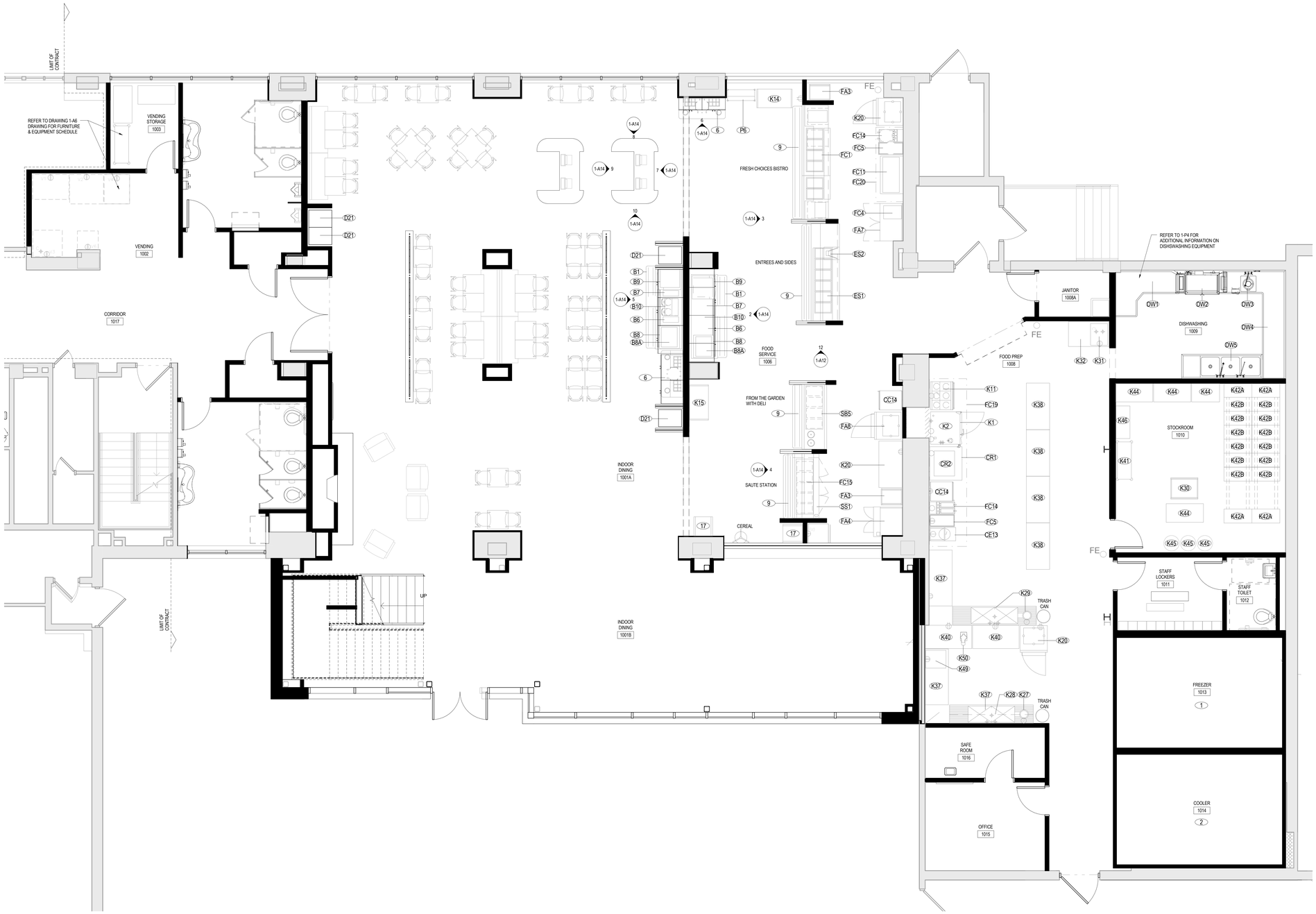
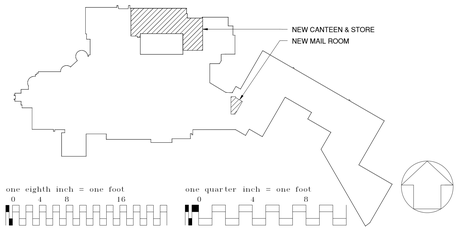


1 / 1-A16 OVERALL FOODSERVICE EQUIPMENT PLAN
1/4" = 1'-0"

GENERAL NOTES
CC = CONTRACTOR SUPPLY AND INSTALL
KC = CANTEEN SERVICES SUPPLY AND CONTRACTOR INSTALL
KK = CANTEEN SERVICES SUPPLY AND INSTALL

FOODSERVICE EQUIPMENT SCHEDULE

ITEM NO	DESCRIPTION	MODEL NO	SUPPLIER/INSTALLER
DINING			
D21	TRASH RECEPTACLE (SINGLE)	FABRICATED	CC
DISHWASHING			
DW1	CLEAN DISHTABLE CORNER	EAGLE GROUP CDTCL-84-16/3	CC
DW2	DISHWASHER	HOBART CL44e	CC
DW3	FOODWASTE DISPOSER	HOBART FD3/150	CC
DW4	SOILED DISHTABLE	EAGLE GROUP - VARIES	CC
DW5	THREE COMPARTMENT SINK	EAGLE GROUP FN2472-3-24L-14/3	CC
FOODSERVICE			
1	FREEZER	SEE SPECIFICATIONS	CC
2	COOLER	SEE SPECIFICATIONS	CC
6	CONDIMENT STAND	FABRICATED	CC
9	MENU BOARD	HOWARD	KC
17	TRAY DISPENSER	DUKE TTD-1216	KC
B1	BEVERAGE COUNTER	FABRICATED	CC
B6	COLD CUP DISPENSER	DISPENSE-RITE WR-CT-4	KC
B7	HOT CUP DISPENSER	DISPENSE-RITE WR-CT-3	KC
B8	BEVERAGE/ICE DISPENSER	PROVIDED BY COKE	KC
B8A	ICE MACHINE	HOSHIZAKI KMD-450MAH	KC
B9	GOLD PEAK TEA DISPENSER	PROVIDED BY COKE	KC
B10	COFFEE BREWER	FETCO CBS-2052e	KC
CC14	1 SECTION WARMER	ALTO SHAAM 1200-UP/STD	KC
CE13	BROASTER PRESSURE FRYER	BROASTER 1800E	KC
CR1	ROTISSERIE MERCHANDISING BASE	HENNY PENNY SCT-800	KC
CR2	ROTISSERIE COUNTERTOP ELECTRIC	HENNY PENNY SCR-6	KC
ES1	ENTREES & SIDES COUNTER	FABRICATED W/ 6 HOT WELLS	CC
ES2	CARVING STATION	ALTO SHAAM 100-HS/LTM	KK
FA3	BREAD RACK	HUBERT 13639	KC
FA4	DELI OVER WITH PROOFER	DOYON JAOP6-SL	KC
FA7	FREEZER WORK TABLE	TRUE TWT-48F	KC
FA8	REFRIIGERATOR WORK TABLE	TRUE TWT-60	KC
FC1	FRESH CHOICE BISTRO COUNTER	FABRICATED W/ 4 HOT/2 HOT-COLD	CC
FC4	TOASTER	TOASTMASTER TC1703	KC
FC5	DUMP TABLE W/ HEAT LAMP	FRYMASTER	KC
FC11	GRIDDLE	KEATING 48X30 E	KC
FC14	FRYER	FRYMASTER FPRE17	KC
FC15	INDUCTION RANGE (COUNTERTOP)	VOLLRATH 59500	KC
FC19	HOOD	CC ITEM - SEE SPECIFICATIONS	CC
FC20	HOOD	CC ITEM - SEE SPECIFICATIONS	CC
K1	COMBITHERM OVEN W/ LEGS	ALTO SHAAM 7-14ES	KC
K2	COMBITHERM OVEN W/ STACK KIT	ALTO SHAAM 7-14ES	KC
K11	RANGE W/ OVEN	VULCAN EV36-S-6FP-208	KC
K14	REFRIGERATED SELF-SERVER CASE	STRUCT CONCEPTS B42	KC
K15	REFRIGERATED SELF-SERVER CASE	STRUCT CONCEPTS B62	KC
K20	1 SECTION ROLL-IN REFRIGERATOR	TRUE TR1RRI-1S	KC
K27	FOOD PREP SINK W/ 2HP DISPOSER	CC ITEM - SEE SPECIFICATIONS	CC
K28	OVERHEAD SHELF	VCS BUYOUT	KC
K29	FOOD PREP SINK W/ 2HP DISPOSER	SEE SPECIFICATIONS	CC
K31	ICE MACHINE	HOSHIZAKI KM-901MAH	KC
K32	ICE BIN	HOSHIZAKI B-900PF	KC
K37	WORK TABLE W/ DRAWER AND OVERHEAD SHELF	VCS BUYOUT	KC
K38	WORK TABLE W/ DRAWER AND OVERHEAD SHELF	VCS BUYOUT	KC
K40	WORK TABLE W/ DRAWER	VCS BUYOUT	KC
K49	SLICER	GLOBE 3975	KC
K50	FOOD PROCESSOR	ROBOT COUPE R2DICE	KC
P6	BAKER'S RACK	HUBERT 95555	KC
SB5	SALAD/DELI CASE	FABRICATED W/ 4 COLD	CC
SS1	SAUTE STATION W/ INDUCTION	FABRICATED W/ 1 HOT/1 COLD	CC
STOCKROOM			
K30	CAN STORAGE RACK	WIN-HOLT EQUIP CR-162M	KC
K41	STORAGE SHELVES	VCS BUYOUT FROM METRO	KC
K42A	STATIONARY SHELVES	VCS BUYOUT FROM METRO	KC
K42B	MOBILE SHELVES	VCS BUYOUT FROM METRO	KC
K44	DUNNAGE RACK	VCS BUYOUT	KC
K45	CO2/SYRUP LINE CONDUIT	CC ITEM - SEE SPECIFICATIONS	CC
K46	BAG-IN-BOX SHELVES	VCS BUYOUT	KC



BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot
0 4 8 16

one quarter inch = one foot
0 4 8

REVISIONS	DATE

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048

SDVOSB Service-Disabled Veteran-Owned Small Business CVE Verified

DRAWING TITLE: FOOD SERVICE EQUIPMENT PLAN AND SCHEDULE

PROJECT TITLE: VA CANTEEN AND RETAIL RENOVATIONS

FACILITY PROJECT NAME: WILKES-BARRE V.A. MEDICAL CENTER

BUILDING NUMBER: 1 | CHECKED: JCB | DRAWN: KAL

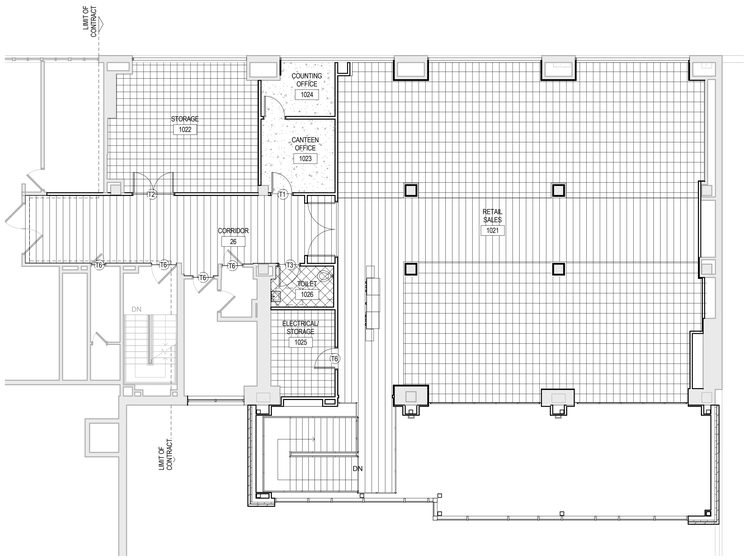
LOCATION: WILKES-BARRE, PA

DATE: 03-31-2014

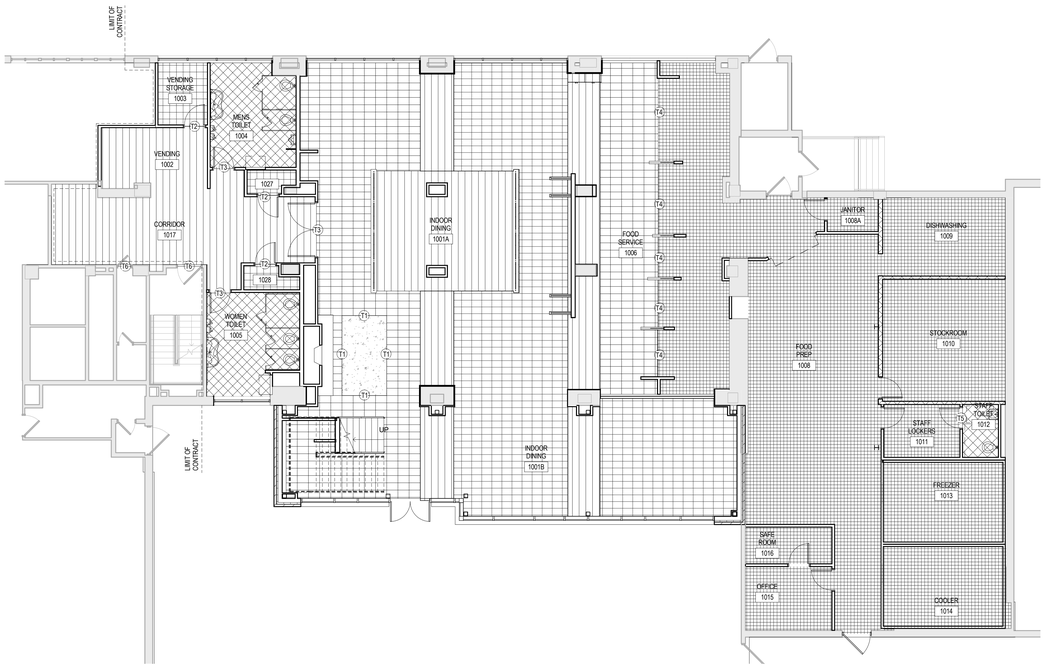
PROJECT NO. 693-12-110

DRAWING NO. DRAWING 1-A16 DWG. 20 OF 72

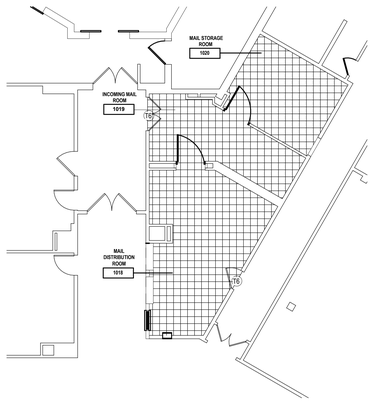
Veterans Affairs



2 / 1-A17 OVERALL FIRST FLOOR - FLOOR MATERIAL PLAN
1/8" = 1'-0"



1 / 1-A17 OVERALL BASEMENT FLOOR - FLOOR MATERIAL PLAN
1/8" = 1'-0"



3 / 1-A17 MAIL ROOM - FLOOR MATERIAL PLAN
1/8" = 1'-0"

ROOM FINISH SCHEDULE LEGEND

FLOOR REMARKS

R1: NOT USED
R2: SEE FLOOR PATTERN PLANS FOR VARYING MATERIALS.
R3: T=PT1A, R=PT1A, L=PT1A, S=PNT1
R4: PROVIDE QT FLOORING IN PRE-FABRICATED WALK-IN COOLER & FREEZER UNITS.
R5-R25: NOT USED

BASE REMARKS

R26: WALK-IN COOLER & FREEZER SHALL BE PRE-FABRICATED UNITS.
R27-R50: NOT USED

WALL REMARKS

R51: NOT USED
R52: SEE INTERIOR ELEVATIONS FOR VARYING WALL MATERIALS.
R53: PROVIDE ACCENT WALL.
R54: PROVIDE FULL HEIGHT CERAMIC ACCENT TILE AT SINK WALL
R55: WALL-IN COOLER & FREEZER SHALL BE PRE-FABRICATED UNITS.
R56-R75: NOT USED

CEILING REMARKS

R76: NOT USED
R77: SEE REFLECTED CEILING PLANS FOR VARYING CEILING MATERIALS AND HEIGHTS.
R78: PROVIDE ACCENT PAINT AT BULKHEADS.
R79: WALK-IN COOLER & FREEZER SHALL BE PRE-FABRICATED UNITS.
R80-R100: NOT USED

GENERAL NOTES

1. REFER TO SPECIFICATIONS FOR DETAILED DESCRIPTION OF FINISH SYSTEMS/TYPES.
2. REFER TO WALL TYPES FOR MASONRY LOCATIONS AND DETAILS.
3. GYPSUM WALLBOARD BULKHEADS AND SOFFITS SHALL BE PAINTED.
4. ALL HOLLOW METAL DOORS AND FRAMES, INTERIOR AND EXTERIOR, SHALL BE PAINTED.
5. ALL INTERIOR AND EXTERIOR FERROUS METAL SHALL BE PAINTED INCLUDING LINTELS, RAILINGS, GRILLES, AND LOUVERS. (DOES NOT INCLUDE FACTORY OR PRE-FINISHED ITEMS)
6. SEE FINISH PLANS FOR TRANSITIONS OF MATERIALS.

GENERAL NOTES

1. PROVIDE FLASH PATCHING FROM ALL MATERIALS FOR FLUSH TRANSITION OF ADJOINING MATERIAL.
2. REFER TO DRAWINGS 1-A5 FOR PATTERN OF FLOOR FINISHES. HATCHING ON THIS SHEET INDICATES MATERIALS ONLY.

FINISH LEGEND

MTRL.	DESCRIP.	MANUF.	STYLE/ COLOR	REMARKS
ACT1	ACOUSTICAL TILE CEILING	ARMSTRONG OR APPROVED EQUAL	ULTIMA, NO. 1951, SIZE: 24" X 24"	--
ACT2	ACOUSTICAL TILE CEILING	ARMSTRONG OR APPROVED EQUAL	OPTIMA, NO. 3251, SIZE: 24" X 24"	--
ACT3	ACOUSTICAL TILE CEILING	ARMSTRONG OR APPROVED EQUAL	CLEAN ROOM MYLAR, NO. 1715, SIZE: 24" X 24"	--
ACT4	ACOUSTICAL TILE CEILING	ARMSTRONG OR APPROVED EQUAL	OPTIMA, TECH ZONE, NO. 3256, SIZE: 48" X 48"	--
ACT5	ACOUSTICAL TILE CEILING	ARMSTRONG OR APPROVED EQUAL	OPTIMA, NO. 3261, SIZE: 24" X 72"	--
CPT1	MODULAR CARPET TILE	SHAW CONTRACT	PATTERN: JASPER TILE, NO. 14740 ZIRCON	INSTALLATION: MONOLITHIC
CPT2	MODULAR CARPET TILE	ATLAS CARPET MILLS	PATTERN: TAUSERT TILE, NO. 21RT POLISHED GREY	INSTALLATION: BRICK MONOLITHIC
CT	CERAMIC TILE	DAL-TILE	PATTERN: SEMI-GLOSS, NO. K165 ALMOND	SIZE: 6" X 6"
FRP	FIBERGLASS REINFORCED - CEILING	ALPHA SAN COMPOSITE	COLOR: WHITE, SIZE: 24" X 48"	--
PLAM1	PLASTIC LAMINATE - VERTICAL	WILSON ART	COLOR: 7953-38 HARVEST MAPLE	--
PLAM2	PLASTIC LAMINATE - COUNTERTOP	WILSON ART	COLOR: 4853-38 MISSION STONE	--
PNT1	PAINT- FIELD	SHERWIN WILLIAMS	COLOR: KILIM BEIGE, NO. SW6106	--
PNT2	PAINT- ACCENT	SHERWIN WILLIAMS	COLOR: VIRTURAL TAUPE, NO. SW7039	--
PNT3	PAINT- ACCENT	SHERWIN WILLIAMS	COLOR: SVELTE SAGE, NO. SW6164	--
PNT4	PAINT- ACCENT	SHERWIN WILLIAMS	COLOR: ESCAPE GRAY, NO. SW6185	--
PNT5	PAINT- ACCENT	SHERWIN WILLIAMS	COLOR: DIVINE WHITE, NO. SW6105	--
PNT6	PAINT- HOLLOW METAL FRAME	SHERWIN WILLIAMS	COLOR: KILIM BEIGE, NO. SW6106	ALL LOCATIONS UNLESS NOTED OTHERWISE
PNT7	PAINT- HOLLOW METAL FRAME	SHERWIN WILLIAMS	COLOR: VIRTURAL TAUPE, NO. SW7039	ROOMS: 1001A (INTERIOR FACE) 1008, 1008A, 1010, 1011, 1012, 1015, 1016, 1018, 1019, 1020.
PSTR	PAINTED STRUCTURE	SHERWIN WILLIAMS	COLOR: DIVINE WHITE, NO. SW6105	--
PT1	PORCELAIN TILE	DAL-TILE	PATTERN: MONT BLANC, NO. P236 D'ALPE	SIZE: 12" X 24"
PT1A	PORCELAIN TILE	DAL-TILE	PATTERN: MONT BLANC, NO. P236 D'ALPE	SIZE: 12" X12" FOR STAIR APPLICATION
PT2	PORCELAIN TILE	DAL-TILE	PATTERN: VERANDA, NO. P505 SAND	SIZE: 6.5" X 6.5"
PT3	PORCELAIN TILE	DAL-TILE	PATTERN: VERANDA, NO. P505 SAND	SIZE: 13" X 20"
PT4	PORCELAIN TILE	DAL-TILE	PATTERN: VERANDA, NO. P525 RAWHIDE	SIZE: 6.5' X 20"
PT5	PORCELAIN TILE	GARDEN STATE TILE	PATTERN: MARINA, NO. WALNUT	SIZE: 5" X 36"
PT6	PORCELAIN TILE	LAMINAM BY CROSSVILLE	PATTERN: I NATURALI, NO. L2224 TRAVERTINO AVORIO	SIZE: 39" X 118"
PT7	PORCELAIN TILE	LAMINAM BY CROSSVILLE	PATTERN: BLENDS, NO. L2049 NOCE	SIZE: 39" X 118"
PT8	PORCELAIN TILE	DAL-TILE	PATTERN: FASHION ACCENTS, NO. F015 ILLUMINI LAKE	SIZE: 5/8" X 3" RANDOM
PT9	PORCELAIN TILE	AMERICAN OLEAN	PATTERN: DESIGNER ELEGANCE, NO. DE87 BROWN	SIZE: 2" X 12" SIDEWALK ACCENT
QT	QUARRY TILE	METROPOLITAN CERAMICS	PATTERN: ECO QUARRY, NO. 507 PURITAN GRAY	SIZE: 6" X 6"
QS1	QUARTZ SURFACE - BASE	CAMBRIA	PATTERN: DESERT COLLECTION, NO. 2095 SUSSEX	SIZE: 8" X 24"
QS2	QUARTZ SURFACE	CAMBRIA	PATTERN: DESERT COLLECTION, NO. 2095 SUSSEX	COUNTERTOPS AND WALL CAPS
QS3	QUARTZ SURFACE	CAMBRIA	PATTERN: CLASSIC COLLECTION , NO. 0210 CARDIFF CREAM	WINDOW STOOLS AND WALL CAPS
RB1	RUBBER BASE	JOHNSONITE OR APPROVED EQUAL	COLOR: TO BE DETERMINED	--
RP1	RESINOUS PANEL	3-FORM	PATTERN: LINEA IVORY, FINISH: SANDSTONE	--
RP2	RESINOUS PANEL	3-FORM	PATTERN: BIRCH GROVE, FINISH: SANDSTONE	--
RP3	RESINOUS PANEL	3-FORM	PATTERN: BIRCH GROVE + FJORD 2, FINISH: SANDSTONE	--
VCT	VINYL COMPOSITION TILE	ARMSTRONG	PATTERN: STANDARD EXCELON, NO. 51858 SANDRIFT WHITE	INSTALLATION: MONOLITHIC
WD	WOOD CEILING SYSTEM	ARMSTRONG	WOODWORKS LINEAR, NO. NLC LIGHT CHERRY	--
WP	WOOD PANELING SYSTEM	ARMSTRONG	WOODWORKS WALLS, NO. LIGHT CHERRY	--

ROOM FINISH SCHEDULE

NUMBER	NAME	FLOOR	BASE	WALLS: WALL FINISH	WALLS: WAINSCOT FINISH	WALLS: WAINSCOT HEIGHT	CEILING FINISH	REMARKS
BASEMENT								
1001A	INDOOR DINING	PT1/PT5/CPT2	QS1/PT4	PNT1/PT3/PT4/PT6/PT7/PT8/WP/STONE	--	--	ACT5/WD/PNT1/PNT3	R2, R52, R77, R78
1001B	INDOOR DINING	PT1/PT5	QS1/PT4	PNT1/PNT3/WP/STONE	--	--	ACT3/WD/PNT1	R2, R3, R52, R77, R78
1002	VENDING	PT5	QS1	PT6	--	--	ACT2/PNT2	R77, R78
1003	VENDING STORAGE	VCT	RB	PNT1	--	--	ACT1	
1004	MENS TOILET	PT2	PT3	PNT3/PT8	PT3	6'-0"	ACT1	R52, R54
1005	WOMEN TOILET	PT2	PT3	PNT4/PT8	PT3	6'-0"	ACT1	R52, R54
1006	FOOD SERVICE	PT1/PT5/QT	QS1/QT	PT3/PT4/PT6/PT8	--	--	ACT2/ACT3/PNT3	R2, R52, R77, R78
1008	FOOD PREP	QT	QT	CT	--	--	FRP	
1008A	JANITOR	QT	QT	PNT1	--	--	PSTR	
1009	DISHWASHING	QT	QT	CT	--	--	FRP	
1010	STOCKROOM	QT	QT	PNT1	--	--	FRP	
1011	STAFF LOCKERS	PT2	PT2	CT	--	--	ACT1	
1012	STAFF TOILET	PT2	PT2	CT	--	--	ACT1	
1013	FREEZER	QT	*	*	--	--	*	R4, R26, R55, R79
1014	COOLER	QT	*	*	--	--	*	R4, R26, R55, R79
1015	OFFICE	QT	QT	PNT1	--	--	ACT1	
1016	SAFE ROOM	QT	QT	PNT1	--	--	ACT1	
1017	CORRIDOR	PT5	QS1	PT6	--	--	ACT4/PNT2	R77, R78
1018	MAIL DISTRIBUTION ROOM	VCT	RB	PNT1/PNT4	--	--	ACT1	R53
1019	INCOMING MAIL ROOM	VCT	RB	PNT1	--	--	ACT1	R53
1020	MAIL STORAGE	VCT	RB	PNT1	--	--	ACT1	
1027	Room	VCT	RB	PNT1	--	--	PSTR	
1028	Room	VCT	RB	PNT1	--	--	PSTR	
FIRST FLOOR								
26	CORRIDOR	PT5	QS1	PT6	--	--	ACT4/PNT2	R77, R78
1021	RETAIL SALES	PT1/PT5	QS1	PNT1/PNT2/PNT4	--	--	ACT2/WD/PNT1/PNT4	R2, R3, R52, R77, R78
1022	STORAGE	VCT	RB	PNT1	--	--	ACT1	
1023	CANTEEN OFFICE	CPT1	RB	PNT1/PNT4	--	--	ACT1	R53
1024	COUNTING OFFICE	CPT1	RB	PNT1/PNT4	--	--	ACT1	R53
1025	ELECTRICAL/ STORAGE	VCT	RB	PNT1	--	--	ACT1	
1026	TOILET	PT2	PT3	PNT4/PT8	PT3	6'-0"	ACT2	R52, R54

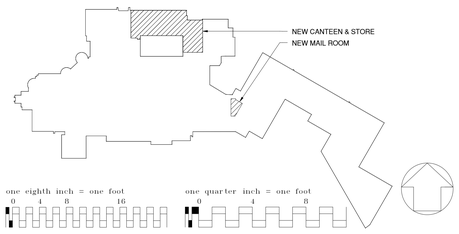
FLOORING LEGEND

- CARPET
- PORCELAIN TILE: 6X6
- PORCELAIN TILE: 13X20
- PORCELAIN TILE: 5x36
- QUARRY TILE
- VINYL COMPOSITION TILE

TRANSITION SCHEDULE AS INDICATED ON FLOOR MATERIAL DRAWINGS

NO.	TRANSITION	MATERIAL	TRANSITION BY
T1	PORCELAIN TILE TO CARPET	SCHLUTER, NO. SCHIENE	PORCELAIN TILE
T2	PORCELAIN TILE TO RESILIENT	JOHNSONITE NO. CTA-Z	RESILIENT
T3	PORCELAIN TILE TO PORCELAIN TILE	MARBLE	PORCELAIN TILE
T4	PORCELAIN TILE TO QUARRY TILE	NONE - FLUSH TRANSITION	N/A
T5	PORCELAIN TILE TO QUARRY TILE (@ 1012)	MARBLE	PORCELAIN TILE
T6	PORCELAIN TILE TO EXISTING	VERIFY IN FIELD	PORCELAIN TILE

SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



BID DOCUMENTS
MARCH 31, 2014

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one quarter inch = one foot
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REVISIONS	DATE

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048

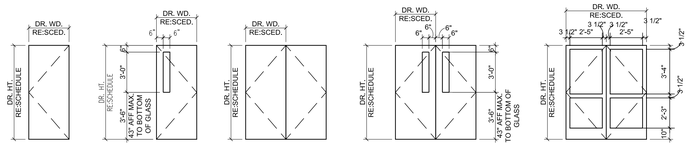
SDVOSB Service-Disabled Veteran-Owned Small Business cVe

DRAWING TITLE: ROOM FINISH SCHEDULE
PROJECT TITLE: VA CANTEEN AND RETAIL RENOVATIONS
DATE: 03-31-2014
PROJECT NO. 693-12-110
FACILITY PROJECT NAME: WILKES-BARRE V.A. MEDICAL CENTER
BUILDING NUMBER: 1
CHECKED: JCB
DRAWN: MER
LOCATION: WILKES-BARRE, PA
DRAWING NO. DRAWING: 1-A17
DWG. 21 OF 72

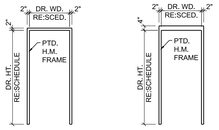
Veterans Affairs

DOOR AND FRAME SCHEDULE																	
OPENING NUMBER	DOOR & FRAME U.L. RATING	DOOR					FRAME						HDWR. SET	GLAZING	SPECIAL DETAIL	REMARKS
		DOOR TYPE	DOOR MATERIAL	SIZE			THK	FRAME TYPE	FRAME MATERIAL	DETAILS						
				WIDTH		HEIGHT				HEAD	JAMB	SILL				
				LEAF 1	LEAF 2											
BASEMENT LEVEL																
1001A	90 MIN.	D	WD	4 - 0"	4 - 0"	7' -0"	1 3/4"	1	HM	9/1-A34	10/1-A19	11/1-A34	HW-12	1/4" SAFETY		1
1001B		E	ALUM	3' - 0"	3' -0"	7' -0"	1 3/4"	A1	ALUM	12/1-A34	13/1-A19	14/1-A19	HW-E1	5/8" TEMP. INSU.		3
1003	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5	-		
1004	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-1	-		
1004A	20 MIN.	A	WD	3' - 0"		7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5			
1005	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-1	-		
1005A	20 MIN.	A	WD	3' - 0"		7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5			
1006	90 MIN.	B	HM	4' - 0"	-	7' -0"	1 3/4"	2	HM	1/1-A34	2/1-A19		HW-4D	1/4" SAFETY		
1008A		A	HM	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5	-		
1010		A	HM	3' - 0"	-	7' -0"	1 3/4"	2	HM	7/1-A34	8/1-A19		HW-5	-		
1011		A	HM	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5A	-		2
1012		A	HM	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-2	-		2
1015		A	HM	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-3	-		
1016		A	HM	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5	-		
1017A	5/8" TEMP. INSU.	B	HM	3' - 0"		7' -0"	1 3/4"	2	HM	1/1-A34	2/1-A19		HW-E2	5/8" TEMP. INSU.		
1019		A	HM	4' - 0"		7' -0"	1 3/4"	2	HM	1/1-A34	2/1-A19		HW-5B			
1020		A	HM	4' - 0"		7' -0"	1 3/4"	2	HM	1/1-A34	2/1-A19		HW-5B			
FIRST FLOOR																
1021	90 MIN.	D	WD	4' - 0"	4' -0"	7' -0"	1 3/4"	1	HM	9/1-A34	10/1-A19		HW-12	1/4" SAFETY		1
1022	20 MIN.	C	HM	3' - 0"	3' -0"	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-11A			
1023	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-3	-		
1024		A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-3	-		
1025	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	1/1-A34	2/1-A19		HW-5	-		
1026	20 MIN.	A	WD	3' - 0"	-	7' -0"	1 3/4"	1	HM	20/1-A34	6/1-A19		HW-2			

DOOR NOTES:
1. DOORS MAGNETICALLY HELD OPEN. INTEGRATE WITH THE FIRE ALARM SYSTEM TO AUTOMATICALLY CLOSE DOORS UPON ALARM ACTIVATION
2. UNDERCUT DR. 1"
3. DOOR IN ALUMINUM ASSEMBLY A1.A

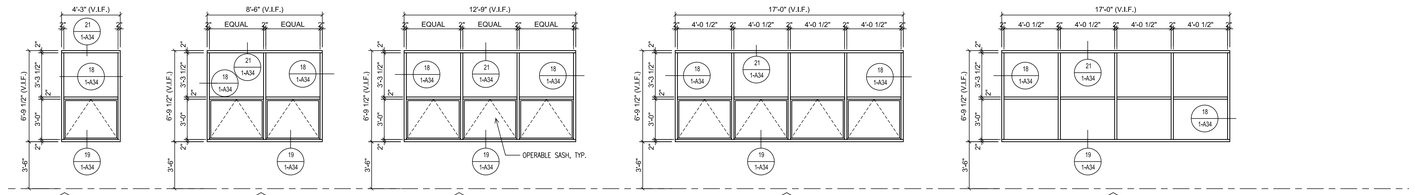


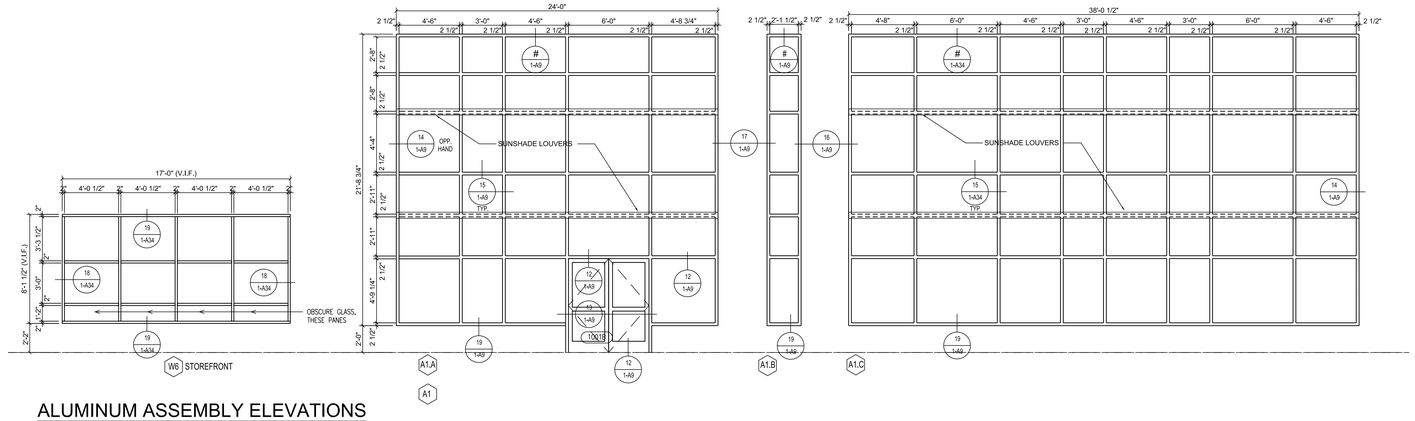
DOOR TYPES
SCALE: 1/4" = 1'-0"



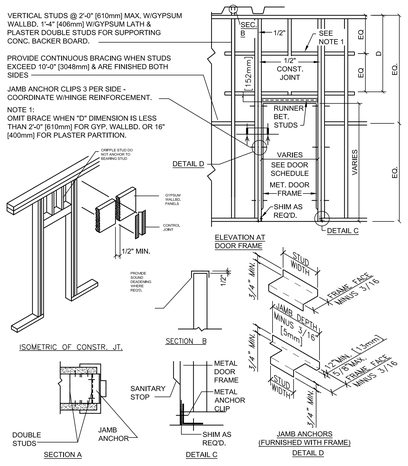
FRAME TYPES
SCALE: 1/4" = 1'-0"

NOTE:
SEE CURTAINWALL ELEVATIONS FOR DOORS WHICH ARE PART OF ALUMINUM ASSEMBLIES.

