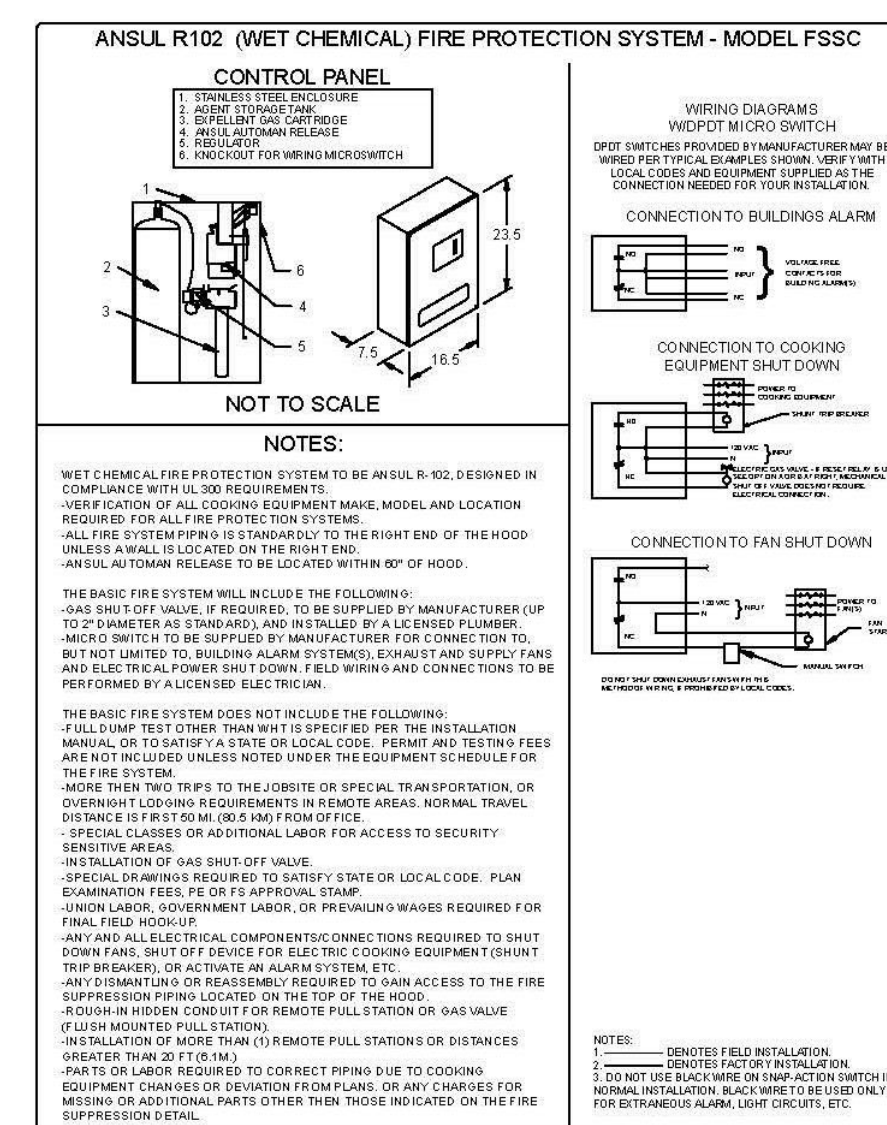
K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1

METAL BLOW-OFF CAPS - INCLUDED

GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200

HOOD SUPPRESSION AGENT - INCLUDED - 3-GAL. - (1) 3.0 TANK(S)

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



ACCUREX
 PROJECT #300000 HCC CULINARY AND PASTRY PHASE 2 #151 FSS 515
 ACCUREX GREATER HOUSTON LEE.DOC@ACCUREX.COM (713) 954-0989

MARK	MODEL	LOCATION	FLOW POINTS		SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
			HOODS	PCU			
#151 FSS 514.2	ANSUL R102 WET CHEMICAL	REMOTE MOUNTED	14 UTILIZED 22 AVAILABLE		CONTINUOUS	FUSEBLE LINK	#814.2 EXHAUST HOOD SECTION 1

FIRE SYSTEM OPTIONS AND ACCESSORIES

FULL INSTALLATION (INCLUDES PRE-PIPED HOOD(S) WITH DETECTION AND FACTORY COORDINATED INSTALL)

CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED

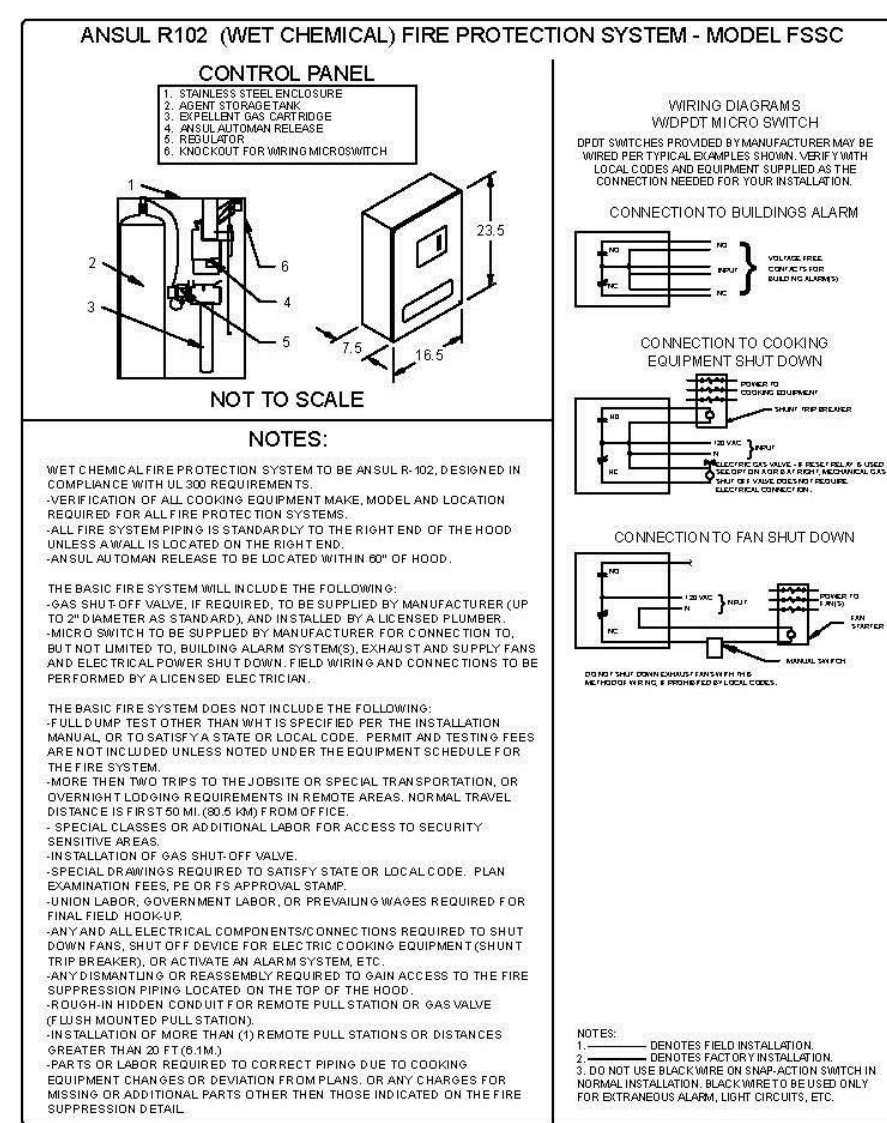
K-CLASS PORTABLE FIRE EXTINGUISHER - QTY OF 1

METAL BLOW-OFF CAPS - INCLUDED

GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200

HOOD SUPPRESSION AGENT - INCLUDED - 6-GAL. - (2) 3.0 TANK(S)

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



ACCUREX
 PROJECT #300000 HCC CULINARY AND PASTRY PHASE 2 #151 FSS 514.2
 ACCUREX GREATER HOUSTON LEE.DOC@ACCUREX.COM (713) 954-0989

KEY PLAN TRUE NORTH PLAN NORTH

Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
FS CULINARY EXHAUST HOODS MECH/PLAN

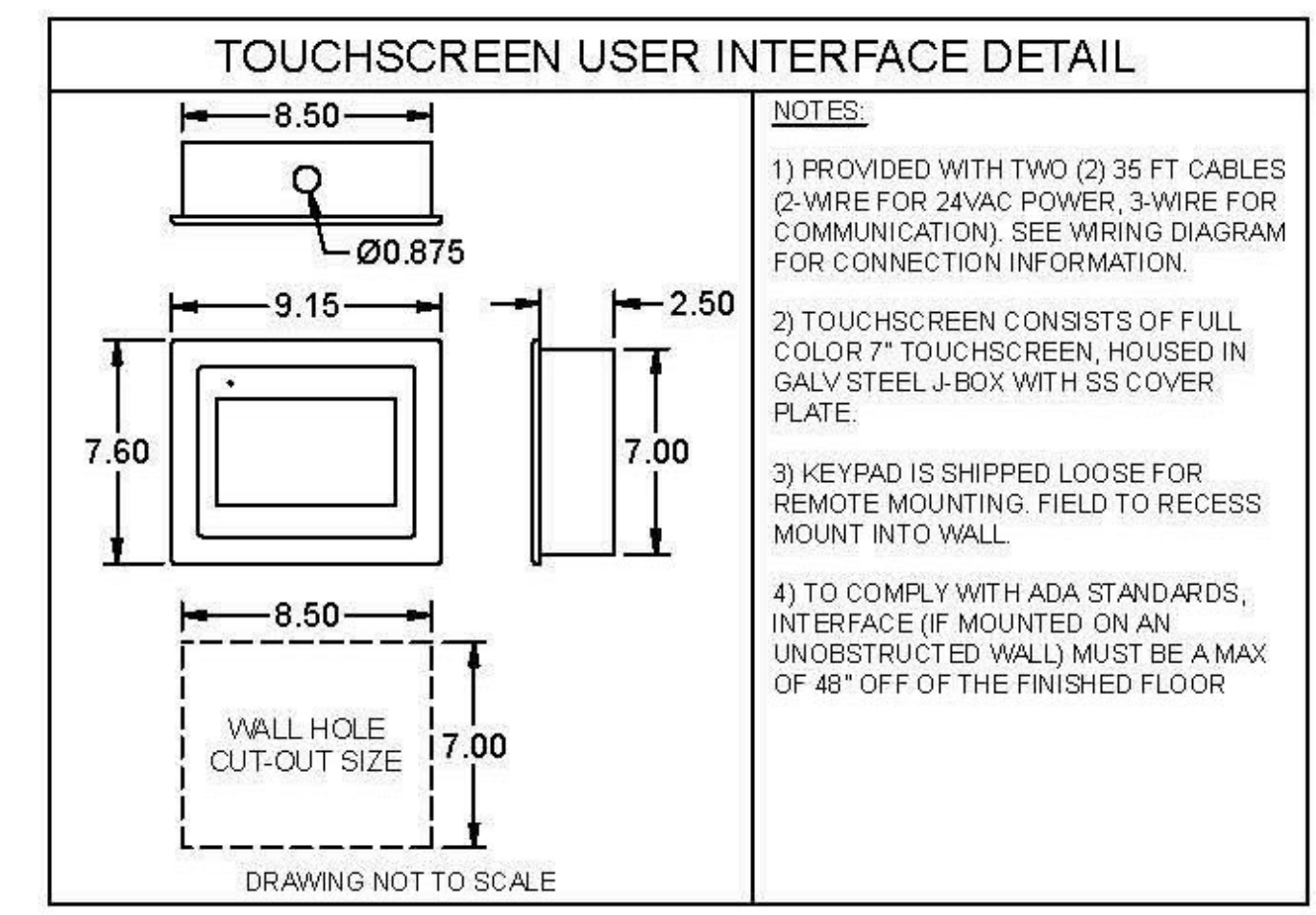
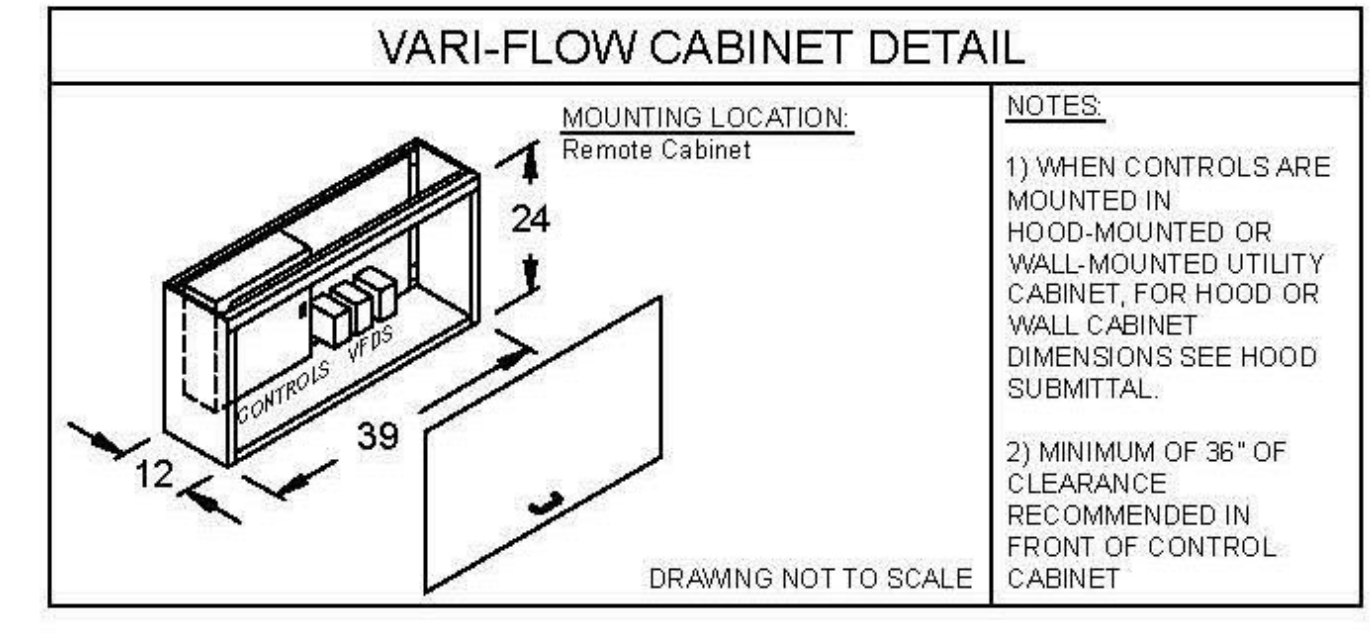
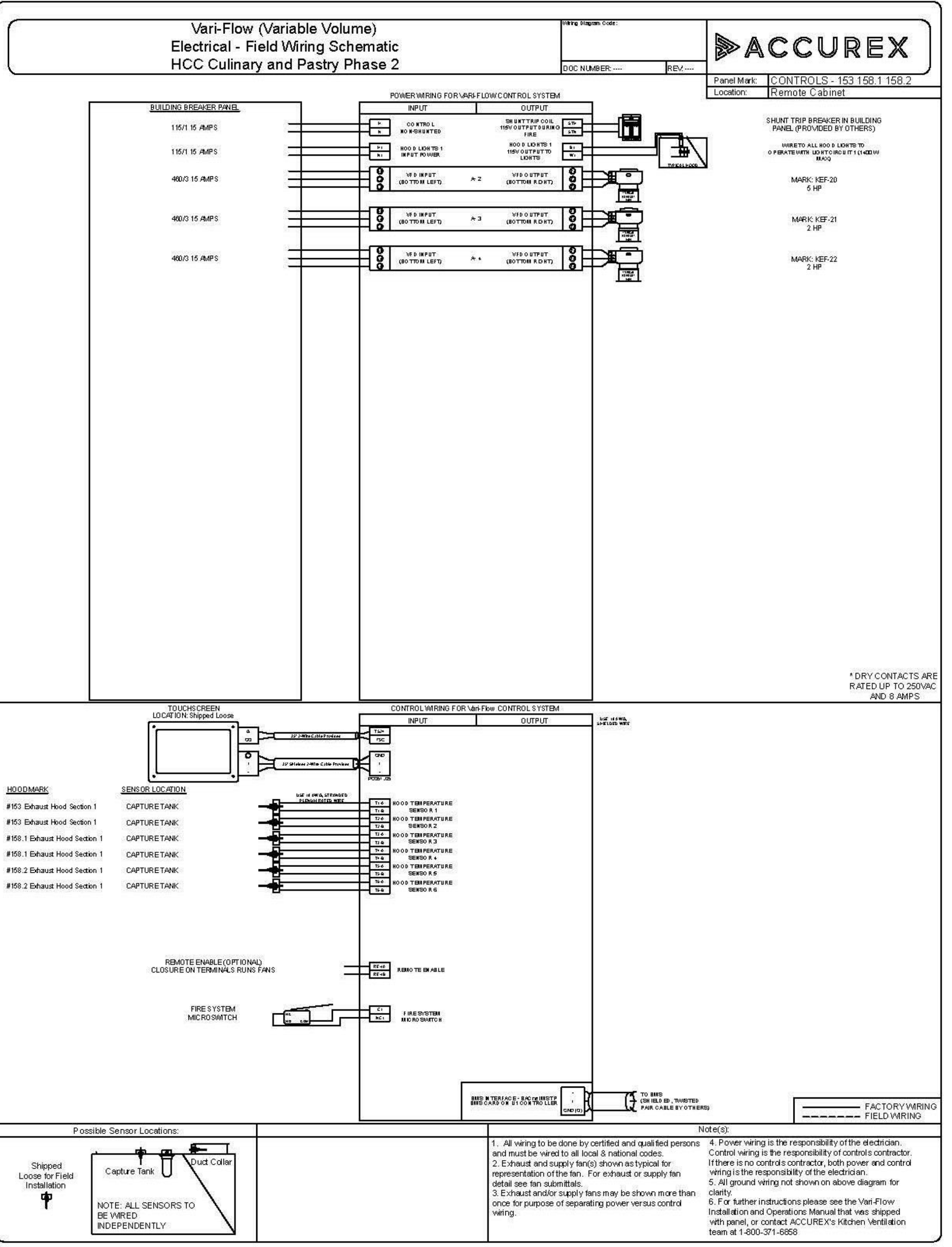
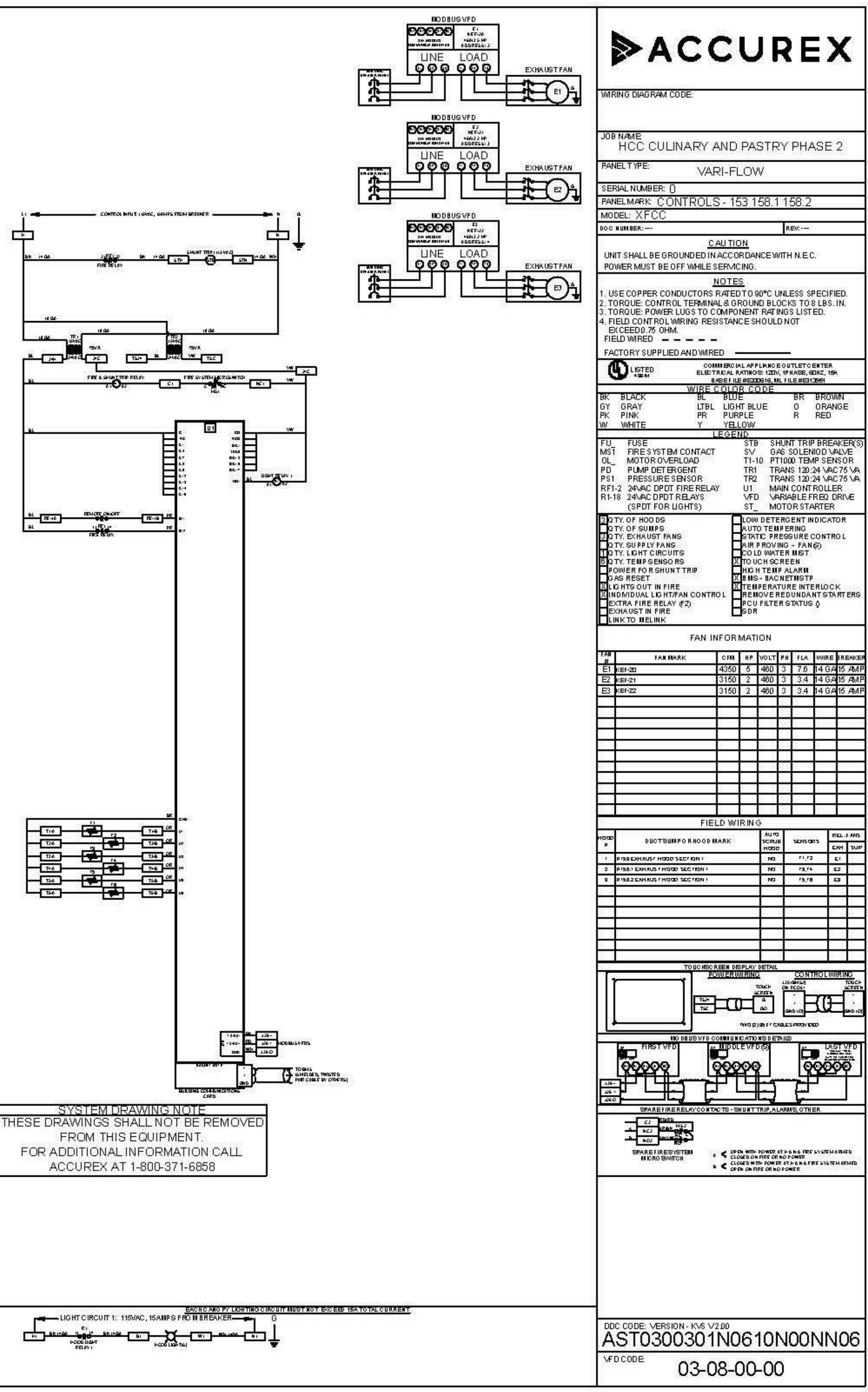
Drawing Number **FS.01.07**



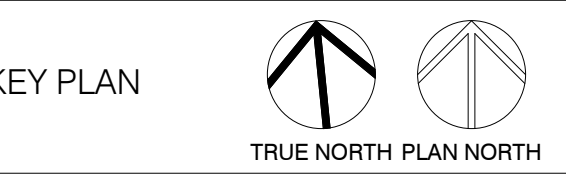
#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

CONTROL INFORMATION		ELECTRICAL CONTROL PACKAGE		USER INTERFACE		FANS CONTROLLED				
MARK		MODEL	LOCATION	TYPE	LOCATION	MARK	TYPE	VOLT	PHASE	HP
CONTROLS - 153.158.1.158.2		VARI-FLOW	REMOTE VAV CABINET	TOUCH SCREEN	SHIP LOOSE	KEF-20	EXHAUST	460	3	5
						KEF-21	EXHAUST	460	3	2
						KEF-22	EXHAUST	460	3	2

CONTROL FEATURES
LIGHTS OUT IN FIRE
BUILDING MANAGEMENT WITH BACNET MSTP



PROJECT: HCC CULINARY AND PASTRY PHASE 2
 DATE: 3/9/2020
 MARK: CONTROLS - 153.158.1.158.2
 ACCUREX GREATER HOUSTON
 LEE.DOCTOROFF@ACCUREX.COM
 LEE.DOCTOROFF (512)934-0699
ACCUREX



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
FS CULINARY EXHAUST HOODS MECH/PLAN

Drawing Number
FS1.08



CONSULTANTS:

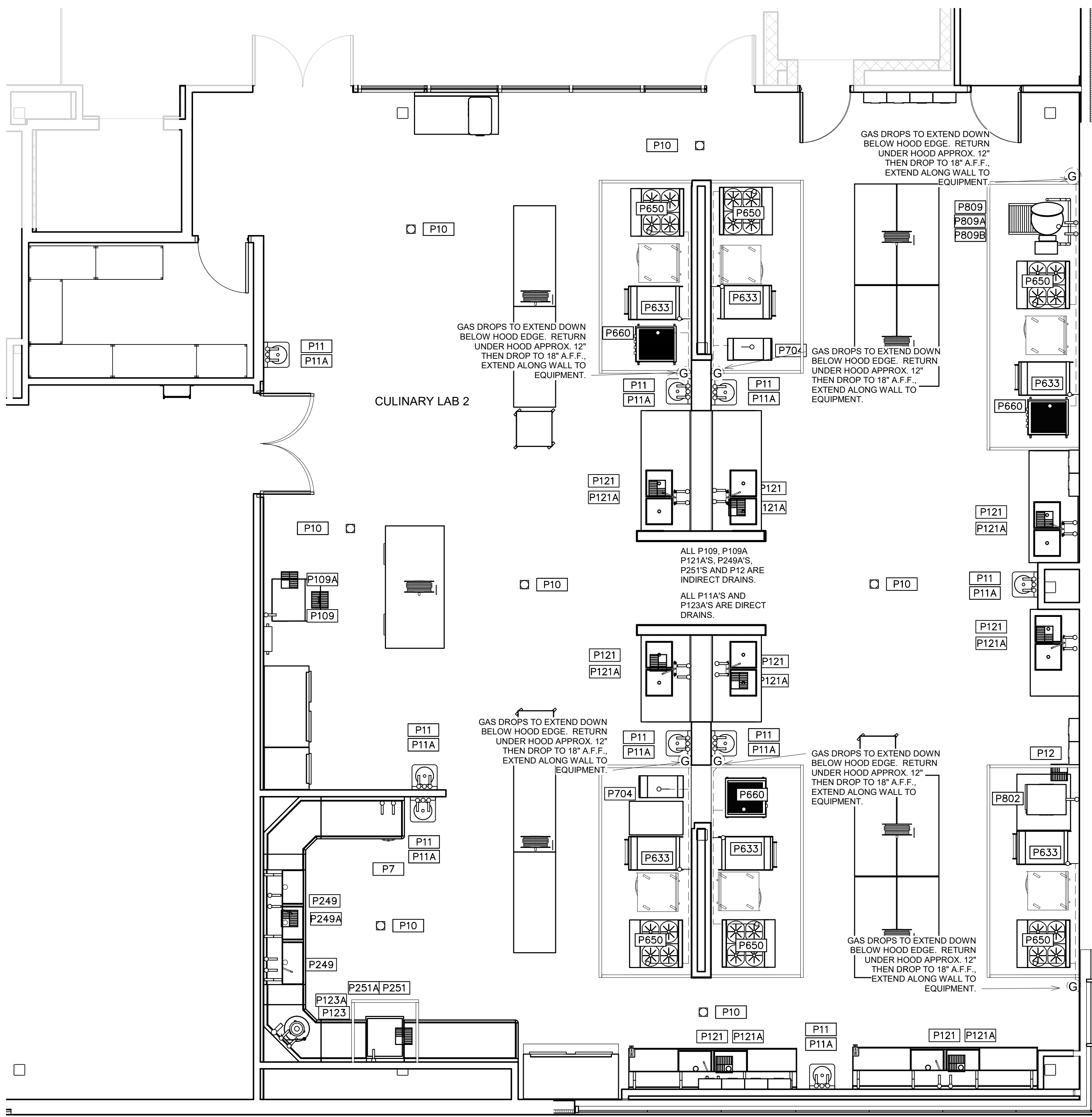
MEP ENGINEERS
Infrastructure Associates
(713) 622-0120STRUCTURAL ENGINEERS
Daily + Associates
(713) 337-8881FOOD SERVICE
Foodservice Design Professionals
(281) 350-2323

PROFESSIONAL SEAL:

A PROJECT FOR:

**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



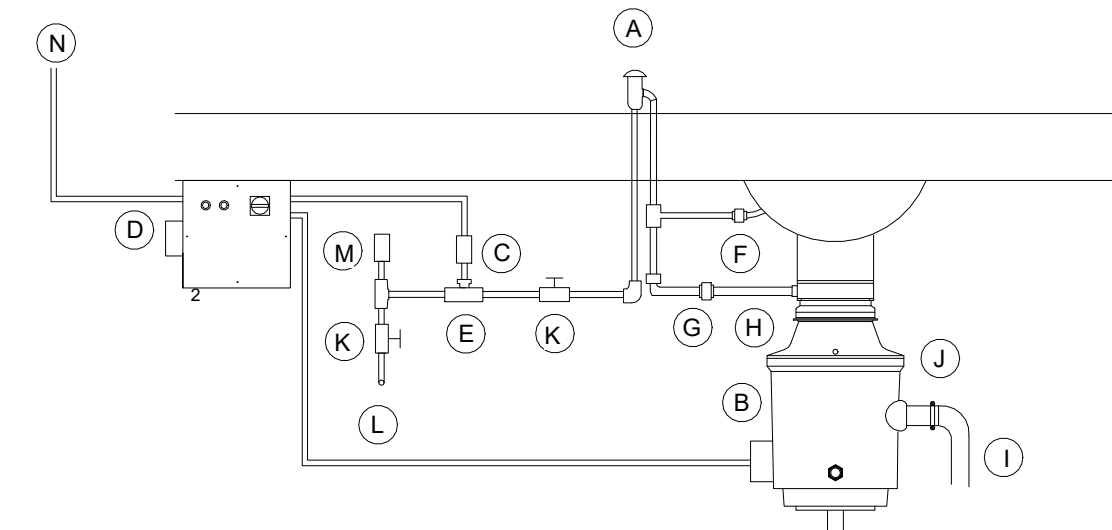
FOODSERVICE PLUMBING SCHEDULE						
FPD PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS

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

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

- (A) VACUUM BREAKER
(B) DISPOSER
(C) TIME DELAY
(D) CONTROL PANEL
(E) SOLENOID VALVE
- DIVISION 22 TO PROVIDE AND
INSTALL
- (F) 1/2" CW INLET (J) 1-1/2" TAILPIECE
GATE VALVE
(G) FLOW CONTROL (K) 1/2" CW SUPPLY
(H) 1/2" CW (L) 1/2" CW SUPPLY
(I) 2" DRAIN LINE (M) SHOCK STOP
- DIVISION 26 TO PROVIDE AND INSTALL
- (N) POWER SUPPLY

- (5) DISPOSER DETAIL
N.T.S.

NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE
FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT
FURNISHED BY DIVISION 22. FOR ADDITIONAL WATER AND DRAIN REQUIREMENTS
REFER TO MECHANICAL DRAWINGS.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.

- (3) PLUMBING COORDINATION NOTES
N.T.S.

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

- (2) PLUMBING GENERAL NOTES
NONE

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
CWS	CHILLED WATER	SVC	SUPPLY VENT CONNECTION
G	GAS SUPPLY	FR	DIRECT-CONNECTED FLUE RISER
SS	STEAM SUPPLY	PS	PIPE SLEEVE
CR	CONDENSATE RETURN	AFF	ABOVE FINISHED FLOOR
DR	DRAIN	ST	STUB UP/OUT
FD	FLOOR DRAIN	BTC	BRANCH TO CONN. ON EQUIP.
FS	FLOOR SINK	DFA	DROP FROM ABOVE

- (4) PLUMBING SYMBOLS
NONE

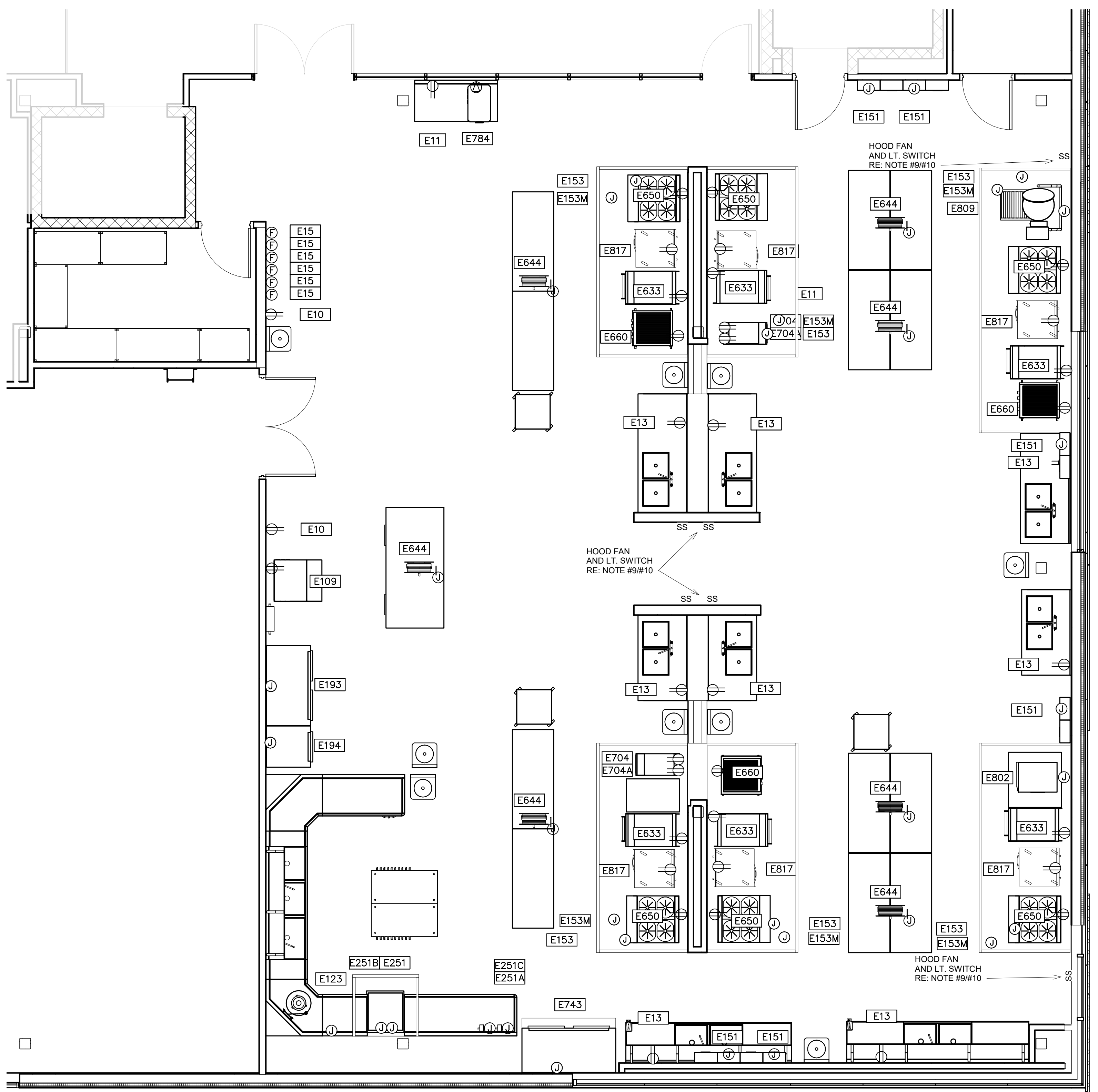
- ALL EXPOSED FIRE SYSTEM PIPING TO BE CHROME PLATED OR STAINLESS STEEL.
- NUMBER NOT USED.
- ALL PIPING WITHIN COUNTER BODY OR UNDER FABRICATED COUNTERS TO BE
RUN TO A CONNECTION POINT BELOW COUNTER BODY BY SECTION 11 40 00. FINAL
CONNECTION BY DIVISION 22.
- NUMBER NOT USED.
- QUICK DISCONNECTS TO BE SUPPLIED BY SECTION 11 40 00 WALL GAS & WATER EQUIPMENT.
- 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 FLOODLEVEL 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 PREPARED
BY FACTORY. INTERCONNECT THRU WATER FILTER TO EQUIPMENT BY DIVISION 22.
- BACKFLOW PREVENTION BY DIVISION 22

KEY PLAN



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM
Drawing Title	FS CULINARY PLUMBING PLAN
Drawing Number	FS1.10

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



FOODSERVICE ELECTRICAL SCHEDULE								
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	40"	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 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 E251A
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 BREAKER
E809	JB	5.0A	120	1	KETTLE	WALL	24"	SHUNT TRIP BREAKER
E817	DR	3.0A	120	1	WORKTOP REFRIGERATOR	WALL	24"	---

FS1C FOODSERVICE CULINARY ELECTRICAL PLAN
1/4" = 1'-0"

- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS.
- VERIFY ALL ELECTRICAL CHARACTERISTICS WITH 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 11 40 00. FIELD 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), 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.
- N/A
- 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 11 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 OF MANAGER'S OFFICE TO BE VERIFIED.

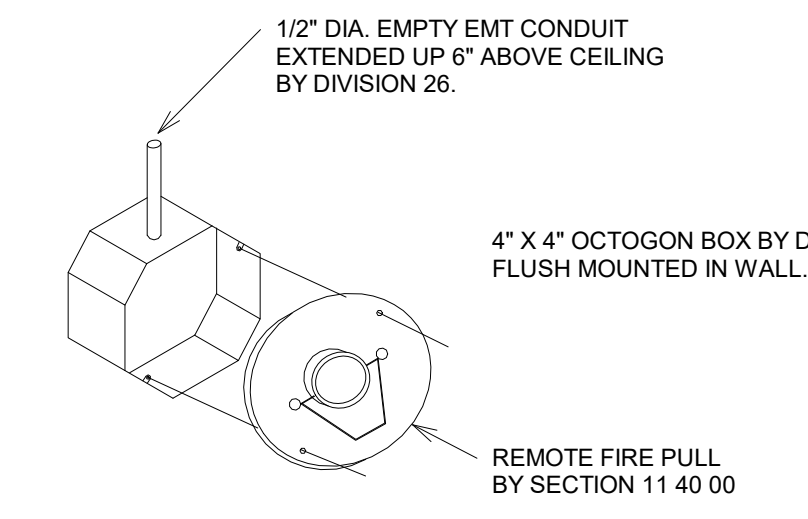
2 ELECTRICAL GENERAL NOTES
NONE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
SCR	CONDUIT STUB BTC ON RECEIPT FURNISH WITH EQUIPMENT	CC	CONDUIT FOR COMPUTER CABLES
CS	CONDUIT STUB UP/OUT FOR DIRECT CONNECTION	BTC	BRANCH TO CONNECTION ON EQUIPMENT
DR	20 AMP DUPLEX RECEPTACLE (MOUNT HORIZONTAL)	WPR	20 AMP WEATHERPROOF RECEPTACLE (SPRING COVER)
SR	SINGLE PURPOSE RECEPTACLE	FPB	FIRE PROTECTION BUZZER
SR	SINGLE PURPOSE RECEPT. 208V 1PH	BSC	BEVERAGE SYSTEM CONDUIT
FR	FLUSH FLOOR RECEPTACLE	DFA	DRCP FROM ABOVE ABOVE FINISH FLOOR
PMR	PEDESTAL MOUNTED RECEPTACLE	APF	ABOVE FINISH FLOOR
DCR	DROP CORD RECEPTACLE	CS/JB	JUNCTION BOX ON PEDSTAL
JB	JUNCTION BOX ON CEILING	DS	DISCONNECT SWITCH
JB	JUNCTION BOX IN WALL		
JB/DS	JUNCTION BOX WITH DISCONNECT BY DIV. 26	JB/DS	CONDUIT STUB-UP WITH DISCONNECT BY DIV. 26

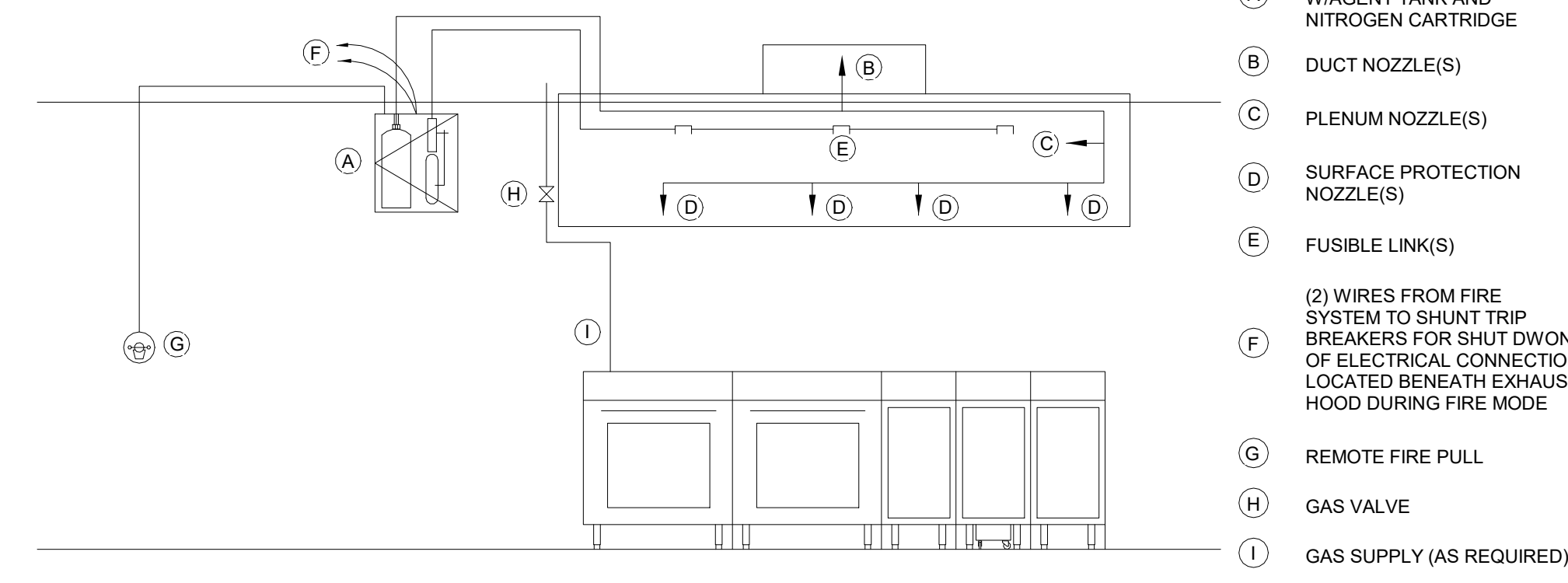
4 ELECTRICAL SYMBOLS
NONE

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

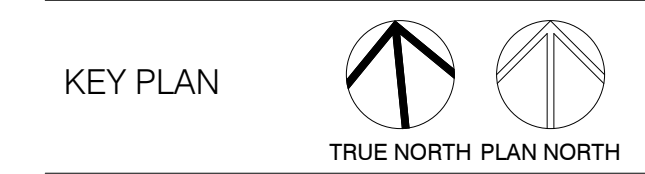
3 ELECTRICAL COORDINATION NOTES
NTS



5 RECESSED FIRE PULL DETAIL
N.T.S.



6 FIRE SUPPRESSION TYPICAL DETAIL
N.T.S.



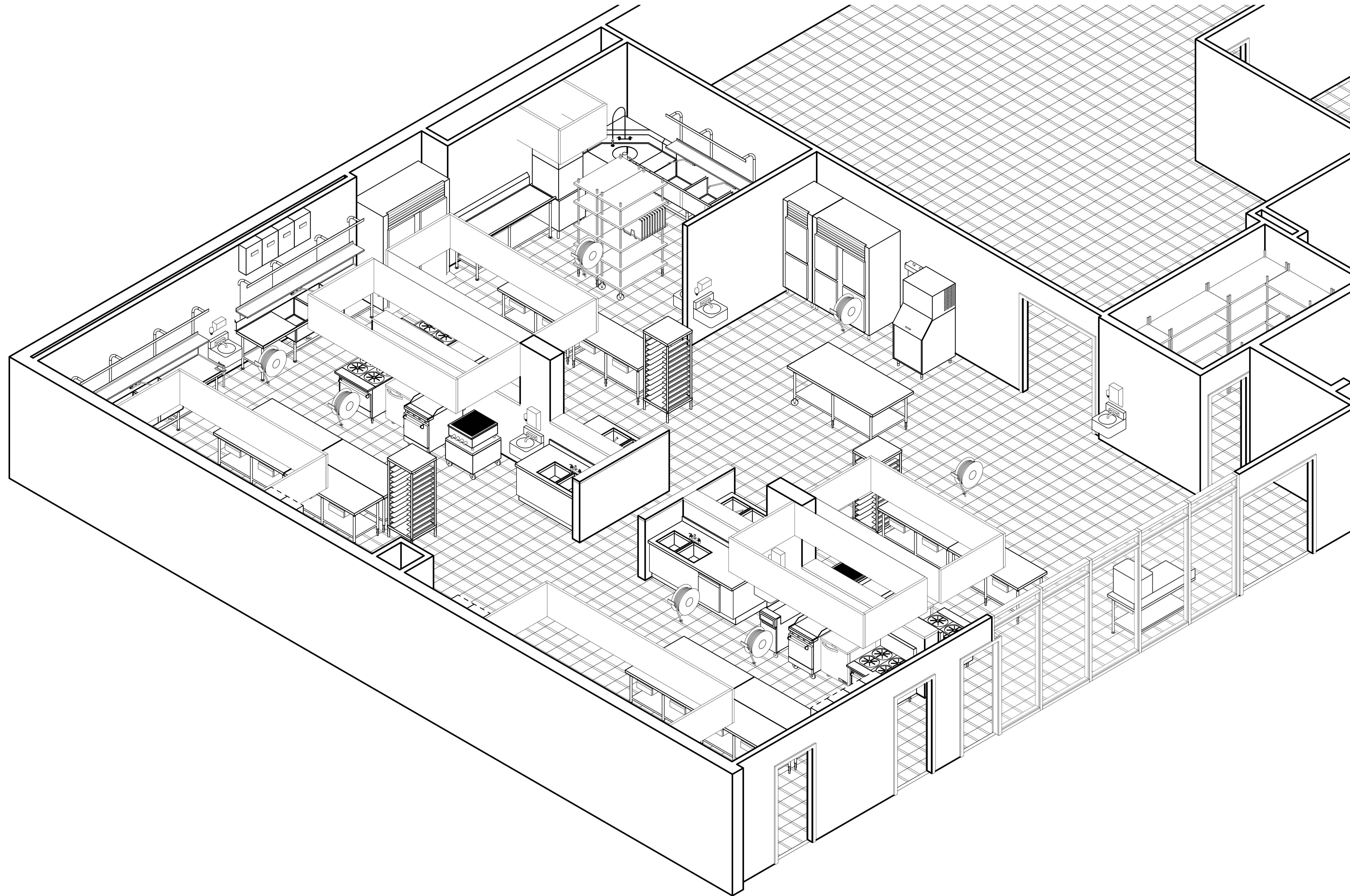
KEY PLAN

Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
FS CULINARY ELECTRICAL PLAN

Drawing Number
FS1.11

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CONSULTANTS:

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PROFESSIONAL SEAL:

A PROJECT FOR:

**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

KEY PLAN TRUE NORTH PLAN NORTH

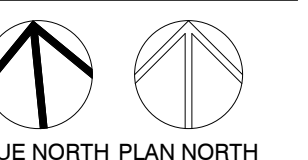
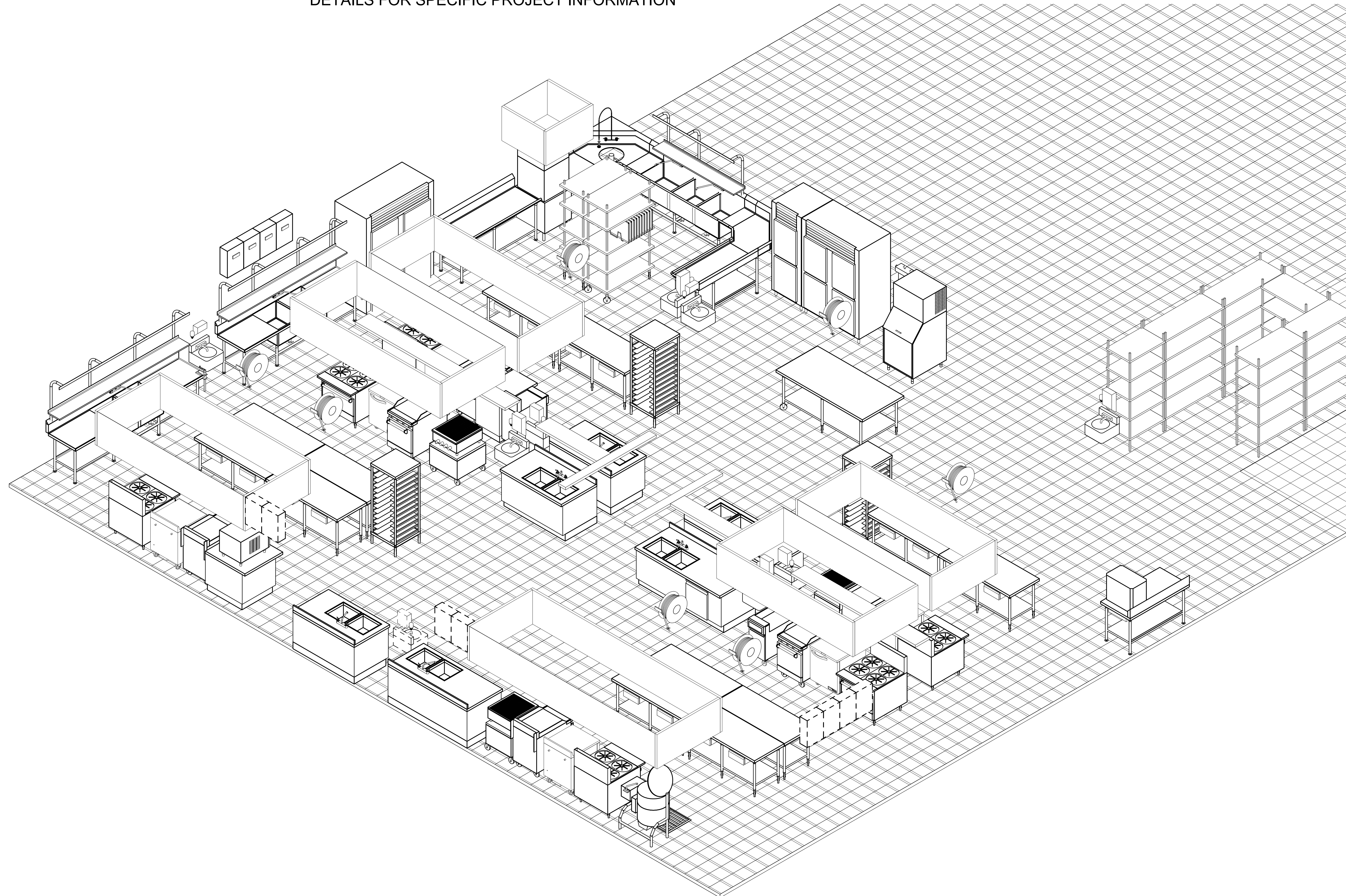
1 FS CULINARY FACILITY MODEL

Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM
Drawing Title	FS CULINARY FACILITY MODEL

Drawing Number	FS1.12
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#	Date	ISSUED FOR
	02-24-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

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Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	MM

Drawing Title
**FS CULINARY
EQUIPMENT MODEL**

Drawing Number
FS1.13

1 FS CULINARY EQUIPMENT MODEL



HOUSTON COMMUNITY COLLEGE
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1 (713) 952-5002
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FOOD SERVICE
Foodservice Design Professionals
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PROFESSIONAL SEAL:

A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

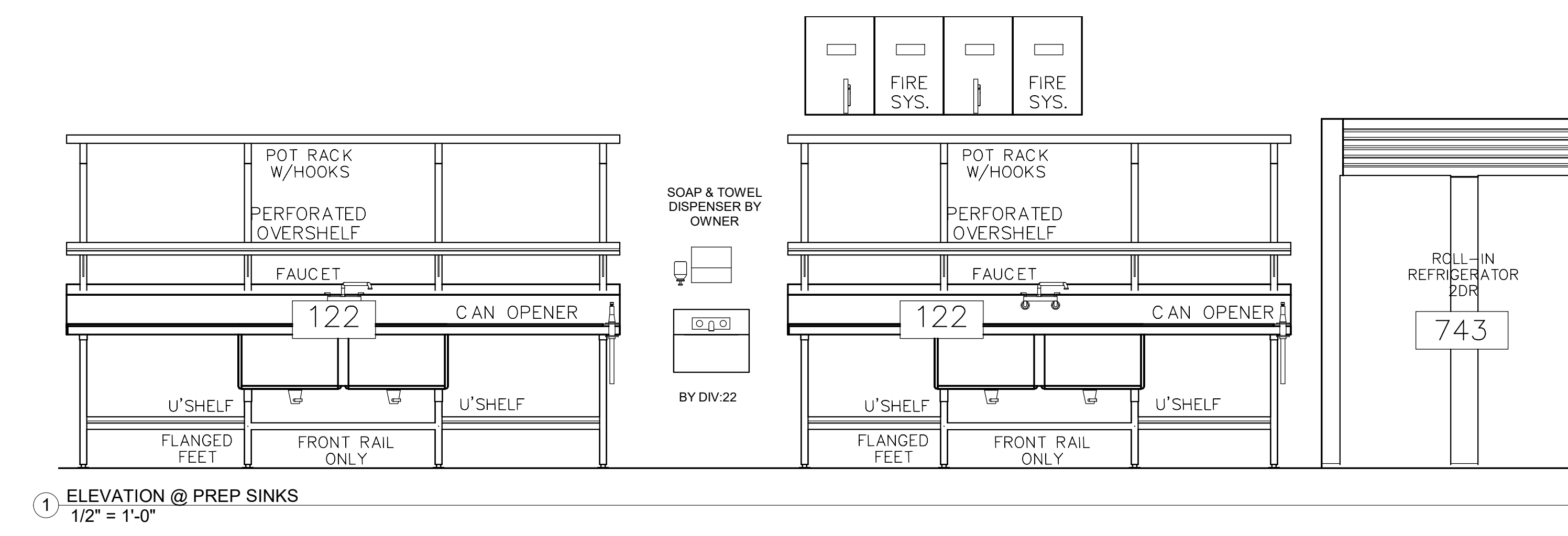
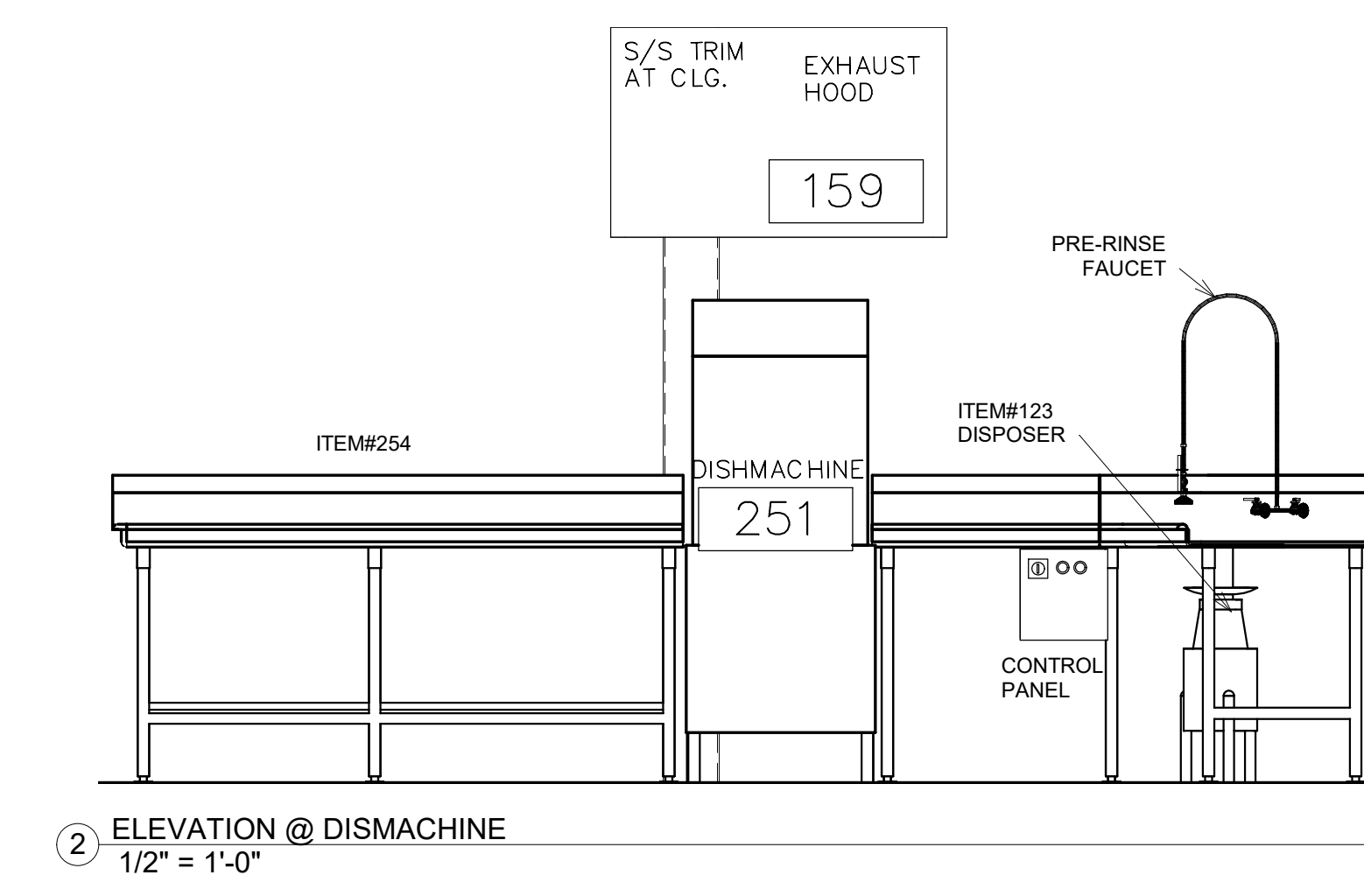
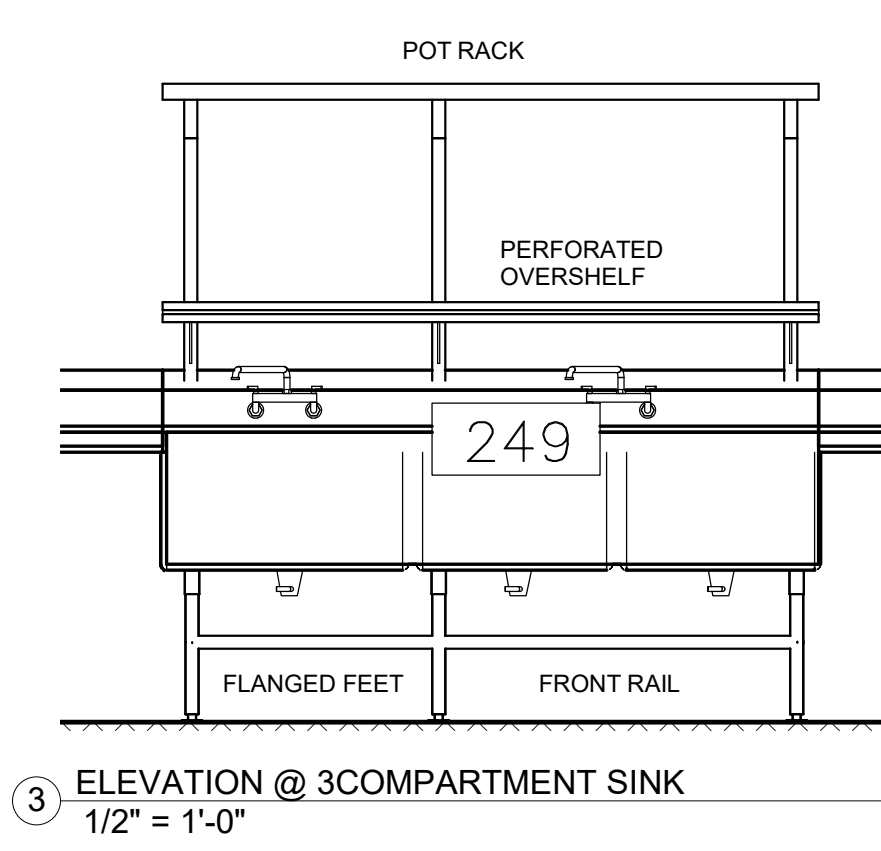
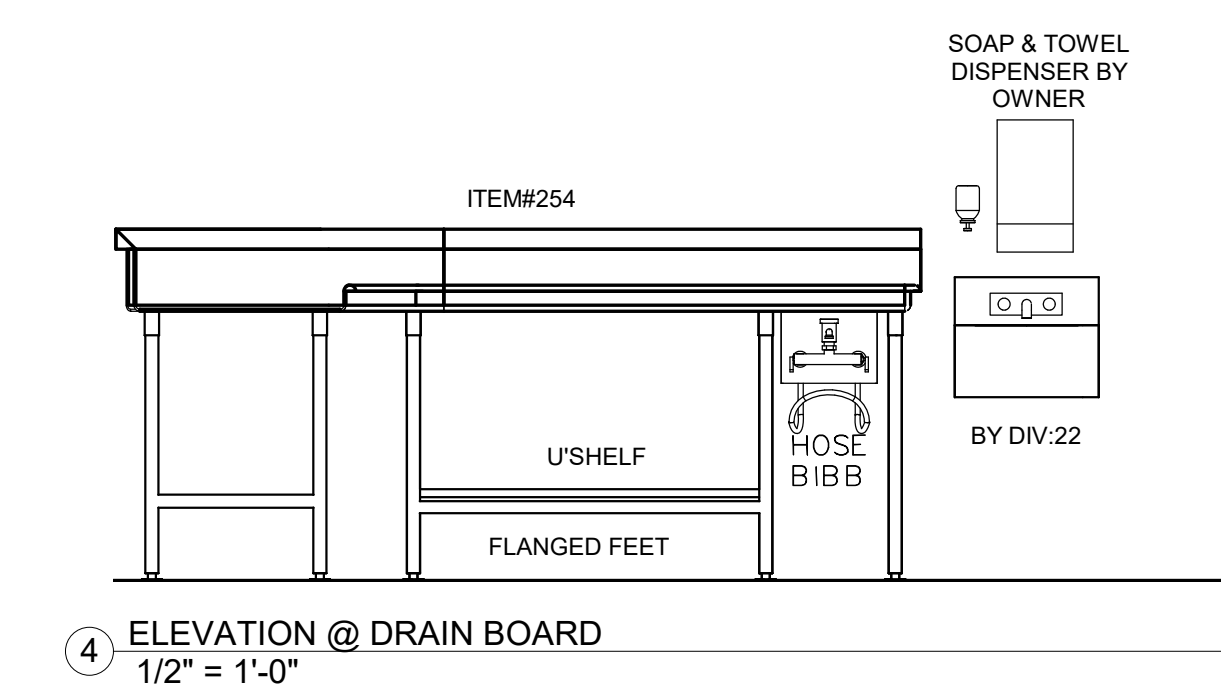
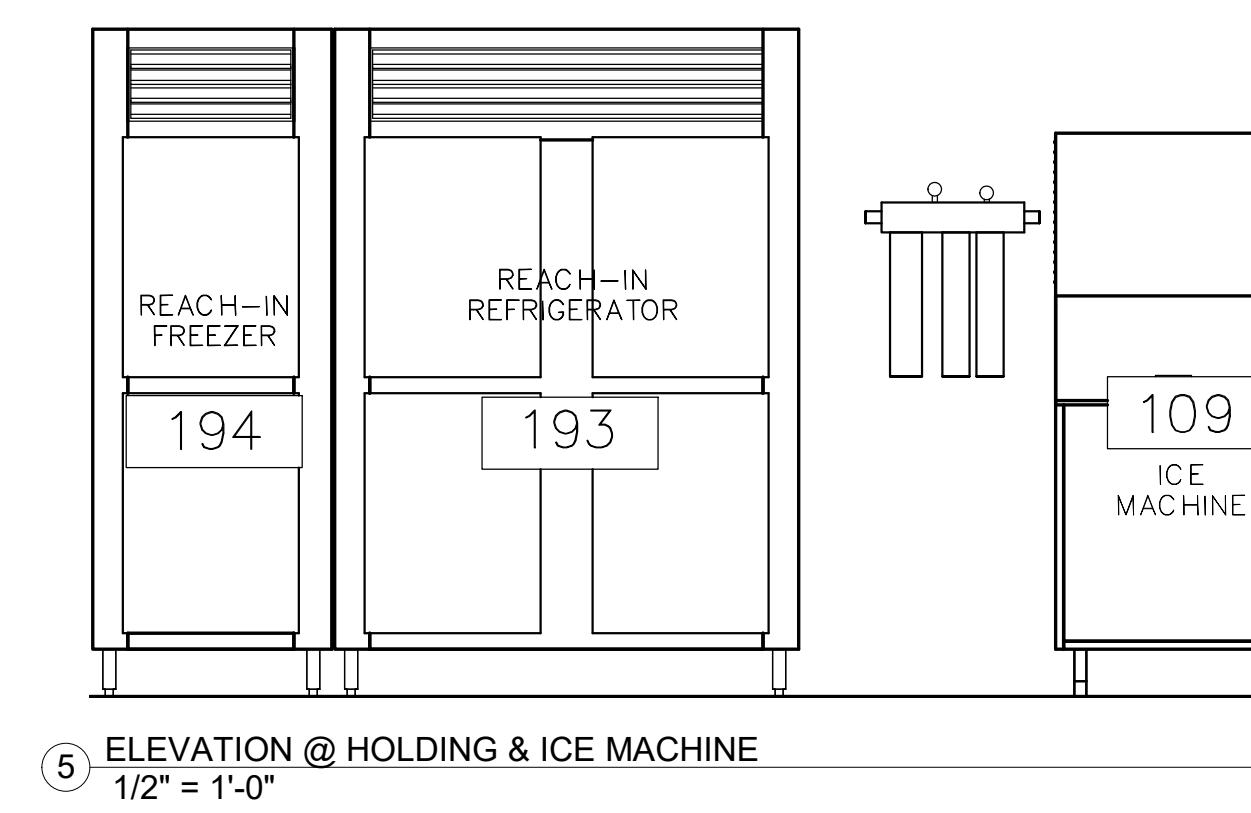
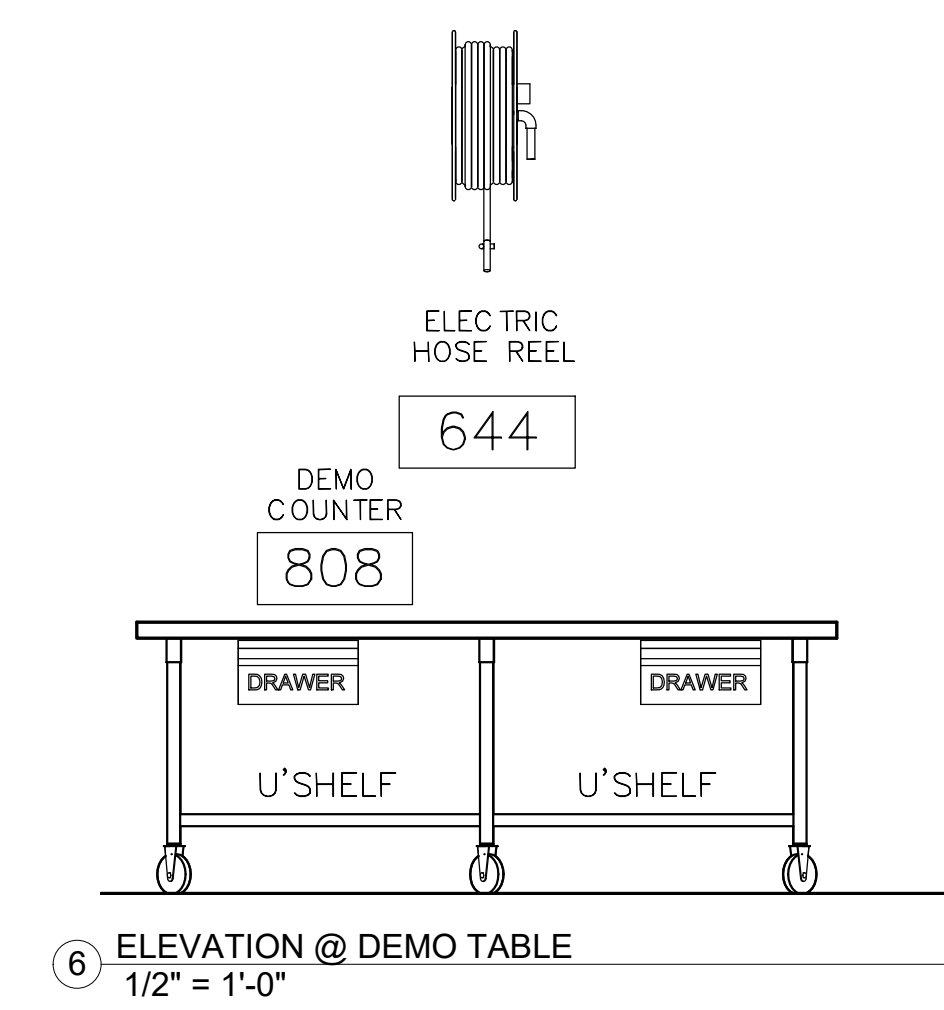
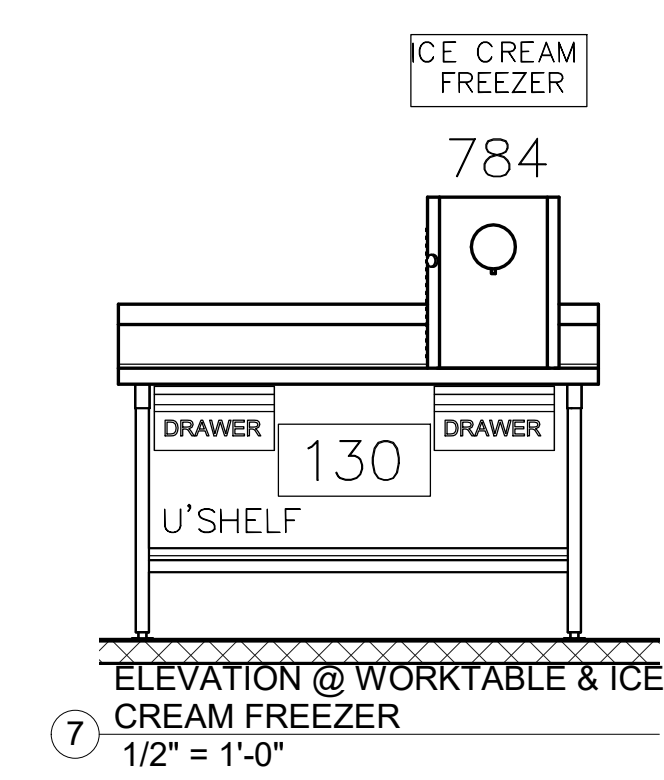
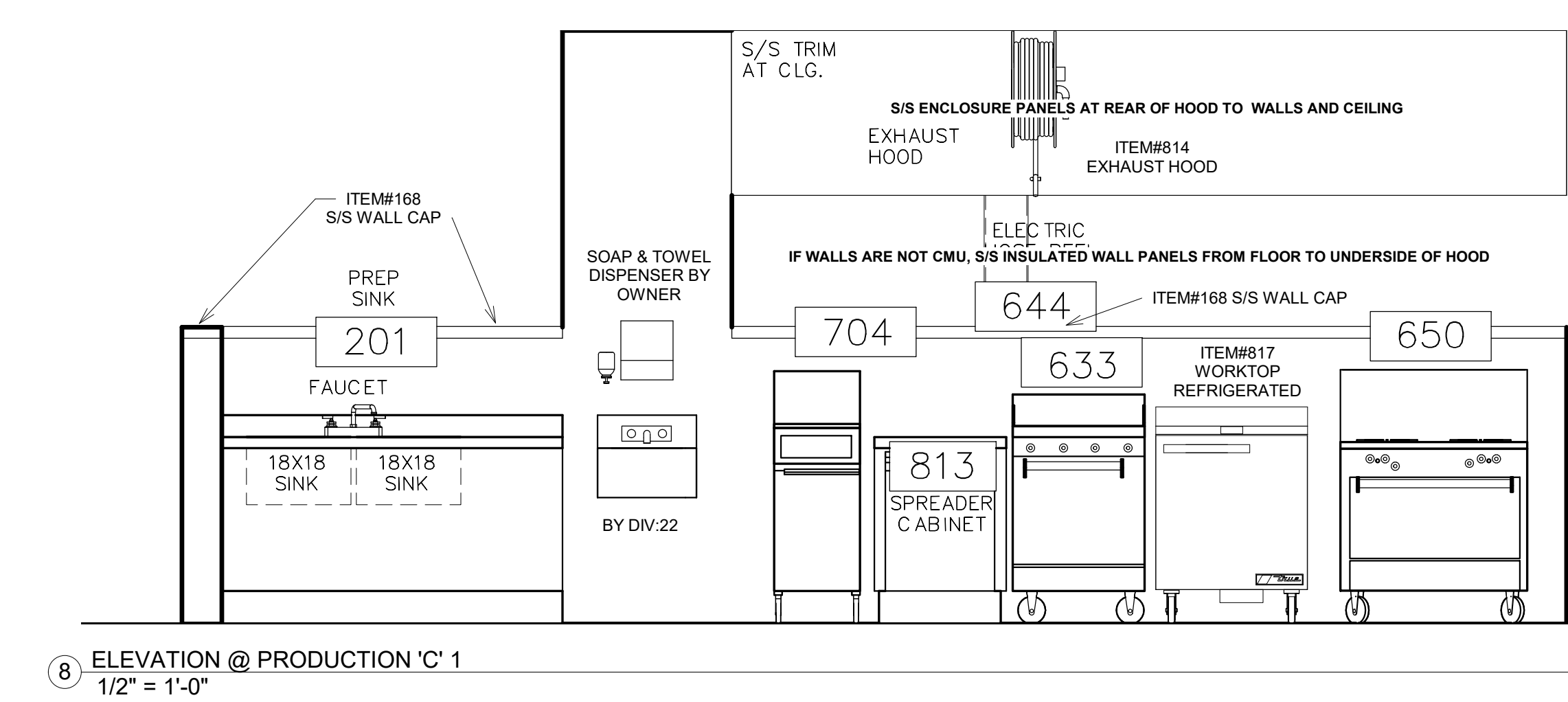
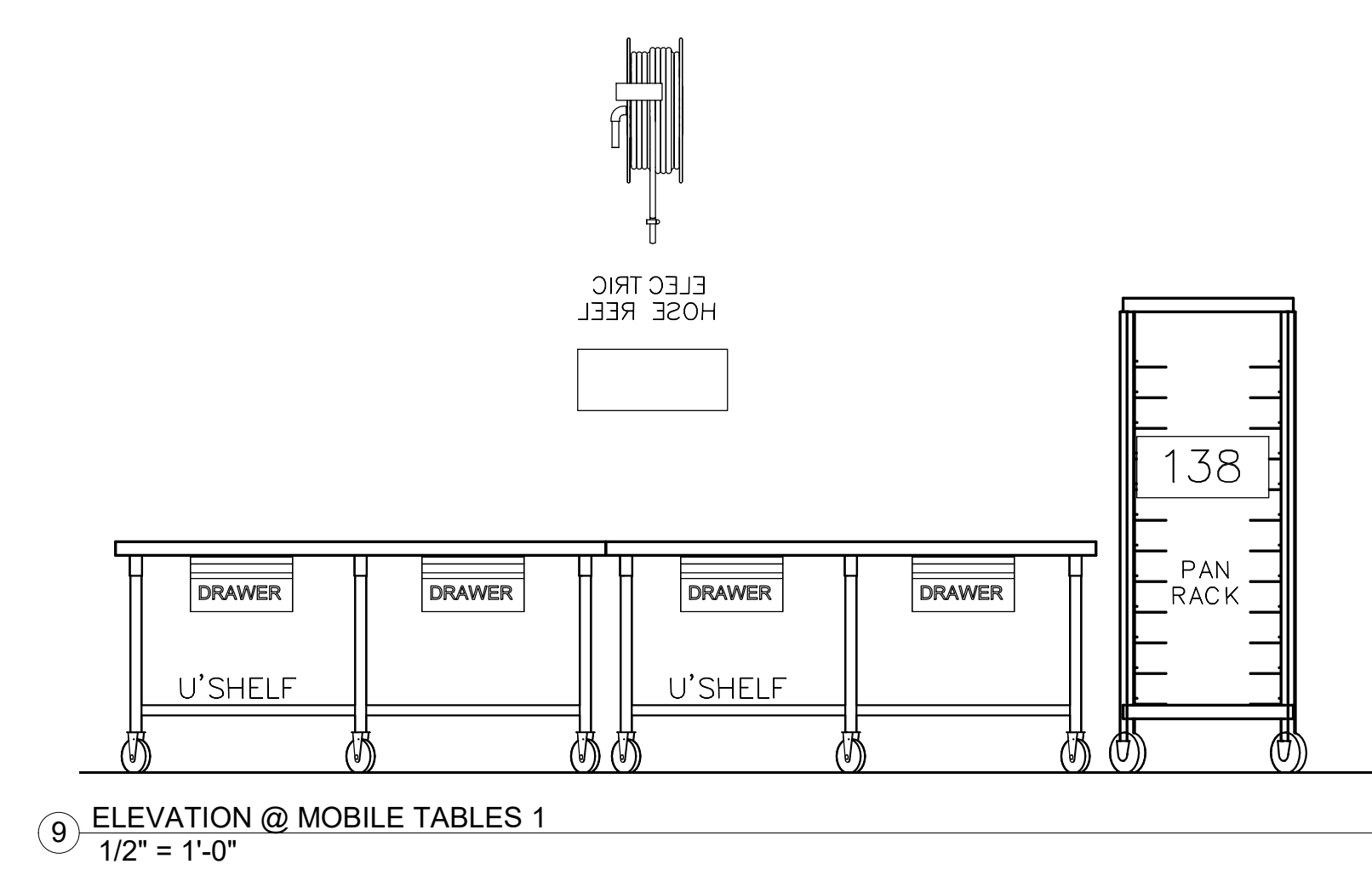
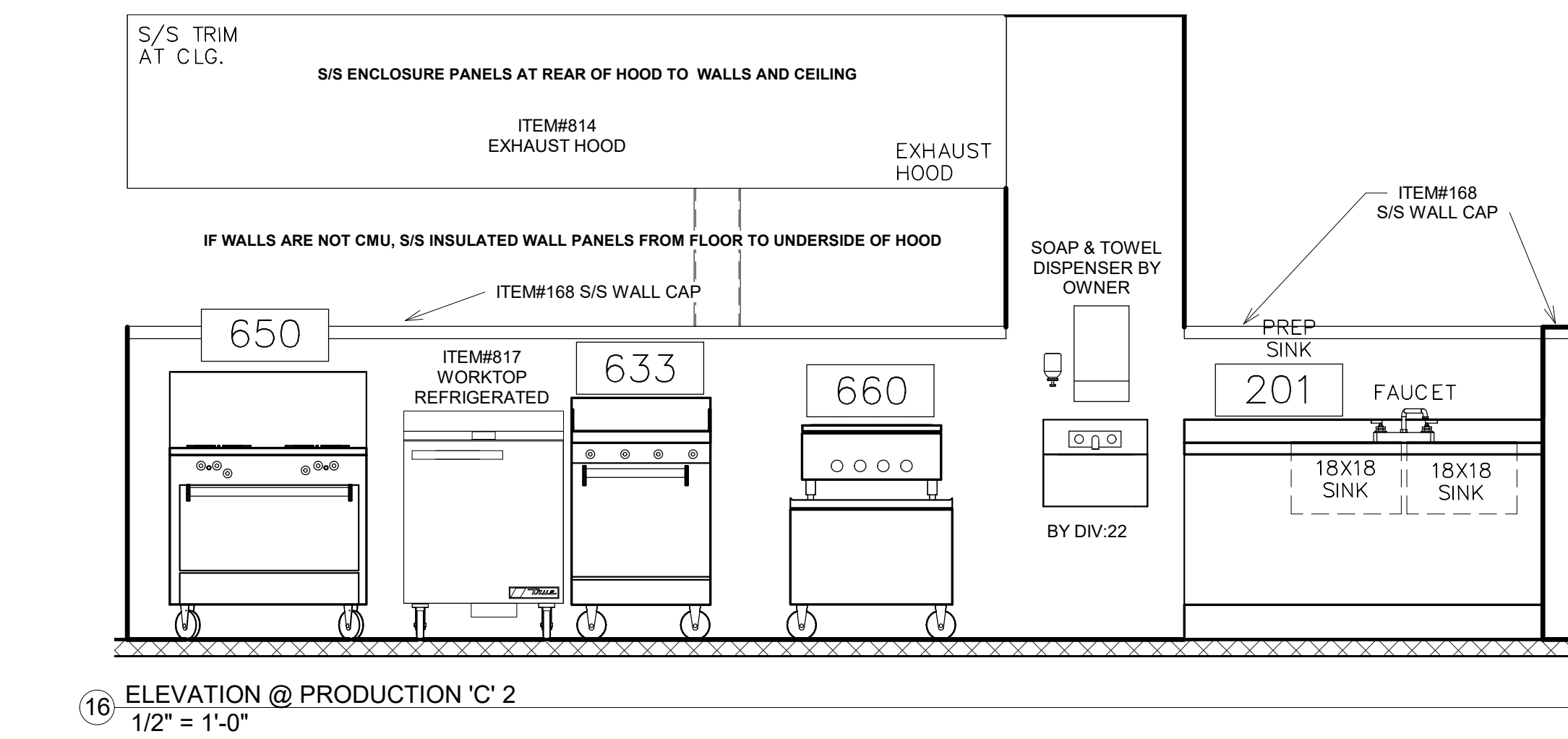
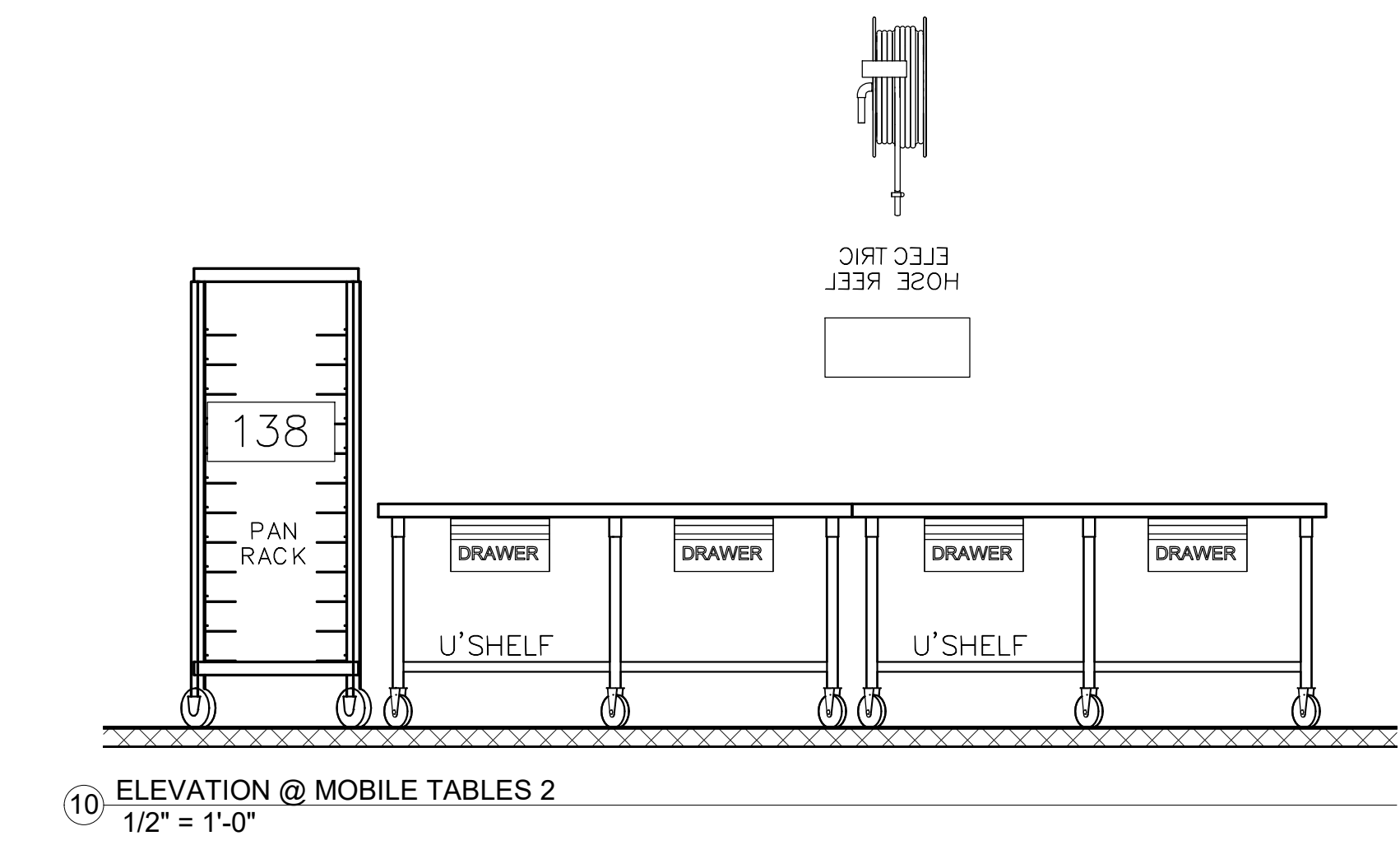
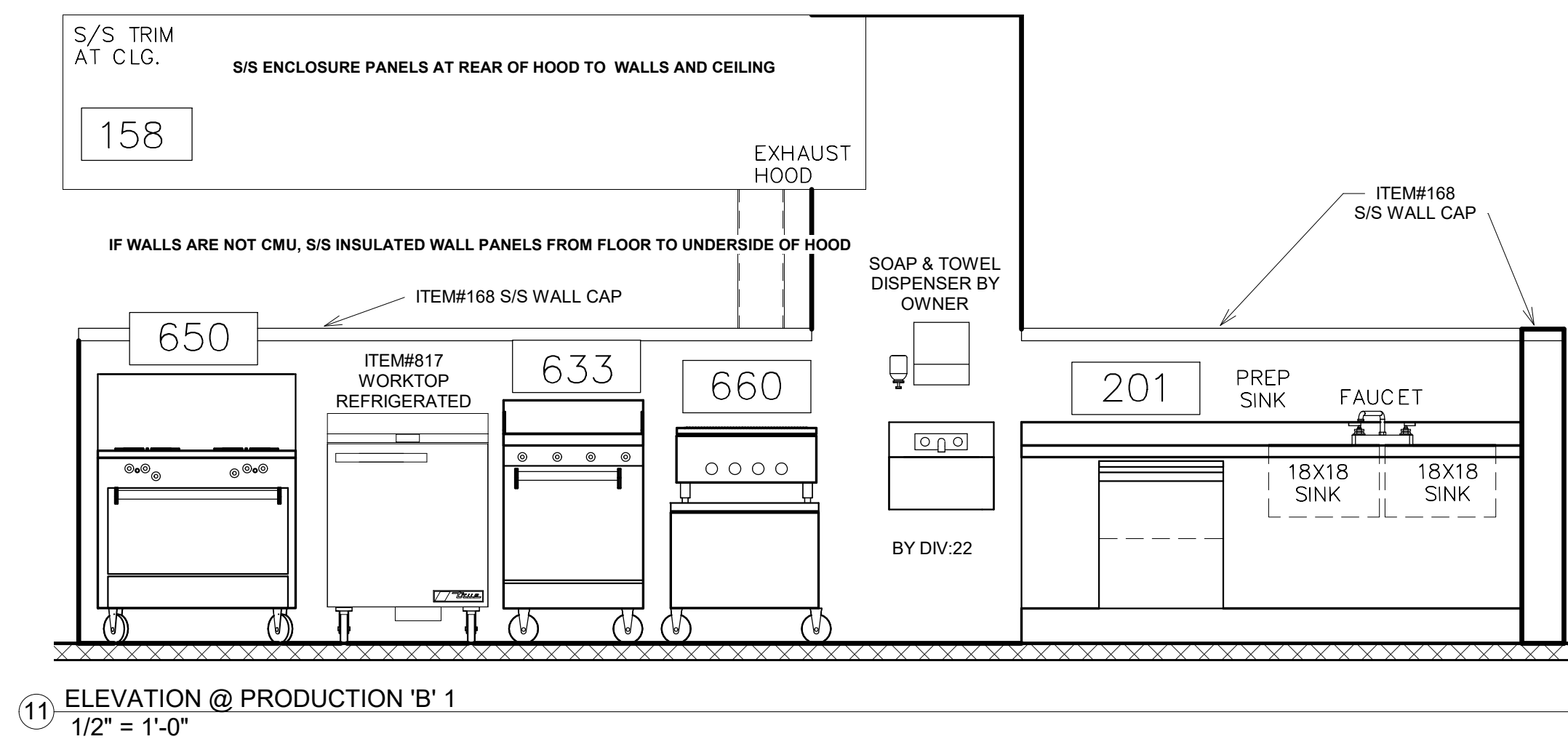
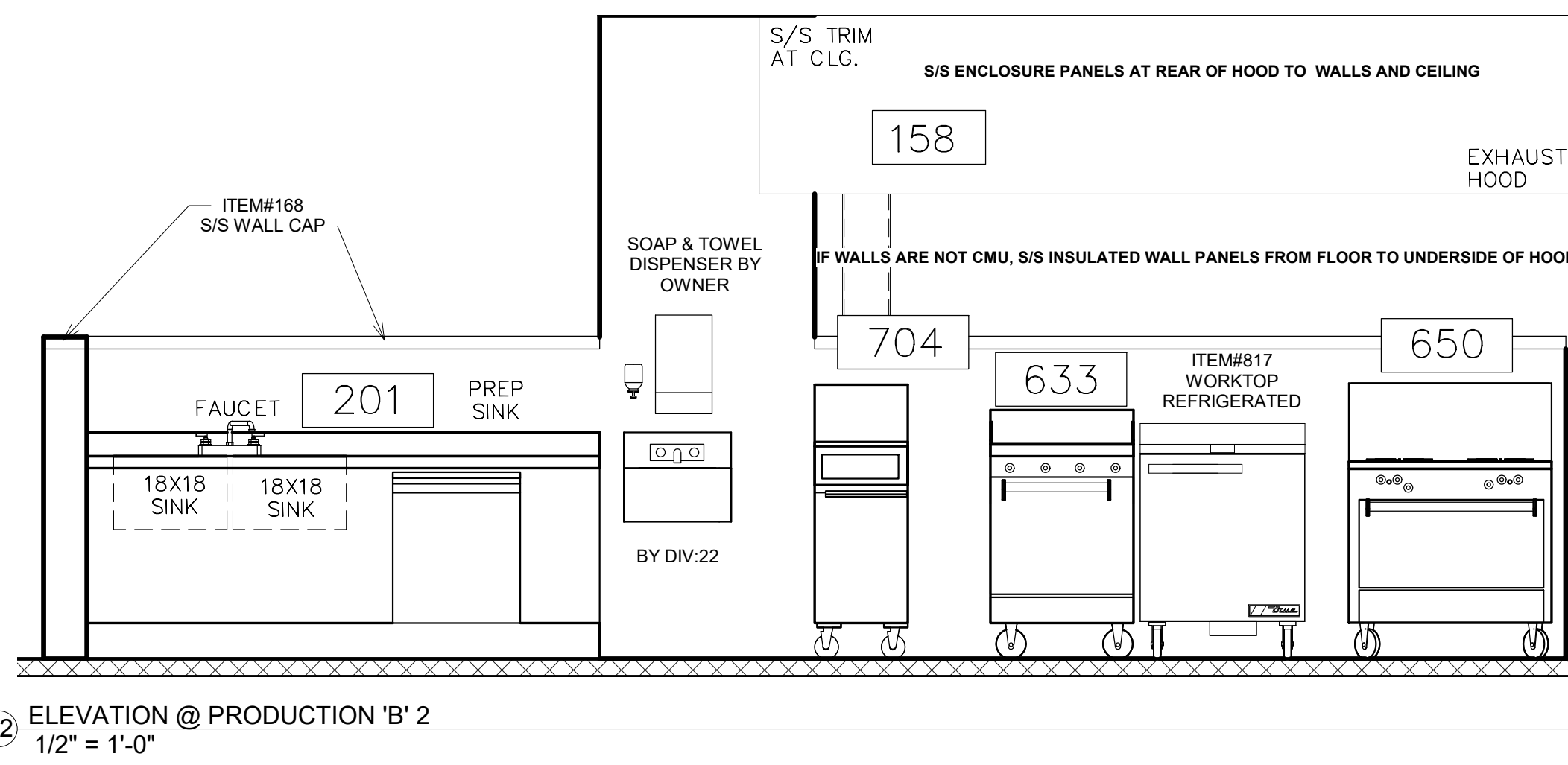
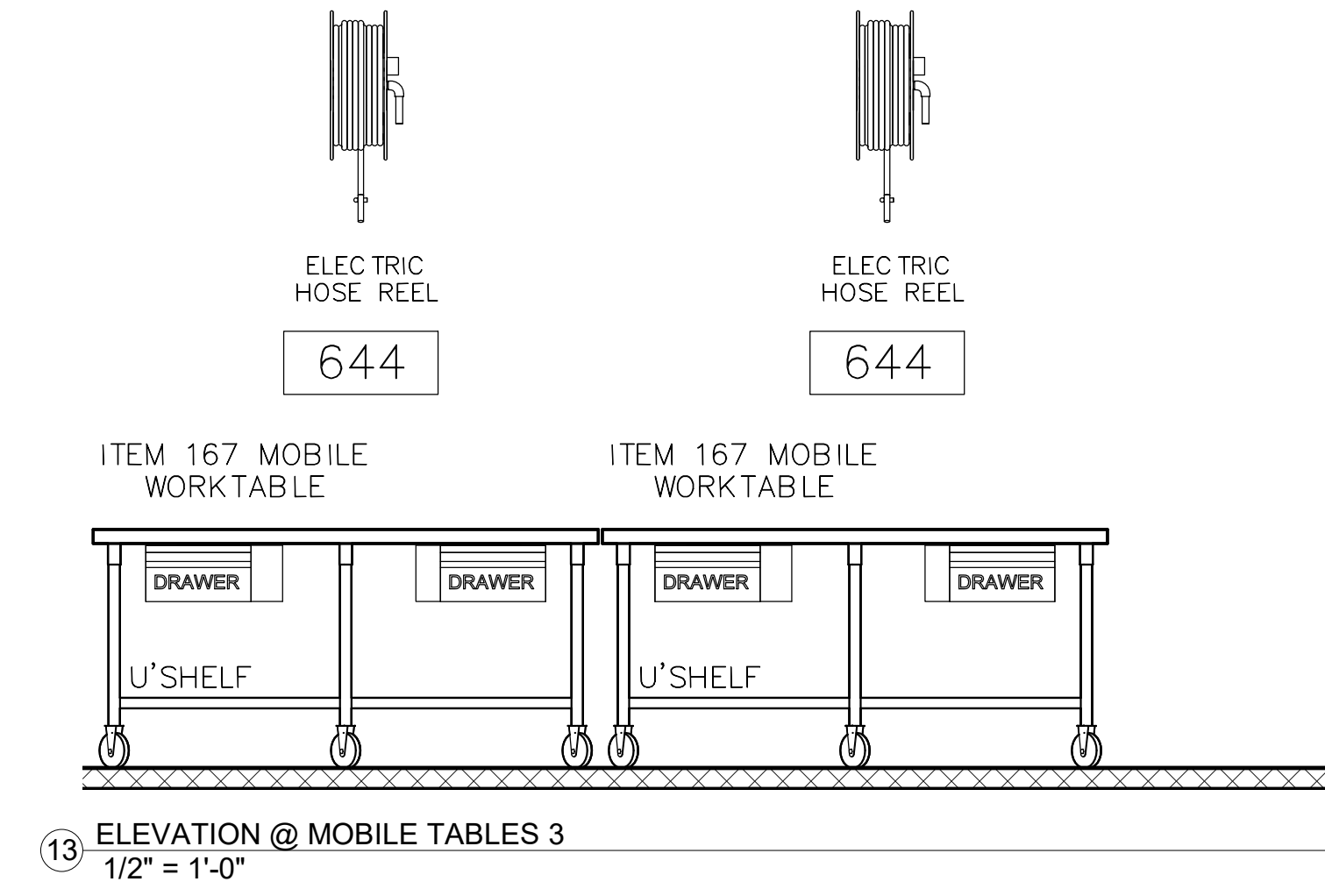
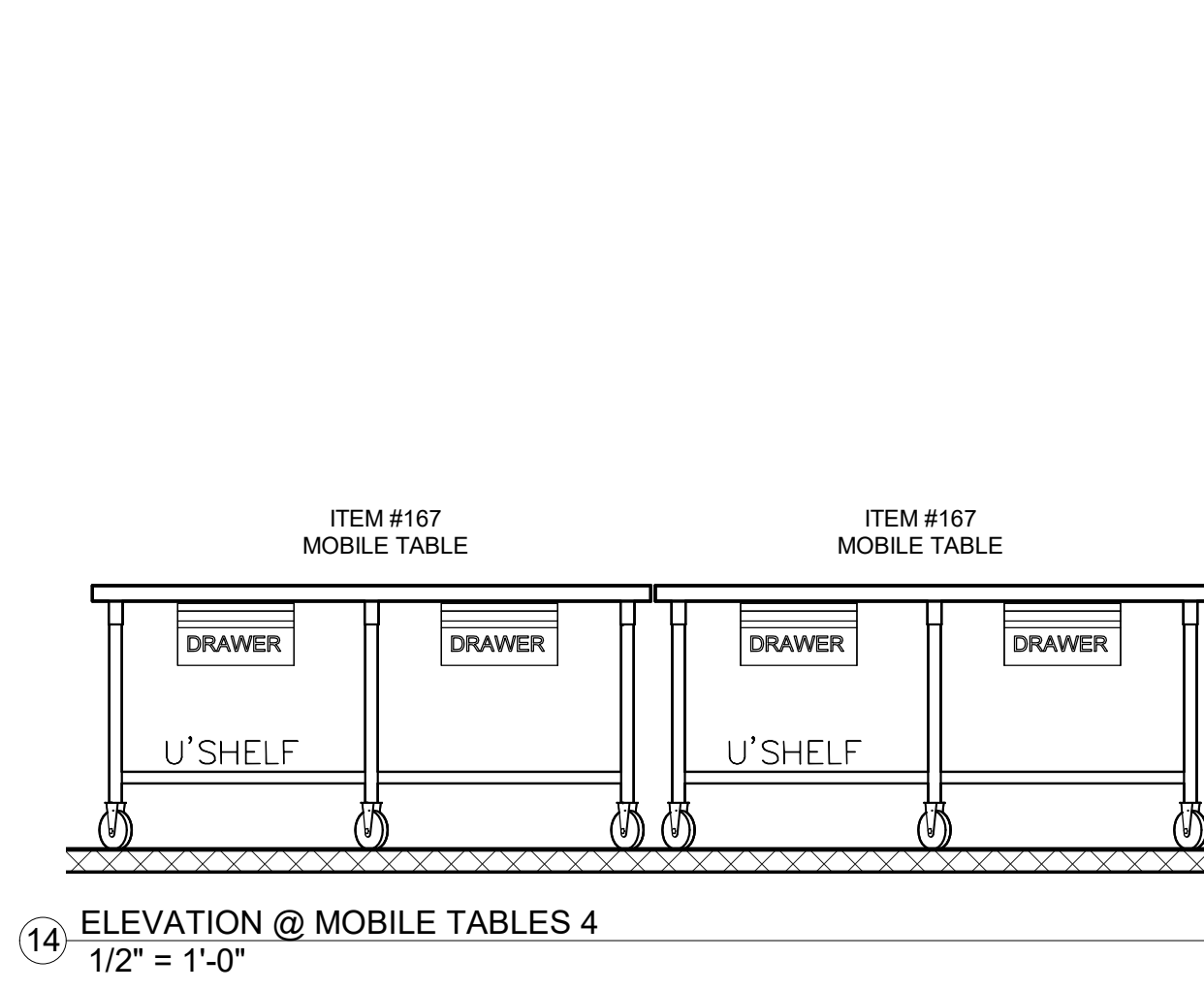
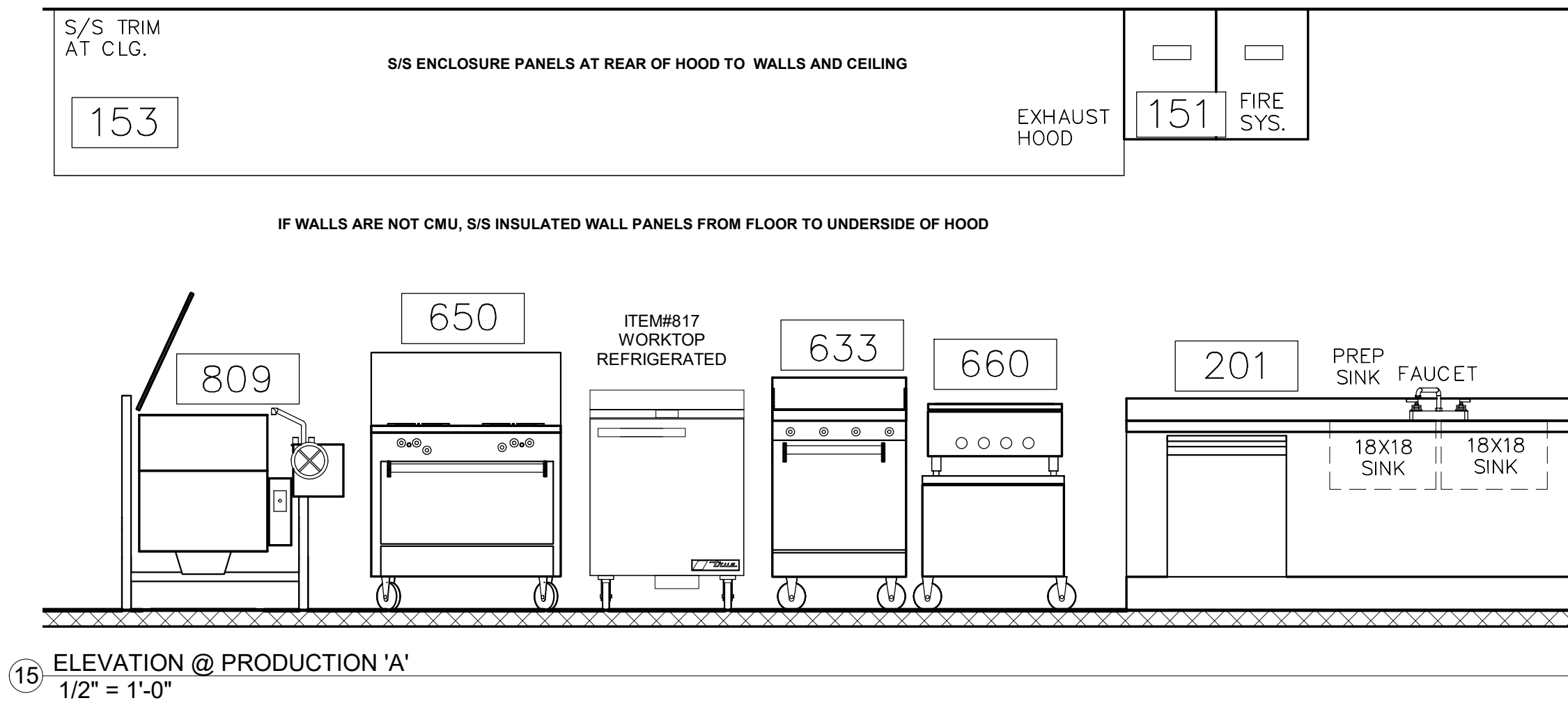
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	04-15-2020	ISSUED FOR PERMIT AND BIDDING

