

0
three inches = one foot
6"
1
one and one half inches = one foot
6"
2
one inch = one foot
6"
3
three quarters inch = one foot
6"
4
one half inch = one foot
6"
5
three eighths inch = one foot
6"
6
one quarter inch = one foot
6"
7
one eighth inch = one foot
6"
8
one eighth inch = one foot
6"
9
one eighth inch = one foot
6"
10
one eighth inch = one foot
6"
11
one eighth inch = one foot
6"
12
one eighth inch = one foot
6"
13
one eighth inch = one foot
6"
14
one eighth inch = one foot
6"
15
one eighth inch = one foot
6"
16
one eighth inch = one foot
6"

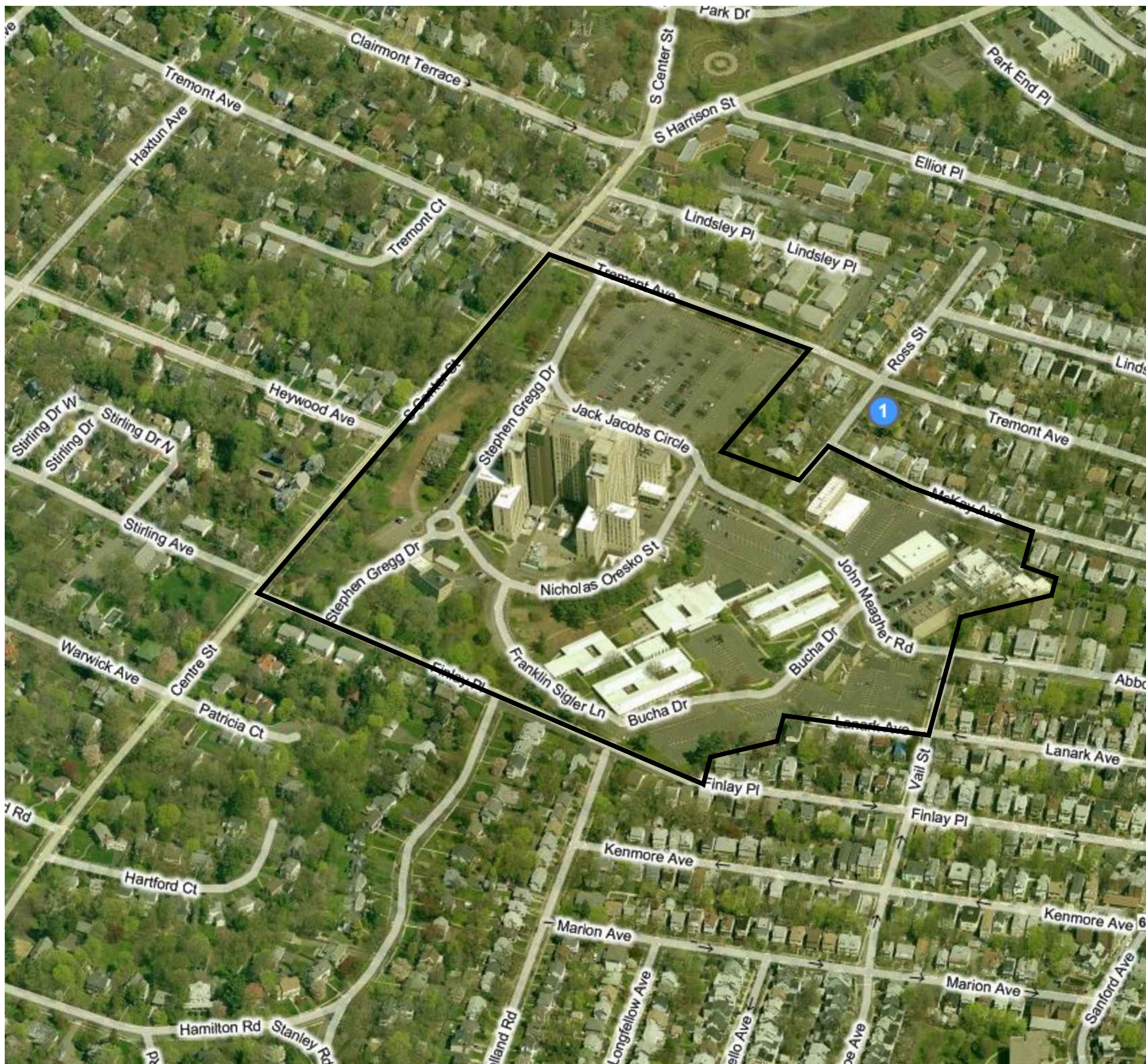
VA NJ HEALTH CARE SYSTEM

EAST ORANGE CAMPUS

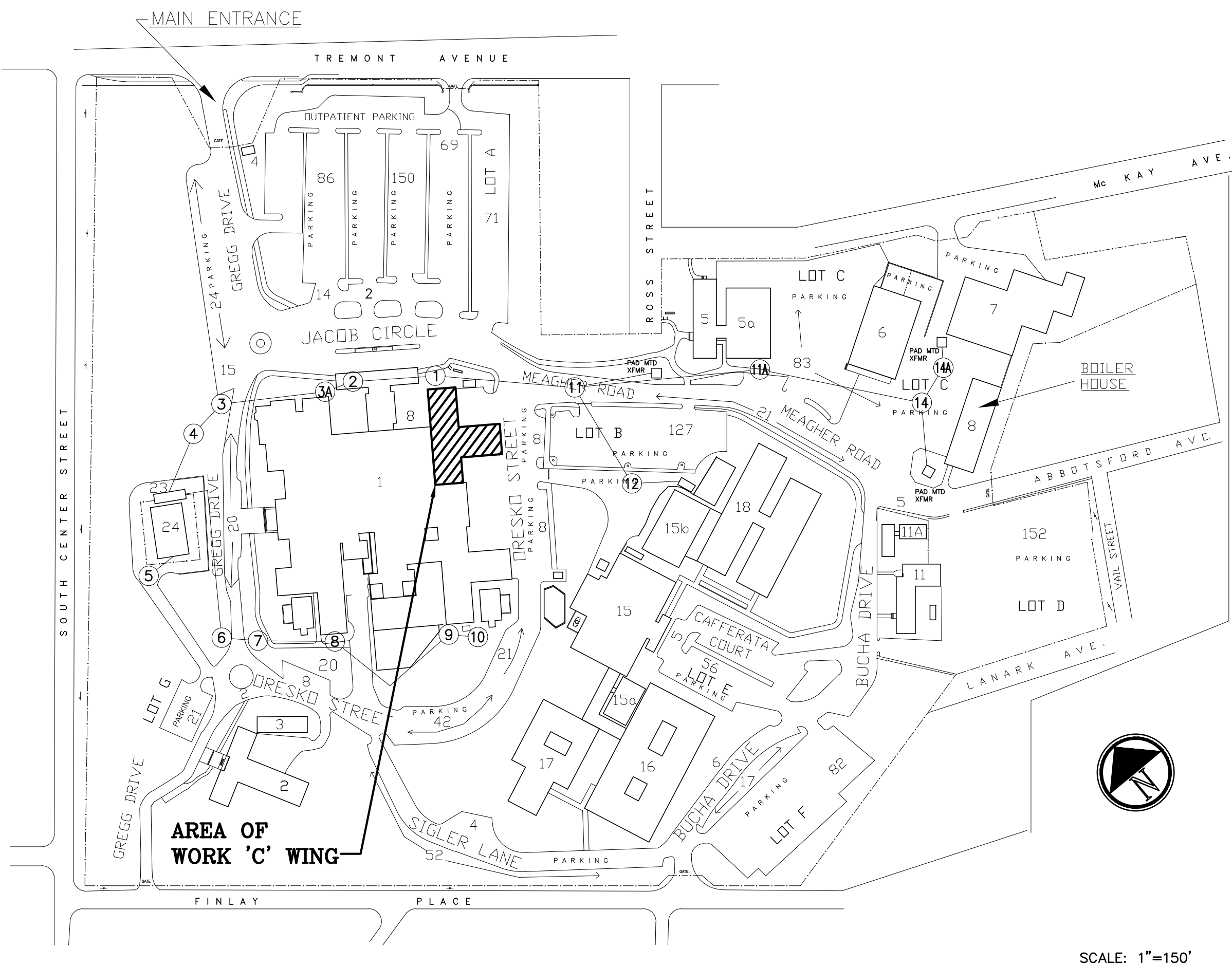
PROJECT TITLE:
CONVERT 5C TO INPATIENT UNIT
VA PROJECT NO. 561-20-300

FELLENZER ENGINEERING L.L.P.
22 MULBERRY STREET
MIDDLETOWN, NEW YORK 10940

AERIAL SITE PLAN



CAMPUS SITE PLAN



DRAWING LIST

SHEET #:	DRAWING #:	DRAWING TITLE
GENERAL:		
1	1-GI-001	COVER & INDEX OF DRAWINGS
2	1-GI-002	GENERAL CONTRACTUAL: SITE SAFETY & PROPOSED STAGING PLAN
3	1-PH-100	PHASING & ICRA
ARCHITECTURAL:		
4	1-AS-100	ARCHITECTURAL: FLOOR PLANS
5	1-AS-701	ARCHITECTURAL: INTERIOR ELEVATIONS
MECHANICAL:		
6	1-MH-001	HVAC: SYMBOLS, ABBREVIATIONS & NOTES
7	1-MD-100	HVAC: DUCTWORK DEMOLITION FLOOR PLANS
8	1-MD-101	HVAC: PIPING DEMOLITION FLOOR PLANS
9	1-MH-100	HVAC: DUCTWORK FLOOR PLANS
10	1-MH-101	HVAC: PIPING FLOOR PLANS
11	1-MH-501	HVAC: AIR HANDLER CONTROLS
12	1-MH-700	HVAC: DETAILS
13	1-MH-800	HVAC: SCHEDULES
PLUMBING:		
14	1-P-001	PLUMBING: SYMBOLS, SCHEDULES, ABBREVIATIONS & NOTES
15	1-P-100	PLUMBING: FLOOR PLANS
16	1-P-700	PLUMBING: DETAILS
ELECTRICAL:		
17	1-ES-001	ELECTRICAL: SYMBOLS, ABBREVIATIONS & NOTES
18	1-ED-100	ELECTRICAL: POWER DEMOLITION FLOOR & ROOF PLANS
19	1-ES-100	ELECTRICAL: POWER FLOOR & ROOF PLANS
20	1-ES-700	ELECTRICAL: DETAILS

100% CONSTRUCTION DOCUMENTS

Revisions	Date

Professional Seal:
JOHN D. FELLENZER, P.E.

NJ PROFESSIONAL ENGINEER
NO. 02543091

FELLENZER
ENGINEERING LLP

22 Mulberry St., Suite 2A,
Middletown, NY 10940
t 845-343-1481 fx 845-343-4986

85 Market St., Suite 200,
Poughkeepsie, NY 12601
t 845-454-9704 fx 845-454-9705

32 Front St.,
Port Jervis, NY 12771
t 845-856-3600 fx 845-856-3734

Designed By:	Drawn By:	FE Project No.
DSS	SRB	20-191

Drawing Title
**COVER & INDEX OF
DRAWINGS**

Approved: Division Chief MICHAEL BASSILY
Approved: Service Director -

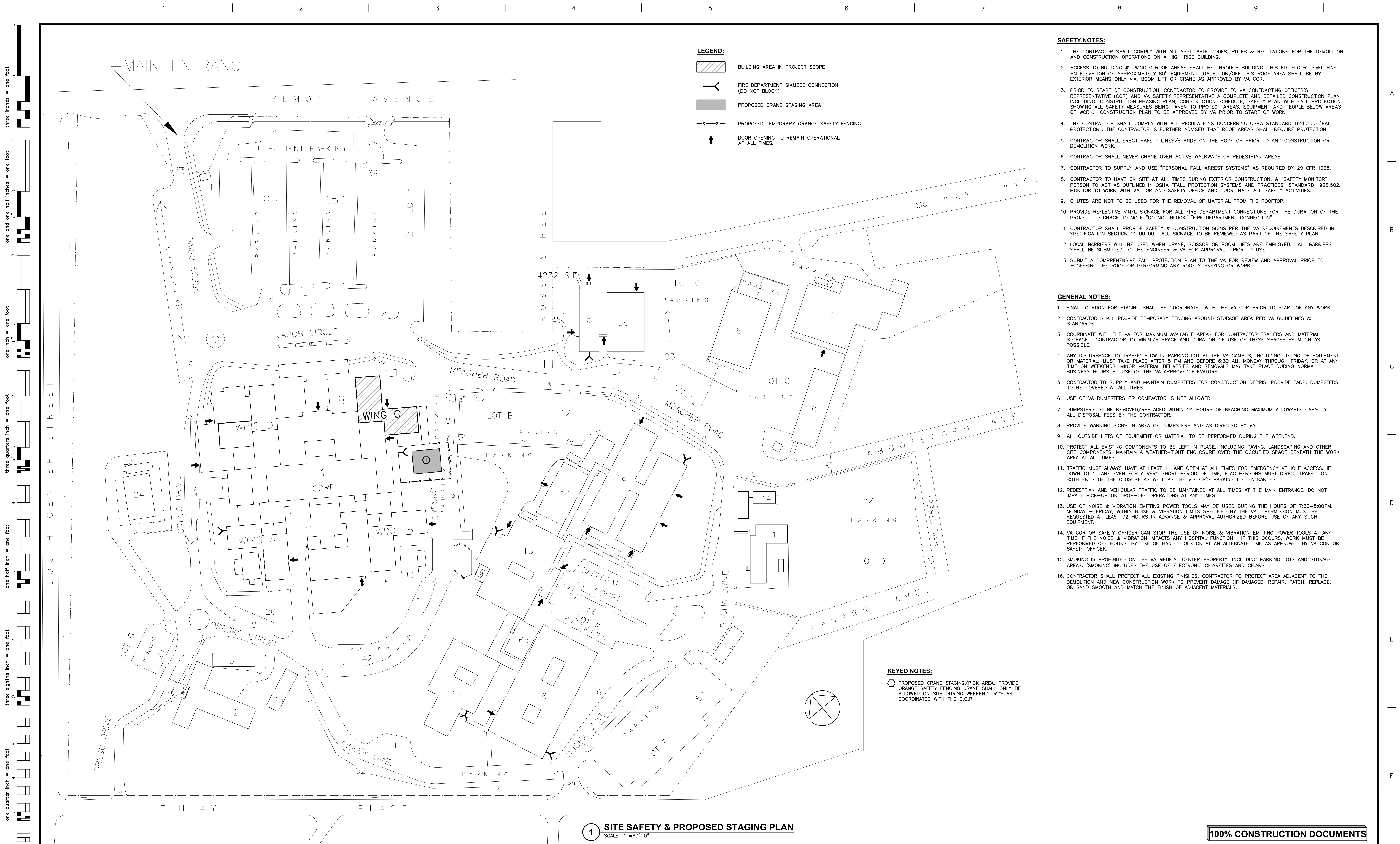
Project Title
CONVERT 5C TO INPATIENT UNIT

Building Number 1 - 5th FLOOR	Checked MDF	Drawn CAD
Location 385 TREMONT AVE EAST ORANGE, NJ 07018		

Date 4/26/21
Project No. 561-20-300
Dwg. 1 of 20

Office of Facilities

VA
Department of
Veterans Affairs



three eighths inch = one foot
one eighth inch = one foot
one quarter inch = one foot
one half inch = one foot
one inch = one foot
one and one half inches = one foot
two inches = one foot
three inches = one foot
four inches = one foot
five inches = one foot
six inches = one foot
seven inches = one foot
eight inches = one foot
nine inches = one foot
ten inches = one foot
eleven inches = one foot
twelve inches = one foot
thirteen inches = one foot
fourteen inches = one foot
fifteen inches = one foot
sixteen inches = one foot
seventeen inches = one foot
eighteen inches = one foot
nineteen inches = one foot
twenty inches = one foot
twenty one inches = one foot
twenty two inches = one foot
twenty three inches = one foot
twenty four inches = one foot
twenty five inches = one foot
twenty six inches = one foot
twenty seven inches = one foot
twenty eight inches = one foot
twenty nine inches = one foot
thirty inches = one foot
thirty one inches = one foot
thirty two inches = one foot
thirty three inches = one foot
thirty four inches = one foot
thirty five inches = one foot
thirty six inches = one foot
thirty seven inches = one foot
thirty eight inches = one foot
thirty nine inches = one foot
forty inches = one foot
forty one inches = one foot
forty two inches = one foot
forty three inches = one foot
forty four inches = one foot
forty five inches = one foot
forty six inches = one foot
forty seven inches = one foot
forty eight inches = one foot
forty nine inches = one foot
fifty inches = one foot
fifty one inches = one foot
fifty two inches = one foot
fifty three inches = one foot
fifty four inches = one foot
fifty five inches = one foot
fifty six inches = one foot
fifty seven inches = one foot
fifty eight inches = one foot
fifty nine inches = one foot
sixty inches = one foot
sixty one inches = one foot
sixty two inches = one foot
sixty three inches = one foot
sixty four inches = one foot
sixty five inches = one foot
sixty six inches = one foot
sixty seven inches = one foot
sixty eight inches = one foot
sixty nine inches = one foot
seventy inches = one foot
seventy one inches = one foot
seventy two inches = one foot
seventy three inches = one foot
seventy four inches = one foot
seventy five inches = one foot
seventy six inches = one foot
seventy seven inches = one foot
seventy eight inches = one foot
seventy nine inches = one foot
eighty inches = one foot
eighty one inches = one foot
eighty two inches = one foot
eighty three inches = one foot
eighty four inches = one foot
eighty five inches = one foot
eighty six inches = one foot
eighty seven inches = one foot
eighty eight inches = one foot
eighty nine inches = one foot
ninety inches = one foot
ninety one inches = one foot
ninety two inches = one foot
ninety three inches = one foot
ninety four inches = one foot
ninety five inches = one foot
ninety six inches = one foot
ninety seven inches = one foot
ninety eight inches = one foot
ninety nine inches = one foot
one hundred inches = one foot

SMOKE COMPARTMENT (C-WING) 9,691 SF

KEY

SMOKE BARRIER (1 HR)

SMOKE BARRIER (30 MIN)

FIRE BARRIER (2 HR)

FIRE BARRIER (1 HR)

HAZARDOUS AREA

HEALTHCARE OCCUPANCY

PROTECTED BY AUTOMATIC SPRINKLER SYSTEM
QUICK RESPONSE

1 ELECTRICAL: FIFTH FLOOR - FLOOR PLAN
SCALE: 1/8"=1'-0"

VA EAST ORANGE INPATIENT 5C PHASING SUMMARY

PHASE 1: GENERAL START PHASE
(APPROXIMATELY 1 MONTH DURATION)

- CONTRACTOR TO SUBMIT ALL REQUIRED PRE-CONSTRUCTION DOCUMENTATION AND PROPOSED CONTRACT SCHEDULE FOR REVIEW AND APPROVAL.
- CONTRACTOR TO SUBMIT CRITICAL PATH SUBMITTALS INCLUDING AIR-HANDLER UNIT AND EXHAUST FAN'S WITHIN 30 DAYS OF AWARD.
- CONTRACTOR TO SUBMIT NON-CRITICAL PATH SUBMITTALS WITHIN 45 DAYS OF AWARD.
- CONTRACTOR TO DOCUMENT EXISTING CONDITIONS PRIOR TO THE START OF ANY WORK.

PHASE 2: DEMOLITION OF EXISTING 5C FIXTURES AND EQUIPMENT
(APPROXIMATE 1 MONTH DURATION) I.C.R.A. CLASS IV, TYPE "D"

- CONTRACTOR TO PROVIDE SITE PROTECTION, TEMPORARY SIGNAGE, ETC. AS NECESSARY FOR THE SUCCESSFUL FULFILLMENT OF THE PROJECT REQUIREMENTS.
- CONTRACTOR TO PROVIDE TEMPORARY RATED PARTITION SEPARATION FROM OCCUPIED SPACES WITH RATED DOORS AS REQUIRED FOR ACCESS PRIOR TO STARTING ANY WORK. WORK SHALL NOT BEGIN UNTIL TEMPORARY PARTITIONS ARE INSPECTED AND ACCEPTED BY THE VA COR.
- CONTRACTOR TO COMPLETE DEMOLITION OF EXISTING FIXTURES AND EQUIPMENT.
- CONTRACTOR TO PROVIDE RIGGING PLAN TO VA FOR APPROVAL FOR NEW AIR-HANDLER UNIT AND EXHAUST FANS. REMOVALS TO OCCUR ON THE SAME DAY.
- ALL RIGGING SHALL OCCUR ON WEEKENDS OR HOLIDAYS WITH PRIOR APPROVAL OF C.O.R.

PHASE 3: RENOVATION OF 5C
(APPROXIMATE 2 MONTH DURATION) I.C.R.A. CLASS IV, TYPE "D"

- CONTRACTOR TO INSTALL ALL NEW MECHANICAL EQUIPMENT AND PROVIDE BALANCING AND COMMISSIONING.
- CONTRACTOR TO REPLACE ALL PLUMBING FIXTURES AND INSTALL ALL NEW FIXTURES.

PHASE 4: CLOSEOUT DOCUMENTS/FINAL COMMISSIONING:
(APPROXIMATE 1 MONTH DURATION)

- CONTRACTOR TO PROVIDE CLOSEOUT DOCUMENTATION/AS-BUILTS, AND UNDERTAKE ALL FINAL COMMISSIONING WORK, OWNER TRAINING AND DOCUMENTATION AS REQUIRED BY THE CONTRACT DOCUMENTS.

PATIENT RISK GROUP FOR "TYPE B" CONSTRUCTION

SMALL SCALE, SHORT DURATION ACTIVITIES THAT CREATE MINIMAL DUST.

- INSTALLATION OF TELEPHONE AND COMPUTER CABLING.
- ACCESS TO CHASE SPACES
- CUTTING OF WALLS OR CEILINGS WHERE DUST MIGRATION CAN BE CONTROLLED.

LOW RISK GROUP	CLASS II
MEDIUM RISK GROUP	CLASS II
HIGH RISK GROUP	CLASS II
HIGHEST RISK GROUP	CLASS III / IV

PATIENT RISK GROUP FOR "TYPE C" CONSTRUCTION

WORK THAT GENERATES A MODERATE TO HIGH LEVEL OF DUST OR REQUIRES DEMOLITION OR REMOVAL OF ANY FIXED BUILDING COMPONENTS OR ASSEMBLIES.

- SANDING OF WALLS FOR PAINTING OR WALL COVERING
- REMOVAL OF FLOOR COVERINGS, CEILING TILES AND CASEWORK
- NEW WALL CONSTRUCTION
- MINOR DUCTWORK OR ELECTRICAL WORK ABOVE CEILINGS
- MAJOR CABLING ACTIVITIES
- ANY ACTIVITIES THAT CANNOT BE COMPLETED WITHIN A SINGLE WORK SHIFT.

LOW RISK GROUP	CLASS II
MEDIUM RISK GROUP	CLASS III
HIGH RISK GROUP	CLASS III / IV
HIGHEST RISK GROUP	CLASS III / IV

PATIENT RISK GROUP FOR "TYPE D" CONSTRUCTION

MAJOR DEMOLITION AND CONSTRUCTION PROJECTS

- ACTIVITIES THAT REQUIRE CONSECUTIVE WORK SHIFTS
- REQUIRES HEAVY DEMOLITION OR REMOVAL OF COMPLETE CABLING SYSTEMS
- NEW CONSTRUCTION

LOW RISK GROUP	CLASS III / IV
MEDIUM RISK GROUP	CLASS IV
HIGH RISK GROUP	CLASS IV
HIGHEST RISK GROUP	CLASS IV

NOTES:

- HARD WALL BARRIERS SHALL BE CONSTRUCTED WITHIN THE MAIN CORRIDORS AS PART OF THIS CONTRACT WORK. REFER TO "PARTITION DETAIL", KEYED NOTES 6&7 ON THIS DRAWING.
- CONTRACTOR SHALL PROVIDE REQUIRED INFECTION CONTROL PRECAUTIONS AS SHOWN IN CHART FOR ALL WORK PERFORMED UNDER THIS PROJECT.

LEGEND:

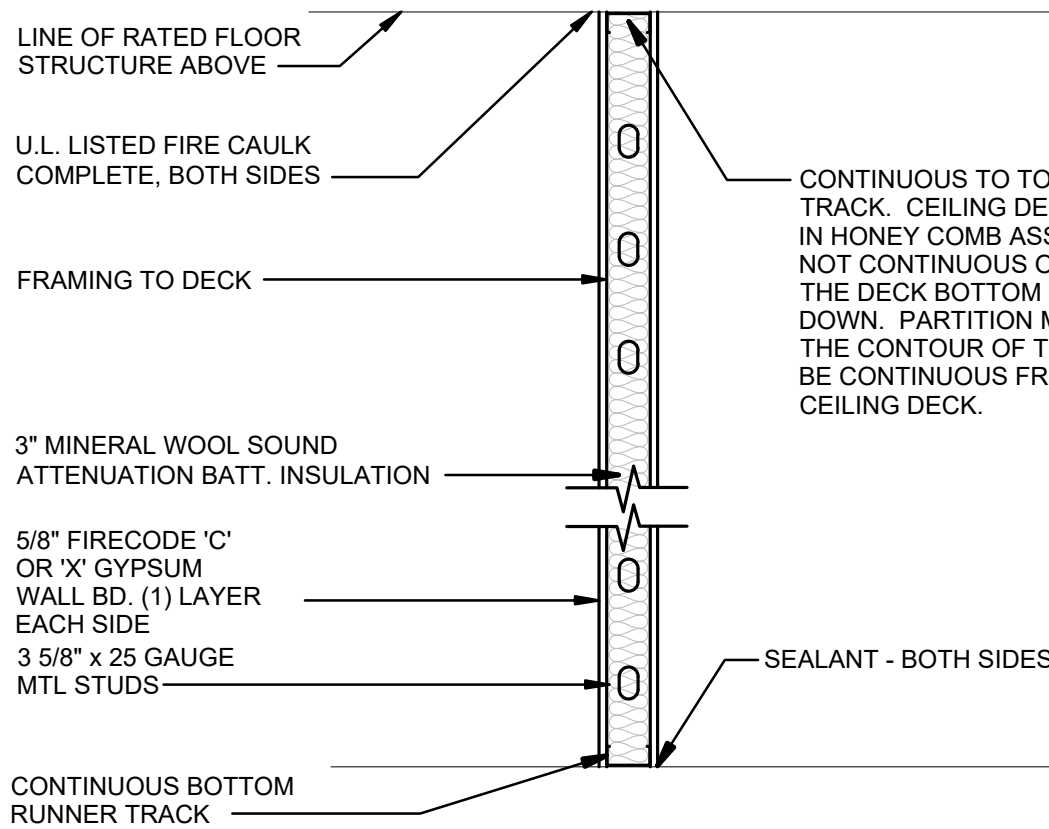
APPROXIMATE OUTLINE OF PHASE BOUNDARY LINES (PARTITION LOCATION), COORDINATE WITH PROJECT DRAWING SET EXISTING WALLS.

GENERAL CONSTRUCTION ACTIVITY NOTES:

- ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
- MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
- PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
- ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.

KEYED NOTES:

- EMERGENCY EGRESS ONLY. SEAL WITH APPROVED SHEETING AND PROVIDE WITH ZIPPER DOOR FOR ICRA.
- PROVIDE STICKY PADS AT EACH CONSTRUCTION ENTRANCE EACH SIDE OF DOOR.
- PRIMARY ACCESS TO WORK SPACE THROUGHOUT CONSTRUCTION.
- PROVIDE TEMPORARY SELF CLOSING U.L. LISTED ONE HOUR FIRE RATED DOOR ASSEMBLY WHERE INDICATED AND AS REQUIRED TO FACILITATE CONSTRUCTION AND PROJECT.
- PROVIDE TEMPORARY COVER FOR EXISTING EXIT SIGNS LEADING INTO THE CONSTRUCTION AREA FOR THE DURATION OF THE PROJECT.
- EXTEND EXISTING WALL CONSTRUCTION BETWEEN ROOMS 5-199 & 5-200 UP TO DECK IN ACCORDANCE WITH DETAIL 1.
- EXTEND EXISTING WALL CONSTRUCTION ABOVE CORRIDOR DOOR UP TO DECK IN ACCORDANCE WITH DETAIL 1.



1 TEMPORARY CONSTRUCTION PARTITION DETAIL

N.T.S.

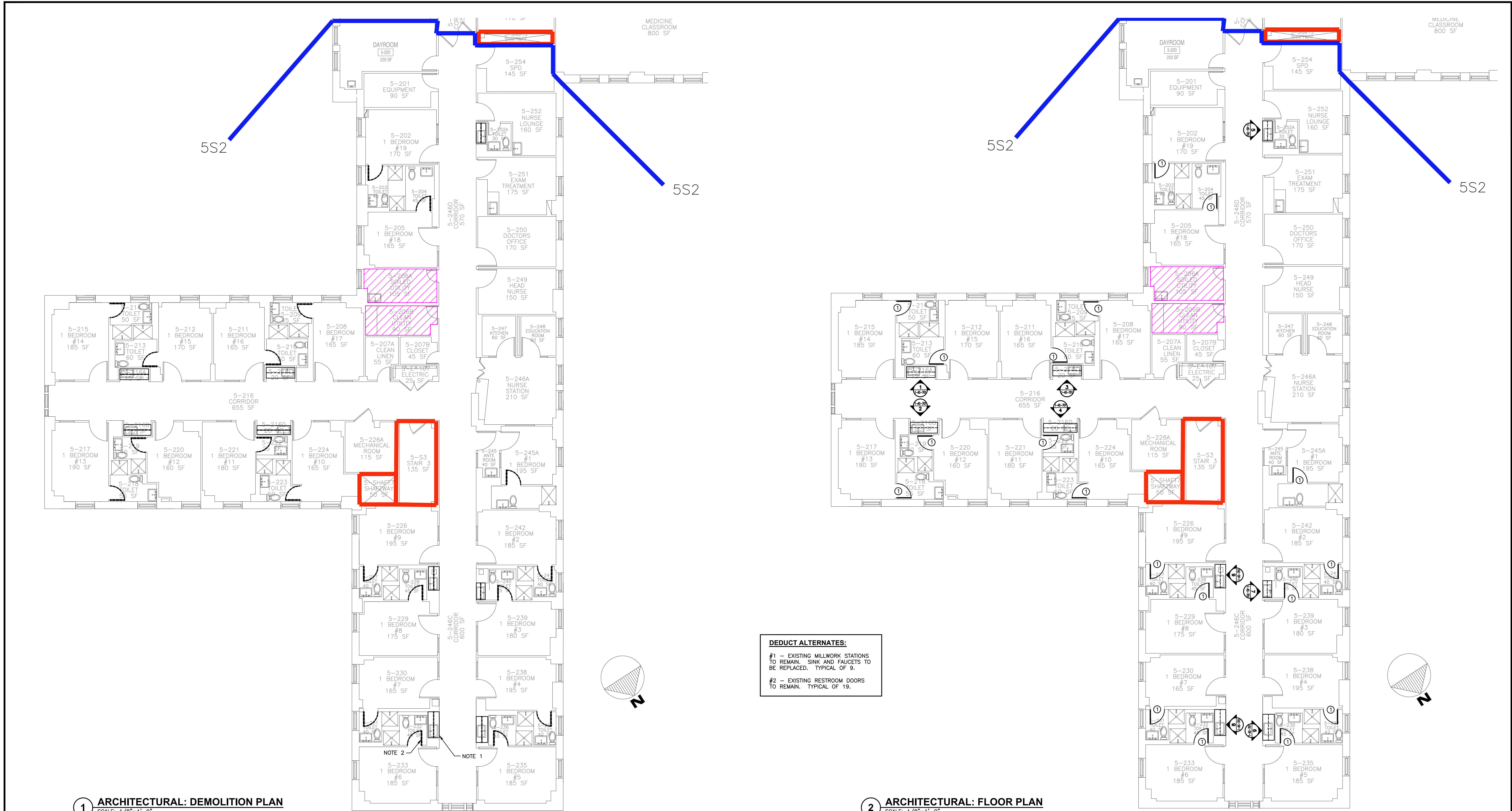
Description of Required Infection Control Precautions by Class

During Construction Project	Upon Completion of Project
1. Provide active means to prevent airborne dust from dispersing into atmosphere, which may include the use of a control cage.	1. Wipe work surfaces with disinfectant.
2. Water mist work surfaces to control dust while cutting.	2. Contain construction waste before transport in tightly covered containers.
3. Seal unused doors with masking tape.	3. Wet mop and/or vacuum with HEPA filtered vacuum before leaving work area.
4. Block off and seal air vents.	4. Remove isolation of HVAC system in areas where work is being performed.
5. Place adhesive dust mat at entrance and exit of work area.	5. Remove or isolate HVAC system in areas where work is being performed.
6. Remove or isolate HVAC system in areas where work is being performed.	6. Doors and windows within the work zone to remain closed at all times except during decontamination.
7. Doors and windows within the work zone to remain closed at all times except during decontamination.	8. Place adhesive mat at entrance and exit of work area as necessary.
8. Place adhesive mat at entrance and exit of work area as necessary.	9. Cover transport receptacles or carts.
9. Cover transport receptacles or carts.	10. Contain construction waste before transport in tightly covered containers.
10. Contain construction waste before transport in tightly covered containers.	11. Use designated removal route/elevators for removal of debris.
11. Use designated removal route/elevators for removal of debris.	12. Wet mop and/or vacuum with HEPA filtered vacuum at end of day or end of work shift. Area to be free of dust and/or debris.
12. Wet mop and/or vacuum with HEPA filtered vacuum at end of day or end of work shift. Area to be free of dust and/or debris.	1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.
1. Do not remove barriers from work area until completed project is inspected by the owner's Safety Department and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.	2. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cage method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins will stay in place until IC or PM authorizes removal.
2. Complete all critical barriers, i.e., sheetrock, plywood, plastic, to seal area from non-work area or implement control cage method (cart with plastic covering and sealed connection to work site with HEPA vacuum for vacuuming prior to exit) before construction begins will stay in place until IC or PM authorizes removal.	3. Vacuum work area with HEPA filtered vacuums.
3. Vacuum work area with HEPA filtered vacuums.	4. Wet mop area with disinfectant.
4. Wet mop area with disinfectant.	5. Remove isolation of HVAC system in areas where work is being performed.
5. Remove isolation of HVAC system in areas where work is being performed.	6. Barriers will be removed carefully to minimize spreading of construction dust & debris.
6. Barriers will be removed carefully to minimize spreading of construction dust & debris.	7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Section and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.
7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Section and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.	8. Designate entry and exit traffic pattern, unauthorized personnel are not permitted to enter work zone, traffic control signs placed.
8. Designate entry and exit traffic pattern, unauthorized personnel are not permitted to enter work zone, traffic control signs placed.	9. The contractor shall maintain the construction zone in a clean manner.
9. The contractor shall maintain the construction zone in a clean manner.	10. Terminal cleaning will be performed following VA protocol.
10. Terminal cleaning will be performed following VA protocol.	11. The terminal cleaning will be inspected by the Owner prior to the authorization for the barrier removal.
11. The terminal cleaning will be inspected by the Owner prior to the authorization for the barrier removal.	12. Air samples may be performed following IC/Safety protocol as deemed necessary by the COR.
12. Air samples may be performed following IC/Safety protocol as deemed necessary by the COR.	1. Isolate HVAC system in area where work is being done to prevent contamination of dust system.
1. Isolate HVAC system in area where work is being done to prevent contamination of dust system.	2. Contain construction waste before transportation in tightly covered containers.
2. Contain construction waste before transportation in tightly covered containers.	3. Cover transport receptacles or carts. Tape covering unless solid lid.
3. Cover transport receptacles or carts. Tape covering unless solid lid.	4. Vacuum work area with HEPA filtered vacuums.
4. Vacuum work area with HEPA filtered vacuums.	5. Wet mop area with disinfectant.
5. Wet mop area with disinfectant.	6. Remove isolation of HVAC system in areas where work is being performed.
6. Remove isolation of HVAC system in areas where work is being performed.	7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Section and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.
7. Do not remove barriers from work area until completed project is inspected by the owner's Safety Section and Infection Control Department, and thoroughly cleaned by the owner's Environmental Services Department.	8. Seal all holes, pipes and conduits penetrations in work area.
8. Seal all holes, pipes and conduits penetrations in work area.	9. Construct anteroom for staging of equipment & donning of coveralls.
9. Construct anteroom for staging of equipment & donning of coveralls.	10. Workers will wear coveralls in work area. Upon completion of major dust generation activities, coverall requirement is removed.
10. Workers will wear coveralls in work area. Upon completion of major dust generation activities, coverall requirement is removed.	11. Coveralls are removed in work zone before entering anteroom.
11. Coveralls are removed in work zone before entering anteroom.	12. Any residual dust left on workers shall be removed by vacuum.
12. Any residual dust left on workers shall be removed by vacuum.	13. All renovation, construction, maintenance & tool carts leaving area must be covered & the wheels wiped down with a disinfectant solution.
13. All renovation, construction, maintenance & tool carts leaving area must be covered & the wheels wiped down with a disinfectant solution.	14. Environmental Management Services (EMS) or a contract cleanser will vacuum or damp mop the area outside the work zone and adjacent areas.
14. Environmental Management Services (EMS) or a contract cleanser will vacuum or damp mop the area outside the work zone and adjacent areas.	