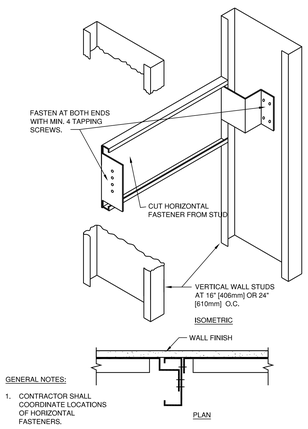




ALUMINUM ASSEMBLY ELEVATIONS
SCALE: 1/4" = 1'-0"

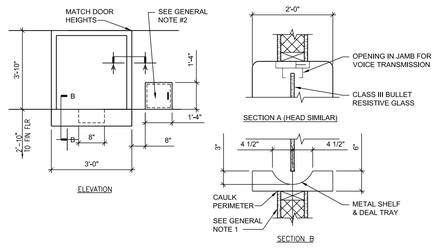


FRAMING DETAILS
SCALE: 1/2" = 1'-0"



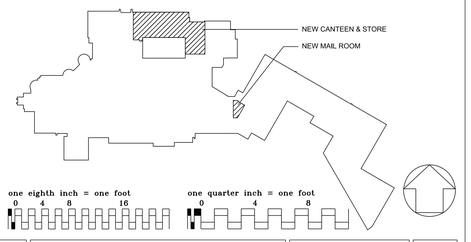
GENERAL NOTES:
1. CONTRACTOR SHALL COORDINATE LOCATIONS OF HORIZONTAL FASTENERS.

TYP. BLOCKING DETAIL - GRAB BARS AND CABINETS
NTS



GENERAL NOTES:
1. 4" [102mm] OR 6" [152mm] SOLID CMU WALL w/ GYP. WALLBOARD BOTH SIDES. MASONRY WALL IS TO EXTEND TO CEILING, ABOVE CEILING EITHER A MASONRY OR GYPSUM WALLBOARD PARTITION MUST EXTEND TO UNDERSIDE OF SLAB ABOVE AROUND ENTIRE INTERIOR PHARMACY WALL. WHERE MASONRY CONSTRUCTION IS NOT FEASIBLE, PLASTIC OR LAMINATED GLASS PRODUCTS WHICH PROVIDE THE ACCEPTABLE LEVEL OF PROTECTION MAY BE USED.
2. PROVIDE AN INTERLOCK ON PACKAGE TRANSFER DOORS SO THAT BOTH DOORS CANNOT BE OPEN AT THE SAME TIME.

PACKAGE TRANSFER DETAILS



BID DOCUMENTS
MARCH 31, 2014

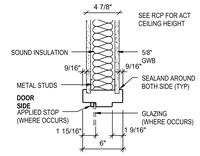
Revisions	Date

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048

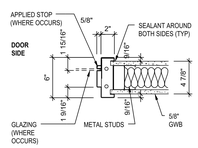
SDVOSB CVE

Drawing Title: DOOR SCHEDULE WINDOW & ALUMINUM ASSEMBLY ELEVATIONS
Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER
Project Title: CONSTRUCT CANTEEN & RETAIL STORE
Location: WILKES-BARRE, PENNSYLVANIA
Building Number: 1
Checked: PEP
Drawn: DJS
Date: 03/31/2014
Project No.: 693-12-110
DRAWING NO. DRAWING 1-A18
DWG. 22 OF 72

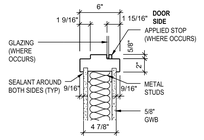
Veterans Affairs



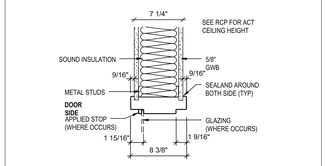
1 1-A34 HM INTERIOR HEAD - 3 5/8" STUD



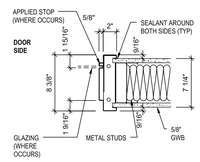
2 1-A34 HM INTERIOR JAMB - 3 5/8" STUD



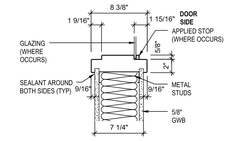
3 1-A34 HM INTERIOR SILL - 3 5/8" STUD



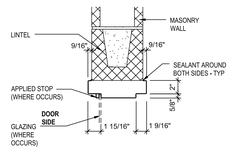
4 1-A34 HM INTERIOR HEAD - 6" STUD



5 1-A34 HM INTERIOR JAMB - 6" STUD



6 1-A34 HM INTERIOR SILL - 6" STUD



7 1-A34 HM INTERIOR HEAD IN CMU

8 1-A34 HM INTERIOR JAMB IN CMU WALL

9 1-A34 ALUM. INTERIOR HEAD - 3 5/8" STUD

10 1-A34 ALUM. INTERIOR JAMB - 3 5/8" STUD

11 1-A34 ALUM. INTERIOR SILL

12 1-A34 ALUM. CURTAIN WALL HORIZ. MULLION

13 1-A34 ALUM. CURTAIN WALL JAMB

14 1-A34 ALUM. EXTERIOR SILL

15 1-A34 ALUM. CURTAIN WALL MULLION

16 1-A34 ALUM. CURTAIN WALL CORNER

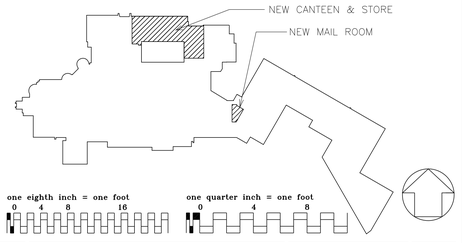
17 1-A34 ALUM. CURTAIN WALL CORNER

18 1-A34 ALUM. EXTERIOR JAMB - EXIST. WALL

19 1-A34 ALUM. EXTERIOR SILL - EXIST. WALL

20 1-A34 H.M. HEAD IN MASONRY WALL

21 1-A34 ALUM. HEAD IN EXIST. EXT'R. WALL



BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot
0 4 8 16

one quarter inch = one foot
0 4 8

Revisions	Date

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6046

SDVOSB Service-Disabled Veteran-Owned Small Business CVE

Drawing Title: DOOR, WINDOW & CURTAINWALL FRAME DETAILS

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Date: 03/31/2014

Project No.: 693-12-110

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Building Number: 1 | Checked: PEP | Drawn: DJS

Location: WILKES-BARRE, PENNSYLVANIA

DRAWING NO. DRAWING 1-A19
DWG. 23 OF 72

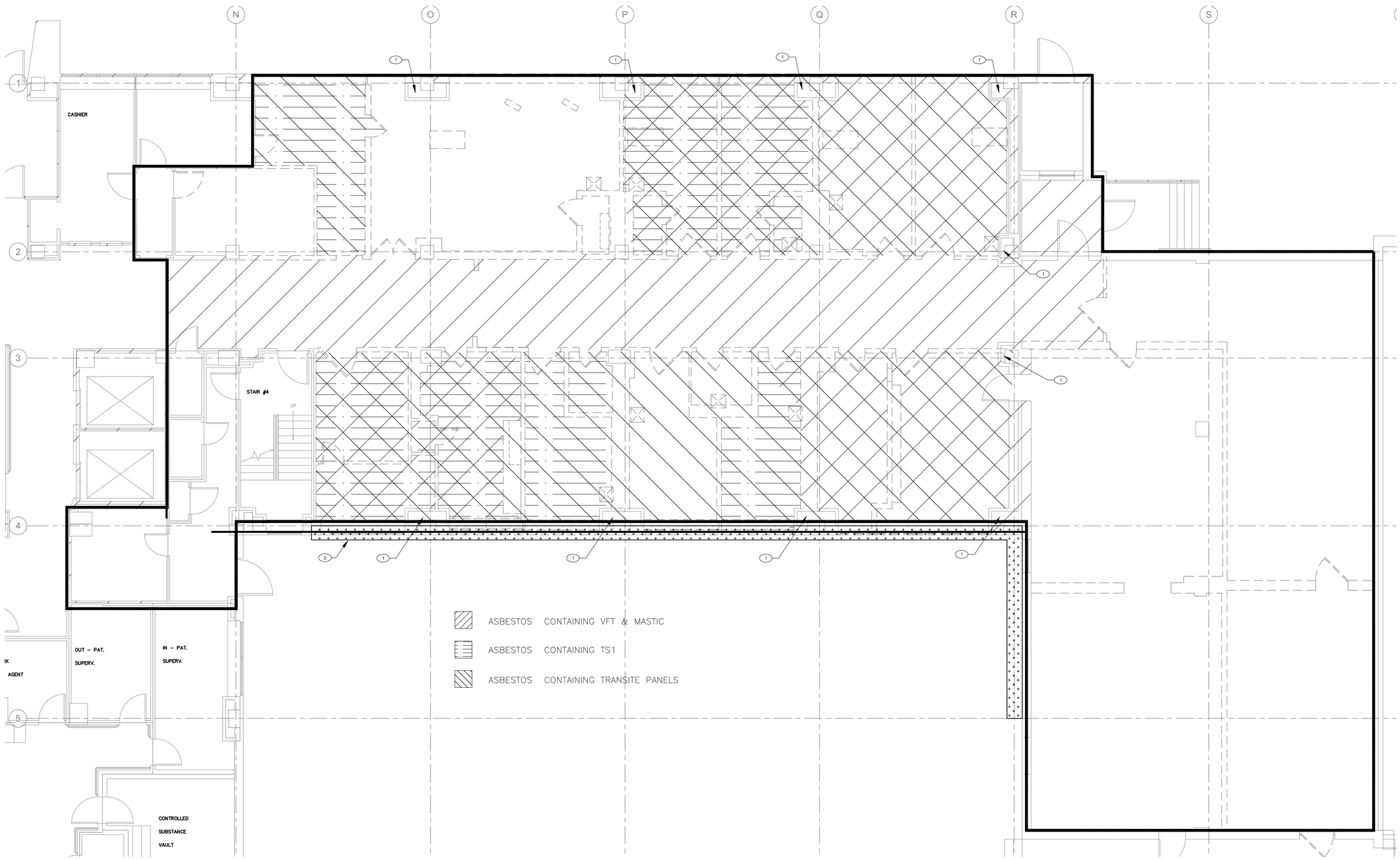
Veterans Affairs

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

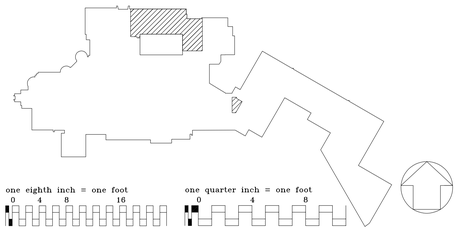
(1) ENCLOSURE CONTAINS FOUR PIPES AT 30 FEET THAT CONTAIN ASBESTOS.

(2) 3,500 SF OF ASBESTOS CONTAIN MASTIC UNDER EXTERIOR BRICK.



EXISTING BASEMENT PLAN - AREAS HAVING ASBESTOS CONTAINING MATERIALS

1/4"=1'-0"



BID DOCUMENTS
MARCH 31, 2014

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0 4 8

ENGINEER

BARRY ISETT & ASSOCIATES, INC.
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SEAL

COMMONWEALTH OF PENNSYLVANIA
REGISTERED PROFESSIONAL
JOSEPH J. WAKDA
ENGINEER
No. PE-062454-E

Revisions | Date

DELAWARE ARCHITECTS, LLC
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SDVOSB Service-Disabled Veteran-Owned Small Business cVe

Drawing Title: EXISTING BASEMENT PLAN AREAS HAVING ASBESTOS CONTAINING MATERIALS

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Date: 03/31/2014

Project No.: 693-12-110

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Building Number: 1

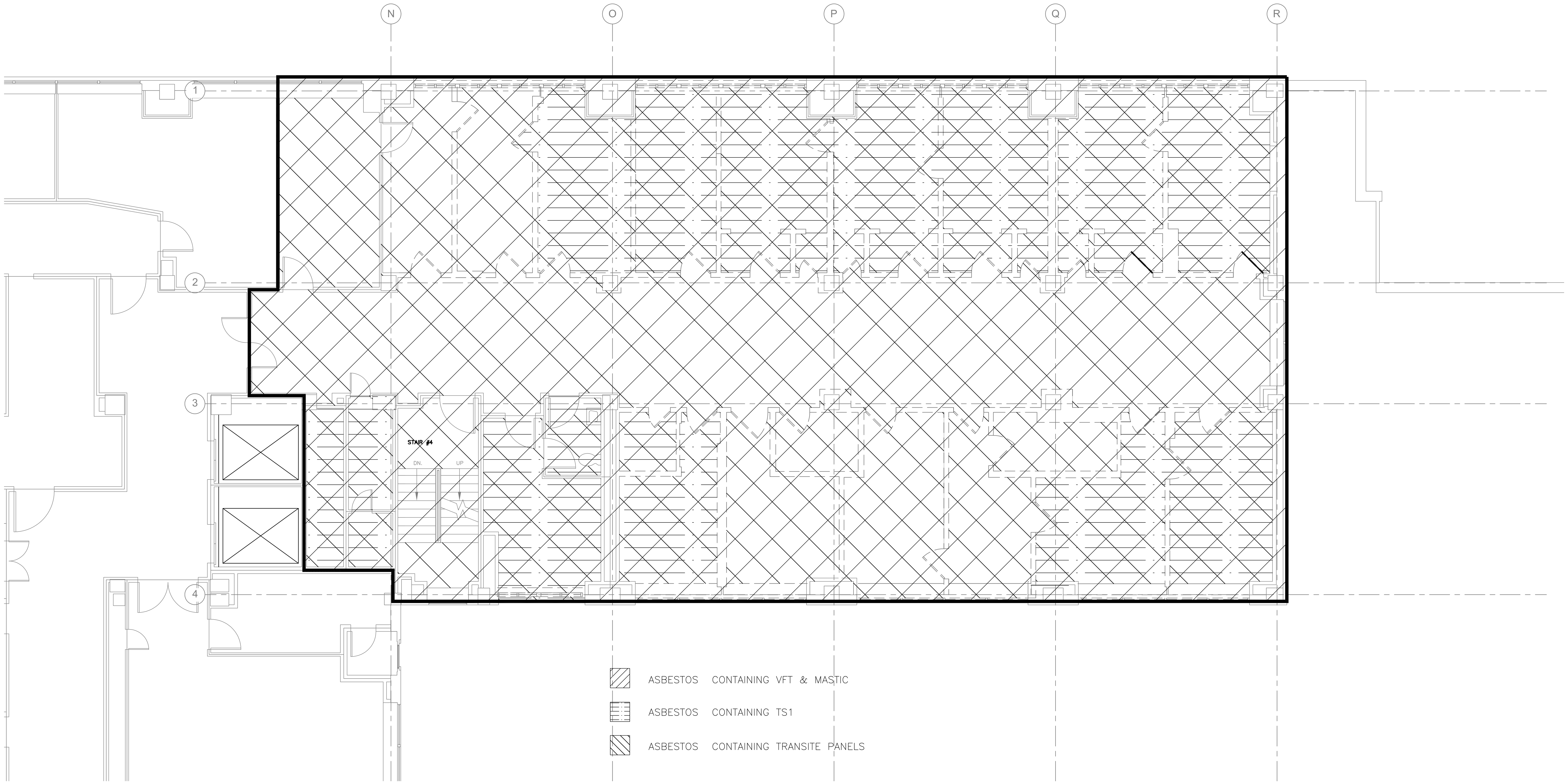
Checked: LJM

Drawn: JJW

Location: WILKES-BARRE, PENNSYLVANIA 18711

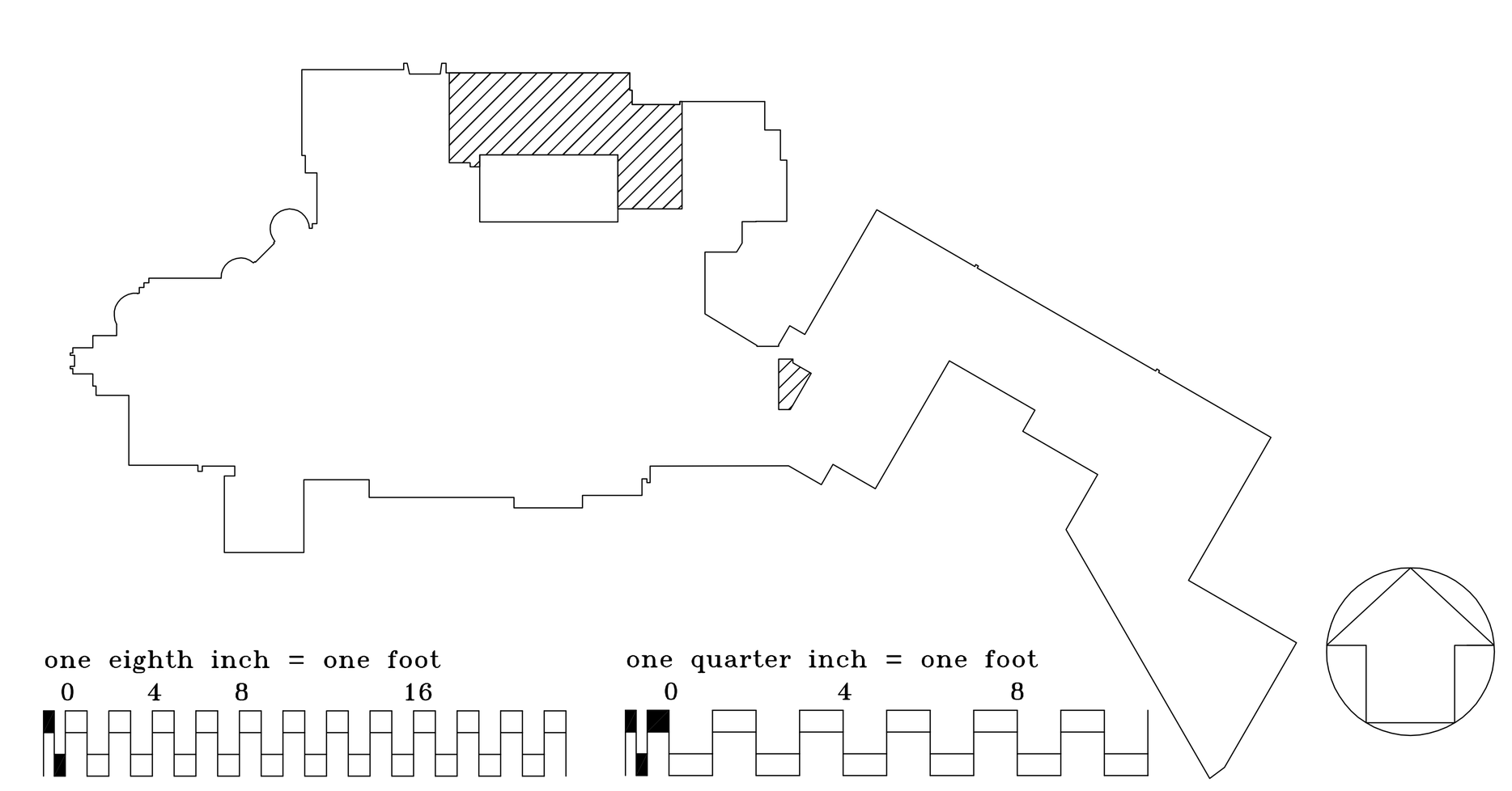
DRAWING NO.
DRAWING 1-ACM1
DWG. 24 OF 72

Veterans Affairs



EXISTING FIRST FLOOR PLAN - AREAS HAVING ASBESTOS CONTAINING MATERIALS

1/4"=1'-0"



BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot 0 4 8 16

one quarter inch = one foot 0 4 8

ENGINEER BARRY ISETT & ASSOCIATES, INC. Multidiscipline Engineers & Consultants Allentown, PA 610.398.0904 Hazleton, PA 570.455.2999 Valley Forge, PA 610.935.2175 Phillipsburg, NJ 908.454.9500 Berlin, MD 410.629.0883 www.barryisett.com	SEAL COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL JOSEPH L. WAKDA ENGINEER No. PE-062454	Revisions / Date	DELAWARE ARCHITECTS, LLC 550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963 Office - 302-491-6047 Fax - 302-491-6048 Service Disabled Veteran Owned Small Business SDVOSB CVE	Drawing Title EXISTING FIRST FLOOR PLAN AREAS HAVING ASBESTOS CONTAINING MATERIALS Facility Project Name WILKES-BARRE V.A. MEDICAL CENTER	Project Title CONSTRUCT CANTEEN & RETAIL STORE Building Number 1 / Checked LJM / Drawn JJW Location WILKES-BARRE, PENNSYLVANIA 18711

Date	03/31/2014
Project No.	693-12-110
DRAWING NO. DRAWING	1-ACM2
DWG.	25 OF 72

Veterans Affairs

LIVE LOADS — APPLICABLE CODE IBC 2009

FLOOR LIVE LOADS

LIVE LOAD:	N/A
CORRIDOR LIVE LOAD:	N/A
STAIRWAY LIVE LOAD:	100
MECHANICAL ROOM LIVE LOAD:	N/A
MECHANICAL UNIT LOAD:	See Mechanical Drawings
HANDRAILS, GUARDS AND GRAB BARS	In Accordance with Table 1607.1 and Section 1607.7 of IBC 2009

FLOOD LOADS — Not Applicable

ROOF LOAD

ROOF LIVE LOAD:	20 psf
ROOF SNOW LOAD:	40 psf
GROUND SNOW LOAD - Pg:	40 psf
FLAT ROOF SNOW LOAD - Pf:	40 psf
TERRAIN CATEGORY:	B
SNOW EXPOSURE FACTOR - Ce:	1.2
SNOW LOAD IMPORTANCE FACTOR - Is:	1.1
ROOF THERMAL FACTOR - Ct:	1.0
ROOF SLOPE FACTOR - Cs	1.0

SNOW LOAD CONTROLS ROOF DESIGN

WIND LOAD

BASIC WIND SPEED - V:	90 mph
WIND EXPOSURE CATEGORY:	B
WIND LOAD IMPORTANCE FACTOR - Iw:	1.15
INTERNAL PRESSURE COEFFICIENT - GCpi:	0.18
MAIN WIND FORCE RESISTING SYSTEM - P:	15 psf
NET ROOF UPLIFT	0

COMPONENTS & CLADDING SHALL BE DESIGNED IN ACCORDANCE WITH SECTION 6.5.12.4 OF ASCE 7-05: "MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES"

SEISMIC LOAD

SEISMIC IMPORTANCE FACTOR - Ie:	1.25
MAPPED RESPONSE ACCELERATION - Ss:	0.26
MAPPED RESPONSE ACCELERATION - S1:	0.06
SITE CLASS:	D
SPECTRAL RESPONSE COEFF. - Sds (SHORT TERM):	0.28
SPECTRAL RESPONSE COEFF. - Sd1 (1-SECOND PERIOD):	0.10
SEISMIC DESIGN CATEGORY:	B
SEISMIC - FORCE - RESISTING SYSTEM:	Steel Systems Not Specifically Detailed for Seismic Resistance
SEISMIC RESISTING SYSTEM	All Cases
DESIGN BASE SHEAR - V:	5.1 k
SEISMIC RESPONSE COEFF. - Cs:	0.115
RESPONSE MODIFICATION FACTOR - R:	3.0
DEFLECTION AMPLIFICATION FACTOR - Cd	3.0
ANALYSIS PROCEDURE:	Equivalent Lateral Force Procedure

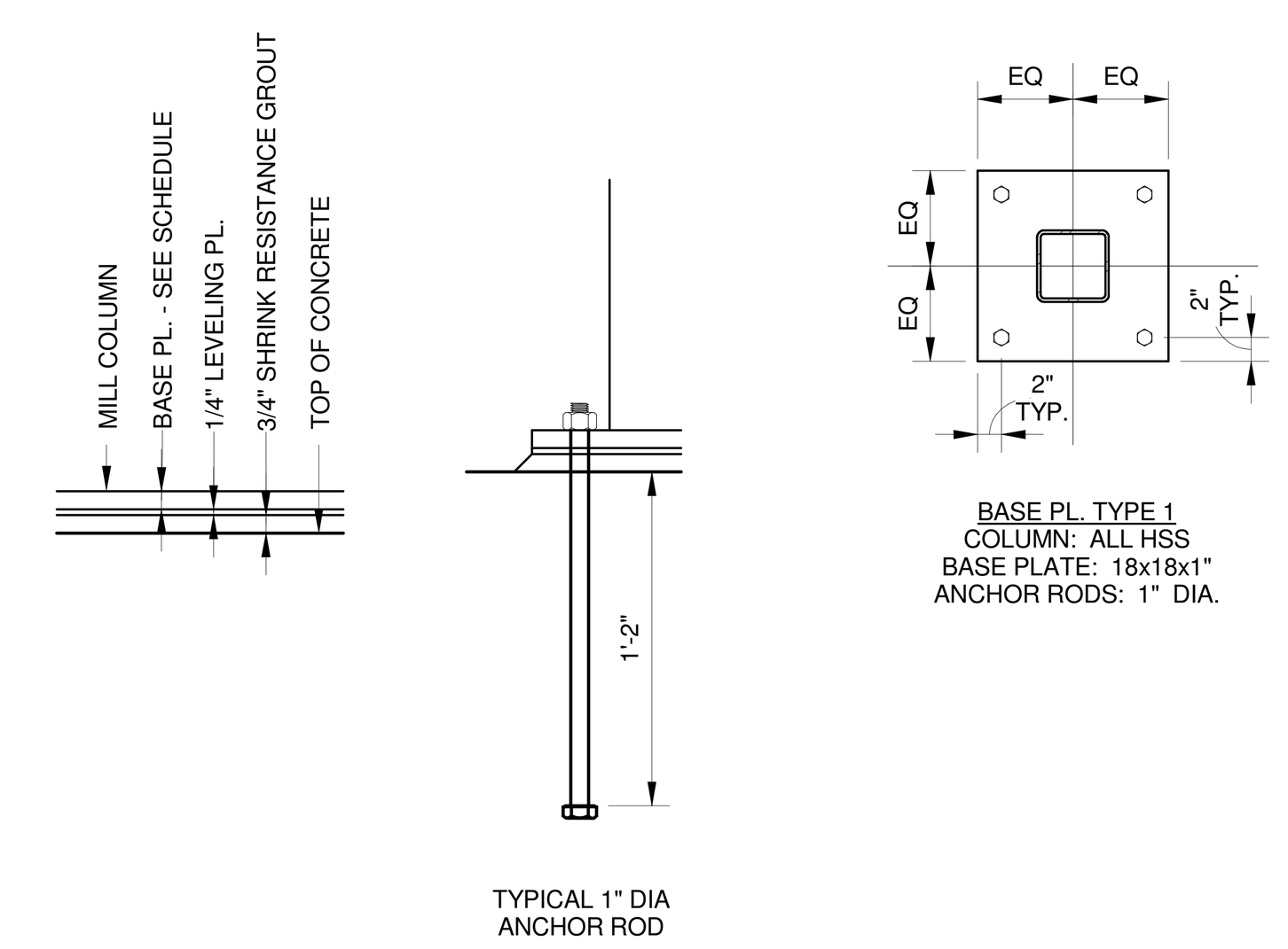
COLUMN SCHEDULE

Second Floor 12'-10 1/4"	HSS7x7x3/8	HSS7x7x3/8	HSS7x7x3/8	Second Floor 12'-10 1/4"
First Floor 0"				First Floor 0"
Basement -14'-0"				Basement -14'-0"
Column Locations	A-1.1, A-2.8, A-X2	B-2.8, B-3.3, B-4.1	C-1.1, C-4.1, C-X2, C-X3	