KEY PLAN
TRUE NORTH PLAN NORTH

Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver
Drawing Title	

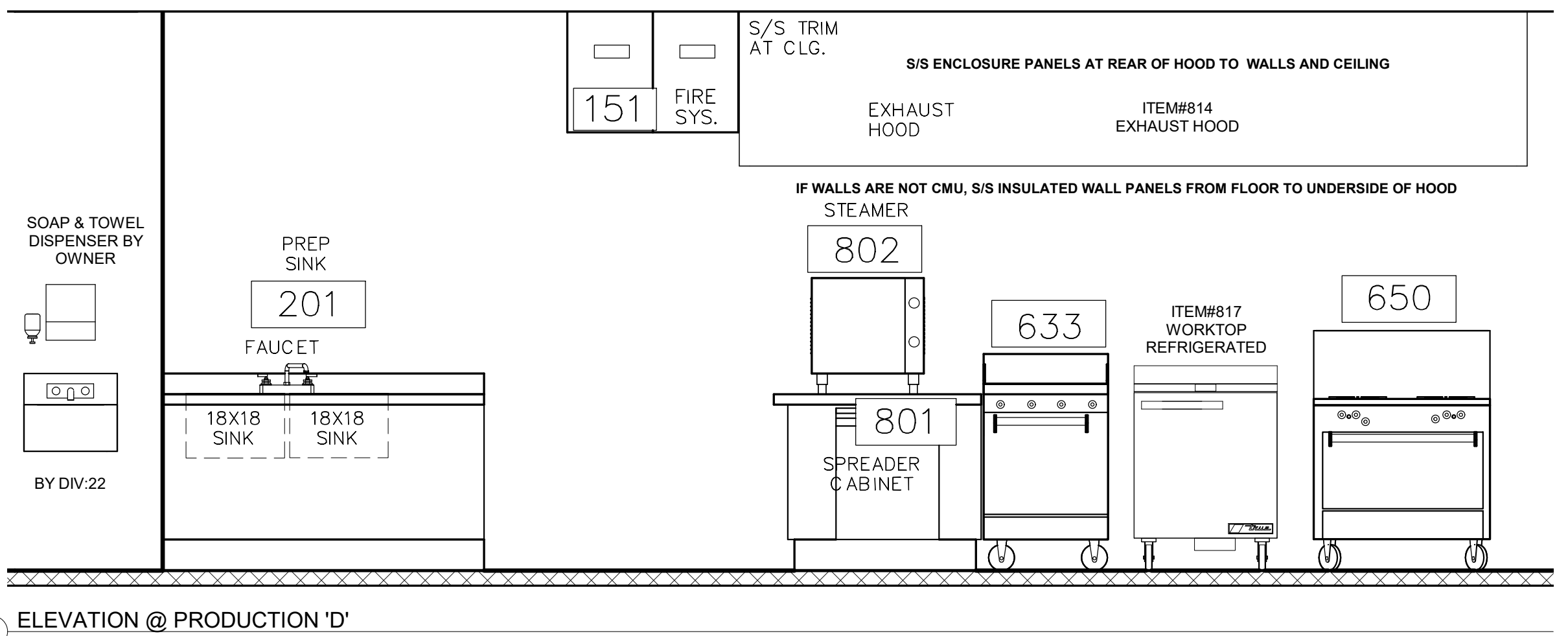
FS ELEVATIONS

Drawing Number
FS1.14

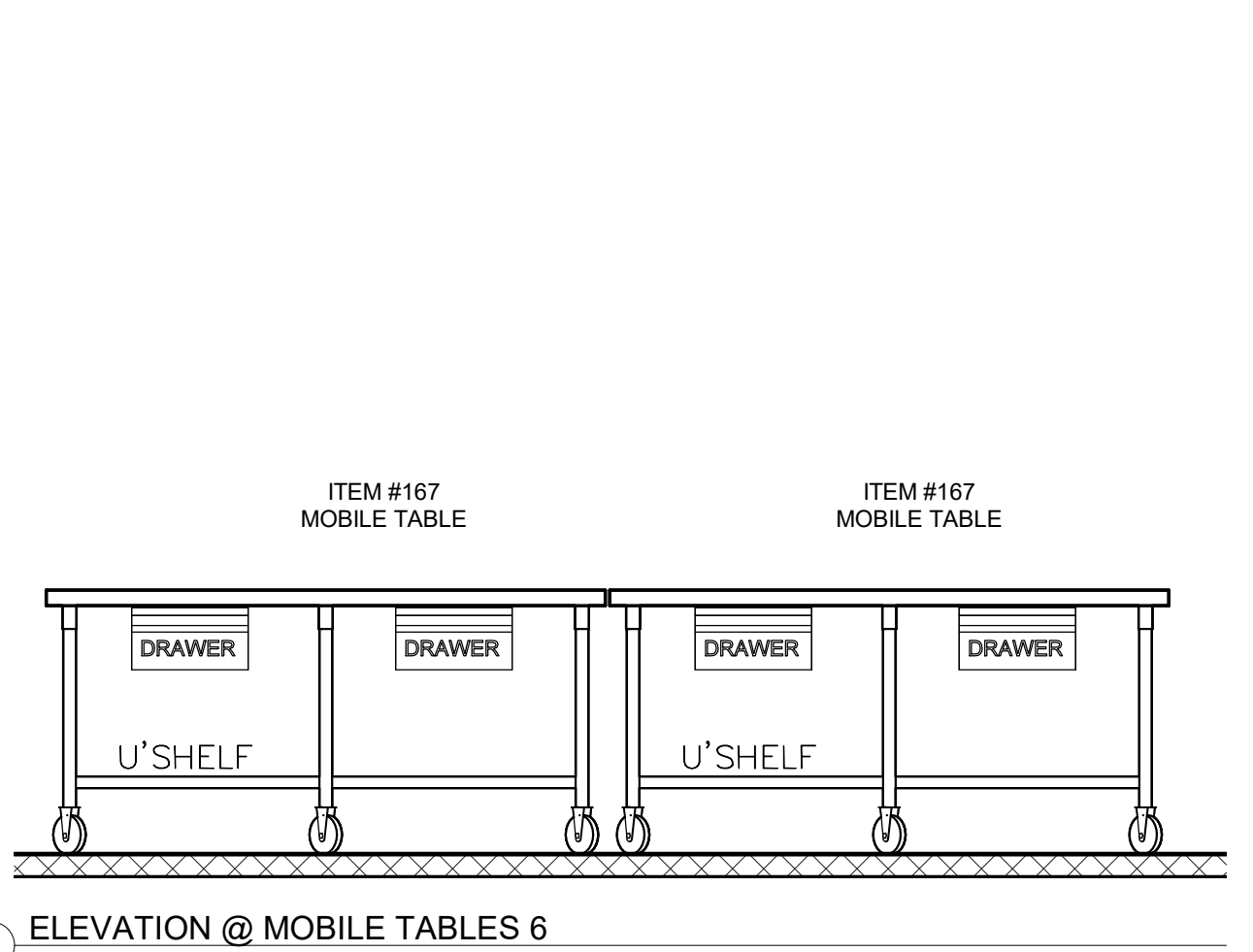


A PROJECT FOR:
**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

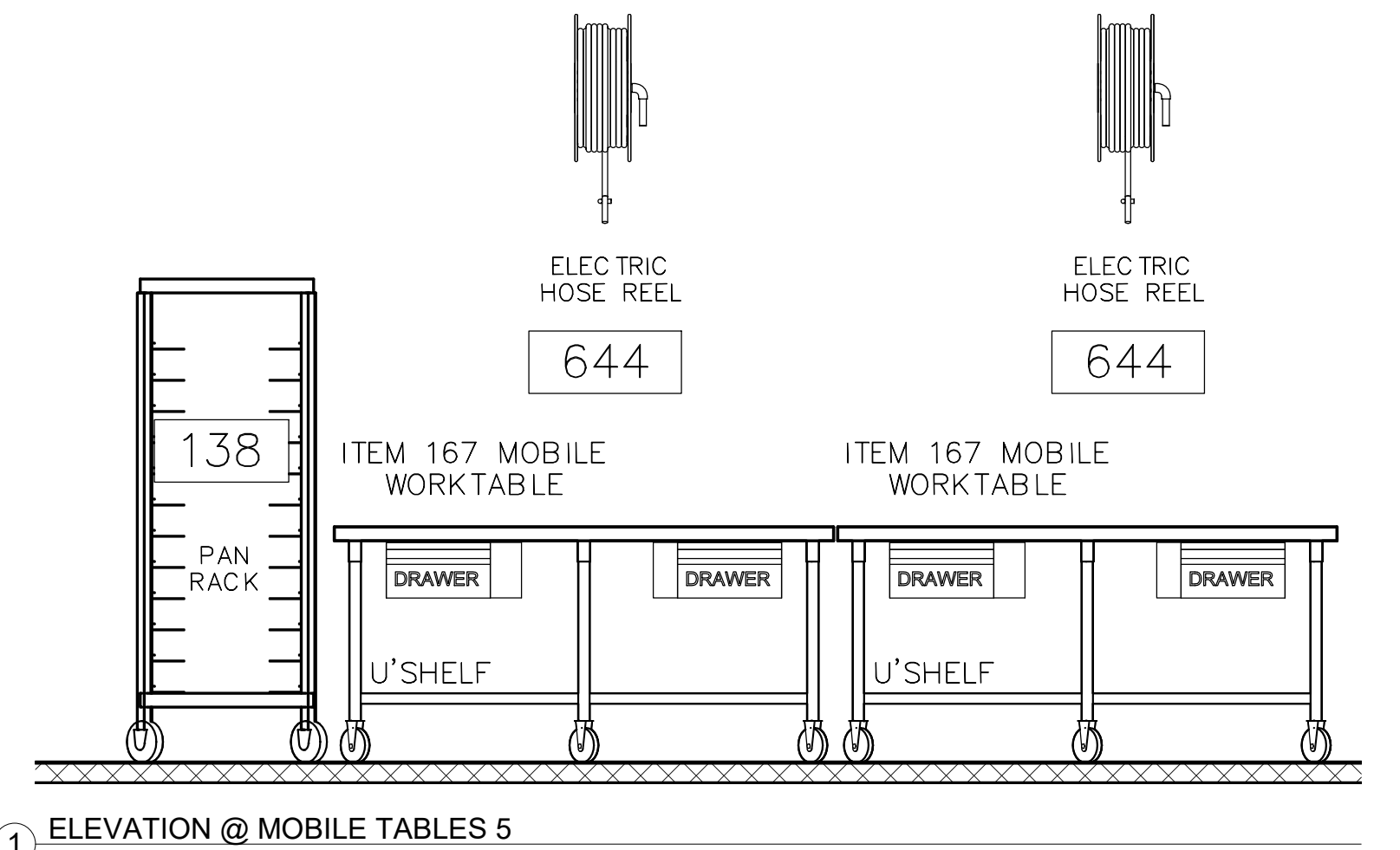
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③ ELEVATION @ PRODUCTION 'D'
1/2" = 1'-0"



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



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

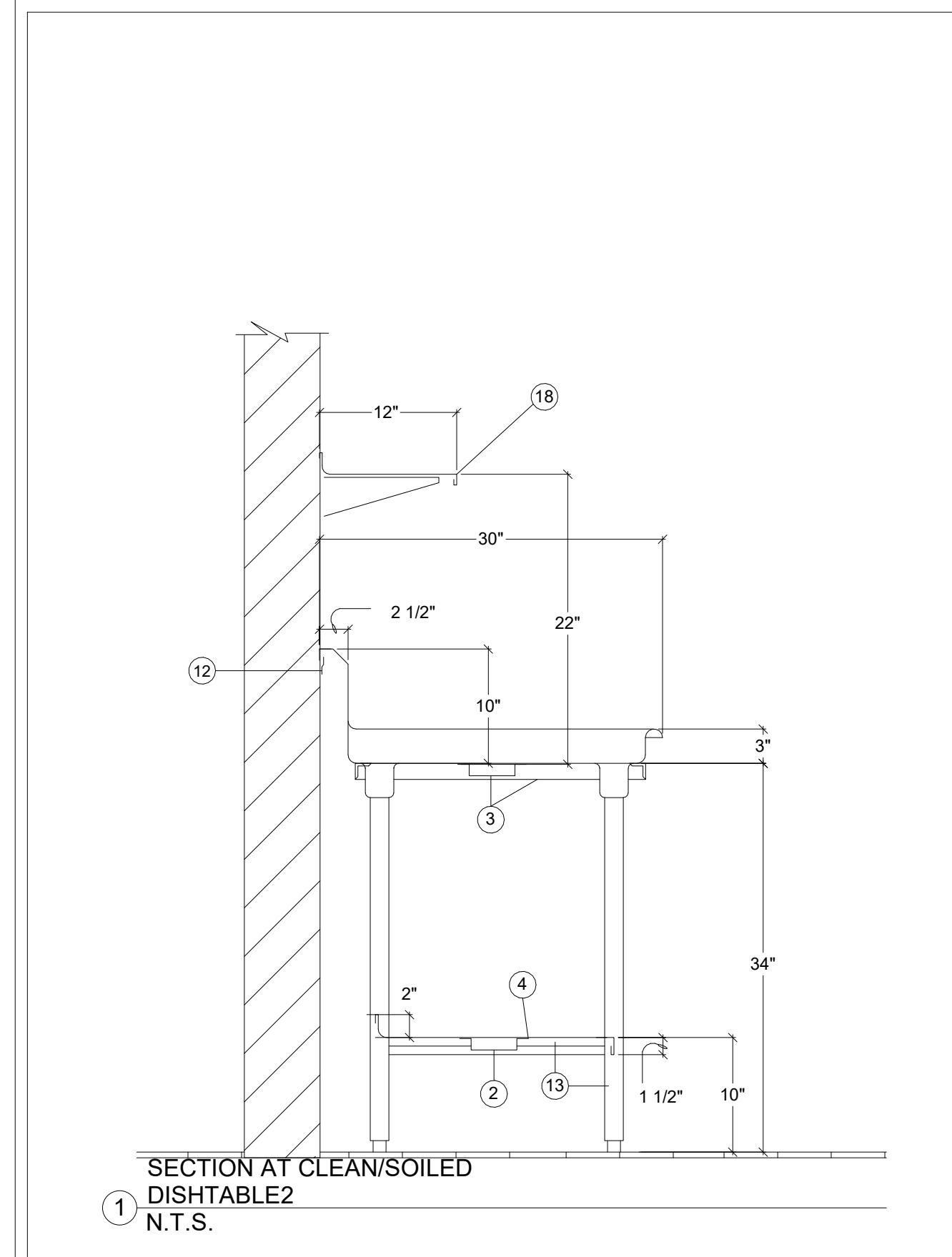
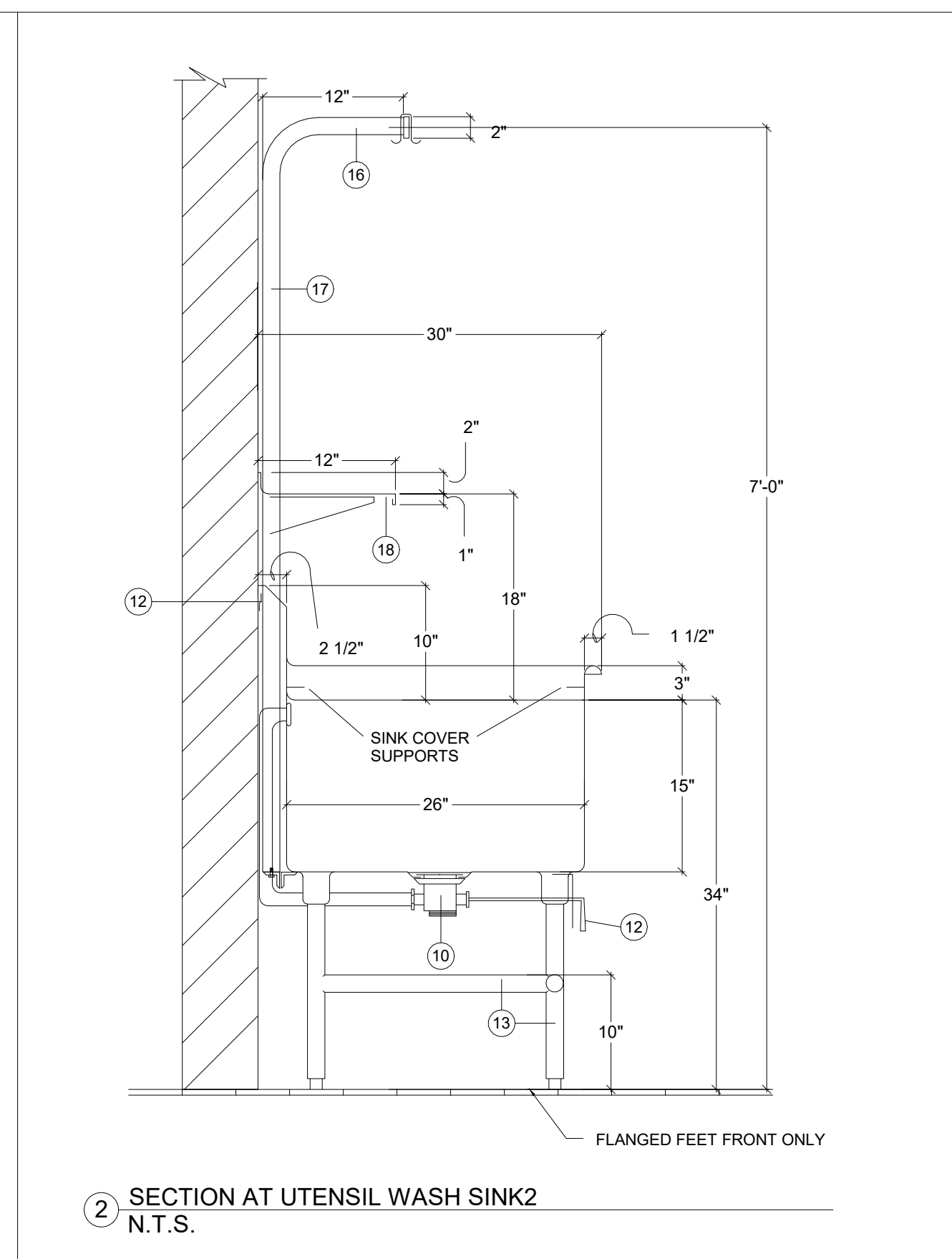
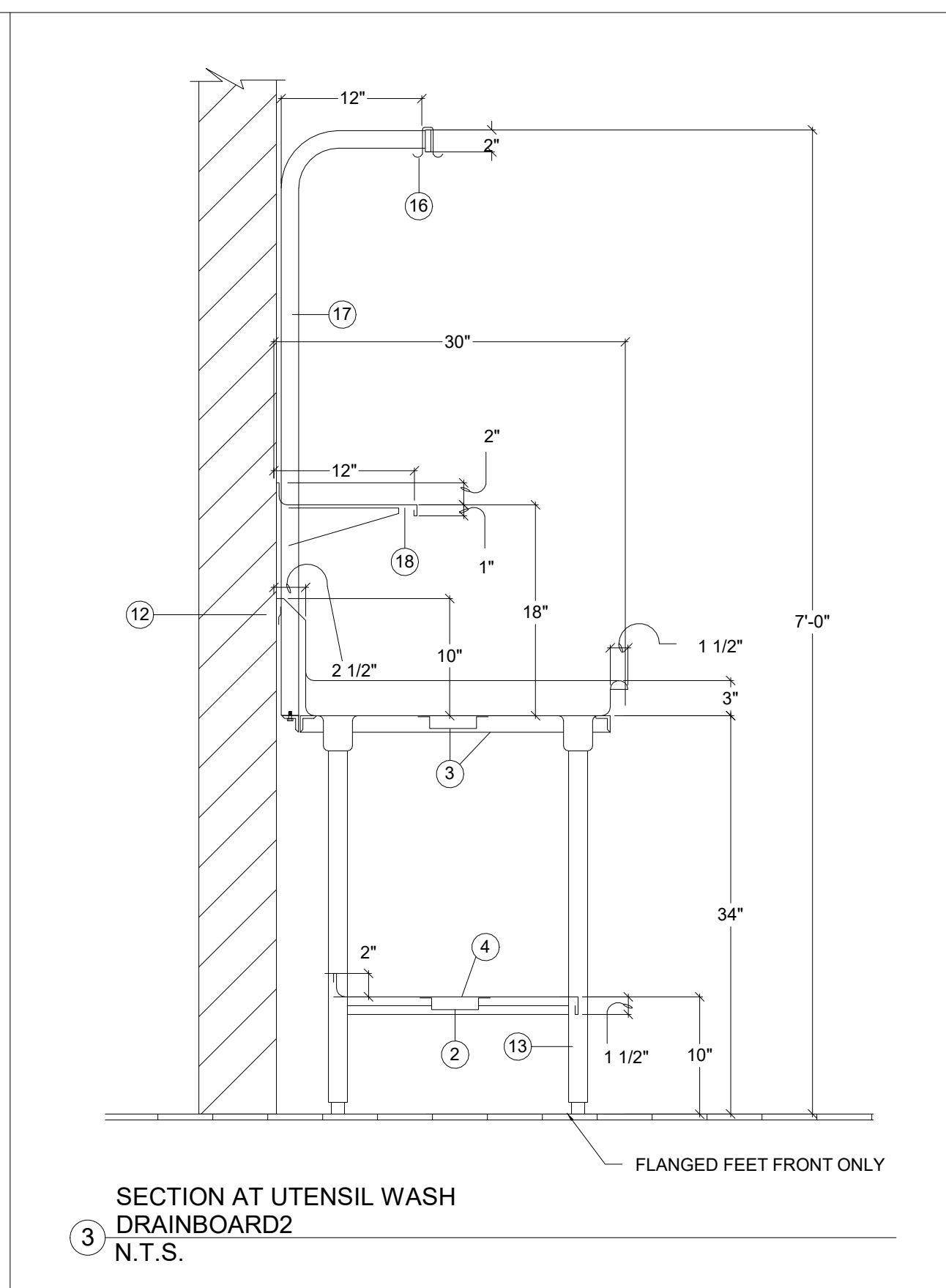
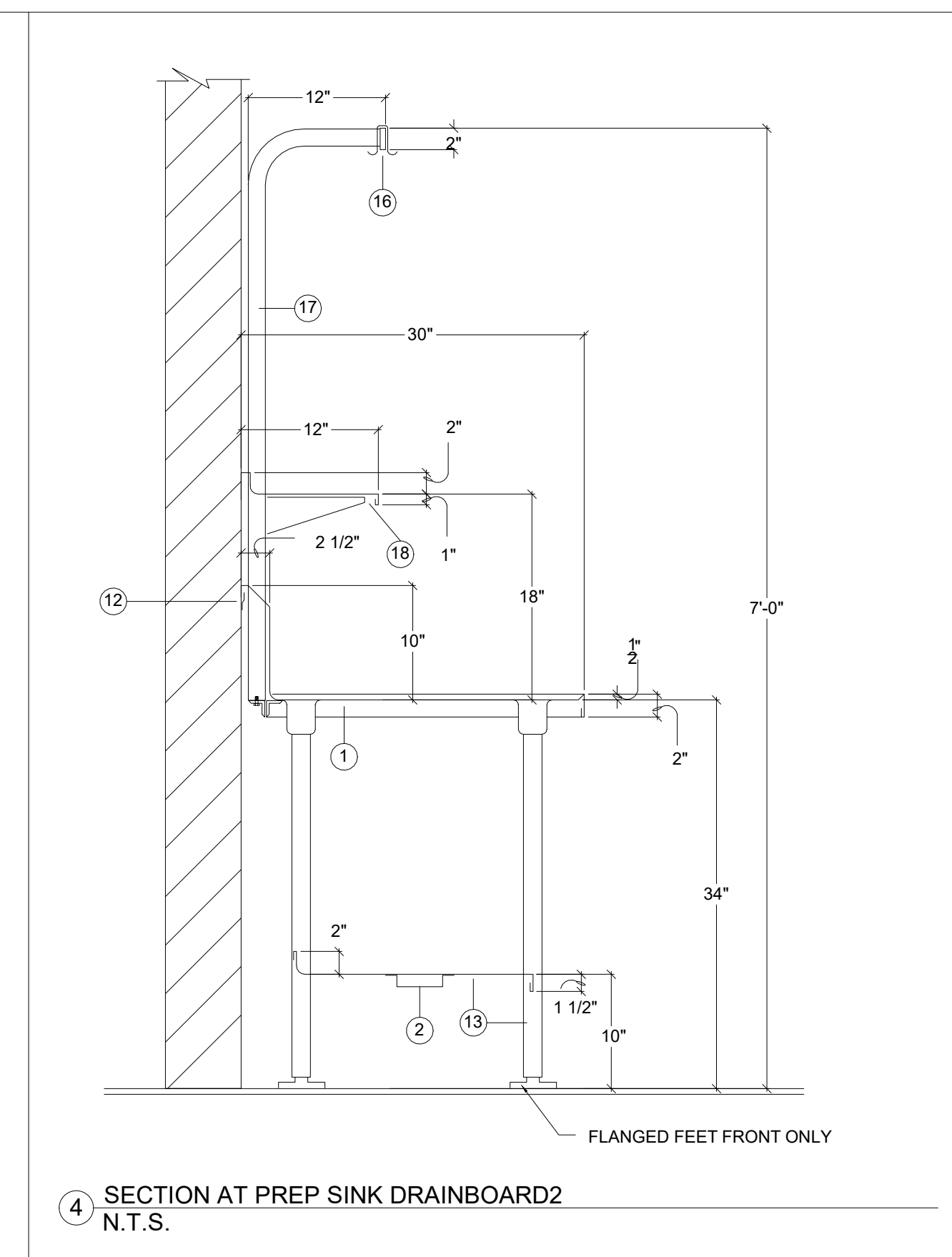
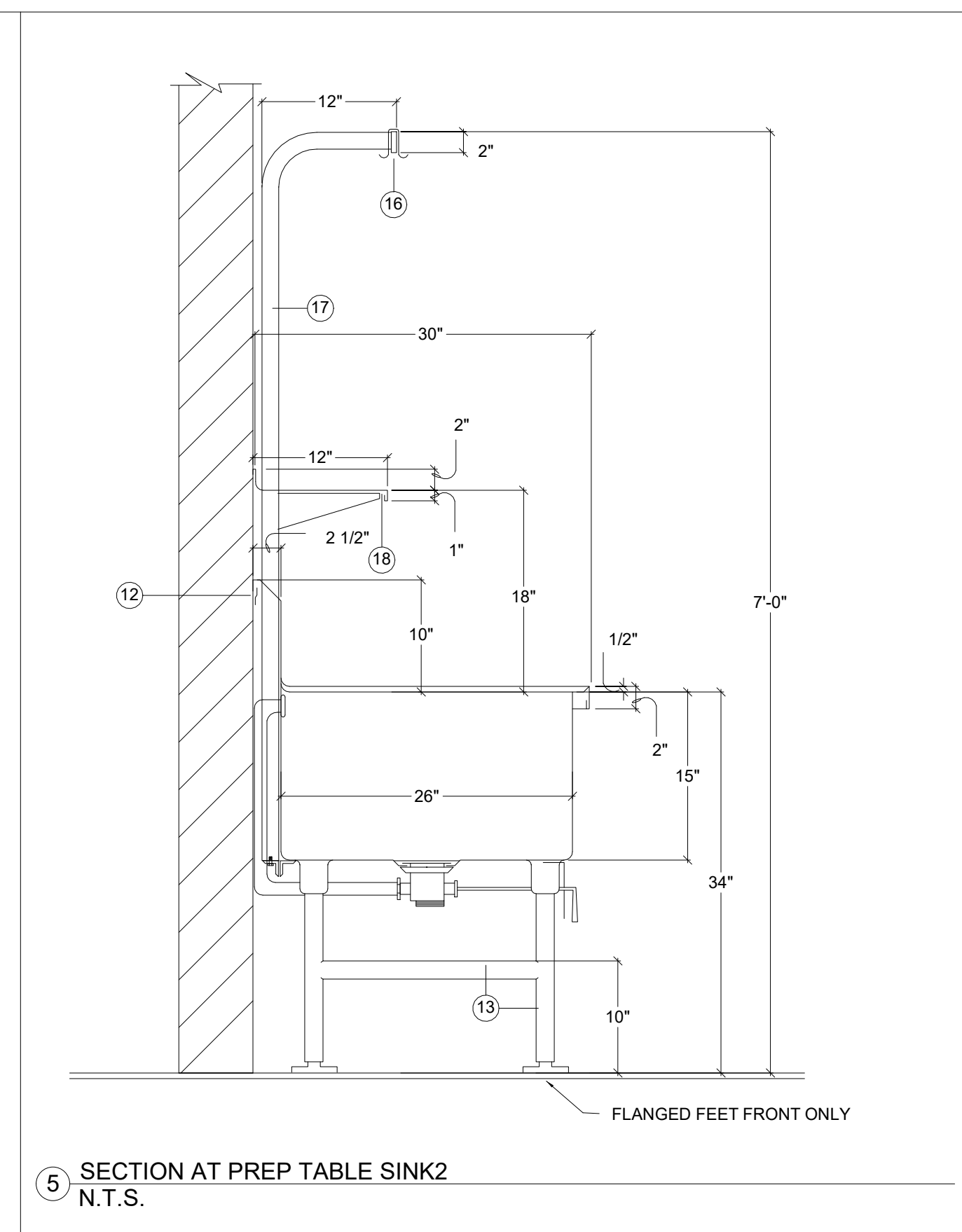


Project Number	19012
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Checked By	MM
Approved By	Approver
Drawing Title	FS ELEVATIONS

Drawing Number **FS1.15**

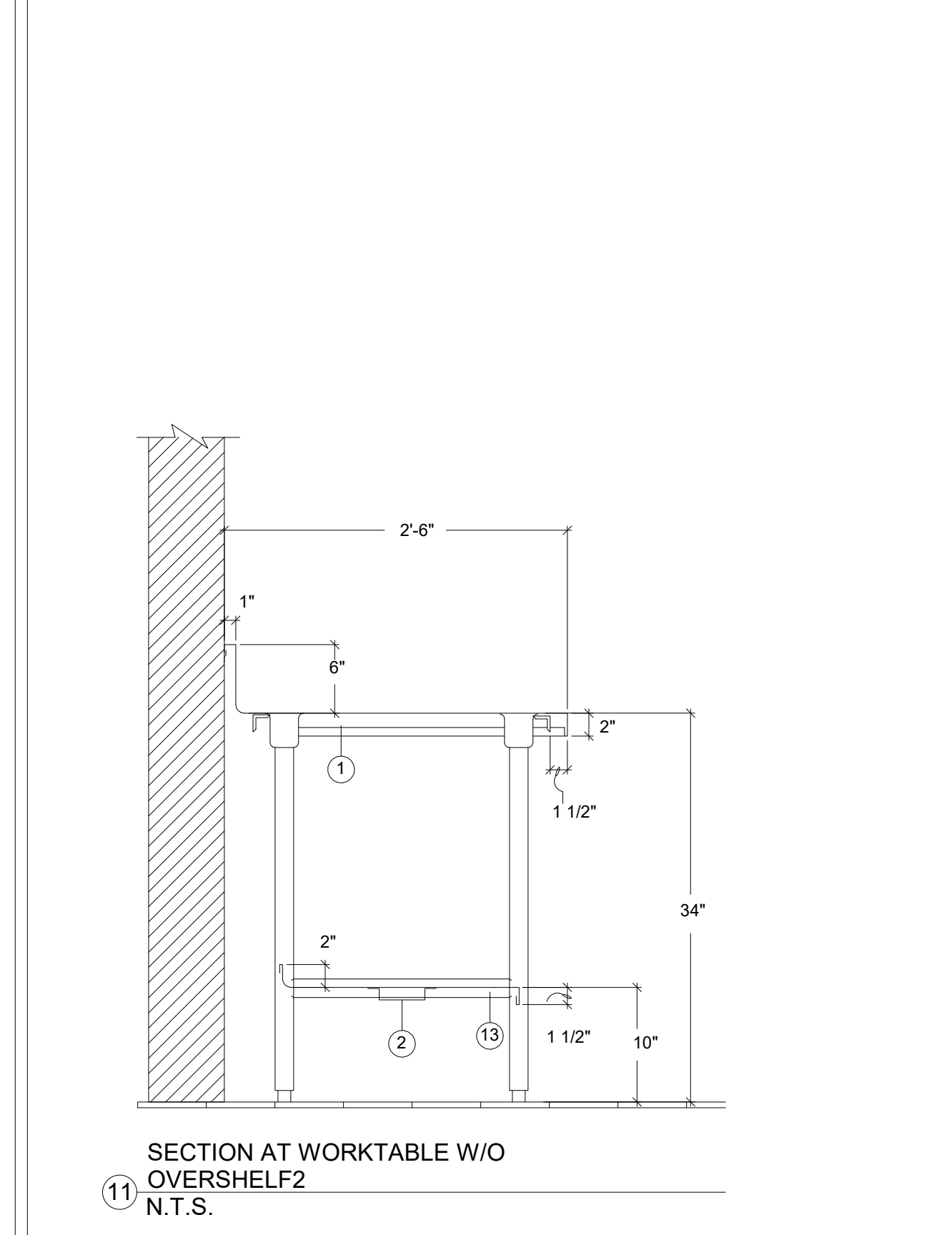
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- 1 1/2" X 1 1/2" X 1/8" GALVANIZED ANGLE IRON.
- 1" X 4" 14 GAUGE STAINLESS STEEL HAT CHANNEL.
- 16 GAUGE STAINLESS STEEL C-CHANNEL.
- 16 GAUGE STAINLESS STEEL UNDERSHELF, COVE UP REAR 2", TURN DOWN FRONT 1 1/2".
- 3/4" MARINE GRADE PLYWOOD BY SECTION 11 40 00 WITH TILE FRONT BY TRADE CONTRACTOR. VERIFY FINISH WITH ARCHITECTURAL DRAWINGS.
- COLD PAN - 2" RIGID INSULATION WITH 1" C.P. DRAIN - 16 GAUGE STAINLESS STEEL SECTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1/4" DIA. HOLES AT 3" O.C.
- 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN DOOR WITH RECESSED PULL.
- MANIFOLD DRAINS AT HOT FOOD UNITS WITH 1" TYPE 'K' COPPER AND EXTEND TO VAVLE IN PLUMBING COMPARTMENT.
- FINISHED TRUE AND LEVEL MASONRY BASE BY DIVISION 9. CLOSE COUNTER BODY AT BASE AND SEAL BY SECTION 11 40 00.
- FISHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW.
- 14 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING.
- 16 GAUGE STAINLESS STEEL 'Z' CLIP TO WALL AND SEAL.
- 5/8" DIA. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS.
- 1/2" S/S TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH.
- 1 5/8" DIA. 16 GAUGE STAINLESS STEEL TUBING - SUPPORT FRONT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE.
- 1/4" S/S BAR STOCK WELDED TO TOP OF EACH POST - POT HOOKS TO BE COMPONENT HARDWARE #J77-4401 SPACED 8" O.C.
- 1 5/8" 16 GAUGE STAINLESS STEEL TUBING - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7'-0" A.F.F. OVERSHELF - 16 GAUGE STAINLESS STEEL COVE UP REAR 2". TURN FRONT AND ENDS DOWN 1". ENDS TO BE CAPPED WITH EASED CORNERS WHERE ADJACENT TO WALL / FIXTURE.
- 18 GA. S/S LOUVERED PANEL.
- 18 GAUGE STAINLESS STEEL LOUVERED DOUBLE PAN DOOR WITH RECESSED PULL.
- NUMBER NOT USED.
- 18 GA. STAINLESS STEEL INSULATED DOUBLE PAN SLIDING DOOR WITH COMPONENT HARDWARE COMPONENTS
A. #B57 - (VERIFY LENGTH) EXTRUDED ALUMINUM TRACK.
B. #B58-5511 & #B58-5521 FRONT & REAR DOOR SHEAVES.
C. #B62-1093 DOOR GUIDE
D. #B60-1086 DOOR STOPS WHERE NEEDED
E. #P62-1010 RECESS PULLS

SECTION DETAIL NOTES2
N.T.S.

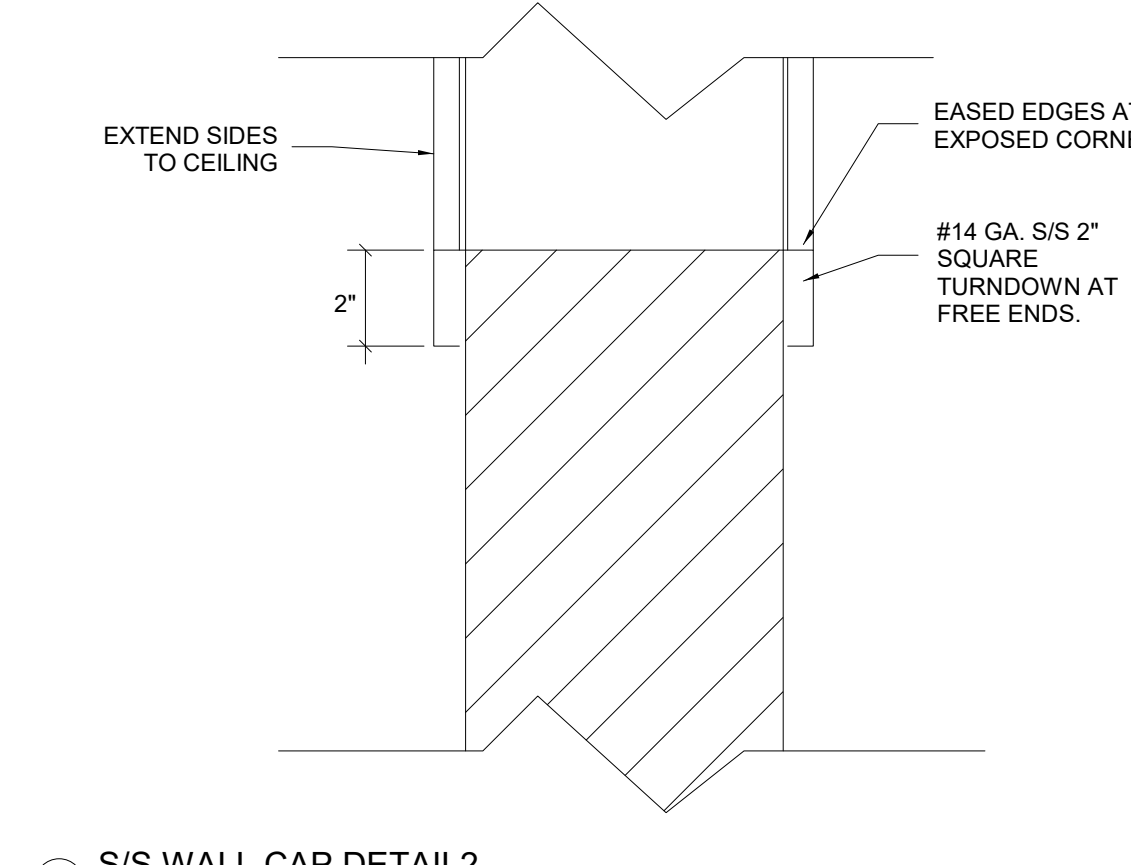


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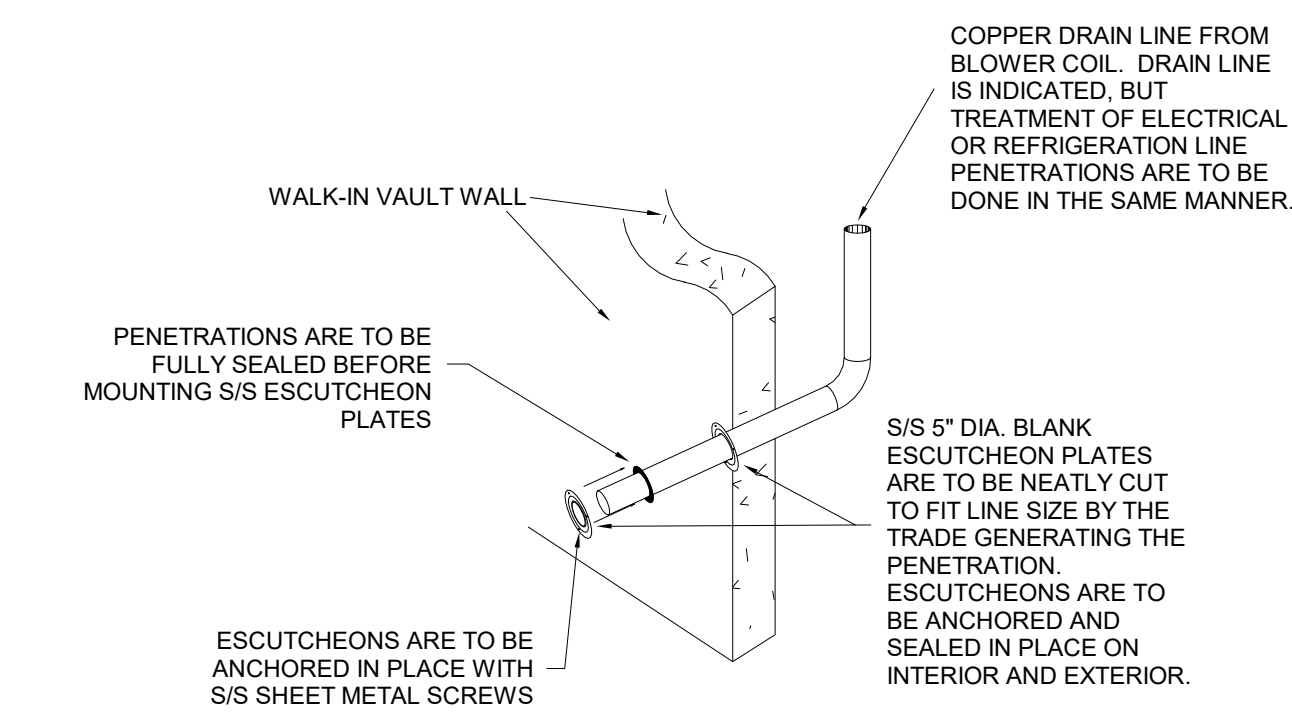
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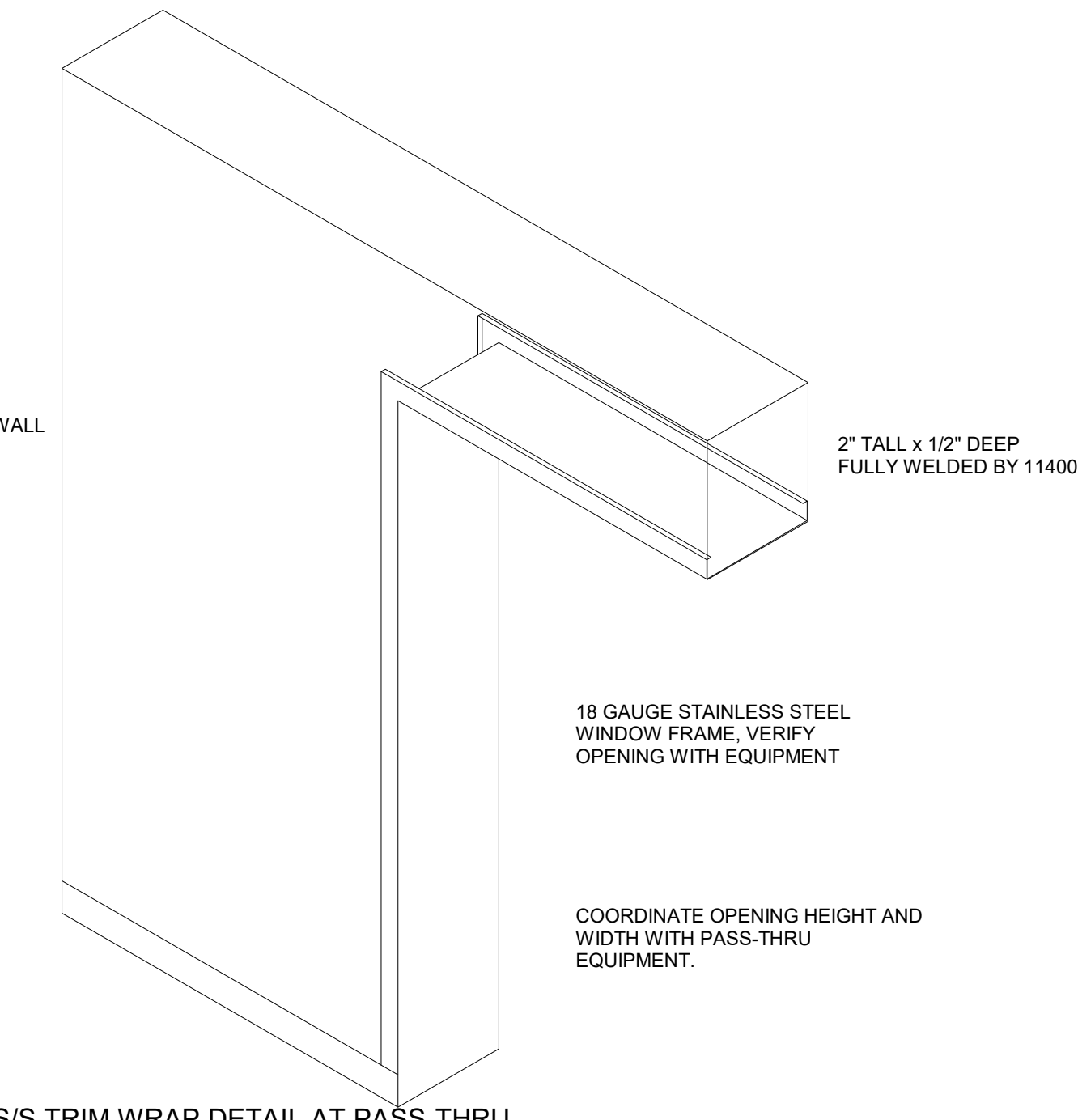
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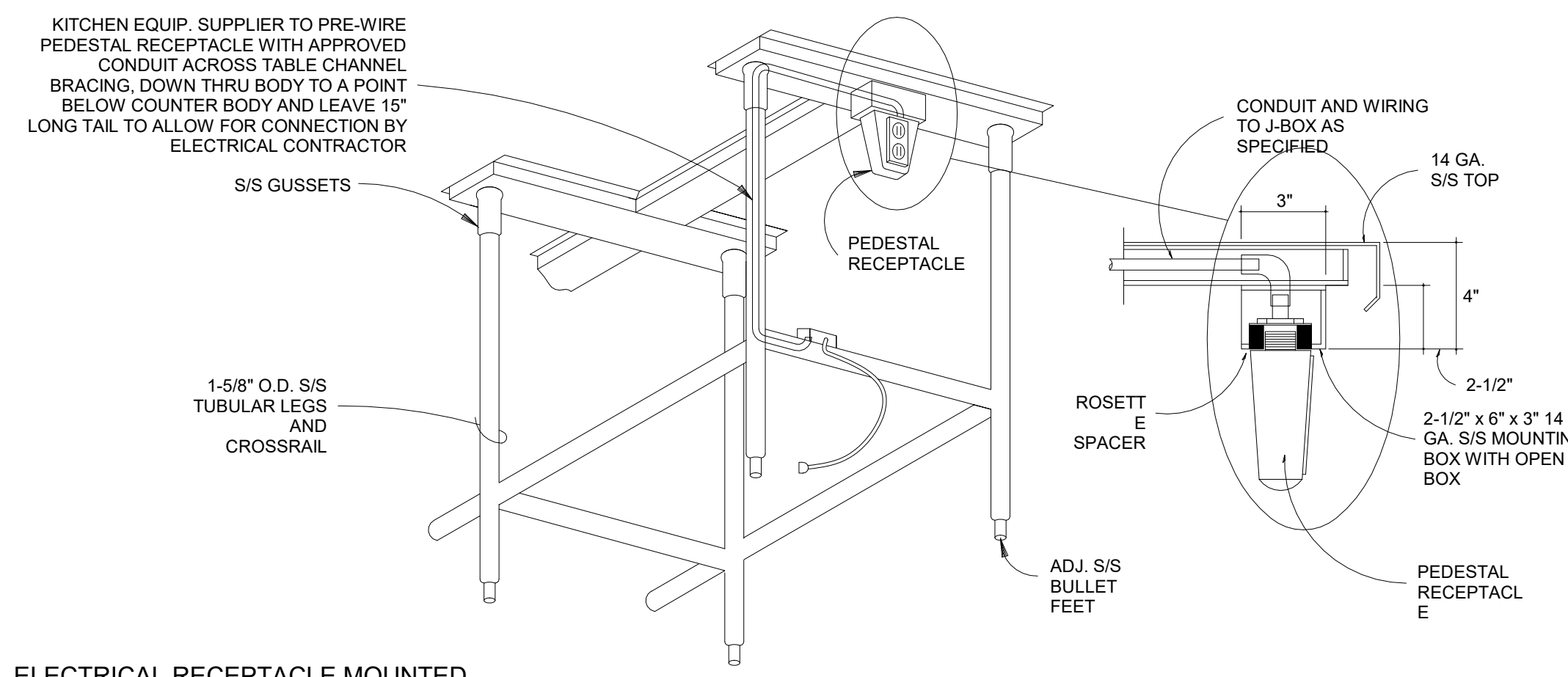
5 S/S WALL CAP DETAIL2 N.T.S.



4 ESCUTCHEON & PENETRATION DETAIL2 NONE



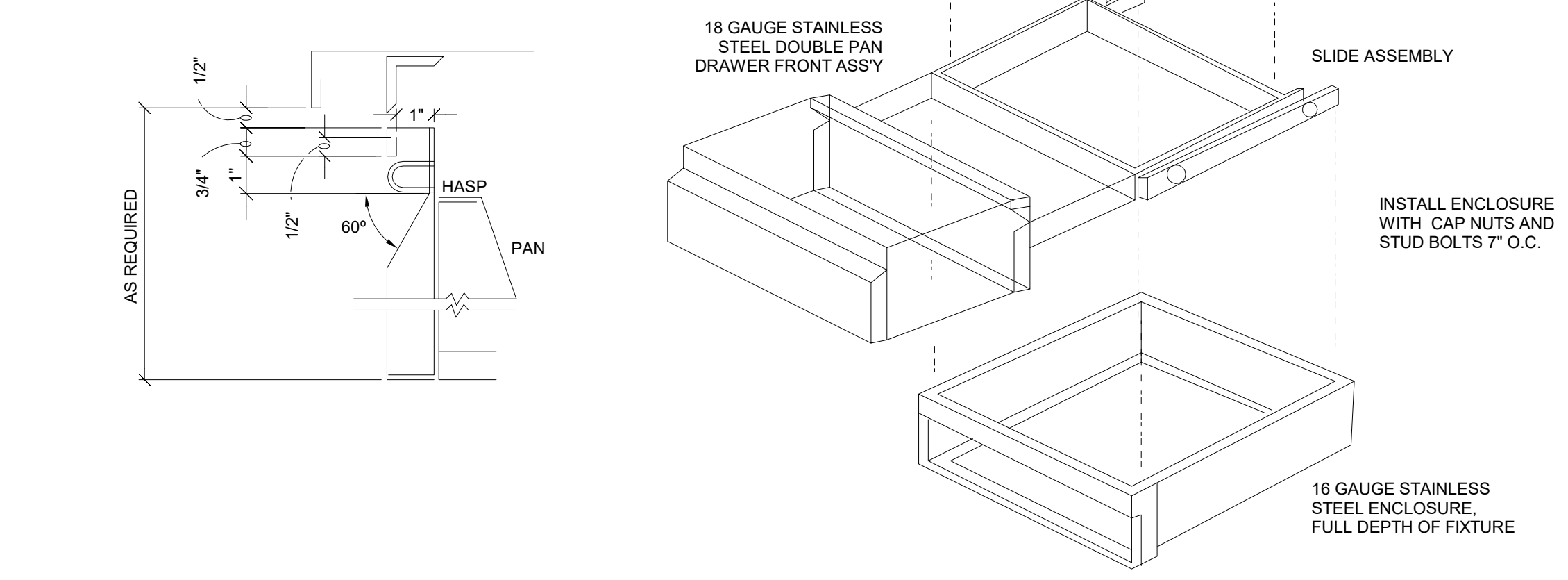
6 S/S TRIM WRAP DETAIL AT PASS-THRU EQUIPMENT2 N.T.S.



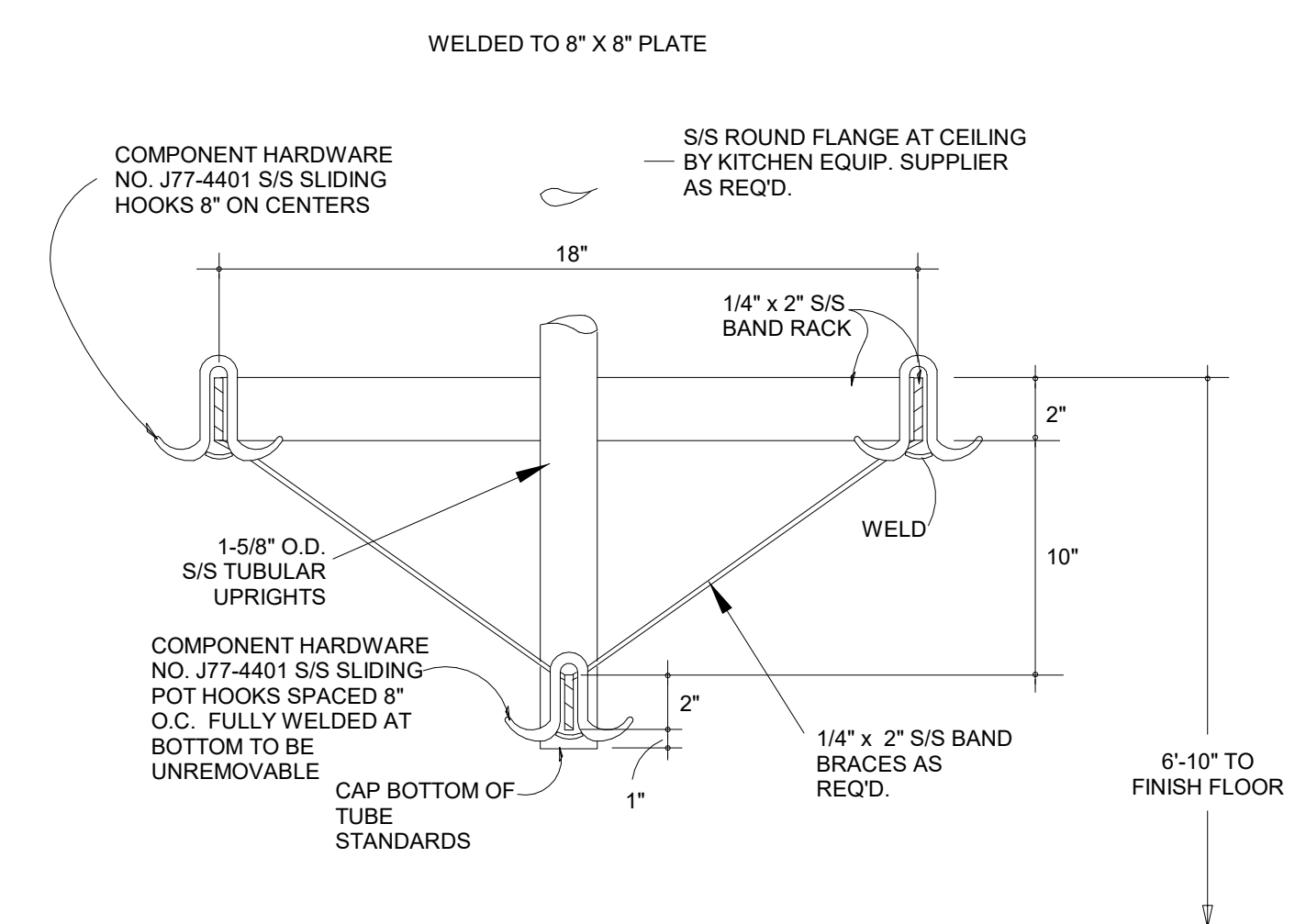
7 ELECTRICAL RECEPTACLE MOUNTED UNDER TOP DETAIL2 N.T.S.

COMPONENT HARDWARE DRAWER PAN AND SLIDES

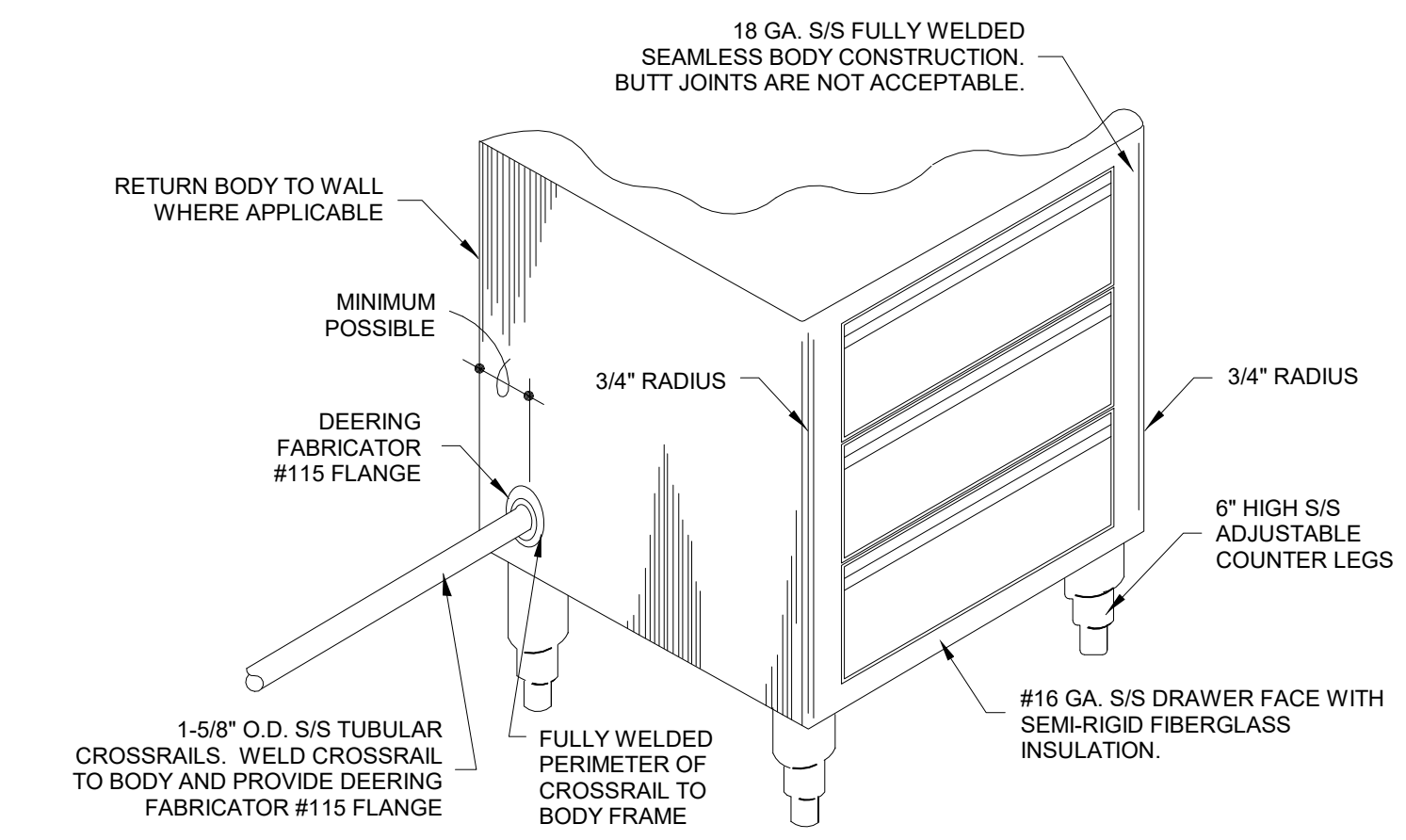
TYPE	DRAWER PAN MODEL NO.	DRAWER SLIDE MODEL NO.
UTILITY	S81-1520	S52-0024
BREAD	S83-2020	S52-0026
REFRIGERATOR	S81-1520	S52-0024



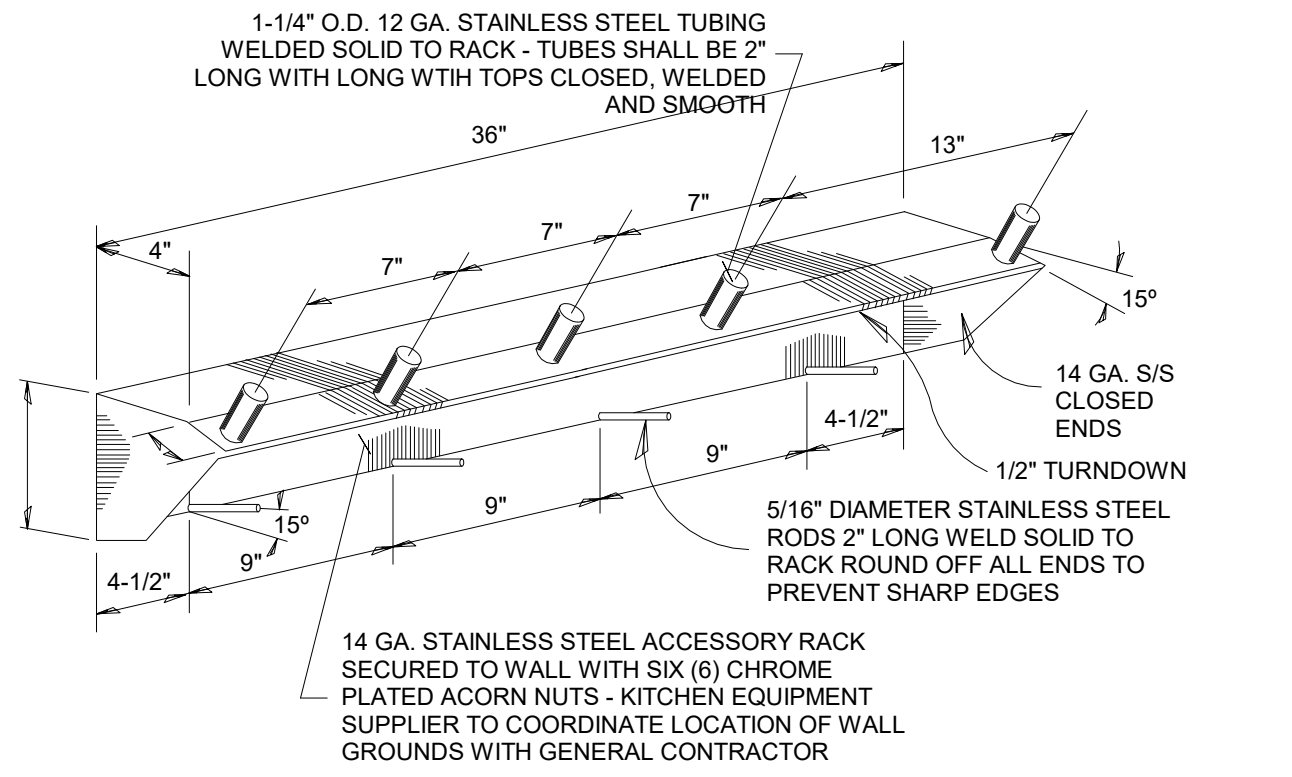
8 DRAWER ASSEMBLY DETAIL2 N.T.S.



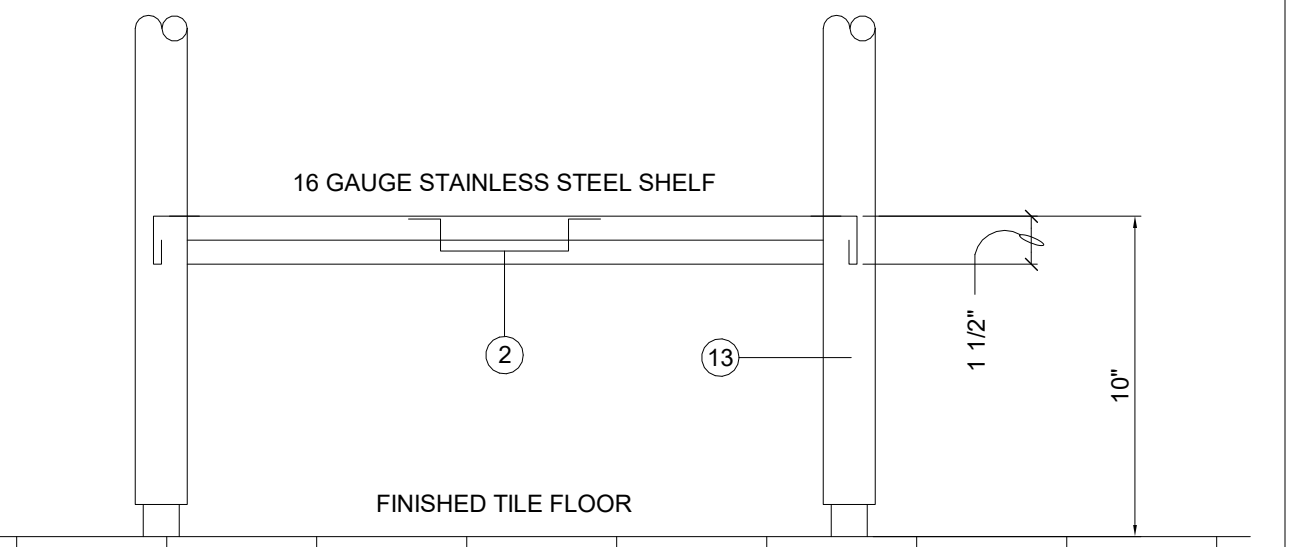
9 OVAL POT RACK DETAIL2 N.T.S.



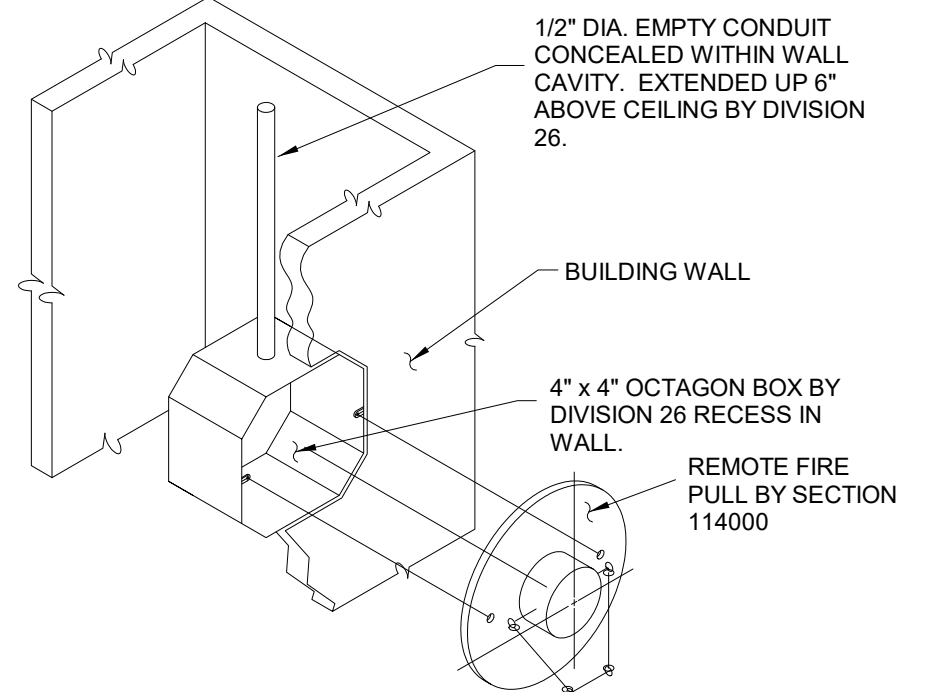
10 BAKER'S TABLE DRAWER DETAIL2 NONE



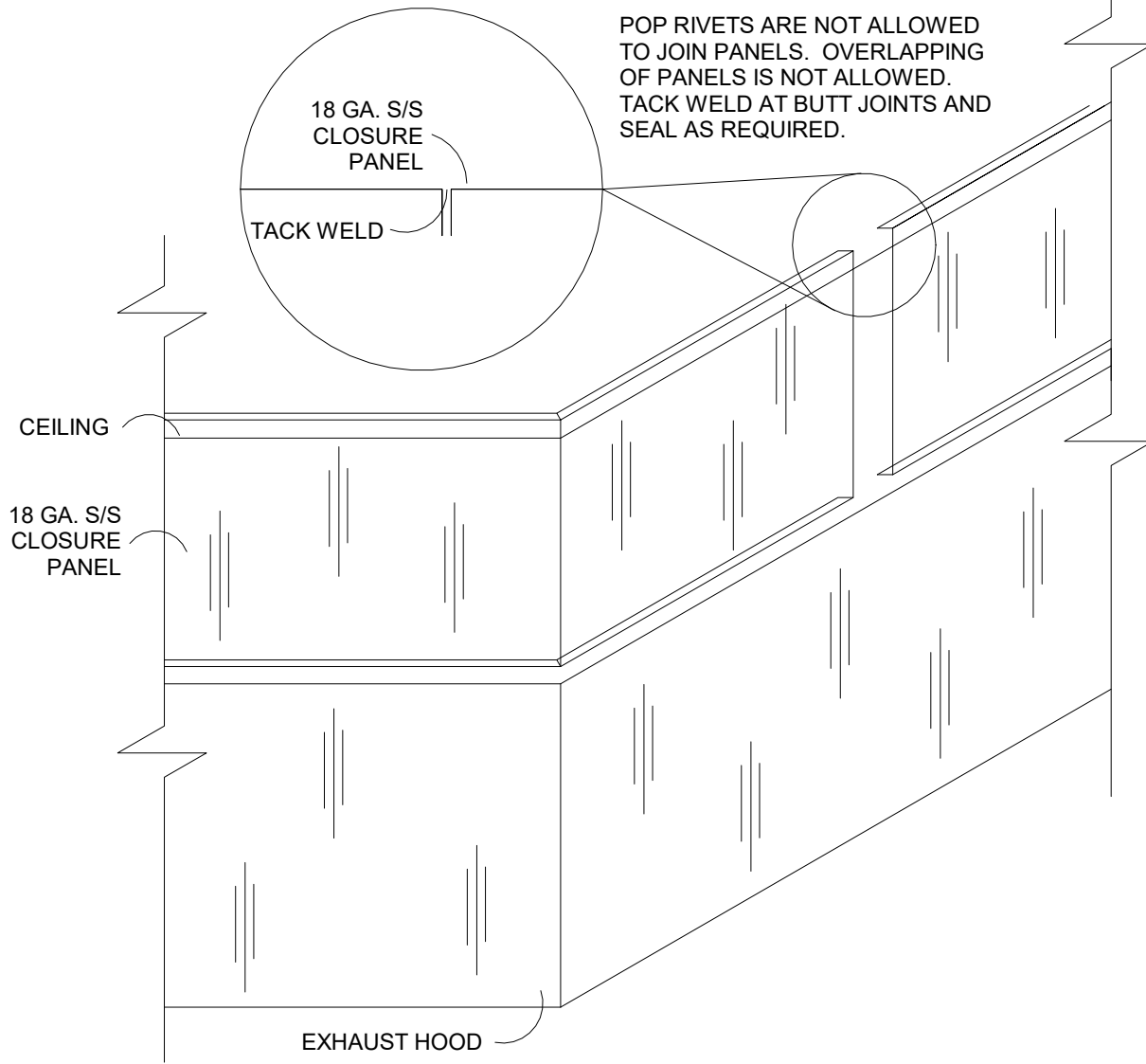
11 MIXER ACCESSORY RACK DETAIL2 N.T.S.