100% CONSTRUCTION DOCUMENTS

Professional Seal: JOHN D. FELLENER, P.E. NJ PROFESSIONAL ENGINEER NO. 02543091		FELLENER ENGINEERING LLP 22 Mulberry St., Suite 2A, Middletown, NJ 10940 1845-343-1481 fx 845-343-4986 85 Market St., Suite 200, Poughkeepsie, NY 12601 t 845-454-9704 fx 845-454-9705 32 Front St., Port Jervis, NY 12771 t 845-856-3600 fx 845-856-3734 Designed By: DSS Drawn By: SRB FE Project No: 20-191		Drawing Title PHASING NOTES, ICRA & GENERAL NOTES . Approved: Division Chief MICHAEL BASSILY Approved: Service Director -		Project Title CONVERT 5C TO INPATIENT UNIT Building Number 1 - 5th FLOOR Location 385 TREMONT AVE EAST ORANGE, NJ 07018		Date 4/26/21 Project No. 561-20-300 Drawing No. 1-PH-100 Dwg. 3 of 20		Office of Facilities VA Department of Veterans Affairs	
Revisions		Date									

0
1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28
29
30
31
32
33
34
35
36
37
38
39
40
41
42
43
44
45
46
47
48
49
50
51
52
53
54
55
56
57
58
59
60
61
62
63
64
65
66
67
68
69
70
71
72
73
74
75
76
77
78
79
80
81
82
83
84
85
86
87
88
89
90
91
92
93
94
95
96
97
98
99
100
101
102
103
104
105
106
107
108
109
110
111
112
113
114
115
116
117
118
119
120
121
122
123
124
125
126
127
128
129
130
131
132
133
134
135
136
137
138
139
140
141
142
143
144
145
146
147
148
149
150
151
152
153
154
155
156
157
158
159
160
161
162
163
164
165
166
167
168
169
170
171
172
173
174
175
176
177
178
179
180
181
182
183
184
185
186
187
188
189
190
191
192
193
194
195
196
197
198
199
200
201
202
203
204
205
206
207
208
209
210
211
212
213
214
215
216
217
218
219
220
221
222
223
224
225
226
227
228
229
230
231
232
233
234
235
236
237
238
239
240
241
242
243
244
245
246
247
248
249
250
251
252
253
254
255
256
257
258
259
260
261
262
263
264
265
266
267
268
269
270
271
272
273
274
275
276
277
278
279
280
281
282
283
284
285
286
287
288
289
290
291
292
293
294
295
296
297
298
299
300
301
302
303
304
305
306
307
308
309
310
311
312
313
314
315
316
317
318
319
320
321
322
323
324
325
326
327
328
329
330
331
332
333
334
335
336
337
338
339
340
341
342
343
344
345
346
347
348
349
350
351
352
353
354
355
356
357
358
359
360
361
362
363
364
365
366
367
368
369
370
371
372
373
374
375
376
377
378
379
380
381
382
383
384
385
386
387
388
389
390
391
392
393
394
395
396
397
398
399
400
401
402
403
404
405
406
407
408
409
410
411
412
413
414
415
416
417
418
419
420
421
422
423
424
425
426
427
428
429
430
431
432
433
434
435
436
437
438
439
440
441
442
443
444
445
446
447
448
449
450
451
452
453
454
455
456
457
458
459
460
461
462
463
464
465
466
467
468
469
470
471
472
473
474
475
476
477
478
479
480
481
482
483
484
485
486
487
488
489
490
491
492
493
494
495
496
497
498
499
500
501
502
503
504
505
506
507
508
509
510
511
512
513
514
515
516
517
518
519
520
521
522
523
524
525
526
527
528
529
530
531
532
533
534
535
536
537
538
539
540
541
542
543
544
545
546
547
548
549
550
551
552
553
554
555
556
557
558
559
560
561
562
563
564
565
566
567
568
569
570
571
572
573
574
575
576
577
578
579
580
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
597
598
599
600
601
602
603
604
605
606
607
608
609
610
611
612
613
614
615
616
617
618
619
620
621
622
623
624
625
626
627
628
629
630
631
632
633
634
635
636
637
638
639
640
641
642
643
644
645
646
647
648
649
650
651
652
653
654
655
656
657
658
659
660
661
662
663
664
665
666
667
668
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
705
706
707
708
709
710
711
712
713
714
715
716
717
718
719
720
721
722
723
724
725
726
727
728
729
730
731
732
733
734
735
736
737
738
739
740
741
742
743
744
745
746
747
748
749
750
751
752
753
754
755
756
757
758
759
760
761
762
763
764
765
766
767
768
769
770
771
772
773
774
775
776
777
778
779
780
781
782
783
784
785
786
787
788
789
790
791
792
793
794
795
796
797
798
799
800
801
802
803
804
805
806
807
808
809
810
811
812
813
814
815
816
817
818
819
820
821
822
823
824
825
826
827
828
829
830
831
832
833
834
835
836
837
838
839
840
841
842
843
844
845
846
847
848
849
850
851
852
853
854
855
856
857
858
859
860
861
862
863
864
865
866
867
868
869
870
871
872
873
874
875
876
877
878
879
880
881
882
883
884
885
886
887
888
889
890
891
892
893
894
895
896
897
898
899
900
901
902
903
904
905
906
907
908
909
910
911
912
913
914
915
916
917
918
919
920
921
922
923
924
925
926
927
928
929
930
931
932
933
934
935
936
937
938
939
940
941
942
943
944
945
946
947
948
949
950
951
952
953
954
955
956
957
958
959
960
961
962
963
964
965
966
967
968
969
970
971
972
973
974
975
976
977
978
979
980
981
982
983
984
985
986
987
988
989
990
991
992
993
994
995
996
997
998
999
1000



1 ARCHITECTURAL: DEMOLITION PLAN
SCALE: 1/8"=1'-0"

2 ARCHITECTURAL: FLOOR PLAN
SCALE: 1/8"=1'-0"

NOTES:



1. DEMO EXISTING MILLWORK STATION AND SINK, TYPICAL OF 9.
2. DEMO EXISTING TOILET ROOM DOORS AND FRAMES, TYPICAL OF 19.

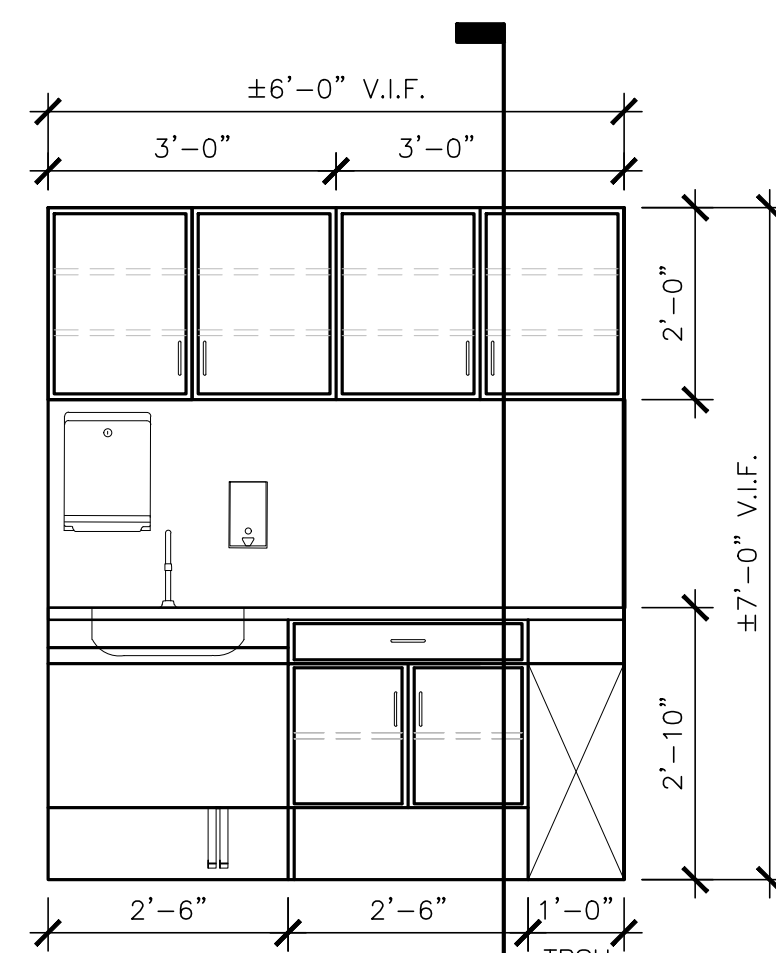
NOTE:

1. NEW MILLWORK STATION WITH SINK TYPICAL OF 9. SEE DETAILS ON 1-AS-701.

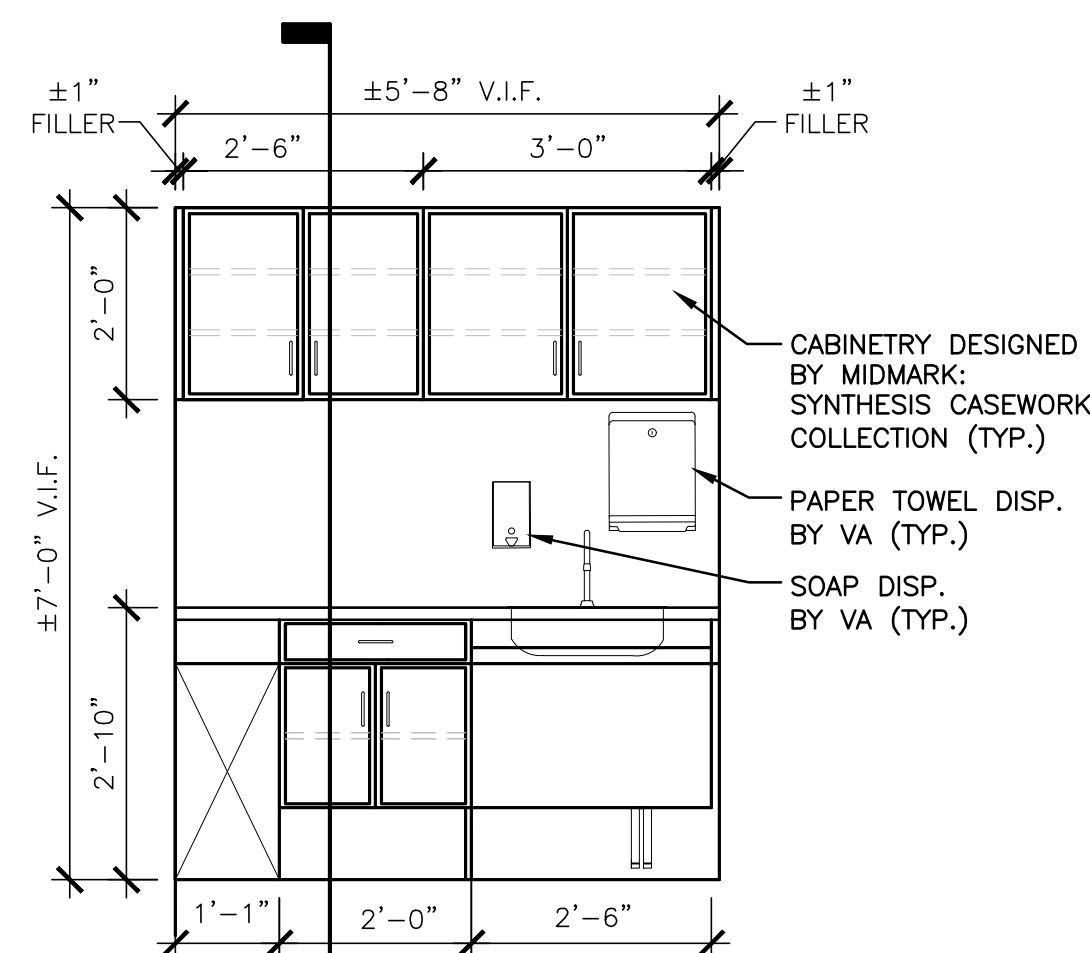
DOOR SCHEDULE											
DOOR NO.	LOCATION	DOOR TYPE	MATERIAL	LABEL	DOOR SIZE	GL.	DOOR FRAME				REMARKS
							MAT.	ELEV.	HEAD.	JAMB.	
1	REFER TO PLAN	V	WD	C	3' x 6'-8"	WC	HM	F1	H1	J1	1
											NEW COMPLETE DOOR ASSEMBLY

COORDINATE LOCKSETS AND HANDLES WITH V.A. REQUIREMENTS.
DOORS SHALL HAVE CONTINUOUS PIANO HINGE.

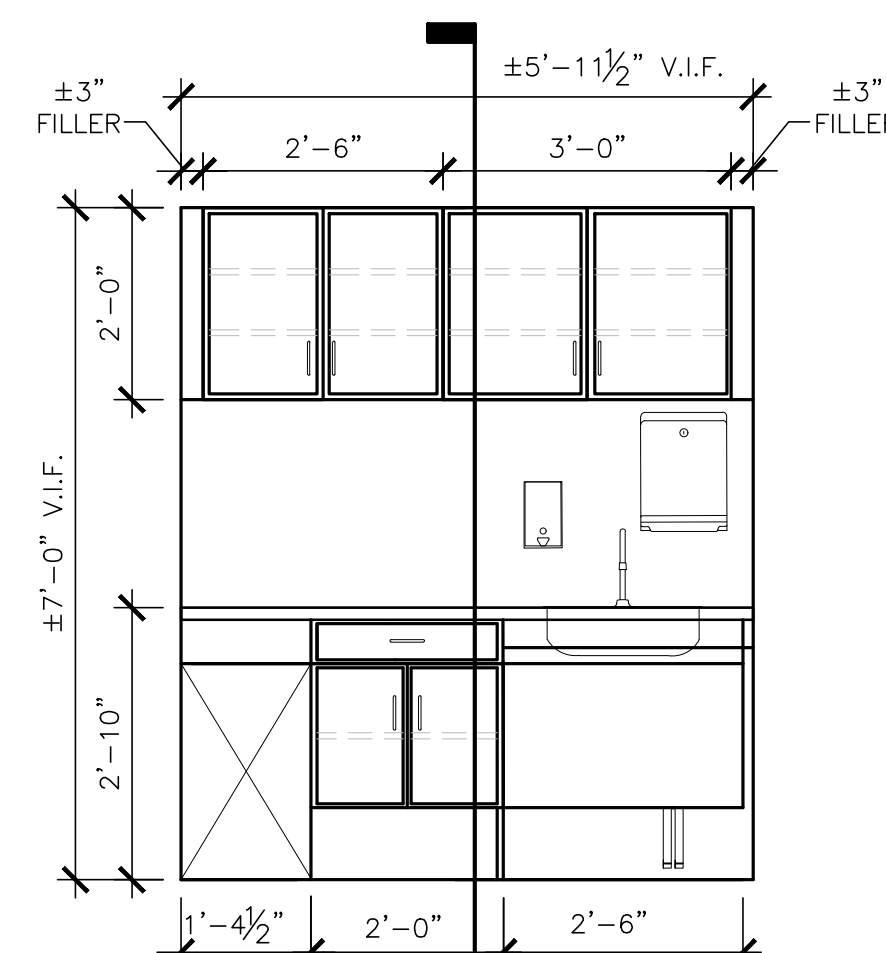
Revisions		Date	Professional Seal: JOHN D. FELLENER, P.E.  NJ PROFESSIONAL ENGINEER NO. 02543091		FELLENER ENGINEERING LLP 22 Mulberry St., Suite 2A, Middletown, NJ 07940 1 845-343-1481 fx 845-454-9705 32 Front St. Port Jervis, NY 12771 1 845-856-3600 fx 845-856-3734		Drawing Title ARCHITECTURAL FLOOR PLANS Approved: Division Chief MICHAEL BASSILY Approved: Service Director -		Project Title CONVERT 5C TO INPATIENT UNIT Building Number 1 - 5th FLOOR Location 385 TREMONT AVE EAST ORANGE, NJ 07018		Date 4/26/21 Project No. 561-20-300 Drawing No. 1-AS-100 Dwg. 4 of 20		 Office of Facilities VA Department of Veterans Affairs	
-----------	--	------	---	--	---	--	---	--	---	--	--	--	--	--



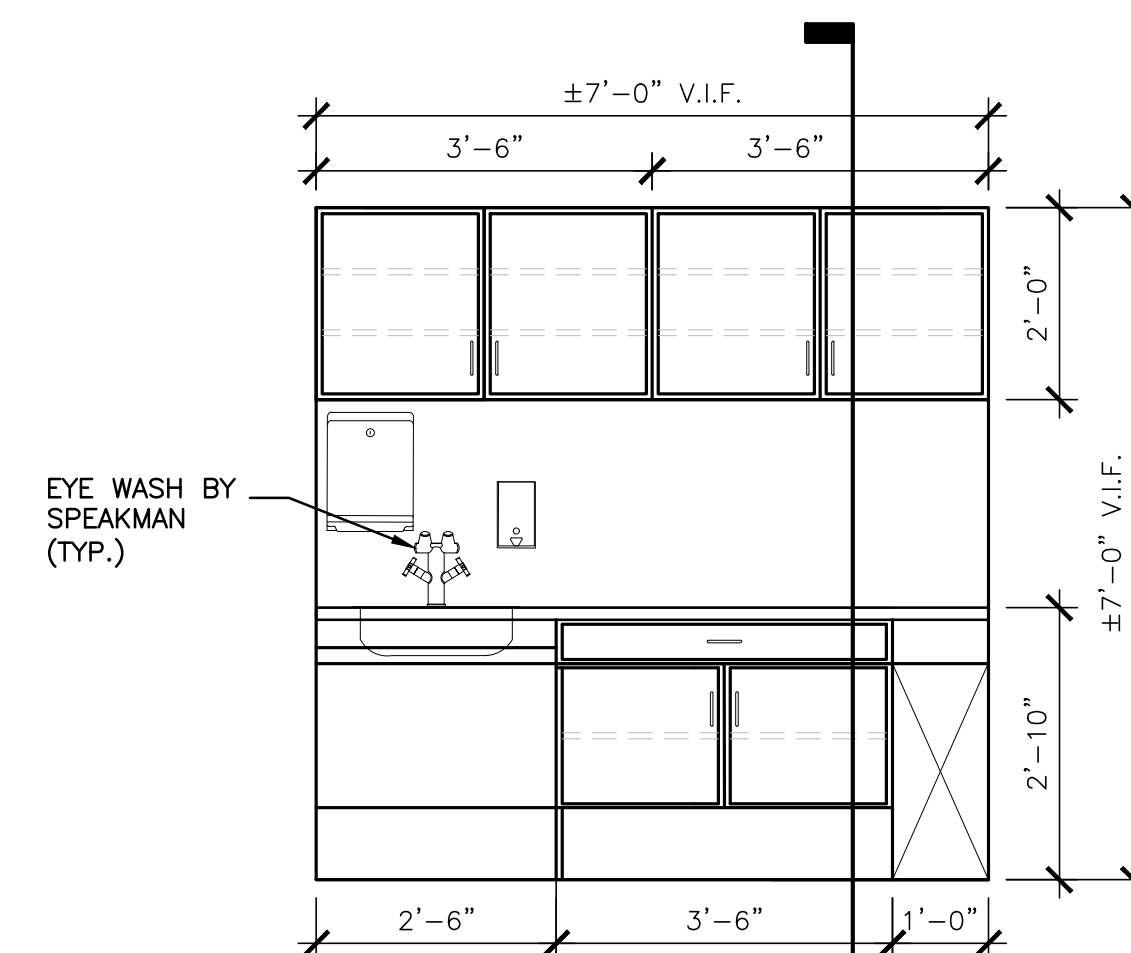
1 INTERIOR ELEVATION



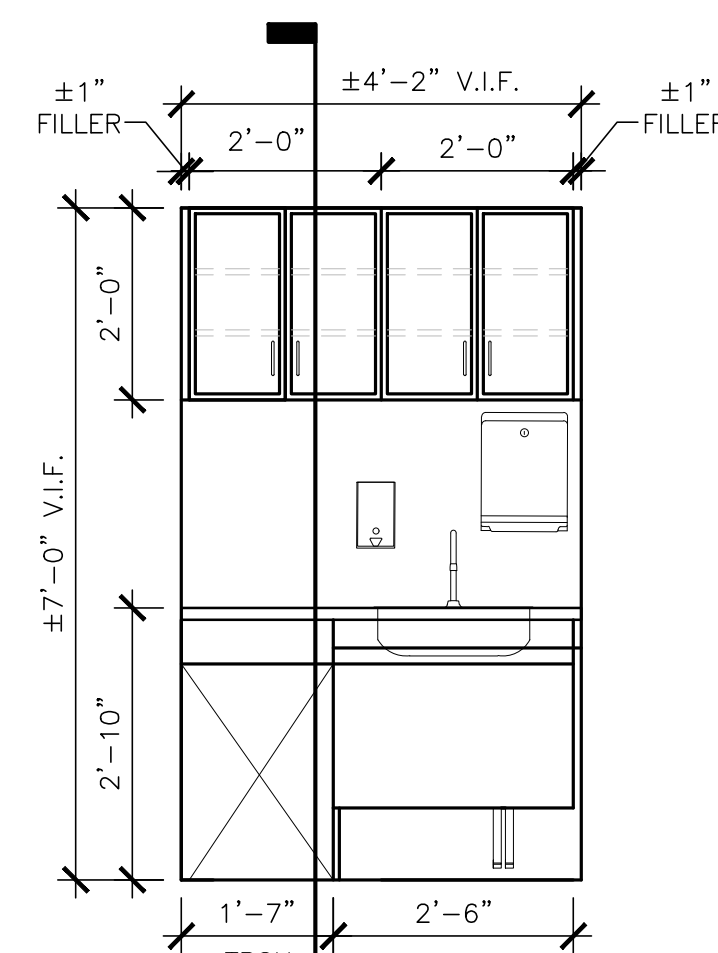
2 INTERIOR ELEVATION



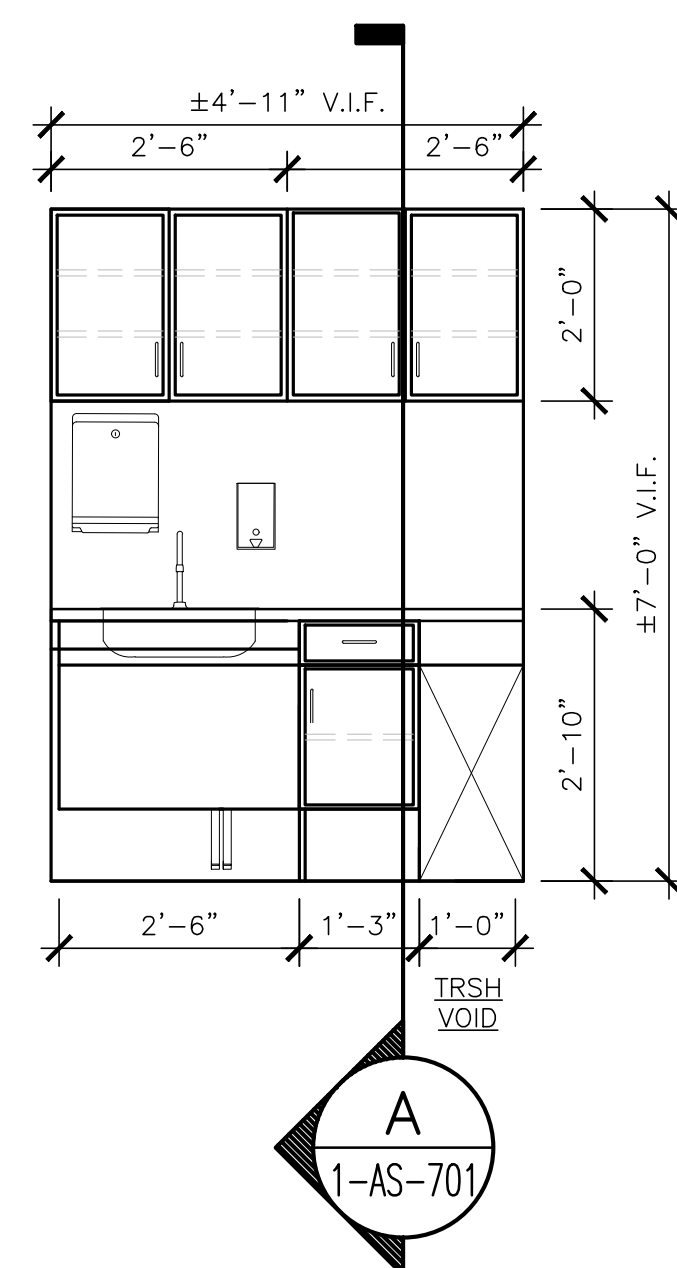
3 INTERIOR ELEVATION



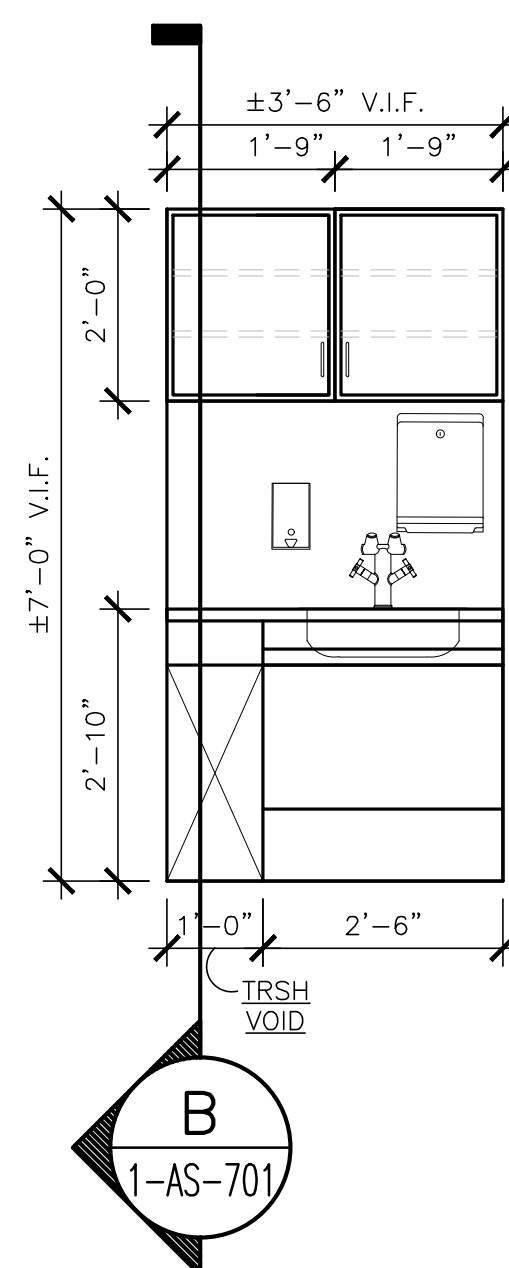
4 INTERIOR ELEVATION



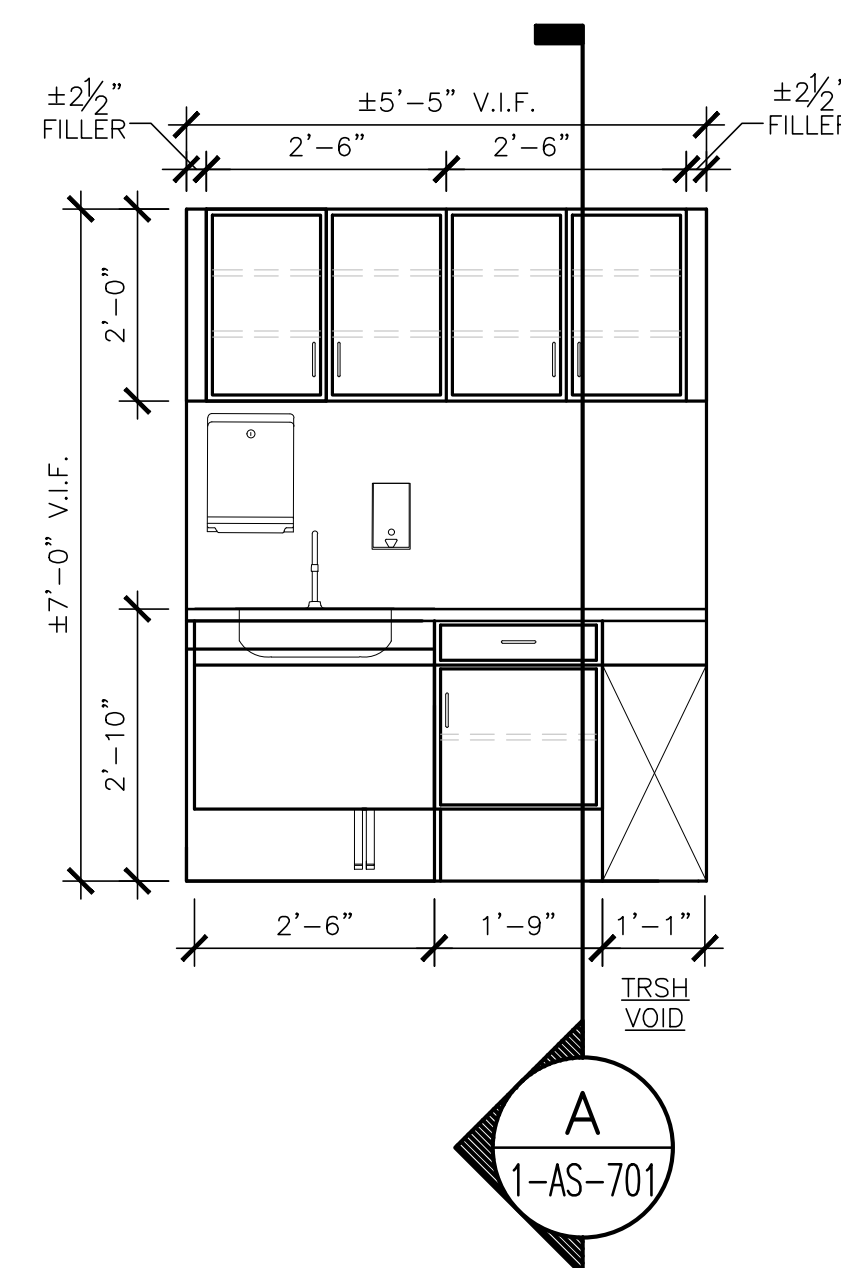
5 INTERIOR ELEVATION
SCALE: 1/2"=1'-0"