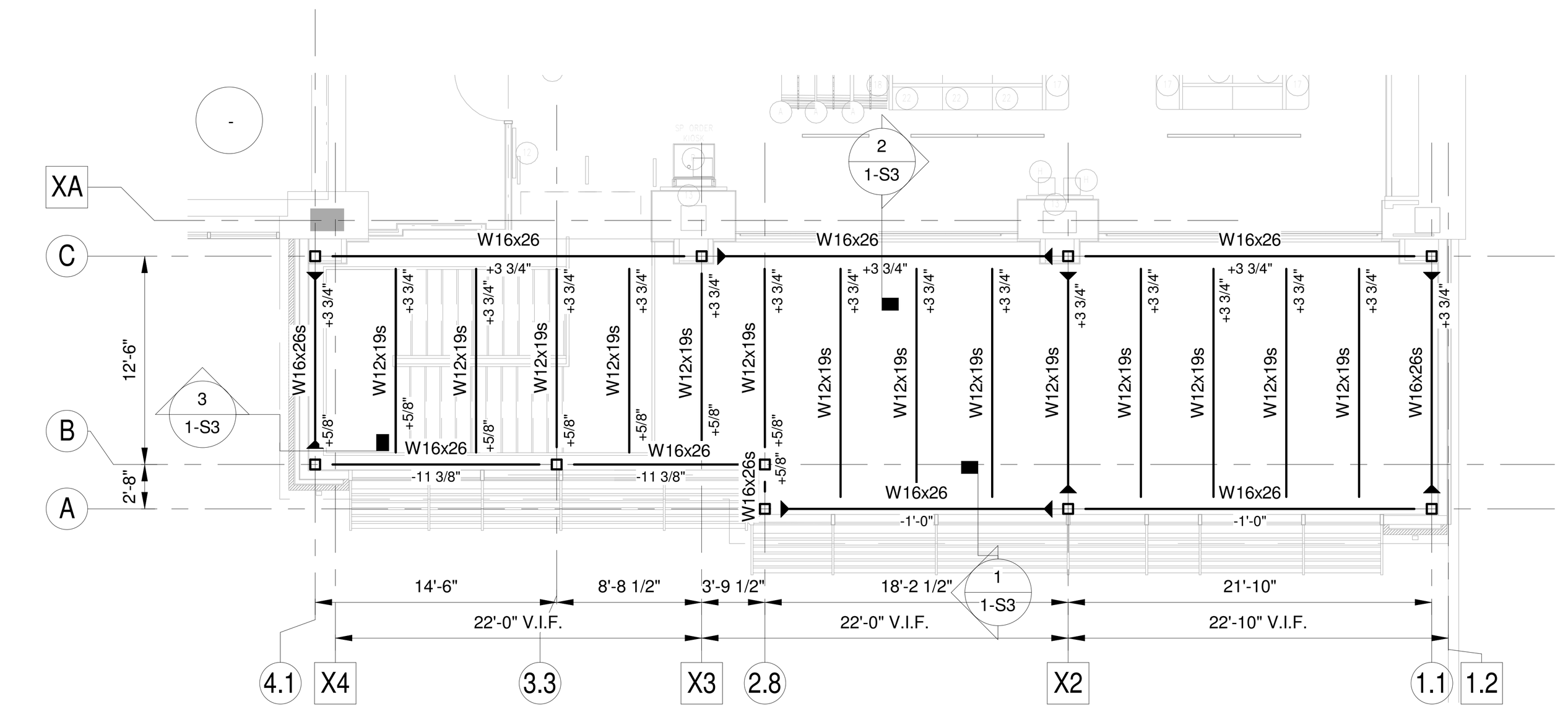
MOMENT CONNECTION
► DENOTES MOMENT CONNECTION TO BE DESIGNED BY FABRICATOR FOR BEAM MOMENT CAPACITY
REACTIONS
ALL BEAM CONNECTIONS TO BE DESIGNED FOR 12k MIN. UNLESS NOTED OTHERWISE

Abbreviation List

A.F.F.	Above Finish Floor	L	Angle
BCX	Bottom Chord Extension	LG	Long
B.O.F.	Bottom of Footing	LLH	Long Leg Horizontal
B.S.	Brick Shelf Elevation (plans)	LLV	Long Leg Vertical
B.S.	Both Sides (sections)	LSH	Long Side Horizontal
CANT.	Cantilever	LSV	Long Side Vertical
CJ	Control Joints	N.T.S.	Not To Scale
CL	Center Line	o.c.	On Center
CMU	Concrete Masonry Units	PL	Plate
CONT.	Continuous	REINF.	Reinforcing
DIA.	Diameter	S.F.	Step Footing
DBA	Deformed Bar Anchor	STIFF PL	Stiffener Plate
E.E.	Each End	T.B.R.	To Be Removed
E.F.	Each Face	T&B	Top and Bottom
E.S.	Each Side	T.F.	Top of Footing
E.W.	Each Way	T.O.S.	Top of Steel
EXIST	Existing	T.O.W.	Top of Wall
F.F.	Finish Floor	T.P.	Top of Pier
F.S.	Flat Strap	TYP	Typical
GA	Gage	U.N.O.	Unless Noted Otherwise
GALV	Galvanized	VERT.	Vertical
HORIZ	Horizontal	WWF	Welded Wire Fabric
HSS	Hollow Structural Section	XE	Extended End - Type R



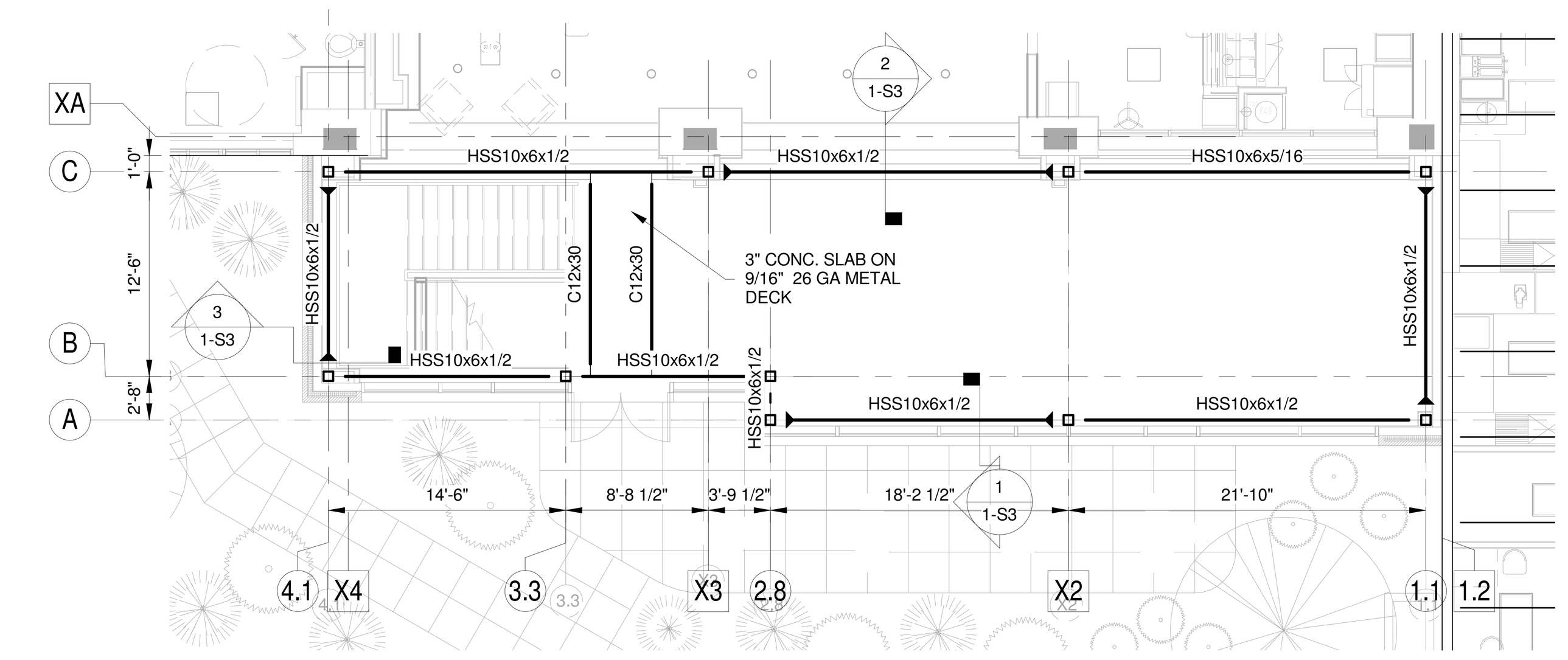
ANCHOR ROD DETAIL



Roof Framing Plan

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

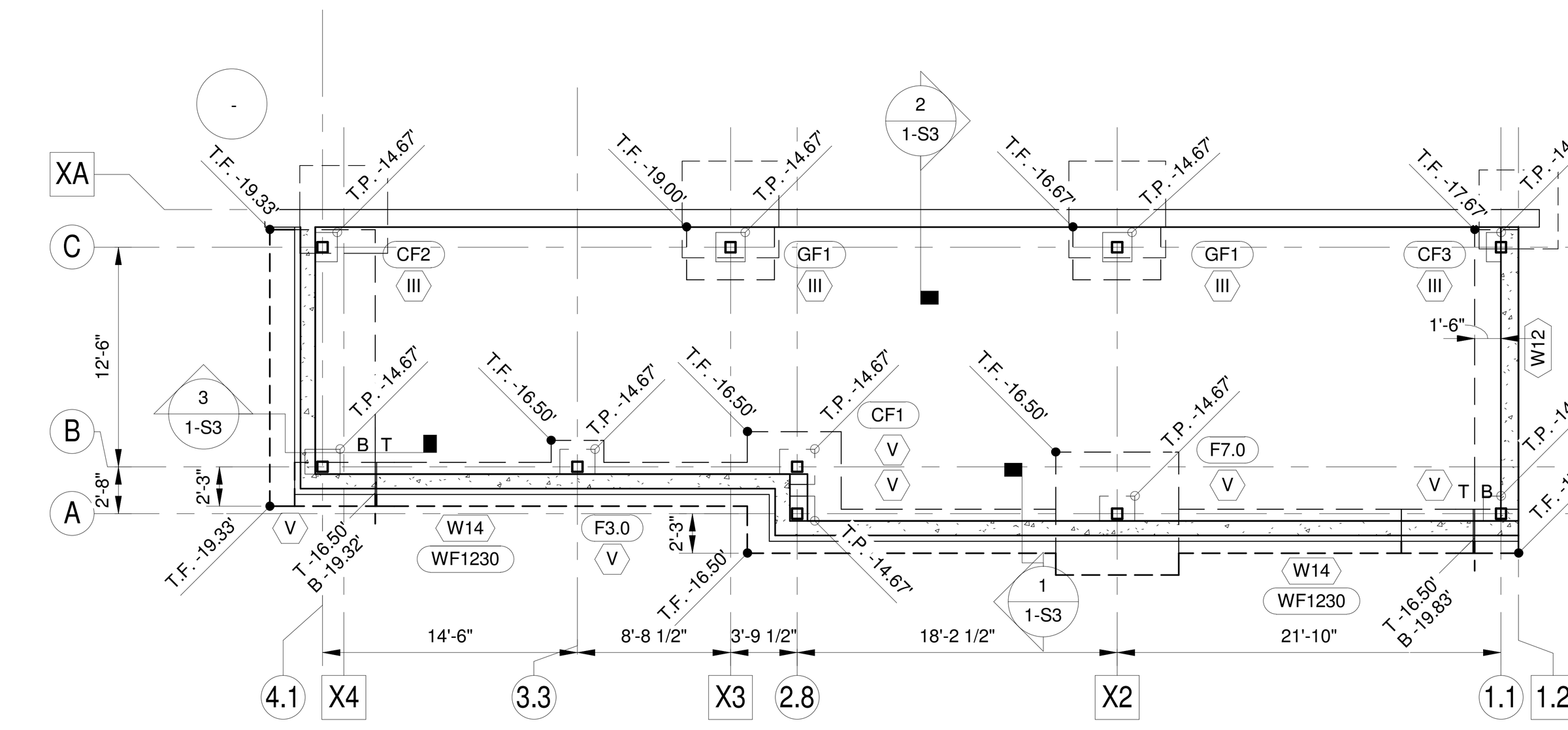
NOTES:
1. TOP OF STEEL ELEVATION (U.N.O.): 12'-10 1/4"
2. VARIATIONS IN TOP OF STEEL ELEVATION (T.O.S.) SHALL BE NOTED AS (+/- 0'-0")
3. MAXIMUM ROOF BEAM OR JOIST SPACING (U.N.O.): 5'-0"
4. ROOF DECKING (U.N.O.): 1-1/2"x22 GA TYPE B GALVANIZED METAL ROOF DECK
5. W**x**s DENOTES SLOPING ROOF BEAM



Intermediate Framing Plan

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

NOTES:
1. TOP OF STEEL ELEVATION (U.N.O.): -3"



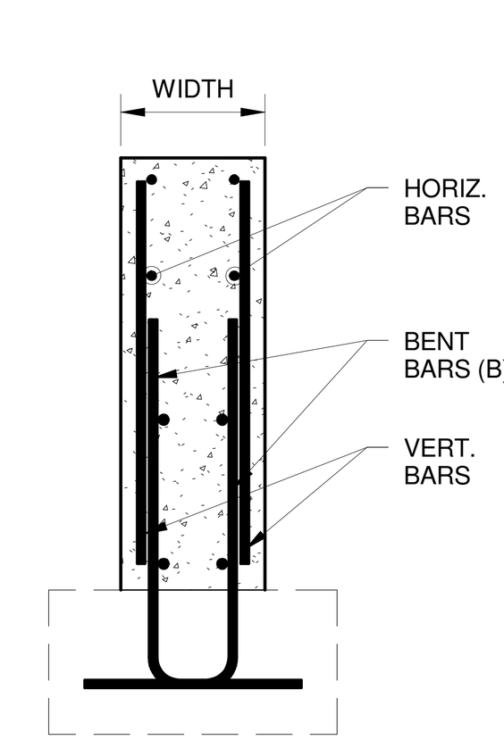
Foundation Plan

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

NOTES:
1. FINISH FLOOR ELEVATION (U.N.O.): -14'-0"
2. FLOOR SLAB:
   THICKNESS: 4"
   REINFORCING: 66-W2.9xW2.9 WWF
3. STEP FOOTINGS OR SLEEVE FOUNDATION WALLS AS REQUIRED FOR UNDERGROUND PIPING

Concrete Foundation Wall Schedule

Mark	Width	Reinforcing
W12	1'-0"	#4 @ 12" o.c. (V) #4 @ 12" o.c. (H)
W14	1'-2"	#4 @ 12" o.c. (V) #4 @ 12" o.c. (H)



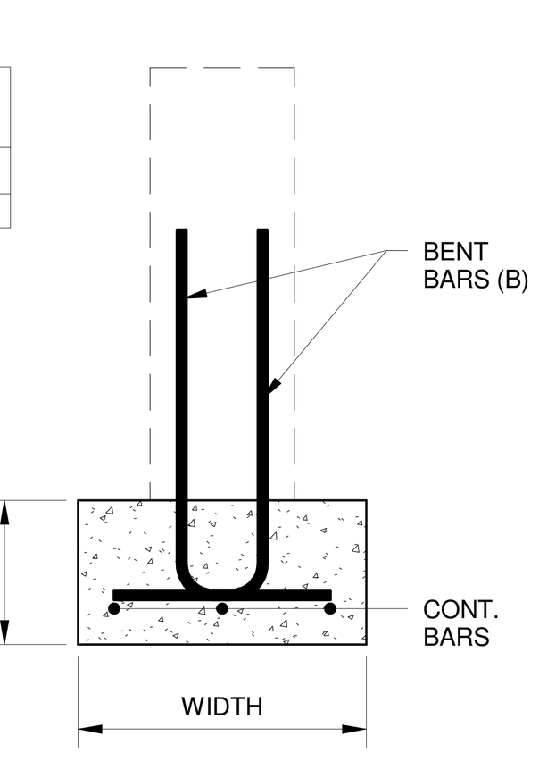
NOTES:
1. ALL REINFORCING BARS SHALL HAVE 2" MINIMUM COVER ON ALL SIDES.
2. BENT BARS (B) SHALL BE THE SAME SIZE AND SPACING AS FOUNDATION WALL VERTICAL REINFORCING.

Concrete Foundation Wall Schedule

SCALE: 3/4" = 1'-0"

Wall Footing Schedule

Mark	Depth	Width	Reinforcing
WF1230	1'-0"	2'-6"	(3) #5 CONT.



NOTES:
1. CONTINUOUS BARS SHALL HAVE 3" MINIMUM COVER ON ALL SIDES.
2. BENT BARS (B) SHALL BE THE SAME SIZE AND SPACING AS FOUNDATION WALL VERTICAL REINFORCING.

Wall Footing Schedule with Concrete Foundation Walls

SCALE: 3/4" = 1'-0"

Square Column Footing Schedule

Mark	Width	Length	Thick.	Reinf.
F3.0	3'-0"	3'-0"	1'-0"	3 #5 (E.W.)
F5.0	5'-0"	5'-0"	1'-2"	5 #5 (E.W.)
F7.0	7'-0"	7'-0"	1'-8"	6 #6 (E.W.)

Combined Column Footing Schedule

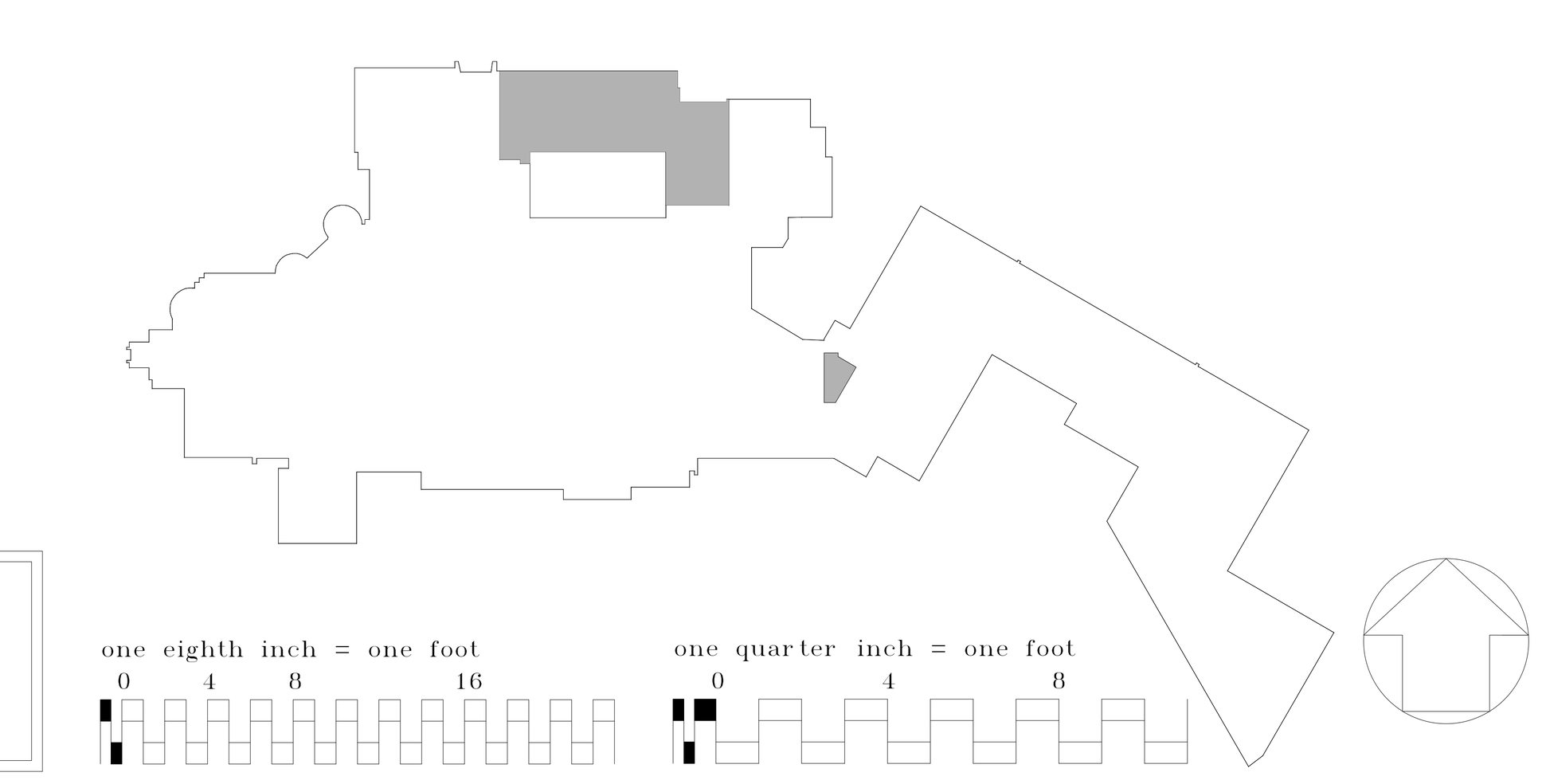
Type Mark	Width	Length	Thick.	Reinf.
CF1	5'-4"	6'-11"	1'-0"	(5) #5 bars short direction, #5 @ 12 in. o.c. long direction
CF2	6'-0"	15'-9"	1'-8"	(7) #6 bars short direction, #6 @ 12 in. o.c. long direction
CF3	2'-6"	18'-5"	2'-2"	(5) #5 bars short direction, #6 @ 9 in. o.c. long direction

Square Concrete Pier Schedule

Mark	Size	Vertical Bars	Ties
III	20" x 20"	(8) #7	(2) #3 @ 12" o.c.
V	24" x 24"	(8) #8	(2) #3 @ 12" o.c.

General Column Footing Schedule

Type Mark	Width	Length	Thick.	Reinf.
GF1	3'-0"	5'-0"	1'-0"	(3) #5 short direction, (5) #5 long direction



three thirtyseconds inch = one foot 0 4 8 16

BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot 0 4 8 16

one quarter inch = one foot 0 4 8

ENGINEER
BARRY ISETT & ASSOCIATES, INC.
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Revisions | Date

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048
SDVOSB

Drawing Title: Foundation and Framing Plans	Project Title: CONSTRUCT CANTEEN & RETAIL STORE		Date: 03/31/2014
			Project No. 693-12-110
WILKES-BARRE V.A. MEDICAL CENTER	Building Number: 1	Checked: RCS / Drawn: WEG	DRAWING NO. 1-S1
	Location: WILKES-BARRE, PENNSYLVANIA 18711		DWG. 26 OF 72

Veterans Affairs

METAL DECK NOTES

1. METAL DECK SHALL BE DESIGNED AND DETAILED IN ACCORDANCE WITH "DESIGN MANUAL FOR FLOOR DECKS AND ROOF DECKS", STEEL DECK INSTITUTE. ALL COMPOSITE STEEL FLOOR DECK SHALL BE IN CONFORMANCE WITH THE "SPECIFICATIONS FOR COMPOSITE STEEL FLOOR DECK" OF THE STEEL DECK INSTITUTE, LATEST EDITION.
2. DECK PROPERTIES ARE BASED ON PRODUCTS MANUFACTURED BY UNITED STEEL DECK, INC. (USD). DECKS BY OTHER MANUFACTURER'S MAY BE SUPPLIED PROVIDED LOAD CARRYING CAPACITY BASED ON MANUFACTURER'S STANDARD LOAD TABLES, DEFLECTION CHARACTERISTICS, AND UL FIRE RATINGS EQUAL OR EXCEED THOSE OF MATERIALS SPECIFIED AND IF APPROVED BY THE PRIME PROFESSIONAL AND STRUCTURAL ENGINEER.
3. INSTALL IN ACCORDANCE WITH SDI SUGGESTED SPECIFICATIONS UNLESS NOTED OTHERWISE ON THE DRAWINGS. INDIVIDUAL DECK SHEETS SHALL EXTEND OVER AT LEAST THREE SPANS, WITH LAPS TO BE PLACED OVER SUPPORTS.
4. DECK SUPPLIER SHALL PROVIDE ALL ADDITIONAL FRAMING, CLOSURE ANGLES AND PLATES, POUR STOPS, SCREED ANGLES, AND ROOF SUMP PANS AS REQUIRED AT THE EDGES OF ALL OPENINGS AND AT ALL SLAB DEPRESSIONS, OR CHANGES OF DECK DIRECTION, INCLUDING THOSE WHICH HAVE NOT BEEN DETAILED.
5. ROOF AND NON-COMPOSITE DECKS SHALL BE WELDED TO STEEL SUPPORTS, INCLUDING THE EDGE SUPPORT PARALLEL TO THE DECK SPAN WITH 5/8" DIAMETER CENTER AT EDGE OF DECK SHEET. FASTEN SIDE LAPS WITH #10 SELF-TAPPING SCREWS AT 36" o.c. MAXIMUM SPACING.
6. COMPOSITE DECKS SHALL BE WELDED TO ALL SUPPORTS INCLUDING THE EDGE SUPPORT PARALLEL TO THE DECK SPAN WITH 5/8" DIAMETER (EFFECTIVE FUSION DIAMETER) PLUG WELDS AT 12 INCHES ON CENTER INTERIOR AND 6 INCHES ON CENTER AT EDGE OF DECK SHEET. FASTEN SIDE LAPS WITH #10 SELF-TAPPING SCREWS AT 30" o.c. HEADED STUDS SHALL BE FIELD INSTALLED BY WELDING THROUGH THE METAL DECK.
7. ALL STEEL FLOOR DECK SHALL BE WELDED TO ALL SUPPORTING STEEL ELEMENTS. WELDING WASHERS SHALL BE USED AS REQUIRED BY THE DECK MANUFACTURER.
8. PRIOR TO AND DURING CONCRETE PLACEMENT, THE FLOOR DECK SHALL BE PLANKED TO PREVENT DAMAGE TO THE DECK. CONCENTRATED AND IMPACT LOADS SHALL BE AVOIDED.
9. STEEL DECK SUPPLIER SHALL SUBMIT SHOP DRAWINGS INDICATING THE SHEAR STUD PLACEMENT.
10. SHEAR CONNECTORS SHALL BE HEADED STUDS CONFORMING TO ASTM A108, GRADES 1010, 1015, 1017, OR 1020. SHEAR CONNECTORS SHALL BE MACHINE WELDED TO STEEL.
11. THE NUMBER OF SHEAR CONNECTORS REQUIRED PER BEAM IS INDICATED ON THE DRAWINGS. WHERE NO SHEAR CONNECTORS ARE INDICATED FOR A BEAM WHICH SUPPORTS A CONCRETE SLAB, PROVIDE SHEAR CONNECTORS AT 24 INCHES ON CENTER.
12. SHEAR CONNECTORS SHALL BE EQUALLY SPACED OVER THE LENGTH OF THE BEAM UNLESS NOTED OTHERWISE. WHERE THE NUMBER OF STEEL DECK CORRUGATIONS AVAILABLE IS LESS THAN THE NUMBER OF SHEAR CONNECTORS REQUIRED, USE PAIRS OF SHEAR CONNECTORS STARTING FROM EACH END OF THE BEAM AND CONTINUING TOWARD THE CENTER UNTIL IT IS POSSIBLE TO RETURN TO A SINGLE SHEAR CONNECTOR IN EACH CORRUGATION.
13. NO MECHANICAL OR ELECTRICAL PIPING, FIXTURES, UNITS OR SYSTEMS MAY BE HUNG DIRECTLY FROM THE ROOF DECK.

FOUNDATION NOTES

1. FOUNDATION SOIL-BEARING PRESSURE **3000 PSF**
2. FOUNDATION SHALL BE PLACED ON VIRGIN SOIL AT ELEVATIONS INDICATED ON DRAWINGS.
3. THE CONTRACTOR SHALL HAVE ALL BEARING STRATA APPROVED PRIOR TO PLACEMENT OF THE CONCRETE FOOTINGS.
4. INSTALL CRACK CONTROL OR CONSTRUCTION JOINTS AT 30-FOOT MAXIMUM CENTERS IN WALLS. LOCATIONS SHALL BE APPROVED BY ENGINEER.
5. TOP OF FOOTING ELEVATIONS ARE NOTED (000.00). TOP OF PIER OR WALL ELEVATIONS ARE NOTED [000.00].
6. ALL TOPSOIL, SOIL FILL, AND SOFT SUBSOIL SHALL BE REMOVED AND, IF NECESSARY, REPLACED WITH COMPACTED LOAD-BEARING FILL MATERIALS. TEST PITS OR SOIL BORINGS SHALL BE CONDUCTED TO DETERMINE THE LOCATION OF THE VIRGIN SOIL.
7. ANY UNDERCUT AND REPLACEMENT WITH COMPACTED LOAD-BEARING FILL SHALL EXTEND LATERALLY BEYOND FOOTINGS A DISTANCE AT LEAST EQUAL TO THE DEPTH OF THE UNDERCUT.
8. AFTER UNDERCUTTING AND REMOVAL OF UNSUITABLE SOIL, THE EXPOSED UNDER-LYING RESIDUAL SOILS IN THE PROPOSED BUILDING AREA SHALL BE PROOFROLLED AND COMPACTED. SOFT AND/OR UNSTABLE AREAS DISCLOSED BY THE PROOFROLLING SHALL BE ROLLED UNTIL STABILITY IS OBTAINED OR UNTIL FURTHER UNDERCUT FIRM MATERIAL IS REACHED.
9. FOOTINGS SHALL BE BASED ON STIFF SUBSOIL OR LOAD-BEARING FILL MATERIALS WITH A MINIMUM OF AT LEAST TWO FEET OR ONE-HALF THE FOOTING WIDTH, WHICHEVER IS
10. PLACE LOAD-BEARING FILL MATERIALS IN LAYERS NOT MORE THAN EIGHT INCHES IN LOOSE THICKNESS FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT, AND NOT MORE THAN FOUR INCHES IN LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND-OPERATED TAMPERS. FILL MATERIAL SHALL BE MOISTENED OR AERATED AS NECESSARY.
11. EACH LIFT SHALL BE COMPACTED TO AN AVERAGE DRY DENSITY OF NOT LESS THAN 98% OF THE MAXIMUM DRY DENSITY ACCORDING TO ASTM D698 (STANDARD PROCTOR) FOR ALL FOOTING AND FLOOR SUBGRADES.
12. THE SUB-FLOOR MATERIALS SHALL CONSIST OF AT LEAST FOUR TO SIX INCHES OF GRAVEL OR CRUSHED STONE. THE SUB-FLOOR MATERIALS SHALL BE COMPACTED BY AT LEAST FOUR COVERAGES OF A HEAVY-DUTY VIBRATORY ROLLER OR UNTIL NO FURTHER COMPACTION IS OBSERVED. SEE THE DRAWINGS AND SPECIFICATIONS FOR THE VAPOR BARRIER SIZE, TYPE AND LOCATION.
13. IN AREAS WHERE SOFT/LOOSE ZONES OR POSSIBLE VOIDS EXIST AT DEPTH, NOTIFY THE STRUCTURAL ENGINEER IMMEDIATELY. SUCH AREAS SHOULD BE UNDERCUT AND REPLACED WITH COMPACTED LOAD-BEARING FILL, OR FLOWABLE CONCRETE FILL AS DIRECTED BY THE DESIGN PROFESSIONAL. IN ADDITION, FOOTINGS SHOULD BE OVERSIZED AND PROPORTIONED FOR A REDUCED ALLOWABLE BEARING CAPACITY, AS DETERMINED BY THE STRUCTURAL ENGINEER, TO BETTER DISTRIBUTE FOUNDATION LOADS AND SPAN ANY LOCALIZED SOFT/LOOSE ZONE OR VOID AREAS.

CONTRACTOR SHALL VERIFY ALL CONDITIONS AND DIMENSIONS FOR THE ENTIRE PROJECT BEFORE PROCEEDING WITH THE WORK.

STEEL NOTES

1. STRUCTURAL STEEL CONSTRUCTION SHALL BE IN ACCORDANCE WITH AISC's 'CODE OF STANDARD PRACTICE FOR STEEL BUILDINGS AND BRIDGES' AND 'SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS - ALLOWABLE STRESS DESIGN', LATEST EDITION
2. STEEL MATERIALS:

W-SHAPES	ASTM A 992,Fy=50,000 psi
CHANNELS, ANGLES	ASTM A 36, Fy=36,000 psi
PLATE AND BAR	ASTM A 36, Fy=36,000 psi
COLD-FORMED HOLLOW STRUCTURAL SECTIONS	ASTM A 500,GRADE B Fy=46,000psi
HOT-FORMED HOLLOW STRUCTURAL SECTIONS	ASTM A 501,Fy=46,000psi
STEEL PIPE	ASTM A 53, TYPE E or S GRADE B, Fy=36,000 psi

3. CONNECTOR MATERIALS:

BOLTS	ASTM F1852, TYPE 1, TENSION CONTROL HIGH STRENGTH BOLT-NUT-WASHER ASSEMBLY WITH HEX OR ROUND HEADS AND SPLINED ENDS.
WELDING ELECTRODES	COMPLY WITH AWS REQUIREMENT.
UNHEADED ANCHOR RODS	ASTM F1554, GRADE 36, Fy=36,000 psi

4. ALL BEAM-TO-COLUMN CONNECTIONS SHALL BE AISC STANDARD FULL DEPTH CONNECTIONS, UNLESS NOTED OTHERWISE. WHERE REACTIONS ARE INDICATED ON THE DRAWINGS, THE CONNECTION SHALL BE PROVIDED BY THE FABRICATOR. DETAILS AND CALCULATIONS, PREPARED BY A LICENSED ENGINEER, SHALL BE PART OF THE SHOP DRAWING SUBMISSION.
5. ALL CONNECTIONS SHALL BE HIGH-STRENGTH FRICTION BOLTS OR WELDS OF EQUAL STRENGTH. ANCHOR BOLTS AND FIELD CONNECTIONS OF GIRTS FOR SHEAR SHALL BE UNFINISHED BOLTS.
6. ELEVATION OF TOP OF STEEL MEMBERS ARE NOTED (+ -).
7. STEEL JOISTS SHALL BE FABRICATED AND ERECTED IN ACCORDANCE WITH LATEST AISC AND SJI SPECIFICATIONS.
8. JOIST BRIDGING SHALL BE DESIGNED AND INSTALLED ACCORDING TO THE LATEST SJI SPECIFICATIONS. BRIDGING SHALL NOT BE MODIFIED WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER.
9. METAL DECKING SHALL BE INSTALLED IN 3 SPAN CONDITIONS MINIMUM.

