RENOVATE MEDICAL SURGICAL UNIT

WM. JENNINGS BRYAN DORN VAMC
COLUMBIA, SOUTH CAROLINA
PROJECT NO. 544-13-102

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V.A. SEAL AND SIGNATURE

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SUBMITTAL EXCHANGE REQUIREMENT

NOTE:
CONTRACTOR SHALL USE THE ONLINE DOCUMENT EXCHANGE SYSTEM SUBMITTAL EXCHANGE FOR ALL SUBMITTALS REQUIRED FOR THIS PROJECT. CONTRACTOR IS RESPONSIBLE TO INCUR ALL COSTS REQUIRED TO ALLOW FULL ACCESS AND USER CAPABILITY FOR ALL CONTRACTORS.

WEBSITE FOR PROGRAM IS: HTTP:/ / WWW.SUBMITTALEXCHANGE.COM/PUBLIC/

WEBSITE REPRESENTATIVE IS BRIAN ROLAN, PHONE 1-800-724-0024

BID SCHEDULE

BASE ITEM 001 (BASE BID): WORK INCLUDES INTERIOR RENOVATION OF APPROXIMATELY 18,690 SQ. FT. AND ALL WORK INCLUDED IN DRAWINGS AND SPECIFICATIONS.

DEDUCTIVE ALTERNATE NO. 1: DEDUCT MOCKUP OF ROOMS 3A161A, 3A161B, 3A161C, 3A163A, 3A163B. CONSTRUCT ROOMS AS PART OF NORMAL PROJECT WORK SEQUENCE.

DEDUCTIVE ALTERNATE NO. 2: DEDUCT ENTIRE WOOD GRILLE CEILING IN CORRIDOR C3-9 AND WAITING 3A-133A; WOOD BOARD WALL PANELING AND STAINLESS STEEL BASE IN WAITING 3A-133A; AND TYPE LG-1 GLASS WALL BETWEEN 3A-133A AND 3A-133B. REPLACE STAINLESS STEEL BASE WITH RESILIENT BASE. REPLACE PARTITION TYPE K_2W WITH TYPE K_2 AND PAINT P-02. CEILING TILE COLOR IN AREA OF DEDUCTED WOOD GRILLE CEILING TO BE WHITE. AREA OF DEDUCTED GLASS WALL TO BE OPEN BETWEEN 3A-133A AND 3A-133B.

DEDUCTIVE ALTERNATE NO. 3: DEDUCT ALL WORK IN EAST WING.

RISK ASSESSMENT NOTES

1. REFER TO HAZARDOUS MATERIALS REPORT IN SPECIFICATIONS.
2. REFER TO RISK ASSESSMENT REQUIREMETNS IN SPECIFICATIONS.

STATEMENT OF WORK

SEE NARRATIVE AND RISK ASSESSMENT AS ATTACHMENTS TO THE PROJECT MANUAL.

PERFORMANCE PERIOD OF WORK SHALL BE 365 TOTAL CALENDAR DAYS.

1. DEMOLITION OF ENTIRE SOUTH WING, INCLUDING PME, FIRE PROTECTION SYSTEMS.
2. PARTIAL DEMOLITION OF WEST WING, INCLUDING PME AND FIRE PROTECTION.
3. MINOR ASBESTOS ABATEMENT IS REQUIRED AS PART OF THIS PROJECT.
4. MINOR DEMOLITION OF WALL AND CEILING OF EXISTING OPERATING ROOM, AND EXISTING MEDICAL SURGICAL SUITE ON SECOND LEVEL TO CONNECT NEW AND EXISTING UTILITIES. ALL NEW REPAIR WORK SHALL MATCH EXISTING CONDITIONS.
5. MINOR WORK ON FOURTH LEVEL AS REQUIRED TO CONNECT NEW AND EXISTING UTILITIES.
6. PROVIDE NEW MEDICAL SURGICAL SUITE AND ALL SUPPORTING FUNCTIONS, INCLUDING PME, FIRE PROTECTION, AND MEDICAL GASES AS DEFINED IN THE SCOPE OF WORK.
7. ALL NEW WORK SHALL HAVE INFECTIOUS CONTROL AND DUST PROTECTION THROUGHOUT THE DURATION OF THE PROJECT. COORDINATE WITH VA SAFETY DEPARTMENT FOR APPROVED LOCATION OF BARRIERS AND REQUIRED SIGNAGE. THE DOCUMENTS APPROXIMATELY LOCATIONS.
8. THE ENTIRE AREA OF CONSTRUCTION SCOPE OF WORK SHALL BE AVAILABLE AT ALL TIMES TO THE CONTRACTOR WITH THE EXCEPTION OF THE SECOND AND FOURTH FLOOR.
9. ALL WORK WITH-IN THE SECOND FLOOR OPERATING AND MEDICAL SUITE SHALL BE PERFORMED DURING NON PEAK HOURS AND COORDINATED THE VA COR, SAFETY, INFECTIOUS CONTROL AND GEMS DEPARTMENTS.
10. ALL NEW PENETRATIONS SHALL MEET THE REQUIRED PROPER UL RATED ASSEMBLIES.

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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GENERAL PROJECT NOTES

1. COMPLY WITH ALL FEDERAL, STATE AND LOCAL CODES.
2. COMPLY WITH ALL VA STANDARDS.
3. REFER TO SPECIFICATIONS FOR GENERAL CONDITIONS.
4. VERIFY ALL VA STANDARDS IN REGARDS TO INFECTIOUS CONTROL MEASURES.
5. VERIFY ALL EXISTING DIMENSIONS AND CONDITIONS AND REPORT ANY DISCREPENCIES IN CONDITIONS TO THE COR BEFORE BEGINNING OR CONTINUING WORK.
6. DISTURBANCE OF EXISTING MATERIALS ARE THE RESPONSIBILITY OF THE CONTRACTOR WITH REFERENCE TO PROPER LEGAL DISPOSAL, LEGAL ABATEMENT, PATCHING AND FINISHING. ALL DISTURBED AREAS AND MATERIALS SHALL MATCH EXISTING CONDITIONS.
7. WORK ON LEVEL 2 TO BE PERFORMED DURING NON-PEAK HOURS. COORDINATE PHASING OF WORK AND WORK HOURS WITH COR.
8. PROVIDE ALL TEMPORARY MEASURES AS CALLED FOR ON THE DRAWINGS AND IN THE SPECIFICATIONS FOR INFECTION CONTROL, DUST MITIGATION, SAFETY AND RISK ASSESSMENT.
9. CONTRACTOR SHALL PROVIDE EGRESS SIGNAGE AS REQUIRED BY THE COR.
10. COORDINATE MATERIAL STAGING AREAS WITH THE COR.
11. CONTRACTOR SHALL HAVE REPRESENTATIVE ON SITE AT ALL TIMES DURING CONSTRUCTION.
12. CONTRACTOR SHALL DEVELOP AND SUBMIT COORDINATION DRAWINGS FOR ALL ABOVE CEILING WORK AT ALL LEVELS FOR APPROVAL BY VA COR BEFORE BEGINNING ABOVE CEILING WORK.

GENERAL DEMOLITION NOTES

1. ALL ITEMS SHOWN DASHED INDICATE ITEMS TO BE DEMOLISHED OR SALVAGED. SEE SPECIFIC NOTES BELOW FOR ADDITIONAL INFORMATION. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
2. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF MATERIALS SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH(ES).
3. CONTRACTOR TO DEVELOP AND PUBLISH INFECTION CONTROL PLAN AND SAFETY PLAN FOR APPROVAL BY COR PRIOR TO BEGINNING THEIR WORK. PLAN TO INCLUDE MEANS AND METHODS OF DEBRIS STAGING AND REMOVAL, BOTH INTERNALLY AND EXTERNALLY.
4. INSTALL TEMPORARY DUST AND DEBRIS BARRIERS AND VESTIBULES AROUND PROJECT LIMITS IN ACCORDANCE WITH INFECTON CONTROL PLAN. TEMPORARY BARRIERS ARE NOT TO RESTRICT REQUIRED MEANS OF EGRESS PATHS AND WIDTHS.
5. MAINTAIN EXISTING GWB AND FRAMING AT EXTERIOR WALLS IN UNDISTURBED CONDITION TO GREATEST EXTENT POSSIBLE. REPAIR AT LOCATIONS OF DEMOLISHED INTERSECTING PARTITIONS TO MATCH ADJACENT FINISHES.
6. HAZARDOUS MATERIAL ABATEMENT IS REQUIRED IN PROJECT SCOPE. REF.HA-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
7. PROTECT EXISTING HORIZONTAL AND VERTICAL FIREPROOFING DURING PROJECT. ONCE DEMOLITION IS COMPLETE, CONTRACTOR SHALL REPAIR ALL DAMAGED FIREPROOFING AND RESTORE MISSING FIREPROOFING, WHETHER A RESULT OF DEMOLITIION OPERATIONS OR NOT, TO MEET REQUIRED RATING(S).
8. ALL PENETRATIONS THROUGH RATED FLOOR/CEILING ASSEMBLIES AND THROUGH FIRE RATED WALL AND SMOKE BARRIER ASSEMBLIES - THOSE CREATED BY REMOVAL OF DEMOLISHED ITEMS UNDER THIS CONTRACT AND THOSE DISCOVERED DURING CONSTRUCTION UNDER THIS CONTRACT AS A RESULT OF PREVIOUS WORK AND THOSE CREATED BY NEW WORK UNDER THIS CONTRACT - MUST BE SEALED AS PART OF THIS CONTRACT. ALL RATED SEPARATIONS MUST MEET CURRENT CODE REQUIREMENTS.

DEMOLITION SHEET NOTES

001 MAINTAIN EXISTING FIRE PROTECTION AT COLUMNS.
002 REMOVE EXISTING GWB PROTECTION LAYERS. PREPARE FOR NEW APPLIED FIRE PROOFING.
003 NEW 1-HOUR DUST BARRIER SEPERATION. CONTRACTOR SHALL PROVIDE SIGNAGE. SUBMIT CONSTRUCTION SIGNAGE TO VA COR FOR APPROVAL.
004 CLOSE AND SEAL EXISTING DOOR OPENING FOR DURATION OF CONSTRUCTION.
005 REMOVE AND SALVAGE TRANSACTION WINDOW

GENERAL FLOOR PLAN NOTES

1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO INITIATING CONSTRUCTION AND REPORT DISCREPANCIES TO ARCHITECT PRIOR TO COMMENCING WORK.
2. REFER TO SHEET GI002 ABBREVIATIONS AND QH601 EQUIPMENT SCHEDULE FOR EQUIPMENT PROCUREMENT AND INSTALLATION RESPONSIBILITY DESIGNATIONS.
3. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TO FINISHED FACE OF PARTITIONS (EXCLUDING APPLIED FINISHES SUCH AS TILE) AND TO COLUMN CENTER LINES.
4. CONTRACTOR SHALL PROVIDE ALL BLOCKING REQUIRED TO ANCHOR ALL WALL AND CLG MOUNTED ITEMS, INCLUDING BUT NOT LIMITED TO TOILET ROOM ACCESSORIES, MILLWORK, CASEWORK, HANDRAILS, DOOR STOPS ETC.
5. IN NEW GYPSUM WALL BOARD PARTITIONS, PROVIDE CONTROL JOINTS AT 30'-0" O.C. MAX.
6. REFER TO SHEET GI003 FOR PARTITION SCHEDULE AND GENERAL PARTITION TYPE NOTES.
7. REFER TO AE400 SERIES FOR ENLARGED FLOOR PLAN VIEWS INCLUDING MEDICAL EQUIPMENT.
8. REFER TO FIRE PROTECTION LIFE SAFETY DRAWINGS (FP SERIES) FOR CAMPUS-WIDE SCOPE OF RATED WALL CONSTRUCTION, SMOKE PARTITIONS, EGRESS AND EXIT DISCHARGE INFORMATION.
9. PARTITION TYPES AS NOTED BY THE SYMBOL CONTINUE BETWEEN ROOM/SPACE CORNERS OR ANY INTERSECTING PARTITION.
10. DIFFERING PARTITION TYPES SHALL ALIGN SO THAT WALL PLANES CONTINUE UNBROKEN WITHIN/ACROSS ROOMS AND/OR SPACES.
11. REFER TO SHEET AE601 FOR DOOR & RELITE SCHEDULES.
12. DISTANCE FROM HINGE SIDE OF DOOR TO INTERSECTING STUD WALL SHALL BE 4" UNLESS NOTED OR DETAILED OTHERWISE (MEASURED FROM OUTSIDE OF FRAME)
13. DIMENSIONS NOTED AS "CLEAR" OR "HOLD" WHICH ARE CRITICAL TO COORDINATE OTHER WORK (E.G. CEILING GRIDS, LIGHTING, FINISHES) AND SHALL BE VERIFIED BY CONTRACTOR.

FLOOR PLAN SHEET NOTES

101 NEW OVERLAYED PARTITION TO BE STRUCTURALLY INDEPENDANT OF EXISTING PARTITION(S).
102 REPAINT EXISTING DOOR FRAME. REMAINDER OF DOOR, FRAME AND HARDWARE TO REMAIN AS-IS.
103 EXISTING DOORS, FRAMES AND HARDWARE TO REMAIN.
104 WRAP EXISTING FURRED COLUMN w/ (1) FINISH LAYER OF GWB
105 TRASH RECEPTICLE GROMMET
106 SLOPE FLOOR IN TOILET ROOM TO DRAIN
107 MODIFY / ADJUST ALL FINISHES ONCE NEW PARTITION IS COMPLETE. PAINT NEW WALL FROM CORNER TO CORNER TO MATCH EXISTING ROOM SURFACES.

GENERAL RCP NOTES

1. RATED WALLS: ARE INDICATED IN PLAN AND RCP WITH GRAPHIC DENOTING HOURLY RATING AND/OR RESISTANT TO PASSAGE OF SMOKE. REFER TO PARTITION TAGS ON FLOOR PLANS AND PARTITION SCHEDULE SHEET GI003 FOR MORE INFORMATION.
2. DIMENSIONS ARE TO FINISH FACE OF WALL OR SOFFIT UNO
3. GYPSUM BOARD BULKHEADS TO BE SINGLE STUD THICKNESS WITH BOTTOM FINISHED SURFACE 2 INCHES BELOW LOWEST ADJACENT FINISHED CEILING UNO.
4. GYPSUM BOARD SOFFITS: GWB AFF NOTED ON RCP.
5. WHEN FLOOR HEIGHT VARIES IN A ROOM THE CEILING HEIGHT SHOWN IS HEIGHT ABOVE FLOOR ENTRY.
6. 11 70 00 PATIENT LIFT CONFIGURATION AND SUPPORTS SHOWN DIAGRAMMATICALLY FROM ONE VENDOR AS BASIS OF DESIGN. CONTRACTOR TO PROVIDE VENDOR-GENERATED LAYOUTS FOR APPROVAL BY VA PRIOR TO FABRICATION. PROVIDE NEW SUPPORTS FROM BUILDING STRUCTURE. DIFFERENT VENDORS HAVE DIFFERENT REQUIREMENTS FOR SPACING OF THEIR SUPPORTS, THEREFORE CONTRACTOR TO PERFORM FINAL COORDINATION OF ABOVE CLG SUPPORTS W/ SELECTED VENDOR'S SHOP DRAWINGS & OTHER ABOVE CLG TRADES.
7. ACOUSTIC TILE CEILINGS TO BE CENTERED IN BOTH DIRECTIONS IN ROOM TYP, UNO OR DIMENSIONED OTHERWISE IF DIMENSION IS PROVIDED IN ONE DIRECTION ONLY, ASSUME GRID IS CENTERED IN OTHER DIRECTION.
8. CUT TILES SHALL BE NO SMALLER THAN 4 INCHES IN ANY DIRECTION UNO. CLG FINISHES / MATERIALS NOTED ON TYPICAL FINISH SCHEDULE.
9. INSTALL PLASTIC LAMINATE (PLAM) CLOSURE PANELS OVER ALL CASEWORK - RE: SHEET AE512.
10. CENTER LIGHT FIXTURE AND OTHER CEILING DEVICES WITHIN ACOUSTIC TILE UNO. IF ONLY DIMENSIONED IN ONE DIRECTION, ASSUME DEVICE IS CENTERED IN THE OTHER DIRECTION.
11. DIMENSIONS TO CENTERLINE OF LIGHT MOUNTED ELEMENT UNO.
12. EXIT SIGNAGE/LIGHTING SHOWN ON ELECTRICAL LIGHTING DRAWINGS - REFER TO EL100 SERIES DRAWINGS.
13. ORGANIZE SPRINKLER HEADS, SMOKE DETECTORS, NURSE CALL DEVICES, AND OTHER MISC ELECTRICAL DEVICES IN CENTER OF TILE OF SUSPENDED CLGS & ALIGN MULTIPLE DEVICES DOWN CORRIDORS AND THROUGHOUT LARGE ROOMS, COORD W/ OTHER TRADE'S DEVICES.
14. CEILING HT. TO BE 8'-10" UNO.

RCP SHEET NOTES

201 GWB CONTROL JOINT
202 SPLIT TRACK AT PATIENT LIFT RAIL
203 GAP WOOD GRILLE FOR CEILING MOUNTED AIR, ELECTRICAL AND FIRE PROTECTION DEVICES
204 PATIENT LIFT TRACK - RE: 13/A515
205 PLAM SOFFIT
206 CUT AND ADJUST EXISTING GRID IN REMAINING SPACE TO MEET NEW PARTITION
207 SHOWER CURTAIN TRACK RE: 3/AE515 SIM.

GENERAL INT ELEV NOTES

1. REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2. REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
3. REF IN600 SERIES FINISH SCHEDULE FOR WALL AND CASEWORK FINISH(ES).
4. REF IN101 AND IN6XX SERIES FOR WALL PROTECTION TYPES, CORNER GUARDS AND DETAILS.
5. FOR TOILET ACCESSORIES, REFER TO SHEET GI003 FOR TYPICAL MOUNTING HEIGHTS AND SHEET QH601 FOR TOILET ACCESSORY LEGEND, GROUPS, AND SCHEDULE.
6. REF SHEETS AE511-AE513 FOR TYPICAL CABINET SECTIONS AND DETAILS.
7. REF AE601 SERIES FOR DOOR, FRAME AND WINDOW SCHEDULE.
8. ALL COUNTER TOPS 25" DEEP UNO.
9. ALL WALL CABINETS TO HAVE PLAM SOFFIT, UNO.
10. PROVIDE FINISHED PANEL ON ALL EXPOSED SIDES AND BACKS OF BASE AND WALL CABINETS
11. PROVIDE SIDE SPLASH ON ALL SIDE WALLS AND WHERE INDICATED.

INT ELEV SHEET NOTES

301 FULL HEIGHT SOLID SURFACE BACK SPLASH
302 PLAM COUNTERTOP AND SPLASH
303 CONCEAL MOUNT COUNTER SUPPORT
304 PATIENT LIFT TRACK - RE: 12/A515
305 SCH. LIGHT FIXTURE
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP

DRAWING SYMBOLS

DRAWING TITLE — 1 View Name 1/8" = 1'-0"
DETAIL CALLOUT — 00 / AE501
DETAIL INDICATOR FOR SMALL CONDITIONS — D2 / AE512
ELEVATION INDICATOR, EXTERIOR — 1 / AE201
ELEVATION INDICATOR, INTERIOR, MULTIPLE VIEW — 1 / 2 / 3 / 4 / AE211
BUILDING SECTION INDICATOR — 00 / AE201
SPACE IDENTIFICATION Room name — 101
OPENING INDICATOR — 1F157B
WINDOW INDICATOR — 1
EQUIPMENT INDICATOR — XXX
SHEET NOTES — 12 5
PARTITION / WALL PROTECTION TYPE INDICATOR — A_4A
NORTH ARROW — N; INDICATES PROJECT NORTH; INDICATES TRUE NORTH
ELEVATION INDICATOR — 0'-0" = 93.25 FIRST FLOOR
WALL FINISH INDICATOR — P-01
CASEWORK TAG — BA3034
LETTER PAIR INDICATES CASEWORK FAMILY: RE: AE511-514 FOR DETAILS
FIRST PAIR OF NUMBERS INDICATES UNIT WIDTH (I.E. 30")
SECOND PAIR INDICATES COUNTERTOP HEIGHT (I.E. 34")
"FILL" INDICATES VARIABLE WIDTH FILLER STRIP
TOILET ACCESSORY TAG — XXX
COLUMN LINE INDICATORS — 1 INDICATES COLUMN LINE DESIGNATION; A EXISTING
MATCH LINE INDICATOR — 1/AE102 2/AE102

SCOPE INDICATORS

EXISTING CONSTRUCTION TO REMAIN
EXISTING CONSTRUCTION TO BE REMOVED
NEW CONSTRUCTION
VV ITEM - GOVERNMENT FURNISHED / GOVERNMENT INSTALLED
VC ITEM - GOVERNMENT FURNISHED / CONTRACTOR INSTALLED
CC ITEM - CONTRACTOR FURNISHED / CONTRACTOR INSTALLED

STANDARD ABBREVIATIONS

NOT ALL ABBREVIATIONS SHOWN ARE USED

0
CC CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
VC GOVERNMENT FURNISHED, CONTRACTOR INSTALLED
VV GOVERNMENT FURNISHED, GOVERNMENT INSTALLED

A
A.O. ACCESS OPENING
ABA ARCHITECTURAL BARRIERS ACT
AC AIR CONDITIONING
ACMU ARCHITECTURAL CONCRETE MASONRY UNITS
ACT SUSPENDED ACOUSTICAL CEILING TILE
ADA AMERICANS WITH DISABILITIES ACT
AFF ABOVE FINISH FLOOR
AHU AIR HANDLING UNIT
ALT ALTERNATE, ALTERNATIVE
ALUM ALUMINUM
AP CEILING ACCESS PANEL
APPROX APPROXIMATE, APPROXIMATELY
ARCH ARCHITECT, ARCHITECTURAL
AV AUDIO-VISUAL

B
BD BOARD
BLDG BUILDING
BM BEAM
BOT, BTM BOTTOM
BRG BEARING

C
CAB, CABT CABINET
CAP CAPACITY
CCTV CLOSED CIRCUIT TELEVISION
CEM CEMENT, CEMENTITIOUS
CIRC CIRCULATING, CIRCULAR
CJ CONTROL JOINT
CLG CEILING
CLM, COL COLUMN
CMU CONCRETE MASONRY UNIT
CO CLEAN OUT
CONC CONCRETE
CONN CONNECTION
CONT CONTINUOUS
CT CERAMIC / PORCELAIN TILE
CTB CERAMIC / PORCELAIN TILE BASE

D
DET DETAIL
DIA DIAMETER
DIFF DIFFUSER
DIFF DIFFERENCE
DIM DIMENSION
DN DOWN
DR DOOR
DS DOWNSPOUT
DWG DRAWING

E
EA EACH
EF EXHAUST FAN
ELEC ELECTRIC, ELECTRICAL
ELEV ELEVATION
ELEVS ELEVATIONS
EQUIP EQUIPMENT
EVTR ELEVATOR
EWC ELECTRIC WATER COOLER
EXH EXHAUST
EXIST EXISTING
EXP JT EXPANSION JOINT
EXT EXTERIOR

F
F.O. FACE OF
FA FIRE ALARM
FD FLOOR DRAIN
FE FIRE EXTINGUISHER
FEC FIRE EXTINGUISHER CABINET
FIN FINISH
FL,FLR FLOOR
FR FROM
FRT FIRE RETARDANT
FT FEET, FOOT
FTG FOOTING

G
G.P.H. GALLONS PER HOUR
G.P.M. GALLONS PER MINUTE
GA GAGE
GAL GALLON, GALLONS
GALV GALVANIZED
GL, GLAZ GLAZED, GLAZING
GND GROUND
GOV'T GOVERNMENT
GR GRILLE
GYP BD, GYP, GWB GYPSUM WALL BOARD

H
HB HOSE BIBB
HC HANDICAP
HEWC HANDICAP ELECTRIC WATER COOLER
HGT HEIGHT
HM HOLLOW METAL
HR HOUR
HRS HOURS
HT HEIGHT
HTG HEATING
HTR HEATER
HW HARDWARE, HOT WATER

I
I.D. INSIDE DIAMETER
IN INCH, INCHES
INSUL INSULATED, INSULATION
INT INTERIOR

J
JB JUNCTION BOX
JCT JUNCTION
JT JOINT

L
L LONG; LENGTH
LB POUNDS
LP LIGHTING PANEL
LTG LIGHTING

M
MAINT MAINTAIN, MAINTENANCE
MAX MAXIMUM
MECH MECHANCIAL
MIN MINIMUM
MISC MISCELLANEOUS
MO MASONRY OPENING
MT METAL THRESHOLD
MTD MOUNTED
MTG MOUNTING
MTL METAL

N
N.A. NOT APPLICABLE
N.I.C. NOT IN CONTRACT
NO, NUM NUMBER

O
O.C. ON CENTER
O.D. OUTSIDE DIAMETER
OH OVERHEAD
OPNG OPENING

P
P PAINT
PAF POWDER ACTUATED FASTENER
PART PARTIAL
PEMB PRE-ENGINEERED METAL BUILDING
PL PLATE
PLAM PLASTIC LAMINATE
PLUMB PLUMBING
PLYWD PLYWOOD
PNL PANEL
PRESS PRESSURE
PSF POUNDS PER SQUARE FOOT
PSI POUNDS PER SQUARE INCH
PT PRESSURE TREATED
PTN, PTNS PARTITION, PARTITIONS

R
RA RETURN AIR
RAD RADIUS
RCP REFLECTED CEILING PLAN
RD ROUND
REC, REC'D RECEIVED
RECP RECEPTACLE
REINF REINFORCED, REINFORCING
REQD REQUIRED
RM ROOM

S
S.J. SCORE JOINT
SA SUPPLY AIR
SAB SOUND ATTENUATION BLANKET
SCH, SCHD SCHEDULE, SCHEDULED
SD SOAP DISPENSER
SECT SECTION
SF, SQ. FT. SQUARE FEET, SQUARE FOOT
SHT SHEET
SMS SHEET METAL SCREW
SPEC, SPECS SPECIFICATIONS, SPECIFIED
SS SOLID SURFACE
SST STAINLESS STEEL
STC SOUND TRANSMISSION CLASSIFICATION
STL STEEL
STOR STORE, STORAGE
STR, STRUCT STRUCTURE, STRUCTURAL
SUSP SUSPENDED

T
T, TLT, TOIL TOILET
TELE TELEPHONE
TELECOMM TELECOMMUNICATIONS
THD THRESHOLD
TYP TYPICAL

U
U.N.O. UNLESS NOTED OTHERWISE

V
VCT VINYL COMPOSITION TILE
VENT VENTILATION
VERT VERTICAL

W
w/ WITH
WD WOOD
WP WALL PROTECTION

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941, REGISTERED ARCHITECT — 10/31/14

ARCHITECT/ENGINEERS:

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Drawing Title: PROJECT INFORMATION SHEET
Approved: Project Director
Project Title: RENOVATE MEDICAL SURGICAL UNIT
Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date: 05/16/2014 | Drawn: BUSH | Checked: CHAMBERS
Project Number: 544-13-102
Building Number: 100
Drawing Number: GI002
Dwg. 2 of 78

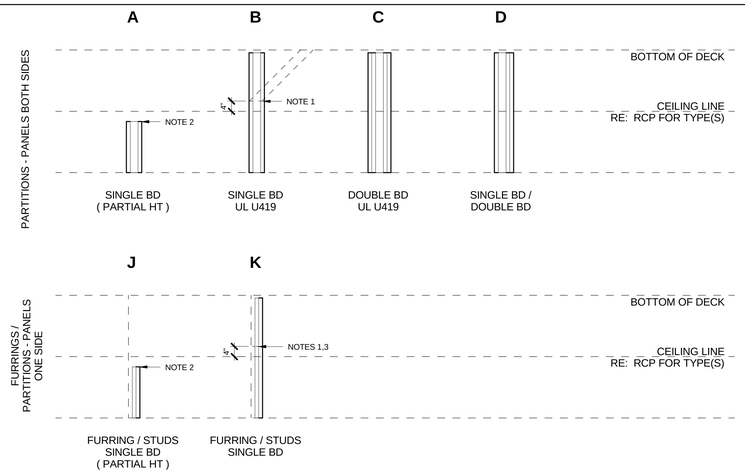
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:07:57 AM

LAST EDITTED: 05-14-2014

PARTITION / BARRIER TYPES

CONTRACT PER LISTED UL DESIGN NO. OR EQUIVALENT UL DESIGN

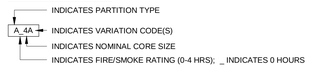


PARTITION / BARRIER TYPE NOTES

1. AT NON-FIRE RATED, NON-ACOUSTIC PARTITIONS NOT REQUIRED TO EXTEND TO STRUCTURE ABOVE, CONTRACTOR HAS OPTION OF EXTENDING STUDS TO STRUCTURE ABOVE OR TERMINATING STUDS 4" ABOVE HIGHEST ADJACENT CEILING AND BRACING TOP TRACK AT INTERVALS OF 4'-0" OC (MAX) TO STRUCTURE ABOVE.
   EXCEPTION: HOUSEKEEPING ROOMS – ALL PARTITIONS FULL HEIGHT TO DECK ABOVE.
2. SEE FLOOR PLANS AND INTERIOR ELEVATIONSS FOR HEIGHT OF PARTIAL HEIGHT PARTITION ABOVE FINISH FLOOR.
3. BRACE PARTIAL HEIGHT ONE-SIDED PARTITIONS TO ADJACENT PARTITIONS. *EXCEPTION: WHEN OVERLAYING RATED WALLS, BRACE NEW STUDS TO STRUCTURE ONLY.*

PARTITION / BARRIER TYPE SYMBOL

SIMPLE PARTITIONS:



COMPOSITE PARTITIONS:

DOUBLE LETTERS INDICATE COMPOSITE PARTITION MADE UP OF OTHER PARTITION TYPES. FOR EXAMPLE KK_4A INDICATES A NON-RATED PARTITION CONSTRUCTED OF TWO (TYPE 'K') SINGLE-SIDED PARTITIONS WITH ACOUSTICAL INSULATION AND A SINGLE LAYER OF GWB ON OUTSIDE FACES

FIRE RATINGS:	MTL STUD CORE SIZES:
_ NON-RATED	0 7/8" FURRING
1 1-HR RATING	1 1-5/8" STUD
2 2-HR RATING	2 2-1/2" STUD
3 3-HR RATING	4 3-5/8" STUD
4 4-HR RATING	6 6" STUD
	8 8" STUD

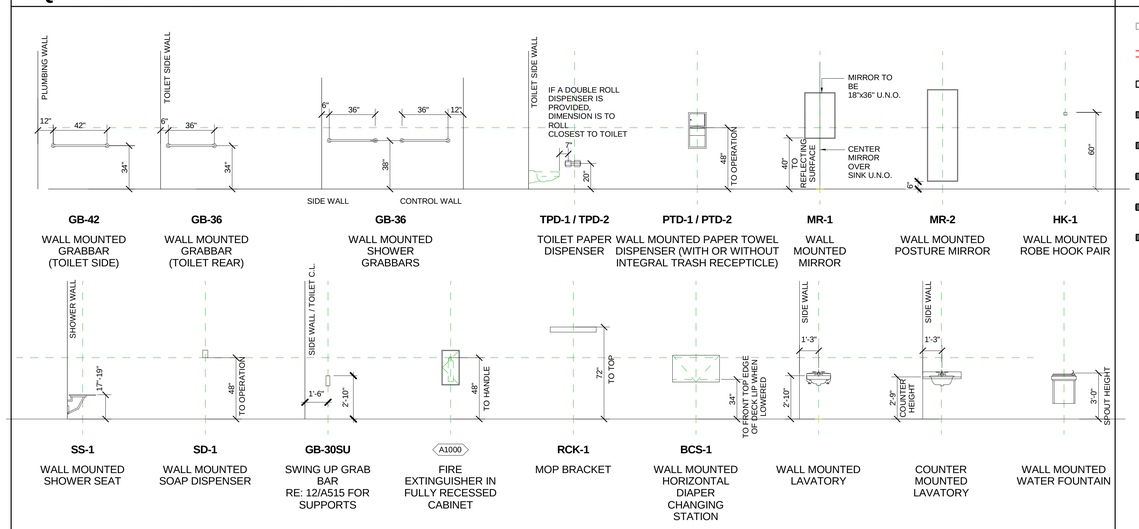
VARIATION CODES

A	ACOUSTICAL INSULATION: ACOUSTICAL BLANKET INSULATION FULL HEIGHT OF PARTITION, PLUS ACOUSTICAL CAULK BEADS AROUND FULL PERIMETER OF PARTITION. STC RATING OF 55 MINIMUM.
B	SMOKE BARRIER (RATED) - SEE LIFE SAFETY PLANS
C	SMOKE BARRIER (UNRATED) - SEE LIFE SAFETY PLANS. BOARD TO BOTTOM OF STRUCTURE ONE SIDE ONLY
D	SMOKE BARRIER (UNRATED) - SEE LIFE SAFETY PLANS. BOARD TO BOTTOM OF STRUCTURE BOTH SIDES
W	PLYWOOD SUBSTRATE WITH WOOD BOARD OVERLAY IN LIEU OF GWB - RE: AE515

