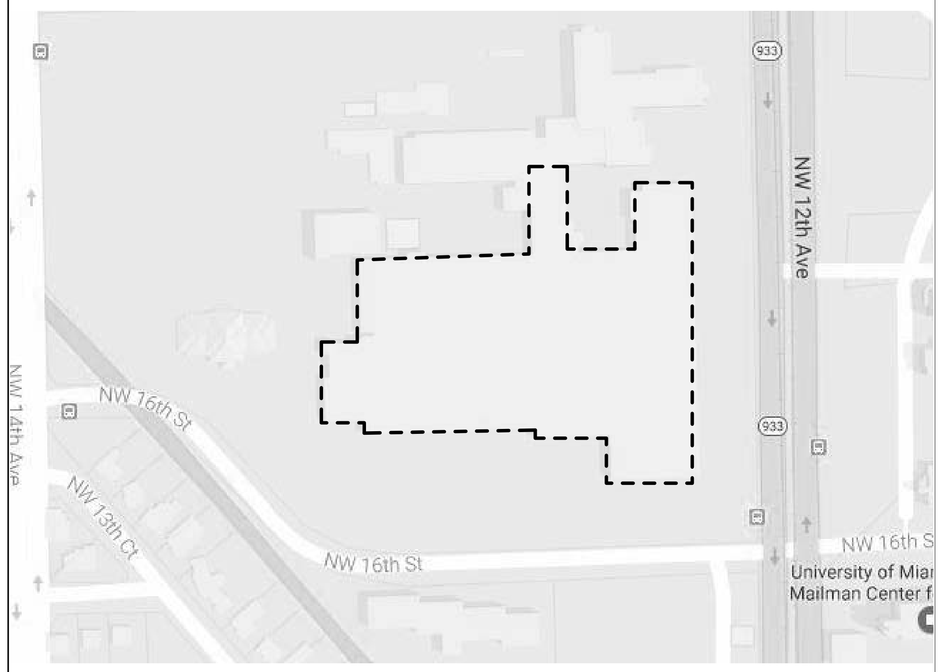
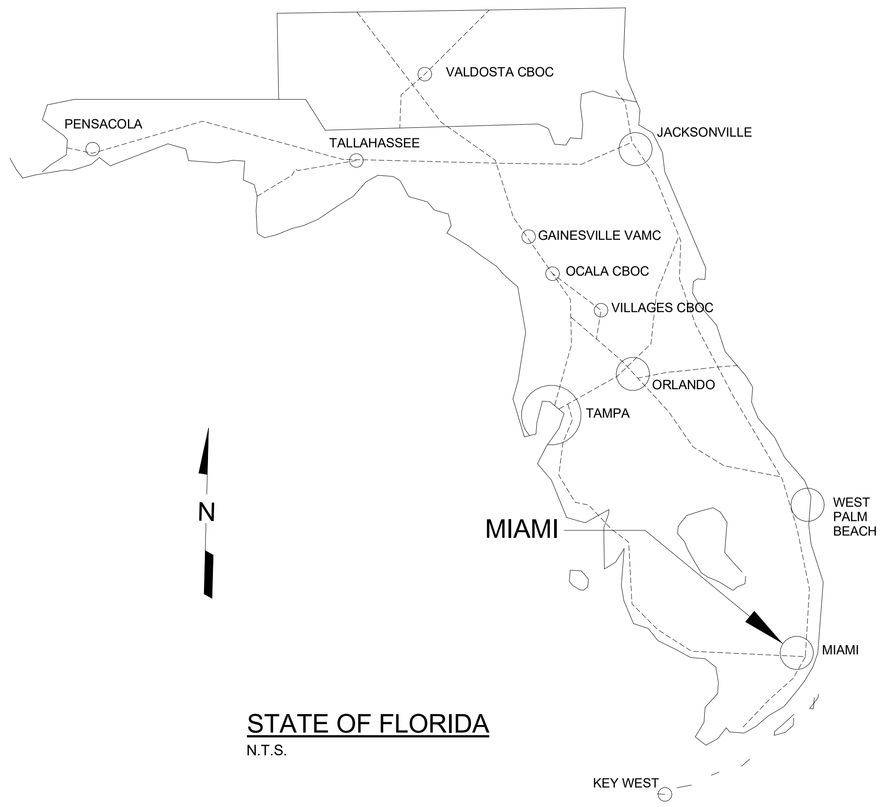
LOCATION MAP





STATE OF FLORIDA
N.T.S.

IF SHEET MEASURES LESS THAN 30x42 IT IS A REDUCED PRINT. ADJUST SCALE ACCORDINGLY

RENOVATE VCS PATRIOT CAFE

VA KITCHEN SET

PROJECT NO. 546-17-109

Miami VA Healthcare System
1201 NW 16th St.
Miami, Florida 33125

INDEX OF DRAWINGS - VA KITCHEN SET

SHEET NUMBER	SHEET NAME
1-G001	LOCATION, SITE PLAN, AND SHEET INDEX - VA KITCHEN SET
1-G002	AREA OF WORK PLAN - 2ND FLOOR - VA KITCHEN
1-AC102	ENLARGED 2ND FLOOR REFLECTED CEILING PLAN □ ARCHITECTURAL
1-AE102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN □ ARCHITECTURAL
1-AE102-N	ENLARGED 2ND FLOOR RENOVATION PLAN □ ARCHITECTURAL
1-AQ102	ENLARGED 2ND FLOOR EQUIPMENT PLAN □ ARCHITECTURAL
1-AW102	ENLARGED 2ND FLOOR LIFE SAFETY PLAN - ARCHITECTURAL
1-MH001	LEGEND, NOTES AND SCHEDULES - HVAC
1-MH002	SCHEDULES - HVAC
1-MH102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC
1-MH102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - HVAC
1-MH103	ENLARGED 3RD FLOOR PLANS - HVAC
1-MH104	ENLARGED 4TH FLOOR PLANS - HVAC
1-MH115	ENLARGED 15TH FLOOR PLANS - HVAC
1-MH402	ENLARGED B200 MECHANICAL ROOM - HVAC
1-MH501	DETAILS - HVAC
1-MH502	DETAILS - HVAC
1-MH601	CONTROLS - HVAC
1-E-001	LEGEND AND NOTES - ELECTRICAL
1-EL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING
1-EL102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING
1-EP202-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER
1-EP202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - POWER
1-EP204	ENLARGED 4TH FLOOR PLANS - POWER
1-EP215	ENLARGED 15TTH FLOOR PLANS - POWER
1-ET302-N	ENLARGED 2ND FLOOR RENOVATION PLAN - SYSTEMS
1-E-501	DETAILS - ELECTRICAL
1-E-502	SCHEDULES - ELECTRICAL
1-FP102	ENLARGED 2ND FLOOR FIRE PROTECTION
1-PL001	LEGEND, NOTES AND SCHEDULES - PLUMBING
1-PL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - PLUMBING
1-PL102-N	ENLARGED 2ND FLOOR RENO PLAN - SANITARY AND VENT
1-PL202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - DOMESTIC WATER

FOR REFERENCE ONLY - DRAWINGS UNDER SEPARATE COVER

INDEX OF DRAWINGS - VA DINING SET

SHEET NUMBER	SHEET NAME
2-G001	LOCATION, SITE PLAN, AND SHEET INDEX - VA DINING SET
2-G002	AREA OF WORK PLAN - 2ND FLOOR - VA DINING
2-AC102	ENLARGED 2ND FLOOR REFLECTED CEILING PLAN □ ARCHITECTURAL
2-AE102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN □ ARCHITECTURAL
2-AE102-N	ENLARGED 2ND FLOOR RENOVATION PLAN □ ARCHITECTURAL
2-AQ102	ENLARGED 2ND FLOOR EQUIPMENT PLAN - ARCHITECTURAL
2-AW102	ENLARGED 2ND FLOOR LIFE SAFETY PLAN - ARCHITECTURAL
2-MH001	LEGEND, NOTES AND SCHEDULES - HVAC
2-MH002	SCHEDULES - HVAC
2-MH102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC
2-MH102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - HVAC
2-MH402	ENLARGED B200 MECHANICAL ROOM - HVAC
2-MH501	DETAILS - HVAC
2-MH502	DETAILS - HVAC
2-MH601	CONTROLS - HVAC
2-E001	LEGEND, NOTES AND SCHEDULES - ELECTRICAL
2-EL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING
2-EL102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING
2-EP202-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER
2-EP202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - POWER
2-ET302-N	ENLARGED 2ND FLOOR RENOVATION PLAN - SYSTEMS
2-E501	RISER AND DETAILS - ELECTRICAL
2-E502	SCHEDULES - ELECTRICAL
2-FP102	ENLARGED 2ND FLOOR FIRE PROTECTION
2-PL001	LEGEND, NOTES AND SCHEDULES - PLUMBING
2-PL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - PLUMBING
2-PL102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - SANITARY AND VENT
2-PL202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - DOMESTIC WATER

FOR REFERENCE ONLY - DRAWINGS UNDER SEPARATE COVER

INDEX OF DRAWINGS - VCS SET

SHEET NUMBER	SHEET NAME
3-G001	LOCATION, SITE PLAN, AND SHEET INDEX - VCS SET
3-G002	AREA OF WORK PLAN - 2ND FLOOR - VCS
3-AC102	ENLARGED 2ND FLOOR REFLECTED CEILING PLAN □ ARCHITECTURAL
3-AE102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN □ ARCHITECTURAL
3-AE102-N	ENLARGED 2ND FLOOR RENOVATION PLAN □ ARCHITECTURAL
3-AF102	ENLARGED 2ND FLOOR FINISH PLAN - ARCHITECTURAL
3-AQ102	ENLARGED 2ND FLOOR EQUIPMENT PLAN □ ARCHITECTURAL
3-AW102	ENLARGED 2ND FLOOR LIFE SAFETY PLAN - ARCHITECTURAL
3-MH001	LEGEND, NOTES AND SCHEDULES - HVAC
3-MH002	SCHEDULES - HVAC
3-MH102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC
3-MH103	ENLARGED 3RD FLOOR PLANS - HVAC
3-MH104	ENLARGED 4TH FLOOR PLANS - HVAC
3-MH115	ENLARGED 15TH FLOOR PLANS - HVAC
3-MH402	ENLARGED B200 MECHANICAL ROOM - HVAC
3-MH102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - HVAC
3-MH501	DETAILS - HVAC
3-MH502	DETAILS - HVAC
3-MH503	KITCHEN HOOD DRAWINGS - FOR REFERENCE ONLY - VCS
3-MH601	CONTROLS - HVAC
3-MH602	CONTROLS - HVAC
3-E001	LEGEND, NOTES AND SCHEDULES - ELECTRICAL
3-EL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING
3-EL102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING
3-EP202-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER
3-EP202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - POWER
3-EP204	ENLARGED 4TH FLOOR PLANS - POWER
3-EP215	ENLARGED 15TTH FLOOR PLAN - POWER
3-ET302-N	ENLARGED 2ND FLOOR RENOVATION PLAN - SPECIAL SYSTEMS
3-E501	RISER AND DETAILS - ELECTRICAL
3-E502	SCHEDULES - ELECTRICAL
3-FP102	ENLARGED 2ND FLOOR FIRE PROTECTION
3-PL001	LEGEND, NOTES AND SCHEDULES - PLUMBING
3-PL102-D	ENLARGED 2ND FLOOR DEMO PLAN - PLUMBING - VCS
3-PL102-N	2ND FLOOR RENOVATION PLAN - SANITARY AND VENT - VCS
3-PL202-N	2ND FLOOR RENOVATION PLAN - DOMESTIC WATER

Revisions: | Date:

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DALE A. BACIK, P.E.
36564

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LOCATION, SITE PLAN, AND SHEET INDEX - VA KITCHEN SET	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-G001
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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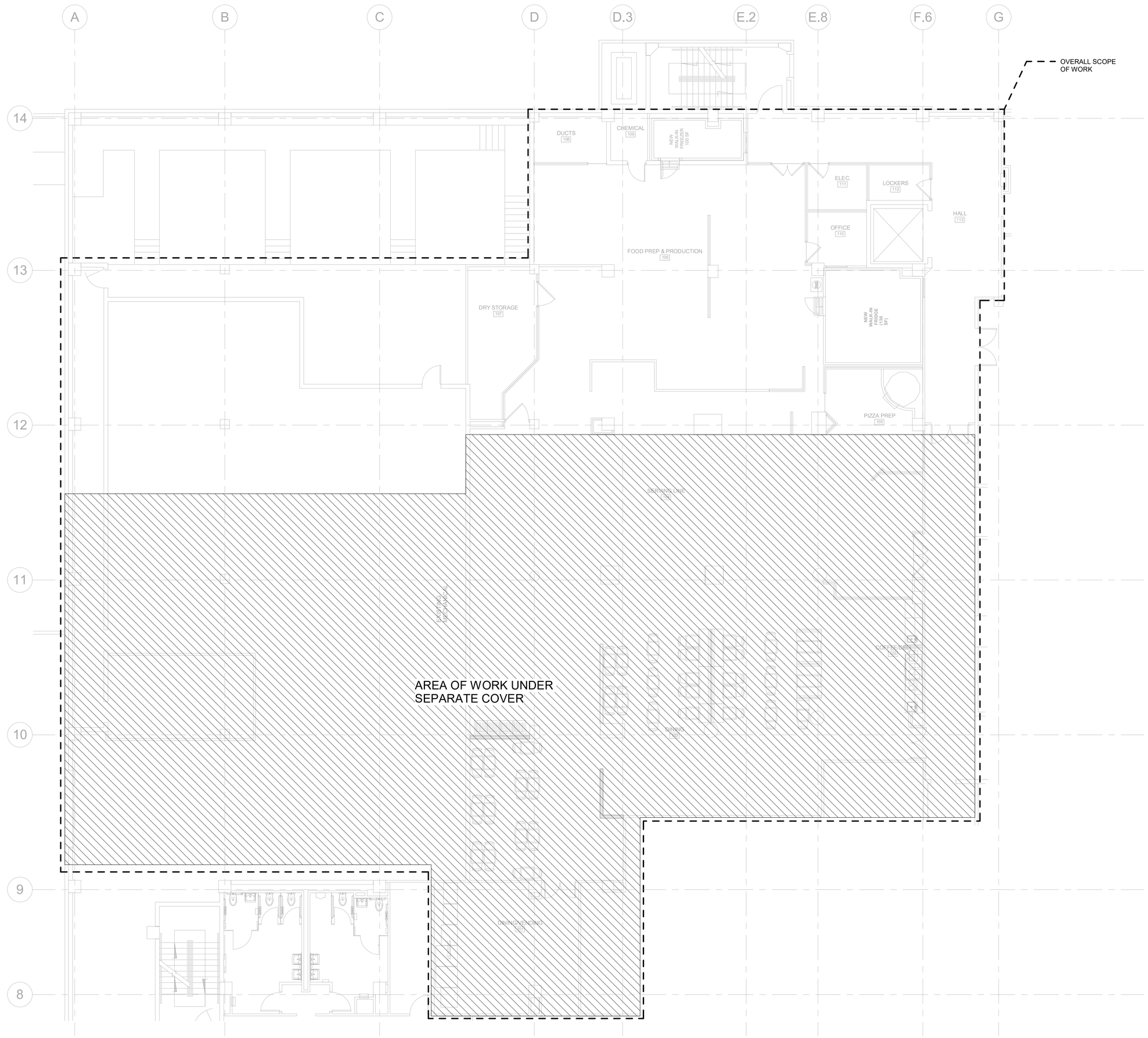

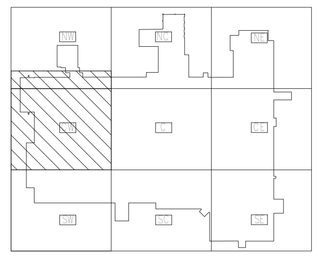

N N
TRUE PLAN

AREA OF WORK PLAN - 2ND FLOOR - VA KITCHEN

Scale: 1/8" = 1'-0"

Revisions:	Date:

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DALE A. BACIK LICENSE No. 36564 STATE OF FLORIDA PROFESSIONAL ENGINEER

DALE A. BACIK, P.E.
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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
AREA OF WORK PLAN - 2ND FLOOR - VA KITCHEN	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number 1
Approved: Project Director	FULLY SPRINKLERED	Location MIAMI, FL	Drawing Number
DALE A. BACIK, P.E.		Issue Date 02/09/2018 · Checked NPS · Drawn NPS	1-G002

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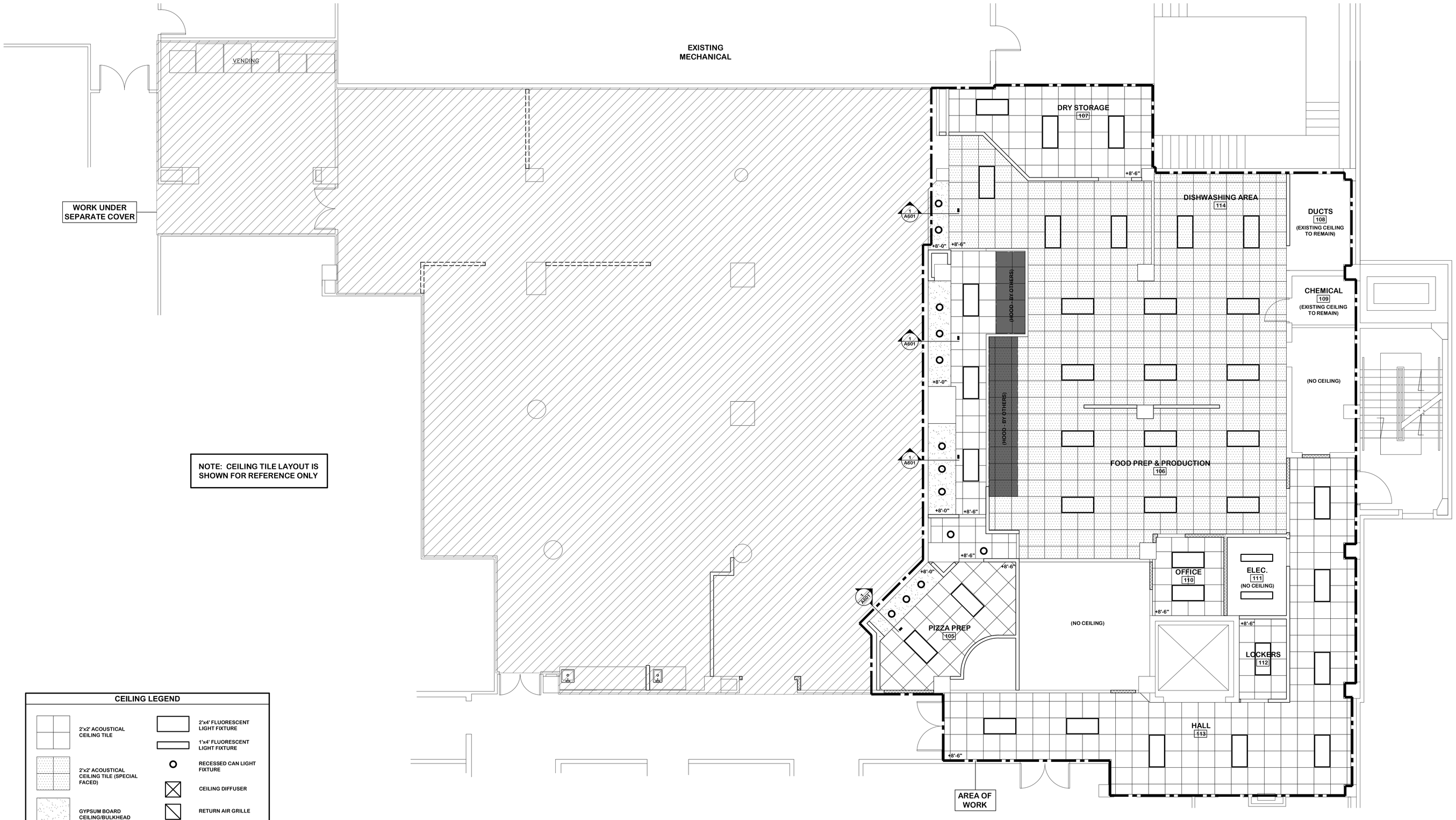


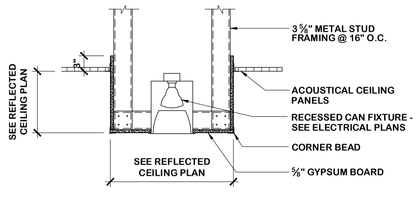
2nd FLOOR - REFLECTED CEILING PLAN

SCALE: 3/16" = 1'-0"

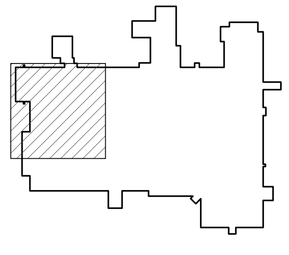
CEILING LEGEND

- 2'x2' ACOUSTICAL CEILING TILE
- 2'x2' ACOUSTICAL CEILING TILE (SPECIAL FACED)
- GYPSUM BOARD CEILING/BULKHEAD
- 2'x4' FLUORESCENT LIGHT FIXTURE
- 1'x4' FLUORESCENT LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- CEILING DIFFUSER
- RETURN AIR GRILLE
- EXHAUST GRILLE

- SEE ELECTRICAL DRAWINGS FOR CEILING LIGHT FIXTURE LOCATIONS.



1 **TYPICAL BULKHEAD**
SCALE: 3/4" = 1'-0"



2ND FLOOR – KEYPLAN

Revisions:	Date:

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STATE OF FLORIDA ANDREW Z. PARKS AR96063 REGISTERED ARCHITECT

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
REFLECTED CEILING PLAN	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number
		Issue Date: 02/07/2018 · Checked: AP · Drawn: MH	1-AC102

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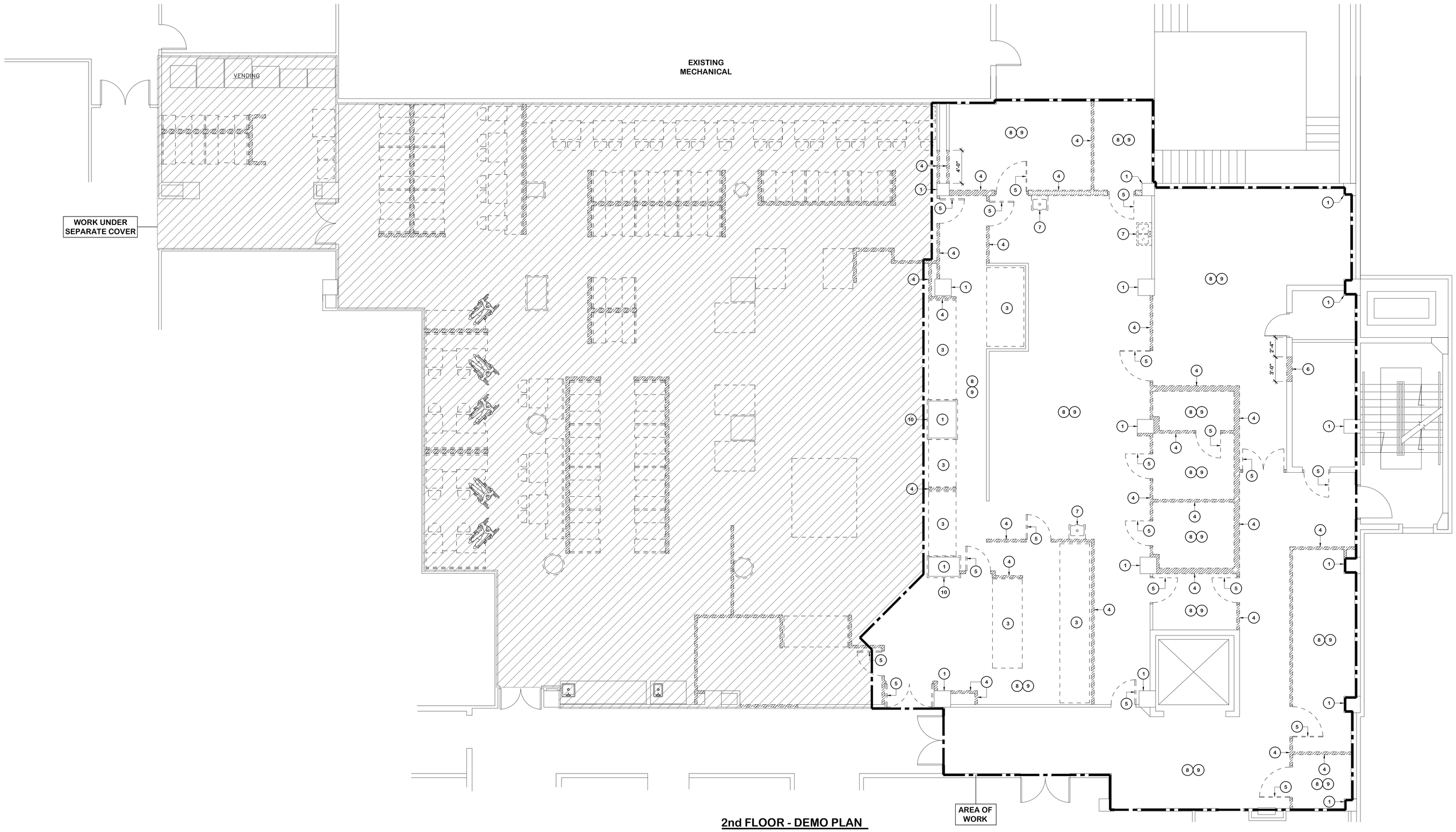


2nd FLOOR - DEMO PLAN

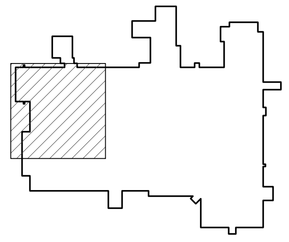
SCALE: 3/16" = 1'-0"

DEMO KEYNOTES

1. EXISTING STRUCTURAL COLUMN - MAINTAIN INTEGRITY DURING CONSTRUCTION
2. EXISTING BOOTHS/SEATING TO BE REMOVED
3. EXISTING EQUIPMENT TO BE REMOVED (NOT ALL IS SHOWN ON PLAN)
4. EXISTING WALLS SHOWN DASHED ARE TO BE REMOVED AND TO INCLUDE BUT NOT LIMITED TO WINDOWS, FRAMES, ELECTRICAL WIRING, CONDUITS ETC...
5. EXISTING DOOR TO BE REMOVED
6. PORTION OF EXISTING WALL TO BE REMOVED TO ALLOW FOR NEW DOOR - COORDINATE OPENING WITH EQUIPMENT AND/OR DOOR SCHEDULE.
7. EXISTING PLUMBING FIXTURE TO BE REMOVED. WATER LINES TO BE CAPPED ABOVE CEILING, WASTE LINES BELOW SLAB.
8. REMOVE EXISTING FLOOR FINISHES, CLEAN & PREPARE FLOOR TO RECEIVE NEW FINISHES.
9. REMOVE EXISTING CEILING TILES & GRID TO BE DEMOLISHED.
10. REMOVE MOSAIC TILE FROM EXISTING COLUMNS. PATCH & REPAIR COLUMN FINISH.

DEMOLITION GENERAL NOTES

1. GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE SAFE AND LAWFUL DISPOSAL OF ALL MATERIALS DEMOLISHED. HOWEVER, THE OWNER SHALL BE GIVEN THE OPPORTUNITY TO SALVAGE ANY EQUIPMENT, FIXTURES OR MATERIAL.
2. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED AND REPAIRED AT AREAS WHERE DEMOLITION WORK HAS OCCURRED TO A CONDITION THAT MATCHES THE EXISTING ADJACENT CONSTRUCTION. EXISTING WALLS THAT CONTAIN PLUMBING, ELECTRICAL OR OTHER SERVICES REQUIRING MODIFICATION SHALL BE CUT BACK TO THE NEAREST STUD TO ALLOW REQUIRED WORK. AFTER COMPLETION, RECONSTRUCT TO A CONDITION THAT MATCHES NEW CONSTRUCTION, FLUSH WITH ADJACENT SURFACES. EXISTING FLOORS WHERE CONSTRUCTION HAS BEEN REMOVED SHALL BE PATCHED AND LEVELED TO MATCH EXISTING.
3. WHERE OPENINGS ARE CREATED IN EXISTING CONSTRUCTION SCHEDULED TO REMAIN (SUCH AS REMOVAL OF DOORS OR WINDOWS IN EXISTING WALLS TO REMAIN), FURNISH AND INSTALL NEW OPENINGS TO MATCH THE EXISTING UNLESS NEW FURNISHES ARE SCHEDULED FOR THOSE SURFACE.
4. ALL EXISTING FURNISHES SHALL REMAIN, UNLESS SCHEDULED FOR NEW. CONTINUE EXIST FINISHES TO REMAIN, INTO NEW EXTENDED AREAS THAT ARE ADJACENT. PATCH AND REPAIR EXISTING TO MATCH NEW. PREPARE SUBSTRATES TO RECEIVE NEW FINISHES WHERE SCHEDULED. FINISH ALL PATCHED OR EXTENDED WALLS TO THE NEAREST CHANGE OF DIRECTION, WALL TERMINATION, OR INTERSECTION. PREPARATION OF SUBSTRATES TO RECEIVE NEW FINISHES SHALL INCLUDE, BUT NOT LIMITED TO THE FOLLOWING:
   - PATCHING AN/OR LEVELING OF FLOOR SLAB.
   - SKIMCOATING OF GYPSUM WALLBOARD SURFACES.
   - SANDING OF METAL FRAMES, ETC.
5. GENERAL CONTRACTOR SHALL NOTIFY ARCHITECT WITH ANY DISCREPANCIES IN WRITING UPON DISCOVERY.
6. CONTRACTOR TO MAINTAIN INTEGRITY OF ALL EXISTING STRUCTURAL ELEMENTS DURING CONSTRUCTION AND NOTIFY ARCHITECT WITH ANY ISSUES THAT MIGHT APPEAR DURING DEMOLITION UPON DISCOVERY.



2ND FLOOR – KEYPLAN

Revisions:	Date:

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STATE OF FLORIDA
ANDREW Z. PAPARIS
AR36063
REGISTERED ARCHITECT

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
DEMO - FLOOR PLAN	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-AE102-D
		Issue Date: 02/07/2018 · Checked: AP · Drawn: MH	

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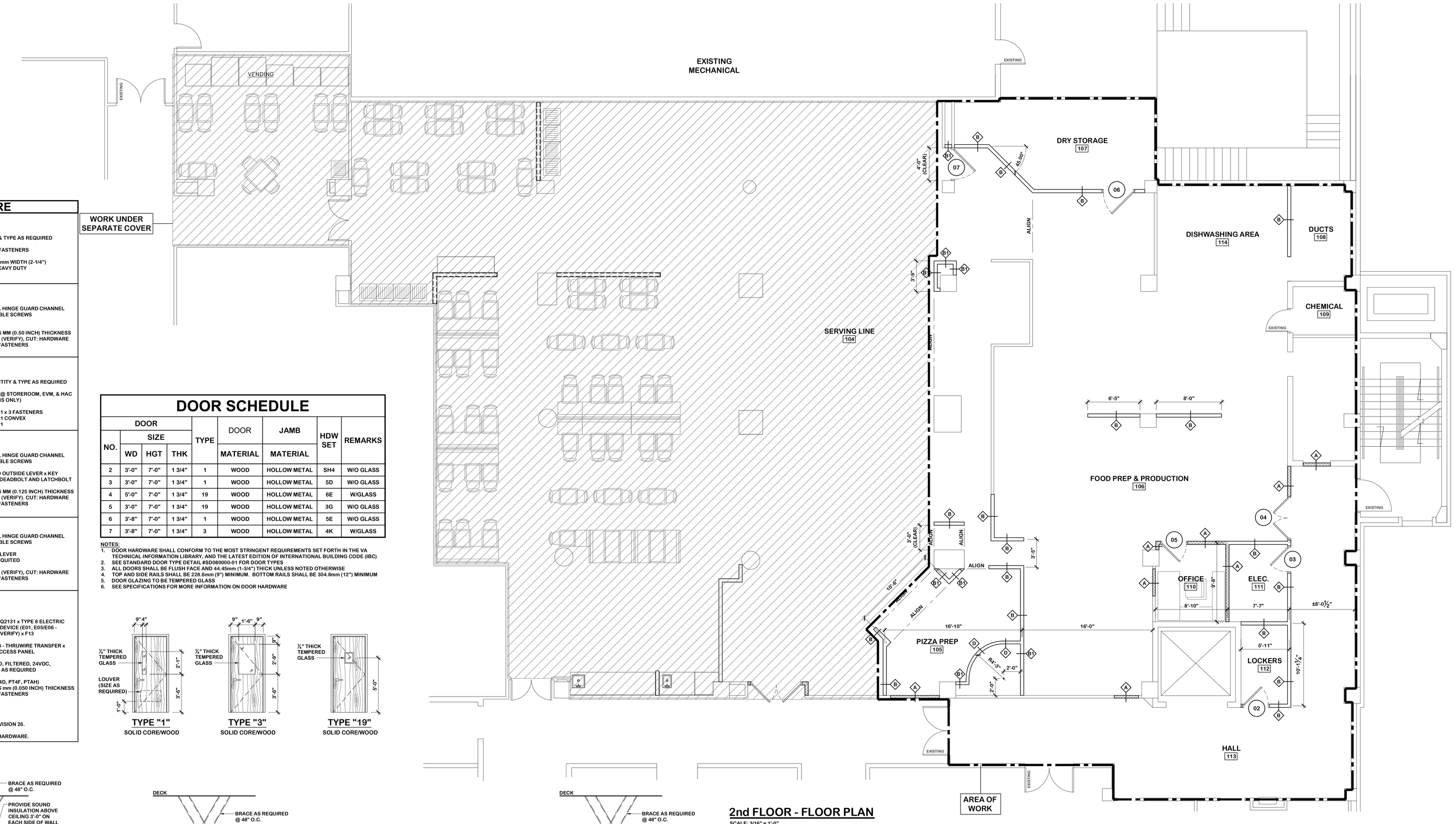


2nd FLOOR - FLOOR PLAN

SCALE: 3/16" = 1'-0"

NOTE: FURNITURE SHOWN ON PLAN IS FOR REFERENCE ONLY

HARDWARE

HARDWARE SET #3G

EACH TO HAVE:

HINGES	QUANTITY & TYPE AS REQUIRED
1 OFFICE LOCK	F04
1 FLOOR STOP	L02121 X 3 FASTENERS
1 COAT HOOK	L03121
1 THRESHOLD	J32300 X 57mm WIDTH (2-1/4")
1 AUTO DOOR BOTTOM	ROY346 - HEAVY DUTY
2 SETS SELF-ADHESIVE SEALS	ROY154

HARDWARE SET #4K

EACH TO HAVE:

1 CONTINUOUS HINGE	x INTEGRAL HINGE GUARD CHANNEL x ADJUSTABLE SCREWS
1 UTILITY LOCK	F09
1 ARMOR PLATE	J101 x 1.275 MM (0.50 INCH) THICKNESS
1 EDGE GUARD (@ WOOD DOORS)	J208M/J211 (VERIFY), CUT: HARDWARE
1 FLOOR STOP	L02121 x 3 FASTENERS
1 SET SELF-ADHESIVE SEALS	R0Y154

HARDWARE SET #5D

EACH TO HAVE:

HINGES	QUANTITY & TYPE AS REQUIRED
1 STOREROOM LOCK	F07
1 KICK PLATE	J102 (@ STOREROOM, EVM, & HAC ROOMS ONLY)
1 FLOOR STOP (@ INSWING DOORS)	L02121 x 3 FASTENERS
1 WALL STOP (@ OUTSWING DOORS)	L02101 CONVEX
3 SILENCERS	L03011

HARDWARE SET #5E

EACH TO HAVE:

1 CONTINUOUS HINGE	x INTEGRAL HINGE GUARD CHANNEL x ADJUSTABLE SCREWS
1 STOREROOM LOCK	F-13 x RIGID OUTSIDE LEVER x KEY RETRACTS DEADBOLT AND LATCHBOLT
1 ARMOR PLATE	J101 x 3.125 MM (0.125 INCH) THICKNESS
1 EDGE GUARD (@ WOOD DOORS)	J208M/J211 (VERIFY), CUT: HARDWARE
1 FLOOR STOP	L02121 x 3 FASTENERS
1 SET SELF-ADHESIVE SEALS	R0Y154

HARDWARE SET #6E

1 CONTINUOUS HINGE	x INTEGRAL HINGE GUARD CHANNEL x ADJUSTABLE SCREWS
1 EXIT DEVICE	TYPE 1 F08 LEVER
1 KEY CYLINDER	TYPE AS REQUIRED
1 KICK PLATE	J102
1 EDGE GUARD (@ WOOD DOORS)	J208M/J211 (VERIFY), CUT: HARDWARE
1 FLOOR STOP	L02121 x 3 FASTENERS
1 SETS SELF-ADHESIVE SEALS	R0Y154

HARDWARE SET #SH-4

EACH TO HAVE:

1 STEEL FRAME	
1 INTEGRATED DOOR W/ELEC. EXIT DEVICE	Q2131 x TYPE 8 ELECTRIC DEVICE (E01, E05/E06 - VERIFY) x F13
1 CONTINUOUS TRANSFER HINGE	A51031B x 4 - THRUWIRE TRANSFER x IN-HINGE ACCESS PANEL
1 POWER SUPPLY	REGULATED, FILTERED, 24VDC, AMPERAGE AS REQUIRED
1 CLOSER	C02021 (PT4D, PT4F, PT4H)
1 ARMOR PLATE	J101 x 1.275 mm (0.050 INCH) THICKNESS
1 FLOOR STOP	L02121 x 3 FASTENERS
1 SET SELF-ADHESIVE SEALS	R0E154
1 ALARM CONTACT	

120VAC POWER, CONDUIT, AND WIRING BY DIVISION 26.
CARD READER BY DIVISION 28.
LOCK CYLINDER BY SECTION 08 71 00, DOOR HARDWARE.

DOOR SCHEDULE

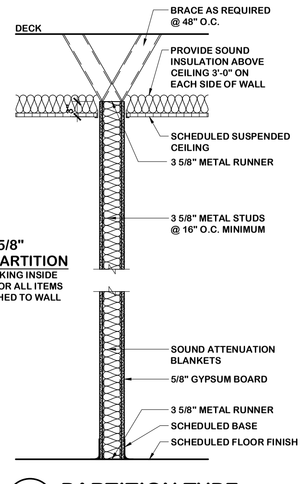
DOOR NO.	SIZE WD	SIZE HGT	SIZE THK	TYPE	DOOR MATERIAL	JAMB MATERIAL	HDW SET	REMARKS
2	3'-0"	7'-0"	1 3/4"	1	WOOD	HOLLOW METAL	SH4	W/O GLASS
3	3'-0"	7'-0"	1 3/4"	1	WOOD	HOLLOW METAL	5D	W/O GLASS
4	5'-0"	7'-0"	1 3/4"	19	WOOD	HOLLOW METAL	6E	W/GLASS
5	3'-0"	7'-0"	1 3/4"	19	WOOD	HOLLOW METAL	3G	W/O GLASS
6	3'-8"	7'-0"	1 3/4"	1	WOOD	HOLLOW METAL	5E	W/O GLASS
7	3'-8"	7'-0"	1 3/4"	3	WOOD	HOLLOW METAL	4K	W/GLASS

NOTES:
1. DOOR HARDWARE SHALL CONFORM TO THE MOST STRINGENT REQUIREMENTS SET FORTH IN THE VA TECHNICAL INFORMATION LIBRARY, AND THE LATEST EDITION OF INTERNATIONAL BUILDING CODE (IBC)
2. SEE STANDARD DOOR TYPE DETAIL #SD080000-01 FOR DOOR TYPES
3. ALL DOORS SHALL BE FLUSH FACE AND 44.45mm (1-3/4") THICK UNLESS NOTED OTHERWISE
4. TOP AND SIDE RAILS SHALL BE 228.6mm (9") MINIMUM. BOTTOM RAILS SHALL BE 304.8mm (12") MINIMUM
5. DOOR GLAZING TO BE TEMPERED GLASS
6. SEE SPECIFICATIONS FOR MORE INFORMATION ON DOOR HARDWARE

TYPE "1" SOLID CORE/WOOD

TYPE "3" SOLID CORE/WOOD

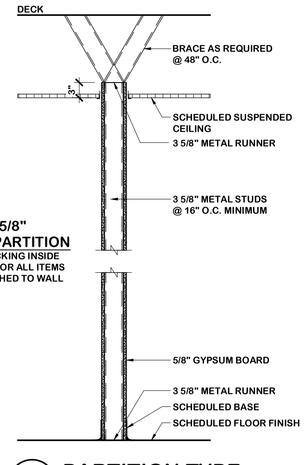
TYPE "19" SOLID CORE/WOOD



NON-RATED 3 5/8" METAL STUD PARTITION
PROVIDE WOOD BLOCKING INSIDE WALL AS REQUIRED FOR ALL ITEMS AND SYSTEMS ATTACHED TO WALL

A PARTITION TYPE
SCALE: 3/4" = 1'-0"

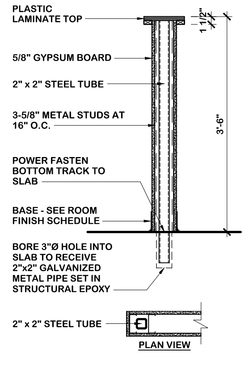
A1 GYPSUM BOARD ONE SIDE ONLY



NON-RATED 3 5/8" METAL STUD PARTITION
PROVIDE WOOD BLOCKING INSIDE WALL AS REQUIRED FOR ALL ITEMS AND SYSTEMS ATTACHED TO WALL

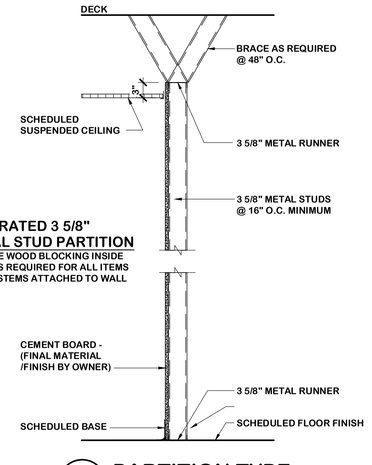
B PARTITION TYPE
SCALE: 3/4" = 1'-0"

B1 GYPSUM BOARD ONE SIDE ONLY



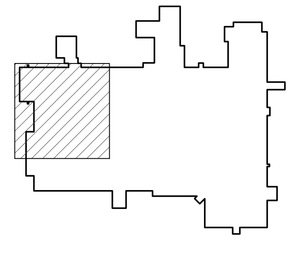
C PARTITION TYPE
SCALE: 3/4" = 1'-0"

C1 GYPSUM BOARD ONE SIDE ONLY



NON-RATED 3 5/8" METAL STUD PARTITION
PROVIDE WOOD BLOCKING INSIDE WALL AS REQUIRED FOR ALL ITEMS AND SYSTEMS ATTACHED TO WALL

D PARTITION TYPE
SCALE: 3/4" = 1'-0"



2ND FLOOR – KEYPLAN

Revisions:	Date:

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STATE OF FLORIDA ANDREW Z. PALASZ AR96063 REGISTERED ARCHITECT

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
FLOOR PLAN, SCHEDULES & PARTITION TYPES	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number
		Issue Date: 02/07/2018 · Checked: AP · Drawn: MH	1-AE102-N

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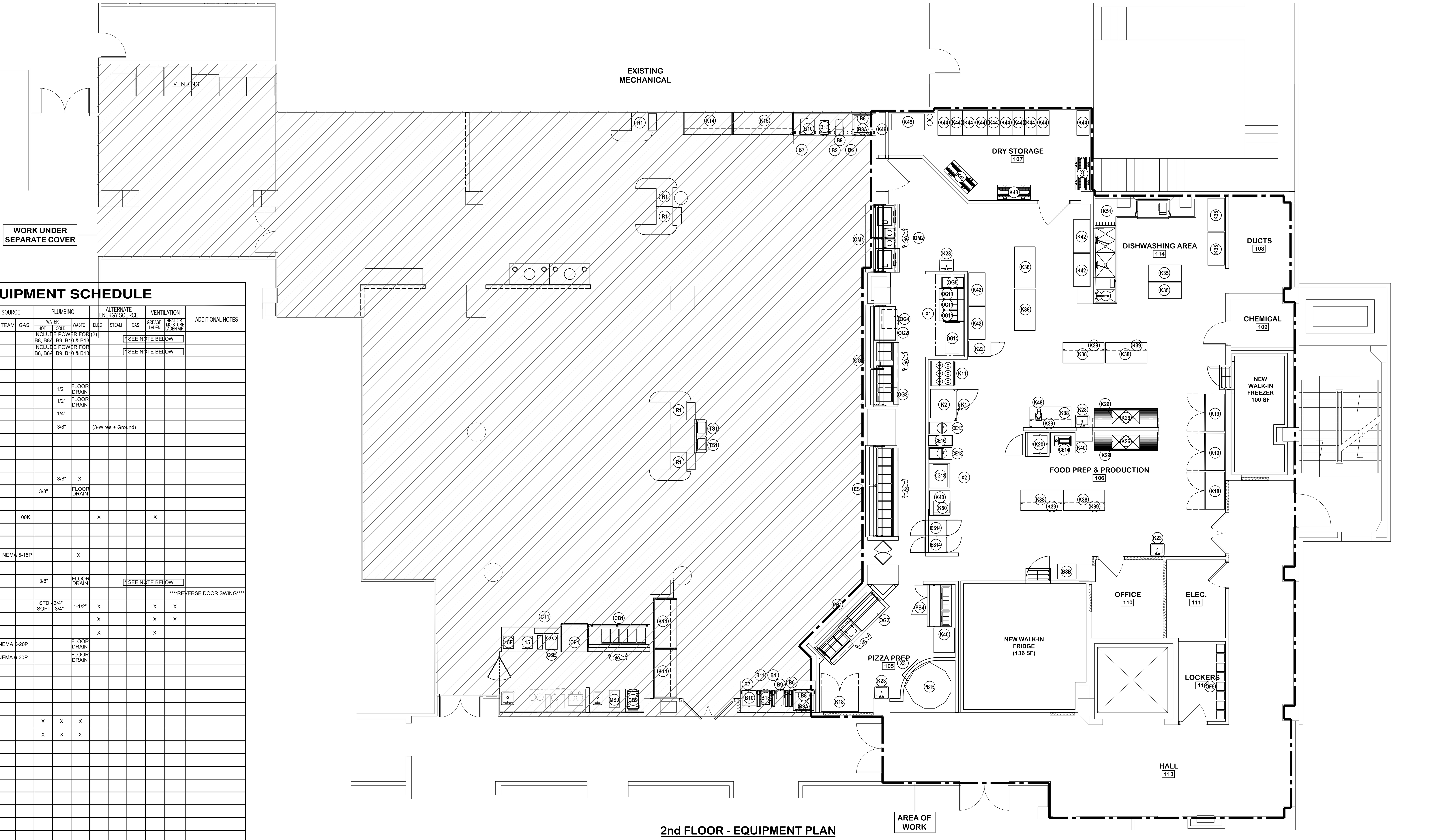


2nd FLOOR - EQUIPMENT PLAN

SCALE: 3/16" = 1'-0"

FOOD SERVICE EQUIPMENT SCHEDULE

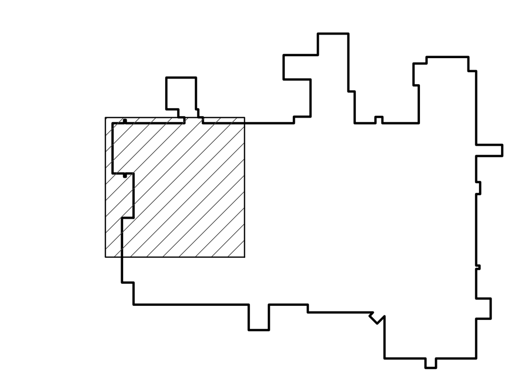
EQUIPMENT SPECIFICATIONS					PREFERRED ENERGY SOURCE					PLUMBING			ALTERNATE ENERGY SOURCE			VENTILATION		ADDITIONAL NOTES
NO.	ITEM	MODEL	SIZE L/W/H	SUPPLIER/ INSTALLER	ELECTRICAL WALL	ELECTRICAL VOLTS	POWER KW/AMPS	STEAM	GAS	WATER HOT	WATER COLD	WASTE	ELEC	STEAM	GAS	GREASE LADEN	HEAT OR MOISTURE LADEN AIR	
B1	BEVERAGE COUNTER	FABRICATED	108/46/34	VC	12" AFF	120/1	6.2A			INCLUDE POWER FOR (2) B8, B8A, B9, B10 & B13					* SEE NOTE BELOW			
B2	BEVERAGE COUNTER	FABRICATED	120/46/34	VC	12" AFF	120/1	6.2A			INCLUDE POWER FOR B8, B8A, B9, B10 & B13					* SEE NOTE BELOW			
B6	COLD CUP DISPENSER (6)	DISPENSE-RITE WR-CT-4	7/20/24	VV														
B7	HOT CUP DISPENSER (4)	DISPENSE-RITE WR-CT-3	7/20/19	VV														
B8	BEVERAGE/ICE DISPENSER (2)	PROVIDED BY COKE	30/30/38	VC	BUILT IN	120/1	2.5A				1/2"	FLOOR DRAIN						
B8A	ICE MACHINE (2)	HOSHIZAKI KMD-460MAH	30/24/22	VC	BUILT IN	120/1	15A				1/2"	FLOOR DRAIN						
B9	GOLD PEAK TEA DISPENSER (2)	PROVIDED BY COKE VENDOR	9/18/34	VC	BUILT IN	120/1	2.5A				1/4"							
B10	COFFEE BREWER (2)	BUNN ICB TWIN TALL	22/22/37	VC	BUILT IN	120/1	26A				3/8"		(3-Wires + Ground)					
B11	AIR POT (6)	BUNN ICB 3 LITER AIR POT	8dia./13	VV														
B13	COFFEE CREAMER (2)	INTERNATIONAL DELIGHT	13/20/31	VC	BUILT IN	120/1	2.8A											
C1	CONDIMENT STAND (2)	FABRICATED	60/30/45	VC														
C6E	ESPRESSO MACHINE (EXISTING)	VERISMO 701	17/21/30	VC	12" AFF	220/1	6.6KW 30A				3/8"	X						
CB1	THE CUTTING BOARD	FABRICATED W/5 COLD WELLS	89/46/34	VC	12" AFF	120/1	16A			3/8"		FLOOR DRAIN						
CB9	ENCORE OVEN	TURBO-CHEF ENCORE	33/22/19	VC	40" AFF	220/1	30A											
CE13	PRESSURE FRYER (2)	BROASTER 1800/2400	18/35/46	VC	18" AFF	115/1	15A		100K				X			X		
CE14	BREADER	BROASTER 620 EASY BREADER	24⅝/15/5⅜	VC	18" AFF	115/1	15A											
CE16	DUMPING TABLE	BROASTER 85212	16/26/40	VC														
CP1	PASTRY/COOLER DISPLAY CASE	STRUCT CONCEPTS HUDLR3852	40/42/53	VC	18" AFF	120/1	14.6A	NEMA 5-15P				X						
CT1	COUNTER TOP	FABRICATED W/GATE	85/36/34	VC														
ES1	ENTREES AND SIDES	FABRICATED W/ 10 HOT WELLS	132/46/34	VC	12" AFF	208/1	60A			3/8"		FLOOR DRAIN			* SEE NOTE BELOW			
ES14	1 SECTION WARMER PASS-THRU (2)	ALTO SHAM 1200-UPS/SR/STD	24/32/74	VC	48" AFF	120/1	16A											****REVERSE DOOR SWING****
K1	COMBITHERM OVEN W/ LEGS	ALTO SHAAM CTC7-20E	44/46/37	VC	48" AFF	208/3	46A			STD - 3/4" SOFT - 3/4"		1-1/2"	X			X	X	
K2	CONVECTION OVEN W/ STACK KIT	ALTO SHAAM ASC-4E	38/44/58	VC	48" AFF	240/3	25A						X			X	X	
K11	RANGE W/ OVEN	VULCAN EV36S-6FP208	36/42/36	VC		208/3	54A						X			X		
K14	REFRIGERATED SELF-SERVER CASE (3)	STRUCT CONCEPTS B7132	71⅝/32¼/82¼	VC	48" AFF	208/1	14.27A	NEMA 6-20P				FLOOR DRAIN						
K15	REFRIGERATED SELF-SERVER CASE	STRUCT CONCEPTS B8832	88⅜/32¼/82¼	VC	48" AFF	208/1	20.38A	NEMA 6-30P				FLOOR DRAIN						
K18	2 SECTION REFRIGERATOR (2)	TRUE TS-49	54⅛/29½/78⅜	VC	48" AFF	115/1	9.1A											
K19	2 SECTION FREEZER (2)	TRUE TS-49F	54⅛/29½/78⅜	VC	48" AFF	115/1	13.2A											
K20	1 SECTION ROLL-IN REFRIGERATOR	TRUE STG1RRI-1S	35/39/84	VC	48" AFF	115/1	8.9A											
K22	LOW TEMPERATURE SMOKER OVEN	ALTO SHAAM 1200-SK/III	32/22/75	VC	48" AFF	208/1 /60	32A											
K23	HANDWASH SINK (4)	EAGLE GROUP HSAN-10-F-LRS	18/12/14	VC						X	X	X						
K26	PREP SINK (2)	EAGLE GROUP FN2040-2-24-14/3	92/27/45	CC						X	X	X						
K29	OVERHEAD SHELF (2)	EAGLE GROUP WS1296	96/12/12	VC														
K35	POT & PAN RACK (4)	METRO PR48X3	48/24	VC														
K38	WORK TABLE W/ DRAWER (7)	EAGLE GROUP T3060STEB-BS	60/30/34	VC														
K39	OVERHEAD SHELF (5)	EAGLE GROUP DOS1260	60/12/12	VC														
K40	WORK TABLE W/ DRAWER (3)	EAGLE GROUP T3036STEB-BS	36/30/34	VC														
K42	MOBILE SHELF (4)	CAMBRO EMU244878P580	48/24/78	VC														
K43	DUNNAGE SHELF (3)	CAMBRO DRS 480	48/21/12	VV														
K44	SLIDING RACK STORAGE SYSTEM (10)	CAMBRO EMU183675V4	36/18/75	VV														
K45	BAG-IN-BOX SHELVES	PROVIDED BY COKE	42/18/87	VC														
K46	CO2/SYRUP LINE CONDUIT	PROVIDED BY COKE		CC														
K48	FOOD PROCESSOR	ROBOT COUPE R2DICE	9/17/27	VC	48" AFF	120/1	13A											
K50	TOASTER	HATCO TRH-60	18/23/16	VC	36" AFF	208/1	18.3A											
K51	DISH WASH EQUIPMENT	POWERSOAK CONFIGURATION	-	VC														***PROVIDE ROOM DIMENSIONS AND PDF LAYOUT CONFIGURATION TO WWW.UNIFIEDBRANDS.NET***
MS9	PANINI	STAR PST14	16½/23⅛/10	VC	48" AFF	115/1	15A	NEMA 5-15P										
OF3	LOCKERS (3)	TENNSCO TTS-121524-3SD	36/15/78	VC														
OG1	OFF THE GRILL	FABRICATED W/4 HOT 2/COLD WELLS	148/46/34	VC	12" AFF	208/1	42A			3/8"		FLOOR DRAIN			* SEE NOTE BELOW			
OG2	HEATED SHELF (BUILT-IN) (2)	HATCO GRSB-48-0	48¾/30¾/2⅞	VC	BUILT IN	120/1	11.9A											***BUILT INTO OG1 & P1 LOAD CTR***
OG3	1-DRAWER WARMER (BUILT-IN)	HATCO HDW-1BN	20/28/10	VC	BUILT IN	120/1	3.8A											***BUILT INTO OG1 LOAD CTR***
OG4	2-DRAWER WARMER (BUILT-IN)	HATCO HDW-2BN	21/27/27	VC	BUILT IN	120/1	7.5A											***BUILT INTO OG1 LOAD CTR***
OG5	DUMP TABLE W/ HEAT LAMP	FRYMASTER	16/36/40	VC	12" AFF	120/1	6.9A											
OG11	FRYER - ELECTRIC (3)	FRYMASTER OCF30ATOE FPEL114-2C	15⅝/30⅞/45⅜	VC	18" AFF	208/3	39A								X	X		
OG13	GRIDDLE	KEATING 36x30 E	36/30/36	VC	18" AFF	208/3	22A								X	X		
OG14	GRIDDLE	KEATING 48x30 E	48/30/36	VC	18" AFF	208/3	36A								X	X		
OM1	OMELETTE BAR	FABRICATED W/4 HOT/COLD WELLS	99/46/34	VC	12" AFF	208/1	45A			3/8"		FLOOR DRAIN						
OM2	INDUCTION RANGE (COUNTERTOP)(2)	VOLLRATH 59500P	13/16/4	VC	BUILT IN	120/1	15A	NEMA 5-15P										***BUILT INTO OM1 LOAD CTR***
PB1	PIZZA SHOP	FABRICATED W/3 HOT/1 COLD WELLS	118/46/34	VC	12" AFF	208/1	35A			3/8"		FLOOR DRAIN						
PB4	REFIG FOOD PREP. TABLE	TRUE TPP-60	72⅜/34⅛/40⅜	VC	12" AFF	115/1	10.3A	NEMA 5-15P										

VV = VCS PURCHASE AND INSTALL
VC = VCS PURCHASE AND VAMC CONSTRUCTION CONTRACTOR INSTALL
CC = VAMC CONSTRUCTION CONTRACTOR PURCHASE AND INSTALL

* NOTE: FABRICATE COUNTER PIECES NO LONGER THAN 8'-0" FOR EASE OF DELIVERY. IF SHOWN LARGER ABOVE, BREAK INTO MULTIPLE PARTS.