CONCRETE NOTES

1. REINFORCED CONCRETE CONSTRUCTION SHALL BE IN ACCORDANCE WITH BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE (ACI 318), LATEST EDITION.
2. CONCRETE MATERIALS

CONCRETE SLABS	f'c=4000 psi @ 28 DAYS
OTHER CONCRETE	f'c=4000 psi @ 28 DAYS

3. REINFORCING MATERIALS:

REINFORCING BARS PLAIN-STEEL	ASTM A615, GRADE 60, DEFORMED
REINFORCING BARS LOW-ALLOY-STEEL	ASTM A706, DEFORMED
REINFORCING BARS EPOXY-COATED	ASTM A775
WELDED WIRE FABRIC	ASTM A185
EPOXY-COATED WELDED WIRE FABRIC	ASTM A844, CLASS A, PLAIN STEEL

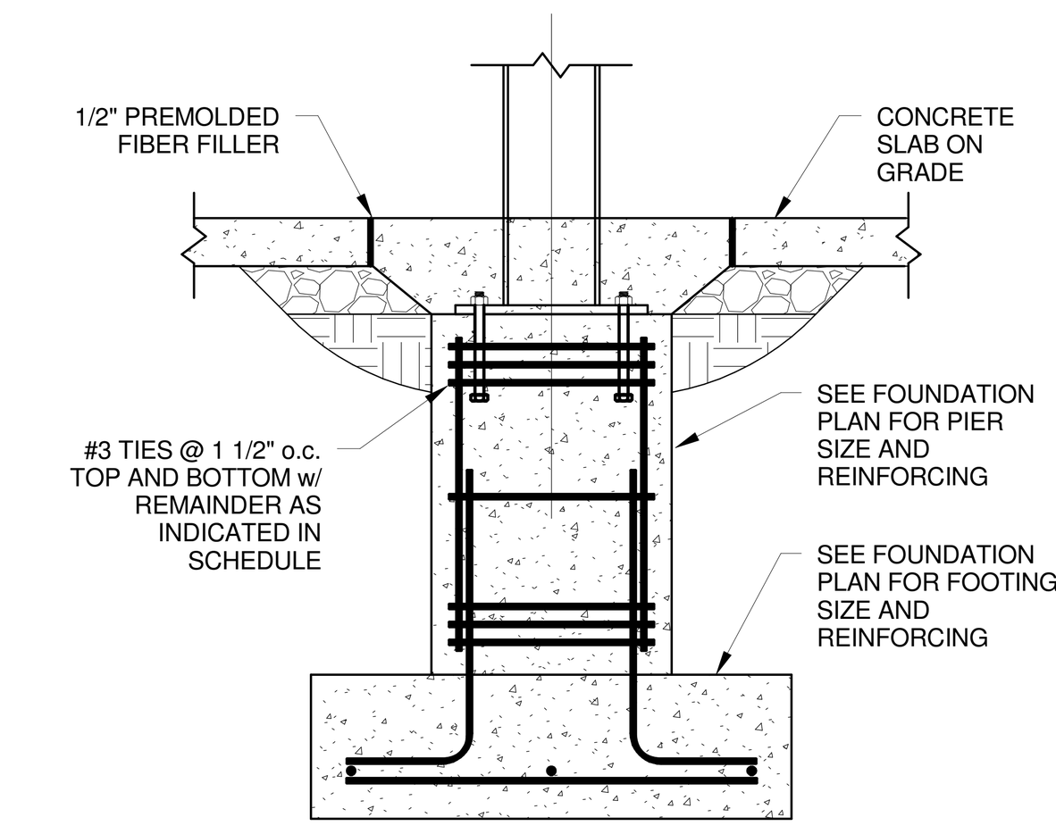
4. FORMWORK AND FORM ACCESSORIES SHALL BE ACCORDING TO ACI 301.
5. REINFORCING SHALL COMPLY WITH CRSI'S 'MANUAL OF STANDARD PRACTICE' FOR FABRICATING, PLACING, AND SUPPORTING REINFORCEMENT, AND THE FOLLOWING:
   -REINFORCING BAR SPLICES SHALL BE IN ACCORDANCE WITH LATEST ACI 318 SPECIFICATIONS.
   -HORIZONTAL REINFORCING BARS IN WALLS AND FOOTINGS SHALL BE CONTINUOUS AROUND CORNERS.
   -REINFORCING BARS SHALL BE LAPPED A MINIMUM OF 44 BAR DIAMETERS.
   -MINIMUM EMBEDMENT LENGTH SHALL BE 24 BAR DIAMETERS UNLESS OTHERWISE NOTED.
   -MINIMUM CONCRETE COVER SHALL BE PROVIDED FOR REINFORCEMENT:

CONCRETE CAST AGAINST EARTH & PERMANENTLY EXPOSED	3"
CONCRETE EXPOSED TO EARTH OR WEATHER #6 & LARGER	2"
#5 & SMALLER	1-1/2"
CONCRETE NOT EXPOSED TO WEATHER OR GROUND	
SLABS, WALLS, AND JOINTS	3/4"
BEAMS AND COLUMNS	1-1/2"

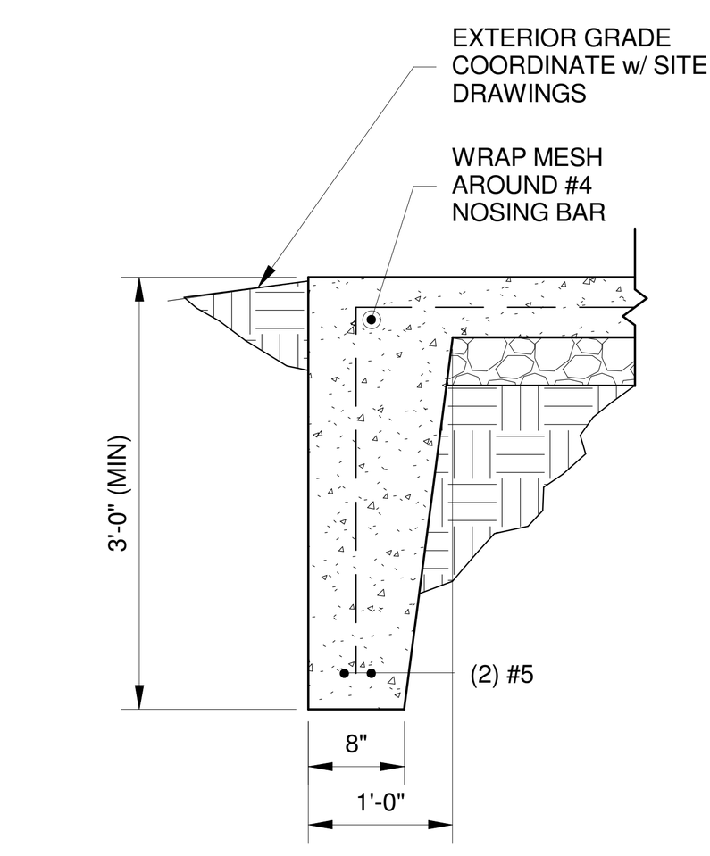
   -WIRE WELDED FABRIC REQUIREMENTS:

3-1/2" FLOOR SLAB ON METAL DECK	66-W2.9xW2.9
4" FLOOR SLAB ON GRADE	66-W2.9xW2.9
5" FLOOR SLAB ON GRADE	44-W4.0xW4.0

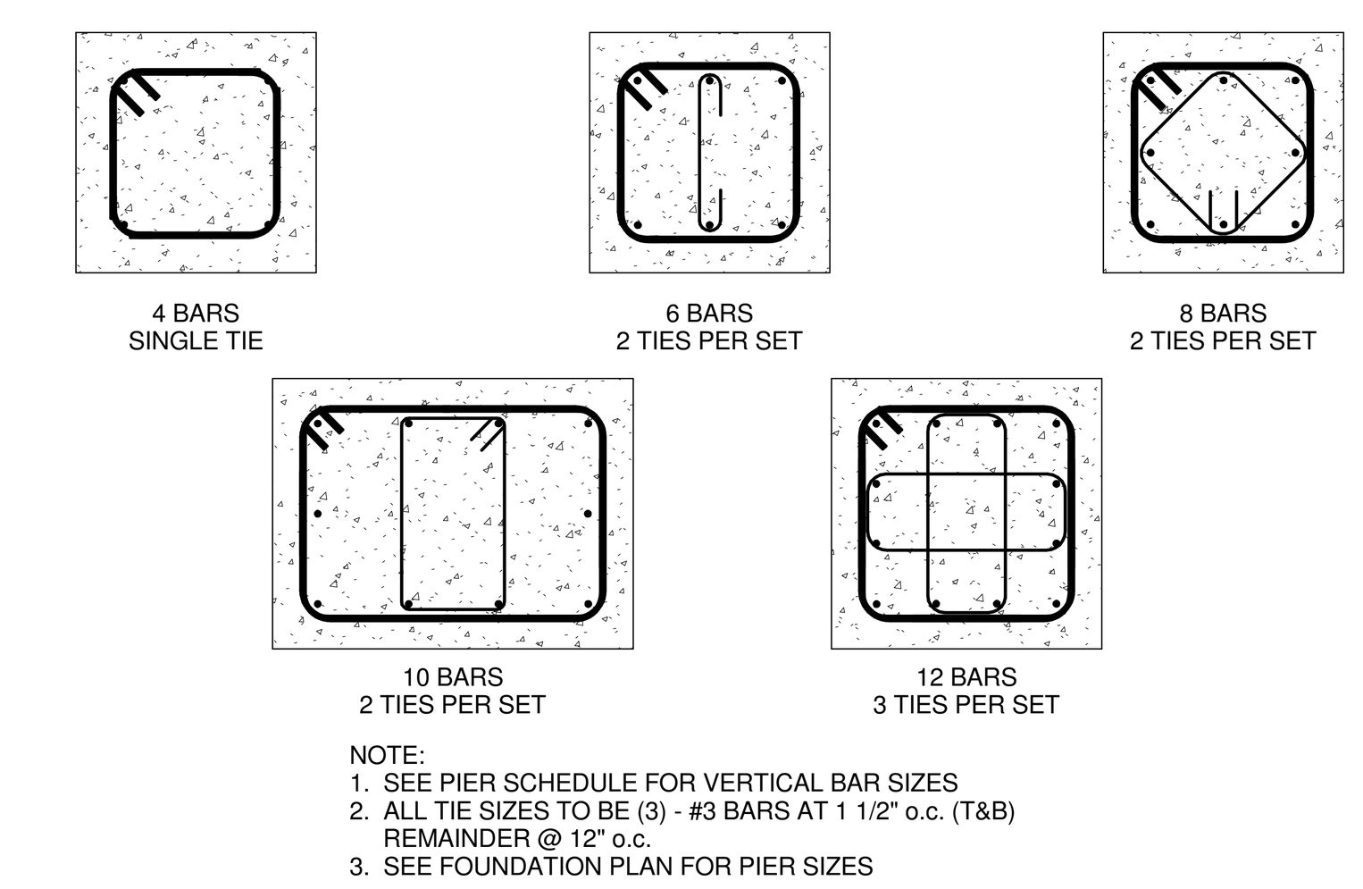
6. COLD-WEATHER PLACING SHALL COMPLY WITH THE PROVISIONS OF ACI-306R. THE USE OF CALCIUM CHLORIDE, SALT, AND OTHER MATERIALS CONTAINING ANTI- FREEAGENTS OR CHEMICAL ACCELERATORS SHALL NOT BE PERMITTED UNLESS OTHERWISEACCEPTED IN THE MIX DESIGN.
7. HOT-WEATHER PLACING SHALL COMPLY WITH THE PROVISIONS OF ACI-305.



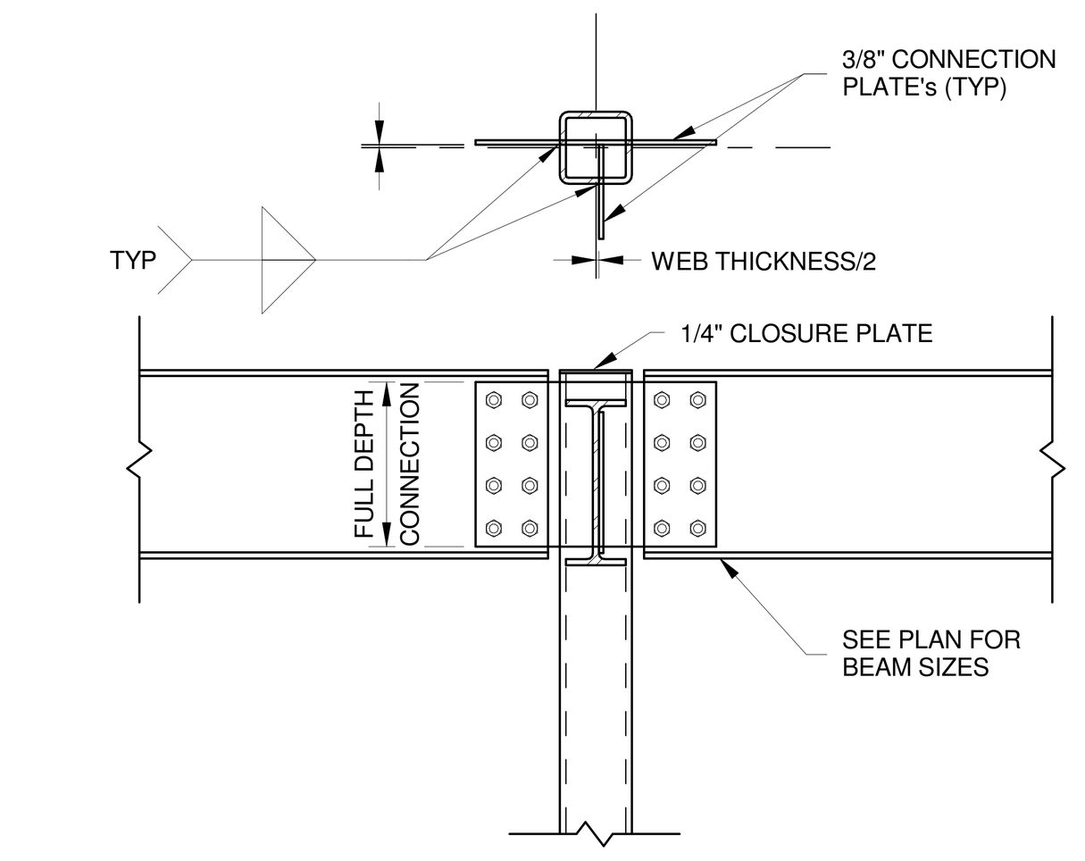
Typical Pier Detail
SCALE: 3/4" = 1'-0"



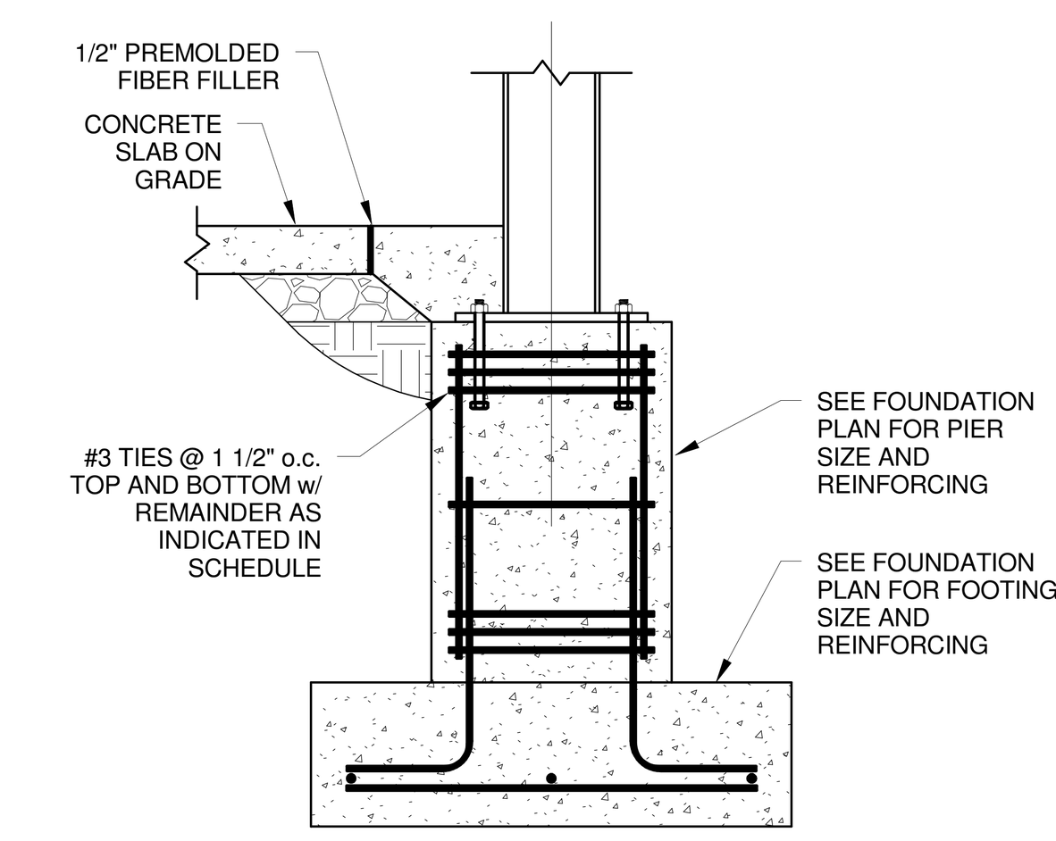
Typical Frost Wall
SCALE: 3/4" = 1'-0"



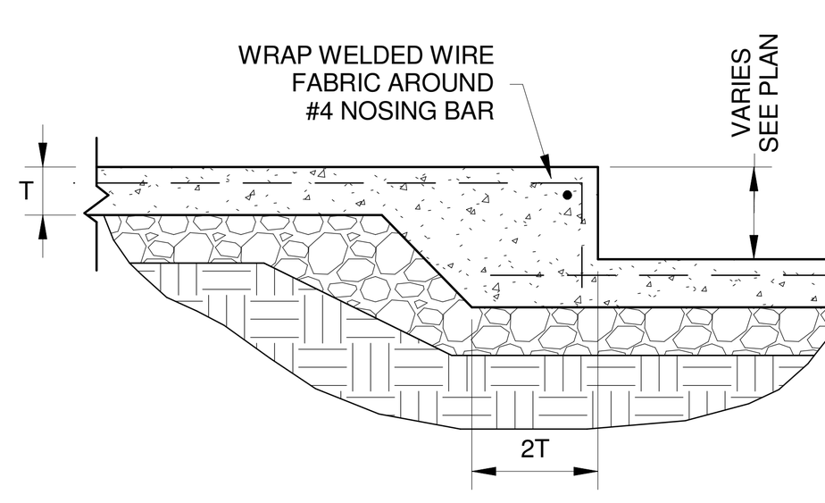
Pier Tie Detail
SCALE: 3/4" = 1'-0"



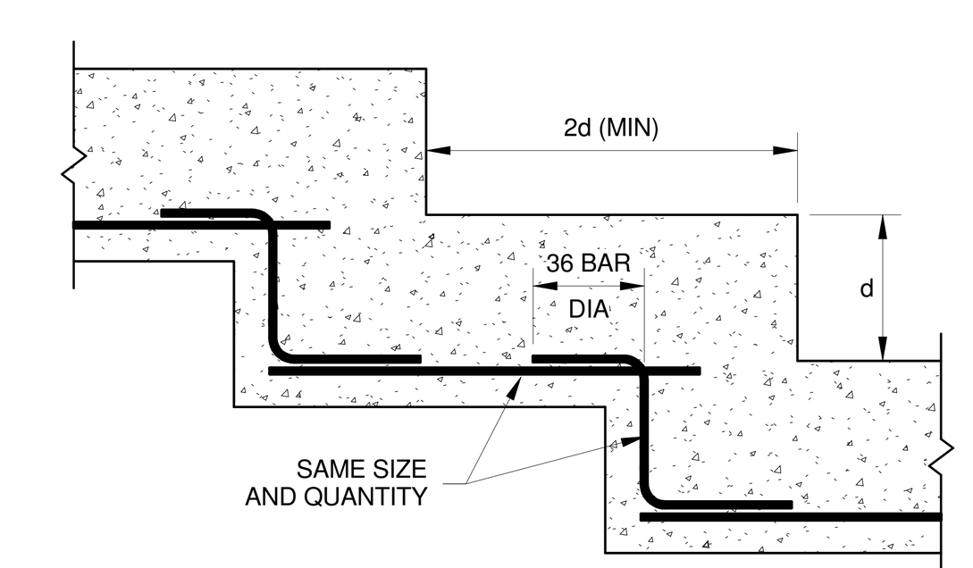
Typical Tube Connection Detail
SCALE: 3/4" = 1'-0"



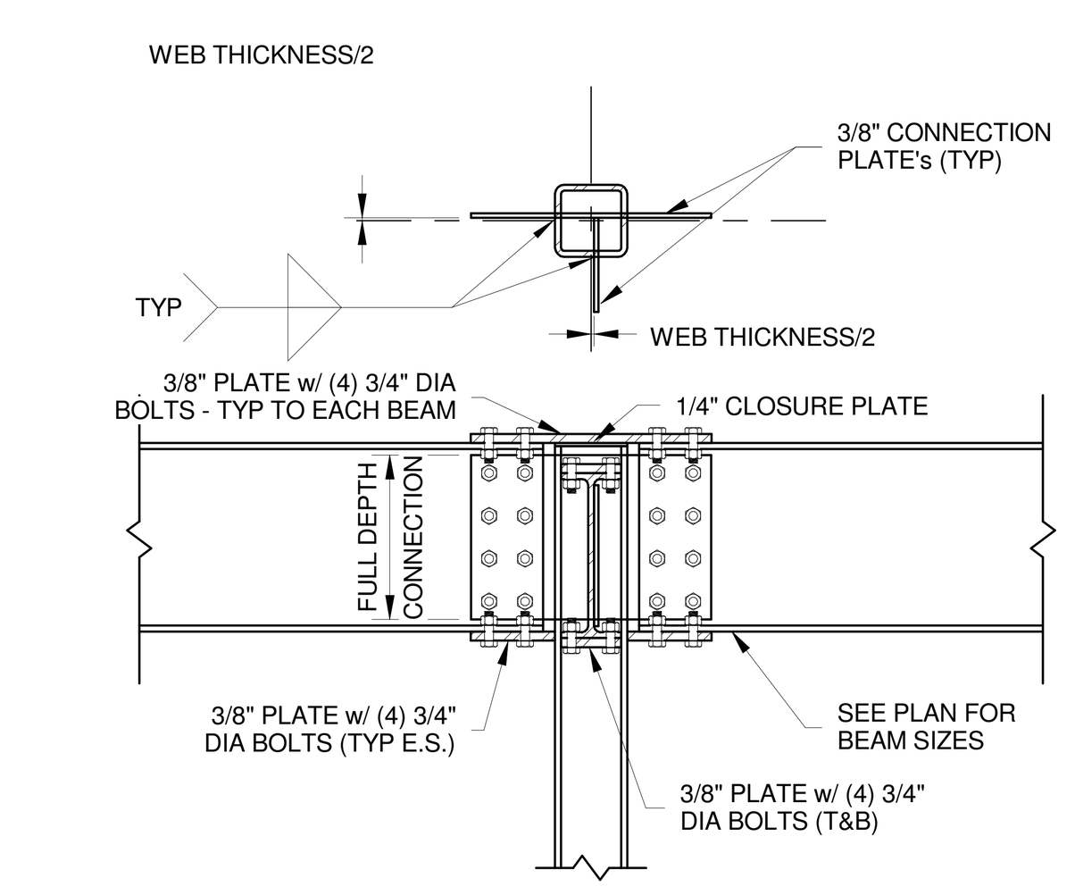
Typical Pier Detail At Exterior Wall
SCALE: 3/4" = 1'-0"



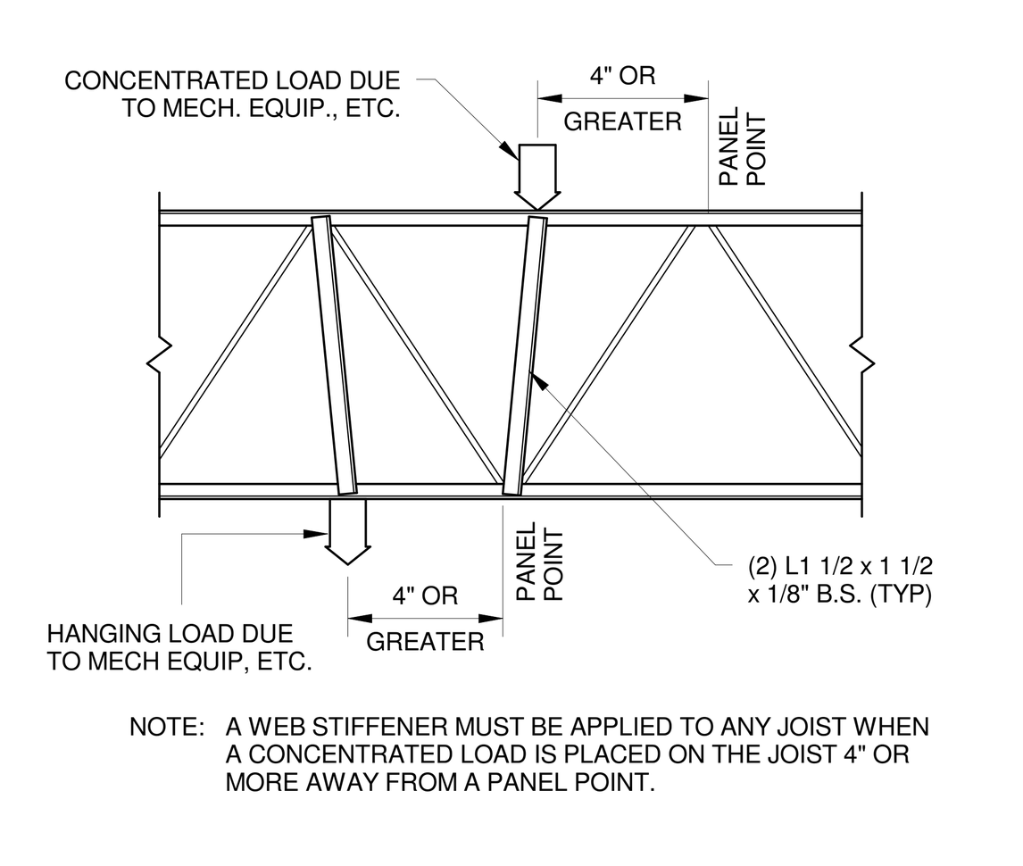
Typical Depressed Slab Detail
SCALE: 3/4" = 1'-0"



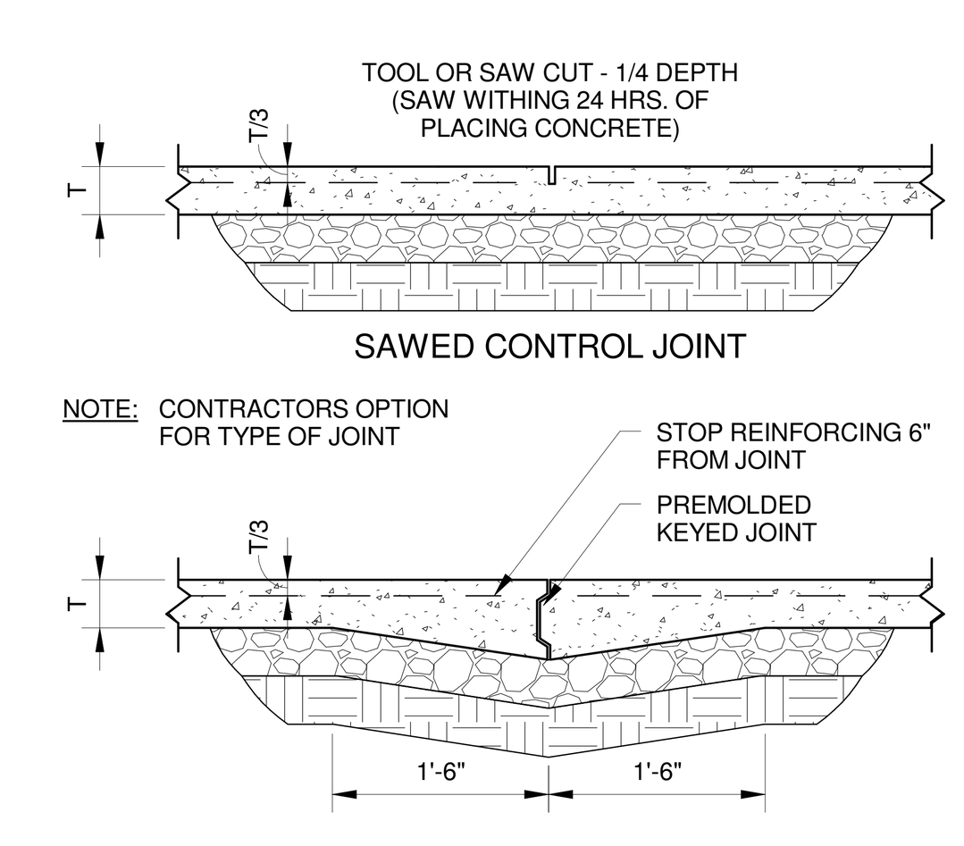
Typical Step Footing Detail
SCALE: 3/4" = 1'-0"



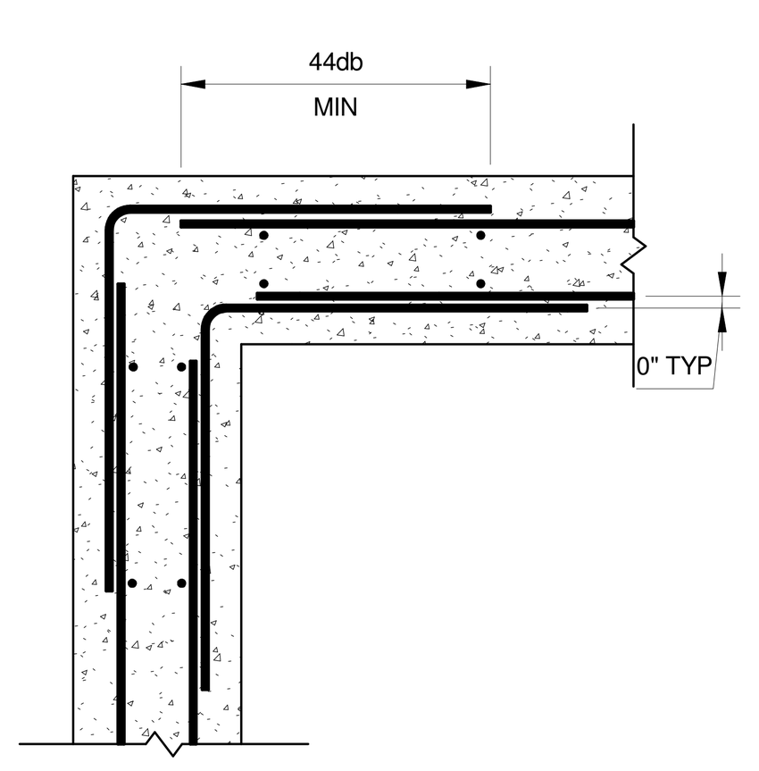
Typical Moment Connection at Tube Connection Detail
SCALE: 3/4" = 1'-0"



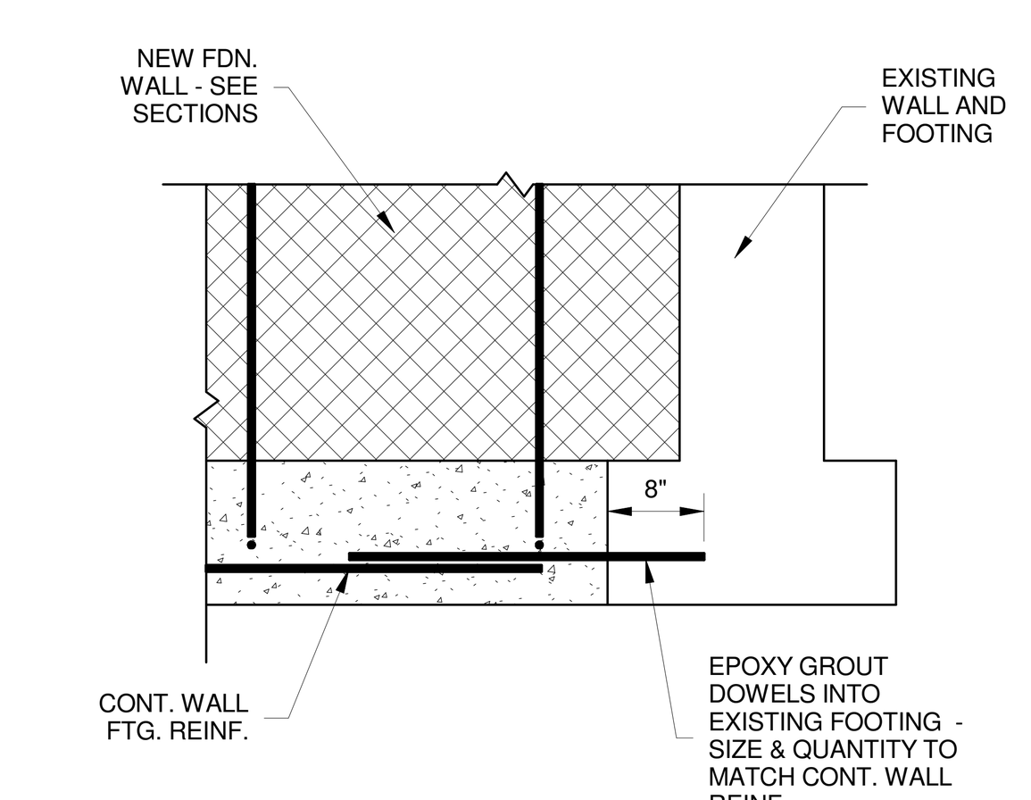
Typical Joist Reinforcing Detail
SCALE: 3/4" = 1'-0"