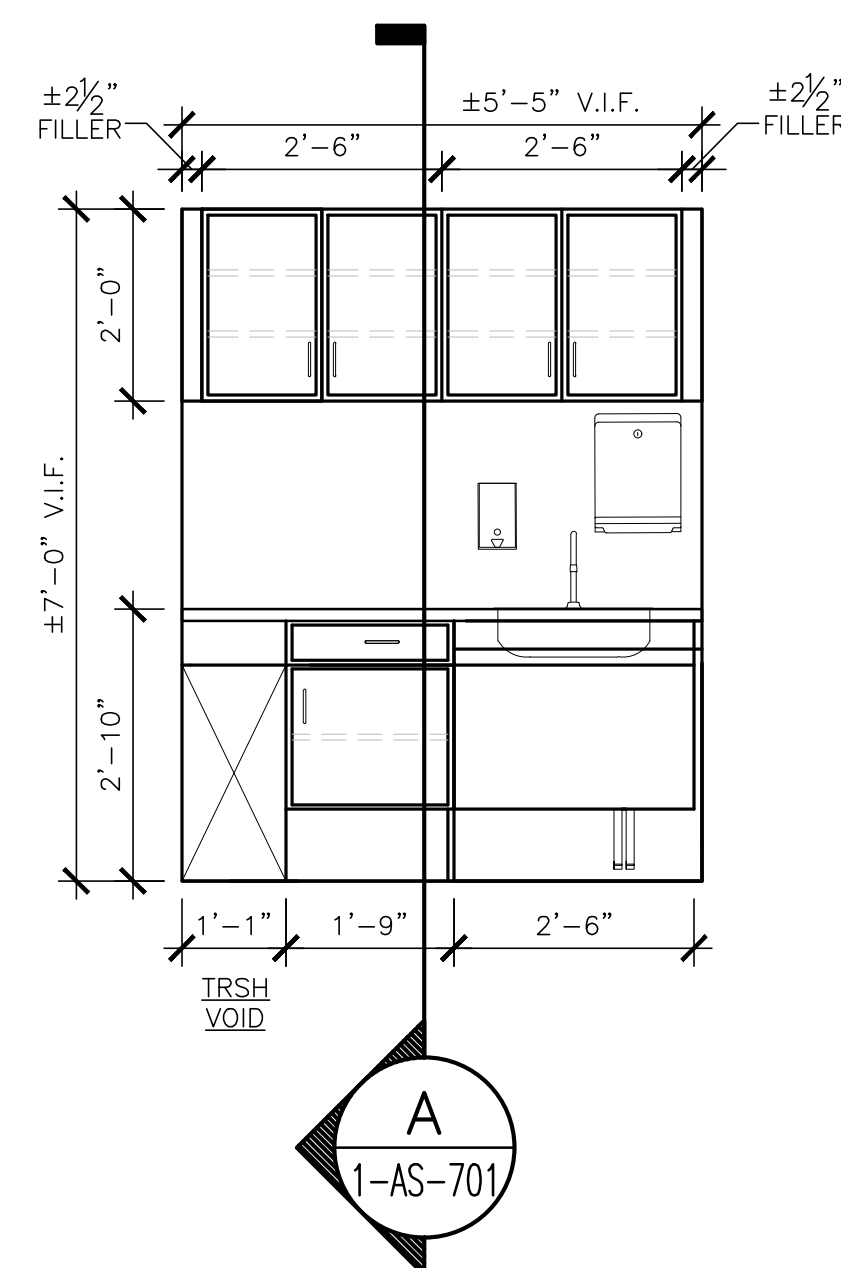
6 INTERIOR ELEVATION



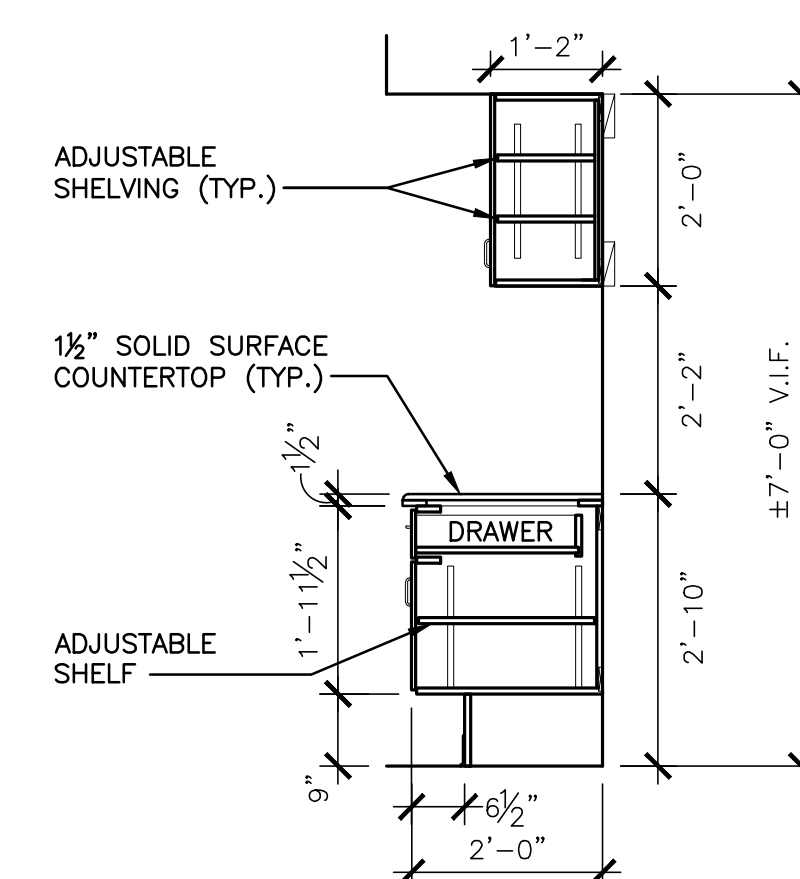
7 INTERIOR ELEVATION



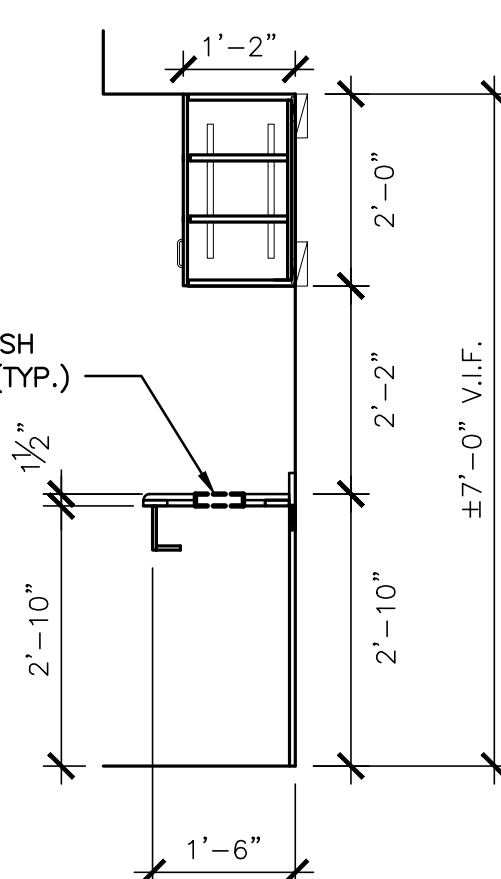
8 INTERIOR ELEVATION



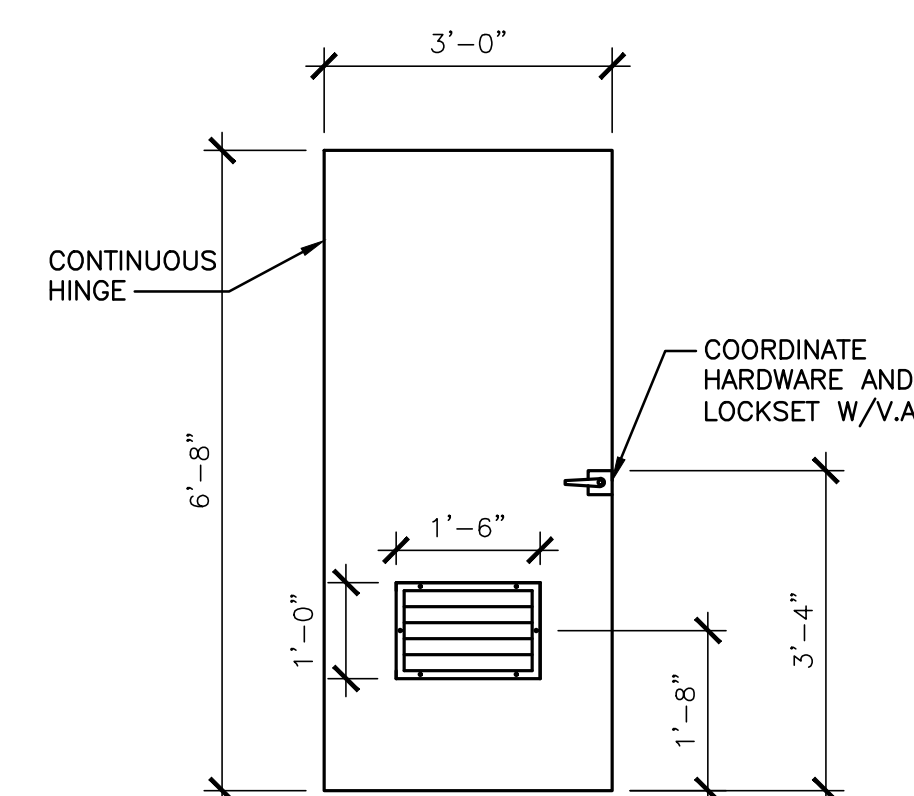
9 INTERIOR ELEVATION
SCALE: 1/2"=1'-0"



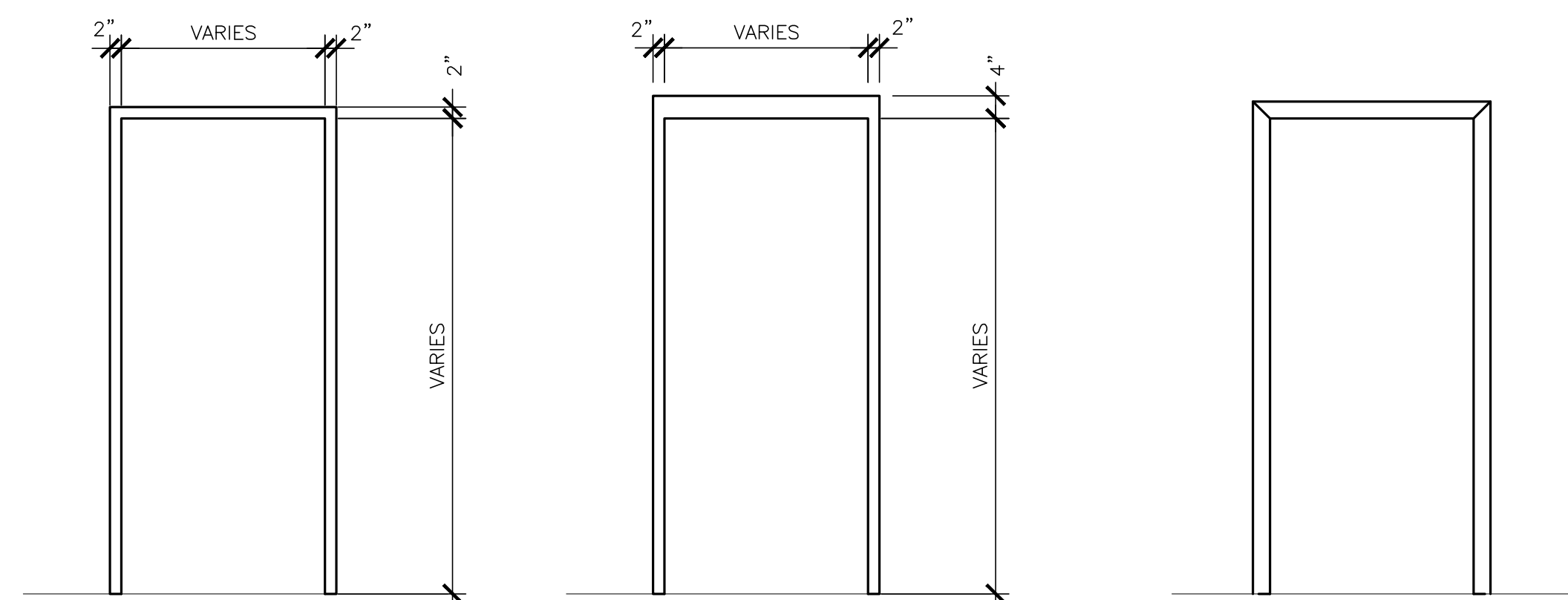
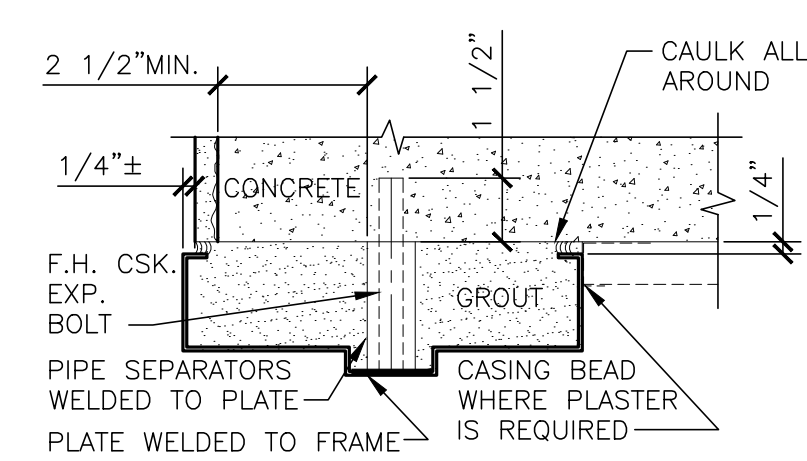
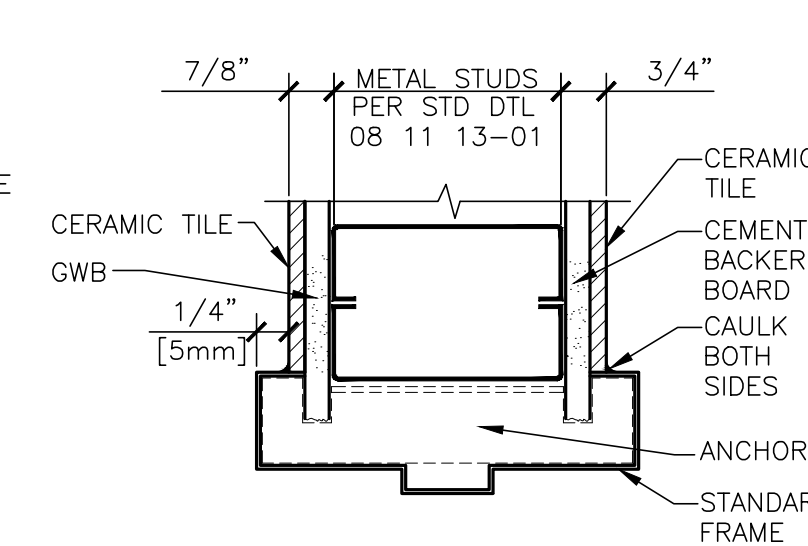
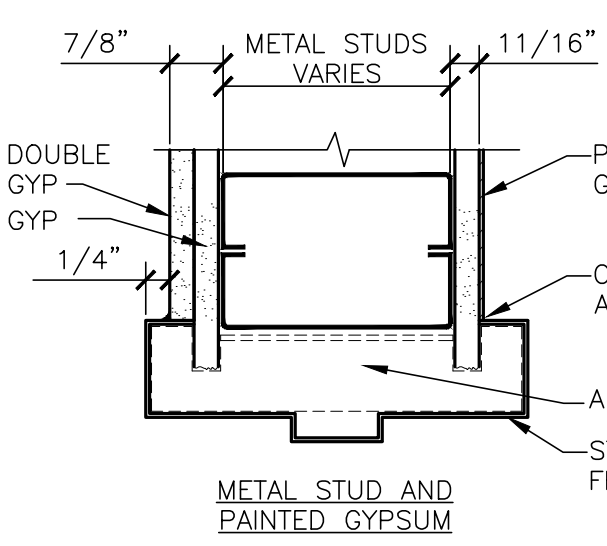
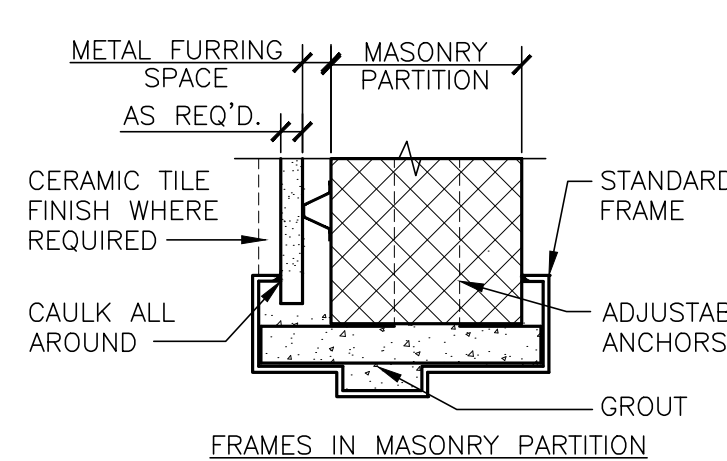
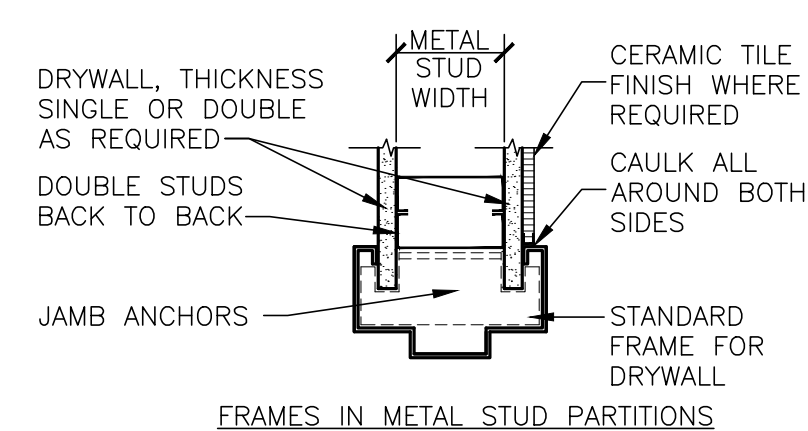
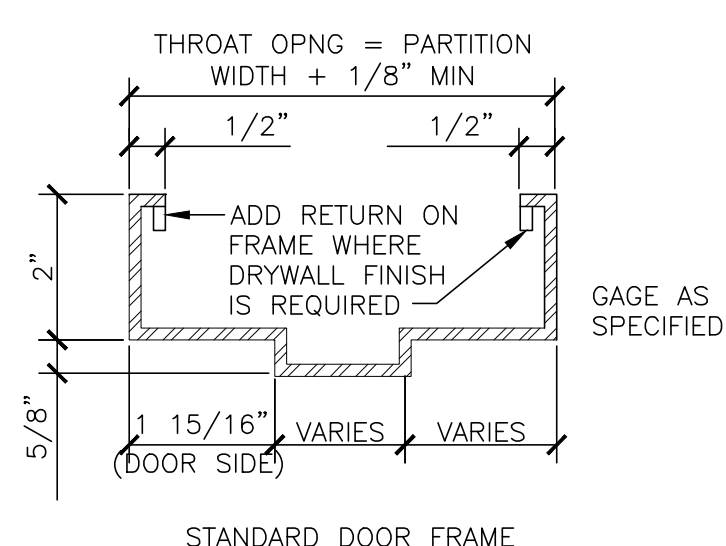
10 TYPICAL CABINETRY SECTIONS
SCALE: 1/2"=1'-0"



11 ARCHITECTURAL: DOOR ELEVATION
SCALE: 1/2"=1'-0"



12 ARCHITECTURAL: DOOR FRAMES
SCALE: 1/2"=1'-0"



13 ARCHITECTURAL: DOOR FRAME DETAILS
SCALE: NTS

HVAC DEMOLITION NOTES:

1. COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE DEMOLISHED.
2. REMOVE ALL EQUIPMENT, DUCTWORK AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL SUPPORTS AND HANGERS, HOUSEKEEPING PADS, DAMPERS, VALVES, FITTINGS, CONTROLS AND ASSOCIATED LOW VOLTAGE WIRING, AND ANY OTHER ASSOCIATED ACCESSORIES WHICH PERTAIN TO THE EQUIPMENT TO BE REMOVED.
3. REMOVAL OF ALL POWER CONNECTIONS TO DEMOLITION ITEMS SHALL BE BY THE E.C.
4. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DISCREPANCY WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER.
5. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT FOR CONNECTION TO NEW EQUIPMENT. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION OF PLANS.
6. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED.
7. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
8. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
9. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.





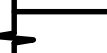


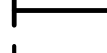



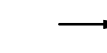







GENERAL NOTES:

1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL HVAC WORK WITH OTHER TRADES AND THE SELECTION OF THE BEST EXTRA STRUCTURAL SUPPORTS WILL BE AUTHORIZED FOR ROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER SYSTEMS.
2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.
3. ACCESS PANELS SHALL BE PROVIDED IN CEILINGS, WALLS, FLOORS, ETC., AS REQUIRED TO MAINTAIN ACCESSIBILITY TO VALVES, DAMPERS, TRAPS, COILS, ETC.
4. PROVIDE DUCT ACCESS DOORS AT ALL MOTORIZED DAMPERS, FIRE DAMPERS, AND SMOKE DAMPERS.
5. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.
6. ALL DUCTWORK PASSING THROUGH A FIRE RATED PARTITION SHALL BE PROVIDED WITH A FIRE DAMPER TO MAINTAIN THE FIRE RATING OF THE PARTITION.
7. LOCATIONS OF EXHAUST LOCATIONS AND GRILLES ARE APPROXIMATE. REFER TO ARCHITECTURAL PLANS FOR DIFFUSERS.
8. ALL BRANCHES AND TAKE-OFFS SHALL BE EQUIPPED WITH VOLUME CONTROL DAMPERS. DAMPERS OF OPPOSITE BLADE TYPE, 4" MAX. BLADE HEIGHT. VOLUME DAMPERS TO BE LOCATED AS NEAR TO THE POINT OF TAKE-OFF AS PRACTICAL.
9. FLEXIBLE DUCT CONNECTIONS SHALL BE LIMITED TO A MAXIMUM LENGTH OF FIVE (5) FEET AND SUPPORTED AT MID-POINT.
10. ALL SUPLY & RETURN AIR DUCTWORK SHALL BE INSULATED.
11. PROVIDE SHUT-OFF VALVES AT ALL PIPING BRANCH TAKE-OFFS AND AT ALL CONNECTIONS TO EQUIPMENT.
12. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE MANUAL VENTS ON PIPING AT ALL HIGH POINTS.
13. COORDINATE ELECTRICAL CHARACTERISTICS AND REQUIREMENTS OF ALL MECHANICAL EQUIPMENT WITH ELECTRICAL CONTRACTOR.
14. ALL MOTOR STARTERS SHALL BE FURNISHED BY THE HVAC CONTRACTOR AND INSTALLED BY THE ELECTRICAL CONTRACTOR.
15. ALL REQUIRED CONTROL EQUIPMENT AND WIRING SHALL BE FURNISHED & INSTALLED BY THE HVAC CONTRACTOR.
16. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
17. CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
18. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT; DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
19. IT IS THE INTENT AND PURPOSE OF THESE SPECIFICATIONS AND DRAWINGS TO INCLUDE ALL THE NECESSARY MATERIALS, APPLIANCES AND LABOR TO PROPERLY COMPLETE AND LEAVE IN PERFECT WORKING CONDITION THE ENTIRE SYSTEM HEREINAFTER SPECIFIED, ANY MATERIAL, LABOR OR APPLIANCE NOT SPECIFICALLY MENTIONED IN THE SPECIFICATIONS OR DRAWINGS, BUT NECESSARY FOR A COMPLETE INSTALLATION MUST BE FURNISHED BY THIS CONTRACTOR.














HVAC LINE TYPES

-----	EXISTING EQUIPMENT/DUCT TO BE REMOVED
-----	EXISTING EQUIPMENT/ DUCT TO REMAIN
-----	NEW EQUIPMENT / DUCT
-----	ATV ATMOSPHERIC VENT
-----	BOILER BLOWDOWN
-----	BR BRINE RETURN
-----	B BRINE SUPPLY
-----	CHWR CHILLED WATER RETURN
-----	CHWS CHILLED WATER SUPPLY
-----	A COMPRESSED AIR
-----	CD CONDENSATE DRAIN
-----	CWR CONDENSER WATER RETURN
-----	CWS CONDENSER WATER SUPPLY
-----	DTR DUAL TEMP. WATER RETURN
-----	DWS DUAL TEMP. WATER SUPPLY
-----	FLL FILL LINE
-----	FOD FUEL OIL DISCHARGE
-----	FOR FUEL OIL RETURN
-----	FOS FUEL OIL SUPPLY
-----	FOTV FUEL OIL TANK VENT
-----	HPWR HEAT PUMP WATER RETURN
-----	HPWS HEAT PUMP WATER SUPPLY
-----	HPS HIGH PRESSURE CONDENSATE
-----	HPS HIGH PRESSURE STEAM
-----	HTWR HIGH TEMP HOT WATER RETURN
-----	HTWS HIGH TEMP HOT WATER SUPPLY
-----	H HUMIDIFICATION LINE
-----	LP GAS SUPPLY
-----	LPCS LOW PRESSURE CLEAN STEAM
-----	LPGC LOW PRESSURE CLEAN CONDENSATE
-----	LPR } LOW PRESSURE CONDENSATE RETURN
-----	LPC }
-----	LPS LOW PRESSURE STEAM SUPPLY
-----	LWR LOW TEMPERATURE HOT WATER RETURN
-----	LWS LOW TEMPERATURE HOT WATER SUPPLY
-----	MU MAKEUP WATER
-----	MPS MEDIUM PRESSURE CONDENSATE
-----	MPS MEDIUM PRESSURE STEAM
-----	MTR MEDIUM TEMP HOT WATER RETURN
-----	MWS MEDIUM TEMP HOT WATER SUPPLY
-----	G NATURAL GAS LINE
-----	PC PUMPED CONDENSATE
-----	RD REFRIGERANT DISCHARGE
-----	RL REFRIGERANT LIQUID
-----	RS REFRIGERANT SUCTION
-----	VAC VACUUM LINE
-----	VPS VACUUM PUMP DISCHARGE



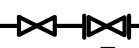


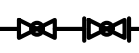
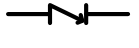





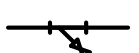
























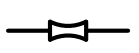















DUCTWORK SYMBOLS

	DUCTWORK DOUBLE LINE REPRESENTATION: "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH.
	DUCTWORK SINGLE LINE REPRESENTATION: "A" INDICATES DUCT WIDTH; "B" INDICATES DUCT DEPTH.
	SUPPLY AIR DUCT UP
	SUPPLY AIR DUCT DOWN
	RETURN AIR DUCT UP
	RETURN AIR DUCT DOWN
	EXHAUST AIR DUCT UP
	EXHAUST AIR DUCT DOWN
	FLEXIBLE DUCTWORK
	SUPPLY AIR FLOW
	RETURN/EXHAUST AIR FLOW
	VOLUME DAMPER
	MOTORIZED DAMPER w/ ACCESS DOOR
	FIRE DAMPER w/ ACCESS DOOR
	SUPPLY AIR TERMINAL
	RETURN/EXHAUST AIR TERMINAL
	EXHAUST AIR TERMINAL
	DROP DUCT
	RISE DUCT

















PIPING SYMBOLS

	DIRECTION OF FLOW
	ANCHOR
	PIPE GUIDE
	REDUCER OR INCREASER
	ECCENTRIC REDUCER
	TOP CONNECTION, 45° OR 90°
	BOTTOM CONNECTION, 45° OR 90°
	SIDE CONNECTION
	CAPPED OUTLET
	PIPE DOWN TURN
	PIPE RISE
	UNION
	DIRECTION OF PIPE PITCH (DOWN)

VALVE SYMBOLS

	OR		OR		GATE VALVE -- THREADED/FLANGED
	OR		OR		GATE VALVE WITH 3/4" HOSE ADAPTER
					GLOBE VALVE -- THREADED/FLANGED
	OR		OR		CHECK VALVE
	OR		OR		STRAINER
					WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)
					STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR
	OR				FLEXIBLE CONNECTION
					ANGLE GLOBE VALVE
	OR		OR		BUTTERFLY VALVE
	OR		OR		BALL VALVE
					CONTROL VALVE (CV) -- FLOAT-OPERATED
	OR		OR		MODULATING CONTROL VALVE
					MODULATING CONTROL BUTTERFLY VALVE
					TWO POSITION CONTROL VALVE
	OR		OR		THREE-WAY MODULATING CONTROL VALVE
					THREE-WAY TWO POSITION CONTROL VALVE
	OR		OR		PRESSURE REGULATING VALVE
	OR		OR		PRESSURE REDUCING VALVE (PRV)
	OR		OR		TEMPERATURE & PRESSURE RELIEF VALVE
					SAFETY OR PRESSURE RELIEF VALVE
	OR		OR		AUTOMATIC BALANCING CONTROL VALVE
					WATER BALANCE DEVICE
					WATER FLOW MEASURING DEVICE
	OR		OR		CIRCUIT SETTER VALVE
					GATE VALVE WITH GLOBE-VALVED BYPASS
	OR		OR		TRIPLE DUTY VALVE
					WATER LEVEL CONTROLLER
					FLOW METER
	OR		OR		COMBINATION BALANCING AND SHUT-OFF VALVE
					MANUAL AIR VENT
					TEST PLUG (PRESSURE/TEMPERATURE)
	OR				PLUG VALVE
					LUBRICATED PLUG VALVE

GENERAL SYMBOLS

	POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
	POINT OF DISCONNECT
	INDICATES SECTION LETTER
	INDICATES DRAWING NUMBER WHERE LOCATED
	INDICATES TYPE OF AIR OUTLET
	INDICATES AIR FLOW REQUIREMENTS
	ADJUSTABLE ANGLE THERMOMETER
	DIAL THERMOMETER
	PRESSURE GAUGE WITH NEEDLE VALVE
	WALL MOUNT THERMOSTAT 'A' DESIGNATES COMPONENT SERVED
	TEMPERATURE SENSOR
	PUMP
	DUCT SMOKE DETECTOR
	FAN SWITCH WITH PILOT LIGHT
	DOOR UNDERCUT (BY G.C.)
	LOUVERED DOOR (BY G.C.)

ABBREVIATIONS

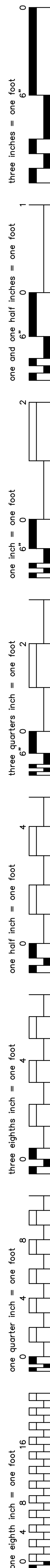
AC	AIR CONDITIONING UNIT	GPM	GALLONS PER MINUTE
ACC	ACOUSTIC CEILING TIE	H.C.	HVAC CONTRACTOR
ACCU	AIR COOLED CONDENSING UNIT	HF	HEPA FILTER
AD	ACCESS DOOR	HP	HORSEPOWER
AF	AFTER FILTER	HRP	HYDROIC RADIANT CEILING PANEL
AFM	ABOVE FINISHED FLOOR	HV	HEAT AND VENTILATING UNIT
AFM	AIR FLOW MEASURING DEVICE	IV	INLET VANES
AHU	AIR HANDLING UNIT	LCD	LINEAR CEILING DIFFUSER
A.L.D.	AUTOMATIC LOUVER DAMPER (PNEUMATIC)	LF	LAMINAR FLOW DIFFUSER
AP	ACCESS PANEL	LF	LINEAR FEET
BD	BACK DRAFT DAMPER	LP	LP GAS PIPING
BD	BOTTOM GRILLE (WALL TYPE)	LPR	LOW PRESSURE STEAM CONDENSATE
BR	BOTTOM REGISTER (WALL TYPE)	LPS	LOW PRESSURE STEAM
BTUH	BRITISH THERMAL UNITS/HOUR	LBS/HR	POUNDS PER HOUR
CC	COOLING COIL	MB	MIXING BOX
CD	CEILING DIFFUSER	MD	MOTORIZED DAMPER
CFM	CUBIC FEET PER MINUTE	ME	MECHANICAL EQUIPMENT ROOM
CG	CEILING GRILLE	MAX.	MAXIMUM
CLG	CEILING	MBH	ONE THOUSAND BTUH
CO	CLEAN OUT	MIN.	MINIMUM
CP	CONDENSATE PUMP	NOM.	NOMINAL
CR	CEILING REGISTER	OA	OUTSIDE AIR
C.U.H.	CABINET UNIT HEATER	P	PUMP
CW	COLD WATER	P.C.	PLUMBING CONTRACTOR
D	DRAIN	PD	PRESSURE DROP (FEET OF WATER)
Db	DRY BULB TEMPERATURE, °F	PF	PRE-FILTER
dB	DECIBELS	PGW	PROPYLENE GLYCOL—WATER SOLUTION
DN	DOWN	PH	PREHEAT
DP	DIFFERENTIAL PRESSURE	PRV	PRESSURE REDUCING VALVE
Dp	DEW POINT TEMPERATURE, °F	PSI	POUNDS PER SQUARE IN.
DS	DUCT SMOKE DETECTOR	RA	RETURN AIR
DX	DIRECT EXPANSION	RF	RETURN FAN
EA	EXHAUST AIR	RHC	REHEAT COIL
EAT	ENTERING AIR TEMP	RH	RELATIVE HUMIDITY
E.C.	ELECTRICAL CONTRACTOR	RPZ	REDUCED PRESSURE ZONE
ECC	ENGINEERING CONTROL CENTER	SA	SUPPLY AIR
EER	ENERGY EFFICIENCY RATIO	SD	SMOKE DAMPER
EF	EXHAUST FAN	Sp. Gr.	SPECIFIC GRAVITY
EGW	ETHYLENE GLYCOL—WATER SOLUTION	SH	STEAM HUMIDIFIER
END	END MAIN DRIP (STATIC)	SP	STATIC PRESSURE
ERC	ENERGY RECOVERY COIL	SPD	SPRINK DAMPER
ERT	ELECTRIC RADIANT CEILING PANEL	SPS	STATIC PRESSURE SENSOR
EP	EXPANSION TANK	S.S.	STAINLESS STEEL
EUH	ELECTRIC UNIT HEATER	TG	TOP GRILLE (WALL TYPE)
EXIST	EXISTING	TR	TROUBLE REGISTER (WALL TYPE)
F.A.I.	FRESH AIR INTAKE	TWU	THRU WALL UNIT
FCU	FLEXIBLE CONNECTION	UH	UNIT HEATER
FD	FAN COIL UNIT	U.N.O.	UNLESS NOTED OTHERWISE
FL	FIRE DAMPER	UV	UNIT VENTILATOR
FLR	FLOOR	V	VALVE
F.O.R.	FUEL OIL RETURN	VD	VOLUME DAMPER
F.O.S.	FUEL OIL SUPPLY	VE	VOLUME EXTRACTOR
FPC	FIRE PROTECTION CONTRACTOR	VI	VIBRATION ISOLATOR
FS/SD	COMBINATION FIRE/SMOKE DAMPER	VIF	VERIFY IN FIELD
FTR	FIN TUBE RADIATION	Wb	WET BULB TEMPERATURE, °F
G	GENERAL GAS PIPE	WFM	WATER FLOW MEASURING DEVICE
G.C.	GENERAL CONTRACTOR	WMS	WIRE MESH SCREEN

(REF TABLE C403.2.10 IECC 2015)

MINIMUM PIPE INSULATION - COMMERCIAL

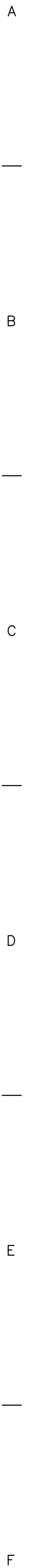
FLUID OPERATING TEMPERATURE RANGE AND USAGE, °F	NOMINAL PIPE OR TUBE SIZES				
	1" to <4"	4½" to <5"	1 ½" to <4"	4" to <8"	8" and larger
ABOVE 350	1	5	5	5	5
251-350	3	4	4½	4½	4½
201-250	2½	2½	2½	3	3
141-200	1½	1½	2	2	2
105-140	1	1	1½	1½	1½
40-60	½	½	1	1	1
BELOW 40	½	1	1	1	1½

- a. FOR PIPING SMALLER THAN 1½" AND LOCATED IN PARTITIONS WITHIN CONDITIONED SPACES, REDUCTION OF THESE THICKNESSES BY 1 INCH SHALL BE PERMITTED BUT NOT TO A THICKNESS LESS THAN 1".
- b. FOR DIRECT-BURIED HEATING AND HOT WATER SYSTEM PIPING, REDUCTION OF THESE THICKNESSES BY 1½" SHALL BE PERMITTED BUT NOT TO THICKNESSES LESS THAN 1".



1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO PROVIDE TO VA CONTRACTING OFFICER'S REPRESENTATIVE (COR) AND VA SAFETY REPRESENTATIVE A COMPLETE AND DETAILED CONSTRUCTION PLAN FOR THE CONSTRUCTION OF THE PROJECT. THE CONSTRUCTION PLAN SHALL INCLUDE WITH FALL PROTECTION SHOWING ALL SAFETY MEASURES BEING TAKEN TO PROTECT AREAS, EQUIPMENT AND PEOPLE BELOW AREAS OF WORK. CONSTRUCTION PLAN TO BE APPROVED BY VA PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS CONCERNING OSHA STANDARD 1296.500 "FALL PROTECTION". THE CONTRACTOR IS FURTHER ADVISED THAT ROOF AREAS SHALL REQUIRE PROTECTION.
3. CONTRACTOR TO SUPPLY AND USE "PERSONAL FALL ARREST SYSTEMS" AS REQUIRED BY 29 CFR 1926.
4. CONTRACTOR HAVE ON SITE AT ALL TIMES DURING EXTERIOR CONSTRUCTION, A "SAFETY MONITOR" PERSONAL TO ACT AS OUTLINED IN OSHA "FALL PROTECTION SYSTEMS AND PRACTICES" STANDARD 1296.502. MONITOR TO WORK WITH VA COR AND SAFETY OFFICE AND COORDINATE ALL SAFETY ACTIVITIES.
5. SUBMIT A COMPREHENSIVE FALL PROTECTION PLAN TO THE VA FOR REVIEW AND APPROVAL PRIOR TO ACCESSING THE ROOF OR PERFORMING ANY ROOF SURVEYING OR WORK.

1. ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
2. MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
3. PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
4. ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.