FOOD SERVICE EQUIPMENT SCHEDULE

EQUIPMENT SPECIFICATIONS					PREFERRED ENERGY SOURCE					PLUMBING			ALTERNATE ENERGY SOURCE			VENTILATION		ADDITIONAL NOTES
NO.	ITEM	MODEL	SIZE L/W/H	SUPPLIER/ INSTALLER	ELECTRICAL WALL	ELECTRICAL VOLTS	POWER KW/AMPS	STEAM	GAS	WATER HOT	WATER COLD	WASTE	ELEC	STEAM	GAS	GREASE LADEN	HEAT OR MOISTURE LADEN AIR	
PB15	PIZZA OVEN	WOOD STONE MT. ADAMS 5' WS-MS-5-RFG-IR	63/45/77	VC	18" AFF	120/1	1.1A		188K 3/4"							X	X	
R1	REGISTER STAND (6)	FABRICATED 1 TRAY SLIDE	44/60/49	VC	STUB UP	120/1	15A	DEDICATED CLEAN LINE REQD.										
R2	CASH REGISTER (**7**)	NCR RealPOS 70xrt	12/14½/14½	VV	STUB UP			**VERIFY EXISTING REGISTER COUNT** PROVIDE DEDICATED CIRCUIT					***(6) PROGRAMMED FOR THE CAFE*** ***(1) PROGRAMMED FOR THE COFFEE SHOP***					
X1	EXHAUST HOOD	TBD	TBD	CC														
X2	EXHAUST HOOD	TBD	TBD	CC														
X3	EXHAUST HOOD	TBD	TBD	CC														
B8B	ICE MACHINE	HOSHIZAKI KMD-600MAH	22/27/37	VC	BUILT IN	120/1	15A				1/2"	FLOOR DRAIN						W/BIN B-300



2ND FLOOR — KEYPLAN

Revisions: | Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: EQUIPMENT PLAN

Approved: Project Director
DALE A. BACIK, P.E.

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: RENOVATE VCS PATRIOT CAFE

Location: MIAMI, FL

Issue Date: 02/07/2018 | Checked: AP | Drawn: MH

Project Number: 546-17-109

Building Number: 1

Drawing Number: 1-AQ102

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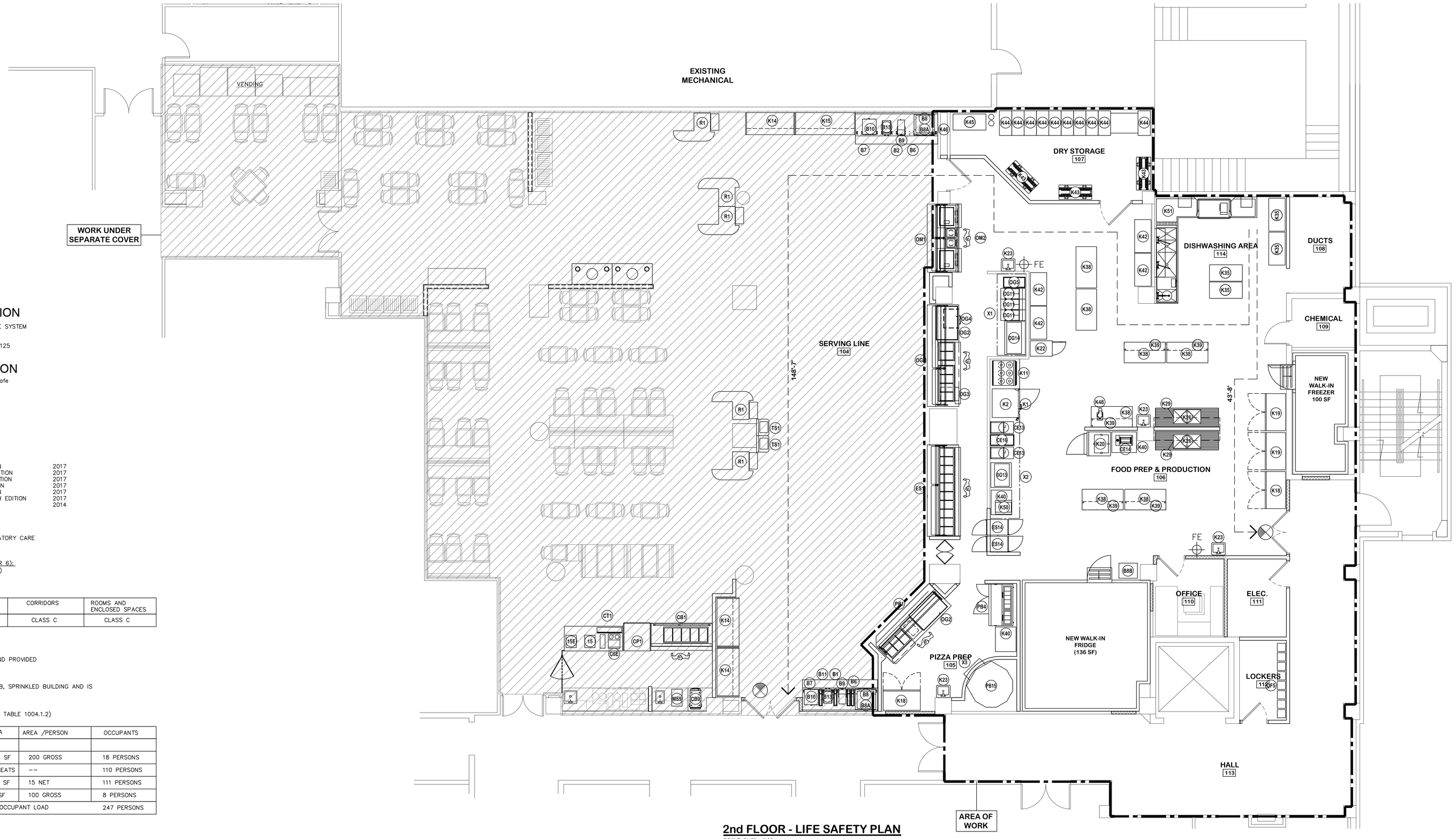


2nd FLOOR - LIFE SAFETY PLAN

SCALE: 3/16" = 1'-0"

PROJECT INFORMATION

PROJECT NAME: MIAMI VA HEALTHCARE SYSTEM

PROJECT LOCATION: 1201 NW 16TH ST.
MIAMI, FLORIDA 33125

PROJECT DESCRIPTION

Interior renovation of VCS – Patriot Cafe

BUILDING DATA:

TOTAL SQUARE FOOTAGE: 9,147 sf

CODE REFERENCE

APPLICABLE CODES:

FLORIDA BUILDING CODE, SIXTH EDITION	2017
FLORIDA ACCESIBILITY CODE, SIXTH EDITION	2017
FLORIDA MECHANICAL CODE, SIXTH EDITION	2017
FLORIDA PLUMBING CODE, SIXTH EDITION	2017
FLORIDA BUILDING CODE, SIXTH EDITION	2017
FLORIDA FIRE PREVENTION CODE, SIXTH EDITION	2017
NFPA 70, NATIONAL ELECTRICAL (EXCEPT ARTICLE 80)	2014

OCCUPANCY (FBC CHAPTER 3):
BUSINESS – GROUP B – AMBULATORY CARE

TYPE OF CONSTRUCTION (FBC CHAPTER 6):
TYPE 2B (PROTECTED, SPRINKLED)

INTERIOR FINISHES (TABLE 803.9):

OCCUPANCY	EXIT ENCLOSURES AND PASSAGEWAYS	CORRIDORS	ROOMS AND ENCLOSED SPACES
GROUP B	CLASS B	CLASS C	CLASS C

AUTOMATIC SPRINKLER SYSTEMS:
(FBC 903.2.2 AMBULATORY CARE)
AUTOMATIC SPRINKLER IS REQUIRED AND PROVIDED

FIRE ALARM REQUIREMENTS:
(FBC 907, NFPA 72)
FIRE ALARM IS REQUIRED FOR GROUP B, SPRINKLED BUILDING AND IS PROVIDED.

MEANS OF EGRESS (FBC CHAPTER 10)
POPULATION/ OCCUPANCY LOAD (FROM TABLE 1004.1.2)

USE	AREA	AREA /PERSON	OCCUPANTS
SECOND FLOOR:			
KITCHEN (COMMERCIAL)	3,538 SF	200 GROSS	18 PERSONS
ASSEMBLY (FIXED SEATS)	110 SEATS	--	110 PERSONS
ASSEMBLY (UNCONCENTRATED)	1,665 SF	15 NET	111 PERSONS
HALL	733 SF	100 GROSS	8 PERSONS
SECOND FLOOR	TOTAL OCCUPANT LOAD		247 PERSONS

MEANS OF EGRESS
(FBC CHAPTER 10)

	SPRINKLED, BUSINESS OCCUPANCY	
OCCUPANCY:	REQUIRED	PROVIDED
MAXIMUM TRAVEL DISTANCE (TABLE 1016.2)	300 FT	< 300 FT
MAXIMUM DEAD-END CORRIDOR (FBC 1018.4)	50 FT	< 50 FT
TOTAL # OF SPACE EXITS (SECTION 1015.1.1)	2 IF GREATER THAN 49 OCCUPANTS	2
COMMON PATH OF EGRESS TRAVEL (SECTION 1014.3)	100'	< 100'
MINIMUM CORRIDOR AISLE WIDTH (TABLE 1018.2)	44"	96" MIN.
MINIMUM CLEAR OPENING OF EXIT DOORS (SECTION 1008.1.1)	32"	AT LEAST 34"

SYMBOLS LEGEND

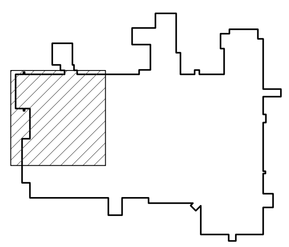
EXIT SIGN WITH BATTERY PACK

FE FIRE EXTINGUISHER & WALL BRACKET

NOTE:
SEE LIGHTING PLAN FOR EMERGENCY LIGHTING FIXTURES.

TRAVEL DISTANCE

TRAVEL DISTANCE (TD)
TD = 100'
DIRECTION OF TRAVEL



2ND FLOOR – KEYPLAN

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LIFE SAFETY PLAN	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-AW102
		Issue Date: 02/07/2018 · Checked: AP · Drawn: MH	

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MECHANICAL LEGEND

DUCTWORK SYMBOLS

- UP / DN — SUPPLY DUCT (UP & DOWN)
- UP / DN — EXHAUST DUCT (UP & DOWN)
- UP / DN — RETURN DUCT (UP & DOWN)
- SQUARE CEILING DIFFUSER
- SUPPLY TOP REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN CEILING REGISTER OR GRILLE
- EXHAUST OR RETURN BOTTOM REGISTER OR GRILLE (WALL TYPE)
- EXHAUST OR RETURN REGISTER OR TOP GRILLE (WALL TYPE)
- VANED ELBOW & AIR SPLIT TYPE DUCT TAKE-OFF
- CONNECT NEW DUCT TO EXISTING DUCT
- R — INCLINED RISE, IN DIRECTION OF AIR FLOW
- D — INCLINED DROP, IN DIRECTION OF AIR FLOW
- LIMIT OF DEMOLITION
- FLEXIBLE CONNECTION, EQUIPMENT, VIBRATION
- VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
- STANDARD RADIUS ELBOW (LONG RADIUS)
- U — 1" DOOR UNDERCUT

DUCTWORK SYMBOLS

- EXISTING DUCT TO REMAIN
- EXISTING DUCT TO BE REMOVED
- 10x8 — NEW RECTANGULAR DUCT (INSIDE DIMENSIONS: WIDTH x DEPTH)
- 10ø — NEW ROUND DUCT (INSIDE DIMENSIONS: DIAMETER)
- 10x8ø — NEW OVAL DUCT (INSIDE DIMENSIONS: WIDTH x DEPTH)
- FLEXIBLE DUCTWORK (INSULATED)
- MANUAL VOLUME DAMPER
- FD — FIRE DAMPER
- SD — SMOKE DAMPER
- FSD / DD — COMBINATION FIRE/SMOKE DAMPER
- DD — DUCT SMOKE DETECTOR (FURNISHED BY DIVISION 28, INSTALLED BY DIVISION 23, WIRED BY DIVISION 28)
- M — MOTORIZED CONTROL DAMPER
- AFM — AIRFLOW MEASURING DEVICE
- 45° SUPPLY / 45° RETURN — STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)

PIPING SYMBOLS

- LPS — LOW PRESSURE STEAM SUPPLY
- CR — LOW PRESSURE STEAM CONDENSATE RETURN
- CHWS — CHILLED WATER SUPPLY
- CHWR — CHILLED WATER RETURN
- D — DRAIN LINE
- X — EXISTING PIPE TO BE REMOVED

GENERAL PIPING SYMBOLS

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION, 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- PIPE UP
- PIPE DOWN
- THERMOMETER
- PRESSURE GAGE
- TEST PLUG (PRESSURE/TEMPERATURE)
- AV — AUTOMATIC AIR VENT
- MV — MANUAL AIR VENT
- QUICK-COUPLE HOSE CONNECTOR

VALVE SYMBOLS

- GATE VALVE
- GLOBE VALVE
- CHECK VALVE
- FLEXIBLE CONNECTION
- BUTTERFLY VALVE
- BALL VALVE
- MODULATING CONTROL VALVE
- THREE-WAY CONTROL VALVE
- AUTOMATIC FLOW CONTROL VALVE
- CALIBRATED BALANCING VALVE
- GATE VALVE WITH 3/4" HOSE ADAPTER
- WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
- ANGLE GLOBE VALVE

CONTROLS DEVICE SYMBOLS

- T — SPACE THERMOSTAT - WALL MOUNT
- T — SPACE TEMPERATURE SENSOR - WALL MOUNT
- H — SPACE HUMIDITY SENSOR - WALL MOUNT
- PC — SPACE PRESSURE CONTROLLER & DISPLAY - WALL MOUNT
- PS — SPACE PRESSURE SENSOR - WALL MOUNT

MIXING BOX SYMBOL

MB-X

EQUIPMENT ANNOTATIONS

1-2-AHU13

- BUILDING NO. WHERE EQUIPMENT IS LOCATED
- ITEM (AIR HANDLER UNIT SHOWN)
- ITEM NUMBER (TERMINAL UNIT NO. 1)
- FLOOR NO. WHERE EQUIPMENT IS LOCATED

DRAWING SYMBOLS

- DRAWING MATCHLINE

GENERAL NOTES

1 THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND INDICATIVE OF WORK TO BE PROVIDED (FURNISHED AND INSTALLED) UNDER THIS CONTRACT. DRAWINGS SHOULD NOT BE SCALED. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY SPACE ALLOCATED PRIOR TO ORDERING EQUIPMENT.

2 PERFORM ALL WORK IN COMPLIANCE WITH ALL APPLICABLE FEDERAL, STATE, AND LOCAL CODES, REGULATIONS, AND STANDARDS ADOPTED BY THE AUTHORITY HAVING JURISDICTION. IF CONFLICTS EXIST BETWEEN THESE ENGINEERING DOCUMENTS AND CODES, THE MOST STRINGENT REQUIREMENTS SHALL GOVERN.

3 ALL CONSTRUCTION WORK SHALL ALSO MEET THE FOLLOWING CODE REQUIREMENTS:

3A VA HVAC DESIGN MANUAL
3B FLORIDA BUILDING CODE (FBC) 2017
3C FLORIDA EXISTING BUILDING CODE 2017
3D FBC MECHANICAL 2017
3E FBC PLUMBING 2017
3F FBC ENERGY CONSERVATION 2017
3G FLORIDA FIRE PREVENTION CODE 2017
3H NFPA 101-2012, THE LIFE SAFETY CODE
3I NFPA 51B-2009, STANDARD FOR FIRE PREVENTION DURING WELDING, CUTTING AND OTHER HOT WORK
3J NFPA 13-2010, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
3K NFPA 90A-2012, STANDARD FOR THE INSTALLATION OF AIR CONDITIONING AND VENTING SYSTEMS.
3L NFPA 99-2012, STANDARD FOR HEALTH CARE FACILITIES
3M NFPA 241-2009, STANDARD FOR SAFEGUARDING CONSTRUCTION, ALTERATION AND DEMOLITION OPERATIONS.

4 THE CONTRACTOR SHALL EXAMINE THE EXISTING CONDITIONS UNDER WHICH HE SHALL OPERATE AND VERIFY THE EXTENT OF WORK REQUIRED TO COMPLETE THE WORK UNDER THIS CONTRACT.

5 CONTRACTOR SHALL COORDINATE AND SEQUENCE DEMOLITION, CLEANING, AND CONSTRUCTION WORK.

6 CONTRACTOR SHALL REFER TO ALL DETAILS FOR PROPER GUIDANCE.

7 THE CONTRACTOR SHALL SUBMIT 5 COPIES OF SHOP DRAWINGS AND EQUIPMENT SUBMITTALS FOR ALL PRODUCTS USED ON PROJECT.

8 THE CONTRACTOR IS REQUIRED TO SUBMIT THREE COMPLETE O&M MANUALS IN THREE RING BINDERS AT SUBSTANTIAL COMPLETION. MANUALS SHALL INCLUDE INSTALLATION AND MAINTENANCE DATA ON ALL NEW EQUIPMENT AND MATERIALS, CERTIFIED TECHNICAL PRODUCT DATA, EQUIPMENT SHOP DRAWINGS, SPARE PARTS DATA, ETC. PROVIDE AN INDEX AND ASSOCIATED DIVIDERS.

9 THE CONTRACTOR IS TO MAINTAIN ONE SET OF CONSTRUCTION DRAWINGS ON SITE TO MARK UP AS-BUILT CONDITIONS WHICH WILL BE TRANSFERRED INTO CAD FORMAT AND PROVIDED TO THE OWNER ON COMPACT DISK.

10 ALL PERMITS, FEES, TAXES, ETC SHALL BE PAID BY CONTRACTOR AS PART OF THE TOTAL PROJECT COST.

11 THE CONTRACTOR SHALL MAINTAIN A COMPLETE PROJECT SCHEDULE AND SHALL UPDATE THIS SCHEDULE WEEKLY. ANY CHANGES SHALL BE NOTED AND AN UPDATED SCHEDULE SHALL BE PROVIDED TO THE OWNER.

12 CLOSE OUT DOCUMENTS: CONTRACTOR SHALL MAINTAIN A SET OF AS-BUILT DRAWINGS AND KEEP CURRENT DURING CONSTRUCTION OF THE PROJECT. THIS SET IS TO INCLUDE ALL CONTRACT CHANGES, MODIFICATIONS AND CLARIFICATIONS. THIS SET ALONG WITH ALL SHOP DRAWINGS SHALL BE TURNED OVER TO THE ARCHITECT/ENGINEER AFTER CONSTRUCTION COMPLETION.

MECHANICAL ABBREVIATIONS

(E)	EXISTING
AFF	ABOVE FINISHED FLOOR
AFM	AIR FLOW MEASURING DEVICE
AHJ	AUTHORITY HAVING JURISDICTION
AHU	AIR HANDLING UNIT
ATU	AIR TERMINAL UNIT
BHP	BRAKE HORSEPOWER
BOD	BOTTOM OF DUCT
BOS	BOTTOM OF STRUCTURE
CAV	CONSTANT AIR VOLUME
CD	CEILING SUPPLY AIR DIFFUSER
CFM	CUBIC FEET PER MINUTE
CHWR	CHILLED WATER RETURN
CHWS	CHILLED WATER SUPPLY
COR	CONTRACTING OFFICER'S REPRESENTATIVE
CU	CONDENSING UNIT
CTE	CONNECT TO EXISTING
DD	DUCT MOUNTED SMOKE DETECTOR
EA	EXHAUST AIR
EF	EXHAUST FAN
FBC	FIRE DAMPER
FD	FIRE DAMPER
FMC	FLORIDA MECHANICAL CODE 2014
FO	FLAT OVAL
FPM	FEET PER MINUTE
FSD	COMBINATION FIRE SMOKE DAMPER
GPM	GALLONS PER MINUTE
HHWR	HEATING HOT WATER RETURN
HHWS	HEATING HOT WATER SUPPLY
HP	HORSEPOWER OR HEAT PUMP
IN	INCH
MCA	MINIMUM CIRCUIT AMPACITY
MOCP	MAXIMUM OVERCURRENT PROTECTION
NC	NOISE CRITERIA
OA	OUTSIDE AIR
OBD	OPPOSED BLADE DAMPER
RA	RETURN AIR
RG	RETURN AIR GRILLE
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SQUARE FEET
SR	SUPPLY AIR REGISTER
TAB	TEST AND BALANCE
TOD	TOP OF DUCT
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER
VFD	VARIABLE FREQUENCY DRIVE
WG	WATER GAUGE

SHEET LIST - MECHANICAL - VA KITCHEN

SHEET NUMBER	SHEET NAME
1-MH001	LEGEND, NOTES AND SCHEDULES - HVAC
1-MH002	SCHEDULES - HVAC
1-MH102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC
1-MH102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - HVAC
1-MH103	ENLARGED 3RD FLOOR PLANS - HVAC
1-MH104	ENLARGED 4TH FLOOR PLANS - HVAC
1-MH115	ENLARGED 15TH FLOOR PLANS - HVAC
1-MH402	ENLARGED B200 MECHANICAL ROOM - HVAC
1-MH501	DETAILS - HVAC
1-MH502	DETAILS - HVAC
1-MH601	CONTROLS - HVAC

MECHANICAL NOTES

1 THE CONTRACTOR SHALL BE RESPONSIBLE TO COORDINATE WITH SUBMITTED EQUIPMENT TO ENSURE ALL INLET/OUTLET CONNECTIONS COORDINATE WITH FIELD INSTALLED DUCTWORK AND MAKE ANY NECESSARY DUCT MODIFICATIONS TO ENSURE PROPER OPERATION OF MECHANICAL EQUIPMENT.

2 SUBMITTALS SHALL MEET SCHEDULED DESIGN CHARACTERISTICS, INCLUDING BUT NOT LIMITED TO CFMS, EAT(DB/WB), ESP, CAPACITIES, VOLTAGES/PHASES, MCA/MOCP, SONES, ETC.

3 ALL DUCT CONSTRUCTION, INSTALLATION, AND SUPPORTS ARE TO COMPLY WITH LATEST EDITION OF SMACNA'S HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE DUCT. ALL DUCTWORK SHALL BE 2" PRESSURE CLASS UNLESS OTHERWISE NOTED.

4 ROUND DUCTS AND FITTINGS SHALL BE SPIRAL SEAM CONSTRUCTION, MANUFACTURED FROM G60 GALVANIZED STEEL ACCORDING TO ASTM A653/A924 AND AS SPECIFIED. RECTANGULAR DUCTWORK SHALL BE MANUFACTURED FROM G60 GALVANIZED SHEET METAL STEEL ACCORDING TO ASTM A653/A653M AND AS SPECIFIED.

5 INSULATE ALL CONCEALED, SINGLE WALL SUPPLY, RETURN, AND OUTSIDE AIR DUCTS WITH 2" THICK EXTERNAL MINERAL-FIBER BLANKET INSULATION, MINIMUM R-6, K=0.25 BTU-IN./SF-HR-°F, 1.5 LB/CF NOMINAL DENSITY, COMPLYING WITH ASTM C553 TYPE II AND ASTM C1290 TYPE III, JOHNS MANVILLE MICROLITE OR EQUAL. JOINTS TO BE STAPLED AND TAPED WITH PRESSURE SENSITIVE TAPE AS MANUFACTURED BY COMPAC INDUSTRIES MODEL #120 (FLAME SPREAD = 5, SMOKE DEVELOPED = 10) OTHER ACCEPTABLE MANUFACTURERS ARE OWENS CORNING AND KNAUF.
INSULATE ALL CONCEALED, SINGLE WALL SUPPLY, RETURN, AND OUTSIDE AIR DUCTS WITH 2" THICK EXTERNAL MINERAL-FIBER BLANKET INSULATION, MINIMUM R-6, K=0.25 BTU-IN./SF-HR-°F, 1.5 LB/CF NOMINAL DENSITY, COMPLYING WITH ASTM C553 TYPE II AND ASTM C1290 TYPE III, JOHNS MANVILLE MICROLITE OR EQUAL. JOINTS TO BE STAPLED AND TAPED WITH PRESSURE SENSITIVE TAPE AS MANUFACTURED BY COMPAC INDUSTRIES MODEL #120 (FLAME SPREAD = 5, SMOKE DEVELOPED = 10) OTHER ACCEPTABLE MANUFACTURERS ARE OWENS CORNING AND KNAUF.

6 INSULATE ALL EXPOSED DUCTWORK [IN MECHANICAL ROOMS] WITH EXTERNAL MINERAL-FIBER DUCT BOARD, JOHNS MANVILLE SPIN-GLAS OR EQUAL. DUCT BOARD SHALL BE 2" THICK, 4.25 LB/CF NOMINAL DENSITY FOR SOUND ABSORPTION, COMPLYING WITH ASTM C612 TYPE 1A OR TYPE 1B. PROVIDE WITH FSK VAPOR BARRIER JACKET AND ALL JOINTS SECURELY TAPED WITH PRESSURE SENSITIVE TAPE PER FMC 603, FASSON 0810 OR APPROVED EQUAL, AND COVERED WITH MASTIC AND FIBROUS GLASS FABRIC. MASTIC SHALL BE APPLIED CLEANLY MEANING THAT EDGES SHALL BE TAPED OFF PRIOR TO APPLYING THEN REMOVED IN ORDER TO GIVE CLEAN MASTIC EDGES/LINES. AFTER MASTIC HAS DRIED, FOIL TAPE WITH BUTYL ADHESIVE BACKING SIMILAR TO HARDCAST PRODUCTS SHALL BE USED TO COVER MASTIC TO PROVIDE A CLEAN FOIL DUCT WITH NO MASTIC EXPOSED. METAL TO FIBERGLASS CONNECTIONS TO BE MADE USING 3" WIDE GLASS FABRIC TAPE WITH FOSTER 30/35 MASTIC OR EQUAL. SUPPORT DUCTS WITH 1x2x1 22-GAGE MINIMUM CHANNELS AND STRAP OR 12-GAGE WIRE FROM BUILDING CONSTRUCTION. SUSPEND FROM JOISTS WITH BEAM CLAMPS. PROVIDE HOT DIPPED STEEL FASTENERS, ANCHORS, RODS, STRAPS, TRIM AND ANGLES FOR SUPPORT OF DUCTWORK.

7 ALL WALL-MOUNTED THERMOSTATS AND/OR TEMPERATURE SENSORS SHALL BE INSTALLED AT AN ELEVATION OF 48" ABOVE FINISHED FLOOR TO THE TOP UNLESS OTHERWISE NOTED ON DRAWINGS. LOCATION OF WALL-MOUNTED THERMOSTATS SHALL BE COORDINATED WITH OTHER TRADES FOR A NEAT APPEARANCE. FINAL LOCATION OF THERMOSTATS SHALL BE SUBJECT TO THE APPROVAL OF THE ENGINEER OR REPRESENTATIVE IN THE FIELD.

8 ALL SUPPLY AIR DIFFUSERS SHALL BE 4-WAY THROW UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PAINT INSIDE EACH RETURN GRILLE'S PLENUM AND DUCT CONNECTION FLAT BLACK TO CONCEAL CONNECTION. COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES AND FIRE SPRINKLER HEADS. PRIOR TO INSTALLATION, THE CONTRACTOR IS TO REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR ACTUAL FINAL LOCATIONS OF AIR DEVICES.

9 DIFFUSERS/GRILLES SHALL NEVER BE INSTALLED ON SURFACE OF ACOUSTICAL LAY-IN TILE. ALL DIFFUSERS/GRILLES IN LAY-IN CEILINGS SHALL BE LAY-IN PANEL MOUNT. REFER TO SCHEDULE. GYPSUM BOARD SURFACE MOUNT DIFFUSERS SHALL NOT BE BEVEL MOUNT.

10 CONTRACTOR SHALL COORDINATE DIFFUSER/GRILLE LOCATIONS WITH STRUCTURE IN EXPOSED SITUATIONS IN ORDER TO ENSURE AIR IS NOT DIRECTLY SUPPLIED OR RETURNED OVER STRUCTURE OR OTHER TRADE COMPONENTS SUCH AS FIRE SPRINKLER PIPING, PLUMBING PIPING, ETC., CAUSING DUST ACCUMULATION. DUCTWORK ALONG WITH DIFFUSER/GRILLE LOCATIONS SHALL BE INSTALLED SYMMETRICALLY WITH ANY ADJACENT DUCTWORK/GRILLES. CENTER DIFFUSERS/GRILLES BETWEEN STRUCTURAL MEMBERS WHERE DUCTWORK AND STRUCTURAL MEMBERS ARE EXPOSED. CONTRACTOR SHALL BE RESPONSIBLE FOR FINAL INSTALLATION APPEARANCE AND SHALL MAKE APPROPRIATE CHANGES WHERE DIRECTED BY ARCHITECT/ENGINEER AT THEIR OWN EXPENSE WHERE ITEMS ARE NOT INSTALLED PER ABOVE STANDARDS.

11 CONTRACTOR SHALL PROVIDE A COPY OF THE TEST AND BALANCE REPORT BY AN AABC OR NEBB CERTIFIED AGENCY. THIS REPORT MUST BE REVIEWED AND APPROVED BY THE ENGINEER PRIOR TO THE FINAL INSPECTION. THE CONTRACTOR MUST ALSO PROVIDE ALL REPORTS REQUIRED BY THE SPECIFICATION. OUTDOOR TEMPERATURE (DB); OUTSIDE AIR (DB/WB & CFM); SUPPLY AIR AT UNIT DISCHARGE (DB/WB & CFM); RETURN AIR (MIXED) (DB/WB & CFM); LEAVING COIL (DB/WB); DIFFUSER/GRILLE (DB/WB); EQUIPMENT (EWT/LWT); EQUIPMENT (EAT/LAT); EQUIPMENT (GPM); EQUIPMENT (PRESSURES). OUTSIDE AIR CFM SHALL BE MEASURED DIRECTLY AND NOT CALCULATED FROM THE DIFFERENCE BETWEEN SUPPLY AIR CFM AND RETURN AIR CFM.

12 ALL AIR HANDLING UNITS SHALL BE MECHANICALLY ATTACHED TO OTHER AIR DISTRIBUTION SYSTEM COMPONENTS. AIR HANDLING UNITS LOCATED OUTSIDE THE CONDITIONED SPACE SHALL BE SEALED USING APPROVED CLOSURE SYSTEMS CONFORMING TO THE APPROVED CLOSURE AND MECHANICAL APPLICATION REQUIREMENTS OF FLORIDA BUILDING CODE.

13 ALL DUCTWORK MUST BE INSTALLED 6" AWAY FROM ANY FIRE RATED WALL TO FACILITATE INSPECTION.

14 THE GENERAL CONTRACTOR IS RESPONSIBLE FOR ALL TRADES INSTALLATION SCHEDULES. FIXED WORK SUCH AS DUCTWORK AND PLUMBING SHALL BE INSTALLED PRIOR TO ANY TRADE WORK THAT CAN BE EASILY RELOCATED OR OFFSET SUCH AS ELECTRICAL CONDUITS, SMALL WATER LINES, ETC. IDEALLY DUCTWORK SHALL BE INSTALLED FIRST.

15 PENETRATIONS THROUGH SMOKE OR FIRE-RATED ASSEMBLIES: PENETRATIONS FOR PIPES, CONDUITS OR OTHER PURPOSES THROUGH ASSEMBLIES (FLOORS, ROOF, WALLS, PARTITIONS, ETC.) WITH A REQUIRED FIRE RESISTANCE RATING SHALL BE SEALED TO THE PENETRATING MEMBER IN AN APPROVED MANNER WHICH MAINTAINS THE REQUIRED FIRE RESISTANCE RATING OF THE ASSEMBLY.

16 PROVIDE A FIRE DAMPER AT EVERY DUCT PENETRATION OF A FIRE-RATED WALL OR CEILING, WHETHER SHOWN ON DRAWINGS OR NOT.

17 WHERE HOLES FOR PENETRATIONS ARE FORMED CIRCULAR OR CORE-BORED, THE PENETRATION SHALL BE PROTECTED WITH FIRE-SEAL BRAND SMOKE AND FIRE STOP FITTINGS BY O-Z GEDNEY, LINK-SEAL BRAND BY THUNDER LINE, OR EQUAL APPROVED BY ENGINEER.

18 WHERE HOLES FOR PENETRATIONS ARE IRREGULAR (NON-CIRCULAR) IN SHAPE, THE PENETRATION SHALL BE PROTECTED WITH DOW CORNING 3-6548, SILICONE RTV FOAM, 3M FIRE BARRIER PENETRATION SEAL SYSTEM, OR EQUAL APPROVED BY THE ENGINEER.

19 INTENT OF MECHANICAL NOTES ON DRAWINGS IS TO CLARIFY THE SCOPE OF WORK AND ALERT CONTRACTOR OF EXISTING CONDITIONS. CONTRACTOR IS TO VISIT THE SITE AND VERIFY ALL CLEARANCES BEFORE FABRICATION OF DUCTWORK, AND PROVIDE ADDITIONAL OFFSET AND/OR CHANGES IN DUCT SIZES TO MEET FIELD CONDITIONS, AND TO COORDINATE WITH ELECTRICAL, PLUMBING, AND FIRE PROTECTION SUBCONTRACTORS, BEFORE ANY CONSTRUCTION WORK.

20 FLEXIBLE AND RIGID ROUND DUCT TAKE-OFFS FOR DIFFUSERS SHALL BE THE SAME SIZE AS DIFFUSER NECK. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0".

21 INSTALL DUCTWORK AS HIGH AS POSSIBLE, TIGHT TO BOTTOM OF STRUCTURE, UNLESS NOTED OTHERWISE. COORDINATE DUCT ELEVATIONS WITH RAIN LEADERS, WATER PIPING, SANITARY DRAINS, AND MAJOR ELECTRICAL -CONDUITS.

22 CONTRACTOR SHALL PROVIDE ALL SUPPLEMENTARY STEEL REQUIRED TO SUSPEND/SUPPORT MECHANICAL EQUIPMENT AND MATERIALS.

23 CONTRACTOR SHALL INSTALL MOTORIZED OUTSIDE AIR DAMPERS FOR ALL AIR HANDLING EQUIPMENT. AIR HANDLING UNITS SHALL HAVE AN EQUIVALENT OR BETTER OF RUSKIN "CD60" DAMPER, WHICH SHALL MODULATE PER 24V ACTUATOR MECHANICALLY WIRED. ALL DAMPERS SHALL CLOSE UPON UNIT SHUTDOWN.

24 PROVIDE A TRAP IN ALL CONDENSATE PIPING LOCATED AT THE AIR HANDLING EQUIPMENT. INSULATE ALL CONDENSATE LINES WITH 1/2" CLOSED CELL FOAM INSULATION. ALL PIPING EXPOSED TO EXTERNAL ELEMENTS SHALL BE JACKETED WITH UV STABILIZED PVC OR ALUMINUM SHEETING.

25 PROVIDE A 4" HIGH CONCRETE HOUSEKEEPING PAD UNDER ALL MECHANICAL EQUIPMENT, UNLESS NOTED OTHERWISE. PADS SHALL BE 4" LARGER THAN EQUIPMENT ON ALL SIDES.

26 ALL UNDERGROUND PIPING SHALL HAVE A MINIMUM 3'-0" OF COVER, UNLESS NOTED OTHERWISE.

27 IT IS THE RESPONSIBILITY OF THE MECHANICAL INSTALLER TO PATCH AND REPAIR ANY DUCT OPENINGS WHICH RESULT FROM THE RELOCATION OR ELIMINATION OF ANY EXISTING AIR DEVICES. THE PATCH IS TO BE OF A SIMILAR MATERIAL TO THE REPAIRED DUCT AND TO BE SEALED IN ACCORDANCE WITH SMACNA STANDARDS.

MECHANICAL NOTES

28 AIR HANDLING EQUIPMENT WARRANTIES SHALL BE EQUAL TO OR EXCEED WARRANTY OF SCHEDULED EQUIPMENT, UNLESS NOTED OTHERWISE.

29 INSTALL DUCT SMOKE DETECTOR IN RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS OR OUTSIDE AIR CONNECTIONS, FOR ALL SYSTEMS WITH DESIGN CAPACITY GREATER THAN 2,000 CFM AND WHERE INDICATED ON PLANS.

30 LOCATIONS OF DUCT MOUNTED SMOKE DETECTORS SHOWN ON DRAWINGS ARE REFERENCE LOCATIONS ONLY. FINAL PLACEMENT OF DETECTORS IN DUCTWORK SHALL MEET THE REQUIREMENTS OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. PROVIDE A PRESSURE DIFFERENTIAL TEST AND MANUFACTURER'S TEST KIT. A COPY OF ALL TEST DATA SHALL BE MADE AVAILABLE AT FINAL INSPECTION. PROVIDE A READILY ACCESSIBLE DUCT ACCESS DOOR FOR INSPECTING AND SERVICING EACH DETECTOR. PROVIDE CEILING/WALL ACCESS PANELS WHERE INSTALLED IN INACCESSIBLE LOCATIONS; ACCESS PANELS IN RATED CONSTRUCTION SHALL BEAR A U.L. LABEL. ELECTRICAL CONTRACTOR SHALL PROVIDE WIRE TO DETECTOR. MECHANICAL CONTRACTOR SHALL INSTALL DETECTOR WITHIN THE DUCTWORK.

31 PROVIDE SEISMIC RESTRAINTS FOR DUCTWORK AND PIPING CONFORMING TO THE LATEST EDITION OF THE "SMACNA GUIDELINES FOR SEISMIC RESTRAINTS OF MECHANICAL SYSTEMS AND PLUMBING SYSTEMS."

32 PROVIDE ADDITIONAL DUCTWORK AND PIPING SUPPORTS ON BOTH SIDES AND WITHIN 18" OF EACH FIRE RATED WALL. DUCTWORK OR PIPING SHALL NOT BE SUPPORTED FROM ANY FIRE RATED WALL.

33 FOR DUCTWORK PENETRATING ONE HOUR FIRE RATED WALL, THE ENTIRE DUCT SYSTEM, TO BE CONSTRUCTED PER SMACNA STANDARDS WITH A MINIMUM OF 26 GA. STEEL DUCT AND SHALL CONTINUE IN THE HORIZONTAL DIRECTION WITHOUT ANY GRILLE OR OPENING FOR NOT LESS THAN 5'-0" FROM THE WALL AND DUCT SHALL NOT EXCEED SQUARE INCH REQUIREMENTS OF LOCAL CODE, OTHERWISE A FIRE DAMPER SHALL BE PROVIDED.

34 PROVIDE TURNING VANES IN ALL RECTANGULAR SUPPLY AIR DUCT ELBOWS WITH ANGLES FROM 45 DEGREES TO 90 DEGREES PER FIGURES 2-3, 2-4, 2-5 OF THE 1995 SMACNA DUCT CONSTRUCTION STANDARDS. PROVIDE SINGLE WALL VANE CONSTRUCTION FOR DUCTS UP TO 48" WIDE, AND DOUBLE WALL VANE CONSTRUCTION FOR LARGER DIMENSIONS.

35 DUCT DIMENSIONS SHOWN ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS (FREE AREA).

36 ALL HOOD MAKE-UP AIR DUCTS SHALL BE CONSTRUCTED OF SHEET METAL PER SMACNA STANDARDS.

37 GREASE HOOD DUCT SYSTEMS SHALL BE INSTALLED PER NFPA 96 AND FBC MECHANICAL 2014. DUCT MATERIAL SHALL BE CONSTRUCTED OF 16 GAGE CARBON STEEL NOT LESS THAN 0.055 INCHES (NO. 16G) OR STAINLESS STEEL NOT LESS THAN 0.044 INCHES (NO. 18G) THICKNESS. ALL JOINTS SHALL BE EXTERNALLY CONTINUOUS LIQUID-TIGHT WELDS. GREASE DUCT SYSTEMS SHALL NOT HAVE OPENINGS OTHER THAN THOSE REQUIRED FOR PROPER OPERATION AND MAINTENANCE. DUCT SYSTEMS SHALL BE DESIGNED AND INSTALLED SO AS TO PROVIDE AN AIR VELOCITY WITHIN THE DUCT SYSTEM OF NOT LESS THAN 1,500 FT/MIN AND NO GREATER THAN 2,500 FT/MIN. TO PREVENT ACCUMULATION OF GREASE. DUCT SYSTEMS SHALL BE CONSTRUCTED AND INSTALLED AT A SLOPE OF NOT LESS THAN 1/4 UNIT VERTICAL IN 12 UNITS HORIZONTAL TOWARD THE HOOD. WHERE HORIZONTAL DUCT EXCEEDS 75' IN LENGTH, SLOPE SHALL NOT BE LESS THAN ONE UNIT VERTICAL IN 12 UNITS HORIZONTAL, PER FBC MECHANICAL 2014 WITH ALL APPROPRIATE AMENDMENTS/SUPPLEMENTS. INSULATION FOR THE DUCT WORK SHALL BE 1HR FIRE RATED DUCT WRAP EQUAL TO PABCO FIRE DUCT.

38 DISHWASHER HOOD DUCT SYSTEM SHALL BE INSTALLED PER NFPA 96 AND "FLORIDA MECHANICAL CODE 2014 WITH UP TO DATE AMENDMENTS" AND ANY ADDITIONAL REVISIONS. DUCT MATERIAL SHALL BE CONSTRUCTED OF 18 GAGE STAINLESS STEEL NOT LESS THAN 0.044 INCHES (NO. 18G) THICKNESS. ALL JOINTS SHALL BE EXTERNALLY CONTINUOUS LIQUID-TIGHT WELDS. DUCT SYSTEMS SHALL NOT HAVE OPENINGS OTHER THAN THOSE REQUIRED FOR PROPER OPERATION AND MAINTENANCE. TO PREVENT ACCUMULATION OF WATER, DUCT SYSTEMS SHALL BE CONSTRUCTED AND INSTALLED AT THE APPROPRIATE SLOPE TOWARD THE HOOD, PER FBC MECHANICAL 2014 WITH ALL APPROPRIATE AMENDMENTS/SUPPLEMENTS.

39 CONTRACTOR SHALL COORDINATE ALL INTAKE/EXHAUST LOCATIONS TO ENSURE MINIMUM 10'-0" DISTANCE BETWEEN ANY INTAKES AND EXHAUSTS, PLUMBING VENTS, RELIEF, ETC.

40 ALL HVAC EQUIPMENT SHALL BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS UNLESS INDICATED OTHERWISE.

41 CONTRACTOR SHALL THOROUGHLY CLEAN AND ENSURE PROPER OPERATION OF ANY EXISTING HVAC EQUIPMENT. ANY CHANGE TO THE SYSTEM SHALL RESULT IN EQUIPMENT MODIFICATIONS (AS REQUIRED) INCLUDING BUT NOT LIMITED TO REPLACING MOTORS, VFDS, PULLEYS, SHEAVES, BELTS, ETC.

42 MECHANICAL CONTRACTOR SHALL SIZE AND INSTALL REFRIGERANT PIPING PER MANUFACTURER'S RECOMMENDATIONS. REFRIGERANT PIPING SHALL BE TYPE "L" COPPER WITH SOLDERED OR BRAZED JOINTS AND 1" CLOSED CELL INSULATION. ALL PIPING EXPOSED TO EXTERNAL ELEMENTS SHALL BE JACKETED WITH UV STABILIZED PVC OR ALUMINUM SHEETING. PRE-CHARGED LINES AND SOLDER ON SHORT 90'S ARE NOT ACCEPTABLE. CONTRACTOR SHALL USE SWEEPING 90'S AT EVERY BEND WITH EXCEPTION OF EQUIPMENT CONNECTIONS.

43 CONTRACTOR SHALL PROVIDE A PERMANENT/PROFESSIONAL LABEL FOR EACH PIECE OF EQUIPMENT, ASSOCIATED THERMOSTAT(S) AND/OR SENSOR(S).

44 EQUIPMENT LOCATION IDENTIFICATIONS AT CEILINGS: WHERE VALVES, EQUIPMENT SUCH AS VAV BOXES, FANS, ETC., CIRCUIT BREAKERS, OR OTHER ITEMS SUBJECT TO ROUTINE SERVICE, ARE MOUNTED IN A CONCEALED AREA ABOVE A CEILING, THE CEILING MUST BE MARKED WITH A LABEL UNDER THE SERVICED DEVICE. THE LABEL SHALL CARRY APPROPRIATE IDENTIFICATION TAG.

45 DUCTWORK, DIFFUSERS, REGISTERS, GRILLES, AND OTHER MECHANICAL SYSTEM COMPONENTS SHALL NOT BE SUPPORTED BY THE CEILING OR CEILING SUSPENSION SYSTEM.

46 METAL DUCTWORK SHALL BE CONNECTED TO MECHANICAL EQUIPMENT WITH FLEXIBLE DUCT CONNECTORS EQUAL TO DURO DYNE "SUPER METAL-FAB" WITH EXCELON FABRIC; "GRIP LOC" SEAM; 24 GAGE METAL TABS. INSULATION SHALL BE INSTALLED OVER METAL TABS AS TO NOT CAUSE FRICTION ON FABRIC.