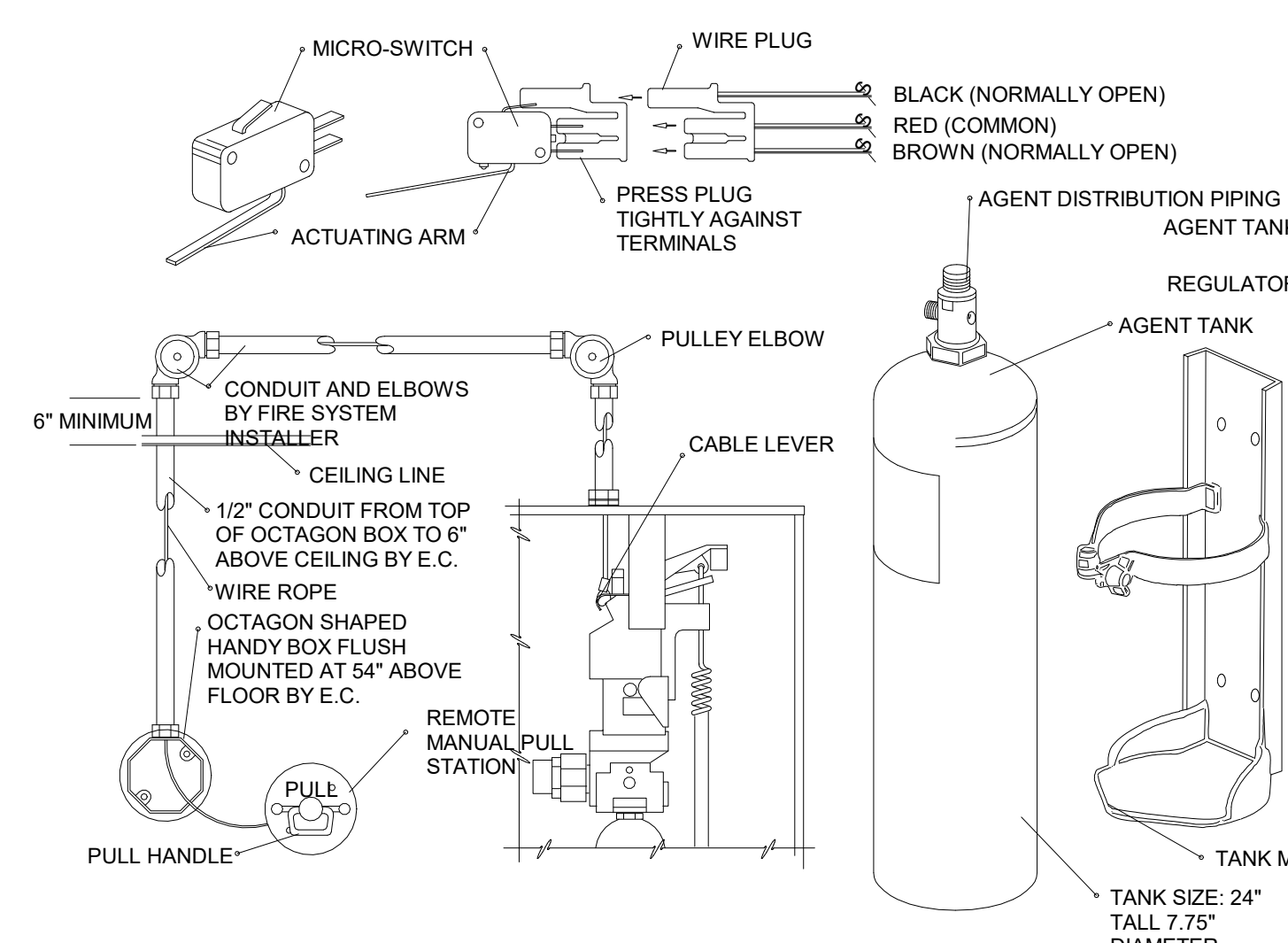
13 TYPICAL UNDERSHELF DETAIL2 N.T.S.



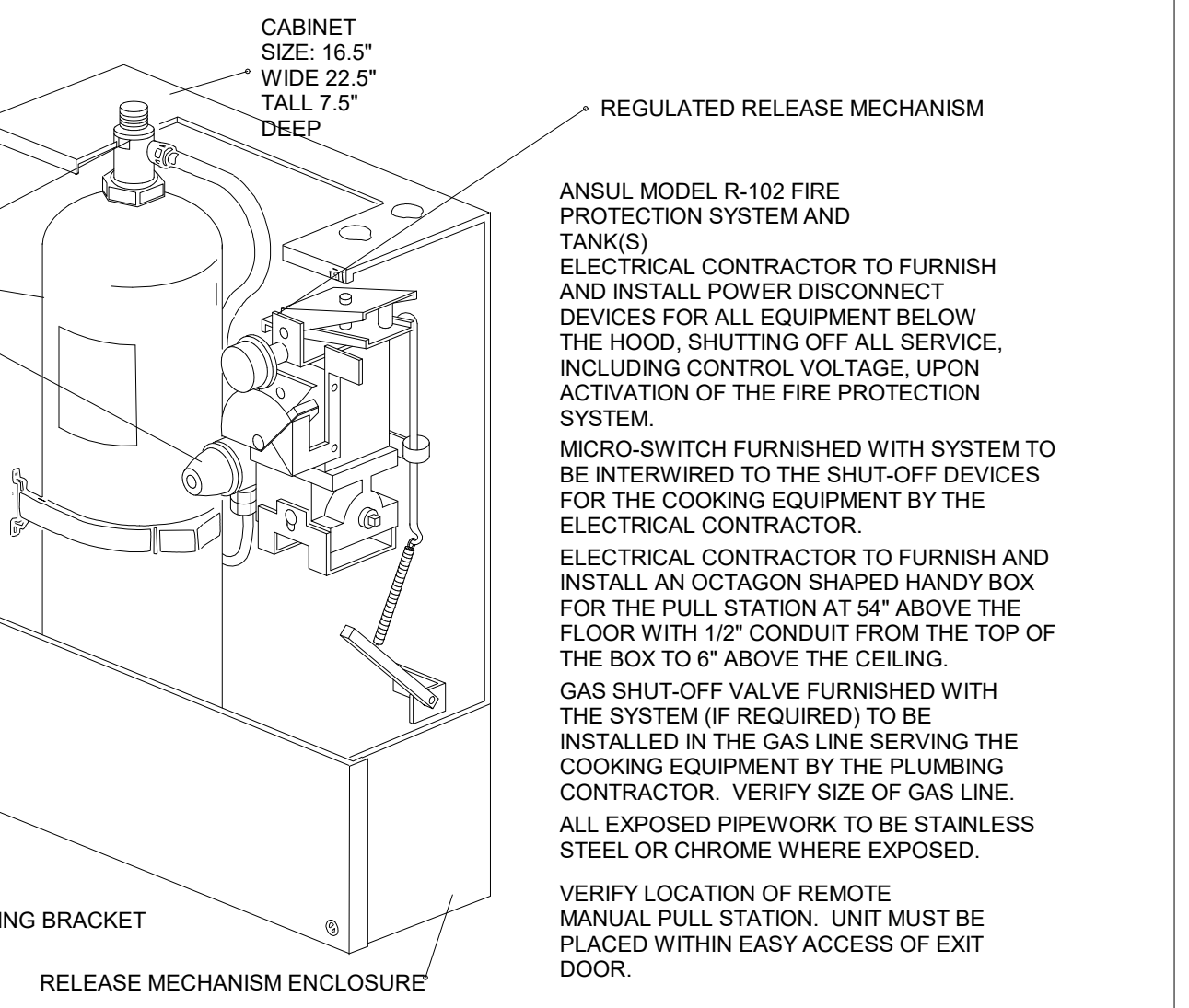
14 FIRE PULL DETAIL2 N.T.S.



15 CLOSURE PANEL DETAIL AT EXHAUST HOOD2 N.T.S.



16 FIRE PROTECTION SYSTEM2 N.T.S.



REGULATED RELEASE MECHANISM

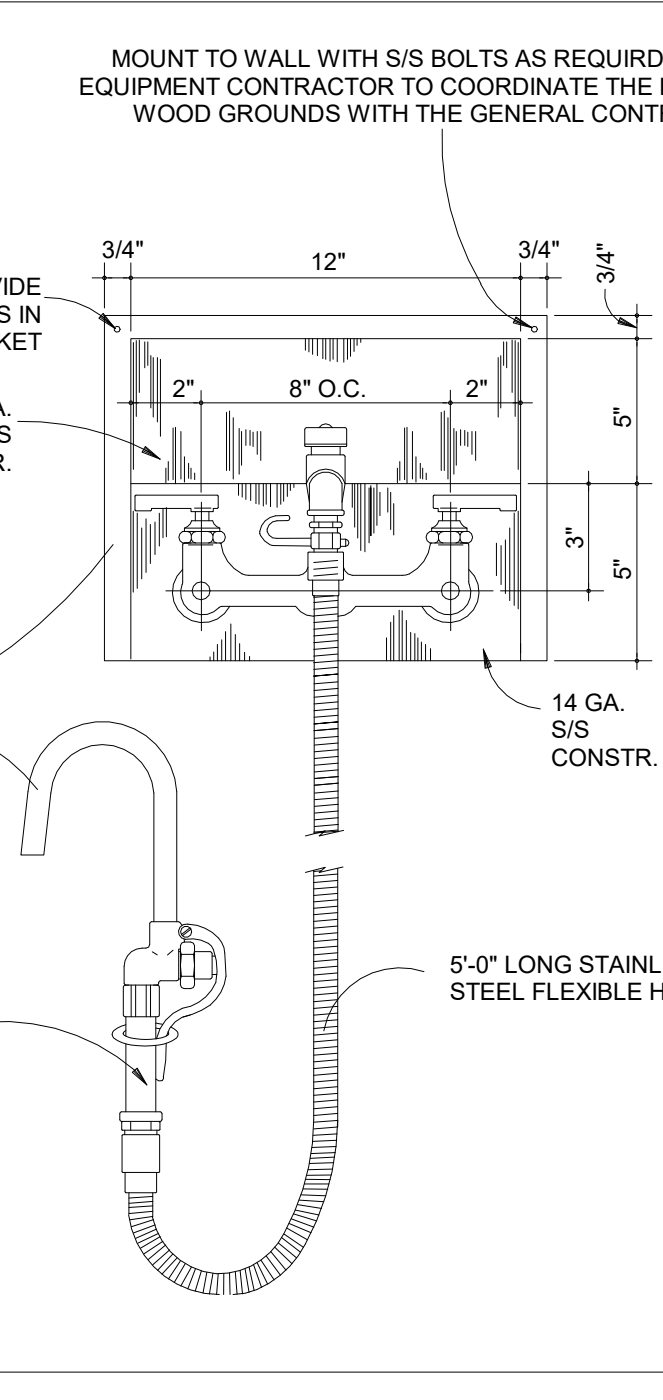
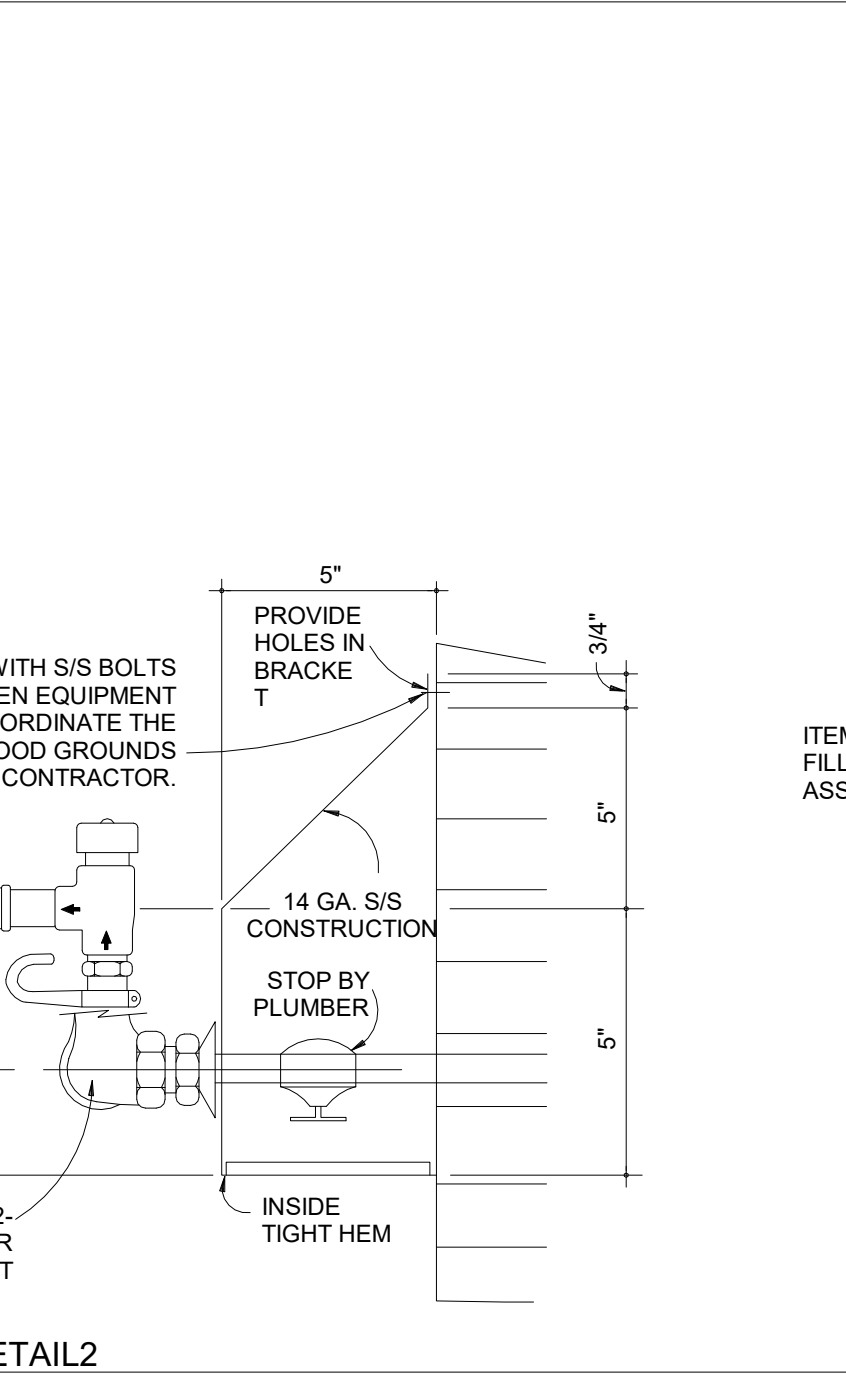
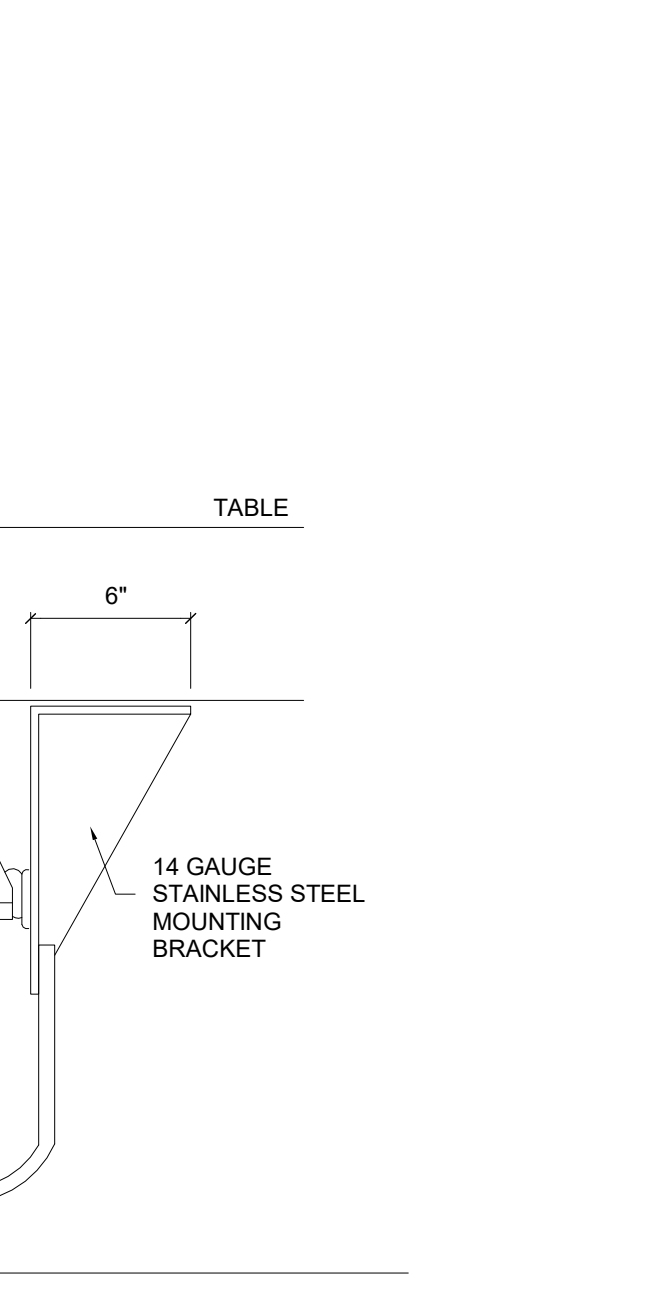
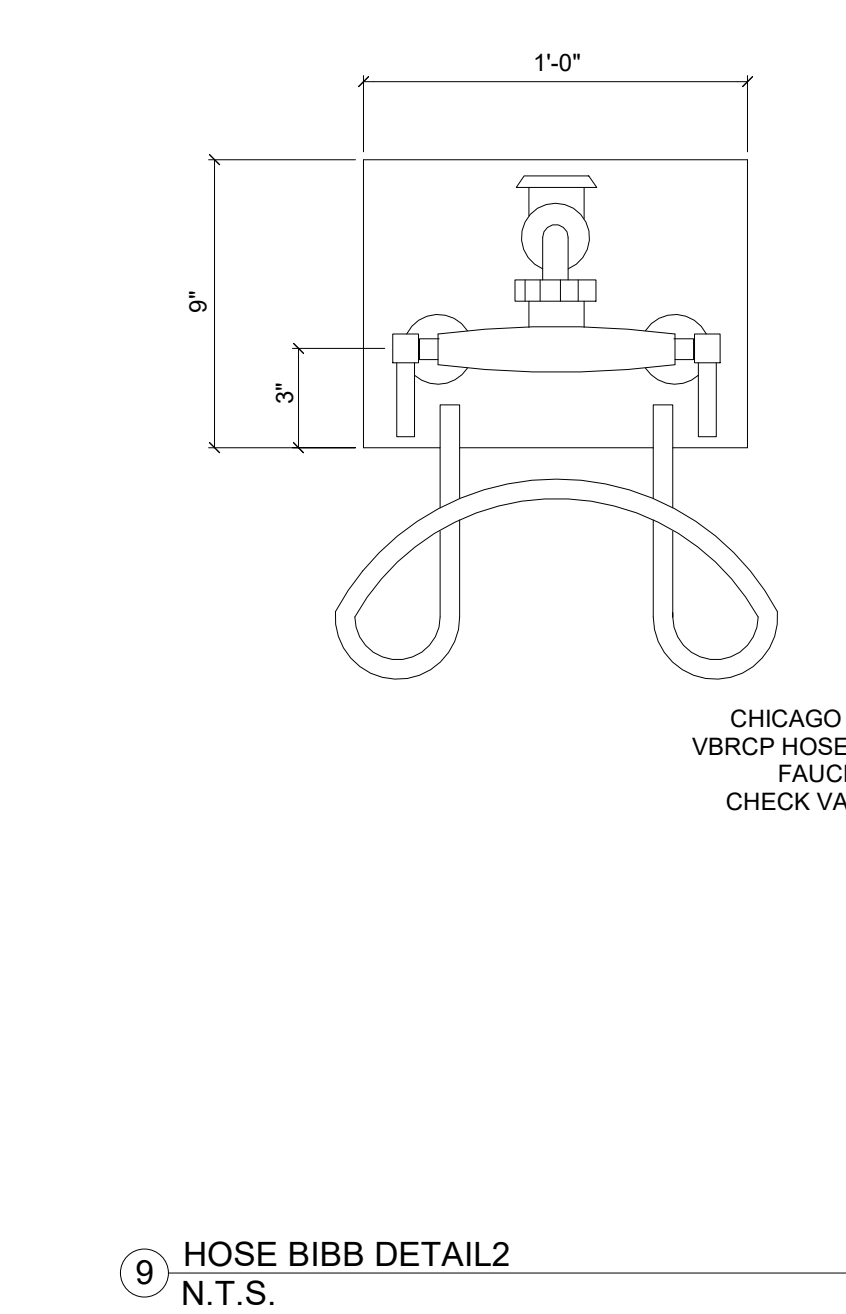
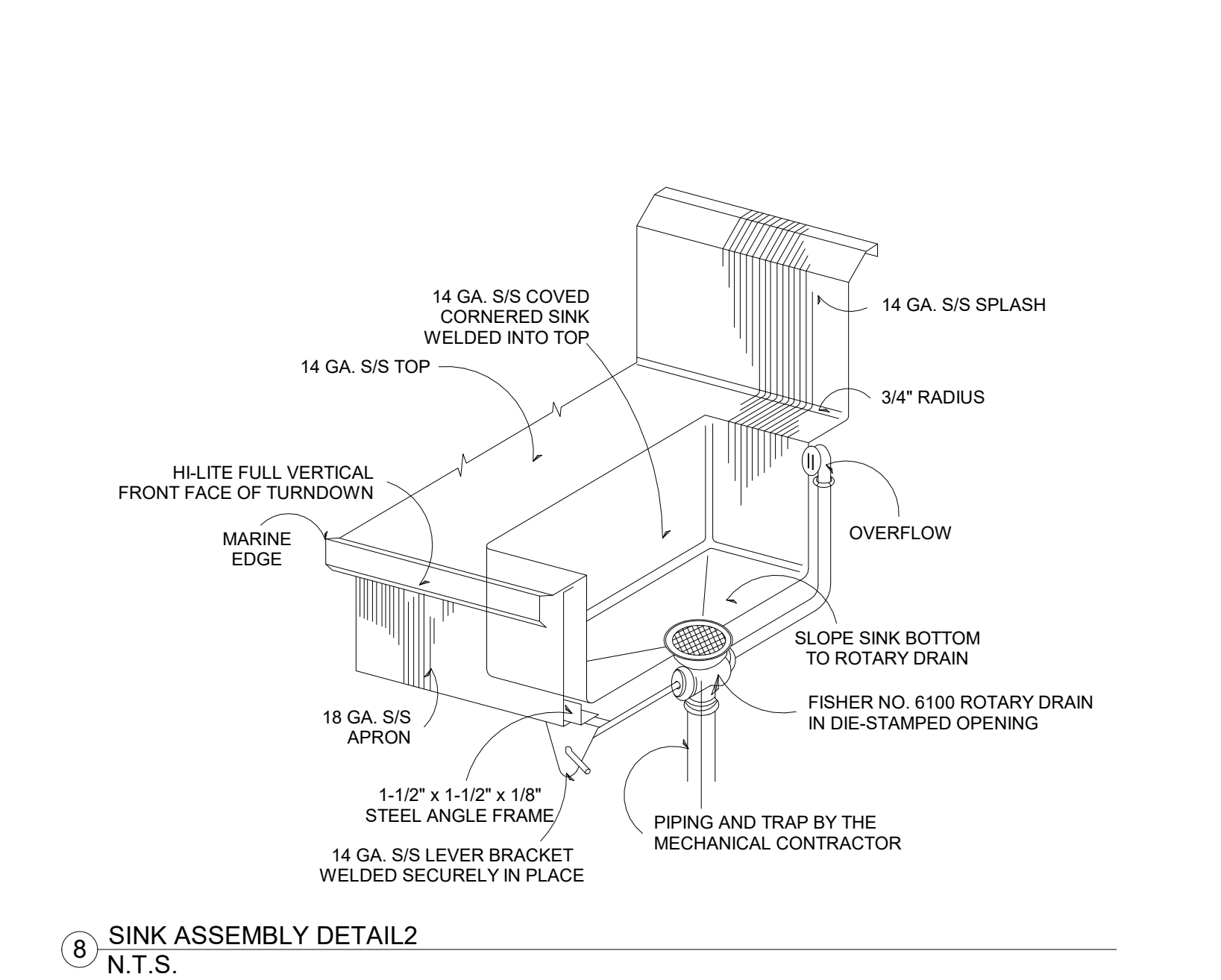
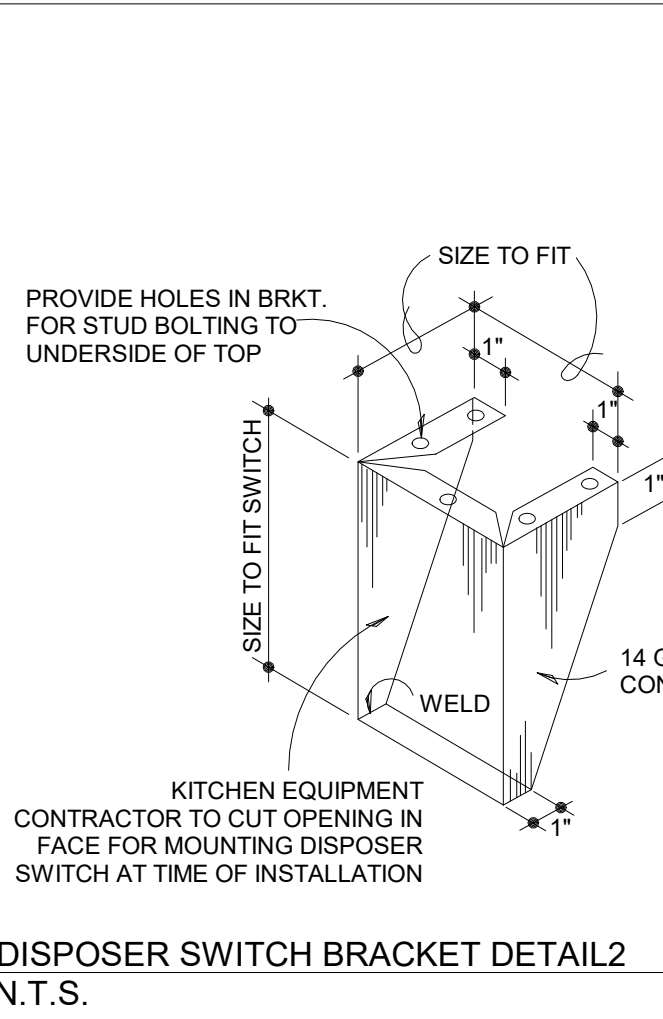
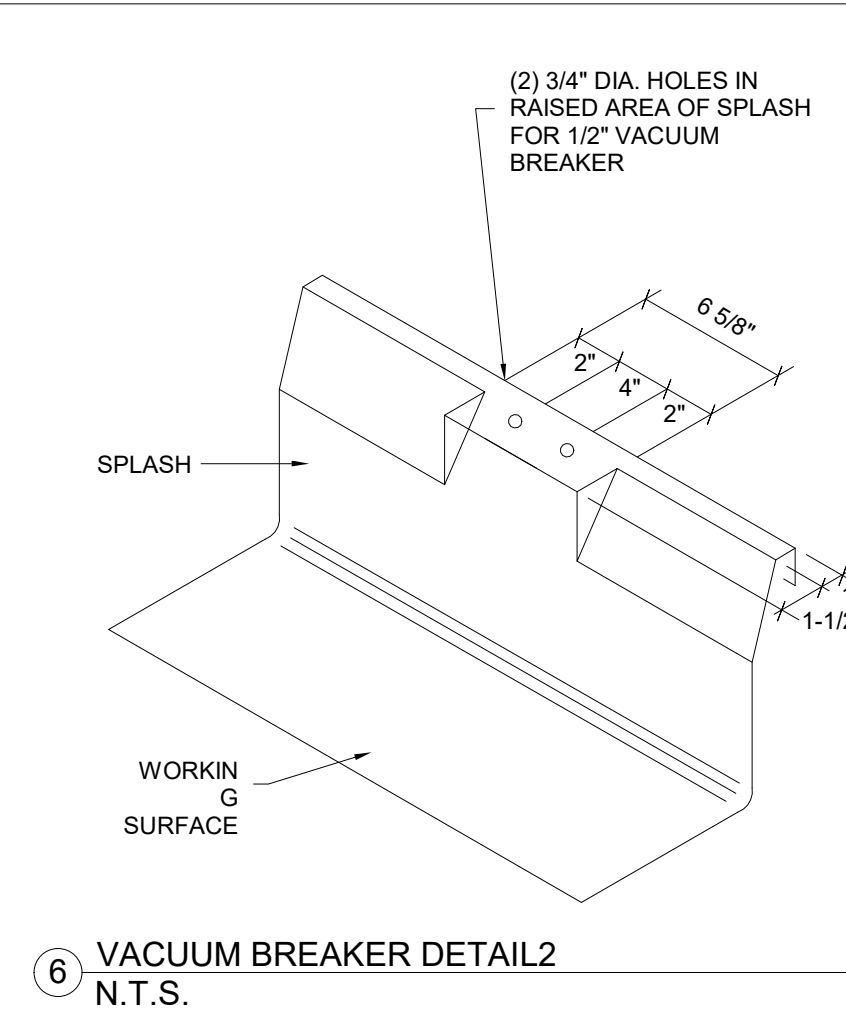
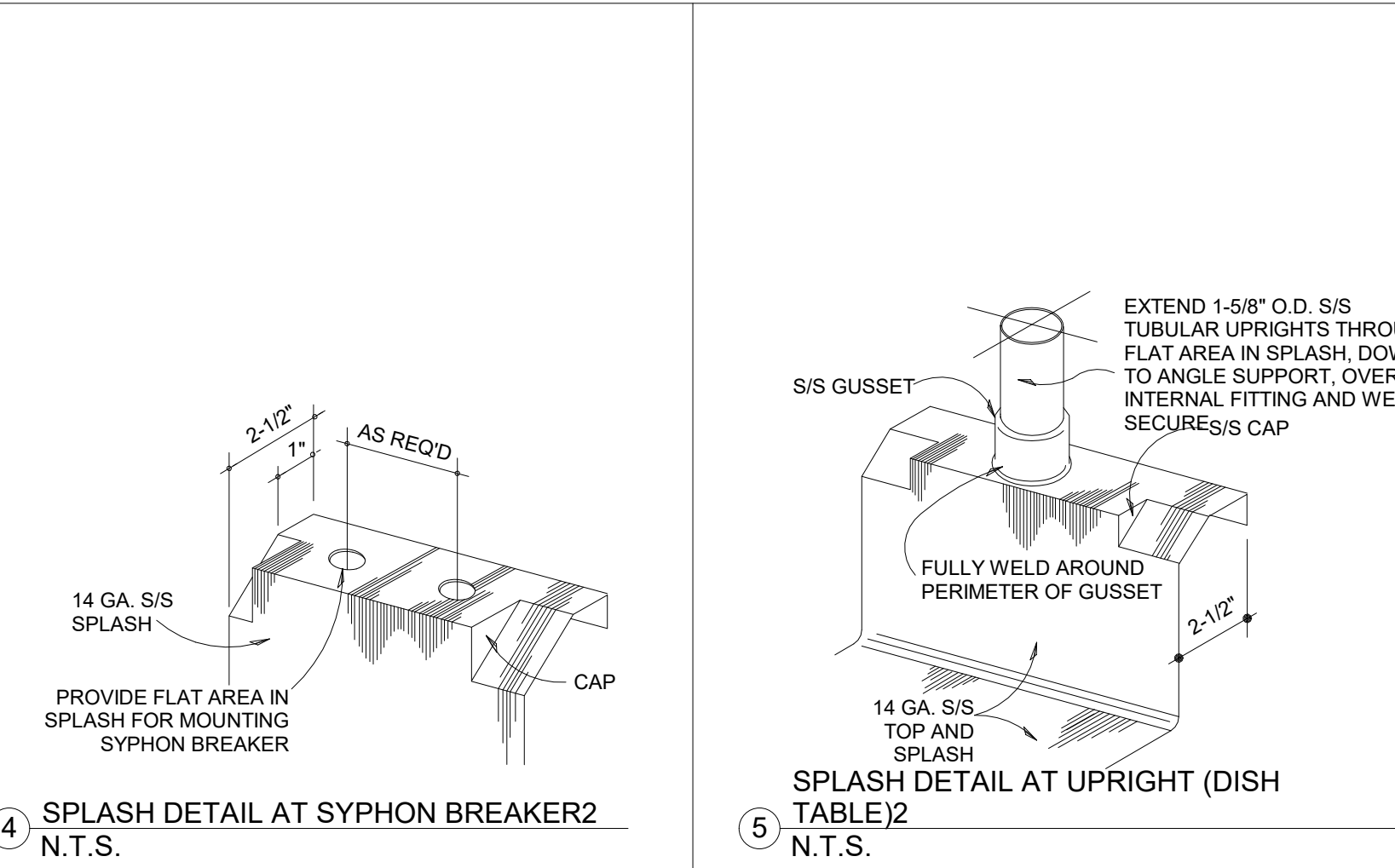
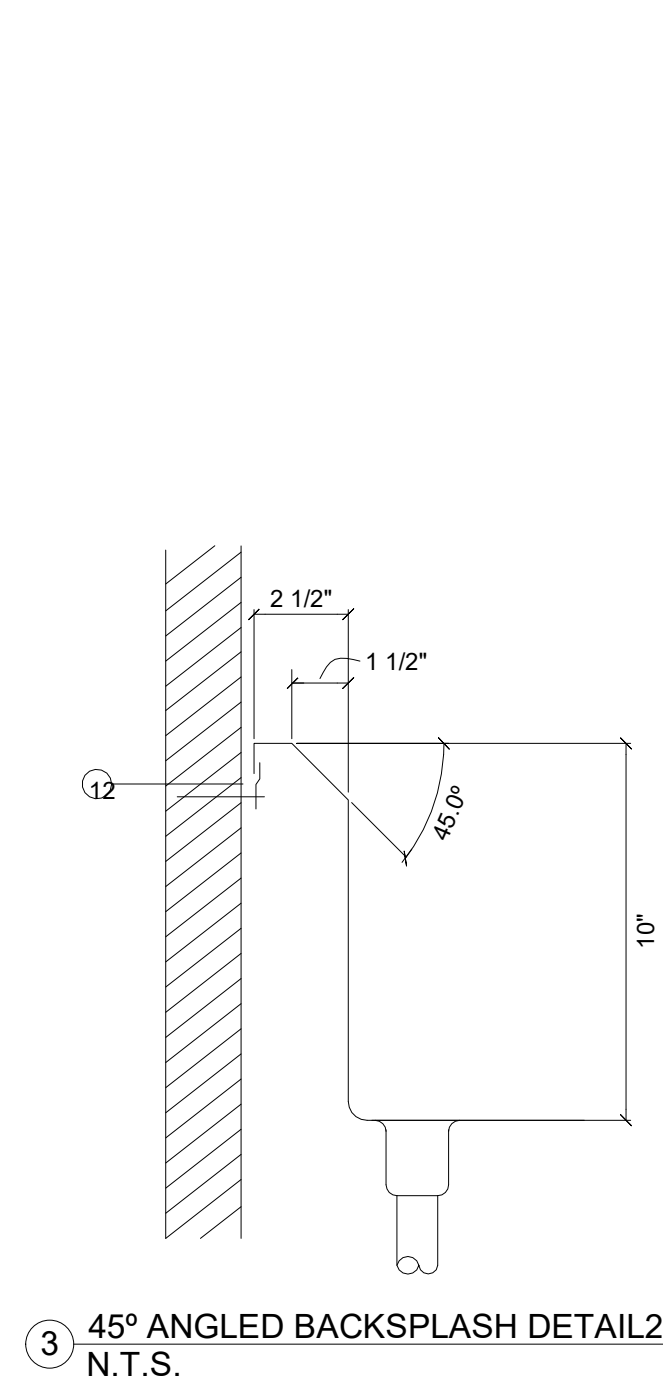
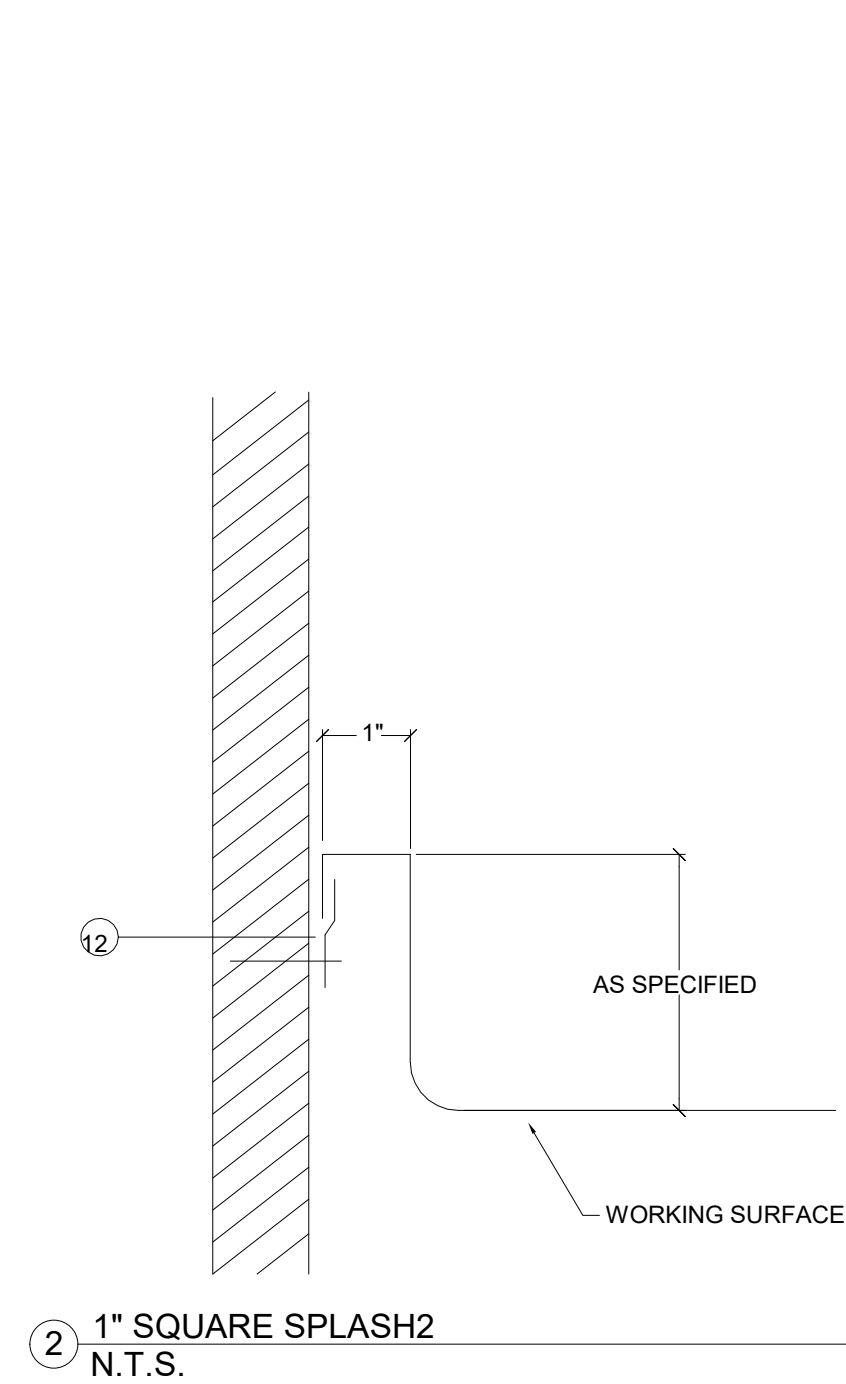
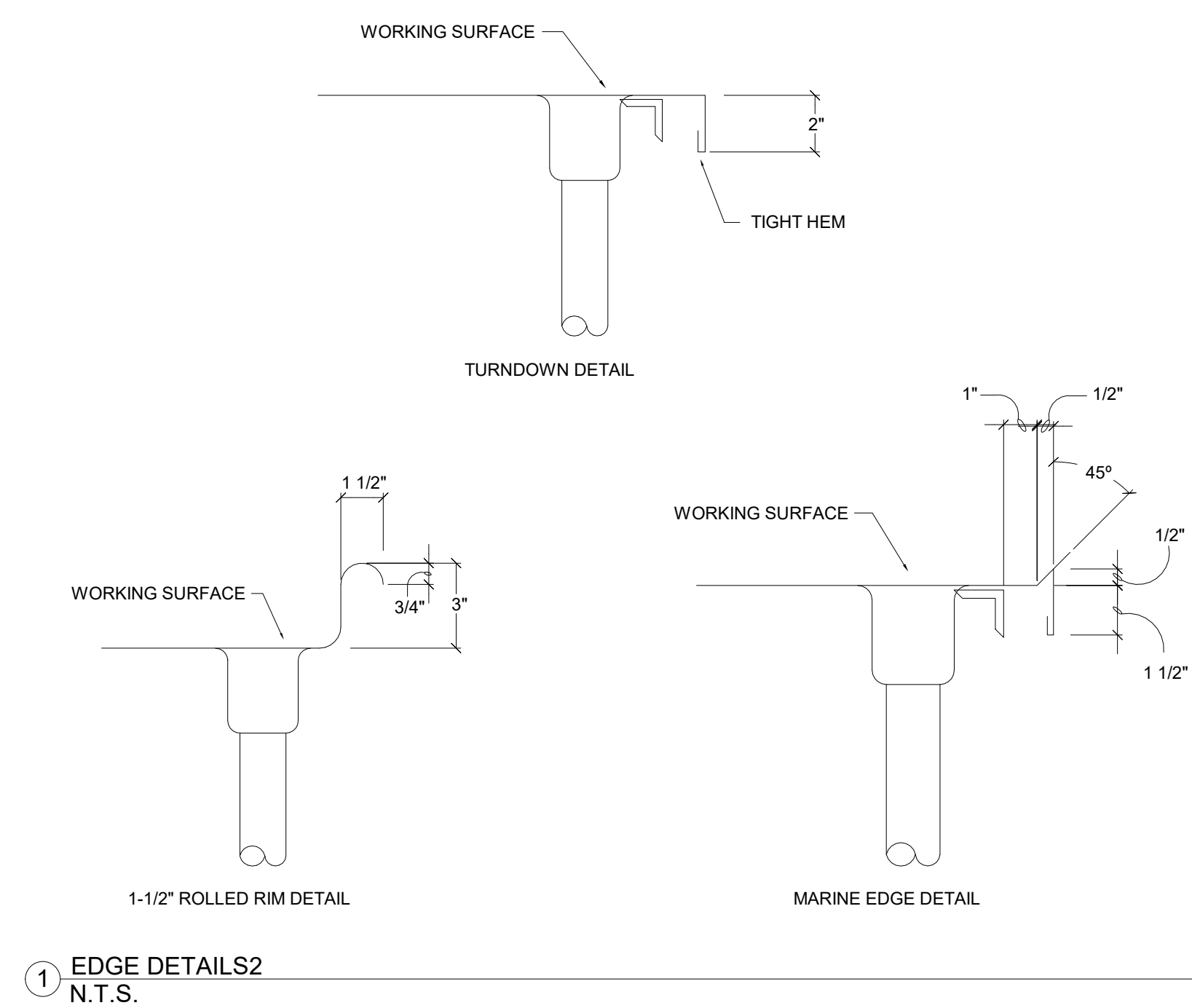
**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

#	Date	ISSUED FOR
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Drawn By	GBM
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Approved By	Approver
Drawing Title	

FS DETAILS



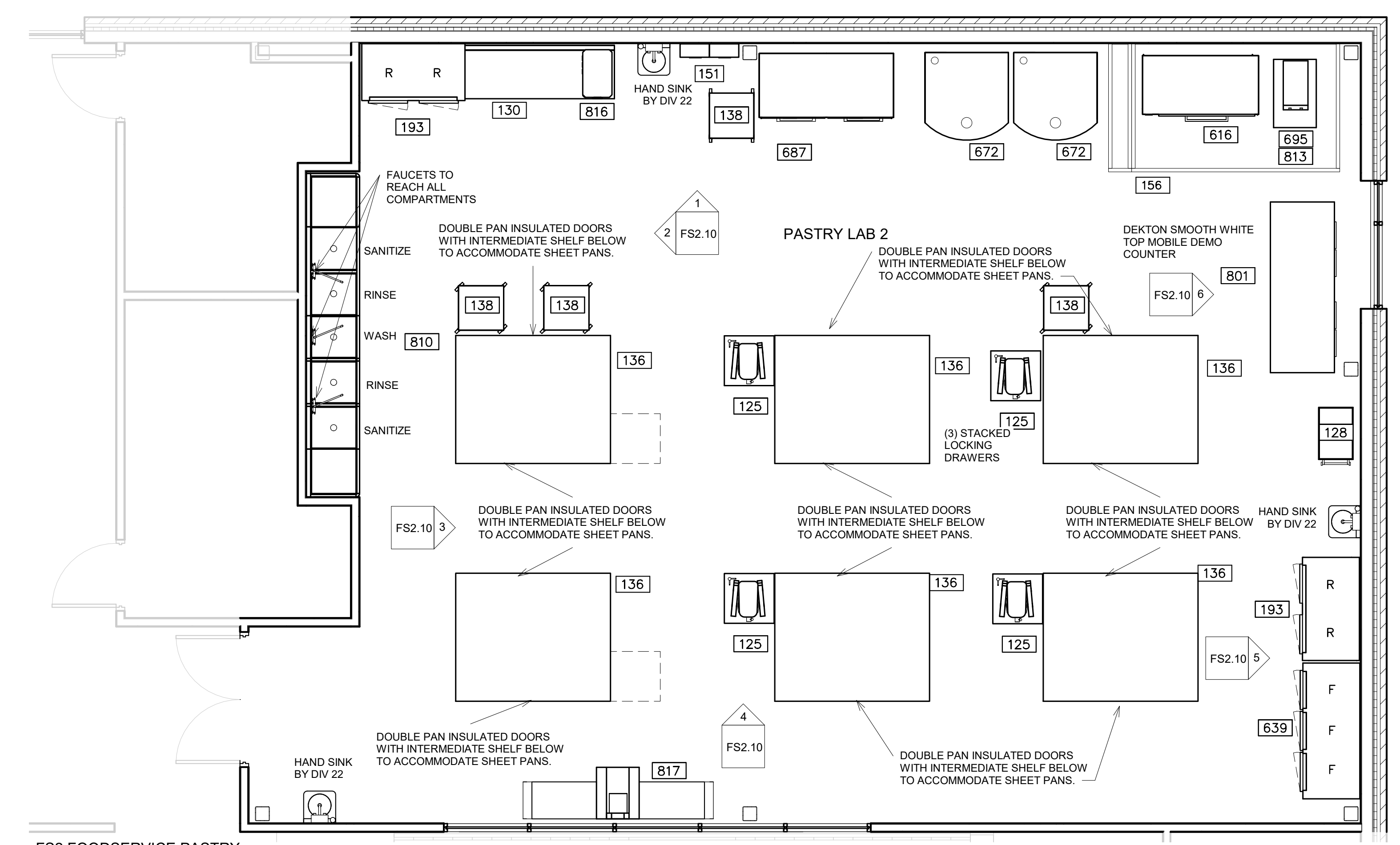
- A. WORK SHALL BE DONE IN AN APPROVED WORKMANLIKE MANNER, TO COMPLETE SATISFACTION OF THE CONSULTANT.
- B. STAINLESS STEEL SHALL BE U.S. STANDARD GAUGES AS CALLED FOR. 18-8, TYPE 304, NOT OVER .012% MAXIMUM CARBON, NO. 4 FINISH.
- C. GALVANIZED IRON SHALL BE ARMCO OR EQUAL. FRAMEWORK OF GALVANIZED IRON SHALL BE WELDED CONSTRUCTION, HAVING WELDS SMOOTH, AND WHERE GALVANIZING HAS BURNED OFF, TOUCHED UP WITH HIGH-GRADE ALUMINUM BRONZE.
- D. LEGS AND CROSSRAILS SHALL BE CONTINUOUSLY WELDED, UNLESS OTHERWISE NOTED, AND GROUND SMOOTH.
- E. BOTTOM OF LEGS AT FLOOR SHALL BE FITTED WITH SANITARY STAINLESS STEEL BULLET-TYPE FOOT, WITH NO LESS THAN 1/2" ADJUSTMENT.
- F. LEGS SHALL BE FASTENED TO EQUIPMENT AS FOLLOWS:
 - 01. TO SINKS BY MEANS OF CLOSED GUSSETS. GUSSETS SHALL BE STAINLESS STEEL, REINFORCED WITH BUSHING, HAVING SET SCREWS FOR SECURING LEGS.
 - 02. TO TABLES AND DRAINBOARDS WITH CLOSED GUSSETS WHICH SHALL BE WELDED TO GALVANIZED HAT SECTIONS OR CHANNELS. 14 GAUGE OR HEAVIER, EXPOSED HAT SECTIONS HAVING CLOSED ENDS. BRACING SHALL BE UNDERSIDE OF TOPS.
- G. CLOSED GUSSETS SHALL BE 3" MINIMUM DIAMETER AT TOP, WELDED TO FRAME MEMBERS OR TO SINK BOTTOM.
- H. ROLLS SHALL BE 1 1/2" DIAMETER, EXCEPT AS DETAILED TO THE CONTRARY, WITH CORNERS BULLNOSED, GROUND, AND POLISHED.
- I. SEAMS AND JOINTS SHALL BE SHOP-WELDED WHERE POSSIBLE. WELDS TO BE GROUND AND POLISHED TO MATCH ORIGINAL FINISH. MATERIALS 18 GAUGE OR HEAVIER SHALL BE WELDED.
- J. METAL TOPS SHALL BE ONE-PIECE WELDED CONSTRUCTION UNLESS SPECIFIED OTHERWISE, REINFORCED ON UNDERSIDE WITH GALVANIZED HAT SECTIONS OR CHANNELS WELDED IN PLACE. CROSSBRACE TO BE NOT MORE THAN 30" ON CENTERS.
- K. HARDWARE SHALL BE SOLID MATERIALS AND EXCEPT WHERE EXPOSED OR SPECIFIED TO THE CONTRARY, OF CAST BRASS, CHROME-PLATED. IDENTIFY ALL HARDWARE WITH MANUFACTURER'S NAME AND NUMBER SO THAT BROKEN OR WORN PARTS MAY BE ORDERED AND REPLACED.
- L. FABRICATE SINK COMPARTMENTS WITH 3/4" COVERED VERTICAL AND HORIZONTAL CORNERS. MULTIPLE-COMPARTMENT PARTITIONS TO BE DOUBLE THICKNESS, CONTINUOUSLY WELDED WHERE SHEETS JOIN AT TOP. FRONT OF MULTIPLE-COMPARTMENT PARTITIONS TO BE CONTINUOUS ON EXTERIOR. BOTTOMS SHALL BE CREATED TO DRAIN.
- M. ENDS OF FIXTURES, SPLASHBACKS, SHELVES, ETC., SHALL BE FINISHED FLUSH TO WALLS OR ADJOINING FIXTURES.
- N. DISHTABLES, DRAINBOARDS, SPLASHBACKS, AND TURN-UP EDGES SHALL HAVE RADIUS BENDS IN ALL HORIZONTAL AND VERTICAL CORNERS, COVED AT INTERSECTIONS.
- O. ROUNDED AND COVED CORNERS OR RADIUS BENDS SHALL BE 1/2" RADIUS OR LONGER.
- P. UNDERSIDES OF TOPS TO BE COATED WITH HEAVY-BODIED RESINOUS MATERIAL COMPOUND FOR PERMANENT, NON-FLAKING ADHESION TO METAL, 1/8" THICK, APPLIED AFTER REINFORCING MEMBERS HAVE BEEN INSTALLED, DRYING WITHOUT DIRT-CATCHING CREVICES.
- Q. SHELVES ARE TO BE TURNED UP 2" ON THE BACK EDGE. TURN OTHER EDGES DOWN 1 1/2" TO FORM OPEN CHANNELS. REINFORCE SHELF UNITS TO SUPPORT 40 LBS. PER SQUARE FOOT LOADING, PLUS 100% IMPACT LOADING.
- R. TRIMWORK AND FRAMING AT MASONRY OPENINGS SHALL BE 18 GAUGE STAINLESS STEEL AND FORMED SO AS TO FIT SNUG TO WALLS AND ADJACENT SURFACES. FRAMING SHALL EXTEND A MINIMUM OF 2" ON EACH SURFACE. SEAL TRIMWORK TO WALLS. REFER TO DRAWINGS.
- S. METAL COMPONENTS, UNLESS SPECIFIED OR NOTED OTHERWISE, TO BE THE FOLLOWING GAUGES:

TABLETOPS	14 GAUGE STAINLESS STEEL
WALL SHELVES	16 GAUGE STAINLESS STEEL
UNDERSHELVES	16 GAUGE STAINLESS STEEL
SINKS & DRAINBOARDS	14 GAUGE STAINLESS

STEEL EXHAUST DUCTS 18 GAUGE STAINLESS STEEL
LEGS - 1 5/8" DIA. 16 GAUGE STAINLESS STEEL

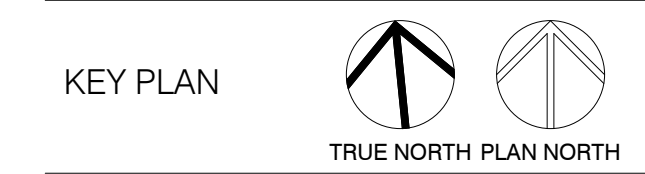
15 CUSTOM FAB NOTES2 NONE

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FS2 FOODSERVICE PASTRY EQUIPMENT PLAN
1/4" = 1'-0"

FOODSERVICE EQUIPMENT SCHEDULE					
FDP ITEM	QTY	FDP DESCRIPTION	FDP REMARKS	MFR	MODEL
125	4	20 QT. MIXER W/STAND		HOBART	HL200
128	1	UTILITY CART		LAKESIDE	743
130	1	WORKTABLE		CUSTOM FABRICATED	---
136	6	BAKER'S TABLE		CUSTOM FABRICATED	---
138	4	PAN RACK		CRES COR	207-UA-12AC
151	1	FIRE PROTECTION SYSTEM		ANSUL	R102
156	1	EXHAUST HOOD		ACCUREX	
193	2	REACH-IN REFRIGERATOR - 2DR		TRAUlsen	RHT 2-32-WUT-HHS
616	1	FOUR DECK OVEN		REVENT	US 4 DECK 3 PAN
639	1	REACH-IN FREEZER - NARROW		TRAUlsen	RLT 332NUT-HHS
672	2	ROTATING RACK OVEN		REVENT	ONE 39/G/S W/S*
687	1	PROOFER		REVENT	P7121
695	1	INDUCTION RANGE		EXISTING/RELOCATE	---
801	1	DEMO COUNTER		CUSTOM FABRICATED	---
810	1	FIVE COMPARTMENT SINK	(5) 24" X 26" 15" DEEP WITH ROUNDED INTERNAL EDGES	CUSTOM FABRICATED	---
813	1	SPREADER CABINET		CUSTOM FABRICATED	---
816	1	ICE CREAM FREEZER	EXISTING	EXISTING/RELOCATE	---
817	1	SHEETER	EXISTING	EXISTING/RELOCATE	---



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver

Drawing Title
FS PASTRY EQUIPMENT PLAN

Drawing Number
FS2.01





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Foodservice Design Professionals
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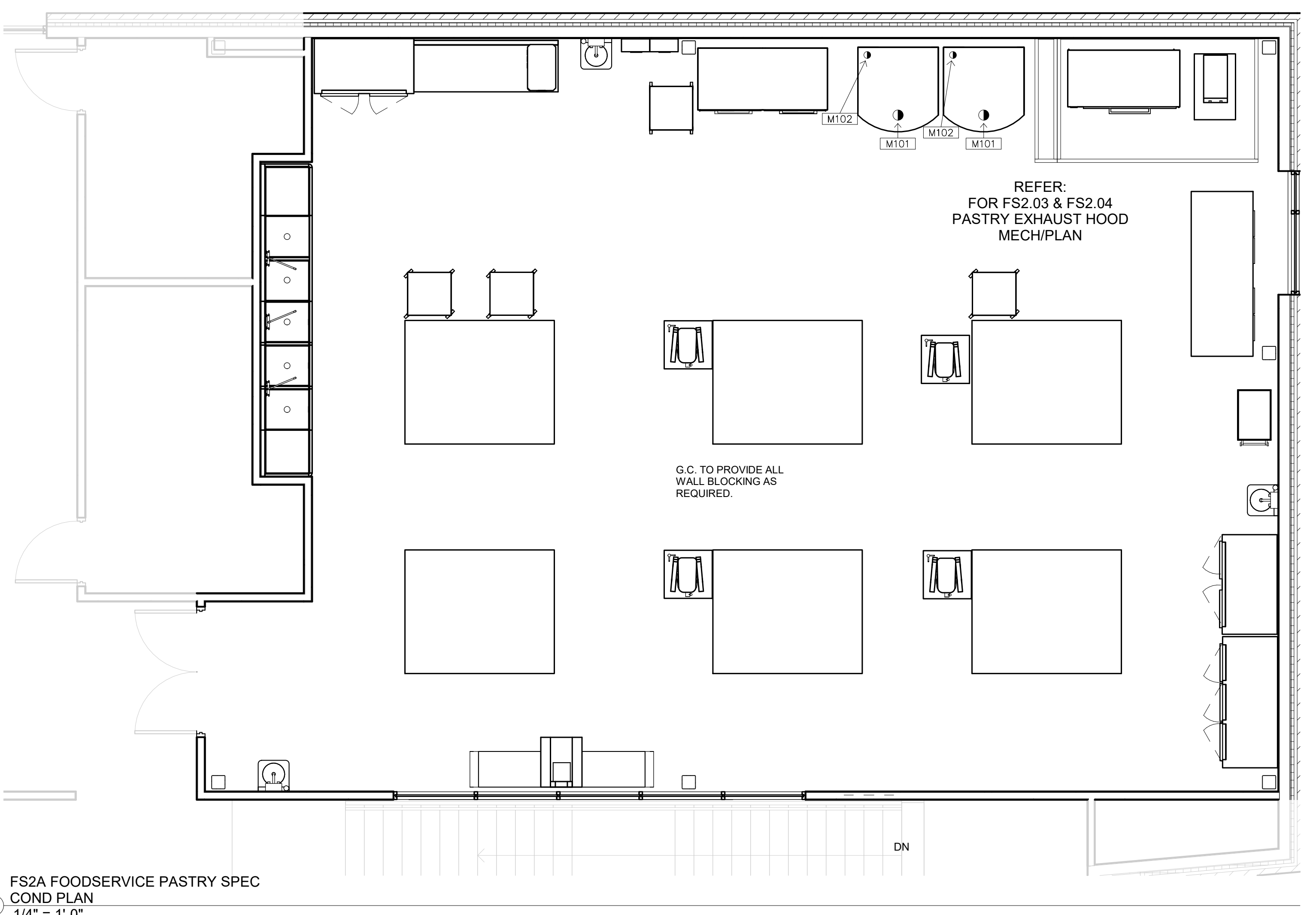
PROFESSIONAL SEAL:

A PROJECT FOR:

CULINARY
ARTS SHELL
INTERIOR
BUILDOUT

#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

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



FS2A FOODSERVICE PASTRY SPEC
COND PLAN
1/4" = 1'-0"

UL LISTED NUMBER FOR ALL HOODS IS "710"

MANUFACTURER: ACCUREX
APPROVED EQUAL: AVTEC, MOD-U-SERVE
MODEL: SUPPLY & EXHAUST MODEL
NOTATED IN SPECIFICATIONS:
Clearance requirement: 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.

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

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

CITY OF HOUSTON HOOD REQUIREMENTS NONE



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver

Drawing Title
FS PASTRY SPEC COND/MECH PLAN

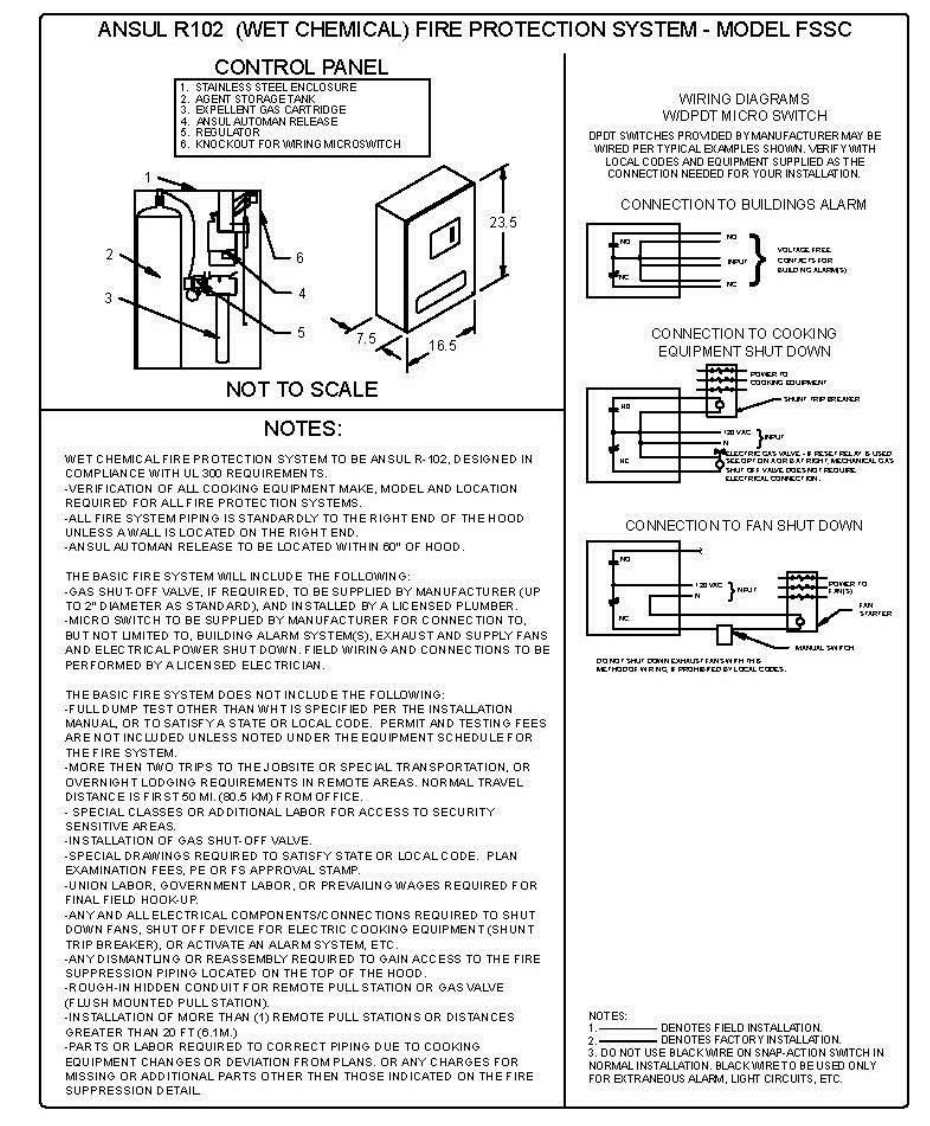
Drawing Number
FS2.02



#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

MARK		MODEL	LOCATION	FLOW POINTS	SUPPLY LINE	DETECTION	MARK(S) PROTECTED BY FIRE SYSTEM
HOOD NO.	MARK	MODEL	LOCATION	HOODS UTILIZED	PCU	CONTINUOUS	FUSIBLE LINK
#151	FSS 156 PASTRY	ANSUL R-102 WET CHEMICAL	REMOTE MOUNTED	4 UTILIZED	5 AVAILABLE	CONTINUOUS	FUSIBLE LINK

FIRE SYSTEM INFORMATION
FULL INSTALLATION (INCLUDES PRE-PRIMED HOODS (WITH DETECTION AND FACTORY COORDINATED INSTALL), CHROME SLEEVES FOR FACTORY PROVIDED APPLIANCES DROPS - INCLUDED, METAL BLOCKOFF CAPS - INCLUDED, GAS VALVE - INCLUDED - MECHANICAL SHUTOFF VALVE, 2" (ANSUL) - PART# ANSULMECHSHUTOFFVALVE200, HOOD SUPPRESSION AGENT - INCLUDED - 1.5 GAL. (1) 1.5 TANK(S), REMOTE PULL STATION - STANDARD - INSTALLATION AT SINGLE POINT OF EGRESS



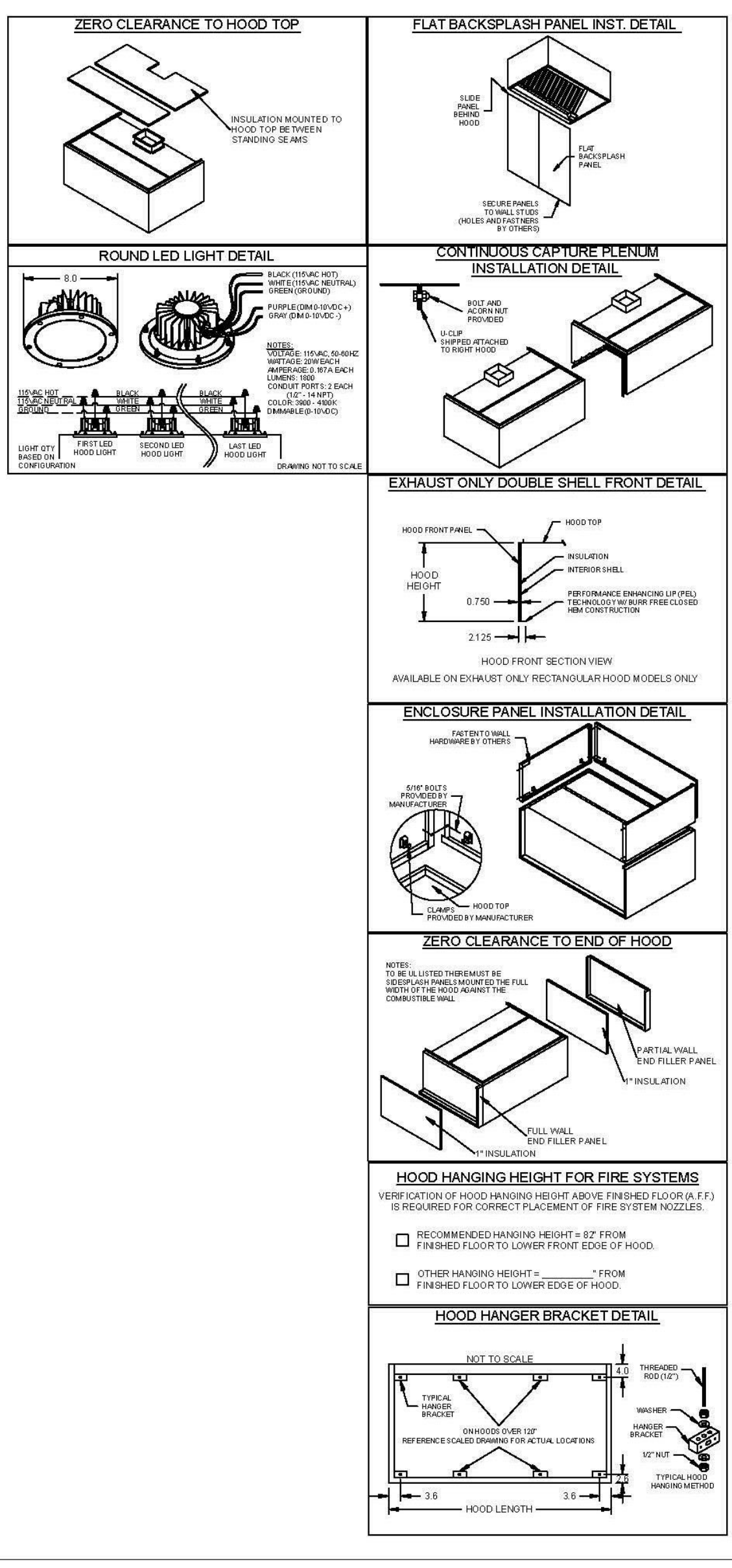
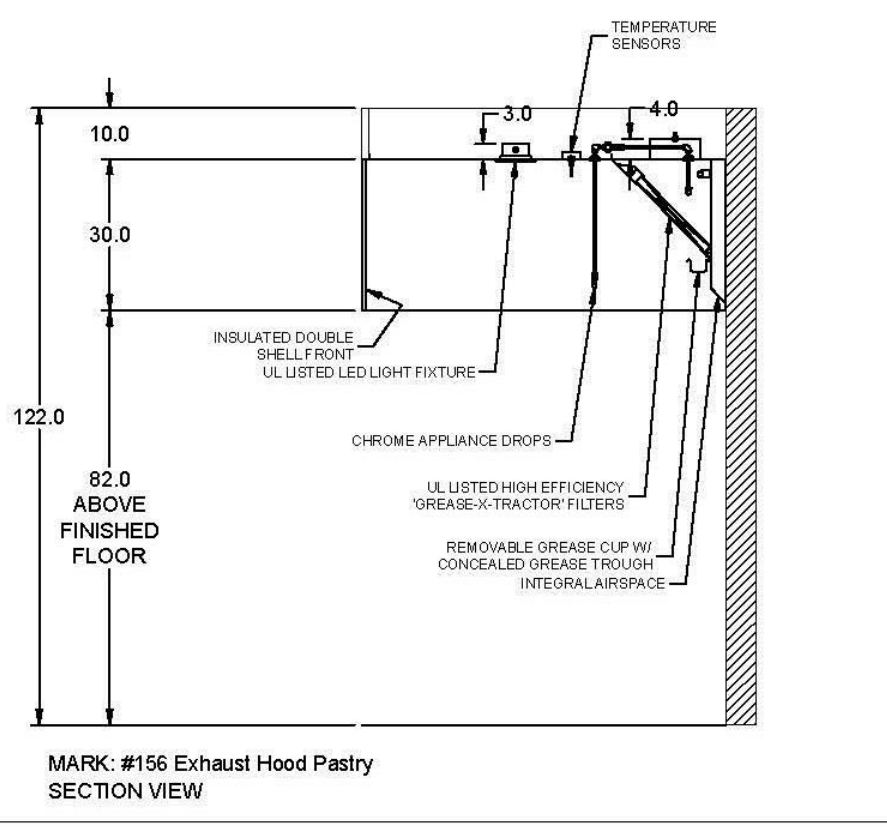
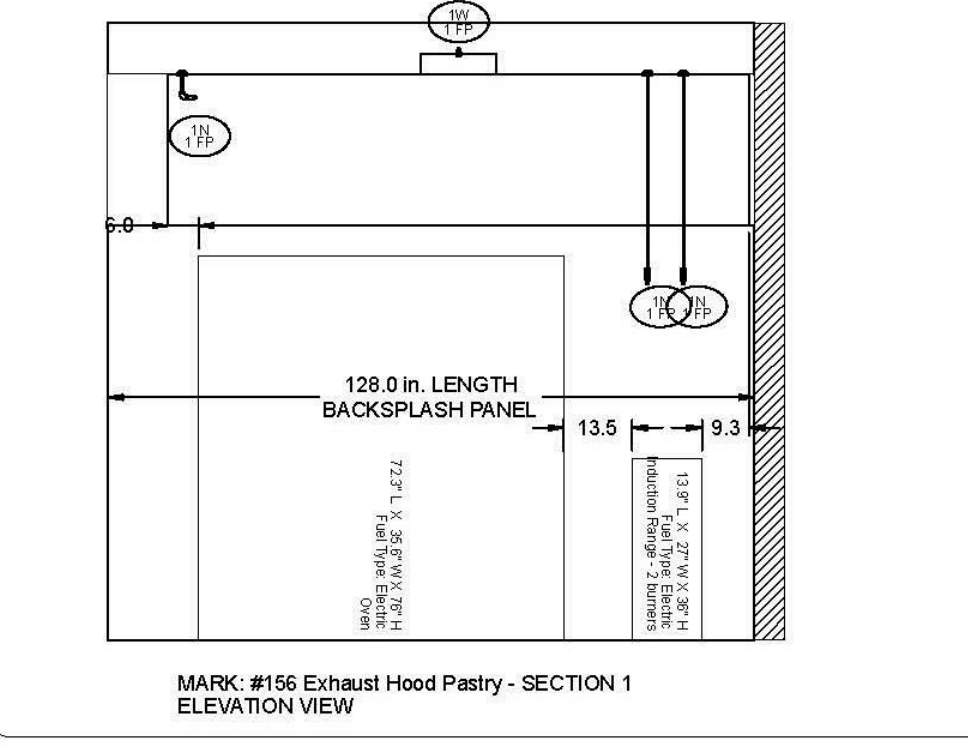
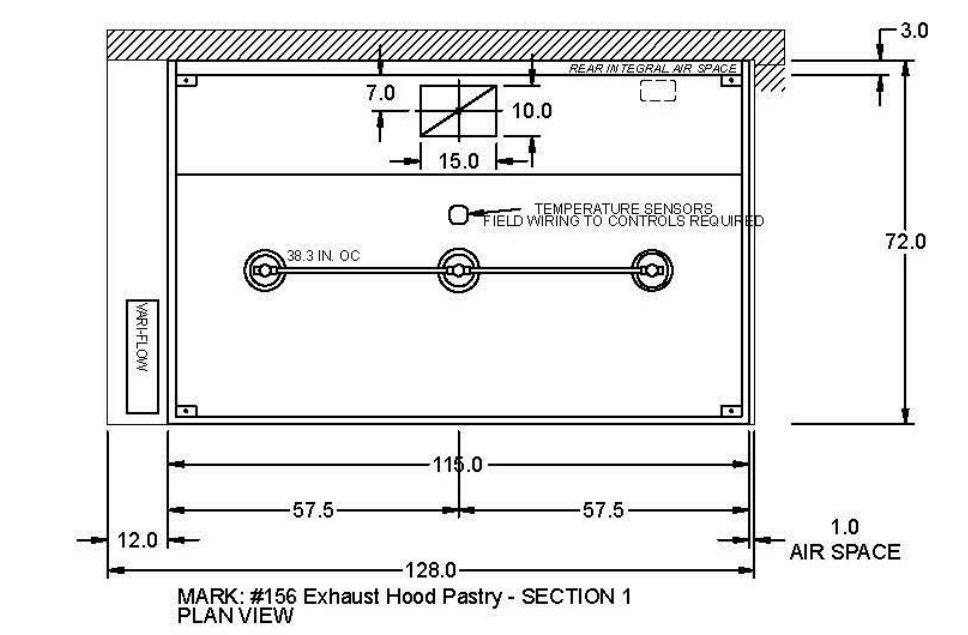
PROJECT: PHASE 2
MARK: #151 FSS 156 PASTRY
ACCUREX GREATER HOUSTON
LEE.DOC@ACCUREX.COM
(713) 952-4899

ACCUREX

HOOD NO.	MARK	MODEL	HOOD DIMENSIONS (IN.)	HOOD CONSTR.	COOKING LOAD DUTY RATING	EXHAUST COLLARS (IN.)	SUPPLY TANK	TOTAL WEIGHT LBS.	SECTION LOCATION				
LENGTH	WIDTH	HEIGHT	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE	TYPE				
1	#156 EXHAUST HOOD PASTRY	JXDW-115-S	115	72	30	3X SS 100% MEDIUM	1661	10	15	1681	0.47	479-157	SINGLE

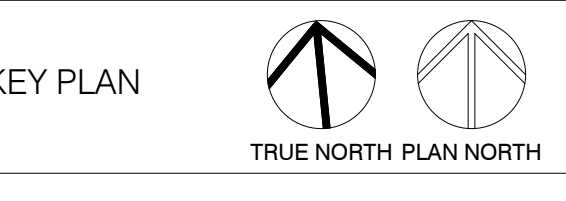
HOOD NO.	MARK	LIGHTING DETAILS	FOOT CANDLES	GREASE FILTRATION DETAILS	UTILITY CABINETS	FIRE SYSTEM	CONTROLS				
HOOD NO.	MARK	FUTURE TYPE BULB / LAMP INFO	QTY	TYPE	MODEL	QTY	LOCATION	TYPE	SIZE	MODEL	INTERFACE
1	#156 EXHAUST HOOD PASTRY	ROUND LED	3	69.42	X-TRACTOR	2	18	20	18	20	

HOOD OPTIONS
UL, T10 LISTED W/ OUT EXHAUST FIRE DAMPER - UL-WR2903
HOOD TOP INSULATED FOR ZERO CLEARANCE TO COMBUSTIBLES
BACK INTEGRAL AIR SPACE - 3 IN WIDE
RIGHT NON-INTEGRAL AIR SPACE - 1 IN THICK, ZERO CLEARANCE
10 IN HIGH CEILING ENCLOSURES - FRONT LEFT RIGHT - FIELD INSTALLED
FACTORY MOUNTED EXHAUST COLLARS
BACKPLASH 10.55 IN HIGH 120 IN LONG
PERFORMANCE ENHANCING LIP (PEL) TECHNOLOGY
STANDING SEAM CONSTRUCTION FOR SUPERIOR STRENGTH



PROJECT: PHASE 2
MARK: #156 EXHAUST HOOD PASTRY
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ACCUREX



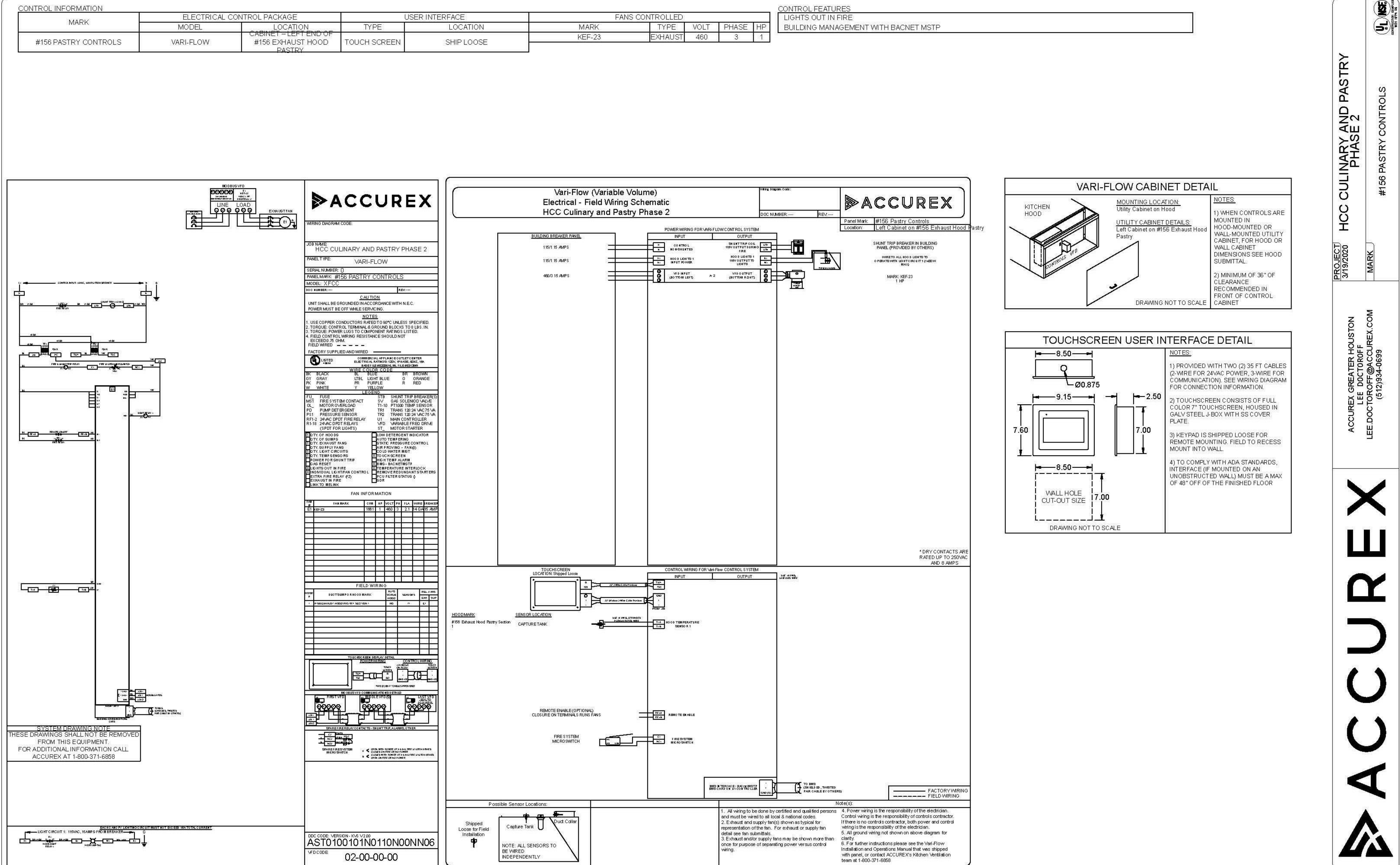
Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver

Drawing Title
FS PASTRY EXHAUST HOOD MECH/PLAN

Drawing Number
FS2.03



#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



HCC CULINARY AND PASTRY PHASE 2

#156 PASTRY CONTROLS

ACCUREX GREATER HOUSTON
LEE DOCTOROFF
LEE DOCTOROFF@ACCUREX.COM
(512)934-0699

ACCUREX



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver
Drawing Title	FS PASTRY EXHAUST HOOD MECH/PLAN

Drawing Number FS2.04



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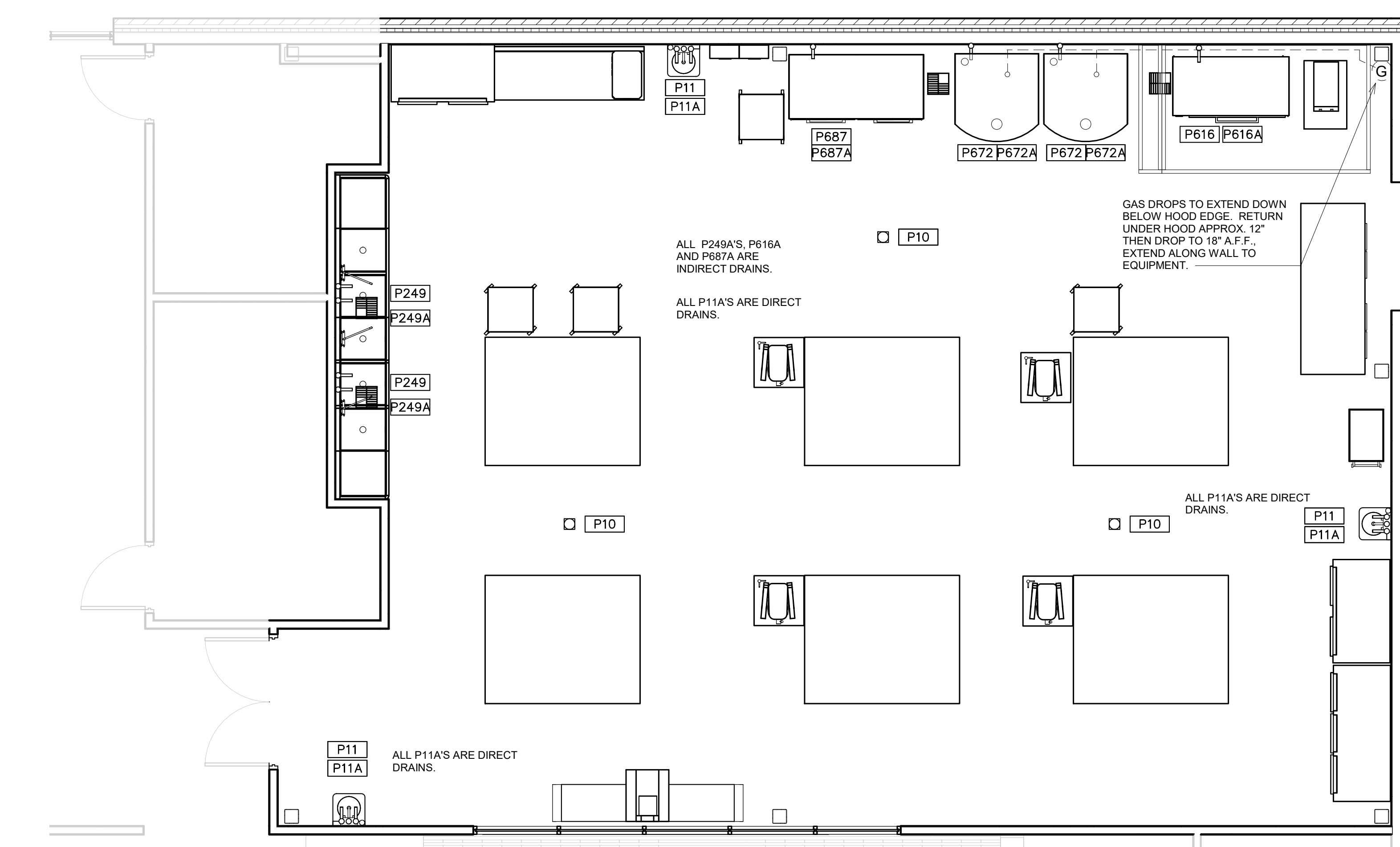
PROFESSIONAL SEAL:

A PROJECT FOR:

CULINARY
ARTS SHELL
INTERIOR
BUILDOUT

#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

FOODSERVICE PLUMBING SCHEDULE						
FDP PNO	FDP PSIZE	FDP PCONN	FDP PSERVICE TO	FDP PLOC	FDP PAFF	FDP PREMARKS
P10	VERIFY	FLOOR DRAIN	GENERAL AREA DRAIN	FLOOR	VERIFY	LOCATE PER ENGINEER'S DRAWING
P11	3/4"	H & C WATER	FAUCET	WALL	18"	
P11A	1 1/2"	DIRECT DRAIN	HAND SINK	WALL	15"	
P249	3/4"	H & C WATER	FAUCET	WALL	13"	BTC: RE: NOTE #3
P249A	12" SQ.	FLOOR SINK	SINK	FLOOR	0"	THREE QUARTER GRATE
P616	3/4"	COLD WATER	DECK OVEN	WALL	60"	BTC: RE: NOTE #3
P616A	12"	FLOOR SINK	DECK OVEN	FLOOR	0"	BTC: RE: NOTE #3
P672	3/4"	NATURAL GAS	ROTATING RACK OVEN	WALL	18"	BTC: RE: NOTE #3 - 85MBTU/HR
P672A	3/4"	COLD WATER	ROTATING RACK OVEN	WALL	60"	BTC: RE: NOTE #3
P687	1/2"	COLD WATER	PROOFER	WALL	60"	BTC: RE: NOTE #3 & #17
P687A	12" SQ.	FLOOR SINKS	PROOFER	FLOOR	0"	3/4 GRATE - RE: NOTE #4



1 FS2B FOODSERVICE PASTRY
PLUMBING PLAN
1/4" = 1'-0"

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

- (A) VACUUM BREAKER
- (B) DISPOSER
- (C) TIME DELAY
- (D) CONTROL PANEL
- (E) SOLENOID VALVE

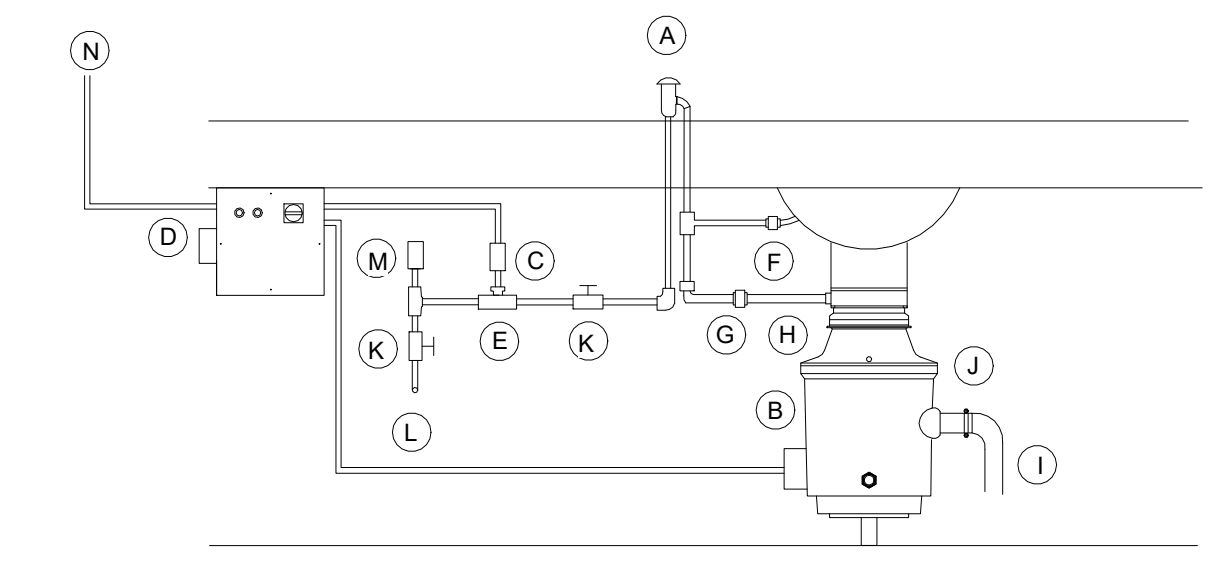
DIVISION 22 TO PROVIDE AND INSTALL

- (F) 1/2" CW INLET
- (G) FLOW CONTROL
- (H) 1/2" CW
- (I) 2" DRAIN LINE
- (J) 1-1/2" TAILPIECE GATE VALVE
- (K) 1/2" CW SUPPLY
- (L) SHOCK STOP

DIVISION 26 TO PROVIDE AND INSTALL

- (N) POWER SUPPLY

5 DISPOSER DETAIL 1
N.T.S.



NOTE: WATER AND DRAIN CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 22. FOR ADDITIONAL WATER AND DRAIN REQUIREMENTS REFER TO MECHANICAL DRAWINGS.