TYPICAL PARTITION / BARRIER NOTES

1. TESTING AGENCIES FOR THE FIRE ASSEMBLIES IDENTIFIED ON THE PARTITION SCHEDULE ARE:
   UL – UNDERWRITERS LABORATORY DESIGN NUMBER
   GA – GYPSUM ASSOCIATION DESIGN NUMBER
2. PLAN DIMENSIONS ARE TYPICALLY TO GRID LINE, FACE OF PARTITION, OR FACE OF CONCRETE OR CMU UNLESS NOTED OR INDICATED OTHERWISE. DOORS NOT LOCATED BY PLAN DIMENSIONS ARE LOCATED BY JAMB DETAILS REFERENCED FROM DOOR SCHEDULE. CRITICAL CLEARANCES ARE DESIGNATED 'CLR'.
3. THE PARTITION TYPE NOTED BY A SYMBOL CONTINUES BETWEEN CORNERS AND BETWEEN INTERSECTING PARTITIONS. AT OPENINGS, PROVIDE THE SAME PARTITION TYPE ABOVE AND BELOW SUCH OPENING AS THAT ON EITHER SIDE OF THE OPENING. AT PARTITIONS SCHEDULED TO EXTEND TO STRUCTURE ABOVE, EXTEND THE PARTITION AROUND AND ABOVE DUCTS, BEAMS, AND OTHER OBSTRUCTIONS. ALIGN DIFFERENT PARTITION THICKNESSES SO THAT THE FINISHED WALL PLANES CONTINUE UNBROKEN WITHIN EACH ROOM OR CORRIDOR, UNLESS NOTED OTHERWISE. WHERE FACE OF COLUMN FURRING IS SHOWN AS ALIGNING WITH FACE OF PARTITION, CONTINUE PARTITION FACE UNBROKEN PAST THE COLUMN. STANDARD COLUMN FURRING DETAILS LOCATE PARTITION FACE.
4. WHERE GYPSUM BOARD IS NOT SCHEDULED TO EXTEND TO BOTTOM OF STRUCTURE, BOARD MAY TERMINATE 4" ABOVE ABUTTED CEILING ON EACH SIDE. IF NO CEILING IS SCHEDULED, BOARD IN THAT ROOM MUST EXTEND FULL HEIGHT.
5. WHERE PARTITIONS ARE INDICATED AS BEING FIRE-RATED, CONTINUE PARTITIONS UNBROKEN TO BOTTOM OF DECK ABOVE AND ALONG THE ENTIRE PERIMETER OF THE SPACES BEING SEPARATED BY THE FIRE-RATED PARTITIONS. CONTINUE FIRE-RATED PARTITION SEPARATIONS WITHOUT INTERRUPTION WHERE THEY INTERSECT NON-RATED PARTITIONS.
6. WHERE COLUMNS, MECHANICAL CHASES, PIPING, AND OTHER ELEMENTS ARE LOCATED WITHIN A FIRE-RATED PARTITION, CONTINUE THE GYPSUM BOARD AROUND BOTH SIDES OF THE OBSTRUCTION TO MAINTAIN THE RATED ASSEMBLY. FOR DUCT, PIPE, CONDUIT, AND OTHER PENETRATIONS PASSING THROUGH A FIRE-RATED PARTITION, PROVIDE TIGHT FITTING FIRE-RATED STOPPING ASSEMBLIES EQUAL TO ASSEMBLY RATING.
7. WHERE SMOKE AND FIRE-RATED PARTITIONS TERMINATE AT EXTERIOR WALLS, FILL VOIDS WITH FIRE-RATED ASSEMBLIES, OR EXTEND TO RATED PARTITIONS TO THE OUTER FACE OF EXTERIOR WALL CONSTRUCTIONS. ENSURE THAT NO FLANKING PATHWAYS EXIST THAT MIGHT PERMIT SMOKE OR FIRE TO FLOW FROM ONE SIDE OF THE PARTITION TO THE OTHER.
8. PROVIDE CONTINUOUS STANDARD BLOCKING AS DETAILED FOR WALL MOUNTED ELEMENTS AT TOP AND BOTTOM ATTACHMENT POINTS AND AT INTERMEDIATE ATTACHMENT POINTS AS REQUIRED BY THE ELEMENT, INCLUDING, BUT NOT LIMITED TO; ACCESSORIES, RAILINGS, FLOOR-MOUNTED CASEWORK, CURTAIN ROBS, WALL PROTECTION, CORNER GUARDS, AND EQUIPMENT WEIGHING LESS THAN 50 POUNDS.
9. PROVIDE HEAVY DUTY BLOCKING AS DETAILED FOR SUPPORT OF HEAVY ELEMENTS, INCLUDING, BUT NOT LIMITED TO; WALL MOUNTED SHELVING AND CABINETRY, HAND RAILS, GRAB BARS, BABY-CHANGING TABLES, LAVATORIES, COUNTER TOPS, MOUNTS FOR TELEVISIONS AND COMPUTER MONITORS, DOOR STOPS, AND EQUIPMENT WEIGHING IN EXCESS OF 50 POUNDS.
10. WHERE ACOUSTICAL INSULATION IS INDICATED FOR PARTITIONS, SEAL TOP, BOTTOM AND SIDES OF EACH FACE AND EDGE OF GYPSUM BOARD WITH ACOUSTICAL SEALANT WHERE THE BOARD CONTACTS OTHER MATERIALS.
11. BACK-TO-BACK ELECTRICAL BOXES ARE NOT PERMITTED UNLESS BOTH BOXES ARE WRAPPED WITH ADHESIVE WRAPPED INTUMESCENT PUTTY PADS. WHERE JUNCTION, OUTLET, AND SWITCH BOXES OCCUR ON OPPOSITE SIDES OF A PARTITION, EITHER PROVIDE PUTTY PADS FOR BOTH BOXES, OR OFFSET THE BOXES A MINIMUM OF ONE STUD SPACE AND PROVIDE ACOUSTICAL INSULATION BEHIND AND BETWEEN THEM.
12. IN FIRE-RATED PARTITIONS WITH TOTAL "BLACK BOX" PENETRATIONS IN EXCESS OF 100 SQ. IN. IN 100 SQ. FT., ADDITIONALLY PROTECT BACK OF BOXES WITH UL ASSEMBLIES.
13. PROVIDE ACOUSTICAL SEALANT AROUND ALL PENETRATIONS THROUGH THE MEMBRANES OF ACOUSTICAL PARTITIONS. PROVIDE FIRE-RATED SEALANT IN LIEU OF ACOUSTICAL SEALANT WHERE REQUIRED TO MAINTAIN FIRE RATING OF ACOUSTIC PARTITIONS.
14. IN SHOWER STALLS AND WALLS BEHIND PLUMBING FIXTURES, PROVIDE TILE BACKER BOARD IN LIEU OF GYPSUM BOARD AT WALLS INDICATED TO RECEIVE CERAMIC TILE. BACKER BOARD TO MATCH GYPSUM BOARD IN TERMS OF THICKNESS AND FIRE-RATING CAPABILITY. PROVIDE MOISTURE RESISTANT (MR) GYPSUM BOARD IN LIEU OF STANDARD GYPSUM BOARD AT THE FOLLOWING LOCATIONS: DIRECTLY BEHIND PLUMBING FIXTURES WHERE FINISH IS NOT CERAMIC TILE, AND CEILINGS ABOVE SHOWER STALLS.
15. AT NON-FIRE RATED, NON-ACOUSTIC PARTITIONS NOT REQUIRED TO EXTEND TO STRUCTURE ABOVE, CONTRACTOR HAS OPTION OF EXTENDING STUDS TO STRUCTURE ABOVE OR TERMINATING STUDS 4" ABOVE HIGHEST ADJACENT CEILING AND BRACING TOP TRACK AT INTERVALS OF 4'-0" OC (MAX) TO STRUCTURE ABOVE.
16. WHERE STUDS EXTEND MORE THAN 3'-0" ABOVE THE GYPSUM BOARD, PROVIDE HORIZONTAL BRACING MIDWAY BETWEEN TOP OF GYPSUM BOARD AND TOP OF STUDS.
17. AT FURRING PARTITIONS (GYPSUM BOARD ONE SIDE ONLY) PROVIDE HORIZONTAL STUD BRACING OR 18 GA ANGLE CLIPS SECURED TO STRUCTURAL SUBSTRATE AT 4'-0" OC (MAX). SIMILAR REQUIREMENT AT COLUMN FURRING.
18. MAGNITUDE OF POTENTIAL STRUCTURAL LIVE LOAD DEFLECTION IMPACTING PARTITIONS FOR THIS PROJECT IS 1/2" IN COMPRESSION AND 0" IN EXTENSION, FOR A TOTAL MOVEMENT OF 1/2". FOR RATED PARTITIONS, THE HEAD-OF-WALL FIRE RESISTIVE ASSEMBLY PROVIDED MUST BE RATED FOR THIS DEGREE OF MOVEMENT. PROVIDE A FIRE-RESISTIVE VARIATION FOR EACH CONDITION (BEAMS, DUCTS, CORNERS, ETC.) ENCOUNTERED AT THE RATED PARTITION HEADS. FOR NON RATED PARTITIONS, SECURE THE TOP TRACK IN A MANNER THAT ACCOMMODATES DEFLECTION OF THE STRUCTURE ABOVE OR BELOW.
19. FOR DOORS, RELITES, DUCT, AND OTHER OPENINGS WITH ROUGH OPENING DIMENSIONS OF 4'-0" OR WIDER, PROVIDE HEAVY GAUGE KING STUDS AND A "BOX BEAM" HEADER AS DETAILED IN STANDARD OPENING HEADER DETAILS.
20. PARTITION TYPE IS TO BE B_4 UNO.

EQUIPMENT MOUNTING LEGEND



- EXISTING PARTITION TO REMAIN
- EXISTING ELEMENT TO BE DEMOLISHED
- NEW UNRATED PARTITION
- NEW / EXISTING 1 HOUR BARRIER
- NEW / EXISTING 1 HOUR SMOKE BARRIER
- NEW / EXISTING 2 HOUR BARRIER
- NEW / EXISTING 2 HOUR SMOKE BARRIER
- NEW 1 HOUR CONSTRUCTION BARRIER - USE BARRIER TYPE B14.

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA · ROSCOE W. CHAMBERS · BEAUFORT, SC · 3941 · REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

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Drawing Title	PARTITION TYPES / TYPICAL MOUNTING HEIGHTS
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Drawn	BUSH
Checked	CHAMBERS
Project Number	544-13-102
Building Number	100
Drawing Number	GI003
Dwg.	3 of 78

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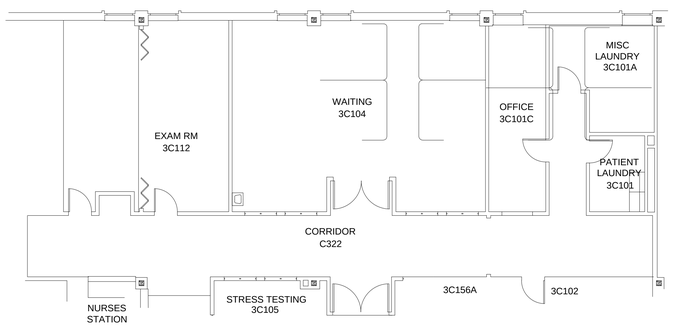
Department of Veterans Affairs

LEGEND:

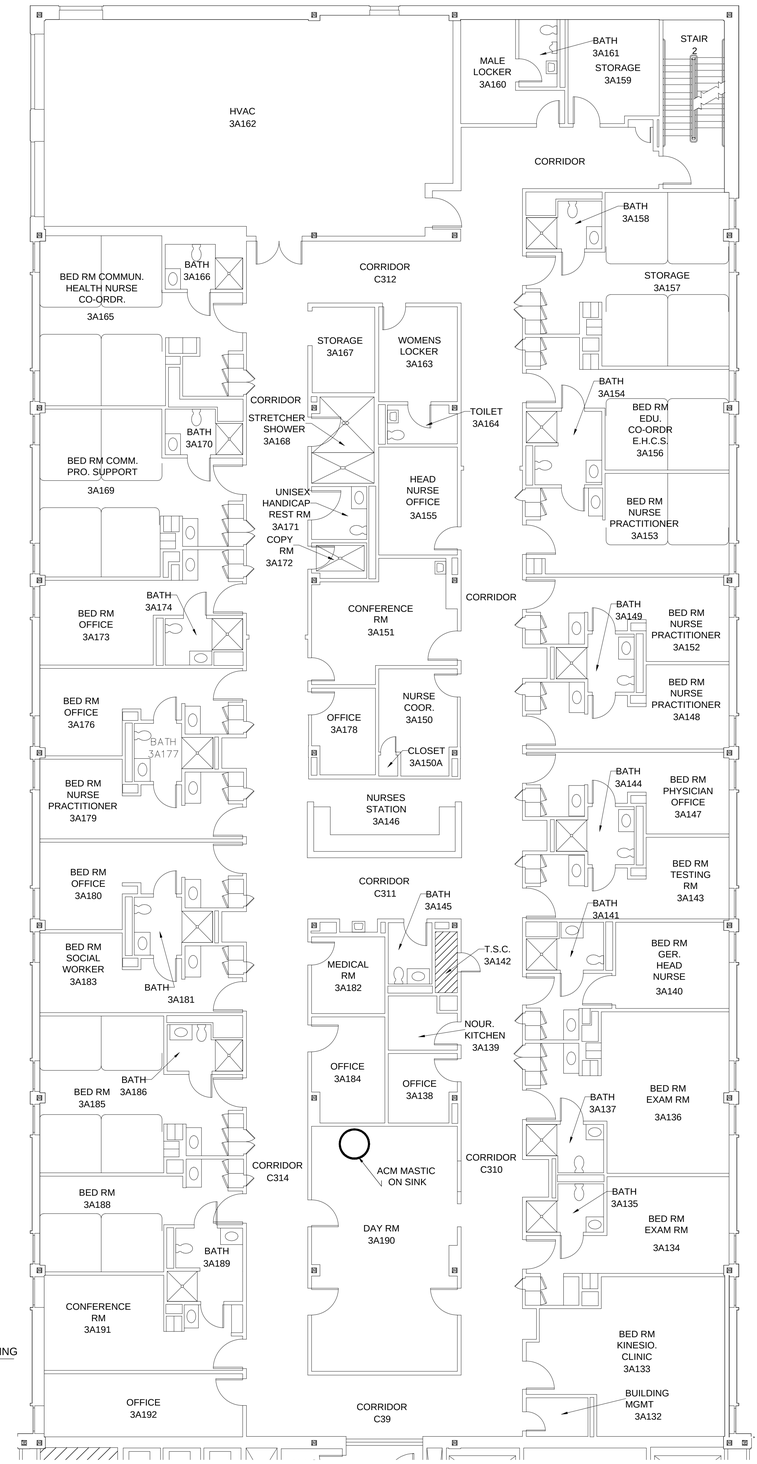
BLACK MASTIC BENEATH FLOORING MATERIAL

ACOUSTICAL MASTIC ON SINK

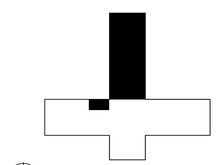
NOTES
1. REFER TO LIMITED HAZARDOUS MATERIALS REPORT PREPARED BY KCI TECHNOLOGIES, INC. DATED MARCH 12, 2014 FOR DETAILS.
2. THE FOLLOWING MATERIALS WERE DETERMINED TO CONTAIN ASBESTOS:
   - BLACK MASTIC BENEATH FLOORING MATERIAL. RESIDUAL BLACK MASTIC MAY EXIST BENEATH REPLACEMENT FLOOR TILES THROUGHOUT THE FLOOR.
   - MASTIC ON SINK LOCATED IN 3A190
   - GREY SEALANT ON DUCT/PIPE INSULATION, RED DUCT SEAM SEALANT, OLIVE DUCT SEAM SEALANT AND DARK GREY (HARD) CAULK ON MECHANICAL SYSTEMS LOCATED IN MECHANICAL ROOMS, ABOVE CEILING TILES AND FIXED CEILINGS
   - GREY POWDERY ENDCAP INSULATION IN MECHANICAL ROOMS, WALL CHASES AND ABOVE FIXED CEILING
   - INTERNAL MECHANICAL AND ELECTRICAL MATERIALS (PACKINGS, GASKETS, CAULK, MASTICS, ETC)
   - FIRE DOORS (METAL DOORS WITH FIRE-RATED PLATES)



2 HA101 ASBESTOS ABATEMENT PLAN - 3RD FLOOR EAST WING
SCALE: 1/8" = 1'-0"



1 HA101 ASBESTOS ABATEMENT PLAN - 3RD FLOOR SOUTH WING
SCALE: 1/8" = 1'-0"



KEY PLAN

PLAN NORTH

0 4' 8' 16'

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

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: ASBESTOS ABATEMENT

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05/16/2014 | Checked: CK | Drawn: TA

Project Number: 544-13-102

Building Number: 100

Drawing Number: HA101

Dwg. 4 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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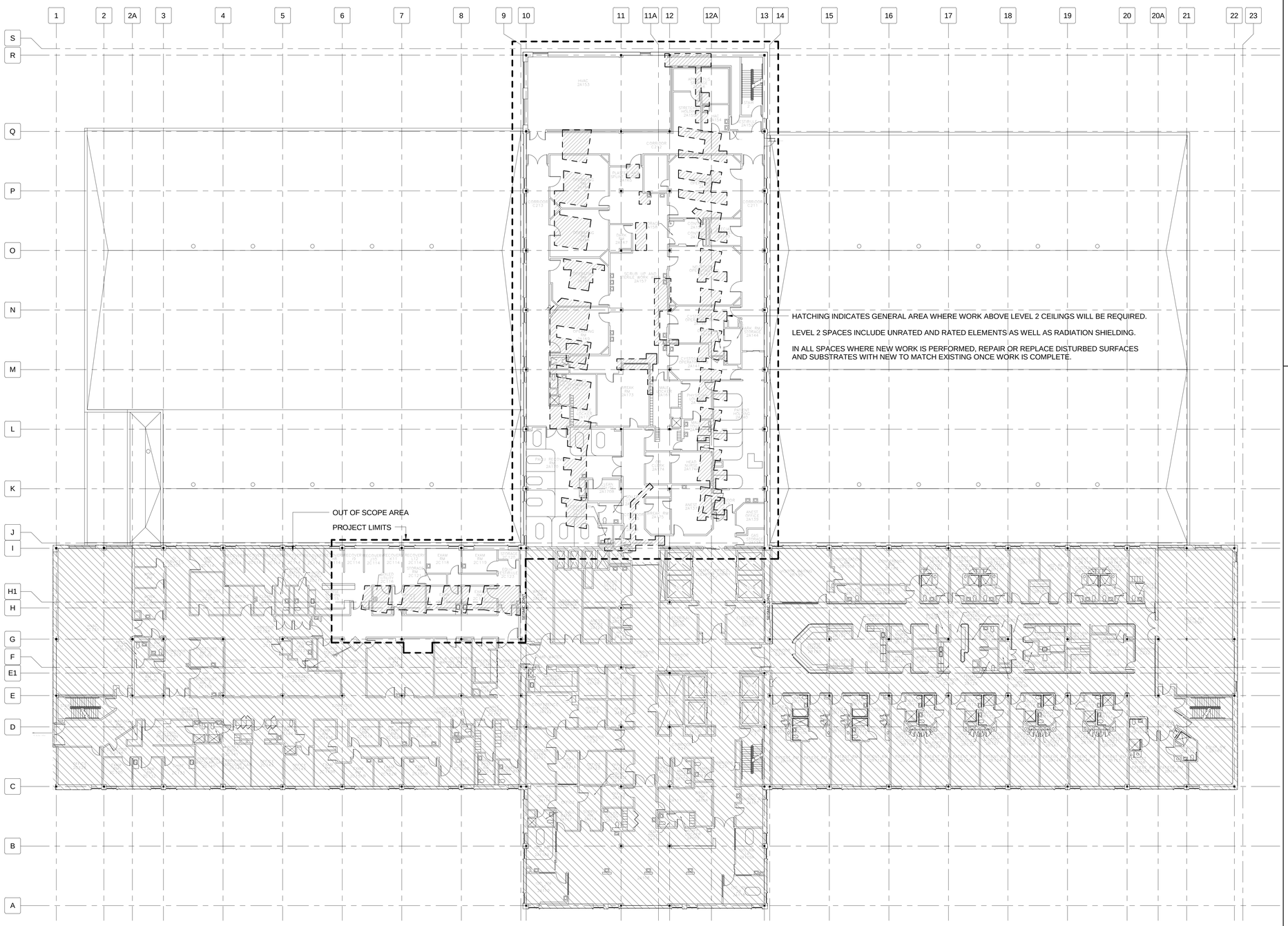
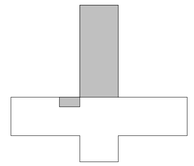


1 **LEVEL 2 EXISTING CONDITIONS PLAN**
1/16" = 1'-0"

GENERAL NOTES

1. PRIOR TO BIDDING, CONTRACTOR IS REQUIRED TO VISIT PROJECT SITE TO OBSERVE EXISTING CONDITIONS ON EACH FLOOR WHERE WORK IS TO BE PERFORMED.

THIS SHEET PROVIDED TO GENERALLY INDICATE AREAS WHERE WORK IS REQUIRED BELOW LEVEL 3 .



KEY PLAN

0 8' 16' 32'

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

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
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ARCHITECT/ENGINEERS:

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Drawing Title: **LEVEL 2 OVERALL EXISTING CONDITIONS PLAN**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE001**

Dwg. 5 of 78

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Department of Veterans Affairs

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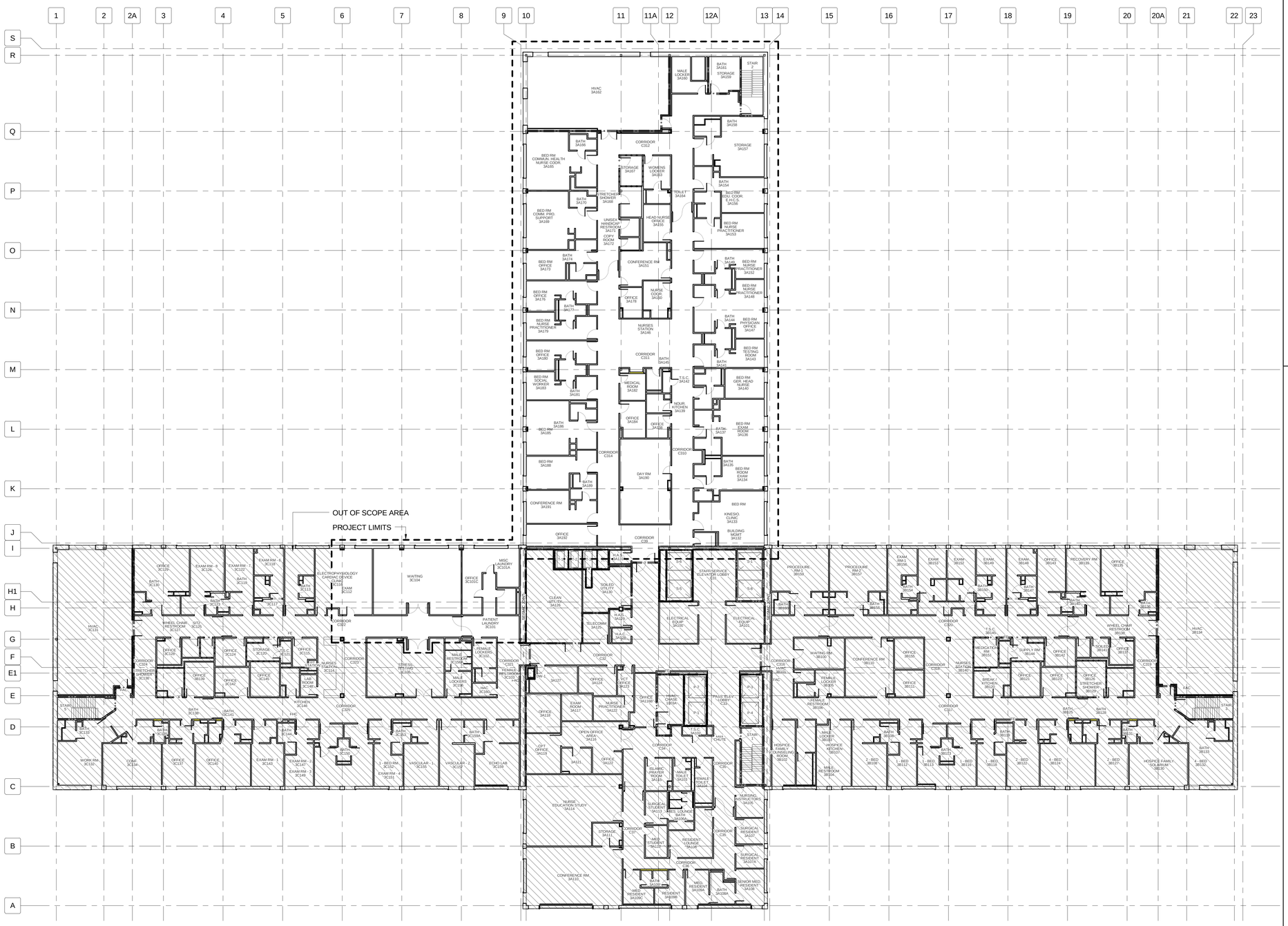
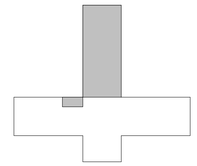
LAST EDITTED: 05-14-2014



1 **LEVEL 3 OVERALL EXISTING CONDITIONS PLAN**
1/16" = 1'-0"

GENERAL NOTES

1. PRIOR TO BIDDING, CONTRACTOR IS REQUIRED TO VISIT PROJECT SITE TO OBSERVE EXISTING CONDITIONS ON EACH FLOOR WHERE WORK IS TO BE PERFORMED.



KEY PLAN

0 8' 16' 32'

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

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

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Drawing Title: **LEVEL 3 OVERALL EXISTING CONDITIONS PLAN**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE002**

Dwg. 6 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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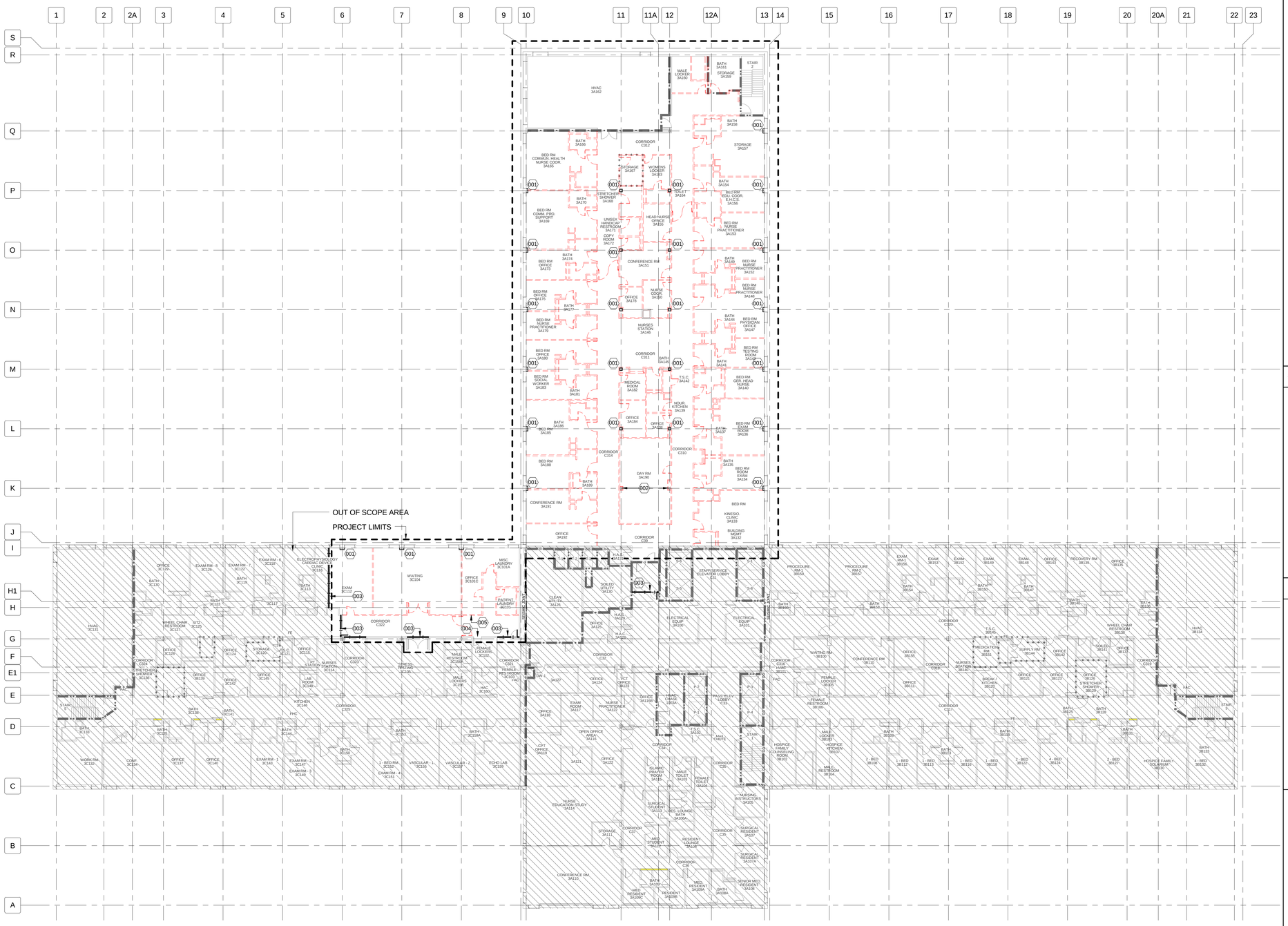
LAST EDITTED: 05-14-2014



1 **LEVEL 3 DEMOLITION PLAN**
1/16" = 1'-0"

GENERAL DEMOLITION NOTES

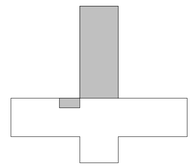
1. ALL ITEMS SHOWN DASHED INDICATE ITEMS TO BE DEMOLISHED OR SALVAGED. SEE SPECIFIC NOTES BELOW FOR ADDITIONAL INFORMATION. REFER TO MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
2. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF MATERIALS SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH(ES).
3. CONTRACTOR TO DEVELOP AND PUBLISH INFECTION CONTROL PLAN AND SAFETY PLAN FOR APPROVAL BY COR PRIOR TO BEGINNING THEIR WORK. PLAN TO INCLUDE MEANS AND METHODS OF DEBRIS STAGING AND REMOVAL, BOTH INTERNALLY AND EXTERNALLY.
4. INSTALL TEMPORARY DUST AND DEBRIS BARRIERS AND VESTIBULES AROUND PROJECT LIMITS IN ACCORDANCE WITH INFECTON CONTROL PLAN. TEMPORARY BARRIERS ARE NOT TO RESTRICT REQUIRED MEANS OF EGRESS PATHS AND WIDTHS.
5. MAINTAIN EXISTING GWB AND FRAMING AT EXTERIOR WALLS IN UNDISTURBED CONDITION TO GREATEST EXTENT POSSIBLE. REPAIR AT LOCATIONS OF DEMOLISHED INTERSECTING PARTITIONS TO MATCH ADJACENT FINISHES.
6. HAZARDOUS MATERIAL ABATEMENT IS REQUIRED IN PROJECT SCOPE. REF.HA-SERIES DRAWINGS FOR ADDITIONAL INFORMATION.
7. PROTECT EXISTING HORIZONTAL AND VERTICAL FIREPROOFING DURING PROJECT. ONCE DEMOLITION IS COMPLETE, CONTRACTOR SHALL REPAIR ALL DAMAGED FIREPROOFING AND RESTORE MISSING FIREPROOFING, WHETHER A RESULT OF DEMOLITIION OPERATIONS OR NOT, TO MEET REQUIRED RATING(S).
8. ALL PENETRATIONS THROUGH RATED FLOOR/CEILING ASSEMBLIES AND THROUGH FIRE RATED WALL AND SMOKE BARRIER ASSEMBLIES - THOSE CREATED BY REMOVAL OF DEMOLISHED ITEMS UNDER THIS CONTRACT AND THOSE DISCOVERED DURING CONSTRUCTION UNDER THIS CONTRACT AS A RESULT OF PREVIOUS WORK AND THOSE CREATED BY NEW WORK UNDER THIS CONTRACT - MUST BE SEALED AS PART OF THIS CONTRACT. ALL RATED SEPARATIONS MUST MEET CURRENT CODE REQUIREMENTS.

? DEMOLITION PLAN SHEET NOTES

001 MAINTAIN EXISTING FIRE PROTECTION AT COLUMNS.
002 REMOVE EXISTING GWB PROTECTION LAYERS. PREPARE FOR NEW APPLIED FIRE PROOFING.
003 NEW 1-HOUR DUST BARRIER SEPERATION. CONTRACTOR SHALL PROVIDE SIGNAGE. SUBMIT CONSTRUCTION SIGNAGE TO VA COR FOR APPROVAL.
004 CLOSE AND SEAL EXISTING DOOR OPENING FOR DURATION OF CONSTRUCTION.
005 REMOVE AND SALVAGE TRANSACTION WINDOW

PARTITION / BARRIER LEGEND

- EXISTING PARTITION TO REMAIN
- EXISTING ELEMENT TO BE DEMOLISHED
- NEW UNRATED PARTITION
- NEW / EXISTING 1 HOUR BARRIER
- NEW / EXISTING 1 HOUR SMOKE BARRIER
- NEW / EXISTING 2 HOUR BARRIER
- NEW / EXISTING 2 HOUR SMOKE BARRIER
- NEW 1 HOUR CONSTRUCTION BARRIER - USE BARRIER TYPE B14.