47 LOW PRESSURE SUPPLY, RETURN, AND TRANSFER DUCTWORK SHALL BE EXTERNALLY INSULATED SHEET METAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS UNLESS OTHERWISE NOTED. DUCT INSULATION TO BE 2.0" THICK FOIL BACK WRAP, K=0.25 BTU-IN./SF-HR-°F 1.50LB/CF AS MANUFACTURED BY JOHNS MANVILLE OR EQUAL. JOINTS TO BE STAPLED AND TAPED WITH PRESSURE SENSITIVE TAPE (PER FMC 603) AS MANUFACTURED BY COMPAC INDUSTRIES MODEL #120 (FLAME SPREAD = 5, SMOKE DEVELOPED = 10) OTHER ACCEPTABLE MANUFACTURERS ARE OWENS CORNING AND KNAUF.

48 EXPOSED DUCTWORK SHALL BE DOUBLE WALL INSULATED DUCT EQUAL TO LINDAB "SPIROSAFE OR SPIROOVAL DOUBLE WALL SELF SEALING DUCT" WITH 2" R=8 INSULATION. DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH LATEST SMACNA STANDARDS UNLESS OTHERWISE NOTED. ALL EXPOSED DUCT SHALL CONTAIN FACTORY ADDED DIFFUSERS/GRILLES EQUAL TO SCHEDULED MAKE AND MODEL. PAINT GRIP AND PAINT PER ARCHITECT. UNLESS OTHERWISE NOTED.

49 IN LIEU OF DOUBLE WALL INSULATED DUCTWORK FOR EXPOSED DUCTWORK, INTERNALLY LINED SPIRAL ROUND SHEET METAL SHALL BE USED. INTERNAL INSULATION SHALL BE EQUAL TO JOHNS MANVILLE SPIRACOUSTIC PLUS AND SHALL BE A MINIMUM OF 1.5" THICK WITH A 4.0 LB/CF DENSITY AND ANTI-MICROBIAL COATING. CONFORM WITH UL STANDARDS FOR SAFETY AIR DUCT, NO. 181, 1967 ESTABLISHED FOR CLASS 1 AIR DUCTS. DUCT SHALL BE PAINT GRIP AND PAINT PER ARCHITECT. UNLESS OTHERWISE NOTED.

50 ALL MEDIUM PRESSURE SUPPLY DUCTWORK SHALL BE EXTERNALLY INSULATED SHEET METAL CONSTRUCTION IN ACCORDANCE WITH LATEST SMACNA STANDARDS. DUCT INSULATION TO BE 2.0" THICK FOIL BACK WRAP, K=0.25 BTU-IN./SF-HR-°F 1.50 LB/CF AS MANUFACTURED BY SCHULLER. JOINTS TO BE STAPLED AND TAPED WITH PRESSURE SENSITIVE TAPE AS MANUFACTURED BY COMPAC INDUSTRIES MODEL #120 (FLAME SPREAD = 5, SMOKE DEVELOPED = 10) OTHER ACCEPTABLE MANUFACTURERS ARE OWENS CORNING AND KNAUF.

51 ALL RETURN AIR DUCTWORK SHALL BE INTERNALLY INSULATED SHEET METAL CONSTRUCTION, UNLESS DOUBLE WALL INSULATED, IN ACCORDANCE WITH THE LATEST SMACNA STANDARDS UNLESS OTHERWISE NOTED. DUCT INSULATION SHALL BE 1.5" THICK DUCT BOARD (EQUAL TO JOHNS MANVILLE BONDED WITH THERMO SETTING RESIN ON AIR STREAM SIDE WITH AN ANTI-MICROBIAL COATING) AND CONFORM WITH UL STANDARDS FOR SAFETY AIR DUCT, NO. 181, 1967 ESTABLISHED FOR CLASS 1 AIR DUCTS. FACING SHALL BE FSK ALUMINUM FOIL.

52 FLEXIBLE DUCT SHALL HAVE CONTINUOUS TEAR RESISTANT LINER ENCASED BY INSULATING MATERIAL WITH AN OUTER VAPOR JACKET CONFORMING TO UL181 UNLESS THE FLEX DUCT MEETS THE CRITERIA STATED IN 2014 FLORIDA BUILDING CODE SECTION 419.3.6.4.

53 COORDINATE AIR DEVICE LOCATIONS WITH LIGHTING FIXTURES AND FIRE SPRINKLER HEADS.

54 CONTRACTOR SHALL SUPPLY PIPE SUPPORTS 4'-0" ON CENTERS FOR REFRIGERANT LINES AND CONDENSATE LINES. SUPPORTS SHALL BE PER DETAILS.

55 PROVIDE COMMISSIONING FOR ALL MECHANICAL EQUIPMENT INCLUDING BUT NOT LIMITED TO:

55A A COMMISSIONING PLAN.
55B TESTING, ADJUSTING, AND BALANCING OF AIR DISTRIBUTION SYSTEMS.
55C CONDUCT FUNCTIONAL PERFORMANCE TESTING.
55D PRELIMINARY COMMISSIONING REPORT OF TEST PROCEDURES AND RESULTS.
55E PRIOR TO FINAL INSPECTION, PROVIDE RECORD DRAWINGS, OPERATING AND MAINTENANCE MANUALS, SYSTEM BALANCING REPORT, AND FINAL COMMISSIONING REPORT TO THE OWNER.

Revisions: | Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LEGEND, NOTES AND SCHEDULES - HVAC

Approved: Project Director

DALE A. BACIK, P.E.

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: RENOVATE VCS PATRIOT CAFE

Location: MIAMI, FL

Issue Date: 02/09/2018 | Checked: NPS | Drawn: DM

Project Number: 546-17-109

Building Number: 1

Drawing Number: 1-MH001

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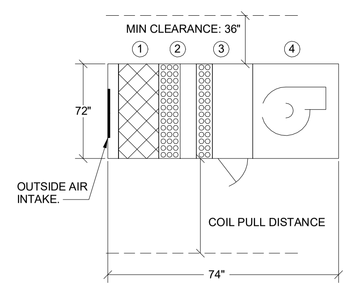
CHILLED WATER AIR HANDLER SCHEDULE - VA KITCHEN

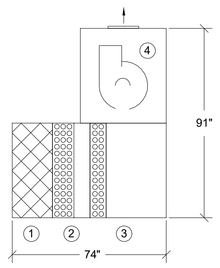
DESIGNATION	BASIS OF DESIGN		ACTUAL SUPPLY AIR FLOW	SUPPLY FAN					COOLING COIL												HEATING COIL							WEIGHT	REMARKS
	MANUFACTURER	MODEL		EXPANSION AIRFLOW	EXTERNAL STATIC PRESSURE	TOTAL STATIC PRESSURE	MOTOR POWER	MOTOR VOLTAGE	SYSTEM TYPE	FACE AREA	FACE VELOCITY	ROWS	EAT DB	EAT WB	LAT DB	LAT WB	TOTAL CAPACITY(MBH)	SENSIBLE CAPACITY(MBH)	EWT	LWT	SYSTEM TYPE	FACE AREA	FACE VELOCITY	ROWS	EAT DB	LAT DB	TOTAL CAPACITY(MBH)		
1-2-AH13	TRANE	CSIA021	7135 CFM	8000 CFM	1.50 in-wg	4.84 in-wg	15.0 hp	460 V	Chilled water	20.45 SF	350 FPM	8	92 °F	78 °F	52 °F	52 °F	711.9	358.5	43 °F	53 °F	Steam	17 SF	470 FPM	1	45 °F	88 °F	369.6	2650 lb	1-20

NOTES:

1. SELECTION OF AIR HANDLING UNITS SHALL BE BASED UPON SCHEDULED QUANTITIES UNDER "EXPANSION" COLUMNS. PROVIDE FAN CURVES FOR BOTH "DESIGN" AND "EXPANSION" AIR FLOWS TO ASSURE STABLE FAN OPERATION. UPON COMPLETION OF UNIT INSTALLATION, BALANCE UNITS TO PROVIDE "DESIGN" AIR QUANTITIES.
2. PROVIDE UNIT WITH SOLID DOUBLE WALL CONSTRUCTION, R-13 INSULATION, STAINLESS STEEL INTERIOR LINER, AND WITH NO THROUGH METAL CONSTRUCTION.
3. PROVIDE WITH FACTORY APPLIED ELECTRO-DEPOSIT ANTI-CORROSION COATING ON ALL COILS. SEE SPECIFICATIONS.
4. PROVIDE WITH UV LIGHTS AS REQUIRED ON DOWNSTREAM SIDE OF COOLING COIL. PROVIDE ACCESS DOORS WITH DOOR SWITCH INTERLOCKS TO TURN OFF UV LIGHTS AUTOMATICALLY WHEN AHU IS OPENED. PROVIDE UV LIGHT WARNING LABELS ON AHU DOORS.
5. PROVIDE AFTER-FILTER SECTION DOWNSTREAM OF COOLING COIL AND SUPPLY FAN, WITH 12" MERV 14 AFTER-FILTERS.
6. PROVIDE A SINGLE DIAL-TYPE DIFFERENTIAL PRESSURE GAUGE FOR EVERY FILTER SECTION.
7. PROVIDE ACCESS SECTIONS ON BOTH SIDES OF FILTER SECTIONS.
8. PROVIDE ACCESS DOORS ON BOTH SIDES OF UNIT.
9. ALL MOTORS SHALL BE PREMIUM EFFICIENCY.
10. ALL DAMPERS SHALL BE OPPOSED BLADE, ALUMINUM WITH STAINLESS STEEL HARDWARE. PROVIDE WITH SWITCH PACKAGE TO REMOTELY INDICATE DAMPER BLADE POSITION.
11. MODIFY EXISTING AHU SUPPORT FRAME AS NECESSARY TO ACCOMMODATE NEW UNIT. PROVIDE COORDINATED FRAMING PLAN FOR APPROVAL BY STRUCTURAL ENGINEER.
12. PROVIDE CONDENSATE TRAP AND DRAIN TO EXISTING DRAIN.
13. PROVIDE MODULATING 2-WAY ELECTRONIC CONTROL VALVE ON RETURN LINE FOR EACH HYDRONIC OR STEAM COIL.
14. COORDINATE INSTALLATION OF EQUIPMENT TO PROVIDE ACCESS FOR MAINTENANCE AND FILTER REPLACEMENT.
15. FOR ALL SYSTEMS WITH DESIGN SUPPLY AIR GREATER THAN 2000 CFM, INSTALL DUCT SMOKE DETECTOR IN RETURN AIR DUCT OR PLENUM UPSTREAM OF ANY FILTERS OR OUTSIDE AIR CONNECTIONS.
16. PROVIDE A SEPARATE VFD FOR EACH FAN, COMPLETE WITH SOFT START, MANUAL BYPASS SWITCH, SURGE PROTECTION, REACTORS, BYPASS WITH REDUCED VOLTAGE STARTERS, AND NEMA 12 ENCLOSURE; EATON OR APPROVED EQUAL.
17. PROVIDE UNIT IN SHIPPING SPLITS TO FIT MODULAR SECTIONS IN A STANDARD SIZE ELEVATOR AND INTO MECHANICAL ROOM; OR PROVIDE UNIT IN SHIPPING SPLITS TO FIT MODULAR SECTIONS THROUGH APPROX. 54"W x 84"H BLANK-OFF PANEL OPENING IN MECHANICAL ROOM WALL. PROVIDE CRANE AND RIGGING IF NECESSARY FOR INSTALLATION OF NEW UNIT AND REMOVAL OF EXISTING UNIT. CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND COORDINATE EQUIPMENT INSTALLATION PRIOR TO ORDERING ANY EQUIPMENT.
18. BASIS OF DESIGN EQUIPMENT SCHEDULED. OTHER MANUFACTURERS ARE ACCEPTABLE; HOWEVER EQUIPMENT NOT MEETING SCHEDULED CRITERIA CANNOT BE CONSIDERED.
19. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF FIELD CONDITIONS AND COORDINATING NEW EQUIPMENT DIMENSIONS AND INSTALLATION WITH FIELD CONDITIONS.
20. CONTRACTOR AND EQUIPMENT MANUFACTURERS SHALL WORK TOGETHER TO PROVIDE EQUIPMENT IN PARTS AND PIECES AS NECESSARY AND WITH FACTORY-CERTIFIED FIELD RE-ASSEMBLY.



PLAN VIEW



ELEVATION VIEW

AIR HANDLING UNIT	ITEM	100% OUTSIDE AIR TWO BEDS OF FILTERS CV
PRE-FILTER 1 (SIDE ACCESS)	1	YES
PRE-FILTER 2 (SIDE ACCESS)	1	YES
COOLING COIL AND UV LIGHTS	2	YES
REHEAT COIL	3	YES
FAN	4	YES
DISCHARGE PLENUM (HORIZONTAL)	4	YES

NOTE:

1. ACCESS DOORS SHALL BE GASKETED AND HINGED TO OPEN AGAINST FAN OPERATING PRESSURE TO PREVENT AIR LEAKAGE.
2. MINIMUM ACCESS DOOR WIDTH SHALL BE 24" [600mm].
3. ACCESS DOOR HEIGHT SHALL BE DETERMINED BY UNIT CASING BUT NOT TO EXCEED 6'-0" [1800mm].
4. ACCESS DOORS ON FAN SUCTION SHALL OPEN OUTWARD.
5. ACCESS DOORS ON FAN DISCHARGE SIZE SHALL OPEN INWARD.

A 1-2-AH13 - AIR HANDLING UNIT LAYOUT

NTS

AIR FLOW MEASURING DEVICE SCHEDULE

MARK	SYSTEM	LOCATION	AIR FLOW		DUCT SIZE	MAX. AIR PRESSURE DROP	NOTES
			MAX.	MIN.			
			CFM	CFM	IN.	IN. WG	
1-AFM13-SA	1-2-AH13	SUPPLY AIR DUCT	8,800	2,100	44x20	0.12	1, 2, 3, 4
1-AFM09-SA	1-2-AH09	SUPPLY AIR DUCT	6,100	1,400	44x16	0.12	1, 2, 3, 4
1-AFM09-OA	1-2-AH09	OUTSIDE AIR DUCT	1,700	1,000	20x12	0.12	1, 2, 3, 4
1-AFM09-RA	1-2-AH09	RETURN AIR DUCT	4,400	3,500	22x20	0.12	1, 2, 3, 4

NOTES

1. AIRFLOW MEASURING DEVICE MAXIMUM AIRFLOW DESIGNED FOR 110% OF ASSOCIATED FAN AIRFLOW.
2. COORDINATE EXACT DUCT SIZE WITH COORDINATED LAYOUT PRIOR TO ORDERING EQUIPMENT.
3. PROVIDE DEVICES WITH MINIMUM 2% AIRFLOW MEASUREMENT ACCURACY.
4. PROVIDE AIR FLOW MEASURING DEVICE IN LOCATION WITH SUFFICIENT UPSTREAM AND DOWNSTREAM STRAIGHT DUCT REQUIREMENTS PER MANUFACTURER'S RECOMMENDATIONS FOR PRODUCT PROVIDED. LOCATIONS SHOWN ON DRAWINGS ARE APPROXIMATE AND DIAGRAMMATIC ONLY. FIELD VERIFY EXACT LOCATIONS FOR AFM INSTALLATION.

HVAC DESIGN DATA

DESIGN CONDITIONS	SUMMER			WINTER		RELATIVE SPACE PRESSURE
	TEMPERATURE		RELATIVE HUMIDITY	TEMP	RELATIVE HUMIDITY	
	°Fdb	°Fwb	%	°Fdb	%	
OUTDOOR DESIGN CONDITIONS	92	78	54	48	NA	NA
INDOOR AREA TEMPERATURE/HUMIDITY SETPOINTS						
KITCHEN (FOOD PRODUCTION)	78	63	60	70	30	NEGATIVE (-)
DINING AREA (CAFETERIA)	75	63	60	70	30	NEGATIVE (-)
CORRIDORS	75	63	50	70	30	POSSITIVE (+)
OFFICES	75	63	50	70	30	NEUTRAL (o)
ALL OTHER SPACES	75	63	50	70	30	DATA SHEETS

FAN SCHEDULE - VA KITCHEN

FAN MARK	LOCATION	BASIS OF DESIGN		AIRFLOW			TOTAL STATIC PRESSURE IN. WG	EXTERNAL STATIC PRESSURE IN. WG	FAN		MOTOR ELECTRICAL					REMARKS
		MANUFACTURER	MODEL	EXPANSION CFM	DESIGN CFM	MINIMUM CFM			TYPE	DRIVE	HP	VOLTS	PHASE	MOTOR RPM	SPEED CONTROL	
1-4-EF13B	4TH FL ROOF	CAPTIVE-AIRE	DU180HFA	2000 CFM	1800	550 CFM	1.50	1.0	ROOF UPBLAST	DIRECT	1.00	460 V	3	1725	VFD	1-5
1-4-EF13C	4TH FL ROOF	CAPTIVE-AIRE	DU12HFA	1000 CFM	750	0 CFM	1.00	0.5	ROOF UPBLAST	DIRECT	0.25	460 V	3	1725	VFD	1-5
1-15-EF13A	15TH FL ROOF	GREENHECK	CUBE-300HP-50	8000 CFM	7000	1750 CFM	3.00	2.5	ROOF UPBLAST	BELT	5.00	460 V	3	1725	VFD	1-5

NOTES:

1. SELECTION OF EQUIPMENT FANS SHALL BE BASED UPON SCHEDULED QUANTITIES UNDER "EXPANSION" COLUMNS. PROVIDE FAN CURVES FOR BOTH "DESIGN" AND "EXPANSION" AIR FLOWS TO ASSURE STABLE FAN OPERATION. UPON COMPLETION OF UNIT INSTALLATION, BALANCE UNITS TO PROVIDE "DESIGN" AIR QUANTITIES.
2. AIRFLOW SHOULD BE SET TO MINIMUM CFM SHOWN DURING UNOCCUPIED TIMES.
3. PROVIDE A SEPARATE VFD FOR EACH INDIVIDUAL FAN, WITH SOFT START, MANUAL BYPASS SWITCH, AND NEMA 12 BOX; EATON OR APPROVED EQUAL.
4. CONTRACTOR IS RESPONSIBLE FOR VERIFICATION OF FIELD CONDITIONS AND COORDINATING NEW EQUIPMENT DIMENSIONS AND INSTALLATION WITH FIELD CONDITIONS.
5. CONTRACTOR AND EQUIPMENT MANUFACTURERS SHALL WORK TOGETHER TO PROVIDE EQUIPMENT IN PARTS AND PIECES AS NECESSARY AND WITH FACTORY-CERTIFIED FIELD RE-ASSEMBLY.

KITCHEN HOOD SCHEDULE - VA KITCHEN

MARK	BASIS OF DESIGN		AREA SERVED	HOOD TYPE	HOOD SIZE			EXHAUST (CFM)	EXHAUST DUCT QTY/SIZE	REMARKS
	MANUFACTURER	MODEL			LENGTH	DEPTH	HEIGHT			
H-1	CAPTIVEAIRE	5424 ND-2	SERVING LINE	EXHAUST (TYPE A)	7' - 10"	4' - 6"	2' - 0"	1900 CFM	1 / 14" DIA	1-3
H-2	CAPTIVEAIRE	5424 ND-2	KITCHEN	EXHAUST (TYPE A)	9' - 5"	4' - 6"	2' - 0"	2120 CFM	1 / 16" DIA	1-3
H-3	CAPTIVEAIRE	4824 VHB-G	DISHWASHER	EXHAUST (DISHWASHER)	5' - 0"	4' - 6"	2' - 0"	750 CFM	1 / 10" DIA	1-3

NOTES:
1. SUPPLY WITH R-102 WET AGENT FIRE SUPPRESSION SYSTEM AND ELECTRONIC CONTROL PACKAGE.
2. SUPPORT HOOD PER MANUFACTURER'S RECOMMENDATIONS.
3. INSTALL HOOD PER MANUFACTURER'S RECOMMENDATIONS.

AIR DEVICE SCHEDULE (SUPPLY, RETURN, EXHAUST)

MARK	BASIS OF DESIGN		TYPE	*FRAME	MATERIAL	REMARKS
	MANUFACTURER	MODEL				
CD-1	TITUS	TDC-AA	LOUVERED 24"X24" FACE W/ROUND NECK, SIZE AS INDICATED	LAY-IN	ALUMINUM	1,2,3
CD-2	TITUS	300FL	RECTANGULAR CEILING SUPPLY DIFFUSER, DOUBLE DEFLECTION, 3/4" SPACING, ADJ. BLADES	SURFACE	ALUMINUM	1,2,3
CG-1	TITUS	350FL	24"X24" CEILING GRILLE; 3/4" SPACING; 35 DEGREE DEFLECTION; SIZE AS INDICATED; 24X24 MODULE	LAY-IN	ALUMINUM	1,2,3
EG-1	Titus	350FL	24"X24" CEILING GRILLE; 3/4" SPACING; 35 DEGREE DEFLECTION; SIZE AS INDICATED; 24X24 MODULE	LAY-IN	ALUMINUM	1,2,3
EG-2	TITUS	350FL	RECTANGULAR CEILING GRILLE; 3/4" SPACING; 35 DEGREE DEFLECTION; SIZE AS INDICATED	SURFACE	ALUMINUM	1,2,3

NOTES:
1. RUNOUT BRANCH DUCT SHALL BE SAME SIZE AS INDICATED NECK SIZE.
2. PROVIDE VOLUME DAMPER INSTALLED IN BRANCH DUCT SERVING EACH DIFFUSER.
3. PROVIDE ALL REQUIRED ACCESSORIES FOR A COMPLETE INSTALLATION.

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
SCHEDULES - HVAC	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH002
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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GENERAL NOTES

1. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.
2. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.
3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 REMOVE AND PROPERLY DISPOSE OF EXISTING EXHAUST HOOD AND ASSOCIATED ACCESSORIES. REMOVE EXISTING GREASE DUCTWORK BACK TO LIMITS SHOWN. CONTRACTOR SHALL PERFORM A DUCT SCOPE ON EXISTING GREASE DUCT AND PROVIDE VIDEO TO ENSURE THE DUCT IS NOT COMPRIMISED. ANY COMPRIMISED SECTION SHALL BE REPLACED. REFER TO GENERAL NOTES FOR GREASE DUCT REQUIREMENTS.

2 REMOVE AND PROPERLY DISPOSE OF EXISTING AIR HANDLER AND ALL ASSOCIATED DUCTWORK, PIPING, VALVES AND ACCESSORIES UP TO LIMITS OF DEMOLITION OR TO MAIN SHUT OFF VALVES.

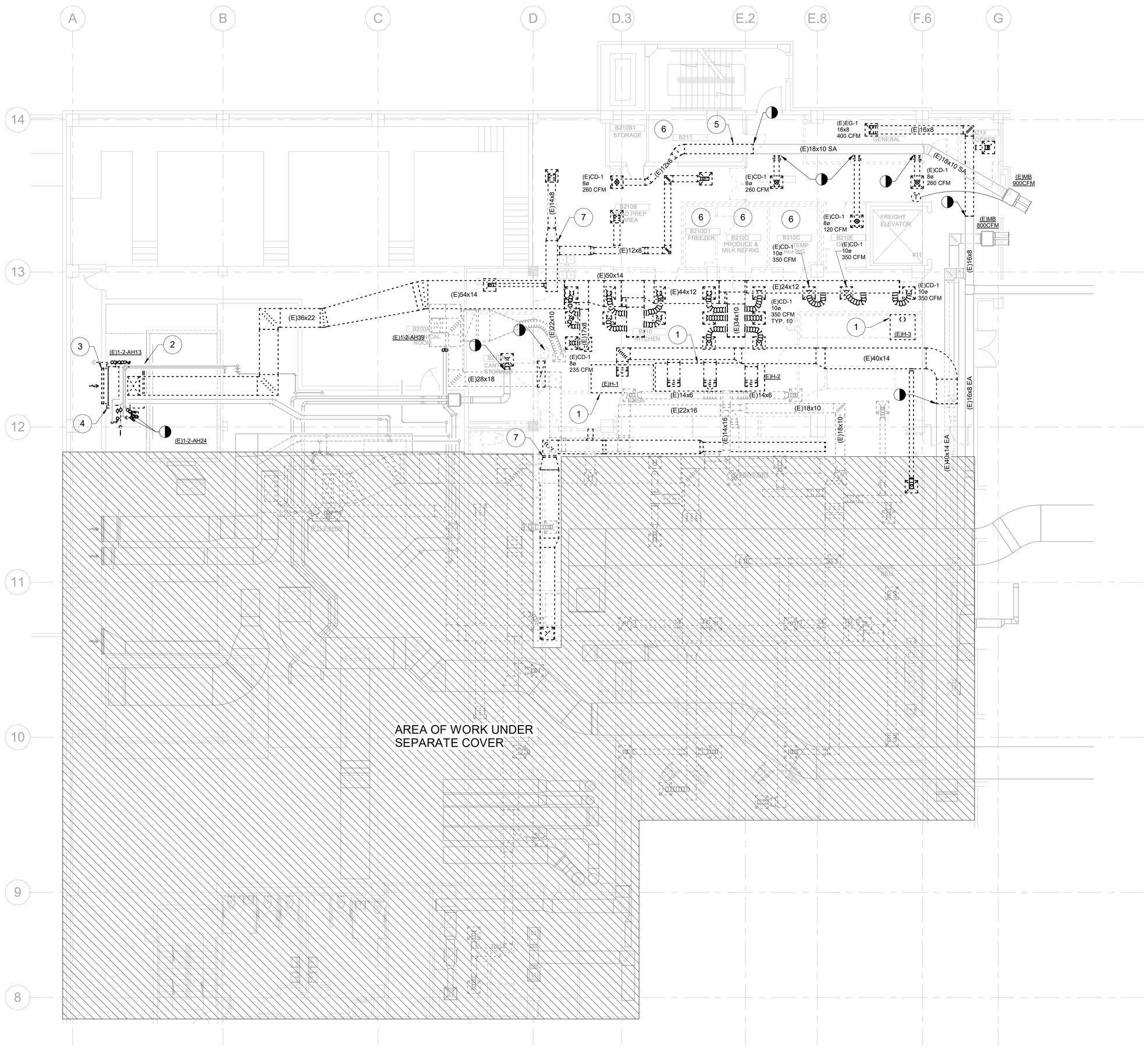
3 REMOVE EXISTING OUTSIDE AIR LOUVER AND ASSOCIATED DUCTWORK AND ACCESSORIES.

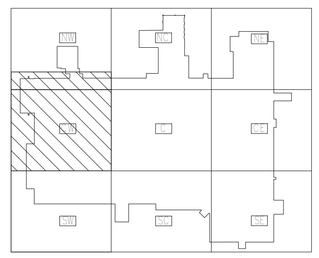
4 DEMOLISH EXISTING EQUIPMENT PAD TO MATCH THE HEIGHT OF ADJACENT PAD.

5 REMOVE AND PROPERLY DISPOSE OF EXISTING DUCTWORK BACK TO LIMITS OF DEMOLITION AND CAP.

6 REMOVE AND PROPERLY DISPOSE OF EXISTING WALK-IN REFRIGERATORS AND FREEZERS AND ASSOCIATED MECHANICAL COOLING EQUIPMENT. CONTRACTOR SHALL VERIFY LOCATION OF EXISTING MECHANICAL EQUIPMENT PRIOR TO CONTRUCTION. NEW EQUIPMENT TO BE LOCATED IN PLACE OF EXISTING.

7 REMOVE AND PROPERLY DISPOSE OF EXISTING EXHAUST SYSTEM AND ALL ASSOCIATED DUCTWORK, EQUIPMENT AND ACCESSORIES.





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TRUE PLAN

ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC - VA KITCHEN

Scale: 1/8" = 1'-0"

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ENLARGED 2ND FLOOR DEMOLITION PLAN - HVAC	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH102-D
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: DM	

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GENERAL NOTES

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2. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.
3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 KITCHEN EXHAUST HOOD INSTALLED BY VCS. VA TO CONNECT NEW GREASE EXHAUST DUCT TO KITCHEN HOOD.

2 EXHAUST DUCT UP TO 1-15-EF13A ON ROOF.

3 ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.

4 CONNECT 10" DIAMTER EXHAUST DUCT FROM PIZZA OVEN HOOD (PROVIDED BY VCS) TO GREASE EXHAUST DUCT.

5 EXHAUST DUCT UP TO FLOOR ABOVE.

6 ROUTE CHILLED WATER AND STEAM PIPING TO EXISTING SHUT OFF VALVES. PROVIDE ALL NECESSARY ACCESSORIES FOR A PROPER INSTALLATION. REFER TO DETAILS FOR MORE INFORMATION. CONTRACTOR SHALL ENSURE EXISTING VALVES ARE IN GOOD WORKING CONDITION. REPLACE IF NECESSARY.

7 PROVIDE NEW AIR HANDLING UNIT AND VIBRATION ISOLATORS. MODIFY EXISTING CONCRETE PAD AND AHU SUPPORT FRAME AS NECESSARY FOR NEW UNIT. CONNECT TO EQUIPMENT WITH FLEXIBLE DUCT CONNECTORS. PROVIDE NEW ELECTRONIC COOLING AND HEATING CONTROL VALVES, STEAM PIPING, AND CHILLED WATER PIPING AS NECESSARY TO EXISTING STEAM AND CHILLED WATER SYSTEMS. PROVIDE NEW CONDENSATE PIPING AND ROUTE TO EXISTING FLOOR DRAIN. PROVIDE NEW DIGITAL CONTROLS COMPONENTS AND SENSORS FOR NEW EQUIPMENT AND CONNECT TO EXISTING DDC SYSTEM. PROVIDE NEW DDC SPACE TEMPERATURE AND HUMIDITY SENSORS IN SPACE SERVED BY UNIT. REFER TO FLOOR PLANS FOR DEVICE LOCATIONS.

8 ROUTE STEAM SUPPLY AND CONDENSATE RETURN TO EXISTING PIPE OR SHUT OFF VALVE. PROVIDE ALL NECESSARY FITTINGS AND ACCESSORIES FOR A COMPLETE INSTALL. REFER TO STEAM COIL DETAIL FOR ALL REQUIRED ACCESSORIES.

9 ICE MAKER WITH REMOTE CONDENSER (PROVIDED BY VCS). REMOTE CONDENSER LOCATED ON 4TH FLOOR ROOF, OR OTHER APPROVED LOCATION PROVIDED BY VAMC. VA TO ROUTE NEW REFRIGERANT LINES FROM REMOTE CONDENSER TO INDOOR ICE MAKER. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION.

10 WALK-IN FRIDGE/FREEZER. LOCATE OUTDOOR UNITS WHERE EXISTING UNITS ARE LOCATED. CONTRACTOR SHALL VERIFY EXACT LOCATION PRIOR TO CONSTRUCTION AND ENSURE INSTALLATION MEETS MANUFACTURERER'S RECCOMMENDED INSTRUCTIONS.

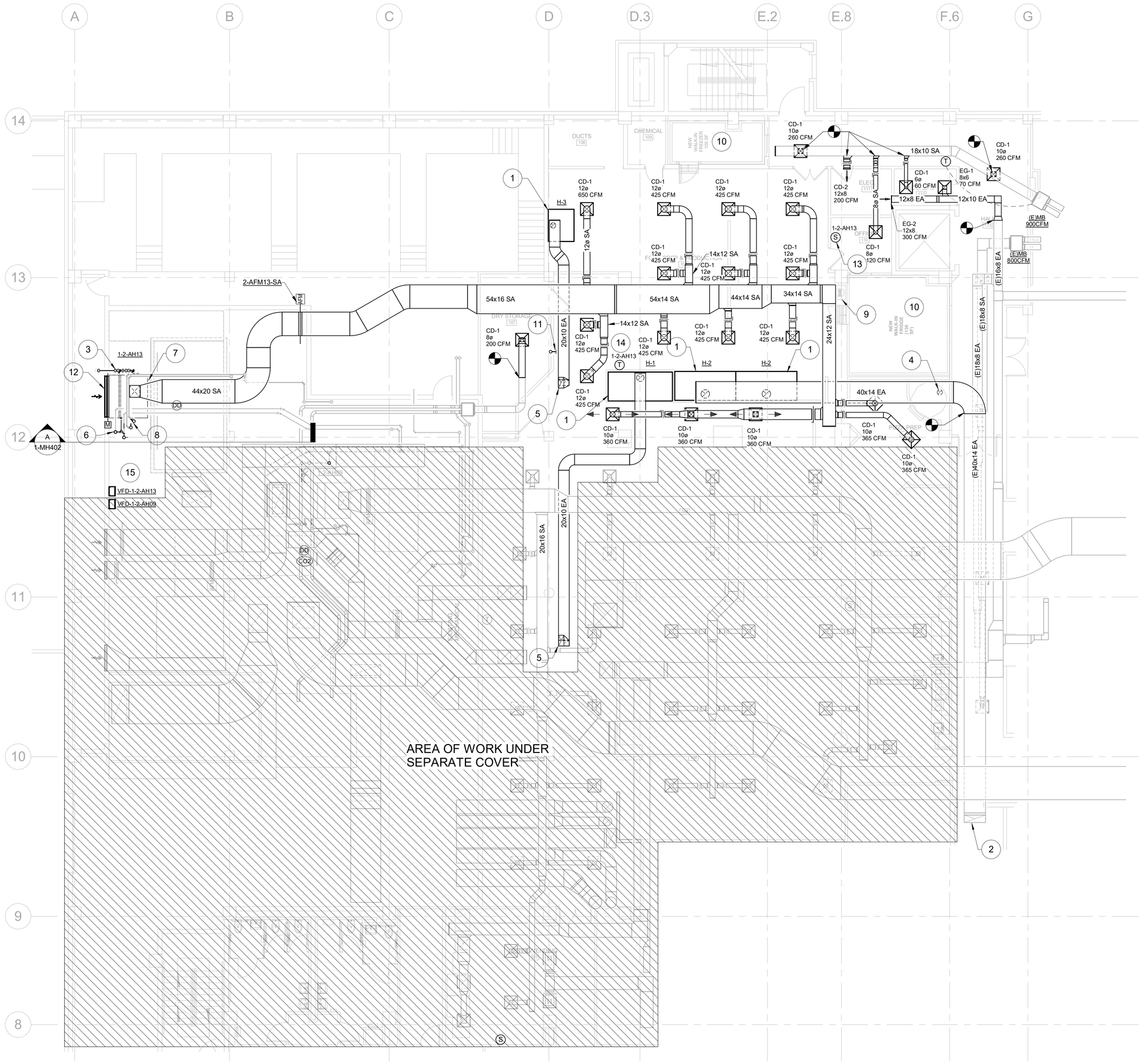
11 ROUTE REFRIGERANT PIPES TO ICE MAKER IN KITCHEN (EQUIPMENT NUMBER B8B).

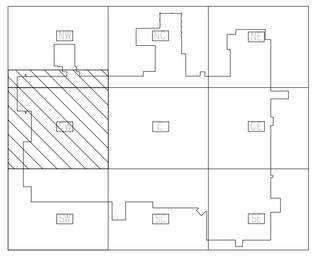
12 PROVIDE 76x46 OUTSIDE AIR LOUVER.

13 PROVIDE REMOTE TEMPERATURE SENSOR FOR ASSOCIATED AIR HANDLER AND USE FOR AVERAGING PURPOSES.

14 PROVIDE THERMOSTAT WITH TEMPERATURE AND HUMIDITY CONTROL. REFER TO SCHEDULE FOR MORE INFORMATION.

15 PROVIDE A VFD (ABB) FOR EACH INDIVIDUAL SUPPLY AND EXHAUST FAN.





ENLARGED 2ND FLOOR RENOVATION PLAN - MECHANICAL - VA KITCHEN

N TRUE N PLAN

Scale: 1/8" = 1'-0"

Revisions:	Date:

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NICHOLAS P. STEPHENSON, P.E. 83283

Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR RENOVATION PLAN - HVAC	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH102-N
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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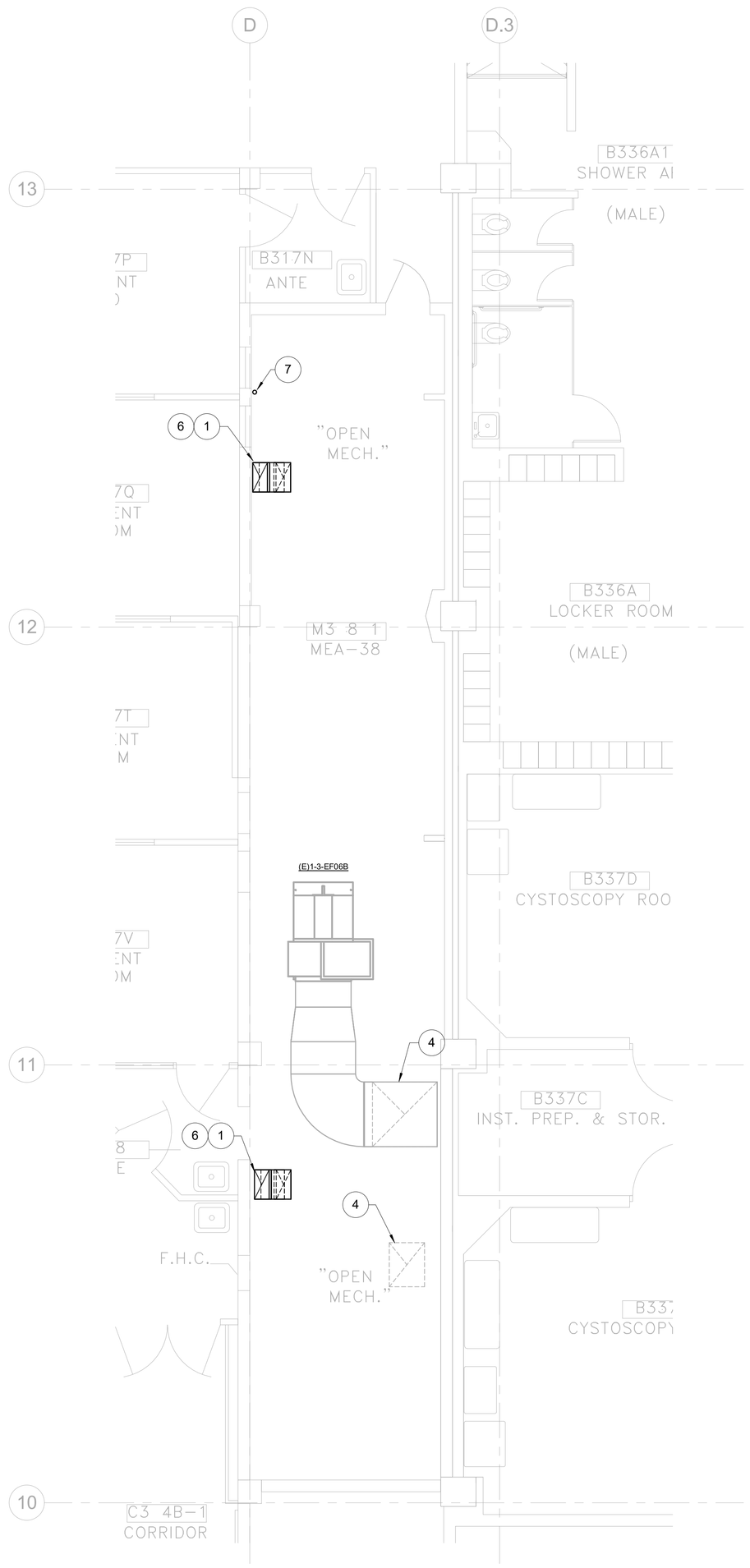
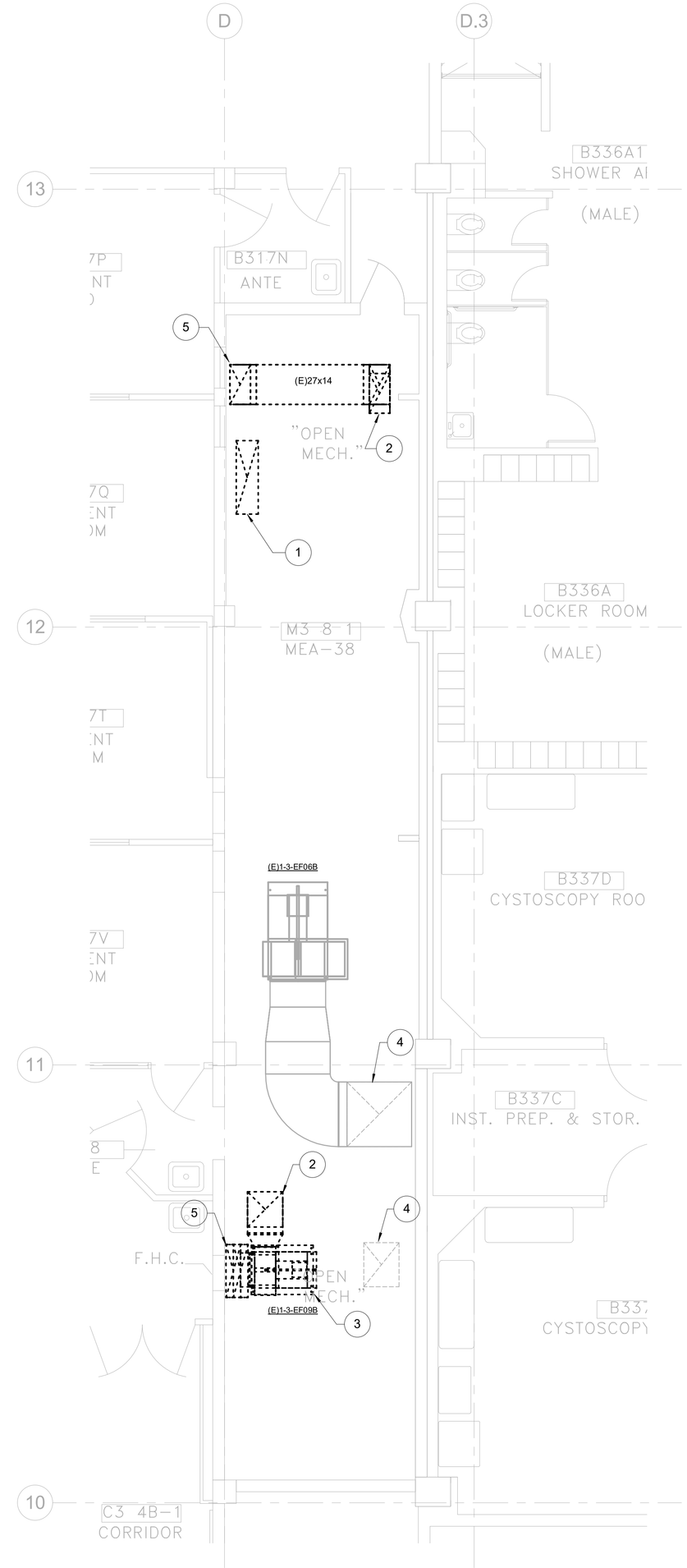


N N
TRUE PLAN

ENLARGED 3RD FLOOR RENOVATION PLAN - MECHANICAL - VA KITCHEN

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



N N
TRUE PLAN

ENLARGED 3RD FLOOR DEMOLITION PLAN - MECHANICAL - VA KITCHEN

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

GENERAL NOTES

1. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.
2. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.
3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 EXHAUST DUCTWORK UP TO FLOOR ABOVE AND DOWN TO FLOOR BELOW.

2 SUPPLY DUCTWORK DOWN TO FLOOR BELOW.

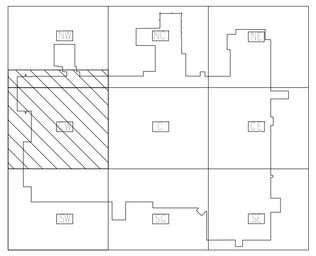
3 REMOVE AND PROPERLY DISPOSE OF EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK, ACCESSORIES, WIRING AND DEVICES. CONTRACTOR SHALL CONFIRM THE FAN SHOWN SERVES THE CANTEEN SPACE PRIOR TO CONSTRUCTION. CONTACT COR AND EOR IF ANY DISCREPENCIES ARISE.

4 EXHAUST DUCT DOWN TO FLOOR BELOW.

5 SUPPLY DUCTWORK UP TO FLOOR ABOVE.

6 DUCTWORK TO USE EXISTING ROOF PENETRATION. CONTRACTOR SHALL PATCH ROOF AS NECESSARY TO MATCH EXISTING.

7 REFRIGERANT PIPES DOWN TO 2ND FLOOR CEILING FROM REMOTE ICE MAKER CONDENSER ABOVE. ENSURE REFRIGERANT PIPES ARE PROPERLY INSULATED AND PROTECTED FROM THE ELEMENTS WHERE EXPOSED.



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 3RD FLOOR PLANS - HVAC	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH103
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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GENERAL NOTES

1. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.
2. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.
3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 EXHAUST DUCT DOWN TO FLOOR BELOW.

2 REMOVE AND PROPERLY DISPOSE OF EXISTING EXHAUST FAN AND ALL ASSOCIATED DUCTWORK, ACCESSORIES, WIRING AND DEVICES. CONTRACTOR SHALL CONFIRM THE FAN SHOWN SERVES THE CANTEEN SPACE PRIOR TO CONSTRUCTION. CONTACT COR AND EOR IF ANY DISCREPENCIES ARISE.

3 INSTALL EXHAUST FAN ON FIELD FABRICATED CURB. INTERLOCK EXHAUST FAN WITH ASSOCIATED EXHAUST HOOD. PROVIDE VFD AND LIGHTNING PROTECTION. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION.

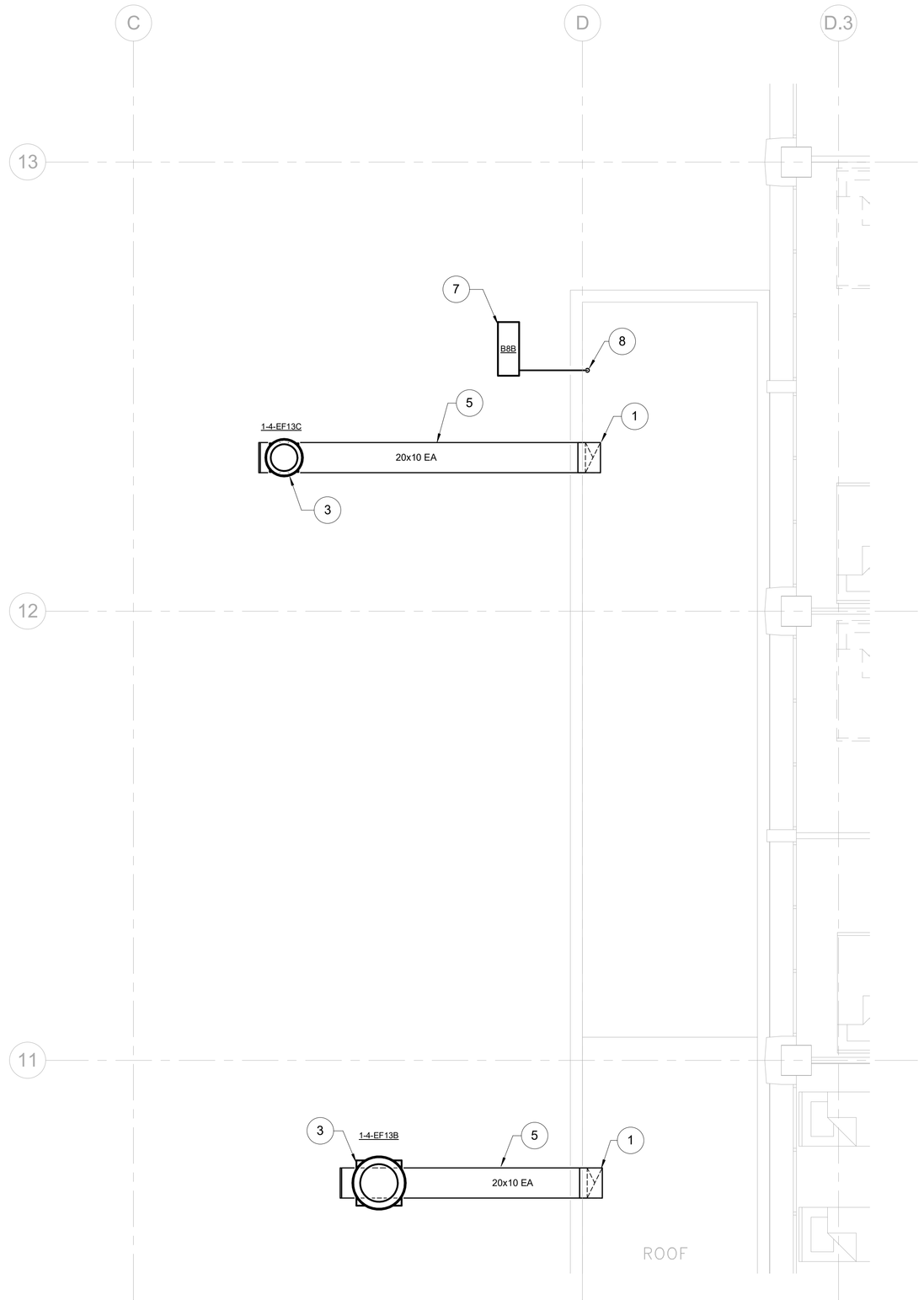
4 REMOVE AND PROPERLY DISPOSE OF EXISTING DUCTWORK ON ROOF.

5 ALL DUCTWORK EXPOSED TO THE ELEMENTS SHALL BE PROPERLY PROTECTED FROM UV AND WHEATHER. REFER TO VA SPECIFICATIONS FOR MORE INFORMATION.

6 SUPPLY DUCTWORK DOWN TO FLOOR BELOW.

7 REMOTE CONDENSER FOR ICE MAKER (EQUIPMENT MARK B8B IN KITCHEN EQUIPMENT SCHEDULE). REFER TO INSTALLATION MANUAL FOR REQUIRED CLEARANCES AND PROVIDE ALL NEEDED PIPING. ROUTE REFRIGERANT PIPING DOWN WALL AS SHOWN AND TO INDOOR ICE MAKER ACCORDING TO INSTALLATION MANUAL.