2

VA FORM 08-6231, OCT 1978

0
three inches = one foot
1
one and one half inches = one foot
2
one inch = one foot
3
three quarters inch = one foot
4
one half inch = one foot
5
three eighths inch = one foot
6
one quarter inch = one foot
7
one eighth inch = one foot
8
one quarter inch = one foot
9
one eighth inch = one foot
10
one eighth inch = one foot
11
one eighth inch = one foot
12
one eighth inch = one foot
13
one eighth inch = one foot
14
one eighth inch = one foot
15
one eighth inch = one foot
16
one eighth inch = one foot

1 HVAC: LEVEL-C - PIPING DEMOLITION PLAN
SCALE: 1/8"=1'-0"

KEY

SMOKE BARRIER (1 HR)

SMOKE BARRIER (30 MIN)

FIRE BARRIER (2 HR)

FIRE BARRIER (1 HR)

HAZARDOUS AREA

HEALTHCARE OCCUPANCY

PROTECTED BY AUTOMATIC SPRINKLER SYSTEM
QUICK RESPONSE

- GENERAL SCOPE:
- DEMO ALL EXISTING ROOM TEMPERATURE SENSORS. PREPARE EXISTING CONTROL WIRING FOR NEW SENSOR.
 - DEMO ALL EXISTING REHEAT COILS, CONTROL VALVES AND BALANCING VALVES. PREPARE PIPING FOR NEW CONNECTIONS.

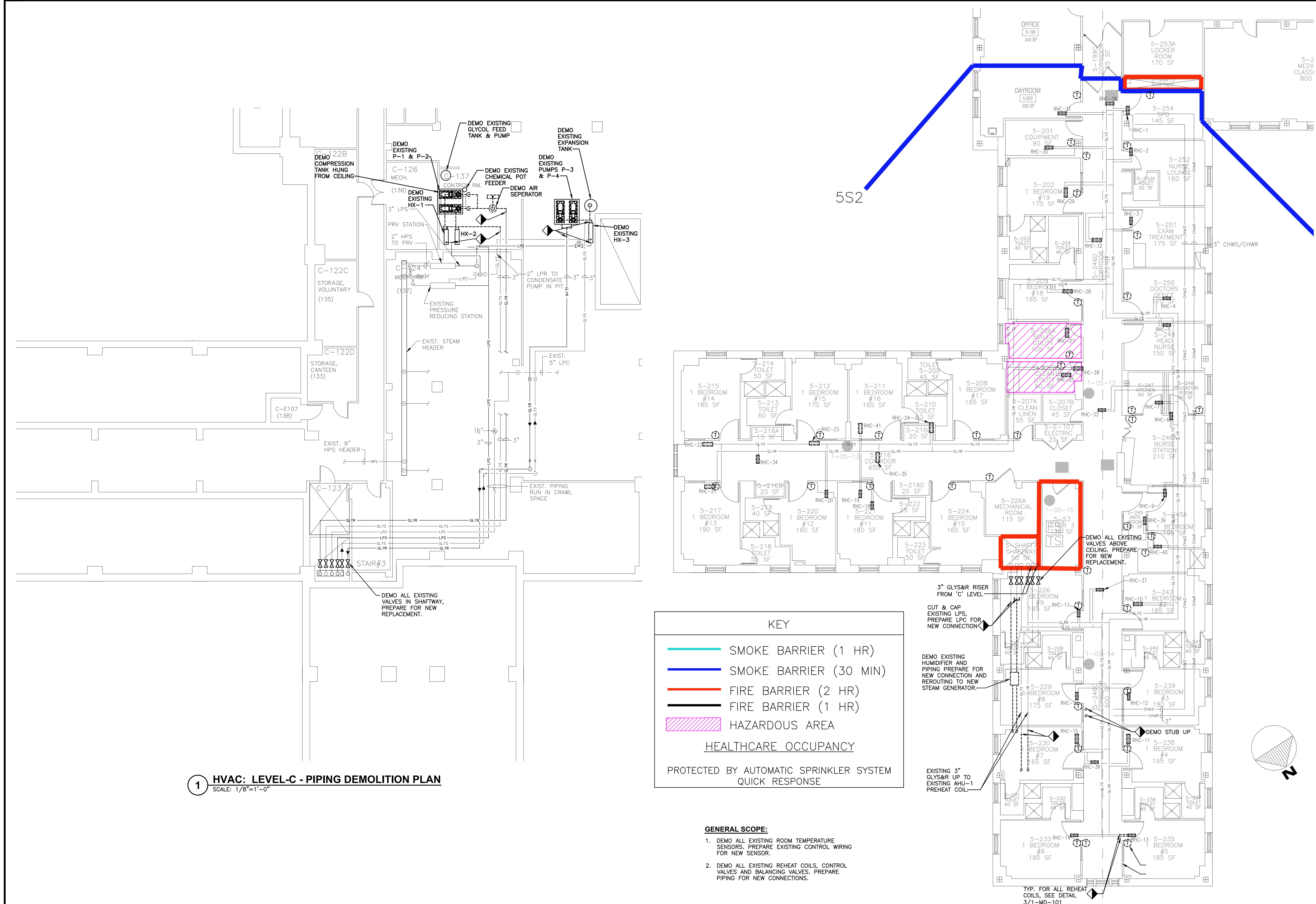
2 HVAC: FIFTH FLOOR - PIPING DEMOLITION PLAN
SCALE: 1/8"=1'-0"

GENERAL CONSTRUCTION ACTIVITY NOTES:

- ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
- MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
- PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
- ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.

3 REHEAT COIL PIPING
N.T.S.

KEYED NOTE:
1 DEMO EXISTING THREE-WAY CONTROL VALVE, HEATING COIL BALANCING VALVE, SHUT-OFF VALVE, STRAINER, AND ANY OTHER VALVE OR CONTROL DEVICE. PREPARE PIPING FOR NEW CONNECTIONS, COILS AND VALVES. TYPICAL OF 41 REHEAT COILS.



Revisions		Date	Professional Seal: JOHN D. FELLENER, P.E.		FELLENER ENGINEERING LLP 22 Mulberry St., Suite 2A, Middletown, NY 10940 1-845-343-1481 fx 845-343-4986		Drawing Title HVAC: PIPING DEMOLITION FLOOR PLANS		Project Title CONVERT 5C TO INPATIENT UNIT		Date 4/26/21		Office of Facilities		Department of Veterans Affairs	
			NJ PROFESSIONAL ENGINEER NO. 02543091		85 Market St., Suite 200, Poughkeepsie, NY 12601 1-845-454-9704 fx 845-454-9705		Approved: Division Chief MICHAEL BASSILY		Building Number 1 - 5th FLOOR		Checked MDF					
					Designed By: DSS		Drawn By: SRB		FE Project No. 20-191		Approved: Service Director		Location 385 TREMONT AVE EAST ORANGE, NJ 07018		Dwg. 8 of 20	



1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO PROVIDE TO VA CONTRACTING OFFICER'S REPRESENTATIVE (COR) AND VA SAFETY REPRESENTATIVE A COMPLETE AND DETAILED CONSTRUCTION PLAN INCLUDING: CONSTRUCTION PHASING PLAN, CONSTRUCTION SCHEDULE, SAFETY PLAN WITH FALL PROTECTION PLAN, FALL PROTECTION PROGRAM, FALL PROTECTION TRAINING AND PEOPLE BELOW AREAS OF WORK. CONSTRUCTION PLAN TO BE APPROVED BY VA PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS CONCERNING OSHA STANDARD 1926.506 "FALL PROTECTION". THE CONTRACTOR IS FURTHER ADVISED THAT ROOF AREAS SHALL REQUIRE PROTECTION.
3. CONTRACTOR TO SUPPLY AND USE "PERSONAL FALL ARREST SYSTEMS" AS REQUIRED BY 29 CFR 1926.
4. CONTRACTOR TO HAVE ON SITE AT ALL TIMES DURING EXTERIOR CONSTRUCTION, A "SAFETY MONITOR" PERSON TO ACT AS OUTLINED IN OSHA "FALL PROTECTION SYSTEMS AND PRACTICES" STANDARD 1926.502. MONITOR TO WORK WITH VA COR AND SAFETY OFFICE AND COORDINATE ALL SAFETY ACTIVITIES.
5. SUBMIT A COMPREHENSIVE FALL PROTECTION PLAN TO THE VA FOR REVIEW AND APPROVAL PRIOR TO ACCESSING THE ROOF OR PERFORMING ANY ROOF SURVEYING OR WORK.




- GENERAL CONSTRUCTION ACTIVITY NOTES:**

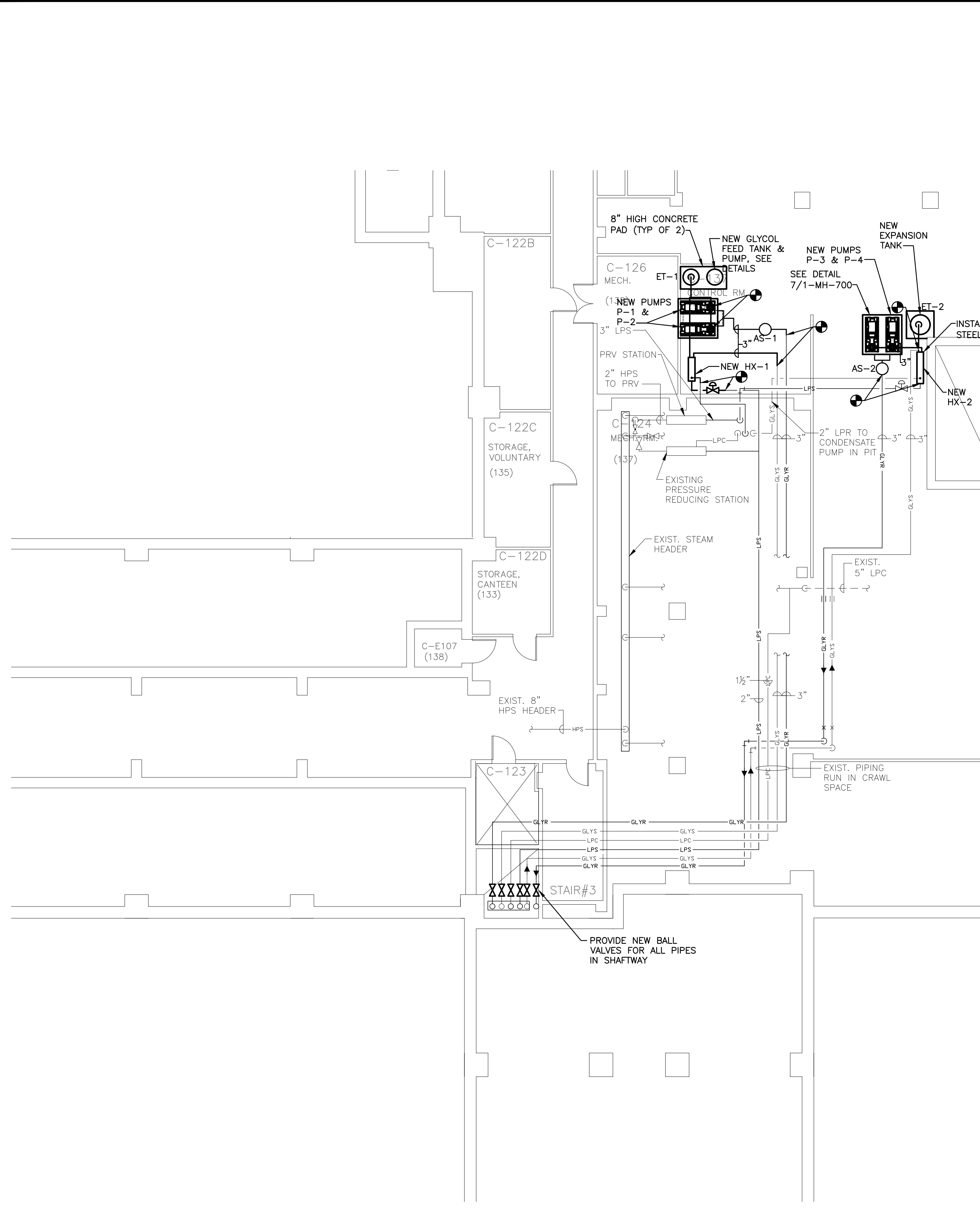
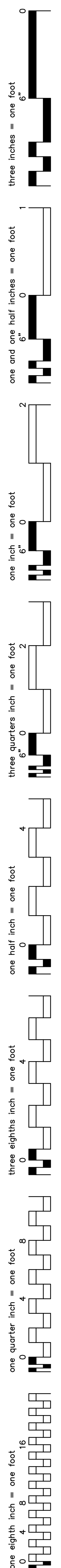
1. ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
2. MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
3. PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
4. ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.



NEW WORK KEYED NOTE

- ① PROVIDE IN-LINE, SIDE MOUNT FILTER RACK WITH 24"x24"x12" DEEP MERV 17 BAG IN BAG OUT HEPA FILTERS, ALL ALUMINUM CONSTRUCTION.
- ② PROVIDE NEW, PERMANENT BIOHAZARD SIGNS ON ALL FOUR SIDES OF EXHAUST FANS. SIGNS TO READ "WARNING - BIOHAZARD DISCHARGE - SERVICES ROOMS 216 THROUGH 224, 226 THROUGH 245A AND 246C," AND "EF-2 WARNING - BIOHAZARD DISCHARGE - SERVES ROOMS 200 THROUGH 215 & 246 THROUGH 254."
- ③ CONTRACTOR TO MEASURE V.F.U.F. EXISTING 24"X48" AIR SUPPORT STEEL. COORDINATE NEW CUSTOM 24"X48" AIR CURB BASE WITH EXISTING STEEL.
- ④ EXHAUST FROM DISCHARGE STACK SHALL BE A MINIMUM OF 26" LINEAR FEET FROM THE 6TH FLOOR BUILDING WALL.

						<div>Professional Seal: JOHN D. FELLENER, P.E.</div> <div></div> <div>NJ PROFESSIONAL ENGINEER NO. 25343081</div>		<div>FELLENER  ENGINEERING LLP</div> <div>22 Mulberry St., Suite 2A, Middletown, NY 10940 t 845-343-1481 fx 845-343-4986 www.fellp.com</div> <div>85 Market St., Suite 200, Poughkeepsie, NY 12601 t 845-454-9704 fx 845-454-9705</div> <div>32 Front St., Port Jervis, NY 12771 t 845-856-3600 fx 845-856-3734</div>		<div>Drawing Title HVAC: DUCTWORK FLOOR PLANS</div>		<div>Project Title CONVERT 5C TO INPATIENT UNIT</div>		<div>Date 4/26/21</div>		<div> Office of Facilities</div>		<div>Department of Veterans Affairs</div>	
						<div>Approved: Division Chief MICHAEL BASSILY</div>		<div>Building Number 1 - 5th FLOOR</div>		<div>Checked MDF</div>		<div>Drawn CAD</div>		<div>Project No. 561-20-300</div>					
						<div>Approved: Service Director -</div>		<div>Location 385 TREMONT AVE EAST ORANGE,NJ 07018</div>		<div>Drawing No. 1-MW-100</div>		<div>Dwg. 9 of 20</div>							
Revisions		Date																	



1 HVAC: LEVEL-C - PIPING PLAN
SCALE: 1/8"=1'-0"

KEY

SMOKE BARRIER (1 HR)

SMOKE BARRIER (30 MIN)

FIRE BARRIER (2 HR)

FIRE BARRIER (1 HR)

HAZARDOUS AREA

HEALTHCARE OCCUPANCY

PROTECTED BY AUTOMATIC SPRINKLER SYSTEM
QUICK RESPONSE

- NOTES:
1. PROVIDE NEW ROOM TEMPERATURE SENSORS COMPATIBLE WITH DELTA CONTROLS INC. REUSE EXISTING CONTROL WIRING WHERE APPROPRIATE. PATCH WALLS AS NECESSARY.
 2. PROVIDE NEW REHEAT COILS, CONTROL VALVES AND AUTOMATIC BALANCING VALVES FOR ALL REHEAT COILS. REUSE EXISTING CONTROL WIRING, VIF ALL EXISTING PIPING SIZES.
 3. UPON COMPLETION OF NEW WORK, REBALANCE ENTIRE REHEAT COIL GLYCOL LOOP AND AHU GLYCOL LOOP TO NEW FLOW SHOWN ON SCHEDULES.
 4. PROVIDE NEW ROOM PRESSURE SENSORS/MONITORS FOR ALL 19 PATIENT ROOMS TYPICAL OF SETRA SYSTEMS INC. MODEL SRPM. TIE INTO EXISTING BMS FOR INDIVIDUAL ROOM READOUTS WITH TRENDING AND HISTORICAL DATA.

2 HVAC: FIFTH FLOOR - PIPING PLAN
SCALE: 1/8"=1'-0"

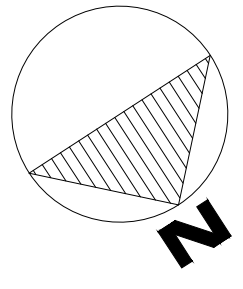


- GENERAL CONSTRUCTION ACTIVITY NOTES:
1. ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
 2. MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
 3. PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
 4. ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.

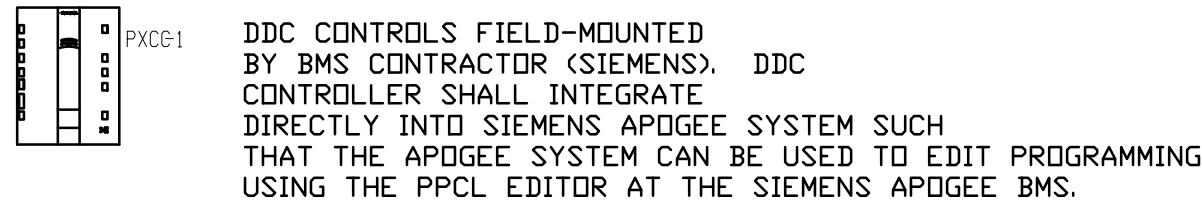
DEDUCT ALTERNATE:
#3 - OMIT REPLACEMENT OF THE 41 REHEAT COILS. REPLACE ALL VALVES, PIPING AND APPURTENANCES. EVERYTHING BUT THE COILS.

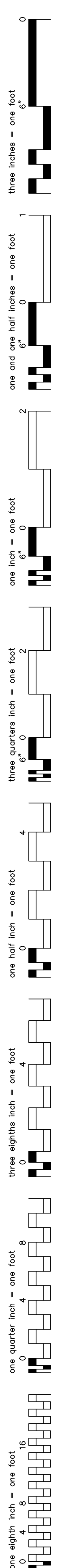
3 NEW REHEAT COIL WITH PIPING (TYP.)
N.T.S.
SEE DETAIL 5/1-MH-700 FOR ADDITIONAL APPURTENANCES.

- KEYED NOTES:
- 1 CHILLED WATER, GLYCOL WATER, AND STEAM TO STUB UP WITHIN AHU-1 CURB.
 - 2 PROVIDE NEW VALVES AND PIPING AS PER DETAIL 5/1-MH-700.



Revisions		Date	Professional Seal: JOHN D. FELLENER, P.E. 		FELLENER ENGINEERING LLP 22 Mulberry St., Suite 2A, Middletown, NY 10940 1845-343-1481 fx 845-343-4986		Drawing Title HVAC: PIPING FLOOR PLANS		Project Title CONVERT 5C TO INPATIENT UNIT		Date 4/26/21		 Department of Veterans Affairs	
					85 Market St., Suite 200, Poughkeepsie, NY 12601 t 845-454-9704 fx 845-454-9705		32 Front St. Port Jervis, NY 12771 t 845-856-3600 fx 845-856-3734		Approved: Division Chief MICHAEL BASSILY		Building Number 1 - 5th FLOOR			Drawing No. 1-MH-101 Dwg. 10 of 20
					Designed By: DSS		Drawn By: SRB		Approved: Service Director		Checked MDF			
					FE Project No. 20-191						Drawn CAD			





1 **PI**
N.T.S

one eighth inch = one foot

0 4 8 16

one quarter inch = one foot

0 4 8

three eighths inch = one foot

0 4

one half inch = one foot

0 4

three quarters inch = one foot

0 2

one inch = one foot

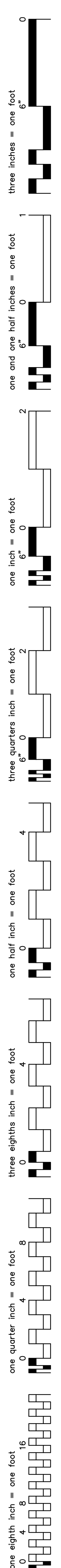
0 6

one and one half inches = one foot

0 6

three inches = one foot

0 6



- one eighth inch = one foot
- 0 4 8 16
- one quarter inch = one foot
- 0 4 8
- three eighths inch = one foot
- 0 4
- one half inch = one foot
- 0 4
- three quarters inch = one foot
- 0 2
- one inch = one foot
- 0 6
- one and one half inches = one foot
- 0 6
- three inches = one foot
- 0 6

5

one eighth inch = one foot

0 4 8 16

one quarter inch = one foot

0 4 8

three eighths inch = one foot

0 4

one half inch = one foot

0 4

three quarters inch = one foot

0 2

one inch = one foot

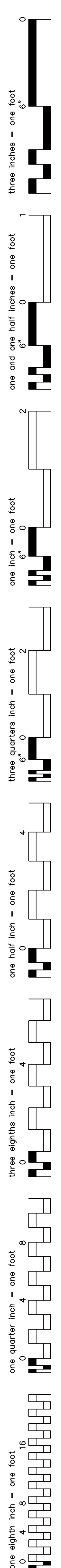
0 6

one and one half inches = one foot

0 6

three inches = one foot

0 6



8

one eighth inch = one foot

0 4 8 16

one quarter inch = one foot

0 4 8

three eighths inch = one foot

0 4

one half inch = one foot

0 4

three quarters inch = one foot

0 2

one inch = one foot

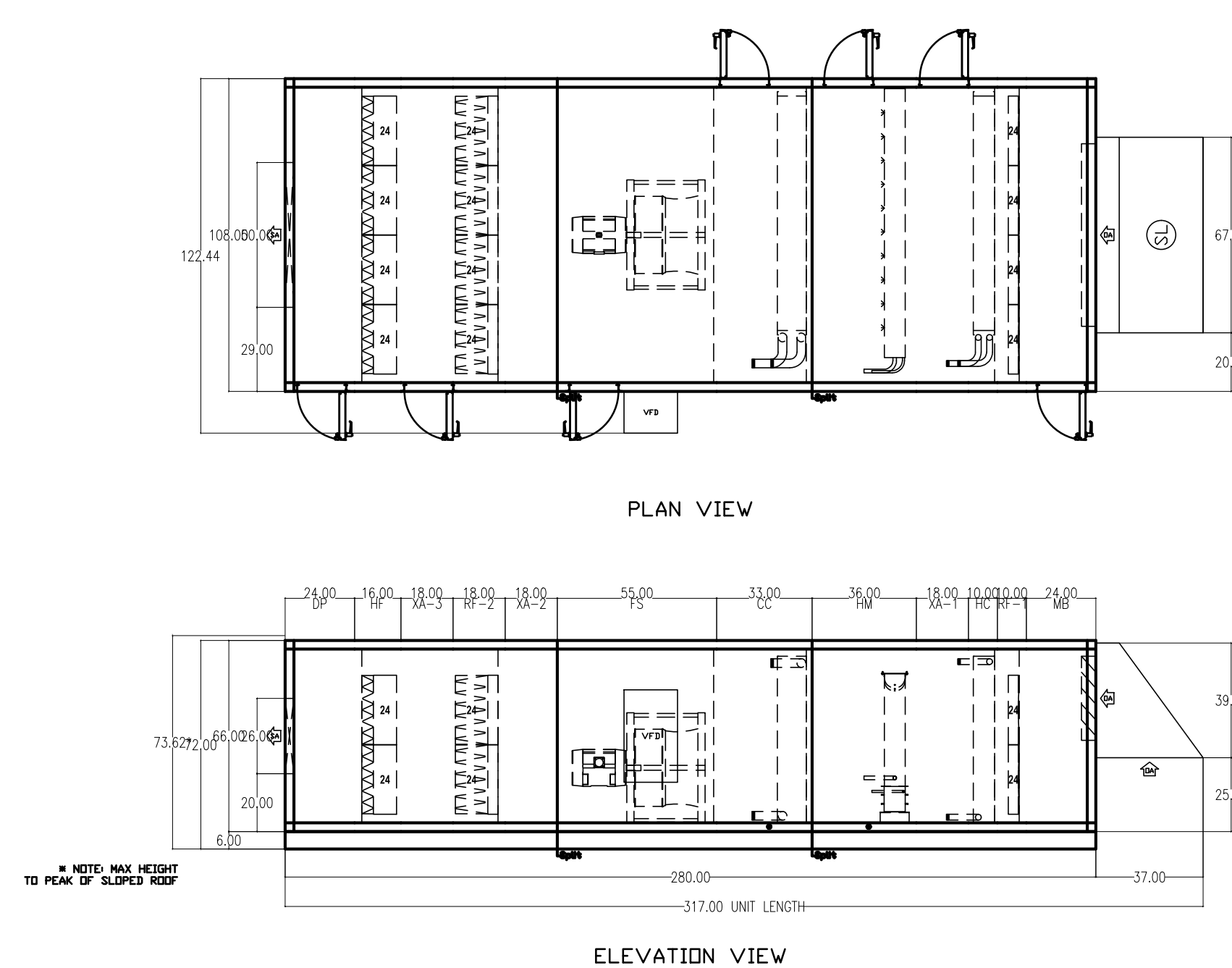
0 6

one and one half inches = one foot

0 6

three inches = one foot

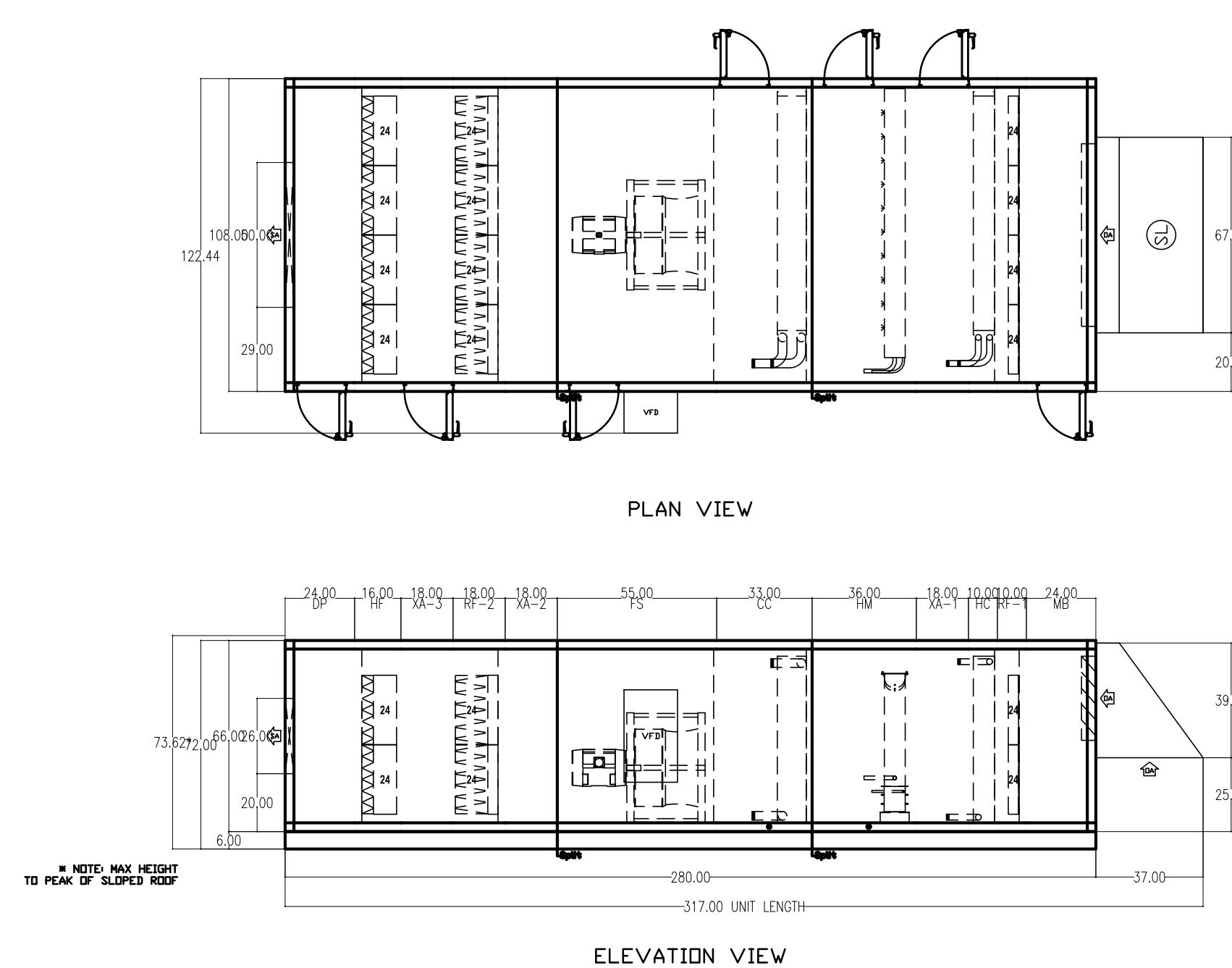
0 6



2

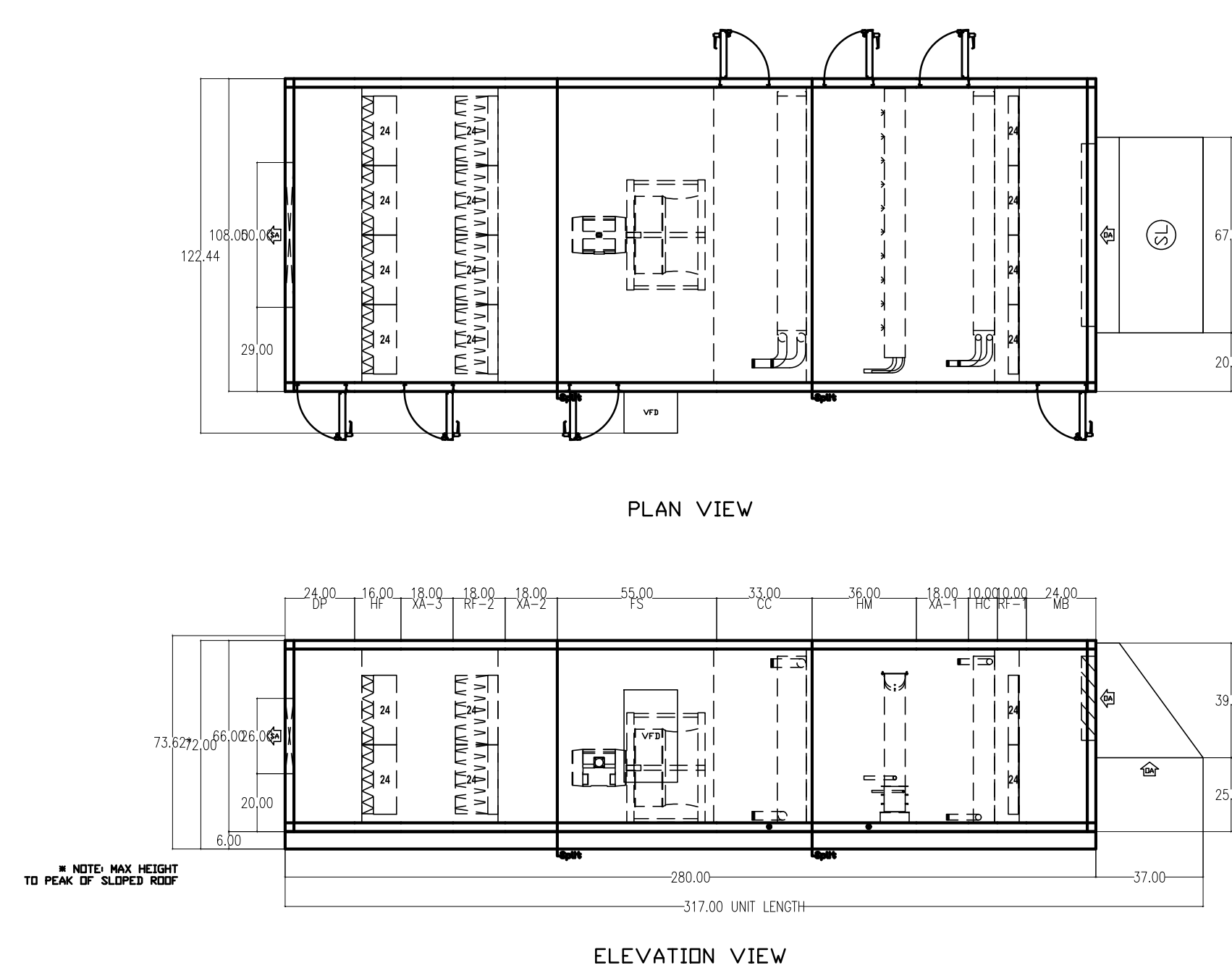
[illegible]

- [illegible]



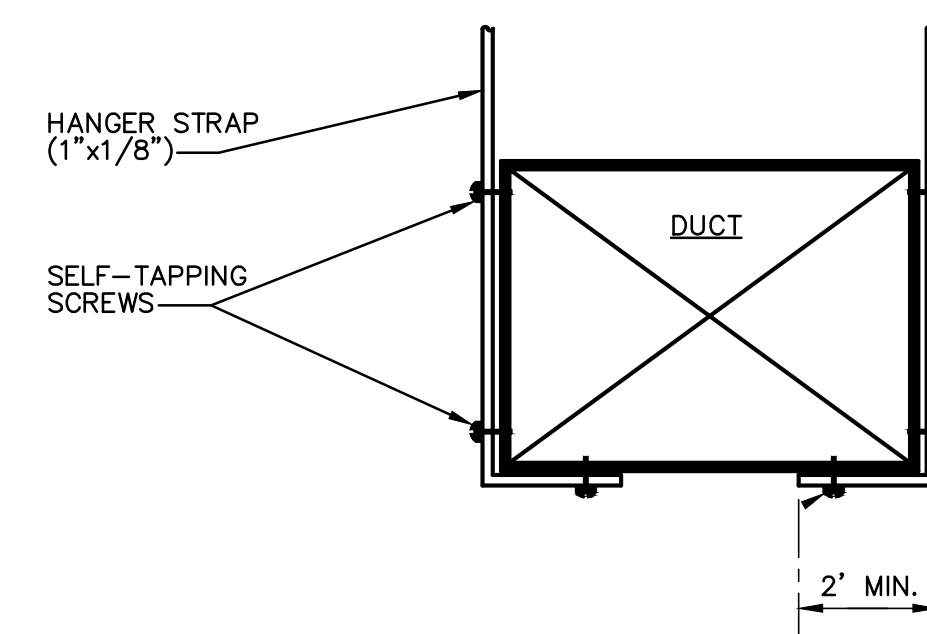
- [illegible]

6

[illegible]

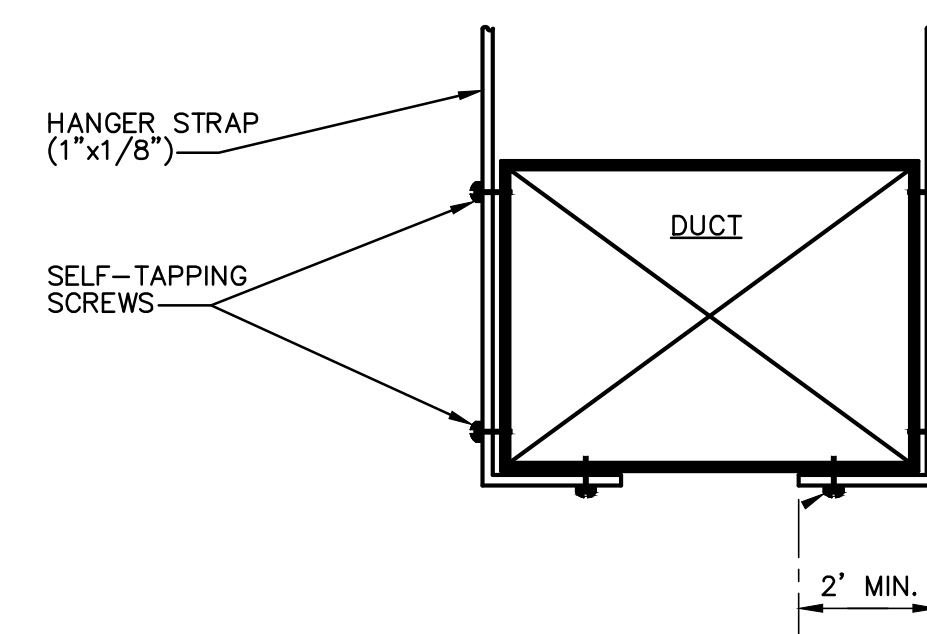
- [illegible]