KEY PLAN

0 8' 16' 32'
SCALE: 1/16" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA - ROSCOE W. CHAMBERS - BEAUFORT, SC - 3941 - REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **LEVEL 3 DEMOLITION PLAN**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AD101**

Dwg. 7 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:04:23 AM

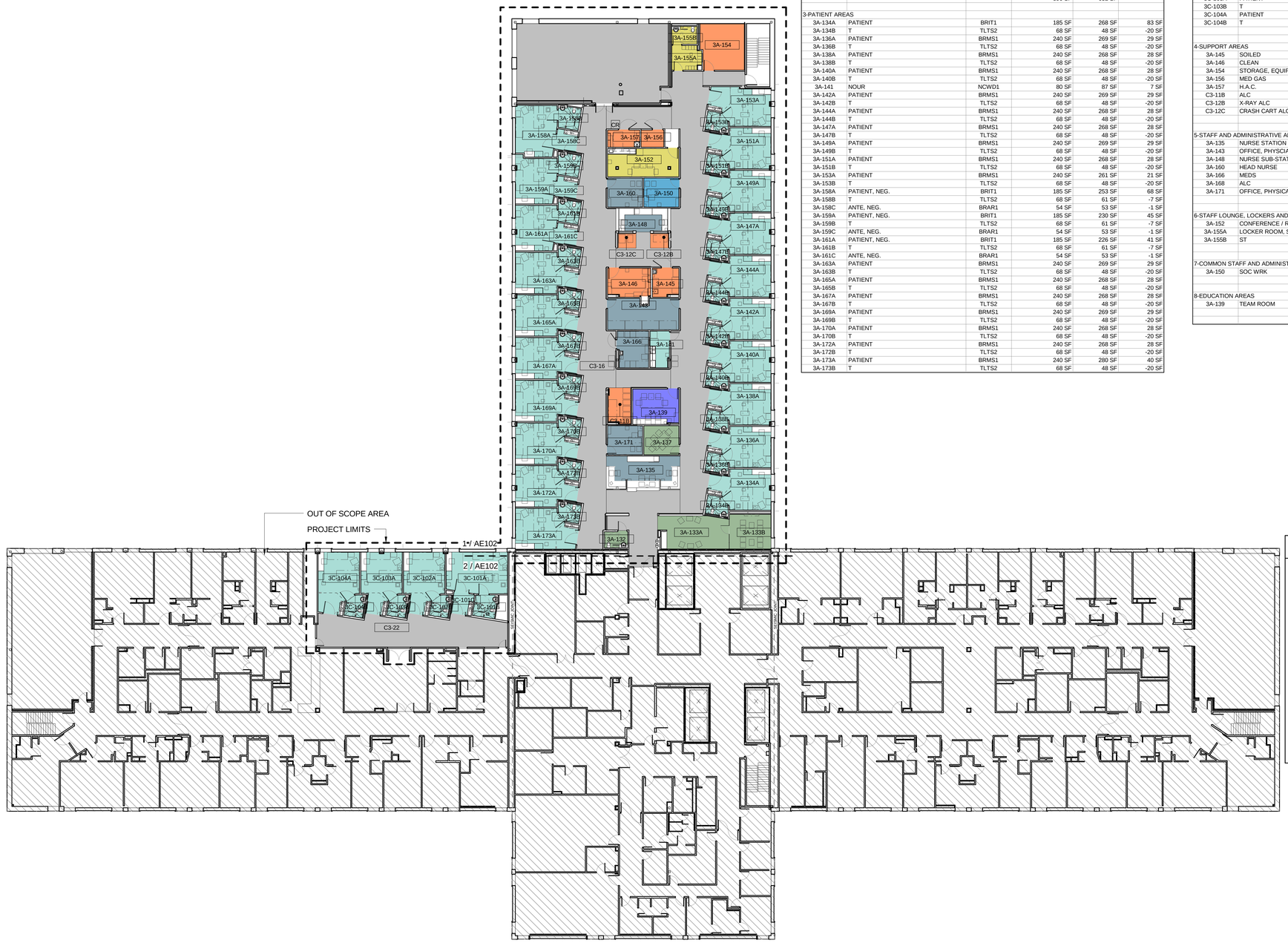
LAST EDITTED: 05-14-2014

PROGRAM VERSUS ACTUAL AREAS

NUMBER	NAME	ROOM CODE	PROGRAMMED AREA (NET)	ACTUAL AREA	AREA +/-
2-RECEPTION AREAS					
3A-132	T	TLTU1	50 SF	47 SF	-3 SF
3A-133A	WAITING, QUIET	WRF01	220 SF	280 SF	60 SF
3A-133B	MEDIA AREA		0 SF	179 SF	179 SF
3A-137	CONSULT	OFDC2	120 SF	126 SF	6 SF
			390 SF	632 SF	
3-PATIENT AREAS					
3A-134A	PATIENT	BRIT1	185 SF	268 SF	83 SF
3A-134B	T	TLTS2	68 SF	48 SF	-20 SF
3A-136A	PATIENT	BRMS1	240 SF	269 SF	29 SF
3A-136B	T	TLTS2	68 SF	48 SF	-20 SF
3A-138A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-138B	T	TLTS2	68 SF	48 SF	-20 SF
3A-140A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-140B	T	TLTS2	68 SF	48 SF	-20 SF
3A-141	NOUR	NCWD1	80 SF	87 SF	7 SF
3A-142A	PATIENT	BRMS1	240 SF	269 SF	29 SF
3A-142B	T	TLTS2	68 SF	48 SF	-20 SF
3A-144A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-144B	T	TLTS2	68 SF	48 SF	-20 SF
3A-147A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-147B	T	TLTS2	68 SF	48 SF	-20 SF
3A-149A	PATIENT	BRMS1	240 SF	269 SF	29 SF
3A-149B	T	TLTS2	68 SF	48 SF	-20 SF
3A-151A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-151B	T	TLTS2	68 SF	48 SF	-20 SF
3A-153A	PATIENT	BRMS1	240 SF	261 SF	21 SF
3A-153B	T	TLTS2	68 SF	48 SF	-20 SF
3A-158A	PATIENT, NEG.	BRIT1	185 SF	253 SF	68 SF
3A-158B	T	TLTS2	68 SF	61 SF	-7 SF
3A-158C	ANTE, NEG.	BRAR1	54 SF	53 SF	-1 SF
3A-159A	PATIENT, NEG.	BRIT1	185 SF	230 SF	45 SF
3A-159B	T	TLTS2	68 SF	61 SF	-7 SF
3A-159C	ANTE, NEG.	BRAR1	54 SF	53 SF	-1 SF
3A-161A	PATIENT, NEG.	BRIT1	185 SF	226 SF	41 SF
3A-161B	T	TLTS2	68 SF	61 SF	-7 SF
3A-161C	ANTE, NEG.	BRAR1	54 SF	53 SF	-1 SF
3A-163A	PATIENT	BRMS1	240 SF	269 SF	29 SF
3A-163B	T	TLTS2	68 SF	48 SF	-20 SF
3A-165A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-165B	T	TLTS2	68 SF	48 SF	-20 SF
3A-167A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-167B	T	TLTS2	68 SF	48 SF	-20 SF
3A-169A	PATIENT	BRMS1	240 SF	269 SF	29 SF
3A-169B	T	TLTS2	68 SF	48 SF	-20 SF
3A-170A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-170B	T	TLTS2	68 SF	48 SF	-20 SF
3A-172A	PATIENT	BRMS1	240 SF	268 SF	28 SF
3A-172B	T	TLTS2	68 SF	48 SF	-20 SF
3A-173A	PATIENT	BRMS1	240 SF	280 SF	40 SF
3A-173B	T	TLTS2	68 SF	48 SF	-20 SF

NUMBER	NAME	ROOM CODE	PROGRAMMED AREA (NET)	ACTUAL AREA	AREA +/-
3C-101A	PATIENT, NEG.	BRIT1		309 SF	
3C-101B	T	TLTS2		63 SF	
3C-101C	ANTE, NEG	BRAR1	54 SF	55 SF	1 SF
3C-102A	PATIENT	BRMS1		268 SF	
3C-102B	T	TLTS2		48 SF	
3C-103A	PATIENT	BRMS1		268 SF	
3C-103B	T	TLTS2		48 SF	
3C-104A	PATIENT	BRMS1		283 SF	
3C-104B	T	TLTS2		48 SF	
			6,236 SF	7,904 SF	
4-SUPPORT AREAS					
3A-145	SOILED	USCL1	80 SF	91 SF	11 SF
3A-146	CLEAN	UCCL1	90 SF	149 SF	59 SF
3A-154	STORAGE, EQUIPMENT	SRSE1	160 SF	245 SF	85 SF
3A-156	MED GAS	SRGC2	50 SF	48 SF	-2 SF
3A-157	H.A.C.	JANC1	40 SF	69 SF	29 SF
C3-11B	ALC	SRLW1	40 SF	104 SF	64 SF
C3-12B	X-RAY ALC	XRM01	40 SF	34 SF	-6 SF
C3-12C	CRASH CART ALCOVE	RCA01	20 SF	34 SF	14 SF
			520 SF	774 SF	
5-STAFF AND ADMINISTRATIVE AREAS					
3A-135	NURSE STATION	NSTA3	230 SF	305 SF	75 SF
3A-143	OFFICE, PHYSCIAN & CHARTING	OFA01	200 SF	269 SF	69 SF
3A-148	NURSE SUB-STATION	NSTA3	80 SF	155 SF	75 SF
3A-160	HEAD NURSE	OFA01	120 SF	126 SF	6 SF
3A-166	MEDS	MEDP1	100 SF	139 SF	39 SF
3A-168	ALC	OFA01	120 SF	Not Placed	
3A-171	OFFICE, PHYSICAN ASSISTANT	OFA01	120 SF	126 SF	6 SF
			970 SF	1,120 SF	
6-STAFF LOUNGE, LOCKERS AND TOILETS					
3A-152	CONFERENCE / REPORT ROOM	CRA01	180 SF	248 SF	68 SF
3A-155A	LOCKER ROOM, STAFF	LR001	80 SF	87 SF	7 SF
3A-155B	ST	TLTU1	50 SF	56 SF	6 SF
			310 SF	392 SF	
7-COMMON STAFF AND ADMINISTRATIVE AREAS					
3A-150	SOC WRK	OFA01	120 SF	126 SF	6 SF
			120 SF	126 SF	
8-EDUCATION AREAS					
3A-139	TEAM ROOM	SL002	240 SF	201 SF	-39 SF
			240 SF	201 SF	
			8,786 SF	11,149 SF	

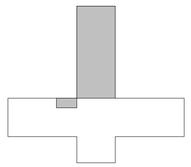
MED / SURG GROSS AREA 18,690 SF



FUNCTIONAL AREA LEGEND

- 2-RECEPTION AREAS
- 3-PATIENT AREAS
- 4-SUPPORT AREAS
- 5-STAFF AND ADMINISTRATIVE AREAS
- 6-STAFF LOUNGE, LOCKERS AND TOILETS
- 7-COMMON STAFF AND ADMINISTRATIVE AREAS
- 8-EDUCATION AREAS
- 9-COMMON / SERVICE

THIS SHEET PROVIDED FOR INFORMATION ONLY



KEY PLAN

0 8' 16' 32'

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

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

1 **LEVEL 3 DEPARTMENT USE PLAN**
1/16" = 1'-0"

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **LEVEL 3 OVERALL USE PLAN**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE101**

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

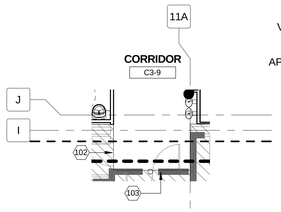
MOCK-UP ROOMS:
ROOMS 3A-161A, 3A161B, 3A161C, 3A163A, 3A163B ARE TO BE CONSTRUCTED, FINISHED AND EQUIPPED COMPLETE (WITH THE EXCEPTION OF FINAL CONNECTIONS TO BUILDING SYSTEMS) AS MOCK-UP ROOMS FOR VA APPROVAL PRIOR TO CONSTRUCTING OTHER PATIENT ROOMS.

BUILD MOCKUPS TO VERIFY SELECTIONS MADE UNDER SAMPLE SUBMITTALS AND TO DEMONSTRATE AESTHETIC EFFECTS AND SET QUALITY STANDARDS FOR MATERIALS AND EXECUTION

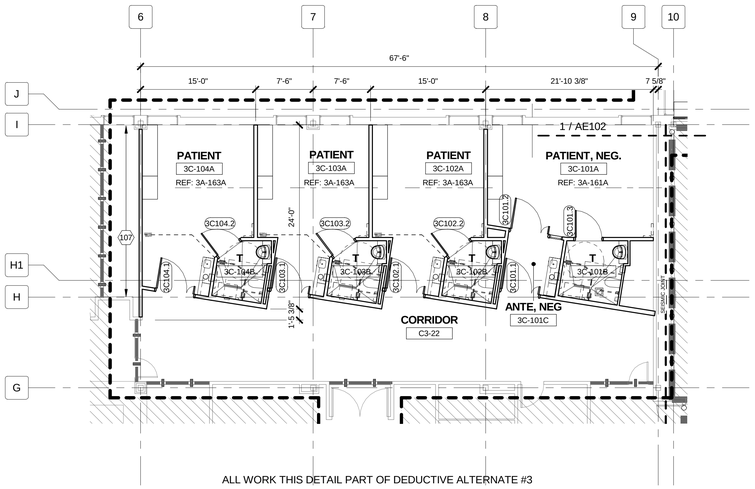
VA WILL PROVIDE VV FURNITURE, EQUIPMENT AND COMPONENTS FOR INSTALLATION BY CONTRACTOR.

APPROVED MOCKUPS MAY BECOME PART OF THE COMPLETED WORK IF UNDISTURBED AT TIME OF SUBSTANTIAL COMPLETION.

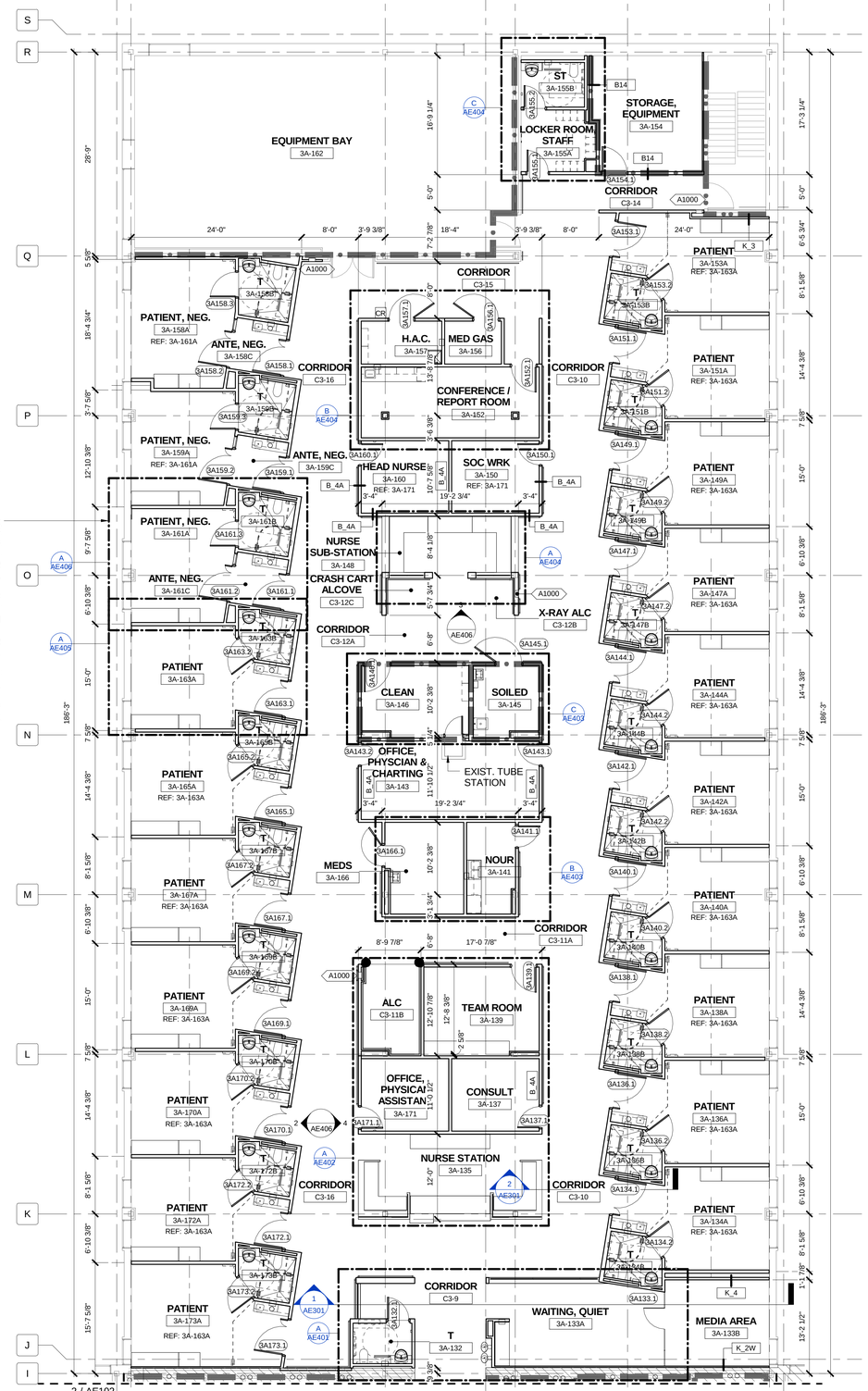
REFER TO DEDUCTIVE ALTERNATE #1 FOR DEDUCTION OF MOCK-UP ROOM WORK



3 LEVEL 3 CONSTRUCTION PLAN - SOUTH ENTRY
1/8" = 1'-0"



2 LEVEL 3 CONSTRUCTION PLAN - EAST
1/8" = 1'-0"



1 LEVEL 3 CONSTRUCTION PLAN - SOUTH
1/8" = 1'-0"

GENERAL FLOOR PLAN NOTES

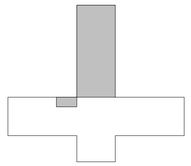
1. CONTRACTOR SHALL VERIFY ALL DIMENSIONS PRIOR TO INITIATING CONSTRUCTION AND REPORT DISCREPANCIES TO ARCHITECT PRIOR TO COMMENCING WORK.
2. REFER TO SHEET GI002 ABBREVIATIONS AND QH601 EQUIPMENT SCHEDULE FOR EQUIPMENT PROCUREMENT AND INSTALLATION RESPONSIBILITY DESIGNATIONS.
3. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TO FINISHED FACE OF PARTITIONS (EXCLUDING APPLIED FINISHES SUCH AS TILE) AND TO COLUMN CENTER LINES.
4. CONTRACTOR SHALL PROVIDE ALL BLOCKING REQUIRED TO ANCHOR ALL WALL AND CLG MOUNTED ITEMS, INCLUDING BUT NOT LIMITED TO TOILET ROOM ACCESSORIES, MILLWORK, CASEWORK, HANDRAILS, DOOR STOPS ETC.
5. IN NEW GYPSUM WALL BOARD PARTITIONS, PROVIDE CONTROL JOINTS AT 30'-0" O.C. MAX.
6. REFER TO SHEET GI003 FOR PARTITION SCHEDULE AND GENERAL PARTITION TYPE NOTES.
7. REFER TO AE400 SERIES FOR ENLARGED FLOOR PLAN VIEWS INCLUDING MEDICAL EQUIPMENT.
8. REFER TO FIRE PROTECTION LIFE SAFETY DRAWINGS (FP SERIES) FOR CAMPUS-WIDE SCOPE OF RATED WALL CONSTRUCTION, SMOKE PARTITIONS, EGRESS AND EXIT DISCHARGE INFORMATION.
9. PARTITION TYPES AS NOTED BY THE SYMBOL CONTINUE BETWEEN ROOM/SPACE CORNERS OR ANY INTERSECTING PARTITION.
10. DIFFERING PARTITION TYPES SHALL ALIGN SO THAT WALL PLANES CONTINUE UNBROKEN WITHIN/ACROSS ROOMS AND/OR SPACES.
11. REFER TO SHEET AE601 FOR DOOR & RELITE SCHEDULES.
12. DISTANCE FROM HINGE SIDE OF DOOR TO INTERSECTING STUD WALL SHALL BE 4" UNLESS NOTED OR DETAILED OTHERWISE (MEASURED FROM OUTSIDE OF FRAME)
13. DIMENSIONS NOTED AS "CLEAR" OR "HOLD" WHICH ARE CRITICAL TO COORDINATE OTHER WORK (E.G. CEILING GRIDS, LIGHTING, FINISHES) AND SHALL BE VERIFIED BY CONTRACTOR.

FLOOR PLAN SHEET NOTES

101 NEW OVERLAYED PARTITION TO BE STRUCTURALLY INDEPENDANT OF EXISTING PARTITION(S).
102 REPAINT EXISTING DOOR FRAME. REMAINDER OF DOOR, FRAME AND HARDWARE TO REMAIN AS-IS.
103 EXISTING DOORS, FRAMES AND HARDWARE TO REMAIN.
104 WRAP EXISTING FURRED COLUMN w/ (1) FINISH LAYER OF GWB
105 TRASH RECEPTICLE GROMMET
106 SLOPE FLOOR IN TOILET ROOM TO DRAIN
107 MODIFY / ADJUST ALL FINISHES ONCE NEW PARTITION IS COMPLETE. PAINT NEW WALL FROM CORNER TO CORNER TO MATCH EXISTING ROOM SURFACES.

PARTITION / BARRIER LEGEND

- EXISTING PARTITION TO REMAIN
- EXISTING ELEMENT TO BE DEMOLISHED
- NEW UNRATED PARTITION
- NEW / EXISTING 1 HOUR BARRIER
- NEW / EXISTING 1 HOUR SMOKE BARRIER
- NEW / EXISTING 2 HOUR BARRIER
- NEW / EXISTING 2 HOUR SMOKE BARRIER
- NEW 1 HOUR CONSTRUCTION BARRIER - USE BARRIER TYPE B14.



KEY PLAN

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941, REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

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Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: LEVEL 3 CONSTRUCTION PLANS

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05/16/2014 | Drawn: BUSH | Checked: CHAMBERS

Project Number: 544-13-102

Building Number: 100

Drawing Number: AE102

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

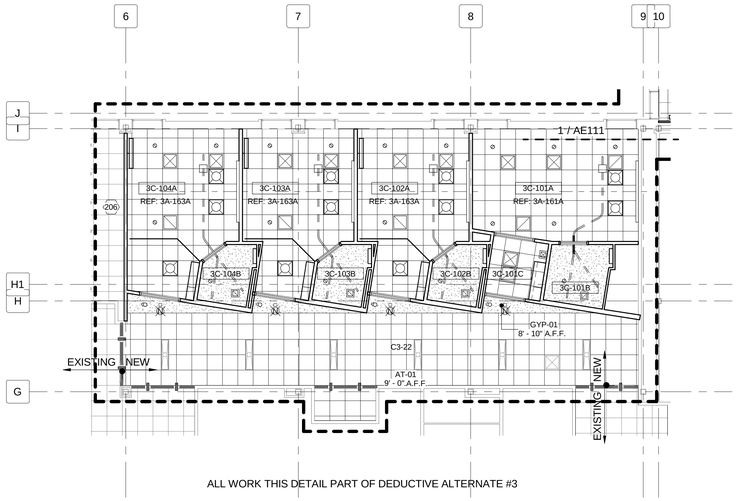
VA FORM 08-6231 5/22/2014 9:05:16 AM

LAST EDITTED: 05-14-2014

RCP LEGEND

- AIR SUPPLY DIFFUSER
- LINEAR SUPPLY DIFFUSER
- AIR RETURN DIFFUSER
- EXHAUST DIFFUSER
- RECESSED LIGHT FIXTURE
- RECESSED CAN LIGHT FIXTURE
- RECESSED CAN WALL WASHER LIGHT FIXTURE
- WALL MOUNTED STRIP LIGHT FIXTURE
- SUSPENDED LINEAR LIGHT FIXTURE
- AP — CEILING ACCESS PANEL
- S C — CEILING MOUNTED FIRE ALARM SPEAKER
- S — CEILING MOUNTED SMOKE DETECTOR
- EXIT SIGN - FILLED QUADRANT INDICATES LIT FACE
- CEILING MOUNTED NURSE CALL INDICATOR
- PATIENT LIFT MOTOR AND TRACK
- S — CEILING PATTERN ORIGIN
- ACT CEILING
- ACT CEILING PATTERN BREAK
- CEILING EXPANSION JOINT
- SUSPENDED GWB

ALL CEILING MOUNTED AND SUSPENDED EQUIPMENT TO BE SEISMICALLY RESTRAINED.

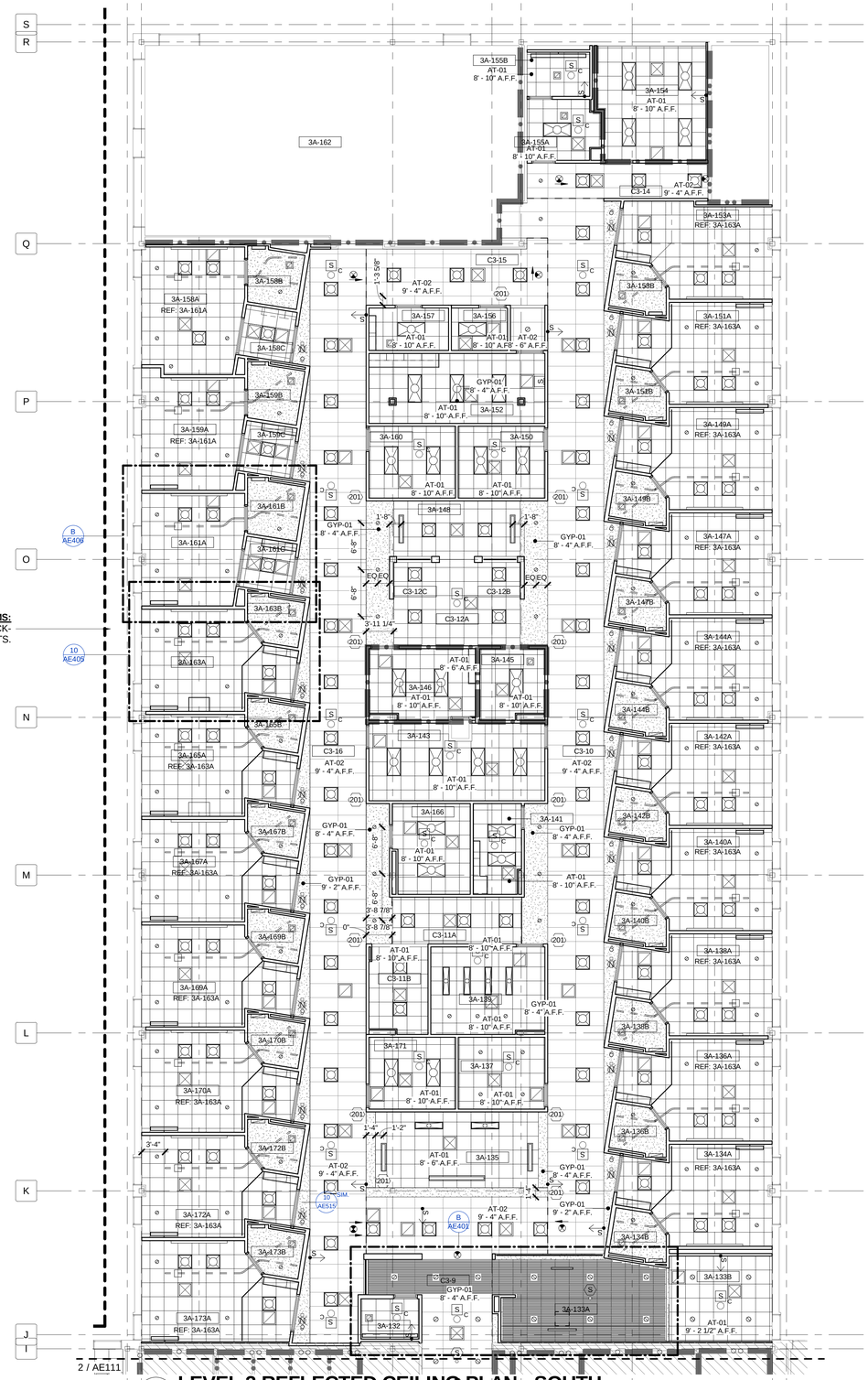


ALL WORK THIS DETAIL PART OF DEDUCTIVE ALTERNATE #3

2 LEVEL 3 REFLECTED CEILING PLAN - EAST

1/8" = 1'-0"

MOCK-UP ROOMS:
REFER TO SHEET AE102 FOR MOCK-UP REQUIREMENTS.



1 LEVEL 3 REFLECTED CEILING PLAN - SOUTH

1/8" = 1'-0"

GENERAL RCP NOTES

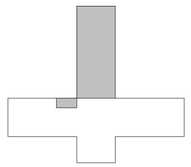
1. RATED WALLS: ARE INDICATED IN PLAN AND RCP WITH GRAPHIC DENOTING HOURLY RATING AND/OR RESISTANT TO PASSAGE OF SMOKE. REFER TO PARTITION TAGS ON FLOOR PLANS AND PARTITION SCHEDULE SHEET GI003 FOR MORE INFORMATION.
2. DIMENSIONS ARE TO FINISH FACE OF WALL OR SOFFIT UNO
3. GYPSUM BOARD BULKHEADS TO BE SINGLE STUD THICKNESS WITH BOTTOM FINISHED SURFACE 2 INCHES BELOW LOWEST ADJACENT FINISHED CEILING UNO.
4. GYPSUM BOARD SOFFITS: GWB AFF NOTED ON RCP.
5. WHEN FLOOR HEIGHT VARIES IN A ROOM THE CEILING HEIGHT SHOWN IS HEIGHT ABOVE FLOOR ENTRY.
6. 11 70 00 PATIENT LIFT CONFIGURATION AND SUPPORTS SHOWN DIAGRAMMATICALLY FROM ONE VENDOR AS BASIS OF DESIGN. CONTRACTOR TO PROVIDE VENDOR-GENERATED LAYOUTS FOR APPROVAL BY VA PRIOR TO FABRICATION. PROVIDE NEW SUPPORTS FROM BUILDING STRUCTURE. DIFFERENT VENDORS HAVE DIFFERENT REQUIREMENTS FOR SPACING OF THEIR SUPPORTS, THEREFORE CONTRACTOR TO PERFORM FINAL COORDINATION OF ABOVE CLG SUPPORTS W/ SELECTED VENDOR'S SHOP DRAWINGS & OTHER ABOVE CLG TRADES.
7. ACOUSTIC TILE CEILINGS TO BE CENTERED IN BOTH DIRECTIONS IN ROOM TYP, UNO OR DIMENSIONED OTHERWISE IF DIMENSION IS PROVIDED IN ONE DIRECTION ONLY, ASSUME GRID IS CENTERED IN OTHER DIRECTION.
8. CUT TILES SHALL BE NO SMALLER THAN 4 INCHES IN ANY DIRECTION UNO. CLG FINISHES / MATERIALS NOTED ON TYPICAL FINISH SCHEDULE.
9. INSTALL PLASTIC LAMINATE (PLAM) CLOSURE PANELS OVER ALL CASEWORK - RE: SHEET AE512.
10. CENTER LIGHT FIXTURE AND OTHER CEILING DEVICES WITHIN ACOUSTIC TILE UNO. IF ONLY DIMENSIONED IN ONE DIRECTION, ASSUME DEVICE IS CENTERED IN THE OTHER DIRECTION.
11. DIMENSIONS TO CENTERLINE OF LIGHT MOUNTED ELEMENT UNO.
12. EXIT SIGNAGE/LIGHTING SHOWN ON ELECTRICAL LIGHTING DRAWINGS - REFER TO EL100 SERIES DRAWINGS.
13. ORGANIZE SPRINKLER HEADS, SMOKE DETECTORS, NURSE CALL DEVICES, AND OTHER MISC ELECTRICAL DEVICES IN CENTER OF TILE OF SUSPENDED CLGS & ALIGN MULTIPLE DEVICES DOWN CORRIDORS AND THROUGHOUT LARGE ROOMS, COORD W/ OTHER TRADE'S DEVICES.
14. CEILING HT. TO BE 8'-10" UNO.

RCP SHEET NOTES

201	GWB CONTROL JOINT
202	SPLIT TRACK AT PATIENT LIFT RAIL
203	GAP WOOD GRILLE FOR CEILING MOUNTED AIR, ELECTRICAL AND FIRE PROTECTION DEVICES
204	PATIENT LIFT TRACK - RE: 13/A515
205	PLAM SOFFIT
206	CUT AND ADJUST EXISTING GRID IN REMAINING SPACE TO MEET NEW PARTITION
207	SHOWER CURTAIN TRACK RE: 3/AE515 SIM.

PARTITION / BARRIER LEGEND

- EXISTING PARTITION TO REMAIN
- EXISTING ELEMENT TO BE DEMOLISHED
- NEW UNRATED PARTITION
- 1 HR — NEW / EXISTING 1 HOUR BARRIER
- 1 SM — NEW / EXISTING 1 HOUR SMOKE BARRIER
- 2 HR — NEW / EXISTING 2 HOUR BARRIER
- 2 SM — NEW / EXISTING 2 HOUR SMOKE BARRIER
- B14 — NEW 1 HOUR CONSTRUCTION BARRIER - USE BARRIER TYPE B14.