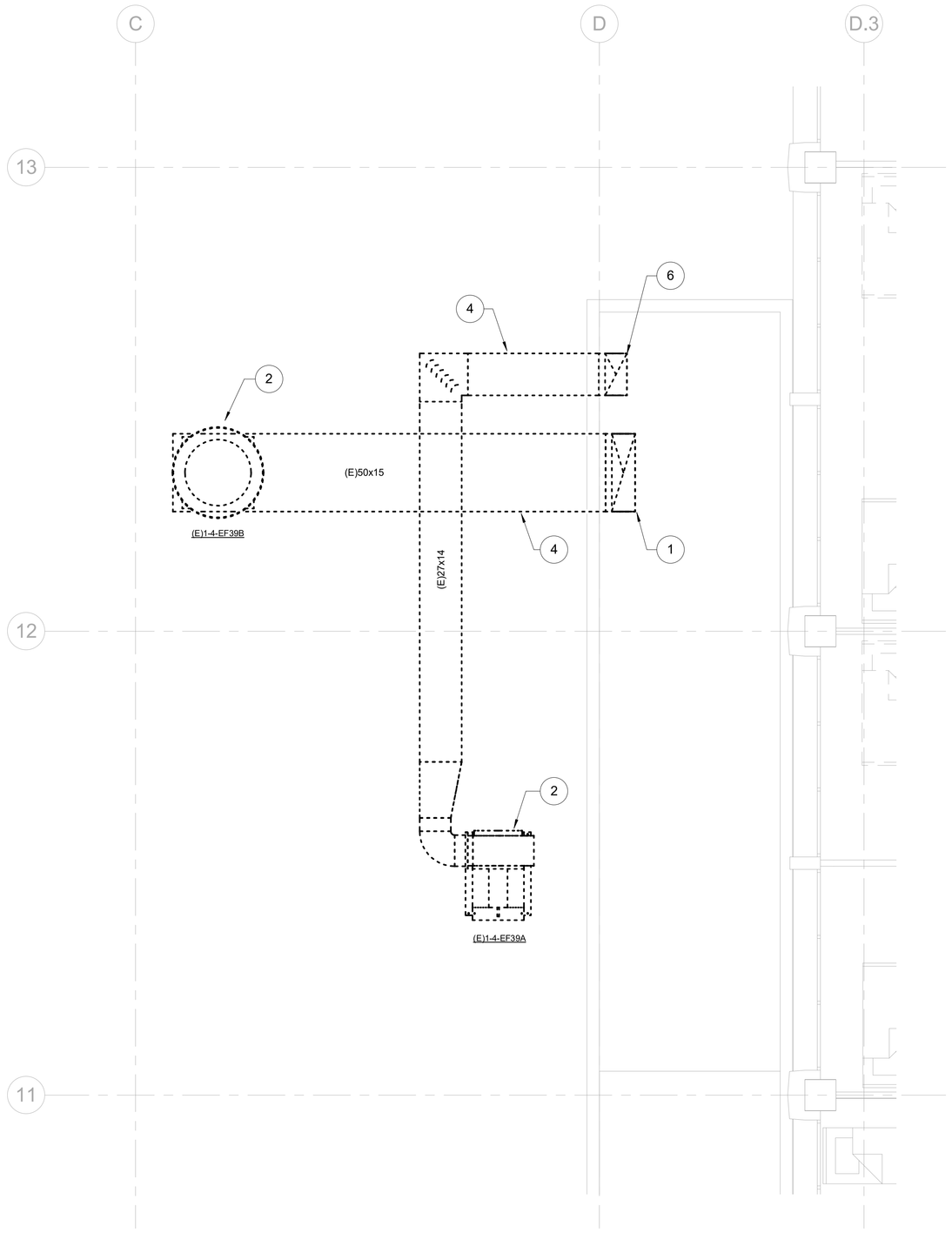
8 REFRIGERANT PIPES DOWN TO 2ND FLOOR CEILING FROM REMOTE ICE MAKER CONDENSER ABOVE. ENSURE REFRIGERANT PIPES ARE PROPERLY INSULATED AND PROTECTED FROM THE ELEMENTS WHERE EXPOSED.



N N TRUE PLAN

ENLARGED 4TH FLOOR RENOVATION PLAN - MECHANICAL - VA KITCHEN

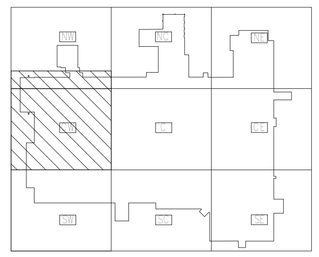
Scale: 1/4" = 1'-0"



N N TRUE PLAN

ENLARGED 4TH FLOOR DEMOLITION PLAN - MECHANICAL - VA KITCHEN

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



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Office of Construction and Facilities Management

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Drawing Title: ENLARGED 4TH FLOOR PLANS - HVAC	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH104
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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GENERAL NOTES

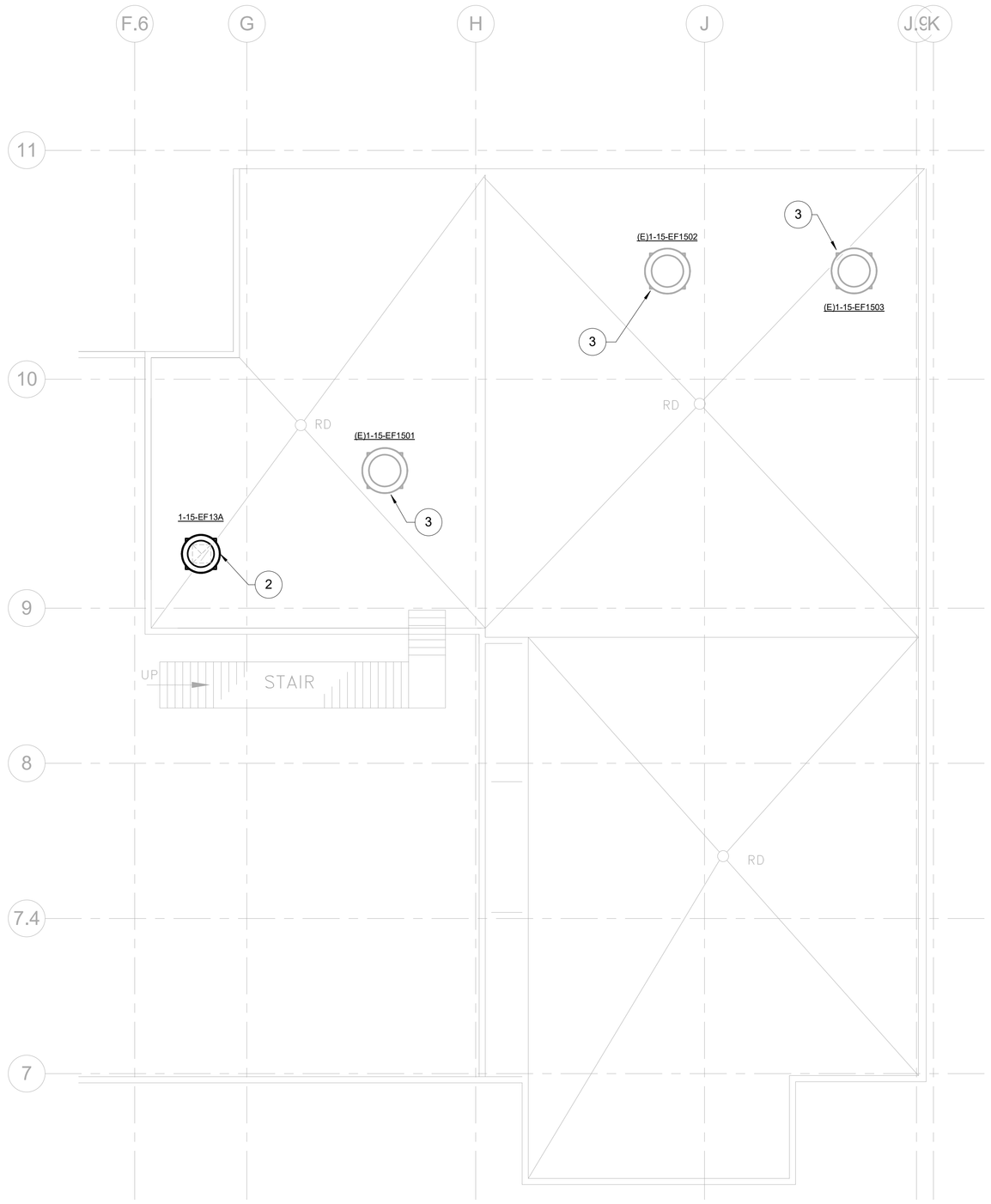
1. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.
2. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.
3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 REMOVE AND PROPERLY DISPOSE OF EXISTING EXHAUST FAN. PREPARE CURB FOR NEW EXHAUST FAN INSTALLATION AND CAP.

2 INSTALL NEW EXHAUST FAN ON EXISTING CURB AND CONNECT TO EXISTING DUCTWORK. INTERLOCK EXHAUST FAN WITH KITCHEN HOODS. PROVIDE VFD AND LIGHTNING PROTECTION. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION.

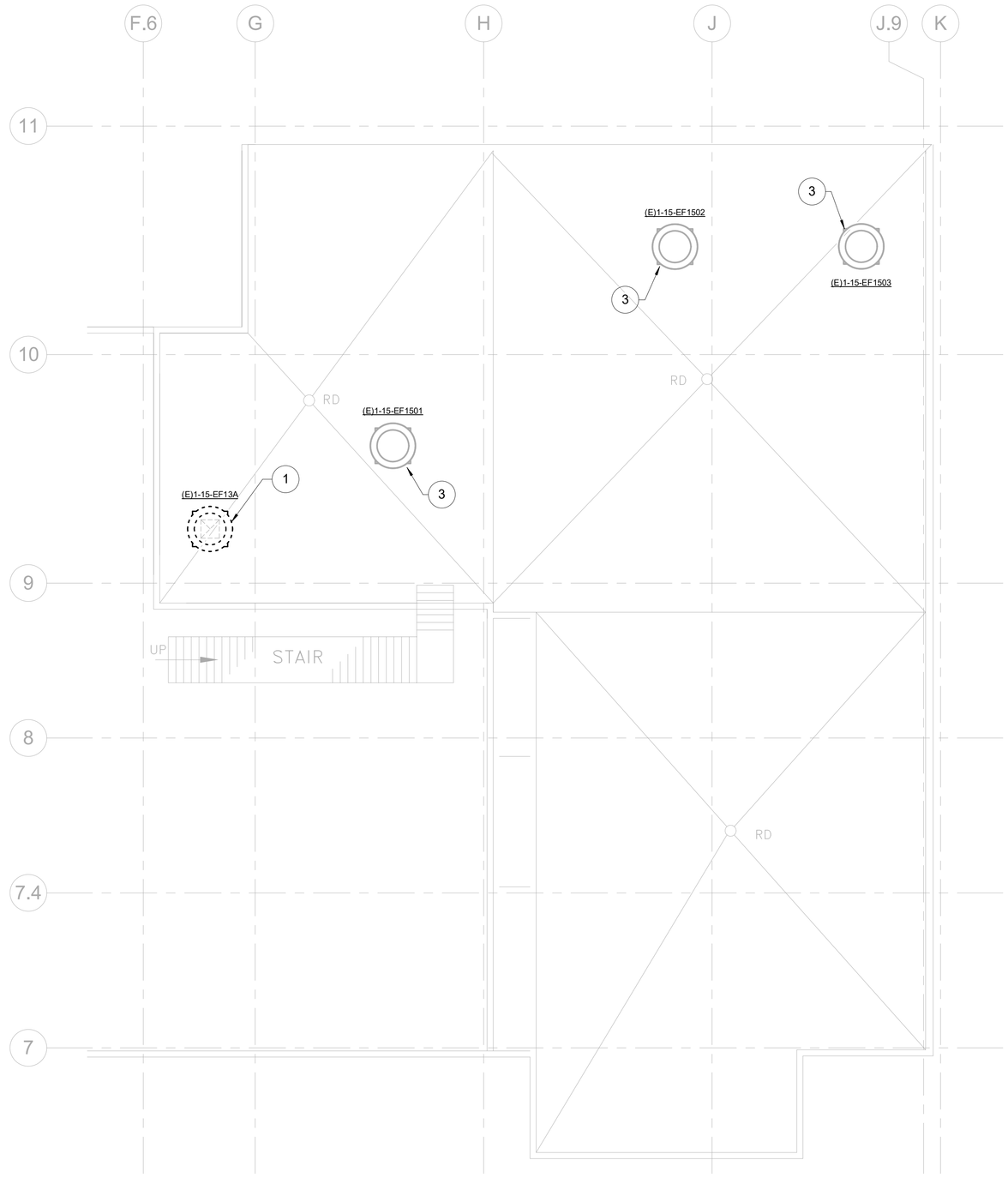
3 EXISTING EXHAUST FANS TO REMAIN.



N TRUE N PLAN

ENLARGED 15TH FLOOR RENOVATION PLAN - MECHANICAL - VA KITCHEN

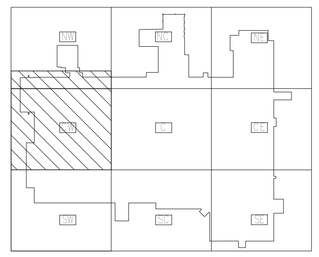
Scale: 1/8" = 1'-0"



N TRUE N PLAN

ENLARGED 15TH FLOOR DEMOLITION PLAN - MECHANICAL - VA KITCHEN

Scale: 1/8" = 1'-0"



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VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 15TH FLOOR PLANS - HVAC	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH115
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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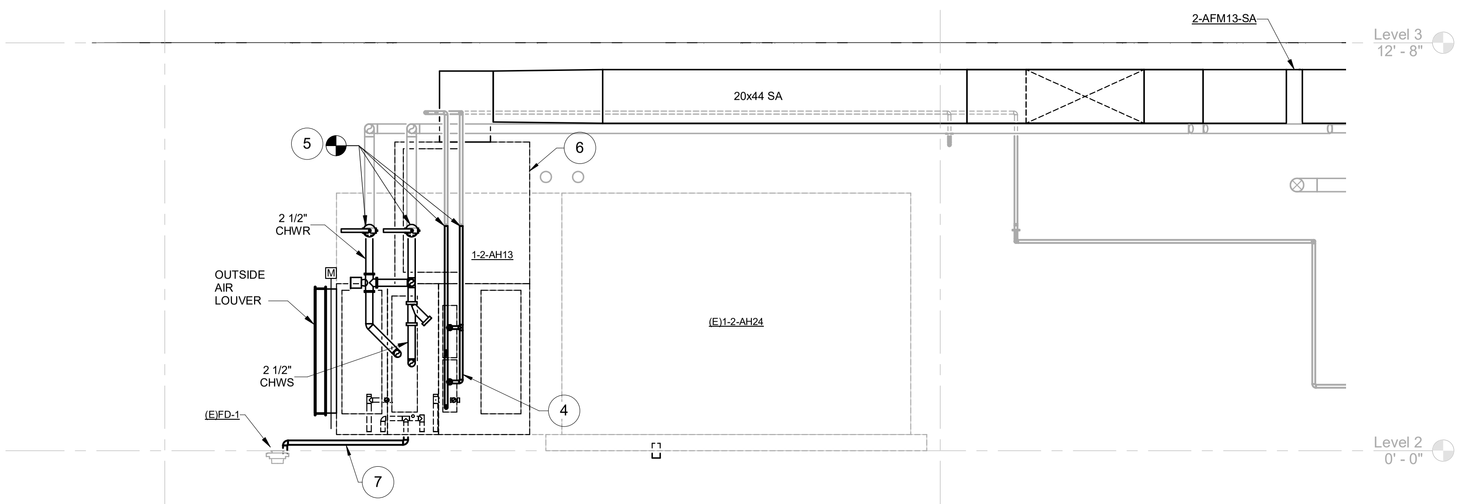
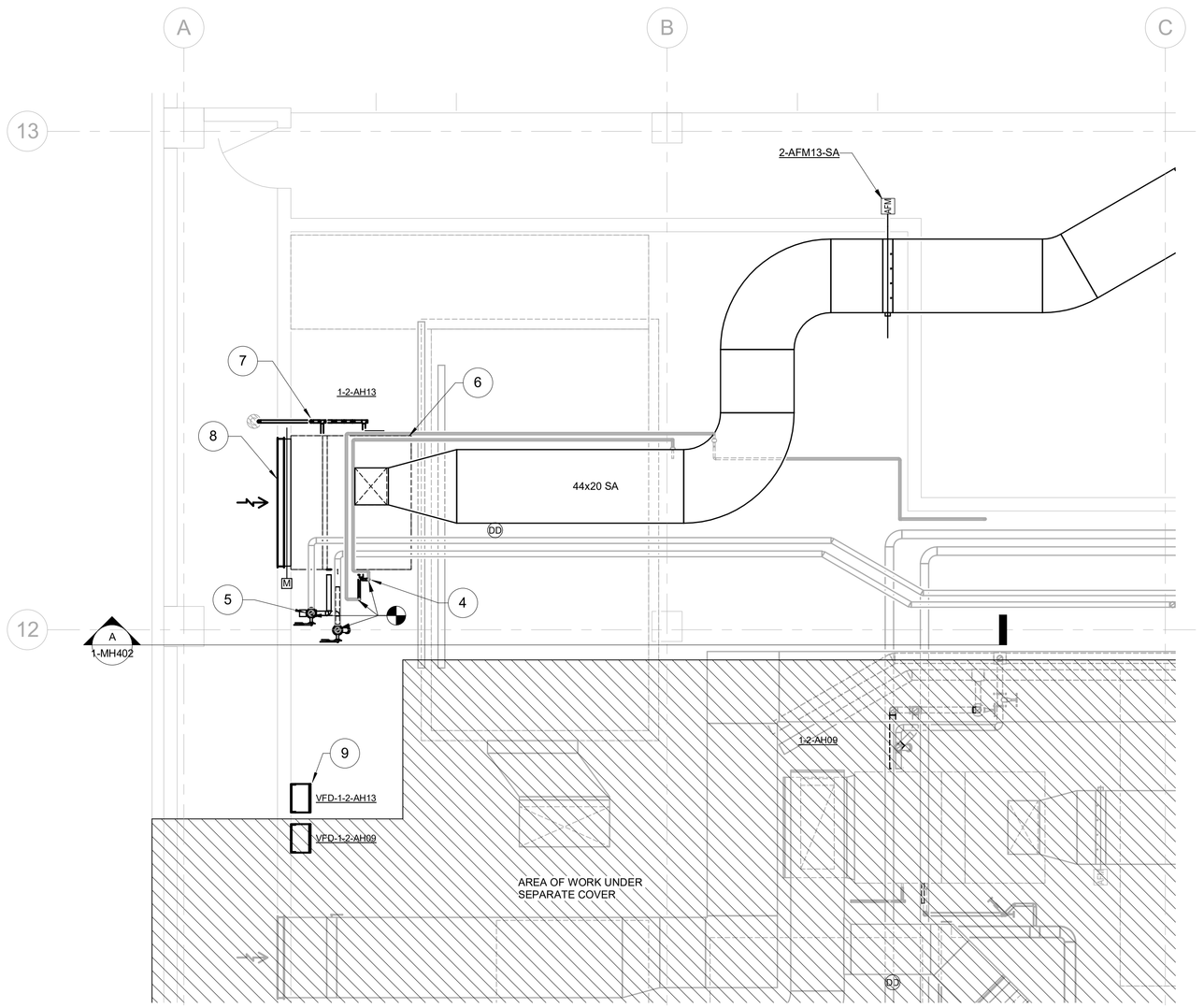


A 1-2-AH13 RENOVATION EAST-WEST SECTION - HVAC - VA KITCHEN

Scale: 3/8" = 1'-0"



ENLARGED 1 - 1-2-AH13 & 1-2-AH09 RENOVATION PLAN - HVAC - VA KITCHEN

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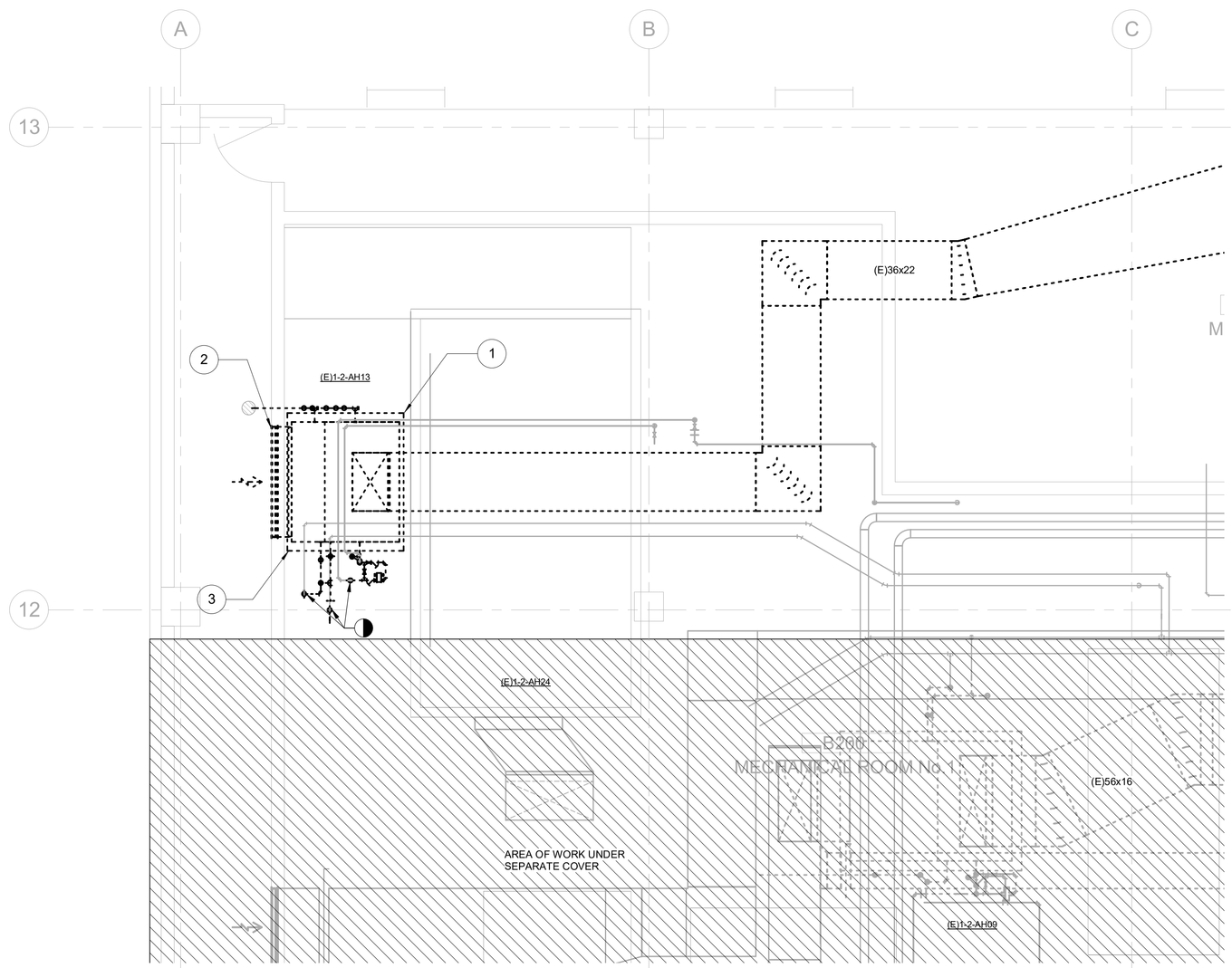

ENLARGED 1-2-AH13 & 1-2-AH09 DEMOLITION PLAN - HVAC - VA KITCHEN

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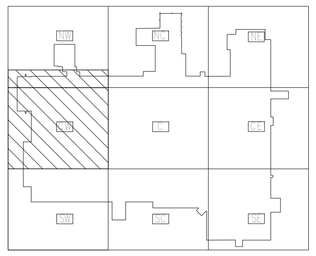

GENERAL NOTES

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3. DUCTWORK, PIPING, AND ASSOCIATED COMPONENTS ABOVE 2ND FLOOR ROOMS ARE LOCATED IN THE CEILING SPACE.

KEYNOTES

1 REMOVE AND PROPERLY DISPOSE OF EXISTING AIR HANDLER AND ALL ASSOCIATED DUCTWORK, PIPING, VALVES AND ACCESSORIES UP TO LIMITS OF DEMOLITION OR TO MAIN SHUT OFF VALVES.

2 REMOVE EXISTING OUTSIDE AIR LOUVER AND ASSOCIATED DUCTWORK AND ACCESSORIES.

3 DEMOLISH EXISTING EQUIPMENT PAD TO MATCH THE HEIGHT OF ADJACENT PAD.

4 ROUTE STEAM SUPPLY AND CONDENSATE RETURN TO EXISTING PIPE OR SHUT OFF VALVE. PROVIDE ALL NECESSARY FITTINGS AND ACCESSORIES FOR A COMPLETE INSTALL. REFER TO STEAM COIL DETAIL FOR ALL REQUIRED ACCESSORIES.

5 ROUTE CHILLED WATER AND STEAM PIPING TO EXISTING SHUT OFF VALVES. PROVIDE ALL NECESSARY ACCESSORIES FOR A PROPER INSTALLATION. REFER TO DETAILS FOR MORE INFORMATION. CONTRACTOR SHALL ENSURE EXISTING VALVES ARE IN GOOD WORKING CONDITION. REPLACE IF NECESSARY.

6 PROVIDE NEW AIR HANDLING UNIT AND VIBRATION ISOLATORS. MODIFY EXISTING CONCRETE PAD AND AHU SUPPORT FRAME AS NECESSARY FOR NEW UNIT. CONNECT TO EQUIPMENT WITH FLEXIBLE DUCT CONNECTORS. PROVIDE NEW ELECTRONIC COOLING AND HEATING CONTROL VALVES, STEAM PIPING, AND CHILLED WATER PIPING AS NECESSARY TO EXISTING STEAM AND CHILLED WATER SYSTEMS. PROVIDE NEW CONDENSATE PIPING AND ROUTE TO EXISTING FLOOR DRAIN. PROVIDE NEW DIGITAL CONTROLS COMPONENTS AND SENSORS FOR NEW EQUIPMENT AND CONNECT TO EXISTING DDC SYSTEM. PROVIDE NEW DDC SPACE TEMPERATURE AND HUMIDITY SENSORS IN SPACE SERVED BY UNIT. REFER TO FLOOR PLANS FOR DEVICE LOCATIONS.

7 ROUTE CONDENSATE TO NEAREST FLOOR DRAIN.

8 PROVIDE 76x46 OUTSIDE AIR LOUVER.

9 PROVIDE A VFD (ABB) FOR EACH INDIVIDUAL SUPPLY AND EXHAUST FAN.

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VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ENLARGED B200 MECHANICAL ROOM - HVAC	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	1-MH402

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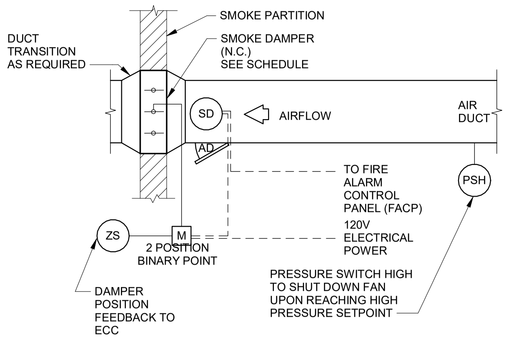
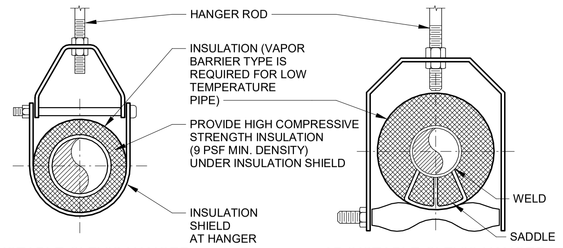


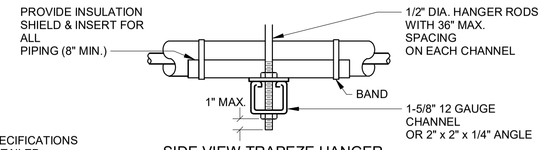
NOTE:
UPON DETECTION OF SMOKE BY THE SMOKE DETECTOR, THE SMOKE DAMPER SHALL CLOSE & SEND AN ALARM TO THE ECC.

10 SMOKE DAMPER CONTROL DIAGRAM
NTS



ADJUSTABLE CLEVIS HANGER TYPE 1 - SEE SPECIFICATIONS

ADJUSTABLE CLEVIS HANGER TYPE 43 - SEE SPECIFICATIONS



NOTE:
SEE SPECIFICATIONS FOR DETAILED HANGER REQUIREMENTS

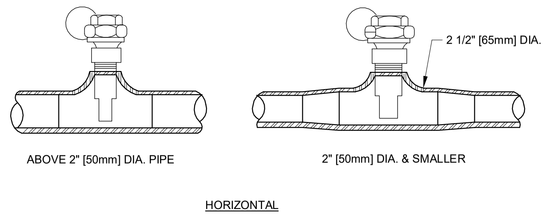
SIDE VIEW TRAPEZE HANGER FOR UP TO 1000 LB. UNIFORM LOAD

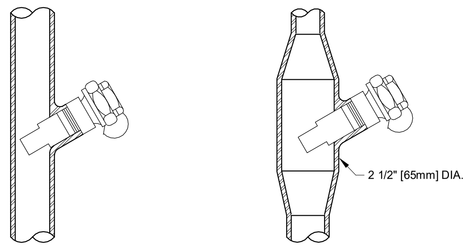
MAXIMUM PIPE/TUBING SUPPORT SPACING

NOM. SIZE IN.	THRU 3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	8	10	12	14	16	18	20	24
PIPE FT.	7	7	7	9	10	11	12	14	16	17	19	22	23	25	27	28	30	32
TUBING FT.	5 FT	6	7	8	8	9	10	12	13	14	16	-	-	-	-	-	-	-

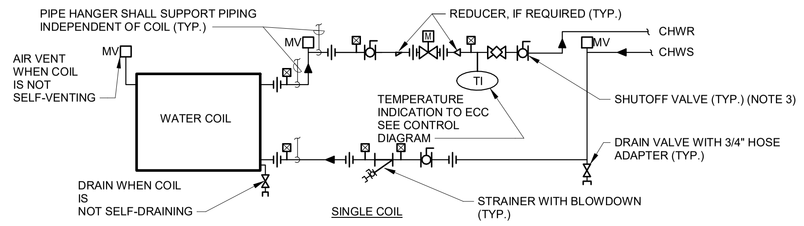
NOTE: FOR TRAPEZE HANGER TAKE SPACING OF SMALLEST SIZE ON TRAPEZE.

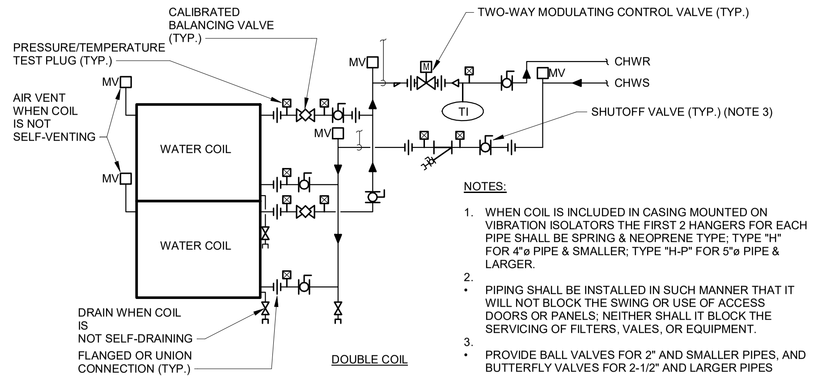
7 PIPE HANGERS DETAIL
NTS





4 INSTALLATION OF THERMOMETER WELLS
NTS

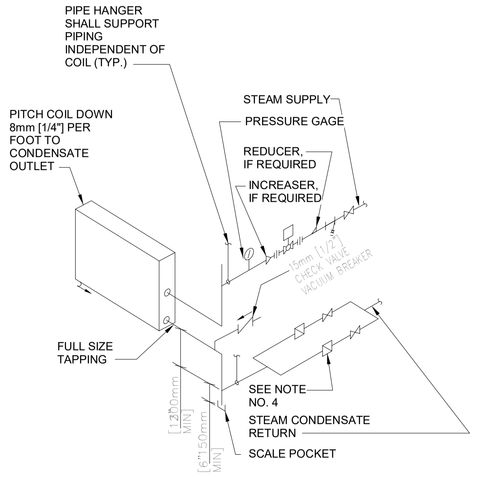




NOTES:

1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATORS THE FIRST 2 HANGERS FOR EACH PIPE SHALL BE SPRING & NEOPRENE TYPE; TYPE "H" FOR 4"ø PIPE & SMALLER; TYPE "H-P" FOR 5"ø PIPE & LARGER.
2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALES, OR EQUIPMENT.
3. PROVIDE BALL VALVES FOR 2" AND SMALLER PIPES, AND BUTTERFLY VALVES FOR 2-1/2" AND LARGER PIPES

1 AIR HANDLING UNIT COILS - PIPING CONNECTIONS
NTS

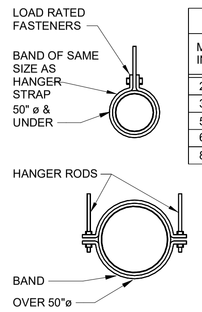


NOTES:

1. WHEN COIL IS INCLUDED IN CASING MOUNTED ON VIBRATION ISOLATOR UNITS, THE RUNOUT PIPING FOR CONNECTIONS TO COIL SHALL BE INSTALLED WITH SWING JOINTS TO ALLOW FOR THE VIBRATION.
2. PIPING SHALL BE INSTALLED IN SUCH MANNER THAT IT WILL NOT BLOCK THE SWING OR USE OF ACCESS DOORS OR PANELS; NEITHER SHALL IT BLOCK THE SERVICING OF FILTERS, VALVES, OR EQUIPMENT.
3. TRAP EACH COIL SEPARATELY WHEN INSTALLED IN A BANK OF TWO OR MORE HIGH. ALSO PROVIDE SEPARATE VACUUM BREAKER FOR EACH COIL.
4. TWO TRAP ASSEMBLIES IN PARALLEL ARE SHOWN. TWO TRAPS REQUIRED WHEN CONDENSATE LOAD IS 2400 KG/HR [5,000 LBS/HR] OR GREATER.
5. SUPPLY & RETURN PIPES ARE SHOWN FROM SAME END. REHEAT COIL MAY HAVE SUPPLY & RETURN PIPES FROM OPPOSITE ENDS.

DESIGNER'S NOTE:
FOR VACUUM RETURN SYSTEMS CONNECT 15mm [1/2"] CHECK VALVE VACUUM BREAKER INTO DISCHARGE SIDE OF TRAP SET. CHANGE F & T TRAP SET TO SHOW PIPING LOCATION CONNECTION.

11 STEAM COIL - PIPING CONNECTIONS
NTS

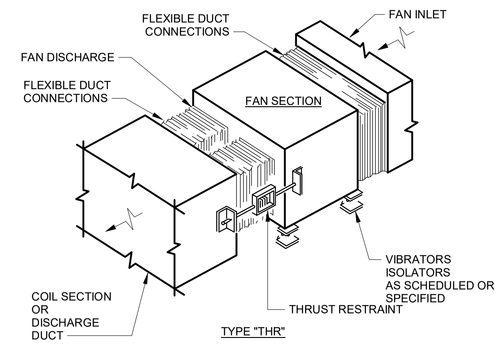


HANGER STRAPS OR RODS

MAX. DUCT ø IN.	QUANTITY/SIZE IN.	MAX. LOAD LBS.	MAX. SPACING IN.
26	ONE 1 x 22 GA STRAP	260	144
36	ONE 1 x 18 GA STRAP	420	144
50	ONE 1 x 16 GA STRAP	700	144
60	TWO 3/8ø. RODS	1320	144
84	TWO 1/2ø RODS	2500	144

NOTE:
TABULATED DATA FROM SMACNA ALLOWS FOR DUCT REINFORCING AND INSULATION, BUT NO EXTERNAL LOAD.

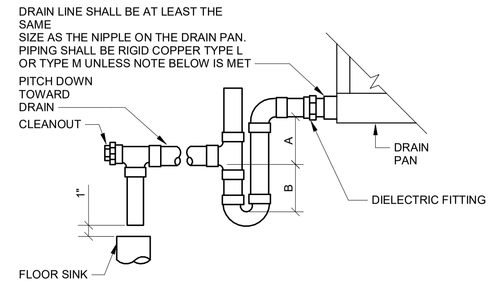
8 ROUND DUCT HANGERS
NTS



NOTES:

1. ATTACH THRUST RESTRAINTS SYMMETRICALLY ON BOTH SIDES OF THE FAN DISCHARGE.
2. ADJUST RESTRAINT TO ALLOW 1/4" [6 mm] MOVEMENT OF FAN AT START AND STOP.

5 THRUST RESTRAINT FOR FANS
NTS



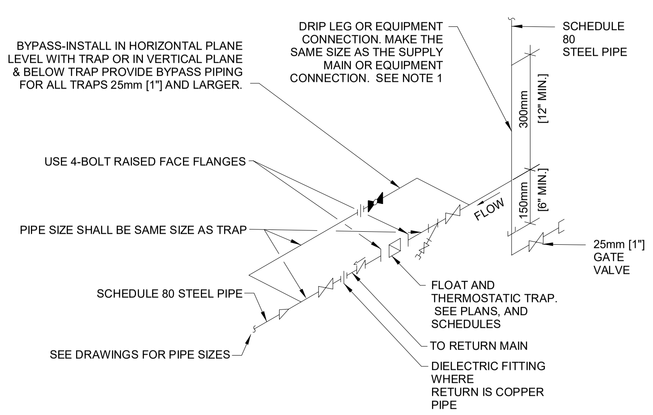
NOTE:

1. CPVC PIPE MAY BE USED ONLY IF APPROVED BY LOCAL VA AND IS INDOORS AND DOES NOT PASS THROUGH RATED BARRIERS.
2. DIELECTRIC FITTING TO BE USED WHEN TWO DISSIMILAR METALS ARE TO BE CONNECTED.

UNIT TYPE	A	B
DRAW THRU	2" [50mm] PLUS X	X
BLOW THRU	1" [25mm] MINIMUM	2X

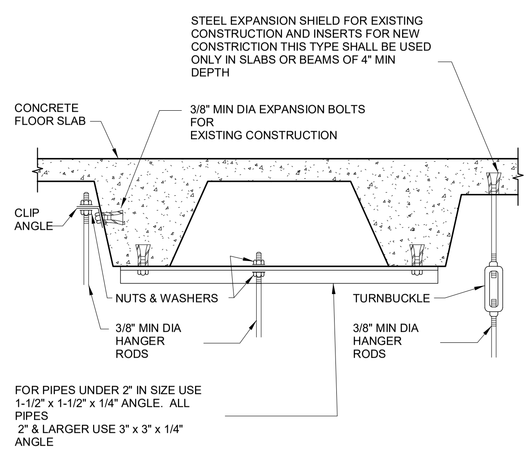
WHERE X = STATIC PRESSURE IN PAN

2 AIR HANDLING UNIT DRAIN TRAP DETAIL
NTS

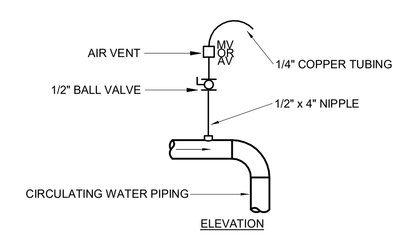


NOTE:
ALL DRIP POINTS ON STEAM MAINS SHALL BE PROVIDED WITH A 300mm [12"] MINIMUM HIGH DRIP LEG FROM BOTTOM OF STEAM MAIN TO TRAP INLET. DRIP LEG SHALL HAVE 150mm [6"] SCALE POCKET BELOW TRAP INLET.

12 FLOAT AND THERMOSTATIC STEAM TRAP ASSEMBLY
NTS



9 SECURING HANGER RODS IN CONCRETE
NTS

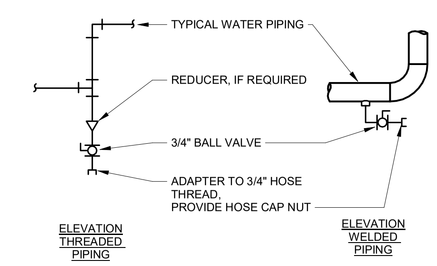


TYPICAL MANUAL AIR VENT

NOTES:

1. VENT ALL HIGH POINTS INDICATED ABOVE.
2. IF AUTOMATIC AIR VENTS ARE USED, PIPE DISCHARGE TO DRAIN.

6 AIR VENT CONNECTIONS DETAIL
NTS



TYPICAL CHILLED AND HOT WATER PIPING DRAIN VALVE CONNECTIONS

NOTES:

1. DRAIN ALL LOW POINTS AS INDICATED ABOVE.
2. WHERE SCALE POCKETS ARE SHOWN ON PIPE RISER DIAGRAMS AND/OR PLANS, LOCATE DRAIN AT BOTTOM OF SCALE POCKET.

3 DRAIN VALVE CONNECTIONS DETAIL
NTS

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
DETAILS - HVAC	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH501
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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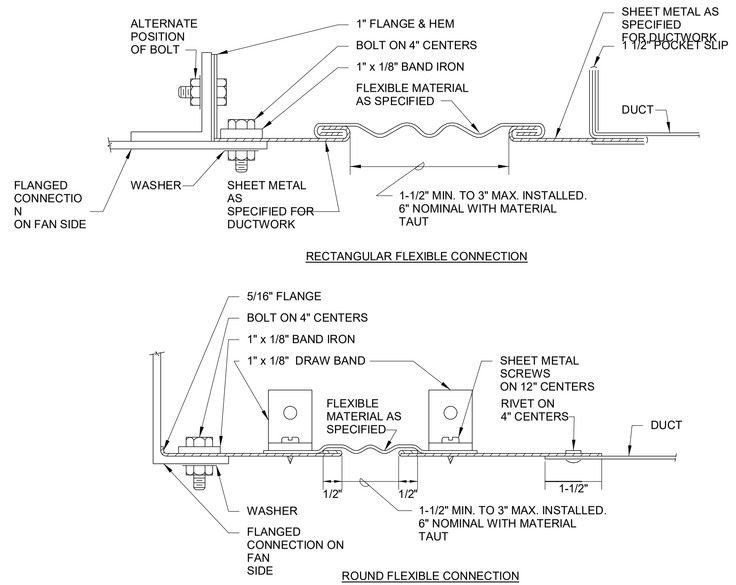
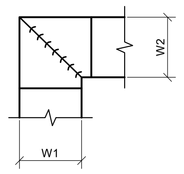


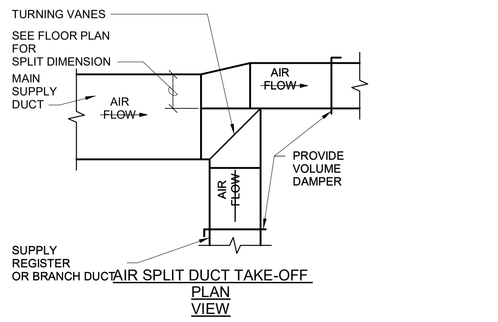
9 FLEXIBLE DUCT CONNECTIONS
NTS

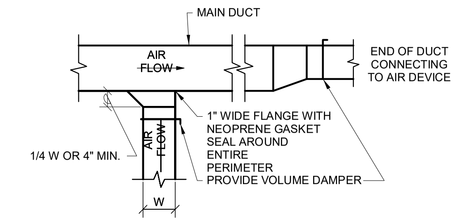


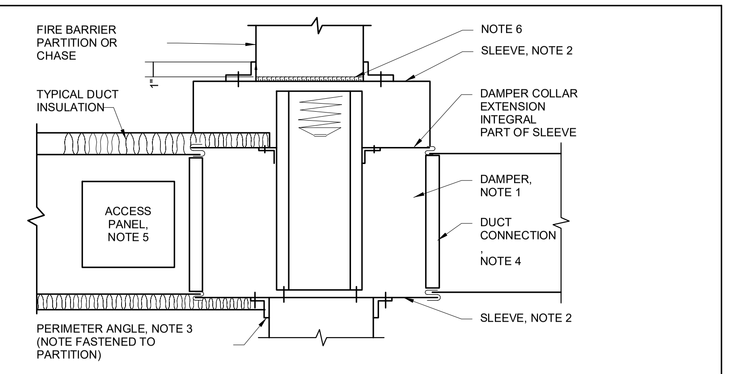
NOTE:

1. ALL VANE ELBOWS SHALL BE CONSTRUCTED AND INSTALLED AS DETAILED BY SMACNA.
2. WHEN W1 DOES NOT EQUAL W2, VANE SHALL BE SINGLE THICKNESS VANE TYPE REGARDLESS OF W DIMENSION.
3. ALL SINGLE THICKNESS VANES SHALL HAVE A 2" [50mm] RADIUS, 1 1/2" [40mm] MAXIMUM SPACE BETWEEN VANES AND A 3/4" [20mm] TRAILING EDGE.
4. WHEN W1 EQUALS W2 AND W1 IS GREATER THAN 36" [500mm] VANES SHALL BE DOUBLE VANE TYPE.

6 DUCTWORK SQUARE VANE ELBOWS
NTS



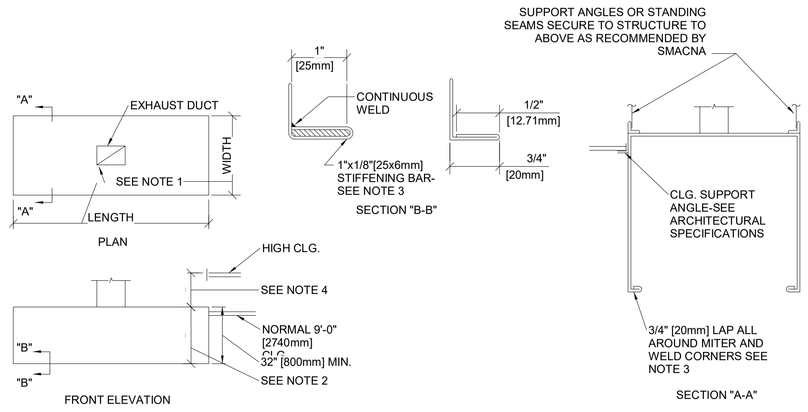




NOTES:

1. A VERTICAL DAMPER IS SHOWN. HORIZONTAL DAMPER INSTALLATION IS SIMILAR. FOLLOW DAMPER MANUFACTURER'S INSTRUCTIONS, INCLUDING FASTENER OPTIONS AND GAGES FOR SLEEVE AND PERIMETER ANGLES. FIRE DAMPERS MUST BE INSTALLED IN THE PARTITION OR FLOOR AND NOT OUTSIDE THE PENETRATION.
2. GALVANIZED SLEEVE: GAGE NOT LESS THAN CONNECTING DUCT. FASTEN SLEEVE TO DAMPER FRAME AND TO PERIMETER ANGLES.
3. PERIMETER ANGELS: GALVANIZED STEEL, NOT LESS THAN 1-1/2" x 1-1/2", 14 GAGE, TO PROVIDE 1" MINIMUM OVERLAP OF OPENING ON ALL 4 SIDES.
4. BREAKAWAY DUCT CONNECTION: CONTRACTOR'S OPTION OF TYPES SHOWN IN SMACNA.
5. ACCESS PANELS: SIZE AND LOCATION TO PERMIT SERVICING THE FUSIBLE LINK OR LINKS.
6. PROVIDE 1/4" TO 1/2" CLEARANCE ON HEIGHT AND WIDTH. FILL OPEN SPACE WITH ROCK WOOL FIRESTOP FIBER.
7. ALL DUCTWORK RISERS WHICH ARE RUN EXPOSED, SUCH AS THRU ATTIC FLOORS AND MECHANICAL ROOM FLOORS, SHALL BE PROVIDED WITH 3" HIGH CONCRETE CURB AROUND OPENING FOR DUCT.

1 FIRE DAMPER DETAIL
NTS

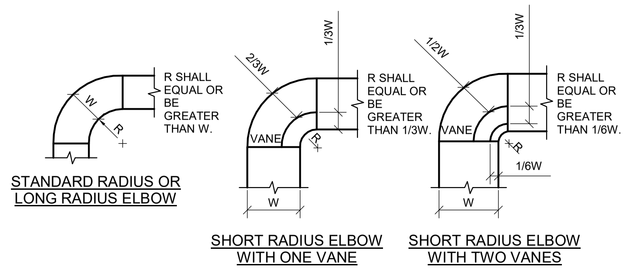


NOTES:

1. HOODS SHALL BE STAINLESS STEEL. SEE SPECIFICATIONS. FOR HOOD SIZE & LOCATION SEE EQUIPMENT SCHEDULE. FOR EXHAUST DUCT CONNECTIONS - SEE FLOOR PLANS.
2. ALL HOODS SHALL BE 6'-6" [2m] ABOVE FINISHED FLOOR UNLESS OTHERWISE NOTED. HOODS OVER URNS SHALL BE 7'-6" [2.3m] MINIMUM ABOVE FINISHED FLOOR.
3. HOODS OVER 6'-0" [1.9m] LONG WITH 2 OR MORE SECTIONS, SHALL HAVE INSIDE STANDING SEAM AND 1"x1/8" [25x6mm] STIFFENING BAR - SEE SECTION "B-B".
4. EXTEND SIDE & END SHEET TO SUIT HIGH CEILING WHEN REQUIRED.
5. DETAIL SHOWS HOOD IN OPEN SPACE. WHEN HOOD IS INSTALLED AT WALL OR PARTITION SECURE TO WALL OR PARTITION WITH EXPANSION BOLTS.

DESIGNER'S NOTE:
VERIFY ALL DIMENSIONS. SEE ARCHITECTURAL FLOOR PLANS FOR REQUIRED HOOD LOCATIONS.

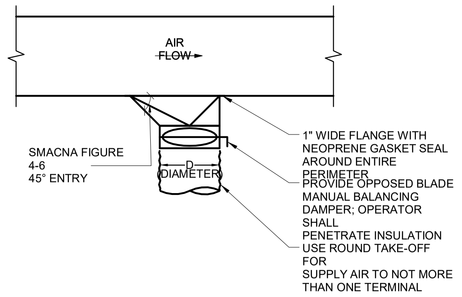
10 HOOD TYPE "A"
NTS



NOTE:

1. THE INTERIOR SURFACE OF ALL RADIUS ELBOWS SHALL BE MADE ROUND.
2. ALL STANDARD RADIUS ELBOWS CAN BE SUBSTITUTED WITH SHORT RADIUS ELBOWS. ALL SHORT RADIUS ELBOWS SHALL HAVE VANES. VANES SHALL BE CONSTRUCTED, SUPPORTED AND FASTENED AS RECOMMENDED BY SMACNA.

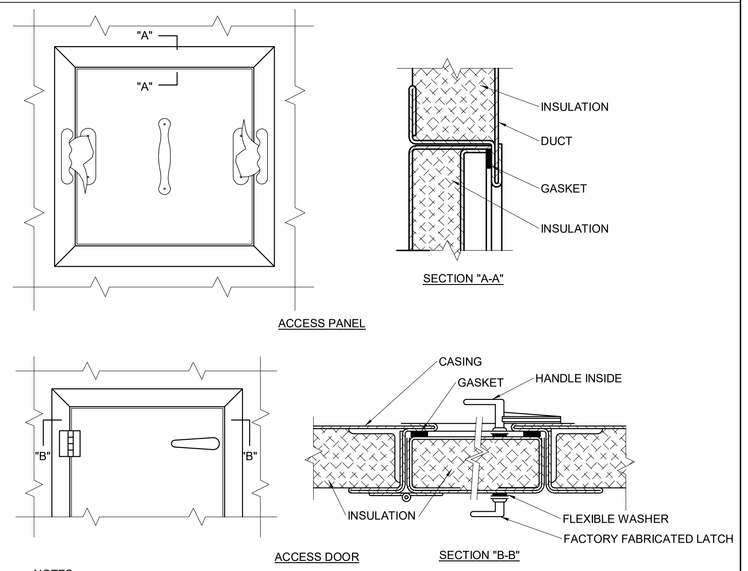
7 DUCTWORK RADIUS ELBOWS
NTS



NOTE:

1. WHEREVER THE DEPTH OF THE TRUNK DUCT IS LESS THAN ROUND RUNOUT DUCT DIAMETER, PROVIDE TRANSITION FITTING OF EQUIVALENT AREA TO THE RUNOUT DUCT.