9

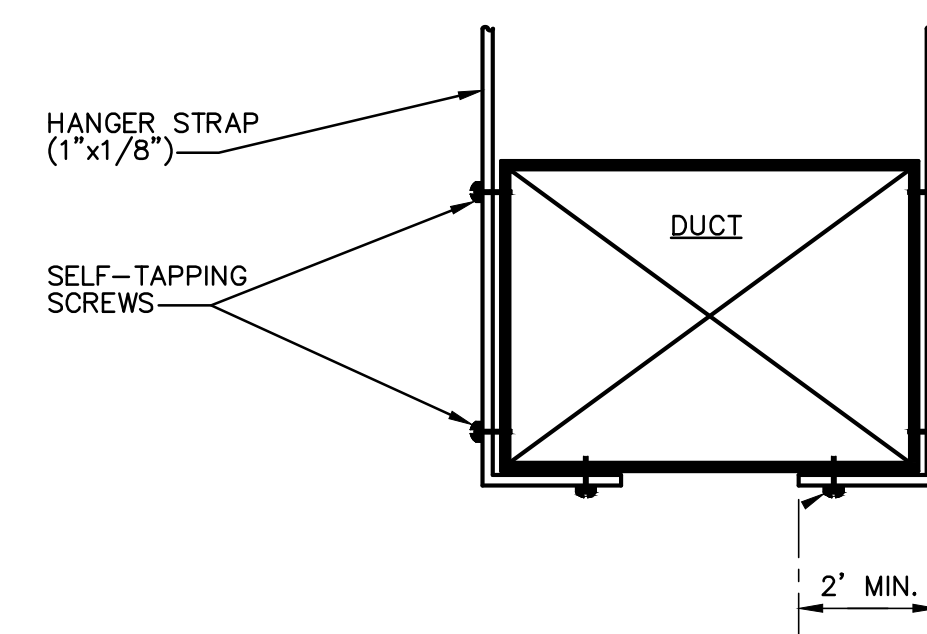
[illegible]

3

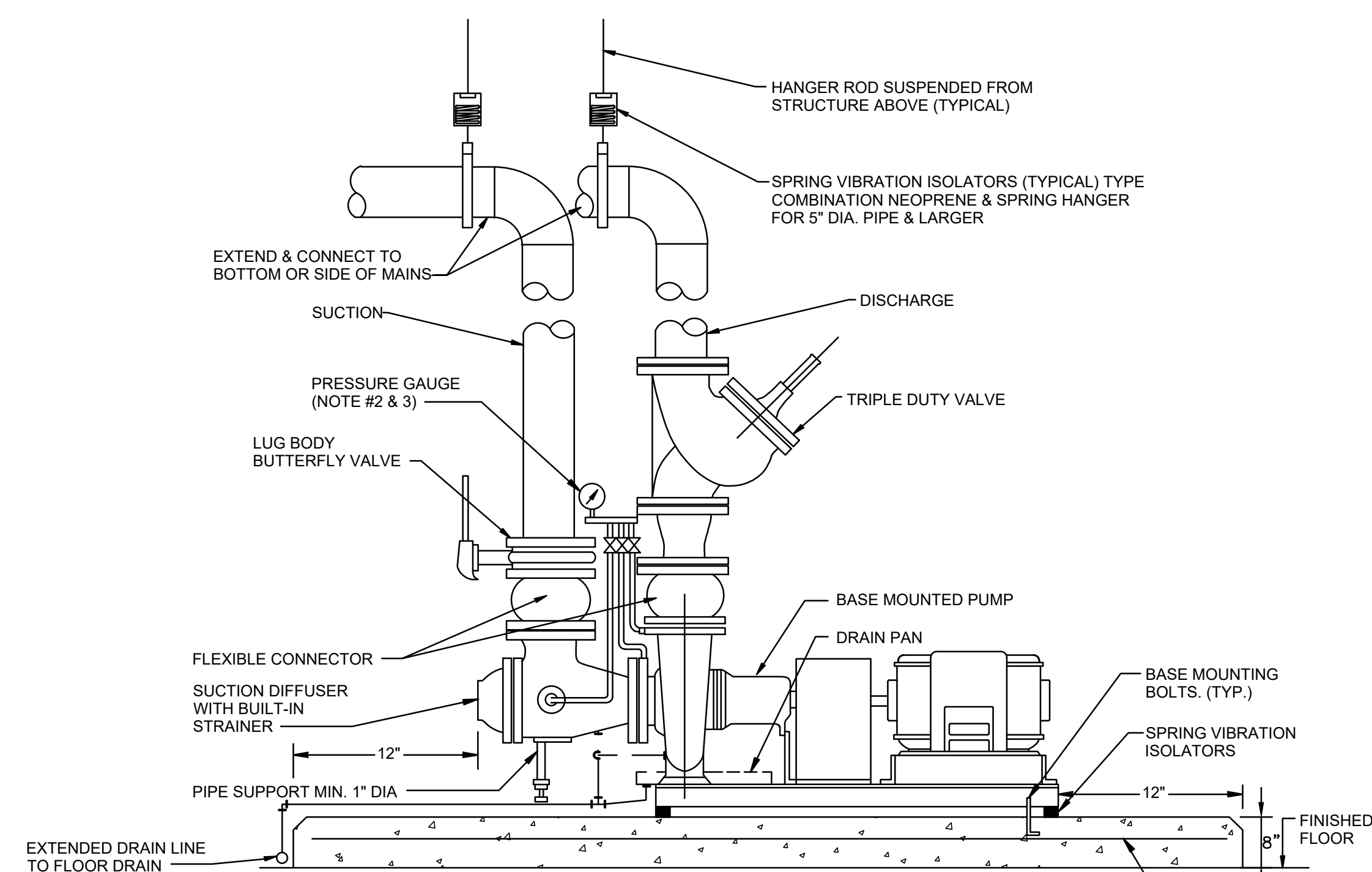
-



7



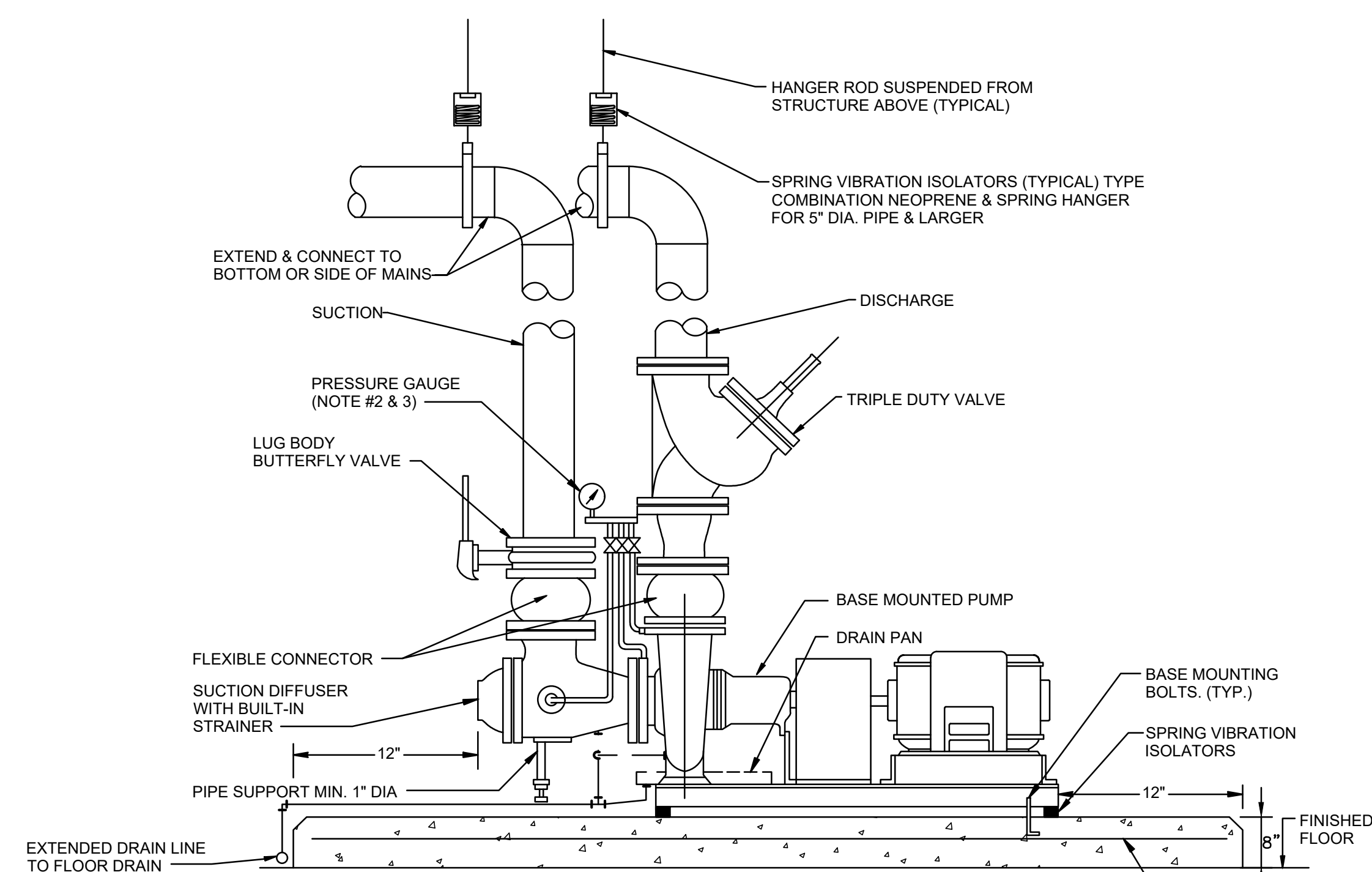
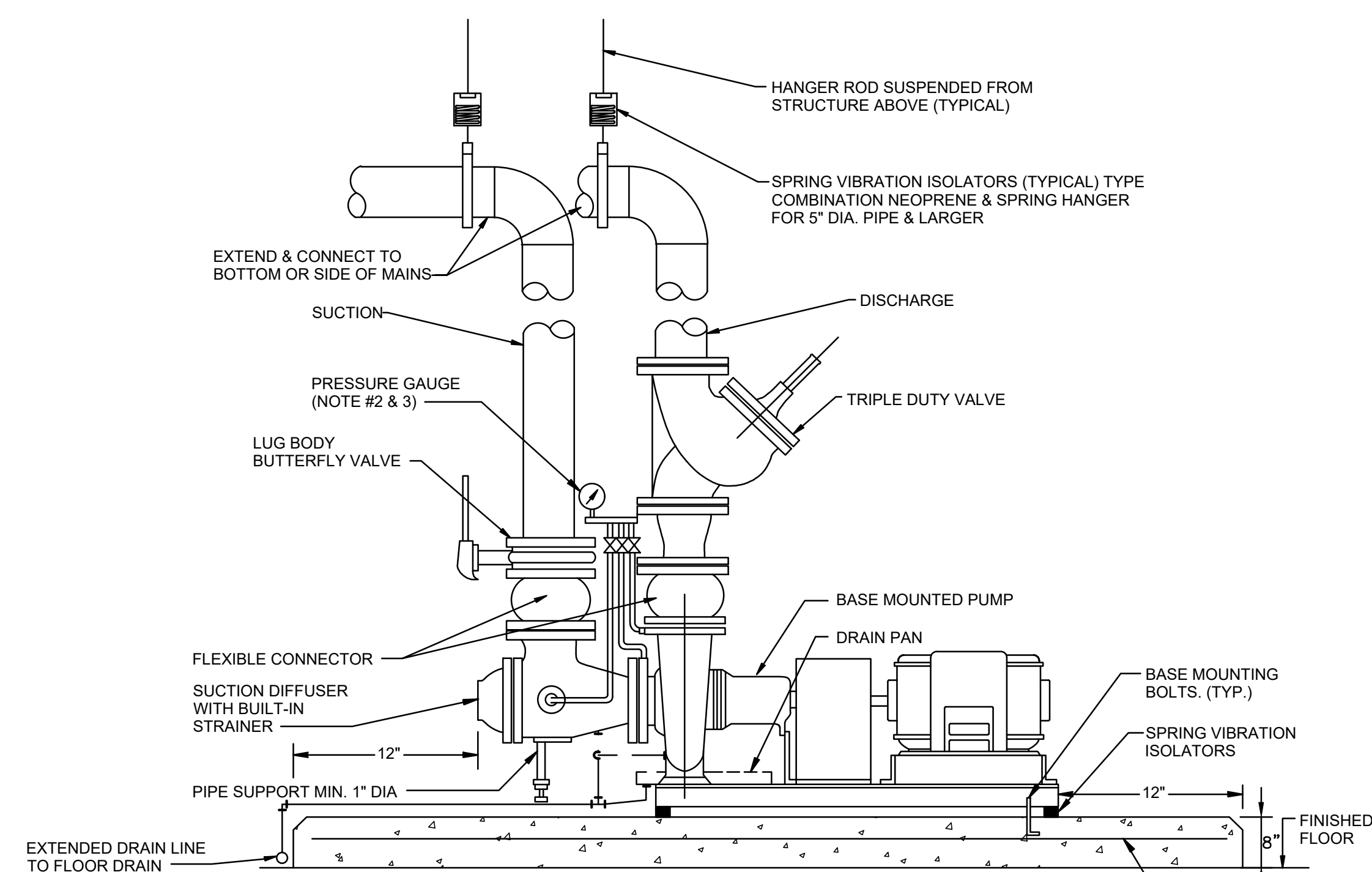
10



-
- HANGER ROD SUSPENDED FROM STRUCTURE ABOVE (TYPICAL)
 SPRING VIBRATION ISOLATORS (TYPICAL) TYPE COMBINATION NEOPRENE & SPRING HANGER FOR 5" DIA. PIPE & LARGER
 EXTEND & CONNECT TO BOTTOM OR SIDE OF MAINS
 SUCTION
 PRESSURE GAUGE (NOTE #2 & 3)
 LUG BODY BUTTERFLY VALVE
 DISCHARGE
 TRIPLE DUTY VALVE
 BASE MOUNTED PUMP
 DRAIN PAN
 BASE MOUNTING BOLTS (TYP.)
 SPRING VIBRATION ISOLATORS
 FLEXIBLE CONNECTOR
 SUCTION DIFFUSER WITH BUILT-IN STRAINER
 12"
 PIPE SUPPORT MIN. 1" DIA
 12"
 8"
 FINISHED FLOOR
 EXTENDED DRAIN LINE TO FLOOR DRAIN



4

HANGER ROD SUSPENDED FROM STRUCTURE ABOVE (TYPICAL)
 SPRING VIBRATION ISOLATORS (TYPICAL) TYPE COMBINATION NEOPRENE & SPRING HANGER FOR 5" DIA. PIPE & LARGER
 EXTEND & CONNECT TO BOTTOM OR SIDE OF MAINS
 SUCTION
 PRESSURE GAUGE (NOTE #2 & 3)
 LUG BODY BUTTERFLY VALVE
 DISCHARGE
 TRIPLE DUTY VALVE
 BASE MOUNTED PUMP
 DRAIN PAN
 BASE MOUNTING BOLTS (TYP.)
 SPRING VIBRATION ISOLATORS
 FLEXIBLE CONNECTOR
 SUCTION DIFFUSER WITH BUILT-IN STRAINER
 12"
 PIPE SUPPORT MIN. 1" DIA
 12"
 8"
 FINISHED FLOOR
 EXTENDED DRAIN LINE TO FLOOR DRAIN



11

HANGER ROD SUSPENDED FROM STRUCTURE ABOVE (TYPICAL)
 SPRING VIBRATION ISOLATORS (TYPICAL) TYPE COMBINATION NEOPRENE & SPRING HANGER FOR 5" DIA. PIPE & LARGER
 EXTEND & CONNECT TO BOTTOM OR SIDE OF MAINS
 SUCTION
 PRESSURE GAUGE (NOTE #2 & 3)
 LUG BODY BUTTERFLY VALVE
 DISCHARGE
 TRIPLE DUTY VALVE
 BASE MOUNTED PUMP
 DRAIN PAN
 BASE MOUNTING BOLTS (TYP.)
 SPRING VIBRATION ISOLATORS
 FLEXIBLE CONNECTOR
 SUCTION DIFFUSER WITH BUILT-IN STRAINER
 12"
 PIPE SUPPORT MIN. 1" DIA
 12"
 8"
 FINISHED FLOOR
 EXTENDED DRAIN LINE TO FLOOR DRAIN

				<div>Professional Seal: JOHN D. FELLENER, P.E.</div> <div></div> <div>NJ PROFESSIONAL ENGINEER NO. 0E543091</div>		<div>FELLENER III ENGINEERING LLP</div> <div>22 Mulberry St., Suite 2A, Middletown, NY 10940 t 845-343-1481 fx 845-343-4986 www.fellip.com</div> <div>85 Market St., Suite 200, Poughkeepsie, NY 12601 t 845-454-9704 fx 845-454-9705</div> <div>32 Front St., Port Jervis, NY 12771 t 845-856-3600 fx 845-856-3734</div>		<div>Drawing Title HVAC DETAILS</div>		<div>Project Title CONVERT 5C TO INPATIENT UNIT</div>		<div>Date 4/26/21</div>		<div></div>	<div>Department of Veterans Affairs VA</div>
				<div>Approved: Division Chief MICHAEL BASSILY</div>		<div>Building Number 1 - 5th FLOOR</div>		<div>Checked MDF</div>	<div>Drawn CAD</div>	<div>Drawing No. 1-MH-700</div>					
				<div>Approved: Service Director —</div>		<div>Location 385 TREMONT AVE EAST ORANGE,NJ 07018</div>		<div>Dwg. 12 of 20</div>							
Revisions		Date													

three inches = one foot

one and one half inches = one foot

one inch = one foot

three quarters inch = one foot

three eighths inch = one foot

one half inch = one foot

one quarter inch = one foot

one eighth inch = one foot

AIR HANDLING UNIT SCHEDULE

BASED ON: YORK OR APPROVED EQUAL

AIR HANDLING UNIT SCHEDULE																												BASED ON: YORK OR APPROVED EQUAL			
UNIT NO.	SERVICE	LOCATION	MANUFACTURER MODEL NUMBER	WEIGHT LBS.	TOTAL AIR CFM	O.A. (MIN.)	STATIC PRESSURE	FAN TYPE	SUPPLY FAN QUANTITY	FAN RPM	POWER V/PH/HZ	FAN MOTOR, HP	PREHEAT COIL DATA					STEAM HUMIDIFIER (LBS/HR)	HUMIDIFIER ENT. PRESSURE (PSIG)	COOLING COIL DATA					TOTAL SENSIBLE CAPACITY, MBH	TOTAL CAPACITY, MBH	GPM	COIL WATER PRESSURE DROP, FT WG	ROWS	REMARKS	
							EXT. "WG"						TOTAL HEATING CAP. MBH	ROWS	EW T (°F)	LVG (°F)	GPM			ENT AIR TEMP. °F (DB)	LVG AIR TEMP. °F (DB)	ENT WATER TEMP. °F	LVG WATER TEMP. °F								
AHU-1	5TH FLOOR ISOLATION	ROOF	XT0-66X108	8,100	14,000	14,000	1.75	PLENUM	1	2,063	460/3	30	-5	55.2	950	1	180	160	94.5	270	10	93/74	55.0/54.3	45	57	610	950	160	11.1	5	SEE NOTES

NOTES:

- PROVIDE UNIT WITH SINGLE POWER CONNECTION AND UNIT DISCONNECT.
- PROVIDE VFD'S ON ALL MOTORS.
- PROVIDE MERV 8 AND MERV 12 PRE-FILTERS WITH MERV 14 AFTER SUPPLY FANS AND A MERV 18 FINAL FILTER, ALL FILTERS TO BE 24"x24" DIMENSIONS.
- PROVIDE WITH 120V BUILT IN GFI W/ TRANSFORMER.
- PROVIDE ACCESS DOORS ON EACH SECTION WITH WINDOWS ON DOOR & INTERIOR LIGHTS.
- PROVIDE STAINLESS STEEL STEAM DISPERSION PANEL WITH 6" MAXIMUM ABSORPTION DISTANCE.
- PROVIDE HIGH LEVEL HUMIDISTAT CONTROL AT 90% RH WITH ADDITIONAL HUMIDISTAT AT DISCHARGE FOR READING LEVELS.
- PROVIDE WITH 18" DOUBLE WALL INSULATED CUSTOM ROOF CURB TO TRANSITION FROM 24'x8' V.I.F. ROOF STEEL TO NEW UNIT.

EXHAUST FAN SCHEDULE

BASED ON: GREENCHECK OR APPROVED EQUAL

UNIT NO.	SERVICE	LOCATION	CFM	E.S.P. (N.)	DRIVE	FAN RPM	FAN BHP	MOTOR HP	VOLT/PH	MODEL NO.	REMARKS
EF-1	ISOLATION EXHAUST	ROOF	6,300	3.5	BELT	1,782	6.4	10	460/3	VK-CH-22-18	SEE NOTES
EF-2	ISOLATION EXHAUST	ROOF	7,400	3.25	BELT	1,776	6.5	10	460/3	VK-CH-22-21	SEE NOTES

NOTES:

- PROVIDE FANS WITH FACTORY VFD.
- PROVIDE UNIT DISCONNECT SWITCH.
- INSTALL AS PER MANUFACTURER'S INSTRUCTIONS.
- PROVIDE SIDE DUCT CONNECTION.

ELECTRODE STEAM GENERATOR

TAG	LOCATION	SERVICE	MAKEUP SOURCE	WATER CONDITIONS		OUTLET STEAM		ELECTRICAL DATA				MODEL	MANUFACTURER	REMARKS
				GPM	EW T (°F)	PRESSURE (PSIG)	FLOW (LBS/HR)	VOLTS/ PHASE	KW	LOAD (AMPS)	MOCD			
SG-1	SOILED UTILITY 5-206A	5C AHU HUMIDIFIER	DOMESTIC CW	0.5	40	10	270	480/3Φ	96	2x69	2x90	XTPO96	DRI-STEEM	SEE NOTES

NOTES:

- UNIT SHALL BE COMPLETE WITH STEAM REGULATING VALVE, HIGH WATER CUT OFF PROBE, TIME SAMPLE WATER FEED AND VAPOR LOGIC CONTROLLER.
- FULLY INTEGRATED CONTROLLER SHALL BE TIED TO BMS.
- PROVIDE ¾" CW MAKEUP FROM NEAREST DOMESTIC PIPING.

STEAM TO WATER HEAT EXCHANGER SCHEDULE

TAG	WATER DATA				STEAM DATA			TYPE	SERVICE	MANUFACTURER AND MODEL	REMARKS
	GPM	EW T (°F)	LW T (°F)	P.D. (FT H2O)	PRESSURE (PSI)	CAPACITY (LBS/HR)	TRAP COND. (LBS/HR)				
HX-1	75	160	185	0.55	10	1040	----	PLATE & FRAME	P-1&2/5C REHEAT COILS	----	SEE NOTES
HX-2	100	160	185	0.8	10	1380	----	PLATE & FRAME	P-3&4/5C AHU	----	SEE NOTES

NOTES:

- PROVIDE WITH 1½" STEAM TRAPS AND STRAINERS.
- HEAT EXCHANGER SHALL BE 4 PASS WITH 316SS TUBE CONSTRUCTION.
- SUPPORT UNIT ON STEEL FRAMES AT 4'-0" A.S.

EXPANSION TANK SCHEDULE

EQUIPMENT BASED ON: TACO OR APPROVED EQUAL

UNIT NO.	SERVICE	LOCATION	MANUFACTURER'S MODEL NO.	OPERATING WEIGHT (LBS)	DIMENSIONS, INCHES (DIAM X H)	SYSTEM VOLUME GALLONS	TANK SIZING GALLONS (70%)	TANK VOLUME, GALLONS	TANK ACCEPTANCE VOLUME, GALLONS	PRE-CHARGE FILL PRESSURE, PSIG	REMARKS
ET-1,2	P-1&2 P-3&4	LEVEL-C	CA90-125	312	20x32	315	220	23	23	12	SEE NOTES

NOTES:

- TANK SHALL BE CONSTRUCTED IN ACCORDANCE WITH SECTION VIII OF THE ASME BOILER AND VESSEL CODE AND STAMPED FOR 125 PSIG WORKING PRESSURE.
- RELIEF VALVE SHALL BE SET AT 75 PSIG.
- EXPANSION TANKS SHALL BE MOUNTED ON 8" HIGH CONCRETE PADS.

AIR SEPARATOR SCHEDULE

BASED ON MANUFACTURER: TACO OR APPROVED EQUAL

UNIT NO.	SERVICE	LOCATION	MANUF. & MODEL #	WORKING PRESSURE PSIG ASME	CONNECTION SIZES (IN.)			REMARKS
					INLET	OUTLET	BOTTOM DRAIN	
AS-1,2	P-1&2 P-3&4	LEVEL-C	TACO AC03-150	125	3/3	3/3	1¼	SEE NOTES

NOTES:

- THE UNIT SHALL HAVE AN INTERNAL STAINLESS STEEL AIR COLLECTOR TUBE WITH ½" DIAMETER PERFORATIONS AND 63% OPEN AREA DESIGNED TO DIRECT ACCUMULATED AIR TO THE EXPANSION TANK VIA A NPT VENT CONNECTION AT TOP OF UNIT.
- THE AIR SEPARATOR MUST BE DESIGNED, CONSTRUCTED AND STAMPED FOR 125 PSIG @ 350°F IN ACCORDANCE WITH SECTION VIII, DIVISION 1 OF THE ASME BOILER AND PRESSURE VESSEL CODE AND REGISTERED WITH THE NATIONAL BOARD OF BOILER AND PRESSURE VESSEL INSPECTORS.
- THE AIR SEPARATOR(S) SHALL BE PAINTED WITH ONE SHOP COAT OF LIGHT GRAY AIR DRY ENAMEL.

VENTILATION TABLE

ROOM #	ROOM CLASSIFICATION	FLOOR AREA (SQ. FT)	CEILING HEIGHT (FT)	MIN. OA ACH	MIN. TOTAL ACH	RQD. OA (CFM)	RQD. TOTAL (CFM)	ACTUAL TOTAL (CFM)
5-199C	Corridor	67	8	2	4	18	36	200
5-200	Dayroom	217	8	4	4	116	116	470
5-201	Equipment Room	97	8	0	2	0	26	65
5-202	Patient Bedroom	166	8	2	12	44	266	455
5-203	Patient Toilet	40	8	0	10	0	54	75
5-204	Patient Toilet	46	8	0	10	0	61	75
5-205	Patient Bedroom	169	8	2	12	45	270	355
5-206A	Soiled Utility	105	8	0	10	0	140	160
5-206B	Clean Utility	89	8	2	4	24	47	60
5-207A	Clean Linen	57	8	0	4	0	30	40
5-207B	Closet	43	8	0	2	0	11	50
5-208	Patient Bedroom	192	8	2	12	51	307	475
5-209	Patient Toilet	49	8	0	10	0	65	85
5-210	Patient Toilet	60	8	0	10	0	80	85
5-211	Patient Bedroom	187	8	2	12	50	299	415
5-212	Patient Bedroom	194	8	2	12	52	311	415
5-213	Patient Toilet	60	8	0	10	0	80	85
5-214	Patient Toilet	50	8	0	10	0	67	85
5-215	Patient Bedroom	207	8	2	12	55	331	525
5-216	Corridor	654	8	2	4	175	349	620
5-217	Patient Bedroom	202	8	2	12	54	322	425
5-218	Patient Toilet	55	8	0	10	0	73	75
5-219	Patient Toilet	38	8	0	10	0	51	75
5-220	Patient Bedroom	173	8	2	12	46	276	380
5-221	Patient Bedroom	186	8	2	12	50	298	365
5-222	Patient Toilet	40	8	0	10	0	53	75
5-223	Patient Toilet	50	8	0	10	0	67	75
5-224	Patient Bedroom	187	8	2	12	50	299	425
5-225	Patient Bedroom	196	8	2	12	52	313	475
5-227	Patient Toilet	40	8	0	10	0	53	75
5-228	Patient Toilet	46	8	0	10	0	62	75
5-229	Patient Bedroom	177	8	2	12	47	282	385
5-230	Patient Bedroom	166	8	2	12	44	266	475
5-231	Patient Toilet	39	8	0	10	0	52	75
5-232	Patient Toilet	46	8	0	10	0	61	75
5-233	Patient Bedroom	185	8	2	12	49	296	385
5-235	Patient Bedroom	184	8	2	12	49	295	385
5-236	Patient Toilet	45	8	0	10	0	61	75
5-237	Patient Toilet	42	8	0	10	0	57	75
5-238	Patient Bedroom	170	8	2	12	45	272	475
5-239	Patient Bedroom	185	8	2	12	49	296	385
5-240	Patient Toilet	40	8	0	10	0	53	75
5-241	Patient Toilet	39	8	0	10	0	52	75
5-242	Patient Bedroom	184	8	2	12	49	294	455
5-245	Ante Room	40	8	0	10	0	53	85
5-245A	Isolation Room	195	8	2	12	52	312	355
5-245B	Patient Toilet	60	8	0	10	0	80	115
5-246A	Nurse Station	207	8	2	12	55	331	400
5-246C	Corridor	600	8	2	4	160	320	640
5-246D	Corridor	570	8	2	4	152	304	360
5-247	Kitchen	57	8	0	4	0	30	60
5-248	Education Room	80	8	2	12	16	96	130
5-249	Head Nurse	152	8	2	4	41	81	230
5-250	Doctor's Office	171	8	2	4	45	91	230
5-251	Exam Treatment	143	8	2	12	38	229	345
5-252	Nurse Lounge	159	8	0	10	0	213	360
5-252	Nurse Toilet	29	8	0	10	0	38	60
5-254	SPD	140	8	4	4	75	75	300

PUMP SCHEDULE

TAG	SERVICE	LOCATION	MANUF. & MODEL NO.	TYPE	GPM	TOTAL HEAD (FT)	MOTOR HP	RPM	VOLTS/PHASE	MOUNTING	REMARKS
P-1,2	5C REHEAT COILS	MECHANICAL ROOM	TACO F120090-4P-PM	BASE MOUNTED	75	60	5	1760	480/3Φ	BASE MOUNTED	SEE NOTES
P-3,4	5C AHU	MECHANICAL ROOM	TACO F120090-4P-PM	BASE MOUNTED	100	60	5	1760	480/3Φ	BASE MOUNTED	SEE NOTES

NOTES:

- PROVIDE ALL PUMPS WITH COMBINATION STARTERS/VFD AND NON-FUSED DISCONNECT.
- FINAL IMPELLER SIZE SHALL BE DETERMINED BY MANUFACTURER.
- PUMP# MOTOR SHALL BE RATED FOR INVERTER DUTY.

HOT WATER/HEATING COIL SCHEDULE

HOT WATER/HEATING COIL SCHEDULE															
TAG	SERVICE	CAPACITY DATA			COIL DATA			WATER DATA				E.A.T. (°F)	L.A.T. (°F)	MAX AIR P.D. (IN W.C.)	REMARKS
		AIR FLOW (CFM)	CAPACITY (MBH)	FACE AREA (SQ. FT)	FACE VEL (FPM)	SIZE (WxH)	FLOW (GPM)	MAX P.D. (FT H2O)	E.W.T. (°F)	L.W.T. (°F)					
RHC-1	AHU-1	250	13.5	0.50	500	12"X6"	1.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-2	AHU-1	315	17.0	0.50	630	12"X6"	1.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-3	AHU-1	300	16.2	0.50	600	12"X6"	1.6	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-4	AHU-1	250	13.5	0.94	267	15"X9"	1.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-5	AHU-1	250	13.5	0.94	267	15"X9"	1.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-6	AHU-1	150	8.1	0.38	400	9"X6"	0.8	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-7	AHU-1	100	5.4	0.25	400	6"X6"	0.5	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-8	AHU-1	500	27.0	1.13	444	18"X9"	2.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-9	AHU-1	290	15.7	0.50	580	12"X6"	1.6	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-10	AHU-1	430	23.2	1.13	382	18"X9"	2.3	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-11	AHU-1	450	24.3	1.13	400	18"X9"	2.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-12	AHU-1	360	19.4	0.63	576	15"X6"	1.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-13	AHU-1	360	19.4	0.75	480	18"X6"	1.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-14	AHU-1	360	19.4	0.63	576	15"X6"	1.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-15	AHU-1	450	24.3	0.94	480	15"X9"	2.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-16	AHU-1	360	19.4	0.50	720	12"X6"	1.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-17	AHU-1	450	24.3	0.94	480	15"X9"	2.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-18	AHU-1	400	21.6	0.94	427	15"X9"	2.2	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-19	AHU-1	340	18.4	0.50	680	12"X6"	1.8	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-20	AHU-1	355	19.2	0.50	710	12"X6"	1.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-21	AHU-1	420	22.7	0.75	560	18"X6"	2.3	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-22	AHU-1	510	27.5	1.13	453	18"X9"	2.8	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-23	AHU-1	400	21.6	0.75	533	18"X6"	2.2	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-24	AHU-1	460	24.8	1.13	409	18"X9"	2.5	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-25	AHU-1	50	2.7	0.25	200	6"X6"	0.3	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-26	AHU-1	60	3.2	0.25	240	6"X6"	0.3	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-27	AHU-1	160	8.6	0.38	427	9"X6"	0.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-28	AHU-1	330	17.8	0.63	528	15"X6"	1.5	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-29	AHU-1	540	29.2	1.13	480	18"X9"	2.9	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-30	AHU-1	65	3.5	0.25	260	6"X6"	0.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-31	AHU-1	400	21.6	0.75	533	18"X6"	2.2	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-32	AHU-1	180	9.7	0.38	480	9"X6"	1.0	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-33	AHU-1	180	9.7	0.38	480	9"X6"	1.0	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-34	AHU-1	310	16.7	0.63	496	15"X6"	1.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-35	AHU-1	310	16.7	0.63	496	15"X6"	1.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-36	AHU-1	320	17.3	0.63	512	15"X6"	1.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-37	AHU-1	320	17.3	0.63	512	15"X6"	1.7	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-38	AHU-1	200	10.8	0.75	267	15"X6"	1.1	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-39	AHU-1	80	4.3	0.25	320	6"X6"	0.4	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-40	AHU-1	85	4.6	0.25	340	6"X6"	0.5	1.5	180	160	55	105	0.2	SEE NOTES	
RHC-41	AHU-1	400	21.6	0.75	533	18"X6"	2.2	1.5	180	160	55	105	0.2	SEE NOTES	

0
6"
three inches = one foot

1
6"
one and one half inches = one foot

2
6"
one inch = one foot

2
6"
three quarters inch = one foot

4
6"
one half inch = one foot

4
6"
three eighths inch = one foot

8
4
0
one quarter inch = one foot

16
4
8
0
one eighth inch = one foot

GENERAL NOTES:

1. THE DRAWINGS ON THESE PLANS ARE DIAGRAMMATIC. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING HIS WORK WITH OTHER TRADES AND THE BUILDING STRUCTURE. NO EXTRA PAYMENTS WILL BE AUTHORIZED FOR REROUTING OR REMOVAL OF INSTALLED WORK DUE TO LACK OF COORDINATION WITH OTHER SYSTEMS.

2. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR ALL CUTTING AND PATCHING OF WALLS, FLOORS AND CEILINGS AS REQUIRED FOR INSTALLATION OF HIS WORK.

3. THIS CONTRACTOR SHALL FURNISH AND INSTALL ACCESS PANELS AS REQUIRED WHERE ACCESSIBILITY TO COMPONENTS (VALVES, TRAPS, CLEANOUTS, ETC.) IS REQUIRED FOR MAINTENANCE AND/OR SYSTEM OPERATION.

4. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.

5. FURNISH AND INSTALL UNDER SINK PROTECTIVE PIPE COVER KITS ON EXPOSED PIPING AT ALL EXPOSED SINKS AND LAVATORIES.

6. ALL DOMESTIC WATER DISTRIBUTION PIPING IS TO BE INSULATED.

7. PROVIDE SHUT-OFF VALVES AT ALL BRANCH PIPING TAKE-OFFS (UNO) AND AT ALL CONNECTIONS TO EQUIPMENT.

8. PROVIDE DRAINS WITH HOSE ADAPTERS AND CAPS ON PIPING AT ALL LOW POINTS. PROVIDE MANUAL VENTS ON PIPING AT ALL HIGH POINTS.

9. THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

10. CONTRACTOR SHALL PROVIDE ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATIONS AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.

11. CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER OR ARCHITECT, DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.

12. IT IS THE INTENT OF THESE PLANS AND SPECIFICATIONS TO PROVIDE ALTERATIONS AND/OR NEW CONSTRUCTION AS INDICATED ON THE DRAWINGS AND IN THE SPECIFICATIONS TO PROVIDE COMPLETE NEW SYSTEMS IN EVERY RESPECT, CAPABLE OF OPERATING AS DESIGNED. IT IS NOT INTENDED THAT EVERY FITTING, MINOR DETAIL OR FEATURE BE SHOWN ON DRAWINGS. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DETAIL NECESSARY FOR COMPLETION OF THESE SYSTEMS IN ACCORDANCE WITH GOOD PRACTICE.

PLUMBING DEMOLITION NOTES:

1. REMOVE ALL EQUIPMENT AND PIPING AS INDICATED ON PLAN. REMOVALS SHALL INCLUDE ALL FITTINGS, SUPPORTS AND HANGERS UNLESS SUPPORTS ARE BEING REUSED.

2. ANY DISCREPANCIES BETWEEN THE DEMOLITION PLANS AND ACTUAL FIELD CONDITIONS SHALL BE BROUGHT TO THE ATTENTION OF THE ARCHITECT OR ENGINEER. ANY DEMOLITION WORK WHICH MAY BE QUESTIONABLE DUE TO UNFORESEEN FIELD CONDITIONS SHALL NOT BE REMOVED UNTIL REVIEWED BY THE ARCHITECT, ENGINEER OR BUILDING FACILITIES MANAGER.

3. DEMOLITION WORK SHALL INCLUDE THE PREPARATION OF EXISTING EQUIPMENT OR PIPING FOR CONNECTION TO NEW WORK. COORDINATE DEMOLITION WORK WITH THE CONSTRUCTION PLANS.

4. ALL EQUIPMENT REMOVALS SHALL BECOME THE PROPERTY OF THIS CONTRACTOR. THIS CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROPER REMOVAL AND DISPOSAL OF DEMOLITION ITEMS OFF-SITE, UNLESS OTHERWISE NOTED.

5. ALL CUTTING AND PATCHING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.

6. IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.

7. THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.

GENERAL PLUMBING NOTES:

1. ALL AREAS SHALL BE SERVED WITH (110°F) HOT WATER. MAXIMUM OUTLET TEMPERATURE FOR ANY FIXTURE SHALL BE SET @ 100°F.

2. DRAIN PIPING SHOWN ON PLANS SHALL BE INSTALLED BELOW THE FLOOR SHOWN (BELOW SLAB OR ABOVE CEILING OF LOWER FLOOR AS APPROPRIATE) UNLESS OTHERWISE NOTED.

3. ALL PLUMBING SUPPLY & VENT PIPING SHOWN SHALL BE INSTALLED IN THE CEILING OF THE FLOOR PLAN SHOWN, UNLESS OTHERWISE NOTED.

4. PLUMBING CONTRACTOR IS RESPONSIBLE FOR OWN CUTTING & PATCHING AS REQUIRED.

5. ALL PLUMBING FIXTURES AND TRIM SHALL BE IN ACCORDANCE WITH ALL APPLICABLE NATIONAL, STATE AND LOCAL CODES, AS WELL AS ALL ADA AND ANSI-A-117.1 REQUIREMENTS.

6. INSTALL CONDENSATION CONTROL INSULATION: MINIMUM 1"-INCH THICK FOR ALL PIPE SIZES.

11. HOT & HOT WATER RETURN PIPING SHALL BE INSULATED PER WRITTEN SPECIFICATIONS AND NYS ENERGY CONSERVATION CONSTRUCTION CODE.

12. UNLESS OTHERWISE NOTED, ALL VALVES 2" & SMALLER SHALL BE QUARTER-TURN BALL VALVES. ALL VALVES SHALL BE OF FULL-PORT DESIGN.

13. ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRESTOPPING MATERIAL AND OR SYSTEM.

PIPING SYMBOLS

DIRECTION OF FLOW

ANCHOR

PIPE GUIDE

REDUCER OR INCREASER

ECCENTRIC REDUCER

TOP CONNECTION, 45° OR 90°

BOTTOM CONNECTION, 45° OR 90°

SIDE CONNECTION

CAPPED OUTLET

PIPE DOWN TURN

PIPE RISE

UNION

DIRECTION OF PIPE PITCH (DOWN)

PLUMBING LINE TYPES

EXISTING TO BE REMOVED

EXISTING TO REMAIN

ACID WASTE LINE

COLD WATER SUPPLY

COMPRESSED AIR

CONDENSATE DRAIN

DRINKING WATER RETURN

DRINKING WATER SUPPLY

HOT WATER RETURN

HOT WATER SUPPLY

INDIRECT WASTE

MEDICAL AIR

MEDICAL VACUUM

NITROGEN

NITROUS OXIDE

OXYGEN LINE

SANITARY LINE

STORM LINE

VACUUM LINE

VENT PIPE

WATER LINE

VALVE SYMBOLS

OR

GATE VALVE - THREADED/FLANGED

OR

GATE VALVE WITH 3/4" HOSE ADAPTER

OR

GLOBE VALVE - THREADED/FLANGED

OR

CHECK VALVE

OR

STRAINER

OR

WYE STRAINER (WITH BALL VALVE & HOSE CONNECTION)

OR

STRAINER WITH VALVED DRAIN AND QUICK-COUPLE HOSE CONNECTOR

OR

FLEXIBLE CONNECTION

OR

ANGLE GLOBE VALVE

OR

BUTTERFLY VALVE

OR

BALL VALVE

OR

CONTROL VALVE (CV) - FLOAT-OPERATED

OR

MODULATING CONTROL VALVE

OR

MODULATING CONTROL BUTTERFLY VALVE

OR

TWO POSITION CONTROL VALVE

OR

THREE-WAY MODULATING CONTROL VALVE

OR

THREE-WAY TWO POSITION CONTROL VALVE

OR

PRESSURE REGULATING VALVE

OR

PRESSURE REDUCING VALVE (PRV)

OR

TEMPERATURE & PRESSURE RELIEF VALVE

OR

SAFETY OR PRESSURE RELIEF VALVE

OR

AUTOMATIC BALANCING CONTROL VALVE

OR

WATER BALANCE DEVICE

OR

WATER FLOW MEASURING DEVICE

OR

CIRCUIT SETTER VALVE

OR

GATE VALVE WITH GLOBE-VALVED BYPASS

OR

TRIPLE DUTY VALVE

OR

WATER LEVEL CONTROLLER

OR

FLOW METER

OR

COMBINATION BALANCING AND SHUT-OFF VALVE

OR

MANUAL AIR VENT

OR

TEST PLUG (PRESSURE/TEMPERATURE)

OR

PLUG VALVE

OR

LUBRICATED PLUG VALVE

ABBREVIATIONS

A

MEDICAL AIR

ACT

ACOUSTIC CEILING TILE

AD

ACCESS DOOR

AFF

ABOVE FINISHED FLOOR

AP

ACCESS PANEL

AW

ACID WASTE PIPE

BTUH

BRITISH THERMAL UNITS/HOUR

CLS

CEILING

CO

CLEAN OUT

CP

CONDENSATE PUMP

CW

DOMESTIC COLD WATER

DIA

DIAMETER

D

DRAIN

DN

DOWN

DP

DIFFERENTIAL PRESSURE

E.C.

ELECTRICAL CONTRACTOR

ECC

ENGINEERING CONTROL CENTER

EMD

END OF MAIN DRIP (STEAM)

ET

EXPANSION TANK

EUH

ELECTRIC UNIT HEATER

EXIST

EXISTING

FC

FLEXIBLE CONNECTION

FCO

FLOOR CLEAN OUT

FD

FLOOR DRAIN

FLR

FLOOR

FPC

FIRE PROTECTION CONTRACTOR

G.C.

GENERAL CONTRACTOR

GPH

GALLONS PER HOUR

GPM

GALLONS PER MINUTE

Q.SAN

"GREASE LADEN" SANITARY DRAINAGE PIPE

H.C.

HVAC CONTRACTOR

HP

HORSE POWER

HTWR

HIGH TEMP. HOT WATER RETURN PIPE (140°F)

HTWS

HIGH TEMP. HOT WATER PIPE (140°F)

HW

DOMESTIC HOT WATER PIPE (120°F)

HWR

DOMESTIC HOT WATER RETURN PIPE (120°F)

LBS/HR

POUNDS PER HOUR

LF

LINEAR FEET

MAX.

MAXIMUM

MBH

ONE THOUSAND BTUH

MEH

MECHANICAL EQUIPMENT ROOM

MIN.

MINIMUM

MV

MEDICAL VACUUM

NOM.

NOMINAL

O

OXYGEN

P

PUMP

P.C.

PLUMBING CONTRACTOR

PD

PRESSURE DROP (FEET OF WATER)

PRV

PRESSURE REDUCING VALVE

PSI

POUNDS PER SQUARE IN.

SAN

SANITARY DRAINAGE PIPE

S.S.

STAINLESS STEEL

ST

STORM DRAINAGE PIPE

UH

UNIT HEATER

U.N.O.

UNLESS NOTED OTHERWISE

V

VENT PIPE

VI

VIBRATION ISOLATOR

VF

VERIFY IN FIELD

VTR

VENT THROUGH ROOF

WCO

WALL CLEAN OUT

WF

WATER FILTER

WFM

WATER FLOW MEASURING DEVICE

WH

WATER HEATER

GENERAL SYMBOLS

POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK

POINT OF DISCONNECT

INDICATES SECTION LETTER

INDICATES DRAWING NUMBER WHERE LOCATED

PUMP

LEGEND AND SCHEDULE OF PLUMBING EQUIPMENT

WC-1

WALL HUNG WATER CLOSET WITH DIRECT FEED SIPHON JET ACTION. ELONGATED BOWL, 1½" TOP INLET SPUD, BOWL MAKE OF VITREOUS CHINA. FLUSHES ON 1.6 GALLONS. WHITE COLOR. PROVIDE WITH BATTERY POWERED, SENSOR ACTIVATED ELECTRONIC DUAL FLUSH FLUSHOMETER, OPEN FRONT SEAT LESS COVER, ADJUSTABLE CHAIR CARRIER, SUPPLY STOPS, AND ALL OTHER HARDWARE REQUIRED FOR A COMPLETE INSTALLATION. FIXTURE SHALL BE INSTALLED IN ACCORDANCE WITH ANSI-A-117.1 (LATEST EDITION) & ADA REQUIREMENTS TO FACILITATE ACCESS FOR THE PHYSICALLY HANDICAPPED.

S-1

KOHLER

K-2054

WALL-MOUNT BATHROOM SINK, VITREOUS CHINA, 4" CENTERSSET FAUCET HOLES, ADA COMPLIANT. PROVIDE WITH SENSOR OPERATED FAUCET AND THERMOSTATIC MIXING VALVE. PROVIDE ALL OTHER HARDWARE REQUIRED FOR A COMPLETE INSTALLATION.

S-2

SINGLE COMPARTMENT LEDGE TYPE SINK, 17½"x15" OVERALL DIMENSIONS, 11½"x16" INSIDE DIMENSIONS (BOWL), 6¾" BOWL DEPTH, TYPE 304 18-8 STAINLESS STEEL CONSTRUCTION, SELF-RIMMING TOP MOUNT INSTALLATION, FULLY COATED UNDERSIDE, ADA COMPARTMENT. PROVIDE WITH DRAIN SYSTEM-CENTER DRAIN WITH CUP STRAINER, CONCEALED LEDGEMOUNT FAUCET WITH VANDAL RESISTANT AERATOR FOOT PEDAL CONTROLS. ADA COMPLIANT. PROVIDE WITH ALL HARDWARE REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.

S-3

SINGLE COMPARTMENT LEDGE TYPE SINK, 17½"x15" OVERALL DIMENSIONS, 11½"x16" INSIDE DIMENSIONS (BOWL), 6¾" BOWL DEPTH, TYPE 304 18-8 STAINLESS STEEL CONSTRUCTION, SELF-RIMMING TOP MOUNT INSTALLATION, FULLY COATED UNDERSIDE, ADA COMPARTMENT. PROVIDE WITH DRAIN SYSTEM-CENTER DRAIN WITH CUP STRAINER, CONCEALED LEDGEMOUNT FAUCET WITH VANDAL RESISTANT AERATOR. ADA COMPLIANT. PROVIDE WITH SPEARMAN SEF-1612-TW COMBINATION FAUCET/EYE-WASH. PROVIDE WITH ALL HARDWARE REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.

SV-1

SYMMONS

4-500-VT-X

PRESSURE-BALANCING MIXING VALVE WITH INTEGRAL THERMOMETER AND ADJUSTABLE STOP SCREW TO LIMIT HANDLE TURN. PROVIDE WITH INTEGRAL SERVICE STOPS TO ALLOW WATER SHUT-OFF AT THE VALVE FOR MAINTENANCE. PROVIDE WITH SHOWER HEAD AND ALL OTHER HARDWARE REQUIRED FOR A COMPLETE SHOWER INSTALLATION.

DB-1

BRADLEY CORP.

7920-STD-N-DR

316 STAINLESS STEEL RECESSED DIALYSIS BOX, ALL EXPOSED SURFACES POLISHED TO A #4 SATIN FINISH WITH CONTINUOUS WELDS ON THE SEAMS. COORDINATE LOCK TYPE WITH OWNER. PROVIDE WITH ONE STAINLESS STEEL BALL VALVE WITH ¾" HOSE ADAPTER. BUILT IN DISCHARGE HOSE BRACKET AND WATER DAM WITH 2" NOMINAL WASTE CONNECTION. PROVIDE WITH ALL OTHER HARDWARE REQUIRED FOR A COMPLETE AND OPERABLE INSTALLATION.

100% CONSTRUCTION DOCUMENTS

Office of Facilities

Department of Veterans Affairs

Professional Seal:
JOHN D. FELLENZER, P.E.

1500

STATE OF NEW YORK
LICENSED PROFESSIONAL ENGINEER
NO. 02543091

FELENZER ENGINEERING LLP

22 Mulberry St., Suite 2A,
Middletown, NY 10940
1 845-343-1481 fx 845-343-4986

32 Front St.
Port Jervis, NY 12771
1 845-454-9704 fx 845-454-9705 1 845-856-3600 fx 845-856-3734

85 Market St., Suite 200,
Poughkeepsie, NY 12601
1 845-343-1481 fx 845-454-9705

32 Front St.
Port Jervis, NY 12771
1 845-454-9704 fx 845-454-9705 1 845-856-3600 fx 845-856-3734

Designed By:

Drawn By:

FE Project No.

DSS

SRD

20-191

Drawing Title
PLUMBING SYMBOLS, ABBREVIATIONS & NOTES

Approved: Division Chief
MICHAEL BASSILY

Approved: Service Director
-

Project Title
CONVERT 5C TO INPATIENT UNIT

Building Number
1 - 5th FLOOR

Location
385 TREMONT AVE EAST ORANGE,NJ 07018

Checked
MDF

Drawn
CAD

Date
4/26/21

Project No.
561-20-300

Drawing No.
1-P-001

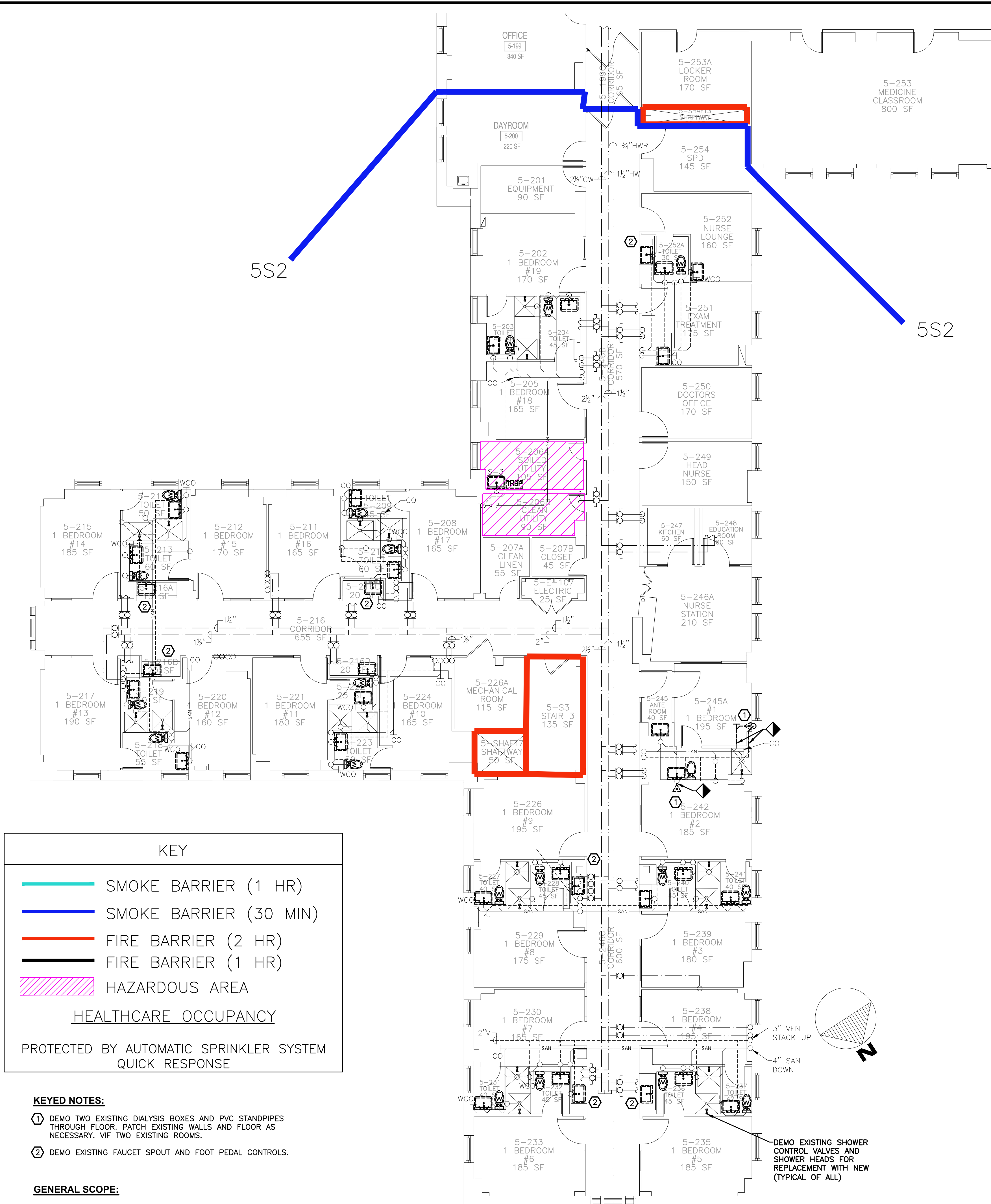
Dwg. 14 of 20

Revisions

Date

VA FORM 08-6231, OCT 1978

three inches = one foot
one and one half inches = one foot
one inch = one foot
three quarters inch = one foot
one half inch = one foot
one eighth inch = one foot
one quarter inch = one foot
one eighth inch = one foot



KEY

- SMOKE BARRIER (1 HR)
- SMOKE BARRIER (30 MIN)
- FIRE BARRIER (2 HR)
- FIRE BARRIER (1 HR)
- HAZARDOUS AREA
- HEALTHCARE OCCUPANCY

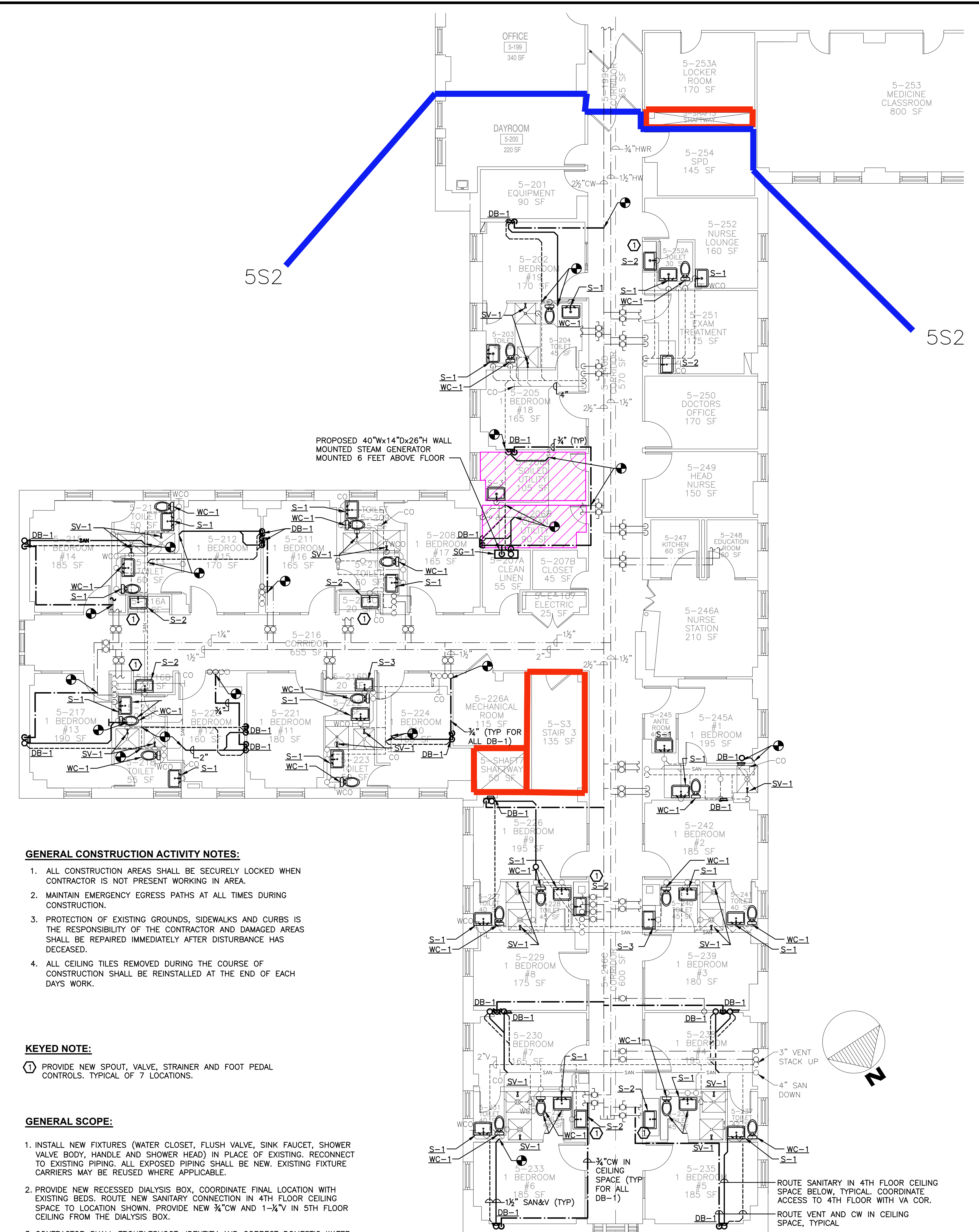
PROTECTED BY AUTOMATIC SPRINKLER SYSTEM QUICK RESPONSE

- KEYED NOTES:**
- ① DEMO TWO EXISTING DIALYSIS BOXES AND PVC STANDPIPES THROUGH FLOOR. PATCH EXISTING WALLS AND FLOOR AS NECESSARY. VIF TWO EXISTING ROOMS.
 - ② DEMO EXISTING FAUCET SPOUT AND FOOT PEDAL CONTROLS.

GENERAL SCOPE:

1. REMOVE EXISTING PLUMBING FIXTURES AND PIPING BACK TO WALL AS SHOWN. PREPARE DOMESTIC AND SANITARY PIPING FOR NEW CONNECTIONS.

1 PLUMBING: FIFTH FLOOR - DEMOLITION PLAN
SCALE: 1/8"=1'-0"



- GENERAL CONSTRUCTION ACTIVITY NOTES:**
- ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
 - MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
 - PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
 - ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.

KEYED NOTE:

① PROVIDE NEW SPOUT, VALVE, STRAINER AND FOOT PEDAL CONTROLS. TYPICAL OF 7 LOCATIONS.

- GENERAL SCOPE:**
- INSTALL NEW FIXTURES (WATER CLOSET, FLUSH VALVE, SINK FAUCET, SHOWER VALVE BODY, HANDLE AND SHOWER HEAD) IN PLACE OF EXISTING. RECONNECT TO EXISTING PIPING. ALL EXPOSED PIPING SHALL BE NEW. EXISTING FIXTURE CARRIERS MAY BE REUSED WHERE APPLICABLE.
 - PROVIDE NEW RECESSED DIALYSIS BOX. COORDINATE FINAL LOCATION WITH EXISTING BEDS. ROUTE NEW SANITARY CONNECTION IN 4TH FLOOR CEILING SPACE TO LOCATION SHOWN. PROVIDE NEW 3/4" CW AND 1-1/4" V IN 5TH FLOOR CEILING FROM THE DIALYSIS BOX.
 - CONTRACTOR SHALL TROUBLESHOOT, IDENTIFY AND CORRECT DOMESTIC WATER CROSS CONNECTIONS. IN EACH OF THE ELEVEN BATHROOM GROUPS CONFIRMATION OF HOT AND COLD WATER OPERATION TO BE DEMONSTRATED TO OWNER FOR ENTIRE 5C WING SHOWN.
 - COORDINATE ACCESS FOR FORTH FLOOR CEILING SPACE SANITARY ACCESS WITH PROJECT COR.
 - ALL FORTH FLOOR SANITARY WORK SHALL BE PERFORMED OFF HOURS. I.E. WEEKENDS, HOLIDAYS AND EVENINGS.

2 PLUMBING: FIFTH FLOOR - NEW WORK PLAN
SCALE: 1/8"=1'-0"

100% CONSTRUCTION DOCUMENTS

Revisions	Date

Professional Seal:
JOHN D. FELLENER, P.E.

FELLENER ENGINEERING LLP

22 Mulberry St., Suite 2A
Middletown, NY 10840
1.845-545-1481 fx 845-545-4086

85 Market St., Suite 200
Poughkeepsie, NY 12601
1.845-454-9704 fx 845-454-9705

32 Front St.
Port Jervis, NY 12771
1.845-856-3600 fx 845-856-3734

Designed By: DSS
Drawn By: SRB
FE Project No.: 20-191

NJ PROFESSIONAL ENGINEER
NO. 62543091

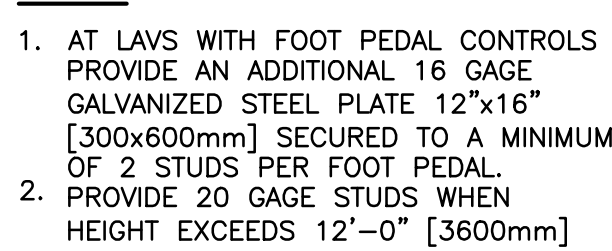
Drawing Title PLUMBING FLOOR PLANS
Approved: Division Chief MICHAEL BASSILY
Approved: Service Director -

Project Title CONVERT 5C TO INPATIENT UNIT
Building Number 1 - 5th FLOOR
Location 385 TREMONT AVE EAST ORANGE, NJ 07018

Date 4/26/21
Project No. 561-20-300
Drawing No. 1-P-100
Dwg. 15 of 20

Office of Facilities

Department of Veterans Affairs



N.T.S



(3)



ELECTRICAL GENERAL NOTES:

- ALL CONDUITS ARE SHOWN DIAGRAMMATICALLY. EXACT RUNS SHALL BE DETERMINED IN FIELD EXCEPT WHERE SPECIFICALLY DIMENSIONED ON CONDUIT LAYOUTS. CONTRACTOR SHALL FOLLOW MINIMUM SPACING REQUIREMENTS TO REDUCE ELECTROMAGNETIC INTERFERENCE. COORDINATE CONDUIT ROUTING WITH ALL OTHER TRADES.
- ALL EXPOSED CONDUIT SHALL BE RUN PARALLEL TO BUILDING WALLS AND BEAMS EXCEPT WHERE OTHERWISE SHOWN. CONTRACTOR SHALL INSTALL CONDUIT IN SUCH A MANNER TO AVOID ALL INTERFERENCES.
- DEFLECTION/EXPANSION FITTINGS SHALL BE PROVIDED WHERE RIGID METAL CONDUITS CROSSES STRUCTURAL EXPANSION JOINTS.
- EXPOSED CONDUIT SHALL BE SUPPORTED ON WALLS OR CEILINGS BY APPROVED HANGERS OF ANGLE OR CHANNEL CONSTRUCTION. CONDUITS SHALL BE SUPPORTED AT LEAST EVERY EIGHT (8) FEET.
- ALL SPARE CONDUITS SHALL BE TERMINATED AS SHOWN ON CONDUIT LAYOUTS AND SHALL BE CAPPED 3" ABOVE FINISHED FLOOR.
- NO CONDUIT SHALL BE SMALLER THAN ¾" UNLESS NOTED OTHERWISE ON PLANS.
- EXACT CONDUIT STUB-UP LOCATIONS ARE TO BE DETERMINED BY THE ELECTRICAL CONTRACTOR BASED ON CERTIFIED MANUFACTURER'S DRAWINGS OF THE RESPECTIVE EQUIPMENT. CONDUIT SHALL BE INSTALLED TO AGREE WITH THE EQUIPMENT FURNISHED.
- ALL LIGHTING WIRING SHALL BE #12AWG. UNLESS OTHERWISE NOTED, THE NUMBER OF WIRES SHOWN ON THE DRAWINGS IS NOT NECESSARILY THE CORRECT NUMBER REQUIRED. THE CONTRACTOR SHALL INSTALL AS MANY WIRES AS NECESSARY FOR PROVIDING A COMPLETE ELECTRICAL SYSTEM IN EACH CASE.
- CONDUITS PASSING THROUGH BUILDING FLOORS OR WALLS BELOW GRADE ARE TO BE INSTALLED WITH WATER TIGHT THRU WALL CONDUIT SEAL FITTINGS.
- EQUIPMENT FURNISHED BY OTHERS SHALL BE INSTALLED & ENERGIZED BY THE ELECTRICAL CONTRACTOR.
- ONLY CONDUITS HAVING OUTSIDE DIAMETERS NO LARGER THAN ONE-THIRD OF THE THICKNESS OF SLAB MAY BE INSTALLED WITHIN THE CONCRETE SLABS.
- CONDUITS IN STRUCTURAL SLABS ARE TO BE SPACED SO AS TO PROVIDE NO LESS THAN THREE CONDUIT DIAMETERS, CENTER TO CENTER, WHEREVER POSSIBLE. LARGER SPACING IS PREFERRED.
- CONTINUOUS ROWS OF CONDUITS ARE NOT TO BE PLACED IMMEDIATELY ALONG BEARING ENDS OF SLABS.
- THE ELECTRICAL CONTRACTOR SHALL NOT ENDANGER THE STABILITY OF THE STRUCTURE OR ANY PART THEREOF BY CUTTING, DRILLING OR OTHERWISE, AND SHALL NOT IN ANY WAY CUT OR ALTER THE WORK OF ANY OTHER CONTRACTOR, EXCEPT WITH THE WRITTEN CONSENT OF AND UNDER THE DIRECTION OF THE ARCHITECT AND/OR GENERAL CONTRACTOR.
- THE ELECTRICAL CONTRACTOR SHALL SECURE ALL APPROVALS AND CERTIFICATES AND PAY ALL FEES FOR ALL THE WORK INSTALLED. CERTIFICATES SHALL BE DELIVERED TO THE GENERAL CONTRACTOR BEFORE FINAL PAYMENT WILL BE MADE.
- ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE LATEST APPLICABLE VERSION OF THE NEC AS WELL AS ALL STATE AND LOCAL CODES.
- THE DRAWINGS INDICATE AND THE SPECIFICATIONS DESCRIBE THE GENERAL ARRANGEMENTS AND LOCATION OF OUTLET BOXES, ETC. THE CONTRACTOR SHALL, WITHOUT EXTRA COST TO THE OWNER, MAKE ALL REASONABLE MODIFICATIONS IN THE WORK AS MAY BE REQUIRED TO PREVENT CONFLICT WITH EXISTING CONDITIONS, THE WORK OF OTHER TRADES AND FOR THE PROPER INSTALLATION OF THE WORK.
- PRIOR TO SUBMISSION OF THE BID PROPOSAL THE CONTRACTOR SHALL VISIT THE SITE AND EXAMINE CAREFULLY THE EXISTING CONDITIONS AND THE DIFFICULTIES THAT WILL BE INCURRED DURING THE PERFORMANCE OF HIS WORK.
 - VERIFY & COORDINATE CONDUIT ROUTING.
 - VERIFY & COORDINATE SCOPE OF DEMOLITION WORK
 - VERIFY AND COORDINATE SCOPE OF WORK INVOLVING CONNECTIONS TO EXISTING BASE BUILDING SYSTEMS.
 - VERIFY SCOPE OF WORK THAT HAS TO BE DONE WITH EXISTING FIRE ALARM SYSTEM AS REQUIRED TO ACCOMMODATE ALL ADDED DEVICES.
 - VERIFY WITH GENERAL CONTRACTOR SCOPE OF WORK ASSOCIATED WITH RIGGING OF EQUIPMENT TO BE PRE-PURCHASED.
- ARRANGE FOR SITE VISIT WITH THE BLDG. OWNER REPRESENTATIVE AND GENERAL CONTRACTOR.
- CLAIMS FOR ADDITIONAL COMPENSATION ARISING DUE TO FAILURE OF THE CONTRACTOR TO FULLY UNDERSTAND THE SITE CONDITIONS SHALL NOT BE PAID FOR BY ANY OTHER PARTY.
- CONNECTIONS TO EXISTING WORK:
 - INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMAL INTERFERENCE TO EXISTING FACILITIES.
 - TEMPORARY SHUTDOWNS OF EXISTING SERVICES:
 - AT NO ADDITIONAL CHARGES
 - AT TIMES NOT TO INTERFERE WITH NORMAL OPERATION OF EXISTING SERVICES.
 - ONLY WITH WRITTEN CONSENT OF THE GENERAL CONTRACTOR AND/OR BUILDING OWNERS REPRESENTATIVE.
 - ALARM AND EMERGENCY SYSTEMS: NOT TO BE INTERRUPTED.
 - MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES AS REQUIRED WITH NECESSARY TEMPORARY CONNECTIONS BETWEEN NEW AND EXISTING WORK.
 - CONNECT NEW WORK TO EXISTING WORK IN NEAT AND ACCEPTABLE MANNER, RESTORE EXISTING DISTURBED WORK TO ORIGINAL CONDITION, INCLUDING MAINTENANCE OF WIRING CONTINUITY AS REQUIRED.
 - PRIOR TO DEMOLITION OF AN EXISTING POWER PANEL, THE CONTRACTOR SHALL SEARCH OUT ALL EXISTING CIRCUITS FED FROM THE PANEL TO PREVENT ANY ACCIDENTAL SERVICE INTERRUPTIONS.
- LEAVE WIRE SUFFICIENTLY LONG TO PERMIT MAKING FINAL CONNECTIONS. CONDUIT OVER 10 FEET IN WHICH WIRING IS NOT INSTALLED-FURNISH PULL STRING.