KEY PLAN

0 4' 8' 16'
SCALE: 1/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS — BEAUFORT, SC — 3941 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **LEVEL 3 REFLECTED CEILING PLANS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE111**

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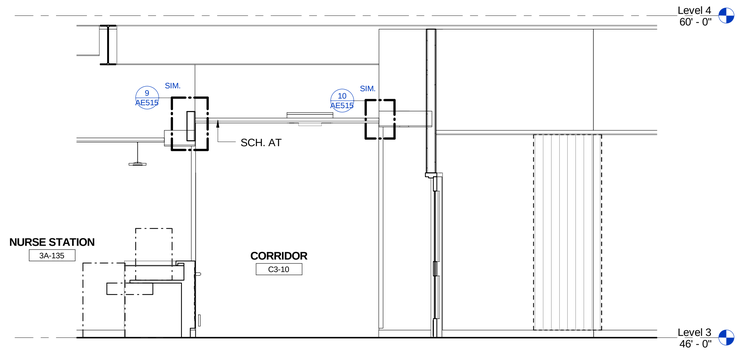
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

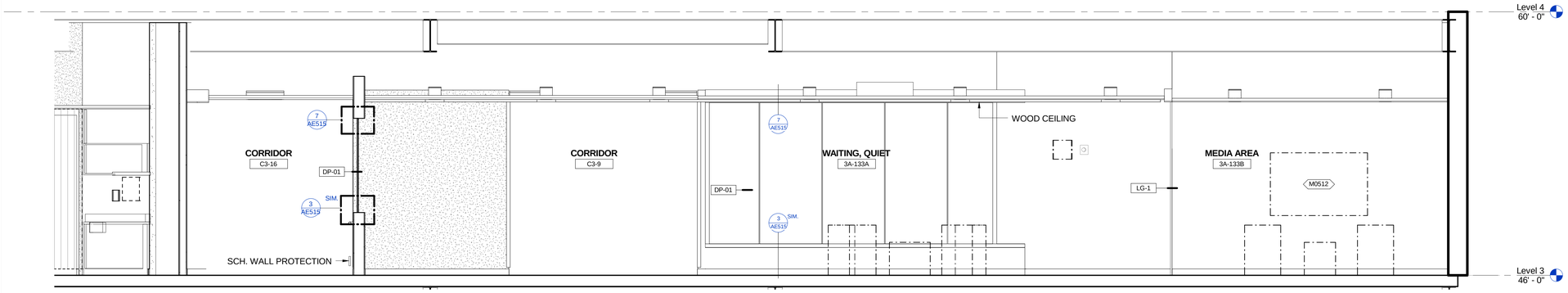
Department of Veterans Affairs

GENERAL NOTES

REFER TO SHEET GI002 FOR FLOOR PLAN GENERAL NOTES, SHEET NOTES, SYMBOL LEGENDS, AND ABBREVIATIONS



2 **SECTION THROUGH NURSE STATION AND CORRIDOR**
3/8" = 1'-0"



1 **SECTION THROUGH ENTRY AND WAITING**
3/8" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **BUILDING SECTIONS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE301**

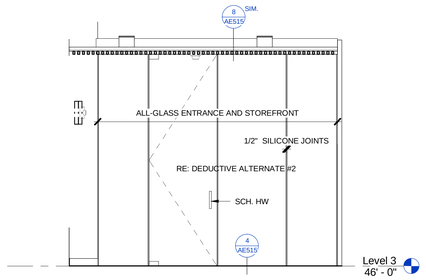
Dwg. 11 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

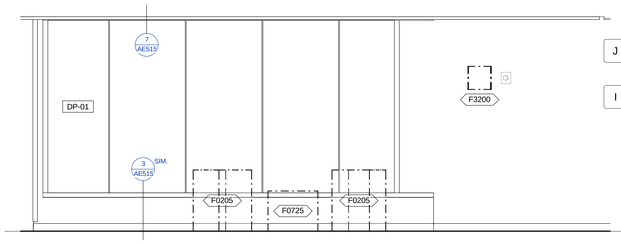
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:05:33 AM

LAST EDITTED: 05-14-2014



8 **3A-133A WEST**
3/8" = 1'-0"



7 **3A-133A SOUTH**
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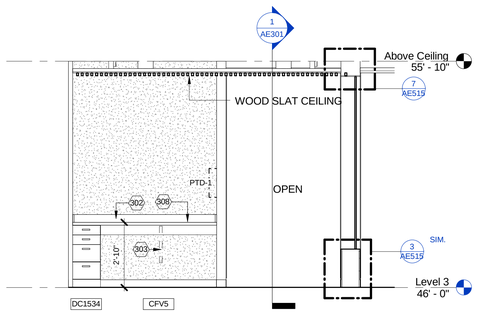
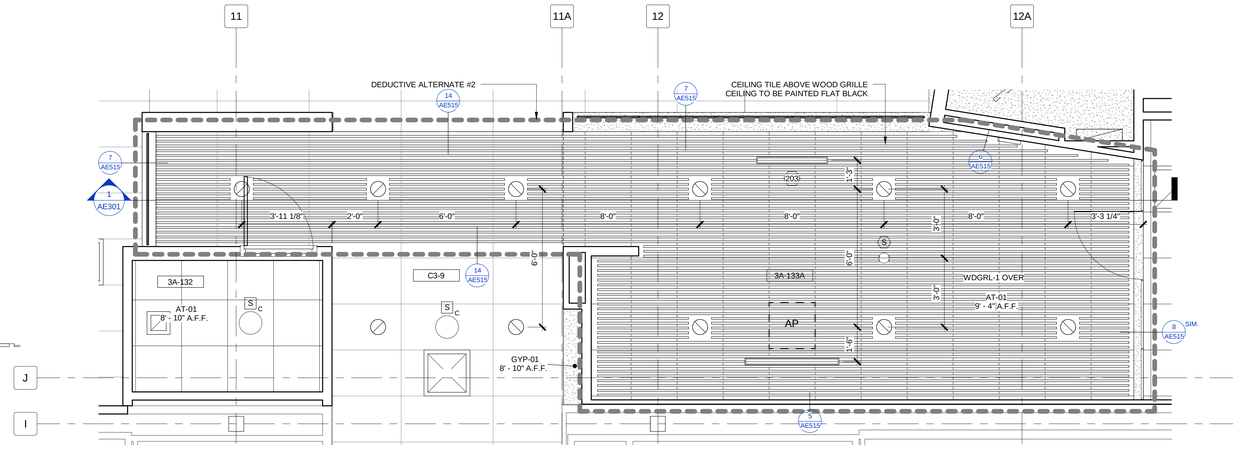
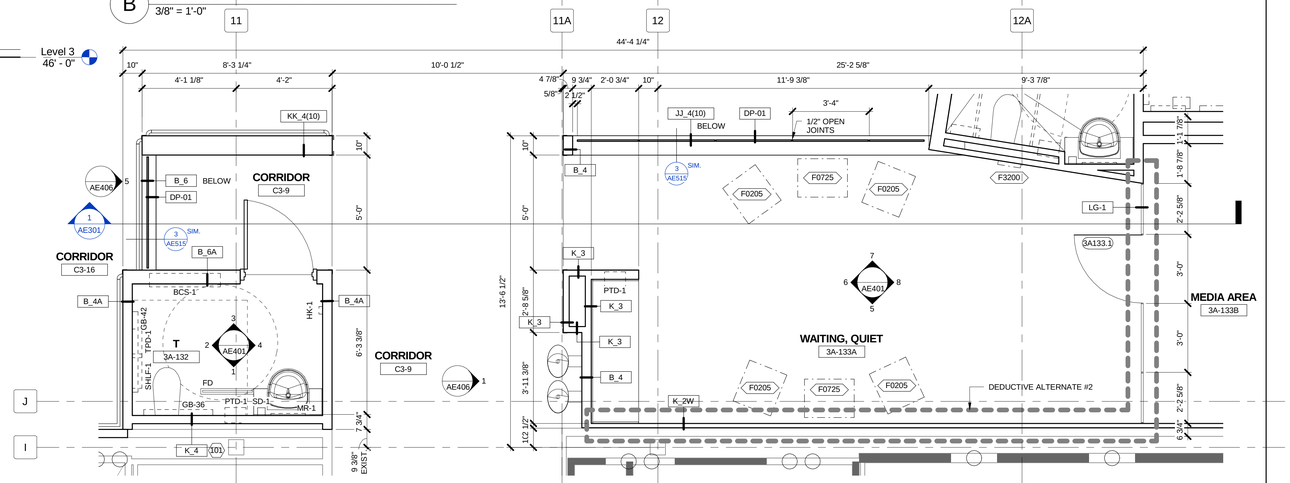


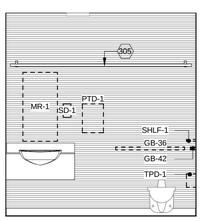
6 **3A-133A EAST**
3/8" = 1'-0"



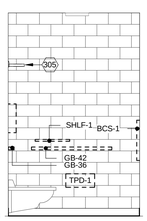
B **3A-133 PUBLIC WAITING RCP**
3/8" = 1'-0"



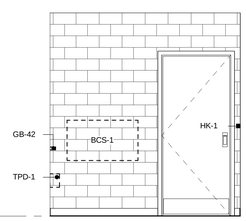
A **3A-133 PUBLIC WAITING**
3/8" = 1'-0"



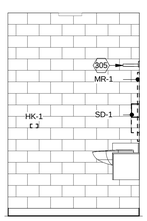
1 **3A-132 NORTH**
3/8" = 1'-0"



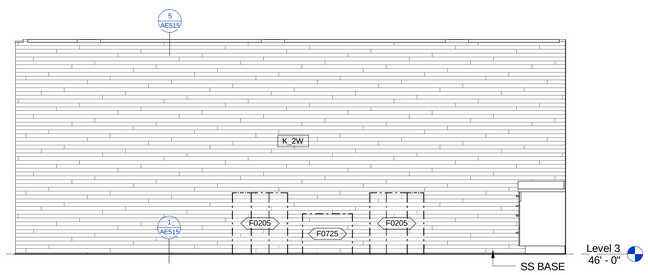
2 **3A-132 EAST**
3/8" = 1'-0"



3 **3A-132 SOUTH**
3/8" = 1'-0"



4 **3A-132 WEST**
3/8" = 1'-0"



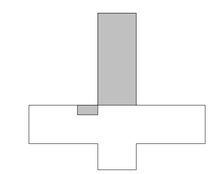
5 **3A-133A NORTH**
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1. REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2. REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
3. REF IN600 SERIES FINISH SCHEDULE FOR WALL AND CASEWORK FINISH(ES).
4. REF IN101 AND IN6XX SERIES FOR WALL PROTECTION TYPES, CORNER GUARDS AND DETAILS.
5. FOR TOILET ACCESSORIES, REFER TO SHEET GI003 FOR TYPICAL MOUNTING HEIGHTS AND SHEET QH601 FOR TOILET ACCESSORY LEGEND, GROUPS, AND SCHEDULE.
6. REF SHEETS AE511-AE513 FOR TYPICAL CABINET SECTIONS AND DETAILS.
7. REF AE601 SERIES FOR DOOR, FRAME AND WINDOW SCHEDULE.
8. ALL COUNTER TOPS 25" DEEP UNO.
9. ALL WALL CABINETS TO HAVE PLAM SOFFIT, UNO.
10. PROVIDE FINISHED PANEL ON ALL EXPOSED SIDES AND BACKS OF BASE AND WALL CABINETS
11. PROVIDE SIDE SPLASH ON ALL SIDE WALLS AND WHERE INDICATED.

? INT ELEV SHEET NOTES

301 FULL HEIGHT SOLID SURFACE BACK SPLASH
302 PLAM COUNTERTOP AND SPLASH
303 CONCEAL MOUNT COUNTER SUPPORT
304 PATIENT LIFT TRACK - RE: 12/A515
305 SCH. LIGHT FIXTURE
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP



KEY PLAN

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC 29941 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **ENLARGED VIEWS**
Approved: Project Director

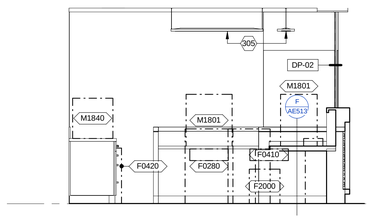
Project Title: **RENOVATE MEDICAL SURGICAL UNIT**
Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**
Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **AE401**
Dwg. 12 of 78

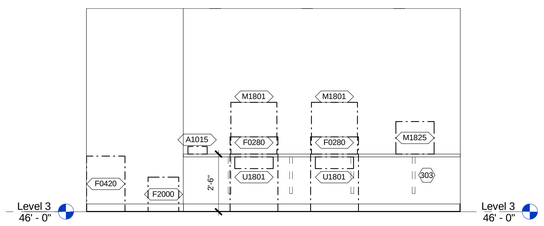
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:05:42 AM

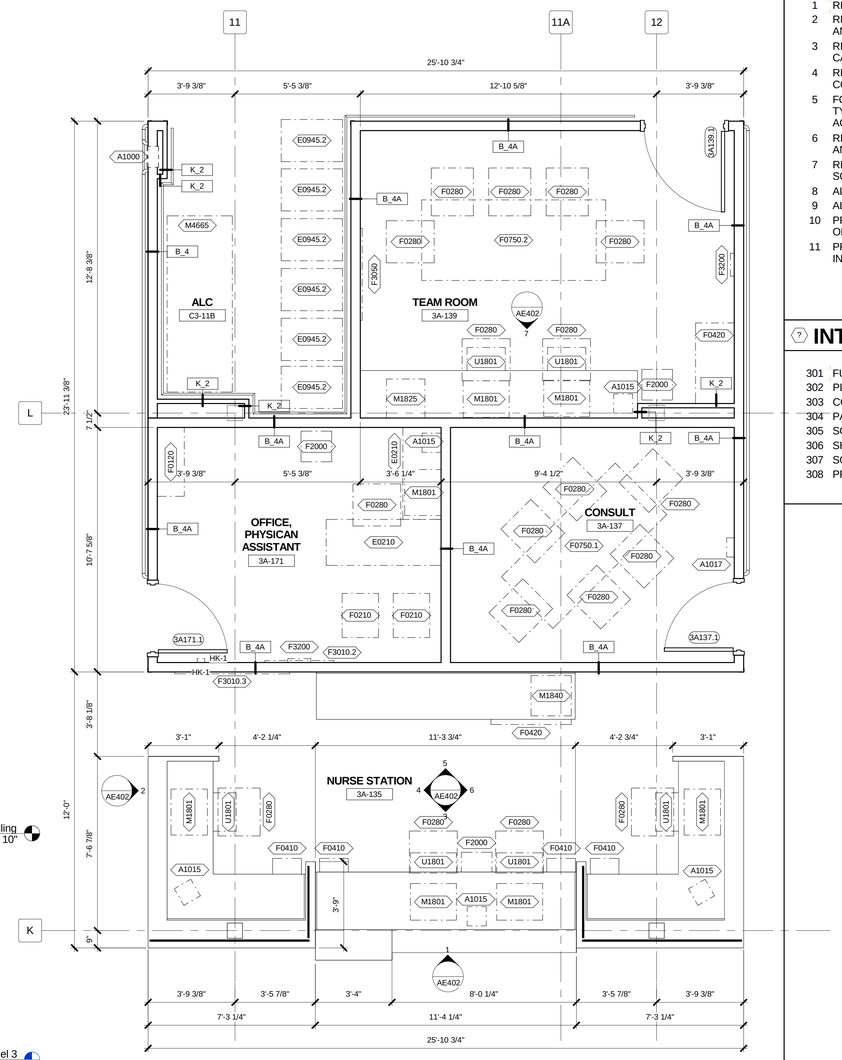
LAST EDITTED: 05-14-2014



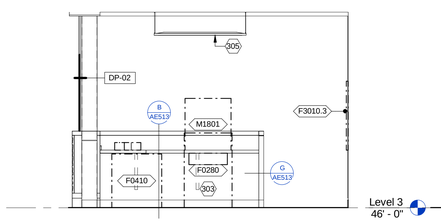
6 **3A-135 WEST**
3/8" = 1'-0"



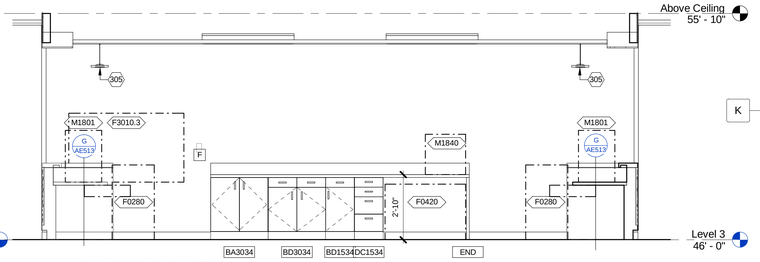
7 **3A-139 NORTH**
3/8" = 1'-0"



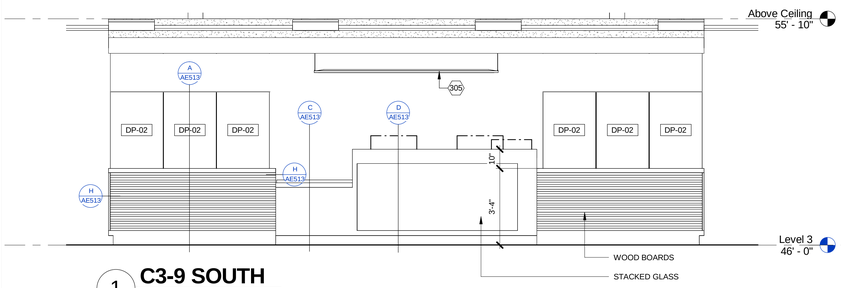
A **3A-135 NURSE STATION**
3/8" = 1'-0"



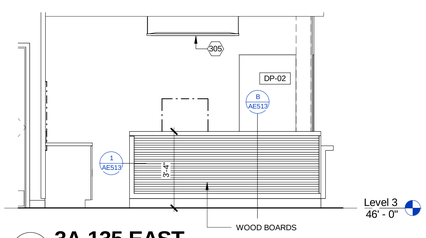
4 **3A-135 EAST**
3/8" = 1'-0"



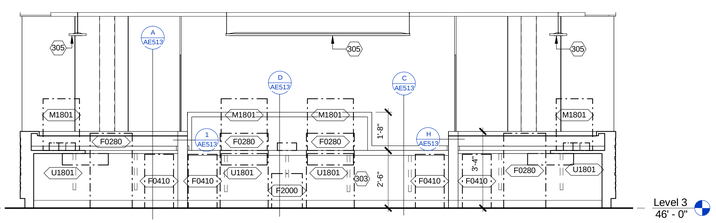
5 **3A-135 SOUTH**
3/8" = 1'-0"



1 **C3-9 SOUTH**
3/8" = 1'-0"



2 **3A-135 EAST**
3/8" = 1'-0"



3 **3A-135 NORTH**
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1. REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2. REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
3. REF IN600 SERIES FINISH SCHEDULE FOR WALL AND CASEWORK FINISH(ES).
4. REF IN101 AND IN6XX SERIES FOR WALL PROTECTION TYPES, CORNER GUARDS AND DETAILS.
5. FOR TOILET ACCESSORIES, REFER TO SHEET GI003 FOR TYPICAL MOUNTING HEIGHTS AND SHEET QH601 FOR TOILET ACCESSORY LEGEND, GROUPS, AND SCHEDULE.
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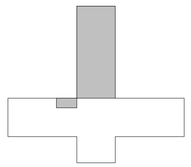
7. REF AE601 SERIES FOR DOOR, FRAME AND WINDOW SCHEDULE.
8. ALL COUNTER TOPS 25" DEEP UNO.
9. ALL WALL CABINETS TO HAVE PLAM SOFFIT, UNO.
10. PROVIDE FINISHED PANEL ON ALL EXPOSED SIDES AND BACKS OF BASE AND WALL CABINETS
11. PROVIDE SIDE SPLASH ON ALL SIDE WALLS AND WHERE INDICATED.

? INT ELEV SHEET NOTES

301 FULL HEIGHT SOLID SURFACE BACK SPLASH
302 PLAM COUNTERTOP AND SPLASH
303 CONCEAL MOUNT COUNTER SUPPORT
304 PATIENT LIFT TRACK - RE: 12/A515
305 SCH. LIGHT FIXTURE
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP



KEY PLAN
LEVEL 3 FFE: 46.0'

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **ENLARGED VIEWS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

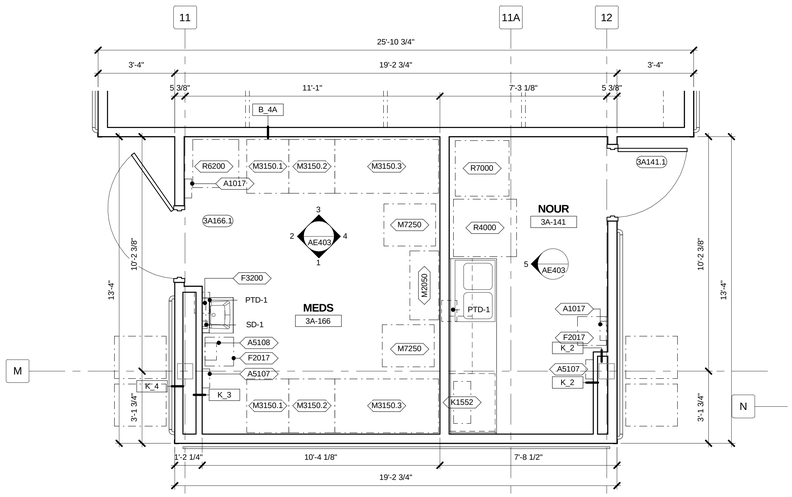
Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **AE402**
Dwg. 13 of 78

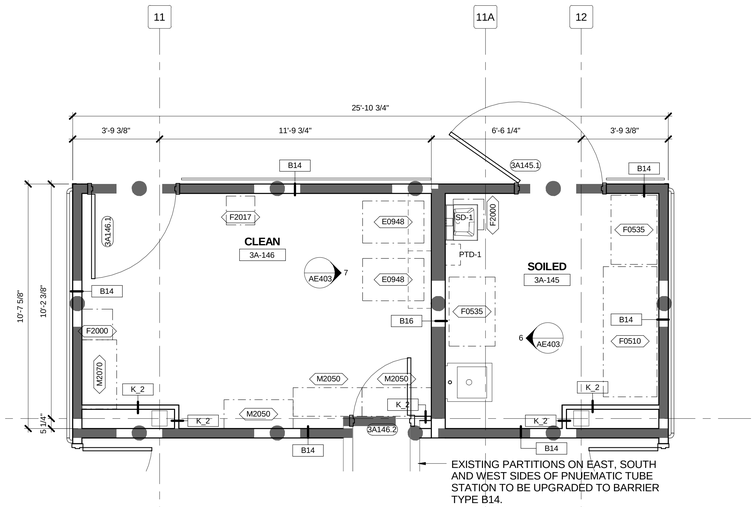
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:05:49 AM

LAST EDITTED: 05-14-2014



B **3A-141 NOURISHMENT STATION**
3/8" = 1'-0"



C **3A-145 LINEN / UTILITY CORE**
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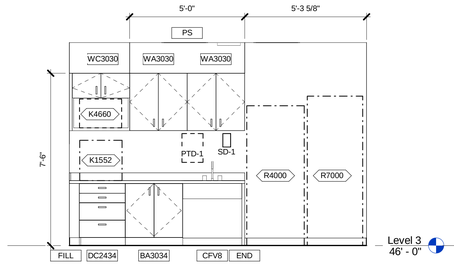

5 **3A-141 EAST**
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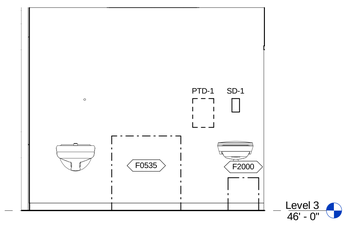

6 **3A-145 EAST**
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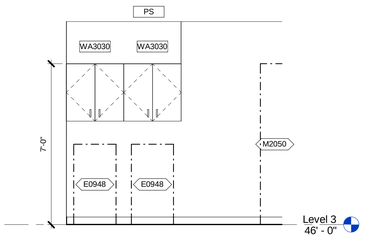
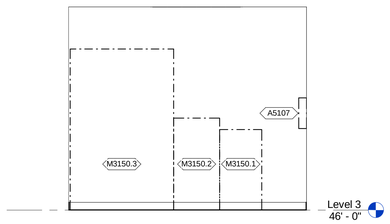
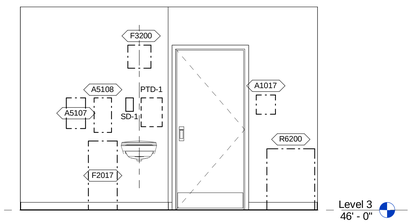


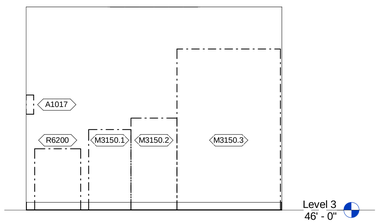
7 **3A-146 WEST**
3/8" = 1'-0"



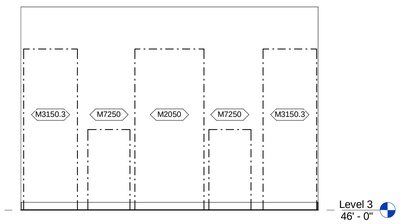
1 **3A-166 NORTH**
3/8" = 1'-0"



2 **3A-166 EAST**
3/8" = 1'-0"



3 **3A-166 SOUTH**
3/8" = 1'-0"



4 **3A-166 WEST**
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1. REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2. REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
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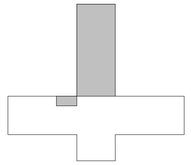
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP



KEY PLAN

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **ENLARGED VIEWS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE403**

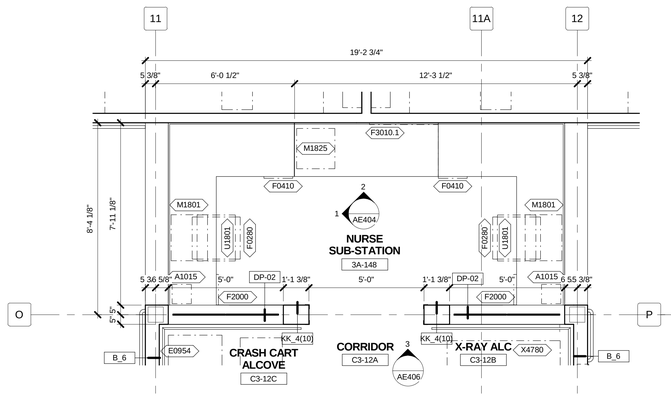
Dwg. 14 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

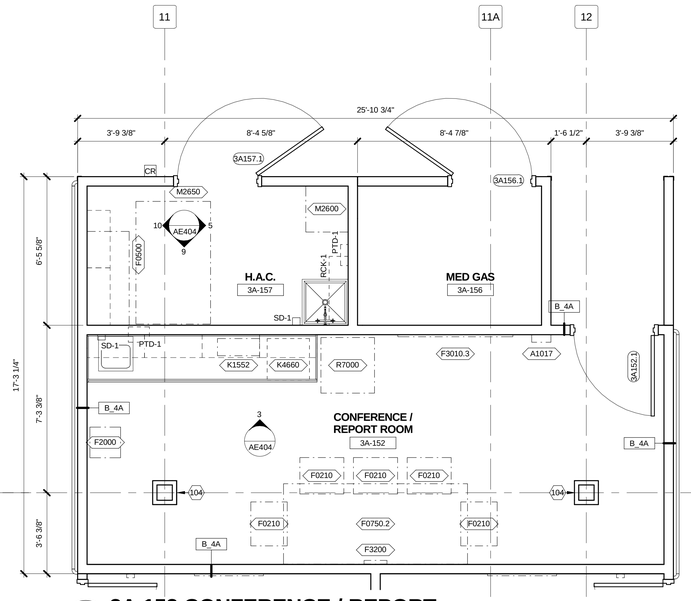
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:12 AM

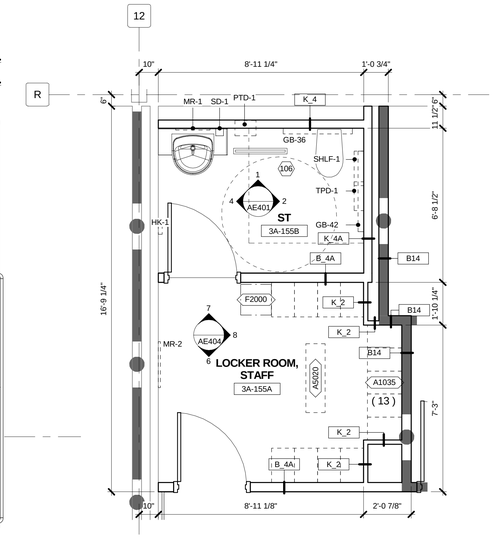
LAST EDITTED: 05-14-2014



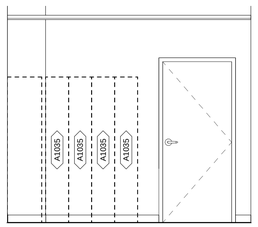
A 3A-148 NURSE SUB-STATION
3/8" = 1'-0"



B 3A-152 CONFERENCE / REPORT
3/8" = 1'-0"



C 3A-155 STAFF LOCKERS / TOILET
3/8" = 1'-0"



6 3A-155A NORTH
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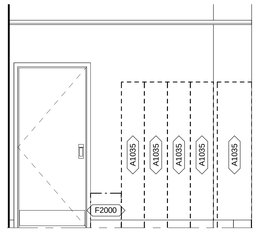
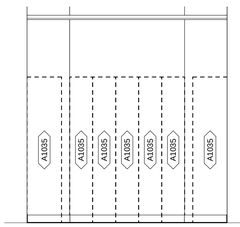
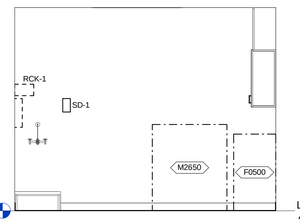


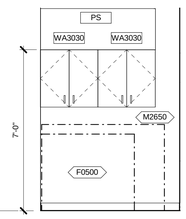
7 3A-155A SOUTH
3/8" = 1'-0"



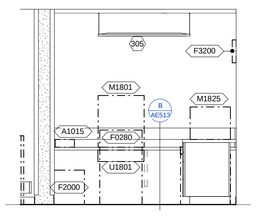
8 3A-155A WEST
3/8" = 1'-0"



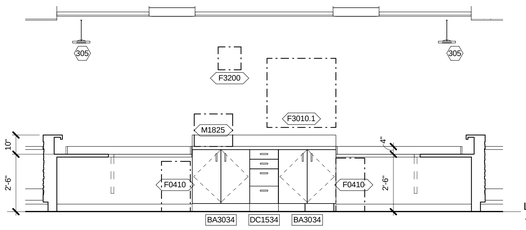
9 3A-157 NORTH
3/8" = 1'-0"



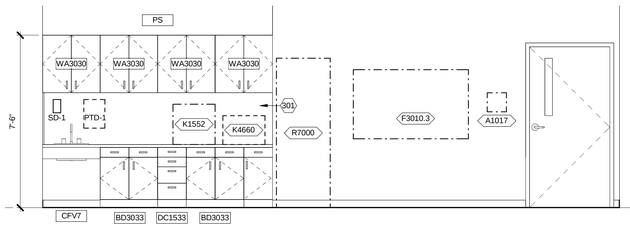
10 3A-157 EAST
3/8" = 1'-0"



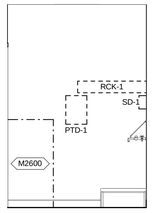
1 3A-148 EAST (WEST OPPOSITE HAND)
3/8" = 1'-0"



2 3A-148 SOUTH
3/8" = 1'-0"



3 3A-152 SOUTH
3/8" = 1'-0"



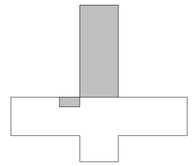
5 3A-157 WEST
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1. REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2. REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
3. REF IN600 SERIES FINISH SCHEDULE FOR WALL AND CASEWORK FINISH(ES).
4. REF IN101 AND IN6XX SERIES FOR WALL PROTECTION TYPES, CORNER GUARDS AND DETAILS.
5. FOR TOILET ACCESSORIES, REFER TO SHEET GI003 FOR TYPICAL MOUNTING HEIGHTS AND SHEET QH601 FOR TOILET ACCESSORY LEGEND, GROUPS, AND SCHEDULE.
6. REF SHEETS AE511-AE513 FOR TYPICAL CABINET SECTIONS AND DETAILS.
7. REF AE601 SERIES FOR DOOR, FRAME AND WINDOW SCHEDULE.
8. ALL COUNTER TOPS 25" DEEP UNO.
9. ALL WALL CABINETS TO HAVE PLAM SOFFIT, UNO.
10. PROVIDE FINISHED PANEL ON ALL EXPOSED SIDES AND BACKS OF BASE AND WALL CABINETS
11. PROVIDE SIDE SPLASH ON ALL SIDE WALLS AND WHERE INDICATED.