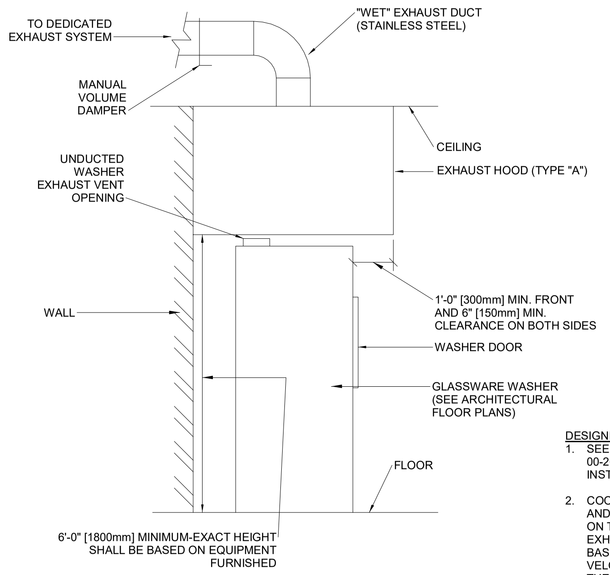
4 DUCT TAKEOFF DETAILS
NTS



NOTES:

1. LATCHES SHALL BE OF THE WEDGE TYPE TO CLOSE DOORS TIGHTLY.
2. HINGES ON THE ACCESS DOORS SHALL HAVE NON-CORROSIVE PINS.
3. SEE SMACNA 2005, FIGURE 9-15
4. USE ACCESS DOORS ON AIR HANDLING UNITS AND DUCTWORK INSTALLED IN EQUIPMENT ROOMS.
5. USE ACCESS PANELS ON ALL EQUIPMENT AND DUCTWORK INSTALLED ABOVE FINISHED CEILINGS.

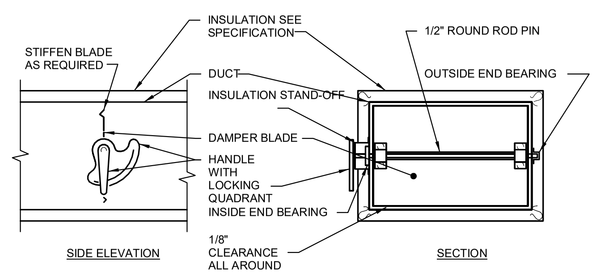
2 ACCESS PANEL AND DOOR DETAIL
NTS



DESIGNER'S NOTES:

1. SEE VA STANDARD DETAIL 23 31 00-20 FOR CONSTRUCTION & INSTALLATION DETAILS.
2. COORDINATE HOOD DIMENSIONS AND EXHAUST AIR VOLUME SHOWN ON THE EQUIPMENT DRAWINGS. EXHAUST AIR VOLUME SHALL BE BASED ON THE 100 FPM [.5 M/sec] VELOCITY THRU THE FACE AREA OF THE HOOD.

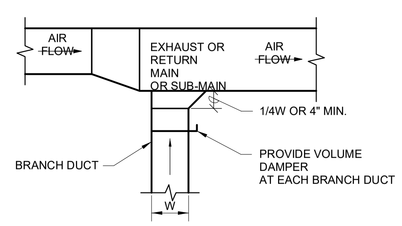
11 EXHAUST DUCTWORK- GLASSWARE WASHER
NTS



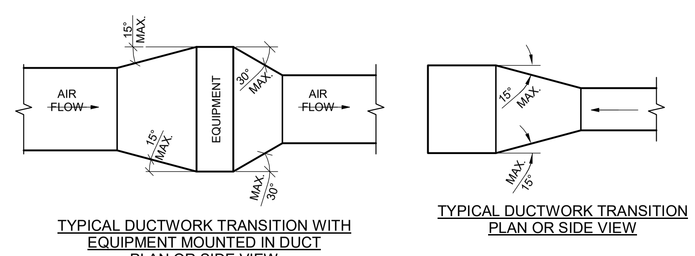
NOTE:

1. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
2. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

8 VOLUME DAMPER DETAIL
NTS



5 EXHAUST OR RETURN BRANCH DUCTWORK
NTS



NOTE:

1. UNLESS OTHERWISE INDICATED ON PLANS, MAXIMUM ANGLES SHOWN SHALL APPLY.

3 DUCTWORK TRANSITIONS DETAIL
NTS

Revisions:	Date:

CONSULTANT

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
DETAILS - HVAC	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-MH502
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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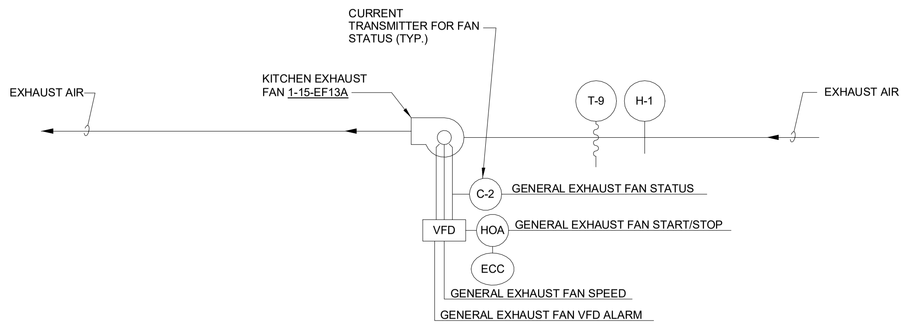

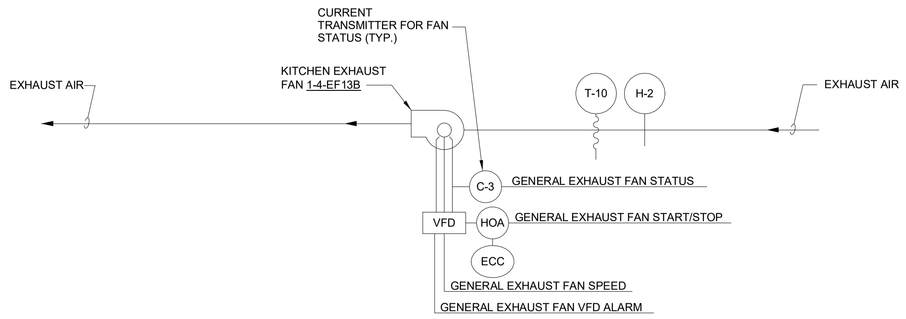

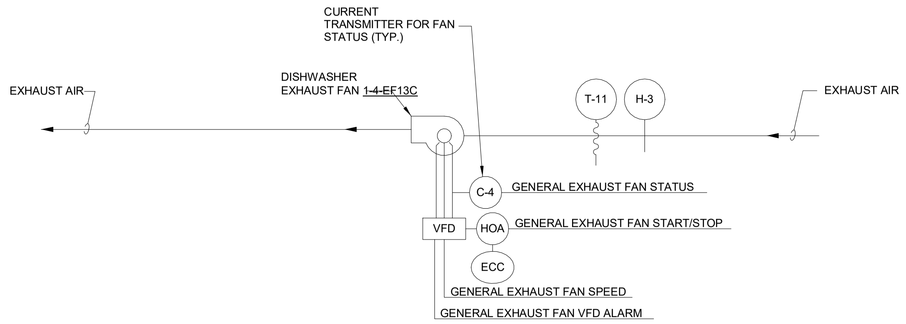

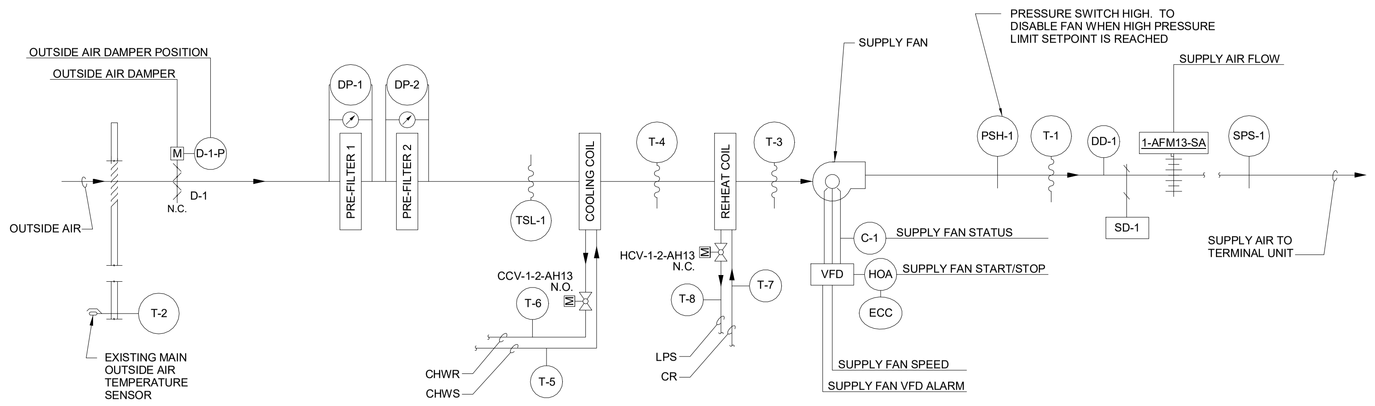

1 AIR HANDLING UNIT 1-AH13 CONTROL DIAGRAM

NTS

1-2-AH13 - POINTS LIST

POINT TAG	POINT DESCRIPTION	UNITS	POINT TYPE: DIGITAL IN	DIGITAL OUT	ANALOG IN	ANALOG OUT	VIRTUAL	ADJ.	SETPOINTS: INITIAL	HIGH	LOW	NOTES
	OCCUPIED MODE STATUS	ON/OFF					X					
	UNOCCUPIED MODE STATUS	ON/OFF					X					
	DEHUMIDIFICATION MODE STATUS	ON/OFF					X					
	SUPPLY FAN START/STOP	ON/OFF		X								NOTE 1
C-1	SUPPLY FAN STATUS	ON/OFF	X									
	SUPPLY FAN SPEED	%				X						
	SUPPLY FAN MINIMUM SPEED SETPOINT	%					X	X	50			
	SUPPLY FAN VFD ALARM	ON/OFF	X									
PSH-1	SUPPLY DUCT PRESSURE SWITCH HIGH LIMIT SAFETY	NORMAL/ALARM	X					X	4.0			
DD-1	SUPPLY AIR DUCT SMOKE DETECTOR	NORMAL/ALARM	X									
1-15-EF13A	GREASE EXHAUST FAN START/STOP	ON/OFF		X								
C-2	GREASE EXHAUST FAN STATUS	ON/OFF	X									
	GREASE EXHAUST FAN SPEED	%				X						
	GREASE EXHAUST FAN VFD ALARM	ON/OFF	X									
T-9	GREASE EXHAUST AIR TEMPERATURE	DEG. F			X							
H-1	GREASE EXHAUST AIR RELATIVE HUMIDITY	% RH			X							
	GREASE EXHAUST AIR RELATIVE HUMIDITY SETPOINT	% RH					X	X	60			
1-4-EF13B	GREASE EXHAUST FAN START/STOP	ON/OFF		X								
C-3	GREASE EXHAUST FAN STATUS	ON/OFF	X									
	GREASE EXHAUST FAN SPEED	%				X						
	GREASE EXHAUST FAN VFD ALARM	ON/OFF	X									
T-10	GREASE EXHAUST AIR TEMPERATURE	DEG. F			X							
H-2	GREASE EXHAUST AIR RELATIVE HUMIDITY	% RH			X							
	GREASE EXHAUST AIR RELATIVE HUMIDITY SETPOINT	% RH					X	X	60			
1-4-EF13C	DISHWASH EXHAUST FAN START/STOP	ON/OFF		X								
C-4	DISHWASH EXHAUST FAN STATUS	ON/OFF	X									
	DISHWASH EXHAUST FAN SPEED	%				X						
	DISHWASH EXHAUST FAN VFD ALARM	ON/OFF	X									
T-11	DISHWASH EXHAUST AIR TEMPERATURE	DEG. F			X							
H-3	DISHWASH EXHAUST AIR RELATIVE HUMDITY	% RH			X							
	DISHWASH EXHAUST AIR RELATIVE HUMIDITY SETPOINT	% RH					X	X	60			
T-2	OUTSIDE AIR TEMPERATURE	DEG. F			X							
D-1	OUTSIDE AIR DAMPER	% OPEN				X						N.C.
D-1-P	OUTSIDE AIR DAMPER POSITION	% OPEN	X									VFD INTERLOCK
DP-1	PRE-FILTER 1 DIFFERENTIAL PRESSURE	IN. W.G.			X							
DP-2	PRE-FILTER 2 DIFFERENTIAL PRESSURE	IN. W.G.			X							
TSL-1	FREEZESTAT; COOLING COIL ENTERING AIR TEMP. LOW LIMIT	DEG. F	X									LOW LIMIT ALARM
T-4	COOLING COIL LEAVING AIR TEMPERATURE	DEG. F			X							AVERAGING
	COOLING COIL LEAVING AIR TEMPERATURE SETPOINT	DEG. F					X	X		60	55	
CCV-1-AH13	COOLING CONTROL VALVE	% OPEN				X						N.O.
T-5	CHILLED WATER SUPPLY TEMPERATURE	DEG. F			X							
T-6	CHILLED WATER RETURN TEMPERATURE	DEG. F			X							
T-3	REHEAT COIL LEAVING AIR TEMPERATURE	DEG. F			X							AVERAGING
	REHEAT COIL LEAVING AIR TEMPERATURE SETPOINT	DEG. F					X	X	50			
HCV-1-AH13	HEATING CONTROL VALVE	% OPEN				X						N.C.
T-7	LOW PRESSURE STEAM SUPPLY TEMPERATURE	DEG. F			X							
T-8	CONDENSATE RETURN TEMPERATURE	DEG. F			X							
1-AFM13-SA	SUPPLY AIR FLOW	CFM			X							
	MINIMUM SUPPLY AIR FLOW SETPOINT	CFM					X	X				NOTE 2
SPS-1	SUPPLY AIR STATIC PRESSURE	IN. W.G.			X							
	SUPPLY AIR STATIC PRESSURE SETPOINT	IN. W.G.					X	X	1.5	2.0	1.0	
T-1	SUPPLY AIR TEMPERATURE	DEG. F			X							
	SUPPLY AIR TEMPERATURE SETPOINT	DEG. F					X	X		62	55	

NOTES:
1. INITIAL SCHEDULE (ADJ.): MONDAY-FRIDAY 6:00 AM-5:00 PM. COORDINATE OCCUPIED SCHEDULE AND UNOCCUPIED SPACE TEMPERATURE SETPOINTS WITH THE COR.
2. SEE AIR HANDLING UNIT SCHEDULE FOR AIR FLOW QUANTITIES FOR EACH SYSTEM.

GENERAL NOTE

A. VERIFY PROPER OPERATION OF ALL EQUIPMENT INTERLOCKS AND EXISTING DCP'S TO REMAIN, AND PROVIDE REPAIRS FOR ANY DEFICIENCIES.

CONTROLS ABBREVIATIONS

ADJ	ADJUSTABLE
AFM	AIR FLOW MEASURING DEVICE
C	CURRENT SWITCH
CCV	COOLING CONTROL VALVE
CFM	CUBIC FEET PER MINUTE
DCP	DIRECT DIGITAL CONTROL PANEL
CR	CONDENSATE RETURN
DD	DUCT SMOKE DETECTOR
DP	DIFFERENTIAL PRESSURE
EA	EXHAUST AIR
ECC	ENGINEERING CONTROL CENTER
EF	EXHAUST FAN
H	HUMIDITY SENSOR
HCV	HEATING CONTROL VALVE
HOA	HAND-OFF-AUTO SWITCH
IN	INCH
LPS	LOW PRESSURE STEAM
M	ELECTRIC MOTOR ACTUATOR
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
PSH	PRESSURE SWITCH, HIGH LIMIT
PSL	PRESSURE SWITCH, LOW LIMIT
RH	RELATIVE HUMIDITY
S	SOLENOID VALVE ACTUATOR
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SUPPLY FAN
SPS	STATIC PRESSURE SENSOR
STR	MOTOR STARTER
T	TEMPERATURE SENSOR
TSL	TEMPERATURE SWITCH, LOW LIMIT (FREEZESTAT)
VFD	VARIABLE FREQUENCY DRIVE
WG	WATER GAUGE

1-2-AH13 - SEQUENCE OF OPERATION

1. GENERAL

a) UNIT IS NORMALLY STARTED AND STOPPED BY THE DIRECT DIGITAL CONTROL PANEL (DCP) OR REMOTELY AT THE ECC. H-O-A SWITCH SHALL BE KEPT IN THE "AUTO" POSITION. "HAND" AND "OFF" POSITIONS SHALL BE USED ONLY FOR MAINTENANCE.

b) THE AIR HANDLING UNIT SYSTEM INCLUDES THE AIR HANDLING UNIT SUPPLY FAN(S), ASSOCIATED AIR TERMINAL UNITS, AND ASSOCIATED GENERAL EXHAUST FAN AND DEDICATED EXHAUST FANS. WHEN THE SYSTEM IS INITIATED TO OPERATE, THEN ALL OTHER EQUIPMENT THAT IS REQUIRED FOR OPERATION SHALL BE PLACED INTO OPERATION ACCORDING TO THEIR RESPECTIVE SEQUENCES OF OPERATION.

c) THE INDICATED EXHAUST FANS SHALL BE INTERLOCKED TO OPERATE WHENEVER THE AIR HANDLER SUPPLY FAN CIRCUIT IS ENERGIZED.

d) INTERLOCK THE AIR HANDLING UNIT SYSTEM WITH THE EXISTING FIRE ALARM SYSTEM AND EXISTING SMOKE DAMPERS.

e) WHEN THE UNIT IS "OFF", OUTSIDE AIR DAMPER D-1 SHALL BE FULLY CLOSED.

f) WHEN THE UNIT IS "ON", OUTSIDE AIR DAMPER D-1, AND SMOKE DAMPERS SHALL BE FULLY OPEN.

g) POSITIVE RUN OPERATION STATUS FOR THE SUPPLY FAN(S) AND ASSOCIATED EXHAUST FANS, AS SENSED BY RESPECTIVE CURRENT SWITCHES OR EXISTING DIFFERENTIAL PRESSURE SWITCHES, SHALL BE INDICATED AT THE DCP AND ECC.

h) ALL DIRECT DIGITAL CONTROL PANELS (DCP) SHALL BE FED FROM AN EMERGENCY POWER CIRCUIT.

2. RUN CONDITIONS

a) OCCUPIED MODE: ENABLE THE AIR HANDLING UNIT BASED ON A USER DEFINABLE OCCUPIED TIME SCHEDULE. OCCUPIED HOURS ARE FROM 5:00am-6:00pm, 5 DAYS A WEEK (ADJUSTABLE)

b) UNOCCUPIED MODE: ENABLE UNOCCUPIED MODE OF OPERATION TO MAINTAIN UNOCCUPIED SETPOINTS.

c) DEHUMIDIFICATION MODE: IF GENERAL EXHAUST AIR HUMIDITY IS ABOVE SETPOINT, THEN ENTER DEHUMIDIFICATION MODE UNTIL GENERAL EXHAUST AIR HUMIDITY FALLS BELOW SETPOINT MINUS A 3% DEADBAND.

3. AIR FLOW CONTROL

a) THE SUPPLY AIR FLOW SHALL BE CONTROLLED BY THE DCP AND MODULATE THE SUPPLY FAN VARIABLE FREQUENCY DRIVE (VFD) SPEED TO MAINTAIN A DUCT STATIC PRESSURE SETPOINT, AS MEASURED BY SENSOR(S) SPS-1 LOCATED 2/3 DISTANCE DOWN THE SUPPLY DUCT MAIN BRANCHES. WHEN MULTIPLE SENSORS ARE INDICATED, POLL ALL SENSORS AND CONTROL TO THE MINIMUM READING. CONTINUOUSLY POLL ALL AIR TERMINAL UNITS AND RESET STATIC PRESSURE SETPOINT BETWEEN A HIGH AND LOW LIMIT TO MAINTAIN A MAXIMUM ZONE DAMPER POSITION AT 95% OPEN.

b) THE GENERAL EXHAUST FAN VFD SHALL MODULATE IN UNISON WITH THE SUPPLY FAN VFD(S). THE DCP, USING SUPPLY AIR FLOW AND GENERAL EXHAUST AIR FLOW SIGNALS FROM SUPPLY AND GENERAL EXHAUST DUCT MOUNTED AIR FLOW MEASURING DEVICES, SHALL RESET THE GENERAL EXHAUST FAN VFD SPEED TO MAINTAIN A CONSTANT AIR FLOW OFFSET BETWEEN THE SUPPLY AIR AND THE GENERAL EXHAUST AIR EQUAL TO THE GENERAL EXHAUST OFFSET AIR FLOW SETPOINT, TO BE ESTABLISHED THROUGH TEST ADJUST AND BALANCE PROCEDURES.

4. TEMPERATURE CONTROL

a) COOLING COIL CONTROL: THE DCP SHALL MODULATE THE COOLING CONTROL VALVE AS NECESSARY TO MAINTAIN A COOLING COIL LEAVING AIR TEMPERATURE SETPOINT.

b) PREHEAT COIL CONTROL: THE DCP SHALL MODULATE THE PREHEAT CONTROL VALVE TO MAINTAIN A PREHEAT COIL LEAVING AIR TEMPERATURE SETPOINT.

c) OCCUPIED MODE: 1-2-AH13 SHALL OPERATE CONTINUOUSLY DURING OCCUPIED MODE. THE VFD SHALL MODULATE THE SUPPLY FAN SPEED TO MAINTAIN A NEGATIVE PRESSURE WITHIN THE SPACE (ADJ.).
COOLING - THE CHILLED WATER VALVE SHALL MODULATE TO MAINTAIN THE ROOM TEMPERATURE SETPOINT. PROVIDE A SPACE TEMPERATURE INPUT TO THE DDC. MAINTAIN THE SPACE COOLING TEMPERATURE SETPOINT (75 F ADJ.).
HEATING - UPON A DROP IN THE ROOM SPACE TEMPERATURE BELOW THE HEATING SETPOINT (71 F ADJ.), THE STEAM CONTROL VALVE SHALL BE ENERGIZED TO MAINTAIN THE ROOM HEATING SETPOINT.

d) UNOCCUPIED MODE: 1-2-EF13A and 1-2-AH13 SHALL BE INTERLOCKED AND CYCLE ON/OFF TO MAINTAIN SPACE TEMPERATURE.
COOLING - WHEN SPACE TEMPERATURE RISES ABOVE 85 DEG F(ADJ.), 1-2-AH13 SHALL START AND DISCHARGE 55 DEG F (ADJ). 1-2-EF13A SHALL START TO MAINTAIN A NEUTRAL PRESSURE. WHEN SPACE TEMPERATURE FALLS BELOW 80 DEG F(ADJ). AHU AND EF SHALL STOP.
HEATING - WHEN SPACE TEMPERATURE FALLS BELOW 60 DEF F(ADJ), 1-2-AH13 SHALL START AND DISCHARGE 85 DEG F(ADJ). 1-2-EF13A SHALL START TO MAINTAIN A NEUTRAL PRESSURE. WHEN SPACE TEMPERATURE RISES ABOVE 65 DEG F (ADJ), AHU AND EF SHALL STOP.

5. DEHUMIDIFICATION MODE CONTROL

a) IF THE GENERAL EXHAUST AIR HUMIDITY AS SENSED BY H-1 RISES ABOVE THE EXHAUST AIR HUMIDITY SETPOINT, THE SYSTEM SHALL ENTER A DEHUMIDIFICATION MODE OF OPERATION UNTIL EXHAUST AIR HUMIDITY FALLS BELOW SETPOINT MINUS A 3% DEADBAND. THE DCP SHALL MODULATE THE COOLING CONTROL VALVE TO MAINTAIN COOLING COIL LEAVING AIR TEMPERATURE SETPOINT LOW LIMIT, AND MODULATE EACH ZONE REHEAT VALVE AS NECESSARY TO MAINTAIN ASSOCIATED SPACE TEMPERATURE COOLING SETPOINT.

6. FREEZE PROTECTION

a) IF THE COOLING COIL ENTERING AIR TEMPERATURE AS SENSED BY T-3 FALLS BELOW 40°F, A WARNING ALARM SIGNAL SHALL BE INDICATED AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 35°F, AS SENSED BY THE FREEZESTAT TSL-1, THE SUPPLY FAN(S) SHALL SHUT DOWN AND A CRITICAL ALARM SHALL BE INDICATED AT THE DCP AND ECC. THE FREEZESTAT TSL-1 SHALL BE HARDWIRED TO THE SUPPLY FAN VFD(S) AND UNIT SHALL BE SHUTDOWN IN HAND, AUTO, OR BYPASS MODE. TSL-1 SHALL REQUIRE MANUAL RESET AT THE DEVICE.

7. SMOKE CONTROL AUTOMATIC SHUTDOWN/RESTART

a) WHEN SMOKE IS DETECTED BY ANY ASSOCIATED DUCT MOUNTED SMOKE DETECTOR, THE SUPPLY FAN(S), AND INTERLOCKED EXHAUST FANS SHALL SHUT "OFF", AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM, AND ALL SMOKE DAMPERS SHALL CLOSE.

b) SUPPLY FAN(S) AND INTERLOCKED EXHAUST FANS SHALL AUTOMATICALLY RESTART AND SMOKE DAMPERS SHALL OPEN WHEN FIRE ALARM CIRCUIT IS RESET.

8. EMERGENCY CONSTANT SPEED OPERATION

a) UPON FAILURE OF EITHER SUPPLY FAN VFD(S) OR GENERAL EXHAUST FAN VFD, THE SUPPLY FAN(S) AND GENERAL EXHAUST FAN SHALL BE STARTED/STOPPED MANUALLY AT THE DCP OR THE ECC THROUGH THE BY-PASS STARTER. ACTIVATION OF CONSTANT SPEED OPERATION SHALL CAUSE ALL AIR TERMINAL UNIT DAMPERS TO BE POSITIONED FOR MAXIMUM DESIGN AIR FLOW, AND SUPPLY FAN(S) AND GENERAL EXHAUST FAN SHALL OPERATE AT CONSTANT SPEED.

9. SAFETIES

a) HIGH PRESSURE LIMIT: THE DCP, USING HIGH PRESSURE LIMIT SWITCH PSH-1 LOCATED AT THE SUPPLY FAN DISCHARGE, SHALL PREVENT THE SUPPLY FAN(S) FROM DEVELOPING OVER 4 IN. W.G. OF POSITIVE STATIC PRESSURE (FIELD ADJUSTABLE). IF STATIC PRESSURE AT PSH-1 DOES EXCEED 4 IN. W.G., THE SWITCH WILL OVERRIDE ALL CONTROLS AND SHUT DOWN THE SUPPLY FAN(S) AND GENERAL EXHAUST FAN, AND A "HIGH PRESSURE" ALARM SIGNAL SHALL BE INDICATED AT THE DCP AND ECC. PSH-1 SHALL BE HARDWIRED TO THE SUPPLY FAN VFD(S) AND UNIT SHALL BE SHUTDOWN IN HAND, AUTO, OR BYPASS MODE. PSH-1 WILL REQUIRE MANUAL RESET AT THE DEVICE.

b) DAMPER PROOF END SWITCH: PROVIDE AN END SWITCH HARDWIRED TO THE VFD(S) TO OVERRIDE ALL CONTROLS AND PREVENT OPERATION OF THE UNIT FANS IF THE OUTSIDE AIR DAMPER FAILS TO OPEN. FOR ALL CONTROL DAMPERS ASSOCIATED WITH UNIT, PROVIDE END SWITCH DAMPER POSITION INDICATION AT THE DCP AND ECC.

c) FILTER STATUS: THE DCP SHALL MONITOR AND INDICATE THE DIFFERENTIAL PRESSURE ACROSS EACH AIR HANDLING UNIT FILTER SECTION. PROGRAM A HIGH LIMIT SETPOINT FOR EACH FILTER SECTION IN ACCORDANCE WITH FILTER MANUFACTURER'S RECOMMENDATION. IF THE DIFFERENTIAL PRESSURE ACROSS A FILTER SECTION IS GREATER THAN THE HIGH LIMIT SETPOINT, THE DCP AND ECC SHALL REPORT A FILTER MAINTENANCE ALARM WITH MESSAGE INDICATING THAT THE FILTER NEEDS TO BE CHANGED.

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

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Approved: Project Director: DALE A. BACIK, P.E.

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ELECTRICAL ABBREVIATIONS

THIS LIST OF ABBREVIATIONS IS PROVIDED FOR CONVENIENCE ONLY. ITEMS LISTED HERE MAY OR MAY NOT BE USED ON THIS PROJECT.

A	AMP
AA	AUTOMATIC ALTERNATOR
AC	ALTERNATING CURRENT
ACU	AIR CONDITIONER UNIT
AF	AMPERAGE FRAME
AFF	ABOVE FINISHED FLOOR
ANN	ANNUNCIATOR
AS	AMMETER SWITCH
AT	AMPERE TRIP
AX	AUXILIARY DELAY
BKR	BREAKER
CB	CIRCUIT BREAKER
COL	COLUMN
CL	CENTERLINE
CKT	CIRCUIT
CF(P OR L)	CLOSE ON FALLING (PRESSURE OR LEVEL)
CR(P OR L)	CLOSE ON RISING (PRESSURE OR LEVEL)
CH	CONVECTION HEATER
COMPT	COMPARTMENT
COND	CONDUCTOR
CDT	CONDUIT
C-( )	CONTRACT-( ) ID
CPT	CONTROL POWER TRANSFORMER
CR-( )	CONTROL RELAY-( ) ID
I/I	CURRENT TO CURRENT TRANSDUCER
I/P	CURRENT TO PNEUMATIC TRANSDUCER
CT	CURRENT TRANSFORMER
CTR	CENTER
DC	DIRECT CURRENT
DF	DUST FILTER
DFA	DOWN FROM ABOVE
DIA	DIAMETER
DISTR	DISTRIBUTION
DP	DIFFERENTIAL PRESSURE
DS	DISCONNECT SWITCH
DPDT	DOUBLE POLE, DOUBLE THROW
(E)	EXISTING
EBB	ELECTRIC BASED BOARD
ECH	ELECTRIC CEILING HEATER
EDH	ELECTRIC DUCT HEATER
EF	ELECTRIC FIN
EMT	ELECTRIC METALLIC TUBING
EC	ELECTRICAL CONTRACTOR
ETM	ELAPSED TIME METER
ETR	EXISTING TO REMAIN
EUH	ELECTRIC UNIT HEATER
EWC	ELECTRIC WATER COOLER
F	FLOW
FDR	FEEDER
FLA	FULL LOAD AMPS
FMC	FLEXIBLE METALLIC CONDUIT
FOS	FAST-OFF-SLOW
F-S	FAST-SLOW
FT	FEET
F-R	FORWARD REVERSE
FR	FRAME
FUSS	FUSED SAFETY SWITCH
FVNR	FULL VOLTAGE NON-REVERSING
G	GREEN
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
GPM	GALLONS PER MINUTE
GND	GROUND
GRV	GRAVITY RELIEF VENT
GUH	GAS UNIT HEATER
HOA	HAND-OFF-AUTOMATIC
HP	HORSEPOWER
HV	HOUSE VACUUM
HZ	HERTZ
ID	IDENTIFICATION NUMBER
IC	INTERRUPTING CAPACITY
IF	INFRARED HEATER
IMC	INTERMEDIATE METAL CONDUIT
INF	IN LINE FAN
I/O	INPUT/OUTPUT
IT	INTERCHANGEABLE TRIP OR INSTANTANEOUS TRIP
JB	JUNCTION BOX
kcmil	THOUSAND CIRCULAR MILS
KUH/EUH	ELECTRIC UNIT HEATER
KVA	KILOVOLT AMPERE
KV	KILOVOLT
KVAR	KILOVOLT AMPERES REACTIVE
KW	KILOWATT
L	LEVEL
LC	LOUVER CONTROLLER
LFMC	LIQUID-TIGHT FLEXIBLE METAL CONDUIT
LM	LOUVER MOTOR
LCP	LIGHTING CIRCUIT ( )
LP( )	LIGHTING PANELBOARD
LS	LIMIT SWITCH
LV	LOUVER
M	MANUAL MOTOR STARTER
mA	MILLIAMPERES
MC	METAL CLAD CABLE
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MEZZ	MEZZANINE
MF-( )	MAIN FEEDER-( ) ID
MGD	MILLION GALLONS PER DAY
MS	MOTOR STARTER
MTD	MOUNTED
MTR	MOTORIZED TIMING RELAY
MUAU	MAKE UP AIR UNIT
MX	MOTOR AUXILIARY RELAYS
(N)	NEW
NAC	NOTIFICATION APPLIANCE CIRCUIT
NP	NAMEPLATE
NF	NON FUSED
NFSS	NON FUSED SAFETY SWITCH
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
No.	NUMBER
( )OL	OVERLOAD ( ) NUMBER OF
P	PRESSURE
( )P	POLES ( ) NO OF POLES
ø or PH	PHASE
P/I	PNEUMATIC TO CURRENT TRANSDUCER
PLC	PROGRAMMABLE LOGIC CONTROLLER
PRE	POWER ROOF EXHAUSTER
PS	PRESSURE SWITCH
PT	POTENTIAL TRANSFORMER
PTAC	PACKAGE TERMINAL AIR CONDITIONER
PTR	PNEUMATIC TIMING RELAY
PVC	POLYVINYL CHLORIDE RIGID CONDUIT
PVC-RSC	PVC COATED RIGID STEEL CONDUIT
PWV	POWER WALL VENTILATOR
QTY	QUANTITY
R	RED
RAC	RIGID ALUMINUM
RECPT	RECEPTACLE
REQ	REQUIRED
RMS	ROOT MEAN SQUARE
RSC	RIGID STEEL CONDUIT
RTU	REMOTE TERMINAL UNIT
SAF	SUPPLY AIR FAN
STP	SHIELDED TWISTED PAIR
SL	STOP LOCKOUT
SMC	SMART MOTOR CONTROLLER
SPDT	SINGLE POLE, DOUBLE THROW
SS	SELECTOR SWITCH
S/S	START/STOP
S/SL	START/STOP LOCKOUT
SV	SOLENOID VALVE
SYM	SYMMETRICAL
T or T'STAT	THERMOSTAT
T-( )	TELEPHONE CONDUIT-( )
TCC	TIME-CLOSE CONTACT
TEMP	TEMPERATURE
TC	TEMPERATURE CONTRACTOR
TOC	TIME-OPEN CONTACT
TR	TIMING RELAY
TRI	SHIELDED TRIPLE CABLE
TS	TEMPERATURE SWITCH
TSP	TWISTED SHIELDED PAIR
TYP	TYPICAL
UF	UNDERGROUND FEEDER
UH	UNIT HEATER
VA	VOLT - AMPERE
VAC	VOLTS ALTERNATING CURRENT
VDC	VOLTS DIRECT CURRENT
VFD	VARIABLE FREQUENCY DRIVE
VS	VOLTMETER SWITCH
VT	VOLTAGE TRANSFORMER
W	WATT
WH	WATER HEATER
WP	WEATHERPROOF

ELECTRICAL SYMBOLS SCHEDULE

THIS IS A COMPLETE LIST OF ELECTRICAL SYMBOLS FOR REFERENCE ONLY. SYMBOLS SHOWN HERE MAY OR MAY NOT BE USED ON THIS PROJECT.

GENERAL SYMBOLS

- KEY NOTE INDICATOR
- EQUIPMENT INDICATOR
- DRAWING REVISION INDICATOR

LINE TYPES

- NEW WORK SCOPE OF WORK
- EXISTING SCOPE OF WORK
- DEMOLITION SCOPE OF WORK
- FUTURE SCOPE OF WORK
- UGP — UNDERGROUND ELECTRIC SECONDARY FEEDER
- -NEW BRANCH CIRCUIT W/#12 AWG THHN WIRES -SLASH LINES INDICATES WIRES IN CIRCUIT -SHORT LINES DEPICTS PHASE CONDUCTOR -LONG LINE DEPICTS NEUTRAL CONDUCTOR -LONG LINE W/DOT DEPICTS GROUND

CONDUIT AND WIRING

- BRANCH CIRCUIT RUN CONCEALED
- BRANCH CIRCUIT RUN UNDER FLOOR
- BRANCH CIRCUIT DOWN
- BRANCH CIRCUIT UP
- 2A-1,3,5 — HOME RUN TO PANEL 2A CKTS 1, 3, & 5

ELEMENTARY DIAGRAM SYMBOLS

- DM — DIGITAL METER
- A — METERING DEVICES: A = AMMETER; V = VOLTMETER; PF = POWER FACTOR; HZ = FREQUENCY METER
- N E L — AUTOMATIC TRANSFER SWITCH
- 1000AT 1000AF — CIRCUIT BREAKER - DRAWOUT; RATINGS AS INDICATED
- 100AT 100AF — MOLDED CASE CIRCUIT BREAKER OR MCP (OPEN OR ENCLOSED)
- CURRENT TRANSFORMER
- 30A 3P — 20A — FUSED SWITCH; RATINGS AS INDICATED
- 30A 3P — SWITCH; RATINGS AS INDICATED
- 20A — FUSE; FUSE SIZE INDICATED
- INDICATOR OR PILOT LIGHT: R = RED; G = GREEN; B = BLUE; W = WHITE; A = AMBER
- K — KIRK KEY INTERLOCK
- MOTOR STARTER CONTACTOR AND THERMAL OVERLOAD
- 52 — DRAWOUT POWER CIRCUIT BREAKER; RATINGS AS INDICATED
- CONTACT (NORMALLY OPEN OR NORMALLY CLOSED)
- POTENTIAL TRANSFORMER
- THERMAL OVERLOAD
- 480V 25KVA 208/120V — TRANSFORMER (DELTA ~ WYE GROUND SHOWN), RATINGS AS INDICATED
- 7.5 — MOTOR - NUMERAL INDICATES HP
- GROUND

ELECTRICAL DEVICES

(MOUNTING HEIGHT TO CENTER LINE OF BOX UNLESS NOTED OTHERWISE)

- 1 2 3 4 — SINGLE-POLE, DOUBLE-POLE, 3-WAY AND 4-WAY SWITCHES (48" AFF)
- D — LOCAL WALL DIMMER SWITCH (48" AFF)
- LV — LOW-VOLTAGE SWITCH (48" AFF)
- F — FAN SWITCH (48" AFF)
- WALL MOUNTED OCCUPANCY SENSOR SWITCH; DUAL TECHNOLOGY (PASSIVE INFRARED/ULTRASONIC)
- OS — CEILING MOUNTED OCCUPANCY SENSOR; DUAL TECHNOLOGY (PASSIVE INFRARED/ULTRASONIC)
- DS — DAYLIGHT SENSOR
- LR — LIGHTING RELAY (UL924 GENERATOR TRANSFER DEVICE)
- T — TIMECLOCK (REFER TO PLANS)
- PC — PHOTOCELL (REFER TO PLANS)
- DUPLEX RECEPTACLE (18" AFF)
- DOUBLE DUPLEX RECEPTACLE (18" AFF)
- DUPLEX RECEPTACLE-CEILING MOUNTED
- DOUBLE DUPLEX RECEPTACLE-CEILING MOUNTED
- SIMPLEX RECEPTACLE (18" AFF)
- EMERGENCY DUPLEX RECEPTACLE (18" AFF)
- EMERGENCY DOUBLE DUPLEX RECEPTACLE (18" AFF)
- EMERGENCY SIMPLEX RECEPTACLE (18" AFF)
- DUPLEX RECEPTACLE MOUNTED 6" ABOVE COUNTER OR BACKSPLASH
- TV — DUPLEX RECEPTACLE MOUNTED BEHIND TV LOCATION WITH RECESSED DOUBLE GANG BACKBOX. COORDINATE TV LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECTURAL DRAWINGS.
- PROGRAM CLOCK OUTLET (84" CTR)
- DUPLEX RECEPTACLE-FLOOR MOUNTED
- DOUBLE DUPLEX RECEPTACLE-FLOOR MOUNTED
- A — SPECIAL RECEPTACLE (18" AFF) 20A, 2P, 3W, 208V, NEMA 6-20R
- B — SPECIAL RECEPTACLE (18" AFF) 30A, 2P, 3W, 208V, NEMA 6-30R
- C — SPECIAL RECEPTACLE (18" AFF) 20A, 3P, 4W, 120/208V, NEMA 14-20R
- D — SPECIAL RECEPTACLE (18" AFF) 30A, 3P, 4W, 208V, NEMA 15-30R
- PLUG MOLD/WIRE MOLD RACEWAY

ELECTRICAL LIGHTING FIXTURE SYMBOLS

- 2X4 FIXTURE - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 2X4 FIXTURE CRITICAL BRANCH - RECESSED, SURFACE OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 2X4 FIXTURE CONNECTED TO LIFE SAFETY BRANCH - RECESSED, SURFACE OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 2X2 FIXTURE - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 2X2 FIXTURE CRITICAL BRANCH - RECESSED, SURFACE OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 2X2 FIXTURE CONNECTED TO LIFE SAFETY BRANCH - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 1X4 FIXTURE - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 1X4 FIXTURE CONNECTED TO LIFE SAFETY BRANCH - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- 1X4 FIXTURE WALL MOUNTED - TYPE AS SPECIFIED
- 1X4 FIXTURE WALL MOUNTED CONNECTED TO LIFE SAFETY BRANCH - TYPE AS SPECIFIED
- 4' INDUSTRIAL FIXTURE - TYPE AS SPECIFIED
- 4' INDUSTRIAL CONNECTED TO LIFE SAFETY BRANCH - TYPE AS SPECIFIED
- LIGHTING FIXTURE - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- LIGHTING FIXTURE CONNECTED TO LIFE SAFETY BRANCH - RECESSED, SURFACE, OR PENDANT MOUNTED - TYPE AS SPECIFIED
- WALL MOUNTED - TYPE AS SPECIFIED
- WALL MOUNTED CONNECTED TO LIFE SAFETY BRANCH - TYPE AS SPECIFIED
- EXTERIOR POLE MOUNTED FIXTURE - TYPE AS SPECIFIED
- EXTERIOR POST TOP FIXTURE - TYPE AS SPECIFIED
- SELF CONTAINED EMERGENCY LIGHTING UNIT - TYPE AS SPECIFIED
- EXIT SIGN-CEILING MOUNTED - TYPE AS SPECIFIED
- EXIT SIGN-WALL MOUNTED - TYPE AS SPECIFIED

COMMUNICATION DEVICES

(MOUNTING HEIGHT TO CENTER LINE OF BOX UNLESS NOTED OTHERWISE)

- TELEPHONE OUTLET: PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- TELEPHONE OUTLET-CEILING MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- TELEPHONE OUTLET-FLOOR MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- TELE/DATA OUTLET (18" AFF); PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- A — TELE/DATA OUTLET (6" ABOVE COUNTER OR BACKSPLASH); PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- TELE/DATA OUTLET-CEILING MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- TELE/DATA OUTLET-FLOOR MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- DATA OUTLET (18" AFF); PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- DATA OUTLET-CEILING MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- DATA OUTLET-FLOOR MOUNTED; PROVIDE DOUBLE GANG BACKBOX WITH 1" CONDUIT AND PULL STRING TO ACCESSIBLE CEILING
- CABLE TV OUTLET, MOUNTED BEHIND TV LOCATION WITH RECESSED DOUBLE GANG BACKBOX. COORDINATE MOUNTING HEIGHT WITH ARCHITECTURAL PLANS; PROVIDE 1 CATV JACK
- CATV — CABLE TV HUB
- 12"x6" COMMUNICATION CABLE TRAY MOUNTED ABOVE SUSPENDED CEILING
- TELE/DATA WIREMOLD; PROVIDE 1 TELEPHONE JACK AND 1 DATA JACK AT EACH DEVICE LOCATION
- S — 8" CEILING MOUNTED PAGING SPEAKER; PROVIDED WITH BAFFLE, GRILL AND MATCHING TRANSFORMER
- CR — CARD READER. FLUSHED MOUNTED AT 42" AFF.
- DC — DOOR CONTACT
- ES — ELECTRIC DOOR STRIKE
- K — KEY PAD
- MD — MOTION DETECTOR
- P — PUSH BUTTON/PUSH PLATE
- DOOR BUZZER
- CCTV CAMERA-FIXED
- CCTV CAMERA-PAN, TILT, ZOOM
- SEC — SECURITY PANEL

CIRCUIT DESIGNATIONS

LIGHTING

- A — CAPITAL LETTER INDICATES FIXTURE TYPE
- # — NUMERAL INDICATES CIRCUIT NUMBER*
- a — SMALL LETTER INDICATES CONTROL SWITCH

POWER

- # — NUMERAL INDICATES CIRCUIT NUMBER*

*SEE NOTES ON ASSOCIATED DRAWINGS FOR PANEL DESIGNATION

POWER DISTRIB.

- PANELBOARD
- TRANSFORMER
- MOTOR CONNECTION-NUMERAL INDICATES HP
- DISCONNECT SWITCH - FUSED
- DISCONNECT SWITCH - NON-FUSED
- DISCONNECT SWITCH - MOTOR/STARTER COMBINATION
- VFD — VARIABLE FREQUENCY DRIVE
- CP — CONTROL PANEL
- J — JUNCTION BOX OR PULL BOX
- J — WALL MOUNTED JUNCTION BOX OR PULL BOX
- J FB — FLOOR BOX

FIRE ALARM SYSTEM

F	MANUAL PULL STATION	46"
F CD	BELL/STROBE LIGHT COMBINATION	80" TO BOTTOM
CD	STROBE LIGHT	80" TO BOTTOM
	HORN	80" TO BOTTOM
C	HORN	CEILING
CD	HORN/STROBE LIGHT COMBINATION	80" TO BOTTOM
CD C	HORN/STROBE LIGHT COMBINATION	CEILING
SD	SMOKE DETECTOR	CEILING
HD	HEAT DETECTOR	CEILING
DD R	DUCT DETECTOR	-
SH	COMBINATION SMOKE/HEAT DETECTOR	CEILING
TS	TAMPER SWITCH	-
FS	FLOW SWITCH	-
D	MAGNETIC DOOR HOLDER	72"
FACP	FIRE ALARM CONTROL PANEL	-
FACP	RECESSED FIRE ALARM CONTROL PANEL	-
FARA	FIRE ALARM REMOTE ANNUNCIATOR	-
FARA MM	MONITORING MODULE	-

SUBSCRIPTS:

C	CEILING MOUNTED
CD	CANDELA RATING OF APPLIANCE
EL	ELEVATOR CONTROL FUNCTION
R	RETURN
S	SUPPLY
WP	WEATHER PROOF

GENERAL NOTES:

1. THIS IS A COMPLETE LIST OF ELECTRICAL SYMBOLS AND ABBREVIATIONS FOR REFERENCE ONLY. SYMBOLS SHOWN ON THIS DRAWING MAY NOT APPEAR ON THE FOLLOWING DRAWINGS.
2. THE CONTRACTOR SHALL COORDINATE ALL REQUIRED SHUTDOWNS ON EXISTING UTILITIES WITH THE VA IN ORDER TO MINIMIZE IMPACT TO OTHER AREAS.
3. ALL WORK SHALL COMPLY WITH THE LATEST EDITION OF THE NEC, IBC, NFPA, AND ANY APPLICABLE LOCAL ORDINANCE AND STANDARDS.
4. ALL WIRING SHALL BE IN CONDUIT. MINIMUM CONDUIT SIZE SHALL BE 3/4". MINIMUM CONDUCTOR SIZE SHALL BE #12 AWG. ALL NEW CIRCUITS SHALL BE PROVIDED WITH AN INDIVIDUAL NEUTRAL AND GROUNDING CONDUCTOR WITH THE PHASE CONDUCTOR.
5. THE ELECTRICAL DRAWINGS ARE SCHEMATIC IN NATURE. BEFORE STARTING THE WORK THE CONTRACTOR SHALL REVIEW ALL OTHER DISCIPLINE DRAWINGS AND VERIFY FIELD CONDITIONS AND SHALL MAKE ANY REQUIRED MINOR ADJUSTMENTS WITHOUT EXTRA COST TO THE VA. ANY MAJOR DISCREPANCIES FOUND SHALL BE BROUGHT TO THE ATTENTION OF THE VA REPRESENTATIVE BEFORE PERFORMING CHANGES.
6. ALL CONDUITS INSTALLED INTERIOR SHALL BE EMT. ALL CONDUITS INSTALLED EXTERIOR SHALL BE PVC SCHEDULED 40.
7. CONDUCTORS #10 AND SMALL SHALL BE STRANDED COPPER. CONDUCTORS #8 AND LARGER SHALL BE STRANDED COPPER. UNLESS NOTED OTHERWISE, CONDUCTORS INSULATION SHALL BE DUAL RATED AT THHN/THWN.
8. ALL DEVICES, EQUIPMENT MATERIAL AND LABOR SHALL BE PROVIDED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
9. FOR EQUIPMENT TO BE CONNECTED TO EXISTING PANELBOARDS, THE CONTRACTOR SHALL BE RESPONSIBLE FOR INSTALLING NEW BREAKERS. NEW BREAKERS SHALL HAVE INTERRUPTING CAPACITIES EQUAL TO EXISTING UNITS. THE CONTRACTOR SHALL VERIFY THAT PANELBOARDS HAVE ADEQUATE CAPACITY FOR THE NEW LOAD. IF A PANELBOARD IS FOUND NOT TO HAVE ENOUGH CAPACITY, THE CONTRACTOR SHALL BRING THE ISSUE TO THE ATTENTION OF THE VA REPRESENTATIVE.
10. ALL ELECTRICAL EQUIPMENT AND DEVICES SHALL BE MOUNTED AS PER EQUIPMENT AND DEVICE MANUFACTURER RECOMMENDATIONS.
11. CONTRACTOR SHALL PROVIDE SUBMITTALS TO VA REPRESENTATIVE FOR REVIEW AND APPROVAL OF ALL ELECTRICAL EQUIPMENT AND DEVICES DESCRIBED IN THE SUBMITTAL REGISTER. SUBMITTALS SHALL INCLUDE CUT SHEETS, DIMENSIONS, WIRING DIAGRAMS, ACCESSORIES, OPERATION MANUALS, AND ALL NECESSARY INFORMATION FOR REVIEWER TO MAKE A SOUND EVALUATION.
12. PROVIDE STARTUP OF ALL ELECTRICAL SYSTEMS AND COORDINATE WITH VA REPRESENTATIVE FOR STARTUP WITNESSING.
13. PROVIDED LAMINATED PLASTIC NAMEPLATES FOR EACH EQUIPMENT ENCLOSURE. EACH NAMEPLATE IDENTIFY EQUIPMENT FUNCTION, PANELBOARD CONNECTED AND CIRCUIT NUMBER. NAMEPLATE SHALL BE MELAMINE PLASTIC (0.125 INCHES THICK), WHITE LETTERS ON BLACK BACKGROUND (NORMAL POWER) AND WHITE LETTERS ON RED BACKGROUND (CRITICAL POWER). MINIMUM SIZE OF LETTERS SHALL BE 2.5 INCHES. IN ADDITION TO EQUIPMENT TAGGING, CONTRACTOR SHALL PROVIDE ARC-FLASH WARNING SIGNS FOR PANELBOARDS.
14. PROVIDE COMPUTER PRINTED ON WHITE WRAPAROUND PAPER WITH CLEAR PLASTIC PROTECTION TAIL FOR ALL WIRE MARKERS. MARKER SHALL STATE PANELBOARD NAME AND CIRCUIT NUMBER FOR ALL WIRES IN JUNCTION/PULL BOXES AND IN EQUIPMENT TERMINAL BOXES.
15. PROVIDE PUNCHED TAPE LABELS ON ALL WIRING DEVICES FOR IDENTIFICATION. SHALL BE ½" BLACK TAPE WITH WHITE RAISED LETTERS. TAPE LABELS SHALL STATE PANELBOARD NAME AND CIRCUIT NUMBER.
16. PROVIDE DIRECTORIES ON ALL PANELBOARDS. BALANCE ALL LOADS ON PANELBOARD WITHIN 10%.
17. CONTRACTOR SHALL BE RESPONSIBLE FOR PROVIDING A COMPLETE SET OF RECORD DRAWINGS TO THE VA AT THE END OF THE CONSTRUCTION.
18. ALL MATERIALS AND EQUIPMENT TO BE INSTALLED SHALL BE NEW AND FREE OF DEFECTS. ALL ELECTRICAL EQUIPMENT SHALL COMPLY WITH NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA) STANDARDS AND SHALL BE UL LABELED. ALL ELECTRICAL EQUIPMENT AND MATERIALS SHALL BE INSTALLED IN A WORKMANLIKE MANNER.
19. ALL CONNECTORS AND SPLICES FOR CABLE SIZE #10 AWG AND SMALLER SHALL BE INSULATED, PRESSURE-TYPE. FOR LARGER SIZE CONDUCTORS USE BOLTED CLAMPS WITH INSULATING TAPE.
20. PROVIDE INSULATION AND CONTINUITY TEST OF ALL 1000V AND LESS WIRES AND CABLES. USE TESTING PROCEDURES DESCRIBED IN INTERNATIONAL ELECTRICAL TESTING AGENCY (NETA) STANDARDS. REPLACE ANY CABLES WITH INSULATION RESISTANCE LESS THAN 100 MEGA OHMS (MOHMS). TEST ALL GROUND FAULT CIRCUIT INTERRUPTING (GFCI) RECEPTACLES. TEST ALL GROUNDING ELECTRODE SYSTEMS WITH FALL OF POTENTIAL METHOD. MAKE RESISTANCE MEASUREMENTS 48 HOURS AFTER LAST RAIN FALL. MAXIMUM RESISTANCE TO GROUND SHALL BE 5 OHMS.