ELECTRICAL CONTRACTOR SCOPE ITEMS:

- ALL POWER, DISCONNECT, RECONNECTIONS, NEW SUPPLIES TO NEW AND EXISTING EQUIPMENT AND LIGHTING POWER INSTALLATION.
- FIRE ALARM MODIFICATIONS AS WELL AS INSTALL OF NEW DEVICES INCLUDING DUCT SMOKE DETECTORS AND FIRE ALARM SHUTDOWNS.
- ALL ITEMS PERTAINED IN THE DRAWINGS AND SPECIFICATIONS.
- ALL ELECTRICAL ITEMS ON THE LATEST ELEKTA LINAC DRAWINGS, INCLUDING CONDUIT, WIRE, COMMUNICATIONS, UNDERFLOOR RACEWAYS, ETC.
- ALL RELOCATIONS OF POWER PANEL ELECTRICAL FEEDS AND COORDINATION WITH THE VA FOR ELECTRICAL SHUTDOWNS DURING OFF HOURS.
- REMOVAL AND REINSTALLATION AND PATCHING OF ANY CEILING, WALL OR FLOOR IN THE ROUTING OF ELECTRICAL AND COMMUNICATION ITEMS.
- CONTRACTOR SHALL UPDATE THE EXISTING ARC FLASH STUDY AND ONE-LINE DIAGRAM TO REFLECT THE NEW ELECTRICAL WORK.


ELECTRICAL DEMOLITION NOTES:

- COORDINATE WITH ARCHITECTURAL PLANS FOR EXACT AREAS TO BE DEMOLISHED.
- DISCONNECT AND REMOVE ALL DEVICES, FIXTURES, FIRE ALARM DEVICES, DATA/TELEPHONE, POWER CONNECTIONS TO HVAC EQUIPMENT AND DISCONNECT SWITCHES. CONDUIT & WIRING FROM ALL WALLS/CEILINGS BEING REMOVED, WITHIN THIS AREA BACK TO POWER PANEL OF ORIGIN, ALL EXISTING CIRCUIT BREAKERS SHALL REMAIN IN PLACE AND LABELED AS "SPARE".
- ALL EXISTING DEVICES SCHEDULED TO REMAIN SHALL BE EXTENDED/RE-CIRCUITED TO MAINTAIN CONTINUITY OF CIRCUIT/DEVICES.
- ELECTRICAL CONTRACTOR TO PROVIDE ALL NECESSARY TEMPORARY WORK AND/OR MATERIALS TO RENDER EXISTING SYSTEM OPERATIONAL DURING ALL PHASES OF CONSTRUCTION IN ALL OCCUPIED SPACES, INCLUDING BUT NOT LIMITED TO, POWER, DATA, LIGHTING, EMERGENCY COMPONENTS & ALARMS, COORDINATE WITH ALL TRADES, VA AND OVERALL CONSTRUCTION PHASING SCHEDULE.
- ALL CUTTING, PATCHING, AND REPAIRING NECESSARY FOR THE DEMOLITION WORK SHALL BE THE RESPONSIBILITY OF THIS CONTRACTOR.
- IT SHALL BE THE OWNER'S RESPONSIBILITY TO REMOVE ANY LOOSE EQUIPMENT, FURNITURE, SUPPLIES, ETC. THAT MAY BE LOCATED IN THE AREA OF WORK.
- THE PLANS ARE INTENDED TO CONVEY THE EXTENT AND SCOPE OF THE DEMOLITION WORK. EVERY ITEM INTENDED FOR REMOVAL MAY NOT BE SHOWN. THE CONTRACTOR IS ADVISED TO SURVEY THE PROJECT SITE BEFORE SUBMITTING A BID FOR DEMOLITION WORK.






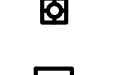










FIRE ALARM NOTES:

- REFER TO THE FLOOR PLANS FOR LOCATION & QUANTITY OF FIRE ALARM DEVICES.
- ALL NEW FIRE ALARM WIRING SHALL BE IN ¾" CONDUIT AND SHALL BE CONCEALED IN CEILING SPACES & WALLS.
- SYSTEM SCHEMATIC IS A DIAGRAMMATIC REPRESENTATION OF THE ADDITIONS TO THE EXISTING FIRE ALARM SYSTEM. THE SYSTEM SHALL BE INSTALLED AND WIRED AS PER THE SYSTEM MANUFACTURER'S RECOMMENDATION FOR A COMPLETE AND OPERABLE SYSTEM.
- CONTRACTOR IS RESPONSIBLE FOR ALL FILING AND FINAL INSPECTION AS PER THE LOCAL AUTHORITY HAVING JURISDICTION.
- CONTRACTOR TO PROVIDE AND INSTALL ALL NECESSARY MODULES, INTERFACE MODULES AND DEVICES REQUIRED TO PROVIDE AN OPERABLE ALARM SYSTEM IN COMPLIANCE WITH ALL CODES.
- EXISTING FIRE ALARM PANEL SHALL PROVIDE CONTINUOUSLY SUPERVISED MONITORING OF ALL SYSTEMS FOR OPENS, SHORTS AND GROUNDS.
- ACTIVATION OF THE SMOKE DETECTORS SHALL CAUSE A GENERAL ALARM AFTER THE SMOKE DETECTOR PERFORMS VERIFICATION.
- ACTIVATION OF ANY PULL STATION OR HEAT DETECTOR SHALL IMMEDIATELY CAUSE THE ALARM PANEL TO ENTER THE ALARM MODE.
- CONTRACTOR SHALL PROVIDE ALL NECESSARY ADDITIONAL RELAY DEVICES OR POWER TRANSFORMERS FOR PROPER OPERATION OF THE FAN SHUT-DOWN UNITS AND OTHER RELATED DEVICES.
- BATTERY BACKUP SHALL PROVIDE A MINIMUM OF 24 HRS. OPERATION WITH A 15 MINUTE ALARM AT THE END OF 24 HRS.
- EXISTING FIRE ALARM SYSTEM SHALL BE TESTED IN ACCORDANCE WITH NFPA CODES 70, 70E, 72, BONYX, FCNYS, LSC101 (2000)-CH.32 NEW BOARD AND CARE OCCUPANCY AS WELL AS ALL LOCAL AND STATE CODE REQUIREMENTS.
- CONTRACTOR SHALL PROVIDE ALL ADDITIONAL APPURTENANCES AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM. MODEL NUMBERS GIVEN MAY NOT INCLUDE ALL SPECIFIC REQUIRED ACCESSORIES FOR COMPLETE INSTALLATION.
- PROVIDE APPURTENANCES NECESSARY SUCH THAT IF MORE THEN TWO STROBES ARE VISIBLE THEY SHALL FLASH IN SYNCH.
- ENTIRE FIRE DETECTION AND ADDITIONS TO THE EXISTING ALARM SYSTEM SHALL BE FURNISHED AND INSTALLED BY A N.J. STATE LICENSED ALARM CONTRACTOR.
- FIRE ALARM CONTRACTOR SHALL INTERCONNECT CO DETECTORS WITH THE NEW FIRE ALARM SYSTEM FOR PRIMARY POWER AND BATTERY BACKUP. CO ALARM SHALL ANNUNCIATE AS A SUPERVISORY CONDITION.
- ALL AIR HANDLING SYSTEMS RATED 2,000 CFM OR MORE SHALL BE PROVIDED WITH DUCT SMOKE DETECTORS FAN SHUTDOWNS CONNECTED TO THE FIRE ALARM SYSTEM.
- ELECTRICAL CONTRACTOR SHALL BECOME FAMILIAR AND COMPLY WITH OWNERS BUILDING STANDARDS FOR CONSTRUCTION.
- ALL FINAL CONNECTIONS TO VIBRATING EQUIPMENT (MOTORS, GENERATORS, ETC.) SHALL BE THROUGH A LIQUID TIGHT FLEXIBLE METAL CONDUIT.
- LOCATION OF ALL SLAB PENETRATIONS FOR SLEEVES & CONDUITS SHALL BE REVIEWED & APPROVED BY STRUCTURAL ENGINEER & ARCHITECT.
- CONTRACTORS SHALL WIRE NO MORE THAN EIGHT CONVENIENCE RECEPTACLES TO A 20A SINGLE POLE CIRCUIT. UTILIZE 2-#12 & 1-#12 GND IN 3/4" CONDUIT & 1-20A SINGLE POLE CIRCUIT BREAKER FOR EACH CIRCUIT. INSTALL ADDITIONAL CIRCUIT AS NECESSARY TO MEET THIS REQUIREMENT.
- ALL PENETRATIONS THROUGH FIRE RATED PARTITIONS SHALL BE SEALED FIRE AND SMOKE TIGHT WITH AN APPROPRIATE U.L. LISTED FIRE-STOPPING MATERIAL AND/OR SYSTEM.
- LABEL ALL RECEPTACLES AND DISCONNECTS WITH PANEL & BREAKER DESIGNATION. LABEL TO BE PRINTED ON MYLAR WITH BLACK LETTERING.
- THE TERMS "PROVIDE" OR "FURNISH", AS USED ON THESE PLANS, INDICATE THAT THE CONTRACTOR IS TO FURNISH AND INSTALL THE REFERENCED EQUIPMENT OR SYSTEMS IN THEIR ENTIRETY AS REQUIRED FOR A COMPLETE AND OPERABLE SYSTEM.
- CONTRACTOR SHALL PROVIDE AND INSTALL ALL COMPONENTS INDICATED ON DETAIL SHEETS, PLANS, SPECIFICATION AND ALL PERTINENT EQUIPMENT REQUIRED FOR A COMPLETE AND WORKABLE SYSTEM.
- CONTRACT CLOSE OUT: IN THE PRESENCE OF THE OWNER, ENGINEER, OR ARCHITECT, DEMONSTRATING OPERATION OF SYSTEMS AND THAT ALL SPECIFICATIONS HAVE BEEN MET TO THE SATISFACTION OF ALL PARTIES.
- IT IS THE INTENTION THAT THESE SPECIFICATIONS, AND DRAWINGS ACCOMPANYING SAME, SHALL PROVIDE FOR THE FURNISHING AND INSTALLING OF THE ELECTRICAL SYSTEMS COMPLETE AS SPECIFIED AND SHOWN, ANY WORK SHOWN ON THE DRAWINGS AND NOT PARTICULARLY DESCRIBED IN THE SPECIFICATIONS OR VICE VERSA, OR ANY WORK CHANGES WHICH MAY BE EVIDENTLY NECESSARY TO COMPLETE THE INSTALLATION SHALL BE FURNISHED BY THIS CONTRACTOR.






LEGEND AND SCHEDULE OF FIRE ALARM EQUIPMENT

SYMBOL	DESCRIPTION
	DUCT SMOKE DETECTOR HOUSING; SUITABLE UP TO 4000FT/MIN AIR VELOCITY. (COORDINATE SIZE OF SAMPLING TUBE WITH DUCTWORK. PROVIDE RELAYS AS REQUIRED). MATCH EXISTING FIRE ALARM SYSTEM. PROVIDE REMOTE TEST SWITCH.


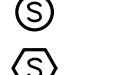





LIGHTING SYMBOLS

-  2'x4' - LENSED LIGHTING FIXTURE (SEE SCHEDULE)
-  2'x2' - LENSED LIGHTING FIXTURE (SEE SCHEDULE)
-  2'x2' - LIGHT FIXTURE INDICATING NIGHT LIGHT
-  1'x4' - LENSED LIGHTING FIXTURE (SEE SCHEDULE)
-  CEILING MOUNTED OCCUPANCY SENSOR WITH DIGITAL DUAL TECHNOLOGY BOTH PASSIVE INFRARED AND ULTRASONIC. PROVIDE AND INSTALL ALL CABLES, RELAYS & SWITCHES FOR A COMPLETE OPERABLE SYSTEM.
-  DAYLIGHT HARVESTING SENSOR WITH A PHOTODIODE OF 1-10,000 FC SHALL CONTROL THE FIRST ROW OF LIGHTING.
-  WALL MOUNTED EXIT LIGHT (SEE SCHEDULE)
-  CEILING MOUNTED EXIT LIGHT
-  1P, 20A, LIGHTING TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
-  1P, 20A, 3-WAY LIGHTING TOGGLE SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
-  1P, 20A, LIGHTING DIMMER SWITCH, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF.
-  1P, 20A, KEYED TOGGLE SWITCH FOR MANUAL OVERRIDE OF LIGHT CONTROLS.
-  SAME AS ABOVE EXCEPT 3-WAY TOGGLE SWITCH.
-  1P, 20A, LIGHTED TOGGLE SWITCH WITH OCCUPANCY SENSOR, PROVIDE WITH MATCHING FACE PLATE, COLOR BY ARCHITECT. MOUNT 48" AFF. PASSIVE INFRARED WITH MANUAL ON, AUTO OFF SETTINGS. "D" IS TO INCLUDE DIMMER OPTION.
-  SAME AS ABOVE EXCEPT WIRED FOR DUAL LIGHTING. SWITCH NEAREST TO DOOR SHALL OPERATE OUTER LAMPS. SECOND SWITCH SHALL OPERATE INNER LAMP(S).
-  MOTOR STARTER SWITCH RATED AT 20A, 2HP.

COMMUNICATION SYMBOLS

-  COMBINATION TELEPHONE/DATA OUTLET. PROVIDE & INSTALL (4) CAT. 6 CABLES FROM THE OUTLET LOCATION TO IT ROOM/TELEPHONE CLOSET, EACH IN ¾" CONDUIT. MOUNT 18" AFF UNLESS OTHERWISE NOTED. KEEP MINIMUM 18" AWAY FROM CLOSEST RECEPTACLE. (3) DATA & (1) TELEPHONE. COORDINATE WITH VA FOR FINAL CONNECTIONS.
-  TELEPHONE WALL OUTLET. PROVIDE AND INSTALL CAT. 6 CABLE FROM OUTLET LOCATION TO IT ROOM. IN ¾" CONDUIT. MOUNT OUTLET 48" AFF UNLESS OTHERWISE NOTED. COORDINATE WITH VA FOR FINAL CONNECTIONS.
-  TV OUTLET. PROVIDE & INSTALL PULL STRING FROM OUTLET LOCATION TO IT ROOM, EACH IN ¾" CONDUIT. MOUNT 18" AFF UNLESS OTHERWISE NOTED. COORDINATE WITH VA FOR FINAL CONNECTIONS.
-  SPEAKER TO BE CONNECTED TO EXISTING PA SYSTEM. DUAL COIL FOR FIRE ALARM.
-  WIRELESS ACCESS POINT. PROVIDE (2) CAT. 6 CABLES FROM WAP TO IT ROOM IN 3/4" CONDUIT. VA TO SUPPLY ROUTER. MOUNT TO CEILING. COORDINATE FINAL CONNECTIONS WITH VA. POWER FROM NEAREST AVAILABLE RECEPTACLE CIRCUIT.










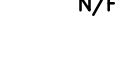








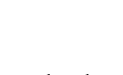






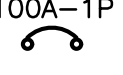
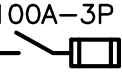


FIRE ALARM SYMBOLS

-  FIRE ALARM PULL STATION
-  SMOKE DETECTOR. A=AUXILIARY CONTACTS.
-  STROBE ONLY ADA COMPLIANT
-  FIRE ALARM SPEAKER DUAL COIL
-  HEAT DETECTOR
-  DUCT SMOKE DETECTOR. COORDINATE SIZE OF SAMPLING TUBE WITH DUCTWORK. PROVIDE LOCAL CEILING MOUNTED TEST STATION AND RELAYS AS REQUIRED.
-  CARBON MONOXIDE DETECTOR

NOTE:

- ALL CABLE SHALL BE CAT 6 RATED.
- CARD READER SYSTEM SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR FOR A COMPLETE OPERABLE SYSTEM. COORDINATE FINAL CONNECTIONS AND SYSTEM START UP WITH VA.

POWER SYMBOLS

-  SPEC GRADE NEMA 5-20R RECEPTACLE. -GF1 INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE -TR INDICATES TAMPER RESISTANCE
-  SPEC GRADE NEMA 5-20R RECEPTACLE. MOUNT AT 44" AFF OR 6" ABOVE COUNTER, UGN. -GF1 INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE
-  2P, 3 WIRE, 250V GROUNDING NEMA 6-30R RECEPTACLE. -GF1 INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE
-  1P, 3 WIRE, 125V QUAD RECEPTACLE. -GF1 INDICATES GROUND FAULT INTERRUPTION -WP INDICATES WEATHER PROOF ENCLOSURE
-  SPECIAL PURPOSE CONNECTION.
-  JUNCTION BOX. SIZE PER N.E.C.
-  3P, NON-FUSED DISCONNECT SWITCH, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SHALL HAVE THE SAME # OF POLES AS CONNECTING CIRCUIT UNLESS OTHERWISE NOTED.
-  3P, FUSED DISCONNECT SWITCH, FURNISHED AND INSTALLED BY ELECTRICAL CONTRACTOR. SHALL HAVE THE SAME # OF POLES & AMPERE RATING AS CONNECTING CIRCUIT UNLESS OTHERWISE NOTED.
-  MOTOR STARTER FURNISHED & INSTALLED WITH EQUIPMENT. INSTALLED BY ELECTRICAL CONTRACTOR.
-  COMBINATION NON-FUSED DISCONNECT SWITCH & MAGNETIC MOTOR STARTER WITH HAND/OFF/AUTO SWITCH. FURNISHED BY MECHANICAL CONTRACTOR, INSTALLED BY ELECTRICAL CONTRACTOR.
-  PANEL TO BE REMOVED
-  480Y/277V, 3Ø, 4W PANEL BOARD (SEE SCHEDULE)
-  208Y/120V, 3Ø, 4W PANEL BOARD (SEE SCHEDULE)
-  CONDUIT HOME RUN TO DESIGNATED PANEL. REFER TO PANEL SCHEDULE FOR CONDUIT & CABLE QUANTITY AND SIZE.
-  DOUBLE HOME RUN
-  TRIPLE HOME RUN
-  GROUND
-  TRANSFORMER
-  120V, OR 208V, 1P, MOTOR STARTER WITH OVERLOADS TO SERVE AS DISCONNECTING MEANS. COORDINATE WITH OTHER TRADES.
-  KEY PAD, FURNISH A COMPLETE AND OPERABLE SYSTEM. PULL (2) CAT 6 CABLES TO IT CLOSET IN ¾".
-  TRANSFORMER (SIZE SHOWN ON PLAN OR ONE-LINE DIAGRAM)
-  CIRCUIT BREAKER - 100A TRIP - SINGLE POLE
-  FUSE SWITCH - 100A FUSE - 3 POLE
-  MOTOR
-  ELECTRIC METER
-  X-RAY
-  CAMBOX FOR TEMPORARY GENERATOR CONNECTION
-  CEILING MOUNTED PA SPEAKERS.
-  REMOTE TEST SWITCH FOR DUCT SMOKE DETECTORS.





ELECTRICAL LINE TYPES

- EXISTING TO BE REMOVED
- _____ EXISTING TO REMAIN
- _____ NEW DEVICE
- _____ NEW WIRING







ABBREVIATIONS

A	AMPERE
ACT	ACOUSTIC CEILING TILE
AD	AUTOMATIC DAMPER
AF	AMPERE FRAME
AFFF	AMPERE FINISHED FLOOR
AIC	AMPERE INTERRUPTING CAPACITY
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AUTO	AUTOMATIC
AW	AMERICAN FIRE GAUGE
BOW	BARE COPPER WIRE
CB	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CLG	COPPER
CT	CURRENT TRANSFORMER
CS	COPPER
DP	DISTRIBUTION PANEL
DF	DRINKING FOUNTAIN
DW	DIVISION
DS	DISCONNECT (LOCKOUT) SWITCH
DWG	DRAWING
EA	EACH
ELEC	ELECTRICAL CONTRACTOR
ELEV	ELEVATOR
E.P.O.	EMERGENCY POWER OFF
EQ	EQUIP.
EMT	ELECTRICAL METALLIC TUBING
FA	FIRE ALARM
FAP	FIRE ALARM PANEL
FL	FLOOR
FLEX	FLEXIBLE
FT	FEET OR FOOT
FLUOR.	FLUORESCENT
F.W.E.	FURNISHED WITH EQUIPMENT
G-ND	GROUND
GEN.	GENERATOR
INT	INTERIOR FAULT INTERRUPTER
G.C.	GENERAL CONTRACTOR
HH	HAND HOLE
HS	HORSEPOWER
HVAC	HAND SWITCH
HVAC	HEATING VENTILATING & AIR CONDITIONING
HERTZ	HERTZ
IC	INTERRUPTING CAPACITY
IG	ISOLATED GROUND
INC	INTERMEDIATE METAL CONDUIT
JB	JUNCTION BOX
KVA	KILO VOLT
KVA	KILO VOLT AMP
KW	KILO WATT
LA	LIGHTING PANEL
LTG	LIGHTING
M.C.	MECHANICAL CONTRACTOR
MCM	THOUSAND CIRCULAR MILS
MCB	MAIN CIRCUIT BREAKER
MECH	MECHANICAL
MID	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
MTO	MOUNTED
MTS	MANUAL TRANSFER SWITCH
N	NEUTRAL
NIC	NOT IN CONTRACT
NEC	NATIONAL ELECTRIC CODE
NTS	NOT TO SCALE
NM	NON-METALLIC CONDUIT
PB	PULL BOX
Ø	PHASE
Ø	POWER
Ø	RECEPTACLE
Ø	REQUIRED
Ø	ROD GALVANIZED STEEL
Ø	ROOM
Ø	SCHEDULE
Ø	SECTION
Ø	SPECIFICATION
Ø	SPEAKER
Ø	SOLENOID VALVE
Ø	SW
Ø	SWITCH BOARD
Ø	SYSTEM
Ø	TELEPHONE
Ø	TIME CLOCK
Ø	TYP
Ø	UNLESS NOTED OTHERWISE
Ø	UN-INTERRUPTIBLE POWER SUPPLY
Ø	VARIABLE FREQUENCY CONTROLLER
Ø	VERIFY IN FIELD
Ø	VARIABLE SPEED DRIVE
Ø	WEATHER PROOF
Ø	WAT
Ø	WATERPROOF
Ø	TRANSFORMER
Ø	TRANSF.

GENERAL SYMBOLS

-  POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
-  POINT OF DISCONNECT
-  INDICATES SECTION LETTER
-  INDICATES DRAWING NUMBER WHERE LOCATED

LEGEND AND SCHEDULE OF SAFETY EQUIPMENT

SYMBOL	DESCRIPTION
	ASSISTANCE PULL STRING. UPON ACTIVATION, THE LIGHT AND SOUND ABOVE DOOR SHALL TURN ON. PROVIDE ALL COMPONENTS FOR A COMPLETE SYSTEM.
	ELECTRIC STRIKE FOR DOOR. COORDINATE WITH DOOR HARDWARE. FAIL SECURE AND FIRE RATED.
	BUZZER FOR NOTIFICATION TO ENTER THE AREA. PROVIDE ALL COMPONENTS FOR A COMPLETE AND OPERABLE SYSTEM.
	VIDEO CAMERA TO BE INSTALLED AND TIED INTO EXISTING VIDEO MANAGEMENT SOFTWARE LOCATED IN THE OPERATIONS ROOM OF THE POLICE STATION. UTILIZE EXISTING MONITOR AND SOFTWARE. PANASONIC WV-ASM200. PROVIDE A NETWORK VIDEO RECORDER AND ALL NECESSARY CONDUIT, WIRE, EQUIPMENT, ETC. FOR A COMPLETE AND OPERABLE SYSTEM. HAVE PARALLEL CONNECTIONS TO THE NEW HAS ROOM. ALL WIRING TO BE PULLED BACK TO IT ROOM. COORDINATE WITH VA TO MAKE FINAL CONNECTIONS.
	PUSH BUTTON TO UNLOCK DOORWAY.
	PROXY READER TO MATCH EXISTING.

NOTE:


- ALL CABLE SHALL BE CAT 6 RATED.
- CARD READER SYSTEM SHALL BE PROVIDED AND INSTALLED BY CONTRACTOR FOR A COMPLETE OPERABLE SYSTEM. COORDINATE FINAL CONNECTIONS AND SYSTEM START UP WITH VA.

OUTPUT	1. SOUND GENERAL BUILDING ALARM (NON-HEALTH CARE) (SEE SECTION 7.2.1)	2. NOTIFY NECESSARY STAFF FOR RESPONSE (HIGH RISE BUILDINGS MAY BE DIFFERENT ON DIFFERENT FLOORS).	3. NOTIFY FIRE DEPARTMENT.	4. INITIATE SUPERVISORY RESPONSE (NON-HEALTH CARE) IMMEDIATE RESPONSE.	5. CLOSE SMOKE BARRIER DOORS ON THE FLOOR.	6. CLOSE DAMPERS.	7. SHUT DOWN AIR HANDLER.	8. RECALL ELEVATOR.	9. INITIATE ELEVATOR SHUT DOWN AND LOCKOUT POWER.	10. OPEN LOCKED EGRESS DOORS.	11. CLOSE SMOKE DETECTOR EQUIPMENT.
DUCT SMOKE DETECTOR (NOTE 1)	X	X	X	X	X	X	X	X	X	X	X
SPRINKLER WATERFLOW PRESSURE SWITCH	X	X	X	X	X	X	X	X	X	X	X
MANUAL PULL STATION											
WATER CONTROL VALVE TAMPER				X							

NOTES:

- WHILE NFPA 101 DOES NOT REQUIRE SOME DETECTORS TO NOTIFY BUILDING OCCUPANTS, VA REQUIRES ALL SMOKE DETECTORS, OTHER THAN DUCT SMOKE DETECTORS, TO NOTIFY BUILDING OCCUPANTS.
- THE DOORS ARE TO BE TIED TO THE FIRE ALARM SYSTEM IN ORDER TO BE UNLOCKED UPON ALARM.

100% CONSTRUCTION DOCUMENTS

Revisions		Date		Professional Seal: JOHN D. FELLEENZER, P.E.  NJ PROFESSIONAL ENGINEER No. 02543091		Drawing Title ELECTRICAL SYMBOLS, ABBREVIATIONS & NOTES		Project Title CONVERT 5C TO INPATIENT UNIT		Date 4/26/21	
						Approved: Division Chief MICHAEL BASSILY		Building Number 1 - 5th FLOOR		Checked MDF	
						Approved: Service Director		Drawn CAD		Drawing No. 1-ES-001	
						DSS		SRB		20-191	
						55 Market St., Suite 200, Poughkeepsie, NY 12601 t 845-454-9704 fx 845-454-9705		32 Front St. Port Jervis, NY 12771 t 845-856-3600 fx 845-856-3734		Location 385 TREMONT AVE EAST ORANGE, NJ 07018	
										Dwg. 17 of 20	

0 6" 1 6" 2 6" 2 6" 4 6" 4 6" 8 6" 16 6" 0 4 8 16 0 4 8 16

three eighths inch = one foot

one quarter inch = one foot

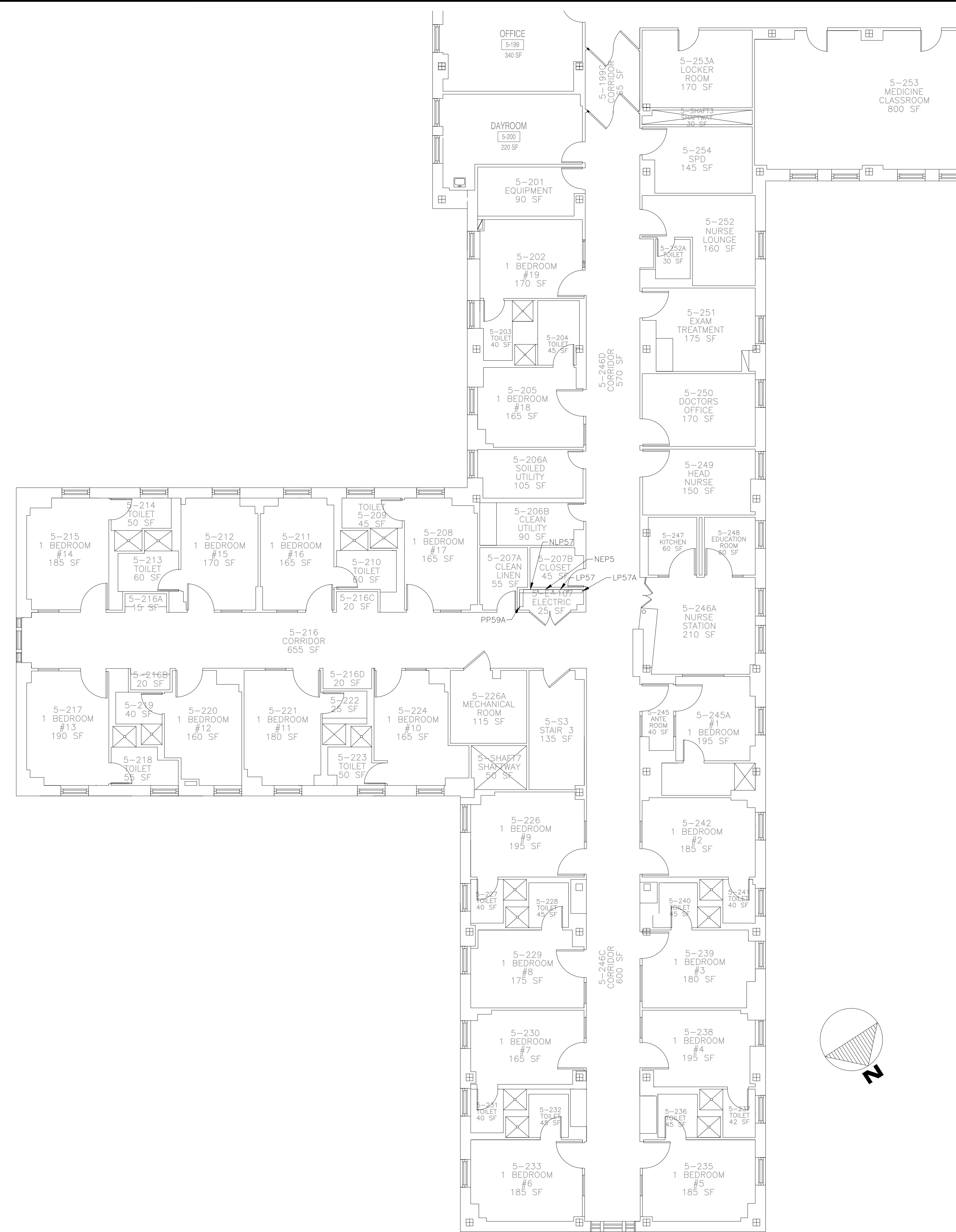
one eighth inch = one foot

three quarters inch = one foot

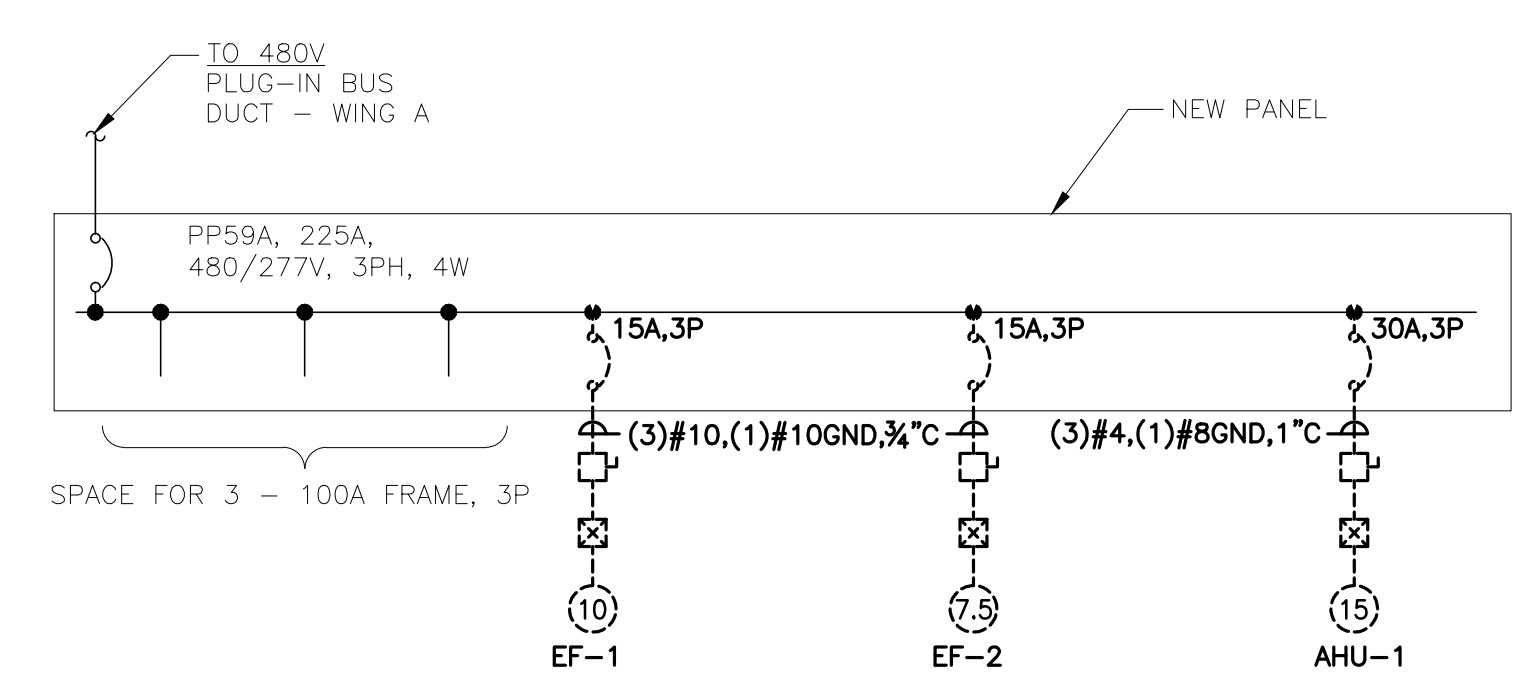
one inch = one foot

one and one half inches = one foot

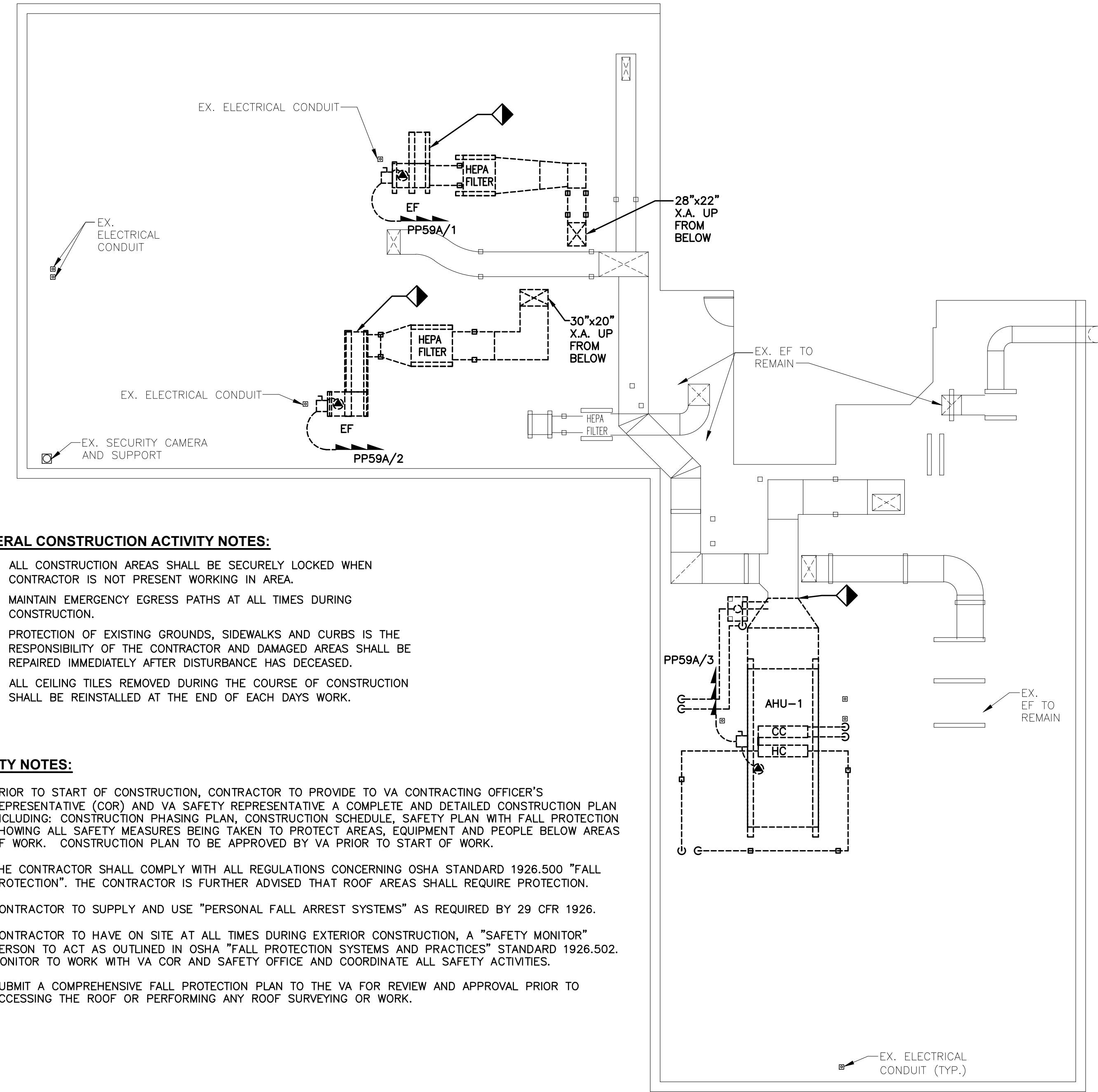
three inches = one foot



1 ELECTRICAL: FIFTH FLOOR - DEMOLITION FLOOR PLAN
SCALE: 1/8"=1'-0"



3 DEMO ONE-LINE DIAGRAM
SCALE: N.T.S.



GENERAL CONSTRUCTION ACTIVITY NOTES:

1. ALL CONSTRUCTION AREAS SHALL BE SECURELY LOCKED WHEN CONTRACTOR IS NOT PRESENT WORKING IN AREA.
2. MAINTAIN EMERGENCY EGRESS PATHS AT ALL TIMES DURING CONSTRUCTION.
3. PROTECTION OF EXISTING GROUNDS, SIDEWALKS AND CURBS IS THE RESPONSIBILITY OF THE CONTRACTOR AND DAMAGED AREAS SHALL BE REPAIRED IMMEDIATELY AFTER DISTURBANCE HAS DECEASED.
4. ALL CEILING TILES REMOVED DURING THE COURSE OF CONSTRUCTION SHALL BE REINSTALLED AT THE END OF EACH DAYS WORK.