? INT ELEV SHEET NOTES

301 FULL HEIGHT SOLID SURFACE BACK SPLASH
302 PLAM COUNTERTOP AND SPLASH
303 CONCEAL MOUNT COUNTER SUPPORT
304 PATIENT LIFT TRACK - RE: 12/A515
305 SCH. LIGHT FIXTURE
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP



KEY PLAN

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

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC 3941 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: ENLARGED VIEWS

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05/16/2014 | Drawn: BUSH | Checked: CHAMBERS

Project Number: 544-13-102

Building Number: 100

Drawing Number: AE404

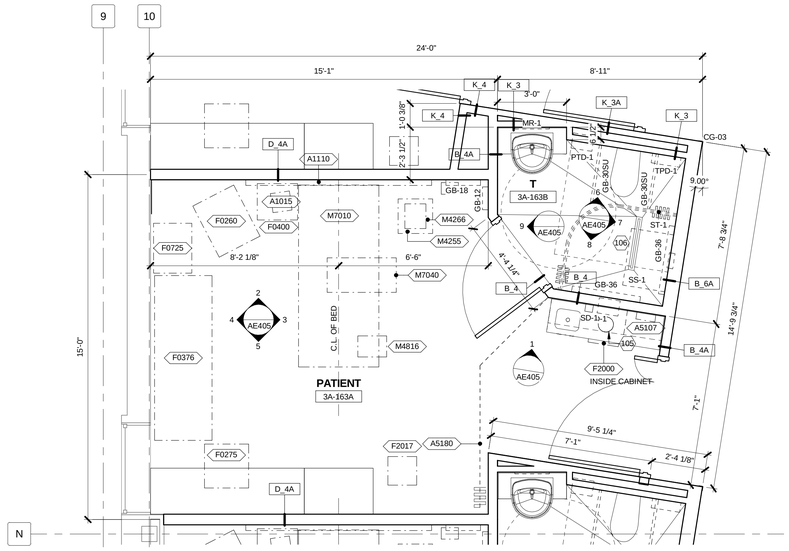
Dwg. 15 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

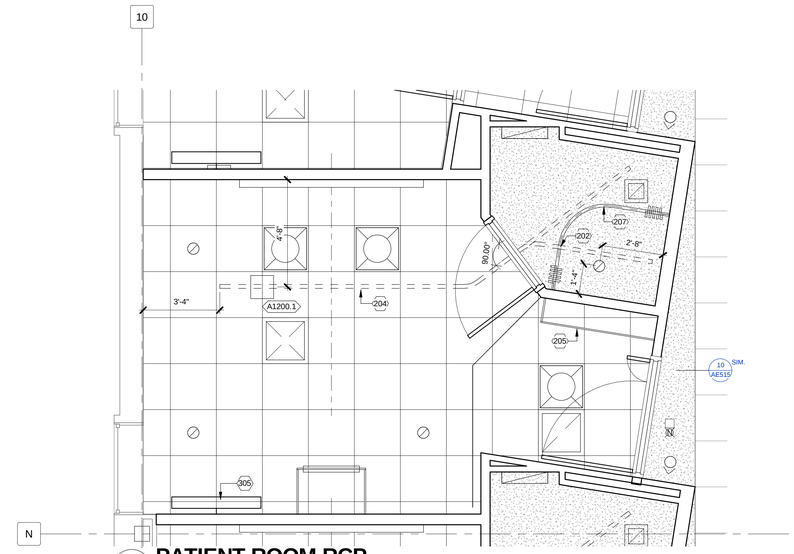
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:21 AM

LAST EDITTED: 05-14-2014

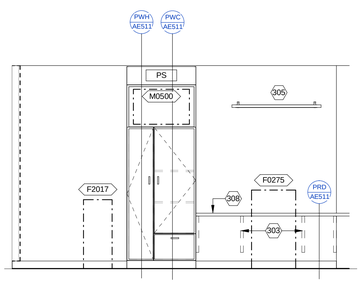


A PATIENT ROOM PLAN
3/8" = 1'-0"

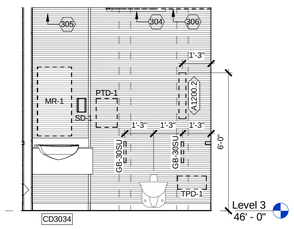


10 PATIENT ROOM RCP
3/8" = 1'-0"

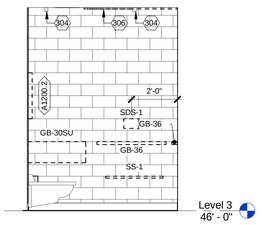
MOCK-UP ROOMS:
REFER TO SHEET AE102 FOR MOCK-UP REQUIREMENTS.



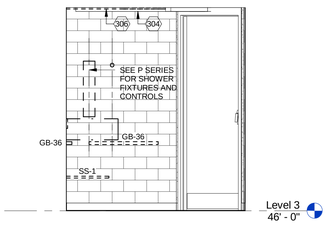
5 3A-163A
3/8" = 1'-0"



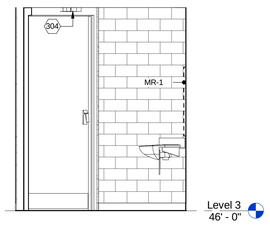
6 3A-163B
3/8" = 1'-0"



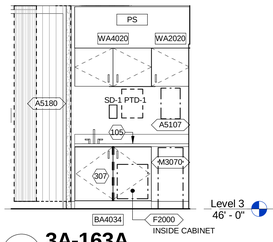
7 3A-163B
3/8" = 1'-0"



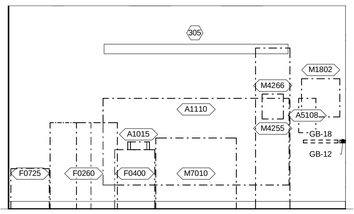
8 3A-163B
3/8" = 1'-0"



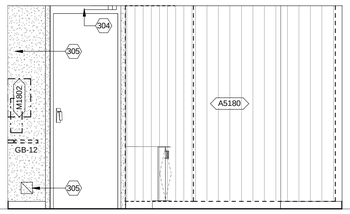
9 3A-163B
3/8" = 1'-0"



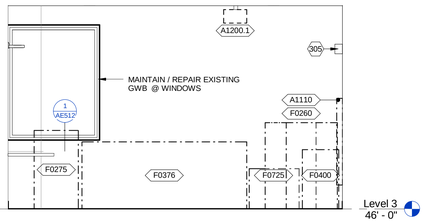
1 3A-163A
3/8" = 1'-0"



2 3A-163A
3/8" = 1'-0"



3 3A-163A
3/8" = 1'-0"



4 3A-163A
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1 REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2 REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
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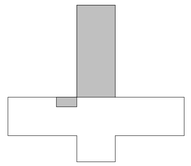
302 PLAM COUNTERTOP AND SPLASH
303 CONCEAL MOUNT COUNTER SUPPORT
304 PATIENT LIFT TRACK - RE: 12/A515
305 SCH. LIGHT FIXTURE
306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
307 SOLID DIVIDER BETWEEN SIDES
308 PROVIDE GROMMET IN COUNTERTOP

? FLOOR PLAN SHEET NOTES

101 NEW OVERLAYED PARTITION TO BE STRUCTURALLY INDEPENDANT OF EXISTING PARTITION(S).
102 REPAINT EXISTING DOOR FRAME. REMAINDER OF DOOR, FRAME AND HARDWARE TO REMAIN AS-IS.
103 EXISTING DOORS, FRAMES AND HARDWARE TO REMAIN.
104 WRAP EXISTING FURRED COLUMN w/ (1) FINISH LAYER OF GWB
105 TRASH RECEPTICLE GROMMET
106 SLOPE FLOOR IN TOILET ROOM TO DRAIN
107 MODIFY / ADJUST ALL FINISHES ONCE NEW PARTITION IS COMPLETE. PAINT NEW WALL FROM CORNER TO CORNER TO MATCH EXISTING ROOM SURFACES.

? RCP SHEET NOTES

201 GWB CONTROL JOINT
202 SPLIT TRACK AT PATIENT LIFT RAIL
203 GAP WOOD GRILLE FOR CEILING MOUNTED AIR, ELECTRICAL AND FIRE PROTECTION DEVICES
204 PATIENT LIFT TRACK - RE: 13/A515
205 PLAM SOFFIT
206 CUT AND ADJUST EXISTING GRID IN REMAINING SPACE TO MEET NEW PARTITION
207 SHOWER CURTAIN TRACK RE: 3/AE515 SIM.



KEY PLAN

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA - ROSCOE W. CHAMBERS - BEAUFORT, SC - 3041 - REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **ENLARGED VIEWS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

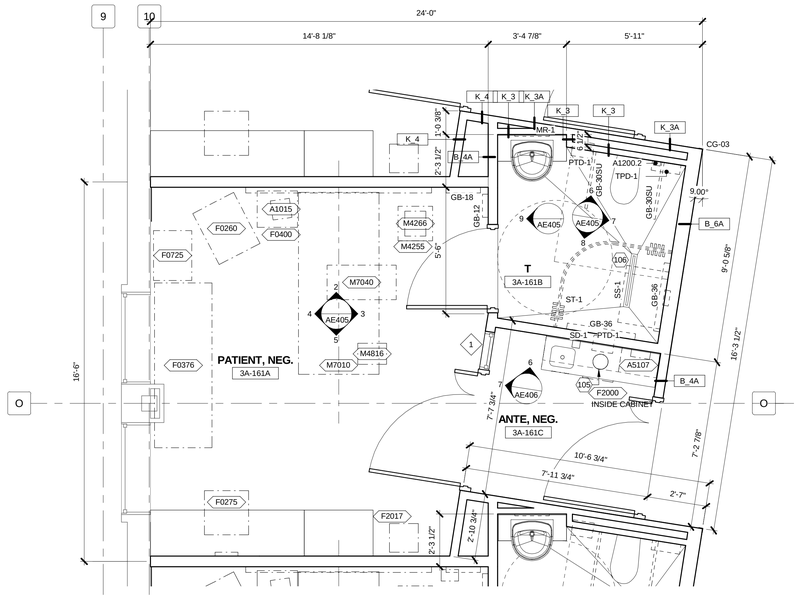
Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **AE405**
Dwg. 16 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

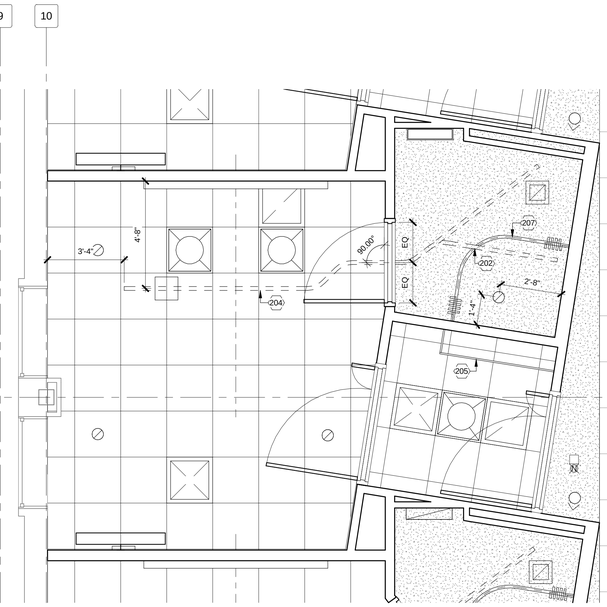
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:30 AM

LAST EDITTED: 05-14-2014

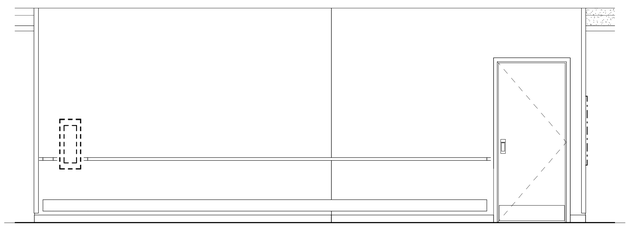


A **3A-161A**
3/8" = 1'-0"

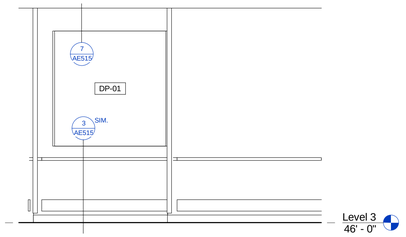


B **3A-161 RCP**
3/8" = 1'-0"

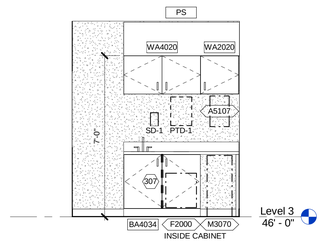
MOCK-UP ROOMS:
REFER TO SHEET AE102 FOR MOCK-UP REQUIREMENTS.



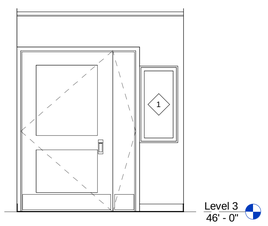
4 **C3-16 WEST**
3/8" = 1'-0"



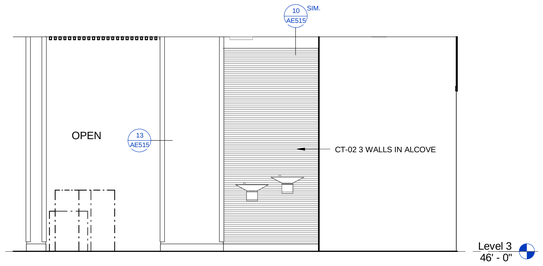
5 **C3-16 EAST**
3/8" = 1'-0"



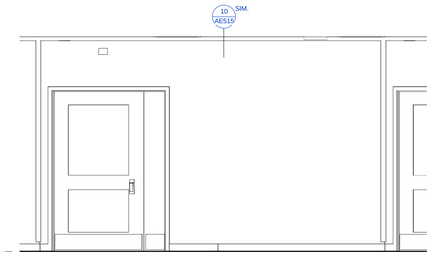
6 **PROVIDER STATION**
3/8" = 1'-0"



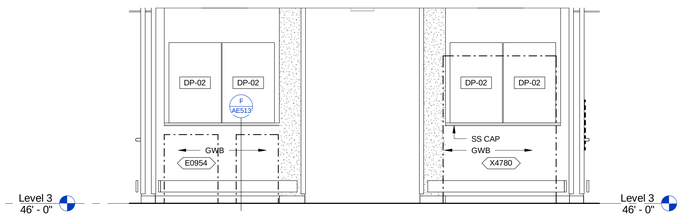
7 **WINDOW WALL**
3/8" = 1'-0"



1 **C3-9 WEST**
3/8" = 1'-0"



2 **C3-16 EAST**
3/8" = 1'-0"



3 **C3-12A SOUTH**
3/8" = 1'-0"

GENERAL INT ELEV NOTES

1 REF SHEET GI002 FOR FLOOR PLAN AND RCP NOTES
2 REF SHEET GI003 FOR GRAPHIC LEGEND OF WALL DEVICES AND TYPICAL MOUNTING HEIGHT UNO.
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304 PATIENT LIFT TRACK - RE: 12/A515
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306 SHOWER CURTAIN TRACK - RE: 2/A515 SIM.
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308 PROVIDE GROMMET IN COUNTERTOP

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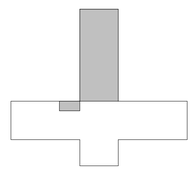
203 GAP WOOD GRILLE FOR CEILING MOUNTED AIR, ELECTRICAL AND FIRE PROTECTION DEVICES
204 PATIENT LIFT TRACK - RE: 13/A515
205 PLAM SOFFIT
206 CUT AND ADJUST EXISTING GRID IN REMAINING SPACE TO MEET NEW PARTITION
207 SHOWER CURTAIN TRACK RE: 3/AE515 SIM.



KEY PLAN

0 1'-4" 2'-8" 5'-4"
SCALE: 3/8" = 1'-0"

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
9041
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **ENLARGED VIEWS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

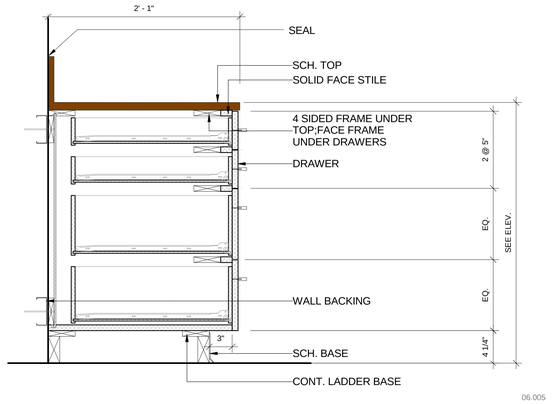
Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **AE406**
Dwg. 17 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

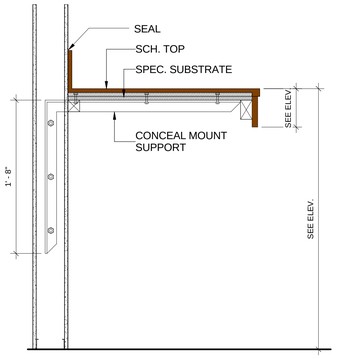
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:38 AM

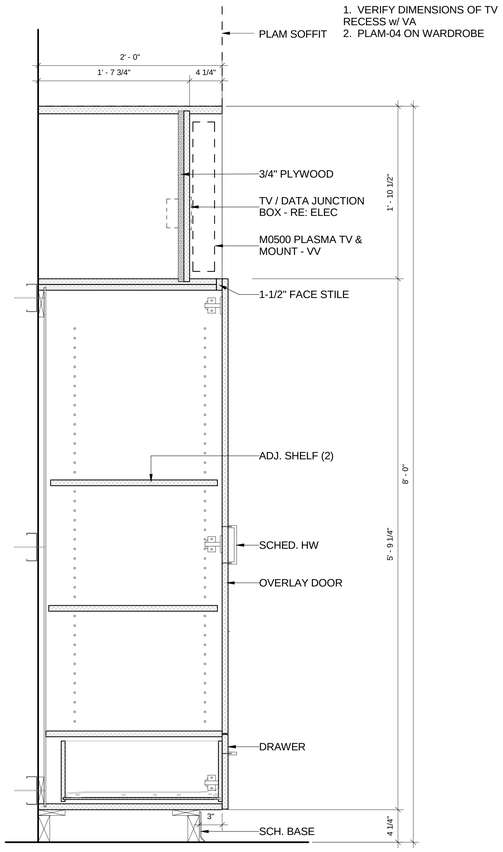
LAST EDITTED: 05-14-2014



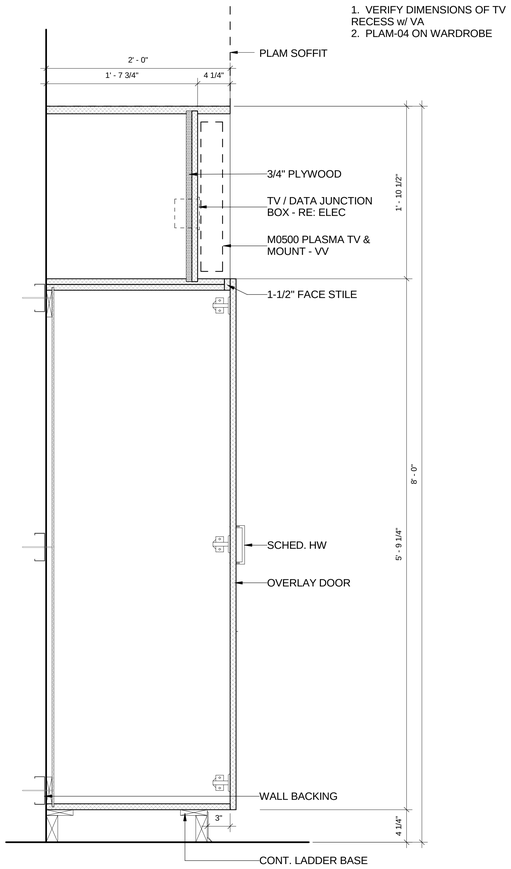
DC SECTION AT DRAWER BANK - 4 DRAWERS
1 1/2" = 1'-0"



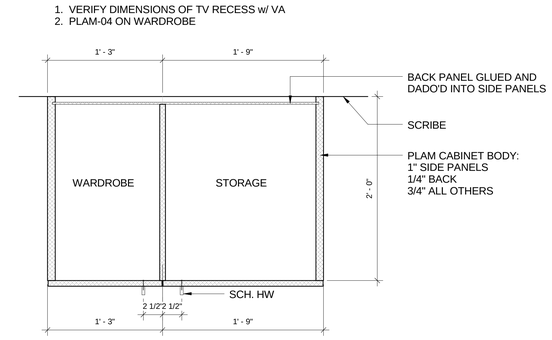
CF SECTION AT COUNTERTOP w/ SKIRT
1 1/2" = 1'-0"



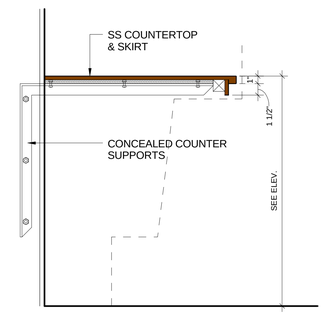
PWC SECTION AT PATIENT ROOM WARDROBE
1 1/2" = 1'-0"



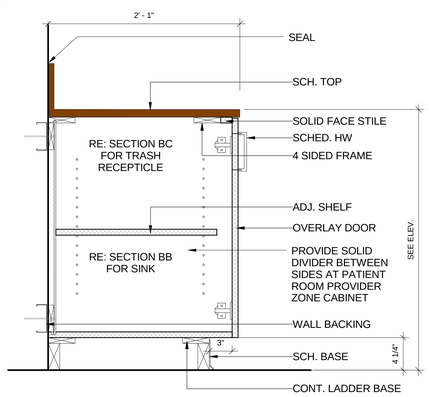
PWH SECTION AT WARDROBE
1 1/2" = 1'-0"



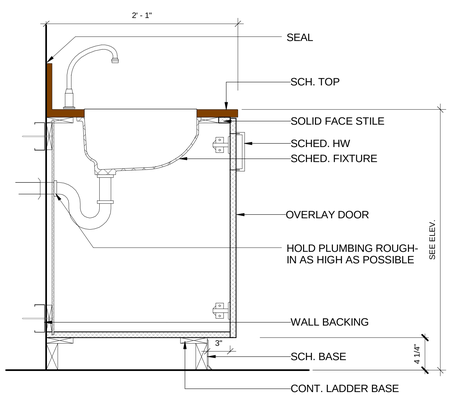
PW PLAN AT PATIENT WARDROBE
1 1/2" = 1'-0"



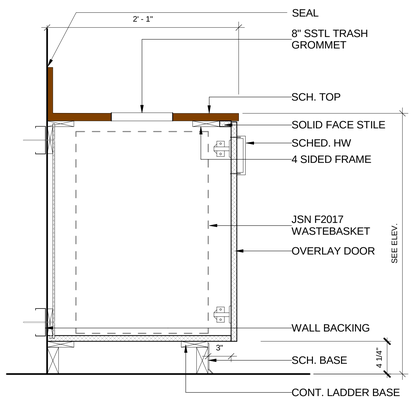
PRD SECTION AT PATIENT ROOM DESK
1 1/2" = 1'-0"



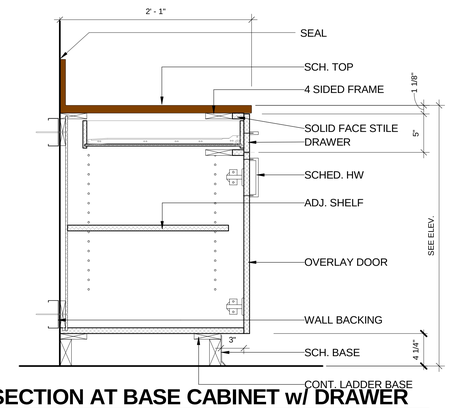
BA SECTION AT SINK BASE CABINET
1 1/2" = 1'-0"



BB SECTION AT SINK BASE CABINET
1 1/2" = 1'-0"



BC SECTION AT BASE CABINET - TRASH RECEPTICLE
1 1/2" = 1'-0"



BD SECTION AT BASE CABINET w/ DRAWER
1 1/2" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 9041 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

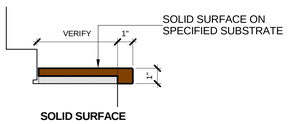
Drawing Title	CASEWORK DETAILS
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Drawn	BUSH
Checked	CHAMBERS
Project Number	544-13-102
Building Number	100
Drawing Number	AE511
Dwg.	18 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

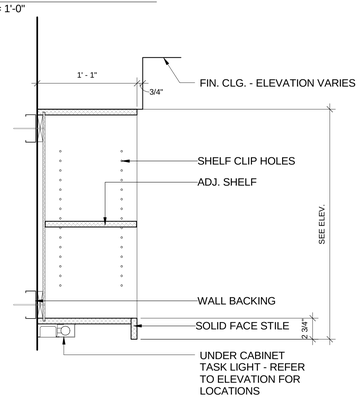
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:44 AM

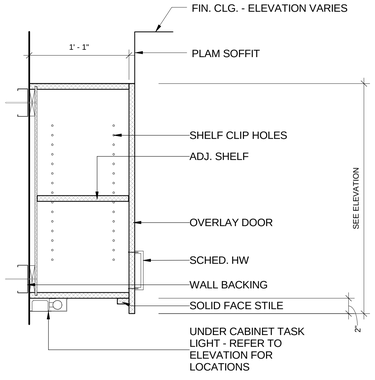
LAST EDITTED: 05-14-2014



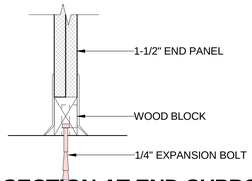
1 WINDOW SILLS
3" = 1'-0"



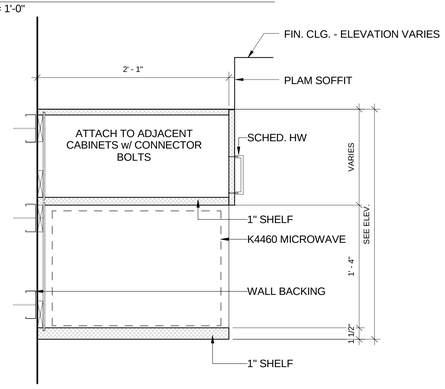
WB SECTION AT WALL CABINET - OPEN
1 1/2" = 1'-0"



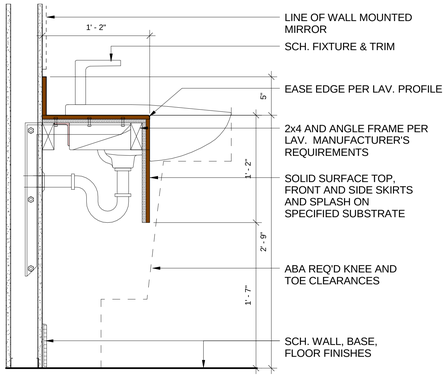
WA SECTION AT WALL CABINET - 1DR/2DRS
1 1/2" = 1'-0"



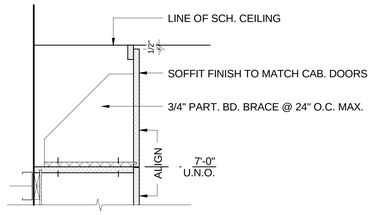
2 SECTION AT END SUPPORT
3" = 1'-0"



WC SECTION AT BUILT-IN MICROWAVE
1 1/2" = 1'-0"

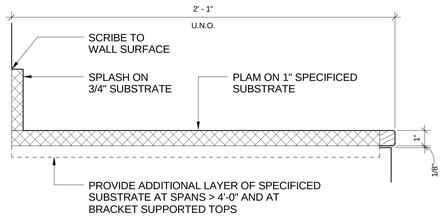


CD SECTION AT SEMI-RECESSED SINK
1 1/2" = 1'-0"

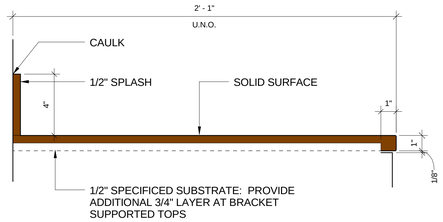


E2013-SOFFIT_PLAM

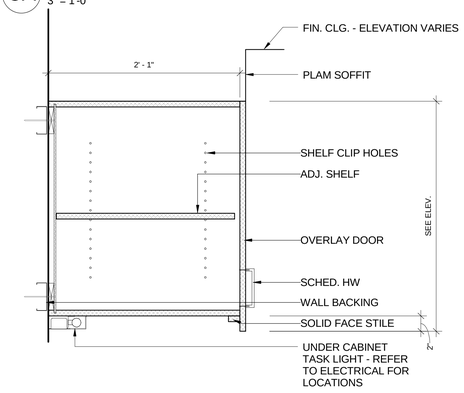
PS SECTION AT PLAM SOFFIT
1 1/2" = 1'-0"



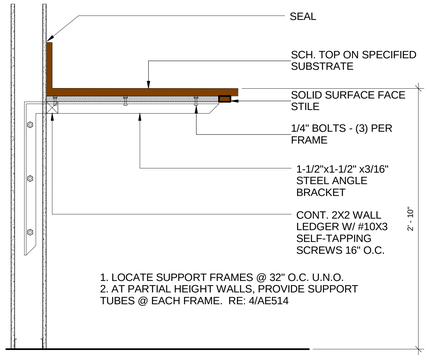
CB COUNTERTOP - PLASTIC LAMINATE
3" = 1'-0"



CA COUNTERTOP - SOLID SURFACE
3" = 1'-0"



WD SECTION AT DEEP WALL CABINET
1 1/2" = 1'-0"



ZB CONCEAL MOUNT COUNTERTOP SUPPORT
1 1/2" = 1'-0"

0 4" 8" 1'-4"

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

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941, REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

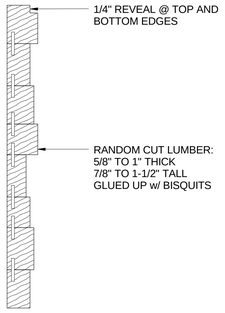
Drawing Title	CASEWORK DETAILS
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Drawn	BUSH
Checked	CHAMBERS
Project Number	544-13-102
Building Number	100
Drawing Number	AE512
Dwg.	19 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

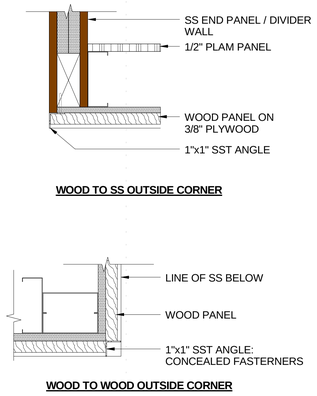
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:49 AM

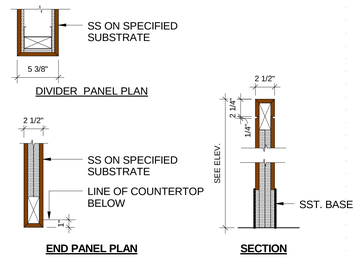
LAST EDITTED: 05-14-2014



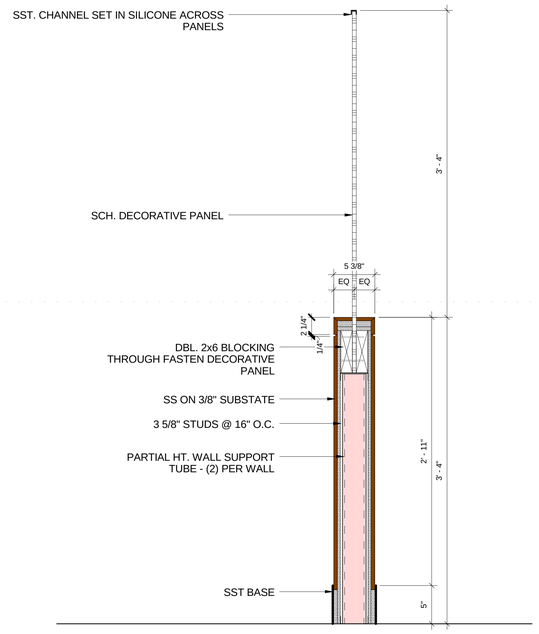
E WOOD PANEL PROFILE DETAIL
6" = 1'-0"



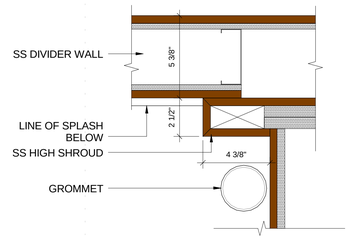
H WOOD PANEL CORNER DETAIL
3" = 1'-0"



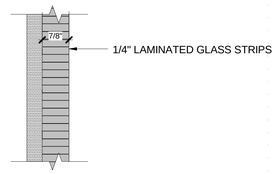
G SS END / DIVIDER PANELS
1 1/2" = 1'-0"



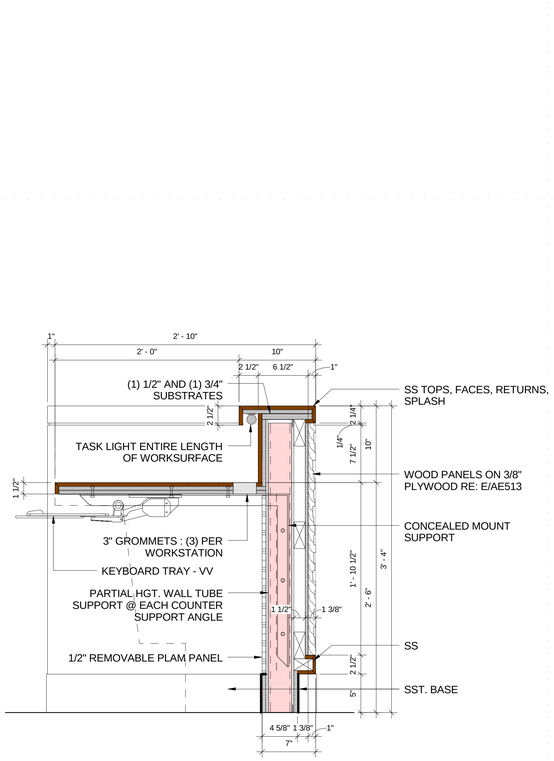
F SECTION AT NURSE STATION
1 1/2" = 1'-0"



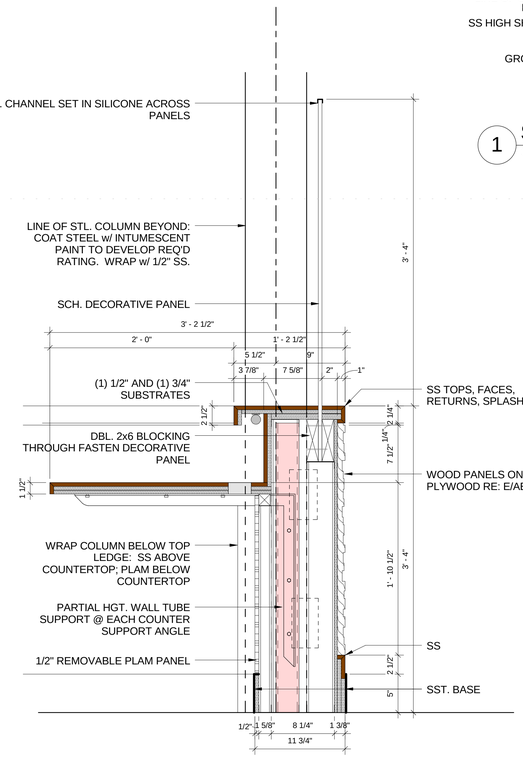
1 SS SHROUD TRANSITION
3" = 1'-0"