GENERAL NOTES:

1. FOR EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED, COMPLETELY CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA. DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
2. DISCONNECT ALL ABANDONED WIRING OF ALL TYPES AT THE OVERCURRENT PROTECTIVE DEVICE. COMPLETELY REMOVE ALL ABANDONED WIRING.
3. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

GENERAL NOTES:

1. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.
2. LIGHTING FIXTURES WITH MORE THAN TWO LAMPS SHALL HAVE TWO OUTER LAMPS CONTROLLED WITH ONE SWITCH AND INNER LAMP(S) CONTROLLED BY A SECOND SWITCH.
3. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE NO MORE THAN THREE CIRCUITS. EACH BRANCH CIRCUIT HOMERUN SHALL HAVE A SEPARATE GREEN INSULATED EQUIPMENT GROUNDING CONDUCTOR.
4. MULTI-GANG BACKBOXES FOR DIFFERENT VOLTAGES AND TYPES OF EMERGENCY AND NORMAL BRANCH WIRING DEVICES SHALL HAVE DIVIDERS BETWEEN DEVICES. ALL FINAL LOCATIONS AND ARRANGEMENTS OF LIGHTING FIXTURES SHALL BE OBTAINED FROM THE ARCHITECTURAL REFLECTED CEILING PLAN.

SHEET LIST - ELECTRICAL - VA KITCHEN

SHEET NUMBER	SHEET NAME
1-E-001	LEGEND AND NOTES - ELECTRICAL
1-E-501	DETAILS - ELECTRICAL
1-E-502	SCHEDULES - ELECTRICAL
1-EL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING
1-EL102-N	ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING
1-EP202-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER
1-EP202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - POWER
1-EP204	ENLARGED 4TH FLOOR PLANS - POWER
1-EP215	ENLARGED 15TTH FLOOR PLANS - POWER
1-ET302-N	ENLARGED 2ND FLOOR RENOVATION PLAN - SYSTEMS

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title	LEGEND AND NOTES - ELECTRICAL
Phase	100% CONSTRUCTION DOCUMENTS
Project Title	RENOVATE VCS PATRIOT CAFE
Project Number	546-17-109
Building Number	1
Approved: Project Director	DALE A. BACIK, P.E.
	FULLY SPRINKLERED
Location	MIAMI, FL
Issue Date	02/09/2018
Checked	DAB
Drawn	FB
Drawing Number	1-E-001

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GENERAL NOTES

- UNLESS OTHERWISE NOTED, THE DEMOLITION SCOPE OF WORK CALLS FOR THE REMOVAL AND DISPOSAL OF ALL ELECTRICAL EQUIPMENT LOCATED WITHIN THE BOUNDARIES OF THE PROJECT AREA. THE ELECTRICAL DRAWINGS DO NOT NECESSARILY REFLECT ALL ACTUAL ELECTRICAL DEVICES TO BE DEMOLISHED AND/OR ACTUAL LOCATIONS OF DEVICES.
- CONTRACTOR SHALL OBTAIN ALL EXISTING ELECTRICAL DRAWINGS OF THE AREA FROM THE VA BEFORE STARTING THE DEMOLITION WORK. ALL EXISTING POWER CIRCUITS SHALL BE TRACED BACK TO THEIR SOURCE AND SHALL BE MARKED FOR REMOVAL. REMOVE ALL CONDUITS AND CABLES UP TO THEIR SOURCE.
- COORDINATE ALL REQUIRED EQUIPMENT SHUTDOWNS WITH THE VA REPRESENTATIVE PRIOR TO PROCEEDING TO DISCONNECT EQUIPMENT.
- CIRCUIT CONTINUITY SHALL BE MAINTAINED TO ALL AREAS NOT PART OF THE PROJECT DURING AND AFTER CONSTRUCTION. PROVIDE TEMPORARY POWER DURING CONSTRUCTION.

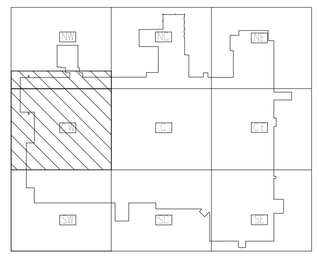
KEYNOTES

1. EXISTING WALL SCONCE TO BE DEMOLISHED. REMOVE ALL ASSOCIATED WIRING AND CONDUIT AS REQUIRED.
2. ALL EXISTING 2'X4' LED TROFFERS SHALL BE RELOCATED. INSPECT FIXTURES FOR WORKING CONDITION. SAFELY REMOVE, STORE AND PROTECT LIGHT FIXTURE IN THIS AREA. SEE RENOVATION PLANS FOR ADDITIONAL INFORMATION.
3. ALL EXISTING OCCUPANCY SENSORS WITHIN THIS AREA SHALL BE RELOCATED. SEE RENOVATION PLANS FOR ADDITIONAL INFORMATION.
4. ALL OTHER LIGHTING SHALL BE DEMOLISHED WITHIN THIS SPACE AS DIRECTED BY VA.

N N
TRUE PLAN

ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING - VA KITCHEN

Scale: 1/8" = 1'-0"



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Drawing Title: ENLARGED 2ND FLOOR DEMOLITION PLAN - LIGHTING	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EL102-D
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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GENERAL NOTES

A. ALL LIGHTING WITHIN SCOPE OF WORK SHALL BE CONTROLLED BY LIGHTING CONTROL PANEL.

B. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND LAYOUTS. THE CONTRACTOR SHALL CONTACT ENGINEER OF RECORD WITH ANY DISCREPANCIES.

C. ALL NEW LIGHTING CONTROL DEVICES AND COVER PLATES SHALL MATCH EXISTING.

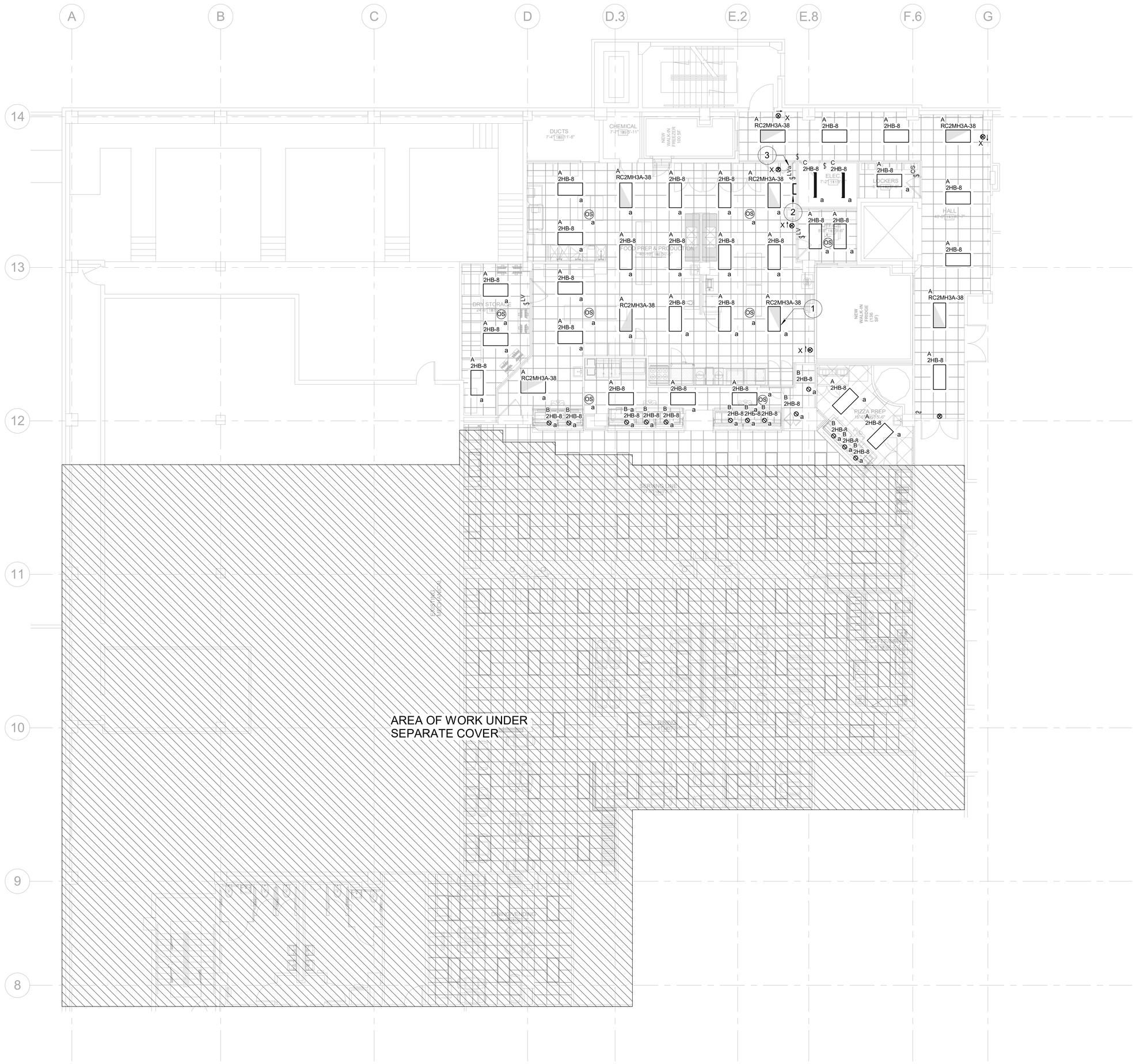
D. ALL EXIT SIGNS TO BE WIRED TO NON-SWITCHED LIGHTING CIRCUIT.

KEYNOTES

1 LIGHTING FIXTURE CONNECTED TO CRITICAL BRANCH CIRCUIT. TYPICAL.

2 NEW LP-8 PEANUT LIGHTING CONTROL PANEL.

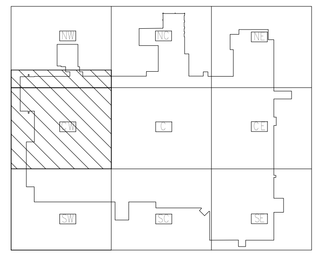
3 MANUAL OVERRIDE SWITCH FOR ALL KITCHEN LIGHTING.



N TRUE N PLAN

ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING - VA KITCHEN

Scale: 1/8" = 1'-0"



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VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ENLARGED 2ND FLOOR RENOVATION PLAN - LIGHTING	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EL102-N
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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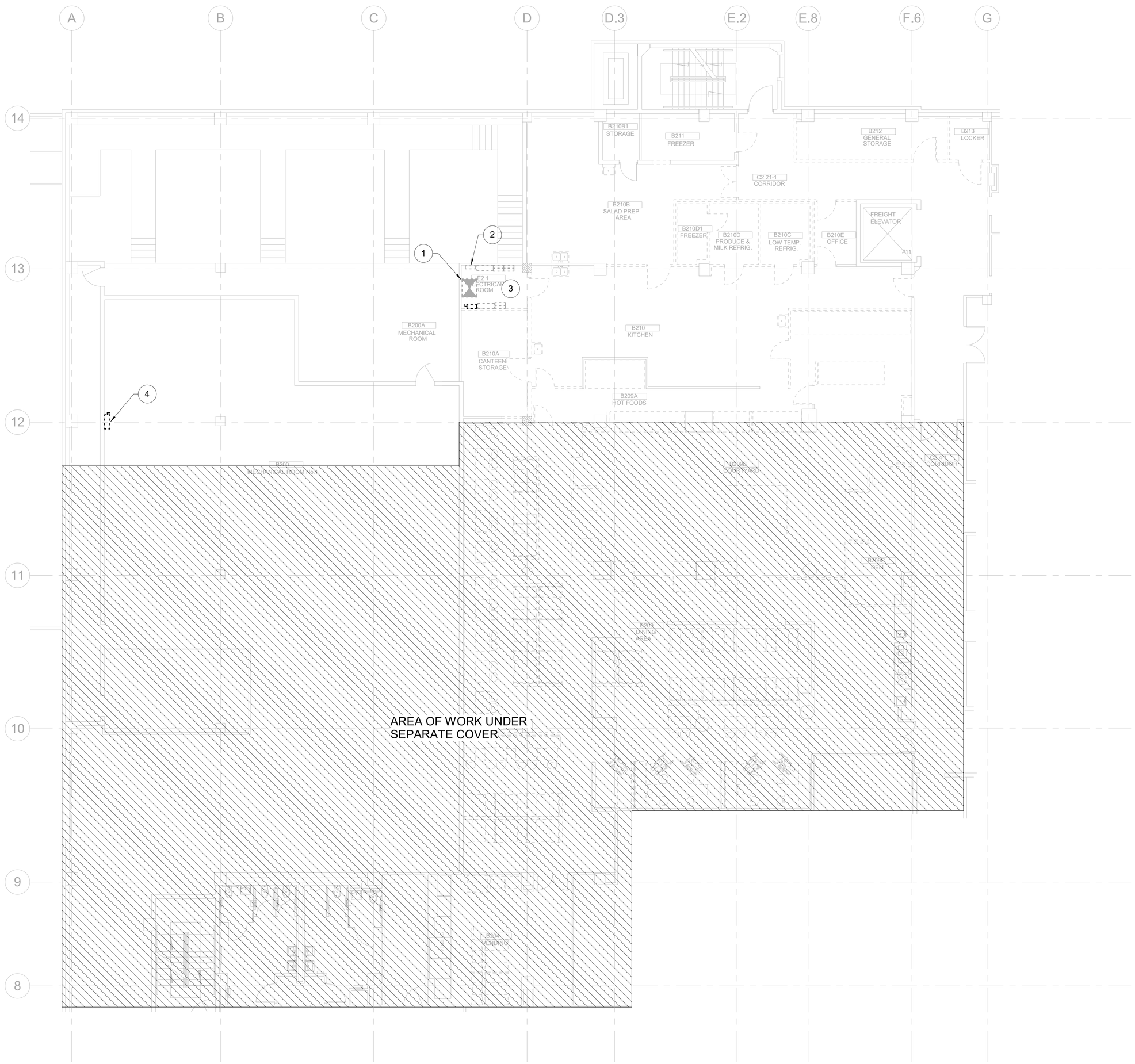

GENERAL NOTES

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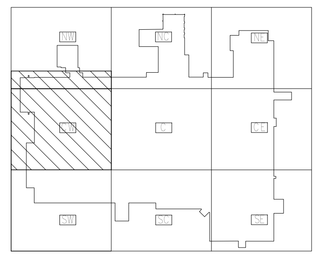
- CONTRACTOR SHALL OBTAIN ALL EXISTING ELECTRICAL DRAWINGS OF THE AREA FROM THE VA BEFORE STARTING THE DEMOLITION WORK. ALL EXISTING POWER CIRCUITS SHALL BE TRACED BACK TO THEIR SOURCE AND SHALL BE MARKED FOR REMOVAL. REMOVE ALL CONDUITS AND CABLES UP TO THEIR SOURCE.
- COORDINATE ALL REQUIRED EQUIPMENT SHUTDOWNS WITH THE VA REPRESENTATIVE PRIOR TO PROCEEDING TO DISCONNECT EQUIPMENT.
- CIRCUIT CONTINUITY SHALL BE MAINTAINED TO ALL AREAS NOT PART OF THE PROJECT DURING AND AFTER CONSTRUCTION. PROVIDE TEMPORARY POWER DURING CONSTRUCTION.

KEYNOTES

1. EXISTING 480/277V TO 120/208V 225KVA DRY-TYPE TRANSFORMER TO BE RELOCATED. SEE RENOVATION PLANS FOR ADDITIONAL INFORMATION.
2. EXISTING MASTER DISPOSER CONTROL TO BE RELOCATED. SEE RENOVATION PLANS FOR ADDITIONAL INFORMATION.
3. ALL ITEMS WITHIN THIS ELECTRICAL ROOM SHALL BE DEMOLISHED UNLESS OTHERWISE NOTED.
4. EXISTING DISCONNECT AND ASSOCIATED WIRING AND CONDUIT FOR AHU-9 SHALL BE DEMOLISHED.



N TRUE N PLAN

ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER - VA KITCHEN

Scale: 1/8" = 1'-0"

Revisions:	Date:

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Drawing Title	Phase	Project Title	Project Number
ENLARGED 2ND FLOOR DEMOLITION PLAN - POWER	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EP202-D
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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FOOD SERVICE EQUIPMENT SCHEDULE

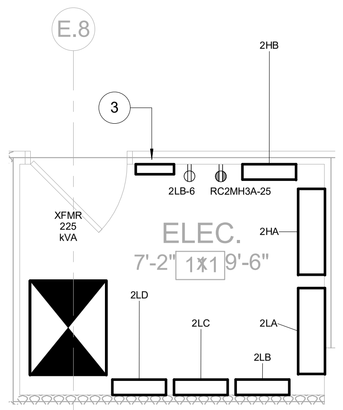
EQUIPMENT SPECIFICATIONS					PREFERRED ENERGY SOURCE				PLUMBING			ALTERNATE ENERGY SOURCE			VENTILATION		ADDITIONAL NOTES
NO.	ITEM	MODEL	SIZE L/W/H	SUPPLIER/ INSTALLER	ELECTRICAL WALL	VOLTS	POWER KW/AMPS	STEAM	GAS	WATER HOT	WATER COLD	WASTE	ELEC	STEAM	GAS	GREASE LADEN	HEAT OR MOISTURE LADEN AIR	
B1	BEVERAGE COUNTER	FABRICATED	108/46/34	VC	J BOX	120/1 208/1	25A 25A			INCLUDE POWER FOR (2) B8, B8A, B9, B10 & B13				* SEE NOTE BELOW				
B2	BEVERAGE COUNTER	FABRICATED	120/46/34	VC	J BOX	120/1 208/1	25A 25A			INCLUDE POWER FOR B8, B8A, B9, B10 & B13				* SEE NOTE BELOW				
B8	BEVERAGE/ICE DISPENSER (2)	PROVIDED BY COKE	30/30/38	VV	BUILT IN	120/1	2.5A				1/2"	FLOOR DRAIN						
B8A	ICE MACHINE (2)	HOSHIZAKI KMD-460MAH	30/24/22	VC	BUILT IN	120/1	15A				1/2"	FLOOR DRAIN						
B9	GOLD PEAK TEA DISPENSER (2)	PROVIDED BY COKE VENDOR	9/18/34	VV	BUILT IN	120/1	2.5A				1/4"							
B10	COFFEE BREWER (2)	BUNN ICB TWIN TALL	22/22/37	VC	BUILT IN	120/ 208/1	25A	NEMA 14-30P			3/8"		(3-Wires + Ground)					
B13	COFFEE CREAMER (2)	INTERNATIONAL DELIGHT	13/20/31	VC	BUILT IN	120/1	2.8A											
C6E	ESPRESSO MACHINE (EXISTING)	VERISMO 701	17/21/30	VV	12" AFF	208/1	6.6KW 30A	NEMA L6-30P			3/8"	X						
CB1	THE CUTTING BOARD	FABRICATED W/5 COLD WELLS	89/46/34	VC	J BOX	120/1	28A			3/8"		FLOOR DRAIN		INCLUDE POWER FOR CP1				
CB9	ENCORE OVEN	TURBO-CHEF ENCORE	33/22/19	VC	40" AFF	208/1	30A	NEMA 6-30P										
CE13	PRESSURE FRYER (2)	BROASTER 1800GH	18/35/46	VC	48" AFF	120/1	15A		100K				X			X		
CE14	BREADER	BROASTER 620 EASY BREADER	24 1/15/5 1/2	VC	48" AFF	120/1	5A											
CP1	PASTRY/COOLER DISPLAY CASE	STRUCT CONCEPTS HUDLR3852	40/42/53	VC	18" AFF	120/1	12A	NEMA 5-15P										
ES1	ENTREES AND SIDES	FABRICATED W/ 10 HOT WELLS	132/46/34	VC	J BOX	208/1	60A			3/8"		FLOOR DRAIN		* SEE NOTE BELOW				
ES14	1 SECTION WARMER PASS-THRU (2)	ALTO SHAAM 1200-UPS/SR/STD	24/32/74	VC	48" AFF	120/1	16A										****REVERSE DOOR SWING****	
K1	COMBITHERM OVEN W/ LEGS	ALTO SHAAM CTC7-20G	44/46/37	VC	48" AFF	120/1	7.0A		188K 3/4"	STD - 3/4" SOFT - 3/4"	1-1/2"	X			X	X		
K2	CONVECTION OVEN W/ STACK KIT	ALTO SHAAM ASC-4G	38/44/58	VC	48" AFF	120/1	7.5A		50K 1/2"			X			X	X		
K11	RANGE W/ OVEN	VULCAN 36S-6BN	36/42/36	VC					188K 3/4"			X			X			
K14	REFRIGERATED SELF-SERVER CASE (3)	STRUCT CONCEPTS B7132	71 1/32/82 1/2	VC	48" AFF	208/1	14.3A	NEMA 6-20P				FLOOR DRAIN						
K15	REFRIGERATED SELF-SERVER CASE	STRUCT CONCEPTS B8832	88 1/32/82 1/2	VC	48" AFF	208/1	20.4A	NEMA 6-30P				FLOOR DRAIN						
K18	2 SECTION REFRIGERATOR (2)	TRUE TS-49	54 1/29/78 1/2	VC	48" AFF	120/1	9.1A											
K19	2 SECTION FREEZER (2)	TRUE TS-49F	54 1/29/78 1/2	VC	48" AFF	120/1	11.0A											
K20	1 SECTION ROLL-IN REFRIGERATOR	TRUE STG1RRI-1S	35/39/84	VC	48" AFF	120/1	8.9A											
K22	LOW TEMPERATURE SMOKER OVEN	ALTO SHAAM 1200-SK/III	32/22/75	VC	48" AFF	208/1	32A											
K48	FOOD PROCESSOR	ROBOT COUPE R2DICE	9/17/27	VC	48" AFF	120/1	13A											
K50	TOASTER	HATCO TRH-60	18/23/16	VC	36" AFF	208/1	18.3A	NEMA 6-20P										
K51	DISH WASH EQUIPMENT	POWERSOAK CONFIGURATION	-	CC														
MS9	PANINI	STAR PST14	16 1/23 1/10	VC	48" AFF	120/1	15A	NEMA 5-15P										
OG1	OFF THE GRILL	FABRICATED W/4 HOT 2/COLD WELLS	148/46/34	VC	J BOX	208/1	42A			3/8"		FLOOR DRAIN		* SEE NOTE BELOW				
OG2	HEATED SHELF (BUILT-IN) (2)	HATCO GRSB-48-0	48 1/30 1/2	VC	BUILT IN	120/1	11.9A										***BUILT INTO OG1 & P1 LOAD CTR***	
OG3	1-DRAWER WARMER (BUILT-IN)	HATCO HDW-1BN	20/28/10	VC	BUILT IN	120/1	3.8A										***BUILT INTO OG1 LOAD CTR***	
OG4	2-DRAWER WARMER (BUILT-IN)	HATCO HDW-2BN	21/27/27	VC	BUILT IN	120/1	7.5A										***BUILT INTO OG1 LOAD CTR***	
OG5	DUMP TABLE W/ HEAT LAMP	FRYMASTER	16/36/40	VC	12" AFF	120/1	6.9A											
OG11	FRYER - GAS (3)	FRYMASTER OCF30ATOG FPGL330-2LCA	47 1/29 1/46 1/2	VC	18" AFF	120/1	14A		210K 1"				X			X		
OM1	OMELETTE BAR	FABRICATED W/4 HOT/COLD WELLS	99/46/34	VC	J BOX	208/1	45A			3/8"		FLOOR DRAIN						
OM2	INDUCTION RANGE (COUNTERTOP)(2)	VOLLRATH 59500P	13/16/4	VC	BUILT IN	120/1	15A	NEMA 5-15P									***BUILT INTO OM1 LOAD CTR***	
PB1	PIZZA SHOP	FABRICATED W/3 HOT/1 COLD WELLS	118/46/34	VC	J BOX	208/1	35A			3/8"		FLOOR DRAIN						
PB4	REFIG FOOD PREP. TABLE	TRUE TPP-60	72 1/34 1/40 1/2	VC	12" AFF	120/1	10.3A	NEMA 5-15P										
PB15	PIZZA OVEN	WOOD STONE MT. ADAMS 5' WS-MS-5-RFG-IR	63/45/77	VC	18" AFF	120/1	1.1A		188K 3/4"							X	X	
R1	REGISTER STAND (6)	FABRICATED 1 TRAY SLIDE	44/60/49	VC	STUB UP	120/1	15A	DEDICATED CLEAN LINE REQD.										
R2	CASH REGISTER (**7**)	NCR RealPOS 70xrt	12/14 1/2/14 1/2	VV	STUB UP			**VERIFY EXISTING REGISTER COUNT** PROVIDE DEDICATED CIRCUIT						***(6) PROGRAMMED FOR THE CAFE*** ***(1) PROGRAMMED FOR THE COFFEE SHOP***				
H1	EXHAUST HOOD																	
H2	EXHAUST HOOD																	
H3	EXHAUST HOOD																	

VV = VCS PURCHASE AND INSTALL
VC = VCS PURCHASE AND VAMC CONSTRUCTION CONTRACTOR INSTALL
CC = VAMC CONSTRUCTION CONTRACTOR PURCHASE AND INSTALL

* NOTE: FABRICATE COUNTER PIECES NO LONGER THAN 8'-0" FOR EASE OF DELIVERY. IF SHOWN LARGER ABOVE, BREAK INTO MULTIPLE PARTS.

3 Electrical Food Service Schedule - Kitchen

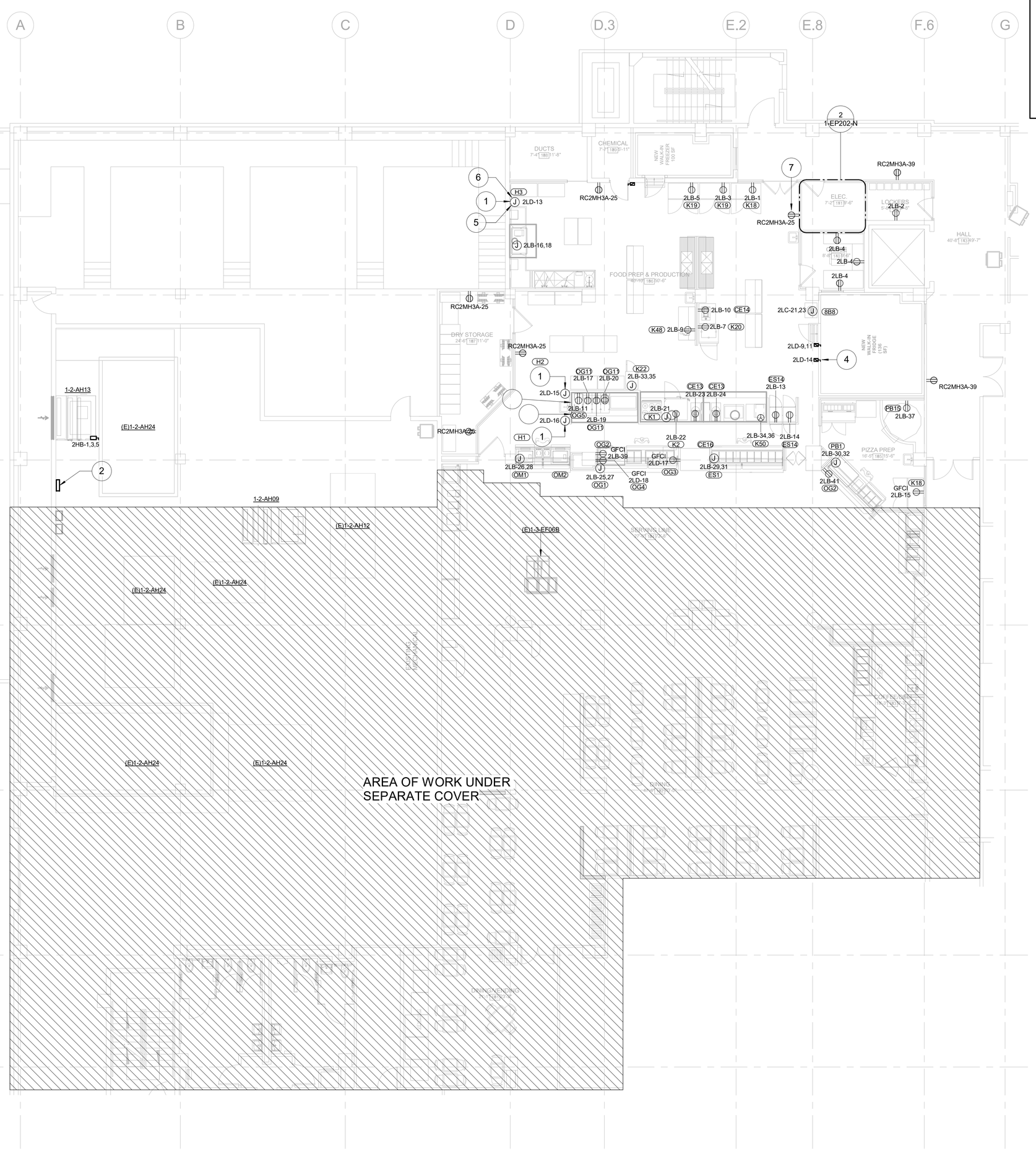
Scale: N.T.S.



ENLARGED ELECTRIC ROOM - POWER - VA KITCHEN

Scale: 3/8" = 1'-0"

TRUE PLAN



ENLARGED 2ND FLOOR RENOVATION PLAN - POWER - VA KITCHEN

Scale: 1/8" = 1'-0"

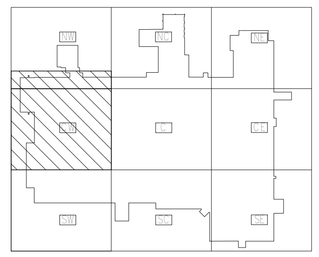
TRUE PLAN

GENERAL NOTES

- UNLESS OTHERWISE NOTED, THE DEMOLITION SCOPE OF WORK CALLS FOR THE REMOVAL AND DISPOSAL OF ALL ELECTRICAL EQUIPMENT LOCATED WITHIN THE BOUNDARIES OF THE PROJECT AREA. THE ELECTRICAL DRAWINGS DO NOT NECESSARILY REFLECT ALL ACTUAL ELECTRICAL DEVICES TO BE DEMOLISHED AND/OR ACTUAL LOCATIONS OF DEVICES.
- CONTRACTOR SHALL OBTAIN ALL EXISTING ELECTRICAL DRAWINGS OF THE AREA FROM THE VA BEFORE STARTING THE DEMOLITION WORK. ALL EXISTING POWER CIRCUITS SHALL BE TRACED BACK TO THEIR SOURCE AND SHALL BE MARKED FOR REMOVAL. REMOVE ALL CONDUITS AND CABLES UP TO THEIR SOURCE.
- COORDINATE ALL REQUIRED EQUIPMENT SHUTDOWNS WITH THE VA REPRESENTATIVE PRIOR TO PROCEEDING TO DISCONNECT EQUIPMENT.
- CIRCUIT CONTINUITY SHALL BE MAINTAINED TO ALL AREAS NOT PART OF THE PROJECT DURING AND AFTER CONSTRUCTION. PROVIDE TEMPORARY POWER DURING CONSTRUCTION.

KEYNOTES

1. PROVIDE POWER TO CONTROL PANEL, CIRCUIT AS INDICATED. REFER TO HOOD MANUFACTURER SCHEMATICS FOR PROPER TERMINATION POINTS AND FURTHER INFORMATION.
2. VARIABLE FREQUENCY DRIVE PROVIDED AND INSTALLED BY DIVISION 23, AND WIRED BY DIVISION 26.
3. RELOCATED MASTER DISPOSAL CONTROLLER.
4. COORDINATE LOCATION OF DRY PIPE FIRE SPRINKLER COMPRESSOR WITH VA & VCS PRIOR TO INSTALLATION.
5. PROVIDE CONTROL INTERLOCK TO FIRE ALARM CONTROL PANEL. REFER TO HOOD MANUFACTURER SCHEMATICS FOR PROPER TERMINATION POINTS AND FURTHER INFORMATION.
6. PROVIDE CONTROL INTERLOCK TO SHUNT TRIP BREAKER OF 1-2-AH13. REFER TO HOOD MANUFACTURER SCHEMATICS FOR PROPER TERMINATION POINTS AND FURTHER INFORMATION.
7. PANEL RN2MH3A IS LOCATED IN ROOM B216.



Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR RENOVATION PLAN - POWER	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EP202-N
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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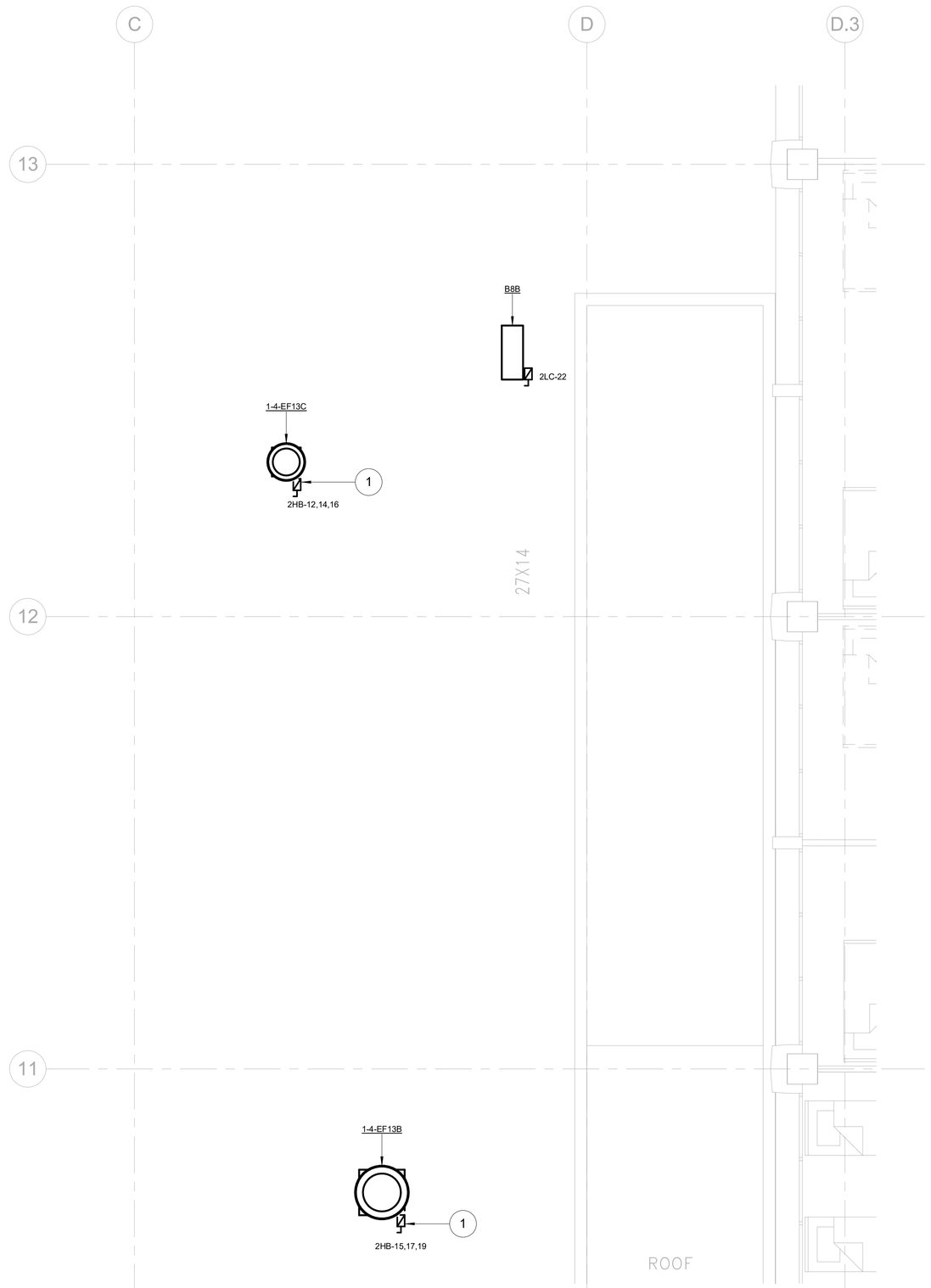
GENERAL NOTES

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND LAYOUTS. THE CONTRACTOR SHALL CONTACT ENGINEER OF RECORD WITH ANY DISCREPANCIES.

KEYNOTES

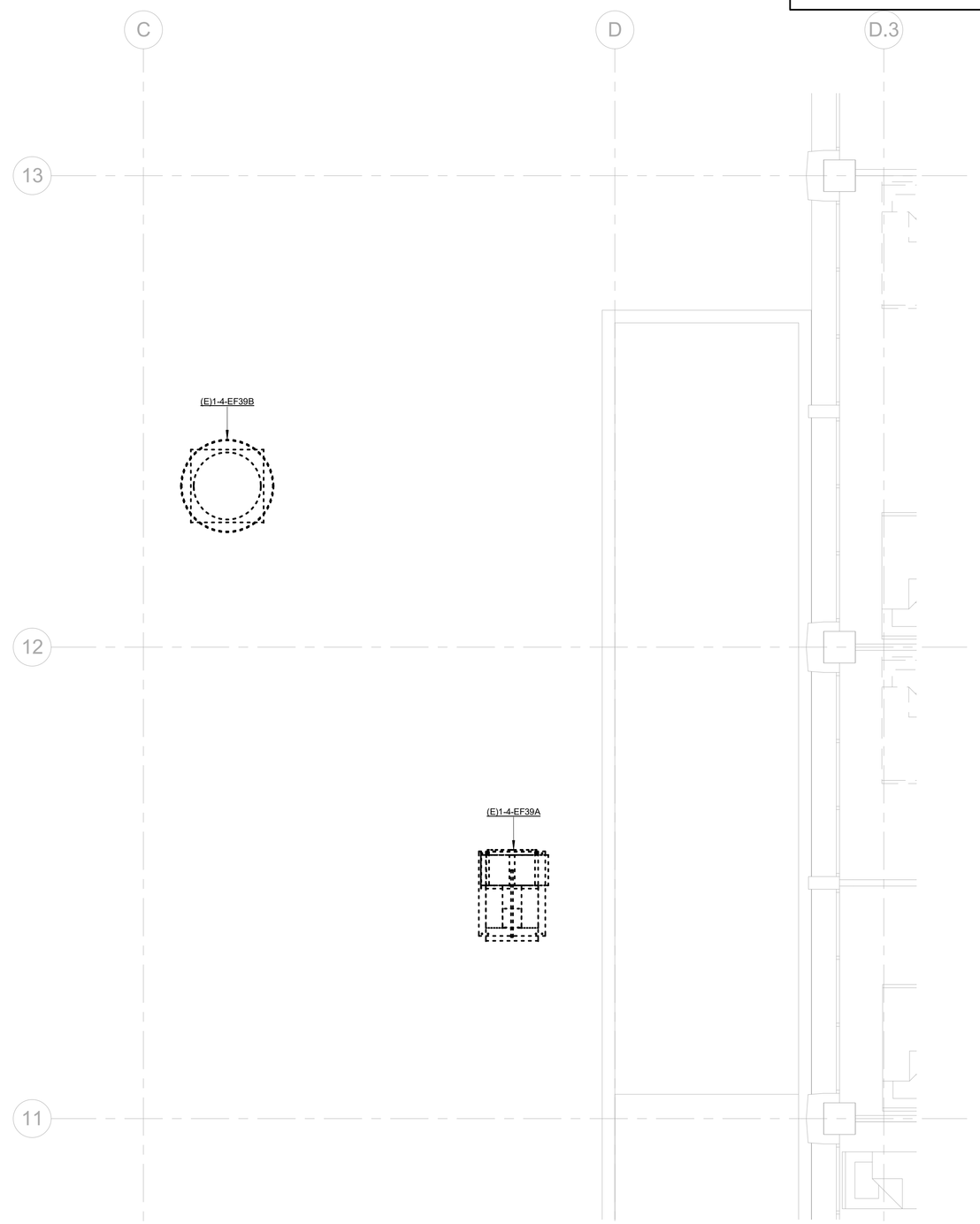
1 NEW WEATHERPROOF RATED SAFETY DISCONNECT SWITCH FOR EXHAUST FAN. SEE ASSOCIATED PANEL SCHEDULE FOR ADDITIONAL INFORMATION.



N TRUE N PLAN

ENLARGED 4TH FLOOR RENOVATION PLAN - ELECTRICAL KITCHEN

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



N TRUE N PLAN

ENLARGED 4TH FLOOR DEMOLITION PLAN - ELECTRICAL KITCHEN

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

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Drawing Title	Phase	Project Title	Project Number
ENLARGED 4TH FLOOR PLANS - POWER	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EP204
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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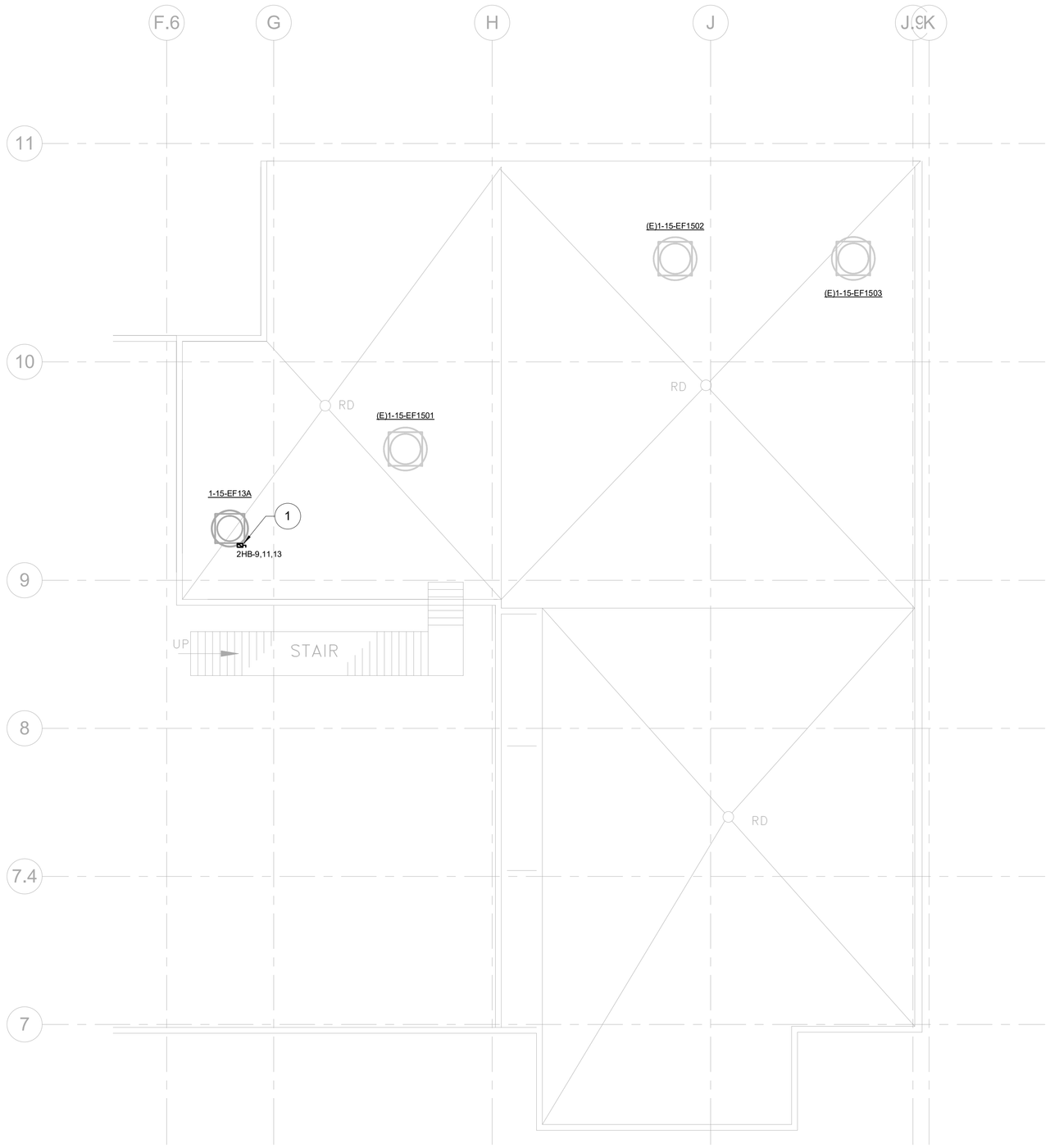
GENERAL NOTES

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND LAYOUTS. THE CONTRACTOR SHALL CONTACT ENGINEER OF RECORD WITH ANY DISCREPANCIES.

(X) KEYNOTES

1 NEW WEATHERPROOF RATED SAFETY DISCONNECT SWITCH FOR EXHAUST FAN. SEE ASSOCIATED PANEL SCHEDULE FOR ADDITIONAL INFORMATION.

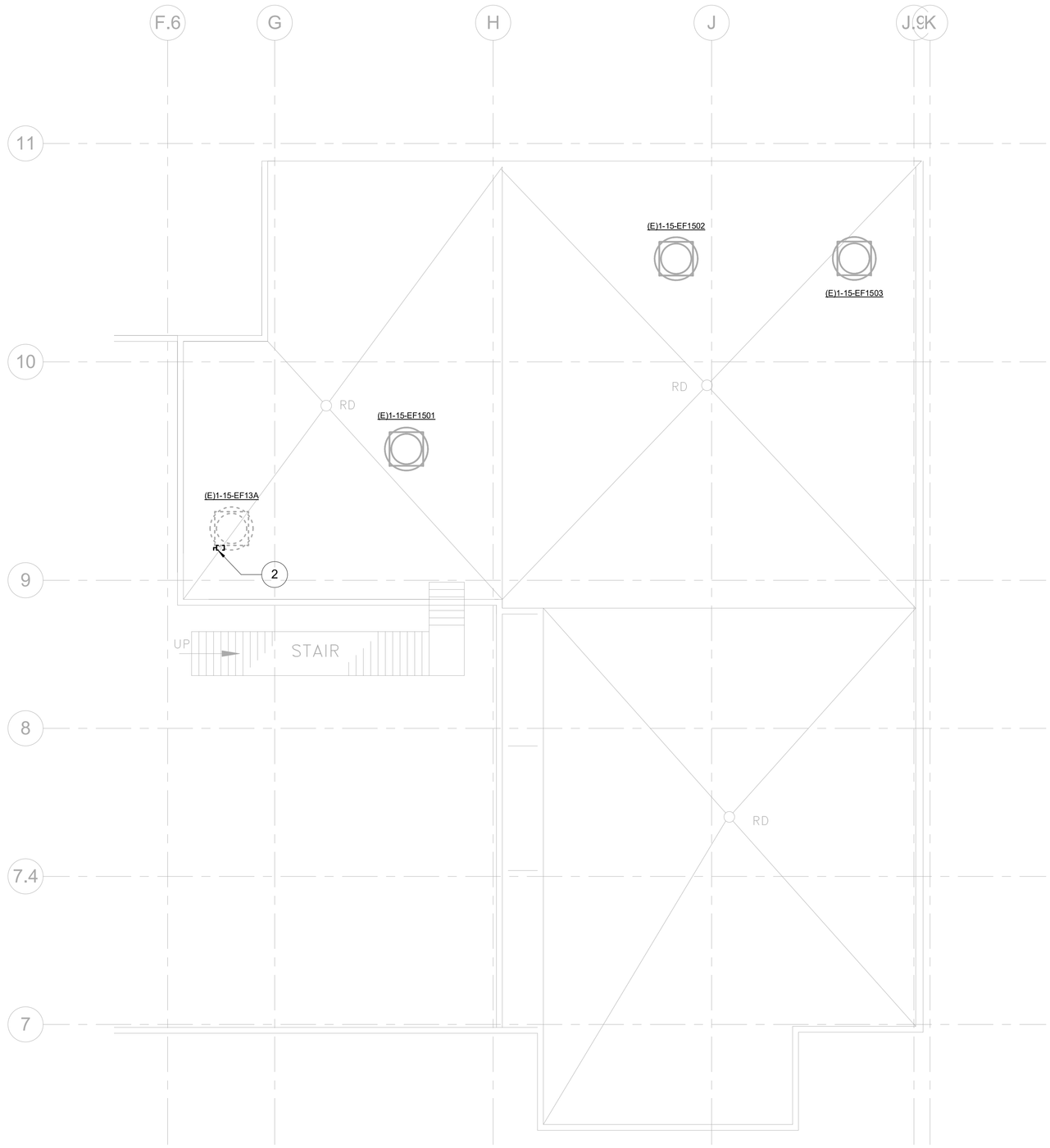
2 EXISTING EXHAUST FAN SAFETY DISCONNECT SWITCH SHALL BE DEMOLISHED, ALONG WITH ASSOCIATED CONDUIT & WIRING BACK TO SOURCE PANEL. SEE MECHANICAL PLANS FOR ADDITIONAL INFORMATION.