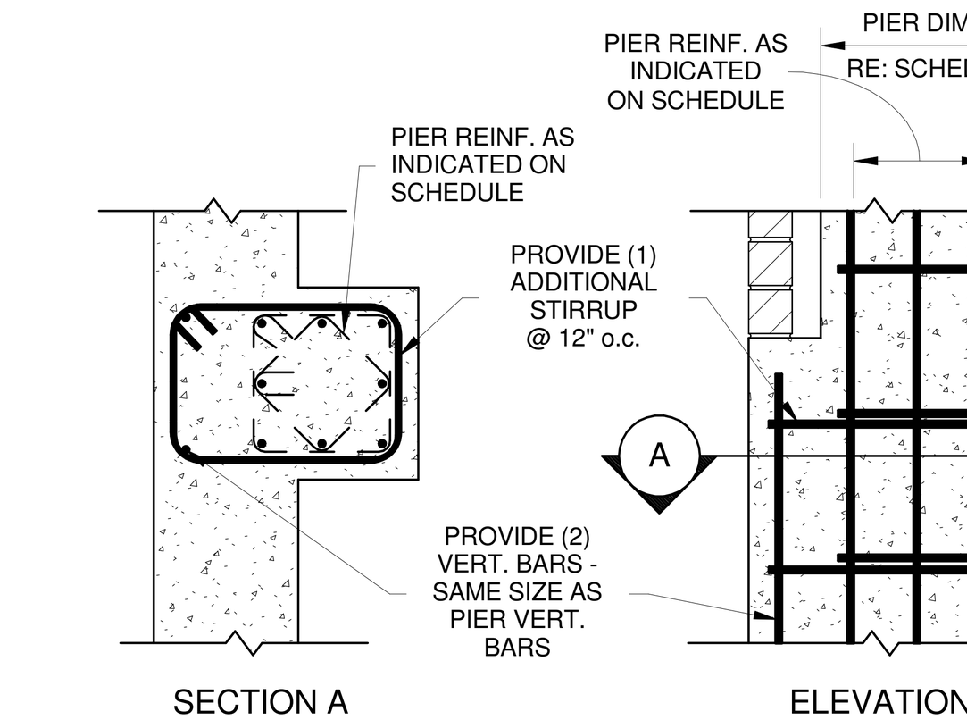
Typical Crack Control Joints
SCALE: 3/4" = 1'-0"



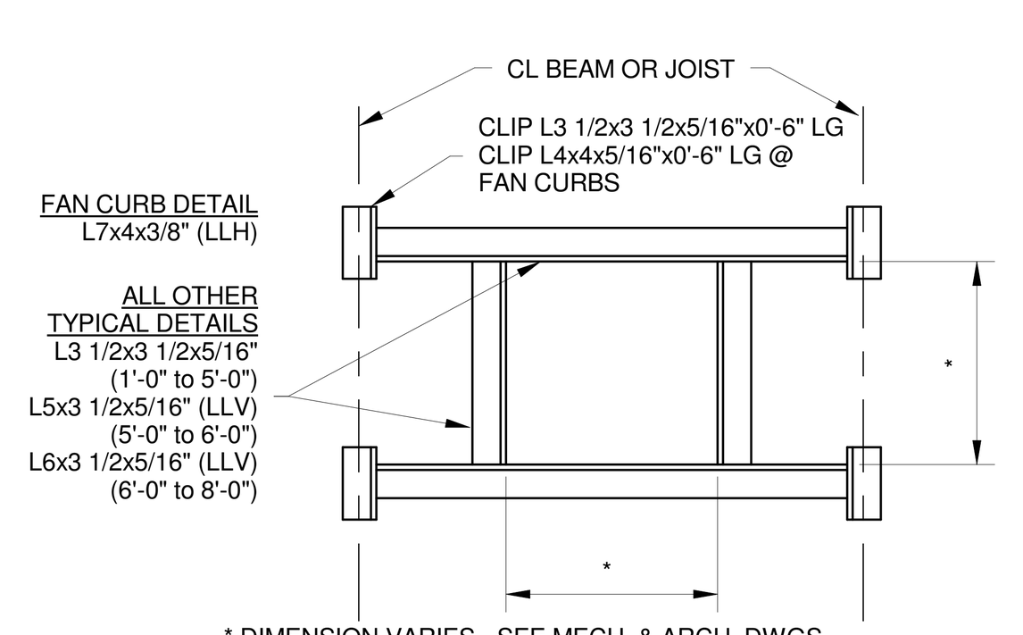
Typical Reinforcing Around Corner
SCALE: 3/4" = 1'-0"



Typical Detail Of New Footing Adjacent To Existing
SCALE: 3/4" = 1'-0"



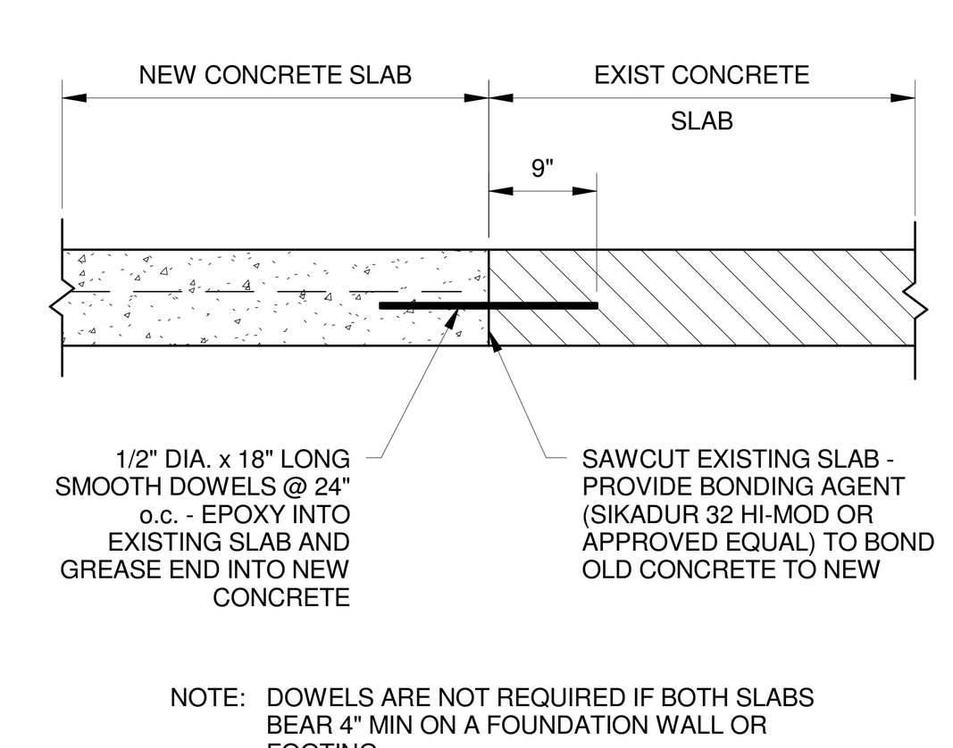
Typical Exterior Pier With Brick Shelf
SCALE: 3/4" = 1'-0"



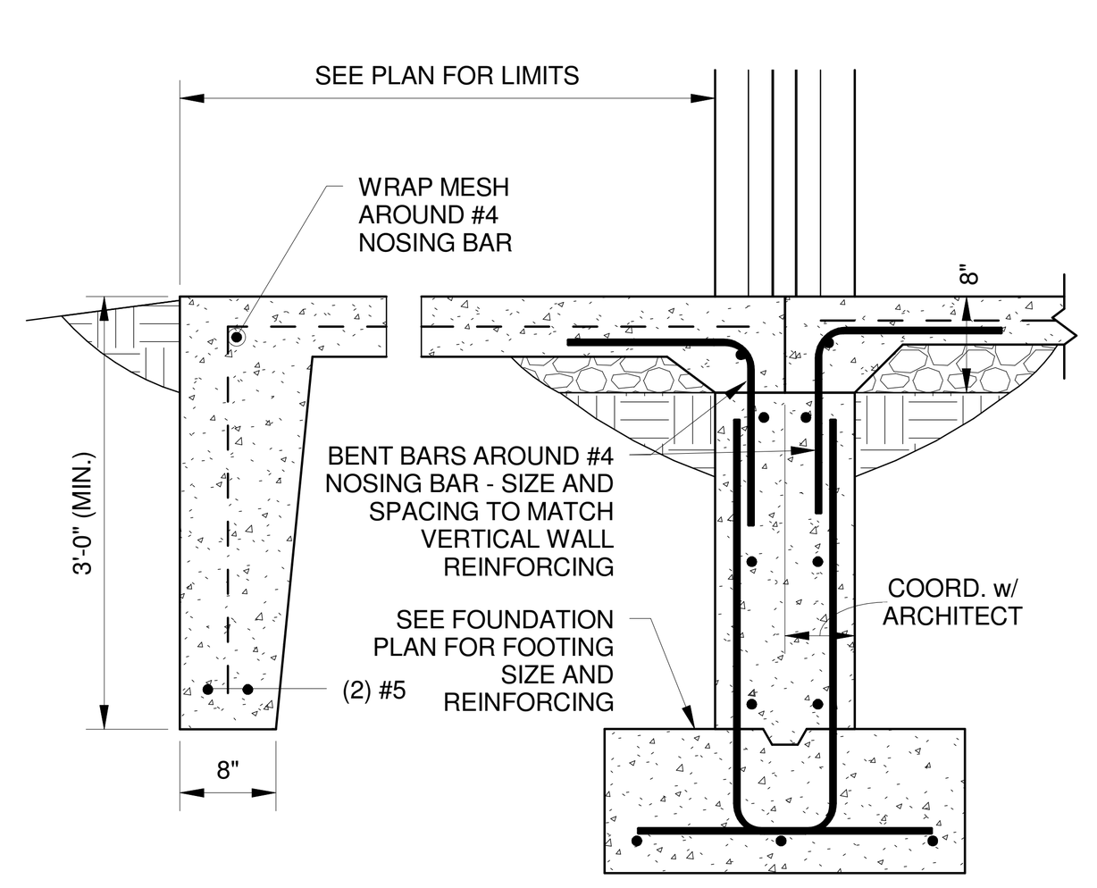
NOTE:
1. NO OPENINGS SHALL BE CUT IN FLOOR OR ROOF DECK UNLESS THEY CAN BE IMMEDIATELY PROTECTED BY THE G.C. IN ACCORDANCE w/ OSHA REQUIREMENTS.
2. UNLESS NOTED OTHERWISE THE GENERAL CONTRACTOR IS RESPONSIBLE FOR PROVIDING & INSTALLING ALL STRUCTURAL STEEL, MISC STEEL, AND LOOSE LINTELS THAT ARE NECESSARY TO SUPPORT ALL ROOF TOP MOUNTED EQUIPMENT AND ALL MASONRY OPENINGS AND TO FRAME ALL ROOF AND FLOOR OPENINGS. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REVIEWING ALL DRAWINGS TO DETERMINE THE QUANTITY, SIZE, AND LOCATION OF ALL ROOF TOP EQUIPMENT, ALL MASONRY OPENINGS, AND ALL ROOF OPENINGS.
3. UNLESS NOTED OTHERWISE, THE REQUIREMENTS OF THE DOCUMENTS OF THIS CONTRACT SUPERSEDE ANY OTHER CODE OF STANDARD PRACTICE AND PREVAIL IN THE EVENT OF ANY CONFLICTING LANGUAGE.

(THIS DETAIL APPLIES FOR OPENINGS 1'-0" & LARGER)

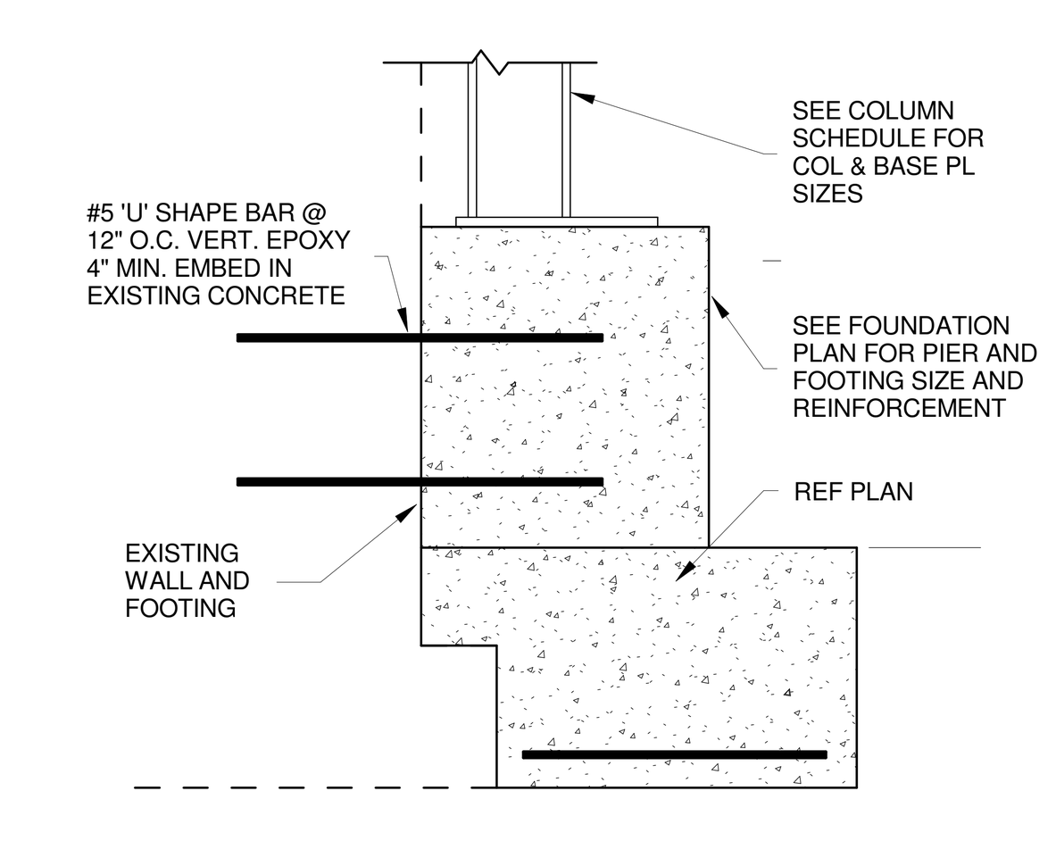
Typical Flush Frame for Floor and Roof Openings and Fan Curb Support
SCALE: 3/4" = 1'-0"



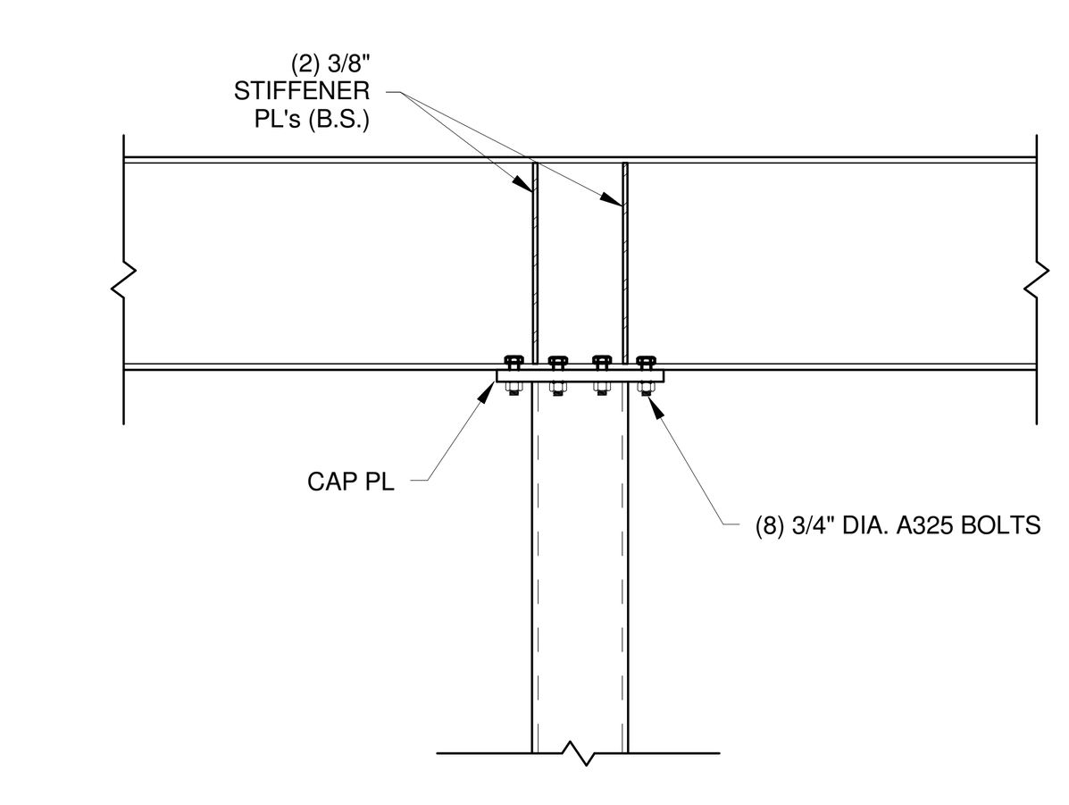
Typical Detail Of New To Existing Slab
SCALE: 3/4" = 1'-0"



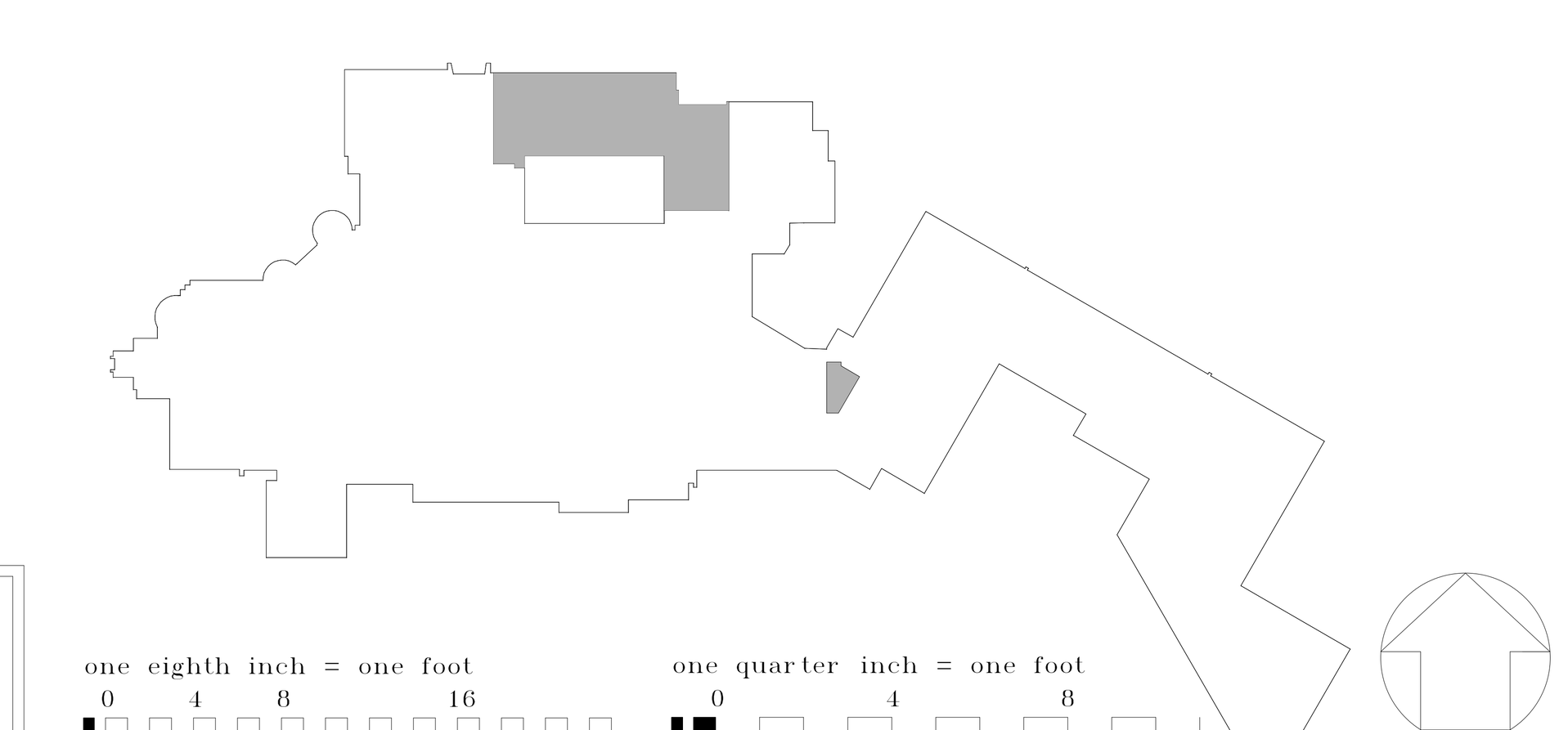
Typical Exterior Wall At Door Detail
SCALE: 3/4" = 1'-0"



Typical Detail Of New Footing Adjacent To Existing
SCALE: 3/4" = 1'-0"



Typical Beam Cantilever
SCALE: 3/4" = 1'-0"



three thirtyseconds inch = one foot 0 4 8 16

BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot 0 4 8 16

one quarter inch = one foot 0 4 8

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SEAL
COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — ROSS C. SOTAK

Revisions | Date

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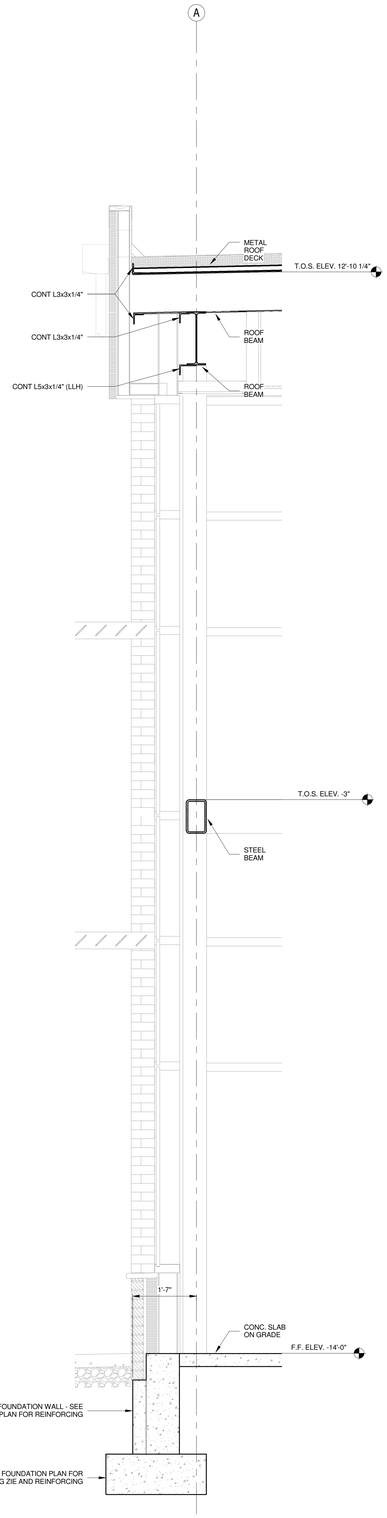
SDVOSB — Service Disabled Veteran Owned Small Business — cVe

Drawing Title: Typical Notes, Sections and Details
WILKES-BARRE V.A. MEDICAL CENTER

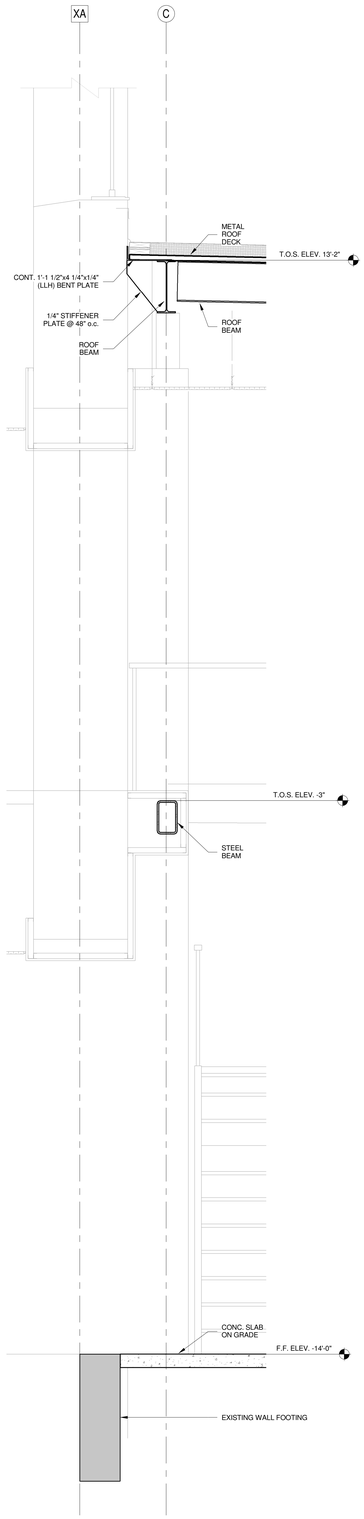
Project Title: CONSTRUCT CANTEEN & RETAIL STORE
Building Number: 1 | Checked: RCS | Drawn: WEG
Location: WILKES-BARRE, PENNSYLVANIA 18711

Date: 03/31/2014
Project No.: 693-12-110
DRAWING NO. DRAWING 1-S2
DWG. 27 OF 72

Veterans Affairs



1 1-S3 Wall Section
SCALE: 3/4" = 1'-0"



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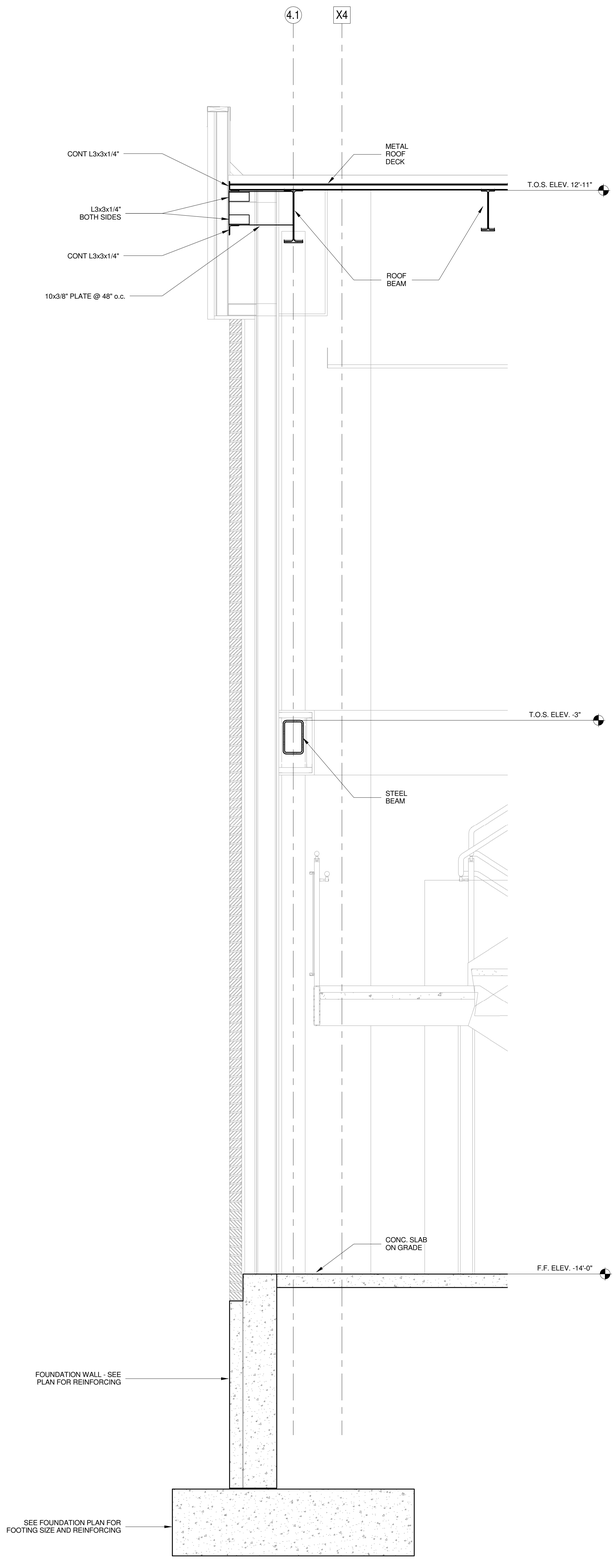

3 1-S3 Wall Section
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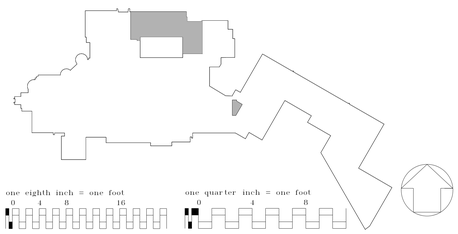

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one quarter inch = one foot
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SEAL

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Revisions Date

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Service Disabled Veteran Owned Small Business SDVOSB cVe

Drawing Title: Wall Sections and Details

WILKES-BARRE V.A. MEDICAL CENTER

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Location: WILKES-BARRE, PENNSYLVANIA 18711

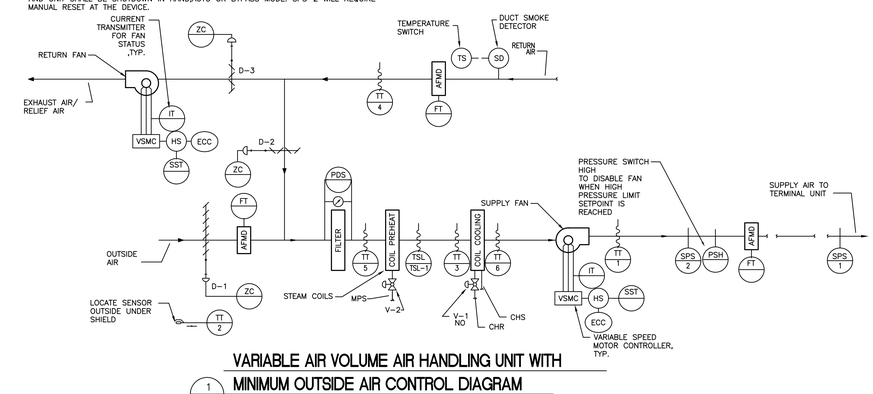
Building Number: 1 | Checked: Checker | Drawn: Author