NOTE: REFER TO ELECTRICALMECHANICAL 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.

3 PLUMBING COORDINATION NOTES 1
N.T.S.

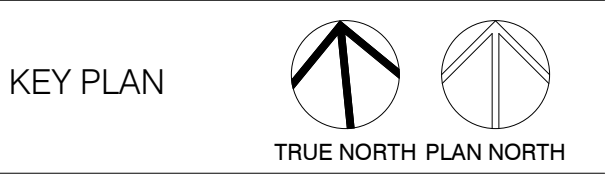
1. DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE FOODSERVICE EQUIPMENT SUPPLIER'S DIMENSIONED SHOP DRAWINGS.
2. DIMENSIONS INDICATED ARE TO BE VERIFIED BY FOODSERVICE EQUIPMENT SUPPLIER AND ADJUSTED AS REQUIRED BY EQUIPMENT AND/OR FIELD CONDITIONS.
3. ACCESSORIES PROVIDED LOOSE WITH FOODSERVICE EQUIPMENT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

2 PLUMBING GENERAL NOTES 1
NONE

(I)	HW	HOT WATER	(--)	RW	INDIRECT WASTE (EXTEND TO F.D.)
(1)	CW	COLD WATER	(□)	FFD	FUNNEL FLOOR DRAIN
(--)	HTW	180 F HOT WATER	(▲)	EVC	EXHAUST VENT CONNECTION
(-CWS)	CHILLED WATER	(□)	SVG	SUPPLY VENT CONNECTION	
(C)	GAS SUPPLY	(●)	FR	DIRECT-CONNECTED FLUE RISER	
(SS)	STEAM SUPPLY	(●)	PS	PIPE SLEEVE	
(CR)	CONDENSATE RETURN	(AFF)	AFF	ABOVE FINISHED FLOOR	
(DR)	DRAIN	(ST)	ST	STUB UP/OUT	
(FD)	FLOOR DRAIN	(BTC)	BTC	BRANCH TO CONN. ON EQUIP	
(FS)	FLOOR SINK	(DFA)	DFA	DROP FROM ABOVE	

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 WALL 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 FLOODLEVEL 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 PREPARED BY FACTORY. INTERCONNECT THRU WATER FILTER TO EQUIPMENT BY DIVISION 22.
17. BACKFLOW PREVENTION BY DIVISION 22



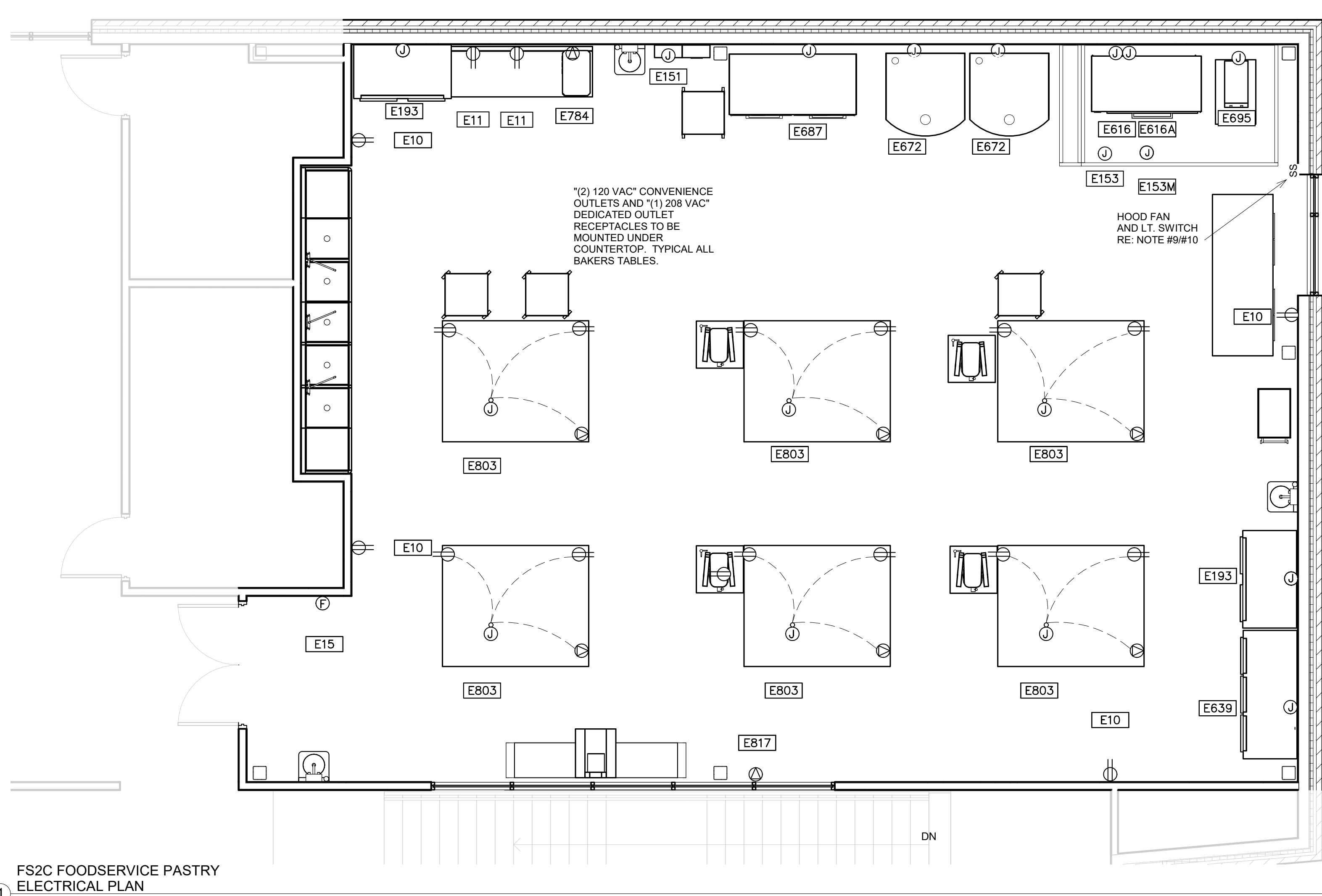
Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver

Drawing Title
FS PASTRY PLUMBING PLAN

Drawing Number
FS2.06



#	Date	ISSUED FOR
02-25-2020		
03-23-2020	90% CD	
03-26-2020	95% CD	
04-15-2020		ISSUED FOR PERMIT AND BIDDING



FS2C FOODSERVICE PASTRY ELECTRICAL PLAN
1/4" = 1'-0"

FOODSERVICE ELECTRICAL SCHEDULE								
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 BREAKER
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

- DO NOT ROUGH-IN FROM THIS DRAWING. REFER TO THE CONTRACTOR'S DIMENSIONED DRAWINGS.
- VERIFY ALL ELECTRICAL CHARACTERISTICS WITH 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 11 40 00. FIELD 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), 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.
- N/A
- 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 11 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 OF MANAGER'S OFFICE TO BE VERIFIED.

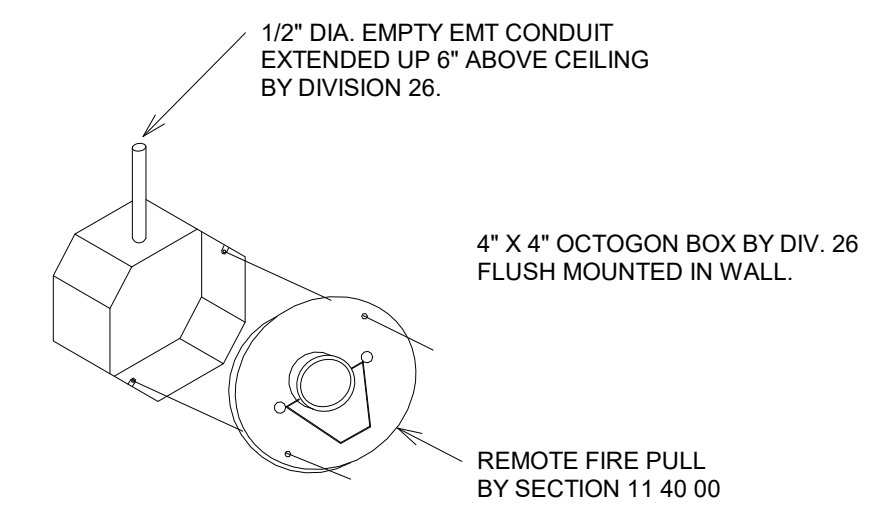
2 ELECTRICAL GENERAL NOTES 1 NONE

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
SCR	CONDUIT STUB BTC ON RECEPT FURNISH WITH EQUIPMENT	CC	CONDUIT FOR COMPUTER CABLES
CS	CONDUIT STUB UP/OUT FOR DIRECT CONNECTION	BTC	BRANCH TO CONNECTION ON EQUIPMENT
DR	20 AMP DUPLEX RECEPTACLE (MOUNT HORIZONTAL)	WPR	20 AMP WEATHERPROOF RECEPTACLE (SPRING COVER)
SR	SINGLE PURPOSE RECEPTACLE	FPB	FIRE PROTECTION BUZZER
SR	SINGLE PURPOSE RECEPT. 208V 1PH	BSC	BEVERAGE SYSTEM CONDUIT
FR	FLUSH FLOOR RECEPTACLE	DFA	DROP FROM ABOVE
PMR	PEDESTAL MOUNTED RECEPTACLE	AFF	ABOVE FINISH FLOOR
DCR	DROP CORD RECEPTACLE	CS/JB	JUNCTION BOX ON PEDSTAL
JB	JUNCTION BOX ON CEILING	DS	DISCONNECT SWITCH
JB	JUNCTION BOX IN WALL		
JB/DS	JUNCTION BOX WITH DISCONNECT BY DIV.26	JB/DS	CONDUIT STUB-UP WITH DISCONNECT BY DIV.26

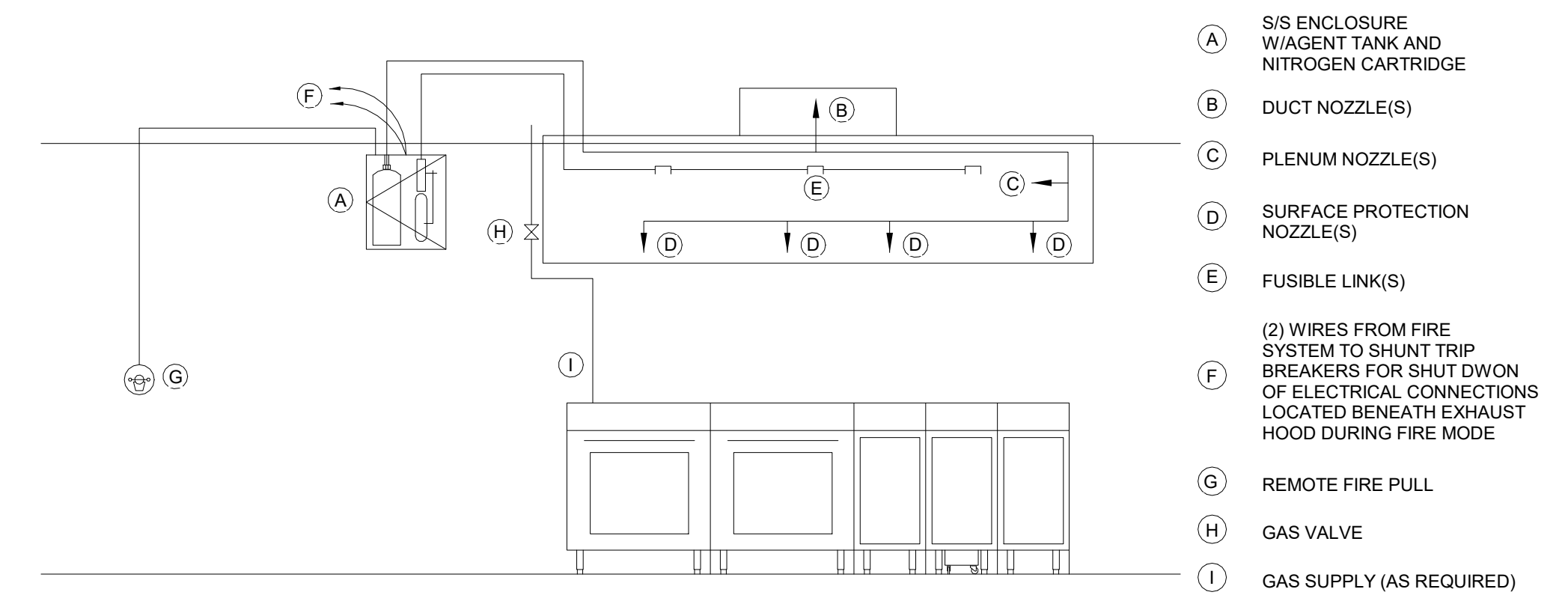
4 ELECTRICAL SYMBOLS 1 NONE

NOTE: ELECTRICAL CONNECTIONS INDICATED ARE THOSE REQUIRED FOR THE FOODSERVICE EQUIPMENT AND THOSE REQUIRED FOR SUPPORT EQUIPMENT FURNISHED BY DIVISION 26. FOR ADDITIONAL REQUIREMENTS REFER TO ELECTRICAL ENGINEERS DRAWINGS.

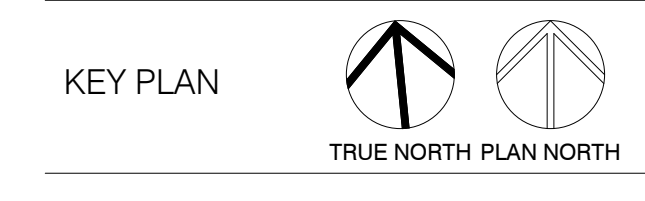
3 ELECTRICAL COORDINATION NOTES 1 NTS



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

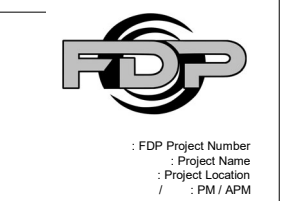


6 FIRE SUPPRESSION TYPICAL DETAIL 1 N.T.S.



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver

Drawing Title
FS PASTRY ELECTRICAL PLAN
Drawing Number
FS2.07





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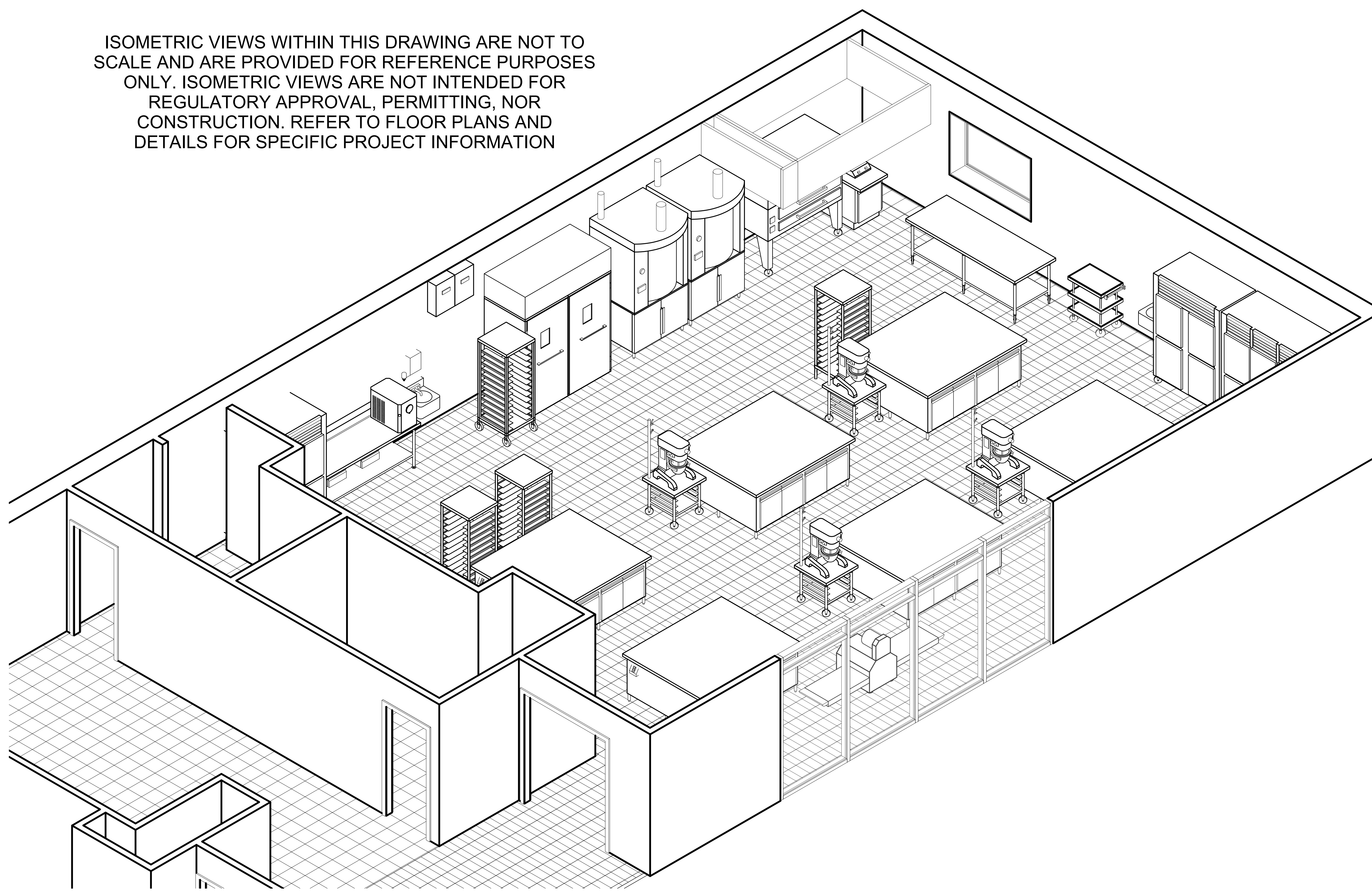
FOOD SERVICE
Foodservice Design Professionals
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PROFESSIONAL SEAL:

A PROJECT FOR:

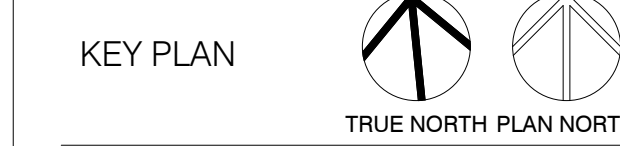
CULINARY
ARTS SHELL
INTERIOR
BUILDOUT

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DETAILS FOR SPECIFIC PROJECT INFORMATION

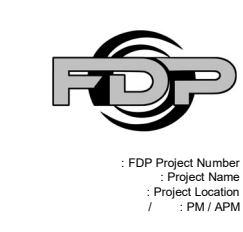


① FS PASTRY FACILITY MODEL

#	Date	ISSUED FOR
02	02-25-2020	
03	03-23-2020	90% CD
03	03-26-2020	95% CD
04	04-15-2020	ISSUED FOR PERMIT AND BIDDING



Project Number	19012
Drawn By	GBM
Checked By	MM
Approved By	Approver
Drawing Title	FS PASTRY FACILITY MODEL
Drawing Number	FS2.08



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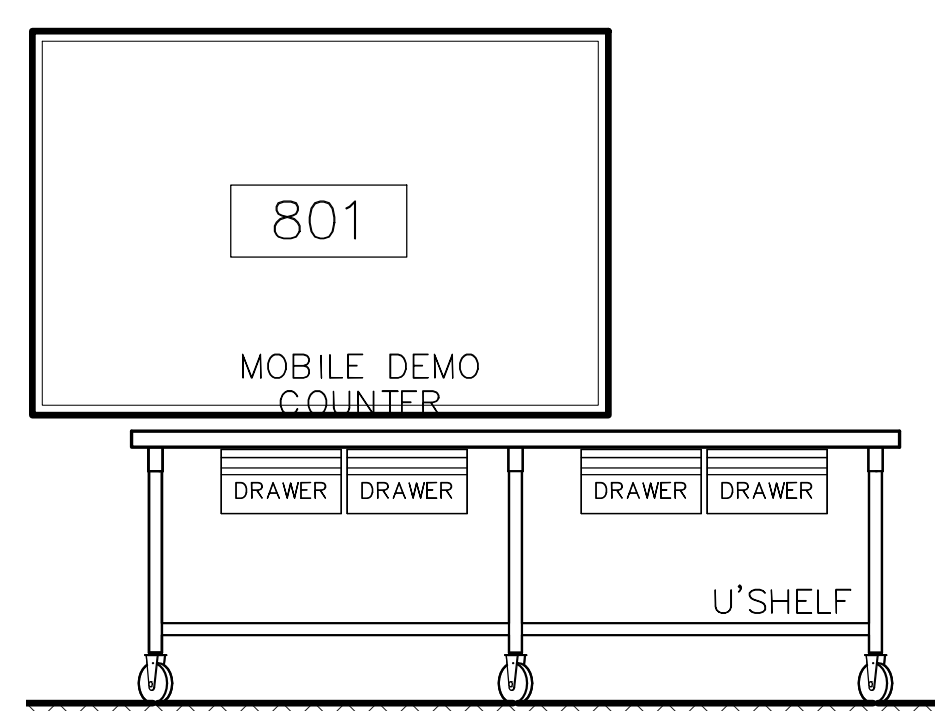
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Foodservice Design Professionals
(281) 350-2323

PROFESSIONAL SEAL:

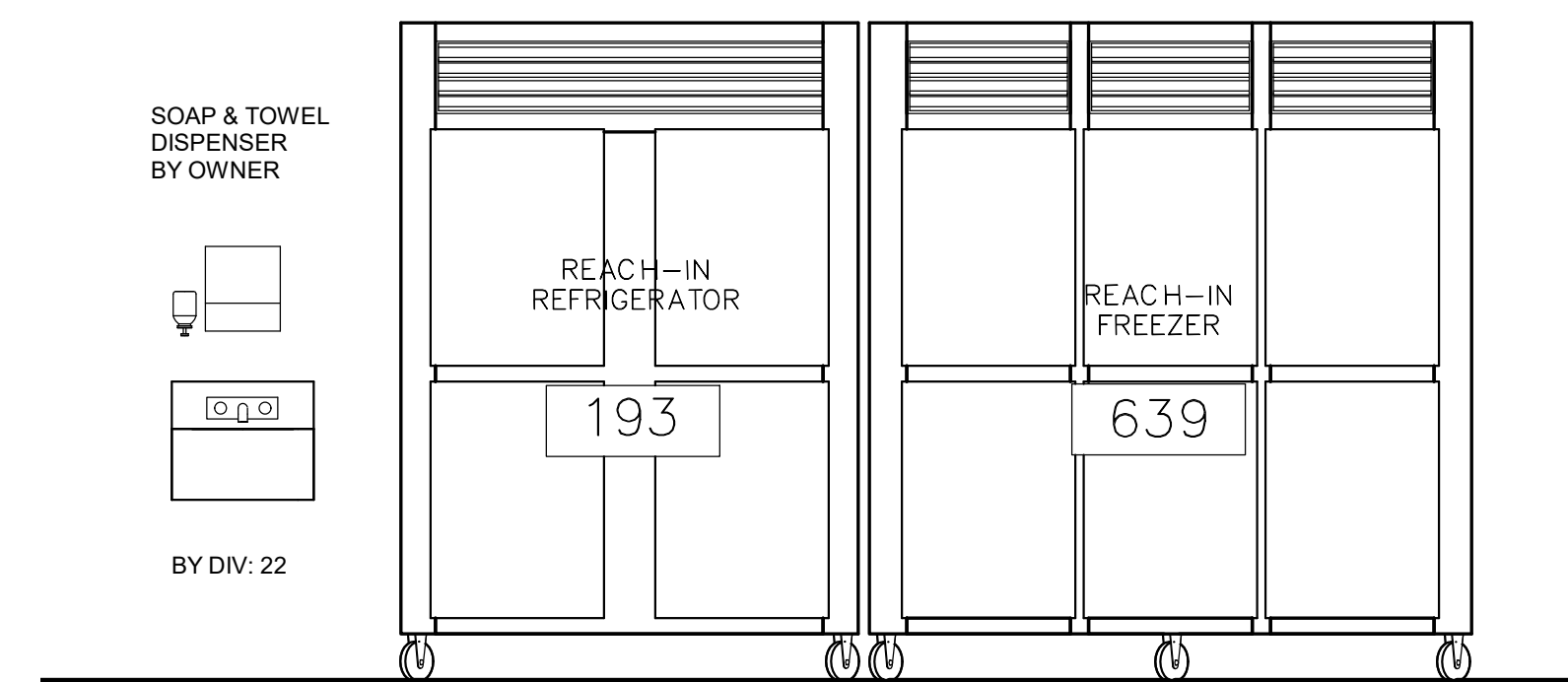
A PROJECT FOR:

CULINARY
ARTS SHELL
INTERIOR
BUILDOUT

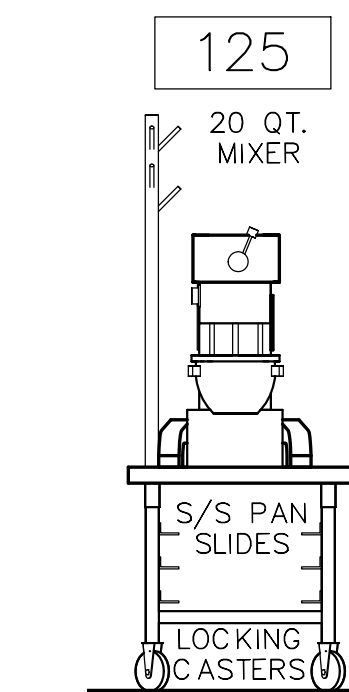
#	Date	ISSUED FOR
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	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



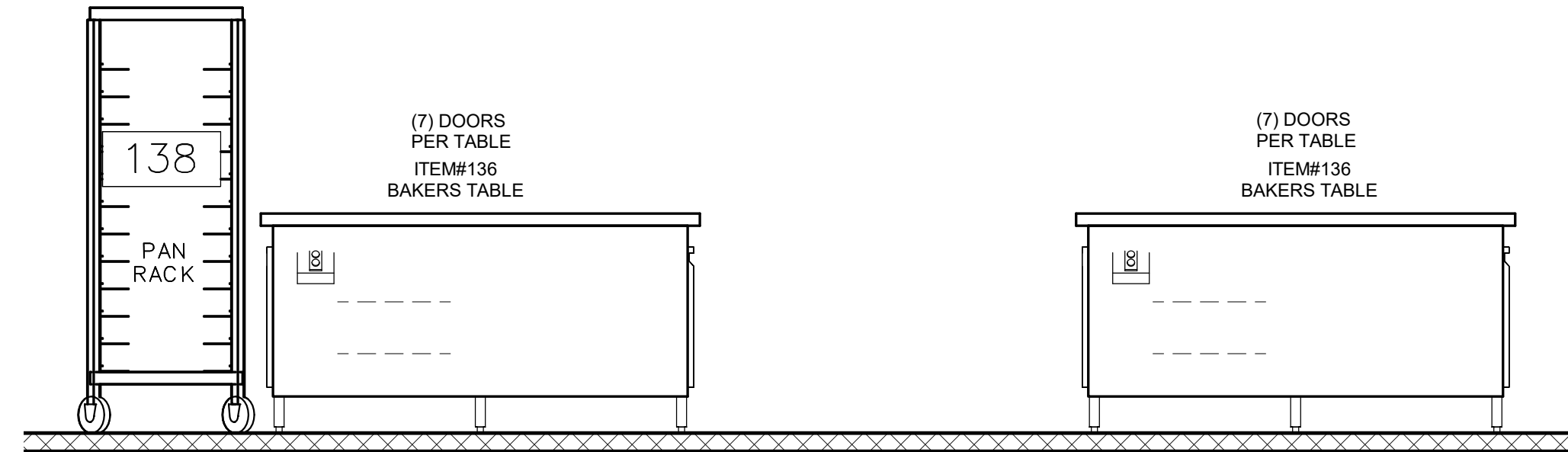
6 ELEVATION @ DEMO TABLE
1/2" = 1'-0"



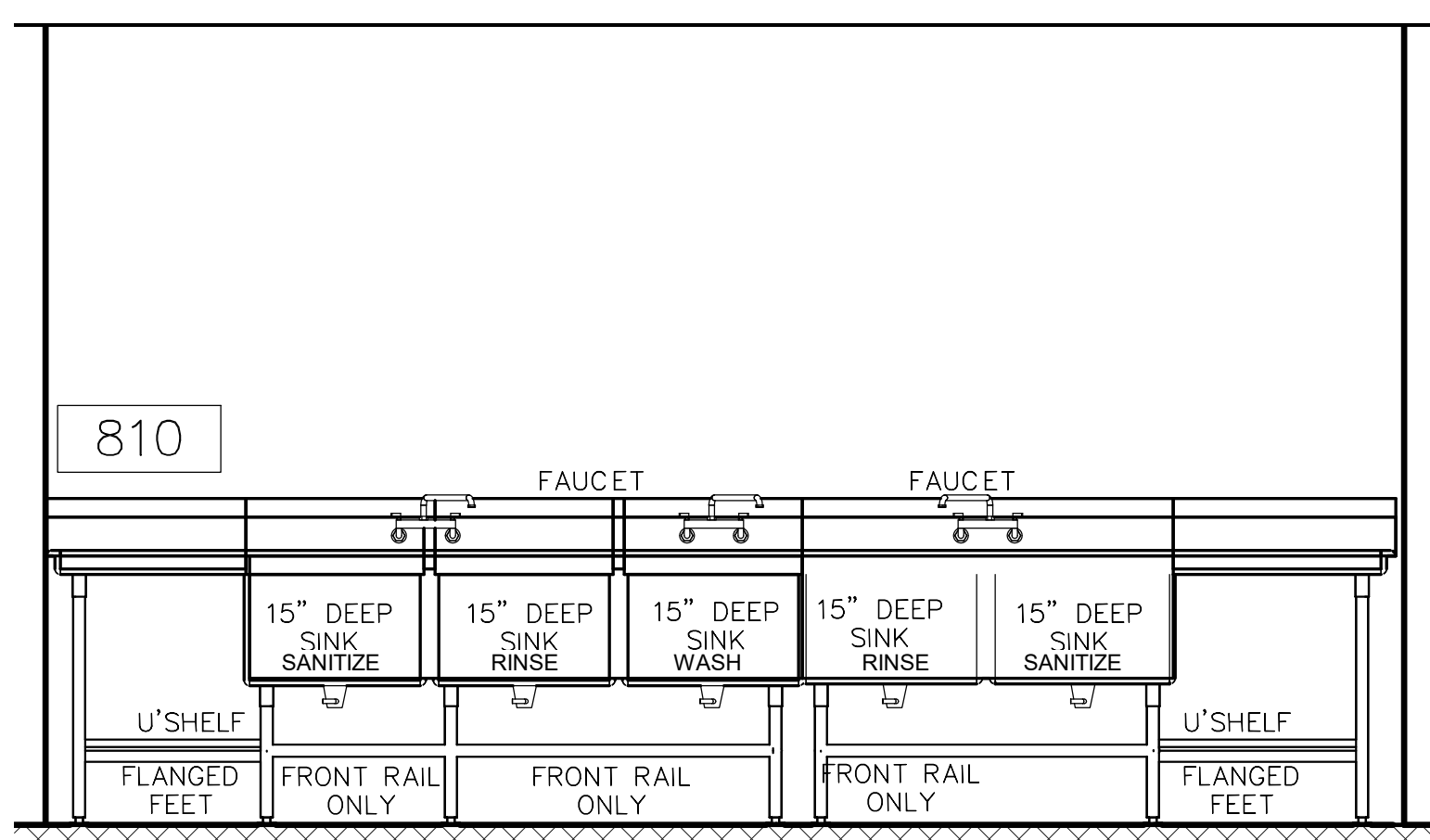
5 ELEVATION @ HOLDING
1/2" = 1'-0"



4 ELEVATION @ MIXER
1/2" = 1'-0"



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



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



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



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

FS ELEVATIONS

Drawing Number
FS2.10

CONSULTANTS:

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PROFESSIONAL SEAL:

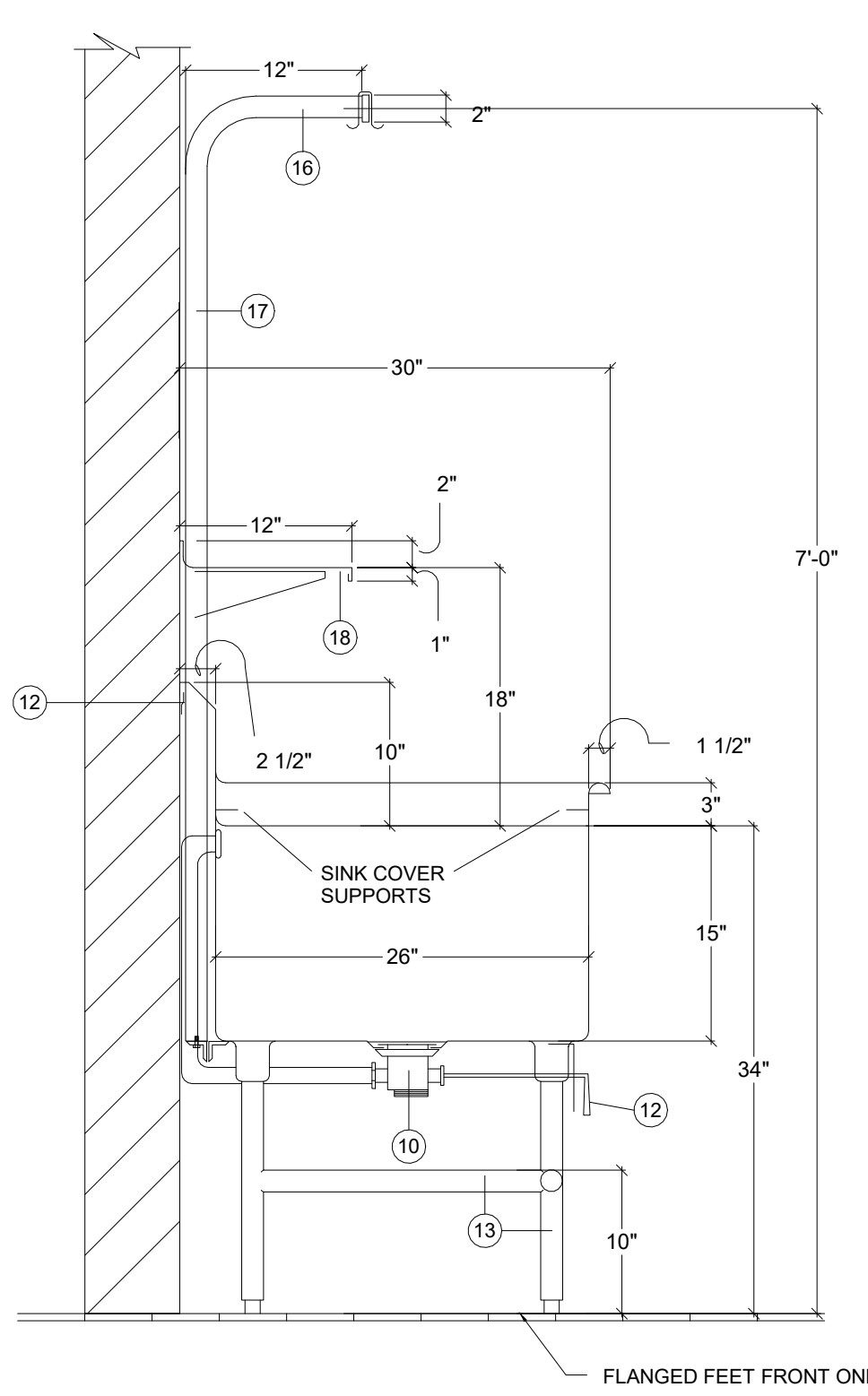
A PROJECT FOR:

CULINARY
ARTS SHELL
INTERIOR
BUILDOUT

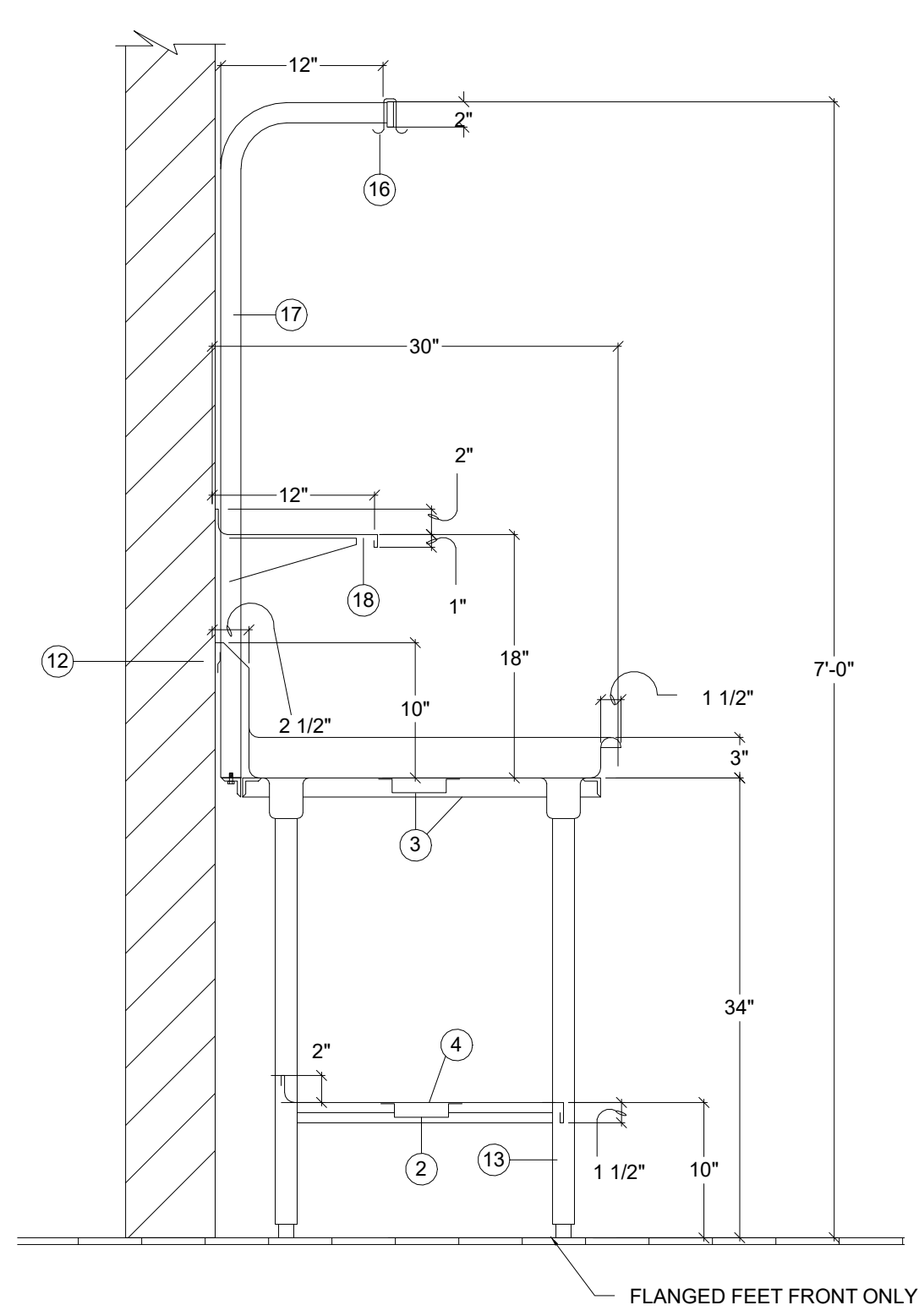
#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING

1. 1 1/2" X 1 1/2" X 1/8" GALVANIZED ANGLE IRON.
2. 1" X 2" 14 GAUGE STAINLESS STEEL HAT CHANNEL.
3. 16 GAUGE STAINLESS STEEL C-CHANNEL.
4. 16 GAUGE STAINLESS STEEL UNDERSHELF, COVE UP REAR 2", TURN DOWN FRONT 1 1/2".
5. 3/4" MARINE GRADE PLYWOOD BY SECTION 11 40 00 WITH TILE FRONT BY TRADE CONTRACTOR. VERIFY FINISH WITH ARCHITECTURAL DRAWINGS.
6. COLD PAN - 2" RIGID INSULATION WITH 1" C.P. DRAIN - 16 GAUGE STAINLESS STEEL SECTION FALSE BOTTOM. PERFORATE FALSE BOTTOM WITH 1/4" DIA. HOLES AT 3" O.C.
7. 18 GAUGE STAINLESS STEEL INSULATED DOUBLE PAN DOOR WITH RECESSED PULL.
8. MANIFOLD 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 11 40 00.
10. FISHER #22314 DRAIN WITH TAILPIECE AND OVERFLOW.
11. 14 GAUGE STAINLESS STEEL BRACKET WITH DRAIN HANDLE BUSHING.
12. 16 GAUGE STAINLESS STEEL 'Z' CLIP TO WALL AND SEAL.
13. 5/8" DIA. 16 GAUGE STAINLESS STEEL LEGS AND CROSS RAILS.
14. 1/2" S/S TUBING DRAIN LINE - STRAP TO SHELF AND WALL - EXTEND DOWN TO TOP OF SPLASH.
15. 1 5/8" DIA. 16 GAUGE STAINLESS STEEL TUBING - SUPPORT FRONT OF SHELF WITH 1/2" ALL-THREAD INSIDE TUBING EXTENDING TO STRUCTURE ABOVE.
16. 1/4" S/S BAR STOCK WELDED TO TOP OF EACH POST - POT HOOKS TO BE COMPONENT HARDWARE #J77-4401 SPACED 8" O.C.
17. 1 5/8" 16 GAUGE STAINLESS STEEL TUBING - BOLT TO ANGLE IRON AND EXTEND UP THRU SPLASH TO 7'-0" A.F.F.
18. OVERSHELF - 16 GAUGE STAINLESS STEEL, COVE UP REAR 2", TURN FRONT AND ENDS DOWN 1", ENDS TO BE CAPPED WITH EASED CORNERS WHERE ADJACENT TO WALL / FIXTURE.
19. 18 GA. S/S LOUVERED PANEL.
20. 18 GAUGE STAINLESS STEEL LOUVERED DOUBLE PAN DOOR WITH RECESSED PULL.
21. NUMBER NOT USED.
22. 18 GA. STAINLESS STEEL INSULATED DOUBLE PAN SLIDING DOOR WITH COMPONENT HARDWARE COMPONENTS
A. #B57 - (VERIFY LENGTH) EXTRUDED ALUMINUM TRACK.
B. #B58-5511 & #B58-5521 FRONT & REAR DOOR SHEAVES.
C. #B62-1093 DOOR GUIDE
D. #B60-1086 DOOR STOPS WHERE NEEDED
E. #P62-1010 RECESS PULLS

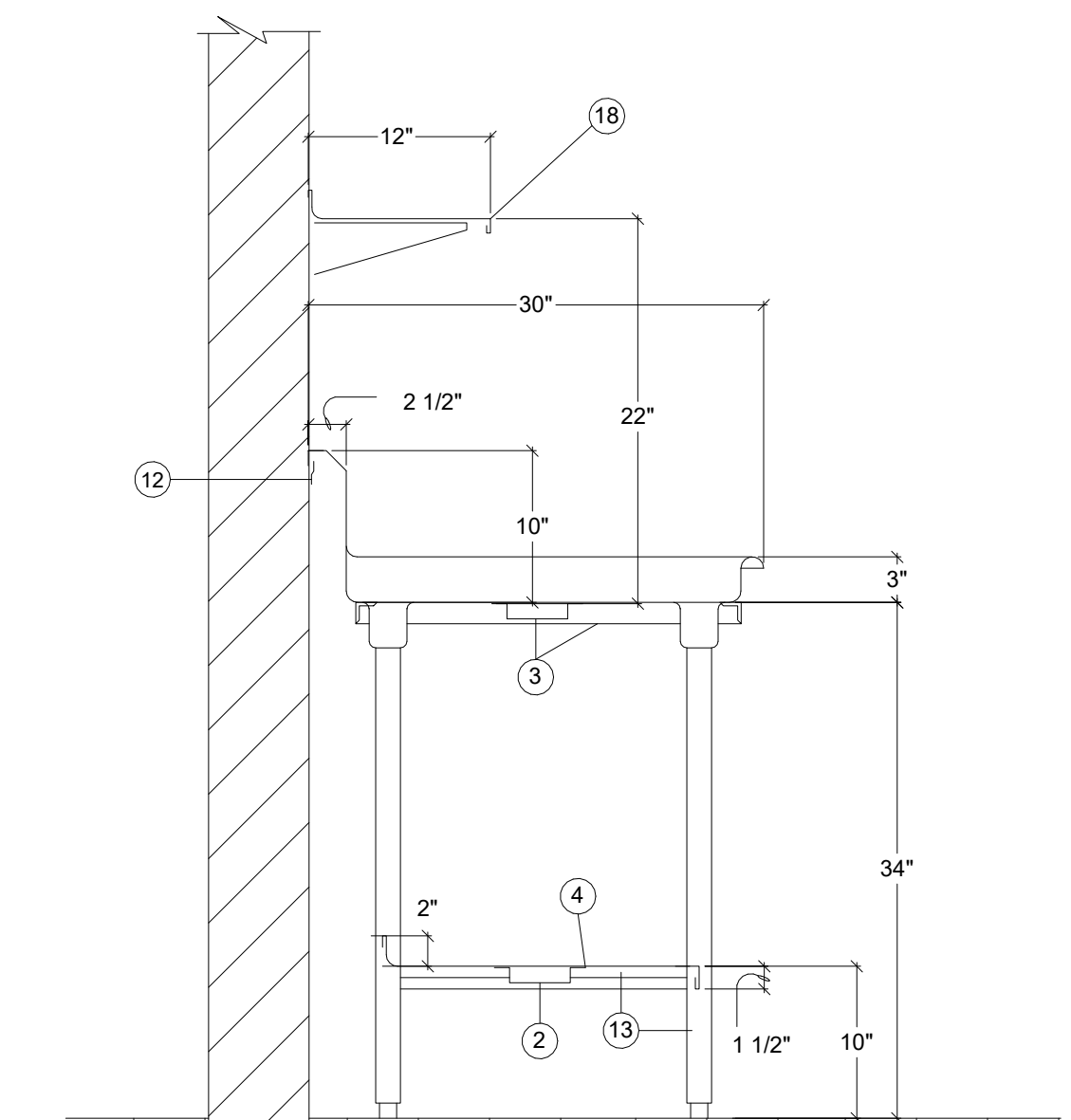
10 SECTION DETAIL NOTES2
N.T.S.



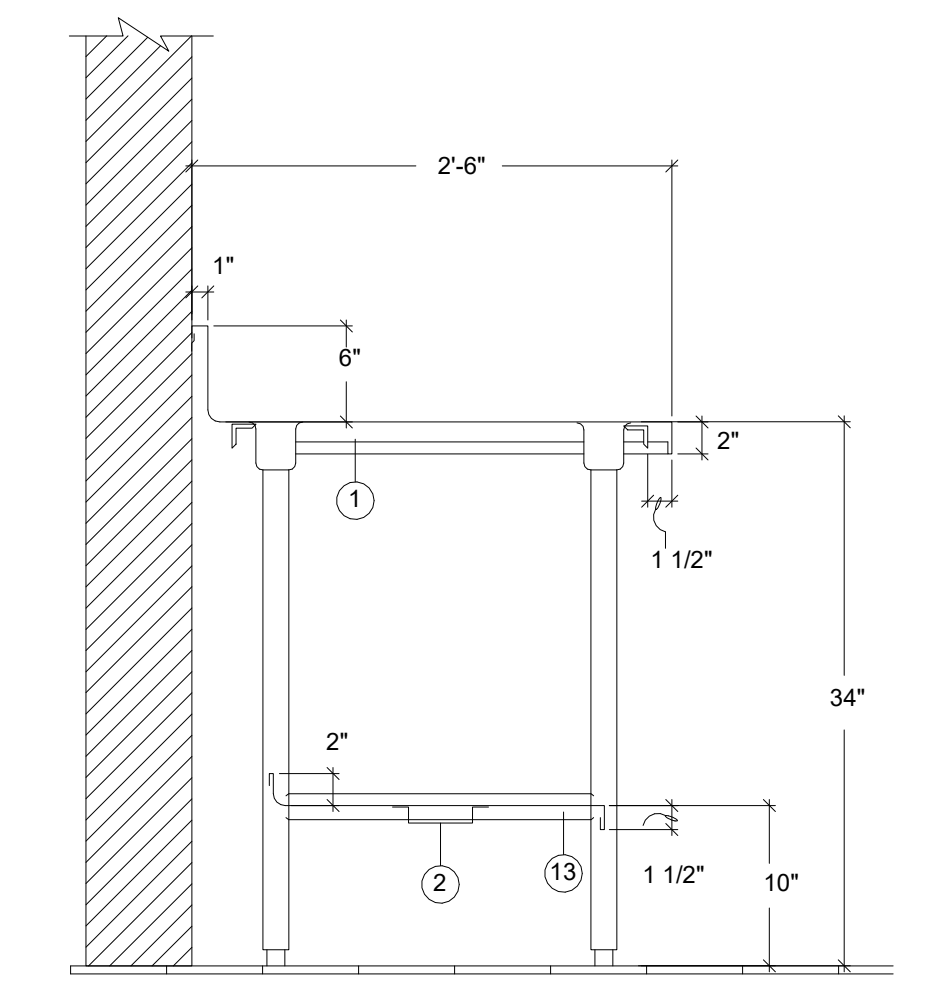
2 SECTION AT UTENSIL WASH SINK2
N.T.S.



3 SECTION AT UTENSIL WASH DRAINBOARD2
N.T.S.



1 SECTION AT CLEAN/SOILED DISHTABLE2
N.T.S.



11 SECTION AT WORKTABLE W/O OVERSHELF2
N.T.S.

SPARE

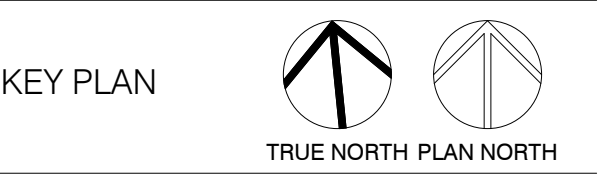
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SPARE

SPARE

SPARE

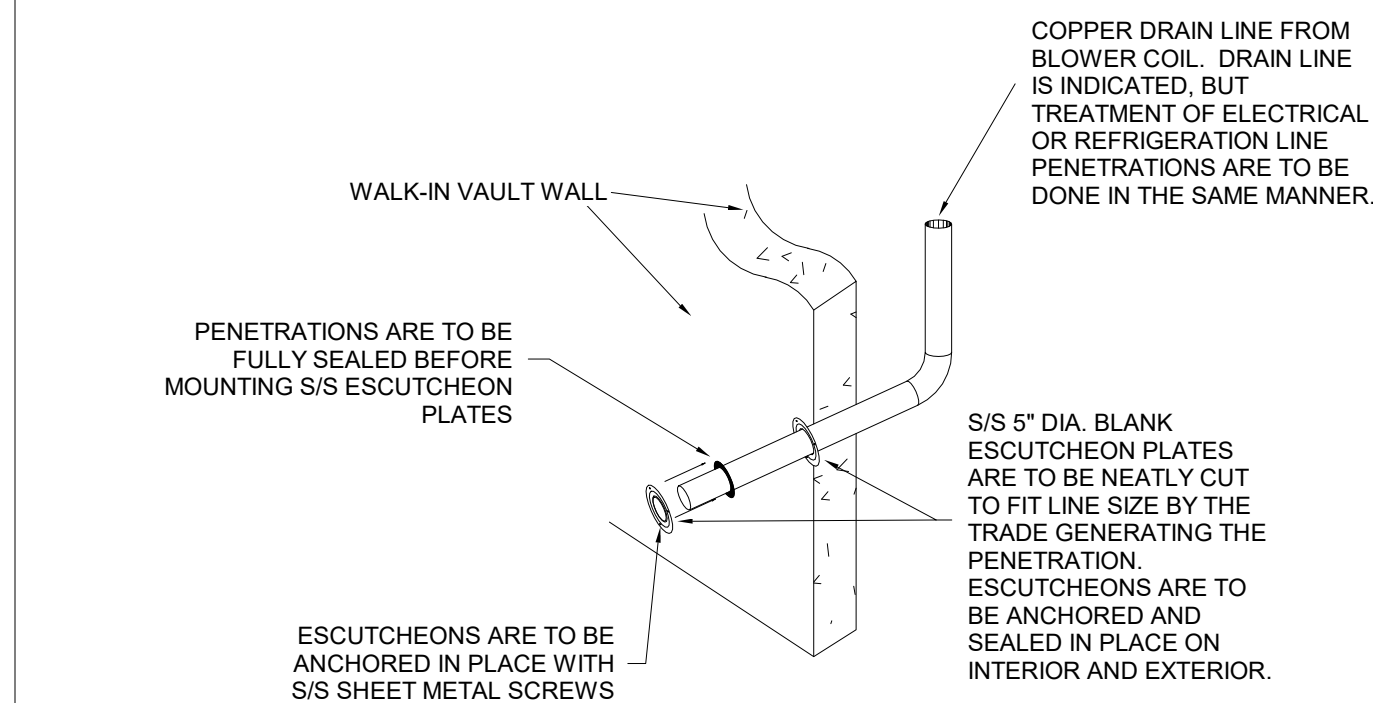


Project Number	19012
Drawn By	GM
Checked By	---
Approved By	Approver

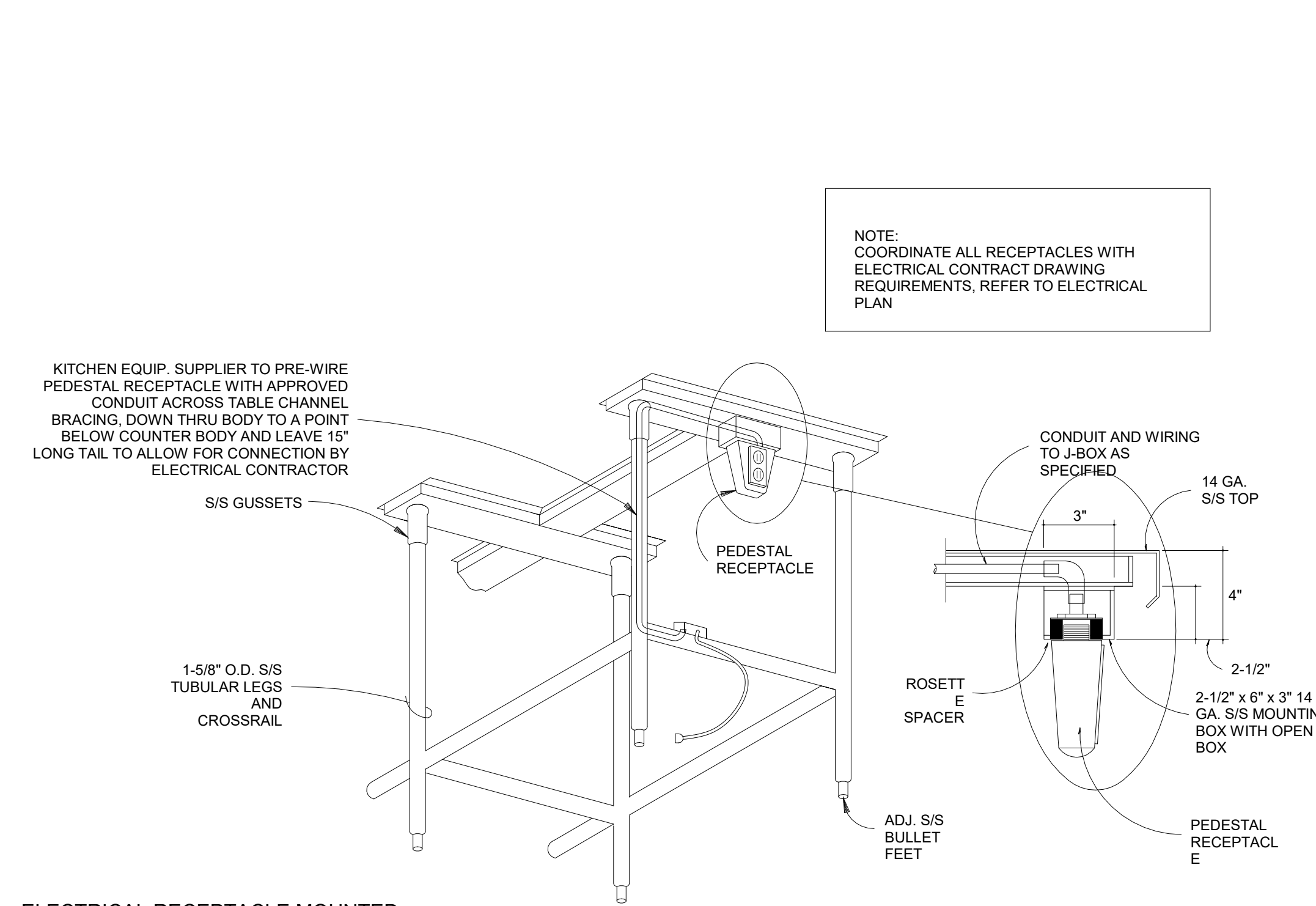
Drawing Title
FS SECTIONS & DETAILS

Drawing Number
FS2.11

#	Date	ISSUED FOR
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	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



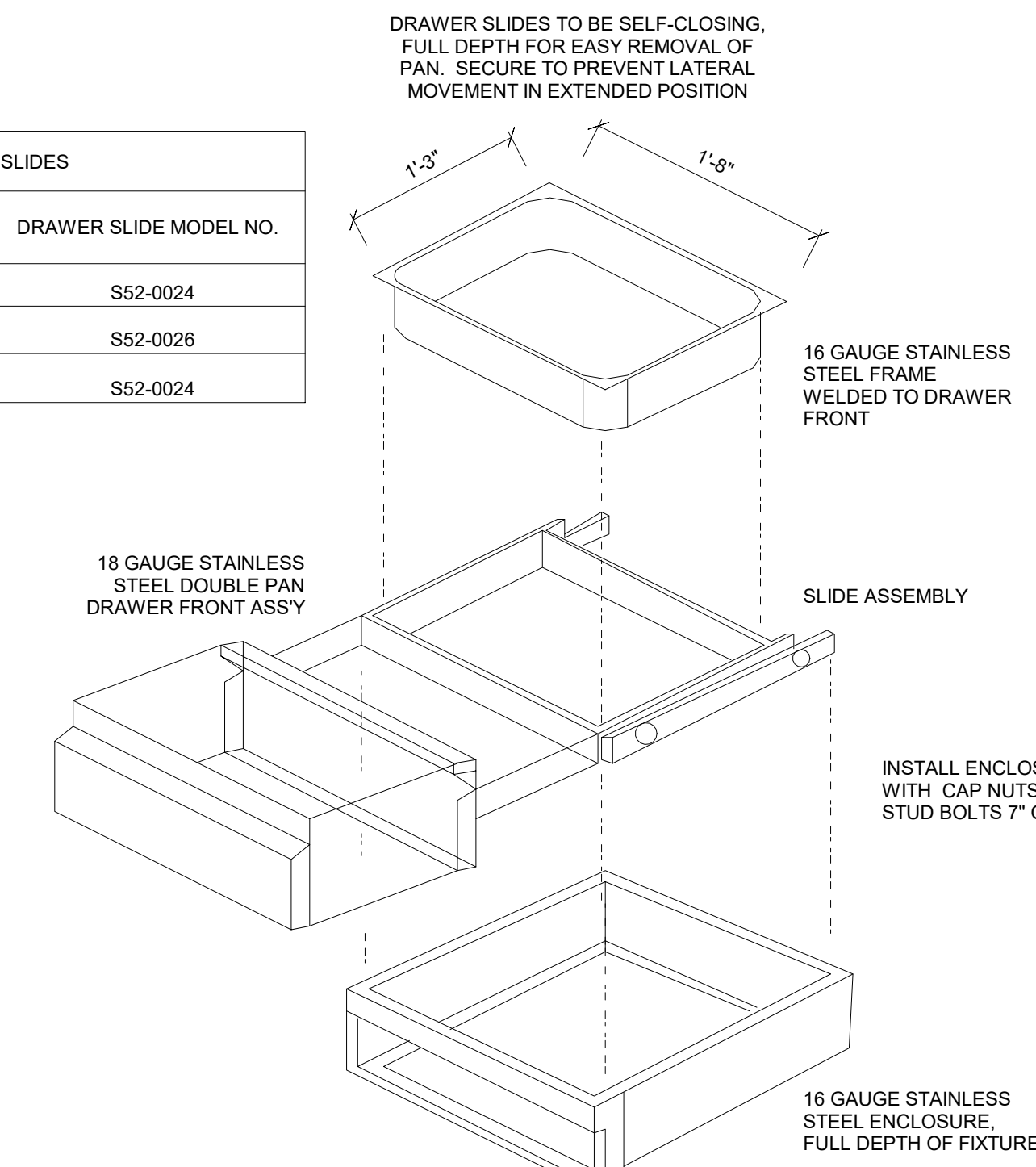
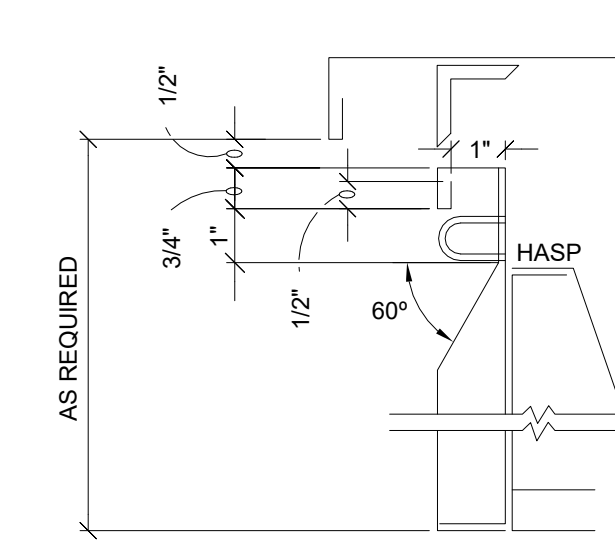
4 ESCUTCHEON & PENETRATION DETAIL2
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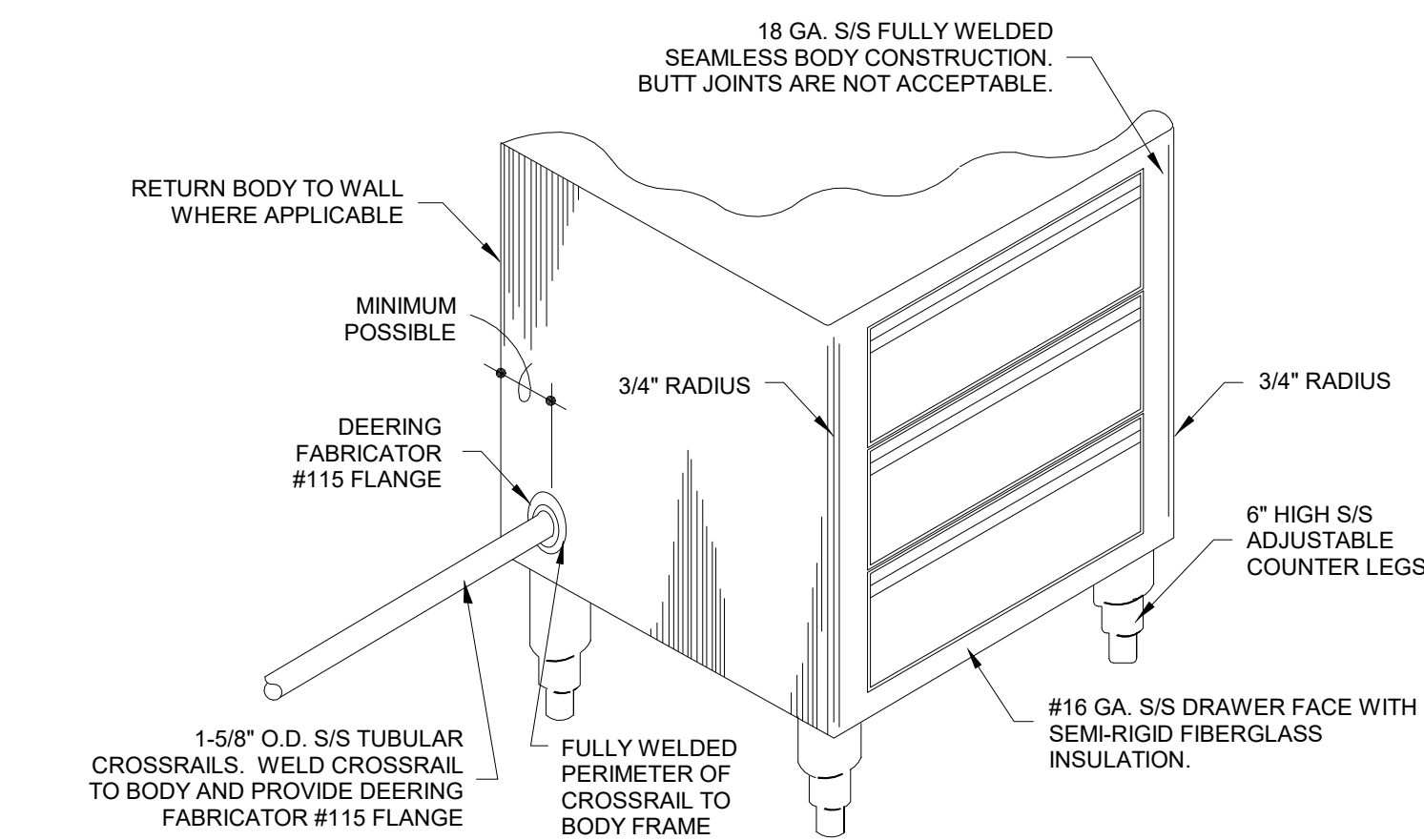
7 ELECTRICAL RECEPTACLE MOUNTED UNDER TOP DETAIL2
N.T.S.

COMPONENT HARDWARE DRAWER PAN AND SLIDES

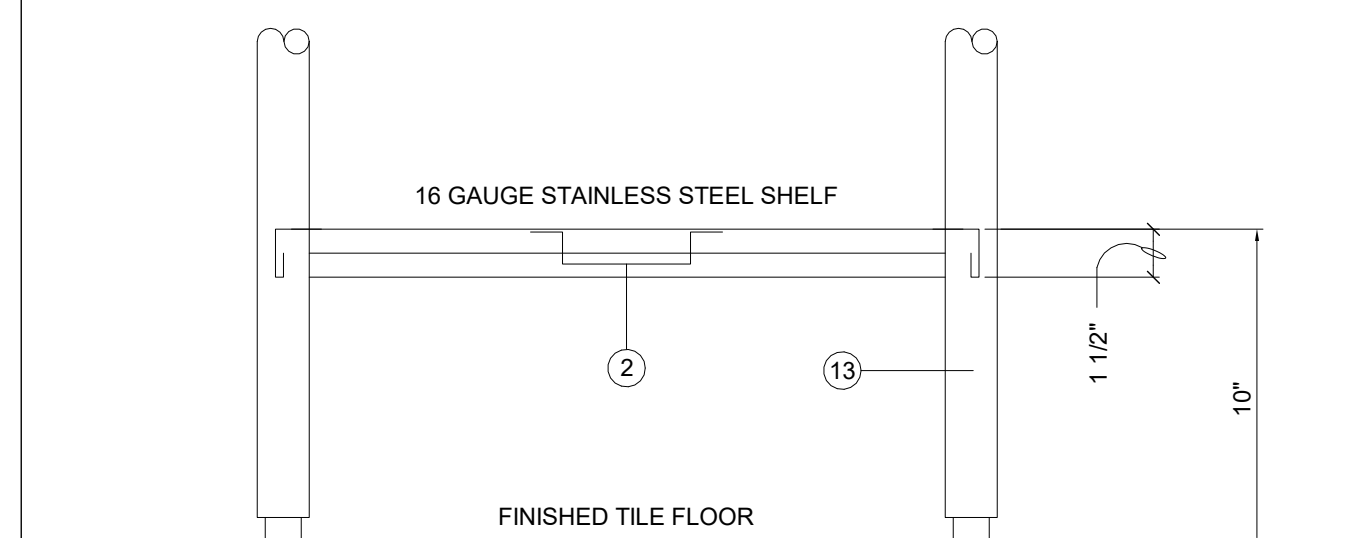
TYPE	DRAWER PAN MODEL NO.	DRAWER SLIDE MODEL NO.
UTILITY	S81-1520	S52-0024
BREAD	S83-2020	S52-0026
REFRIGERATOR	S81-1520	S52-0024



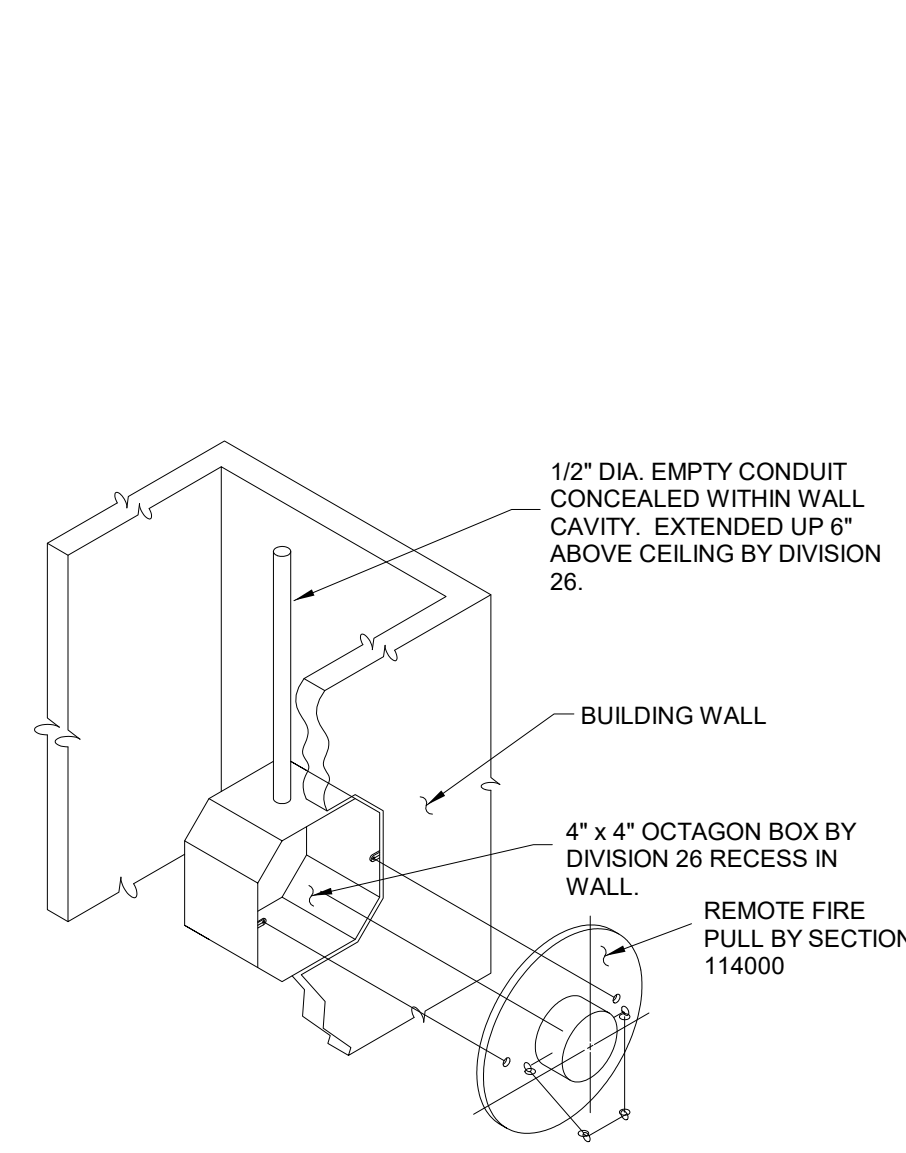
8 DRAWER ASSEMBLY DETAIL2
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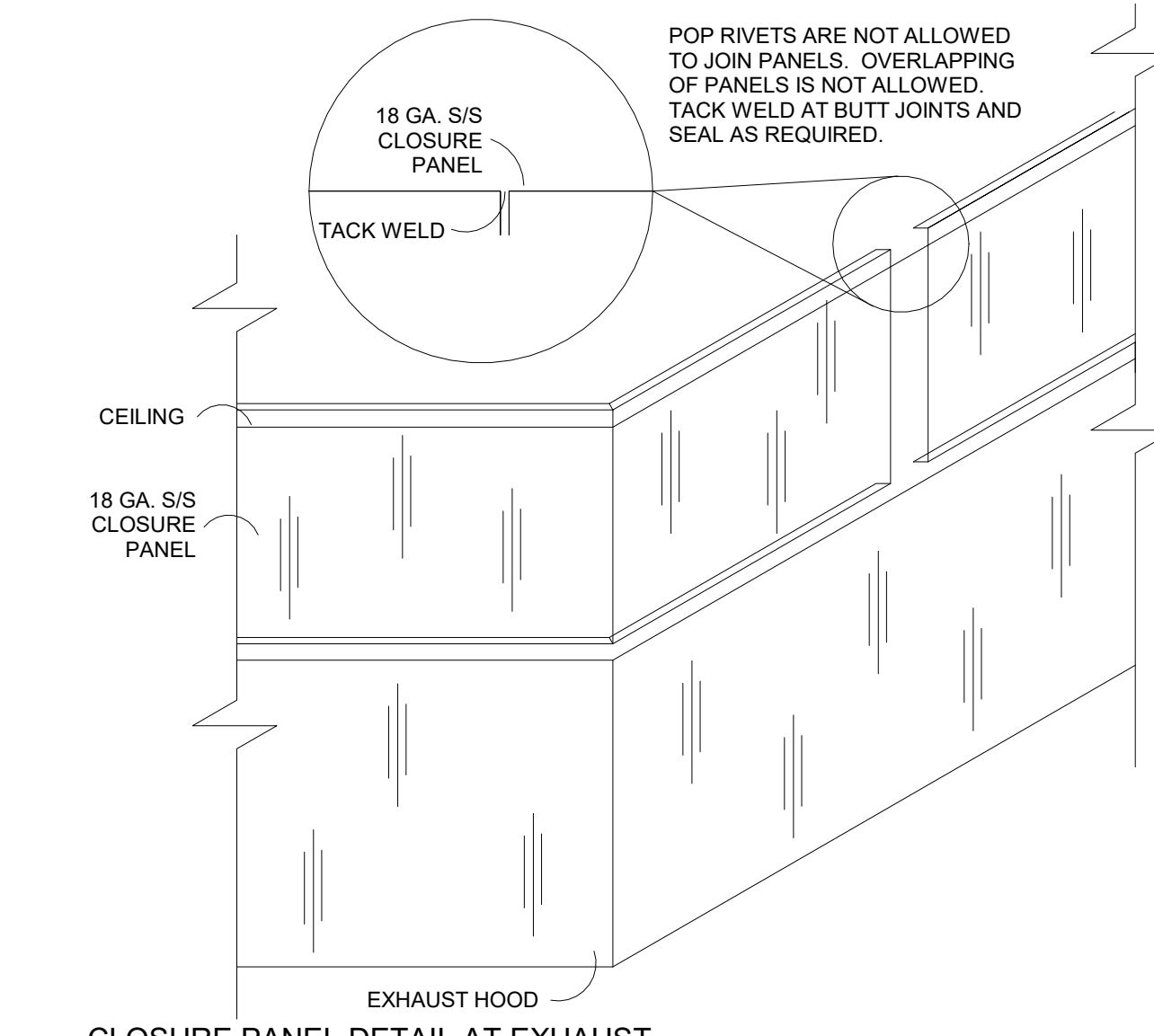
10 BAKER'S TABLE DRAWER DETAIL2
NONE



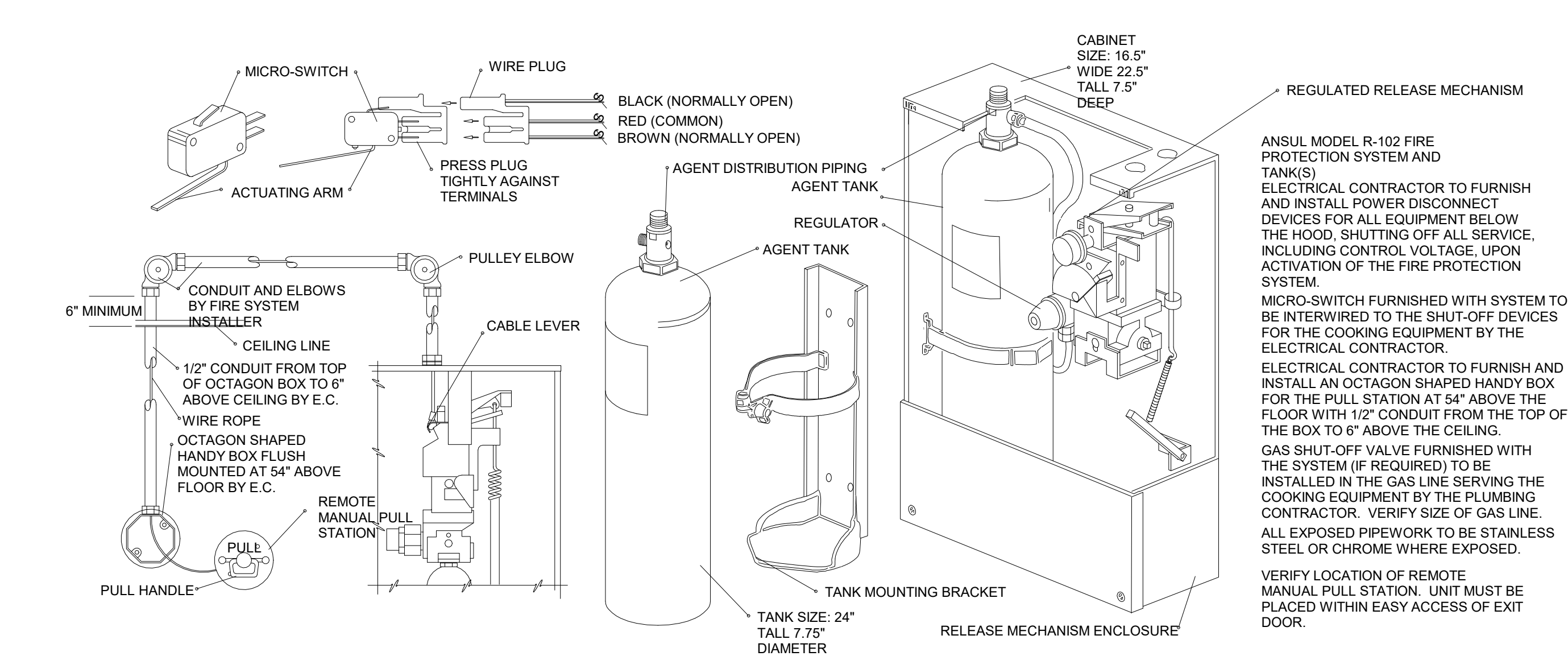
13 TYPICAL UNDERSHELF DETAIL2
N.T.S.