N N
TRUE PLAN

ENLARGED 15TH FLOOR RENOVATION PLAN - POWER

Scale: 1/8" = 1'-0"



N N
TRUE PLAN

ENLARGED 15TH FLOOR DEMOLITION PLAN - POWER

Scale: 1/8" = 1'-0"

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 15TTH FLOOR PLANS - POWER	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-EP215
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

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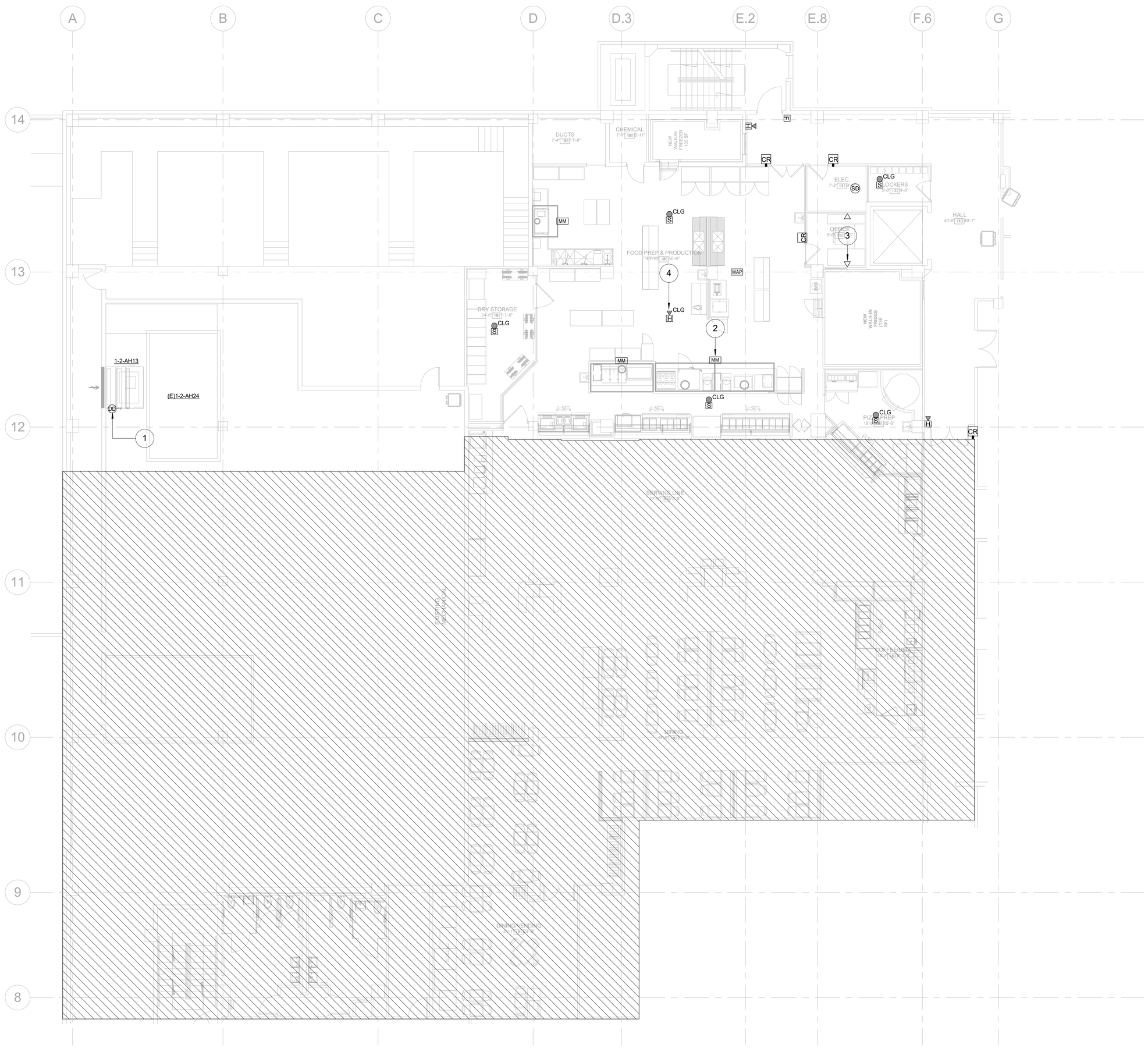


GENERAL NOTES

A. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO FIELD VERIFY EXISTING CONDITIONS AND LAYOUTS. THE CONTRACTOR SHALL CONTACT ENGINEER OF RECORD WITH ANY DISCREPANCIES.

B. EXISTING EQUIPMENT AND DEVICE LOCATIONS SHALL BE FIELD VERIFY. REPORT ANY DISCREPANCIES WITH ENGINEER OF RECORD.

C. FINAL LOCATION OF OUTLETS SHALL BE COORDINATED WITH VA DURING WALK THROUGH AFER ROUGH-IN IS COMPLETE.

D. CONTRACTOR SHALL COORDINATE ANY WALL MOUNTED ITEMS (ELECTRICAL/DATA/LIGHT) WITH VA PRIOR TO INSTALLATION.

E. ALL NEW FIRE ALARM DEVICES SHALL BE CONNECTED TO NODE THREE IN MAIN FIRE ALARM CONTROL ROOM ON FIRST FLOOR.

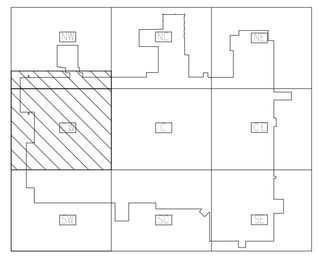
KEYNOTES

1 DUCT SMOKE DETECTOR PROVIDED AND INSTALLED BY DIVISION 23, AND WIRED BY DIVISION 26. TYPICAL.

2 PROVIDE MONITORING MODULE FOR FIRE ALARM CONNECTION TO HOOD FOR MONITORING ANSUL SYSTEM. TYPICAL.

3 CONTRACTOR SHALL PROVIDE IT CONDUIT AND CABLING FOR TELE/DATA JACKS TERMINATING IN NEAREST IT CLOSET. VA IT CONTRACTOR SHALL TERMINATE ALL CONNECTIONS. CONTRACTOR SHALL PROVIDE LOW VOLTAGE CABLING ACCORDING TO LATEST VA IT SPECIFICATION.

4 ALL FIRE ALARM DEVICES TO BE CONNECTED TO NODE THREE IN FIRE ALARM CONTROL ROOM ON THIS FIRST FLOOR. TYPICAL.



N TRUE N PLAN

ENLARGED 2ND FLOOR RENOVATION PLAN - SYSTEMS - VA KITCHEN

Scale: 1/8" = 1'-0"

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VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR RENOVATION PLAN - SYSTEMS

Approved: Project Director: DALE A. BACIK, P.E.

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: RENOVATE VCS PATRIOT CAFE

Location: MIAMI, FL

Issue Date: 02/09/2018 | Checked: DAB | Drawn: FB

Project Number: 546-17-109

Building Number: 1

Drawing Number: 1-ET302-N

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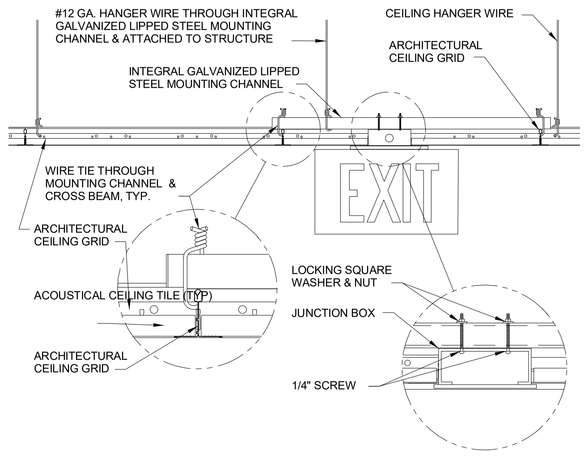
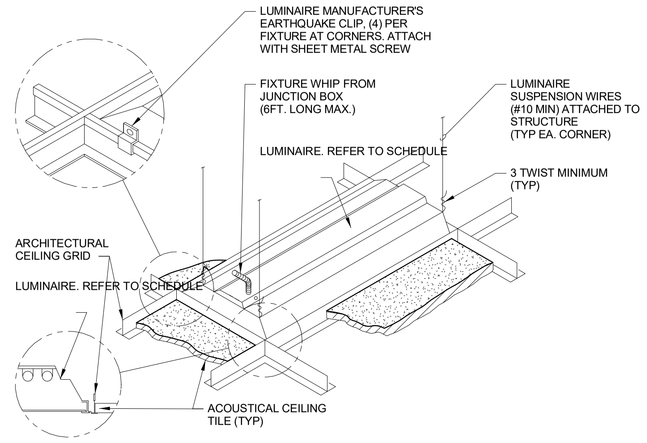


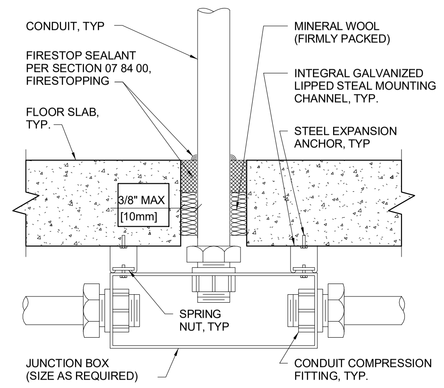
5 EXIT SIGN MOUNTING - LAY-IN CEILING

NTS



3 LUMINAIRE MOUNTING - LAY-IN CEILING

NTS



GENERAL NOTES
1. FOR ALL FLOOR PENETRATIONS, CONTRACTOR SHALL PROVIDE X-RAY SCAN OF AFFECTED AREAS TO ENSURE NO DAMAGE TO EXISTING SYSTEMS IN SLAB.

1 FLOOR SLAB PENETRATION DETAIL

NTS

GENERAL NOTES

A. CONTRACTOR SHALL PROVIDE WARNING LABELS IN ACCORDANCE WITH NEC 110.16.

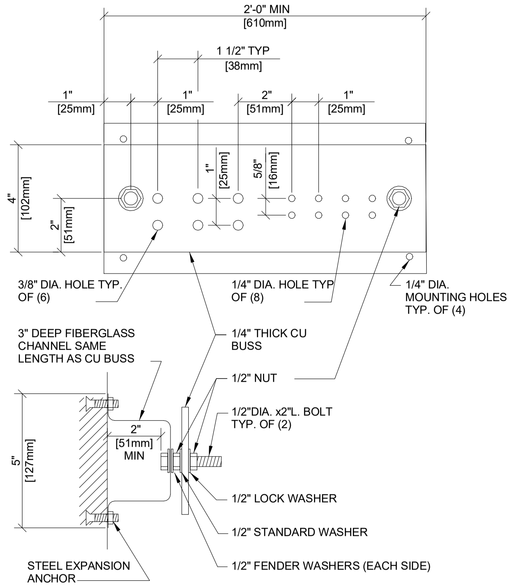
B. CONTRACTOR SHALL PROVIDE FIELD MARKINGS IN ACCORDANCE WITH NEC 110.24, AVAILABLE FAULT CURRENT.

C. REFER TO SCHEDULES FOR ADDITIONAL INFORMATION.

KEYNOTES

(X)

1. EXISTING 480/277v, 800 AMP BREAKER '2HA' IN EXISTING SWITCHBOARD 'SN-2MH-A' LOCATED IN MAIN ELECTRIC ROOM ON THIS FLOOR.
2. NEW 480/277v, 225 AMP MAIN LUG ONLY PANELBOARD.
3. NEW 480/277v, 600 AMP MAIN BREAKER DISTRIBUTION PANELBOARD.
4. NEW 120/208v, 225 AMP MAIN LUG ONLY PANELBOARD.
5. RELOCATED 225 kVA, 480/277v to 120/208v STEP-DOWN TRANSFORMER.
6. NEW 120/208v, 600 AMP MAIN BREAKER DISTRIBUTION PANELBOARD.
7. PROVIDE PQ PROTECTION SURGE SUPPRESSION DEVICE - PQC200-208V/3ϕ OR APPROVED EQUAL.

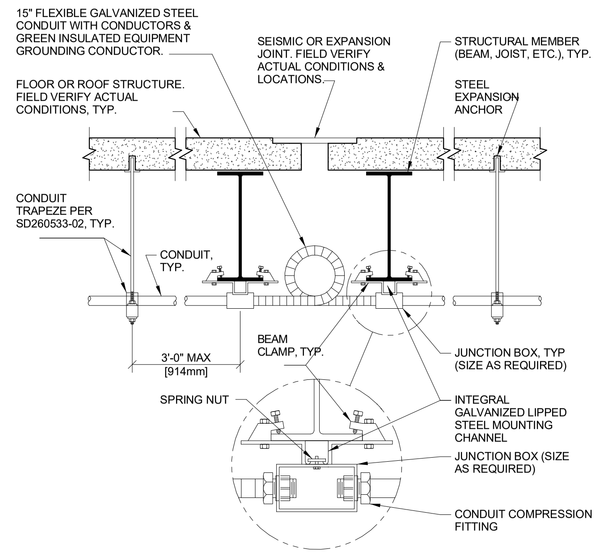


SECTION

GENERAL NOTES
1. ALL HARDWARE SHOWN SHALL BE STAINLESS STEEL.
2. PROVIDE 1 MOUNTING POINT PER 12" OF BAR LENGTH.
3. HOLES MAY BE ADDED IF REQUIRED.

6 GROUNDING BAR DETAIL

NTS



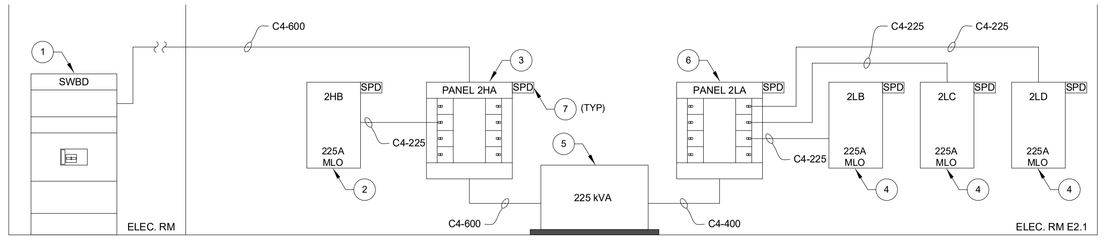
4 CONDUIT JOINT CROSSING DETAIL

NTS

COPPER WIRE AND CONDUIT SCHEDULE

Designation	Parallel Runs	3 Phase, 4 Wire Conductors (AWG/kcmil)	3 Phase, 4 Wire Equipment Ground (AWG/kcmil)	3 Phase, 4 Wire Conduit	3 or 1 Phase, 3 Wire Conductors (AWG/kcmil)	3 or 1 Phase, 3 Wire Equipment Ground (AWG/kcmil)	3 or 1 Phase, 3 Wire Conduit	1 Phase, 2 Wire Conductors (AWG/kcmil)	1 Phase, 2 Wire Equipment Ground (AWG/kcmil)	1 Phase, 2 Wire Conduit
C_-20	1	4 # 12	1 # 12	3/4"	3 # 12	1 # 12	3/4"	2 # 12	1 # 12	3/4"
C_-30	1	4 # 10	1 # 10	3/4"	3 # 10	1 # 10	3/4"	2 # 10	1 # 10	3/4"
C_-40	1	4 # 8	1 # 10	1"	3 # 8	1 # 10	3/4"	2 # 8	1 # 10	3/4"
C_-60	1	4 # 6	1 # 10	1"	3 # 6	1 # 10	1"	2 # 6	1 # 10	1"
C_-70	1	4 # 4	1 # 8	1-1/2"	3 # 4	1 # 8	1"	2 # 4	1 # 8	1"
C_-80	1	4 # 3	1 # 8	1-1/2"	3 # 3	1 # 8	1-1/2"	2 # 3	1 # 8	1"
C_-100	1	4 # 3	1 # 8	1-1/2"	3 # 3	1 # 8	1-1/2"	2 # 3	1 # 8	1"
C_-110	1	4 # 2	1 # 6	1-1/2"	3 # 2	1 # 6	1-1/2"	2 # 2	1 # 6	1-1/2"
C_-125	1	4 # 1	1 # 6	2"	3 # 1	1 # 6	1-1/2"	2 # 1	1 # 6	1-1/2"
C_-150	1	4 # 1/0	1 # 6	2"	3 # 1/0	1 # 6	1-1/2"	2 # 1/0	1 # 6	1-1/2"
C_-175	1	4 # 2/0	1 # 6	2"	3 # 2/0	1 # 6	1-1/2"	2 # 2/0	1 # 6	1-1/2"
C_-200	1	4 # 3/0	1 # 6	2"	3 # 3/0	1 # 6	2"	2 # 3/0	1 # 6	2"
C_-225	1	4 # 4/0	1 # 4	3"	3 # 4/0	1 # 4	2"	-	-	-
C_-250	1	4 # 250	1 # 4	3"	3 # 250	1 # 4	3"	-	-	-
C_-300	1	4 # 350	1 # 4	3"	3 # 350	1 # 4	3"	-	-	-
C_-400	1	4 # 500	1 # 3	3-1/2"	3 # 500	1 # 3	3"	-	-	-
C_-500	2	4 # 250	1 # 2	3"	3 # 250	1 # 2	3"	-	-	-
C_-600	2	4 # 350	1 # 1	3"	3 # 350	1 # 1	3"	-	-	-
C_-800	2	4 # 500	1 # 1/0	3-1/2"	3 # 500	1 # 1/0	3"	-	-	-

Notes
1. All conductors indicated in schedule shall be copper.
2. Designation followed with "V" indicates conductor size increased due to voltage drop.
3. Designation followed with "SE" indicates service entrance conductors with no ground.



2 ELECTRICAL ONE-LINE - VA KITCHEN

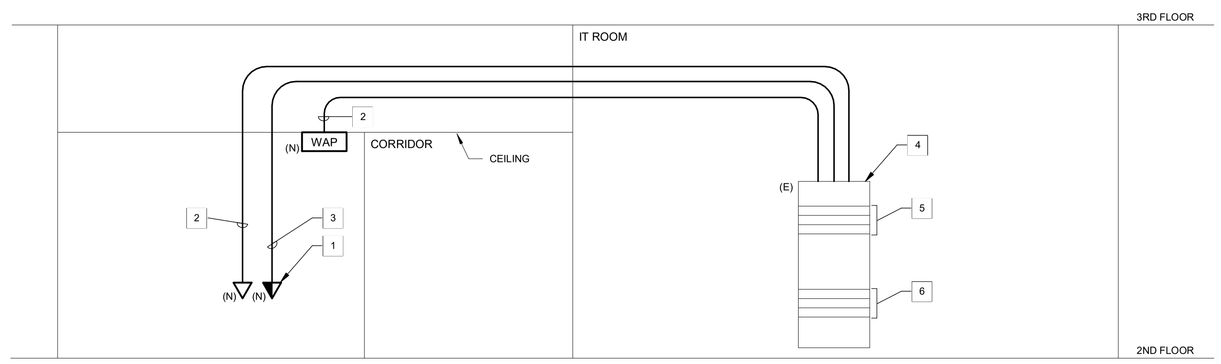
Scale: N.T.S.

COMMUNICATIONS SYSTEM NOTES

1. SEE ET302 FOR NUMBER OF DEVICES, TYPICAL.
2. 1" EMT CONDUIT TO IT ROOM. PROVIDE CAT 6 CABLE FROM OUTLET BOX TO IF ROOM FOR DATA CABLING.
3. 1" EMT CONDUIT TO IT ROOM. PROVIDE CAT 6 CABLE FROM OUTLET BOX TO IF ROOM FOR VOICE CABLING.
4. EXISTING COMMUNICATIONS RACK IN IT ROOM.
5. CONTRACTOR SHALL PROVIDE NETWORK RJ45, 48 PORT, CAT6 PATCH PANELS AS REQUIRED IN EXISTING COMMUNICATIONS RACK FOR DATA CABLING.
6. CONTRACTOR SHALL PROVIDE NETWORK RJ45, 48 PORT, CAT6 PATCH PANELS AS REQUIRED IN EXISTING COMMUNICATIONS RACK FOR VOICE CABLING.

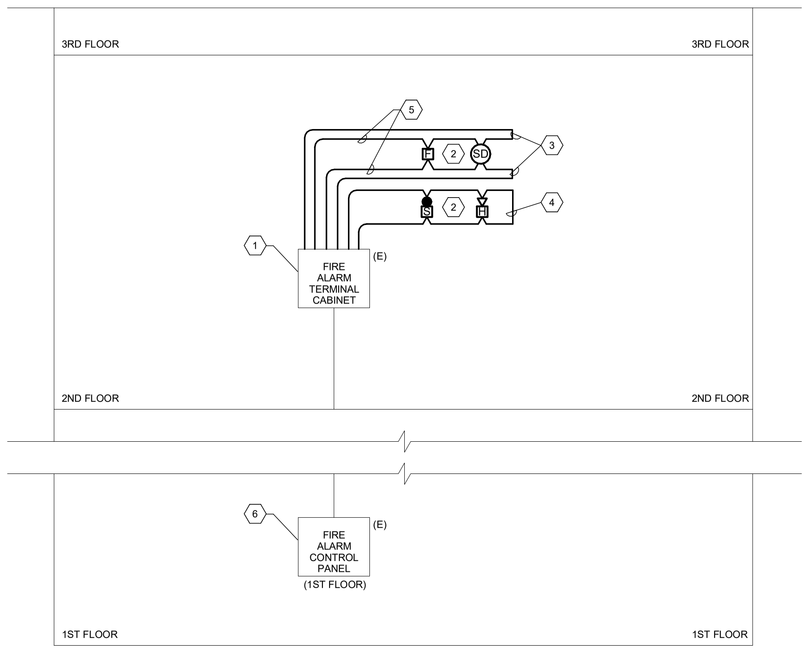
FIRE ALARM SYSTEM NOTES

1. EXISTING SIMPLEX FIRE ALARM SYSTEM TERMINAL CABINET. THE FIRE ALARM SYSTEM PROVIDED FOR THIS PROJECT SHALL BE AN EXTENSION OF THE EXISTING SIMPLEX FIRE SYSTEM. ALL DEVICES AND APPLIANCES SHALL BE COMPATIBLE WITH THE EXISTING FIRE ALARM SYSTEM.
2. SEE DRAWING ET302 FOR QUANTITIES OF DEVICES AND APPLIANCES, TYPICAL.
3. SUPERVISION CIRCUIT (TSP #14 AWG, 3/4" C.)
4. SIGNALING LINE CIRCUIT (TSP #14 AWG, 3/4" C.)
5. POWER CIRCUIT (TSP #14 AWG, 3/4" C.)
6. EXISTING SIMPLEX FIRE ALARM CONTROL PANEL.



3 SPECIAL SYSTEMS RISERS - KITCHEN

Scale: N.T.S.



Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: DETAILS - ELECTRICAL	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-E-501
		Issue Date: 02/09/2018 · Checked: DAB · Drawn: FB	

VA FORM 08 - 6231

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PANEL: 2HA — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	225 kVA Transformer	600 A	3		THWN	53232 VA			12458 VA			THWN		3	225 A	2HB	2
3	--	--	--		--		47033 VA			13102 VA		--		--	--	--	4
5	--	--	--		--			50373 VA			11470 VA	--		--	--	--	6
7	Space	--	--		--	0 VA			0 VA			--		3	30 A	SPD	8
9	Space	--	--		--		0 VA			0 VA		--		--	--	--	10
11	Space	--	--		--			0 VA			0 VA	--		--	--	--	12
13	Space	--	--		--	0 VA			0 VA			--		--	--	Space	14
15	Space	--	--		--		0 VA			0 VA		--		--	--	Space	16
17	Space	--	--		--			0 VA			0 VA	--		--	--	Space	18
19	Space	--	--		--	0 VA			0 VA			--		--	--	Space	20
21	Space	--	--		--		0 VA			0 VA		--		--	--	Space	22
23	Space	--	--		--			0 VA			0 VA	--		--	--	Space	24
25	Space	--	--		--	0 VA			0 VA			--		--	--	Space	26
27	Space	--	--		--		0 VA			0 VA		--		--	--	Space	28
29	Space	--	--		--			0 VA			0 VA	--		--	--	Space	30
31	Space	--	--		--	0 VA			0 VA			--		--	--	Space	32
33	Space	--	--		--		0 VA			0 VA		--		--	--	Space	34
35	Space	--	--		--			0 VA			0 VA	--		--	--	Space	36
37	Space	--	--		--	0 VA			0 VA			--		--	--	Space	38
39	Space	--	--		--		0 VA			0 VA		--		--	--	Space	40
41	Space	--	--		--			0 VA			0 VA	--		--	--	Space	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	2620 VA	100.00%	2620 VA
Receptacle	62668 VA	57.98%	36334 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	71347 VA	80.57%	57486 VA
Elevator	0 VA	0.00%	0 VA
Power	48053 VA	100.00%	48053 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	65690 VA	238 A
Phase B:	60135 VA	217 A
Phase C:	61843 VA	224 A
Total Conn. Load:	187668 VA	
Total Est. Demand:	148173 VA	
Total Conn.:	226 A	
Total Est. Demand:	178 A	

Panel Service
Fed From:
Feeder: C4-600

Panel Options	
Voltage:	480/277 Wye,3,4
Mains:	600 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: 2HB — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	1-2-AH13	40 A	3		THWN	5125 VA			2604 VA			THWN		3	20 A	1-2-AH09	2
3	--	--	--		--		5125 VA			2604 VA		--		--	--	--	4
5	--	--	--		--			5125 VA			2604 VA	--		--	--	--	6
7	SHUNT TRIP	20 A	1		--	0 VA			988 VA			THWN		1	20 A	Lighting Kitchen	8
9	1-15-EF13A	20 A	3		THWN		2106 VA			1632 VA		THWN		1	20 A	Lighting Dining	10
11	--	--	--		--			2106 VA			305 VA	THWN		3	20 A	1-4-EF13C	12
13	--	--	--		--	2106 VA			305 VA			--		--	--	--	14
15	1-4-EF15B	20 A	3		THWN		1330 VA			305 VA		--		--	--	--	16
17	--	--	--		--			1330 VA			0 VA	--		3	30 A	SPD	18
19	--	--	--		--	1330 VA			0 VA			--		--	--	--	20
21	LCP	20 A	1		--		0 VA			0 VA		--		--	--	--	22
23	Space	--	--		--			0 VA			0 VA	--		--	--	Space	24
25	Space	--	--		--	0 VA			0 VA			--		--	--	Space	26
27	Space	--	--		--		0 VA			0 VA		--		--	--	Space	28
29	Space	--	--		--			0 VA			0 VA	--		--	--	Space	30
31	Space	--	--		--	0 VA			0 VA			--		--	--	Space	32
33	Space	--	--		--		0 VA			0 VA		--		--	--	Space	34
35	Space	--	--		--			0 VA			0 VA	--		--	--	Space	36
37	Space	--	--		--	0 VA			0 VA			--		--	--	Space	38
39	Space	--	--		--		0 VA			0 VA		--		--	--	Space	40
41	Space	--	--		--			0 VA			0 VA	--		--	--	Space	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	2620 VA	100.00%	2620 VA
Receptacle	0 VA	0.00%	0 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	0 VA	0.00%	0 VA
Elevator	0 VA	0.00%	0 VA
Power	34410 VA	100.00%	34410 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	12458 VA	46 A
Phase B:	13102 VA	48 A
Phase C:	11470 VA	41 A
Total Conn. Load:	37030 VA	
Total Est. Demand:	37030 VA	
Total Conn.:	45 A	
Total Est. Demand:	45 A	

Panel Service
Fed From: 2HA
Feeder: C4-225

Panel Options	
Voltage:	480/277 Wye,3,4
Mains:	250 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: RC2MH3A — EXISTING PANELBOAR...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	EXISTING	20 A	1		--	0 VA			0 VA			--		1	20 A	EXISTING	2
3	EXISTING	20 A	1		--		0 VA			0 VA		--		1	20 A	EXISTING	4
5	EXISTING	20 A	1		--			0 VA			0 VA	--		1	20 A	EXISTING	6
7	EXISTING	20 A	1		--	0 VA			0 VA			--		1	20 A	EXISTING	8
9	EXISTING	20 A	1		--		0 VA			0 VA		--		1	20 A	EXISTING	10
11	EXISTING	20 A	1		--			0 VA			0 VA	--		1	20 A	EXISTING	12
13	EXISTING	20 A	1		--	0 VA			0 VA			--		1	20 A	EXISTING	14
15	EXISTING	20 A	1		--		0 VA			0 VA		--		1	20 A		16
17	EXISTING	20 A	1		--			0 VA			0 VA	--		1	20 A	EXISTING	18
19	EXISTING	20 A	1		--	0 VA			0 VA			--		1	20 A	EXISTING	20
21	EXISTING	20 A	1		--		0 VA			0 VA		--		1	20 A	EXISTING	22
23	EXISTING	20 A	1		--			0 VA			0 VA	--		1	20 A	EXISTING	24
25	Kitchen General Receptacles	20 A	1		THWN	1400 VA			0 VA			--		1	20 A	EXISTING	26
27	EXISTING	20 A	1		--		0 VA			1400 VA		THWN		1	20 A	Dining General Receptacle	28
29	EXISTING	20 A	1		--			0 VA			0 VA	--		1	20 A	EXISTING	30
31	EXISTING	20 A	1		--	0 VA			0 VA			--		1	20 A	EXISTING	32
33	EXISTING	20 A	1		--		0 VA			960 VA		THWN		1	20 A	Cash Register Receptacle	34
35	EXISTING	20 A	1		--			0 VA			1920 VA	THWN		1	20 A	Cash Register Receptacle	36
37	Cash Register Receptacle	20 A	1		THWN	1920 VA			512 VA			THWN		1	20 A	Night Lighting	38
39	Corridor Receptacles	20 A	1		THWN		360 VA			0 VA		--		1	20 A	Spare	40
41	Spare	20 A	1		--			0 VA			0 VA	--		1	20 A	Spare	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	512 VA	100.00%	512 VA
Receptacle	7960 VA	100.00%	7960 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	0 VA	0.00%	0 VA
Elevator	0 VA	0.00%	0 VA
Power	0 VA	0.00%	0 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	3832 VA	33 A
Phase B:	2720 VA	24 A
Phase C:	1920 VA	16 A
Total Conn. Load:	8472 VA	
Total Est. Demand:	8472 VA	
Total Conn.:	24 A	
Total Est. Demand:	24 A	

Panel Service
Fed From:
Feeder:

Panel Options	
Voltage:	120/208 Wye,3,4
Mains:	150 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: 2LA — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	2LD	200 A	3		THWN	11100 VA			13772 VA			THWN		3	200 A	2LC	2
3	--	--	--		--		4480 VA			17633 VA		--		--	--	--	4
5	--	--	--		--			7548 VA			16284 VA	--		--	--	--	6
7	2LB	200 A	3		THWN	28360 VA			0 VA			--		3	30 A	SPD	8
9	--	--	--		--		24920 VA			0 VA		--		--	--	--	10
11	--	--	--		--			26541 VA			0 VA	--		--	--	--	12
13	Space	--	--		--	0 VA			0 VA			--		--	--	Space	14
15	Space	--	--		--		0 VA			0 VA		--		--	--	Space	16
17	Space	--	--		--			0 VA			0 VA	--		--	--	Space	18
19	Space	--	--		--	0 VA			0 VA			--		--	--	Space	20
21	Space	--	--		--		0 VA			0 VA		--		--	--	Space	22
23	Space	--	--		--			0 VA			0 VA	--		--	--	Space	24
25	Space	--	--		--	0 VA			0 VA			--		--	--	Space	26
27	Space	--	--		--		0 VA			0 VA		--		--	--	Space	28
29	Space	--	--		--			0 VA			0 VA	--		--	--	Space	30
31	Space	--	--		--	0 VA			0 VA			--		--	--	Space	32
33	Space	--	--		--		0 VA			0 VA		--		--	--	Space	34
35	Space	--	--		--			0 VA			0 VA	--		--	--	Space	36
37	Space	--	--		--	0 VA			0 VA			--		--	--	Space	38
39	Space	--	--		--		0 VA			0 VA		--		--	--	Space	40
41	Space	--	--		--			0 VA			0 VA	--		--	--	Space	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	0 VA	0.00%	0 VA
Receptacle	62668 VA	57.98%	36334 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	71347 VA	80.57%	57486 VA
Elevator	0 VA	0.00%	0 VA
Power	13643 VA	100.00%	13643 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	53232 VA	448 A
Phase B:	47033 VA	392 A
Phase C:	50373 VA	424 A
Total Conn. Load:	150638 VA	
Total Est. Demand:	111143 VA	
Total Conn.:	418 A	
Total Est. Demand:	309 A	

Panel Service
Fed From: 225 kVA
Feeder: C4-600

Panel Options	
Voltage:	120/208 Wye,3,4
Mains:	600 A
Rating:	
Minimum Bus Rating:	
Mounting:	Recessed
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: 2LD — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	CB1 Cutting Board	20 A	2		THWN	1680 VA			1440 VA			THWN		1	20 A	CP1 Pastry/Cooler Case	2
3	--	--	--		--		1680 VA			1800 VA		THWN		1	20 A	MS9 Panini Machine	4
5	C6E Espresso Machine	20 A	2		THWN			3000 VA			3000 VA	THWN		2	20 A	Receptacle	6
7	--	--	--		--	3000 VA			3000 VA			--		--	--	--	8
9	Walk in Fridge	20 A	2		THWN		0 VA			0 VA		THWN		2	20 A	Walk in Freezer	10
11	--	--	--		--			0 VA			0 VA	--		--	--	--	12
13	H3 Hood	20 A	1		THWN	1800 VA			0 VA			THWN		1	20 A	Dry Pipe Fire Sprinkler...	14
15	H2 Hood	20 A	1		THWN		500 VA			500 VA		THWN		1	20 A	H1 Hood	16
17	Kitchen Equipment	20 A	1		THWN			456 VA			1092 VA	THWN		1	20 A	Kitchen Equipment	18
19	Card Reader Access	20 A	1		--	180 VA			0 VA			--		1	20 A	Spare	20
21	Spare	20 A	1		--		0 VA			0 VA		--		1	20 A	Spare	22
23	Spare	20 A	1		--			0 VA			0 VA	--		1	20 A	Spare	24
25	Spare	20 A	1		--	0 VA			0 VA			--		1	20 A	Spare	26
27	Spare	20 A	1		--		0 VA			0 VA		--		1	20 A	Spare	28
29	Spare	20 A	1		--			0 VA			0 VA	--		1	20 A	Spare	30
31	Spare	20 A	1		--	0 VA			0 VA			--		1	20 A	Spare	32
33	Spare	20 A	1		--		0 VA			0 VA		--		1	20 A	Spare	34
35	Spare	20 A	1		--			0 VA			0 VA	--		1	20 A	Spare	36
37	Spare	20 A	1		--	0 VA			0 VA			--		3	30 A	SPD	38
39	Spare	20 A	1		--		0 VA			0 VA		--		--	--	--	40
41	Spare	20 A	1		--			0 VA			0 VA	--		--	--	--	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	0 VA	0.00%	0 VA
Receptacle	15240 VA	82.81%	12620 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	1548 VA	100.00%	1548 VA
Elevator	0 VA	0.00%	0 VA
Power	3360 VA	100.00%	3360 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	11100 VA	96 A
Phase B:	4480 VA	37 A
Phase C:	7548 VA	67 A
Total Conn. Load:	23128 VA	
Total Est. Demand:	21208 VA	
Total Conn.:	64 A	
Total Est. Demand:	59 A	

Panel Service
Fed From: 2LA
Feeder: C4-225

Panel Options	
Voltage:	120/208 Wye,3,4
Mains:	225 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: 2LB — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	K18 Fridge	20 A	1		THWN	1092 VA			180 VA			THWN		1	20 A	Locker Receptacle	2
3	K19 Freezer	20 A	1		THWN		1584 VA			540 VA		THWN		1	20 A	Office Receptacles	4
5	K19 Freezer	20 A	1		THWN			1320 VA			1560 VA	THWN		1	20 A	Electric Room Receptacle	6
7	K20 Fridge	20 A	1		THWN	1068 VA											8
9	K48 Food Processor	20 A	1		THWN		1560 VA			1800 VA		THWN		1	20 A	CE14 Breader	10
11	OG5 Dump Table	20 A	1		THWN			825 VA			0 VA	--		1	20 A	Spare	12
13	ES14 Warmer	20 A	1		THWN	1920 VA			1920 VA			THWN		1	20 A	ES14 Warmer	14
15	K18 Fridge	20 A	1		THWN		1092 VA			900 VA		THWN		2	30 A	Dishwasher	16
17	OG11 Fryer	20 A	1		THWN			1560 VA			900 VA	--		--	--	--	18
19	OG11 Fryer	20 A	1		THWN	1560 VA			1560 VA			THWN		1	20 A	OG11 Fryer	20
21	K1 Combitherm Oven	20 A	1		THWN		840 VA			900 VA		THWN		1	20 A	K2 Convection Oven	22
23	CE13 Pressure Fryer	20 A	1		THWN			1920 VA			1920 VA	THWN		1	20 A	CE13 Pressure Fryer	24
25	OG1 Off the Grill	50 A	2		THWN	4368 VA			4680 VA			THWN		2	50 A	OM1 Omellette Bar	26
27	--	--	--		--		4368 VA			4680 VA		--		--	--	--	28
29	ES1 Entrees & Sides	60 A	2		THWN			6240 VA			3640 VA	THWN		2	40 A	PB1 Pizza Shop	30
31	--	--	--		--	6240 VA			3640 VA			--		--	--	--	32
33	K22 Smoker Oven	50 A	2		THWN		3325 VA			1903 VA		THWN		2	20 A	K50 Toaster	34
35	--	--	--		--			3325 VA			1903 VA	--		--	--	--	36
37	PB15 Pizza Oven	20 A	1		THWN	132 VA			0 VA			--		3	30 A	SPD	38
39	OG2 Heated Shelf	20 A	1		THWN		1428 VA			0 VA		--		--	--	--	40
41	OG2 Heated Shelf	20 A	1		THWN			1428 VA			0 VA	--		--	--	--	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	0 VA	0.00%	0 VA
Receptacle	3372 VA	100.00%	3372 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	69799 VA	80.92%	56480 VA
Elevator	0 VA	0.00%	0 VA
Power	6650 VA	100.00%	6650 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	28360 VA	238 A
Phase B:	24920 VA	208 A
Phase C:	26541 VA	223 A
Total Conn. Load:	79821 VA	
Total Est. Demand:	66502 VA	
Total Conn.:	222 A	
Total Est. Demand:	185 A	

Panel Service
Fed From: 2LA
Feeder: C4-225

Panel Options	
Voltage:	120/208 Wye,3,4
Mains:	250 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: 2LC — PANELBOARD...

#	Description	Trip	Poles	Options	Wire and Conduit	A	B	C	A	B	C	Wire and Conduit	Options	Poles	Trip	Description	#
1	B8 Beverage/Ice Dispenser	20 A	1		THWN	300 VA			1200 VA			THWN		1	20 A	B8A Ice Machine	2
3	B8 Beverage/Ice Dispenser	20 A	1		THWN		300 VA			1200 VA		THWN		1	20 A	B8A Ice Machine	4
5	B9 Tea Dispenser	20 A	1		THWN			300 VA			1500 VA	THWN		2	20 A	B10 Coffee Brewer	6
7	B9 Tea Dispener	20 A	1		THWN	300 VA			1500 VA			--		--	--	--	8
9	B13 Coffee Creamer	20 A	1		THWN		336 VA			1500 VA		THWN		2	20 A	B10 Coffee Brewer	10
11	B13 Coffee Creamer	20 A	1		THWN			336 VA			1500 VA	--		--	--	--	12
13	K14 Refrigerated Case	20 A	2		THWN	1664 VA			1664 VA			THWN		2	20 A	K14 Refrigerated Case	14
15	--	--	--		--		1664 VA			1664 VA		--		--	--	--	16
17	K14 Refrigerated Case	20 A	2		THWN			2120 VA			1664 VA	THWN		2	30 A	K15 Refrigerated Case	18
19	--	--	--		--	2120 VA			1664 VA			--		--	--	--	20
21	B8B Ice Machine	20 A	2		THWN		1664 VA			305 VA		THWN		1	20 A	Power	22
23	--	--	--		--			1664 VA			0 VA	--		1	20 A	Spare	24
25	Spare	20 A	1		--	0 VA											26
27	Trash Receptacle	20 A	1		THWN		1800 VA			1800 VA		THWN		1	20 A	Trash Receptacle	28
29	Trash Receptacle	20 A	1		THWN			1800 VA			1800 VA	THWN		1	20 A	Trash Receptacle	30
31	Trash Receptacle	20 A	1		THWN	1560 VA											32
33	Vending Receptacle	20 A	1		THWN		1800 VA			1800 VA		THWN		1	20 A	Vending Receptacle	34
35	Vending Receptacle	20 A	1		THWN			1800 VA			1800 VA	THWN		1	20 A	Vending Receptacle	36
37	Vending Receptacle	20 A	1		THWN	1800 VA			0 VA			--		3	30 A	SPD	38
39	Receptacle	20 A	1		THWN		1800 VA			0 VA		--		--	--	--	40
41	Spare	20 A	1		--			0 VA			0 VA	--		--	--	--	42

Load Description	Connected Load (VA)	Demand Factor	Estimated Demand (VA)
Lighting	0 VA	0.00%	0 VA
Receptacle	44056 VA	61.35%	27028 VA
Motor	0 VA	0.00%	0 VA
HVAC	0 VA	0.00%	0 VA
Equipment	0 VA	0.00%	0 VA
Heating	0 VA	0.00%	0 VA
Kitchen Equipment	0 VA	0.00%	0 VA
Elevator	0 VA	0.00%	0 VA
Power	3633 VA	100.00%	3633 VA

Connected Load	Load (VA)	Amps (A)
Phase A:	13772 VA	115 A
Phase B:	17633 VA	150 A
Phase C:	16284 VA	139 A
Total Conn. Load:	47689 VA	
Total Est. Demand:	30661 VA	
Total Conn.:	132 A	
Total Est. Demand:	85 A	

Panel Service
Fed From: 2LA
Feeder: C4-225

Panel Options	
Voltage:	120/208 Wye,3,4
Mains:	225 A
Rating:	
Minimum Bus Rating:	
Mounting:	Surface
Enclosure Type:	Type 1
Isolated Ground:	
Sub-feed Lugs:	
Feed-thru Lugs:	
Panel Location:	

Circuit Breaker Options
AFCI Arc Fault Circuit Interrupter
GFCI GFCI-Personnel (4-6 mA)
GF-E GFCI-Equipment (30 mA)
GFP Ground Fault Protection
ST Shunt Trip
L-ON CB Lock in Closed Position
L-OFF CB Lock in Open Position
TC/TC Timeclock On/Timeclock Off
PC/TC Photocell On/Timeclock Off
PC/PC Photocell On/Photocell Off

See Wire and Conduit Schedule for wire and conduit sizes.

PANEL: LCP-1 — LIGHTING CONTROL SCHEDULE

RELAY	CIRCUIT #	VOLTAGE	DESCRIPTION	DIMMING	CONTROL	NOTES
1	2HB-8	277	KITCHEN AREA	-	A,B	
2	2HB-10	277	DINING AREA	-	A,B	
3			SPARE RELAY			
			PROVIDE METAL BARRIER TO SEPARATE VOLTAGES			
5	RC2MH3A-38		KITCHEN AND DINING AREA	-	A,B	
6			SPARE RELAY			
7			SPARE RELAY			
8			SPARE RELAY			

LIGHTING CONTROL SCHEME
A. SCHEDULE ON/OFF: SETTINGS FOR DAYS OF THE WEEK AND TIMES OF THE DAY SHALL BE COORDINATED WITH OWNER.
B. TIME-CLOCK ON/OFF WITH MANUAL PUSH-BUTTON OVERRIDE
C. VACANCY SENSOR: VACANCY SETTING SHALL BE 50% INTENSITY. NON-VACANCY SETTING SHALL BE 100%.
D. AUTOMATIC DAYLIGHTING CONTROLS - PER FBC ENERGY CONSERVATION C405

NOTES
1. DEFAULT TO 100% INTENSITY DURING STAND-BY POWER OPERATION.
2. REFER TO FLOOR PLAN DRAWINGS FOR LOCAL DAYLIGHT SENSOR CONTROL.
3. SET TO 100% INTENSITY FOR OPERATIONAL BUSINESS HOURS; SET TO 50% INTENSITY FOR AFTER HOURS. COORDINATE WITH OWNER TO ESTABLISH OPERATIONAL AND AFTER HOURS.
4. WIRE FOR DIMMING CAPABILITY AND SET TO 100% INTENSITY.
5. SET TO 100% INTENSITY DURING NON-DAYLIGHT HOURS; SET TO 50% INTENSITY DURING DAYLIGHT HOURS.

LIGHTING CONTROL DEVICES SCHEDULE

TAG	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	QTY	CONTROL WIRING	MOUNTING
DT2	WATTSTOPPER	LMDC-100	OCCUPANCY SENSOR, DUAL TECH, CEILING MOUNT	AS REQ	CAT5	CEILING
RC5	WATTSTOPPER	LMRC-101	ROOM CONTROLLER, 1-CIRCUIT, NON-DIMMING, 20A MAX	AS REQ	CAT5	ABOVE CEILING
PB1	WATTSTOPPER	LMSW-101	WATTSTOPPER DLM PUSH-BUTTON SWITCH, 1 BUTTON	AS REQ	CAT5	ELECTRICAL BOX
DT1	WATTSTOPPER	LMDW-101	COMBINATION OCCUPANCY SENSOR/SINGLE BUTTON SWITCH	AS REQ	CAT5	ELECTRICAL BOX

LIGHTING CONTROLS SCHEDULE NOTES:
1. The equipment used for the basis of design is the Wattstopper DLM system and the Intelligent Lighting Controls LightLeeder System.
2. Other equipment may be submitted for approval up to 10 working days prior to bid date, to allow for proper evaluation. Submissions within 10 working days prior to bid date will not be evaluated. Equipment is approved through addendum only.
3. For information on these systems call Phil Wilberg at Sesco Lighting 813-289-1600

LIGHTING FIXTURE SCHEDULE

TYPE	MANUFACTURER	CATALOG NUMBER	DESCRIPTION	LAMPS Qty	LAMPS Type	VOLTS	MOUNTING	REMARKS	BALLAST/ TRANSFORMER	INPUT WATTS
A	ORION	OLRL 041L UNV FDX 840 24 1P CT	2'X4' LED TROFFER	95	LED	UNV	RECESSED		ELECTRONIC	32
B	GOTHAM	EVO 40/30 8WR MD 277 EZ10	8" LED DOWNLIGHT	17	LED	UNV	RECESSED		ELECTRONIC	47
C	LITHONIA	CL48 4000LM SEF FDL MVOLT GZ10 35K 80CRI	4' -0" LED STRIP FIXTURE	2	LED	UNV	RECESSED		ELECTRONIC	35
X	LITHONIA	LQM S W 3 R 120/277	LED EXIT SIGN RED LETTERING		LED	UNV	RECESSED		ELECTRONIC	3

LIGHTING SCHEDULE NOTES:
1. ALL LAMPS SHALL BE 80+ CRI AND 3500K UNLESS NOTED OTHERWISE

PANEL SCHEDULE KEY

PANEL 2HC	PANEL 2HB	PANEL 2HA
PANEL 2LA	PANEL 2LD	
PANEL 2LB		

Revisions: | Date:

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Office of Construction and Facilities Management
VA U.S. Department of Veterans Affairs

Drawing Title: SCHEDULES - ELECTRICAL
Approved: Project Director
DALE A. BACIK, P.E.

Phase: 100% CONSTRUCTION DOCUMENTS
FULLY SPRINKLERED

Project Title: RENOVATE VCS PATRIOT CAFE
Location: MIAMI, FL
Issue Date: 02/09/2018
Checked: DAB
Drawn: FB

Project Number: 546-17-109
Building Number: 1
Drawing Number: 1-E-502

FIRE SPRINKLER PROVISIONS

1. ALL FIRE PROTECTION WORK SHALL MEET ALL THE REQUIREMENTS OF THE FLORIDA 2017 BUILDING CODE 5TH EDITION, FLORIDA FIRE PREVENTION CODE 2017 6TH EDITION, LATEST APPROVED EDITION NFPA FIRE CODES, AND APPLICABLE OSHA AND EPA REGULATIONS AND GUIDELINES. WHERE CONFLICTS BETWEEN CODE AND CONSTRUCTION DOCUMENTS OCCUR, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
2. THE CONTRACTOR SHALL SUBMIT A SEPARATE PERMIT APPLICATION AND PLANS FOR REVIEW ACCORDING TO NFPA 1 (2015 EDITION), SECTION 1.14.
3. A CONTRACTOR'S MATERIAL AND TEST CERTIFICATE SHALL BE COMPLETED IN ACCORDANCE WITH NFPA 13 AND FORWARDED TO THE OWNER'S REPRESENTATIVE.
4. ALL MATERIAL SHALL BE OF APPROVED QUALITY AND THE WORK SHALL BE DONE IN A THOROUGH AND WORKMANLIKE MANNER. THE WORK, MATERIALS AND TEST SHALL BE IN ACCORDANCE WITH THE CURRENT REQUIREMENTS OF NFPA 13, LATEST EDITION.
5. MAINTAIN THE INTEGRITY OF ALL FIRE AND SMOKE RATED WALLS, PARTITIONS, CEILINGS, AND FLOOR ASSEMBLIES. SEAL ALL PENETRATIONS THROUGH RATED ASSEMBLIES WITH FIRESTOP MATERIAL IN ACCORDANCE WITH UL REQUIREMENTS TO MAINTAIN THE ASSEMBLY RATING. REFER TO ARCHITECTURAL DOCUMENTS FOR LOCATIONS OF SMOKE AND/OR FIRE RATED WALLS; REFER TO PENETRATION DETAILS FOR FIRE PROTECTION PIPING PENETRATIONS THROUGH RATED ASSEMBLIES.
6. FIRE SPRINKLER CONTRACTOR SHALL COORDINATE THE LOCATION OF RISERS, CROSS MAINS, BRANCH LINES, AND SPRINKLER HEADS WITH ALL OTHER TRADE SYSTEMS TO AVOID CONFLICTS AND MAINTAIN ARCHITECTURAL ELEMENTS OF THE BUILDING.
7. PIPE HANGERS SHALL BE SPACED AND LOCATED ACCORDING TO NFPA 13 (2010 EDITION).
8. ALL BRANCH LINES SERVING ONE SPRINKLER SHALL BE 1" MINIMUM, UNLESS OTHERWISE NOTED.
9. INSTALL ALL SPRINKLERS ACCORDING TO THEIR LISTINGS, SPACING, AND OBSTRUCTION REQUIREMENTS.
10. COORDINATE SPRINKLER HEAD TYPES AND LOCATIONS WITH ARCHITECTURAL FINISHES, CEILING, LIGHTING LAYOUT, HVAC DUCTS, OTHER CEILING MOUNTED DEVICES, AND STRUCTURAL COMPONENTS.
11. LIGHT FIXTURES AND HVAC DIFFUSERS TAKE PRECEDENCE. ADD ADDITIONAL SPRINKLERS AT NO ADDITIONAL COST AND AS NECESSARY TO MEET COVERAGE REQUIREMENTS IN ACCORDANCE WITH NFPA 13.
12. INSTALL SPRINKLERS IN THE CENTER OF CEILING TILES WHEN POSSIBLE. PROVIDE RETURN BENDS AT ALL SPRINKLER LOCATIONS TO ALLOW FIELD ADJUSTMENT.
13. THE SPACING AND SIZES OF SPRINKLERS AND PIPES SHALL CONFORM TO THE REQUIREMENTS OF NFPA 13. SPRINKLERS SHALL BE INSTALLED BY PERSONNEL WHO HAVE ENGINEERING FACILITIES AND EXPERIENCE IN SUCH WORK AND WHO ARE REGULARLY EMPLOYED TO DO SUCH WORK.
14. PIPE SUPPORTS: HANGERS, CLAMPS, RODS AND OTHER ACCESSORIES OF AN APPROVED TYPE AND IN SUFFICIENT NUMBER TO PROPERLY SUPPORT ALL PIPING SHALL BE FURNISHED AND INSTALLED. PIPING SHALL BE SUPPORTED BY ROUND WROUGHT U-TYPE APPROVED ADJUSTABLE HANGERS.
15. SPRINKLERS SHALL BE 1/2" ORIFICE TYPE OF ORDINARY DEGREE RATING EXCEPT WHERE EXCESSIVE TEMPERATURES ARE ANTICIPATED. IN THESE LOCATIONS HIGH TEMPERATURE SPRINKLERS SHALL BE INSTALLED IN ACCORDANCE WITH NFPA NO. 13. PROVIDE QUICK RESPONSE SPRINKLERS IN LIGHT HAZARD AREAS.