Date: 03/31/2014

Project No.: 693-12-110

DRAWING NO. DRAWING 1-S3 DWG. 28 OF 72

Veterans Affairs



ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AAV	AUTOMATIC AIR VENT
ACC	AIR COOLED CONDENSER
ACCH	AIR COOLED CHILLER
ACCU	AIR-COOLED CONDENSING UNIT
ACU	AIR CONDITIONING UNIT
ACD	AUTOMATIC CONTROL DAMPER,MODULATING
ACD-TP	AUTOMATIC CONTROL DAMPER,TWO POSITION
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
AFMD	AIR FLOW MEASURING DEVICE
AFW	AIR FOIL WHEEL (FAN)
AHU	AIR-HANDLING UNIT
AMP	AMPERGE
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
ARI	AIR CONDITIONING AND REFRIGERATION INSTITUTE
AS	AIR SEPARATOR
ASME	AMERICAN SOCIETY OF MECHANICAL ENGINEERS
AW	AIR WASHER
AXF	AXIAL FLOW
B	BOILER
BD	BUTTERFLY DAMPER
BDD	BACKDRAFT DAMPER
BDR	BASE BOARD RADIATOR
BFP	BACKFLOW PREVENTER
BFT	BOILER PLANT FIRE TUBE
BG	BOTTOM GRILLE
BHP	BRAKE HORSEPOWER
BHW	HOT WATER HEATING BOILER
BHX	BOILER BLOWDOWN HEAT EXCHANGER
BIW	BACKWARD INCLINED WHEEL (FAN)
BR	BOTTOM REGISTER
BT	BLOWOFF TANK
BTC	BLOWOFF TANK CONTROL VALVE
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CENTIGRADE (CELCIUS)
CC	COOLING COIL
CCD	COOLING COIL CONDENSATE DRAIN
CD	CEILING DIFFUSER
CD-1	CONSTRUCTION DOCUMENTS (SUBMISSION1)
CD-2	CONSTRUCTION DOCUMENTS (SUBMISSION2)
CENT	CENTRIFICAL
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CFT	CUBIC FEET
CFP	CHEMICAL FEED PUMP
CG	CEILING GRILLE
CH	CHILLER
CHP	CHILLED WATER PUMP
CHW	CHILLER WATER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CI	CAST IRON
CM	CARBON MONOXIDE
CM	CUBIC METER
CM/S	CUBIC METER PER SECOND
CO	CLEAN OUT
CO2	CARBON DIOXODE
COMP	COMPRESSOR UNIT
COP	COEFFICIENT OF PERFORMANCE
CP	CONDENSATE PUMP
CR	CEILING REGISTER
CS	CONDENSATE STORAGE TANK
CSG	CLEAN STEAM GENERATOR
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
CV	CONSTANT VOLUME
CW	COLD WATER (POTABLE)
CWCC	CHILLED WATER COOLING COIL
CWP	CONDENSER WATER PUMP
CWR	CONDENSER WATER RETURN (TO COOLING TOWER)
CWS	CONDENSER WATER SUPPLY (FROM COOLING TOWER)
D	DAMPER – AUTOMATIC
D-1	OUTDOOR AIR DAMPER
D-2	RETURN AIR DAMPER
D-3	RELIEF AIR DAMPER
DB	DECIBELS
Db	DRY-BULB TEMPERATURE
DD-1	DESIGN DEVELOPMENT (SUBMISSION1)
DD-2	DESIGN DEVELOPMENT (SUBMISSION2)
DDC	DIRECT DIGITAL CONTROLS
DEG	DEGREE
DF	DIFFUSER
DIA	DIAMETER
DIW	DEIONIZED WATER
DP	DEW POINT TEMPERATURE
DP	DIFFUSER PLATE
DPA	DIFFERENTIAL PRESSURE ASSEMBLY
DPS	DIFFERENTIAL PRESSURE SENSOR
DX	DIRECT EXPANSION
DXCC	DIRECT EXPANSION COOLING COIL
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	EVAPORATIVE COOLER
ECC	ENGINEERING CONTROL CENTER
ECU	EVAPORATIVE CONDENSER UNIT
EDH	ELECTRIC DUCT HEATER
EER	ENERGY EFFICIENCY RATIO
EF	EXHAUST FAN
EG	EXHAUST GRILLE
EGS	EMERGENCY GAS SHUTOFF
EGT	ENTERING GLYCOL TEMPERATURE
EH	EXHAUST HOOD
EJ	EXPANSION JOINT
EMD	END OF MAIN DRIP (STEAM)
ENT	ENTERING
ER	EXHAUST REGISTER
ERC	ELECTRIC REHEAT COIL
ERP	ELECTRIC RADIANT PANEL
ESP	EXTERNAL STATIC PRESSURE
ET	EXPANSION TANK
ETO	ETHYLENE OXIDE
EUH	ELECTRIC UNIT HEATER
EWC	EVAPORATIVE WATER COOLER
EWT	ENTERING WATER TEMPERATURE
EX.	EXISTING
F	FAHRENHEIT
F&T	FLOAT AND THERMOSTATIC
F/SDPR	COMBINATION FIRE SMOKE DAMPER
FA	FREE AREA
FC	FLEXIBLE CONNECTION
FCU	FAN COIL UNIT (4 PIPE)
FCUC	FAN COIL UNIT COOLING ONLY
FCUH	FAN COIL UNIT HEATING ONLY
FCW	FORWARD CURVED WHEEL (FAN)
FD	FLOOR DRAIN
FD	FIRE DAMPER
FF	FINAL FILTER
FHX	FLUE GAS/FEEDWATER HEAT EXCHANGER
FM	FLOW METER
FOP	FUEL OIL PUMP
FOT	FUEL OIL TANK
FOHX	FUEL OIL HEAT EXCHANGER
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FPTU	FAN POWERED TERMINAL UNIT
FR	FLOOR REGISTER
FRP	FIBER REINFORCED POLYESTER
FS	FLOW SWITCH
FSTAT	FREEZESTAT
FT	FEET
FT-LB	FOOT-POUND
FTR	FIN TUBE RADIATION
FV	FACE VELOCITY
GA	GAUGE
GAL	GALLONS
GH	GRAVITY HOOD
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESSURE REGULATOR
GS	GALVANIZED STEEL
H	HUMIDIFER
H&CW	HOT & COLD WATER
HAC	HOUSEKEEPING AID CLOSET
HB	HOSE BIBB
HC	HEATING COIL
HD	HEAD
HD	HOOD
HOA	HAND/OFF/AUTOMATIC
HP	HEAT PUMP
HP	HORSEPOWER
HPDT	HIGH PRESSURE DRIP TRAP
HPR	HIGH PRESSURE RETURN (STEAM CONDENSATE)
HPS	HIGH PRESSURE SUPPLY (STEAM)
HRC	HEAT RECOVERY COIL
HRD	HEAT RECOVERY DEVICE
HRP	HYDRONIC RADIANT (CEILING) PANEL
HRW	HEAT RECOVERY WHEEL
HSTAT	HUMIDISTAT
HTM	HUMIDIFIER TERMINAL
HUM	HUMIDIFIER UNIT MOUNTED
HVU	HEATING AND VENTILATING UNIT
HW	HOT WATER
HWC	HOT WATER COIL
HWHC	HOT WATER HEATING COIL
HWP	HEATING HOT WATER PUMP
HWR	HEATING HOT WATER RETURN
HWS	HEATING HOT WATER SUPPLY
HWUH	HOT WATER UNIT HEATER
HVD	HOISTWAY VENT DAMPER
HX	HEAT EXCHANGER
HZ	HERTZ
I/O	INPUT/OUTPUT
IAQ	INDOOR AIR QUALITY
IBT	INVERTED BUCKET TRAP
ICF	IN-LINE CENTRIFUGAL FAN
ICU	INTENSIVE CARE UNIT
ID	INSIDE DIAMETER
IFB	INTEGRAL FACE AND BYPASS
IN	INCHES
IN HG	INCHES OF MERCURY
IN WC	INCH WATER COLUMN
IN WG	INCH WATER GAUGE
IN-LB	INCH-POUND
IPLV	INTERGRATED PART LOAD VALUE
IRH	INTRARED HEATER
IS	INSECT SCREEN
IU	INDUCTION UNIT
IV	INLET VANES
J	INTENTIALLY LEFT BLANK
kg	KILOGRAM
kg/HR	KILOGRAM PER HOUR
kPa	KILOPASCAL
kW	KILOWATT
kWh	KILOWATT HOUR
L	LITER
L/h	LITERS PER HOUR (OR LITERS/HOUR)
L/m	LITERS PER MINUTE (OR LITERS/MINUTE)
L/s	LITERS PER SECOND (OR LITERS/SECOND)
LAT	LEAVING AIR TEMPERATURE
LBS/HR	POUNDS PER HOUR
LF	LINEAR FOOT (FEET)
LGT	LEAVING GLYCOL TEMPERATURE
LH	LATENT HEAT
LPG	LIQUID PROPANE GAS
LPR	LOW PRESSURE RETURN (STEAM CONDENSATE)
LPRC	LOW PRESSURE STEAM RETURN (CLEAN)
LLHX	LIQUID TO LIQUID HEAT EXCHANGER
LPS	LOW PRESSURE STEAM
LPSC	LOW PRESSURE STEAM (CLEAN)
LSD	LINEAR SLOT DIFFUSER
LTCP	LOCAL TEMPERATURE CONTROL PANEL
LVG	LEAVING
LVR	LOUVER
LWT	LEAVING WATER TEMPERATURE
M	METER, SI UNIT
M/s	METERS PER SECOND (OR METERS/SECOND)
MA	MIXED AIR
MAT	MIXED AIR TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAV	MANUAL AIR VENT
MAX	MAXIMUM
MB	MIXING BOX
MBH	1000 BTUH
MCA	MINIMUM BRANCH CIRCUIT AMPACITY
MER	MECHANICAL EQUIPMENT ROOM
MERV	MINIMUM EFFICIENCY REPORTING VALUE
MH	MANHOLE
MHP	MOTOR HORSEPOWER
MIN	MINIMUM
MM	MILLIMETER
MOV	MOTOR OPERATED VALVE
MPR	MEDIUM PRESSURE RETURN (STEAM CONDENSATE)
MPS	MEDIUM PRESSURE STEAM
MRI	MAGNETIC RESONANCE IMAGING
MTD	MEAN TEMPERATURE DIFFERENCE
MVD	MANUAL VOLUME DAMPER
MZ	MULTI-ZONE
NA	NOT APPLICABLE
NC	NOISE CRITERIA
NC	NORMALLY CLOSED
NG	NATURAL GAS
NGFM	NATURAL GAS FLOWMETER
NO	NORMALLY OPEN
NOAA	NATIONAL OCEANIC & ATMOSPHERIC ADMINISTRATION
NOM	NOMINAL
NPLV	NON-STANDARD PART LOAD VALUE
NPSH	NET POSITIVE SUCTION HEAD
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OAG	OUTSIDE AIR GRILLE
OAI	OUTSIDE AIR INTAKE
OD	OUTSIDE DIAMETER
OFM	OIL FLOWMETER
OR	OPERATING ROOM
P	PUMP
PA	PASCAL
PC	PUMPED CONDENSATE
PCF	POUNDS PER CUBIC FOOT (FEET)
PD	PRESSURE DROP
PEF	PROPELLER (TYPE) EXHAUST FAN
PF	PRE-FILTER
PG	PRESSURE GAGE
PGW	PROPYLENE GLYCOL-WATER (SOLUTION)
PHC	PREHEAT COIL
PPM	PARTS PER MILLION
PRS	PRESSURE REGULATING (VALVE) STATION
PRV	PRESSURE REGULATING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH – ABSOLUTE
PSIG	POUNDS PER SQUARE INCH – GAGE
PSS	PRIMARY SECONDARY SYSTEM
PSV	PRESSURE SAFETY VALVE
PTAC	PACKAGED TERMINAL AIR CONDITIONER
R/E	RETURN OR EXHAUST
RA	RETURN AIR
RAD	REFRIGERANT AIR DRYER
RAF	RADIO FREQUENCY
RAHX	ROTARY AIR HEAT EXCHANGER
RAT	RETURN AIR TEMPERATURE
RCCH	REMOTE CONDENSER CHILLER
RCU	RECIPROCATING CHILLER UNIT
RD	REFRIGERANT DISCHARGE
RDS	ROOM DATA SHEETS
REA	RELIEF AIR
RF	RETURN FAN
RG	RETURN GRILLE
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RHG	REFRIGERANT HOT GAS
RL	REFRIGERANT LIQUID LINE
RLA	RUN LOAD AMPERE
RO	REVERSE OSMOSIS
RPM	REVOLUTIONS PER MINUTE
RR	RETURN REGISTER
RS	REFRIGERANT SUCTION
RTU	ROOF TOP UNIT
RV	RELIEF VALVE
SA	SUPPLY AIR
SAD	SOUND ATTENUATING DEVICE
SAT	SUPPLY AIR TEMPERATURE
SC	SHADING COEFFICIENT
SCFM	STANDARD CUBIC FEET PER MINUTE
SCI	SPINAL CODE INJURY
SCR	SILICON CONTROLLED RECTIFIER
SD	SMOKE DETECTOR
SD	SUPPLY AIR DIFFUSER
SD-1	SCHEMATIC DESIGN (SUBMISSION1)
SD-2	SCHEMATIC DESIGN (SUBMISSION2)
SDPR	SMOKE DAMPER
SDR	SMOKE DAMPER (RETURN)
SDS	SMOKE DAMPER (SUPPLY)
SEN	SENSIBLE HEAT
SF	SUPPLY FAN
SG	SUPPLY AIR GRILLE
SH	STEAM HUMIDIFIER
SHC	STEAM HEATING COIL
SI	SQUARE INCHES
SP	STATIC PRESSURE
SP GR	SPECIFIC GRAVITY
SPD	SUPPLY PROCESS AND DISTRIBUTION
SPRV	STEAM PRESSURE REDUCING VALVE
SPS	STATIC PRESSURE SENSOR
SQ FT	SQUARE FOOT (FEET)
SR	SUPPLY AIR REGISTER
SS	STAINLESS STEEL
SSHX	STEAM TO STEAM HEAT EXCHANGER
SSR	SOLID SEPARATOR
ST	STEAM TRAP
SUH	STEAM UNIT HEATER
SV	STEAM PRESSURE REDUCING VALVE
SVS	STEAM VENT SILENCER
SWHX	STEAM TO WATER HEAT EXCHANGER
T & PCV	TEMPERATURE AND PRESSURE CONTROL VALVE
TAB	TESTING, ADJUSTING, BALANCE
TD	TEMPERATURE DIFFERENCE
TDH	TOTAL DYNAMIC HEAD
TDS	TOTAL DISSOLVED SOLIDS
TG	TRANSFER GRILLE
TP	TRAP
TR	TOP REGISTER
TSP	TOTAL STATIC PRESSURE
TSTAT	THERMOSTAT
TU	TERMINAL UNIT
TWU	THRU-WALL UNIT
UC	UNDER CUT
UC	UNIT COOLER
UH	UNIT HEATER
UL	UNDERWRITERS LABORATORY
URV	UPBLAST UNIT VENTILATOR
V	VALVE
VAF	VANE-AXIAL FAN
VAV	VARIABLE AIR VOLUME
VD	VOLUME DAMPER (MANUAL OPPOSED BLADE)
VFD	VARIABLE FREQUENCY DRIVE
VHA	VETERANS HEALTH ADMINISTRATION
VI	VIBRATION ISOLATOR
VIV	VARIABLE INLET VANES
VP	VACUUM PUMP
VPS	VARIABLE PRIMARY SYSTEM
VR	VACUUM (STEAM CONDENSATE) RETURN
VSD	VARIABLE SPEED DRIVE
VUH	VERTICAL UNIT HEATER
W	WATTS
WAG	WASTE ANETHESIA GAS
Wb	WET-BULB (TEMPERATURE)
WC	WATER COOLED
WCCH	WATER COOLED CHILLER
WCCU	WATER COOLED CONDENSING UNIT
WCHP	WATER COOLED HEAT PUMPS
WCPU	WATER COOLED PACKAGED UNIT
WEF	WALL EXHAUST FAN
WF	WATER FILTER
WFCV	WATER FLOW CONTROL VALVE
WFM	WATER FLOWMETER
WFMD	WATER FLOW MEASURING DEVICE
WG	WATER GAGE
WPD	WATER SIDE PRESSURE DROP
YR	YEAR

DUCTWORK SYMBOLS

FLEXIBLE CONNECTION, EQUIPMENT, VIBRATION, OR SEISMIC
VANED ELBOW (PROVIDE ALL SQUARE OR RECTANGULAR ELBOWS WITH VANES EVEN IF SYMBOL IS MISSING)
VANED ELBOW (SHORT RADIUS)
STANDARD RADIUS ELBOW (LONG RADIUS)
NEW DUCT (INSIDE DIMENSIONS: WIDTH x DEPTH)
EXISTING DUCT TO REMAIN
EXISTING DUCT TO BE REMOVED
LOUVER (LOUVER SPECIFIED IN ARCHITECTURAL SECTION.)
FLEXIBLE DUCTWORK (INSULATED)
DUCT WITH SOUND LINING
MANUAL VOLUME DAMPER
FIRE DAMPER
BACK DRAFT DAMPER
SUPPLY DUCT (UP & DOWN)
EXHAUST DUCT (UP & DOWN)
RETURN DUCT (UP & DOWN)
ROUND AND SQUARE 4-WAY CEILING DIFFUSERS
SQUARE 3-WAY CEILING DIFFUSERS
SQUARE 2-WAY CEILING DIFFUSERS
SQUARE 1-WAY CEILING DIFFUSERS
LINEAR SLOT 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
INCLINED RISE, IN DIRECTION OF AIR FLOW
INCLINED DROP, IN DIRECTION OF AIR FLOW
LIMIT OF DEMOLITION
COMBINATION FIRE/SMOKE DAMPER
POINT OF CHANGE IN DUCT CONSTRUCTION BY STATIC PRESSURE CLASS. THE NUMBER ASSIGNS PRESSURE CLASS (IN. OF WATER) WHICH WILL ACCOMMODATE MAXIMUM OPERATING PRESSURE IN THE DUCT SUBSECTION. THE SYMBOL CONTINUES THE ASSIGNMENT UNTIL THE DUCT TERMINATES OR ANOTHER SYMBOL APPEARS. A "N" SUPERSCRIPT INDICATES NEGATIVE PRESSURE.
AUTOMATIC CONTROL DAMPER MODULATING
AUTOMATIC CONTROL DAMPER TWO POSITION
STAINLESS STEEL DUCT

MANUAL SPLITTER DAMPER
STANDARD BRANCH SUPPLY OR RETURN, NO SPLITTER (45° TAP)
DUCT MOUNTED COIL (HOT WATER OR STEAM COIL)
DUCT MOUNTED COIL (ELECTRIC)

DRAWING SYMBOLS

DETAIL NUMBER
DRAWING NUMBER WHERE DRAWN
SECTION LETTER
DRAWING NUMBER WHERE SHOWN
BUILDING NO. WHERE EQUIPMENT IS LOCATED.
EQUIPMENT ABBREVIATION (SUPPLY FAN)
SUPPLY FAN NO. 3 IN BUILDING NO. 26
TYPICAL UNIT NO.
BUILDING NO. WHERE EQUIPMENT IS LOCATED
ITEM (TERMINAL UNIT SHOWN)
ITEM NUMBER (TERMINAL UNIT NO. 1)
SERVED BY AIR HANDLER UNIT NO. 1

PIPING SYMBOLS

HPS	HIGH PRESSURE STEAM (60 PSIG AND ABOVE)
HPR	HIGH PRESSURE STEAM CONDENSATE RETURN
MPS	MEDIUM PRESSURE STEAM (16 PSIG THRU 59 PSIG)
MPR	MEDIUM PRESSURE STEAM CONDENSATE RETURN
LPS	LOW PRESSURE STEAM (15 PSIG AND BELOW)
LPR	LOW PRESSURE STEAM CONDENSATE RETURN
PC	CONDENSATE PUMP DISCHARGE
HWS	HOT WATER HEATING SUPPLY
HWR	HOT WATER HEATING RETURN
GHS	GLYCOL-WATER HEATING SUPPLY
GHR	GLYCOL-WATER HEATING RETURN
SWS	SOLAR WATER SUPPLY
SWR	SOLAR WATER RETURN
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
RHG	REFRIGERANT HOT GAS
CWS	CONDENSER WATER SUPPLY (FROM TOWER)
CWR	CONDENSER WATER RETURN (TO TOWER)
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
GCS	CHILLED GLYCOL-WATER SUPPLY
GCR	CHILLED GLYCOL-WATER RETURN
MW	MAKE-UP WATER
D	DRAIN LINE
V	VENT LINE
GRS	GLYCOL-WATER RUN AROUND SUPPLY
GRR	GLYCOL-WATER RUN AROUND RETURN
X	EXISTING PIPE TO BE REMOVED

AIR TERMINAL SYMBOLS

TERMINAL UNIT WITH REHEAT COIL
DOUBLE DUCT MIXING BOX.
FAN POWERED VARIABLE VOLUME TERMINAL UNIT WITH HEATING COIL.

VALVE SYMBOLS

GATE VALVE – THREADED/FLANGED
GLOBE VALVE – THREADED/FLANGED
GATE VALVE WITH 3/4" HOSE ADAPTER
CHECK VALVE
WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
WYE STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR
FLEXIBLE CONNECTION
ANGLE GLOBE VALVE
BUTTERFLY VALVE
BALL VALVE
MODULATING CONTROL VALVE
MODULATING CONTROL BUTTERFLY VALVE
TWO POSITION CONTROL VALVE
THREE-WAY MODULATING CONTROL VALVE
THREE-WAY TWO POSITION CONTROL VALVE
PRESSURE REGULATING VALVE
PRESSURE SAFETY VALVE
AUTOMATIC BALANCING CONTROL VALVE
WATER BALANCE DEVICE
CIRCUIT SETTER VALVE
GATE VALVE WITH GLOBE-VALVED BYPASS
PLUG VALVE
CONTROL VALVE (CV) – FLOAT-OPERATED
PRESSURE REDUCING VALVE (PRV)
WATER LEVEL CONTROLLER
FLOW METER

GENERAL NOTES:

1. SOME WORK ON THIS PROJECT IS REQUIRED TO BE COMPLETED DURING OFF HOURS, COORDINATE ALL WORK WITH THE VA PROJECT MANAGER.
2. MECHANICAL CONTRACTOR TO PROVIDE A WALL MOUNTED ROOM PRESSURIZATION MONITOR AND CONTROLLER AND ALL RELATED SENSORS AND WIRING FOR NEGATIVE AIR MONITORING DURING CONSTRUCTION, COORDINATE REQUIREMENTS AND INSTALLATION WITH ICRA PLAN AND VA PROJECT MANAGER.

CONTROLS SYMBOLS

T	ROOM THERMOSTAT/TRANSMITTER – WALL MOUNT
M	ROOM HUMIDISTAT (MOISTURE)/TRANSMITTER – WALL MOUNT
TT	TEMPERATURE TRANSMITTER
TT	TEMPERATURE TRANSMITTER, AVERAGING ELEMENT
MT	MOISTURE (HUMIDITY) TRANSMITTER
PT	PRESSURE TRANSMITTER
SPS	STATIC PRESSURE SENSOR
FT	FLOW TRANSMITTER
IT	CURRENT TRANSMITTER
CT	CONDUCTIVITY TRANSMITTER
SD	SMOKE DETECTOR
PDT	PRESSURE DIFFERENTIAL TRANSMITTER
PDS	PRESSURE DIFFERENTIAL SWITCH
HS	HAND SWITCH (HAND-OFF-AUTO SWITCH)
ZC	VALVE OR DAMPER POSITION CONTROLLER
KR	LOCAL RECORDING TIME CLOCK (RUNTIME)
TSL	TEMPERATURE SWITCH, LOW (FREEZESTAT)
TSH	TEMPERATURE SWITCH, HIGH (FREEZESTAT)
LC	LEVEL CONTROLLER
LT	LEVEL TRANSMITTER
PSH	PRESSURE SWITCH HIGH
PSL	PRESSURE SWITCH LOW
EPT	ELECTRONIC TO PNEUMATIC TRANSDUCER
AT CO2	CARBON DIOXIDE TRANSMITTER
AT CO	CARBON MONOXIDE TRANSMITTER
AT OC	OCCUPANCY SENSOR
LTCP	LOCAL TEMPERATURE CONTROL PANEL
HVAC	HVAC CONTROL PANEL
VSMC	VARIABLE SPEED MOTOR CONTROLLER
ECC	INTEGRATE CONTROL POINT ON REMOTE GRAPHICS WORKSTATION AT ENERGY CONTROL CENTER
TC	TEMPERATURE CONTROLLER. SEE SEQUENCE OF OPERATION
PC	PRESSURE CONTROLLER. SEE SEQUENCE OF OPERATION
SC	SPEED CONTROLLER. SEE SEQUENCE OF OPERATION
FC	FLOW CONTROLLER. SEE SEQUENCE OF OPERATION
FSH	FLOW SWITCH HIGH
FSL	FLOW SWITCH LOW
KC	TIME CLOCK CONTROLLING EQUIPMENT ON A SCHEDULE
M	ELECTRIC OPERATED CONTROL DAMPER/OR VALVE

SEQUENCE OF OPERATION FOR VARIABLE AIR VOLUME UNIT WITH MINIMUM OUTSIDE AIR

1. GENERAL

1.1 UNIT IS NORMALLY STARTED AND STOPPED 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. WHEN THE UNIT IS "OFF" D-1, D-3, SHALL BE FULLY CLOSED. WHEN THE UNIT IS "ON" SD-1 AND SD-2 SHALL BE FULLY OPEN, D-1 SHALL BE OPEN. D-2 AND D-3 SHALL MODULATE IN ACCORDANCE WITH THE FOLLOWING SEQUENCE:

2. TEMPERATURE CONTROL

2.1 SUPPLY AIR TEMPERATURE, SENSED BY TT-1, SHALL BE MAINTAINED AT SETPOINT VIA DIGITAL CONTROL PANEL BY MODULATING V-1 OR D-1 AND D-2 OR V-2 IN SEQUENCE.

2.2 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS ABOVE 75°F (ADJ) [23.8°C], THE DIGITAL CONTROL PANEL SHALL PREVENT THE MODULATION OF D-1 AND D-2 AND SHALL ASSUME THE MINIMUM OUTSIDE AIR POSITION (D-1 OPEN AND D-3 CLOSED). THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.3 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BETWEEN 65°F [18.3°C] AND THE SUPPLY AIR TEMPERATURE SENSED BY TT-1, DAMPER D-2 SHALL FULLY CLOSE AND D1 AND D3 SHALL BE FULLY OPEN (MAXIMUM OUTSIDE AIR POSITION) AND RELIEF FAN SHALL ENERGIZE. THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.4 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BELOW THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1, DAMPERS D-1 AND D-2 AND D-3 SHALL MODULATE TO MAINTAIN THE SCHEDULED SUPPLY AIR TEMPERATURE. RELEIF FAN SHALL BE ENERGIZED. IF D-2 IS OPEN TO MINIMUM OUTSIDE AIR, V-2 SHALL MODULATE OPEN TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

3. AIR FLOW CONTROL

3.1 THE SUPPLY AIR FLOW SHALL BE CONTROLLED BY THE DIGITAL CONTROL PANEL MODULATING THE SUPPLY FAN VARIABLE SPEED MOTOR CONTROLLER TO MAINTAIN 1.0" [25mm] OF DUCT STATIC PRESSURE (FIELD ADJUSTABLE), SENSED BY SPS-1. RESET STATIC PRESSURE BASED ON ACTUAL BUILDING LOAD BY POLLING ALL ATU

3.2 THE DIGITAL CONTROL PANEL SHALL OPEN D-3 AND ENERGIZE RELIEF FAN WHEN UNIT GOES INTO ECONOMIZER MODE. THE RELIEF FAN SHALL MODULATE FROM 0 TO 60HZ BASED ON POSITION OF OUTSIDE ARE DAMPER D-1.

3.3 USING HIGH PRESSURE SENSOR SPS-2 LOCATED AT THE SUPPLY FAN DISCHARGE, SHALL PREVENT THE SUPPLY FAN FROM DEVELOPING OVER 3" [75mm] OF STATIC PRESSURE (FIELD ADJUSTABLE). IF STATIC PRESSURE AT SPS-2 DOES EXCEED 3" [75mm] THE SUPPLY AIR FAN SHALL STOP. SPS-2 SHALL BE HARDWIRED TO THE SUPPLY FAN VSMC AND UNIT SHALL BE SHUTDOWN IN HAND,AUTO OR BYPASS MODE. SPS-2 WILL REQUIRE MANUAL RESET AT THE DEVICE.

4. FREEZE PROTECTION

4.1 IF THE AIR TEMPERATURE AS SENSED BY TT-3 FALLS BELOW 45°F [7°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 40°F [4.4°C], AS SENSED BY THE TSL THE SUPPLY AND RETURN FANS SHALL SHUT DOWN, COLD WATER VALVE SHALL OPEN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC. TSL SHALL BE HARDWIRED TO THE SUPPLY FAN UFD AND UNIT SHALL BE SHUTDOWN IN HAND/AUTO TSL WILL REQUIRE MANUAL RESET AT THE DEVICE.

5. AUTOMATIC SHUTDOWN/RESTART

5.1 WHEN SMOKE IS DETECTED BY DUCT SMOKE DETECTOR, SD, THE SUPPLY AND RETURN FANS SHALL SHUT "OFF" AND AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM. ALL SMOKE DAMPERS IN THE SUPPLY AND RETURN DUCTS SHALL CLOSE.

5.2 EXHAUST FANS SERVING AREA OF THE SUPPLY FAN SHALL CONTINUE TO RUN. SUPPLY AND RETURN FANS SHALL RESTART AND SMOKE DAMPERS SHALL OPEN WHEN FIRE ALARM CIRCUIT IS RESET.

5.3 DUCT SMOKE DETECTOR SUPPLIED AND INSTALLED BY M.C., CONTROL WIRING BY M.C.. FA SIGNAL BY E.C., AND ELECTRIC WIRING BY E.C.

6. EMERGENCY CONSTANT SPEED OPERATION

6.1 UPON FAILURE OF THE VSMC, THE SUPPLY AND RETURN FANS SHALL BE STARTED/STOPPED MANUALLY AT THE DIGITAL CONTROL PANEL OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.

7. FILTER DIFFERENTIAL PRESSURE

7.1 SUPPLY AIR FILTER DIFFERENTIAL PRESSURE SENSOR SHALL TRANSMIT THE PRESSURE DIFFERENTIAL TO THE ECC. WHEN THE DIFFERENTIAL PRESSURE EXCEEDS SETPOINT A MAINTENANCE ALARM SHALL BE DISPLAYED

8. AIRFLOW MONITORING

8.1 AIRFLOW MONITORING STATIONS (AFMD) SHALL MONITOR AIR FLOW.

VARIABLE AIR VOLUME AIR HANDLING UNIT WITH MINIMUM OUTSIDE AIR CONTROL DIAGRAM

1
H1
NTS

SEQUENCE OF OPERATION FOR CONSTANT VOLUME AIR UNIT WITH MINIMUM OUTSIDE AIR

1. GENERAL

1.1 UNIT IS NORMALLY STARTED AND STOPPED 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. WHEN THE UNIT IS "OFF" D-1, D-3, SHALL BE FULLY CLOSED. WHEN THE UNIT IS "ON" SD-1 AND SD-2 SHALL BE FULLY OPEN, D-1 SHALL BE OPEN. D-2 AND D-3 SHALL MODULATE IN ACCORDANCE WITH THE FOLLOWING SEQUENCE:

2. TEMPERATURE CONTROL

2.1 SUPPLY AIR TEMPERATURE, SENSED BY TT-1, SHALL BE MAINTAINED AT SETPOINT VIA DIGITAL CONTROL PANEL BY MODULATING V-1 OR D-1 AND D-2 OR V-2 IN SEQUENCE.

2.2 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS ABOVE 75°F (ADJ) [23.8°C], THE DIGITAL CONTROL PANEL SHALL PREVENT THE MODULATION OF D-1 AND D-2 AND SHALL ASSUME THE MINIMUM OUTSIDE AIR POSITION (D-1 OPEN AND D-3 CLOSED). THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.3 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BETWEEN 65°F [18.3°C] AND THE SUPPLY AIR TEMPERATURE SENSED BY TT-1, DAMPER D-2 SHALL FULLY CLOSE AND D1 AND D3 SHALL BE FULLY OPEN (MAXIMUM OUTSIDE AIR POSITION) AND RELIEF FAN SHALL ENERGIZE. THE DIGITAL CONTROL PANEL SHALL MODULATE V-1 TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

2.4 WHEN THE TEMPERATURE OF THE OUTSIDE AIR, SENSED BY TT-2, IS BELOW THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1, DAMPERS D-1 AND D-2 AND D-3 SHALL MODULATE TO MAINTAIN THE SCHEDULED SUPPLY AIR TEMPERATURE. RELEIF FAN SHALL BE ENERGIZED. IF D-2 IS OPEN TO MINIMUM OUTSIDE AIR, V-2 SHALL MODULATE OPEN TO MAINTAIN THE SUPPLY AIR TEMPERATURE, SENSED BY TT-1.

3. AIR FLOW CONTROL

3.1 THE SUPPLY AIR FLOW SHALL BE CONSTANT VOLUME BASED ON TESTING AND BALANCING, VARIABLE SPEED MOTOR CONTROLLER SHALL BE USED FOR BALANCING.

3.2 THE DIGITAL CONTROL PANEL SHALL OPEN D-3 AND ENERGIZE RELIEF FAN WHEN UNIT GOES INTO ECONOMIZER MODE. THE RELIEF FAN SHALL MODULATE FROM 0 TO 60HZ BASED ON POSITION OF OUTSIDE ARE DAMPER D-1.

4. FREEZE PROTECTION

4.1 IF THE AIR TEMPERATURE AS SENSED BY TT-3 FALLS BELOW 45°F [7°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 40°F [4.4°C], AS SENSED BY THE TSL THE SUPPLY AND RETURN FANS SHALL SHUT DOWN, COLD WATER VALVE SHALL OPEN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC. TSL SHALL BE HARDWIRED TO THE SUPPLY FAN UFD AND UNIT SHALL BE SHUTDOWN IN HAND/AUTO TSL WILL REQUIRE MANUAL RESET AT THE DEVICE.