2 STACKED GLASS PANEL DETAIL
6" = 1'-0"



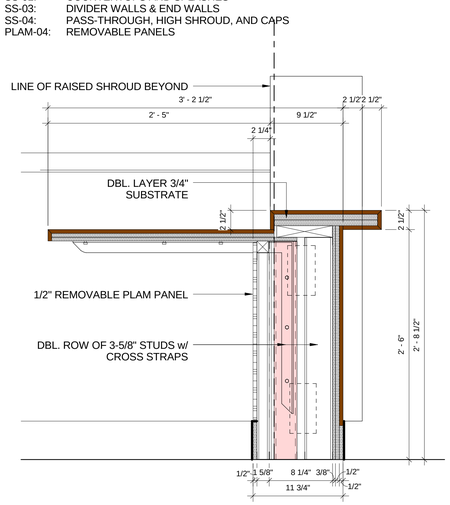
A SECTION AT NURSE STATION
1 1/2" = 1'-0"



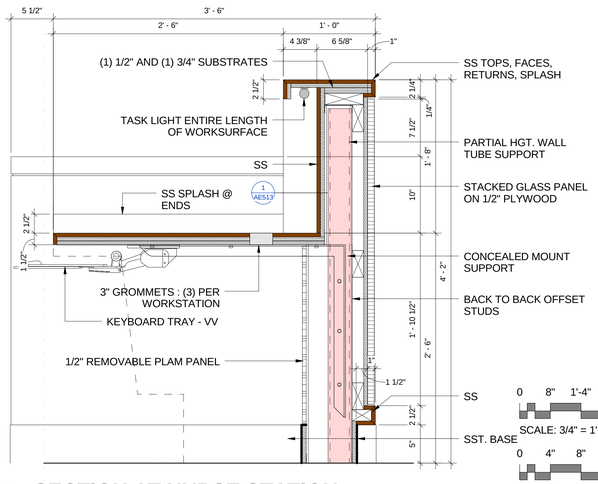
B SECTION AT NURSE STATION
1 1/2" = 1'-0"

NURSE STATION SS ASSIGNMENTS:

SS-01:	COUNTERTOPS AND SPLASHES
SS-03:	DIVIDER WALLS & END WALLS
SS-04:	PASS-THROUGH, HIGH SHROUD, AND CAPS
PLAM-04:	REMOVABLE PANELS



C SECTION AT NURSE STATION
1 1/2" = 1'-0"



D SECTION AT NURSE STATION
1 1/2" = 1'-0"

0 8" 1'-4" 2'-8"
SCALE: 3/4" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA · ROSCOE W. CHAMBERS · BEAUFORT, SC · 3941 · REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **CASEWORK DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE513**

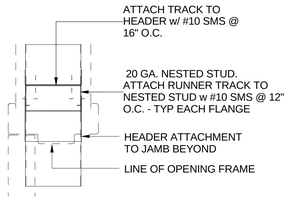
Dwg. 20 of 78

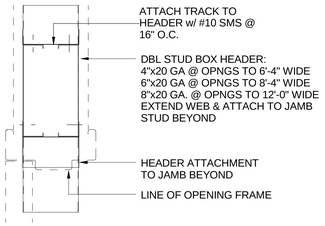
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

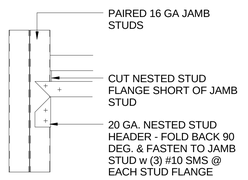
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:06:55 AM

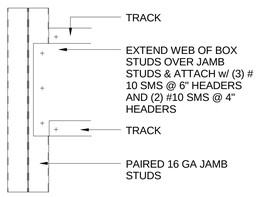
LAST EDITTED: 05-14-2014







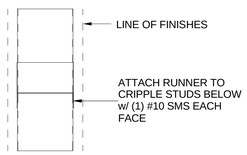
@ OPENINGS TO 3'-4" WIDE

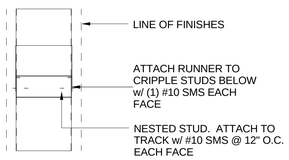


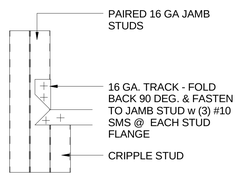
@ OPENINGS FROM 3'-4" TO 12'-0" WIDE

8 HEADER FRAMING @ STUD PTN OPENINGS
3" = 1'-0"

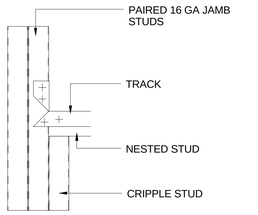
09.006





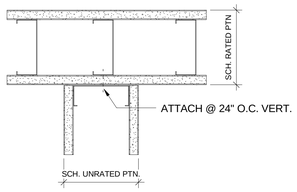


@ OPENINGS TO 3'-4" WIDE



@ OPENINGS FROM 3'-4" TO 12'-0" WIDE

1 SILL FRAMING
3" = 1'-0"



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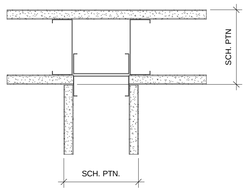
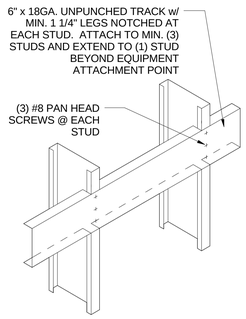


UNRATED

11 INTERIOR PTN INTERSECTION
3" = 1'-0"

09.011



WALL BACKING TYPE B

USE FOR:
- BULLETIN BOARDS
- BUMPER GUARDS
- DOOR STOPS
- DOOR HOLDERS
- MIRRORS
- LIQUID CHALK BOARDS
- SIGNAGE (EXCEPT TAPE ADHERED)
- BATH AND TOILET ACCESSORIES (EXCEPT GRAB BARS)
- TELEPHONES
- LITERATURE / MAGAZINE RACKS
- HAND RAILS
- CRASH RAILS
- CHART RACKS
- DIRECTORIES

ALLOWABLE LOADS:

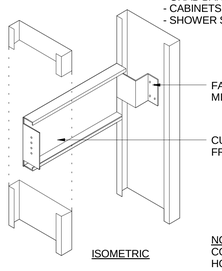
VERTICAL: 90 LBS
LATERAL: 45 LBS

09.002

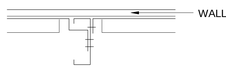
7 WALL BACKING - TYPE B
1 1/2" = 1'-0"

WALL BACKING TYPE A

USE FOR:
- GRAB BARS (NOT SWING-UP TYPE)
- CABINETS
- SHOWER SEATS

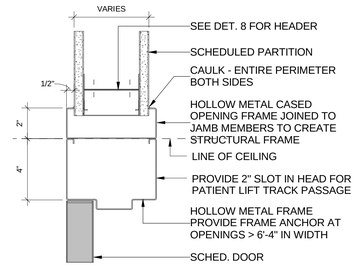


NOTE: CONTRACTOR SHALL COORDINATE LOCATIONS OF HORIZONTAL FASTENERS



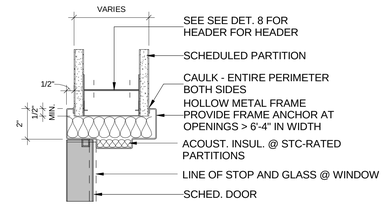
09.002

2 WALL BACKING - TYPE A
1 1/2" = 1'-0"



12 PATIENT TOILET ROOM DOOR HEAD
3" = 1'-0"

08.005



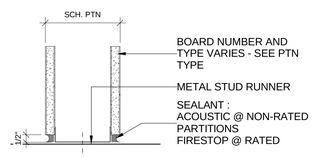
@ UNRATED AND 1 HOUR PARTITIONS

9 TYPICAL DOOR HEAD DETAILS
3" = 1'-0"

08.003

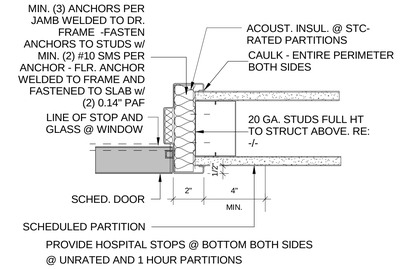
5 GWB CONTROL JOINT
3" = 1'-0"

09.010



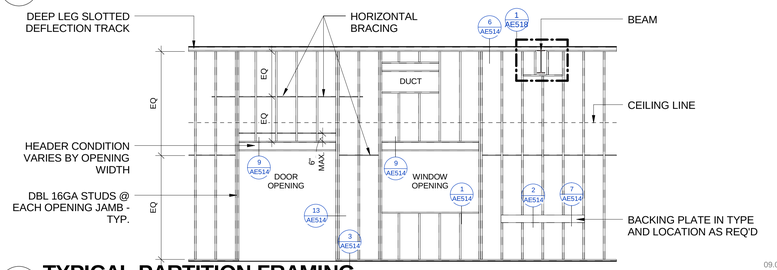
3 BASE OF STUD PTN
3" = 1'-0"

09.008



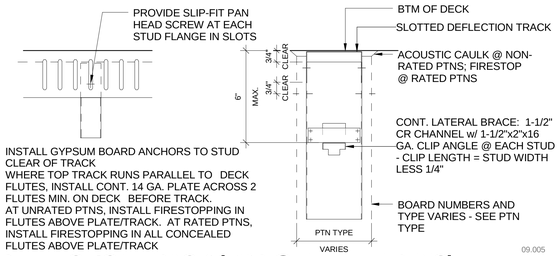
PROVIDE HOSPITAL STOPS @ BOTTOM BOTH SIDES @ UNRATED AND 1 HOUR PARTITIONS

13 TYPICAL DOOR JAMB DETAILS
3" = 1'-0"



09.013

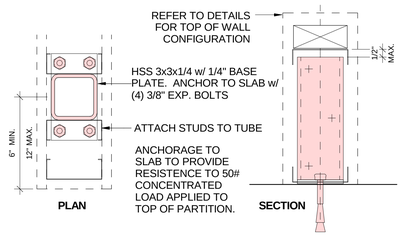
10 TYPICAL PARTITION FRAMING
1/4" = 1'-0"



1. INSTALL GYPSUM BOARD ANCHORS TO STUD CLEAR OF TRACK
2. WHERE TOP TRACK RUNS PARALLEL TO DECK FLUTES, INSTALL CONT. 14 GA. PLATE ACROSS 2 FLUTES MIN. ON DECK BEFORE TRACK.
3. AT UNRATED PTNS, INSTALL FIRESTOPPING IN FLUTES ABOVE PLATE/TRACK. AT RATED PTNS, INSTALL FIRESTOPPING IN ALL CONCEALED FLUTES ABOVE PLATE/TRACK

09.005

6 DEFLECTION TRACK (TYP @ FULL HT PTNS)
3" = 1'-0"



09.012

4 STRUCTURE FOR PARTIAL HGT PTNS
3" = 1'-0"

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

0 6" 1' 2'
SCALE: 1" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **INTERIOR DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE514**

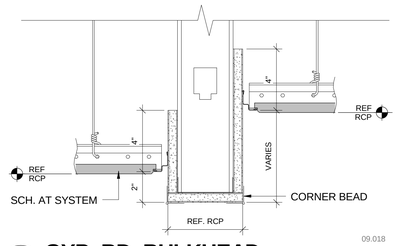
Dwg. 21 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

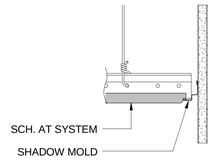
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:07:05 AM

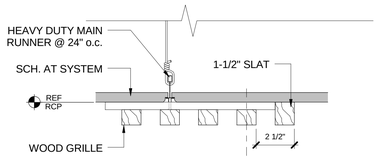
LAST EDITTED: 05-14-2014



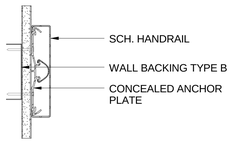
10 GYP. BD. BULKHEAD
3" = 1'-0"
09.018



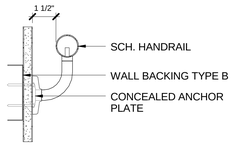
9 ACOUST. CLG @ WALL - TYP.
3" = 1'-0"
09.017



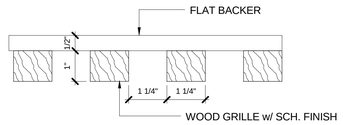
14 WOOD GRILLE EXPOSED EDGE
3" = 1'-0"
09.022



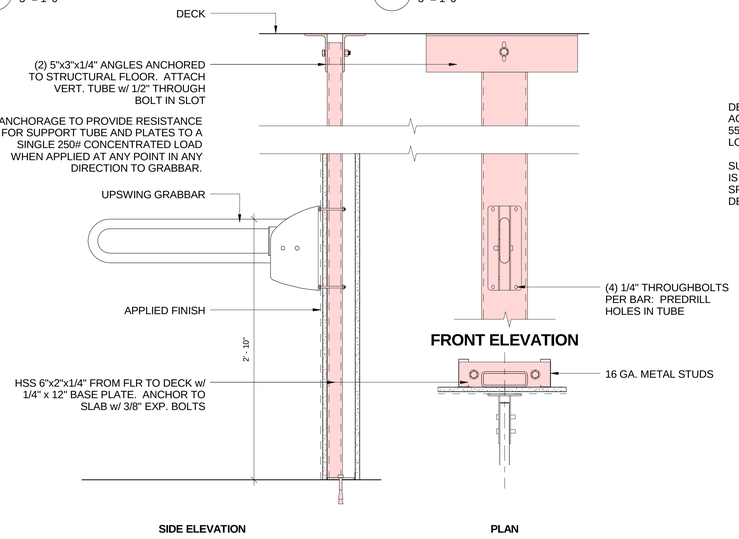
15 CRASH RAIL
3" = 1'-0"
10.004



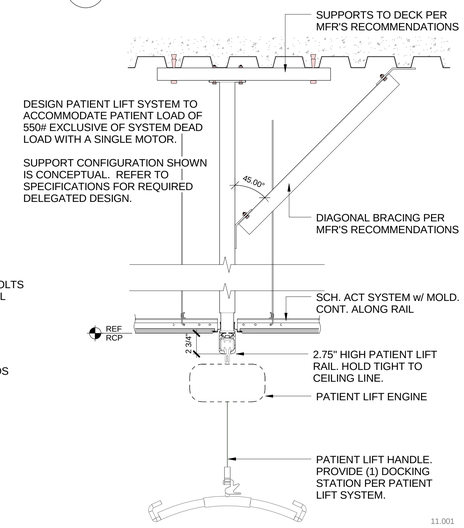
16 HAND RAIL
3" = 1'-0"
10.005



17 WOOD GRILLE PATTERN
6" = 1'-0"

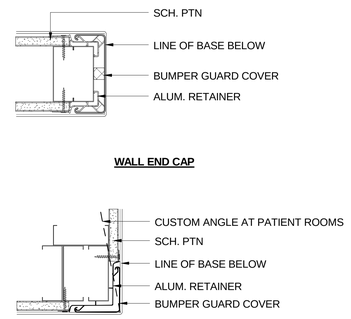


11 UP-SWING GRAB BAR
1 1/2" = 1'-0"
10.001



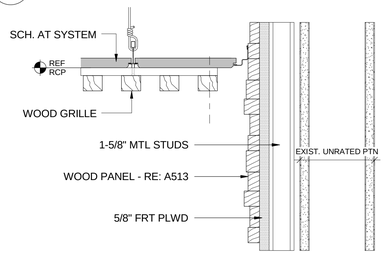
11.001

12 PATIENT LIFT TRACK SUPPORT
1 1/2" = 1'-0"

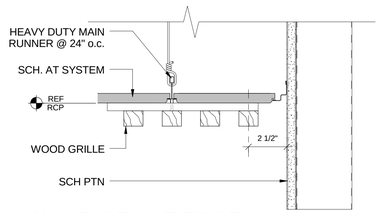


FINISH EXPOSED EDGES OF GYP. BD. @ BTM OF GUARD w/ J MOLD. SKIM AND PAINT TO MATCH ADJ. PARTITION

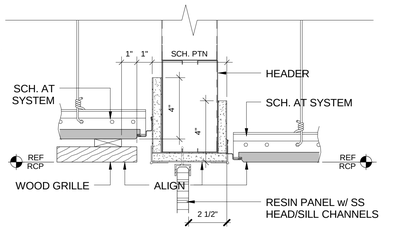
13 CORNER GUARD
3" = 1'-0"
10.003



5 WOOD WALL HEAD
3" = 1'-0"
09.025

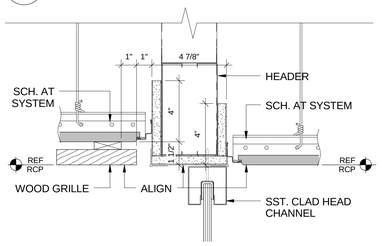


6 WOOD GRILLE EDGE
3" = 1'-0"
09.021



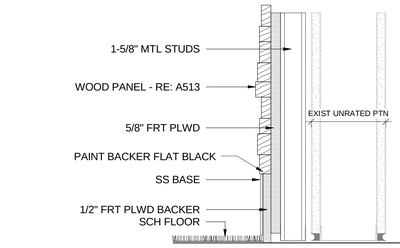
09.026

7 RESIN PANEL HEAD @ GWB
3" = 1'-0"



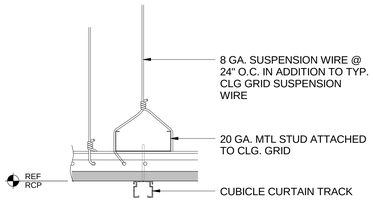
09.020

8 GLASS WALL HEAD
3" = 1'-0"

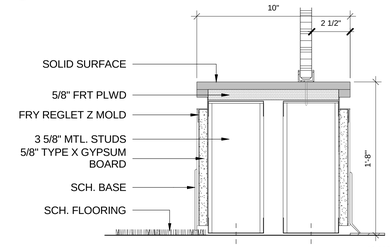


09.024

1 WOOD WALL BASE
3" = 1'-0"

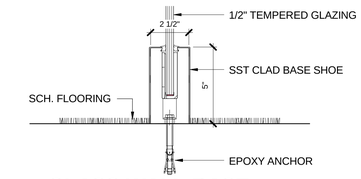


2 CUBICLE CURTAIN TRACK SUPPORT
3" = 1'-0"
10.002



09.016

3 RESIN PANEL CURBED BASE
3" = 1'-0"



09.027

4 GLASS WALL BASE
3" = 1'-0"

0 4" 8" 1'-4"
SCALE: 1 1/2" = 1'-0"

0 2" 4" 8"
SCALE: 3" = 1'-0"

0 1" 2" 4"
SCALE: 6" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA · ROSCOE W. CHAMBERS · BEAUFORT, SC · 3941 · REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **INTERIOR DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE515**

Dwg. 22 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

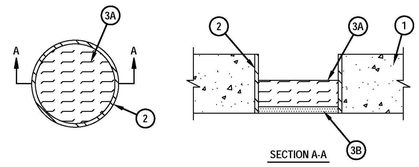
VA FORM 08-6231 5/22/2014 9:07:11 AM

LAST EDITTED: 05-14-2014

System No. C-AJ-0004

F Rating - 3 Hr
FT Rating - 1-1/2 Hr
FH Rating - 0 Hr
FTH Rating - 0 Hr

CAJ 0004



1. Floor or Wall Assembly - Min 114 mm thick reinforced light-weight or normal weight (1600-2400 kg/m3) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diam of opening is 152 mm.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Metallic Sleeve (Optional) - Nom 152 mm diam (or smaller) Schedule 10 (or heavier) steel pipe sleeve cast or grouted into floor or wall assembly, flush with floor or wall surfaces.
3. Firestop System - The firestop system shall consist of the following:
A. Packing Material - Min 51 mm thickness of min 64 kg/m3 mineral wool batt insulation firmly packed into opening as a permanent form. Packing material to be recessed from bottom surface of floor or from both surfaces of wall to accommodate the required thickness of fill material.
B. Fill, Void or Cavity Material* - Sealant - Min 13 mm thickness of sealant applied within the annulus, flush with the bottom surface of floor or with both surfaces of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC - FS-ONE Sealant
*Bearing the UL Classification Mark

Hilti Firestop Systems

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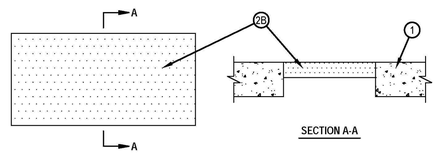
January 4, 2005

System No. C-AJ-0082

F Rating -- 3 Hr
T Rating -- 2 Hr

CAJ 0082



1. Floor or Wall Assembly -- Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max area of opening is 288 sq in. with max dimension of 24 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Firestop System -- The firestop system shall consist of the following:
A. Forms -- (Not Shown) -- Used as a form to prevent leakage of the fill material during installation. Forms to be a rigid sheet material, positioned as required to accommodate the required thickness of fill material. Forms to be removed after fill material has cured.
B. Fill, Void or Cavity Materials* - Mortar -- Min 2 in. thickness of fill material applied within the annulus, flush with top surface of floor or one surface of wall in reinforced concrete or solid block assemblies and flush with both surfaces of wall in hollow block assemblies. Mortar is mixed at rate of 2-1/2 parts dry mix to one part water by volume in accordance with the fill material manufacturer's installation instructions.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC -- CP637 Mortar
*Bearing the UL Classification Mark

Hilti Firestop Systems

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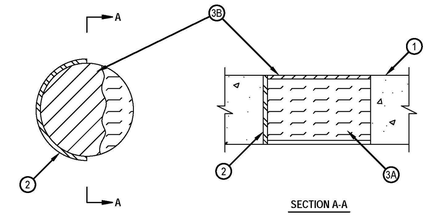
September 06, 2001

System No. C-AJ-0090

F Rating - 2 Hr
T Rating - 1-1/2 Hr

CAJ 0090



1. Floor or Wall Assembly -- Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks*. Max diameter of opening is 6 in.

See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.

2. Steel Sleeve -- (Optional)-Nom 6 in. diameter (or smaller) Schedule 40 (or heavier) steel pipe cast or grouted into the floor or wall assembly, flush with floor or wall surfaces.

3. Firestop System -- The firestop system shall consist of the following:

A. Packing Material -- Min 4 in. thickness of 4 pcf mineral wool batt insulation tightly packed into the opening as a permanent form. Packing material to be recessed from top surface of floor and both surfaces of wall as required to accommodate the required thickness of fill material.
B. Fill, Void or Cavity Materials* -- Sealant -- Min 1/4 in. thickness of fill material applied within the annulus, flush with top surface of floor.

HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC -- FS-ONE Sealant

*Bearing the UL Classification Mark

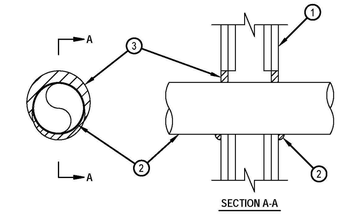
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
May 15, 2002

System No. W-L-1175

F Ratings - 1 and 2 Hr (See Item 1)
T Rating - 0 Hr
L Rating at Ambient - Less Than 1 CFM/sq ft
L Rating at 400 F - Less Than 1 CFM/sq ft

WL 1175



1. Wall Assembly — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.

A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.
B. Gypsum Board* — Nom 5/8 in. thick, 4 ft wide with square or tapered edges. The gypsum wallboard type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the Fire Resistance Directory. Max diam of opening is 5-1/2 in.
The hourly F and T Ratings of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.

2. Through Penetrant — One metallic tubing or conduit installed concentrically or eccentrically within the firestop system. Tube or conduit to be rigidly supported on both sides of wall assembly. The annular space between the tube or conduit and periphery of the steel sleeve shall be min 0 in. (point contact) to max 1 in. The following types and sizes of metallic tube or conduit may be used:

A. Conduit — Nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit.

3. Fill Void or Cavity Material* — Putty — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall. At point contact location between penetrant and wall, a 1/4 in. crown of fill material shall be applied at the conduit/wall interface on both sides of the assembly, lapping 1/4 in. on the conduit and 1/4 in. beyond the periphery of the opening.
HILTI INC — CP616 Putty Stick

*Bearing the UL Classification Mark

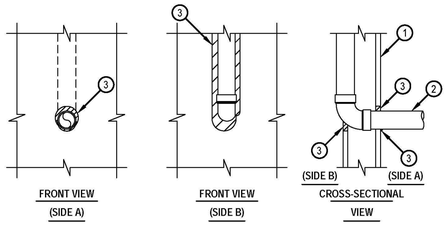
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
February 08, 2006

System No. W-L-1412

F Rating — 1 Hr
T Rating — 0 Hr

WL 1412



1. Wall Assembly — The 1 hr fire-rated gypsum board/steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
A. Studs — Wall framing shall consist of steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC. Steel studs to be min 3-5/8 in. (92 mm) wide and spaced max 24 in. (610 mm) OC.
B. Gypsum Board* — Min 5/8 in. (16 mm) thick gypsum board. Max diam of opening shall be 3 in. (76 mm) on through penetration side. Maximum width of opening on membrane penetration is to be max 3 in. (76 mm).
2. Through Penetrant — One nom 2 in. (51 mm) pipe to be installed concentrically or eccentrically within opening on one side of the wall. On one side of the wall the pipe is allowed to penetrate the membrane continuously in a plane parallel with the wall and the studs. The annular space between the through penetrant and the periphery of opening shall be min 0 in. (0 mm, point contact) to max 3/4 in. (19 mm). Through penetrant to be rigidly supported on the through penetration side of the wall assembly. The following types and sizes of through penetrants may be used:
A. Steel Pipe — Nom 2 in. (51 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 2 in. (51 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit — Nom 2 in. (51 mm) diam (or smaller) rigid steel conduit or electrical metallic tubing (ENT)
3. Firestop System — Sealant — Min 5/8 in. (16 mm) thickness of fill material applied with annulus flush with both surfaces of the wall. Additional min 1/4 in. (6 mm) diam bead of fill material applied at the penetrant/gypsum board interface on both sides of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — FS-ONE Sealant
*Bearing the UL Classification Mark

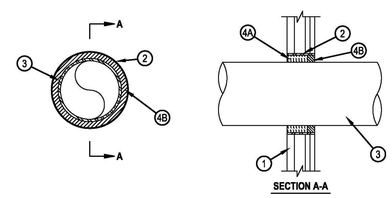
Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
May 24, 2007

System No. W-L-1205

F Ratings — 1 and 2 Hr (See Items 1 and 4)
T Rating — 0 Hr

WL 1205



1. Wall Assembly — The 1 or 2 Hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
A. Studs — "C-T" shaped studs 1-5/8 in. (41 mm) wide by 2-1/2 in. (64 mm) deep, fabricated from 25 MSG galv steel, spaced max 24 in. (610 mm) OC.
B. Gypsum Board* — One layer of nom 1 in. (25 mm) thick, 24 in. (610 mm) wide gypsum liner and one or two layers of 5/8 in. (16 mm) thick, 4 ft (1.22 m) wide gypsum board with square or tapered edges. The gypsum board types, number of layers, fastener type and sheet orientation shall be as specified in the individual Wall and Partition Design. Max diam of opening is 10-1/2 in. (267 mm).
1A. Wall Assembly — As an alternate to the above wall assembly, the 1 or 2 Hr fire rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features:
A. Studs — Wall framing may consist of either wood studs or steel channel studs. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced 16 in. (406 mm) OC.
B. Gypsum Board* — Thickness, type, number of layers and fasteners as required in the individual Wall and Partition Design. Max diam of opening is 10-1/2 in. (267 mm).
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Metallic Sleeve — Max 10-1/2 in. (267 mm) diam cylindrical sleeve fabricated from min 0.016 in. (0.41 mm) thick galv sheet steel and having a min 1 in. (25 mm) lap along the longitudinal seam. Length of sleel sleeve to be equal to thickness of wall. Sleeve Installed by coiling the sheet steel to a diam smaller than the through opening, inserting the coil through the opening and releasing the coil to let it uncoil against the circular cutouts in the gypsum board layers. Sleeve may also be formed of No. 8 steel wire mesh having a min 1 in. (25 mm) lap along the longitudinal seam.

Hilti Firestop Systems

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August 31, 2005

Page: 1 of 2

System No. W-L-1205

F Ratings — 1 and 2 Hr (See Items 1 and 4)
T Rating — 0 Hr

WL 1205

3. Through-Penetrants — One metallic pipe, conduit or tubing to be installed either concentrically or eccentrically within the firestop system. An annular space of min 1/4 in. (6 mm) to max 1-5/8 in. (41 mm) is required within firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of wall assembly. The following types and sizes of metallic pipes, conduits or tubing may be used:
A. Steel Pipe — Nom 8 in. (203 mm) diam (or smaller) Schedule 10 (or heavier) steel pipe.
B. Iron Pipe — Nom 8 in. (203 mm) diam (or smaller) cast or ductile iron pipe.
C. Conduit — Nom 4 in. (203 mm) diam (or smaller) steel electrical metallic tubing (EMT) or 6 in. diam steel conduit.
D. Copper Tubing — Nom 4 in. (102 mm) diam (or smaller) Type L (or heavier) copper tubing.
E. Copper Pipe — Nom 4 in. (102 mm) diam (or smaller) Regular (or heavier) copper pipe.
F. Flexible Steel Conduit — Nom 2 in. (51 mm) diam (or smaller) flexible steel conduit.
See Flexible Metal Conduit (DXUZ) category in the Electrical Construction Equipment Directory for names of manufacturers.
4. Firestop System — The firestop system shall consist of the following:
A. Packing Material — Min 2-1/8 in. (54 mm) or 2-3/4 in. (70 mm) thickness of min 4 pcf (64 kg/m3) mineral wool batt insulation firmly packed into opening on the room side of the wall as permanent form for 1 and 2 hr fire rated walls, respectively. Packing material to be mcessed from the room side of wall as required to accommodate the required thickness of fill material. In alternate wall assembly, packing material to be flush with either side of the wall and recessed from the other side of the wall to accommodate the required thickness of fill material.
B. Fill, Void or Cavity Material — Sealant* — Min 1 in. (25 mm) thickness of fill material applied within sleeve, flush with surface of wall.
HILTI CONSTRUCTION CHEMICALS, DIV OF
HILTI INC — FS-ONE Sealant
*Bearing the UL Classification Mark
+Bearing the UL Listing Mark

Hilti Firestop Systems

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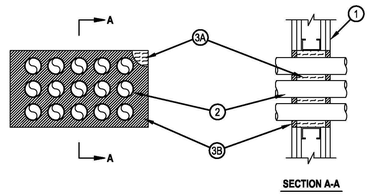
August 31, 2005

Page: 2 of 2

System No. W-L-1176

F Ratings — 1 and 2 Hr (See Items 1 and 3A)
T Rating — 1/2 Hr

WL 1176



1. Wall Assembly — The 1 or 2 hr fire rated wallboard/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300 or U400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the following construction features.
A. Studs — Wall framing shall consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. lumber spaced 16 in. OC. Steel studs to be min 2-1/2 in. wide and spaced max 24 in. OC.
B. Gypsum Board* — The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U300 or U400 Series Design in the UL Fire Resistance Directory. Max area of opening is 180 sq. in. with max dimension of 18 in. Max width of openings in wood stud walls is limited 14-1/2 in.
The hourly F Rating of the firestop system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Through Penetrant — One or more steel electrical metallic tubing to be installed within the opening. The space between tubing shall be min 1/2 in. and max 5/8 in. Tubing to be installed at an angle not greater than 45 degrees from perpendicular. Tubing to be rigidly supported on both sides of wall assembly. The space between tubing and periphery of opening shall be min 1/2 in. to max 2-3/8 in. The following types and sizes of metallic tube may be used:
A. Conduit — Nom 2 in. diam (or smaller) steel electrical metallic tubing or 2 in. diam steel conduit.
3. Firestop System — The firestop system shall consist of the following:
A. Packing Material — Min 2-1/2 or 3-3/4 in. thickness of min 4 pcf mineral wool batt insulation, firmly packed into the opening as a permanent form for 1 or 2 hr rated walls, respectively. Mineral wool to be recessed from both sides of the assembly to accommodate the required thickness of fill material (Item 3B).
B. Fill, Void or Cavity Material* — Sealant — Min 5/8 in. thickness of fill material applied within the annulus, flush with both surfaces of wall.
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Hilti Firestop Systems

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July 08, 2003

DETAILS SHOWN ARE FOR BASIS OF DESIGN ONLY. REFER TO SPECIFICATIONS .