FIRE SPRINKLER LEGEND

●	SEMI-RECESSED PENDENT SPRINKLER, STANDARD COVERAGE, QUICK RESPONSE, FM APPROVED, UL LISTED, 155°F
◉	EXISTING SPRINKLER HEAD TO BE RELOCATED
⊠	EXISTING SPRINKLER HEAD TO BE REMOVED
○	SEMI-RECESSED PENDENT DRY-PIPE SPRINKLER, STANDARD COVERAGE, QUICK RESPONSE, FM APPROVED, UL LISTED, 155°F

FIRE PROTECTION NOTES

DESIGN APPROACH:

SYSTEM IS TO BE A WET PIPE SPRINKLER SYSTEM

OCUPANCY HAZARDS:

ORDINARY HAZARD OCCUPANCY (GROUP 1), 130 SQUARE FEET - MAXIMUM SPRINKLER SPACING - DENSITY 0.2/1500 SQFT.

LIGHT HAZARD OCCUPANCY, 225 SQUARE FEET - MAXIMUM SPRINKLER SPACING - DENSITY 0.10/1500 SQFT.

CODE REFERENCE:

NFPA 13 - STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS 2010 EDITION.

FLORIDA BUILDING CODE 2017 EDITION.

FLORIDA FIRE PREVENTION CODE SIXTH EDITION.

GENERAL NOTES

A. CONTRATOR TO FIELD VERIFY ALL CONNECTION POINTS TO EXISTING SYSTEM PIPING AND IDENTIFY ALL RISERS AFFECTED.

B. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE PERFORMED AFTER HOURS AND BE KEPT TO A MINIMUM. NOTIFY ALL OUTAGE REQUIREMENTS AND COORDINATE ALL AFTER HOURS WORK WITH THE COTR.

C. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.

D. COORDINATE NEW EQUIPMENT INSTALLATION WITH ALL EXISTING COMPONENTS TO REMAIN.

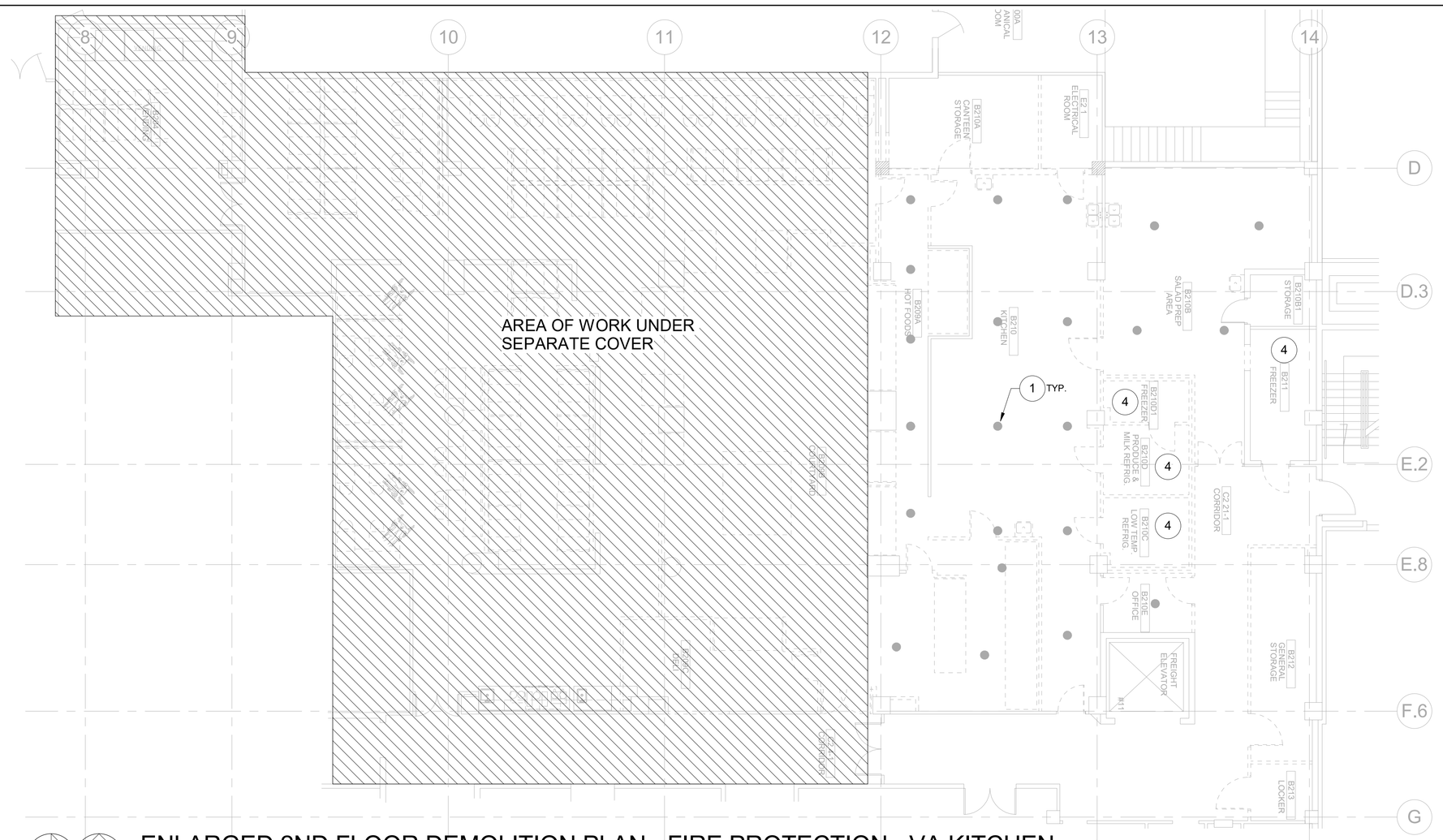
KEYNOTES

1 EXISTING FIRE SPRINKLERS IN AREA OF WORK SHALL BE REMOVED, CLEANED AND RE-INSTALLED IN NEW LOCATIONS. REFER TO RENOVATION PLAN FOR NEW LOCATIONS. TYPICAL.

2 RELOCATED SPINKLER HEAD. EXTEND/SHORTED PIPE AS NEEDED FOR PROPER INSTALLATION. REUSE EXISTING MAIN AND BRANCH PIPING.

3 NEW DRY-PIPE SPRINKLER HEAD. PROVIDE AIR COMPRESSOR AND ALL ASSOCIATED ACCESSORES. REFER TO DETAILS FOR MORE INFORMATION.

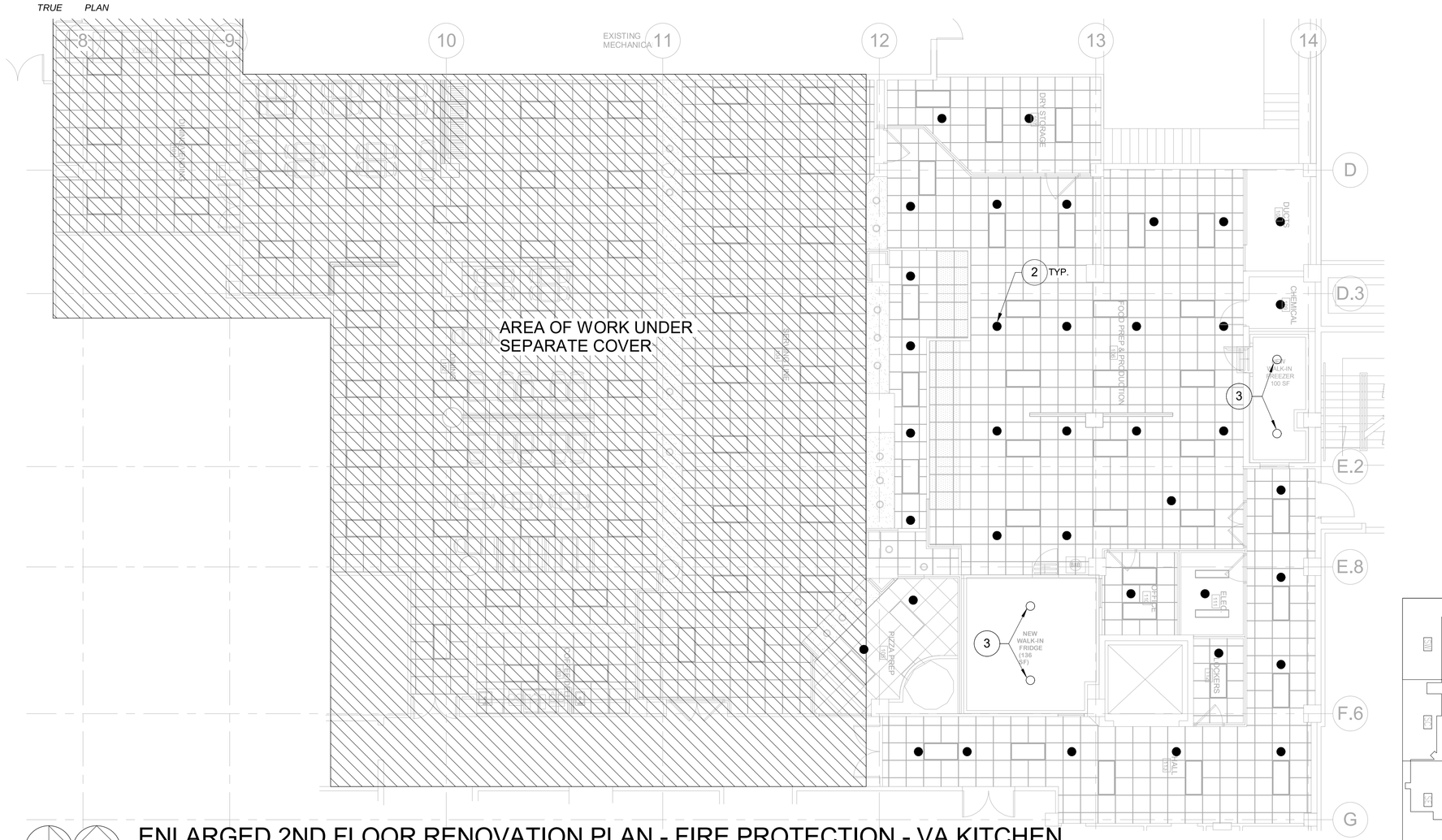
4 REMOVE AND PROPERLY DISPOSE OF EXISTING DRY-PIPE FIRE SPRINKLERS FOR EXISTING WALK IN REFRIGERATORS AND FREEZERS.



N N TRUE PLAN

ENLARGED 2ND FLOOR DEMOLITION PLAN - FIRE PROTECTION - VA KITCHEN

Scale: 1/8" = 1'-0"



N N TRUE PLAN

ENLARGED 2ND FLOOR RENOVATION PLAN - FIRE PROTECTION - VA KITCHEN

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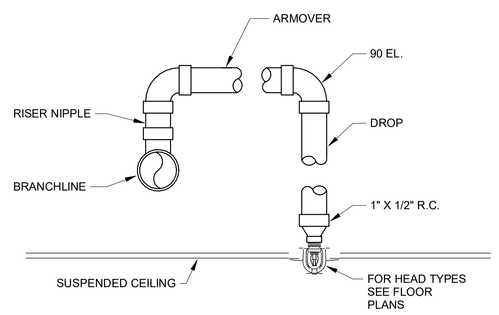
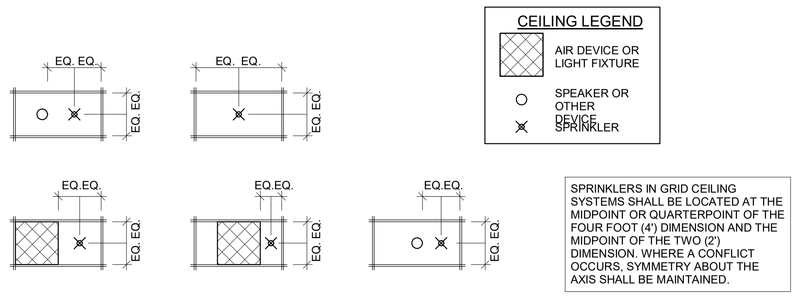


A SWING ARM ASSEMBLY DETAIL
NTS



B SPRINKLER MOUNTING DETAIL
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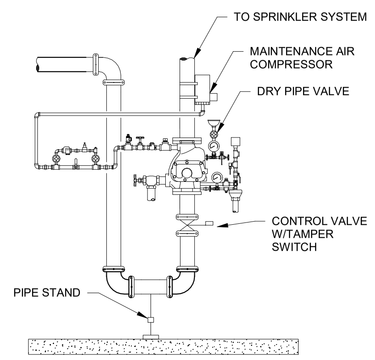

C DRY PIPE RISER
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Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR FIRE PROTECTION	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-FP102
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: NPS	

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PLUMBING LEGEND

0000		EQUIPMENT OR FIXTURE MARK
		POINT OF NEW CONNECTION
		POINT OF DEMOLITION LIMIT
#		DRAWING KEYNOTE
		EQUIPMENT TO BE REMOVED
		EXISTING PIPING TO BE REMOVED
	(E)SAN	EXISTING SANITARY, SOIL, OR WASTE PIPING
	(E)DHW	EXISTING DOMESTIC HOT WATER PIPING
	(E)DHWR	EXISTING DOMESTIC HOT WATER RETURN PIPING
	(E)DCW	EXISTING DOMESTIC COLD WATER PIPING
	DCW	DOMESTIC COLD WATER PIPING
	DHW	DOMESTIC HOT WATER PIPING
	DHWR	DOMESTIC HOT WATER RETURN PIPING
	SAN	SANITARY, SOIL, OR WASTE PIPING
	V	SANITARY VENT PIPING
OR	VTR	VENT THRU ROOF
	FCO	FLOOR CLEAN OUT
WCO	WCO	WALL CLEAN OUT
		PIPE DOWN
		PIPE UP
		FLOOR DRAIN / FLOOR SINK
		BALL VALVE
		CHECK VALVE
		GATE VALVE
		STRAINER
		UNION

PLUMBING DESIGN PROVISIONS

DOMESTIC WATER PIPING:

A. HOT AND COLD WATER PIPING SHALL BE TYPE L HARD COPPER PIPING WITH ASSOCIATED WROUGHT COPPER FITTINGS. ISOLATION VALVES SHALL BE TWO-PIECE BALL VALVES WITH STAINLESS STEEL TRIM AND FULL PORT CONFIGURATION.

B. ALL HORIZONTAL PIPING PENETRATIONS SHALL BE PROVIDED WITH ESCUTCHEONS TO PROVIDE A CLEAN INSTALLATION.

C. PIPING PENETRATIONS THROUGH BUILDINGS STRUCTURE SHALL BE UL RATED AND FIRESTOPPED, WHERE REQUIRED.

MISCELLANEOUS:

A. HANGERS: FOR CAST IRON, PROVIDE HEAVY DUTY PIPE HANGERS, BRACKETS OR CLAMPS AT 5' INTERVALS. ALL MATERIAL SHALL BE NON-FERROUS AND NON-CORRODING. FASTEN WITH LAG SCREW OR WITH EXPANSION SHIELDS AS APPLICABLE. FOR WATER PIPING, PROVIDE ADJUSTABLE COPPER PLATED HANGERS AT 6' INTERVALS MAXIMUM. PROVIDE HANGERS TO ALLOW FOR FULL THICKNESS OF INSULATION.

B. VALVES AND SHUTOFFS: FULL SIZE BRONZE GATE OR BALL VALVES FOR HOT AND COLD WATER MAINS, STANDARD PORT BRONZE BALL VALVES FOR HOT AND COLD WATER BRANCHES. PROVIDE DRAINAGE VALVES ON MAINS. PROVIDE UNITS BY APOLLO, GRINNELL, HAMMOND, MILWAUKEE, LUNKENHEIMER, OR WATTS. ALL VALVES SHALL BE MANUFACTURED IN THE U.S. USE OF IMPORTS IS PROHIBITED.

C. INSTALL SHUTOFF VALVES ON EACH PIECE OF EQUIPMENT.

D. CLEARLY LABEL ALL VALVES AND COMPONENTS. ALL PIPING SYSTEMS AND FLOW DIRECTION SHALL BE CLEARLY LABELED WITH COMMERCIAL PIPE LABELING DEVICES.

E. DISINFECT DOMESTIC WATER DISTRIBUTION SYSTEM. FLUSH AND TEST ALL SYSTEMS FOR PROPER OPERATION. ADJUST SYSTEM TO PREVENT WATER HAMMER.

F. MAINTAIN INDICATED FIRE RATINGS OF WALLS, PARTITIONS, CEILINGS AND FLOORS AT PENETRATIONS. SEAL WITH FIRESTOPPING TO MAINTAIN FIRE RATING.

G. RESTORE DAMAGED FINISHES. CLEAN AND PROTECT WORK FROM DAMAGE.

H. INSTRUCT OWNER'S PERSONNEL IN PROPER OPERATION OF SYSTEMS.

PLUMBING NOTES

1. ALL WORK SHALL COMPLY WITH APPLICABLE NATIONAL, STATE, AND LOCAL CODES. THIS SHALL INCLUDE, BUT NOT BE LIMITED TO, THE 2014 FLORIDA PLUMBING CODE. WHERE CONFLICTS OCCUR BETWEEN CODES, OR BETWEEN CONSTRUCTION DOCUMENTS AND CODES, THE MOST RESTRICTIVE REQUIREMENTS SHALL GOVERN.
2. REVIEW PLANS OF ALL TRADES PRIOR TO BIDDING AND BEGINNING WORK. INSTALLATIONS ARE TO INCLUDE ALL PLUMBING FOR COMPLETE SYSTEMS SHOWN ON THE PLANS AND AS REQUIRED.
3. COORDINATE WITH OTHER TRADES TO PREVENT INTERFERENCE WITH HVAC DUCTS, STRUCTURE, ELECTRICAL, LIGHTING, AND OTHER PIPING IN THE CEILING SPACE. VENT PIPING AND WATER PIPING SHALL BE HELD EITHER ABOVE OR BELOW HVAC DUCTWORK, AS COORDINATED WITH THE HVAC CONTRACTOR.
4. ALL CHANGES SHALL BE REVIEWED BY THE ARCHITECT/ENGINEER.
5. COORDINATE WITH ARCHITECTURAL DRAWINGS BEFORE ROUGHING-IN PLUMBING FIXTURES AND EQUIPMENT SUPPLIES.
6. THE PLUMBING SUBCONTRACTOR SHALL FURNISH AND INSTALL ALL PLUMBING FIXTURES, UNLESS NOTED OTHERWISE.
7. VERIFY MOUNTING HEIGHT AND WATER CONNECTION SIZES OF ALL PLUMBING FIXTURES PRIOR TO ROUGH-IN. FURNISH CUT-OUT TEMPLATES, FOR PLUMBING FIXTURES TO BE INSTALLED IN MILLWORK, TO THE GENERAL CONTRACTOR.
8. MAKE PROPER HOT AND COLD WATER, WASTE AND VENT PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL FITTINGS AND CONNECTIONS ARE NOT SHOWN.
9. VERIFY LOCATION OF EXISTING WATER SERVICE AND THE LOCATION/INVERTS OF SANITARY PIPING PRIOR TO INSTALLATION.
10. CUT AND PATCH CONCRETE AS REQUIRED.
11. IT IS NOT THE INTENT OF THESE DRAWINGS TO COVER ALL WORK AND MATERIAL. ANY EQUIPMENT, PLUMBING FIXTURE, TRIM HARDWARE AND/OR DEVICES USUALLY UTILIZED IN THE CLASS OF WORK, THOUGH NOT SPECIFICALLY MENTIONED OR SHOWN ON THESE DRAWINGS, BUT WHICH MAY BE NECESSARY FOR THE SATISFACTORY COMPLETION OF THE WORK (AS DETERMINED BY THE ARCHITECT) SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR AS PART OF HIS TOTAL WORK.
12. THE EQUIPMENT ROUGH-IN ITEMS AND THEIR DIMENSIONED LOCATIONS FOR ALL CONNECTIONS ARE ACCURATE TO THE BEST OF OUR KNOWLEDGE. IN SOME INSTANCES THE OWNER OR SUPPLIER MAY MAKE SUBSTITUTIONS OR EQUIPMENT ITEMS MAY VARY FROM WHAT IS SHOWN. THEREFORE, THESE ITEMS AND DIMENSIONS SHALL BE VERIFIED WITH THE EQUIPMENT SUPPLIER, OWNER AND/OR EQUIPMENT ROUGH-IN DRAWING. FAILURE OF THE APPROPRIATE CONTRACTOR TO VERIFY ROUGH-INS OR THEIR LOCATIONS SHALL PLACE THE RESPONSIBILITY FOR ANY SUBSEQUENT RELOCATION AND/OR ADDITIONAL ROUGH-INS DIRECTLY UPON THAT CONTRACTOR.
13. CONTRACTOR SHALL SUPPLY TO THE ARCHITECT/ENGINEER THE REQUIRED COPIES OF SHOP DRAWINGS FOR APPROVAL SO THE QUALITY OF INTENDED MATERIALS OR EQUIPMENT CAN BE REVIEWED BEFORE INSTALLATION. THERE WILL BE NO DRAW UNTIL SHOP DRAWINGS HAVE BEEN SUBMITTED AND REVIEWED BY THE ARCHITECT/ENGINEER.
14. DO NOT SCALE THIS DRAWING. REFER TO ARCHITECTURAL FLOOR PLAN FOR BUILDING DIMENSIONS.
15. THESE DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT NECESSARILY SHOW ALL ELBOWS, OFFSETS, UNIONS, VALVES, FITTINGS, ETC. REQUIRED TO COMPLETE THE INSTALLATION OF THE WORK. THE SUBMISSION OF A PROPOSAL SHALL BE CONSTRUED AS EVIDENCE THAT THE CONTRACTOR HAS FAMILIARIZED HIMSELF WITH THE PLANS AND BUILDING SITE. CLAIMS MADE SUBSEQUENT TO THE PROPOSAL FOR MATERIALS AND LABOR BECAUSE OF DIFFICULTIES ENCOUNTERED WILL NOT BE RECOGNIZED IF THEY COULD HAVE BEEN FORESEEN HAD PROPER EXAMINATION BEEN MADE.
16. THE CONTRACTOR SHALL COOPERATE FULLY AMONG THE TRADES.
17. THE POTABLE WATER SUPPLY SHALL BE PROTECTED AGAINST BACKFLOW AND SIPHONAGE, BOTH NATURAL AND INDUCED. ALL EQUIPMENT CONNECTED TO THE POTABLE WATER SYSTEM BEING CAPABLE OF POLLUTING OR CONTAMINATING THE POTABLE WATER DISTRIBUTION SYSTEM OR ANY PART THEREOF BY MEANS OF A REVERSAL OF FLOW, PRESSURE DROP, PRESSURE LOSS, INDUCED VACUUM, OR BY INJECTION BECAUSE OF ANY PRIMARY OR AUXILIARY PUMPING SYSTEM CONNECTED, MUST BE ISOLATED AND CONTAINED BY MEANS OF APPROVED BACKFLOW DEVICES, CHECK VALVES, AIR GAPS, OR VACUUM BREAKERS. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL THESE DEVICES PER LOCAL CODE REQUIREMENTS.
18. THE WATER PIPING SYSTEM SHALL BE FLUSHED AND STERILIZED IN ACCORDANCE WITH LOCAL REGULATIONS.
19. HOT AND COLD WATER SUPPLY BRANCHES FOR ALL SYSTEMS HAVING QUICK CLOSING VALVES OF ANY TYPE SHALL HAVE WATER HAMMER ARRESTORS INSTALLED AT THE HIGH POINT ON THE END OF EACH BRANCH.
20. FURNISH AND INSTALL SHUTOFF BALL VALVE AND DIELECTRIC UNIONS FOR ALL EQUIPMENT HOT AND COLD WATER LINES. PLUMBING CONTRACTOR SHALL MAKE ALL FINAL CONNECTIONS TO EQUIPMENT. COORDINATE WITH EQUIPMENT SUPPLIER FOR EXACT REQUIREMENTS.
21. VERIFY MOUNTING HEIGHTS OF ALL BARRIER FREE FIXTURES WITH ARCHITECTURAL PLANS.
22. PLUMBING CONTRACTOR SHALL FURNISH AND INSTALL COPPER INDIRECT WASTE PIPING REQUIRED FROM EQUIPMENT TO FLOOR DRAINS. PIPING SHALL COMPLY WITH FEDERAL, STATE AND LOCAL CODES. COORDINATE WITH ALL EQUIPMENT SUPPLIERS AND SIZES AS REQUIRED BY PIECE OF EQUIPMENT SERVED. HOLD PIPING TIGHT TO WALL WHERE APPLICABLE. PROPERLY SECURE AS REQUIRED. COORDINATE WITH CASEWORK SUPPLIER FOR MAXIMUM CLEARANCE UNDER CABINETS.
23. PROVIDE CHROME PLATED ESCUTCHEONS AT ALL WALL PENETRATIONS.
24. PLUMBING CONTRACTOR SHALL INSTALL 4" SOIL AND WASTE PIPING WITH MINIMUM SLOPE OF 1/8" PER FOOT UNLESS OTHERWISE REQUIRED.
25. ALL FLOOR DRAINS ARE TO BE PROVIDED WITH MINIMUM 3" DRAIN LINES, DEEP SEAL TRAPS, AND AUTOMATIC TRAP PRIMERS. TRAP PRIMERS SHALL BE LOCATED IN A SERVICEABLE LOCATION AND INSTALLED PER MANUFACTURER'S INSTALLATION INSTRUCTIONS. HOLD TOP OF FLOOR DRAINS FLUSH WITH FINISHED FLOOR; SEE ARCHITECTURAL SHEETS FOR FLOOR SLOPES AND PROPER FINISHED FLOOR ELEVATION.
26. ALL VENT PIPE TO BE COMPATIBLE WITH STRUCTURE, MECHANICAL EQUIPMENT, DUCTWORK, ELECTRICAL EQUIPMENT, AND LIGHTING. ALL V.T.R.'S SHALL BE EXTENDED TO A MINIMUM OF 2" ABOVE PARAPET HEIGHT AND MAINTAINED 10'-0" MINIMUM FROM ALL OUTSIDE AIR INTAKES.
27. MATERIALS, EQUIPMENT, ASSEMBLIES AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF NATIONALLY RECOGNIZED TESTING ORGANIZATIONS SUCH AS UL, ASTM, ASSE, AWWE, AGA AND NFPA AS WELL AS THE MOST CURRENT VERSION OF THE STATE AND LOCAL CODES.
28. ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE. REPLACE ANY AND ALL CONTRACTOR SUPPLIED DEFECTIVE DEVICES, ITEMS, OR SYSTEMS AT CONTRACTOR'S EXPENSE, BEFORE COMPLETION OF PROJECT.
29. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OR NATURE OF WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE ENGINEER.
30. ALL EQUIPMENT, FIXTURES AND MATERIALS SHALL BE NEW AND UNUSED, AND INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS (UNO). PROVIDE COMPLETE WITH ALL TRIM, STOPS, HANGERS, CARRIERS, SUPPORTS, ETC., INCLUDING PROVISIONS FOR BARRIER FREE USE, IF REQUIRED. WHERE FIXTURES ARE ACCESSIBLE THEY MUST COMPLY WITH ALL FEDERAL A.D.A. REGULATIONS.
31. CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED, FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURER'S GUARANTEE IS FURNISHED, AND ALL WORK IN CONNECTION WITH INSTALLATION OF MANUFACTURER'S GUARANTEED EQUIPMENT. THE CONTRACTOR'S GUARANTEE SHALL LAST ONE YEAR FROM THE FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO ALL DEFECTS IN MATERIALS AND WORKMANSHIP OF ANY KIND.
32. ALL FAUCET CONTROLS SHALL BE OPERABLE WITH ONE HAND AND NOT REQUIRE TIGHTGRASPING.
33. ALL BARRIER FREE WATER CLOSET CONTROLS SHALL BE LOCATED ON UNIT TOWARDS WIDE SIDE OF STALL. VERIFY IF RIGHT OR LEFT SIDE LOCATION.

PLUMBING FIXTURE SCHEDULE - VA KITCHEN

(E)FCO	EXISTING FLOOR CLEANOUT
(E)FD-1	EXISTING FLOOR DRAIN
(E)HS-1	EXISTING HAND SINK
B8	BEVERAGE DISPENSER. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
B8A	ICE MACHINE. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION..
B8B	ICE MACHINE. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
B9	GOLD PEAK TEA DISPENSER. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
B10	COFFEE BREWER. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
CE13	PRESSURE FRYER. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
ES1	ENTRES AND SIDES. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
FS-1	FLOOR SINK - ZURN. MEDIUM DUTY #Z-611, 9"x9" MEDIUM DUTY DRAIN WITH SEDEMENT BUCKET AND LOOSE GRATE. DURA-COATED CAST IRON BODY. BOTTOM OUTLET. PROVIDE 3/8" PRIMER TAP WITH INTEGRAL VACUUM BREAKER EQUAL TO ZURN Z-1022.
K1	COMBITHERM OVEN W/LEGS. PROVIDE TWO 3/4" CW LINES. ONE LINE SHALL BE CONNECTED TO A WATER FILTRATION SYSTEM. VCS TO SELECT AND INSTALL. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR MORE INFORMATION. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION.
K2	CONVECTION OVEN W/STACK KIT. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
K11	RANGE W/ OVEN. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
K23	HAND SINK - REFER TO KITCHEN PLANS FOR SPECIFICATION
K26	PREP SINK - REFER TO KITCHEN PLANS FOR SPECIFICATION
K51	DISHWASH EQUIPMENT - REFER TO KITCHEN PLANS FOR SPECIFICATION
OG1	OFF THE GRILL. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
OG11	FRYER-GAS. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
OG13	GRIDDLE. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
OG14	GRIDDLE. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
OM1	OMELETTE BAR. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
PB1	PIZZA SHOP. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION AND EXACT LOCATION.
PB15	PIZZA OVEN. REFER TO FOOD SERVICE PLANS FOR SPECIFICATION
S-1	TWO COMPARTMENT SINK - COORDINATE WITH VCS FOR FINAL SELECTION.
S-2	TWO COMPARTMENT SINK - COORDINATE WITH VCS FOR FINAL SELECTION.
S-3	ONE COMPARTMENT SINK - COORDINATE WITH VCS FOR FINAL SELECTION.

ABBREVIATIONS

(E)	EXISTING
AFF	ABOVE FINISHED FLOOR
BFF	BELOW FINISHED FLOOR
BV	BALL VALVE
CO	PIPE CLEAN-OUT
CTE	CONNECT TO EXISTING
CW	COLD WATER
DEMO	DEMOLISH OR DEMOLITION
DFU	DRAINAGE FIXTURE UNITS
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
EXST	EXISTING
FBC	FLORIDA BUILDING CODE
FCO	FLOOR CLEAN OUT
FD	FLOOR DRAIN
G	GAS
GCO	GRADE CLEAN OUT
GPM	GALLONS PER MINUTE
GR	GREASE
GWH	GAS WATER HEATER
HD	HUB DRAIN
HW	HOT WATER
HWR	HOT WATER RETURN
IBC	INTERNATIONAL BUILDING CODE
IE	INVERT ELEVATION
LAV	LAVATORY
MS	MOP SINK
NC	NORMALLY CLOSED
NG	NATURAL GAS
NO	NORMALLY OPEN
S	SANITARY
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEAN OUT
WH	WALL HYDRANT
WSFU	WATER SUPPLY FIXTURE UNITS

SHEET LIST - PLUMBING - VA KITCHEN SET

1-PL001	LEGEND, NOTES AND SCHEDULES - PLUMBING
1-PL102-D	ENLARGED 2ND FLOOR DEMOLITION PLAN - PLUMBING
1-PL102-N	ENLARGED 2ND FLOOR RENO PLAN - SANITARY AND VENT
1-PL202-N	ENLARGED 2ND FLOOR RENOVATION PLAN - DOMESTIC WATER

Revisions:	Date:

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: LEGEND, NOTES AND SCHEDULES - PLUMBING

Phase: 100% CONSTRUCTION DOCUMENTS

Project Title: RENOVATE VCS PATRIOT CAFE

Project Number: 546-17-109

Building Number: 1

Approved: Project Director

DALE A. BACIK, P.E.

FULLY SPRINKLERED

Location: MIAMI, FL

Issue Date: 02/09/2018

Checked: NPS

Drawn: DM

Drawing Number: 1-PL001

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GENERAL NOTES

A. CONTRATOR TO FIELD VERIFY ALL CONNECTION POINTS TO EXISTING SYSTEM PIPING AND IDENTIFY ALL RISERS AFFECTED.

B. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.

C. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.

D. COORDINATE NEW EQUIPMENT INSTALLATION WITH ALL EXISTING COMPONENTS TO REMAIN.

KEYNOTES

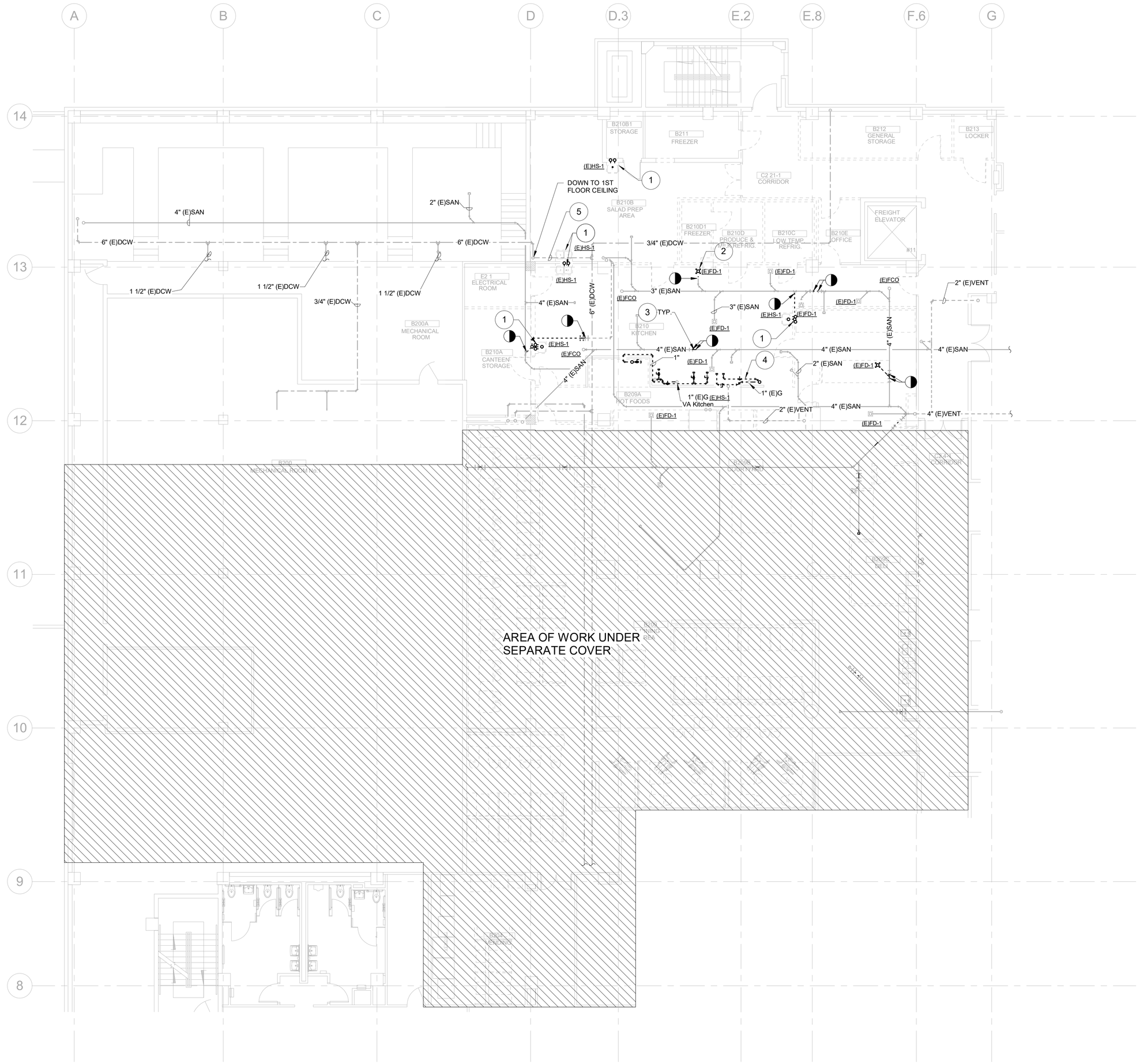
1 REMOVE EXISTING SINK AND ALL ASSOCIATED PIPING AND ACCESSORIES.

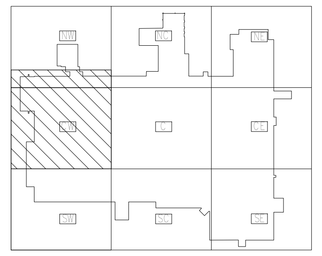
2 REMOVE AND PROPERLY DISPOSE OF EXISTING FLOOR DRAIN AND ALL ASSOCIATED PIPING AND ACCESSORIES TO UNDER FLOOR AND CAP. PATCH FLOOR TO MATCH EXISTING.

3 REMOVE SECTION OF PIPE TO PREPARE PIPE FOR NEW TEE INSTALLATION. REFER TO RENOVATION PLANS FOR EXACT LOCATION.

4 REMOVE GAS PIPING BACK TO RISER AND CAP FOR REUSE.

5 EXISTING DOMESTIC WATER PIPING IN 1ST FLOOR CEILING. CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPING AND MAKE NECESSARY ADJUSTMENTS.





N TRUE N PLAN

ENLARGED 2ND FLOOR DEMOLITION PLAN - PLUMBING - VA KITCHEN

Scale: 1/8" = 1'-0"

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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR DEMOLITION PLAN - PLUMBING

Approved: Project Director: DALE A. BACIK, P.E.

Phase: 100% CONSTRUCTION DOCUMENTS

FULLY SPRINKLERED

Project Title: RENOVATE VCS PATRIOT CAFE

Location: MIAMI, FL

Issue Date: 02/09/2018 | Checked: NPS | Drawn: DM

Project Number: 546-17-109

Building Number: 1

Drawing Number: 1-PL102-D

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GENERAL NOTES

A. CONTRATOR TO FIELD VERIFY ALL CONNECTION POINTS TO EXISTING SYSTEM PIPING AND IDENTIFY ALL RISERS AFFECTED.

B. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.

C. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.

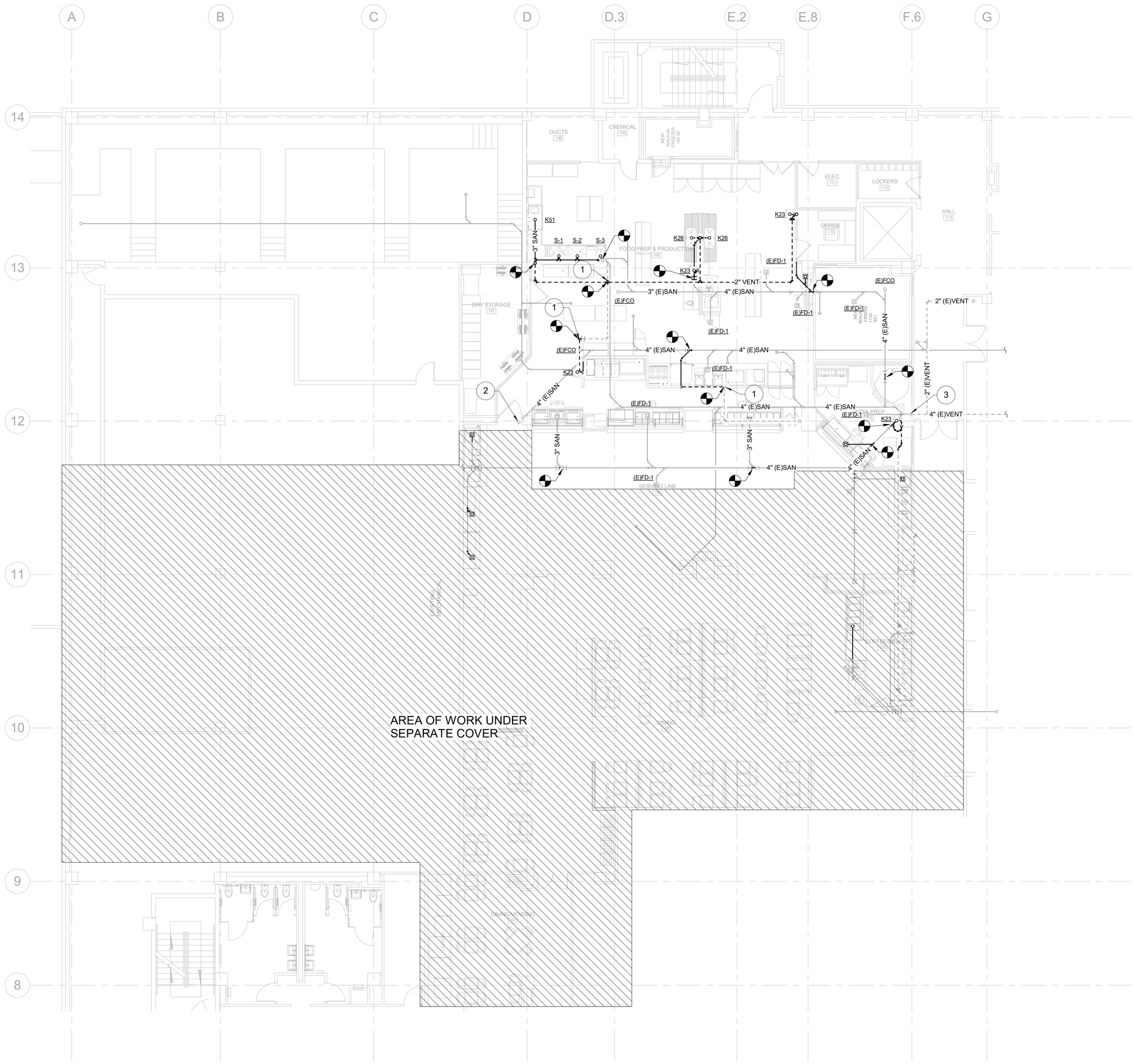
D. COORDINATE NEW EQUIPMENT INSTALLATION WITH ALL EXISTING COMPONENTS TO REMAIN.

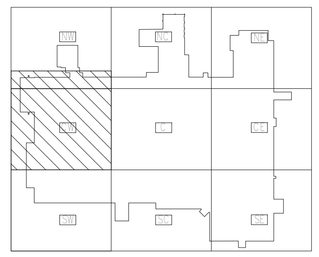
KEYNOTES

1 CONNECT NEW 2" VENT TO EXISTING VENT LINE. CONTRACTOR TO FIELD VERIFY LOCATION OF TIE IN AND ADJUST AS NECESSARY.

2 RELOCATE SANITARY PIPE OUT OF DOORWAY AS NECESSARY. CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPES PRIOR TO CONSTRUCTION.

3 SANITARY PIPE FROM FLOOR ABOVE DOWN TO FLOOR BELOW.





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TRUE PLAN

ENLARGED 2ND FLOOR RENOVATION PLAN - SANITARY AND VENT - VA KITCHEN

Scale: 1/8" = 1'-0"

Revisions:	Date:

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VA U.S. Department of Veterans Affairs

Drawing Title	Phase	Project Title	Project Number
ENLARGED 2ND FLOOR RENO PLAN - SANITARY AND VENT	100% CONSTRUCTION DOCUMENTS	RENOVATE VCS PATRIOT CAFE	546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-PL102-N
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: DM	

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GENERAL NOTES

A. CONTRATOR TO FIELD VERIFY ALL CONNECTION POINTS TO EXISTING SYSTEM PIPING AND IDENTIFY ALL RISERS AFFECTED.

B. ALL SERVICE INTERRUPTIONS TO THIS EXISTING FACILITY MUST BE SCHEDULED AT LEAST 2 WEEKS IN ADVANCE AND BE KEPT TO A MINIMUM. COORDINATE ALL DISRUPTIVE WORK AND OUTAGE REQUIREMENTS WITH THE COR.

C. EXISTING EQUIPMENT, PIPE ROUTING, AND ASSOCIATED COMPONENTS SHOWN ON DRAWINGS ARE APPROXIMATE LOCATIONS BASED ON EXISTING DRAWINGS AND ARE PROVIDED FOR REFERENCE USE ONLY. FIELD VERIFY AND COORDINATE WITH EXACT LOCATIONS, ELEVATIONS, SIZES, AND CONDITIONS OF EXISTING COMPONENTS.

D. COORDINATE NEW EQUIPMENT INSTALLATION WITH ALL EXISTING COMPONENTS TO REMAIN.

KEYNOTES

1 3/8" HW PIPE TO EQUIPMENT. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR EXACT PIPE SIZES AND INSTALLATION INSTRUCTIONS.

2 1/2" CW PIPE TO EQUIPMENT. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR EXACT PIPE SIZES AND INSTALLATION INSTRUCTIONS.

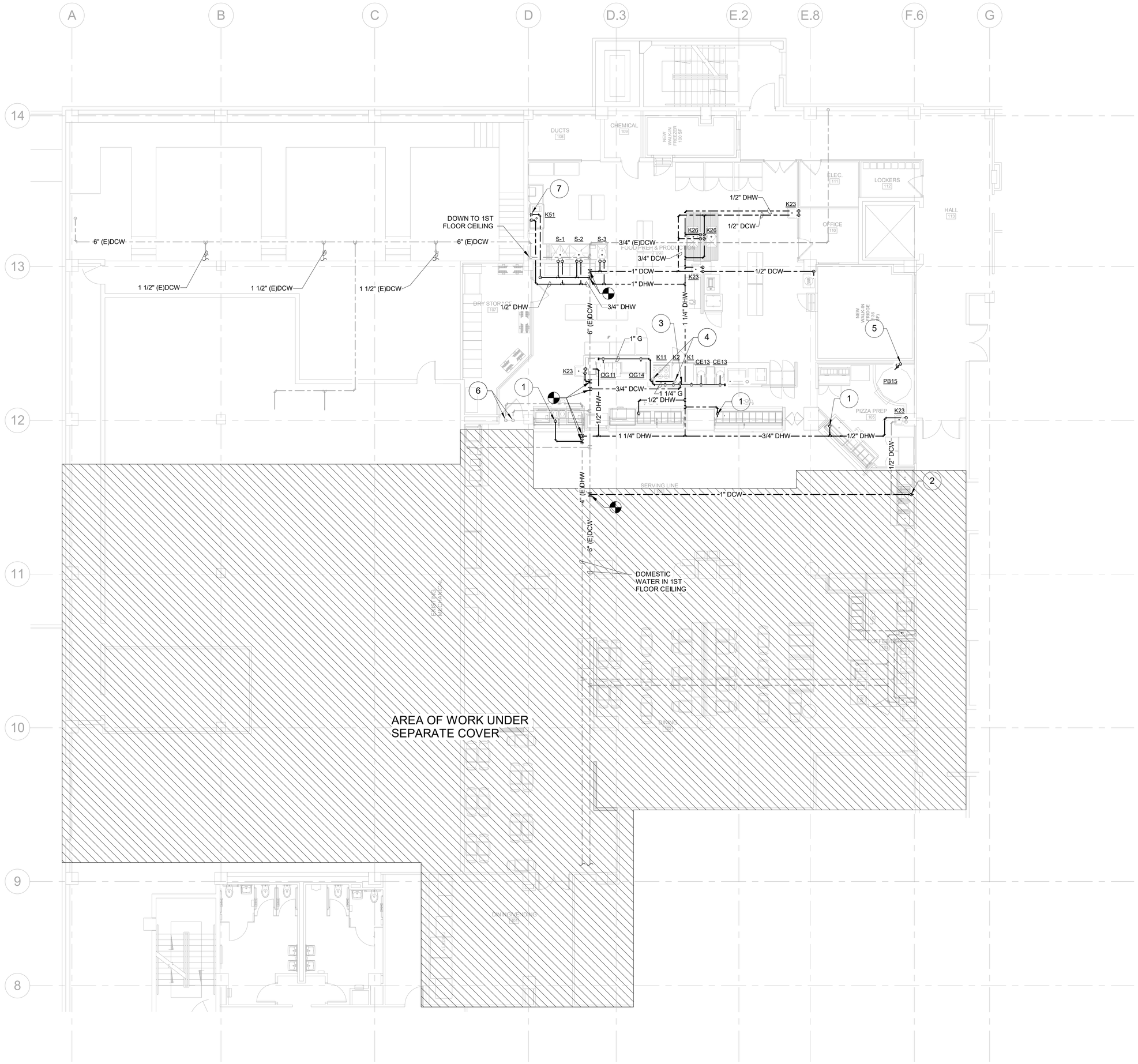
3 VA TO FURNISH AND INSTALL A WATER FILTRATION SYSTEM. REFER TO MANUFACTURER'S INSTALLATION MANUAL FOR WATER QUALITY AND FILTRATION REQUIREMENTS.

4 CONNECT NEW GAS LINE TO EXISTING GAS RISER.

5 ROUTE NEW 3/4" GAS LINE FOR PIZZA OVEN DOWN TO 1ST FLOOR CEILING SPACE AND CONNECT TO EXISTING GAS LINE OF PROPER SIZE 3/4" OR LARGER.

6 RELOCATE DOMESTIC WATER PIPES OUT OF DOORWAY AS NECESSARY. CONTRACTOR SHALL VERIFY EXACT LOCATION OF PIPES PRIOR TO CONSTRUCTION.

7 DOMESTIC HOT AND COLD WATER TO DISHWASHER. PROVIDE WATER FILTRATION SYSTEM AS NECESSARY. COORDINATE WITH VETERAN CANTEEN SERVICES (VCS) FOR REQUIREMENTS AND DISHWASHER SPECIFICATION.



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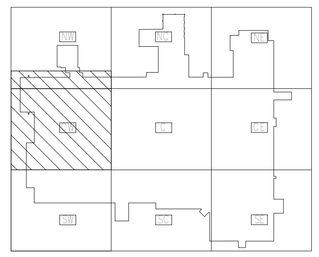
TRUE PLAN

ENLARGED 2ND FLOOR RENOVATION PLAN - DOMESTIC WATER - VA KITCHEN

Scale: 1/8" = 1'-0"



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Office of Construction and Facilities Management

VA U.S. Department of Veterans Affairs

Drawing Title: ENLARGED 2ND FLOOR RENOVATION PLAN - DOMESTIC WATER	Phase: 100% CONSTRUCTION DOCUMENTS	Project Title: RENOVATE VCS PATRIOT CAFE	Project Number: 546-17-109
			Building Number: 1
Approved: Project Director: DALE A. BACIK, P.E.	FULLY SPRINKLERED	Location: MIAMI, FL	Drawing Number: 1-PL202-N
		Issue Date: 02/09/2018 · Checked: NPS · Drawn: DM	

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