14 FIRE PULL DETAIL2
N.T.S.



15 CLOSURE PANEL DETAIL AT EXHAUST HOOD2
N.T.S.



16 FIRE PROTECTION SYSTEM2
N.T.S.

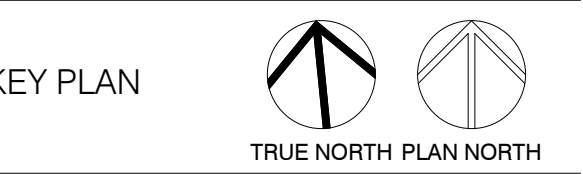


Project Number	19012
Drawn By	GM
Checked By	---
Approved By	Approver
Drawing Title	



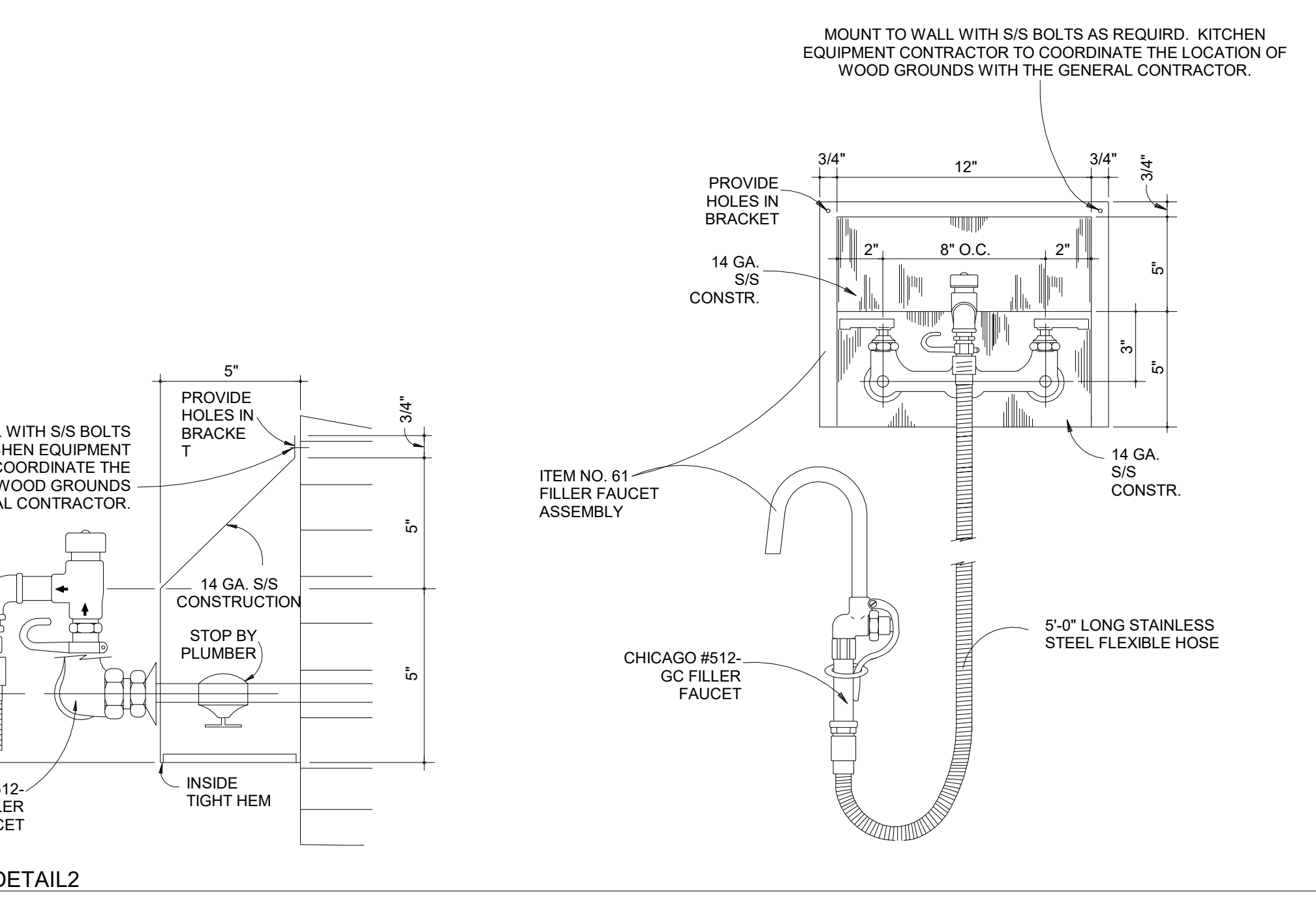
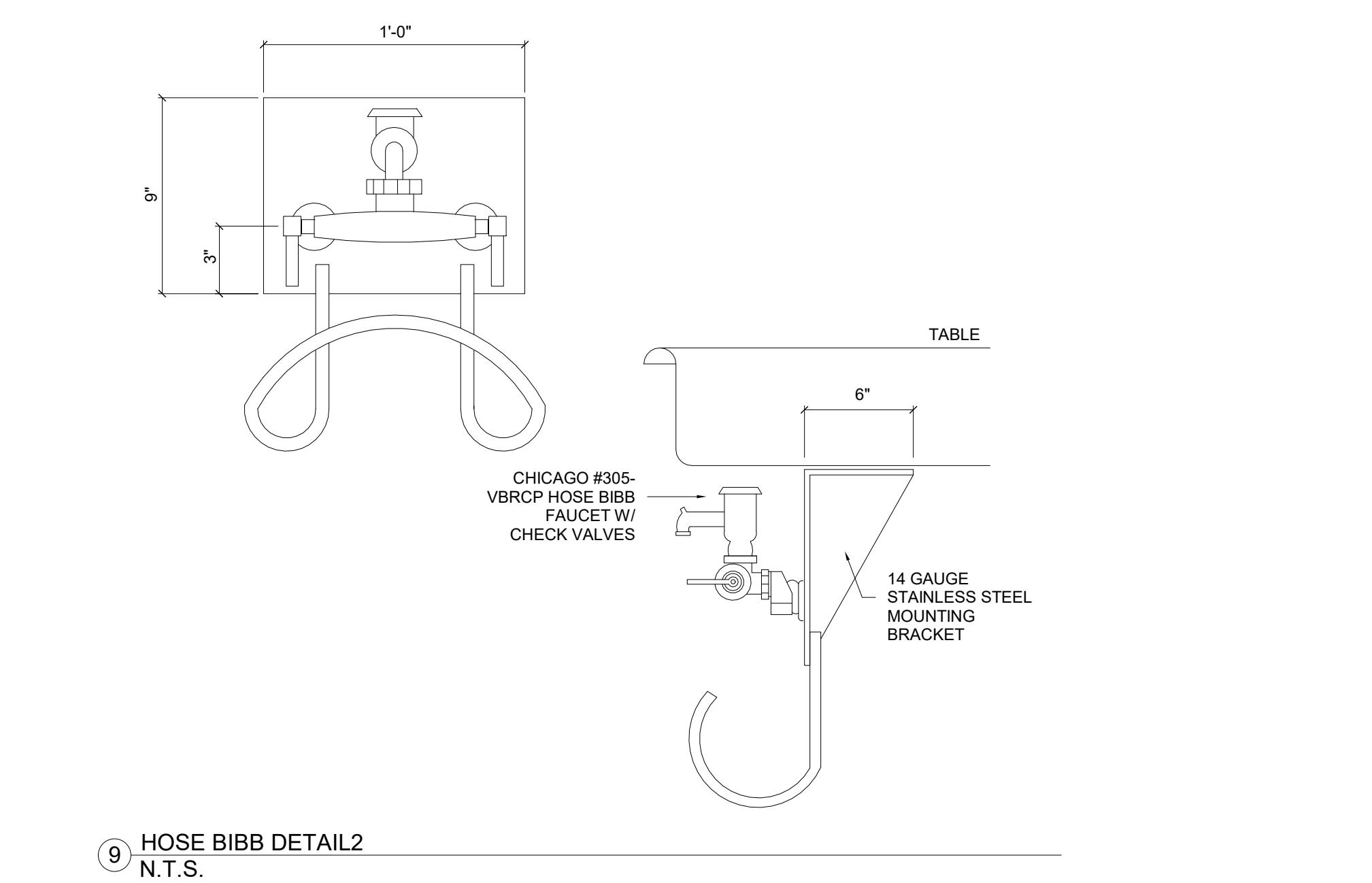
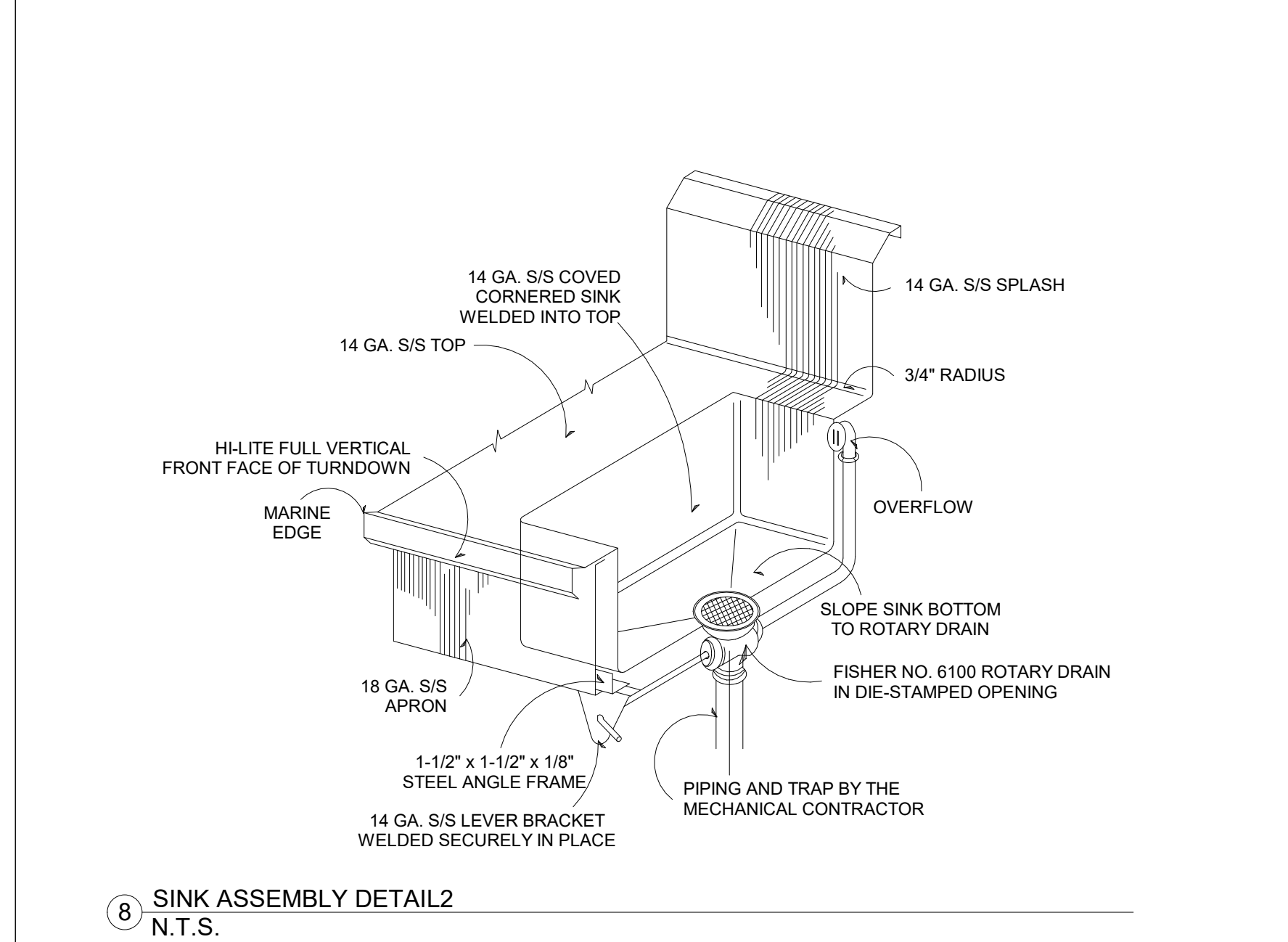
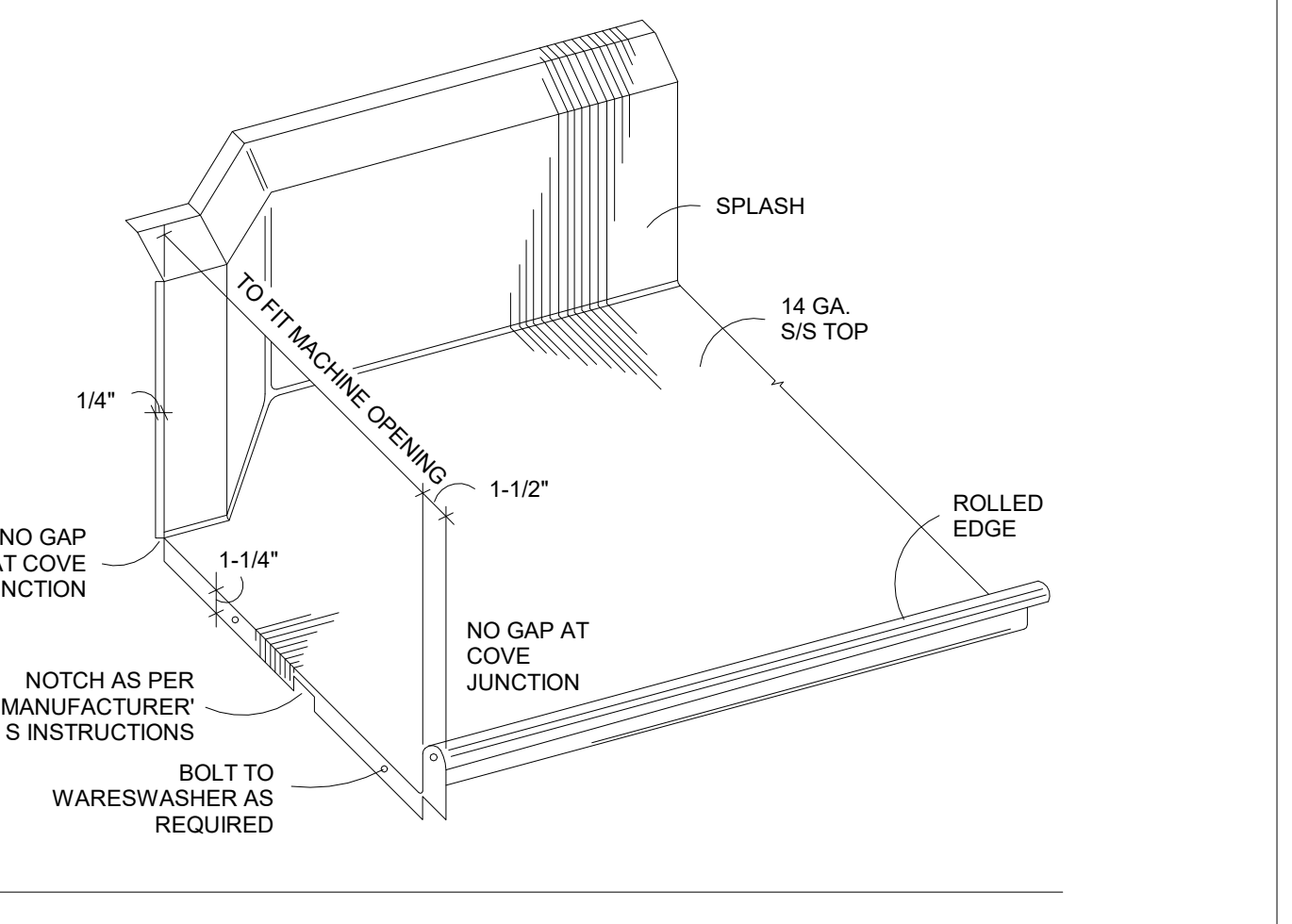
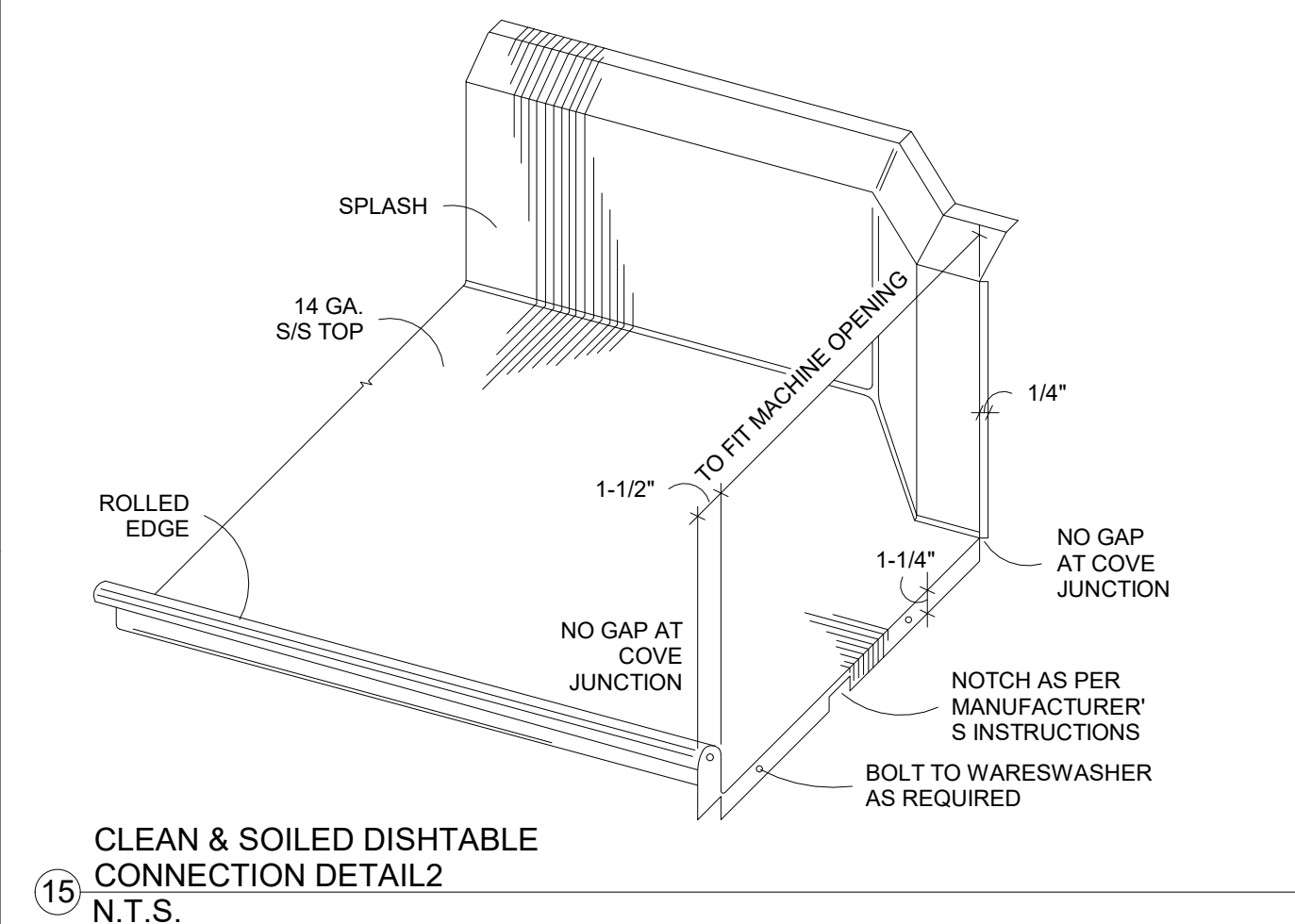
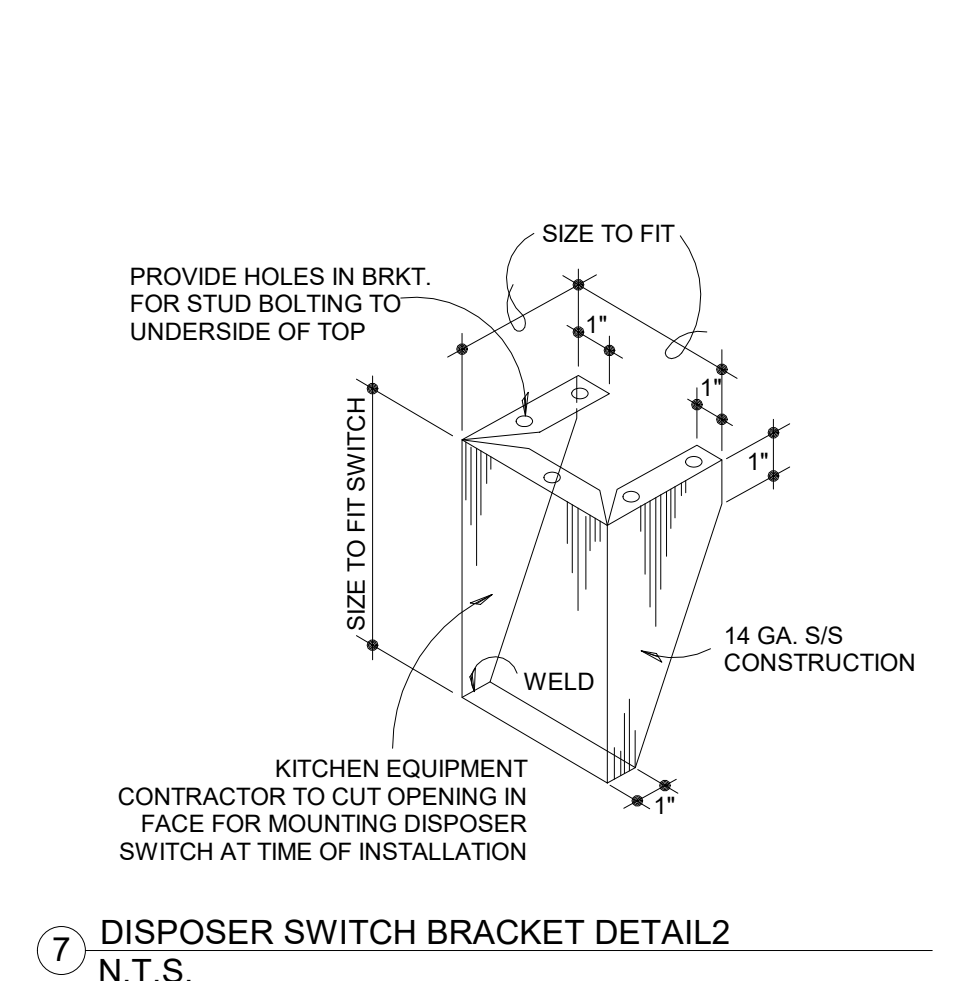
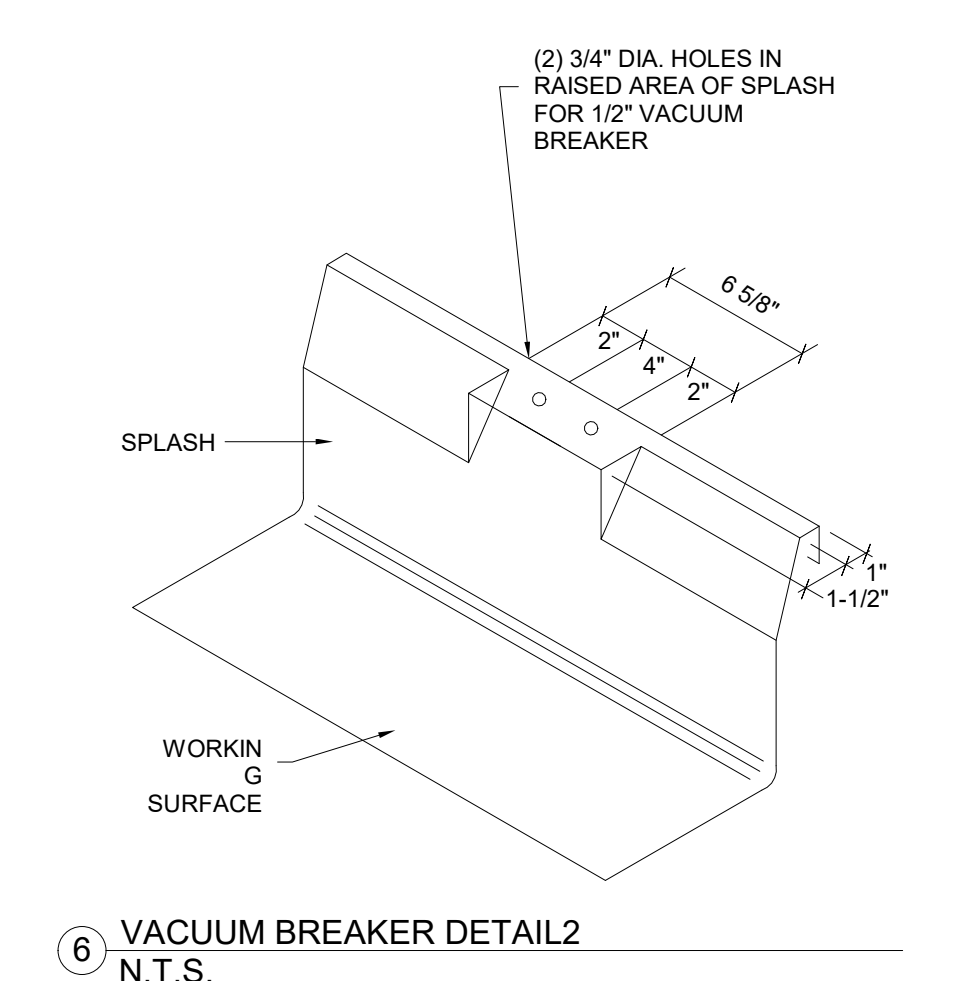
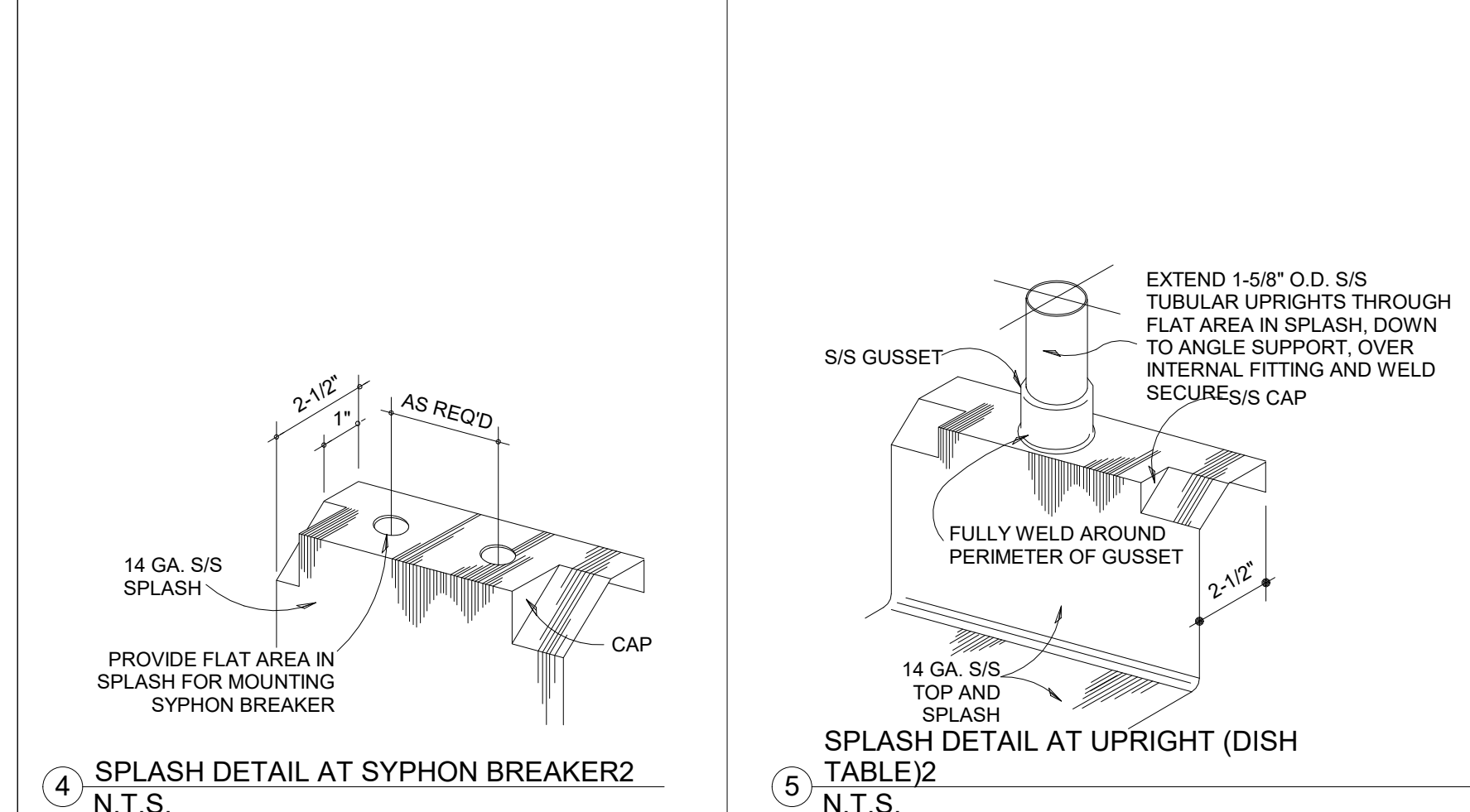
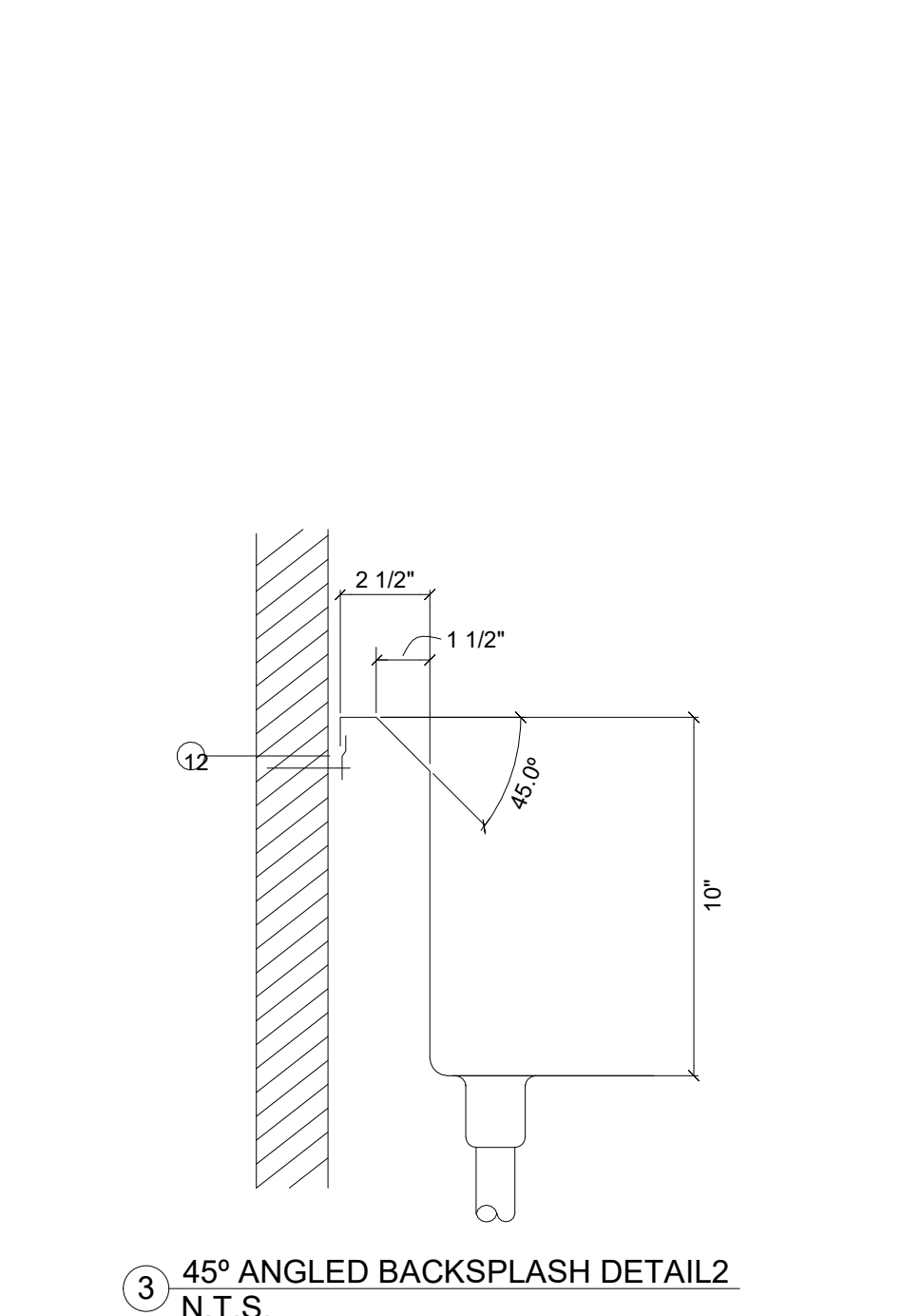
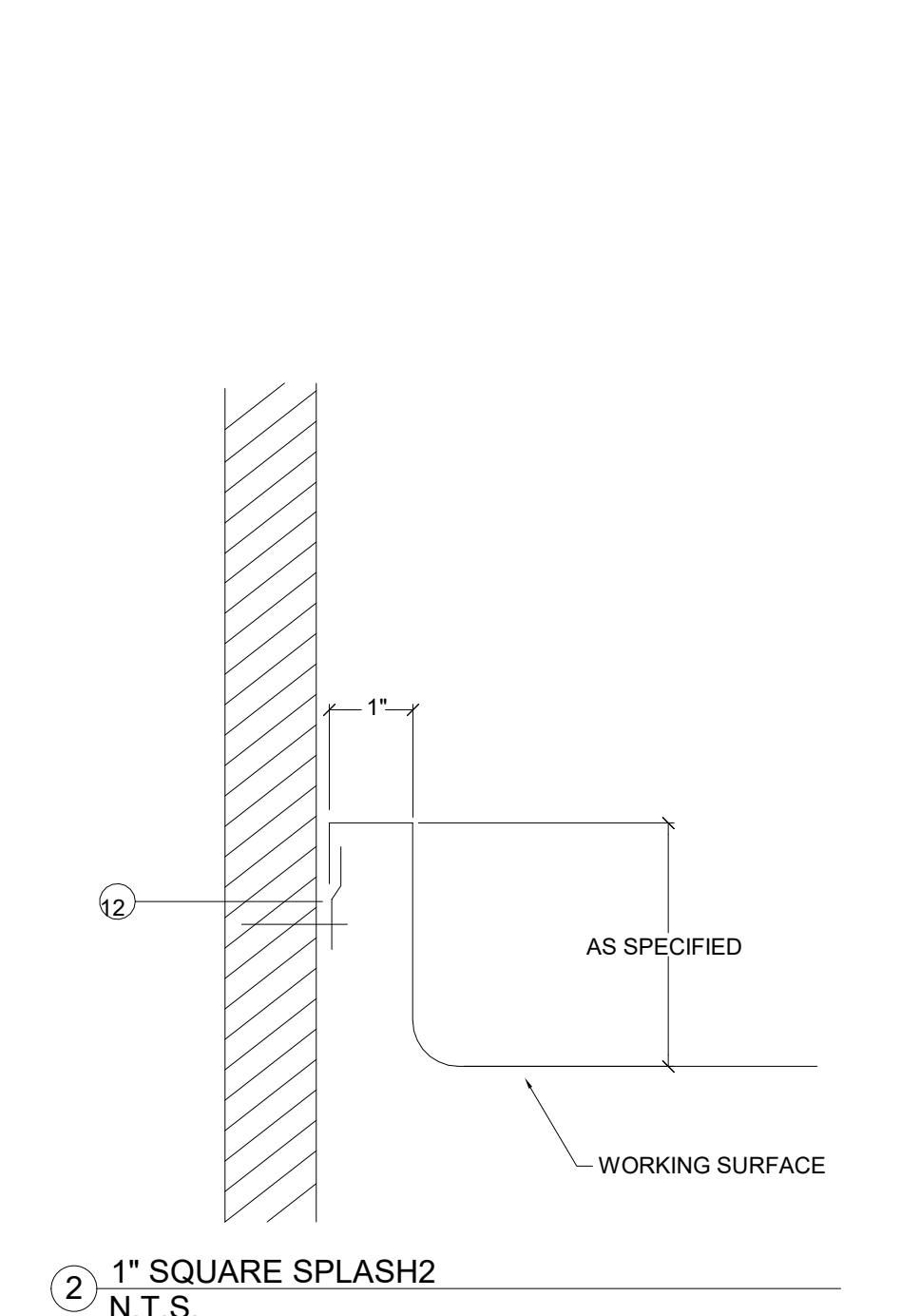
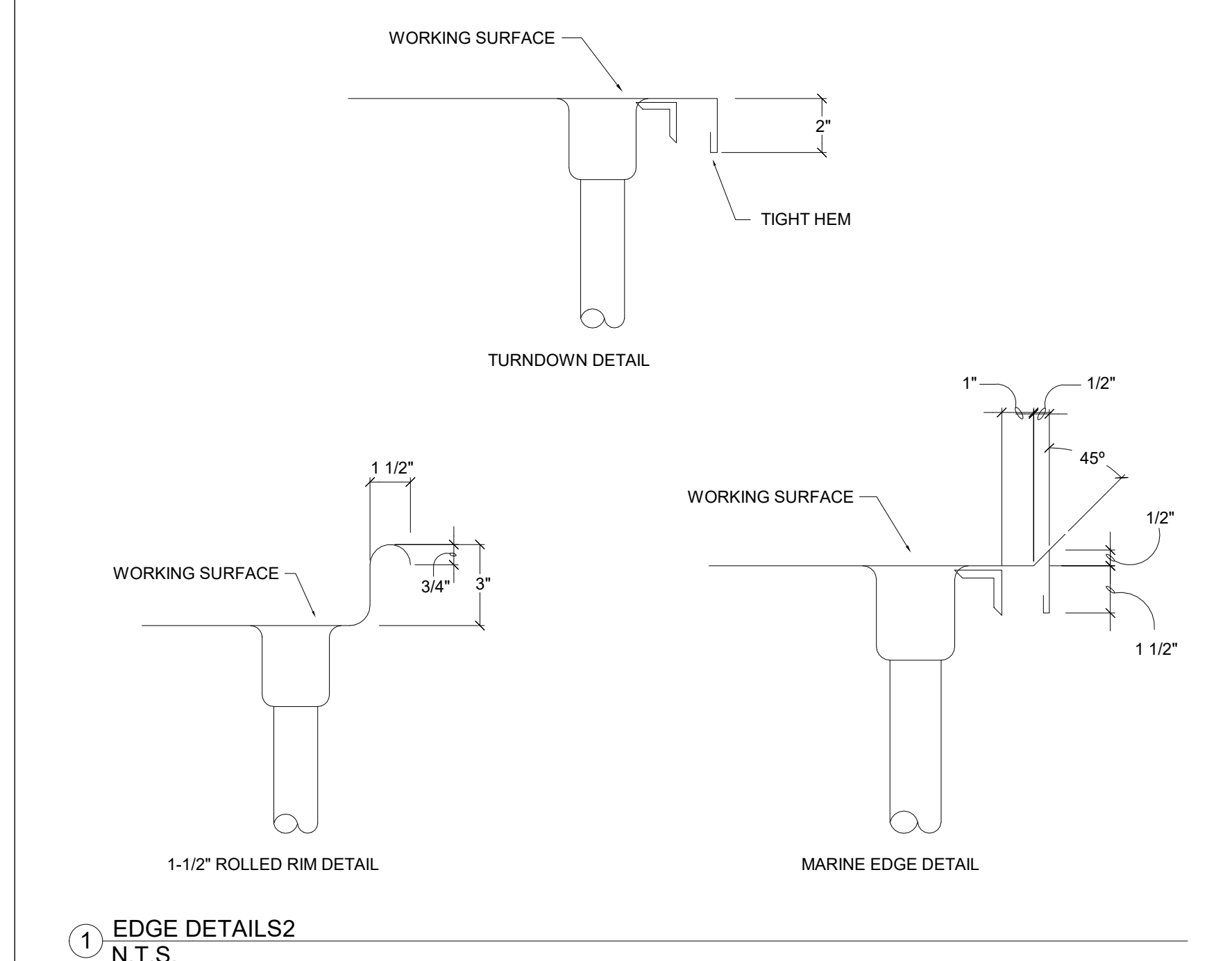
A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	02-25-2020	
	03-23-2020	90% CD
	03-26-2020	95% CD
	04-15-2020	ISSUED FOR PERMIT AND BIDDING



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

FS DETAILS



- A. WORK SHALL BE DONE IN AN APPROVED WORKMANLIKE MANNER, TO COMPLETE SATISFACTION OF THE CONSULTANT.
- B. STAINLESS STEEL SHALL BE U.S. STANDARD GAUGES AS CALLED FOR. 18-8, TYPE 304, NOT OVER .012% MAXIMUM CARBON, NO. 4 FINISH.
- C. GALVANIZED IRON SHALL BE ARMCO OR EQUAL. FRAMEWORK OF GALVANIZED IRON SHALL BE WELDED CONSTRUCTION, HAVING WELDS SMOOTH, AND WHERE GALVANIZING HAS BURNED OFF, TOUCHED UP WITH HIGH-GRADE ALUMINUM BRONZE.
- D. LEGS AND CROSSRAILS SHALL BE CONTINUOUSLY WELDED, UNLESS OTHERWISE NOTED, AND GROUND SMOOTH.
- E. BOTTOM OF LEGS AT FLOOR SHALL BE FITTED WITH SANITARY STAINLESS STEEL BULLET-TYPE FOOT, WITH NO LESS THAN 1/2" ADJUSTMENT.
- F. LEGS SHALL BE FASTENED TO EQUIPMENT AS FOLLOWS:
 - 01. TO SINKS BY MEANS OF CLOSED GUSSETS. GUSSETS SHALL BE STAINLESS STEEL, REINFORCED WITH BUSHING, HAVING SET SCREWS FOR SECURING LEGS.
 - 02. TO TABLES AND DRAINBOARDS WITH CLOSED GUSSETS WHICH SHALL BE WELDED TO GALVANIZED HAT SECTIONS OR CHANNELS. 14 GAUGE OR HEAVIER, EXPOSED HAT SECTIONS HAVING CLOSED ENDS. BRACING SHALL BE UNDERSIDE OF TOPS.
- G. CLOSED GUSSETS SHALL BE 3" MINIMUM DIAMETER AT TOP, WELDED TO FRAME MEMBERS OR TO SINK BOTTOM.
- H. ROLLS SHALL BE 1 1/2" DIAMETER, EXCEPT AS DETAILED TO THE CONTRARY, WITH CORNERS BULLNOSED, GROUND, AND POLISHED.
- I. SEAMS AND JOINTS SHALL BE SHOP-WELDED WHERE POSSIBLE. WELDS TO BE GROUND AND POLISHED TO MATCH ORIGINAL FINISH. MATERIALS 18 GAUGE OR HEAVIER SHALL BE WELDED.
- J. METAL TOPS SHALL BE ONE-PIECE WELDED CONSTRUCTION UNLESS SPECIFIED OTHERWISE, REINFORCED ON UNDERSIDE WITH GALVANIZED HAT SECTIONS OR CHANNELS WELDED IN PLACE. CROSSBRACE TO BE NOT MORE THAN 30" ON CENTERS.
- K. HARDWARE SHALL BE SOLID MATERIALS AND EXCEPT WHERE EXPOSED OR SPECIFIED TO THE CONTRARY, OF CAST BRASS, CHROME-PLATED. IDENTIFY ALL HARDWARE WITH MANUFACTURER'S NAME AND NUMBER SO THAT BROKEN OR WORN PARTS MAY BE ORDERED AND REPLACED.
- L. FABRICATE SINK COMPARTMENTS WITH 3/4" COVERED VERTICAL AND HORIZONTAL CORNERS. MULTIPLE-COMPARTMENT PARTITIONS TO BE DOUBLE THICKNESS, CONTINUOUSLY WELDED WHERE SHEETS JOIN AT TOP. FRONT OF MULTIPLE-COMPARTMENT PARTITIONS TO BE CONTINUOUS ON EXTERIOR. BOTTOMS SHALL BE CREATED TO DRAIN.
- M. ENDS OF FIXTURES, SPLASHBACKS, SHELVES, ETC., SHALL BE FINISHED FLUSH TO WALLS OR ADJOINING FIXTURES.
- N. DISHTABLES, DRAINBOARDS, SPLASHBACKS, AND TURN-UP EDGES SHALL HAVE RADIUS BENDS IN ALL HORIZONTAL AND VERTICAL CORNERS, COVED AT INTERSECTIONS.
- O. ROUNDED AND COVED CORNERS OR RADIUS BENDS SHALL BE 1/2" RADIUS OR LONGER.
- P. UNDERSIDES OF TOPS TO BE COATED WITH HEAVY-BODIED RESINOUS MATERIAL COMPOUND FOR PERMANENT, NON-FLAKING ADHESION TO METAL, 1/8" THICK, APPLIED AFTER REINFORCING MEMBERS HAVE BEEN INSTALLED, DRYING WITHOUT DIRT-CATCHING CREVICES.
- Q. SHELVES ARE TO BE TURNED UP 2" ON THE BACK EDGE. TURN OTHER EDGES DOWN 1 1/2" TO FORM OPEN CHANNELS. REINFORCE SHELF UNITS TO SUPPORT 40 LBS. PER SQUARE FOOT LOADING, PLUS 100% IMPACT LOADING.
- R. TRIMWORK AND FRAMING AT MASONRY OPENINGS SHALL BE 18 GAUGE STAINLESS STEEL AND FORMED SO AS TO FIT SNUG TO WALLS AND ADJACENT SURFACES. FRAMING SHALL EXTEND A MINIMUM OF 2" ON EACH SURFACE. SEAL TRIMWORK TO WALLS. REFER TO DRAWINGS.
- S. METAL COMPONENTS, UNLESS SPECIFIED OR NOTED OTHERWISE, TO BE THE FOLLOWING GAUGES:

TABLETOPS	14 GAUGE STAINLESS STEEL
WALL SHELVES	16 GAUGE STAINLESS STEEL
UNDERSHELVES	16 GAUGE STAINLESS STEEL
SINKS & DRAINBOARDS	14 GAUGE STAINLESS
STEEL	
EXHAUST DUCTS	18 GAUGE STAINLESS STEEL
LEGS - 1 5/8" DIA.	16 GAUGE STAINLESS STEEL

10 CUSTOM FAB NOTES2
NONE

ABBREVIATIONS LEGEND

ACRONYM	DESCRIPTION	ACRONYM	DESCRIPTION
*F	FAHRENHEIT	FAS	FIRE ALARM SYSTEM
AC	AIR CONDITIONING	FCU	FAN COIL UNIT
AHU	AIR HANDLING UNIT	FPM	FEET PER MINUTE
AI	ANALOG INPUT	FPT	FAN POWER TERMINAL
ALT	ALTITUDE	GPM	GALLON PER MINUTE
AO	ANALOG OUTPUT	HP	HORSE POWER
APPROX	APPROXIMATE	HVAC	HEATING VENTILATION AND AIR CONDITIONING
ATM	ATMOSPHERE	HWR	HOT WATER RETURN
AVG	AVERAGE	HWS	HOT WATER SUPPLY
B	BOILER	ISP	INTERNAL STATIC PRESSURE
BARO	BAROMETER (-TRIC)	KW	KILOWATT
BAS	BUILDING AUTOMATION SYSTEM	LAT	LEAVING AIR TEMPERATURE
BHP	BRAKE HORSE POWER	LHG	LATENT HEAT GIANT
BI	BINARY INPUT	LWT	LEAVING WATER TEMPERATURE
BO	BINARY OUTPUT	MUA	MAKEUP AIR UNIT
BTU	BRITISH THERMAL UNIT	MX	MIXING AIR
BTUH	BRITISH THERMAL UNIT/HOURS	NA	NOT APPLICABLE
CFM	CUBIC FEET PER MINUTE	NO.	NUMBER
CHWP	CHILL WATER PUMP	O/A	OUTSIDE AIR
CHWR	CHILL WATER RETURN	OAHU	OUTSIDE AIR HANDLING UNIT
CHWS	CHILL WATER SUPPLY	PSI	POUNDS PER SQUARE INCH
COEFF	COEFFICIENT	RA	RETURN AIR
CRAC	COMPUTER AIR CONDITIONER	REV	REVOLUTIONS
CT	COOLING TOWER	RTU	ROOF TOP UNIT
CU	CONDENSING UNIT	S/A	SUPPLY AIR
CV	CONSTANT VOLUME	SG	SPECIFIC GRAVITY
CWP	CONDENSER WATER PUMP	SHG	SENSIBLE HEAT GAIN
CWR	CONDENSER WATER RETURN	SP	STATIC PRESSURE
CWS	CONDENSER WATER SUPPLY	SPEC	SPECIFICATION
DB	DRY BULB	TCH	THERMOSTAT/ CO2 SENSOR/ HUMIDISTAT
DI	DIGITAL INPUT	T-STAT	THERMOSTAT
DO	DIGITAL OUTPUT	TYP.	TYPICAL
EAT	ENTERING AIR TEMPERATURE	UH	UNIT HEATER
EMC	ELECTRONICALLY COMMUTATED MOTOR	VAV	VARIABLE AIR VOLUME
ESP	EXTERNAL STATIC PRESSURE	VFD	VARIABLE FREQUENCY DRIVE
EWI	ENTERING WATER TEMPERATURE	WB	WET BULB
EX	EXHAUST AIR		
NOTE: NOT ALL ITEMS NECESSARILY USED.			

MECHANICAL SYMBOLS LEGEND

	SUPPLY AIR DUCT UP (PLAN)		DIFFUSER TYPE AND CFM
	SUPPLY AIR DUCT DOWN (PLAN)		THERMOSTAT - MOUNT 48" AFF UNO
	RETURN OR OUTSIDE AIR DUCT UP (PLAN)		HUMIDISTAT
	RETURN OR OUTSIDE AIR DUCT DOWN (PLAN)		FIRESTAT
	EXHAUST AIR DUCT UP (PLAN)		THERMOSTAT/ CO2 SENSOR/ HUMIDISTAT MOUNT 48" AFF UNO
	EXHAUST AIR DUCT DOWN (PLAN)		SMOKE DETECTOR
	RETURN AIR/TRANSFER AIR BOOT		PIPE UP
	CEILING SUPPLY AIR DEVICE		PIPE DOWN
	SIDEWALL SUPPLY/EXHAUST REGISTER		CAP
	CEILING RETURN AIR / EXHAUST REGISTER		90° ELBOW
	RETURN AIR GRILLE WITH BOOT		45° ELBOW
	BRANCH DUCT TAP		45° ELBOW DOWN (OGEE)
	DUCT SPLIT WITHOUT VANES		TEE
	ACCESS DOOR		TEE UP
	TRANSITION IN DUCT		TEE DOWN
	DUCT WITH SPIN-IN CONNECTOR		TOP CONNECTION
	FLEXIBLE DUCT CONN. TO RECTANGULAR		CROSS
	DUCT ELBOW WITH TURNING VANES		UNION (SCREWED)
	DUCT ELBOW WITHOUT VANES		UNION (FLANGED)
	FLEXIBLE CONNECTION, FLEXIBLE DUCT		DUCT MOUNTED TEMPERATURE SENSOR
	VOLUME DAMPER		DUCT MOUNTED PRESSURE SENSOR
	MOTORIZED VOLUME DAMPER		DUCT MOUNTED SMOKE DETECTOR
	FIRE DAMPER		PIPE BREAK
	SMOKE DAMPER		CENTRIC REDUCER
	COMBINATION FIRE/SMOKE DAMPER		ECCENTRIC REDUCER
	AIR FLOW MONITORING STATION		END SUCTION PUMP
	AIR PRESSURE DIFFERENTIAL SWITCH		BALL VALVE
	RISE IN DUCT ELEVATION		BUTTERFLY VALVE
	DROP IN DUCT ELEVATION		ISOLATION VALVE
	SPLITTER DAMPER - DIMENSION AS NOTED ON DRAWING		GATE VALVE WITH QUICK DISCONNECT
	BACK DRAFT DAMPER		TWO-WAY VALVE
	UNDERCUT DOOR 1'		THREE-WAY VALVE
	REFER TO DETAIL #1 ON DRAWING H-7		BALANCING VALVE
	FLOW METER		MEDIUM PRESSURE STEAM SUPPLY
	CO2 SENSOR		REFRIGERANT PIPE
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.
- 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.
- 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 ARCHITECTURAL SHALL BE FURNISHED AS PART OF THE SCOPE OF WORK OF DIVISION IS.
- INSTALL SMOKE DETECTORS IN CONFORMANCE WITH 2015 IMC WITH CITY OF STAFFORD, TX AMENDMENTS.
- ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE CODES, STANDARDS AND AUTHORITIES HAVING JURISDICTION.
- ALL SUPPLY AND RETURN AIR DUCTS LOCATED IN UNCONDITIONED ATTICS OR OUTSIDE SHALL BE INSULATED (R-8 UNCONDITIONED AND R-8 OUTSIDE BUILDINGS).
- FLEX DUCTS SHALL BE SAME SIZE AS DIFFUSER NECKS.
- SEAL ALL PENETRATIONS OF FLOORS, SMOKE WALLS, FIRE WALLS, LAB WALLS, AND EXTERIOR WALLS.
- ARCHITECT SHALL APPROVE ALL THERMOSTAT OR TEMPERATURE SENSOR LOCATIONS.
- DO NOT RUN DUCT OR PIPE OVER ELECTRICAL PANELS.
- COORDINATE EXACT LOCATION OF EQUIPMENT, DUCTWORK, AIR DEVICES, AND THERMOSTATS WITH ARCHITECTURAL, STRUCTURAL AND REFLECTED CEILING PLANS.
- ALL PENETRATIONS IN RATED WALLS SHALL BE SEALED WITH AN APPROVED FIRE RETARDANT SEALANT.
- ALL DUCT RUN-OUTS TO SUPPLY AND EXHAUST, DIFFUSERS AND REGISTERS, SHALL HAVE MANUAL BALANCING DAMPERS. PROVIDE YOUNG REGULATORS WHERE CEILING IS INACCESSIBLE.
- SECURE ALL PERMITS AND PROVIDE ANY REQUIRED TEMPORARY UTILITIES.
- GUARANTEE LABOR AND MATERIAL FOR 1 YEAR AND PER DIV.1.
- PROVIDE AUTOMATIC AIR VENTS ON ALL HIGH POINTS OF PIPING SYSTEMS AND DRAIN VALVED CONNECTIONS AT ALL LOW POINTS OF PIPING SYSTEMS.
- REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION ON SCOPE OF WORK AND REQUIRED INSTALLATION.
- VERIFY FINAL LOCATION OF THERMOSTATS WITH ARCHITECT AND BUILDING ENGINEER PRIOR TO INSTALLATION.
- 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.
- 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.
- PROVIDE SMOKE DETECTOR FOR ALL UNITS WITH CAPACITY OF 2000 CFM AND HIGHER AS REQUIRED BY CODE. COORDINATE WITH 2015 IMC SECTION 606.
- 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.
- 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:
 - SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE.
 - 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.
 - NAMES AND ADDRESSES OF AT LEAST ONE SERVICE AGENCY.
 - 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.
 - A COMPLETE NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING SUGGESTED SET-POINTS.
- HOT WATER PIPE INSULATION SHALL BE MINIMUM 1.5" IF THE PIPE DIAMETER IS LESS THAN 1-1/2", 2" IF THE PIPE DIAMETER IS BIGGER THAN 1-1/2".
- 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.
- 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.
- LOCATE VALVES WITHIN 18 INCHES OF CEILING SO THAT THEY ARE WITHIN REACH.
- 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.

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 2020-04-15

A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

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KEY PLAN

TRUE NORTH PLAN NORTH

Project Number	17024
Drawn By	Author
Checked By	Checker
Approved By	Approver
Drawing Title	SYMBOLS, NOTES AND LEGEND
Drawing Number	M1.01

UNIT NO.	LOCATION	SERVING	TYPE	MAX DIMENSIONS				SUPPLY AIR FAN						CHILLED WATER COIL											HOT WATER COIL						ELECTRICAL		NOTES							
				LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	SUPPLY AIRFLOW RATE (CFM)	OUTSIDE AIRFLOW RATE (CFM)	DISCHARGE CONFIGURATION	FAN TYPE	E.S.P. (IN. WG)	MIN ROWS	MAX FINS PER INCH	CAPACITY		ENTERING AIR TEMPERATURE		LEAVING AIR TEMPERATURE		WATER FLOW (GPM)	EWI (°F)	LWT (°F)	MAX P. D.		MIN ROWS	MAX FINS PER INCH	CAPACITY TOTAL (BTUH)	MAX. FACE VELOCITY (FPM)	ENTERING AIR TEMPERATURE		LEAVING AIR TEMPERATURE			WATER FLOW (GPM)	EWI (°F)	LWT (°F)	MAX P. D.		FAN MOTOR SIZE (HP)	V/PH/Hz
														TOTAL (BTUH)	SENSIBLE (BTUH)	DB (°F)	WB (°F)	DB (°F)	WB (°F)				AIR IN.	WTR FT.					DB (°F)	WB (°F)	DB (°F)	WB (°F)					AIR IN.	WTR FT.		
				E.S.P. (IN. WG)		ENTERING AIR TEMPERATURE		LEAVING AIR TEMPERATURE		MAX P. D.		ENTERING AIR TEMPERATURE		LEAVING AIR TEMPERATURE		MAX P. D.		ENTERING AIR TEMPERATURE		LEAVING AIR TEMPERATURE		MAX P. D.																		
AHU-2-3	MECH ROOM	LEVEL-2	HORI. DRAW THRU	137	102	90	20,000	20,000	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	

- NOTES:
 1. UNITS SHALL BE EQUIPPED WITH VARIABLE FREQUENCY DRIVE CAPABLE OF REDUCING FAN SPEED TO 30% OF THE DESIGN SPEED FOR ALL UNITS.
 2. FAN MOTORS SHALL BE INVERTER DUTY RATED SUITABLE FOR WORKING WITH VFD.
 3. PROVIDE FLAT 2" MERV-11 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 4" RAILS.
 7. PROVIDE SMOKE DETECTOR IN SUPPLY AIR DUCT TO TURN OFF UNIT IF SMOKE IS DETECTED.
 8. EXTERNAL STATIC PRESSURE DOES NOT INCLUDE FILTER LOSSES.
 9. PROVIDE UNIT WITH FREEZE PROTECTION PUMP. SIZE PUMP FOR 50 GPM, 25 FT HEAD AND 1/2 HP MOTOR POWERED AT 115V / 1 PH / 60HZ .
 10. PROVIDE UNIT WITH MIXING BOX, MOTORIZED RETURN AIR AND OUTSIDE AIR DAMPERS.
 11. PROVIDE OUTSIDE AIR DAMPER SIZED FOR 100% OUTSIDE AIR ECONOMIZER.

HOT WATER COIL SCHEDULE

PLAN MARK	SERVING	AIR VOLUME (CFM)	WIDTH (IN)	HEIGHT (IN)	EAT (F)	LAT (F)	CAPACITY (MBH)	EWI (F)	LWT (F)	GPM	MAX ROWS	MAX WATER PRESSURE DROP (FT)	MAX AIR PRESSURE DROP (IN H2O)	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-2-11	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

- NOTES:
 1. PROVIDE UNIT WITH MANUFACTURER FURNISHED CUSTOM ROOF CURB.
 2. PROVIDE UNIT WITH BIRD-SCREEN.
 3. COORDINATE FINISH WITH ARCHITECT.

GRAVITY VENTILATOR SCHEDULE

PLAN MARK	SERVING	MAX AIR FLOW (CFM)	DIMENSIONS				MAKE AND MODEL	REMARKS
			THROAT	CURB CAB	WEATHERHOOD	HEIGHT BASE		
GV-1	AHU-2-3	20,000	60"X96"	68"X104"	74"X110"	42-1/2"	GREENHECK - WIH	ALL

- NOTES:
 1. PROVIDE UNIT WITH MANUFACTURER FURNISHED CUSTOM ROOF CURB.
 2. PROVIDE UNIT WITH BIRD-SCREEN.
 3. COORDINATE FINISH WITH ARCHITECT.

DIFFUSER NECK-DUCT 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	12"Ø
401 - 800	14"Ø

AIR DEVICE SCHEDULE

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:
 1. PROVIDE ROUND NECK ADAPTER FOR ALL SUPPLY AIR DIFFUSERS WHERE NECESSARY.
 2. REFER TO PLANS FOR AIR FLOW RATE.
 3. COORDINATE CEILING TYPE WITH FINAL ARCHITECTURAL PLANS.
 4. PROVIDE DIFFUSERS WITH INSULATED PLENUM.

FAN SCHEDULE

PLAN MARK	SERVING	AIR VOLUME (CFM)	FAN TYPE	DRIVE TYPE	E.S.P. IN WG	MOTOR			MANUFACTURER & MODEL	LOCATION	REMARKS
						HP	V/PH/Hz	RPM			
KEF-16	DISH WASHER	250	UP-BLAST	DIRECT	0.5	1/10	120/1/60	1725	ACCUREX XRUD	ROOF	1, 2, 3, 4
KEF-17	CULINARY LAB	3750	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-18	CULINARY LAB	3750	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-19	CULINARY LAB	3750	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-20	CULINARY LAB	4350	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-21	CULINARY LAB	3150	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-22	CULINARY LAB	3150	UP-BLAST	DIRECT	1.25	2	460/3/60	1725	ACCUREX XRUD	ROOF	ALL
KEF-23	PASTRY LAB	3000	UP-BLAST	DIRECT	1.25	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

- NOTES:
 1. FAN SHALL BE SUITABLE FOR OUTDOOR INSTALLATION AND OPERATION.
 2. PROVIDE MANUFACTURER'S SUPPLIED 14" HIGH ROOF CURB AND INSECT SCREEN. REFER SPECIFICATIONS FOR WIND SPEED REQUIREMENTS.
 3. 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.
 4. 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.

AIRFLOW MEASURING STATION SCHEDULE

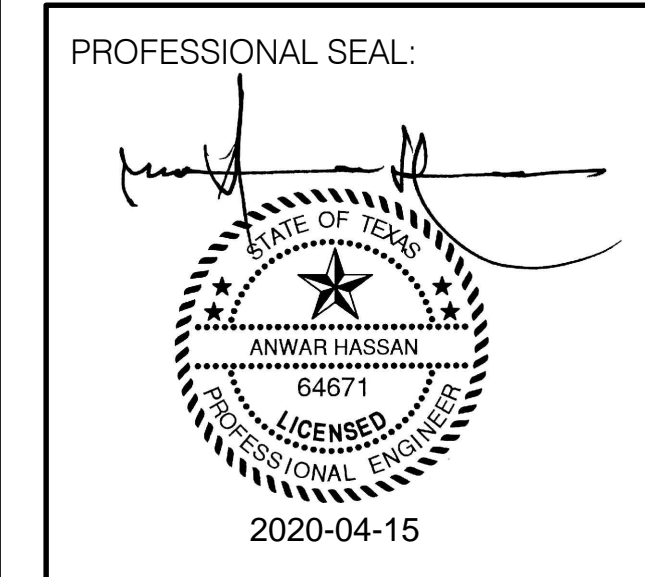
PLAN MARK	SERVED BY	LOCATION	MAX CFM	MIN CFM	SIZE (IN)		MAKE AND MODEL	NOTES
					WIDTH (IN)	HEIGHT (IN)		
AFMS-2-8	AHU-1-1	PASTRY LAB	3000	0	26	16	EBTRON - GTC116PC	ALL
AFMS-2-9	AHU-2-1, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTC116PC	ALL
AFMS-2-10	AHU-2-1, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTC116PC	ALL
AFMS-2-11	AHU-2-1, 2-2	SPECIALITY LAB	3750	0	32	16	EBTRON - GTC116PC	ALL
AFMS-2-12	AHU-2-1, 2-2	SPECIALITY LAB	4350	0	36	16	EBTRON - GTC116PC	ALL
AFMS-2-13	AHU-2-1, 2-2	SPECIALITY LAB	3150	0	26	16	EBTRON - GTC116PC	ALL
AFMS-2-14	AHU-2-1, 2-2	SPECIALITY LAB	3150	0	28	16	EBTRON - GTC116PC	ALL

- NOTES:
 1. PROVIDE ROUND NECK ADAPTER FOR ALL SUPPLY AIR DIFFUSERS WHERE NECESSARY.
 2. REFER TO PLANS FOR AIR FLOW RATE.
 3. COORDINATE CEILING TYPE WITH FINAL ARCHITECTURAL PLANS.
 4. PROVIDE DIFFUSERS WITH INSULATED PLENUM.



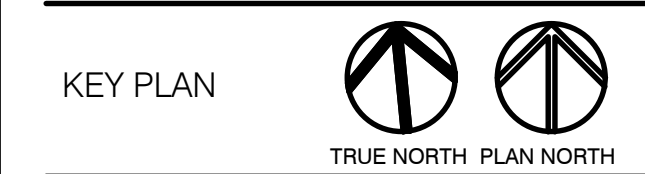
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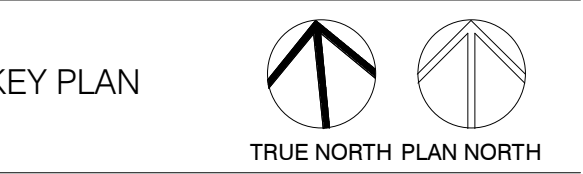
A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	2020/04/15	PERMIT AND BIDDING



Project Number	
Drawn By	
Checked By	
Approved By	
Drawing Title	SCHEDULES

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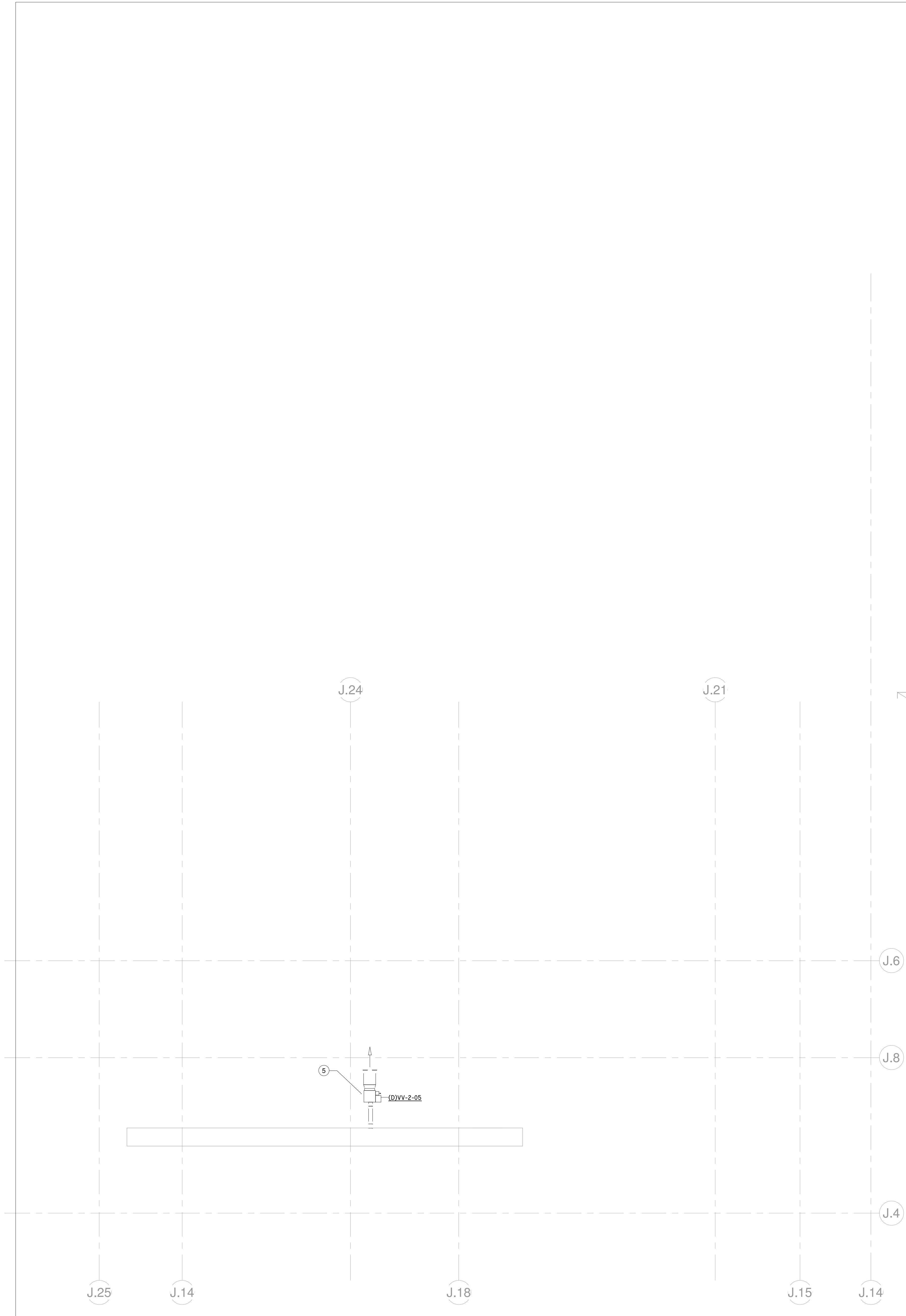


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Drawn By	Author
Checked By	Checker
Approved By	Approver

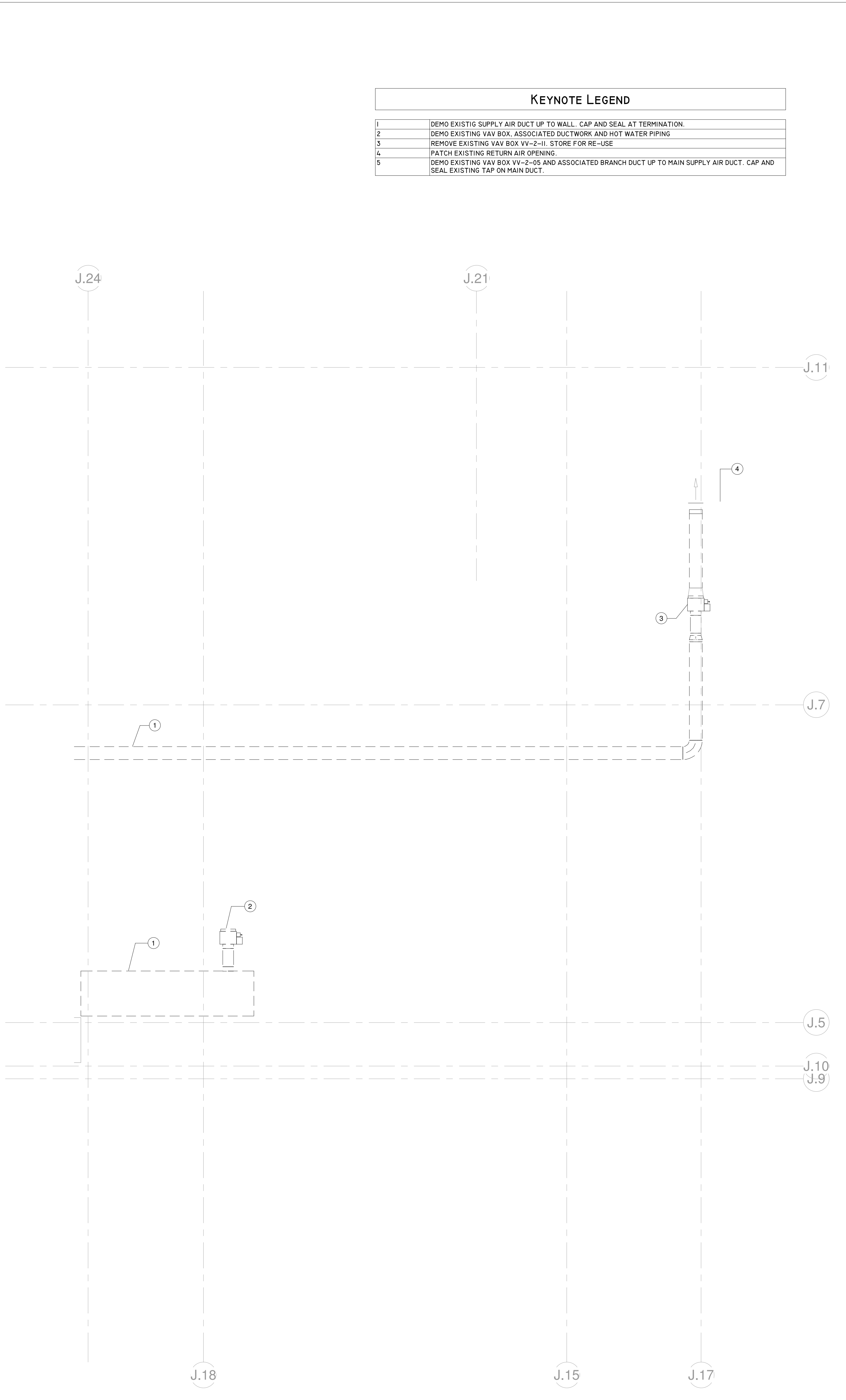
Drawing Title
**ENLARGED PLAN -
HVAC - DEMO**

Drawing Number
M1.11

KEYNOTE LEGEND	
1	DEMO EXISTING SUPPLY AIR DUCT UP TO WALL, CAP AND SEAL AT TERMINATION.
2	DEMO EXISTING VAV BOX, ASSOCIATED DUCTWORK AND HOT WATER PIPING
3	REMOVE EXISTING VAV BOX VV-2-II, STORE FOR RE-USE
4	PATCH EXISTING RETURN AIR OPENING.
5	DEMO EXISTING VAV BOX VV-2-05 AND ASSOCIATED BRANCH DUCT UP TO MAIN SUPPLY AIR DUCT, CAP AND SEAL EXISTING TAP ON MAIN DUCT.



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



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

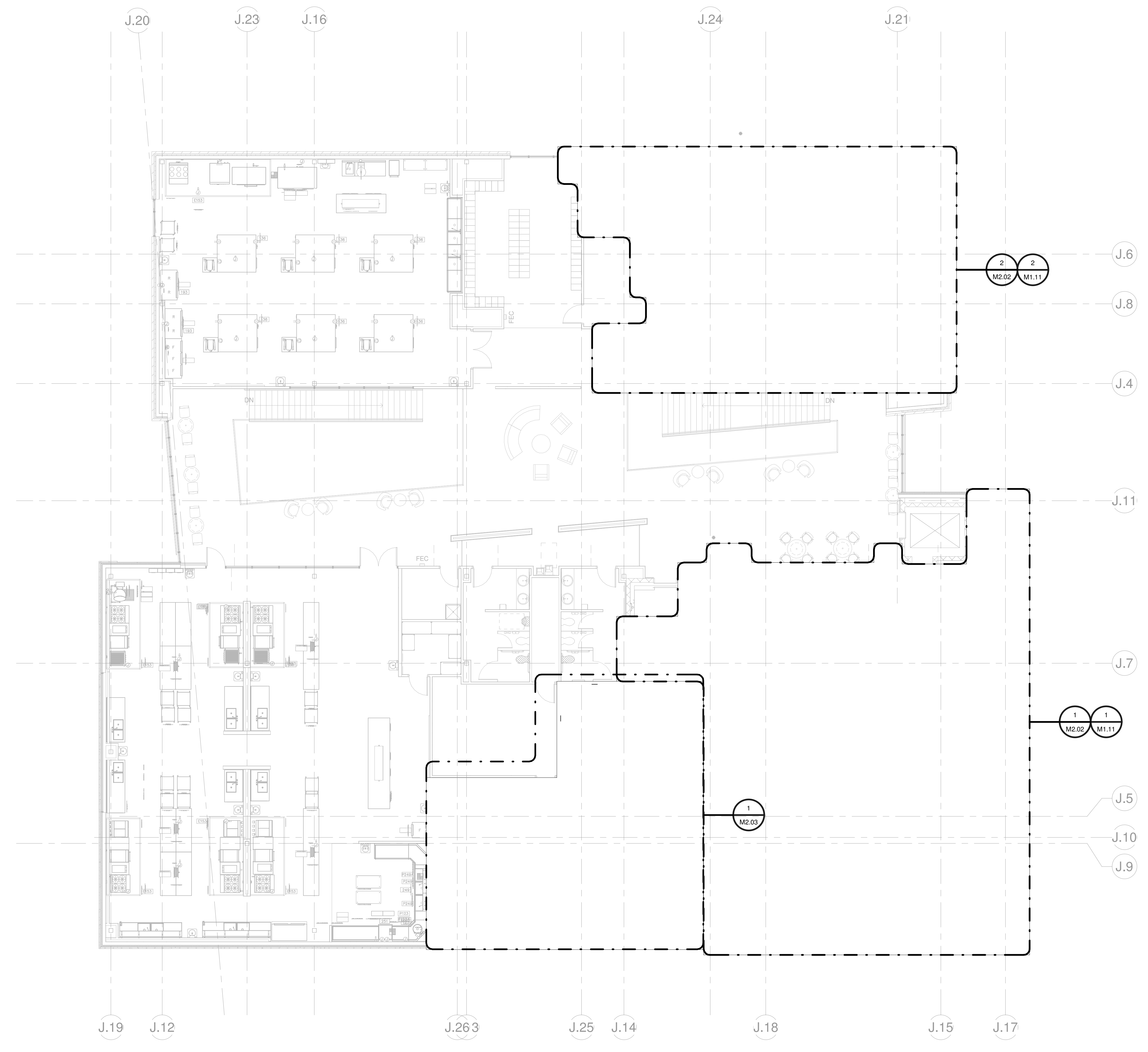
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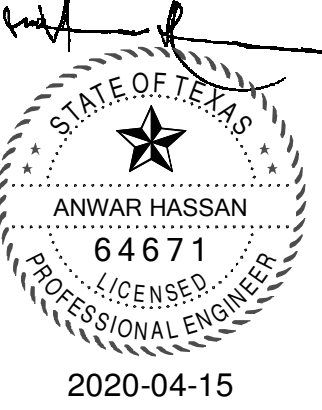
Project Number	17024
Drawn By	Author
Checked By	Checker
Approved By	Approver

Drawing Title
**SECOND FLOOR PLAN
 -OVERALL - HVAC**

Drawing Number
M2.01



1 SECOND FLOOR PLAN - OVERALL - HVAC
 Scale: 1/8" = 1'-0"



**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

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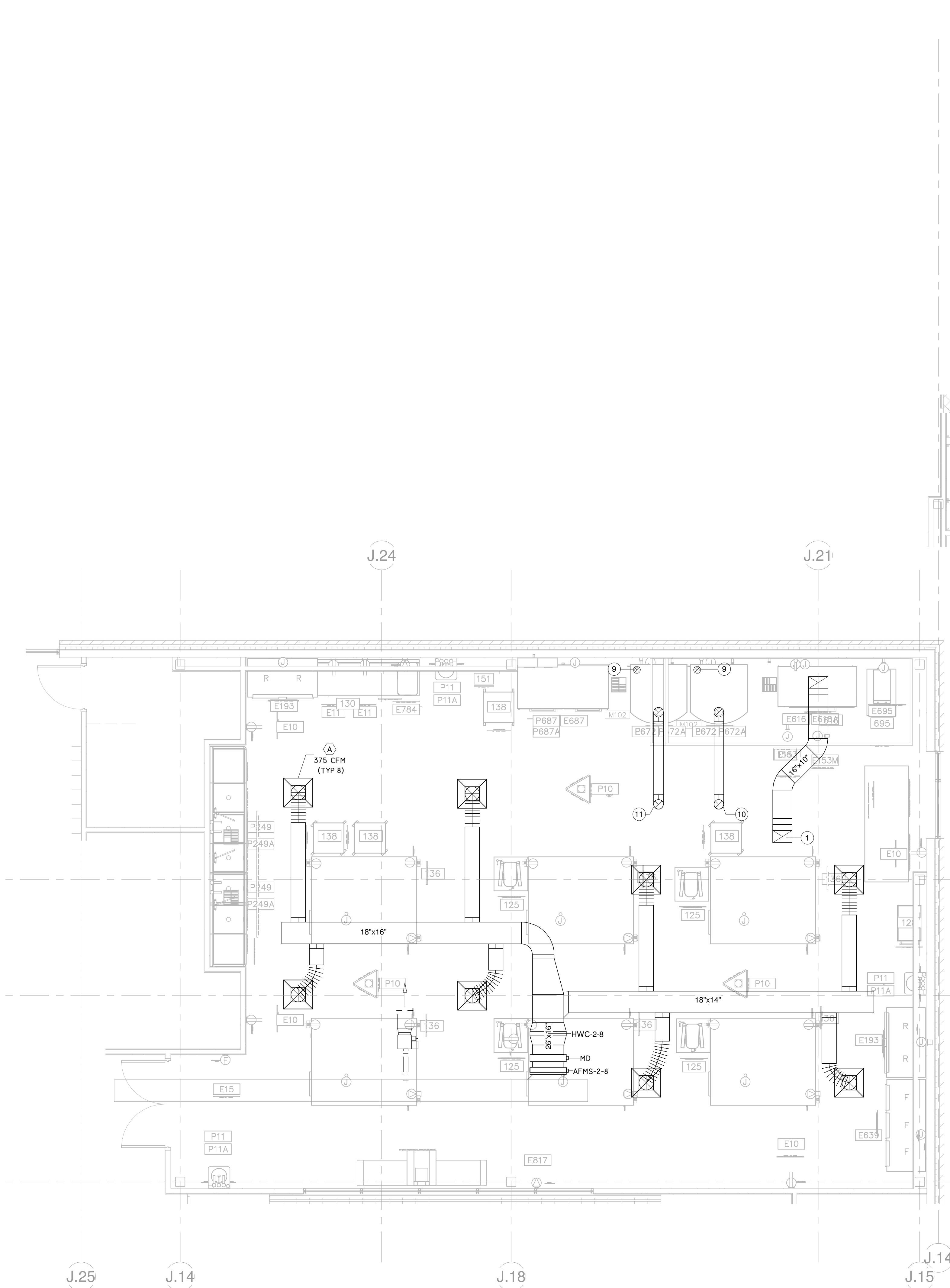


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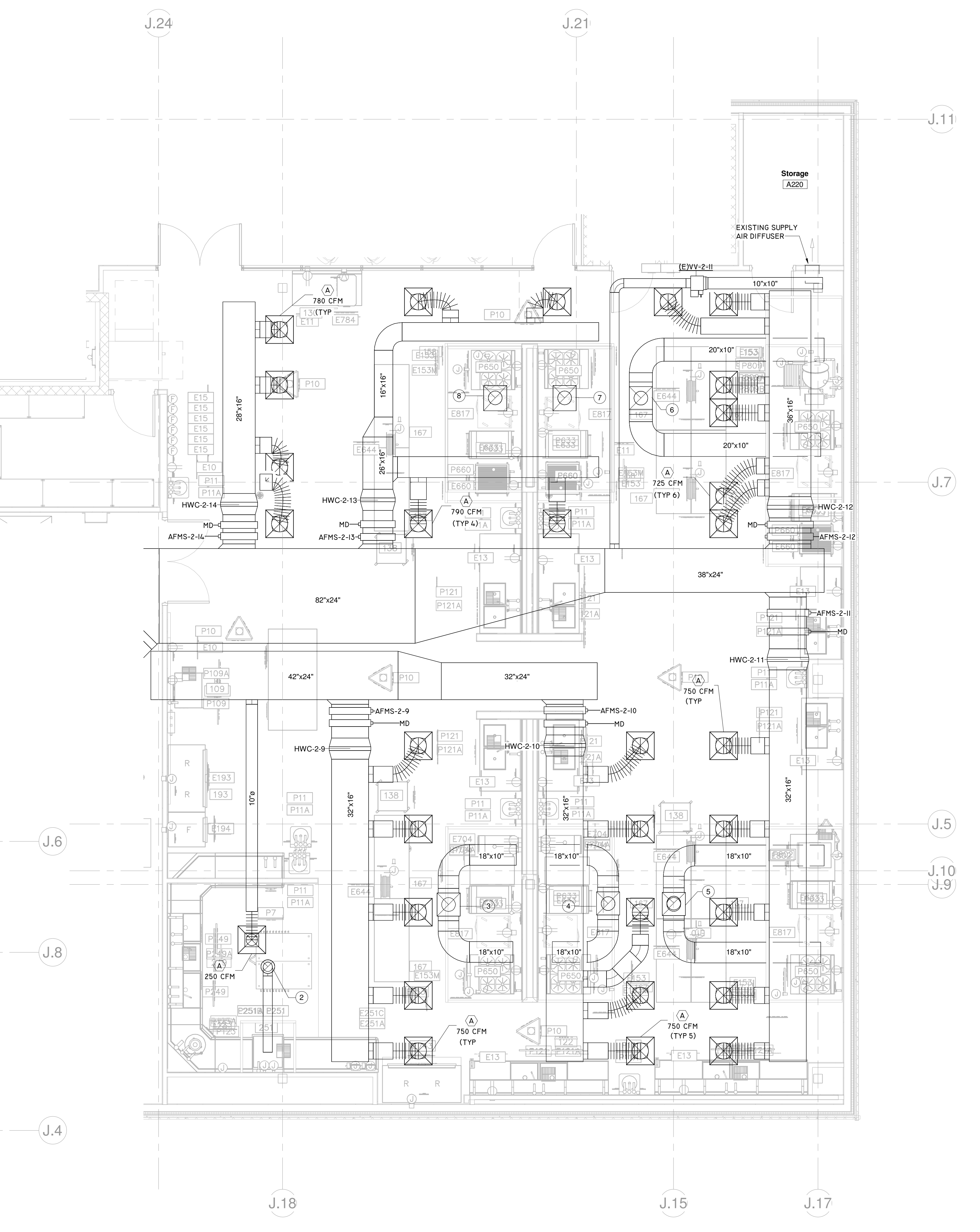
Drawing Title
ENLARGED PLANS - HVAC

Drawing Number
M2.02

KEYNOTE LEGEND	
I	22X20 EXHAUST DUCT UP TO KEF-23 ON ROOF.
2	8" EXHAUST DUCT UP TO KEF-16 ON ROOF.
3	20X20 EXHAUST DUCT UP TO KEF-17 ON ROOF.
4	20X20 EXHAUST DUCT UP TO KEF-18 ON ROOF.
5	20X20 EXHAUST DUCT UP TO KEF-19 ON ROOF.
6	20X20 EXHAUST DUCT UP TO KEF-20 ON ROOF.
7	22X20 EXHAUST DUCT UP TO KEF-21 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.