SAFETY NOTES:

1. PRIOR TO START OF CONSTRUCTION, CONTRACTOR TO PROVIDE TO VA CONTRACTING OFFICER'S REPRESENTATIVE (COR) AND VA SAFETY REPRESENTATIVE A COMPLETE AND DETAILED CONSTRUCTION PLAN INCLUDING: CONSTRUCTION PHASING PLAN, CONSTRUCTION SCHEDULE, SAFETY PLAN WITH FALL PROTECTION SHOWING ALL SAFETY MEASURES BEING TAKEN TO PROTECT AREAS, EQUIPMENT AND PEOPLE BELOW AREAS OF WORK. CONSTRUCTION PLAN TO BE APPROVED BY VA PRIOR TO START OF WORK.
2. THE CONTRACTOR SHALL COMPLY WITH ALL REGULATIONS CONCERNING OSHA STANDARD 1926.500 "FALL PROTECTION". THE CONTRACTOR IS FURTHER ADVISED THAT ROOF AREAS SHALL REQUIRE PROTECTION.
3. CONTRACTOR TO SUPPLY AND USE "PERSONAL FALL ARREST SYSTEMS" AS REQUIRED BY 29 CFR 1926.
4. CONTRACTOR TO HAVE ON SITE AT ALL TIMES DURING EXTERIOR CONSTRUCTION, A "SAFETY MONITOR" PERSON TO ACT AS OUTLINED IN OSHA "FALL PROTECTION SYSTEMS AND PRACTICES" STANDARD 1926.502. MONITOR TO WORK WITH VA COR AND SAFETY OFFICE AND COORDINATE ALL SAFETY ACTIVITIES.
5. SUBMIT A COMPREHENSIVE FALL PROTECTION PLAN TO THE VA FOR REVIEW AND APPROVAL PRIOR TO ACCESSING THE ROOF OR PERFORMING ANY ROOF SURVEYING OR WORK.

2 ELECTRICAL: SIXTH FLOOR ROOF - DEMOLITION PLAN
SCALE: 1/8"=1'-0"

GENERAL NOTE:

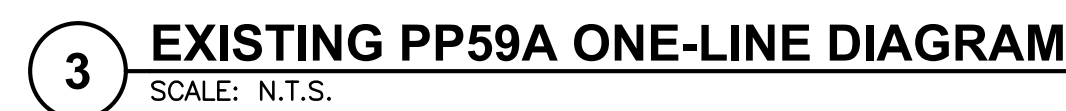
1. DEMO EXISTING POWER TO AHU-1 AND EXHAUST FANS BACK TO PANEL.

100% CONSTRUCTION DOCUMENTS

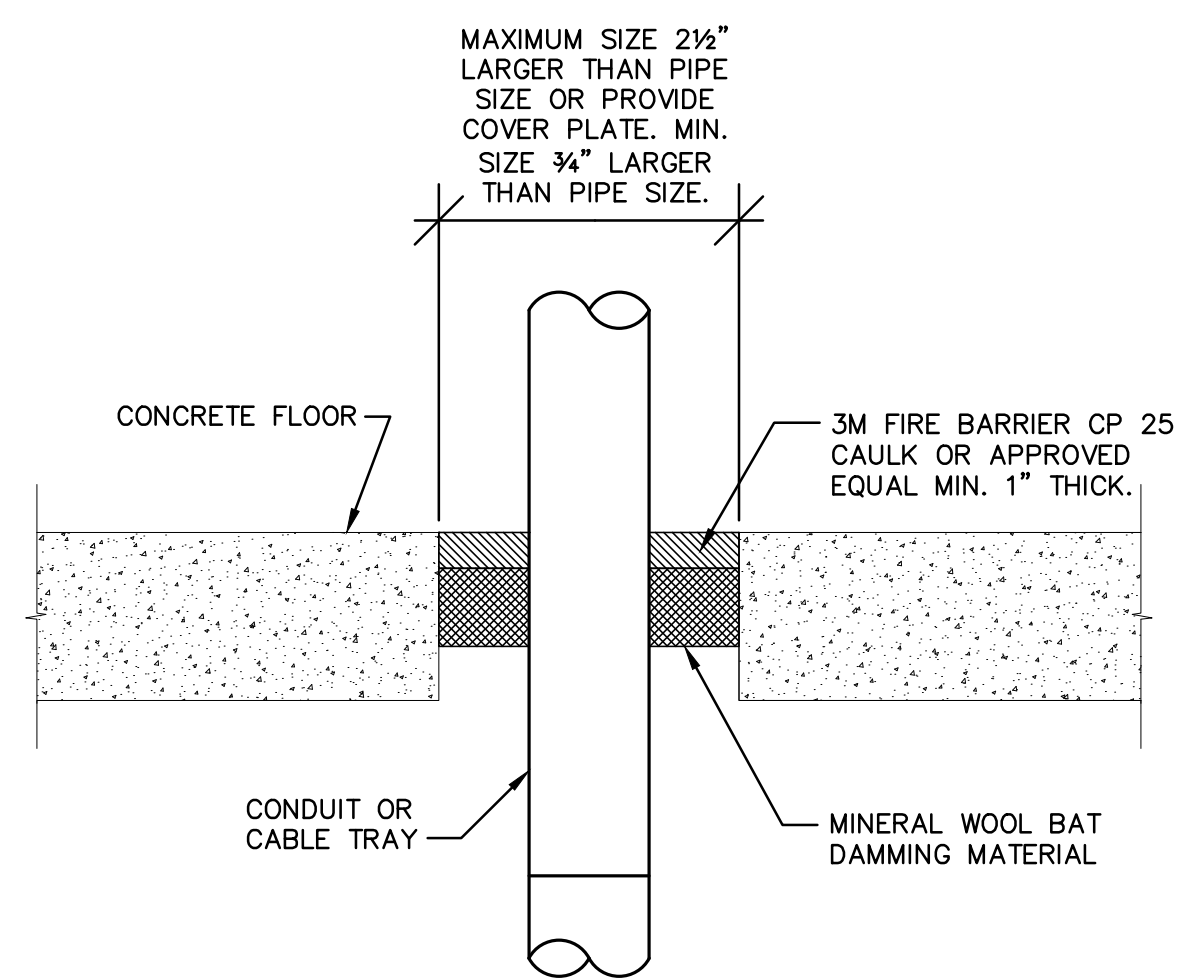
Revisions		Date	

Professional Seal: JOHN D. FELLENER, P.E.		FELLENER ENGINEERING LLP 22 Mulberry St., Suite 2A, Middletown, NY 10940 t 845-454-9704 fx 845-454-9705 1845-856-3600 fx 845-856-3734		Drawing Title ELECTRICAL POWER DEMOLITION FLOOR & ROOF PLANS		Project Title CONVERT 5C TO INPATIENT UNIT		Date 4/26/21	
				Approved: Division Chief MICHAEL BASSILY		Building Number 1 - 5th FLOOR		Checked MDF	
				Approved: Service Director -		Drawn CAD		Drawing No. 1-ED-100	
						Location 385 TREMONT AVE EAST ORANGE, NJ 07018		Dwg. 18 of 20	

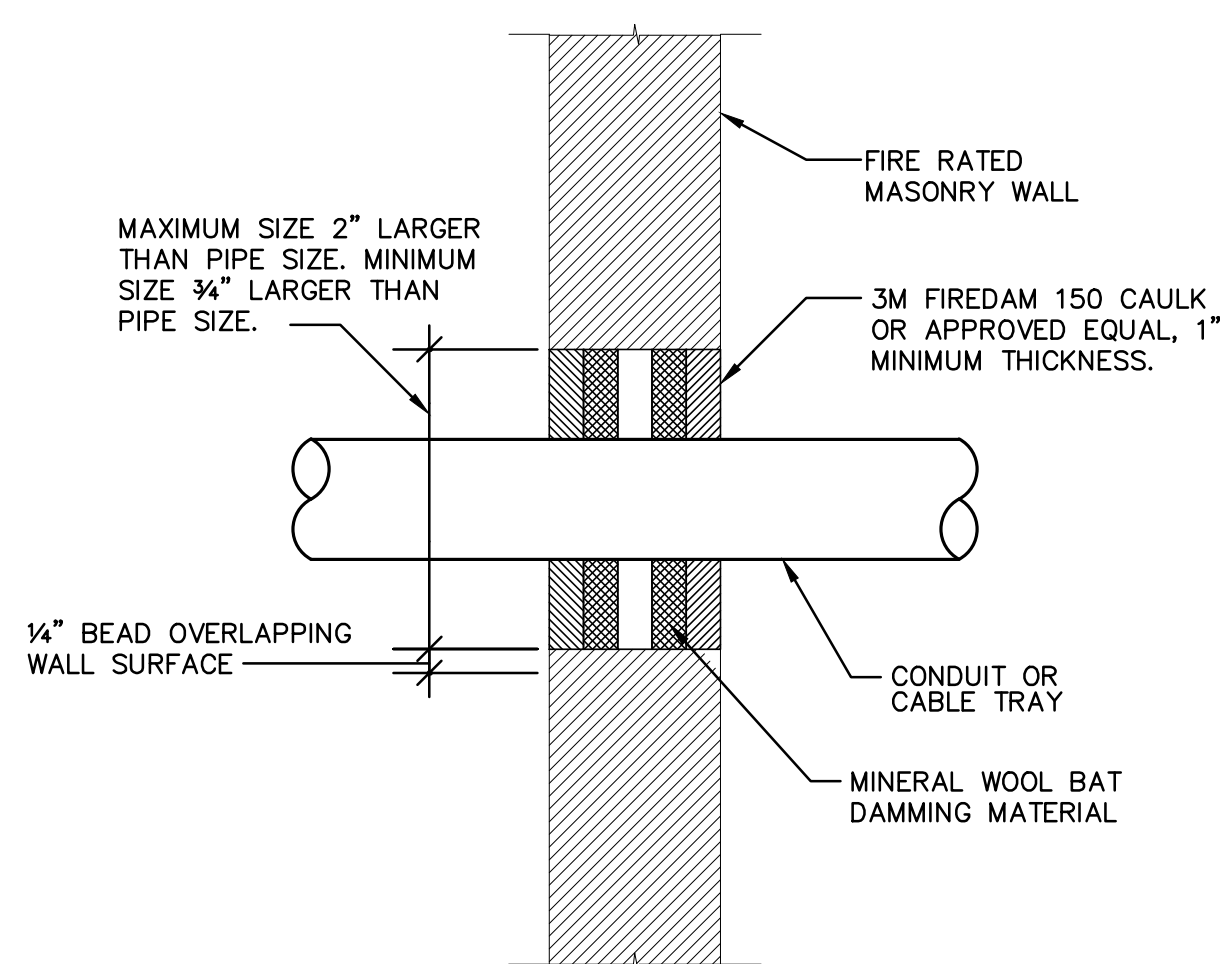
Office of Facilities		Department of Veterans Affairs	
-----------------------------	--	---------------------------------------	--

VA FORM 08-6231, OCT 1978

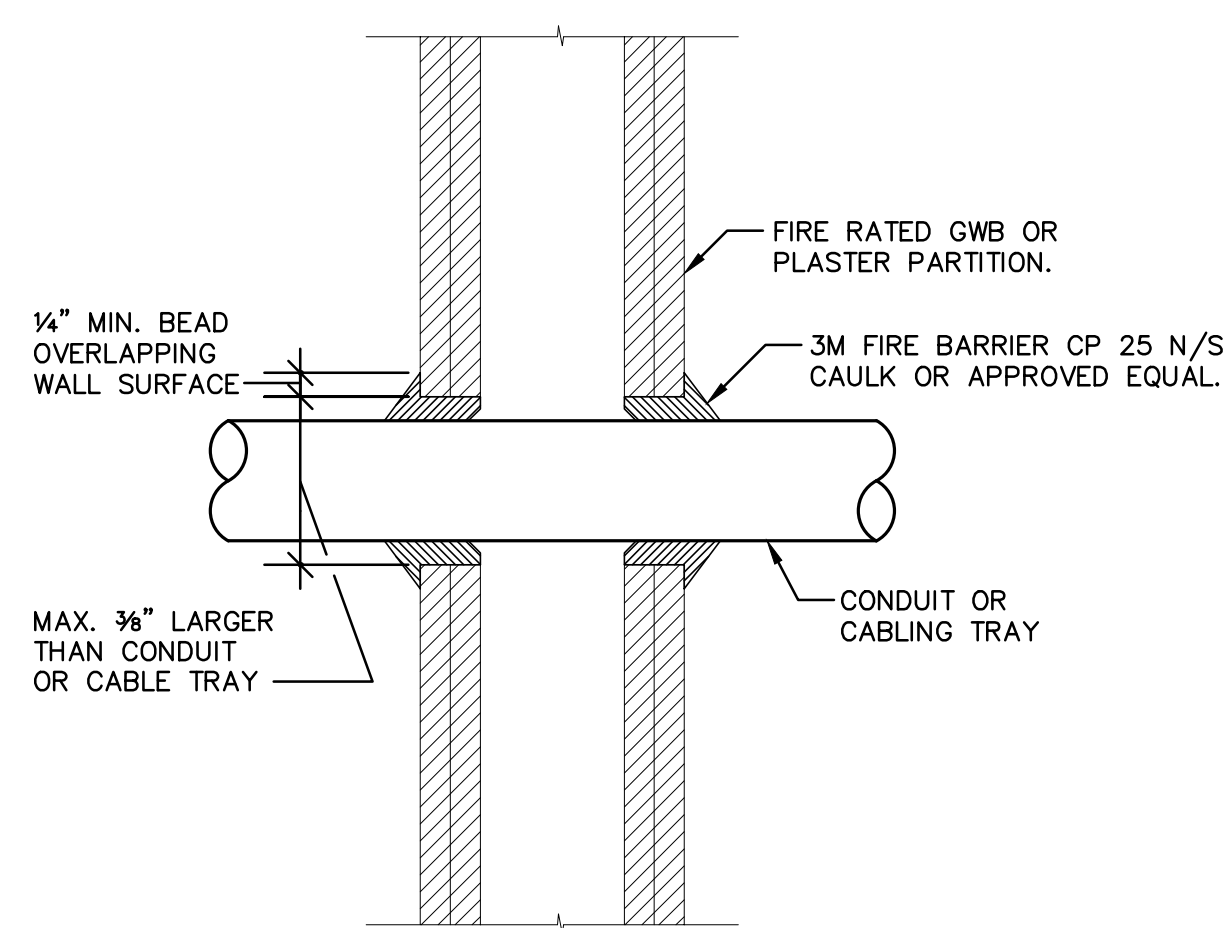
0
6"
1
6"
2
6"
3
6"
4
6"
5
6"
6
6"
7
6"
8
6"
9
6"
10
6"
11
6"
12
6"
13
6"
14
6"
15
6"
16
6"
17
6"
18
6"
19
6"
20
6"
21
6"
22
6"
23
6"
24
6"
25
6"
26
6"
27
6"
28
6"
29
6"
30
6"
31
6"
32
6"
33
6"
34
6"
35
6"
36
6"
37
6"
38
6"
39
6"
40
6"
41
6"
42
6"
43
6"
44
6"
45
6"
46
6"
47
6"
48
6"
49
6"
50
6"
51
6"
52
6"
53
6"
54
6"
55
6"
56
6"
57
6"
58
6"
59
6"
60
6"
61
6"
62
6"
63
6"
64
6"
65
6"
66
6"
67
6"
68
6"
69
6"
70
6"
71
6"
72
6"
73
6"
74
6"
75
6"
76
6"
77
6"
78
6"
79
6"
80
6"
81
6"
82
6"
83
6"
84
6"
85
6"
86
6"
87
6"
88
6"
89
6"
90
6"
91
6"
92
6"
93
6"
94
6"
95
6"
96
6"
97
6"
98
6"
99
6"
100
6"
101
6"
102
6"
103
6"
104
6"
105
6"
106
6"
107
6"
108
6"
109
6"
110
6"
111
6"
112
6"
113
6"
114
6"
115
6"
116
6"
117
6"
118
6"
119
6"
120
6"
121
6"
122
6"
123
6"
124
6"
125
6"
126
6"
127
6"
128
6"
129
6"
130
6"
131
6"
132
6"
133
6"
134
6"
135
6"
136
6"
137
6"
138
6"
139
6"
140
6"
141
6"
142
6"
143
6"
144
6"
145
6"
146
6"
147
6"
148
6"
149
6"
150
6"
151
6"
152
6"
153
6"
154
6"
155
6"
156
6"
157
6"
158
6"
159
6"
160
6"
161
6"
162
6"
163
6"
164
6"
165
6"
166
6"
167
6"
168
6"
169
6"
170
6"
171
6"
172
6"
173
6"
174
6"
175
6"
176
6"
177
6"
178
6"
179
6"
180
6"
181
6"
182
6"
183
6"
184
6"
185
6"
186
6"
187
6"
188
6"
189
6"
190
6"
191
6"
192
6"
193
6"
194
6"
195
6"
196
6"
197
6"
198
6"
199
6"
200
6"
201
6"
202
6"
203
6"
204
6"
205
6"
206
6"
207
6"
208
6"
209
6"
210
6"
211
6"
212
6"
213
6"
214
6"
215
6"
216
6"
217
6"
218
6"
219
6"
220
6"
221
6"
222
6"
223
6"
224
6"
225
6"
226
6"
227
6"
228
6"
229
6"
230
6"
231
6"
232
6"
233
6"
234
6"
235
6"
236
6"
237
6"
238
6"
239
6"
240
6"
241
6"
242
6"
243
6"
244
6"
245
6"
246
6"
247
6"
248
6"
249
6"
250
6"
251
6"
252
6"
253
6"
254
6"
255
6"
256
6"
257
6"
258
6"
259
6"
260
6"
261
6"
262
6"
263
6"
264
6"
265
6"
266
6"
267
6"
268
6"
269
6"
270
6"
271
6"
272
6"
273
6"
274
6"
275
6"
276
6"
277
6"
278
6"
279
6"
280
6"
281
6"
282
6"
283
6"
284
6"
285
6"
286
6"
287
6"
288
6"
289
6"
290
6"
291
6"
292
6"
293
6"
294
6"
295
6"
296
6"
297
6"
298
6"
299
6"
300
6"
301
6"
302
6"
303
6"
304
6"
305
6"
306
6"
307
6"
308
6"
309
6"
310
6"
311
6"
312
6"
313
6"
314
6"
315
6"
316
6"
317
6"
318
6"
319
6"
320
6"
321
6"
322
6"
323
6"
324
6"
325
6"
326
6"
327
6"
328
6"
329
6"
330
6"
331
6"
332
6"
333
6"
334
6"
335
6"
336
6"
337
6"
338
6"
339
6"
340
6"
341
6"
342
6"
343
6"
344
6"
345
6"
346
6"
347
6"
348
6"
349
6"
350
6"
351
6"
352
6"
353
6"
354
6"
355
6"
356
6"
357
6"
358
6"
359
6"
360
6"
361
6"
362
6"
363
6"
364
6"
365
6"
366
6"
367
6"
368
6"
369
6"
370
6"
371
6"
372
6"
373
6"
374
6"
375
6"
376
6"
377
6"
378
6"
379
6"
380
6"
381
6"
382
6"
383
6"
384
6"
385
6"
386
6"
387
6"
388
6"
389
6"
390
6"
391
6"
392
6"
393
6"
394
6"
395
6"
396
6"
397
6"
398
6"
399
6"
400
6"
401
6"
402
6"
403
6"
404
6"
405
6"
406
6"
407
6"
408
6"
409
6"
410
6"
411
6"
412
6"
413
6"
414
6"
415
6"
416
6"
417
6"
418
6"
419
6"
420
6"
421
6"
422
6"
423
6"
424
6"
425
6"
426
6"
427
6"
428
6"
429
6"
430
6"
431
6"
432
6"
433
6"
434
6"
435
6"
436
6"
437
6"
438
6"
439
6"
440
6"
441
6"
442
6"
443
6"
444
6"
445
6"
446
6"
447
6"
448
6"
449
6"
450
6"
451
6"
452
6"
453
6"
454
6"
455
6"
456
6"
457
6"
458
6"
459
6"
460
6"
461
6"
462
6"
463
6"
464
6"
465
6"
466
6"
467
6"
468
6"
469
6"
470
6"
471
6"
472
6"
473
6"
474
6"
475
6"
476
6"
477
6"
478
6"
479
6"
480
6"
481
6"
482
6"
483
6"
484
6"
485
6"
486
6"
487
6"
488
6"
489
6"
490
6"
491
6"
492
6"
493
6"
494
6"
495
6"
496
6"
497
6"
498
6"
499
6"
500
6"
501
6"
502
6"
503
6"
504
6"
505
6"
506
6"
507
6"
508
6"
509
6"
510
6"
511
6"
512
6"
513
6"
514
6"
515
6"
516
6"
517
6"
518
6"
519
6"
520
6"
521
6"
522
6"
523
6"
524
6"
525
6"
526
6"
527
6"
528
6"
529
6"
530
6"
531
6"
532
6"
533
6"
534
6"
535
6"
536
6"
537
6"
538
6"
539
6"
540
6"
541
6"
542
6"
543
6"
544
6"
545
6"
546
6"
547
6"
548
6"
549
6"
550
6"
551
6"
552
6"
553
6"
554
6"
555
6"
556
6"
557
6"
558
6"
559
6"
560
6"
561
6"
562
6"
563
6"
564
6"
565
6"
566
6"
567
6"
568
6"
569
6"
570
6"
571
6"
572
6"
573
6"
574
6"
575
6"
576
6"
577
6"
578
6"
579
6"
580
6"
581
6"
582
6"
583
6"
584
6"
585
6"
586
6"
587
6"
588
6"
589
6"
590
6"
591
6"
592
6"
593
6"
594
6"
595
6"
596
6"
597
6"
598
6"
599
6"
600
6"
601
6"
602
6"
603
6"
604
6"
605
6"
606
6"
607
6"
608
6"
609
6"
610
6"
611
6"
612
6"
613
6"
614
6"
615
6"
616
6"
617
6"
618
6"
619
6"
620
6"
621
6"
622
6"
623
6"
624
6"
625
6"
626
6"
627
6"
628
6"
629
6"
630
6"
631
6"
632
6"
633
6"
634
6"
635
6"
636
6"
637
6"
638
6"
639
6"
640
6"
641
6"
642
6"
643
6"
644
6"
645
6"
646
6"
647
6"
648
6"
649
6"
650
6"
651
6"
652
6"
653
6"
654
6"
655
6"
656
6"
657
6"
658
6"
659
6"
660
6"
661
6"
662
6"
663
6"
664
6"
665
6"
666
6"
667
6"
668
6"
669
6"
670
6"
671
6"
672
6"
673
6"
674
6"
675
6"
676
6"
677
6"
678
6"
679
6"
680
6"
681
6"
682
6"
683
6"
684
6"
685
6"
686
6"
687
6"
688
6"
689
6"
690
6"
691
6"
692
6"
693
6"
694
6"
695
6"
696
6"
697
6"
698
6"
699
6"
700
6"
701
6"
702
6"
703
6"
704
6"
705
6"
706
6"
707
6"
708
6"
709
6"
710
6"
711
6"
712
6"
713
6"
714
6"
715
6"
716
6"
717
6"
718
6"
719
6"
720
6"
721
6"
722
6"
723
6"
724
6"
725
6"
726
6"
727
6"
728
6"
729
6"
730
6"
731
6"
732
6"
733
6"
734
6"
735
6"
736
6"
737
6"
738
6"
739
6"
740
6"
741
6"
742
6"
743
6"
744
6"
745
6"
746
6"
747
6"
748
6"
749
6"
750
6"
751
6"
752
6"
753
6"
754
6"
755
6"
756
6"
757
6"
758
6"
759
6"
760
6"
761
6"
762
6"
763
6"
764
6"
765
6"
766
6"
767
6"
768
6"
769
6"
770
6"
771
6"
772
6"
773
6"
774
6"
775
6"
776
6"
777
6"
778
6"
779
6"
780
6"
781
6"
782
6"
783
6"
784
6"
785
6"
786
6"
787
6"
788
6"
789
6"
790
6"
791
6"
792
6"
793
6"
794
6"
795
6"
796
6"
797
6"
798
6"
799
6"
800
6"
801
6"
802
6"
803
6"
804
6"
805
6"
806
6"
807
6"
808
6"
809
6"
810
6"
811
6"
812
6"
813
6"
814
6"
815
6"
816
6"
817
6"
818
6"
819
6"
820
6"
821
6"
822
6"
823
6"
824
6"
825
6"
826
6"
827
6"
828
6"
829
6"
830
6"
831
6"
832
6"
833
6"
834
6"
835
6"
836
6"
837
6"
838
6"
839
6"
840
6"
841
6"
842
6"
843
6"
844
6"
845
6"
846
6"
847
6"
848
6"
849
6"
850
6"
851
6"
852
6"
853
6"
854
6"
855
6"
856
6"
857
6"
858
6"
859
6"
860
6"
861
6"
862
6"
863
6"
864
6"
865
6"
866
6"
867
6"
868
6"
869
6"
870
6"
871
6"
872
6"
873
6"
874
6"
875
6"
876
6"
877
6"
878
6"
879
6"
880
6"
881
6"
882
6"
883
6"
884
6"
885
6"
886
6"
887
6"
888
6"
889
6"
890
6"
891
6"
892
6"
893
6"
894
6"
895
6"
896
6"
897
6"
898
6"
899
6"
900
6"
901
6"
902
6"
903
6"
904
6"
905
6"
906
6"
907
6"
908
6"
909
6"
910
6"
911
6"
912
6"
913
6"
914
6"
915
6"
916
6"
917
6"
918
6"
919
6"
920
6"
921
6"
922
6"
923
6"
924
6"
925
6"
926
6"
927
6"
928
6"
929
6"
930
6"
931
6"
932
6"
933
6"
934
6"
935
6"
936
6"
937
6"
938
6"
939
6"
940
6"
941
6"
942
6"
943
6"
944
6"
945
6"
946
6"
947
6"
948
6"
949
6"
950
6"
951
6"
952
6"
953
6"
954
6"
955
6"
956
6"
957
6"
958
6"
959
6"
960
6"
961
6"
962
6"
963
6"
964
6"
965
6"
966
6"
967
6"
968
6"
969
6"
970
6"
971
6"
972
6"
973
6"
974
6"
975
6"
976
6"
977
6"
978
6"
979
6"
980
6"
981
6"
982
6"
983
6"
984
6"
985
6"
986
6"
987
6"
988
6"
989
6"
990
6"
991
6"
992
6"
993
6"
994
6"
995
6"
996
6"
997
6"
998
6"
999
6"
1000
6"



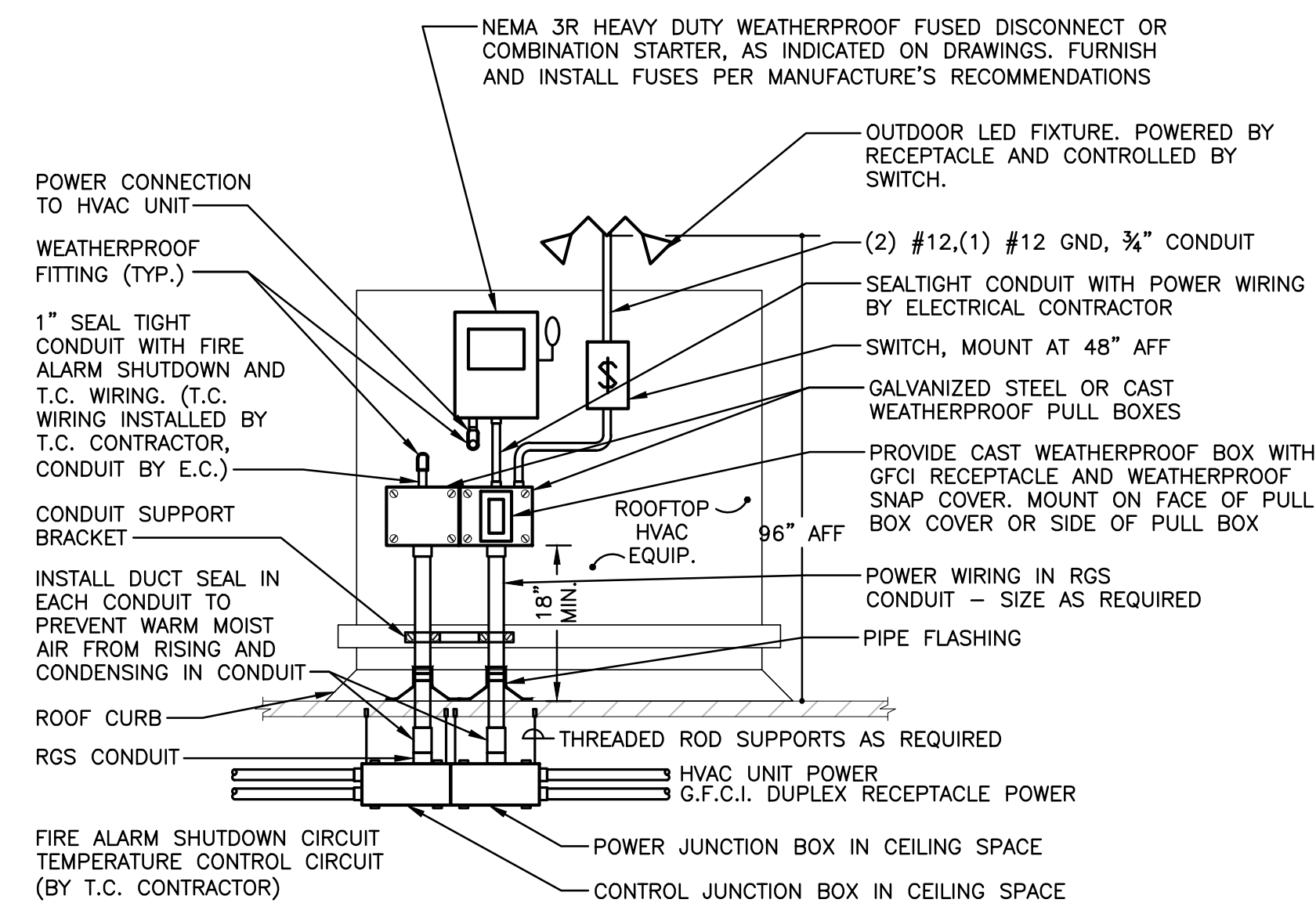
**1 CONDUIT PENETRATION
IN FIRE RATED CONCRETE FLOOR**
N.T.S.



**2 CONDUIT PENETRATION
IN FIRE RATED MASONRY PARTITION**
N.T.S.



**3 CONDUIT PENETRATION IN FIRE
RATED GWB OR PLASTER PARTITION**
N.T.S.



NOTES:

1. WIRING TO THE ROOFTOP HVAC EQUIPMENT SHALL EXTEND THROUGH THE ROOF IN CONDUITS LOCATED OUTSIDE OF THE EQUIPMENT ROOF CURB AS SHOWN, UNLESS OTHERWISE SPECIFICALLY ALLOWED BY THE UNIT MANUFACTURER.
2. WIRING RUN INSIDE THE HVAC EQUIPMENT SHALL BE ACCOMPLISHED IN A MANNER ACCEPTABLE WITH THE UNIT MANUFACTURER AND SHALL MEET ALL REQUIREMENTS OF THE NATIONAL ELECTRIC CODE.
3. COORDINATE CONTROL WIRING RACEWAY INSTALLATION WITH THE TEMPERATURE CONTROL CONTRACTOR. TEMPERATURE CONTROL WIRING BY T.C. CONTRACTOR.

4 TYPICAL ROOFTOP HVAC EQUIPMENT DETAIL (AHU-1, EF-1, & EF-2)
N.T.S.