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CONSTANT VOLUME AIR HANDLING UNIT WITH MINIMUM OUTSIDE AIR CONTROL DIAGRAM

2
H1
NTS

BID
DOCUMENTS
MARCH 31, 2014

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SEAL
JOSEPH L. WANDA
PE-062454

Revisions	Date

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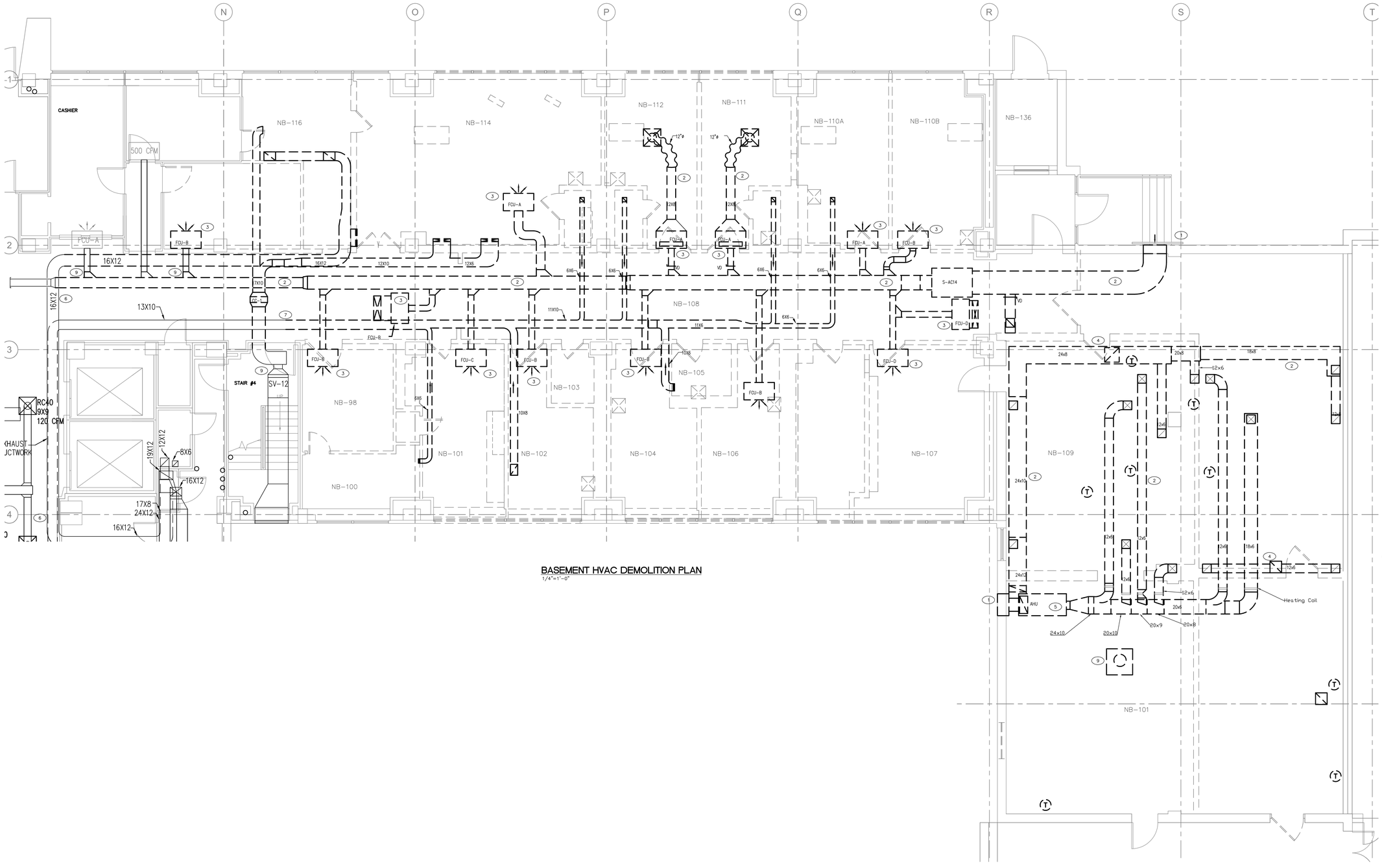
SDVOSB

Drawing Title HVAC LEGEND ABBREVIATIONS & SYMBOLS	Project Title CONSTRUCT CANTEEN & RETAIL STORE			Date 03/31/2014
				Project No. 693-12-110
Facility Project Name WILKES-BARRE V.A. MEDICAL CENTER	Building Number 1	Checked JLM	Drawn MBD	DRAWING NO. DRAWING 1-H1 DWG. 29 OF 72
	Location WILKES-BARRE, PENNSYLVANIA 18711			

Veterans Affairs



BASEMENT HVAC DEMOLITION PLAN
1/4"=1'-0"

NOTES BY SYMBOL: (#)
(THIS DRAWING ONLY)

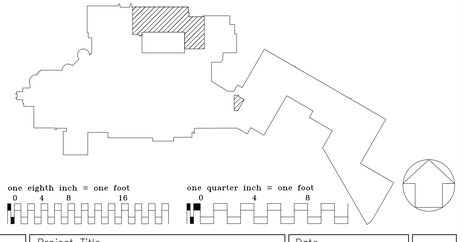
1. REMOVE LOUVER, PATCH WALL. COORDINATE WITH OWNER/ARCHITECT TO MATCH EXISTING EXTERIOR FINISH.
2. REMOVE EXISTING DUCTWORK AND ALL HANGARS AND SUPPORTS.
3. REMOVE EXISTING FCU AND ALL ASSOCIATED DUCTWORK, FITTINGS, AND CONTROLS.
4. REMOVE DUCTWORK THRU ROOF. REMOVE ROOFTOP MOUNTED EQUIPMENT. PATCH AND SEAL ROOF OPENING.
5. REMOVE EXISTING AHU AND ALL ASSOCIATED DUCTWORK, FITTINGS, AND CONTROLS.
6. REMOVE ALL EXHAUST DUCTWORK BACK TO RISER. CAP AT RISER. REMOVE ALL HANGARS, SUPPORTS, AND GRILLS.
7. LIMIT OF DEMOLITION, REMOVE EXHAUST DUCTWORK BACK PREPARE FOR CONNECTION DURING NEW CONSTRUCTION.
8. REMOVE EXISTING ROOF MOUNTED CONDENSING UNIT, CURB AND ALL RELATED PIPING.
9. REMOVE EXISTING DUCTWORK AS INDICATED AND CAP AIRTIGHT.

GENERAL DEMOLITION NOTES:
(THIS DRAWING ONLY)

1. PRIOR TO THE COMMENCEMENT OF ANY DEMOLITION, THE CONTRACTOR SHALL COMPLY WITH THE REQUIREMENTS OF THE INFECTIONS CONTROL RISK ASSESSMENT AND PHASING PLANS, SHOWN ON SHEET 1-ICRA1
2. SEE SHEET 1-H12 FOR WORK IN NEW MAIL ROOM.
3. SEE SHEET 1-H13 FOR WORK IN BASEMENT OUTSIDE OF IMMEDIATE PROJECT AREAS.
4. IT IS IMPERATIVE THAT THE CONTRACTOR THOROUGHLY EXAMINE THE SITE PRIOR TO SUBMITTING THEIR BID. DUE TO THE NATURE OF THIS PROJECT AND THE STATE OF THE EXISTING BUILDING, IT IS IMPOSSIBLE TO COMPLETELY RELATE THE SCOPE OF THE DEMOLITION REQUIRED TO THE CONTRACTOR THROUGH THE CONTRACT DOCUMENTS. FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE CONTRACTOR OF THEIR DEMOLITION RESPONSIBILITIES UNDER THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND COORDINATE THE EXACT CONTENT OF DEMOLITION NECESSARY TO PROVIDE A RENOVATED AND UPGRADED SPACE AND TO FACILITATE NEW WORK.
5. THE INTENT OF THE DEMOLITION ON THIS PROJECT IS THE COMPLETE REMOVAL OF ALL INTERIOR HVAC SYSTEMS IN THE PROJECT AREA UNLESS INDICATED OTHERWISE, REFER TO DEMOLITION DRAWINGS. AFTER THE DEMOLITION, THE ONLY EXISTING ITEMS THAT SHOULD REMAIN ARE HVAC ITEMS TO RELATE OR SERVE OTHER FLOORS NOT IN THE SCOPE OF THIS PROJECT.
6. THE HVAC CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING ASSOCIATED WITH THE REMOVAL AND INSTALLATION OF NEW HVAC SYSTEMS. DO NOT CUT STRUCTURAL MEMBERS.
7. THESE DEMOLITION PLANS ARE NOT INCLUSIVE OF EVERY PIECE OF EQUIPMENT TO BE DEMOLISHED. RATHER IT SHOWS SOME OF THE LARGER EQUIPMENT AND IS AN ATTEMPT AT CONVEYING A GENERAL UNDERSTANDING OF THE EXISTING SYSTEM.

GENERAL NOTES:
(THIS DRAWING ONLY)

1. COMPLETE LAYOUT DRAWINGS SHALL BE REQUIRED BY SECTION 23 05 11 – COMMON WORK RESULTS FOR HVAC, PARAGRAPH, SUBMITTALS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED.
2. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR PROJECT PHASING SCHEDULE.



three thirtyseconds inch = one foot (0 4 8 16)

BID DOCUMENTS
MARCH 31, 2014

one eighth inch = one foot (0 4 8 16)

one quarter inch = one foot (0 4 8)

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COMMONWEALTH OF PENNSYLVANIA REGISTERED PROFESSIONAL ENGINEER JOSEPH L. MANDA No. PE-060454

Revisions | Date

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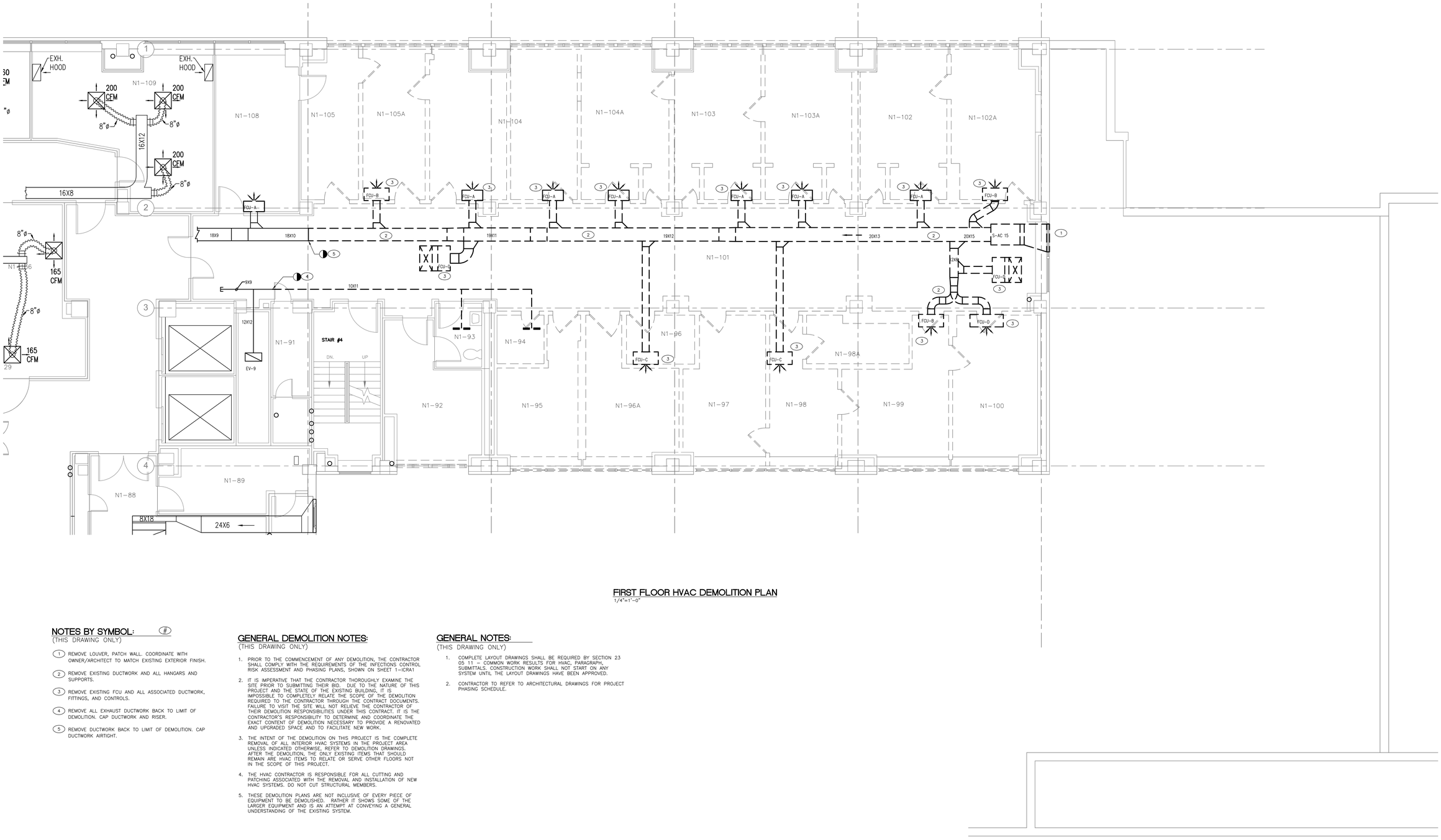
SDVOSB Disabled Veteran Owned Business cVE

Drawing Title: BASEMENT HVAC DEMOLITION PLAN
Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER
Project Title: CONSTRUCT CANTEEN & RETAIL STORE
Location: WILKES-BARRE, PENNSYLVANIA 18711
Building Number: 1
Checked: JLM
Drawn: MBD
Date: 03/31/2014
Project No.: 693-12-110
DRAWING NO. DRAWING 1-H2
DWG. 30 OF 72

Veterans Affairs



FIRST FLOOR HVAC DEMOLITION PLAN

1/4"=1'-0"

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

1. REMOVE LOUVER, PATCH WALL. COORDINATE WITH OWNER/ARCHITECT TO MATCH EXISTING EXTERIOR FINISH.
2. REMOVE EXISTING DUCTWORK AND ALL HANGARS AND SUPPORTS.
3. REMOVE EXISTING FCU AND ALL ASSOCIATED DUCTWORK, FITTINGS, AND CONTROLS.
4. REMOVE ALL EXHAUST DUCTWORK BACK TO LIMIT OF DEMOLITION. CAP DUCTWORK AND RISER.
5. REMOVE DUCTWORK BACK TO LIMIT OF DEMOLITION. CAP DUCTWORK AIRTIGHT.

GENERAL DEMOLITION NOTES:

(THIS DRAWING ONLY)

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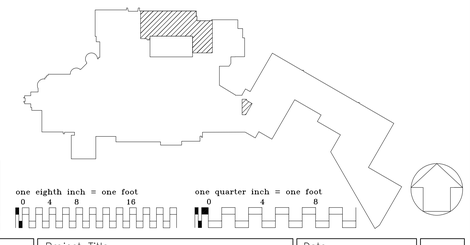

three thirtyseconds inch = one foot (0 4 8 16)

BID DOCUMENTS
MARCH 31, 2014

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ENGINEER

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COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL — JOSEPH J. WANDA — ENGINEER — No. PE-062454

Revisions	Date

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048

SDVOSB — Service-Disabled Veteran-Owned Small Business — CVE

Drawing Title: FIRST FLOOR HVAC DEMOLITION PLAN

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Building Number: 1 | Checked: JLM | Drawn: MBD

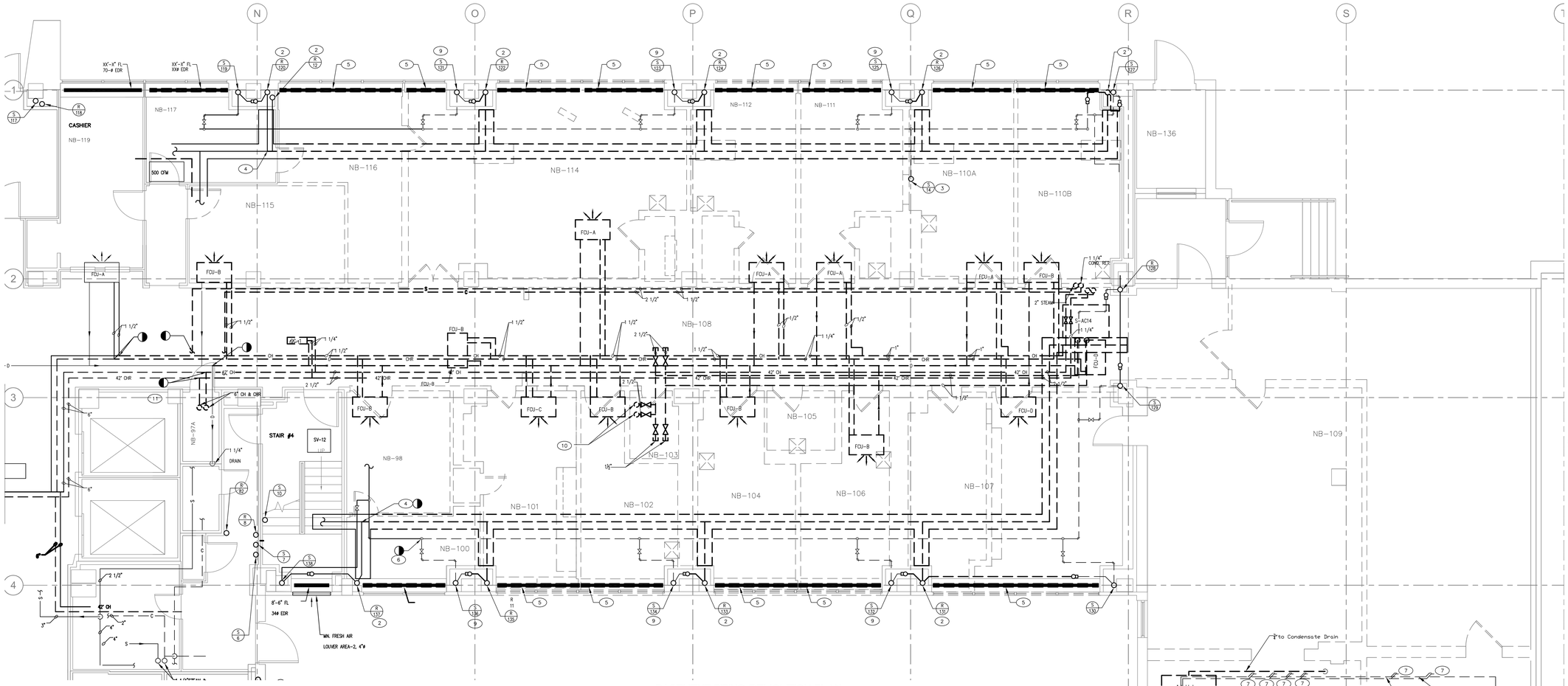
Location: WILKES-BARRE, PENNSYLVANIA 18711

Date: 03/31/2014

Project No.: 693-12-110

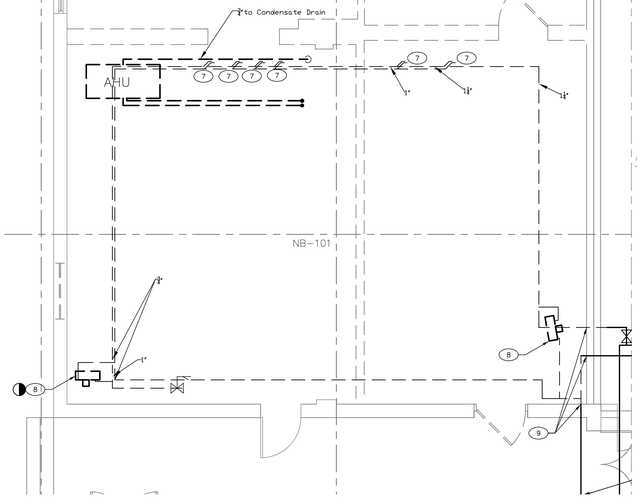
DRAWING NO. DRAWING: 1-H3
DWG. 31 OF 72

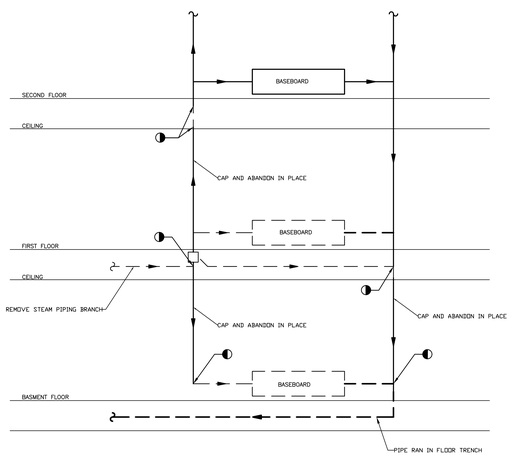
Veterans Affairs



BASEMENT PIPING DEMOLITION PLAN

1/4"=1'-0"





DEMOLITION RISER DETAIL

NO SCALE

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

1. EXISTING 2½" HWS/HWR LINES TO REMAIN.
2. CAP PIPING IN COLUMN INCLOSURE. REMOVE ALL PIPING IN TRENCH TO THIS POINT.
3. STEAM RISER TO BE REMOVED AND RELOCATED DURING RENOVATION. REMOVE STEAM PIPING UP TO SECOND FLOOR CEILING SPACE, REFER TO NEW WORK PLANS FOR RELOCATION.
4. LIMIT OF DEMOLITION OF STEAM RETURN IN TRENCH. CAP PIPING.
5. REMOVE EXISTING STEAM BASEBOARD AND ALL ASSOCIATED PIPING. CAP ALL CONNECTIONS TO STEAM RISER.
6. REMOVE STEAM PIPING BACK TO LIMIT OF DEMOLITION. PREPARE PIPING FOR NEW PIPE CONNECTION.
7. REMOVE EXISTING STEAM AND CONDENSATE PIPING AND STEAM DUCT COILS.
8. REMOVE UNIT HEATER AND ALL ASSOCIATED PIPING.
9. REMOVE ALL PIPING TO RISER. ABANDON RISER IN PLACE.
10. REMOVE RISER UP TO SECOND FLOOR.
11. REMOVE CHS/CHR PIPING TO RISER.

GENERAL DEMOLITION NOTES:

(THIS DRAWING ONLY)

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2. SEE SHEET 1-H12 FOR WORK IN NEW MAIL ROOM.
3. SEE SHEET 1-H13 FOR WORK IN BASEMENT OUTSIDE OF IMMEDIATE PROJECT AREAS.
4. IT IS IMPERATIVE THAT THE CONTRACTOR THOROUGHLY EXAMINE THE SITE PRIOR TO SUBMITTING THEIR BID. DUE TO THE NATURE OF THIS PROJECT AND THE STATE OF THE EXISTING BUILDING, IT IS IMPOSSIBLE TO COMPLETELY RELATE THE SCOPE OF THE DEMOLITION REQUIRED TO THE CONTRACTOR THROUGH THE CONTRACT DOCUMENTS. FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE CONTRACTOR OF THEIR DEMOLITION RESPONSIBILITIES UNDER THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND COORDINATE THE EXACT CONTENT OF DEMOLITION NECESSARY TO PROVIDE A RENOVATED AND UPGRADED SPACE AND TO FACILITATE NEW WORK.
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8. CAP ALL PIPING TO REMAIN AFTER DEMOLITION OF PIPING.

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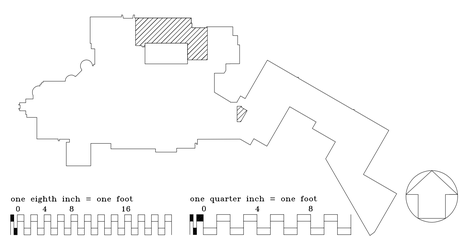

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BID DOCUMENTS
MARCH 31, 2014

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SEAL

JOSEPH L. MANDA — COMMONWEALTH OF PENNSYLVANIA — REGISTERED PROFESSIONAL ENGINEER — No. PE-062454

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SDVOSB — Service-Disabled Veteran-Owned Small Business — eVe

Drawing Title: BASEMENT PIPING DEMOLITION PLAN

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Location: WILKES-BARRE, PENNSYLVANIA 18711

Building Number: 1 | Checked: JLM | Drawn: MBD

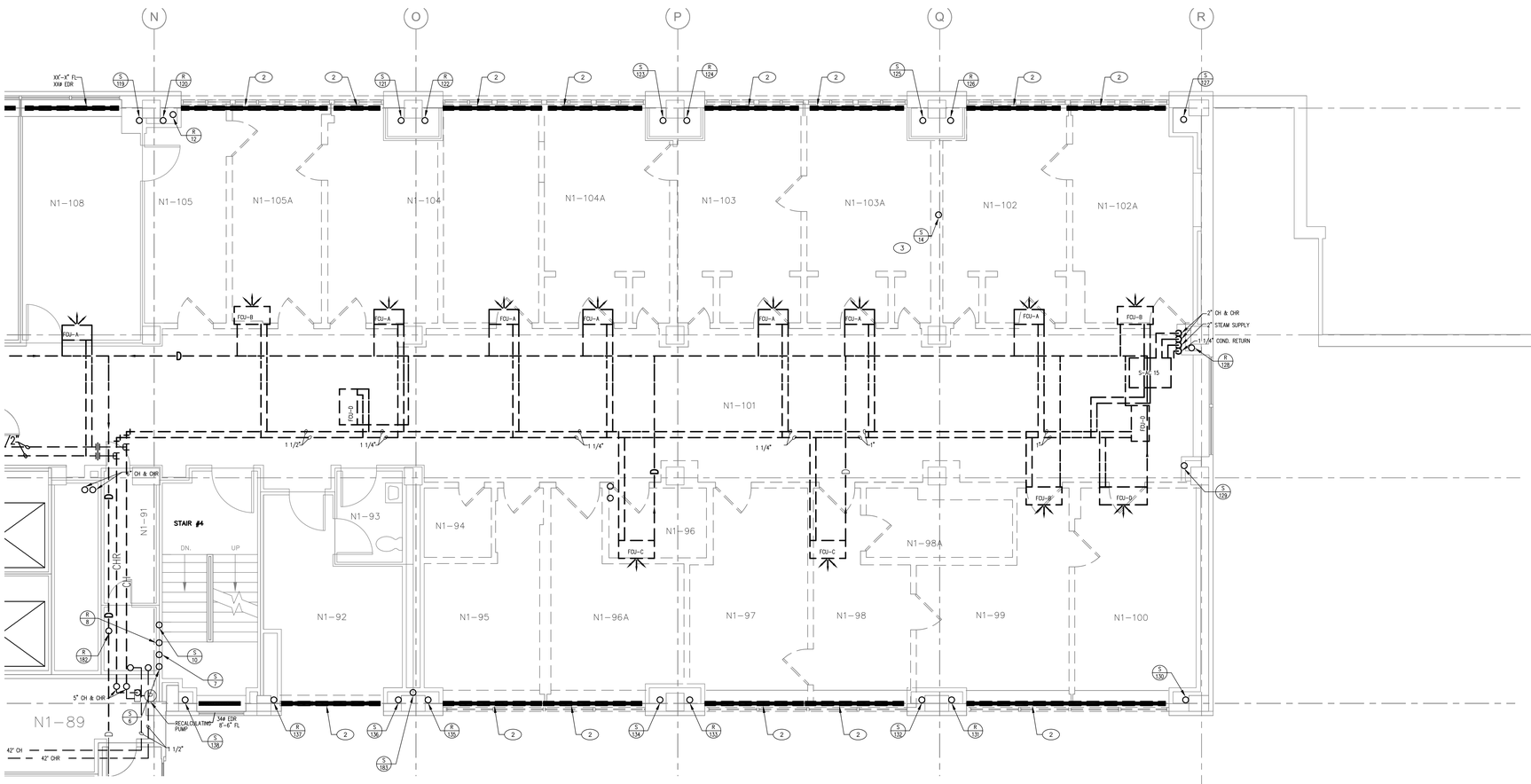
Date: 03/31/2014

Project No.: 693-12-110

DRAWING NO. DRAWING 1-H4

DWG. 32 OF 72

Veterans Affairs



NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

(1) EXISTING 2½" HWS/HWR LINES TO REMAIN.

(2) REMOVE EXISTING STEAM BASEBOARD AND ALL ASSOCIATED PIPING. CAP ALL CONNECTIONS TO STEAM RISER AND CONDENSATE.

(3) REMOVE STEAM PIPING UP TO CEILING SPACE.

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2. IT IS IMPERATIVE THAT THE CONTRACTOR THOROUGHLY EXAMINE THE SITE PRIOR TO SUBMITTING THEIR BID. DUE TO THE NATURE OF THIS PROJECT AND THE STATE OF THE EXISTING BUILDING, IT IS IMPOSSIBLE TO COMPLETELY RELATE THE SCOPE OF THE DEMOLITION REQUIRED TO THE CONTRACTOR THROUGH THE CONTRACT DOCUMENTS. FAILURE TO VISIT THE SITE WILL NOT RELIEVE THE CONTRACTOR OF THEIR DEMOLITION RESPONSIBILITIES UNDER THIS CONTRACT. IT IS THE CONTRACTOR'S RESPONSIBILITY TO DETERMINE AND COORDINATE THE EXACT CONTENT OF DEMOLITION NECESSARY TO PROVIDE A RENOVATED AND UPGRADED SPACE AND TO FACILITATE NEW WORK.
3. THE INTENT OF THE DEMOLITION ON THIS PROJECT IS THE COMPLETE REMOVAL OF ALL INTERIOR HVAC SYSTEMS IN THE PROJECT AREA UNLESS INDICATED OTHERWISE. REFER TO DEMOLITION DRAWINGS. AFTER THE DEMOLITION, THE ONLY EXISTING ITEMS THAT SHOULD REMAIN ARE HVAC ITEMS TO RELATE OR SERVE OTHER FLOORS NOT IN THE SCOPE OF THIS PROJECT.
4. THE HVAC CONTRACTOR IS RESPONSIBLE FOR ALL CUTTING AND PATCHING ASSOCIATED WITH THE REMOVAL AND INSTALLATION OF NEW HVAC SYSTEMS. DO NOT CUT STRUCTURAL MEMBERS.
5. THESE DEMOLITION PLANS ARE NOT INCLUSIVE OF EVERY PIECE OF EQUIPMENT TO BE DEMOLISHED. RATHER IT SHOWS SOME OF THE LARGER EQUIPMENT AND IS AN ATTEMPT AT CONVEYING A GENERAL UNDERSTANDING OF THE EXISTING SYSTEM.
6. CAP ALL PIPING TO REMAIN AFTER DEMOLITION OF PIPING.

GENERAL NOTES:

(THIS DRAWING ONLY)

1. COMPLETE LAYOUT DRAWINGS SHALL BE REQUIRED BY SECTION 23 05 11 – COMMON WORK RESULTS FOR HVAC, PARAGRAPH, SUBMITTALS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED.
2. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR PROJECT PHASING SCHEDULE.

FIRST FLOOR PIPING DEMOLITION PLAN

1/4"=1'-0"

three thirtyseconds inch = one foot (0 4 8 16)

one eighth inch = one foot (0 4 8 16)

one quarter inch = one foot (0 4 8)

BID DOCUMENTS
MARCH 31, 2014

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SEAL: COMMONWEALTH OF PENNSYLVANIA – REGISTERED PROFESSIONAL ENGINEER – JOSEPH L. WANDA – No. PE-062454 – BARRY ISETT & ASSOCIATES, INC.

DELAWARE ARCHITECTS, LLC
550 S. DUPONT BLVD. SUITE E - MILFORD, DE 19963
Office - 302-491-6047 Fax - 302-491-6048

Revisions | Date

Drawing Title: FIRST FLOOR PIPING DEMOLITION PLAN

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Location: WILKES-BARRE, PENNSYLVANIA 18711

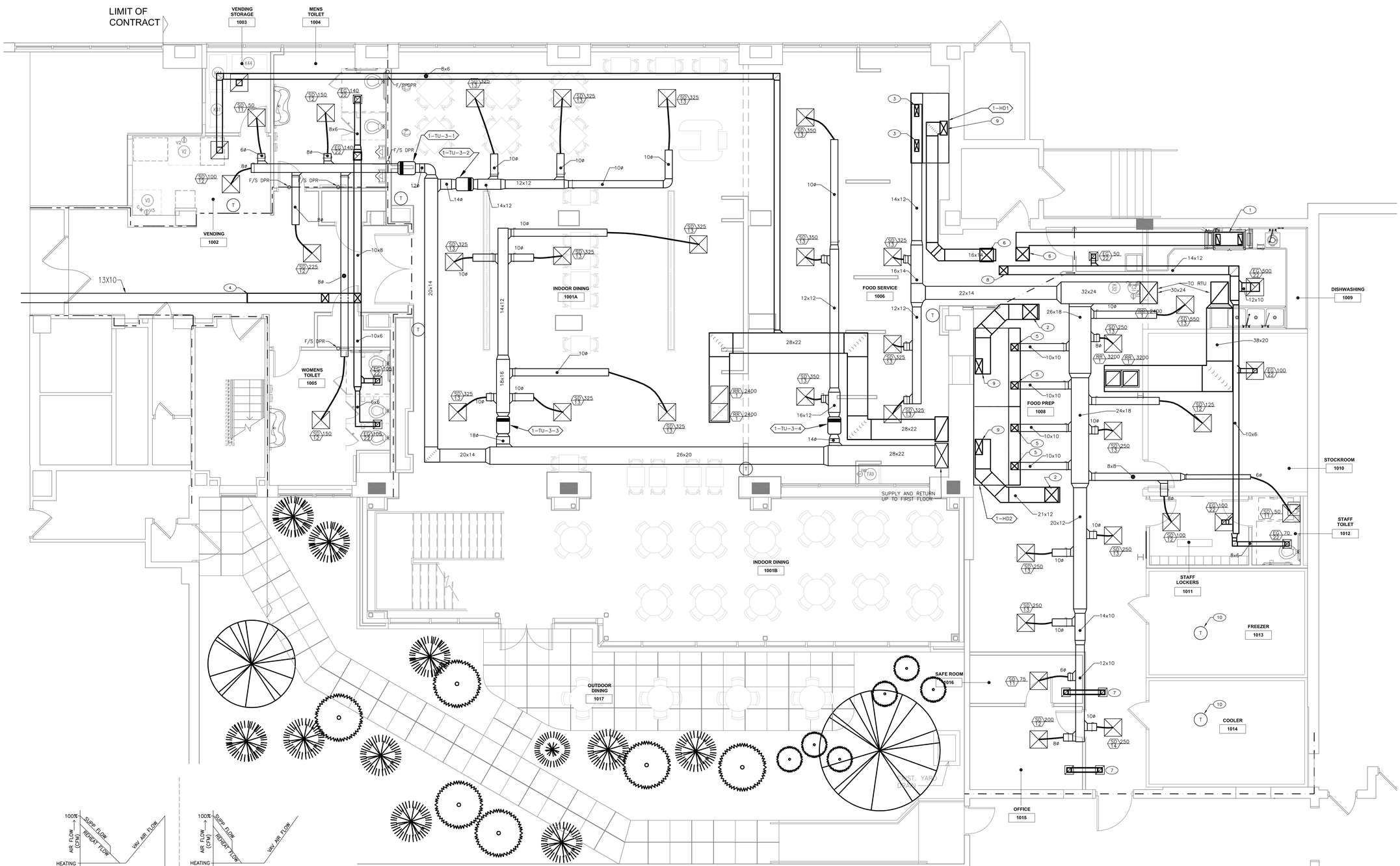
Date: 03/31/2014

Project No.: 693-12-110

Building Number: 1 | Checked: JLM | Drawn: MBD

DRAWING NO. DRAWING 1-H5 DWG. 33 OF 72

Veterans Affairs



NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

1. EXHAUST DUCTWORK FROM DISHWASHER UP TO EXHAUST FAN ON ROOF. COORDINATED WITH CONNECTIONS TO DISHWASHER WITH MANUFACTURER.
2. 20½"x20½" EXHAUST DUCTWORK UP TO ROOF EXHAUST FAN.
3. CONNECT TO 16x6 DUCT COLLAR ON SUPPLY PLENUM. EACH CONNECTION TO SUPPLY 420 CFM.
4. CONNECT TO EXISTING EXHAUST DUCTWORK LEFT FROM DEMOLITION. FIELD COORDINATE EXACT ELEVATION AND LOCATION OF DUCTWORK.
5. CONNECT TO 10x10 DUCT COLLAR ON SUPPLY PLENUM. EACH CONNECTION TO SUPPLY 480 CFM.
6. 18½"x18½" EXHAUST DUCTWORK UP TO ROOF EXHAUST FAN.
7. PROVIDE ACOUSTICALLY LINED TRANSFER GRILLE WITH 8x8 TRANSFER DUCTWORK. PROVIDE RETURN/EXHAUST AIR GRILLE AT BOTH ENDS RATED FOR SPACE SUPPLY AIR CFM.
8. EXHAUST DUCTWORK UP TO ROOF EXHAUST FAN.
9. CONNECT EXHAUST DUCTWORK TO HOOD OUTLET, VERIFY EXACT SIZE AND LOCATION WITH EQUIPMENT.
10. PROVIDE TEMPERATURE SENSOR IN WALK-IN FREEZER AND REFRIGERATOR WITH HIGH LIMIT TEMPERATURE ALARM IN DDC SYSTEM.