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



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



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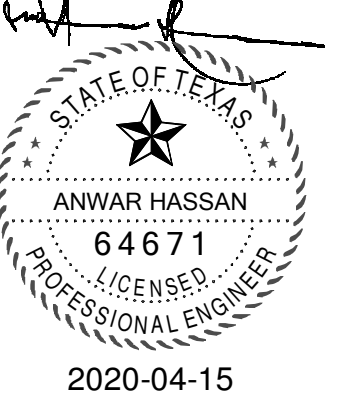
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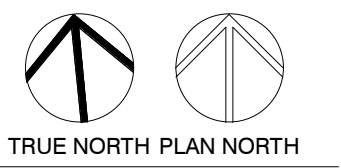
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KEY PLAN

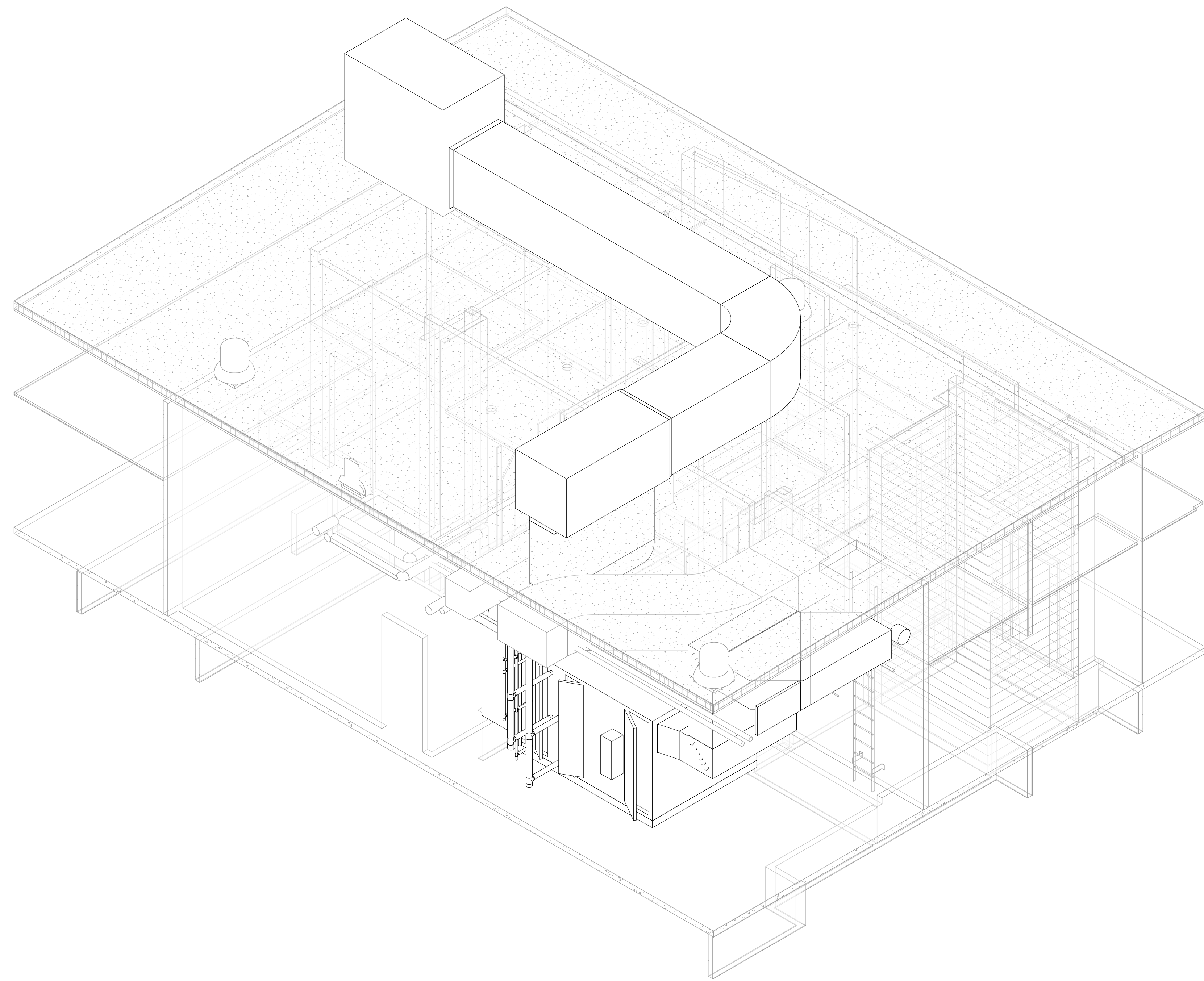


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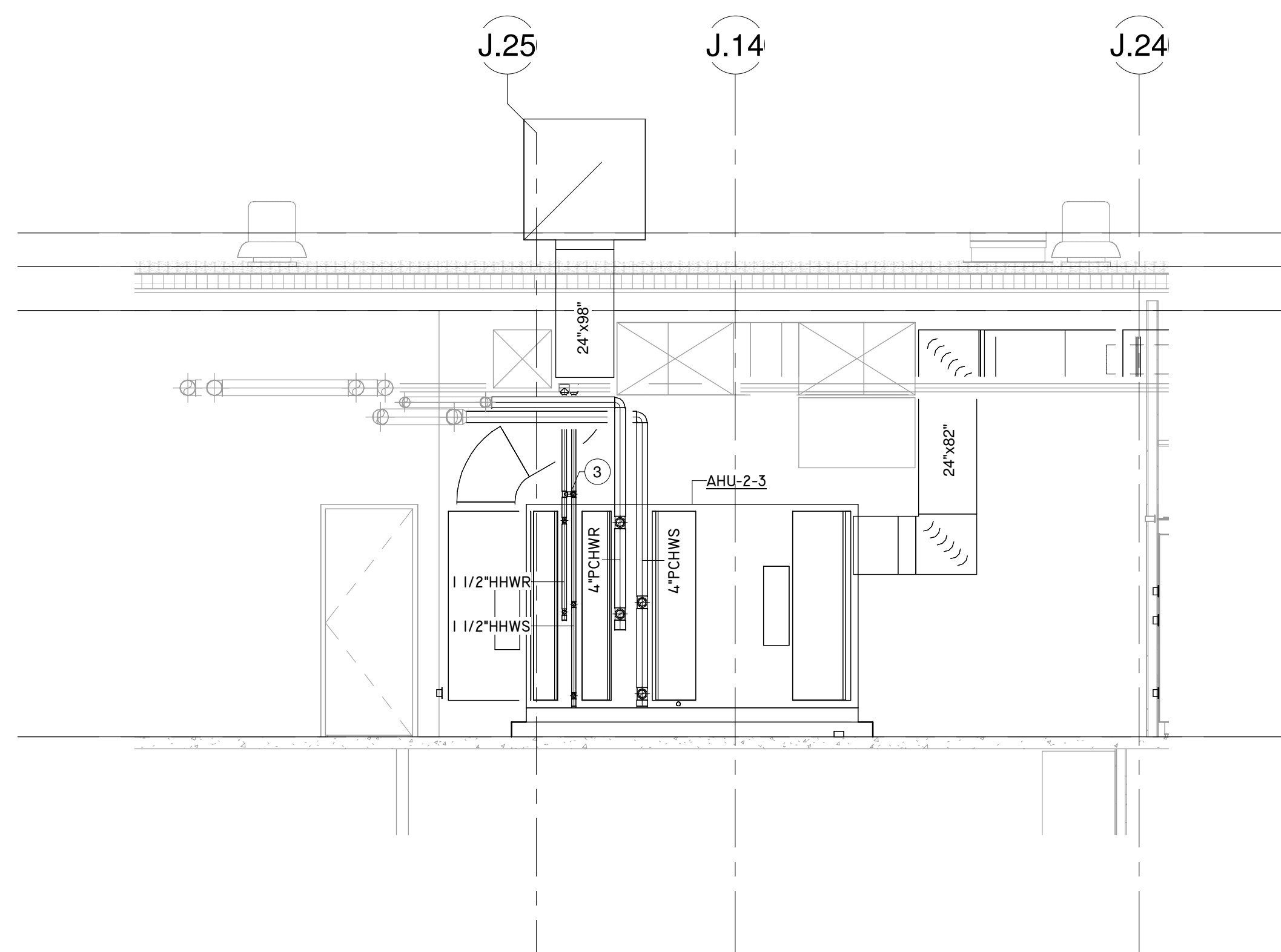
Drawing Title
**ENLARGED
MECHANICAL ROOM -
HVAC**

Drawing Number
M2.03

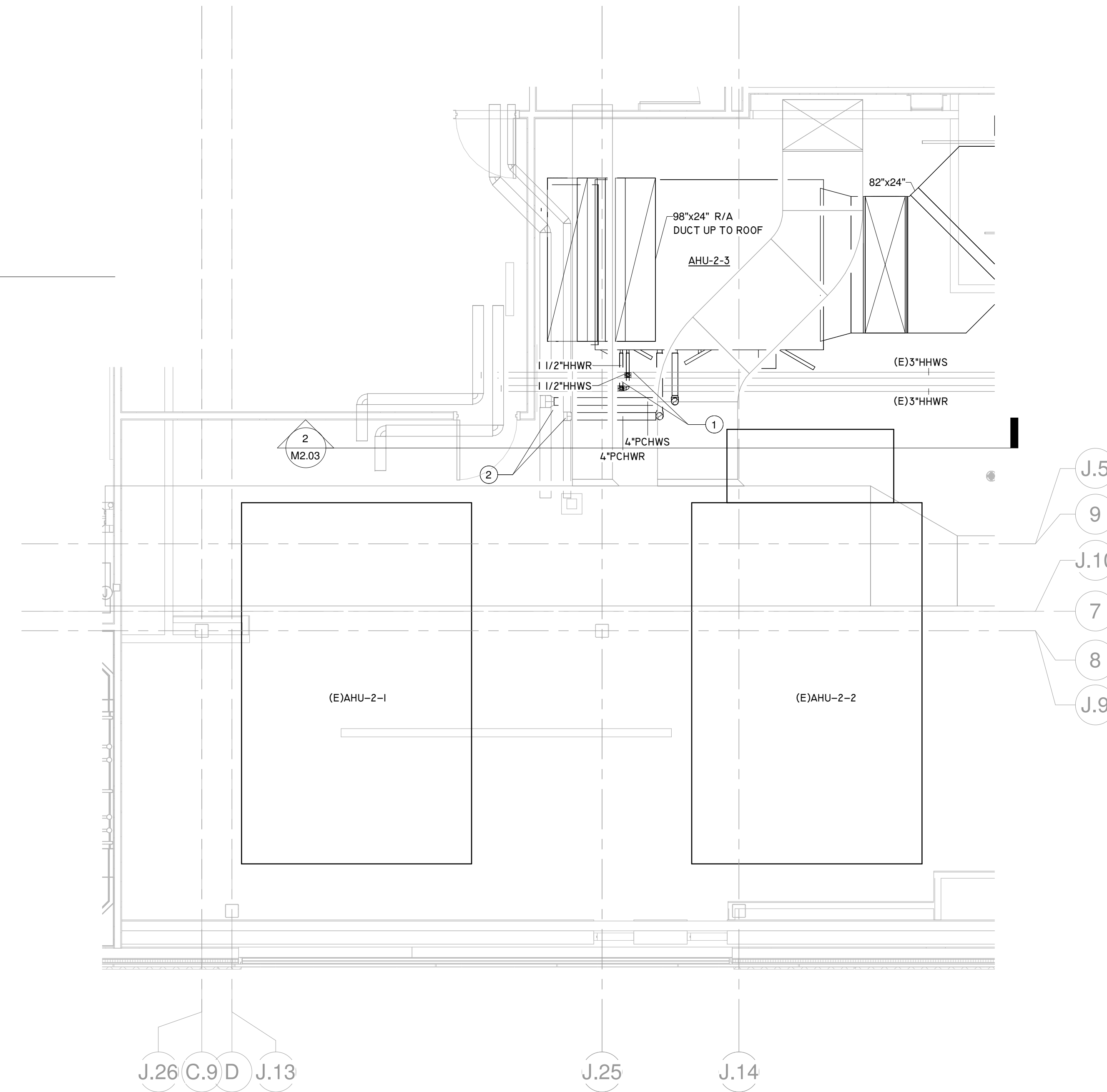
KEYNOTE LEGEND	
1	CONNECT NEW HOT WATER BRANCH PIPE TO EXISTING MAIN LINE
2	CONNECT NEW CHILLED WATER BRANCH PIPE TO EXISTING MAIN LINE
3	PROVIDE FREEZE PROTECTION PUMP AS SCHEDULED. REFER 2/M5-02 FOR INSTALLATION DETAIL.



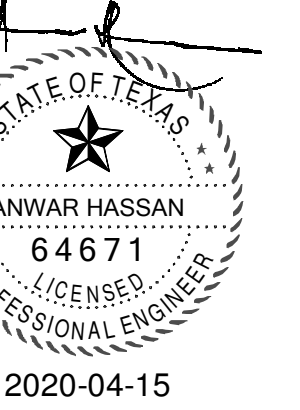
3 MECHANICAL ROOM - 3D VIEW
Scale:



2 MECHANICAL ROOM - SECTION VIEW
Scale: 1/4" = 1'-0"



1 ENLARGED PLAN - MECHANICAL ROOM
Scale: 1/4" = 1'-0"



**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

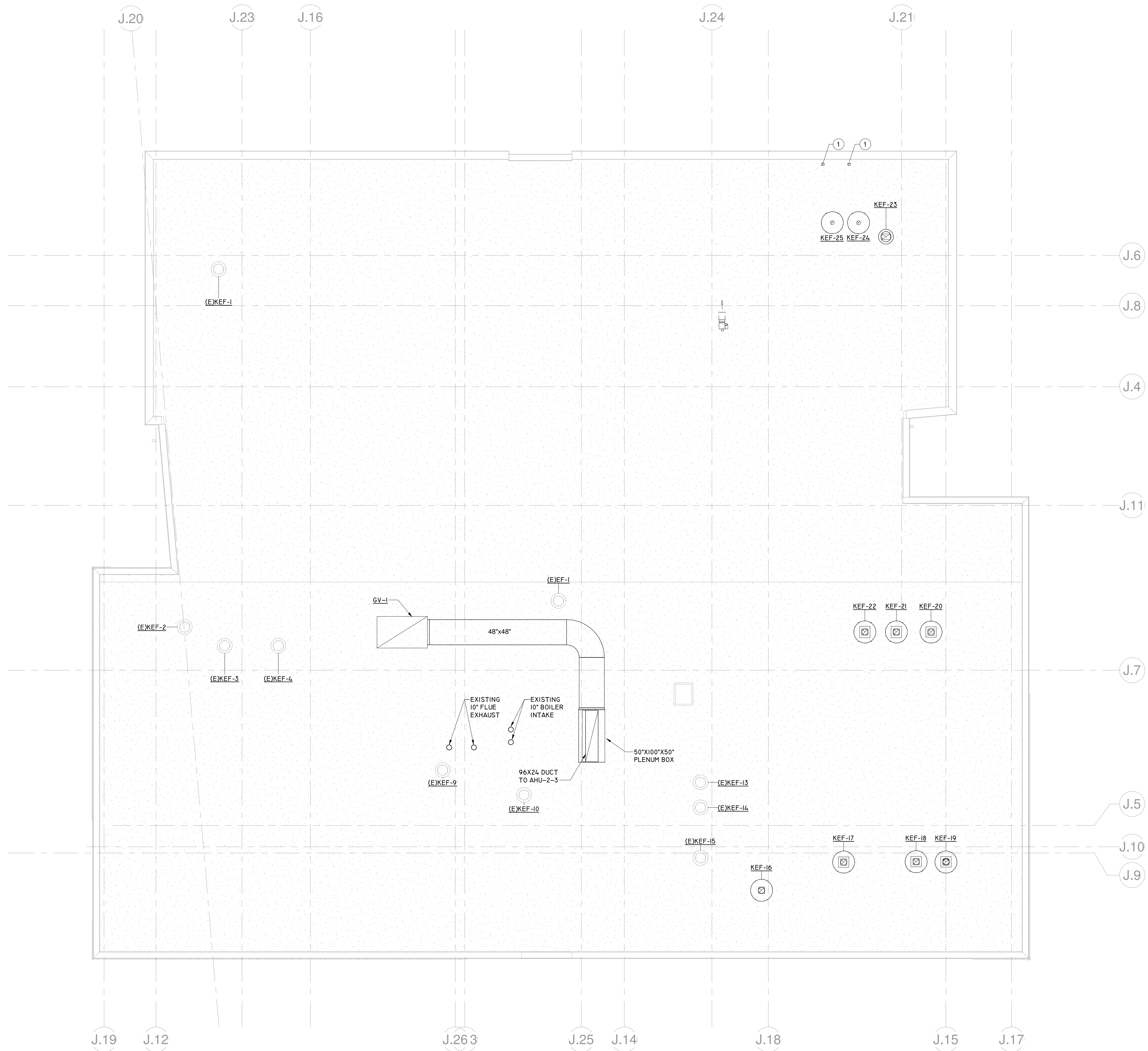
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Drawing Title	

ROOF PLAN - HVAC

GENERAL NOTE
1. ALL DUCTWORK ON ROOF SHALL BE CONSTRUCTED OF 16 GAUGE STAINLESS STEEL.

KEYNOTE LEGEND	
1	16" FLUE EXHAUST DUCT FROM 2ND LEVEL. TERMINATE 3 FT ABOVE FINISHED ROOF WITH STACK CAP. AMPSCO MODEL P-SK OR APPROVED EQUAL.



1 ROOF PLAN - HVAC
Scale: 1/8" = 1'-0"

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1	2020/04/15	PERMIT AND BIDDING

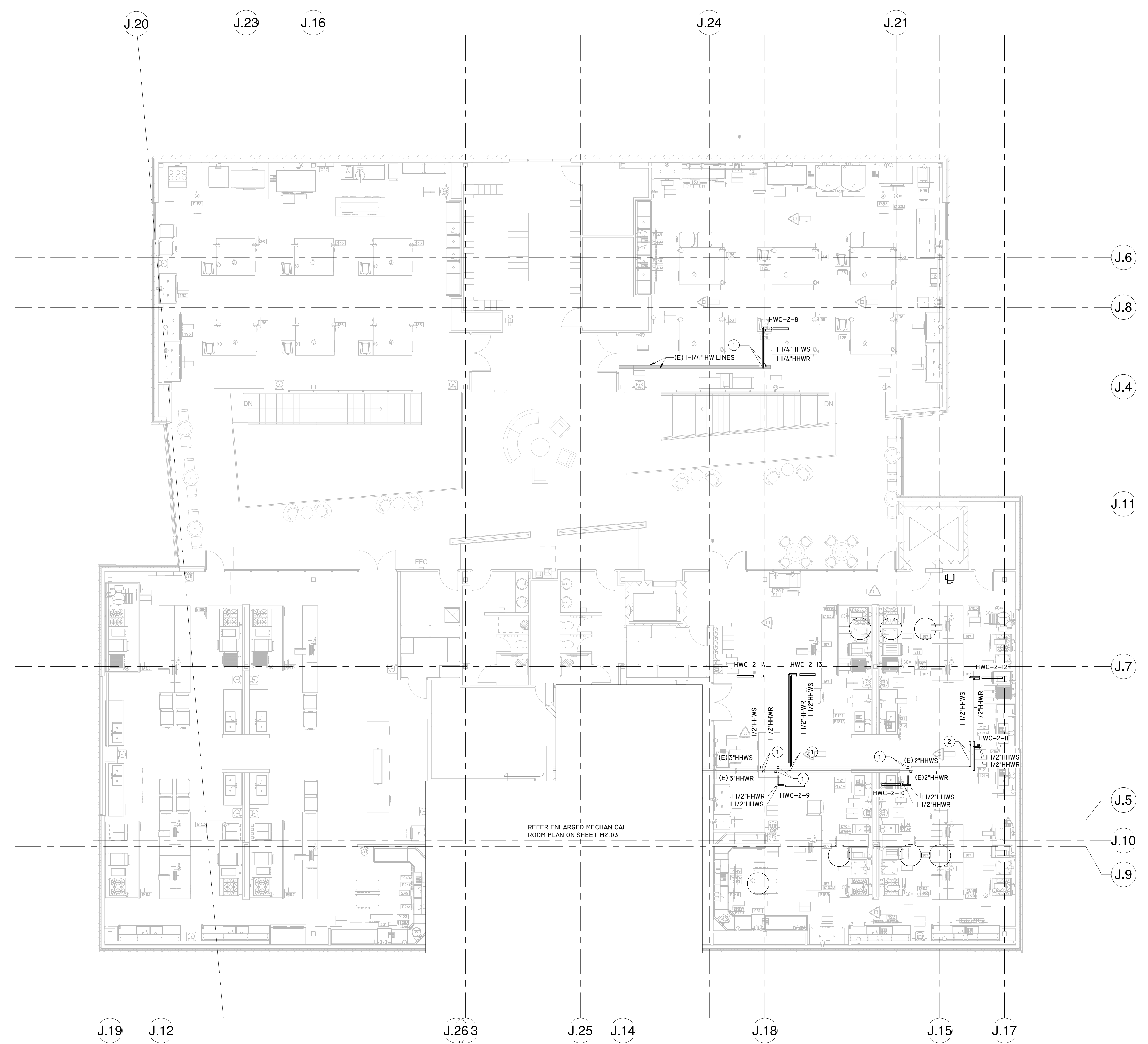
Project Number	17024
Drawn By	Author
Checked By	Checker
Approved By	Approver

Drawing Title
SECOND FLOOR PLAN - PIPING

Drawing Number
M3.01

KEYNOTE LEGEND

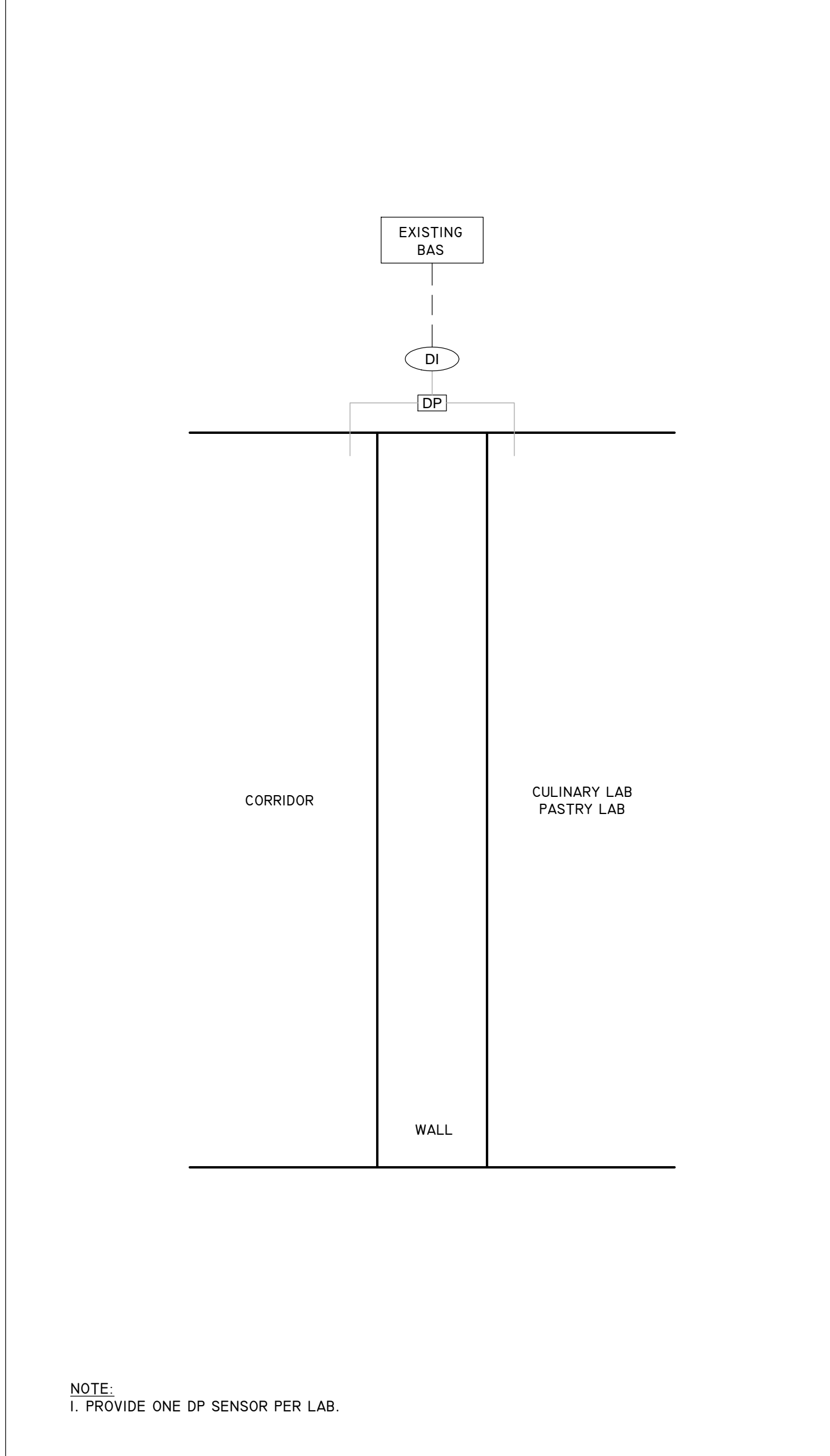
1	CONNECT NEW HOT WATER BRANCH PIPE TO EXISTING MAIN LINE
2	PROVIDE NEW 1-1/2" HOT WATER PIPE



1 SECOND LEVEL - PIPING
Scale: 1/8" = 1'-0"

CONTROLS SYMBOLS & ABBREVIATIONS

ECM	ELECTRONICALLY COMMUTATED MOTOR
AO	ANALOG OUTPUT POINT
AI	ANALOG INPUT POINT
DO/BO	DIGITAL OUTPUT POINT
DI/BI	DIGITAL INPUT POINT
AF	AIR FLOW SENSOR
TS	TEMPERATURE SENSOR
DP	DIFFERENTIAL PRESSURE SENSOR
SP	STATIC PRESSURE SENSOR
PS	PRESSURE SWITCH
FZ	FREEZE STAT
H	MOTOR ACTUATOR
X	MODULATOR CONTROL VALVE
X	SOLENOID OR ON/OFF CONTROL VALVE
VFD	VARIABLE FREQUENCY DRIVE CONTROL
SCR	SILICON CONTROLLER RECTIFIER MOTOR CONTROL
G	PRESSURE GAUGE
T	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 VALVE
DP	DIFFERENTIAL PRESSURE
CSR	CURRENT RELAY SWITCH
HSL	HIGH STATIC LIMIT
LSL	LOW STATIC LIMIT



DIFFERENTIAL PRESSURE SENSOR NOT TO SCALE 3 KITCHEN EXHAUST AND MAKE UP AIR FAN CONTROL NOT TO SCALE 2

SEQUENCE OF OPERATION:

OCCUPIED MODE
EXHAUST AIR
1. 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-2-1 AND AHU-2-2.
4. THE DISHWASH EXHAUST SHALL BE CONSTANT VOLUME CONTROLLED BY A SWITCH IN THE SPACE. A CURRENT SWITCH SHALL SIGNAL STATUS TO THE DDC.
5. THE FOLLOWING FANS SHALL TURN ON TO A MINIMUM FLOW (50%, ADJUSTABLE) UPON SENSING OF OCCUPANCY WITHIN THE KITCHEN.
KEF-22
KEF-23

MAKE UP AIR
1. THE DDC SYSTEM SHALL RECEIVE EXHAUST AIRFLOW FROM THE KVCP. THE DDC SHALL MODULATE ALL OF THE AIRFLOW CONTROL DAMPERS TO MAINTAIN THE AIRFLOW MEASUREMENT AT THE AIRFLOW MEASURING STATION TO THE FOLLOWING AIRFLOW SETPOINT. FOR THE SPECIALTY LAB AND CULINARY LAB, THE EXHAUST AIRFLOW FROM EACH HOOD SHALL BE SUMMED IN THE DDC AND EACH AIRFLOW MEASURING STATION SETPOINT SHALL BE SCALED PROPORTIONALLY TO THE DESIGN AIRFLOW AS FOLLOWS:
AFMS-2-14 = 14% X TOTAL EXHAUST IN CULINARY KITCHEN
AFMS-2-13 = 14% X TOTAL EXHAUST IN CULINARY KITCHEN
AFMS-2-12 = 20% X TOTAL EXHAUST IN CULINARY KITCHEN
AFMS-2-11 = 17% X TOTAL EXHAUST IN CULINARY KITCHEN
AFMS-2-10 = 17% X TOTAL EXHAUST IN CULINARY KITCHEN
AFMS-2-9 = 17% X TOTAL EXHAUST IN CULINARY KITCHEN
THE PASTRY KITCHEN AND DEMO KITCHEN EACH SHALL HAVE ONE EXHAUST FAN AND ONE SUPPLY AIRFLOW MEASURING STATION SO THE AIRFLOW MEASURING STATION WILL TRACK THE EXHAUST AIRFLOW.
2. THE DDC SYSTEM SHALL MONITOR THE ROOM TEMPERATURE SENSOR AND MODULATE THE HEATING HOT WATER CONTROL VALVES TO MAINTAIN SPACE TEMPERATURE.
3. THE DDC SYSTEM SHALL MONITOR THE DISCHARGE AIR TEMPERATURE FOR ALL MAKE UP AIR ASSEMBLIES.
4. IN PASTRY LAB, THE AIRFLOW MEASURING STATION IS CONTROLLED BY TEMPERATURE AND EXHAUST AIRFLOW TRACKING TO MAINTAIN SPACE TEMPERATURE SETPOINT WHEN THE HOOD IS OFF. WHEN THE EXHAUST FAN IS OFF, THE SUPPLY AIRFLOW SHALL BE CONTROLLED BY THE SPACE TEMPERATURE SENSOR TO COOLING TEMPERATURE SETPOINT (ADJUSTABLE). (MINIMUM AIRFLOW SHALL BE 300 CFM). WHEN THE EXHAUST FAN IS ON, THE SUPPLY AIRFLOW SHALL TRACK THE EXHAUST AIRFLOW. THE REHEAT COIL SHALL CONTROL TO THE SPACE HEATING TEMPERATURE SETPOINT (ADJUSTABLE).

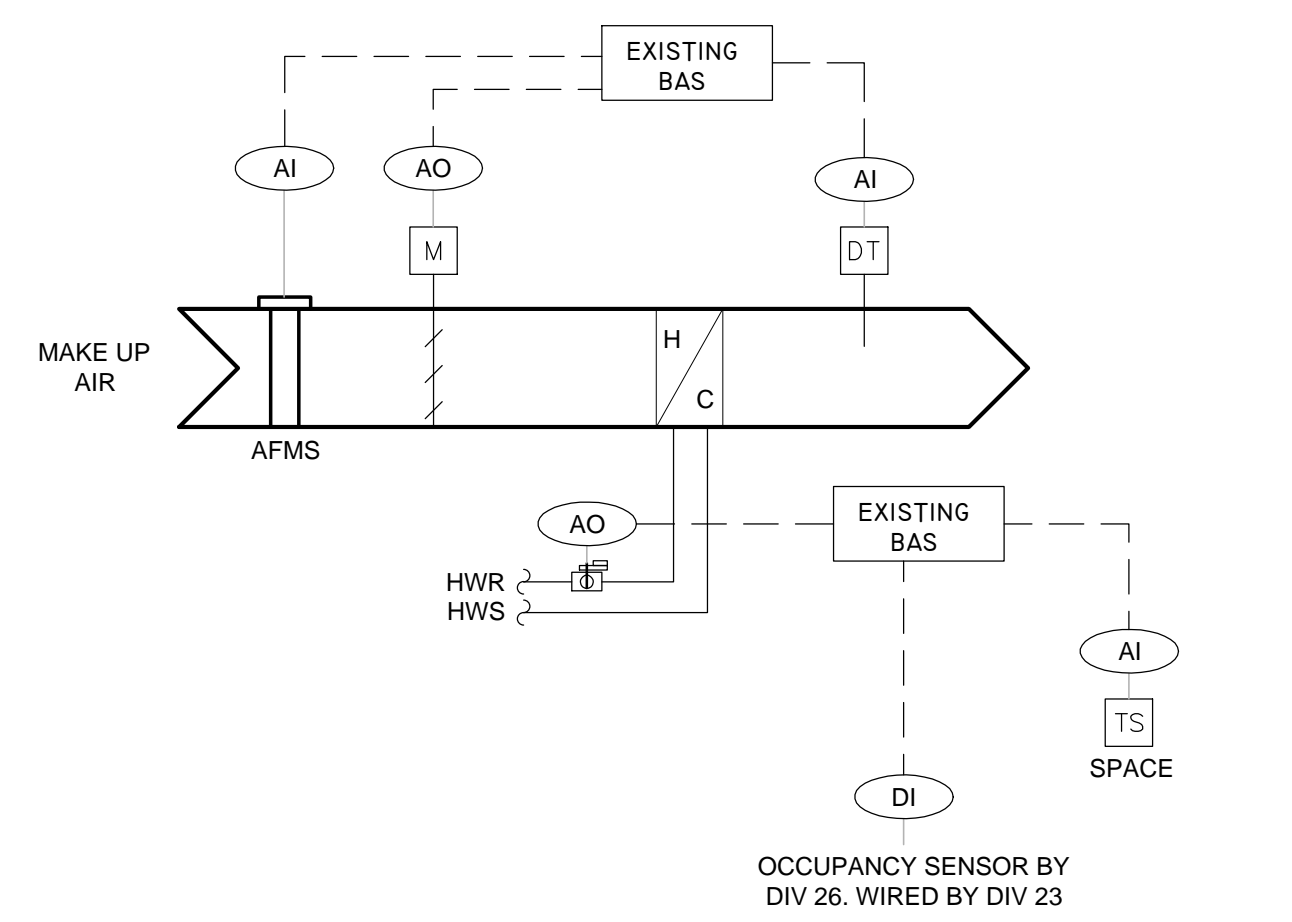
UNOCCUPIED MODE
EXHAUST AIR
1. THE FANS SHALL BE TURNED OFF WHEN THE KITCHEN IS UNOCCUPIED.
2. THE FOLLOWING EXHAUST AIR FANS SHALL TURN ON TO A MINIMUM FLOW (50%, ADJUSTABLE) WHEN THE SPACE TEMPERATURE EXCEEDS THE UNOCCUPIED SETPOINT BY 5 DEGREES F. (ADJUSTABLE) IN COOLING OR FALLS BELOW THE UNOCCUPIED SETPOINT BY 5 DEGREES F. (ADJUSTABLE) IN HEATING. WHEN THE SPACE TEMPERATURE REACHES UNOCCUPIED SETPOINT, THE FANS SHALL TURN OFF.
KEF-22
KEF-23

MAKE UP AIR
1. MAKE-UP AIR CONTROL IS THE SAME AS FOR OCCUPIED MODE EXCEPT THAT THE UNOCCUPIED SETPOINTS ARE CONTROLLED.

KITCHEN DIFFERENTIAL PRESSURE
1. EACH KITCHEN SHALL HAVE A DIFFERENTIAL PRESSURE SENSOR FOR MONITORING PURPOSES ONLY.

ALARMS
1. THE DDC SYSTEM SHALL RECEIVE AND BROADCAST ALL ALARMS FROM THE KVCP.

SYSTEM	OUTPUT		INPUT		SOFTWARE	
	DIGITAL	ANALOG	DIGITAL	ANALOG	GRAPHIC	ALARM
KITCHEN VENTILATION CONTROL						
EXHAUST FAN FLOW (CFM)				X	X	
EXHAUST FAN VFD		X				
EXHAUST FAN VFD FAILURE						X
EXHAUST FAN REMOTE ENABLE	X					
HOOD TEMPERATURE SENSOR				X		
HOOD TEMPERATURE SENSOR FAILURE						X
HOOD HIGH TEMPERATURE ALARM						X
HOOD FIRE ALARM						X
BMS COMMUNICATION ALARM						X
MAKE UP AIR AFMS		X		X		
HOT WATER COIL		X		X		
OCCUPANCY STATUS			X	X		
DISHWASHER HOOD FAN				X		



NOT TO SCALE 1

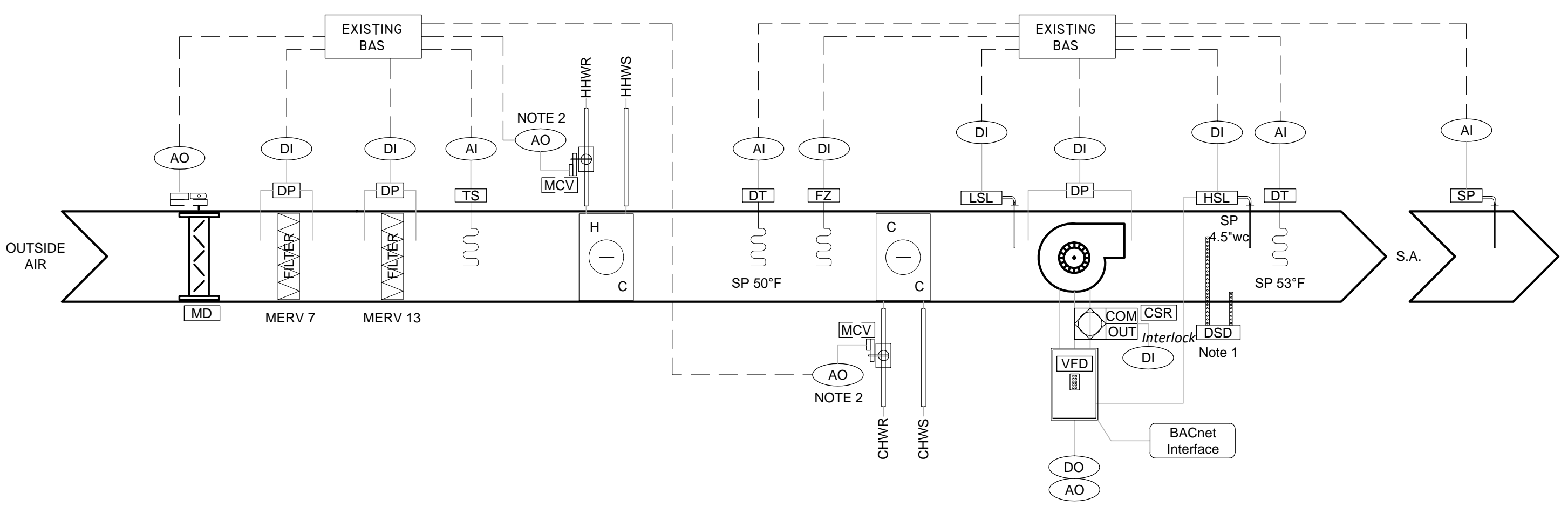
SEQUENCE OF OPERATION

1. EACH AIR HANDLING UNIT SYSTEM SHALL BE A DRAW-THROUGH VAN TYPE, CONSISTING OF A SUPPLY FAN WITH 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 OPEN. WHEN THE UNIT IS STOPPED, THE CHW VALVE AND OA DAMPER SHALL CLOSE.
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 DDC, MODULATE THE NORMALLY CLOSED HEATING VALVE TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT (50 DEGREE F, ADJUSTABLE).
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 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 90% OR LESS OF FULL OPEN. THE SYSTEM SHALL MAINTAIN A MINIMUM SUPPLY AIR STATIC PRESSURE SETPOINT OF 1.0 W.G.
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 OUTPUTTING PERCENT OF COOLING DEMAND NECESSARY TO MAINTAIN THE NUMBER OF COOLING REQUEST SETPOINT OF {1} (ADJUSTABLE). IF NUMBER OF COOLING REQUEST IS LESS THAN OR EQUAL TO THE NUMBER OF COOLING REQUEST SETPOINT, THE DDC 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). 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.

SAFETIES

1. 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 SHALL BE SENT TO THE DDC.
2. A LOW STATIC PRESSURE LIMIT SWITCH LOCATED IN THE FAN INTAKE SHALL BE HARD-WIRED TO DE-ENERGIZE THE SUPPLY FAN WHENEVER STATIC PRESSURE EXCEEDS NEGATIVE 2" W.G. (FIELD ADJUSTABLE), AND AN ALARM SHALL BE SENT TO THE DDC.
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-13.
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 SEND AN ALARM TO THE DDC.
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 SIGNAL AND DE-ENERGIZE THE SUPPLY FAN.

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



NOTES:
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.

VAV AIR HANDLER SYSTEM CONTROL - 100% OUTSIDE AIR (AHU-2-3) NOT TO SCALE 1

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2020-04-15

A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

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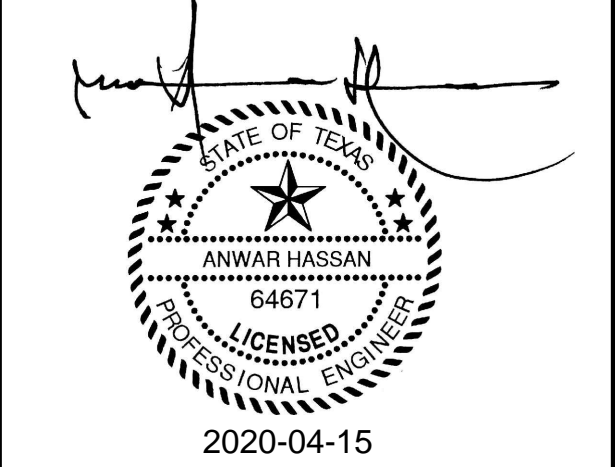
KEY PLAN
TRUE NORTH PLAN NORTH

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Drawn By	
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Approved By	
Drawing Title	CONTROLS
Drawing Number	M4.01

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<p>UP-BLAST EXH. FAN RE-SCHEDULE CURB TO BE MOUNTED LEVEL AND FASTENED TO BLDG. STEEL BACKDRAFT DAMPER FLASHING ROOF OPENING DUCT FLANGED AND FASTENED TO NAILER ON CURB WOOD NAILER STEEL ROOF SUPPORT</p>	<p>CHWR CHWS LINE-SIZE ISOLATION VALVE (TYP.) REDUCER (TYP.) Y-STAINER WITH BLOW-OFF VALVE NIPPLE & CAP UNION (TYP.) COIL PULL SPACE CIRCUIT SETTER 2-WAY MODULATING CONTROL VALVE PRESSURE AND TEMPERATURE TEST PLUGS INSTALL AT SAME ELEVATION (TYP.) AT EACH COIL IN MULTI-COIL BANK 1" COIL DRAIN VALVE, NIPPLE, AND CAP, AT EACH COIL IN MULTI-COIL BANK</p>	<p>45° T* BRANCH (RETURN) REGISTER COLLAR (SUPPLY) 45° DIFFUSER COLLAR (SUPPLY) T* BRANCH (SUPPLY) T* BRANCH (SUPPLY) T* BRANCH (RETURN) 45° T* BRANCH (SUPPLY) 90° ELBOW TURNING VANES RIGID OR FLEX COLLAR CONN VOLUME DAMPER ADJUSTABLE SPLITTER DAMPER SUPPLY AIR LAY-IN TYPE CLG DIFFUSER SUPPLY AIR FLUSH MOUNT SIDEWALL GRILLE RETURN AIR FLUSH MOUNT CLG GRILLE</p> <p>NOTE: SEE FLOOR PLANS FOR DIMENSIONS</p>	<p>LOUVERED PENTHOUSE VENTILATOR BIRD SCREEN PANELS ELASTOMERIC GASKET FASTEN VENTILATOR TO ROOF CURB USING S.S. HARDWARE 1/4" ROOF CURB PROVIDED BY VENTILATOR MANUFACTURER AND INSTALLED BY ROOFING TRADE FLASHING ROOF RE: ARCH RE: ARCH & STRUCTURAL FOR ROOF OPENING FRAMING AND SUPPORT BACKDRAFT DAMPER SUPPLY OR EXHAUST DUCT RE: FLOOR PLAN FOR SIZE</p>
<p>KITCHEN EXHAUST DETAIL NOT TO SCALE 12</p>	<p>2-WAY VALVE COIL PIPING DETAIL NOT TO SCALE 9</p>	<p>DUCTWORK FITTINGS DETAIL NOT TO SCALE 6</p>	<p>LOUVERED PENTHOUSE VENTILATOR DETAIL NOT TO SCALE 3</p>

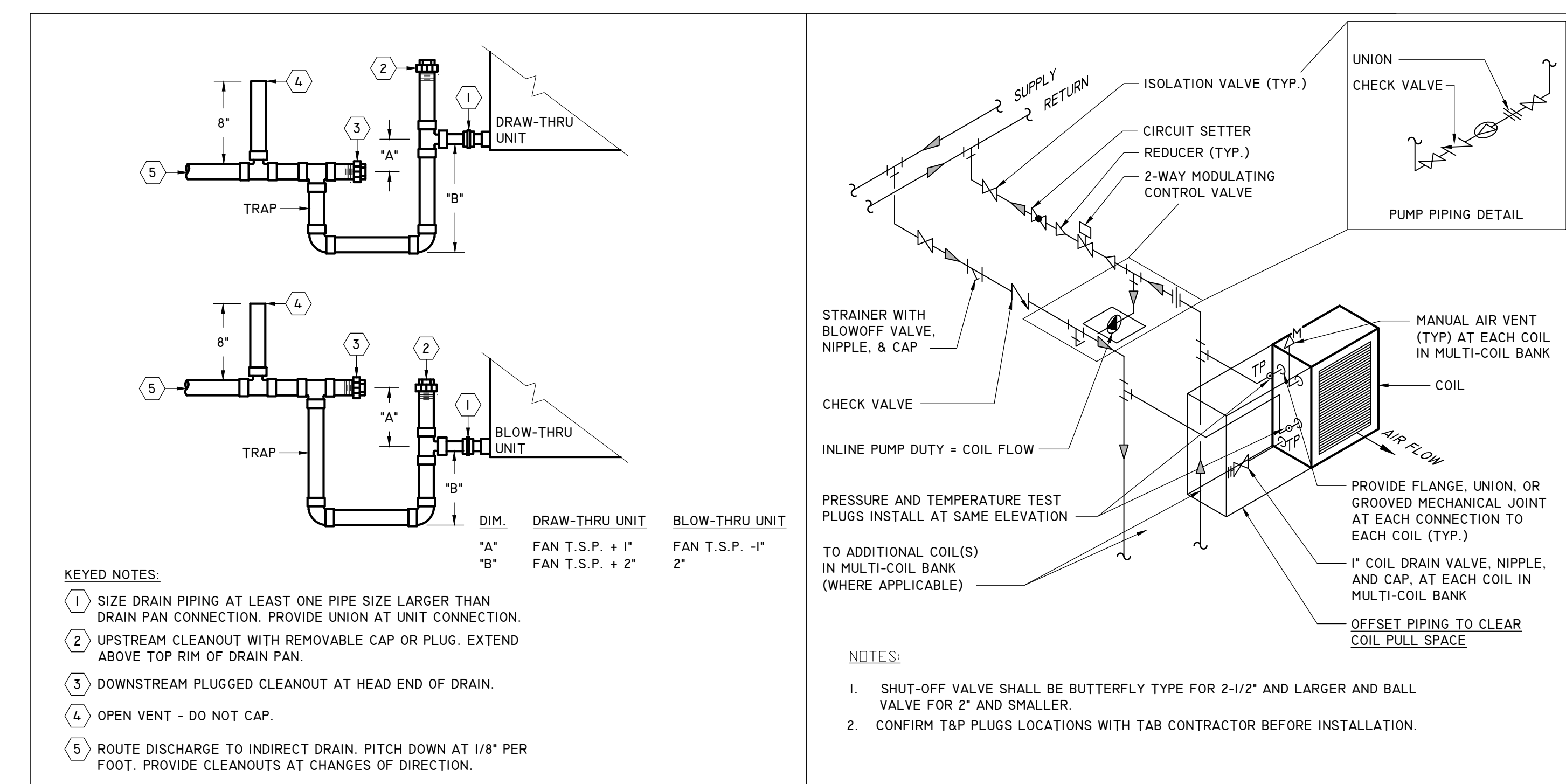
<p>VIBRATION ISOLATORS WHERE REQUIRED (TYP.) HANGER RODS (TYP.) NON-INSULATED PIPE (TYP.) ANGLE IRON OR UNISTRUT SUPPORT (TYP.) SEMI-CYLINDRICAL GALV. IRON SHIELD W/LOAD BEARING INSULATION AT ALL HANGER POINTS SEE SPECS FOR DETAILS</p>	<p>AIR FLOW 15° MAX. 15° MAX.</p>	<p>WALL ELASTOMERIC SEAL ELEMENT LS MODEL "C" BOLT(S) PIPE PRESSURE PLATE STEEL WALL SLEEVE ANCHOR COLLAR / WATER STOP SECTION "A" - "A" LINK-SEAL® MODULAR SEALS WITH MODEL WS WALL SLEEVE</p>	<p>MAIN SUPPLY DUCT BRANCH DUCT 1/4" (4" MIN.) V.D. W PLAN VIEW BRANCH DUCT TAKE-OFF PROVIDE VOLUME DAMPER ON ALL BRANCH DUCTS PROVIDE VOLUME DAMPER WHERE SHOWN ON PLANS DO NOT COVER WITH INSULATION. HANDLE MUST BE VISIBLE V.D. MAIN SUPPLY DUCT 90° ELBOW SHOWN PROVIDE ROUND ELBOW WHEN SHOWN ON PLANS SINGLE THICKNESS TURNING VANES V.D. BRANCH DUCT PROVIDE VOLUME DAMPER WITH LOCKING NUT AIR SPLIT TYPE DUCT TAKE-OFF PLAN VIEW</p>
<p>PIPE HANGER DETAIL NOT TO SCALE 11</p>	<p>DUCT TRANSITION DETAIL NOT TO SCALE 8</p>	<p>LINK SEAL - PIPE THROUGH WALL PENETRATION NOT TO SCALE 5</p>	<p>BRANCH DUCT DETAIL NOT TO SCALE 2</p>

<p>DUCT SIZE IS SAME AS SCHEDULED NECK CONNECTION OF DIFFUSER SECURE FLEXIBLE DUCT TO DUCT COLLAR AND SPIN-IN FITTING WITH S.S. SCREW CLAMP RIGID ELBOW INSULATED FLEXIBLE DUCT MAX. LENGTH 6'-0" INSULATION OBD INSULATION OVER DIFFUSER PAN. SUPPLY DUCT CEILING DIFFUSER CEILING</p> <p>NOTE: THE FLANGED BELLMOUTH FITTING MUST BE PROVIDED, WHERE HEIGHT OF DUCT SHOWN ON PLANS CAN ACCOMMODATE THE FITTING. ONLY WHERE THE DUCT HEIGHT DOES NOT ALLOW THE INSTALLATION OF BELLMOUTH FITTING, PROVIDE STRAIGHT FITTING. FLEX DUCT MAY BE LOCATED IN RISER OR HORIZONTAL RUN.</p>	<p>STAINLESS STEEL CLAMP WITH WORM GEAR OPERATOR END BEARING DIFFUSER INLET NECK DIAMETER UNLESS SHOWN OTHERWISE ON PLANS OR SECTIONS MAIN DUCT AIR FLOW D + 2" FLEXIBLE DUCT TO DIFFUSER INLET, MAXIMUM LENGTH OF 6 FEET 2" SHEETMETAL STAND OFF MANUAL DAMPER WITH LOCKING TYPE INDICATING REGULATOR EXTERNAL DUCT INSULATION RE: SPEC SECTION IS290 CONICAL SPIN-IN FITTING, RE: SPEC SECTION IS990. SEAL ALL AROUND TO SATISFY DUCT LEAKAGE CLASS SPECIFIED IN SPEC SECTION IS890.</p> <p>RE: SPEC SECTION IS290 EXTERNAL DUCT INSULATION</p> <p>NOTES: 1. USE THIS DETAIL FOR EXTERNALLY INSULATED DUCTWORK. 2. EXTEND ROUND SHEETMETAL DUCTWORK AND ASSOCIATED DUCT INSULATION FROM MAIN DUCT, SO FLEXIBLE DUCT LENGTH DOES NOT EXCEED 5 FEET.</p>	<p>FLANGE LOWER DUCT SECTION OVER TOP OF CURB AND FLASHING PROVIDE GASKET OR SEALANT AT DUCT CONNECTION PROVIDE UPPER DUCT SECTION TERMINATED WITH STORM COLLAR TYPE CONNECTION WELDED STORM COLLAR CONCRETE ROOF DECK PATCH PITCH BOARD AND ROOF MEMBRANE RE: ARCH. DRAWINGS PROVIDE FLASHING FROM BUILT-UP ROOF ASSY. OVER TOP OF CURB. COORDINATE ROOF DECK OPENING FOR DUCT PENETRATIONS WITH STRUCTURE. ATTACH CURB FLANGE TO DECK PREFABRICATED ROOF CURB PROVIDE CANT STRIPS</p>	<p>LONGITUDINAL BRACE EACH SIDE AS REQUIRED PER SMACNA 3/8" MACHINE BOLT TYPICAL ROUND DUCT GALVANIZED SHEET METAL STRAP DUCT HANGER 10'-0" OC - SEE SCHEDULE FOR SIZE 2X2X1/4" DIAGONAL BRACE EACH SIDE #10 SELF TAPPING SMS 2X1/4" BENT PLATE DETAIL A 2X2X1/4" DIAGONAL BRACE 16'-0" OC SPACING BOTH SIDES LONGITUDINAL BRACE EACH SIDE AS REQUIRED PER SMACNA HANGER 10'-0" OC DETAIL A TYPICAL SQUARE OR RECT DUCT #10 SELF TAPPING SMS EQUALLY SPACED 12" OC MAXIMUM TYPICAL</p>
<p>CEILING DIFFUSER CONNECTION DETAIL NOT TO SCALE 10</p>	<p>SPIN FITTING DETAIL NOT TO SCALE 7</p>	<p>DUCT PENETRATION THRU ROOF DETAIL NOT TO SCALE 4</p>	<p>DUCT SUPPORT DETAIL NOT TO SCALE 1</p>

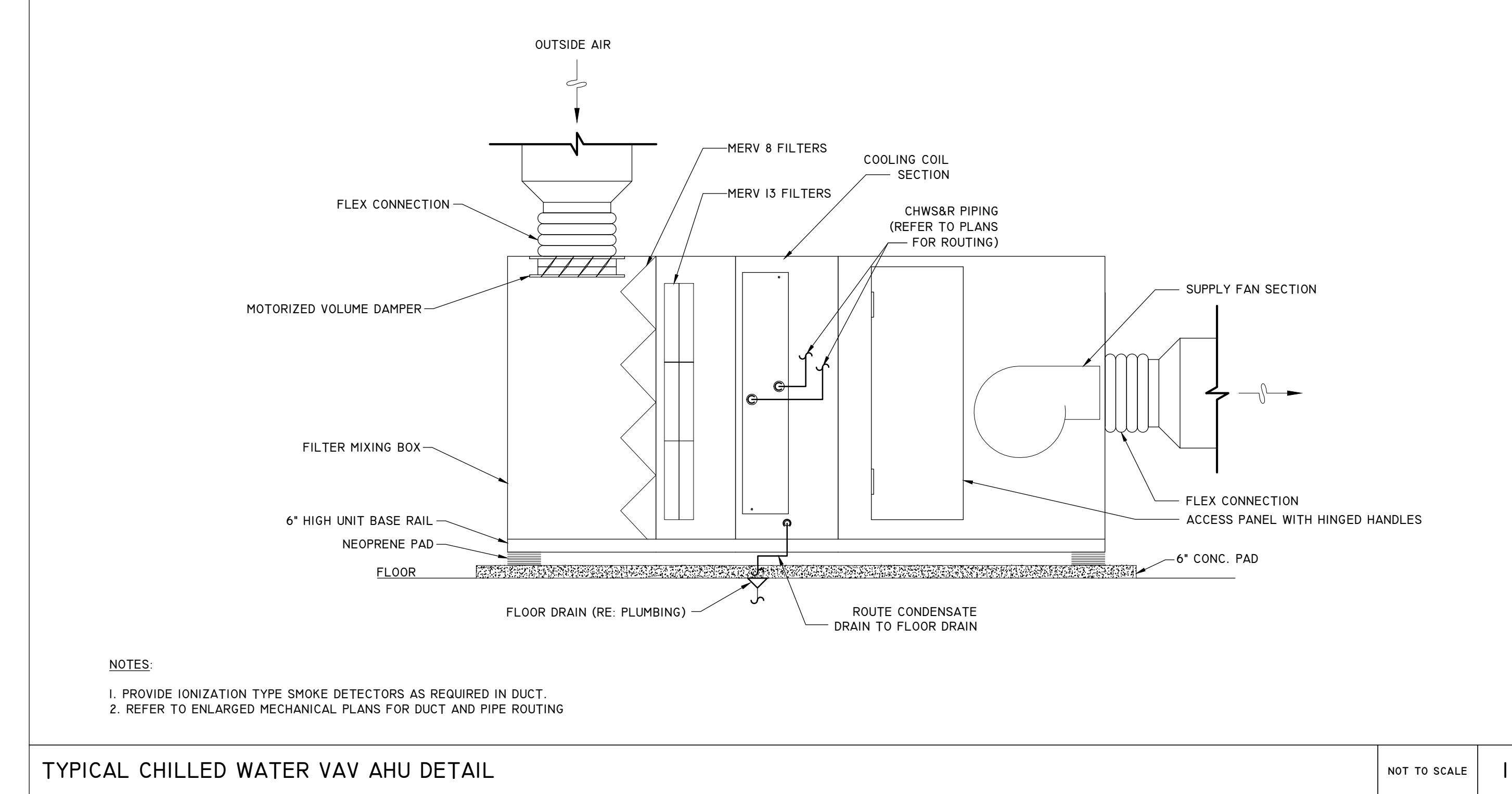
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Drawing Title	DETAILS
Drawing Number	M5.01



TYPICAL CONDENSATE DRAIN DETAIL NOT TO SCALE 3 AHU HEATING WATER COIL WITH FREEZE PROTECTION PUMP NOT TO SCALE 2



TYPICAL CHILLED WATER VAV AHU DETAIL NOT TO SCALE 1

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Drawing Title	DETAILS

Drawing Number	M5.02
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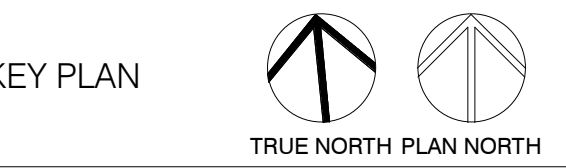
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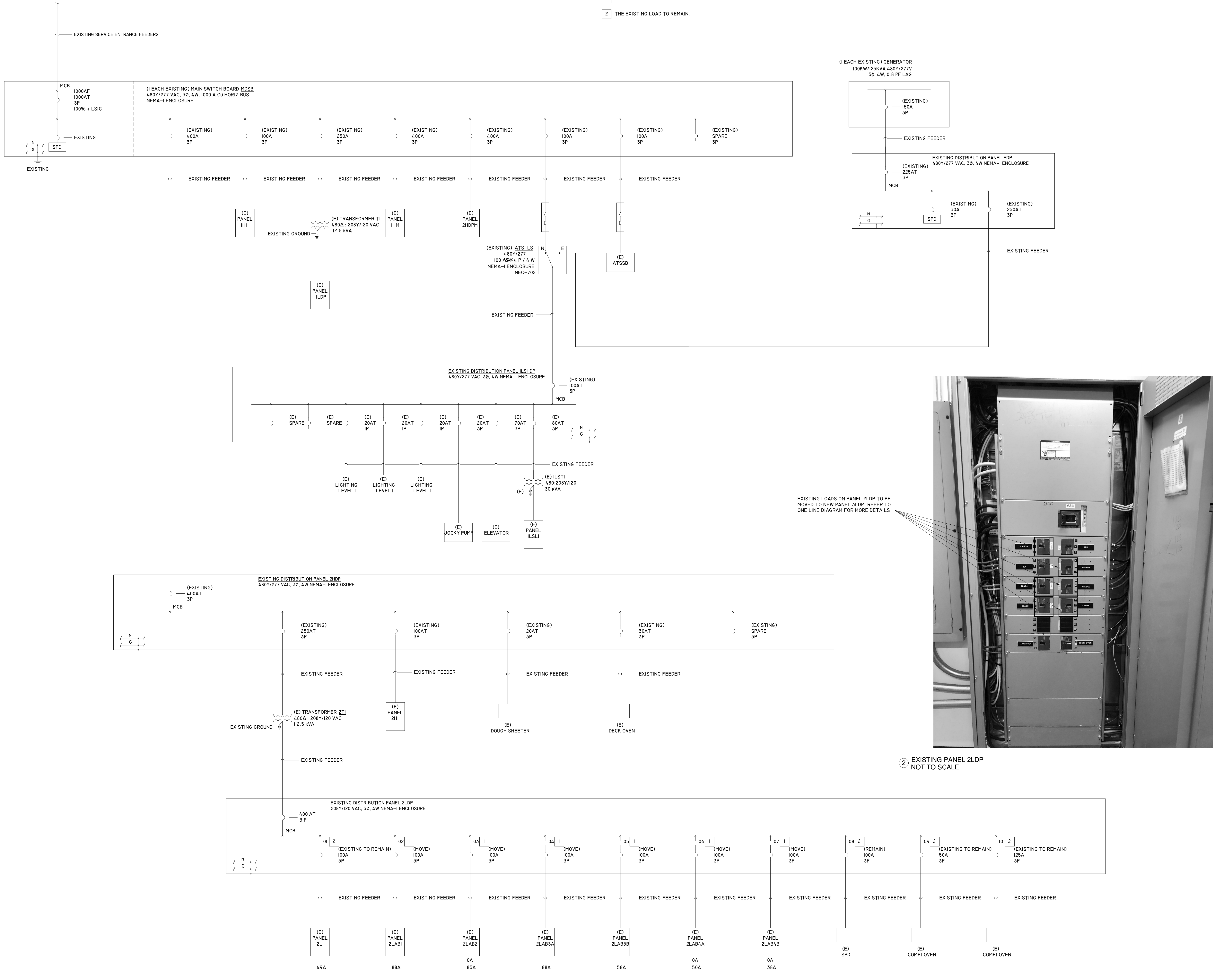
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Project Number	17024
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Drawing Title	EXISTING ONE LINE DIAGRAM

Drawing Number E1.02

- ELECTRICAL KEYNOTES
- 1 THE EXISTING LOAD TO BE REMOVED FROM EXISTING PANEL 2LDP TO NEW PANEL 3LDP.
 - 2 THE EXISTING LOAD TO REMAIN.



1 EXISTING ONE LINE DIAGRAM
Scale: NOT TO SCALE

ELECTRICAL GENERAL NOTES AND SPECIFICATIONS

(BOOKS SPECIFICATIONS SUPERCEDE ANY NOTES BELOW)

- SCOPE: THIS DIVISION SHALL INCLUDE ALL EQUIPMENT, MATERIALS, AND LABOR REQUIRED FOR COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEM. PROJECT INCLUDES: INSTALLATION OF NEW ELECTRICAL DISTRIBUTION SYSTEM, HVAC SYSTEM CONNECTIONS, NEW LIGHTING SYSTEM, NEW RECEPTACLES AND OUTLETS, FIRE ALARM AND NOTIFICATION SYSTEM, AND OTHER ELECTRICAL WORK AS INDICATED ON THE PLANS. CONTRACTOR SHALL PROVIDE CONDUITS, CONDUCTORS FOR POWER, CONTROLS, AND LIGHTING, LIGHTING CONTACTOR AND CONTACT CLOSURES, AND ALL REQUIRED APPARATUS REQUIRED FOR FULL OPERATION OF THE ELECTRICAL SYSTEM.
 1. SITE VISIT AND FAMILIARIZATION: CONTRACTOR SHALL BE REQUIRED TO VISIT THE WORK UNDER THIS DIVISION SHALL VISIT THE SITE OF THE WORK, AND FULLY INFORM THEMSELVES OF ALL CONDITIONS THAT AFFECT THE WORK, OR COST THEREOF. CONTRACTOR SHALL EXAMINE THE DRAWINGS AND SPECIFICATIONS AS RELATED TO THE SITE CONDITIONS. ANY DISCREPANCY SHALL BE REPORTED TO THE ARCHITECT.
 2. NOTICE: CONSIDERATION WILL NOT BE GRANTED FOR ANY ALLEGED MISUNDERSTANDING OF THE AMOUNT OF WORK TO BE PERFORMED. TENDER OF A PROPOSAL SHALL CONVEY FULL AGREEMENT TO ALL TERMS AND CONDITIONS SPECIFIED, INDICATED ON THE DRAWINGS, AND/OR REQUIRED BY NATURE OF THE SITE.
 3. DISCREPANCIES: SHOULD CONTRACTOR FIND DISCREPANCIES OR OMISSIONS IN THE CONTRACT DOCUMENTS, OR BE IN DOUBT AS TO THE INTENT THEREOF, HE SHALL IMMEDIATELY OBTAIN CLARIFICATION FROM THE ARCHITECT BEFORE SUBMITTING A PROPOSAL FOR WORK IN THIS DIVISION.
 4. DEMOLITION: ALL ELECTRICAL COMPONENTS OF THE EXISTING SYSTEM WHICH ARE NOT UTILIZED FOR NEW CONFIGURATION SHALL BE REMOVED AND DISPOSED OF BY CONTRACTOR. REFER TO DEMOLITION NOTES AND DRAWINGS FOR EXTENT OF WORK.
 5. TIMELY PLACING OF MATERIALS AND EQUIPMENT: ALL ELECTRICAL APPARATUS SHALL BE INSTALLED AT THE PROPER TIME DURING PROGRESS OF CONSTRUCTION. COORDINATE WORK OPERATIONS WITH OTHER CRAFTS.
 6. SPACE REQUIREMENTS: CONTRACTOR FOR WORK UNDER THIS DIVISION SHALL BE FULLY RESPONSIBLE FOR DETERMINING IN ADVANCE OF PURCHASE THAT EQUIPMENT AND MATERIALS PROPOSED FOR INSTALLATION SHALL FIT INTO THE CONFINES INDICATED.
 7. MANUFACTURERS' LITERATURE: DELIVERS, PRINTED AS INSTRUCTIONS, CERTIFIED DRAWINGS, PARTS LISTED, CERTIFICATES, ETC., SUPPLIED WITH EQUIPMENT ITEMS, TO THE OWNER.
 8. CODES, PERMITS, AND FEES: WORK UNDER THIS DIVISION SHALL BE CONSTRUCTED IN STRICT CONFORMANCE WITH PERTINENT PROVISIONS OF CITY AND STATE BUILDING CODES.
 - ALL WORK SHALL COMPLY WITH THE 2017 EDITION OF NATIONAL ELECTRIC CODE (NEC).
 - OBTAIN ALL REQUIRED PERMITS. PAY ALL LEGAL FEES FOR PERMITS AND INSPECTIONS BY AUTHORITIES HAVING JURISDICTION.
 - ALL WORK SHALL COMPLY WITH REQUIREMENTS OF AUTHORITIES HAVING JURISDICTION.
 - CUTTING AND PATCHING:
 - CONTRACTOR FOR THIS DIVISION SHALL LAYOUT TO DIMENSION AND LOCATIONS, CUT AND PATCH ALL OPENINGS ON SURFACES TO BE FORMED, FRAMED, OR CUT.
 - SHOULD CONTRACTOR FOR THIS DIVISION FAIL TO ADHERE WITH THIS REQUIREMENT, AS WORK PROGRESSES, ANY OPENINGS SHALL BE CUT AND PATCHED BY GENERAL CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR FOR THIS DIVISION.
 - PROTECTION OF APPARATUS: TAKE ALL PRECAUTIONS NECESSARY FOR PROPER PROTECTION OF NEW EQUIPMENT, APPARATUS, AND MATERIALS FROM DAMAGE. FAILURE TO DO SO WILL BE CAUSE FOR REJECTION OF ANY ITEM COMING UNDER QUESTION.
 - SHOP DRAWINGS: CONTRACTOR FOR THIS DIVISION SHALL SUBMIT SHOP DRAWINGS AND CATALOGUE DATA FOR ALL RISERS, DROPS, OFFSETS, ETC., NECESSARY TO AVOID CONFLICT WITH STRUCTURAL MEMBERS, AND SIMILAR ITEMS, WHEN INSTALLING ELECTRICAL CONDUITS. INSTALL EXPOSED CONDUIT AS SHOWN OR NOTED, PARALLEL TO HORIZONTAL AND VERTICAL LINES OF STRUCTURES. MAKE BENDS WITH 90 DEGREE TURN ONLY, OR WITH APPROVED FITTINGS.
 - CONDUIT: FURNISH A COMPLETE RACEWAY SYSTEM FOR BUT NOT LIMITED TO FEEDER, BRANCH CIRCUITS, CONTROL WIRING, AND AUXILIARY SYSTEM WIRING.
 - USE LIQUID TIGHT FLEXIBLE METAL CONDUIT AND FITTINGS FOR ALL MOTORIZED CONNECTIONS, WHERE EQUIPMENT IS SUBJECT TO MOVEMENT, OR LOCATED OUTDOOR.
 - 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 WHICH THE PIPE IS CRUSHED OR DEFORMED SHALL NOT BE INSTALLED.
 - USE EMT FOR INTERIOR DRY LOCATIONS, PVC FOR UNDERGROUND INSTALLATION, AND RIGID GALVANIZED STEEL FOR EXPOSED LOCATIONS SUBJECT TO DAMAGE.
 - OUTLET AND JUNCTION BOXES: FURNISH AND INSTALL: ALL JUNCTION BOXES REQUIRED TO FACILITATE INSTALLATION OF THE VARIOUS CONDUIT SYSTEMS. JUNCTION BOXES SHALL BE SUITABLE FOR ENVIRONMENT AND APPLICATION USE FOR:
 - WIRE AND CABLE: ALL WIRE AND CABLE SHALL:
 - BE NEW AND OF SOFT DRAWN, ANNEALED, COPPER HAVING A CONDUCTIVITY OF NOT LESS THAN 98% OF THAT OF PURE COPPER, EACH WIRE CONTINUOUS WITHOUT WELD, SPLICE OR JOINT THROUGHOUT ITS LENGTH, UNIFORM IN CROSS SECTION AND FREE FROM FLEAWS, SCALLES, AND OTHER IMPERFECTIONS.
 - UNLESS OTHERWISE SPECIFIED OR NOTED, WIRES SHALL BE #12 AWG (FOR PHASE, NEUTRAL, AND GROUND CONDUCTORS) TYPE THW, THWN, THHN, AS MANUFACTURED BY TRIANGLE, GENERAL ELECTRIC, OKONITE, OR ANACONDA.
 - ALL WIRE #12 AND LARGER SHALL BE STRANDED.
 - NOT BE DRAWN INTO A CONDUIT UNTIL ALL WORK WHICH MAY CAUSE INJURY TO INSULATION IS COMPLETE, WHERE TWO OR MORE CIRCUITS RUN TO A SINGLE OUTLET BOX, TAG EACH CIRCUIT AS A GUIDE.
 - 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 JOINTS OR SPLICES.
 - IDENTIFICATION OF CONDUCTORS AND PANELBOARD ELEMENTS:
 - EACH AND EVERY MAIN AND FEEDER CONDUCTOR SHALL BE IDENTIFIED AT EACH OUTLET POINT WHERE SUCH CONDUCTOR TERMINATES, FEEDER BUNDLES PASSING THROUGH A JUNCTION OR SUPPORT BOX SHALL ALSO BE IDENTIFIED WITHIN SUCH ENCLOSURE, BUT MAY BE IDENTIFIED IN SUCH LOCATIONS AS A GROUP.
 - 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 EACH CONDUCTOR.
 - IDENTIFY EACH SWITCH, INCLUDING MAIN DISCONNECT AND MOTOR STARTER WITH WHITE-ON-BLACK NAMEPLATE, EACH HAVING 1/4" HIGH LETTERS, NEATLY AND SECURELY ADHERE NAMEPLATES TO THE UNIT.
- SWITCHES: FURNISH AND INSTALL ALL FUSIBLE AND NON-FUSIBLE SWITCHES AS REQUIRED BY CODES, WHETHER OR NOT SHOWN AND NOTED. EACH CIRCUIT WILL HAVE ITS OWN NEUTRAL.
 - HEAVY DUTY WITH NEMA-1 OR 3R ENCLOSURE, AS REQUIRED, AND BE PROVIDED WITH PAD-LOCKING FEATURE.
 - PROVIDED AT EACH MOTOR THAT IS OUT OF SIGHT OF THE SWITCH OR PANEL FROM WHICH FED, AND BE NON-FUSIBLE DISCONNECT FOR SUCH USE.
 - SWITCH MANUFACTURER SHALL BE GE, WESTINGHOUSE, OR SQUARE D.
 - DISCONNECT SWITCHES INSTALLED OUTSIDE THE BUILDING SHALL BE IN NEMA-3 ENCLOSURES.
 - FUSIBLE SWITCH-STARTER UNITS: EACH UNIT SHALL BE TOTALLY ENCLOSED AND EFFECTIVELY BARRIRED, MANUALLY OPERATED QUICK-BREAK, QUICK-BREAK, HORSEPOWER RATED STARTER. PROVIDE CLASS R TYPE REJECTION FUSE CLIPS.
- IDENTIFY EACH DEVICE WITH NAMEPLATE SHOWING THE LOAD SERVED, MATCHING THE EXISTING INSTALLATION.
 - 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 CURRENT RATINGS ADEQUATE FOR THE LOADS TO BE SERVED.
 - MOUNTING: HEIGHTS OF ALL DEVICES ARE FROM FINISH FLOOR TO CENTERLINE OF DEVICE. 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 NOTED.
 - WALL SWITCHES: SHALL BE LEVITON DECORA TYPE, WHITE IN COLOR. USE CORRESPONDING DOUBLE POLE, THREE-WAY, FOUR-WAY, KEVED AND DIMMER SWITCHES WHERE NOTED. MOUNT AT 3'-0" AFF. F. AND WITHIN 6" OF ADJACENT DOOR JAMB, UNLESS OTHERWISE NOTED. USE KEVED SWITCHES IN LOCATIONS INDICATED.
 - CONVENIENCE OUTLETS: SHALL BE GRADIENT TYPE, 20 AMP, 125 VOLT, LEVITON, WHITE COLOR, WEATHERPROOF DUPLEX OUTLETS SHALL BE LEVITON 5342 WITH SIERRA NO. WPD-8 PLATE, MOUNT AT 18" A.F.F., UNLESS OTHERWISE NOTED. PROVIDE NEMA-5-20R DEVICES UNLESS OTHERWISE INDICATED. PROVIDE SIERRA HEAVY DUTY STRAIGHT BLADE DEVICES UNLESS OTHERWISE NOTED. PROVIDE HOSPITAL GRADE DEVICES WHERE INDICATED, OR AS REQUIRED BY CODES.
 - ACCEPTABLE ALTERNATE MANUFACTURERS: SHALL BE LSI, H. E. WILLIAMS, HUBBELL, PAS AND BRYANT, PROVIDED THEIR DEVICES ARE OF THE SAME TYPE AND QUALITY AND THAT ONLY ONE MANUFACTURER SHALL BE USED THROUGHOUT THE WORK.
 - PLATES: SHALL BE MATCHING TYPE FOR FINISHED AREAS AND GALVANIZED STEEL FOR AREAS WITH EXPOSED CONDUIT. PROVIDE SHIELDING PLATES FOR MOUNTED WALL AND FLOOR DEVICES. PROVIDE CAST ALUMINUM WET LOCATION TYPE COVER PLATES WITH HINGED COVERS FOR DEVICES LOCATED OUTSIDE. GANG OUTLETS GROUPED TOGETHER UNDER A SINGLE WALL PLATE.
 - 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 COVER PLATES. PROVIDE DIMMERS WITH IVORY FINISH, SAME AS SWITCHES UNLESS OTHERWISE DIRECTED.
 - INSTALL WIRING DEVICES AND ACCESSORIES PLUMB AND LEVEL, IN ACCORDANCE WITH MANUFACTURER'S WRITTEN INSTRUCTIONS, APPLICABLE REQUIREMENTS OF NEC AND IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES TO FULLY PROJECT REQUIREMENTS.
 - TIGHTEN CONNECTORS AND TERMINALS, INCLUDING SCREWS AND BOLTS, IN ACCORDANCE WITH EQUIPMENT MANUFACTURER'S PUBLISHED TORQUE VALUES FOR WIRING DEVICES.
 - COORDINATE WITH OTHER WORK, INCLUDING PAINTING, ELECTRICAL BOSES AND WIRING INSTALLATIONS, AS NECESSARY TO INTERFACE INSTALLATION OF WIRING DEVICES WITH OTHER WORK.
 - INSTALL WIRING DEVICES AFTER WIRING WORK IS COMPLETED. INSTALL ONLY IN ELECTRICAL BOXES THAT ARE CLEAN, FREE FROM EXCESS ELECTRICAL MATERIALS, DIRT, AND DEBRIS. INSTALL WALL PLATES AFTER PAINTING WORK IS COMPLETED.
 - NO RECEPTACLE OR SWITCH OUTLETS SHALL BE MOUNTED BACK TO BACK, A MINIMUM OF ONE (1) STUD MUST BE BETWEEN OUTLETS.
 - INSTALL RECEPTACLES NEAR MAIN PAN IN. INSTALL SWITCHES WITH THE "ON" POSITION UP.
 - ALL EXTERIOR DEVICES TO BE WEATHER PROOF AND EXTERIOR RECEPTACLES SHALL BE A GFCI TYPE DEVICE.
 - ALL 120-VOLT RECEPTACLES OUTLETS LOCATED WITHIN SIX FEET OF SINKS SHALL HAVE GROUND FAULT CIRCUIT INTERRUPTER PROTECTION. GROUND FAULT OUTLETS SHALL BE CONNECTED ON DEDICATED NEUTRAL WIRE SERVING ONLY THE INDIVIDUAL OUTLET WITH THE GROUND FAULT PROTECTION.
 - USE JUMBO SIZE WALL PLATES FOR OUTLETS INSTALLED IN MASONRY WALLS.
 - DO NOT SHARE NEUTRAL CONDUCTORS ON DIMMERS.
 - PANELBOARD: PANELBOARDS SHALL BE GE TYPE AL, AO, AE OR APPROVED EQUAL. REFER TO CONSTRUCTION DOCUMENTS FOR THE TYPE AND RATING OF BRANCH CIRCUIT BREAKERS. ALL PANELBOARD BUSSES SHOULD BE COPPER. THE TYPE OF BUSSES SHALL BE AS INDICATED ON DRAWINGS.
 - TRANSFORMERS: DRY TYPE, TWO-WINDING OF THE SIZE AND ELECTRICAL CHARACTERISTICS SHOWN AND SCHEDULED ON DRAWINGS. TRANSFORMERS SHALL BE FIELD MARKED WITH TAPS ABOVE AND BELOW RATING. TRANSFORMERS SHALL HAVE A BONDING JUMPER INSTALLED BETWEEN THE SECONDARY NEUTRAL, TERMINAL AND METAL CASE, AND SHALL INCLUDE A GROUND TERMINAL OF PROPER SIZE TO RECEIVE GROUND CONDUIT. TRANSFORMERS SHALL BE RATED AT FULL LOAD 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 185°C ON UNITS SMALLER THAN 15 KVA AND CLASS H INSULATION HAVING UL 220°C RATING LIMIT SYSTEM TEMPERATURE TO 185°C ON 15 KVA AND LARGER UNITS. PROVIDE COPPER WINDINGS.
 - FUSES: FUSES IN MAIN, FEEDER, AND BRANCH CIRCUIT SWITCHES, RATED 400 AMPS AND BELOW, FEEDING MOTORS, TRANSFORMERS, AND GENERAL PURPOSE CIRCUITS UNLESS OTHERWISE 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 FWH-R (220V) AND FWH-R (600V).
 - GROUNDING: ALL CONDUIT WORK, MOTOR, STARTERS, AND OTHER ELECTRICAL EQUIPMENT WIRED AND CONNECTED BY THIS CONTRACTOR SHALL BE EFFECTIVELY AND PERMANENTLY GROUNDED IN FULL ACCORDANCE WITH NEC 250.
 - OTHER MATERIALS: FURNISH AND INSTALL ALL OTHER MATERIALS SUCH AS HARDWARE, TAPE, CLAMPS, CONNECTORS, FITTINGS, SUPPORTS, AND ALL OTHER APPURTENANCES REQUIRED TO COMPLETE THE WORK TO THE FULL INTENT OF THE CONTRACT. TERMINAL LUGS SHALL BE FURNISHED BY THE ELECTRICAL CONTRACTOR.
 - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR ALL TEMPERATURE, CO2, AND HUMIDITY SENSOR STUB-UPS FOR THE MECHANICAL HVAC SYSTEM. REFER TO MECHANICAL PRINTS FOR SENSOR QUANTITY AND LOCATIONS.
 - ELECTRICAL CONTRACTOR WILL CONNECT ALL LOW VOLTAGE PLUMBING CONTRACTOR SUPPLIED TRANSFORMERS (FOR AUTOMATIC FLUSH) TO THE NEAREST 120V CIRCUIT (OR IF INDICATED ON PLANS WITH A CIRCUIT NUMBER). CONTRACTOR TO ASSUME ONE TRANSFORMER PER BATHROOM. THE PLUMBING CONTRACTOR WILL BE RESPONSIBLE FOR LOW VOLTAGE WIRING TO THE FIXTURES. SWITCHGEAR AND DISTRIBUTION PANELS SHALL BE FIELD MARKED TO WARN QUALIFIED PERSONS 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 MAINTENANCE OF THE EQUIPMENT, NEC 10.16.
 - ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR COORDINATING THE LOCATIONS OF ALL GTD'S (GENERATOR TRANSFER DEVICES), LIGHTING CONTROL EQUIPMENT, LOW VOLTAGE TRANSFORMERS AND OTHER ELECTRICAL ITEMS WHICH ARE ABOVE CEILINGS, THESE DEVICES SIMILAR TO ELECTRICAL JUNCTION BOXES ARE NOT ALLOWED BY NEC TO BE ABOVE HARD CEILING. THE ARCHITECT/OWNER WILL NOT ALLOW THE INSTALLATION OF ACCESS PANELS IN THE CEILINGS. BE AWARE THAT EQUIPMENT IN THOSE AREAS OF HARD CEILINGS WILL HAVE TO BE REMOTELY LOCATED TO THE NEAREST ACUSTICAL LAY-IN CEILING AREAS.
 - ELECTRICAL MATERIAL AND EQUIPMENT: NO ELECTRICAL MATERIALS, APPARATUS, DEVICES, 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 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 ON ALL ELECTRICAL MATERIALS, APPARATUS, DEVICES, APPLIANCES, FIXTURES, AND EQUIPMENT USED OR INSTALLED UNDER THE PROVISIONS OF THIS CODE. ALL ELECTRICAL MATERIALS AND EQUIPMENT SHALL BE LISTED AND LABELED FOR THE INTENDED USE AND SHALL BE INCLUDED IN A LIST PUBLISHED BY AN APPROVED AGENCY.
 - 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.