1 **FIRESTOPPING DETAILS**

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **FIRE STOPPING DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE516**

Dwg. 23 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:07:18 AM

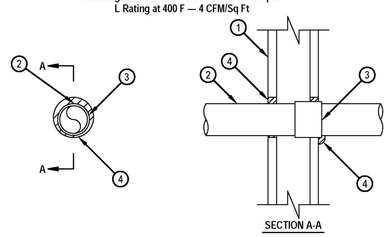
LAST EDITTED: 05-14-2014

System No. W-L-2482

F Rating — 1 Hr
T Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/Sq Ft
L Rating at 400 F — 4 CFM/Sq Ft

Classified by Underwriters Laboratories, Inc. to UL 1479

W-L 2482



1. Wall Assembly — The 1 hour fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner specified in the individual U300, U400 or V400 Series Wall and Partition Designs in the UL Fire Resistance Directory and shall include the construction features noted below.
   A. Studs — Wall framing may consist of either wood studs or steel channel studs. Wood studs to consist of nom 2 by 4 in. (51 by 102 mm) lumber spaced max 16 in. (406 mm) OC. Steel studs to be min 2-1/2 in. (64 mm) wide and spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — Nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. Diam of opening shall be 1 in (25 mm) larger than nom pipe diameter.
2. Through Penetrants — One nonmetallic pipe to be installed either concentrically or eccentrically within the firestop system. The annular space between pipe and the periphery of the opening shall be min 0 in. (point contact) to a max 5/8 in. (16 mm). The following types and sizes of nonmetallic pipes may be used:
   A. Polyvinyl Chloride (PVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) cellular or solid core Schedule 40 (or heavier) pipe for use in closed (process or supply) or vented (drain, waste or vent) piping systems.
   B. Chlorinated Polyvinyl Chloride (CPVC) Pipe — Nom 2 in. (51 mm) diam (or smaller) SDR 13.5 CPVC pipe for use in closed (process or supply) piping systems.
3. Nonmetallic Pipe Coupling — (Optional) - Pipe coupling to be the same size and type of pipe and installed such that one end of coupling is flush with either side of wall assembly and extending outward. As an alternate, the coupling may be recessed into annular space within the opening on either side of the wall.
4. Fill, Void or Cavity Material* - Sealant — Min 5/8 in. (16 mm) thickness of fill material applied within annulus, flush with both surfaces of wall. At point contact location, a min 1/2 in. (13 mm) diam bead of fill material shall be applied to the wall/penetrant interface on both surfaces of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — FS-ONE Sealant

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Hilti Firestop Systems

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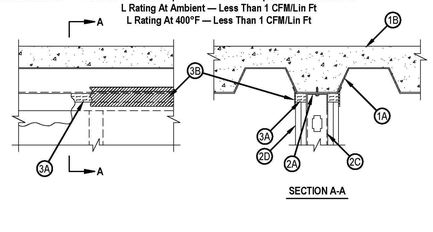
May 24, 2007

System No. HW-D-0049

Assembly Ratings — 1 and 2 Hr (See Items 2 and 3B)
Nominal Joint Width — 1 In.
Class II Movement Capabilities — 50% Compression Or Extension
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

HWD 0049



1. Floor Assembly — The fire-rated fluted steel deck/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor And Form Units* — Max 3 in. (76 mm) deep galv steel fluted units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Spray-Applied Fire Resistive Materials* — (Optional) - (Not Shown)—Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B) the steel floor units may be sprayed with a min 5/16 in. (8 mm) to max 1-3/4 in. (44 mm) thickness of fire resistive material.
   W R GRACE & CO - CONN — Type MK-6 HY
   ISOLATEK INTERNATIONAL — Type 300
1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.
1B. Roof Assembly — As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Spray—Applied Fire Resistive Materials* — (Not Shown)—Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
   W R GRACE & CO - CONN — Type MK-6 HY
   ISOLATEK INTERNATIONAL — Type 300

Hilti Firestop Systems

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August 26, 2013

HWD 0049

2. Wall Assembly — The 2 hr fire rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner described in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor And Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min 25 ga galv steel channels sized to accommodate steel studs (Item 2C). Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width. Ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   A1. Light Gauge Framing*-Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2C). Slotted ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINOWARE, DIV OF WARE INDUSTRIES INC — Type SLT
   METAL-LITE INC — The System
   SCAFCO STEEL STUD MANUFACTURING CO
   STEELER INC — Steeler Slotted Ceiling Runner
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   A2. Light Gauge Framing*-Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2C). Vertical deflection ceiling runner installed parallel to direction of fluted steel deck, centered beneath deck, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800
   A3. Light Gauge Framing —Floor and Ceiling Runners — As an alternate to the ceiling and floor runners in Item 2A, 2A1, 2A2 and 2A3, floor and ceiling runners to consist of galv steel channel sized to accommodate the Light Gauge Framing* Slotted Stud (Item 2C-1) or Light Gauge Framing* Slider C-Clip System (Item 2C2). Floor and ceiling runners to be provided with min 1-1/4 in. (32 mm) and 3 in. (76 mm) flanges, respectively. Ceiling runner installed parallel to direction of fluted steel deck, centered beneath deck, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   STEELER INC — Floor and Ceiling Runners
   A4. Light Gauge Framing*- Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A4, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2C). Notched ceiling runner installed parallel to direction of fluted steel deck, centered beneath valley, and secured with steel masonry anchors, steel fasteners or welds spaced max 24 in. (610 mm) OC. before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   OLMAR SUPPLY INC — Type SCR
   B. Steel Attachment Clips — (Optional - Not Shown) - When spray applied fireproofing is used ceiling runner may be secured to deck with Z-shaped clips formed from min 1 in. (25 mm) long strips of min 20 ga galv steel. Length of clips should not exceed the width (thickness) of the wall. Clips to be sized to extend through the thickness of the spray-applied fire-resistive material on the bottom of the steel deck with 1-1/2 or 2 in. (38 or 51 mm) long upper and lower legs. Legs of clips fastened perpendicular to valleys of steel deck (prior to application of spray-applied fire-resistive materials) and top of ceiling runner with steel fasteners or welds. Clips spaced max 24 in. (610 mm) OC.

Hilti Firestop Systems

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August 26, 2013

HWD 0049

   C. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
   C1. Light Gauge Framing* —Slotted Studs — Slotted steel stud to be used in conjunction with Light Gauge Framing* —Floor and Ceiling Runners (Item 2A4). Slotted steel studs to be min 2-1/2 in. (64 mm) wide. Slotted steel studs cut 1 in. less in length than assembly height with bottom nesting in and secured to both ceiling and floor runners. Ceiling runner secured to preformed slot within steel stud by means of No. 10 by 3/4 in. (19 mm) long low profile head steel screw. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Slotted steel stud spacing not to exceed 24 in. (610 mm) OC.
   STEELER INC — Slotted Stud
   C2. Light Gauge Framing* —Slider C-Clip System — As an alternate to the Light Gauge Framing* —Slotted Steel Studs (Item 2C1), a Slider C-Clip System consisting of a C shaped steel clip with a slotted opening and a steel stud to be used in conjunction with Light Gauge Framing —Floor and Ceiling Runners (Item 2A4). Steel clips and studs to be min 2-1/2 in. (64 mm) wide. Steel clip inserted into inside flange of steel stud without attachment. Total length of steel stud cut 1 in. (25 mm) less than assembly height with bottom of steel stud nesting in and secured to floor runner. Floor runner attached to bottom of steel stud by means of No. 8 by 1/2 in. (13 mm) long pan head steel screw. Ceiling runner secured to steel C-Clip by means of No. 10 by 3/4 in. (19 mm) long pan head steel screw located 3/8 in. (10 mm) below top of ceiling runner. Top row of gypsum board screws shall be centered within the preformed slot of the C-Clip. Steel stud and steel clips spacing not to exceed 24 in. (610 mm) OC.
   STEELER INC — Slider C Clip System
   D. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 in. (16 mm) and 1-1/4 in. (32 mm) on each side of wall for 1 and 2 Hr rated assemblies respectively. Wall to be constructed as specified in the individual Wall and Partition Design in the UL Fire Resistance Directory, except that a nom 1 in. (25 mm) gap shall be maintained between the top of the gypsum board and the bottom of the steel floor units and the top row of screws shall be installed into the studs 1-1/2 (38 mm) to 2 in. (51 mm) below the bottom of the ceiling runner. The hourly rating of the joint system is equal to the hourly fire rating of the wall.
3. Joint System — Max separation between bottom of floor and top of wall at time of installation of joint system is 1 in. (25 mm). The joint system is designed to accommodate a max 50 percent compression or extension from its installed width. The joint system consists of forming material and a fill material, as follows:
   A. Forming Material* — Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide strips of min 4 pcf (64 kg/m3) mineral wool batt insulation for 1 and 2 hr rated assemblies respectively, cut to thickness, compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
   ROCK WOOL MANUFACTURING CO — Delta- Board
   ROXUL INC — SAFE
   THERMAFIBER INC — Type SAF
   IIG MINWOOL L L C — MinWool-1200 Safing
   A1. Forming Material* - Strips — (Optional) - Nom 5/8 in. (16 mm) and 1-1/4 in. (32 mm) wide precut mineral wool strips for 1 and 2 hr rated assemblies respectively. The strips are compressed 50 percent in thickness and firmly packed into the gap between the top of the gypsum board and bottom of the steel floor units on both sides of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP 767 Speed Strips
   B. Fill, Void or Cavity Material* — Min 1/16 in. (1.6 mm) dry thickness (min 1/8 in. or 3.2 mm wet thickness) of fill material sprayed or troweled on each side of the wall to completely cover mineral wool forming material and to overlap a min of 1/2 in. (13 mm) onto gypsum board and steel deck on both sides of wall. When spray-applied fire resistive material is applied to the steel floor and form units, the fill material is to overlap the gypsum board a min of 1/2 in. (13 mm) and the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of wall. When spray-applied fire resistive materials are used, the joint spray shall overlap the wall a min 1/2 in. (13 mm) and overlap the spray-applied fire resistive material a min of 2 in. (51 mm) on both sides of the wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CFS-SP WB Firestop Joint Spray

*Bearing the UL Classification Mark

Hilti Firestop Systems

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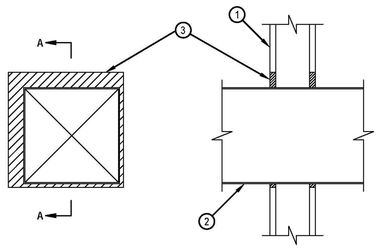
August 26, 2013

System No. W-L-7159

F Rating — 1 or 2 Hr (See item 1)
T Rating — 1/2 Hr

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

W-L 7159



1. Wall Assembly — The 1 or 2 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U300 or U400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Wall framing may consist of min 3-1/2 in. (89 mm) wide steel channel studs, fabricated from 25 MSG galv steel, spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — One or two layers of nom 5/8 in. (16 mm) thick gypsum board, as specified in the individual Wall and Partition Design. Max area of opening is 144 sq in. (903 cm2) with max dimension of 12 in. (306 mm)
   The hourly F Rating of the firestop system is equal to the hourly f rating of the wall assembly.
2. Steel Duct — Nom 10 in by 10 in. (254 by 254 mm) (or smaller) No. 28 gauge (or heavier) galv steel duct to be installed either concentrically or eccentrically within the firestop system. The annular space shall be min ¼ in. to max 1 in. Duct to be rigidly supported on both sides of the wall assembly.
3. Fill, Void or Cavity Material - Sealant* — Min 5/8 in. (16mm) thickness of fill material applied within annular space, flush with both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF
   HILTI INC — FS-ONE Sealant

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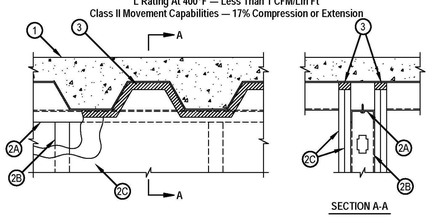
May 24, 2007

System No. HW-D-0077

Assembly Rating — 1 or 2 Hr (See Items 2 and 3)
Nominal Joint Width — 3/4 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II Movement Capabilities — 17% Compression or Extension

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

HWD 0077



1. Floor Assembly — The fire-rated fluted steel floor unit/concrete floor assembly shall be constructed of the materials and in the manner described in the individual D700 or D900 Series Floor-Ceiling Design in the Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Form Units* — Max 3 in. (76 mm) deep galv steel fluted floor units.
   B. Concrete — Min 2-1/2 in. (64 mm) thick reinforced concrete, as measured from the top plane of the floor units.
   C. Spray-Applied Fire Resistive Materials — (Optional, Not Shown) — Prior to or after the installation of the ceiling runner and Fill, Void or Cavity Materials (Item 3), the steel floor units may be sprayed with a min 5/16 in. (8 mm) thickness to a max 1/16 in. (17 mm) thickness of fire resistive material.
   W R GRACE & CO - CONN — Type MK-6/HY
1A. Roof Assembly — (Not Shown) — As an alternate to the floor assembly, a fire rated fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P900 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Roof Insulation — Min 2-1/4 in. (57 mm) thick poured insulating concrete, as measured from the top plane of the floor units.

Hilti Firestop Systems

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June 23, 2011

System No. HW-D-0077

Assembly Rating — 1 or 2 Hr (See Items 2 and 3)
Nominal Joint Width — 3/4 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II Movement Capabilities — 17% Compression or Extension

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

HWD 0077

1B. Roof Assembly — As an alternate to Items 1 and 1A, a fire rated protected fluted steel deck roof assembly may be used. The roof assembly shall be constructed of the materials and in the manner described in the individual P700 Series Roof-Ceiling Design in the UL Fire Resistance Directory. The hourly rating of the roof assembly shall be equal to or greater than the hourly rating of the wall assembly. The roof assembly shall include the following construction features:
   A. Steel Roof Deck — Max 3 in. (76 mm) deep galv steel fluted roof deck.
   B. Spray—Applied Fire Resistive Materials* — (Not Shown)—Prior to or after the installation of the steel ceiling runners, Forming Material and Fill, Void or Cavity Material (Items 2A, 3A, 3B), the roof assembly shall be sprayed with the type and thickness of fire resistive material indicated in the individual P700 Series design.
   W R GRACE & CO - CONN — Type MK-6/HY
2. Wall Assembly — The 1 or 2 hr fire-rated gypsum board /steel stud wall assembly shall be constructed of the materials and in the manner specified in the individual U400 or V400 Series Wall and Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B).Flange height of ceiling runner shall be min 1/4 in. (6 mm) greater than max extended joint width Ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced 24 in. (610mm) OC before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   A1. Light Gauge Framing*-Slotted Ceiling Runner — As an alternate to the ceiling runner in Item 2A, slotted ceiling runner to consist of galv steel channel with slotted flanges sized to accommodate steel studs (Item 2B). Slotted ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced 24 in. (610mm) OC before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   BRADY CONSTRUCTION INNOVATIONS INC,
   DBA SLIPTRACK SYSTEMS — SLP-TRK
   CALIFORNIA EXPANDED METAL PRODUCTS CO — CST
   CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H
   MARINOWARE, DIV OF WARE INDUSTRIES
   INC — Type SLT
   METAL-LITE INC — The System
   SCAFCO STEEL STUD MANUFACTURING CO
   TELLING INDUSTRIES L L C — True-Action Deflection Track
   A2. Light Gauge Framing*-Vertical Deflection Ceiling Runner — As an alternate to the ceiling runners in Items 2A and 2A1, vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Flanges sized to accommodate steel studs (Item 2B). Vertical deflection ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced 24 in. (610mm) OC before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   THE STEEL NETWORK INC — VertiTrack VTD250, VTD362, VTD400, VTD600 and VTD800

Hilti Firestop Systems

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June 23, 2011

System No. HW-D-0077

Assembly Rating — 1 or 2 Hr (See Items 2 and 3)
Nominal Joint Width — 3/4 In.
L Rating At Ambient — Less Than 1 CFM/Lin Ft
L Rating At 400°F — Less Than 1 CFM/Lin Ft
Class II Movement Capabilities — 17% Compression or Extension

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115

HWD 0077

   A3. Light Gauge Framing* - Notched Ceiling Runner — As an alternate to the ceiling runners in Items 2A through 2A3, notched ceiling runners to consist of C-shaped galv steel channel with notched return flanges sized to accommodate steel studs (Item 2B). Notched ceiling runner installed perpendicular to direction of fluted steel deck and secured to valleys with steel masonry anchors, steel fasteners or welds spaced 24 in. (610mm) OC before or after optional spray-applied fire resistive material is used. The use of welds to secure the ceiling runner may only be used prior to the installation of the optional spray-applied material.
   OLMAR SUPPLY INC — Type SCR
   B. Studs — Steel studs to be min 2-1/2 in. (64 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in and resting on floor runner and with top nesting in ceiling runner without attachment. When slotted ceiling runner (Item 2A1) is used, steel studs secured to slotted ceiling runner with No. 8 by 1/2 in. (13 mm) long wafer head steel screws at midheight of slot on each side of wall. Stud spacing not to exceed 24 in. (610 mm) OC. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at midheight of each slot. Stud spacing not to exceed 24 in. (610 mm) OC.
   C. Gypsum Board* — Gypsum board installed to a min total thickness of 5/8 or 1-1/4 in. (16 or 32 mm) on each side of wall, for 1 or 2 hr fire resistance rated walls, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory, except that the gypsum board is cut to fit the contour of the steel floor units with a max 3/4 in. (19 mm) gap. The screws attaching the gypsum board to the studs at the top of the first layer shall be located 4 in. (102 mm) from the steel floor unit valleys. The screws attaching the second layer to the steel studs shall be installed into the studs 3-1/2 in. (89 mm) below the valleys of the steel floor units. The hourly fire rating of the joint system is dependent on the hourly rating of the wall.
3. Fill, Void or Cavity Material* — Sealant — Max separation between bottom of floor and top of wall is 3/4 in. (19 mm). The joint system is designed to accommodate a max 17 percent compression or extension from its installed width. Min 1-1/4 in. (32 mm) thickness of fill material flush with the surface of the gypsum board for 2 hr fire rated systems or 5/8 in. (16 mm) thickness of fill material for 1 hr fire rated systems installed on each side of the wall between the top of the gypsum board and the bottom of the steel floor or roof deck or the spray-applied fire resistive material on the steel deck.
   HILTI CONSTRUCTION CHEMICALS, DIV OF
   HILTI INC — CP606 Flexible Firestop Sealant

*Bearing the UL Classification Mark

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc.
June 23, 2011

DETAILS SHOWN ARE FOR BASIS OF DESIGN ONLY. REFER TO SPECIFICATIONS .

1 **FIRESTOPPING DETAILS**

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS — BEAUFORT, SC — 3941 — REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

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Drawing Title: FIRE STOPPING DETAILS	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
			Building Number: 100
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Drawing Number: AE517
	Date: 05/16/2014	Drawn: BUSH / Checked: CHAMBERS	Dwg. 24 of 78

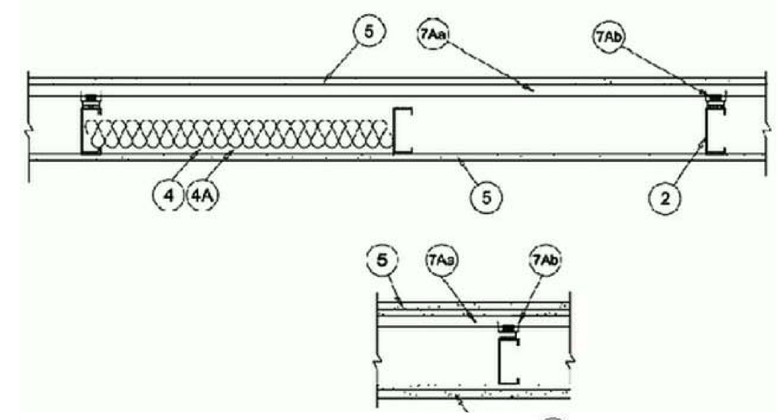
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

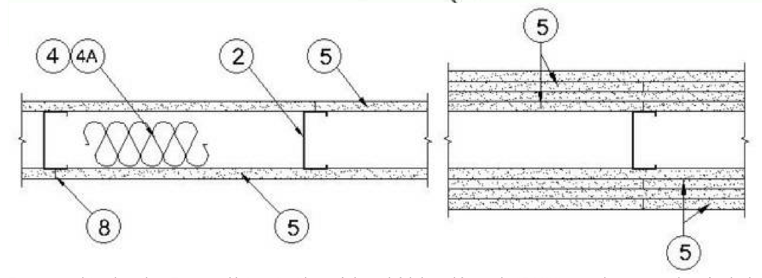
Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:07:26 AM

LAST EDITTED: 05-14-2014

UL ASSEMBLY U419





1. Floor and Ceiling Runners — (Not shown) — For use with Item 2 - Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth to accommodate stud size, with min 1-1/4 in. long legs, attached to floor and ceiling with fasteners 24 in. OC max.
1A. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 — For use with Item 2B, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™ Track
CRACO MFG INC — SmartTrack™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™ Track
PHILLIPS MFG CO L L C — Viper25™ Track

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

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track
PHILLIPS MFG CO L L C — Viper20™ Track

1C. Framing Members*— Floor and Ceiling Runners — (Not shown) — In lieu of Item 1 - Channel shaped, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System
UNITED METAL PRODUCTS INC — Type SUPREME Framing System

1D. Floor and Ceiling Runners — (Not shown)—For use with Item 2A- Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, min depth to accommodate stud size, with min 1 in. long legs, attached to floor and ceiling with fasteners spaced max 24 in. OC.

1E. Framing Members*— Floor and Ceiling Runners — (Not shown, As an alternate to Item 1) — For use with Items 2E, 5F or 5G or 5I only, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.

CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK
DMFCWBS L L C — ProTRAK
MBA BUILDING SUPPLIES INC — ProTRAK
RAM SALES L L C — Ram ProTRAK
SOUTHEASTERN STUD & COMPONENTS INC — ProTRAK
STEEL STRUCTURAL SYSTEMS L L C — Tri-S ProTRAK

1F. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 — For use with Item 2F, proprietary channel shaped runners, minimum width to accommodate stud size, with 1- 1/8 in. long legs fabricated from min 0.015 in. (min bare metal thickness) galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.
SUPER STUD BUILDING PRODUCTS — The Edge

1G. Framing Members* - Floor and Ceiling Runner — For use with Item 2G, proprietary channel shaped runners, minimum width to accommodate stud size attached to floor and ceiling with fasteners 24 in. OC max.
STUDCO BUILDING SYSTEMS — CROCSTUD Track

1H. Floor and Ceiling Runners — (Not shown) — Channel shaped, fabricated from min 0.02 in. galv steel, min width to accommodate stud size, with min 1 in. long legs, for use with studs specified below and fabricated from min 0.02 in. galv steel or thicker, attached to floor and ceiling with fasteners spaced max 24 in. OC.

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100.

1I. Framing Members*— Floor and Ceiling Runners — (Not shown, As an alternate to Item 1) — For use with Items 2H, channel shaped, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, attached to floor and ceiling with fasteners 24 in. OC. max.

TELLING INDUSTRIES L L C — TRUE-TRACK™

1J. Framing Members* - Floor and Ceiling Runner — Not shown - In lieu of Item 1 — For use with Item 2I, proprietary channel shaped runners, 3-5/8 in. deep attached to floor and ceiling with fasteners 24 in. OC max.
TELLING INDUSTRIES L L C — Viper25™ Track

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

TELLING INDUSTRIES L L C — Viper20™ Track

2. Steel Studs — Channel shaped, fabricated from min 25 MSG corrosion-protected steel, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height.
2A. Steel Studs — (As an alternate to Item 2, For use with Items 5B, 5E, 5H and 5J) Channel shaped, fabricated from min 20 MSG corrosion-protected or galv steel, 3-1/2 in. min depth, spaced a max of 16 in. OC. Studs friction-fit into floor and ceiling runners. Studs to be cut 5/8 to 3/4 in. less than assembly height.
2B. Framing Members* - Steel Studs — (As an alternate to Item 2, For use with Items 5C or 5I) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper25™
CRACO MFG INC — SmartStud™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper25™
PHILLIPS MFG CO L L C — Viper25™

2C. Framing Members* - Steel Studs — Not shown - In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights.

CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™
MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™
PHILLIPS MFG CO L L C — Viper20™

2D. Framing Members*— Steel Studs — In lieu of Item 2 - Channel shaped studs, min depth as indicated under Item 5, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System
CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME Framing System
QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System
SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System
STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System
UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2E. Framing Members*— Steel Studs — (Not shown, As an alternate to Item 2) —For use with Items 5F or 5G or 5I only, channel shaped studs, min depth as indicated under Item 5F, 5G or 5I, fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD
DMFCWBS L L C — ProSTUD
MBA BUILDING SUPPLIES INC — ProSTUD
RAM SALES L L C — Ram ProSTUD
SOUTHEASTERN STUD & COMPONENTS INC — ProSTUD
STEEL STRUCTURAL SYSTEMS L L C — Tri-S ProSTUD

2F. Framing Members* - Steel Studs — Not shown - In lieu of Item 2 — proprietary channel shaped steel studs, minimum width indicated under Item 5, 1-1/4 in. deep fabricated from min 0.015 in. (min bare metal thickness) galvanized steel. Studs 3/8 in. to 3/4 in. less in lengths than assembly heights.

SUPER STUD BUILDING PRODUCTS — The Edge

2G. Framing Members* - Steel Studs — Not shown - In lieu of Item 2 - proprietary channel shaped studs, minimum width indicated under Item 5, Studs to be cut 3/8 to 3/4 in less than the assembly height.

STUDCO BUILDING SYSTEMS — CROCSTUD

2H. Framing Members*— Steel Studs — (Not shown, As an alternate to Item 2) — Fabricated from min. 0.015 in. (min bare metal thickness) galvanized steel, spaced a max of 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

TELLING INDUSTRIES L L C — TRUE-STUD™

2I. Framing Members* - Steel Studs — (As an alternate to Item 2, For use with Items 5C or 5L) - Proprietary channel shaped studs, 3-5/8 in. deep spaced a max of 24 in. OC. Studs to be cut 3/4 in less than the assembly height and installed with a in. gap between the end of the stud and track at the bottom of the wall. For direct attachment of gypsum board only.

TELLING INDUSTRIES L L C — Viper25™

2J. Framing Members* - Metal Studs — Not shown - In lieu of Item 2 — proprietary channel shaped steel studs, min depth as indicated under Item 5, spaced a max if 24 in. OC, fabricated from min 0.020 in. thick galv steel. Studs cut 3/8 in. to 3/4 in. less in lengths than assembly heights

TELLING INDUSTRIES L L C — Viper20™

3. Wood Structural Panel Sheathing — (Optional, For use with Item 5 Only.)- (Not Shown) - 4 ft wide, 7/16 in. thick oriented strand board (OSB) or 15/32 in. thick structural 1 sheathing (plywood) complying with DOC PS1 or PS2, or APA Standard PRP-108, manufactured with exterior glue, applied horizontally or vertically to the steel studs. Vertical joints centered on studs, and staggered one stud space from wallboard joints. Attached to studs with flat-head self-drilling tapping screws with a min. head diam. of 0.292 in. at maximum 6 in. OC. in the perimeter and 12 in. OC. in the field. When used, fastener lengths for gypsum panels increased by min. 1/2 in.
4. Batts and Blankets* — (Required as indicated under Item 5) — Mineral wool batts, friction fitted between studs and runners. Min nom thickness as indicated under Item 5. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.
4A. Batts and Blankets* — (Optional) — Placed in stud cavities, any glass fiber or mineral wool insulation bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance. See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies.
5. Gypsum Board* — Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 1 hr, 2 hr, 3 hr and 4 hr ratings are as follows:
Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Items 2, 2C, 2D, 2F and 2G	No. of Layers & Thkns of Panel	Min Thkns of Insulation (Item 4)
1	3-1/2	1 layer, 5/8 in. thick	Optional
1	2-1/2	1 layer, 1/2 in. thick	1-1/2 in.
1	1-5/8	1 layer, 3/4 in. thick	Optional
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
2	3-1/2	1 layer, 3/4 in. thick	3 in.
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	2 layers, 3/4 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional
4	2-1/2	2 layers, 3/4 in. thick	2 in.

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR; WRC, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX or WRC; 3/4 in. thick Types IP-X3 or ULTRACODE
UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type SCX, SGX, SHX, WRX, IP-X1, AR, C, WRC, FRX-G, IP-AR, IP-X2, IPC-AR ; 3/4 in. thick Types IP-X3 or ULTRACODE
USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or WRC; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRX, WRC or; 3/4 in. thick Types IP-X3 or ULTRACODE

When Item 7B, Steel Framing Members*, is used, Nonbearing Wall Rating is limited to 1 Hr. Min. stud depth is 3-1/2 in., min. thickness of insulation (Item 4) is 3 in., and two layers of gypsum board panels (1/2 in. or 5/8 in. thick) shall be attached to furring channels as described in Item 6. One layer of gypsum board panels (1/2 in. or 5/8 in. thick) attached to opposite side of stud without furring channels as described in Item 6.

5A. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Secured as described in Item 6.

CGC INC — Type SHX.
UNITED STATES GYPSUM CO — Type FRX-G, SHX.
USG MEXICO S A DE C V — Type SHX.

5B. Gypsum Board* — (Not Shown) - As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 in or in. thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 in. or in. may be used as alternate to all 5/8 in. or in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 in. or in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to 20 MSG steel studs Item 2A with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 11) or Lead Discs or Tabs (see Item 12).

RAY-BAR ENGINEERING CORP — Type RB-LBG

5C. Gypsum Board* — (For Use With Item 2B) Rating Limited to 1 Hour. 5/8 in. thick, 48 in. wide, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. (Vertical Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. Vertical joints are to be centered over studs and staggered one stud cavity on opposite sides of studs. (Horizontal Application) - The gypsum board is to be installed on each side of the studs with 1 in. long Type S coated steel screws spaced 8 in. OC starting 4 in. from the edge of the board at the vertical edges and 12 in. OC starting 6 in. from the edge of the board at the center of each board. Gypsum boards are to be secured to the top and bottom track with screws spaced 8 in. OC starting 4 in. from the board edge. Fasteners shall not penetrate through both the stud and the track at the same time. All horizontal joints are to be backed as outlined under section VI of Volume 1 in the Fire Resistive Directory.

CGC INC — Type SCX.
UNITED STATES GYPSUM CO — Type SCX, SGX.
USG MEXICO S A DE C V — Type SCX.

5D. Gypsum Board* — (As an alternate to Item 5) — 5/8 in. thick, 48 in. wide, applied vertically or horizontally. Secured as described in Item 6. For use with Items 1 and 2 only.

UNITED STATES GYPSUM CO — Type USGX

5E. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nominal 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 (or No. 6 by 1-1/4 in. long bugle head fine driller) steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field.

NEW ENGLAND LEAD BURNING CO INC, DBA NELCO — Nelco

5F. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E and limited to 1 Hour Rating only, Gypsum panels with beveled, square or tapered edges, applied vertically, and fastened to the steel studs with 1 in. long Type S screws spaced 8 in. OC along vertical and bottom edges and 12 in. OC in the field. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Steel stud depth shall be a minimum 3-5/8 in.

UNITED STATES GYPSUM CO — 5/8 in. thick Type SCX, SGX.

5G. Gypsum Board* — (As an alternate to Item 5) — For use with Items 1E and 2E only, Gypsum panels with beveled, square or tapered edges, applied vertically or horizontally, as specified in the table below and fastened to the steel studs as described in Item 6. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Vertical joints in adjacent layers (multilayer systems) staggered one stud cavity. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered. Horizontal edge joints and horizontal butt joints in adjacent layers (multilayer systems) staggered a min of 12 in. The thickness and number of layers for the 2 hr, 3 hr and 4 hr ratings are as follows:
Gypsum Board Protection on Each Side of Wall

Rating, Hr	Min Stud Depth, in. Item 2E	No. of Layers & Thickness of Panel	Min Thkns of Insulation (Item 4)
2	1-5/8	2 layers, 1/2 in. thick	Optional
2	1-5/8	2 layers, 5/8 in. thick	Optional
3	1-5/8	3 layers, 1/2 in. thick	Optional
3	1-5/8	3 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 5/8 in. thick	Optional
4	1-5/8	4 layers, 1/2 in. thick	Optional

CGC INC — 1/2 in. thick Type C, IP-X2 or IPC-AR;, 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE
UNITED STATES GYPSUM CO — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type SCX, SGX, SHX, IP-X1, AR, C, , FRX-G, IP-AR, IP-X2, IPC-AR ; 3/4 in. thick Types IP-X3 or ULTRACODE
USG MEXICO S A DE C V — 1/2 in. thick Type C, IP-X2, IPC-AR or; 5/8 in. thick Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, or; 3/4 in. thick Types IP-X3 or ULTRACODE

5H. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 5/8 or 3/4 in thick products are specified. For direct attachment only to steel studs Item 2A, (not to be used with Item 3) - Nom 5/8 or 3/4 in. may be used as alternate to all 5/8 or 3/4 in. shown in Item 5, Wallboard Protection on Each Side of Wall table. Nom 5/8 or 3/4 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over 20 MSG steel studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Gypsum board secured to 20 MSG steel studs Item 2B with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. For Joint Compound see Item 5. To be used with Lead Batten Strips (see Item 11A) or Lead Discs (see Item 12A).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

5I. Gypsum Board* — (As an alternate to Item 5) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 5. Steel stud minimum depth shall be as indicated in Item 5.

CGC INC — Type ULX
UNITED STATES GYPSUM CO — Type ULX
USG MEXICO S A DE C V — Type ULX

5J. Gypsum Board* — (Not Shown) - (As an alternate to Item 5 when used as the base layer on one or both sides of wall when 1/2 in. or 5/8 in thick products are specified, For direct attachment only to steel studs Item 2A, not to be used with Item 3). Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

6. Fasteners — (Not shown) — For use with Items 2 and 2F - Type S or S-12 steel screws used to attach panels to studs (Item 2) or furring channels (Item 7). Single layer systems: 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 8 in. OC when panels are applied horizontally, or 8 in. OC along vertical and bottom edges and 12 in. OC in the field when panels are applied vertically. Two layer systems: First layer- 1 in. long for 1/2 and 5/8 in. thick panels or 1-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels or 2-1/4 in. long for 3/4 in. thick panels, spaced 16 in. OC with screws offset 8 in. from first layer.Three-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in., 5/8 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below. Four-layer systems: First layer- 1 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Second layer- 1-5/8 in. long for 1/2 in., 5/8 in. thick panels, spaced 24 in. OC. Third layer- 2-1/4 in. long for 1/2 in. thick panels or 2-5/8 in. long for 5/8 in. thick panels, spaced 24 in. OC. Fourth layer- 2-5/8 in. long for 1/2 in. thick panels or 3 in. long for 5/8 in. thick panels, spaced 12 in. OC. Screws offset min 6 in. from layer below.
7. Furring Channels — (Optional, not shown, for single or double layer systems) — Resilient furring channels fabricated from min 25 MSG corrosion-protected steel, spaced vertically a max of 24 in. OC. Flange portion attached to each intersecting stud with 1/2 in. long Type S-12 steel screws. Not for use with Item 5A and 5E.
7A. Framing Members* — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. Furring Channels — Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.
b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. RSIC-1 and RSIC-1 (2.75) clips secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. RSIC-V and RSIC-V (2.75) clips secured to studs with No. 8 x 9/16 in. minimum self-drilling, S-12 steel screw through the center hole. Furring channels are friction fitted into clips. RSIC-1 and RSIC-V clips for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) and RSIC-V (2.75) clips for use with 2-23/32 in. wide furring channels.