GENERAL NOTES:

(THIS DRAWING ONLY)

1. ALL DUCTWORK TO BE RUN TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL DUCTWORK MUST TRANSITION UNDER STRUCTURAL ELEMENTS.
3. ALL DUCTWORK TAKE OFFS (SUPPLY, RETURN AND EXHAUST) TO HAVE VOLUME DAMPERS.
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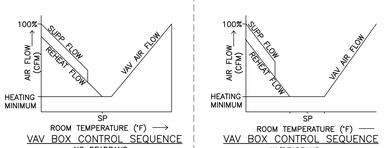
7. MECHANICAL / ELECTRICAL CONTRACTORS SHALL COORDINATE PERIMETER WALL RECEPTACLE LOCATIONS WITH HVAC PERIMETER NEW RADIANT HEATING UNITS.
8. ALL GREASE DUCTWORK SERVING 1-HD1 AND 1-HD2 SHALL BE WELDED STEEL WITH ZERO CLEARANCE DUCTWRAP.

BASEMENT HVAC NEW WORK PLAN

1/4"=1'-0"

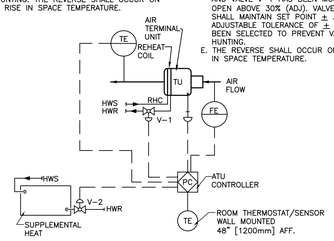


VAV BOX CONTROL SEQUENCE NO DEADBAND

A. UPON FALL IN SPACE TEMPERATURE THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION.
B. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING
C. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 30% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5°F HAS BEEN SELECTED TO PREVENT VALVE HUNTING. THE REVERSE SHALL OCCUR ON A RISE IN SPACE TEMPERATURE.

VAV BOX CONTROL SEQUENCE W/DEADBAND

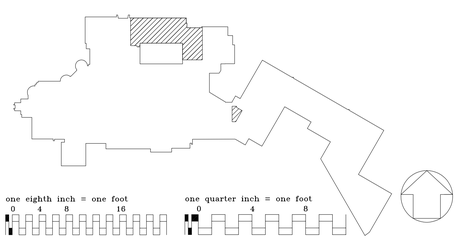
A. SET POINTS SHALL BE SET AS FOLLOWS: COOLING 75°F (ADJ) HEATING 70°F(ADJ) DEADBAND OF 5° F BETWEEN HEATING AND COOLING SET POINTS WILL BE MAINTAINED.
B. UPON FALL IN SPACE TEMPERATURE THE VAV DAMPER WILL MODULATE TO MINIMUM POSITION
C. UPON FURTHER DROP IN SPACE TEMPERATURE VALVE V-1 WILL MODULATE TO MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5° F HAS BEEN SELECTED TO PREVENT VALVE HUNTING
D. VALVE V-2 SHALL BE ENABLED WHEN OUTSIDE AIR FALLS BELOW 40° F (ADJ) AND VALVE V-1 HAS BEEN MODULATED OPEN ABOVE 30% (ADJ). VALVE V-2 SHALL MAINTAIN SET POINT ± .5° F. THE ADJUSTABLE TOLERANCE OF ± .5°F HAS BEEN SELECTED TO PREVENT VALVE HUNTING.
E. THE REVERSE SHALL OCCUR ON THE RISE IN SPACE TEMPERATURE.



WITH SUPPLEMENTAL HEATING

VARIABLE VOLUME AIR TERMINAL UNIT CONTROL DIAGRAM

1 / H6



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SDVOSB Service Disabled Veteran Owned Small Business
CVE

Revisions | Date

Drawing Title: BASEMENT HVAC NEW WORK PLAN

Project Title: CONSTRUCT CANTEEN & RETAIL STORE

Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER

Date: 03/31/2014

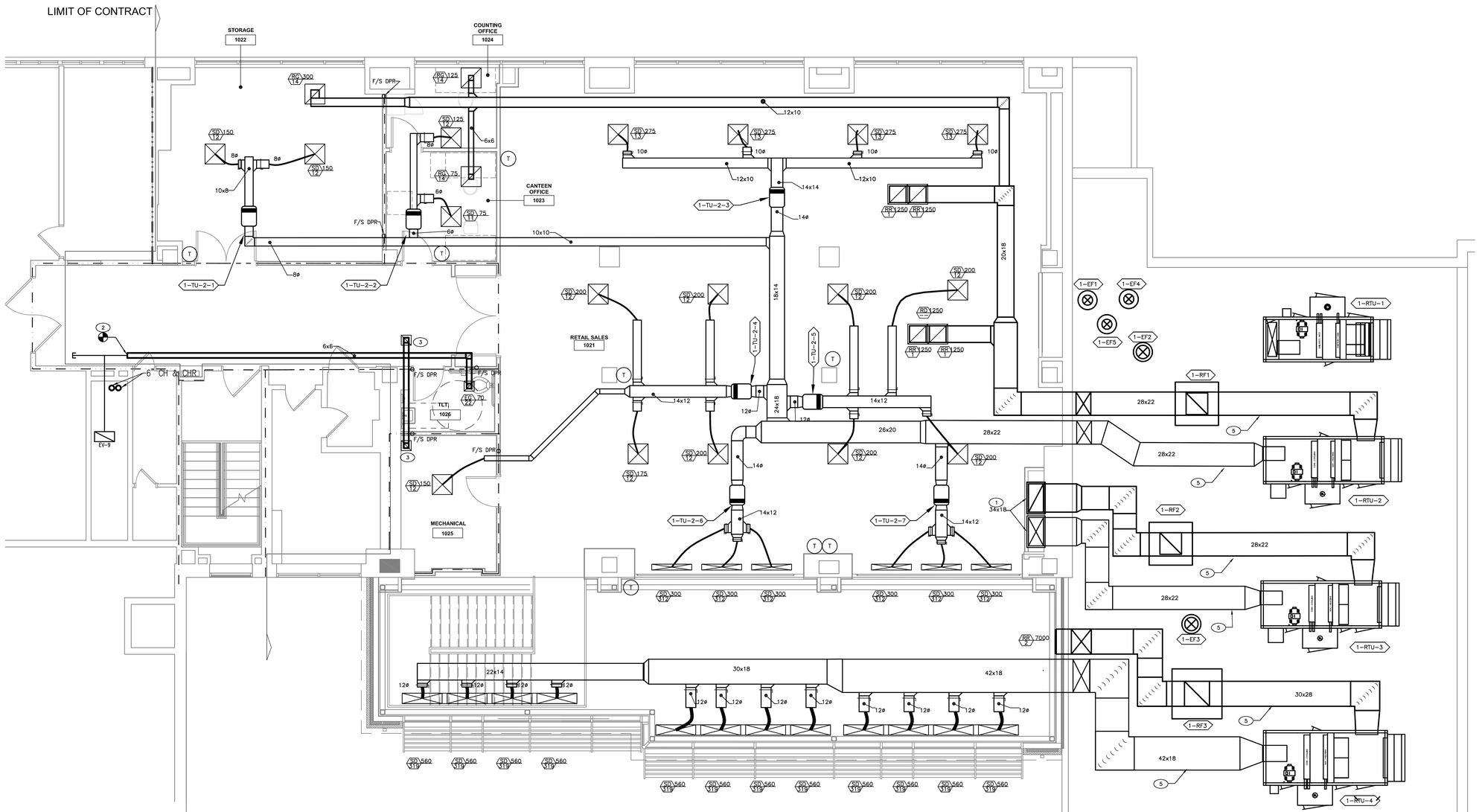
Project No.: 693-12-110

Building Number: 1 | Checked: JLM | Drawn: MBD

Location: WILKES-BARRE, PENNSYLVANIA 18711

DRAWING NO. DRAWING 1-H6
DWG. 34 OF 72

Veterans Affairs



1ST FLOOR HVAC NEW WORK PLAN

1/4"=1'-0"

NOTES BY SYMBOL: (#)

(THIS DRAWING ONLY)

(1) DUCTWORK DOWN TO SERVE FIRST FLOOR IN CHASE. FIELD VERIFY DUCT AND CHASE SIZES.

(2) CONNECT EXHAUST DUCTWORK TO EXISTING DUCTWORK LEFT FORM DEMOLITION. PROVIDE WITH VOLUME DAMPER.

(3) PROVIDE ACOUSTICALLY LINED TRANSFER GRILLE WITH 8x8 TRANSFER DUCTWORK. PROVIDE RETURN/EXHAUST AIR GRILLE AT BOTH ENDS RATED FOR SPACE SUPPLY AIR CFM.

(4) PATE EQUIPMENT SUPPORT RAILS FOR WALKIN REFRIGERATOR AND FREEZER, COORDINATE EXCAT LENGTH OF RAILS WITH SUPPLIER.

(5) EXTERIOR DUCTWORK WITH DUCT SUPPORTS, REFER TO EXPOSED DUCT SUPPORT DETAIL.

(6) RETURN AIR GRILLE, COORDINATE FINAL ELEVATION WITH ARCHITECT.

GENERAL NOTES:

(THIS DRAWING ONLY)

1. ALL DUCTWORK TO BE RUN TIGHT TO UNDERSIDE OF STRUCTURE UNLESS OTHERWISE NOTED.
2. ALL DUCTWORK MUST TRANSITION UNDER STRUCTURAL ELEMENTS.
3. ALL DUCTWORK TAKE OFFS (SUPPLY, RETURN AND EXHAUST) TO HAVE VOLUME DAMPERS.
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5. CONTRACTOR TO REFER TO ARCHITECTURAL DRAWINGS FOR PROJECT PHASING SCHEDULE.
6. MECHANICAL CONTRACTOR SHALL COORDINATE DUCTWORK AND PIPE INSTALLATIONS WITH ARCHITECTURAL PLANS AND PROVIDE ALL NECESSARY PIPES, VALVES AND DUCTWORK FOR TEMPORARY CONNECTIONS.
7. MECHANICAL / ELECTRICAL CONTRACTORS SHALL COORDINATE PERIMETER WALL RECEPTACLE LOCATIONS WITH HVAC PERIMETER NEW RADIANT HEATING UNITS.
8. ALL GREASE DUCTWORK SERVING 1-HD1 AND 1-HD2 SHALL BE WELDED STEEL WITH ZERO CLEARANCE DUCTWRAP.

SEQUENCE OF OPERATION FOR CONSTANT VOLUME AIR UNIT WITH 100% OUTSIDE AIR

1. GENERAL

1.1 UNIT IS NORMALLY STARTED AND STOPPED 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. WHEN THE UNIT IS "OFF" D-1 SHALL BE FULLY CLOSED AND D-2 SHALL BE FULLY OPEN. WHEN THE UNIT IS "ON" SD-1 AND SD-2 SHALL BE FULLY OPEN, D-1 SHALL BE FULLY OPEN AND D-2 SHALL BE FULLY CLOSED:

2. TEMPERATURE CONTROL

2.1 SUPPLY AIR TEMPERATURE, SENSED BY TT-1, SHALL BE MAINTAINED AT SETPOINT VIA DIGITAL CONTROL PANEL BY MODULATING V-1 OR V-2 IN SEQUENCE.

2.2 SPACE TEMPERATURE SENSOR, TE SHALL OVERRIDE SUPPLY AIR TEMPERATURE AND MODULATE V-1 AND V-2 TO MAINTAIN SPACE TEMPERATURE.

3. AIR FLOW CONTROL

3.1 THE SUPPLY AIR FLOW SHALL BE CONSTANT VOLUME BASED ON TESTING AND BALANCING, VARIABLE SPEED MOTOR CONTROLLER SHALL BE USED FOR BALANCING.

3.2 WHEN KITCHEN HOODS ARE NOT ENERGIZED, D-2 TO OPEN AND D-1 SHALL BE FULLY CLOSED.

4. FREEZE PROTECTION

4.1 IF THE AIR TEMPERATURE AS SENSED BY TT-3 FALLS BELOW 45°F [7°C], AN ALARM SIGNAL SHALL INDICATE AT THE DCP AND ECC. IF THIS TEMPERATURE FALLS BELOW 40°F [4.4°C], AS SENSED BY THE TSL THE SUPPLY AND RETURN FANS SHALL SHUT DOWN AND A CRITICAL ALARM SHALL INDICATE AT THE DIGITAL CONTROL PANEL AND ECC. TSL SHALL BE HARDWIRED TO THE SUPPLY FAN UFD AND UNIT SHALL BE SHUTDOWN IN HAND/AUTO TSL WILL REQUIRE MANUAL RESET AT THE DEVICE.

5. AUTOMATIC SHUTDOWN/RESTART

5.1 WHEN SMOKE IS DETECTED BY DUCT SMOKE DETECTOR, SD, THE SUPPLY AND RETURN FANS SHALL SHUT "OFF" AND AN ALARM SIGNAL SHALL BE TRANSMITTED TO THE FIRE ALARM SYSTEM. ALL SMOKE DAMPERS IN THE SUPPLY AND RETURN DUCTS SHALL CLOSE.

5.2 EXHAUST FANS SERVING AREA OF THE SUPPLY FAN SHALL CONTINUE TO RUN. SUPPLY AND RETURN FANS SHALL RESTART AND SMOKE DAMPERS SHALL OPEN WHEN FIRE ALARM CIRCUIT IS RESET.

5.3 DUCT SMOKE DETECTOR SUPPLIED AND INSTALLED BY M.C., CONTROL WIRING BY M.C.. FA SIGNAL BY E.C., AND ELECTRIC WIRING BY E.C.

6. EMERGENCY CONSTANT SPEED OPERATION

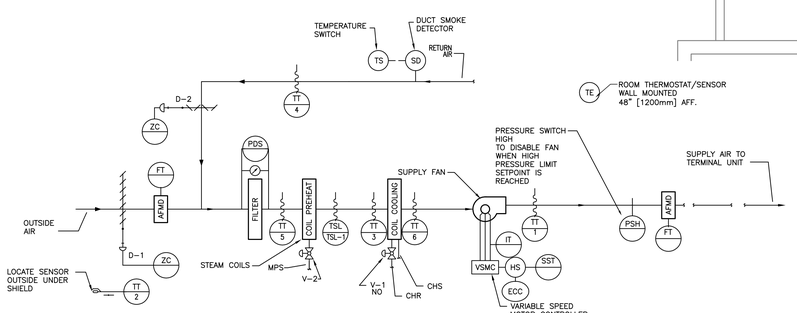
6.1 UPON FAILURE OF THE VSMC, THE SUPPLY AND RETURN FANS SHALL BE STARTED/STOPPED MANUALLY AT THE DIGITAL CONTROL PANEL OR THE ECC THROUGH THE BY-PASS STARTER. FANS SHALL THEN BE OPERATED AT CONSTANT SPEED.

7. FILTER DIFFERENTIAL PRESSURE

7.1 SUPPLY AIR FILTER DIFFERENTIAL PRESSURE SENSOR SHALL TRANSMIT THE PRESSURE DIFFERENTIAL TO THE ECC. WHEN THE DIFFERENTIAL PRESSURE EXCEEDS SETPOINT A MAINTENANCE ALARM SHALL BE DISPLAYED

8. AIRFLOW MONITORING

8.1 AIRFLOW MONITORING STATIONS (AFMD) SHALL MONITOR AIR FLOW.



(1/H7) CONSTANT VOLUME AIR HANDLING UNIT WITH100% OUTSIDE AIR CONTROL DIAGRAM

NTS

three thirtyseconds inch = one foot (0 4 8 16)

one eighth inch = one foot (0 4 8 16)

one quarter inch = one foot (0 4 8)

BID DOCUMENTS
MARCH 31, 2014

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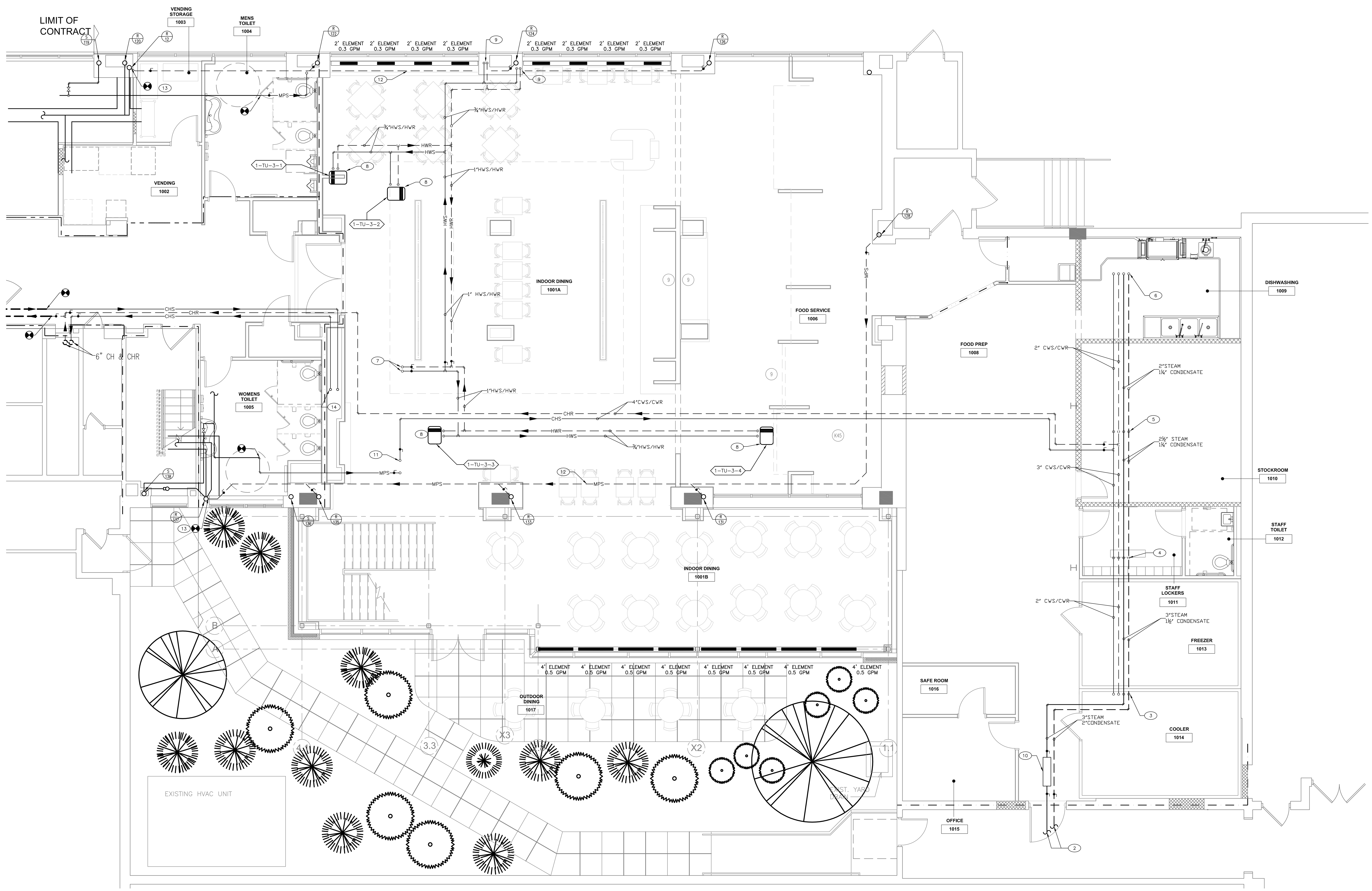
SDVOSB Service-Disabled Veteran-Owned Small Business cVe

Revisions	Date

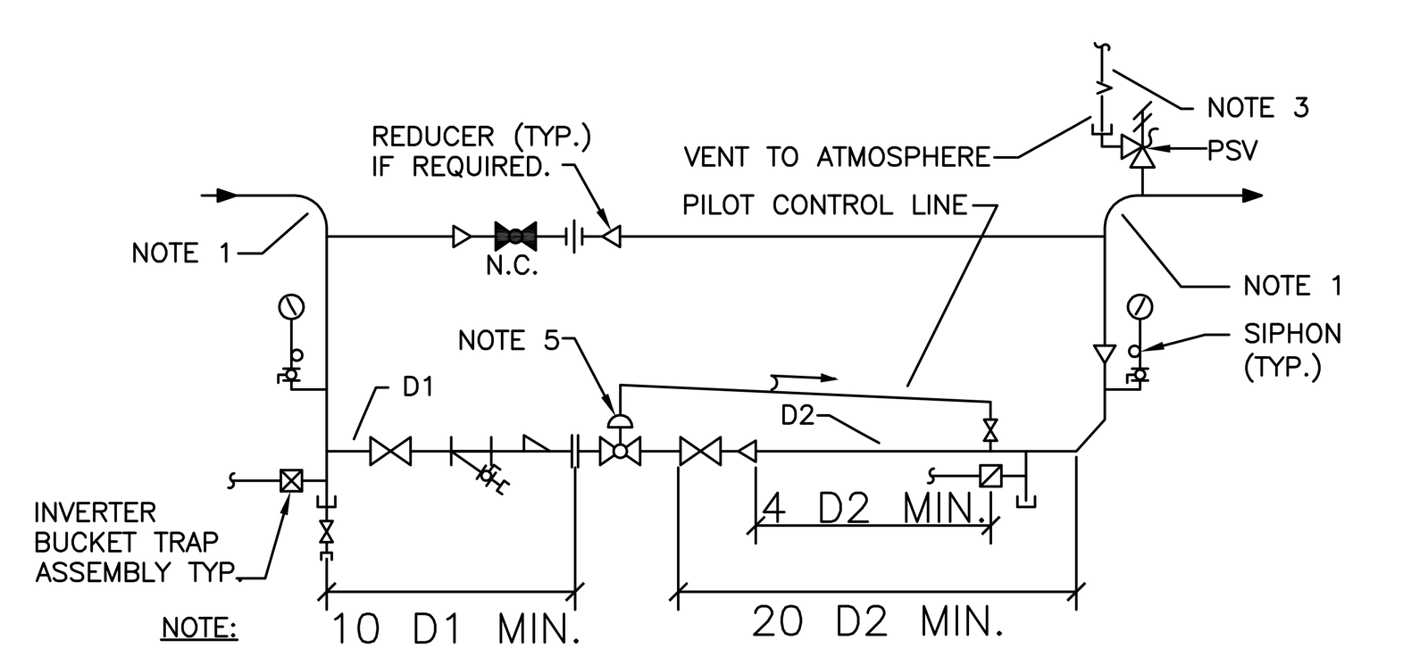
Drawing Title	FIRST FLOOR HVAC NEW WORK PLAN
Facility Project Name	WILKES-BARRE V.A. MEDICAL CENTER
Project Title	CONSTRUCT CANTEEN & RETAIL STORE
Location	WILKES-BARRE, PENNSYLVANIA 18711
Date	03/31/2014
Project No.	693-12-110
Building Number	1
Checked	JLM
Drawn	MBD
DRAWING NO.	1-H7
DWG. 35 OF 72	

Veterans Affairs



BASEMENT PIPING NEW WORK PLAN

1/4"=1'-0"



NOTE:

1. SEE FLOOR PLANS FOR PIPE SIZES.
2. SEE EQUIPMENT SCHEDULES FOR VALVE DATA AND PIPE SIZES D1 AND D2. INSTALL VALVES AS RECOMMENDED BY MANUFACTURER.
3. MAKE BYPASS VALVE DISCHARGE PIPE THE SAME SIZE AS D2 FOR THE LARGEST PRV.
4. PROVIDE NECESSARY UNIONS FOR THE REMOVAL OF VALVE WITH SCREWED CONNECTIONS.
5. PROVIDE WITH EXTERNALLY PILOTED REDUCING VALVE, WITH FLANGED CONNECTION, WITH ACCURACY OF +/-1% OF PRESSURE SET POINT FROM 5-100% OF FLOW, ANSI CLASS IV SHUTOFF WITH HARDENED STAINLESS STEEL WORKING PARTS.

1 STEAM PRESSURE REDUCING STATION

NTS

NOTES BY SYMBOL:

(THIS DRAWING ONLY)

(1) 4" CWS AND CWR LINES. FROM ABOVE, REFER TO H-9 FOR CONTINUATION OF CHILLED WATER LINES.

(2) 3" STEAM LINE AND 2" CONDENSATE RETURN LINE FOR NEW RTU UNITS. REFER TO DRAWING H-13 FOR CONTINUATION OF NEW LINE TO CONNECTIONS TO EXISTING PIPING.

(3) 2" CWS/CWR, 2" STEAM, AND 1¼" STEAM CONDENSATE UP TO ROOF FOR RTU-4.

(4) 2" CWS/CWR, 2" STEAM, AND 1¼" STEAM CONDENSATE UP TO ROOF FOR RTU-3.

(5) 2" CWS/CWR, 2" STEAM, AND 1¼" STEAM CONDENSATE UP TO ROOF FOR RTU-2.

(6) 2" CWS/CWR, 2" STEAM, AND 1¼" STEAM CONDENSATE UP TO ROOF FOR RTU-1.

(7) 1¼" HWS/HWR UP TO LINES ON 1ST FLOOR. REFER TO H-9 FOR CONTINUATION.

(8) PROVIDE ¾" HWS/HWR DROPS FOR TERMINAL UNIT. FIELD COORDINATE CONNECTION LOCATION.

(9) ¾" HWS/HWR DROPS DOWN IN COLUMN ENCLOSURE TO SERVE HOT WATER FIN TUBES.

(10) PRESSURE REDUCING STATION, REFER TO DETAIL. PRESSURE REDUCING STATION TO BE INSTALLED IN ACCESSIBLE SPACE FOR FUTURE ADJUSTMENTS.

(11) CWS LINE UP TO 1ST FLOOR MECHANICAL ROOM. REFER TO 1-H9 FOR CONTINUATION.

(12) CONDENSATE RETURN LINES RUN IN CEILING SPACE OF BASEMENT FLOOR. REFER TO DETAIL.

(13) CONNECT CONDENSATE LINES INTO EXISTING CONDENSATE RETURN RISER.

(14) 6" CHILLED WATER SUPPLY AND RETURN DOWN.

GENERAL NOTES:

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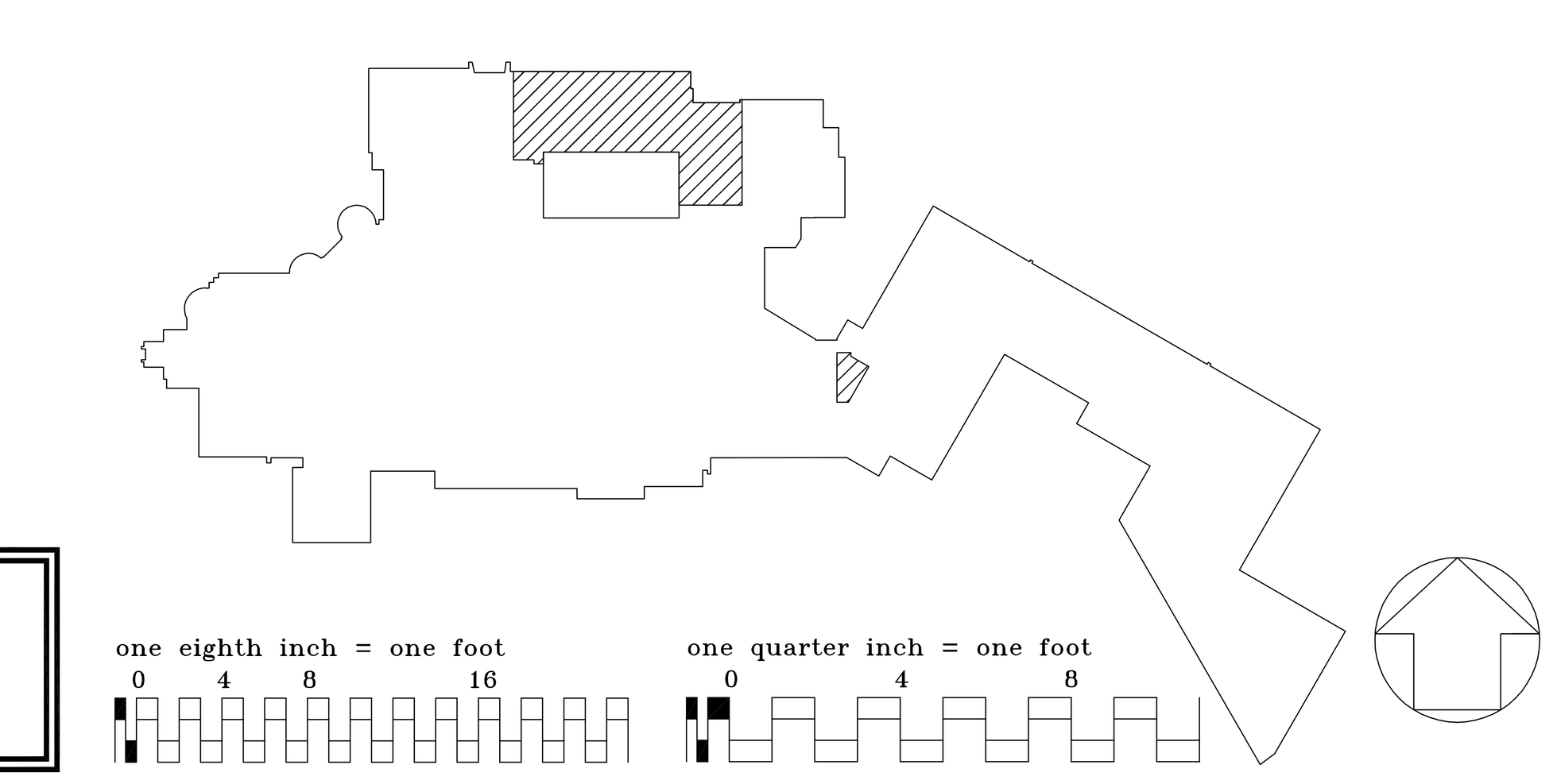

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SEAL

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Revisions	Date

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Service Disabled Veteran Owned Small Business SDVOSB CVE

Drawing Title: BASEMENT PIPING NEW WORK PLAN	Project Title: CONSTRUCT CANTEEN & RETAIL STORE			Date: 03/31/2014	
				Project No.: 693-12-110	
Facility Project Name: WILKES-BARRE V.A. MEDICAL CENTER	Building Number: 1	Checked: JLM	Drawn: MBD	DRAWING NO. DRAWING 1-H8 DWG. 36 OF 72	Veterans Affairs
	Location: WILKES-BARRE, PENNSYLVANIA 18711				