ELECTRICAL SYMBOL LEGEND

SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION	ABBREVIATION DEFINITIONS	
	HOME RUN TO PANEL HA, CIRCUITS 1, 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		LIGHTING CLASS PANEL HA = PANEL NAME CHARACTERISTICS AS INDICATED ON ONE LINE DIAGRAM AND PANEL SCHEDULE	2SIW 2S2W 2S1W (A (A A AF AFCI AFF AFB AFG B CB CF BFC BFF BFG	TWO-SPEED, ONE-WINDING MOTOR TWO-SPEED, TWO-WINDING MOTOR ABANDONED TO REMOVE PHASE "N" IN THREE-PHASE SYSTEM AMPERES AMPERE FUSE OR FRAME RATING ARC FAULT CIRCUIT INTERRUPTER ABOVE FINISHED FLOOR AMPERE TRIP SETTING ABOVE FINISHED GRADE BALLAST FACTOR BELOW FINISHED CEILING BELOW FINISHED FLOOR BELOW FINISHED GRADE PHASE "N" IN THREE-PHASE SYSTEM CONDUIT CIRCUIT FACTOR CONSTANT HORSE POWER (2SIW MOTOR) CIRCUIT COMBINATION STARTER (MOTOR STARTER / DISCONNECT) CONSTANT TORQUE (2SIW MOTOR) CT CT CT CURRENT TRANSFORMER EXISTING TO BE DEMOLISHED OR REMOVED EAL ELEMENT, TIME DELAY DSD DET DES DE E EM EFC EP FAAP FAFCP FAVP G GROUND GROUND ELECTRODE CONDUCTOR GROUND FAULT CIRCUIT INTERRUPTER HARMONIC-MITIGATING TRANSFORMER HIGH / OFF / AUTO SWITCH (FOR FUSE OR CONTACTOR) HIGH / LOW / OFF / AUTO (FOR 2SIW OR 2S2W CONTACTOR) IG ISOLATED GROUND JAMMING RATIO J K KILO AMPERE INTERRUPTING CAPACITY KILO CIRCULAR MILS KVA KILO VOLT AMPERES COMPLEX OR APPARENT POWER KVA KILO VOLT AMPERES REACTIVE POWER KILO WATT REAL POWER HOT LEG I IN SINGLE-PHASE SYSTEM < 250 VAC HOT LEG 2 IN SINGLE-PHASE SYSTEM < 250 VAC LONG TERM, SHORT TERM, INSTANTANEOUS, AND GROUND-FAULT MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MAIN LUGS ONLY N NEW NEC NEMA NF NFFPA NSL NFPA OFCI OFF OS P POLES POWER FACTOR POWER FACTOR CORRECTION CAPACITOR POLY VINYL CHLORIDE POTENTIAL TRANSFORMER RIGID ALUMINUM RIGID GALVANIZED STEEL SECTION OF LIGHTING-CLASS PANEL SURGE PROTECTION DEVICE STAINLESS STEEL, "xxx" AUSTENITIC ALLOY TYPE (E. G. 304) SHUNT-TRIP FOR CIRCUIT BREAKER TOTAL HARMONIC DISTORTION (THD) TRANSIENT VOLTAGE SURGE SUPPRESSION TYPICAL UNLESS OTHERWISE NOTED VOLTS VOLTS, ALTERNATING CURRENT VOLTS, DIRECT CURRENT VFD VFCD VFD VFC VT W WP # µ φ Ω
	ROUND LUMINAIRE RECESSED OR SUSPENDED FROM ABOVE OPEN + DOWN GAIT, HA = SHADED, D = UNSHADED XX = TYPE ON LUMINAIRE SCHEDULE		DISTRIBUTION CLASS PANEL DA = PANEL NAME CHARACTERISTICS AS INDICATED ON ONE LINE DIAGRAM	AFB AFG B CB CF BFC BFF BFG	CONDUIT TURNING UP CONDUIT TURNING DOWN
	ROUND WALL-MOUNTED LUMINAIRE SUSPENDED FROM SIDE ARM XX = TYPE ON LUMINAIRE SCHEDULE		WEATHER HEAD FOR CONNECTING OVER HEAD CONDUCTORS	C CB CF BFC BFF BFG	WEATHER HEAD FOR CONNECTING OVER HEAD CONDUCTORS
	EXIT SIGN WITH DIRECTIONAL ARROWS AS INDICATED, I OR 2 FACE, UNIVERSAL MOUNT X1 OR X2 = TYPE ON LUMINAIRE SCHEDULE		FIRE ALARM MANUAL PULL STATION WITH TAMPER COVER	C CB CF BFC BFF BFG	20" CU CHATWORTH GROUNDING BUSBAR 40153-020 TMB8 PATTERN, 4" W X 1/4" H, 20'L, INSULATED STANDOFFS, PRE-DRILLED & TAP AS REQUIRED FOR CONDUCTORS
	EMERGENCY EGRESS ONLY LUMINAIRE SURFACE MOUNTED FROM BACK XX = TYPE ON LUMINAIRE SCHEDULE		FIRE ALARM SMOKE DETECTOR, CEILING MOUNTED	C CB CF BFC BFF BFG	20" CU CHATWORTH GROUNDING BUSBAR 40153-020 TMB8 PATTERN, 4" W X 1/4" H, 20'L, INSULATED STANDOFFS, PRE-DRILLED & TAP AS REQUIRED FOR CONDUCTORS
	NEMA 5-20R DUPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WP = WEATHER PROOF, GF1 = GFCI PROTECTED, IG = ISOLATED GROUND PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER		FIRE ALARM HEAT DETECTOR, CEILING MOUNTED	C CB CF BFC BFF BFG	NEMA 5-20R DUPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WP = WEATHER PROOF, GF1 = GFCI PROTECTED, IG = ISOLATED GROUND PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER
	NEMA 5-20R QUADREPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WP = WEATHER PROOF, GF1 = GFCI PROTECTED, IG = ISOLATED GROUND PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER		FIRE ALARM DUCT-MOUNTED SMOKE DETECTOR	C CB CF BFC BFF BFG	NEMA 5-20R QUADREPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WP = WEATHER PROOF, GF1 = GFCI PROTECTED, IG = ISOLATED GROUND PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER
	SIMPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WITH INDICATED CONFIGURATION (E. G. L6-30R = NEMA TWISTLOCK, 250 VAC, 30 A) PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER		FIRE ALARM SUPERVISORY SHUTDOWN RELAY	C CB CF BFC BFF BFG	SIMPLEX RECEPTACLE, MOUNTED 18" AFF (UON) WITH INDICATED CONFIGURATION (E. G. L6-30R = NEMA TWISTLOCK, 250 VAC, 30 A) PROVIDE WITH SS-302 COVERPLATE AND CIRCUIT NUMBER
	FLUSH FLOOR BOX WITH WIRING DEVICES AS INDICATED ON PLANS HUBBELL SYSTEM ONE ONLY		FIRE ALARM FIRE-WATER FLOW SWITCH	C CB CF BFC BFF BFG	FLUSH FLOOR BOX WITH WIRING DEVICES AS INDICATED ON PLANS HUBBELL SYSTEM ONE ONLY
	JUNCTION BOX		FIRE ALARM FIRE-WATER TAMPER SWITCH	C CB CF BFC BFF BFG	JUNCTION BOX
	LIGHT SWITCH RATED 120/277 VAC, MOUNTED 42" AFF (UON), SINGLE-POLE (UON) 2 + 2-POLE, 3 + 3-WAY, 4 + 4-WAY, D = DIMMER, M = MOTOR-RATED W. OL, WP = WEATHER PROOF, R = RED COLOR, K = KEVED, VS = INTEGRAL VACANCY SENSOR, OS = INTEGRAL OCCUPANCY SENSOR		FIRE ALARM AUDIO/VISUAL HORN-STROBE	C CB CF BFC BFF BFG	LIGHT SWITCH RATED 120/277 VAC, MOUNTED 42" AFF (UON), SINGLE-POLE (UON) 2 + 2-POLE, 3 + 3-WAY, 4 + 4-WAY, D = DIMMER, M = MOTOR-RATED W. OL, WP = WEATHER PROOF, R = RED COLOR, K = KEVED, VS = INTEGRAL VACANCY SENSOR, OS = INTEGRAL OCCUPANCY SENSOR
	FIRE ALARM VISUAL STROBE		FIRE ALARM VISUAL STROBE	C CB CF BFC BFF BFG	FIRE ALARM VISUAL STROBE
	FIRE ALARM SPEAKER		FIRE ALARM SPEAKER	C CB CF BFC BFF BFG	FIRE ALARM SPEAKER
	FIRE ALARM CONTROL PANEL		FIRE ALARM REMOTE ANNUNCIATOR PANEL	C CB CF BFC BFF BFG	FIRE ALARM CONTROL PANEL
	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED WALL-MOUNTED VOLUME CONTROL ADJACENT TO LIGHT SWITCH (UON)		PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED	C CB CF BFC BFF BFG	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED WALL-MOUNTED VOLUME CONTROL ADJACENT TO LIGHT SWITCH (UON)
	PUBLIC ADDRESS INTERCOM CALL BUTTON, WALL-MOUNTED 42" AFF		PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED	C CB CF BFC BFF BFG	PUBLIC ADDRESS INTERCOM CALL BUTTON, WALL-MOUNTED 42" AFF
	INTRUSION ALARM MOTION DETECTOR		INTRUSION ALARM MOTION DETECTOR	C CB CF BFC BFF BFG	EMERGENCY POWER OFF, MUSHROOM HEAD, MAINTAINED CONTACT PUSH BUTTON
	PHOTOELECTRIC SENSOR AIMED NORTH		INTRUSION ALARM NUMERIC KEY-PAD	C CB CF BFC BFF BFG	PHOTOELECTRIC SENSOR AIMED NORTH
	TIME CLOCK, ASTRONOMIC/MULTI-POLE CONTACTOR		INTRUSION ALARM DOOR CONTACTOR	C CB CF BFC BFF BFG	TIME CLOCK, ASTRONOMIC/MULTI-POLE CONTACTOR
	POWER COMPANY POWER METER		ACCESS CONTROL CARD READER	C CB CF BFC BFF BFG	POWER COMPANY POWER METER
	ACCESS CONTROL MAGNETIC DOOR LOCK		ACCESS CONTROL DOOR HOLD-OPEN	C CB CF BFC BFF BFG	ACCESS CONTROL MAGNETIC DOOR LOCK
	VIDEO SURVEILLANCE CCTV CAMERA		ACCESS CONTROL DOOR HOLD-OPEN	C CB CF BFC BFF BFG	VIDEO SURVEILLANCE CCTV CAMERA
	TRANSFORMER = TLA 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, INSL = INSULATION CLASS, WOUND = WINDING MATERIAL/CONFIGURATION, NEMA = ENCLOSURE TYPE		ACCESS CONTROL DOOR HOLD-OPEN	C CB CF BFC BFF BFG	TRANSFORMER = TLA 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, INSL = INSULATION CLASS, WOUND = WINDING MATERIAL/CONFIGURATION, NEMA = ENCLOSURE TYPE
	VARIABLE FREQUENCY DRIVE WITH INTEGRAL DISCONNECTING MEANS, VFCD		MOTOR, SINGLE OR THREE PHASE HP = HORSE POWER	C CB CF BFC BFF BFG	DISCONNECT SWITCH VAC = VOLTAGE RATING, AS = SWITCH CURRENT RATING, AF = FUSE SIZE/TYPE (E. G. DETD) P = POLE COUNT, NEMA = ENCLOSURE TYPE (WHEN APPLICABLE)
	MOTOR, SINGLE OR THREE PHASE HP = HORSE POWER		EQUIPMENT CONNECTION	C CB CF BFC BFF BFG	COMBINATION CIRCUIT BREAKER, MOTOR CONTROLLER, AND THERMAL OVERLOAD VAC = VOLTAGE RATING, AF = FRAME SIZE, AT = TRIP SETTING, NEMA-F = MOTOR STARTER SIZE/TYPE (E. G. FVNR), HOA = SELECTOR SWITCH TYPE, P = POLE COUNT, NEMA = ENCLOSURE TYPE (WHEN APPLICABLE)

- GENERAL NOTES:**
- SYMBOL LEGEND MAY CONTAIN SYMBOLS THAT ARE NOT USED ON ALL DRAWINGS.
 - ABBREVIATION DEFINITIONS ARE NOT COMPREHENSIVE, AND NOT ALL ABBREVIATIONS MAY APPLY TO ALL DRAWINGS. SUBMIT FORMAL REQUEST FOR INFORMATION WHEN ENCOUNTERING CONFLICTS OR AMBIGUOUS SYMBOLS OR ABBREVIATIONS, AS THESE WILL NOT CONSTITUTE DISMISSAL OF CONTRACTOR RESPONSIBILITY.
 - ALL COVER PLATES FOR RECEPTACLES, SWITCHES, AND DATA SHALL BE SS-302 (UON).
 - PROVIDE DECORA STYPE SWITCHES FOR LIGHT SWITCHES THAT ARE NOT OCCUPANCY SENSOR TYPE.



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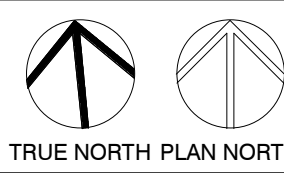
PROFESSIONAL SEAL:

2020-04-15

A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

#	Date	ISSUED FOR
	2020/04/15	PERMIT AND BIDDING

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KEY PLAN


Project Number	17024
Drawn By	Author
Checked By	Checker
Approved By	Approver

SCHEDULES, NOTES, & LEGENDS

Drawing Number **E1.01**

#	Date	ISSUED FOR
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Approved By	Approver
Drawing Title	PANEL SCHEDULES

PANEL: 2H1												
LOCATION: ELEC ROOM												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
3-#12, 1-#12, 1-#12, 3/4"	(E) DISHWASHER	Q	20 / 3	1	3.0	1.0		2	1 / 20	L	(E) LIGHTING	1-#12, 1-#12, 1-#12, 3/4"
...
Total Load:					24 kVA	25 kVA	25 kVA					
Total Amps:					87 A	89 A	91 A					

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

PANEL: 2H2												
LOCATION: ELEC ROOM												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
3-#12, 1-#12, 1-#12, 3/4"	(N) KEF-17	M	15 / 3	1	0.9	0.9		2	3 / 15	M	(N) KEF-18	3-#12, 1-#12, 1-#12, 3/4"
...
Total Load:					6 kVA	6 kVA	6 kVA					
Total Amps:					23 A	23 A	23 A					

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

PANEL: 2LAB4B												
LOCATION: CULINARY LAB 2												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"	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"
...
Total Load:					8 kVA	7 kVA	7 kVA					
Total Amps:					67 A	54 A	56 A					

NOTES: ALL WIRING FOR 20A/1P CKT. SHALL CONSIST OF 2#12, 1#12G IN 3/4" 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: 2LAB2												
LOCATION: ELEC ROOM												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"	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"
...
Total Load:					14 kVA	16 kVA	14 kVA					
Total Amps:					121 A	131 A	120 A					

PANEL: 2LAB4A												
LOCATION: CULINARY LAB 2												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"	RANGE - E650	Q	20 / 1	1	0.4	0.4		2	1 / 20	Q	RANGE - E650	1-#12, 1-#12, 1-#12, 3/4"
...
Total Load:					9 kVA	7 kVA	9 kVA					
Total Amps:					79 A	56 A	79 A					

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

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

DIST PANEL: 3LDP									
LOCATION: ELEC ROOM									
FED FROM:									
CKT NO	LOAD DESCRIPTION	FRAME (A)	RATING (A)	POLES	TYPE	LOAD (kVA)	WIRE SIZE	NOTES	
1	(E) EXISTING PANEL 2LAB1	100 A	100 A	3		32	3-#2, 1-#8, 1-1/2"		
2	(E) EXISTING PANEL 2LAB2	100 A	100 A	3		30	3-#2, 1-#8, 1-1/2"		
3	(E) EXISTING PANEL 2LAB3A	100 A	100 A	3		31	3-#2, 1-#8, 1-1/2"		
4	(E) EXISTING PANEL 2LAB3B	100 A	100 A	3		20	3-#2, 1-#8, 1-1/2"		
5	(E) EXISTING PANEL 2LAB4A	100 A	100 A	3		18	3-#2, 1-#8, 1-1/2"		
6	(E) EXISTING PANEL 2LAB4B	100 A	100 A	3		13	3-#2, 1-#8, 1-1/2"		

PANEL: 2LAB4B												
LOCATION: CULINARY LAB 2												
FED FROM:												
WIRE SIZE	LOAD DESCRIPTION	LOAD TYPE	TRIP RATE / P	CKT NO	A (kVA)	B (kVA)	C (kVA)	CTK NO	P / TRIP RATE	LOAD TYPE	LOAD DESCRIPTION	WIRE SIZE
1-#12, 1-#12, 1-#12, 3/4"	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"
...
Total Load:					8 kVA	7 kVA	7 kVA					
Total Amps:					67 A	54 A	56 A					

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

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



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KEY PLAN

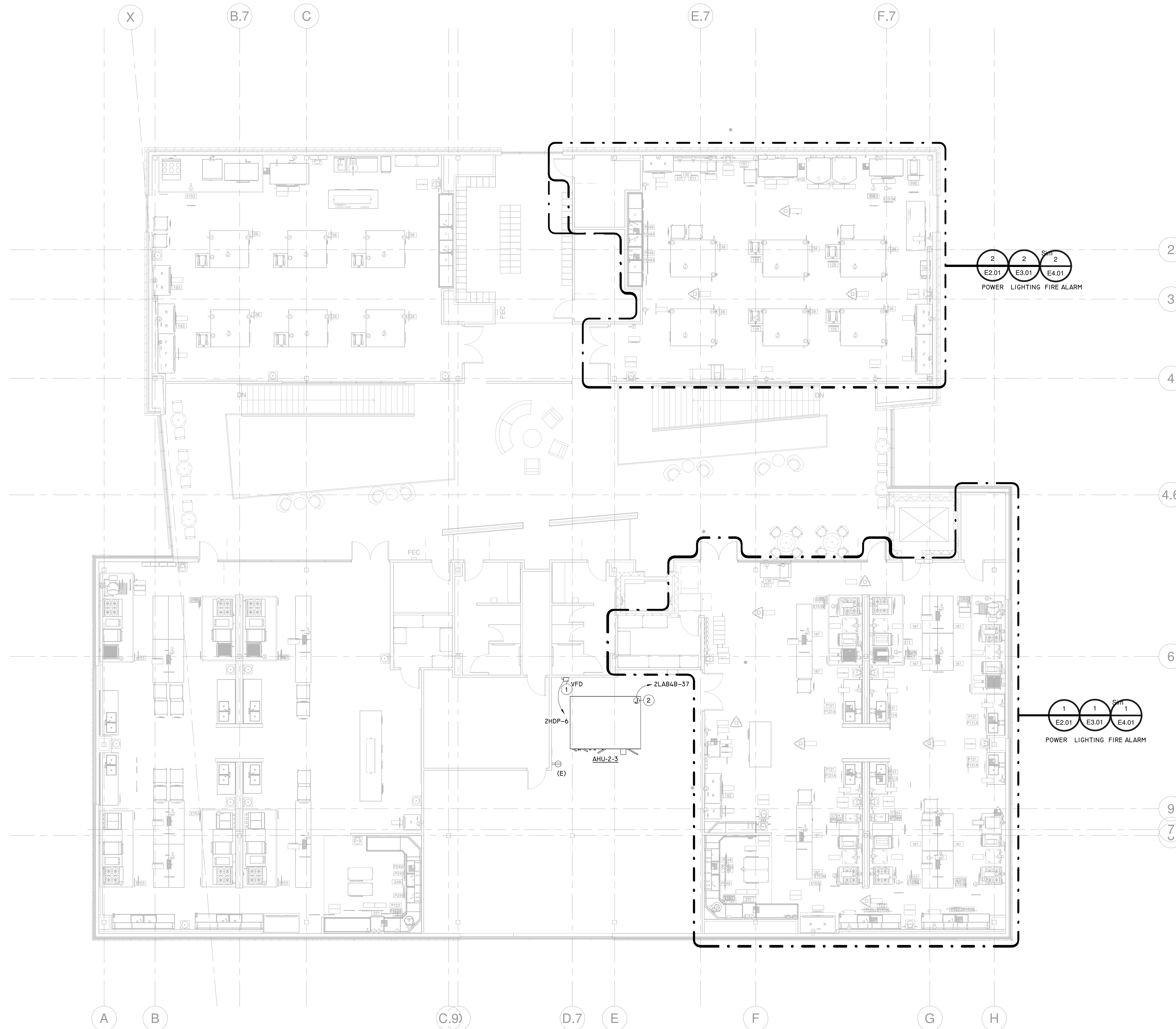


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Approved By	Approver

Drawing Title
**SECOND FLOOR PLAN
- OVERALL**

Drawing Number
E1.05

1	REFER TO MECHANICAL DRAWINGS FOR CONTINUATION.
2	PROVIDE POWER FOR FREEZE PROTECTION PUMP. REFER TO MECHANICAL DRAWINGS FOR CONTINUATION.



1 SECOND FLOOR - POWER
Scale: 1/8" = 1'-0"



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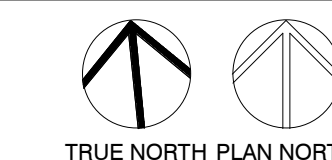
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Drawing Title

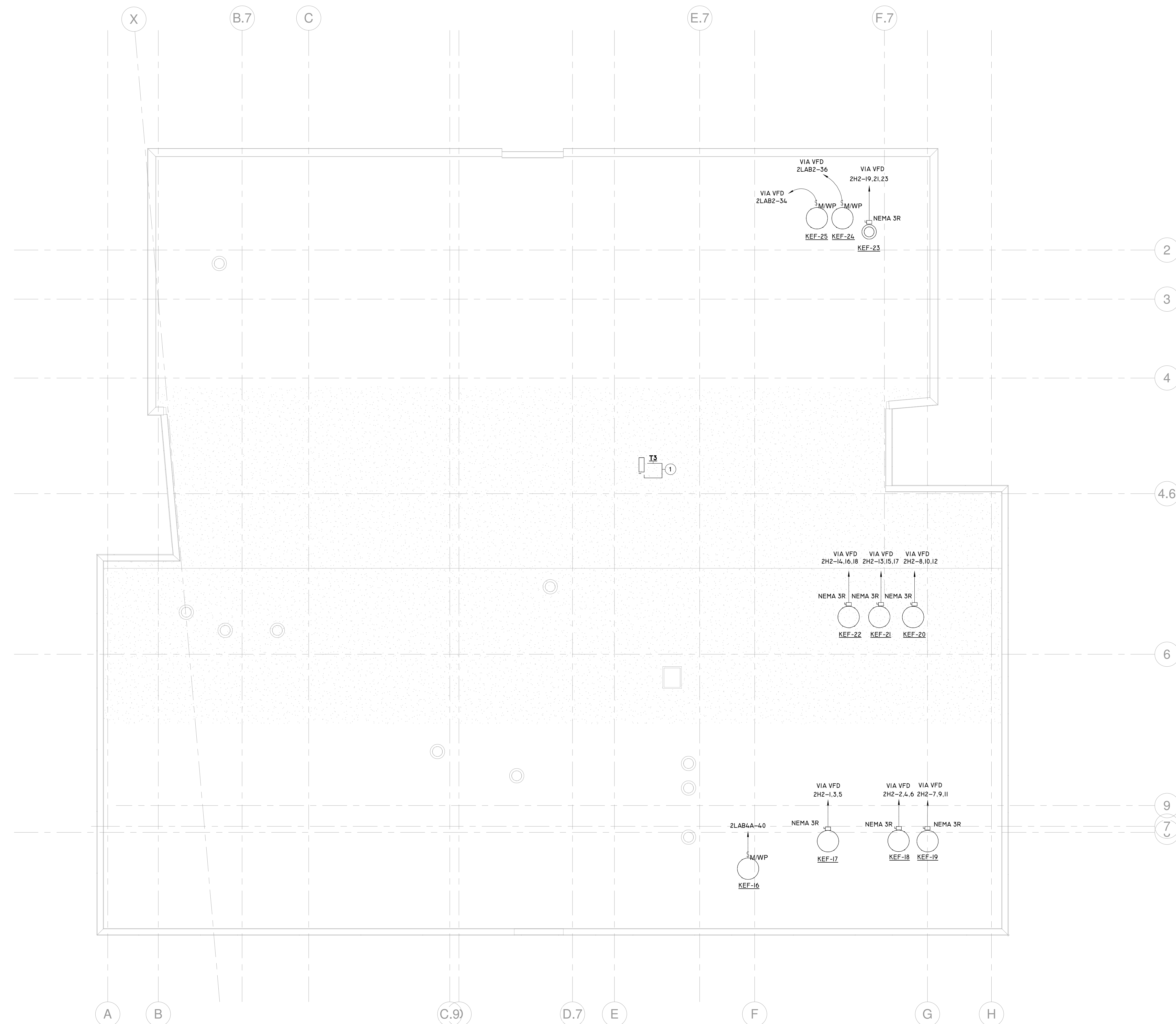
ROOF PLAN - POWER

Drawing Number

E2.02

KEYNOTE LEGEND

1 NEW TRANSFORMER T3 AND ELECTRICAL CIRCUIT BREAKER. COORDINATE WITH ARCHITECT/OWNER FOR EXACT LOCATION.



1 ROOF PLAN - POWER
Scale: 1/8" = 1'-0"

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LIGHT FIXTURE SCHEDULE										
TYPE	MANUFACTURER	MODEL NUMBER	DESCRIPTION	MOUNTING	LAMP	WATTAGE	VOLTAGE	DIMMABLE	NOTES	
LA	COLUMBIA	#LCRL-40HL-EUC/SHC/LC/LW/4	4" INDUSTRIAL STRIP WITH WIREGUARD	CHAIN HUNG	LED	4.8 W	UNV	0-10V DIMMING		
LK	COLUMBIA	#LJ24-40HLG-FSA-I2I25INV-EDU-G3	2'x4' LED FIXTURE, 4000 LUMENS	RECESSED	LED	4.9 W	UNV	0-10V DIMMING		
LKE	COLUMBIA	#LJ24-40HLG-FSA-I2I25INV-EDU-G3	2'x4' LED FIXTURE, PROVIDE A GENERATOR TRANSFER DEVICE (GTD) CONNECTED TO EMERGENCY CIRCUIT.	RECESSED	LED	4.9 W	UNV	0-10V DIMMING		
X	EMERGI-LITE	LXN-XXX	EDGE-LIT EXIT SIGN	WALL/CEILING	LED	10 W	UNV		PROVIDE WITH NUMBER OF FACES AND DIRECTIONAL ARROWS AS SHOWN ON PLANS	

GENERAL NOTES:

- EMERGENCY EGRESS OPERATION IN LIGHT FIXTURES SHALL PROVIDE MINIMUM 1400 LUMENS FOR MINIMUM 90 MINUTES AND SHALL HAVE INTEGRAL TESTING AND CHARGING CIRCUIT WITH INDICATOR LIGHT. REMOVE INDICATOR LIGHT AND TESTING SWITCH IS NOT ACCEPTABLE. PROVIDE FIXTURE WITH INTEGRAL CHARGE INDICATOR LIGHT AND TEST SWITCH.
- ALL LIGHT FIXTURES APPENDED WITH NL (NIGHT LIGHT) SHALL BE NON-SWITCHED AND CONNECTED TO LIGHTING INVERTER.
- ALL LIGHT FIXTURES APPENDED WITH E (EMERGENCY) AND NOT INDICATED TO BE ROUTED VIA LIGHTING INVERTER SHALL INCLUDE EMERGENCY BATTERY BACK-UP FIXTURE OPTION. IF FIXTURE DOES NOT HAVE BATTERY BACKUP OPTION, PROVIDE LOCAL INDIVIDUAL INVERTER FOR THAT PARTICULAR FIXTURE.
- PROVIDE ADDITIONAL, NON-SWITCHED HOT CIRCUIT LEG TO FIXTURE FOR BATTERY CHARGING AND POWER-LOSS DETECTION FOR ALL EMERGENCY EGRESS OR EXIT SIGN FIXTURES AS PART OF BASE BID.
- ALL OUTDOOR LIGHTING FIXTURES REQUIRE CORROSION-RESISTANT OPTION.
- COORDINATE MOUNTING HEIGHT OF ALL FIXTURES WITH ARCHITECTURAL PLANS.
- COORDINATE FINISH OF ALL FIXTURE WITH ARCHITECT PRIOR TO ORDERING.
- REFER TO ARCHITECTURAL PLANS FOR GRID/FLANGE AREAS, PRIOR TO BIDDING OF LIGHT FIXTURES. ORDER CORRECT QUANTITY OF EACH VARIATION.

KEYNOTE LEGEND	
1	CONNECT TO EMERGENCY PANEL ILSHOP. REFER TO ONE LINE DIAGRAM FOR MORE DETAILS. ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXACT LOCATION OF PANEL BEFORE BIDDING AND INSTALLATION. COORDINATE ANY CEILING/WALL PATCHWORK WITH APPROPRIATE SUBCONTRACTOR. EXTENDED WIRES/CONDUITS AS REQUIRED.

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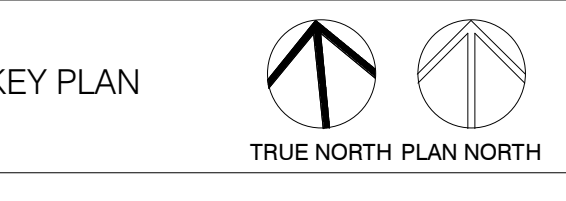
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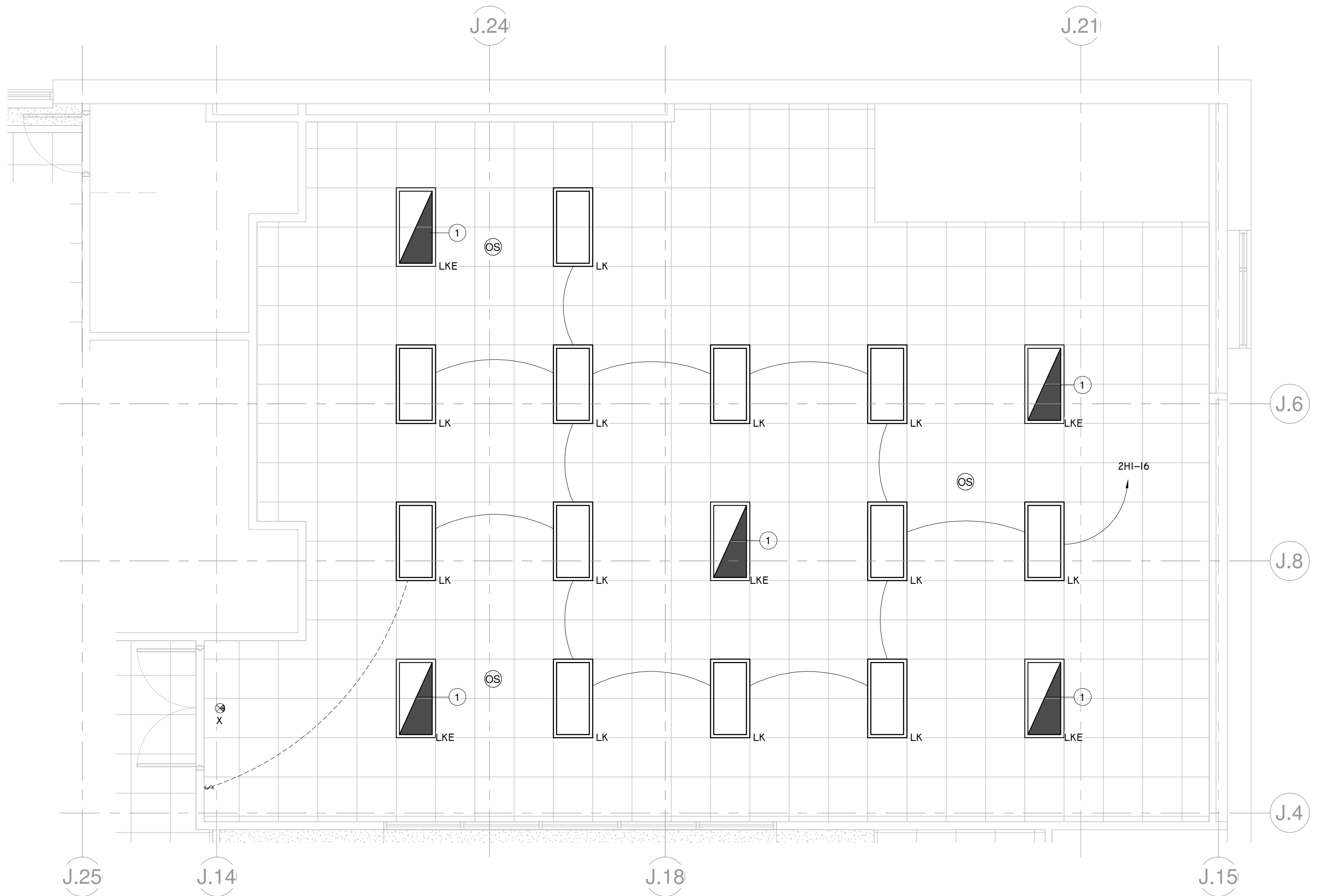
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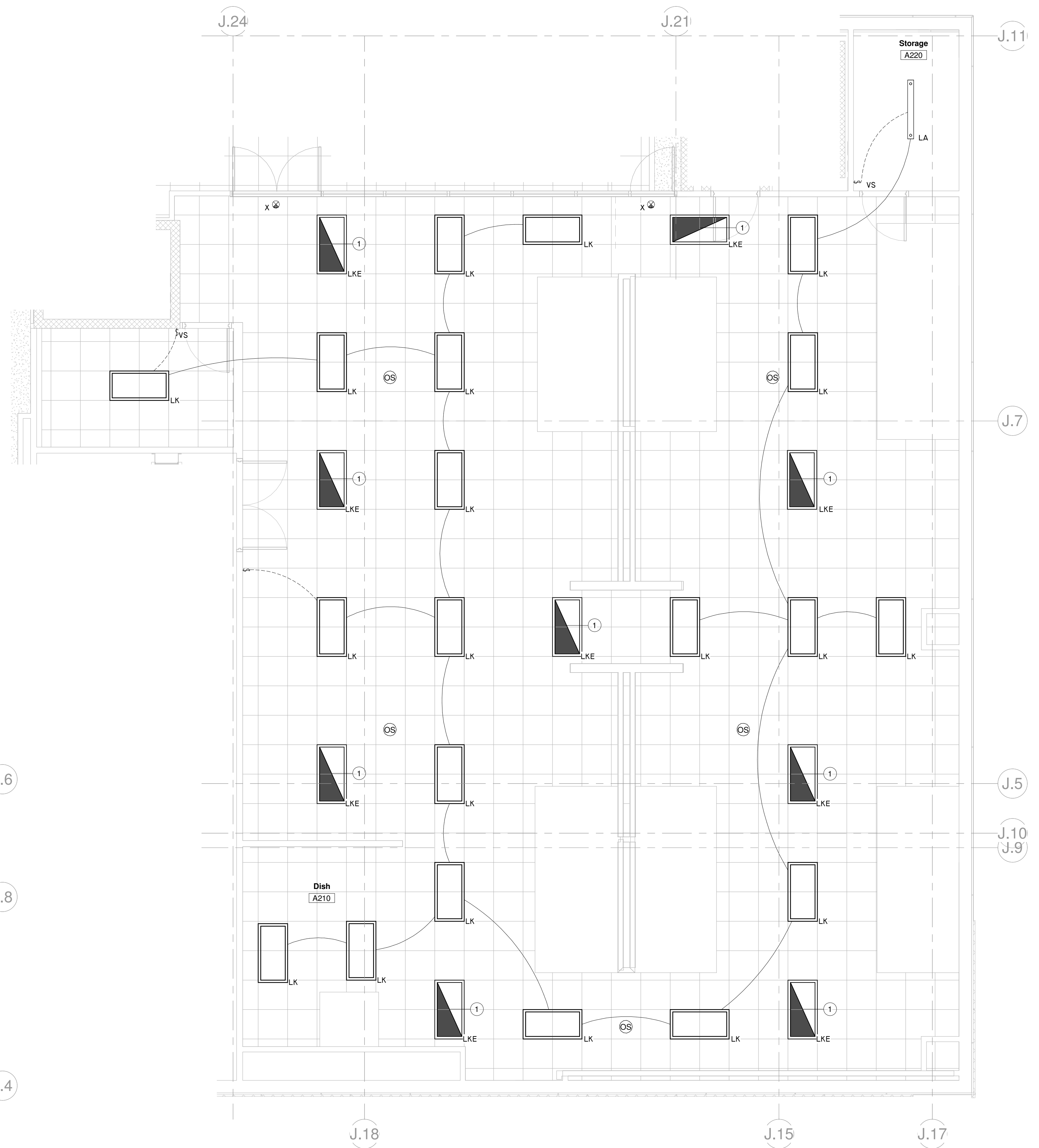
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Drawing Title
ENLARGED PLANS - LIGHTING

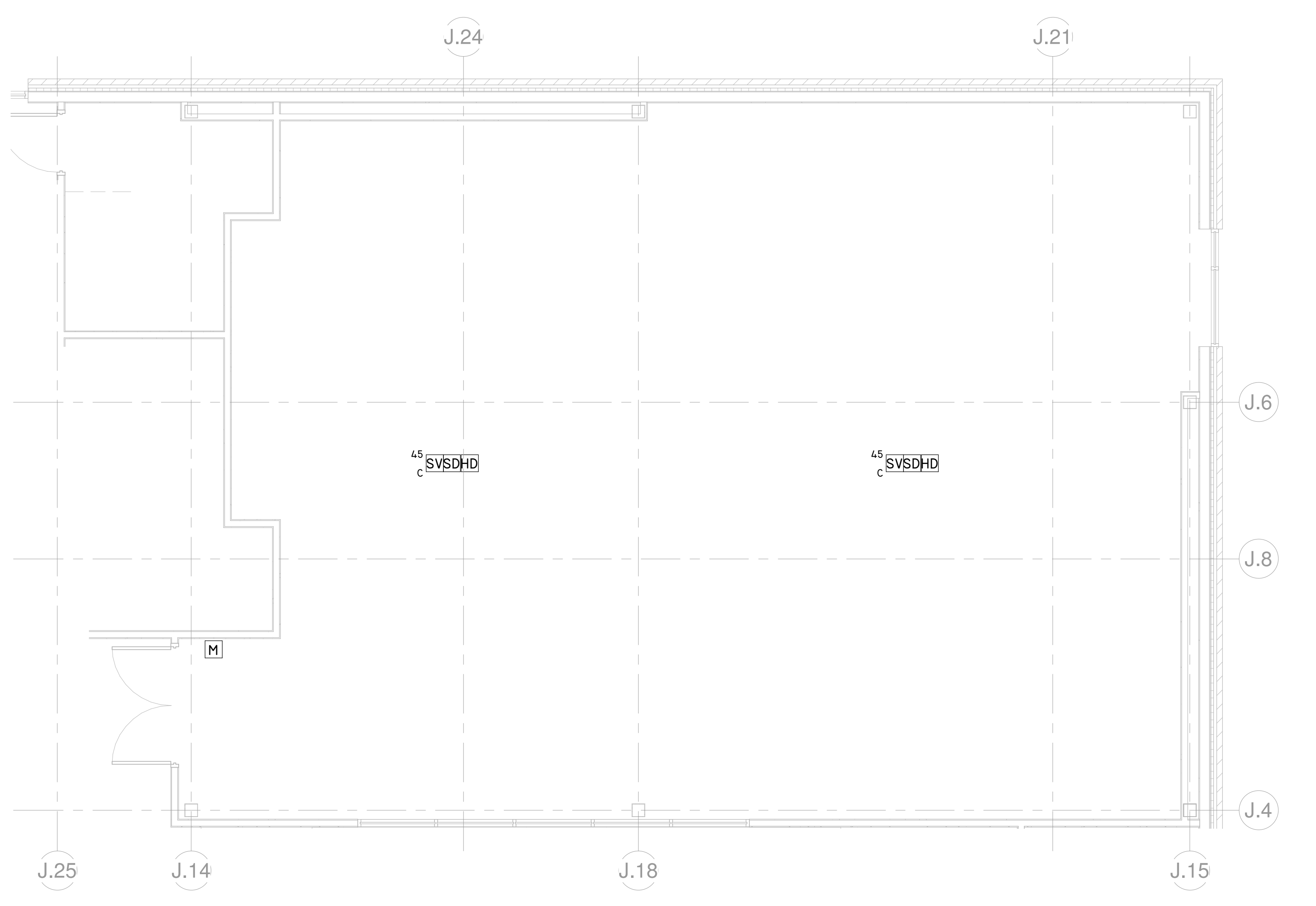
Drawing Number
E3.01



2 ENLARGED PLAN - PASTRY LAB 2 - LIGHTING
Scale: 1/4" = 1'-0"

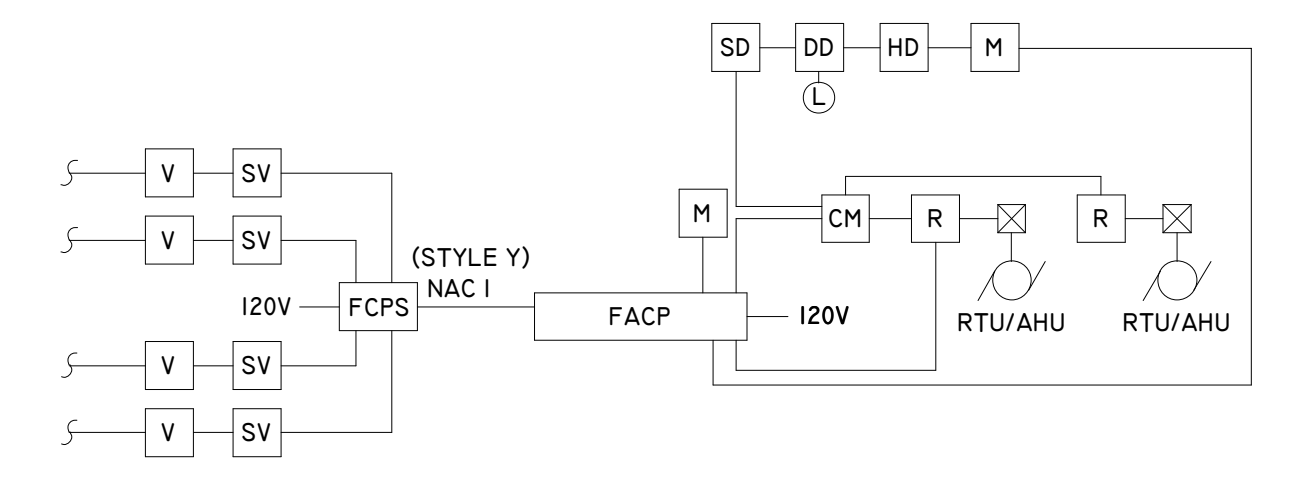


1 ENLARGED PLAN - CULINARY LAB 2 - LIGHTING
Scale: 1/4" = 1'-0"



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

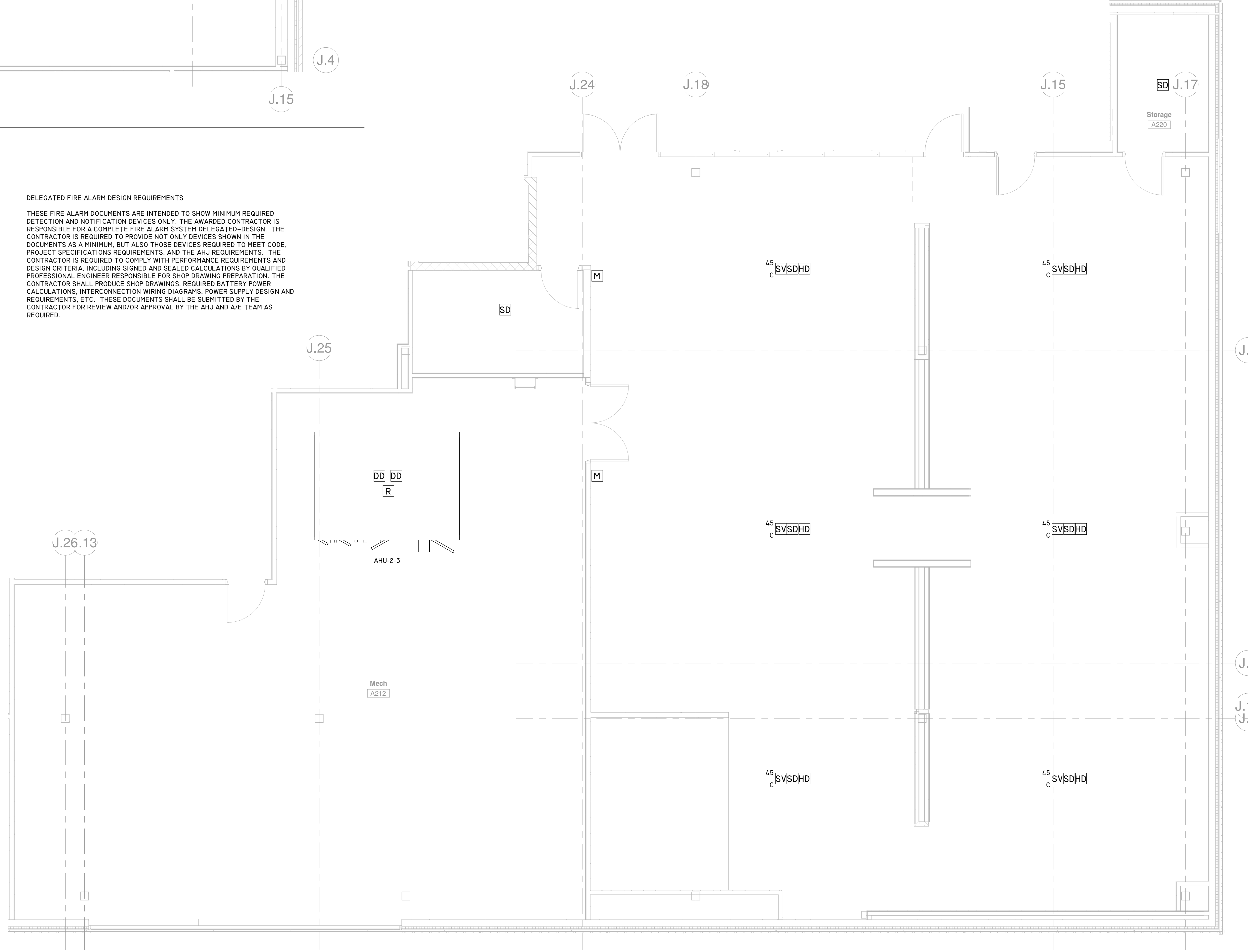
SYMBOL	DESCRIPTION	SYMBOL	DESCRIPTION
$\begin{smallmatrix} V \\ \\ P \\ \hline \\ C \\ \hline \\ XX \end{smallmatrix}$	FIRE ALARM VISUAL ALARM, TYPICALLY 80" A.F.F. TO TOP. XX = CANDELA LEVEL. P = PROTECTIVE COVER. C = CEILING MOUNT	HD	FIRE ALARM HEAT DETECTOR
$\begin{smallmatrix} P \\ \\ PD \end{smallmatrix}$	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	CM	CONTROL MODULE
TS	FIRE ALARM SPRINKLER VALVE TAMPER SWITCH	MM	MONITOR MODULE
$\begin{smallmatrix} P \\ \\ SV \\ \hline \\ C \\ \hline \\ XX \end{smallmatrix}$	FIRE ALARM SPEAKER/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. IS. PROVIDE 120V CIRCUIT BY DIV IS
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
$\begin{smallmatrix} SD \\ \\ S \end{smallmatrix}$	FIRE ALARM SINGLE STATION SMOKE DETECTOR, 120V WITH BATTERY	FAAP	FIRE ALARM ANNUNCIATOR PANEL
BD	BEAM DETECTOR	CO	CARBON MONOXIDE AND SMOKE COMBINATION DETECTOR



SYMBOLS ARE INDICATIVE OF TYPES OF DEVICES IN SYSTEM. REFER TO PLANS FOR EXACT QUANTITIES.

FIRE ALARM NOTE:
CONTRACTOR WILL TEST ALL EXISTING FIRE ALARM DEVICES TO ENSURE THEY ARE IN PROPER WORKING CONDITION AND RE-CERTIFY THE FIRE ALARM SYSTEM. REPLACE DEVICES AS NECESSARY.

DELEGATED FIRE ALARM DESIGN REQUIREMENTS
THESE FIRE ALARM DOCUMENTS ARE INTENDED TO SHOW MINIMUM REQUIRED DETECTION AND NOTIFICATION DEVICES ONLY. THE AWARDED CONTRACTOR IS RESPONSIBLE FOR A COMPLETE FIRE ALARM SYSTEM DELEGATED-DESIGN. THE CONTRACTOR IS REQUIRED TO PROVIDE NOT ONLY DEVICES SHOWN IN THE DOCUMENTS AS A MINIMUM, BUT ALSO THOSE DEVICES REQUIRED TO MEET CODE, PROJECT SPECIFICATIONS REQUIREMENTS, AND THE AHJ REQUIREMENTS. THE CONTRACTOR IS REQUIRED TO COMPLY WITH PERFORMANCE REQUIREMENTS AND DESIGN CRITERIA, INCLUDING SIGNED AND SEALED CALCULATIONS BY QUALIFIED PROFESSIONAL ENGINEER RESPONSIBLE FOR SHOP DRAWING PREPARATION. THE CONTRACTOR SHALL PRODUCE SHOP DRAWINGS, REQUIRED BATTERY POWER CALCULATIONS, INTER-CONNECTION WIRING DIAGRAMS, POWER SUPPLY DESIGN AND REQUIREMENTS, ETC. THESE DOCUMENTS SHALL BE SUBMITTED BY THE CONTRACTOR FOR REVIEW AND/OR APPROVAL BY THE AHJ AND A/E TEAM AS REQUIRED.



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

FIRE ALARM SEQUENCE OF OPERATION

- A. DETECTION & ALARM**
WHEN A FIRE ALARM CONDITION IS DETECTED BY ANY ALARM INITIATING DEVICE (SMOKE DETECTOR, DUCT DETECTOR, PULL STATION, OR SPRINKLER FLOW SWITCH), THE FOLLOWING FUNCTIONS WILL OCCUR:
- THE FIRE ALARM CONTROL PANEL COMMON ALARM INDICATOR WILL FLASH AND THE AUDIBLE DEVICE WILL SOUND. ACKNOWLEDGING THE ALARM CONDITION WILL SILENCE THE AUDIBLE DEVICE AND CAUSE THE COMMON ALARM INDICATOR TO ILLUMINATE STEADILY.
 - THE DISPLAY WILL INDICATE ALL APPLICABLE INFORMATION ASSOCIATED WITH THE ALARM CONDITION INCLUDING ZONE, DEVICE TYPE, DEVICE LOCATION, AND TIME OF ALARM. LOCATION AND ZONING MESSAGES WILL BE CUSTOM FIELD-PROGRAMMED TO MATCH THE RESPECTIVE PREMISES. LOCAL ANNUNCIATOR LED'S ASSOCIATED WITH THE ALARM POINT WILL FLASH UNTIL PANEL IS SILENCED.
 - DISPLAY SYSTEM STATUS CHANGES ON ANY REMOTE ANNUNCIATOR(S) VIA AN ALPHANUMERIC MESSAGE ON THE DISPLAY.
 - ACTIVATE AN ALARM CONTACT CLOSURE TO ACTIVATE A DIGITAL ALARM COMMUNICATOR TRANSMITTER (DACT) FOR SIGNALING TO A UL-APPROVED CENTRAL MONITORING STATION VIA TELEPHONE LINES FURNISHED BY OWNER.
 - ACTIVATE ALL AUDIO/VISUAL SIGNALS THROUGHOUT THE ENTIRE FACILITY.
 - ACTIVATE ALL VISUAL SIGNALS. VISUAL SIGNALS WILL BE HIGH INTENSITY STROBES (75 CD MINIMUM) TO MEET THE REQUIREMENTS OF THE AMERICANS WITH DISABILITIES ACT (ADA) & TEXAS ACCESSIBILITY STANDARDS (TAS). ACTIVATE THROUGHOUT THE ENTIRE FACILITY. STROBES SHALL BE XENON TYPE AND WHITE OR CLEAR IN COLOR. THE MAX PULSE DURATION WILL BE 0.2 SECONDS WITH A MAXIMUM DUTY CYCLE OF 40%. THE FLASH RATE WILL BE BETWEEN 1-HZ AND 3-HZ.
 - DEACTIVATE ALL FANS RATED OVER 2,000 CFM.
 - ALARM VERIFICATION WILL BE FIELD-PROGRAMMABLE FOR EACH SMOKE DETECTOR. THE VERIFICATION SEQUENCE IS ACTIVATED AFTER A "CHECK" PROCEDURE AND THE PANEL WILL WAIT FOR A TIME THEN RESAMPLE THE DETECTOR FOR CONTINUED PRESENCE OF SMOKE. IF THE ALARM CONDITION CONTINUES OR A NON-VERIFIED DEVICE IS ACTUATED DURING THIS VERIFICATION PERIOD, THE PANEL WILL INITIATE ALL ALARM SEQUENCES. THIS ENTIRE SEQUENCE WILL OCCUR WITHIN 60 SEC. THE SYSTEM WILL LOG INTO MEMORY THE NUMBER OF VERIFICATION EVENTS.
 - CLOSE ALL SMOKE FIRE DAMPERS ASSOCIATED WITH THE HVAC UNIT(S).
 - ALL NON-SILENCEABLE AUXILIARY CONTROL FUNCTIONS (FANS, CENTRAL STATION INTERFERENCE, ELEVATOR RECALL INTERFACE, ETC) WILL REMAIN IN OPERATION, EVEN WHEN A/V DEVICES ARE SILENCED, UNTIL THE PANEL IS CLEARED AND RESET.
 - IF GAS WATER HEATERS OR BOILERS (DOMESTIC OR HYDRONIC) ARE PROVIDED FOR THE PROJECT PROVIDE A MANUAL RESET CARBON MONOXIDE (CO) DETECTOR ADJACENT TO THE WATER HEATER(S). INTERLOCK THE CO DETECTOR TO DISABLE THE WATER HEATER BURNERS UPON DETECTION OF 100 PPM OR HIGHER CO CONCENTRATION AND UPON LOSS OF POWER TO THE CO DETECTOR. SUBMIT PRODUCT DATA FOR CO DETECTOR AND CERTIFICATE OF CALIBRATION.

- B. SYSTEM TROUBLE DETECTION**
WHEN A TROUBLE CONDITION IS DETECTED BY THE FIRE ALARM CONTROL PANEL, THE FOLLOWING FUNCTIONS SHALL OCCUR:
- THE FIRE ALARM CONTROL PANEL TROUBLE INDICATOR WILL FLASH AND THE INTERNAL AUDIBLE DEVICE WILL SOUND. ACKNOWLEDGMENT OF THE AUDIBLE DEVICE WILL SILENCE THE AUDIBLE DEVICE AND CAUSE ALL TROUBLE INDICATORS TO ILLUMINATE STEADY.
 - THE DISPLAY WILL DISPLAY ALL APPLICABLE INFORMATION ASSOCIATED WITH THE RESPECTIVE TROUBLE CONDITIONS. LOCAL ANNUNCIATOR LED'S ASSOCIATED WITH THE ALARM POINT WILL ILLUMINATE.
 - ACTIVATE A TROUBLE CONTACT CLOSURE TO ACTIVATE A DACT FOR SIGNALING TO A UL-APPROVED CENTRAL MONITORING STATION VIA PHONE LINES FURNISHED BY OWNER.
 - DISPLAY THE SYSTEM STATUS CHANGES ON THE REMOTE ANNUNCIATOR(S) VIA AN ALPHANUMERIC MESSAGE ON THAT DISPLAY.
- C. SYSTEM SUPERVISORY ALARM DETECTION**
WHEN A SUPERVISORY ALARM CONDITION IS DETECTED DUE TO A FIRE SPRINKLER VALVE BEING PLACED IN AN "OFF-NORMAL" POSITION, THE FOLLOWING FUNCTIONS WILL OCCUR:
- THE FIRE ALARM CONTROL PANEL SUPERVISORY INDICATOR WILL FLASH AND THE INTERNAL AUDIBLE DEVICE WILL SOUND. ACKNOWLEDGMENT OF THE SUPERVISORY CONDITION WILL ILLUMINATE THE AUDIBLE DEVICE.
 - THE DISPLAY WILL DISPLAY ALL APPLICABLE INFORMATION ASSOCIATED WITH THE RESPECTIVE SUPERVISORY CONDITION. LOCAL ANNUNCIATOR LED'S WILL ILLUMINATE FOR THE ALARM POINT.
 - DISPLAY THE SYSTEM STATUS CHANGE ON THE REMOTE ANNUNCIATOR(S) VIA AN ALPHANUMERIC MESSAGE ON THAT DISPLAY.
 - ACTIVATE A SUPERVISORY ALARM CONTACT CLOSURE TO ACTIVATE THE DACT FOR SIGNALING TO A UL-APPROVED CENTRAL MONITORING STATION VIA PHONE LINES FURNISHED BY OWNER.
- D. FIRE ALARM PANEL**
FIRE ALARM PANEL SHALL BE INTELLIGENT DIGITAL PROTOCOL ANALOG ADDRESSABLE FIRE ALARM SYSTEM. THIS SYSTEM SHALL INCLUDE, BUT NOT BE LIMITED TO SYSTEM CABINET, POWER SUPPLY, BUILT SIGNALING LINE CIRCUIT (S.L.C.), 80 CHARACTER LCD ANNUNCIATOR, SIX PROGRAMMABLE "FLEXPUT" CIRCUITS, BUILT IN DUAL LINE DIGITAL COMMUNICATOR ASSOCIATED PERIPHERAL DEVICES, BATTERIES, WIRING, CONDUIT AND OTHER RELEVANT COMPONENTS AND ACCESSORIES REQUIRED TO FURNISH A COMPLETE AND OPERATIONAL LIFE SAFETY SYSTEM. THE SYSTEM SHALL BE TESTED AFTER COMPLETION OF INSTALLATION IN ACCORDANCE WITH MANUFACTURE RECOMMENDED TESTING PROCEDURE AND GOVERNING LIFE SAFETY CODES.

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2020-04-15

A PROJECT FOR:

CULINARY ARTS SHELL INTERIOR BUILDOUT

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KEY PLAN

TRUE NORTH PLAN NORTH

Project Number	17024
Drawn By	Author
Checked By	Checker
Approved By	Approver

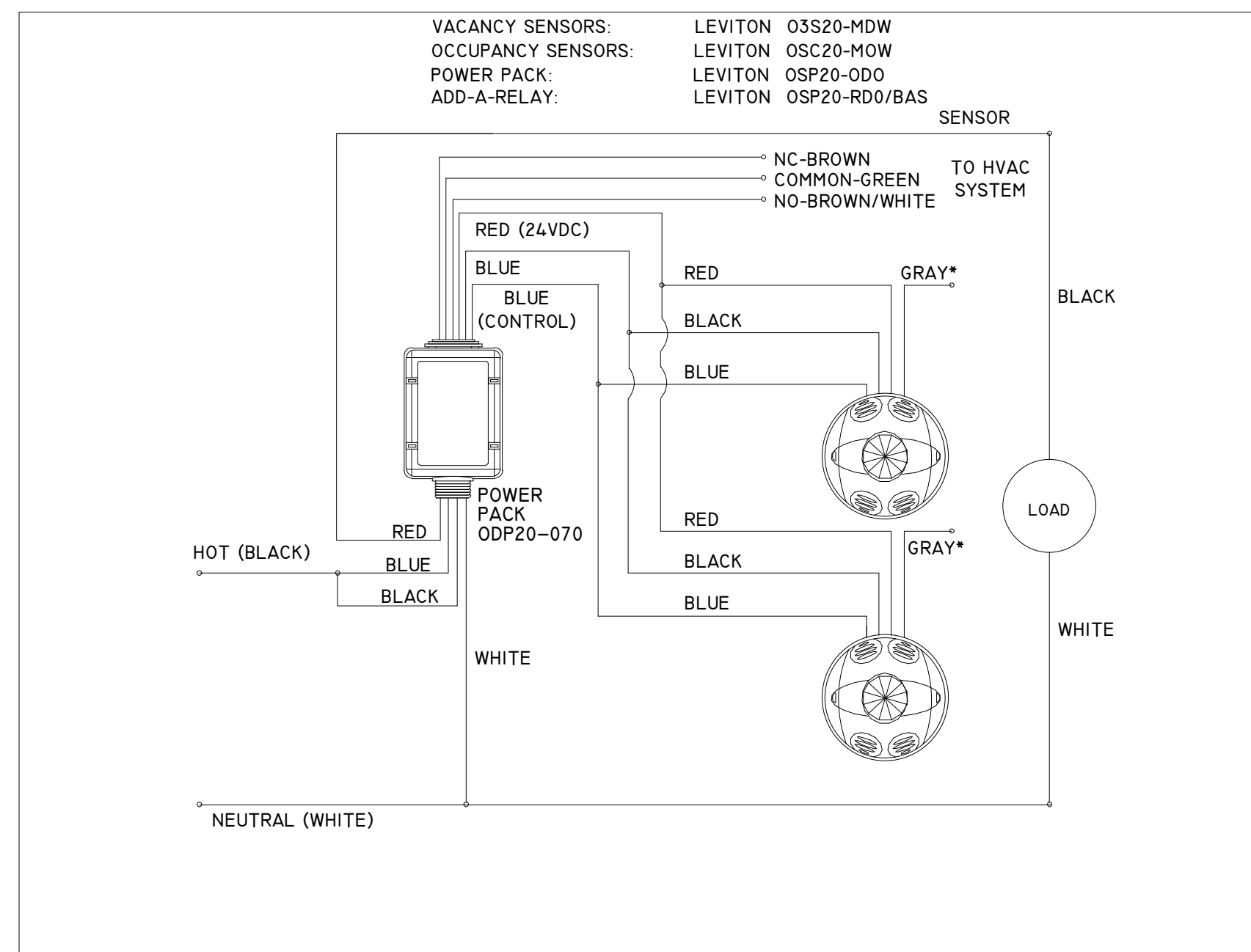
Drawing Title

ENLARGED PLANS - FIRE ALARM

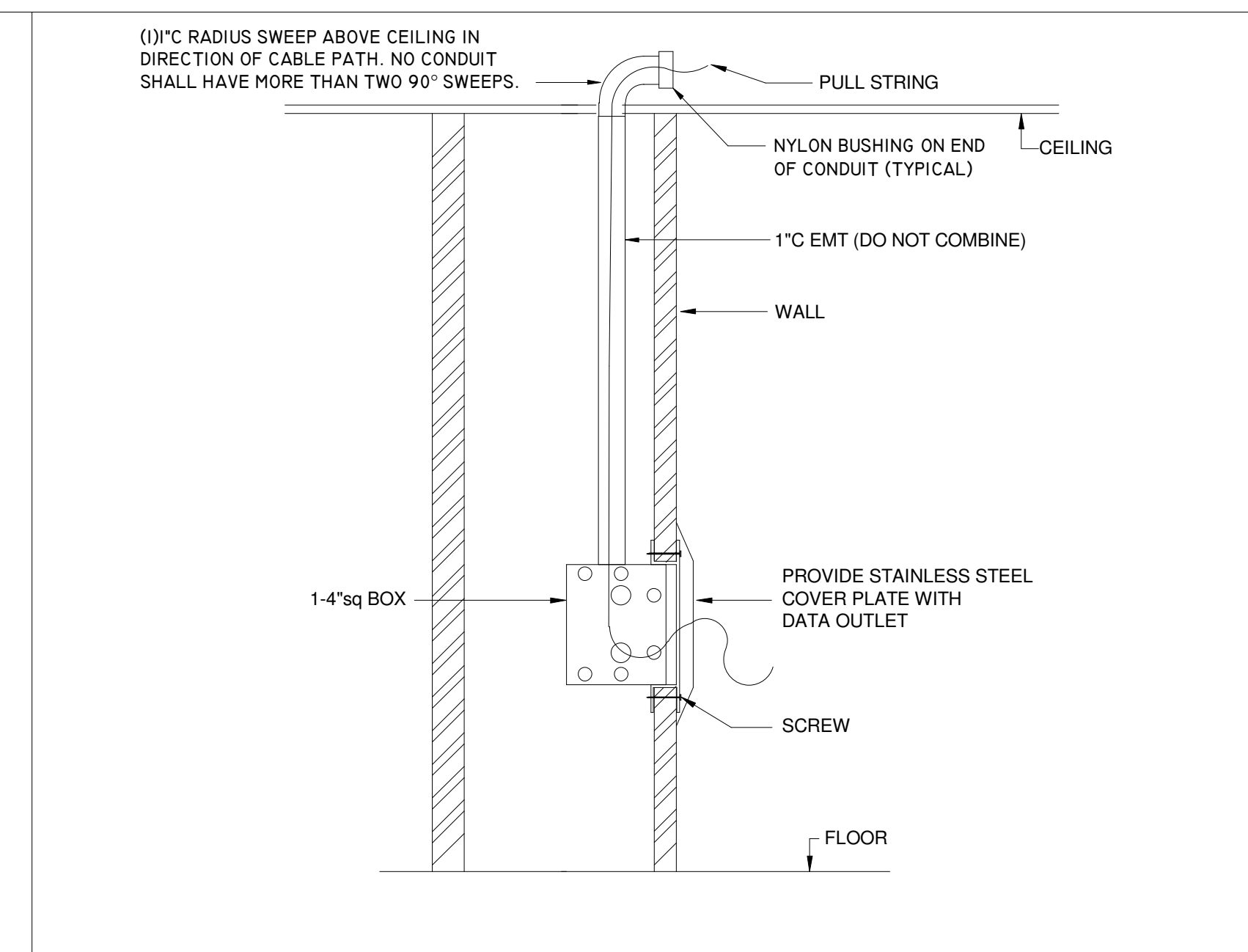
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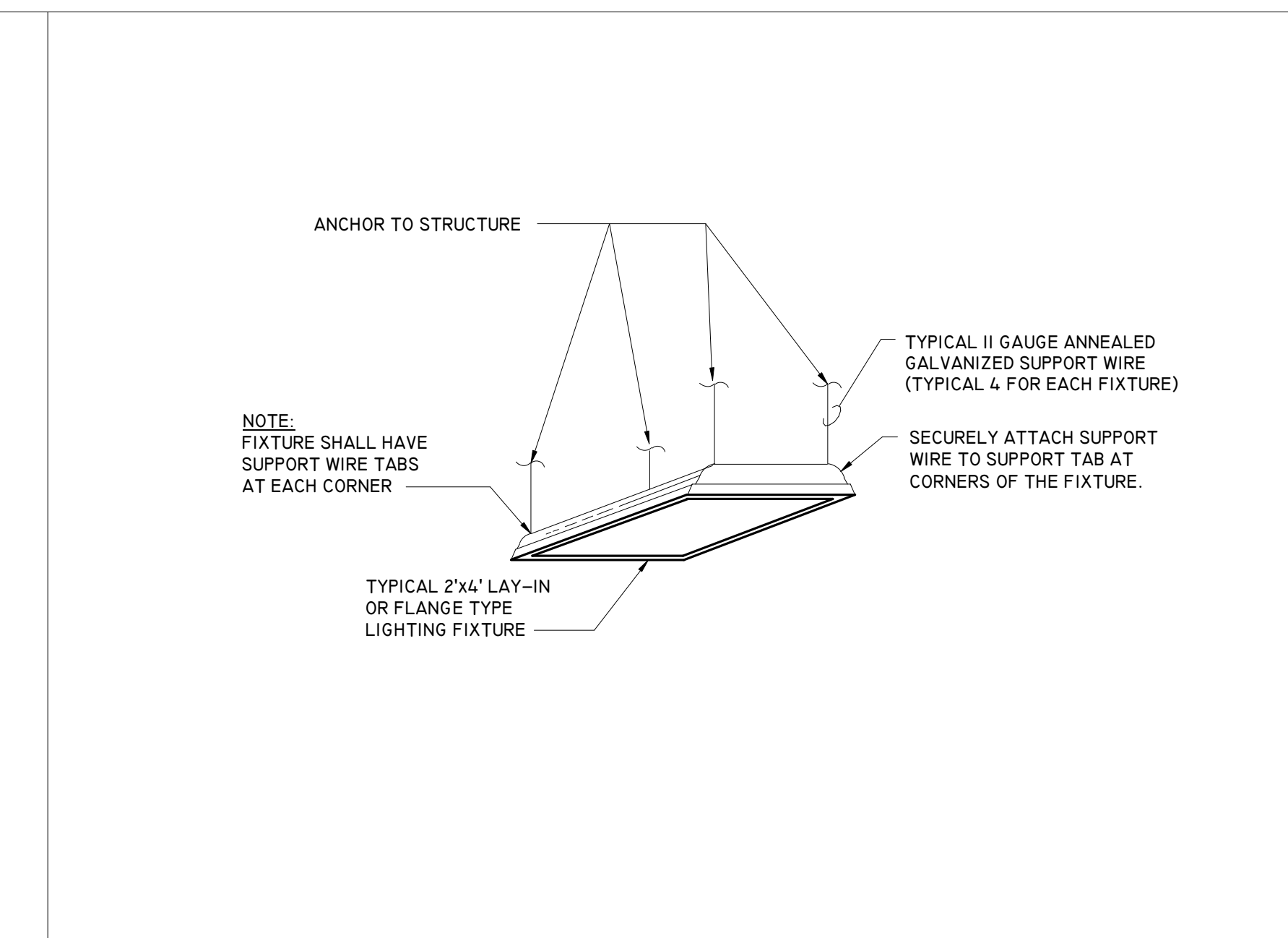
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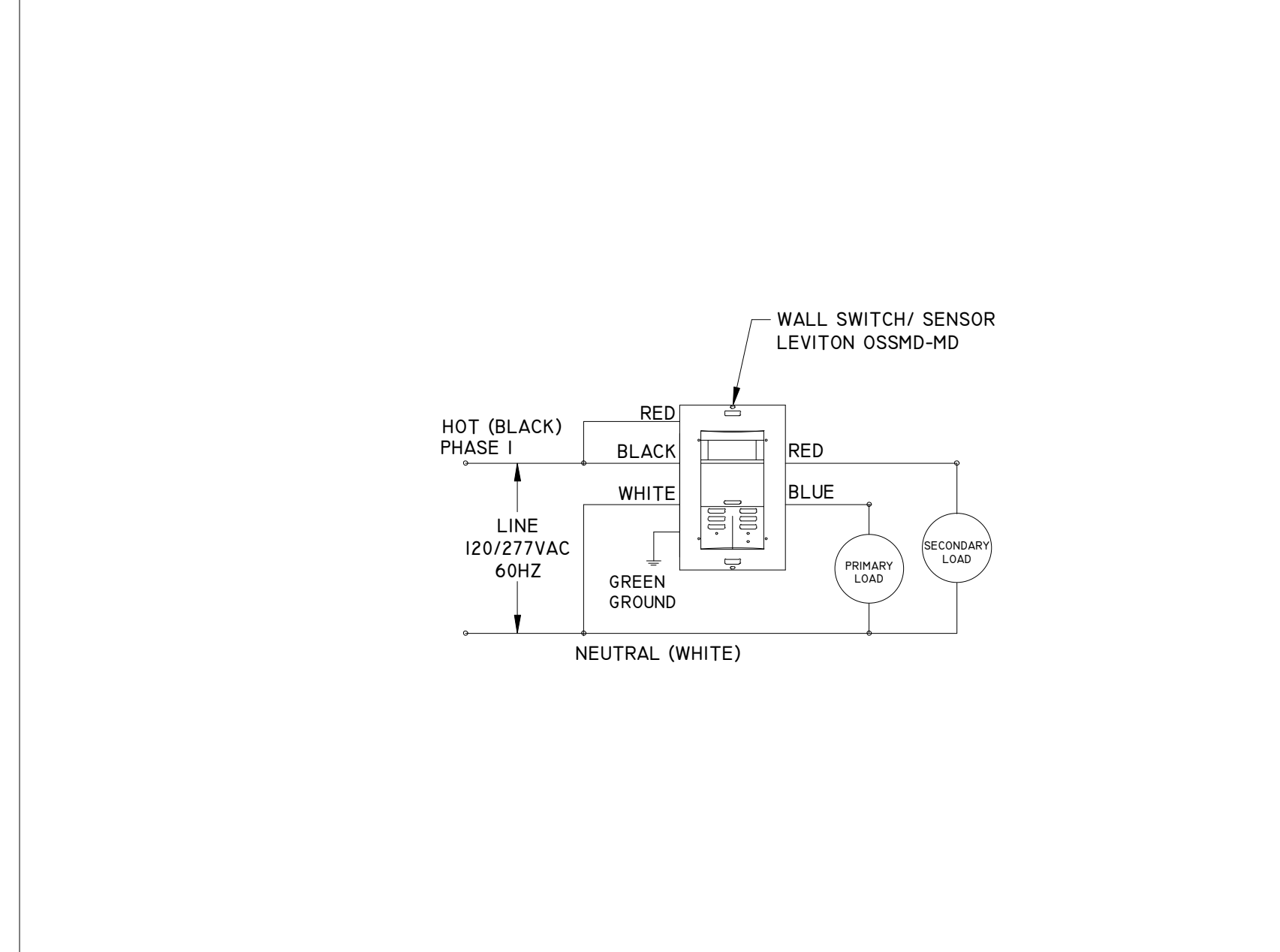
DETAIL – CEILING VACANCY/OCCUPANCY SENSOR NOT TO SCALE 9



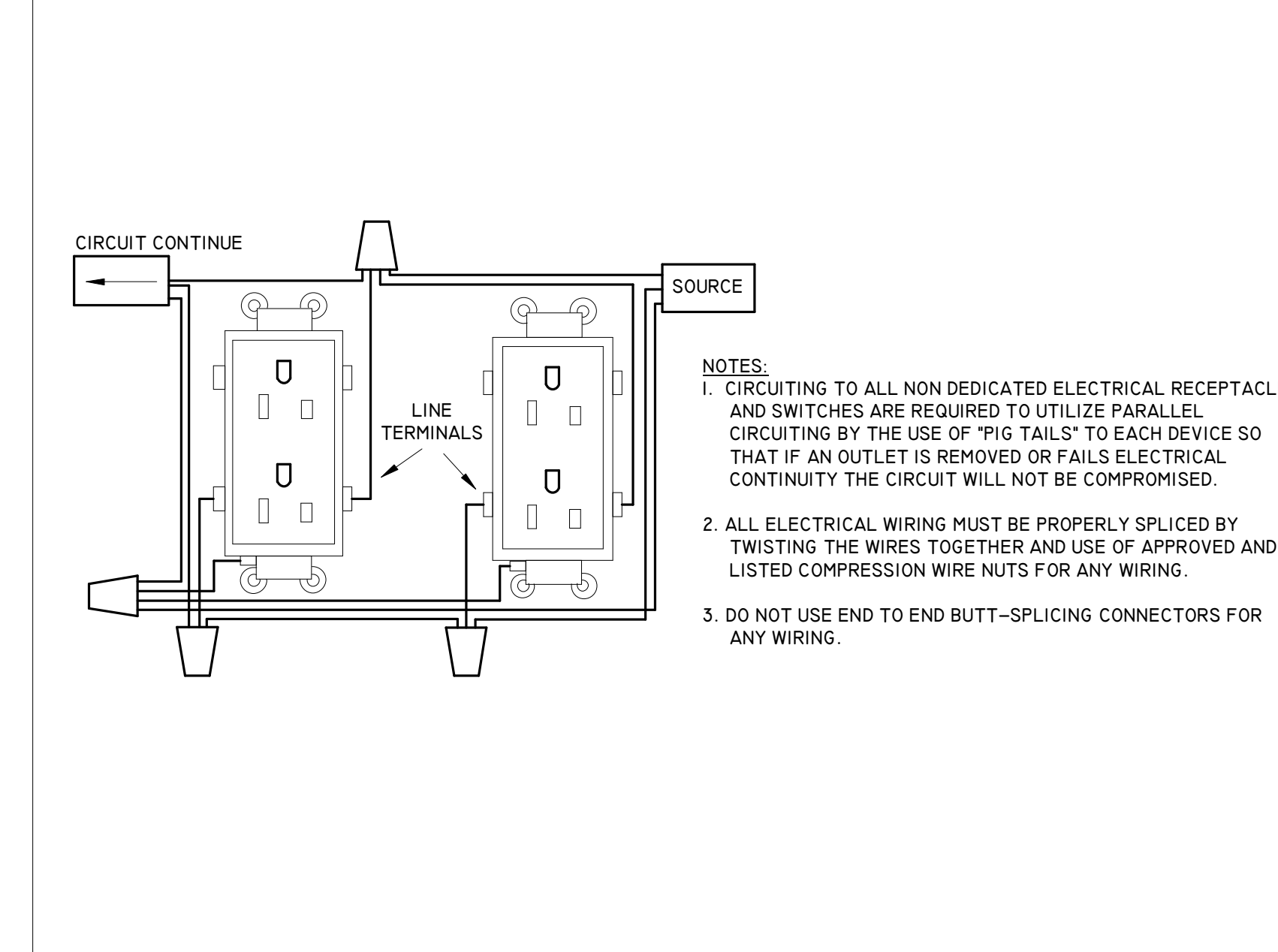
DETAIL – DATA OUTLETS NOT TO SCALE 6



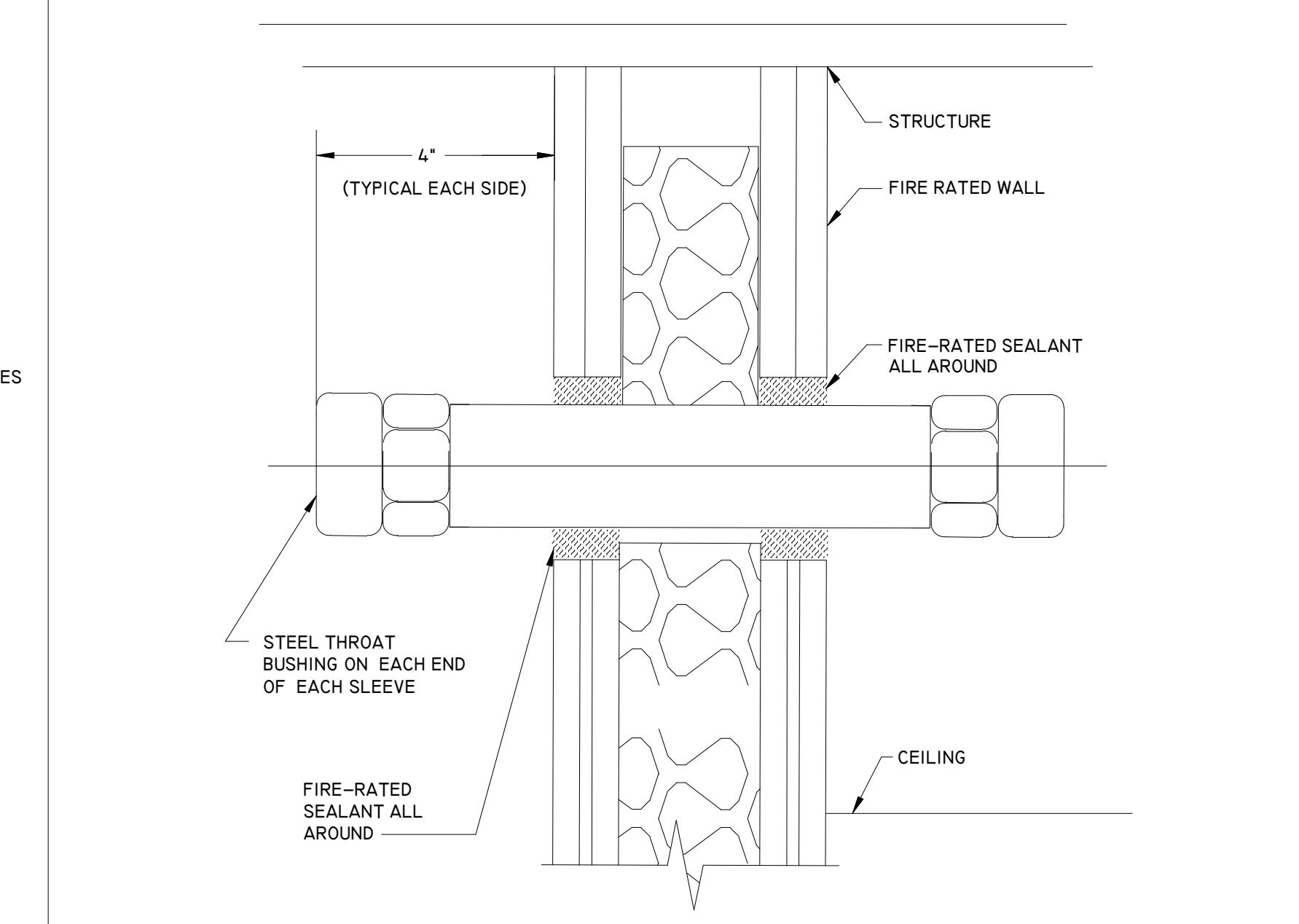
DETAIL – FIXTURE SUPPORT NOT TO SCALE 3



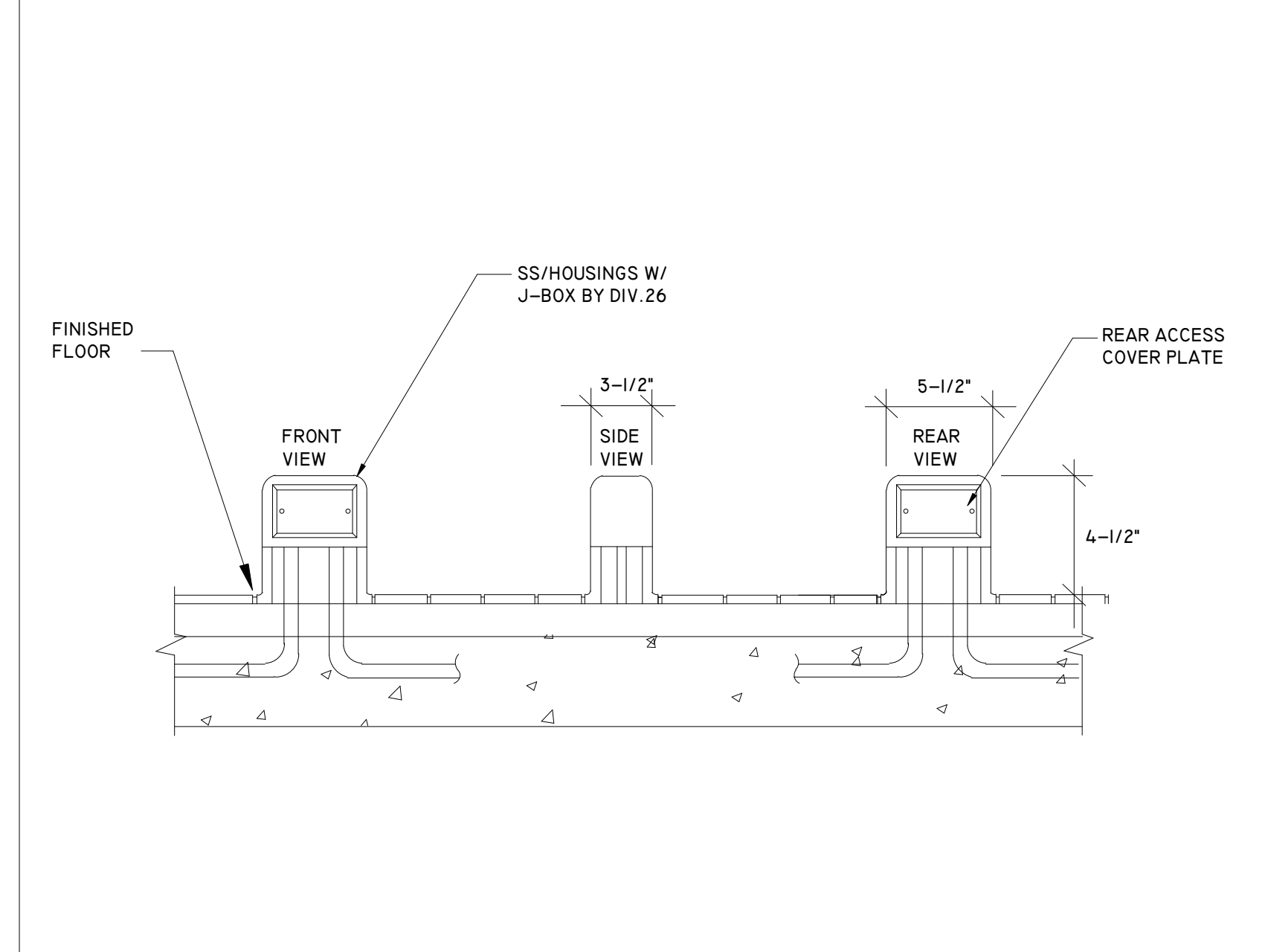
DETAIL – WALL VACANCY/OCCUPANCY SENSOR NOT TO SCALE 8



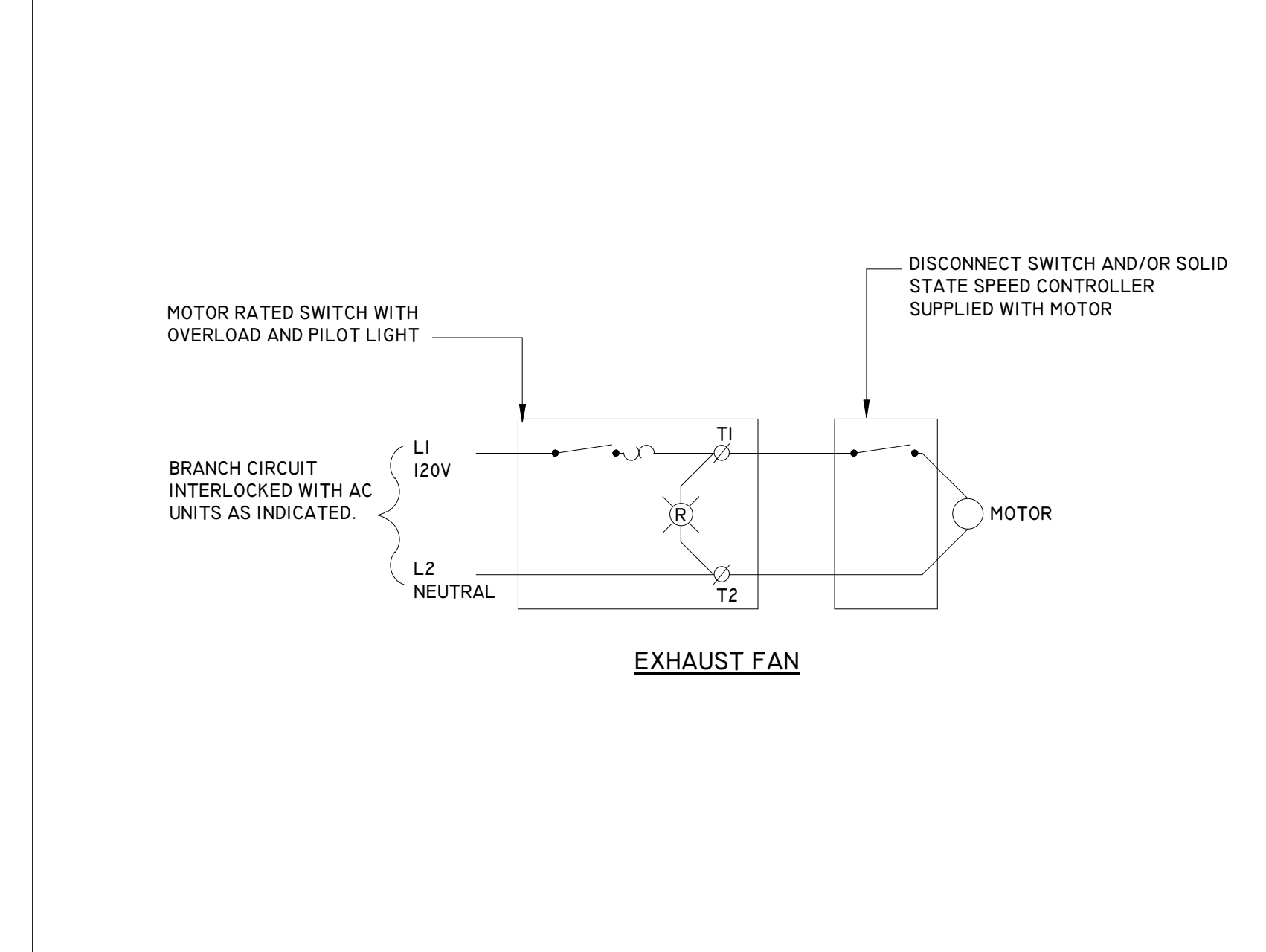
DETAIL – PIGTAIL NOT TO SCALE 5



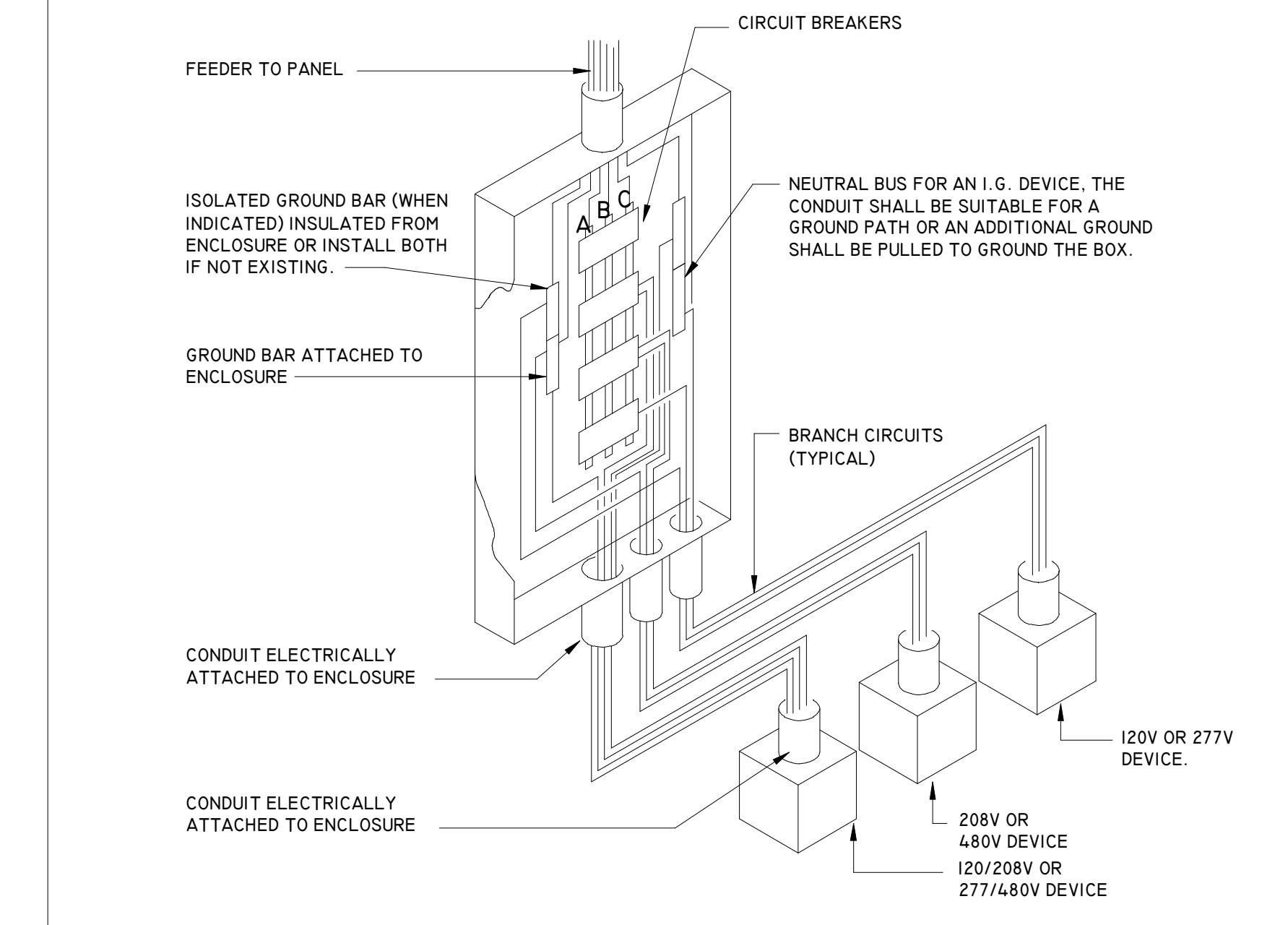
DETAIL – WALL SLEEVE NOT TO SCALE 2



DETAIL – POWER THROUGH CONCRETE NOT TO SCALE 7



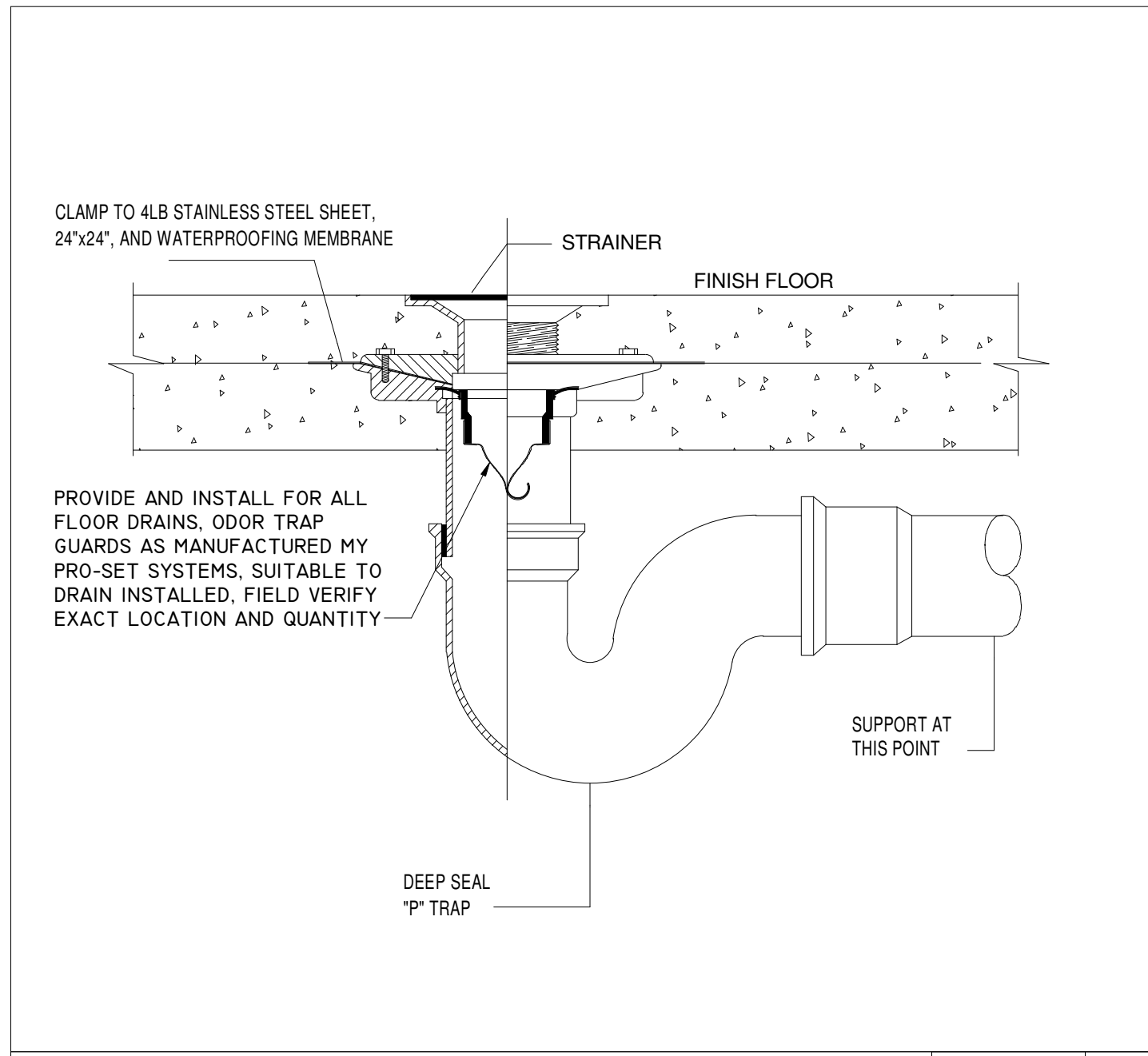
DETAIL – SINGLE PHASE MOTOR CONTROL NOT TO SCALE 4



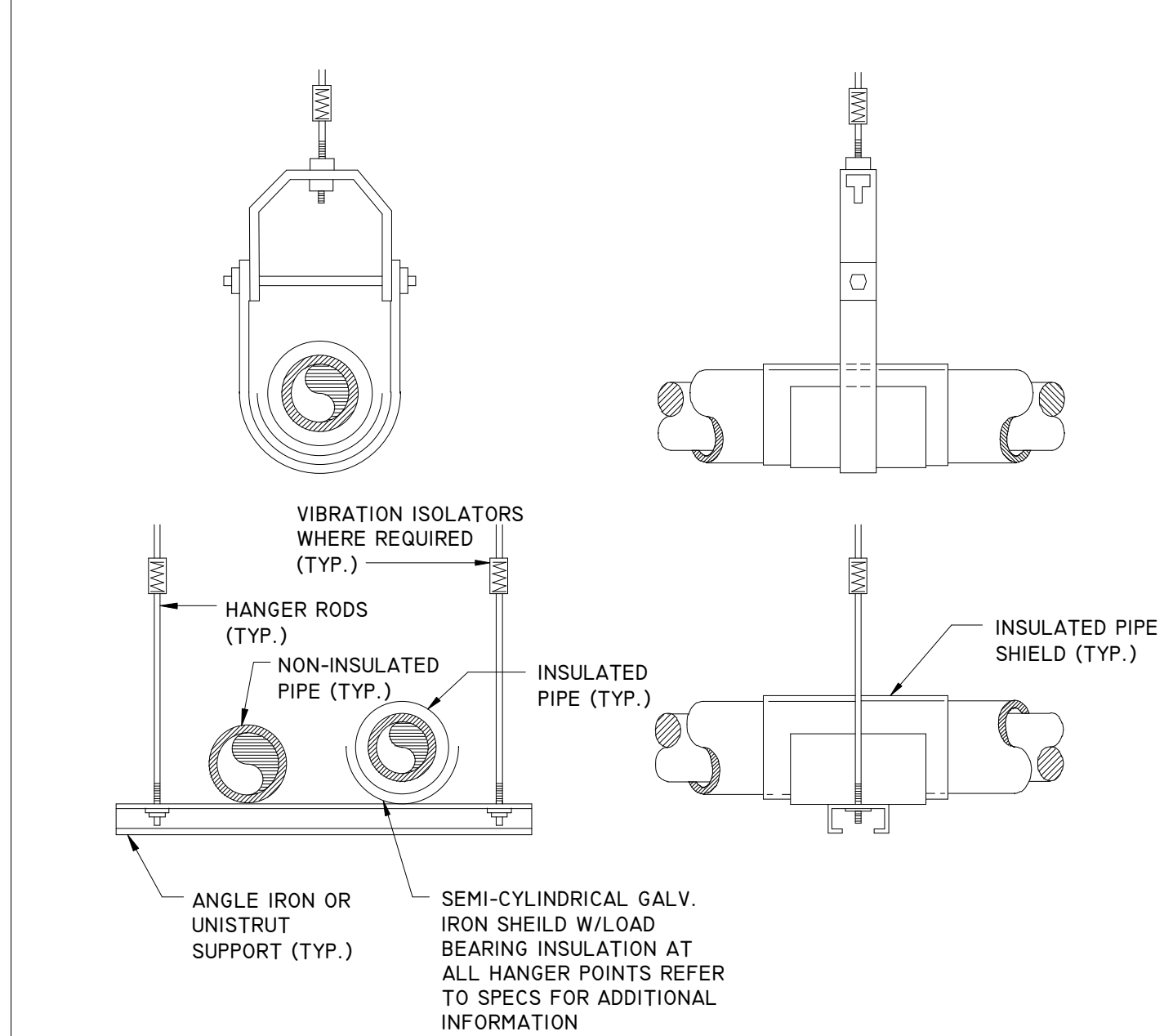
DETAIL – PANEL GROUNDING NOT TO SCALE 1

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FLOOR DRAIN DETAIL WITH TRAP GUARD NOT TO SCALE 2



PIPE HANGER DETAIL NOT TO SCALE 1

GRADE OF HORIZONTAL DRAINAGE PIPING

I. HORIZONTAL DRAINAGE PIPING SHALL RUN IN PRACTICAL ALIGNMENT AND UNIFORM SLOPE OF NOT LESS THAN ONE-FOURTH (1/4) OF AN INCH PER FOOT OR TWO PERCENT (2) TOWARD POINT OF DISPOSAL PROVIDED THAT, WHERE IT IS IMPRACTICAL DUE TO THE DEPTH OF THE STREET SEWER OR TO THE STRUCTURAL FEATURES OR TO THE ARRANGEMENT OF ANY BUILDING OR STRUCTURE TO OBTAIN A SLOPE OF ONE-FOURTH (1/4) OF AN INCH PER FOOT OR TWO PERCENT, ANY SUCH PIPE OR PIPING FOUR (4) INCHES OR LARGER IN DIAMETER MAY HAVE A SLOPE OF NOT LESS THAN ONE EIGHTH (1/8) OF AN INCH OR ONE (1) PERCENT, WHEN FIRST APPROVED BY THE ADMINISTRATIVE AUTHORITY.

PIPING MATERIALS

- SANITARY WASTE AND VENT PIPING (BELOW GRADE) SCHEDULE 40 PVC, CONFORM TO ASTM D-1785 SOIL AND WASTE VENT PIPING, FITTINGS SHALL BE COMPATIBLE MATERIAL WITH SOLVENT CEMENT TYPE JOINTS.
- 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 AND SOLID SHIELD ASSEMBLIES CONSTRUCTED OF TYPE 300 SERIES STAINLESS STEEL. CLAMP ASSEMBLIES SHALL CONFORM TO FM 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) SOLDER JOINTS.
- NATURAL GAS (ABOVE GRADE) SCHEDULE 40 BLACK STEEL WITH CLASS 150 BLACK MALLEABLE IRON WELDED FITTINGS, ROOF MOUNTED PIPING SHALL BE PAINTED WITH GALVANIC PAINT, PRIMED WITH ALKYL-D-BASE PRIMER AND 2 LAYERS YELLOW GALVANIC TOP COATS. NOTE: SCREWED JOINTS WILL NOT BE PERMITTED. A. ALL WELDING FITTINGS SHALL BE FACTORY-MADE AND SHALL BE FULL LINE SIZE, FOR EACH TEE, BRANCH, ELBOW ETC., WITH REDUCERS AFTER FITTINGS, IF REQUIRED.

PLUMBING LEGEND & ABBREVIATIONS

DISREGARD LEGEND ITEMS NOT INDICATED ON DRAWINGS	
(Symbol)	NEW PLUMBING FIXTURE
— SAN / S —	SANITARY WASTE
— STORM / ST —	STORM DRAINAGE LINE
— C.D. —	CONDENSATE DRAIN LINE
— GW —	GREASE WASTE
— AW —	ACID WASTE
— CHEM-W —	CHEMICAL WASTE
— V —	VENT
— FIRE —	FIRE LINE
— DIS —	DEIONIZED WATER SUPPLY
— DIR —	DEIONIZED WATER RETURN
— SW —	SOFT WATER
— CW —	DOMESTIC COLD WATER PIPING
— HW —	DOMESTIC HOT WATER PIPING
— HWR —	DOMESTIC HOT WATER RETURN PIPING
— TW —	TEMPERED WATER PIPING
— TWR —	TEMPERED WATER RETURN PIPING
— NPWC —	NON POTABLE WATER (COLD)
— HPWH —	NON POTABLE WATER (HOT)
— DI —	DEIONIZED WATER
— NG / G —	NATURAL GAS
— LA —	NATURAL GAS
— VAC —	NATURAL GAS
— N2 —	NATURAL GAS
● FCO	FLOOR CLEAN OUT
● ECO	EXTERIOR CLEANOUT
□ WCO	WALL CLEANOUT
● FD	FLOOR DRAIN
■ FS	FLOOR SINK
(Symbol)	RISER IDENTIFICATION
—	ELBOW UP
—	ELBOW DOWN
—	CAP AND SEAL
—	BALL VALVE
— B.V.	BALANCING VALVE
—	GAS VALVE
— C.V.	CHECK VALVE
—	SOLENOID VALVE
—	FLOW SWITCH
— TP	AUTOMATIC TRAP PRIMER
— BFP	BACKFLOW PREVENTER
— VTR	VENT THROUGH ROOF
— F.F.L.	FINISHED FLOOR LEVEL
— I.L.	INVERT LEVEL
— A.R.F.	ABOVE FINISHED ROOF
— (E)	EXISTING TO REMAIN
— (OF)	OVERFLOW STORM DRAINAGE
— (P)	PRIMARY STORM DRAINAGE
— T.A.S	TEXAS ACCESSIBILITY STANDARDS

PLUMBING FIXTURE SCHEDULE

MARK	DESCRIPTION	SIZE OF CONNECTION					REMARKS
		TRAP	SS	SV	CW	HW	
FD-1	FLOOR DRAIN	3"-4"	3"-4"	2"	-	-	2005-B-NB, J.R. SMITH, DUCO CAST IRON BODY WITH FLASHING COLLAR AND ADJUSTABLE STRAINER HEAD 6" DIAMETER TYPE "A" NICKEL BRONZE STRAINER.

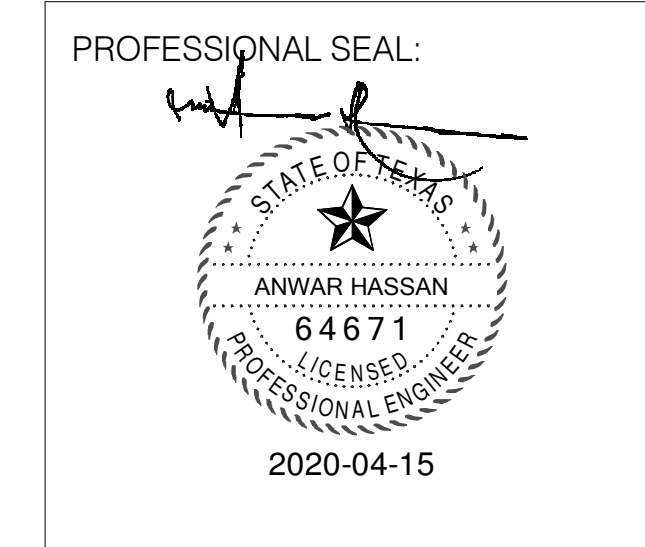
INSTALL COMPLETE WITH PROSET TRAP GUARD, EXCEPT FOR SHOWER DRAIN.
GENERAL NOTES
 BOOK SPECIFICATION SUPERCEDE ANY NOTES BELOW

- THESE DRAWINGS ARE SCHEMATIC IN NATURE AND ARE NOT INTENDED TO SHOW ALL OFFSETS. INSTALL PIPING AS CLOSE AS POSSIBLE TO LOCATIONS SHOWN, WHERE INTERFERENCE WITH COMPONENTS OF OTHER TRADE'S WORK (STRUCTURAL FOUNDATIONS OR OTHER BUILDING ELEMENTS) REQUIRE ROUTINGS AND LOCATIONS THAT VARY FROM THOSE SHOWN, THE CONTRACTOR SHALL OBTAIN PROJECT ENGINEER'S APPROVAL PRIOR TO INSTALLATION. NO ADDITIONAL COST SHALL BE GRANTED FOR THESE CHANGES.
- BEFORE BEGINNING EXCAVATIONS OR DEMOLITION OF ANY NATURE WHATSOEVER, CONTRACTOR SHALL LOCATE ALL SERVICES AND UTILITIES OCCURRING WITHIN THE BOUNDS OF THE PROJECT. THE CONTRACTOR SHALL THEN PROCEED WITH CAUTION IN HIS WORK SO THAT NO UTILITY OR LINE SERVING AREAS THAT ARE TO REMAIN BE DAMAGED WITH A RESULTANT LOSS OF SERVICE. VERIFY THE SOURCE AND SERVICE OF EACH AND EVERY LINE ENCOUNTERED AND RECORD SERVICE, SIZE AND LOCATION ON RECORD DRAWINGS.
- ROUGH-IN PLUMBING PIPING USING DIMENSIONS SHOWN ON ARCHITECTURAL DRAWINGS. LOCATION OF ALL PIPING SHALL ALLOW INSTALLATION OF FIXTURES WITHOUT THE NEED TO FURR-OUT WALLS.
- PROVIDE CLEANOUTS IN EXCESS OF THOSE SHOWN WHICH ARE REQUIRED BY THE PLUMBING CODE. CONTRACTOR SHALL PROVIDE A COVER STATING WHAT SYSTEM IT IS SERVING. (CLEANOUT SANITARY, CLEANOUT GREASE WASTE, CLEANOUT ACID WASTE.)
- INDIVIDUAL FIXTURE SUPPLY AND DRAIN SERVICES ARE NOT SHOWN DUE TO DRAINING SPACE LIMITATIONS. THIS CONTRACTOR SHALL PROVIDE ALL SERVICES FOR A COMPLETE FIRST CLASS INSTALLATION.
- FURNISH AND INSTALL ALL NECESSARY VALVES, TRAPS, GAUGES, STRAINERS, UNIONS, ETC. FOR EACH PIECE OF EQUIPMENT HAVING PLUMBING CONNECTIONS TO FACILITATE PROPER FUNCTIONING AND SERVICING.
- SEAL ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS WITH A UL LISTED ASSEMBLY TO PROVIDE A RATING EQUAL TO OR GREATER THAN THE RATING OF THE WALL, FLOOR OR CEILING.
- EACH CONTRACTOR SHALL VISIT THE SITE AND ASCERTAIN FOR HIMSELF THE CONDITIONS TO BE MET THERE IN IMPLEMENTING HIS WORK AND MAKE DUE PROVISIONS FOR THE SAME. IT IS ASSUMED THAT THE CONTRACTOR HAS VISITED THE PREMISES AND THAT HIS COST ESTIMATE COVERS ALL NECESSARY LABOR AND MATERIALS TO PROPERLY ACCOMPLISH HIS WORK. FAILURE ON THE PART OF THE CONTRACTOR TO COMPLY WITH THIS REQUIREMENT SHALL NOT BE CONSIDERED JUSTIFICATION FOR OMISSIONS OR FAULTY WORK OR FOR THE PAYMENT OF ADDITIONAL COMPENSATION.
- FIELD VERIFY EXISTING AND FUTURE GRADES WITHIN AREAS WHERE WORK IS BEING DONE.
- VERIFY EXACT LOCATION OF EQUIPMENT PRIOR TO INSTALLATION OF FLOOR DRAINS AND FLOOR SINKS. RELOCATION DUE TO MISPLACEMENT SHALL BE AT CONTRACTORS EXPENSE.
- PROVIDE A KEYS ACCESS PANELS FOR ALL VALVES AND APPARATUS THAT REQUIRE MAINTENANCE.
- A WATER HAMMER ARRESTOR SHALL BE INSTALLED FOR ALL SINGLE AND MULTIPLE FIXTURE BRANCH LINES. WATER HAMMER ARRESTORS SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS AND CONFORM TO ASSE 1010. PROVIDE FOR HOT WATER AND COLD WATER LINES AND REFER TO WATER HAMMER ARRESTOR DETAIL FOR MORE INFORMATION AND SIZING.
- INSULATE PIPING AS FOLLOWS:
 DOMESTIC COLD WATER PIPING:
 INSULATE AND VAPOR SEAL ALL COLD AND SOFTENED WATER PIPE WITH GLASS FIBER PIPE INSULATION. (EXCEPTION - ALL PIPING EXPOSED TO THE EXTERIOR SHALL BE PROVIDED WITH ALUMINUM).
 DOMESTIC HOT WATER PIPING:
 INSULATE ALL HOT WATER PIPE WITH GLASS FIBER PIPE INSULATION WITH FACTORY-APPLIED WHITE JACKET. DRAINS:
 INSULATE AND VAPOR SEAL ALL ABOVEGROUND P-TRAPS AND HORIZONTAL DRAIN PIPING RECEIVING CONDENSATE OR ICE MAKER DRAINAGE WITH 1/2" GLASS PER FIBER INSULATION.
 INSULATE AND VAPOR SEAL ROOF DRAIN AND OVERFLOW ROOF DRAIN SUMP, PIPING AND FITTINGS FROM DRAIN TO VERTICAL LEADER WITH 1/2" GLASS FIBER INSULATION.
 A.D.A. ACCESSIBLE LAVATORIES AND SINKS:
 INSULATE ALL EXPOSED DRAIN PIPING AND WATER SUPPLY PIPING BENEATH A.D.A. COMPLIANT LAVATORIES & SINKS WITH FULLY MOLDED CLOSED CELL VINYL INSULATION KIT AS MANUFACTURED BY TRUEBRO, BROCAR OR MCGUIRE.
 SUPPORT UNBURIED PIPE AS FOLLOWS:
 HORIZONTAL PIPING:
 HUBLESS CAST IRON SOIL PIPING SHALL BE SUPPORTED AT LEAST AT EVERY OTHER JOINT EXCEPT THAT WHEN THE DEVELOPED LENGTH BETWEEN SUPPORTS EXCEEDS FOUR FEET, THEY SHALL BE PROVIDED AT EACH JOINT. SUPPORTS SHALL ALSO BE PROVIDED AT EACH HORIZONTAL BRANCH CONNECTION. SUPPORTS SHALL BE PLACED IMMEDIATELY ADJACENT TO THE COUPLING. SUSPENDED LINES SHALL BE BRACED TO PREVENT HORIZONTAL MOVEMENT.
 COPPER TUBING SHALL BE SUPPORTED AT NOT MORE THAN SIX FOOT INTERVALS FOR PIPING 1-1/2" AND SMALLER AND NINE FOOT INTERVALS FOR PIPING 2" AND LARGER IN DIAMETER.
 HANGERS FOR NON-INSULATED COPPER PIPING SHALL HAVE A COPPER FINISH. IN POTENTIALLY DAMP LOCATIONS, NON-INSULATED COPPER PIPING HANGERS OR SUPPORTS SHALL BE PLASTIC-COATED.
 STEEL PIPING SHALL BE SUPPORTED AT INTERVALS OF NO GREATER THAN 6 FEET FOR 1/2" PIPING, 8 FEET FOR 3/4" & 1" PIPING AND 10 FEET FOR 1-1/4" AND LARGER PIPING.
 VERTICAL PIPING:
 PROVIDE RISER CLAMP AT BASE AND AT EACH FLOOR LEVEL.
- MARKING AND IDENTIFICATION:
 IDENTIFY EACH PIPE WITH LABELING AT THE FOLLOWING LOCATIONS:
 -AT EACH BRANCH TAKE-OFF FROM A MAIN
 -ON EACH SIDE OF A WALL PENETRATION
 -EVERY 20' OF STRAIGHT RUN OF PIPE
 -AT EQUIPMENT CONNECTIONS IF MORE THAN 10' FROM A BRANCH TAKE-OFF
 DOMESTIC HOT WATER:
 INDICATE DELIVERED WATER TEMPERATURE ON DOMESTIC HOT WATER SUPPLY AND RETURN LINES.
 INDICATE FLOW DIRECTION WITH ARROWS ON DOMESTIC HOT WATER SUPPLY AND RETURN LINES.
 MEDIUM PRESSURE GAS PIPING:
 MEDIUM PRESSURE GAS PIPING (1/2" WIC TO 5 PI) SHALL BE IDENTIFIED BY THE STATEMENT, "WARNING TO 5 PI NATURAL GAS". THESE LABELS SHALL BE PLACED AT INTERVALS NOT EXCEEDING 30 FEET. ALL REGULATORS IN MEDIUM PRESSURE LINES SHALL HAVE IDENTIFICATION TAGS IN ACCORDANCE WITH APPLICABLE CODES.
- SLEEVES:
 FLOORS: PROVIDE UL FIRE RATED ASSEMBLIES WHERE PIPES PENETRATE ABOVE GRADE FLOORS.
 WALLS: PROVIDE UL FIRE RATED ASSEMBLIES WHERE PIPES PENETRATE FIRE RATED WALLS.
 WHERE PIPING PASSES THROUGH NON CEILING OR WALL, CLOSE OFF SPACE BETWEEN PIPE OR DUCT AND CONSTRUCTION WITH NORMAL GYPSUM WALLBOARD, REPAIR PLASTER SMOOTHED AND FINISHED TO MATCH REMAINDER OF WALL.
 INSTALL CHROME OR STAINLESS STEEL ESCUTCHEONS WHERE PIPING PASSES THROUGH FINISHED SURFACES.



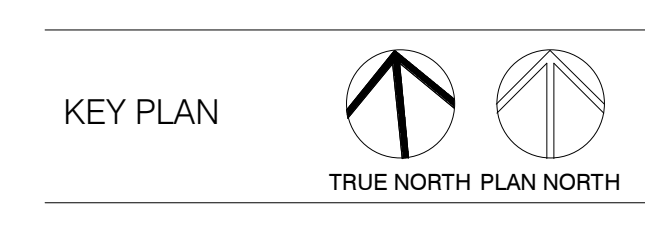
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A PROJECT FOR:
CULINARY ARTS SHELL INTERIOR BUILDOUT

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Drawing Title	SCHEDULES, NOTES & LEGEND
Drawing Number	P1.01



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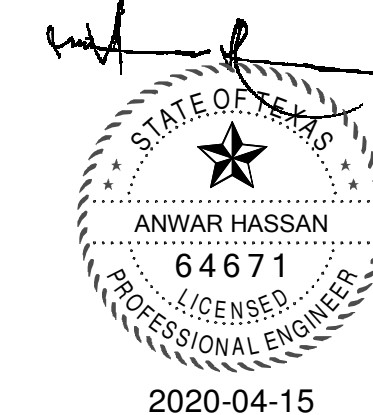
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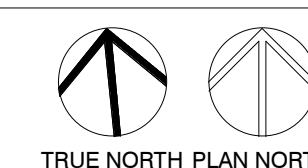
CULINARY
ARTS SHELL
INTERIOR
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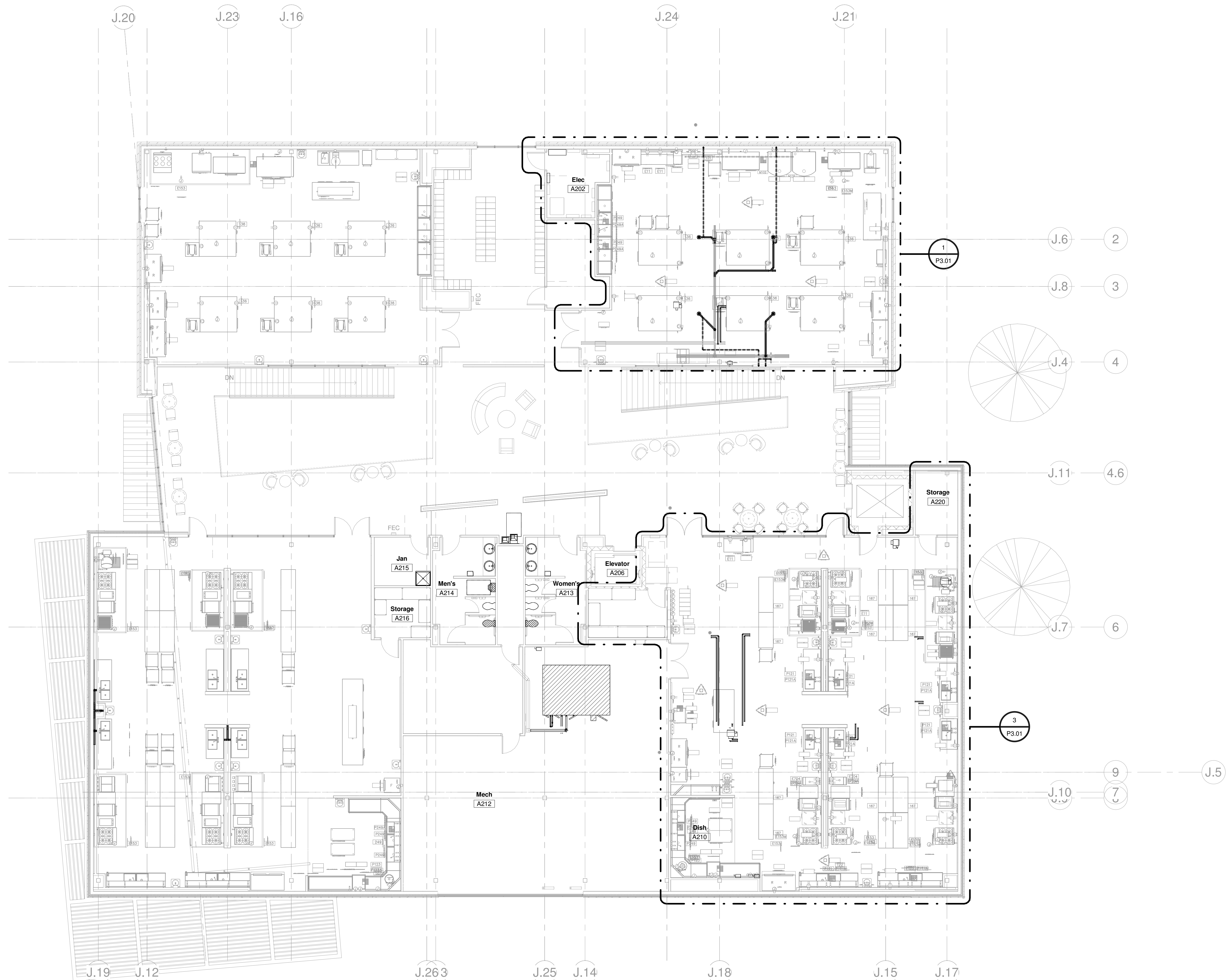
KEY PLAN



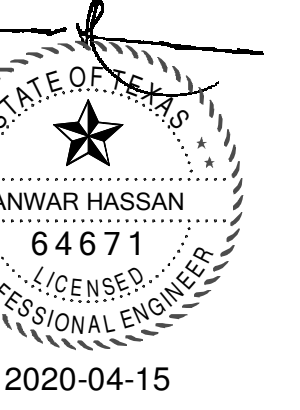
Project Number	17024
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Drawing Title	

SECOND FLOOR PLAN
- OVERALL

Drawing Number **P2.01**



1 Second Floor - Sanitary
Scale: 1/8" = 1'-0"



**CULINARY ARTS SHELL
INTERIOR
BUILDOUT**

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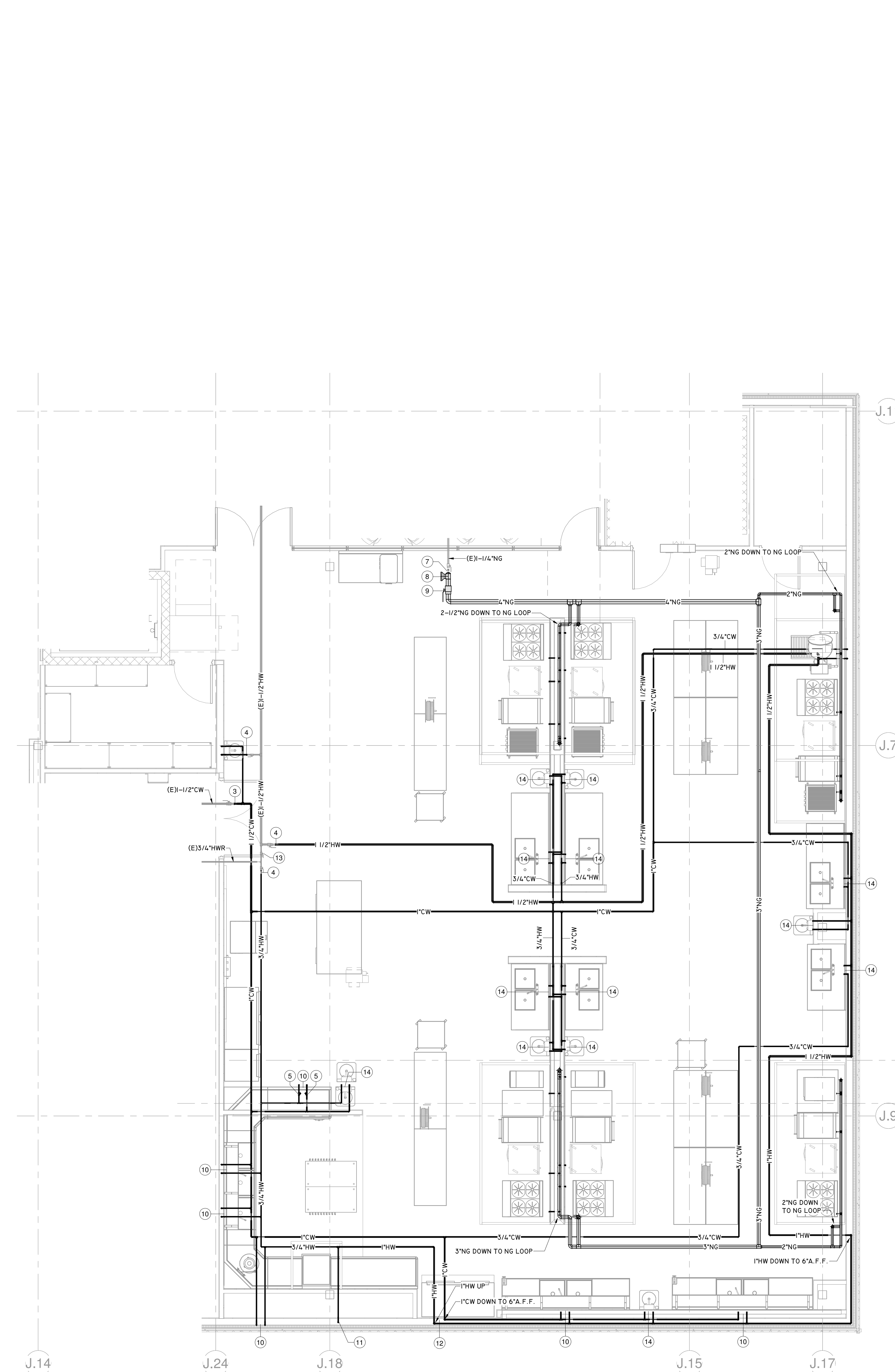
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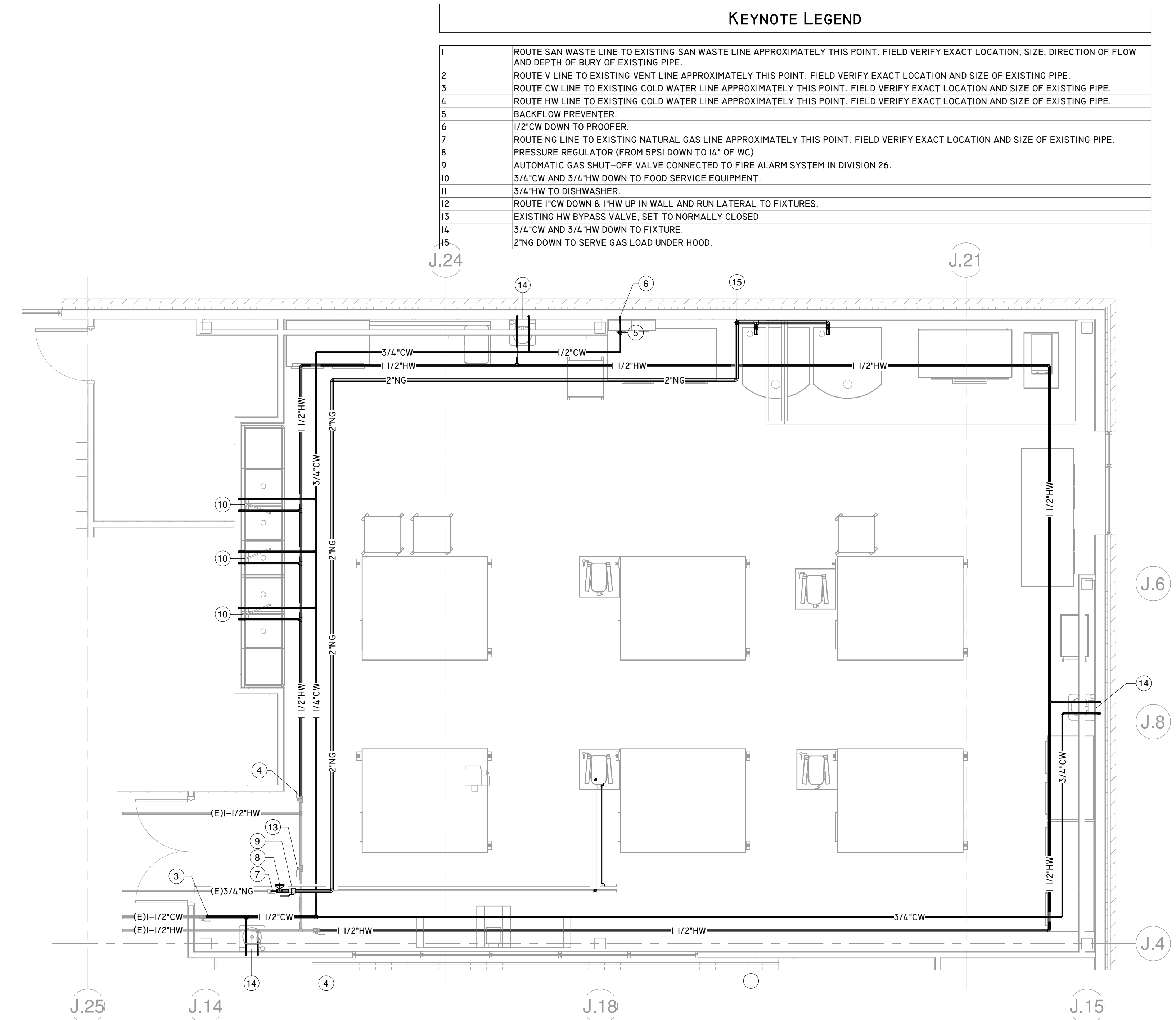
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Checked By	Checker
Approved By	Approver

Drawing Title
**SECOND FLOOR -
ENLARGED PLANS**

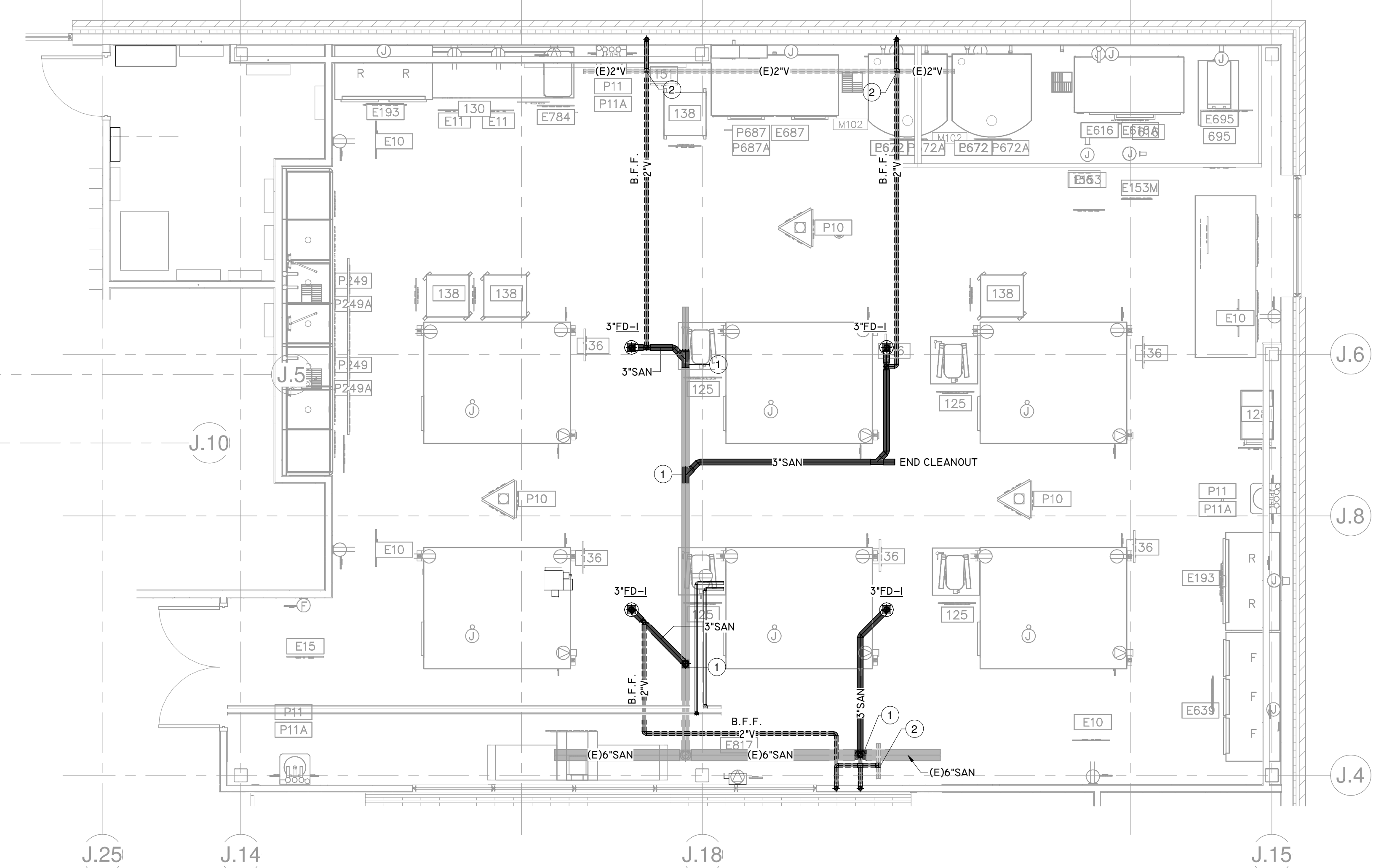
Drawing Number
P3.01



ENLARGED PLAN - CULINARY LAB 2 -
DOMESTIC
1/4" = 1'-0"



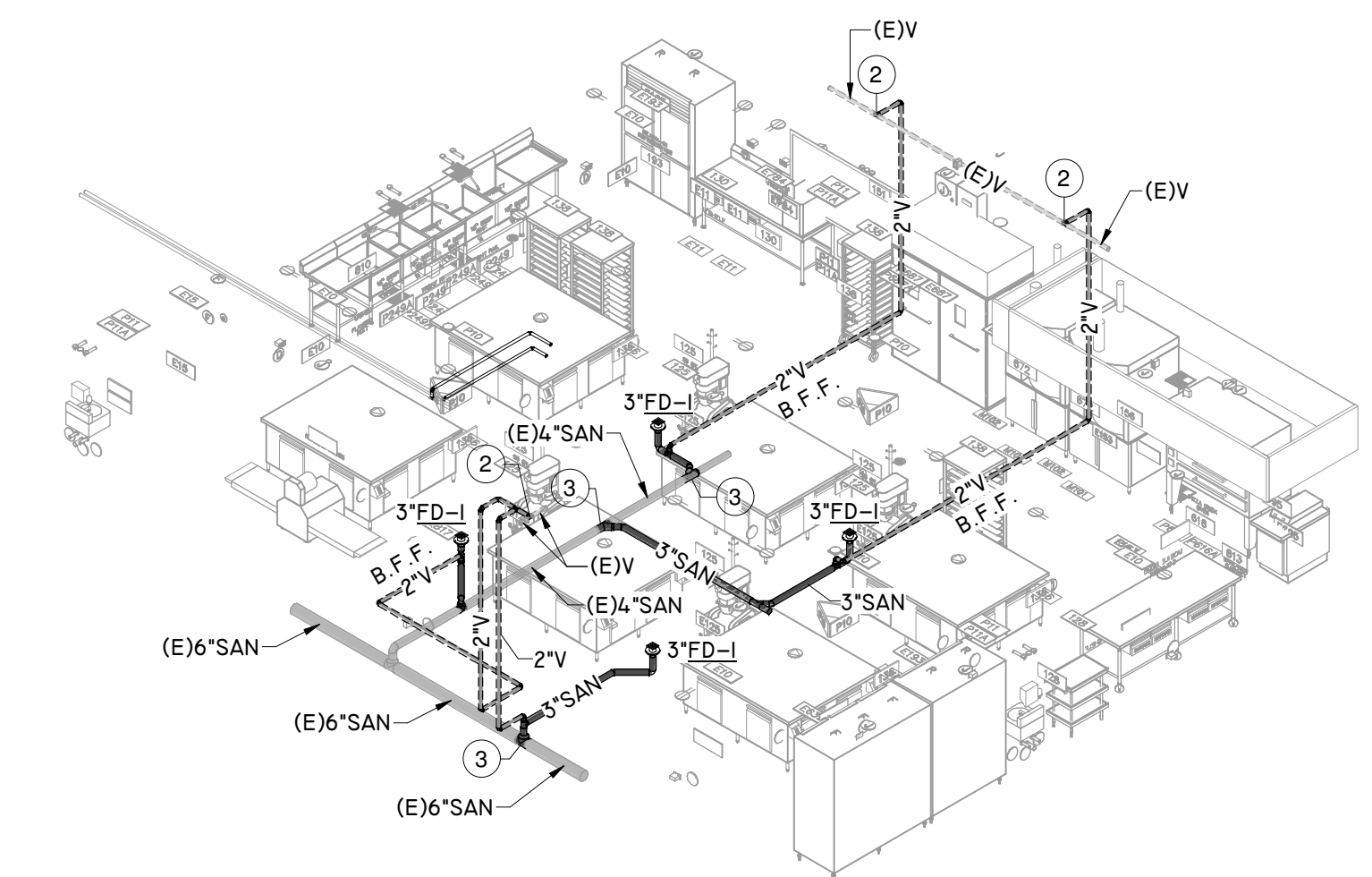
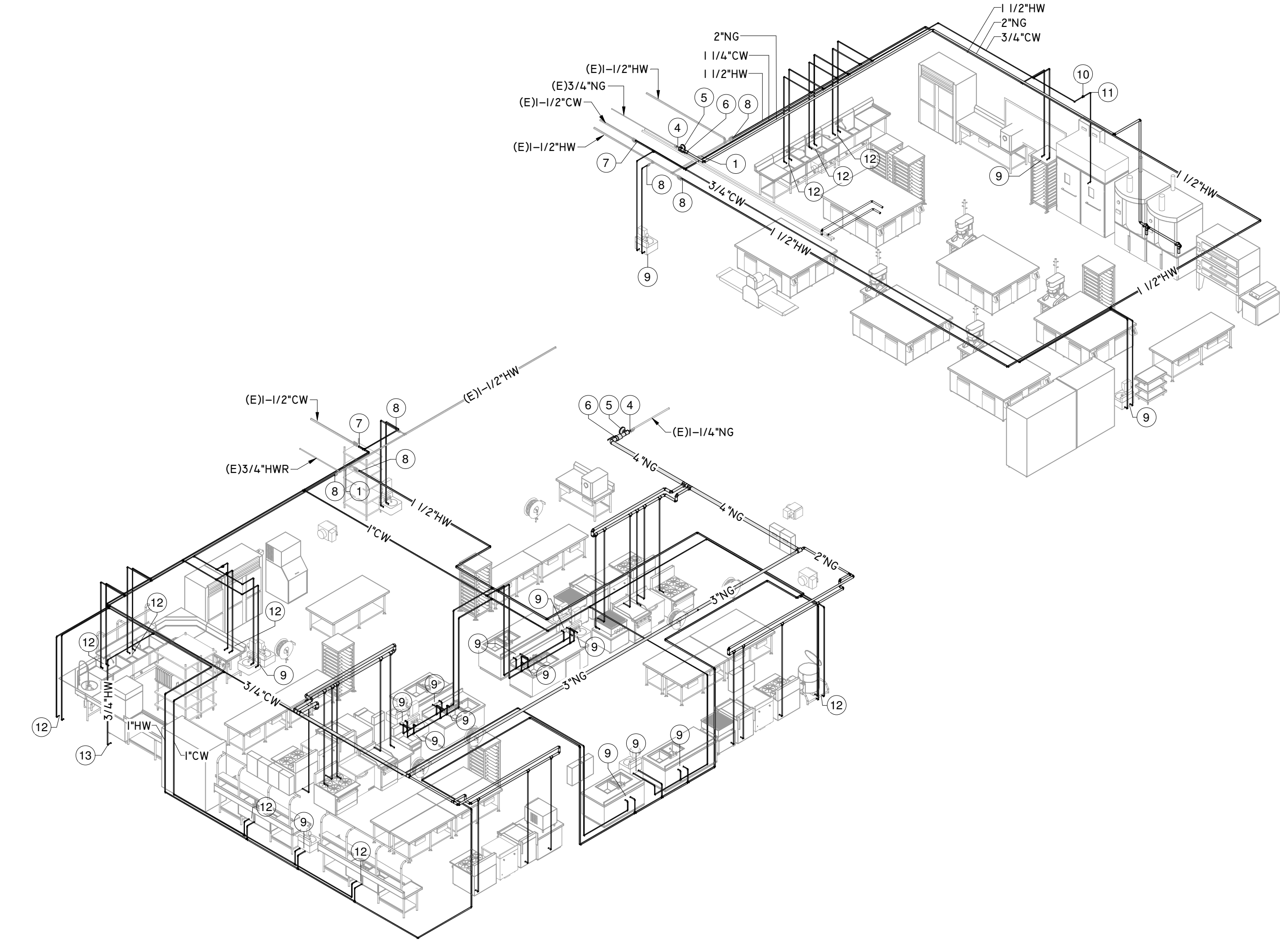
ENLARGED PLAN - PASTERY LAB 2 -
DOMESTIC
1/4" = 1'-0"



ENLARGED PLAN - PASTERY LAB 2 -
SANITARY
1/4" = 1'-0"

KEYNOTE LEGEND	
1	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.
2	ROUTE V LINE TO EXISTING VENT LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
3	ROUTE CW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
4	ROUTE HW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
5	BACKFLOW PREVENTER.
6	1/2\"/>

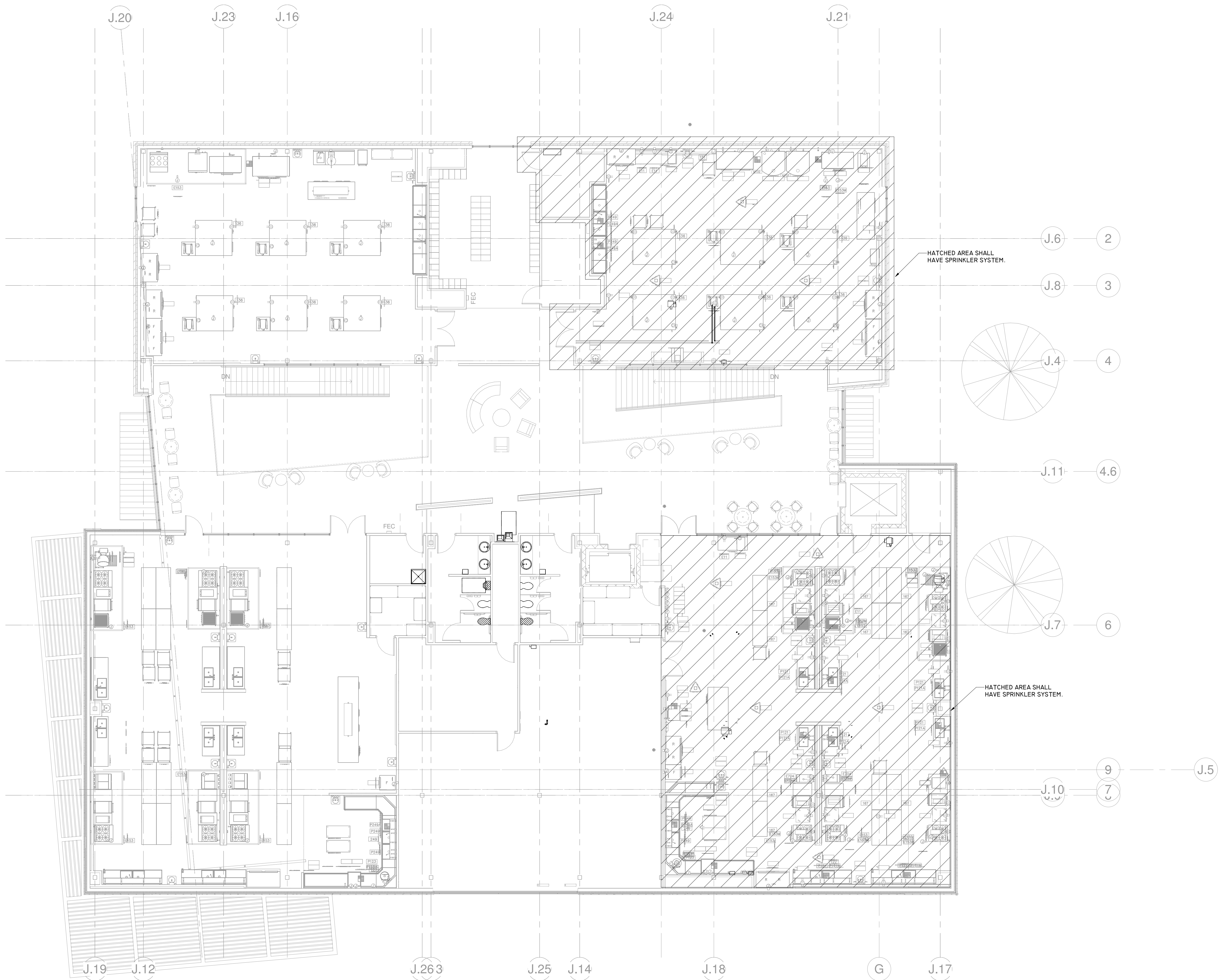
KEYNOTE LEGEND	
1	EXISTING HW BYPASS VALVE. SET TO NORMALLY CLOSED
2	ROUTE V LINE TO EXISTING VENT LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
3	ROUTE SAN WASTE LINE TO EXISTING SAN WASTE LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION, SIZE, DIRECTION OF FLOW AND DEPTH OF BURY OF EXISTING PIPE.
4	ROUTE NG LINE TO EXISTING NATURAL GAS LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
5	PRESSURE REGULATOR (FROM 5PSI DOWN TO 1/2" OF WC)
6	AUTOMATIC GAS SHUT-OFF VALVE CONNECTED TO FIRE ALARM SYSTEM IN DIVISION 26.
7	ROUTE CW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
8	ROUTE HW LINE TO EXISTING COLD WATER LINE APPROXIMATELY THIS POINT. FIELD VERIFY EXACT LOCATION AND SIZE OF EXISTING PIPE.
9	3/4" CW AND 3/4" HW DOWN TO FIXTURE.
10	BACKFLOW PREVENTER.
11	1/2" CW DOWN TO PROOFER.
12	3/4" CW AND 3/4" HW DOWN TO FOOD SERVICE EQUIPMENT.
13	3/4" HW TO DISHWASHER.



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GENERAL NOTE

I. 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 13, AND LOCAL CITY FIRE DEPARTMENT. SPRINKLER SPACING AND PIPING SHALL BE DESIGNED BY A LOCAL RME.



1 SECOND FLOOR - FIRE PROTECTION
Scale: 1/8" = 1'-0"



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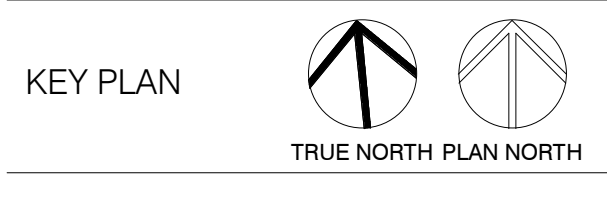
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A PROJECT FOR:
**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

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Project Number	17024
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Drawing Title
FIRE PROTECTION PLAN

Drawing Number
FP1.01

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DATA SYMBOL LEGEND

SYMBOL	DESCRIPTION
TW	TEACHER STATION. CONTRACTOR WILL PROVIDE AND INSTALL ALL NECESSARY AV/SPEAKER CABLING BETWEEN THE TEACHER STATION AND THE PROJECTOR WALL STATION AND SPEAKERS. DATA CABLING CONTRACTOR WILL PROVIDE CAT6 CABLING TO NEAREST IDF. ONE QTY. #HBL985 2G DEEP WALL BOX WITH 2-INCH KO ONE QTY. #IM2KIW WALL PLATE TO ACCEPT HUBBELL MODULES ONE QTY. #IM2KIW 2-PORTS MODULE FOR (2) #HXJ6B RJ45 DATA JACKS ONE QTY. #IMKIW SINGLE KEYSTONE OPENING FOR (1) #SFHCL1W HDMI FEED THRU ONE QTY. #IMBDSIW MODULE OPENING FOR (1) 15-PIN VGA PIN #ISGCI0 F-F COUPLER OR BY OTHERS ONE QTY. #IMKIW SINGLE KEYSTONE OPENING FOR (1) #SF35STW 3.5MM ONE QTY. #IMKIW FOR (1) #SFUSBA3BK USB A-A ONE QTY. #IMKIW FOR (1) #SFUSBA3BK USB A-B
PW	PROJECTOR WALL LOCATION. CONTRACTOR WILL PROVIDE AND INSTALL ALL NECESSARY AV/SPEAKER CABLING BETWEEN THE TEACHER DESK AND PROJECTOR/SPEAKERS. WALL BOX - #HBL985 2G DEEP BOX WITH 2" KO, SPECIFY 2 QTY. EC TO GANG TOGETHER. NO MUD RING REQUIRED. UTILIZES WALL BOARD + (1) #HBL989 INTERNAL DIVIDER + #HMFZ2ZW NON-METALLIC 4G WALL PLATE. PROVIDES (2) GANGS POWER FOR #DR20WHI TAMPER RESISTANT 20A, 125V DEORATOR DUPLEX + (2) GANGS FOR HUBBELL INFINESTATION MODULES GANG 1 FOR DATA/JAN ONE QTY. #IM2KIW PROVIDES (2) KEYSTONE OPENINGS FOR (1) HDMI FEED THRU KEYSTONE #SFHCL1W + (1) #HXJ6B KEYSTONE TYPE CAT 6 RJ45 JACKS ONE QTY. #IMBDSIW FRAME FOR (1) VGA 15-PIN #ISGCI0 F-F COUPLER OR BY OTHERS ONE QTY. #IMKIW FOR (1) #SFUSBA3BK USB A-A ONE QTY. #IMKIW FOR (1) #SFUSBA3BK USB A-B ONE QTY. #IMKIW FOR (1) #SF35STW 3.5MM ONE QTY. #IMBIW BLANK
TV	WALL MOUNTED TELEVISION. DATA CABLING CONTRACTOR WILL PROVIDE CAT6 CABLING TO NEAREST IDF. ONE QTY. #HBL985 2G DEEP WALL BOX WITH 2-INCH KO ONE QTY. #IMFIW WALL PLATE TO ACCEPT HUBBELL MODULES ONE QTY. #IM2KIW 4-PORT MODULE FOR (1) #HXJ6B RJ45 DATA JACKS ONE QTY. #IMKIW SINGLE KEYSTONE OPENING FOR (1) #SFHCL1W HDMI FEED THRU ONE QTY. #IMBDSIW MODULE OPENING FOR (1) 15-PIN VGA PIN #ISGCI0 F-F COUPLER OR BY OTHERS ONE QTY. #IMKIW SINGLE KEYSTONE OPENING FOR (1) #SF35STW 3.5MM

DATA OUTLET SCHEDULE

SYMBOL	DESCRIPTION	CABLE QTY.	MOUNTING/REMARKS
∆	4"x4"x2-1/4" DATA OUTLET BACKBOX WITH 1" CONDUIT AND PULL STRING TO NEAREST ACCESSIBLE CEILING. DUAL GANG BOX 4"x4"x3.5" AT AV/AV2 STATIONS	X	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 1-GANG REDUCER AS REQUIRED. SS-302 COVER. PULL STRING ROUTED IN CONDUITS BACK TO SERVER ROOM WITH MEASURED 1" WITH DEVICES AND LOW-VOLTAGE CABLING BY TELECOM CONTRACTOR. RE 8/76.02 D2V1 - TWO DATA/NETWORK, ONE VOICE CONNECTION D2 - TWO DATA CONNECTION V1 - SINGLE VOICE/TELEPHONE CONNECTION PA - PUBLIC ADDRESS P - DEDICATED ANALOG PHONE/VOICE CONDUIT AV - AUDIO/VISUAL DATA	X	18" AFF UNLESS INDICATED OTHERWISE ON FLOOR PLANS. DATA OUTLET ONLY (REFER TO DETAILS)
DB	DURESS BUTTON. 2-GANG BACKBOX WITH 1-GANG REDUCER AS REQUIRED. PROVIDE WITH 1" FC WITH PULLSTRING	1	MOUNT ON WALL. COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
TV	WALL MOUNTED TV	1	MOUNT ON WALL. COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
PW	WALL MOUNTED PROJECTOR	1	MOUNT ON WALL. COORDINATE MOUNTING REQUIREMENTS WITH APPLICABLE CONTRACTOR PRIOR TO ROUGH IN.
∅	MOUNTED AT NO HIGHER THAN 12" AFF. 1" FC WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	1	MOUNT IN CEILING. WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
∅W	WIRELESS ACCESS POINT OUTLET BACKBOX WALL MOUNTED AT 12" AFF. 1" FC WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	1	MOUNT IN WALL. WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
∅EX	EXTERIOR WIRELESS ACCESS POINT OUTLET BACKBOX WALL MOUNTED AT 12" AFF TO 15" AFF. 1" FC WITH SWEEPING BENDS TO NEAREST ACCESSIBLE CEILING.	1	MOUNT IN WALL. WIRELESS ACCESS POINT TO BE OWNER FURNISHED AND INSTALLED
∅	FLUSH FLOOR BOX WITH WIRING DEVICES AS INDICATED ON PLANS.	X	MOUNT IN FLOOR FLUSH. FIELD COORDINATE EXACT LOCATION

SECURITY SYMBOL LEGEND

SYMBOL	DESCRIPTION
M	INTRUSION ALARM MOTION DETECTOR
KP	INTRUSION ALARM NUMERIC KEY-PAD
ES	ELECTRONIC STRIKE
ML	ELECTROMAGNETIC LOCK
CR	CARD READER
DH	ACCESS CONTROL DOOR HOLD-OPEN. COORDINATE WITH FIRE ALARM CONTRACTOR LOCATIONS AND REQUIRED SEQUENCING.
B	PUSH BUTTON DOOR RELEASE
MS	IP ADDRESSABLE MASTER STATION
DS	IP ADDRESSABLE FLUSH MOUNT DOOR STATION
RX	REQUEST TO EXIT MOTION SENSOR
CAM	VIDEO CAMERA
CCTV	VIDEO SURVEILLANCE CCTV CAMERA
BK	BASKET TYPE TRAY WITH U-SHAPED ROUND WIRE MESH MOUNTED FROM WALL OR INVERTED "T" MOUNTS. 12" W X 4" H. CHALFANT WHST412S OR EQUAL. BASKET MAY BE UTILIZED FOR SECURITY AND TELECOM. FIRE ALARM WIRING MUST BE A SEPARATELY INDEPENDENTLY SUPPORTED SYSTEM.

CABLE AND CONDUIT PATHWAY

	CONDUIT RUN
	CONDUIT TURNING UP
	CONDUIT TURNING DOWN
	CONDUIT CAPPED FOR FUTURE.
	HOME RUN TO COMM ROOM INDICATED. NO CONDUIT SIZE DENOTES 1".
	JUNCTION BOX
	5" COAXIAL CABLE
	LOOP HANGER FOR CABLE PATHWAY
	BASKET TYPE TRAY (CABLE TRAY)

ABBREVIATION DEFINITIONS

ACS	ACCESS CONTROL SYSTEM
ADA	AMERICANS WITH DISABILITIES ACT
AFF	ABOVE FINISHED FLOOR
AP	ACCESS POINT
C	CONDUIT
CATV	COMMUNITY ANTENNA TELEVISION
CCTV	CLOSED CIRCUIT TELEVISION
CR	CARD READER
CR	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 SHOW SPACE FOR MATERIAL TO BE INSTALLED IN THE FUTURE
HVAC	HEATING, VENTILATION, & AIR CONDITIONING
HSD	HOUSTON INDEPENDENT SCHOOL DISTRICT
IDF	INTERMEDIATE DISTRIBUTION FACILITY
IMD	INFORMATION MEDIA OUTLET
IP	INTERNET PROTOCOL
IT	INFORMATION TECHNOLOGY
KEY	INTRUSION DETECTION KEYPAD
LAN	LOCAL AREA NETWORK
MD	MOTION DETECTOR
MDF	MAIN DISTRIBUTION FACILITY
MM	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	REQUEST-TO-EXIT
RIS	RIGID GALVANIZED STEEL
SCP	SECURITY CONTROL PANEL
S/M	SINGLEMODE
SM	SINGLEMODE
SPARE	PRODUCTS OR MATERIAL PROVIDED BY PROJECT TO ACCOMMODATE ANTICIPATED GROWTH
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TBD	TO BE DETERMINED
TCP/IP	TRANSMISSION CONTROL PROTOCOL/INTERNET PROTOCOL
TGB	TELECOMMUNICATIONS GROUND BUSBAR
TGMB	TELECOMMUNICATIONS MAIN GROUND BUSBAR
TYP	TYPICAL
UL	UNDERWRITERS LABORATORIES, INC.
UNOT	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
VDS	VIDEO DISTRIBUTION SYSTEM (PUSH-VIDEO SYSTEM)
VLAN	VIRTUAL LAN
WAN	WIDE AREA NETWORK

TELECOM GENERAL NOTES

- 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.
- 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.
- CONDUIT SHALL BE SIZED PER ANSI/TIA/EIA 569-B, WITH A MINIMUM SIZE OF ONE-INCH.
- 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.
- ELECTRICAL POWER CABLES AND CONDUITS SHALL NOT BE INSTALLED IN OR ATTACHED TO CABLE TRAYS.
- CONTRACTOR SHALL NOT ABANDON WIRING. CONDUIT, J-BOXES, OR DEVICES IN PLACE. UNUSED EQUIPMENT AND SUPPORTS SHALL BE REMOVED AND DISPOSED OF.
- TELECOMMUNICATION OUTLET BOXES SHALL BE:
 - 4 IN. SQ. BY 2 1/2 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.
- ALL TELECOMMUNICATION CONDUITS SHALL BE PROVIDED WITH A MEASURED PULL TAPE.
- NO MORE THAN 100' BETWEEN PULL BOXES.
- NO MORE THAN 270 DEGREES OF TURNS BETWEEN PULL BOXES.
- UTILIZE SWEEPING BENDS.
- PULL BOXES MUST NOT BE USED AS TURNS. THE BEND MUST COME BEFORE OR AFTER THE PULL BOX.
- 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.
- CONDUITS SHALL BE ROUTED AT HIGH LEVEL TO EITHER SIDE OF THE CORRIDOR. UTILIZE THE FOLLOWING CONDUIT SIZES BASED ON NUMBER OF DATA CABLES IN THE CONDUIT.

SIZE OF CONDUIT	MAX # OF CAT6 CABLES
1"	6
1.25"	9
1.5"	14
2"	24
2.5"	38
3"	55
4"	98

COORDINATE WITH CABLING CONTRACTOR FOR CONSTRUCTION SHOP DRAWINGS ALL LOW VOLTAGE DATA CABLES WILL BE ROUTED BACK TO THE CABLE TRAY IN MINIMUM 1" CMIT THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND ROUTING UNDER THE FOLLOWING PRETENSES

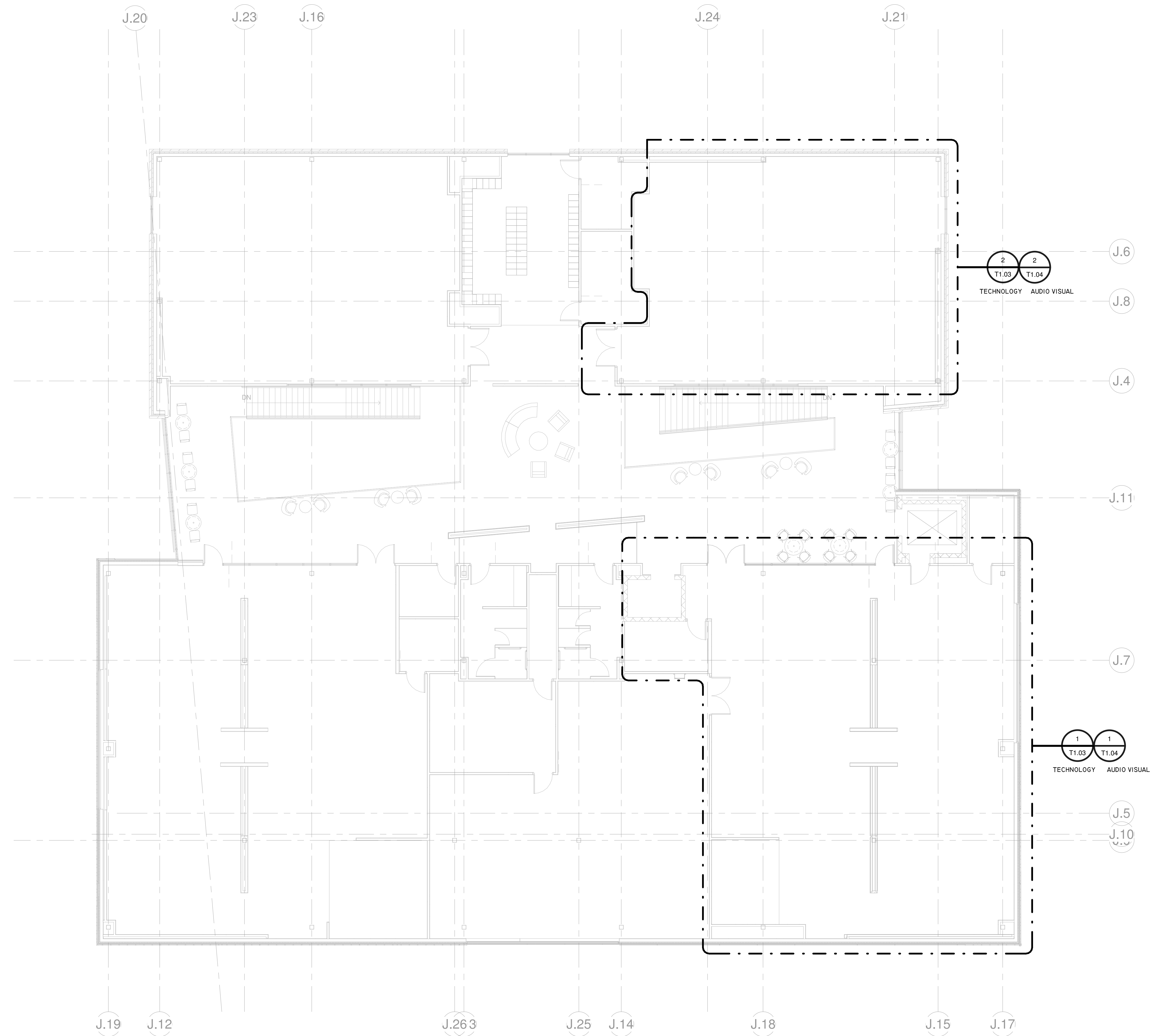
- CABLE TRAY AND OR WIRE NOT IN CONDUIT IS NOT ALLOWED IN ANY EXPOSED AREAS
- NO MORE THAN 100' BETWEEN PULL BOXES.
- NO MORE THAN 270 DEGREES OF TURNS BETWEEN PULL BOXES
- UTILIZE SWEEPING BENDS
- PULL BOXES MUST NOT BE USED AS TURNS. THE BEND MUST COME BEFORE OR AFTER THE PULL BOX.
- ALL EXPOSED CONDUITS 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 TRADES PRIOR TO INSTALLING.
- ALL CONDUITS WILL BE INSTALLED WITH MEASURED PULL TAPE
- ALL DATA CABLING WILL BE CAT6 PER SPECIFICATIONS.

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 ENT CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND ROUTING. PAINT AND LABEL AS REQUIRED BY ARCHITECT

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 ENT CONDUIT. THE CONTRACTOR WILL BE RESPONSIBLE FOR SIZING AND ROUTING. PAINT AND LABEL AS REQUIRED BY ARCHITECT

COMMUNICATIONS SYMBOLS

SYMBOL	DESCRIPTION
S _V	PUBLIC ADDRESS SPEAKER, CEILING-MOUNTED WALL-MOUNTED VOLUME CONTROL ADJACENT TO LIGHT SWITCH (UN)
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 1
SR	LOCAL SOUND REINFORCEMENT SPEAKER, CEILING-MOUNTED
	TELECOMMUNICATIONS GROUNDING BUSBAR, 1/8" AFF
AVP	AV WALL PLATE. THE AWARDED CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT TO PROVIDE THE SAME MODEL WHICH THE BUILDING HAVE ON THE LAB 1
FPD	PANEL DISPLAY. THE AWARDED CONTRACTOR SHALL COORDINATE WITH OWNER/ARCHITECT TO PROVIDE THE SAME MODEL WHICH THE BUILDING HAVE ON THE LAB 1
	OPEN FRAME RELAY RACK



1 SECOND FLOOR - TECHNOLOGY
Scale: 1/8" = 1'-0"



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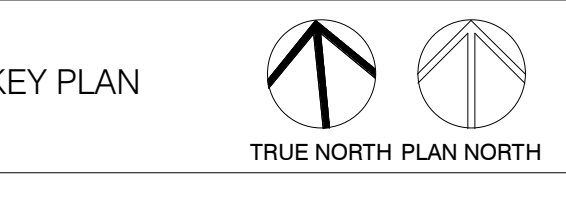
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A PROJECT FOR:
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Project Number	17024
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Drawing Title	SECOND FLOOR PLAN - TECHNOLOGY
Drawing Number	T1.02

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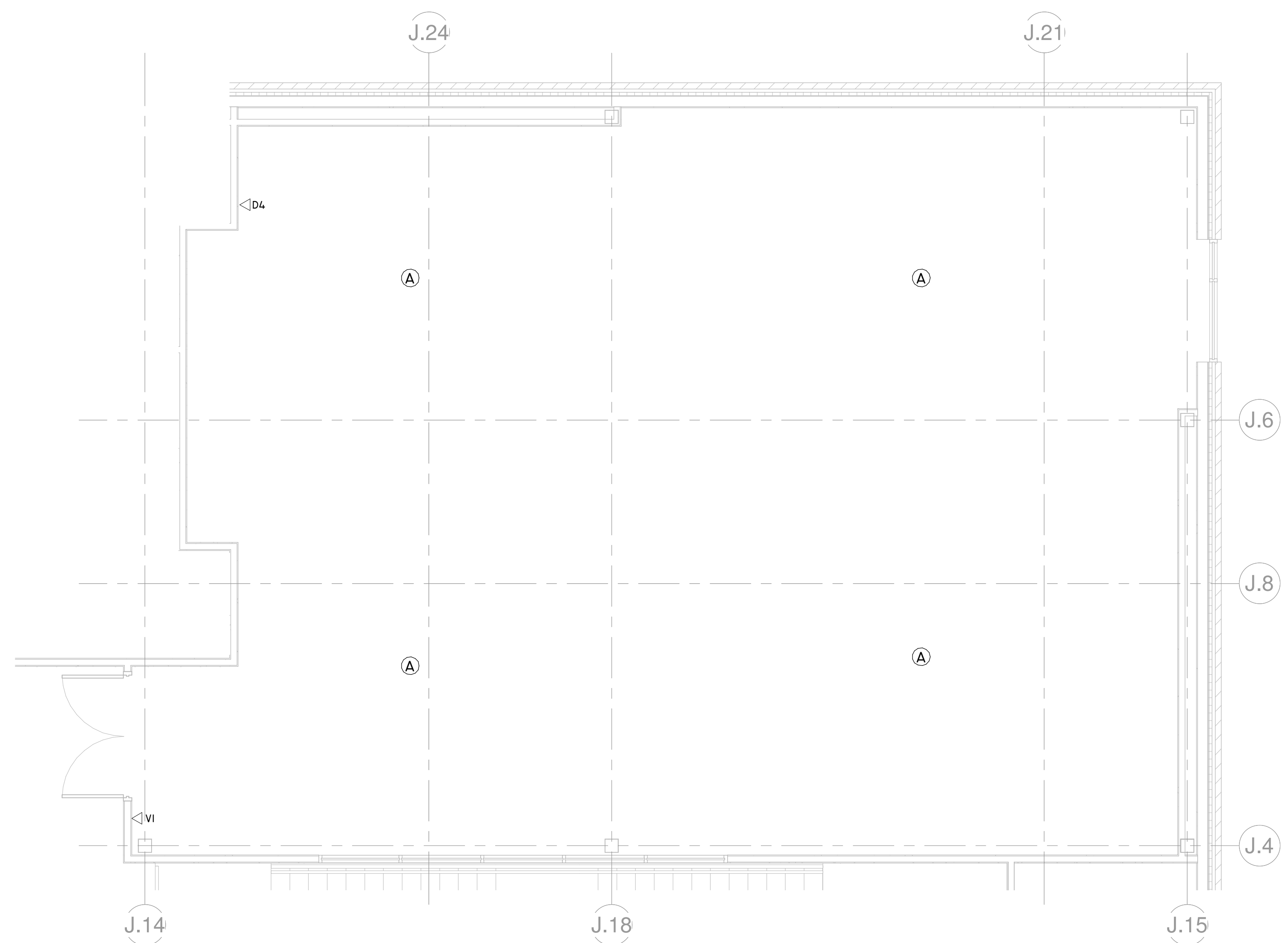
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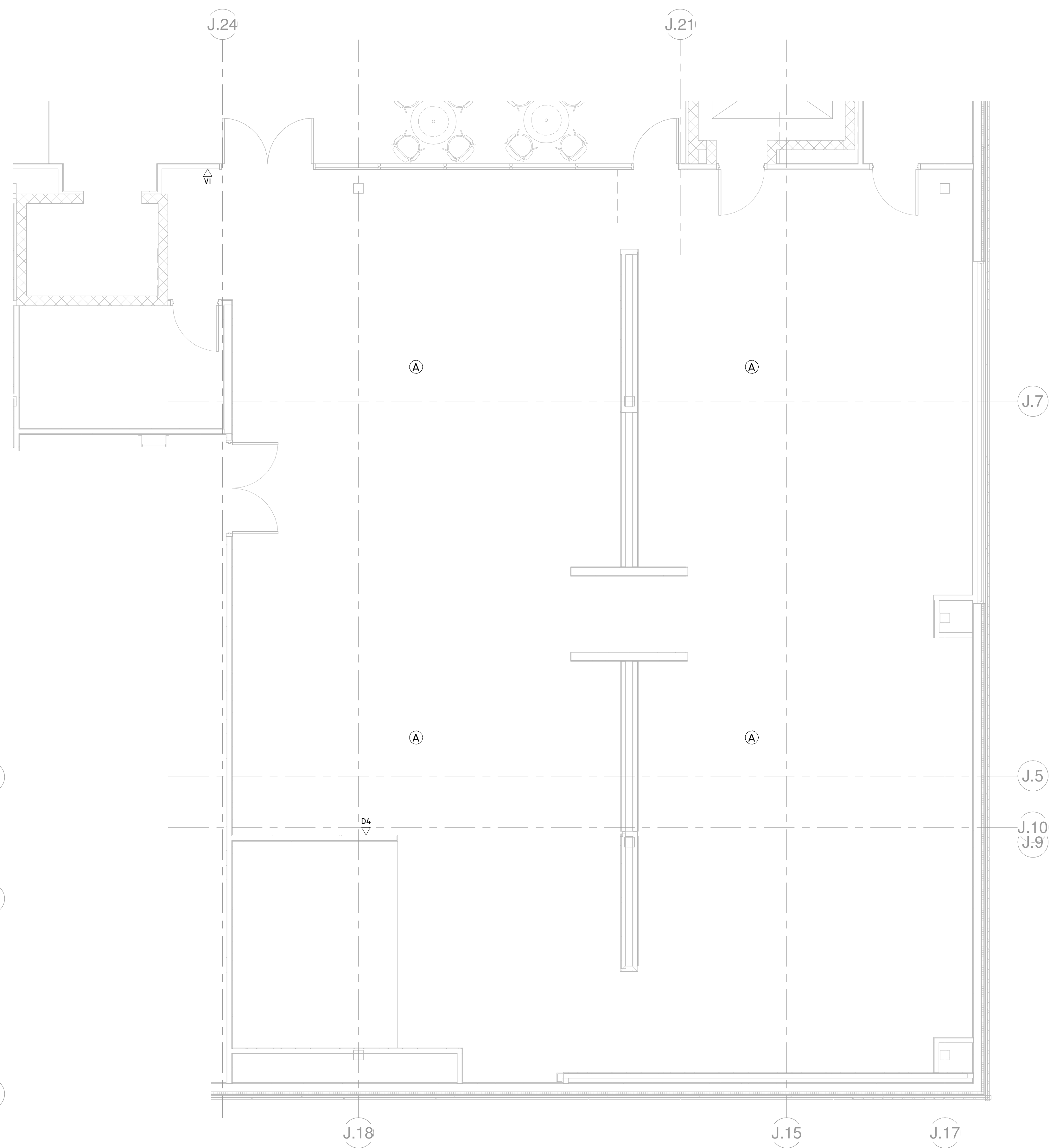
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Drawing Title	

TECHNOLOGY - ENLARGED PLAN

Drawing Number **T1.03**



2 SECOND FLOOR - PASTRY LAB 2 TECHNOLOGY
Scale: 1/4" = 1'-0"



1 SECOND FLOOR - CULINARY LAB 2 - TECHNOLOGY
Scale: 1/4" = 1'-0"



**CULINARY
ARTS SHELL
INTERIOR
BUILDOUT**

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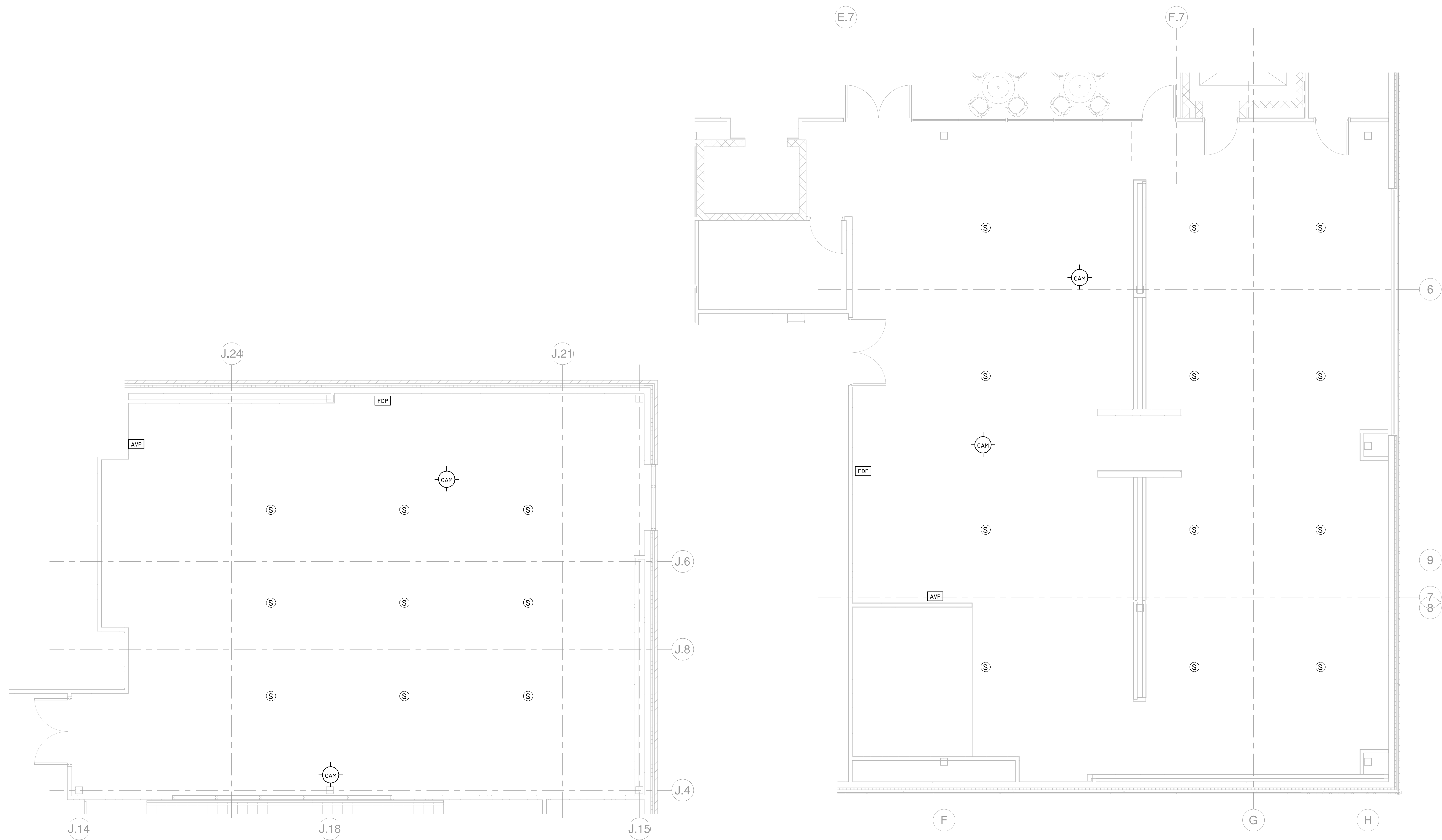
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Approved By	Approver
Drawing Title	AUDIO VISUAL - ENLARGED PLAN

Drawing Number	T1.04
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GENERAL NOTES:
1. COORDINATE FINAL LOCATION OF CAMERA, SPEAKER, AND ALL AUDIO/VISUAL DEVICES WITH ARCHITECT/OWNER PRIOR TO ROUGH-IN.



2 SECOND FLOOR - PASTRY LAB 2 - AUDIO VISUAL
Scale: 1/4" = 1'-0"

1 SECOND FLOOR - CULINARY LAB 2 - AUDIO VISUAL
Scale: 1/4" = 1'-0"