PAC INTERNATIONAL INC — Types RSIC-1, RSIC-V, RSIC-1 (2.75), RSIC-V (2.75).

7B. Framing Members* — (Optional, Not Shown) — As an alternate to Item 7, for single or double layer systems, furring channels and Steel Framing Members on only one side of studs as described below:
a. Furring Channels — Formed of No. 25 MSG galv steel, spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Batts and Blankets placed in stud cavity as described in Item 5. Two layers of gypsum board attached to furring channels as described in Item 5. Not for use with Item 5A and 5E.
b. Steel Framing Members* — Used to attach furring channels (Item 7Ba) to one side of studs (Item 2) only. Clips spaced 48 in. OC., and secured to studs with two No. 8 x 2-1/2 in. coarse drywall screws, one through the hole at each end of the clip. Furring channels are friction fitted into clips.

KINETICS NOISE CONTROL INC — Type Isomax

7C. Framing Members* — Optional - Not Shown - Used as an alternate method to attach resilient channels (Item 7). Clips attached at each intersection of the resilient channel and the steel studs (Item 2). Resilient channels are friction fitted into clips, and then clips are secured to the steel stud with min. 1 in. long Type S-12 steel screws through the center hole of the clip and the resilient channel flange.
7D. Framing Members* — (Not Shown) — (Optional on one or both sides, not shown, for single or double layer systems) — As an alternate to Item 7, furring channels and Steel Framing Members as described below:
a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 6. Not for use with Item 5A and 5E.
b. Steel Framing Members* — Used to attach furring channels (Item 7Aa) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

PLITEQ INC — Type GENIECLIP

7E. Steel Framing Members — (Optional, Not Shown)* - Furring channels and resilient sound isolation clip as described below:
a. Furring Channels — Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 4. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge. Not for use with Item 5A and 5E.
b. Steel Framing Members* — Resilient sound isolation clip used to attach furring channels (Item 7Ea) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

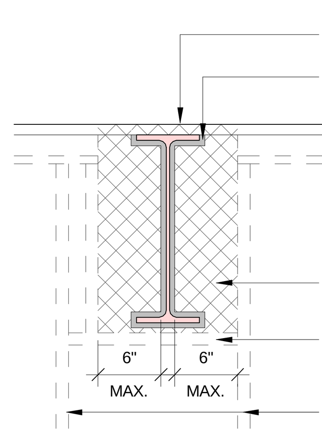
STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237 or A237R

8. Joint Tape and Compound — Vinyl or casein, dry or premixed joint compound applied in two coats to joints and screw heads of outer layers. Paper tape, nom 2 in. wide, embedded in first layer of compound over all joints of outer layer panels. Paper tape and joint compound may be omitted when gypsum panels are supplied with a square edge.
9. Siding, Brick or Stucco — (Optional, not shown) — Aluminum, vinyl or steel siding, brick veneer or stucco, meeting the requirements of local code agencies, installed over gypsum panels. Brick veneer attached to studs with corrugated metal wall ties attached to each stud with steel screws, not more than each sixth course of brick.
10. Caulking and Sealants* — (Optional, not shown) — A bead of acoustical sealant applied around the partition perimeter for sound control.

UNITED STATES GYPSUM CO — Type AS

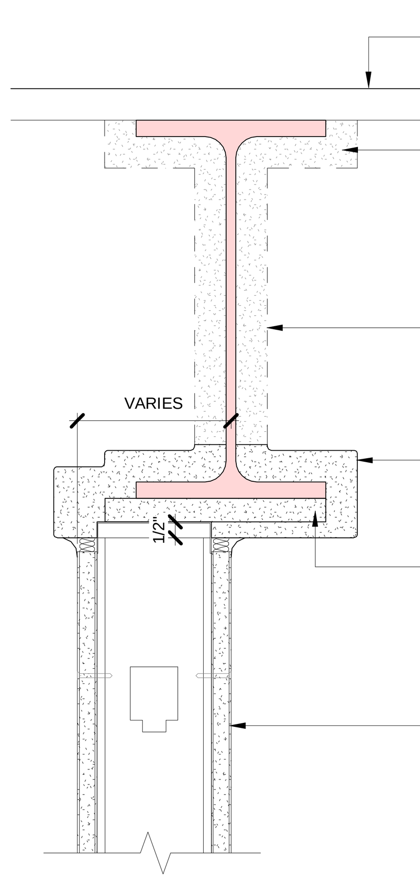
11. Lead Batten Strips — (Not Shown, For Use With Item 5B) - Lead batten strips, min 1-1/2 in. wide, max 10 ft long with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5B) and optional at remaining stud locations. Required behind vertical joints.
11A. Lead Batten Strips — (Not Shown, For Use With Item 5H) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations.
12. Lead Discs or Tabs — (Not Shown, For Use With Item 5B) - Used in lieu of or in addition to the lead batten strips (Item 11) or optional at other locations - Max 3/4 in. diam by max 0.125 in. thick lead discs compression fitted or adhered over steel screw heads or max 1/2 in. by 1-1/4 in. by max 0.125 in. thick lead tabs placed on gypsum boards (Item 5B) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".
12A. Lead Discs — (Not Shown, for use with Item 5H) Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".
13. Lead Batten Strips — (Not Shown, For Use With Item 5E) Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.142 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 5E) and optional at remaining stud locations.
14. Lead Tabs — (Not Shown, For Use With Item 5E) 2 in. wide, 5 in. long with a max thickness of 0.142 in. Tabs friction-fit around front face of stud, the stud folded back flange, and the back face of the stud. Tabs required at each location where a screw (that secures the gypsum boards, Item 5E) will penetrate the steel stud. Lead tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead tabs may be held in place with standard adhesive tape if necessary.

*Bearing the UL Classification Mark



09.014

1 RATED PTN AT INTERSECTING BEAM
1" = 1'-0"



09.029

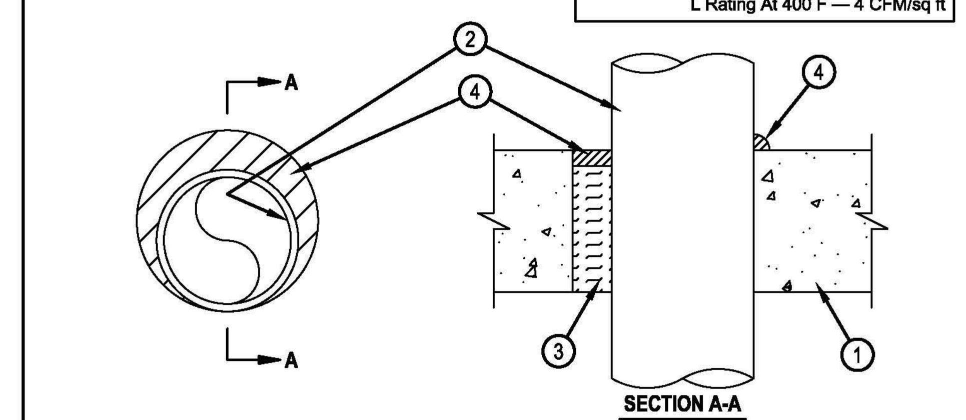
2 RATED PTN HEAD AT BEAM
3" = 1'-0"

System No. C-AJ-1149

CAJ 1149

Classified by Underwriters Laboratories, Inc. to UL 1479 and CAN/ULC-S115

ANSI/UL1479 (ASTM E814)	CAN/ULC S115
F Rating — 2 Hr	F Rating —2 Hr
T Rating — 0 Hr	FT Rating — 0 Hr
L Rating At Ambient — Less Than 1 CFM/sq ft	FH Rating — 2 Hr
L Rating At 400 F — 4 CFM/sq ft	FTH Rating — 0 Hr
W Rating — Class 1 (See Item 4)	L Rating At Ambient — Less Than 1 CFM/sq ft
	L Rating At 400 F — 4 CFM/sq ft



SECTION A-A

1. Floor or Wall Assembly — Min 4-1/2 in. thick reinforced lightweight or normal weight (100-150 pcf) concrete. Wall may also be constructed of any UL Classified Concrete Blocks *. Max diam of opening is 12 in.
See Concrete Blocks (CAZT) category in the Fire Resistance Directory for names of manufacturers.
2. Through Penetrants — One metallic pipe, conduit or tubing to be installed within the firestop system. Pipe, conduit or tubing to be rigidly supported on both sides of floor or wall assembly. The annular space shall be 0 in. (point contact) to max 1-1/4 in. The following types and sizes of metallic pipes, conduits or tubing may be used:
   A. Steel Pipe — Nom 10 in. diam (or smaller) Schedule 10 (or heavier) steel pipe.
   B. Iron Pipe — Nom 10 in. diam (or smaller) cast or ductile iron pipe.
   C. Conduit — Nom 4 in. diam (or smaller) steel electrical metallic tubing or steel conduit.
   D. Copper Tubing — Nom 4 in. diam (or smaller) Type L (or heavier) copper tubing.
   E. Copper Pipe — Nom 4 in. diam (or smaller) Regular (or heavier) copper pipe.
3. Packing Material — Min 3 in. thickness of min 4 pcf mineral wool batt insulation for nom 4 in. diam (and smaller) pipes, conduits or tubings and a min 4 in. thickness of min 4 pcf mineral wool batt insulation for pipe greater than nom 4 in. diam, firmly packed into opening as a permanent form. Packing material to be recessed from top surface of floor or from both surfaces of wall as required to accommodate the required thickness of fill material.
4. Fill, Void or Cavity Material* — Sealant — Min 1/2 in. thickness of fill material applied within the annulus, flush with the top surface of floor or both surfaces of wall. At the point of contact location between pipe and concrete, a min 1/2 in. diam bead of fill material shall be applied at the concrete/pipe interface on the top surface of floor and on both surfaces of wall. W Rating applies only when CFS-S SIL GG, CFS-S SIL SL (floors only), CP601S or CP604 sealant is used.
HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP601S, CP604, CFS-S SIL GG, CFS-S SIL SL (floors only), CP606 or FS-ONE Sealant

*Bearing the UL Classification Mark

Hilti Firestop Systems

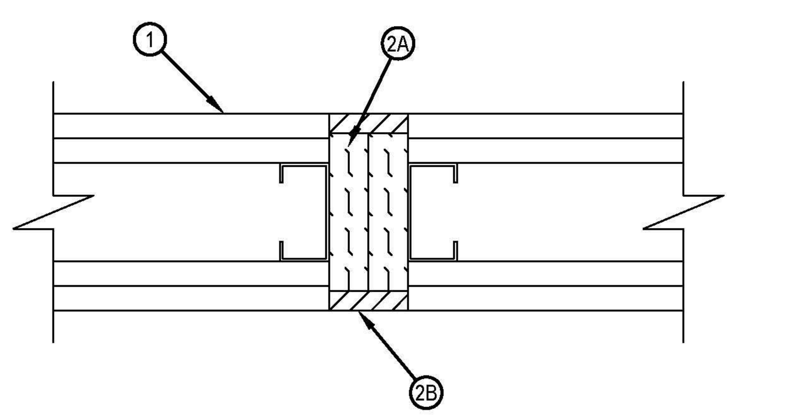
Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. December 19, 2013

System No. WW-D-0067

Assembly Ratings — 1 and 2 (See Item 1)
Nominal Joint Width — 2 in.
Class II Movement Capabilities — 12.5% Compression or Extension

WWD 0067

Classified by Underwriters Laboratories, Inc. to UL 2079 and CAN/ULC-S115



1. Wall Assembly — Nonbearing 1 or 2 hr fire rated gypsum board/steel stud assembly constructed of the materials and in the manner described in the individual U400 or V400 Series Wall or Partition Design in the UL Fire Resistance Directory and shall include the following construction features:
   A. Studs — Min 1-1/2 in. (38 mm) wide steel studs spaced max 24 in. (610 mm) OC.
   B. Gypsum Board* — The gypsum board type, thickness, number of layers, fastener type and sheet orientation shall be as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory.
   The hourly assembly rating of the joint system is equal to the hourly fire rating of the wall assembly in which it is installed.
2. Joint System — Max width of joint (at time of installation of joint system) is 2 in. (51 mm) The joint system is designed to accommodate a max 12.5 percent compression or extension from its installed width. The joint system shall consist of the following:
   A. Forming Material* — Min 4.0 pcf (64 kg/m3) mineral wool batt insulation installed in joint opening as a permanent form. Pieces of batt cut to min width of 1-3/4 or 3 in. (44 or 76 mm) for 1 and 2 hr rated assemblies, respectively. Pieces of batt installed edge-first into joint opening, parallel with joint direction, such that batt sections are compressed min 50 percent in thickness and such that the compressed batt sections are recessed from both surfaces of wall to accommodate the required thickness of fill material.
   FIBREX INSULATIONS INC — FBX Safing Insulation
   B. Fill, Void or Cavity Material* - Sealant — Min 1/2 in. (13 mm) thickness of fill material applied within the joint, flush with both surfaces of wall.
   HILTI CONSTRUCTION CHEMICALS, DIV OF HILTI INC — CP606 Flexible Firestop Sealant
*Bearing the UL Classification Mark

Hilti Firestop Systems

Reproduced by HILTI, Inc. Courtesy of Underwriters Laboratories, Inc. April 15, 2009

DETAILS SHOWN ARE FOR BASIS OF DESIGN ONLY. REFER TO SPECIFICATIONS .

3 FIRESTOPPING DETAILS

0 2" 4" 8"
SCALE: 3" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

CONSULTANTS:

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

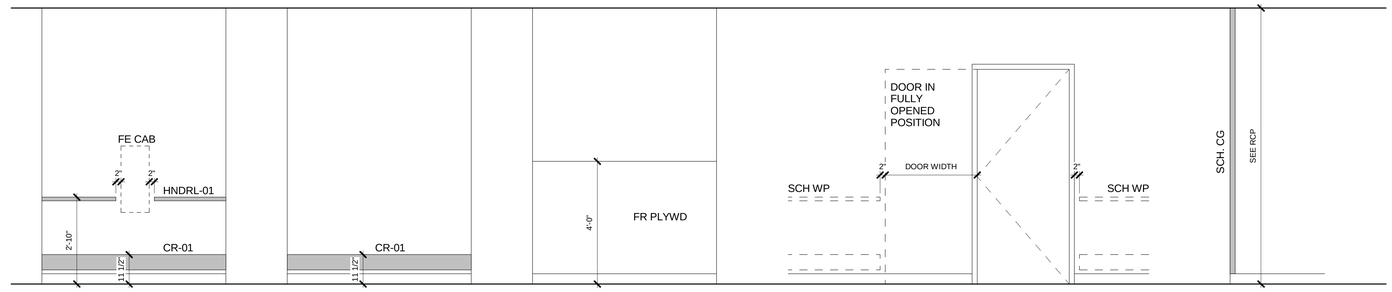
STATE OF SOUTH CAROLINA ROSCOE W. CHAMBERS BEAUFORT, SC 5941 REGISTERED ARCHITECT

Drawing Title	Project Title	Project Number
FIRE STOPPING / FIRE BARRIER DETAILS	RENOVATE MEDICAL SURGICAL UNIT	544-13-102
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC	Building Number: 100
	Date: 05/16/2014 · Drawn: BUSH · Checked: CHAMBERS	Drawing Number: AE518 · Dwg. 25 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

Revisions: | Date



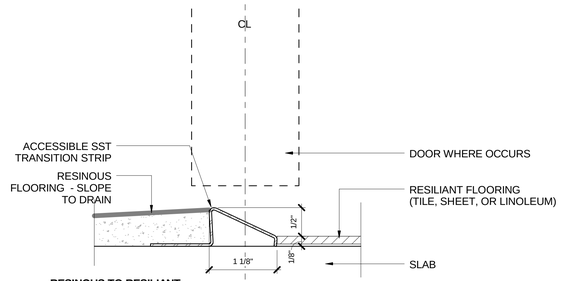
WP-1 **WP-2** **WP-3** **WALL PROTECTION EXTENTS FOR DOORS OPENING 180 DEGREES** **CORNER GUARD**

RE: AE514 FOR WALL BACKING TYPES FOR WALL PROTECTION ELEMENTS

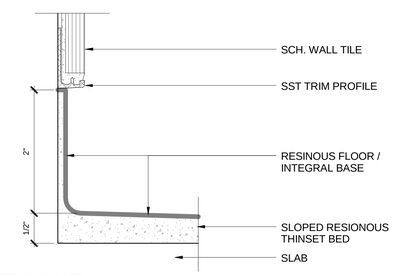
10.005

3 WALL PROTECTION TYPES

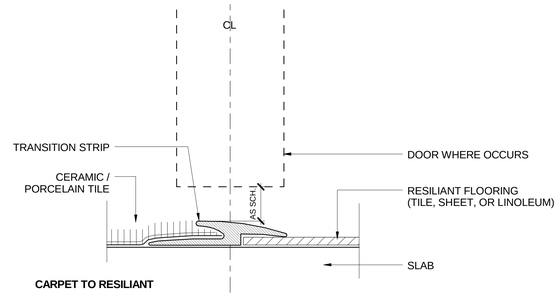
1/2" = 1'-0"



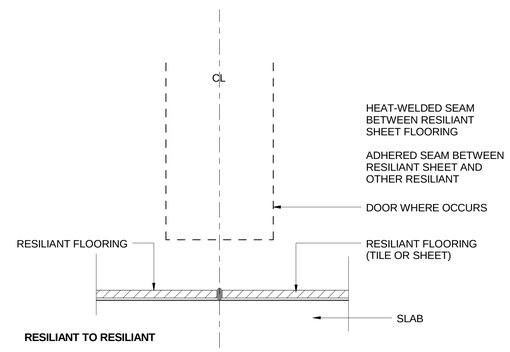
RESINOUS TO RESILIANT



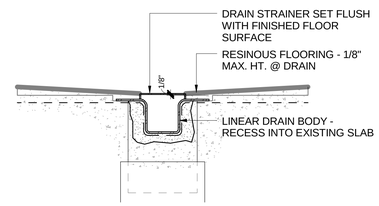
INTEGRAL RESINOUS BASE



CARPET TO RESILIANT



RESILIANT TO RESILIANT

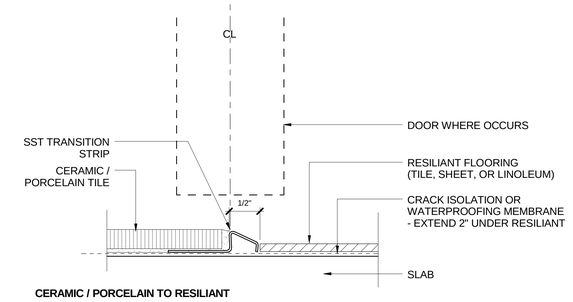


2 RESINOUS FLOORING @ DRAIN

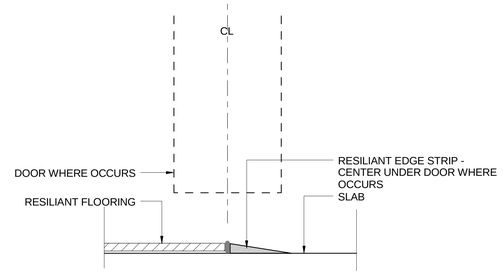
6" = 1'-0"

09.032

INSTALLATION IN PORCELAIN TILE AREAS SIMILAR.
NO SLOPE REQUIRED AT PORELAIN TILE AREAS.



CERAMIC / PORCELAIN TO RESILIANT



RESILIANT TO CONCRETE

1 FLOOR TRANSITIONS

12" = 1'-0"

09.030

0 1' 2' 4'
SCALE: 1/2" = 1'-0"

0 1" 2" 4"
SCALE: 6" = 1'-0"

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

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA - ROSCOE W. CHAMBERS - BEAUFORT, SC - 3941 - REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **INTERIOR DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** Drawn: **BUSH** Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **AE519**

Dwg. 26 of 78

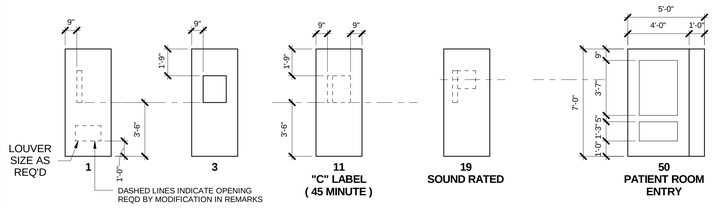
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

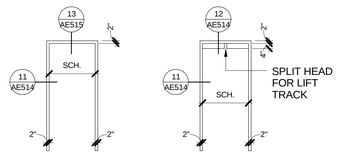
VA FORM 08-6231 5/22/2014 9:07:38 AM

LAST EDITTED: 05-14-2014

DOOR TYPE ELEVATIONS



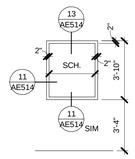
FRAME TYPES



2 - HOLLOW METAL

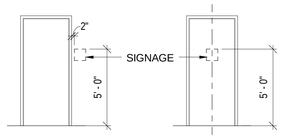
10 - HOLLOW METAL - PATIENT TOILET ROOM

WINDOW TYPES



1 - HOLLOW METAL

SIGNAGE MOUNTING



SIGNAGE TYPES

IMAGES REPRESENT INTENT OF CURRENT FACILITY STANDARD. REFER TO SPECIFICATIONS FOR DIMENSIONS AND FINISHES. VERIFY REQUIREMENTS WITH VA COR PRIOR TO ORDERING SIGNAGE.

IN-03.01
(DOOR MOUNTED)

IN-04.03

IN-05.07

IN-07.05

IN-09.03

IN-09.08

IN-09.08 D
(DOOR MOUNTED)

IN-13.01
1 REQ'D AT EACH FEC

IN-13.01 A
(1 REQ'D AT C3-9)

DOOR SCHEDULE

DOOR NO	DOOR PAIR	DOOR WIDTH	DOOR HEIGHT	DOOR TYPE	DOOR MAT'L	FRAME MAT'L	FRAME TYPE	RATING	HW	VA SIGN TYPE	REMARKS
3A132.1		3' - 0"	7' - 0"	19	WD	HM	2		2G	IN-09.03	U
3A133.1		2' - 11 1/2"	9' - 2 1/2"	1	AG	AG	AG		1X		T
3A134.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A134.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A136.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A136.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A137.1		3' - 0"	7' - 0"	19	WD	HM	2		3G	IN-07.05	V1
3A138.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A138.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A139.1		3' - 6"	7' - 0"	19	WD	HM	2		4J	IN-07.05	V1
3A140.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A140.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A141.1		3' - 0"	7' - 0"	19	WD	HM	2		4E	IN-04.03	V3
3A142.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A142.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A143.1		3' - 0"	7' - 0"	19	WD	HM	2		3G	IN-04.03	
3A143.2		3' - 0"	7' - 0"	19	WD	HM	2		3G	IN-04.03	
3A144.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A144.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A145.1		3' - 8"	7' - 0"	11	WD	HM	2	C LABEL	SH-3C	IN-09.08	PB, U
3A146.1		3' - 8"	7' - 0"	11	WD	HM	2	C LABEL	SH-3C	IN-04.03	PB,W1
3A146.2		2' - 6"	7' - 0"	1	WD	HM	2	C LABEL	5J	IN-03.01	
3A147.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A147.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A149.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A149.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A150.1		3' - 0"	7' - 0"	1	WD	HM	2		3E	IN-04.03	
3A151.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A151.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A152.1		3' - 6"	7' - 0"	19	WD	HM	2		4U	IN-04.03	V1
3A153.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A153.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A154.1		3' - 6"	7' - 0"	11	WD	HM	2	C LABEL	4F	IN-04.03	W1
3A155.1		3' - 0"	7' - 0"	1	WD	HM	2		1	IN-04.03	
3A155.2		3' - 0"	7' - 0"	1	WD	HM	2		2	IN-09.03	
3A156.1		3' - 6"	7' - 0"	1	WD	HM	2		5B	IN-04.03	PB, W1, U
3A157.1		3' - 6"	7' - 0"	1	WD	HM	2		5D	IN-04.03	CR, U
3A158.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Y	IN-05.07	TO, U
3A158.2	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		10Z		TO, U
3A158.3		3' - 6"	8' - 6"	1	WD	HM	2		2H		U
3A159.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Y	IN-05.07	TO, U
3A159.2	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		10Z		TO, U
3A159.3		3' - 6"	8' - 6"	1	WD	HM	2		2H		
3A160.1		3' - 0"	7' - 0"	1	WD	HM	2		3E	IN-04.03	
3A161.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Y	IN-05.07	TO, U
3A161.2	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		10Z		TO, U
3A161.3		3' - 6"	8' - 6"	1	WD	HM	2		2H		
3A163.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A163.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A165.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A165.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A166.1		3' - 0"	7' - 0"	1	WD	HM	2		SH-3C	IN-04.03	PB
3A167.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A167.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A169.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A169.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A170.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A170.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A171.1		3' - 0"	7' - 0"	1	WD	HM	2		3E	IN-04.03	
3A172.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A172.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3A173.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3A173.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3C101.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Y	IN-05.07	TO, U
3C101.2	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		10Z		TO, U
3C101.3		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3C102.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3C102.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3C103.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3C103.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U
3C104.1	UE PR	5' - 0"	7' - 0"	50	WD	HM	2		8Z	IN-05.07	TO
3C104.2		3' - 6"	8' - 6"	1	WD	HM	10		2H		U

DOOR SCHEDULE ABBREVIATIONS / MODIFICATIONS

A	LAMINATED GLAZING
AG	ALL-GLASS ENTRANCE DOOR - LG-1
CR	CARD READER ACCESS
HM	HOLLOW METAL
M	MECHANICAL SEAL FOR LIGHT PROOF AND SOUND RETARDING DOOR
PB	PUSH BUTTON ACCESS
SD	SLIDING DOOR (3'-6" CLEAR OPENING)
T	TEMPERED GLASS
TO	TEMPERED OBSCURE
U	UNDERCUT 3/4"
V1	VIEW PANEL 4" x 32" (1/4" TEMPERED GLASS, WIRE GLASS AT FIRE RATED DOORS)
V2	VIEW PANEL 24" x 36" (1/4" THICK TEMPERED GLASS)
V3	VIEW PANEL 10" x 10" (1/4" TEMPERED GLASS; WIRE GLASS AT FIRE RATED DOORS)
W1	VIEW PANEL 10" x 10" (1/4" WIRE GLASS)

DOOR NOTES:

1. ALL DOORS SHALL BE FLUSH - 1 3/4" THICK UNLESS NOTED OTHERWISE
2. TOP AND SIDE RAILS SHALL BE 9" MIN. BOTTOM RAILS SHALL BE 12" MIN.

CLARIFICATION OF GLAZING TYPES:

LG-1: 3/4" TEMPERED LAMINATED GLAZING

0 2' 4' 8'
SCALE: 1/4" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA ROSCOE W. CHAMBERS BEAUFORT, SC 3941 REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: **DOOR AND FRAME SCHEDULE, TYPES**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **AE601**
Dwg. 27 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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LAST EDITTED: 05-14-2014

GENERAL FINISH PLAN NOTES

1. UNLESS NOTED OTHERWISE, ALL FINISHES SHOWN ARE FURNISHED AND INSTALLED BY CONTRACTOR.

2. UNLESS NOTED OTHERWISE, DIMENSIONS ARE TO FINISHED FACE OF PARTITIONS (EXCLUDING APPLIED FINISHES SUCH AS TILE) AND TO COLUMN CENTER LINES.

3. MEDICAL EQUIPMENT AND FURNITURE IS SHOWN FOR REFERENCE ONLY AND IS VV

4. REFER TO SHEET AI602 FOR FINISH SELECTIONS.

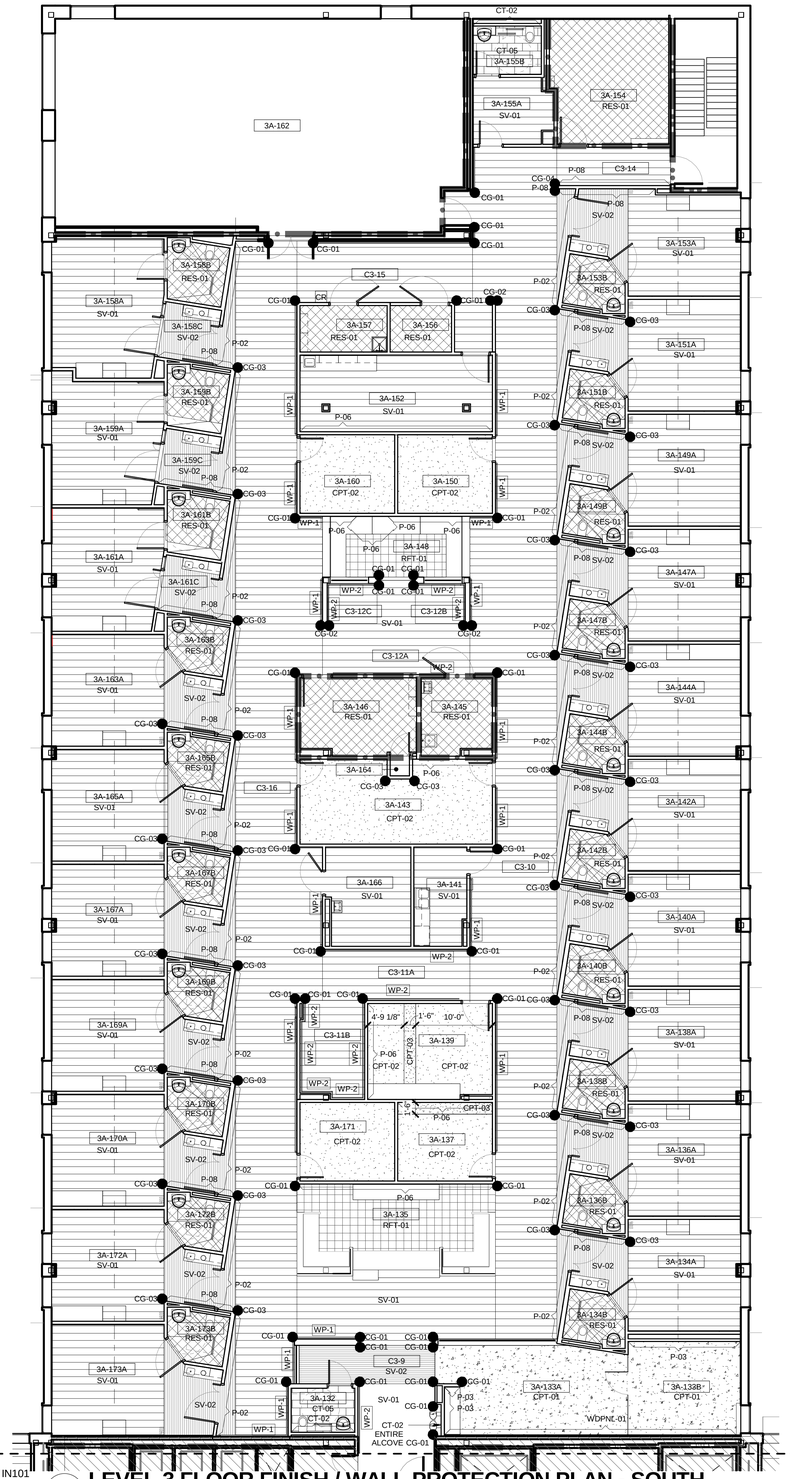
5. PROVIDE BLOCKING IN WALL FOR WALL MOUNTED EQUIPMENT SUCH AS TELEVISIONS, TOILET ACCESSORIES, AND WALL PROTECTION BUMPERS AND GUARDS.

WALL PROTECTION LEGEND

RE: AE516 FOR TPYE ELEVATIONS AND COMPONENTS

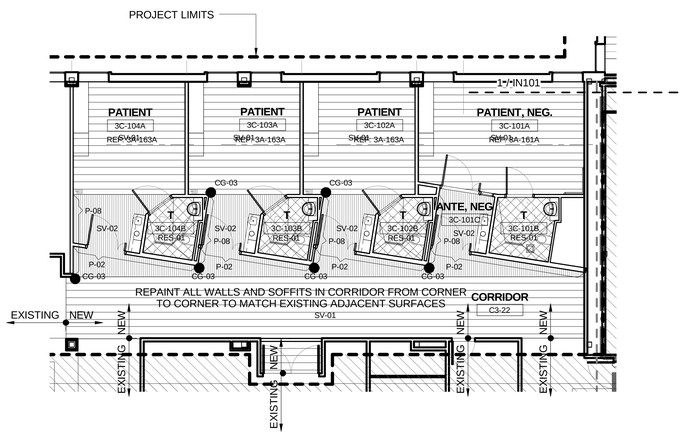
CORNER GUARD - RE: 13/AE515 FOR TYPES

1t WALL PROTECTION TYPE



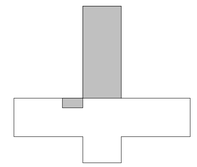
1 LEVEL 3 FLOOR FINISH / WALL PROTECTION PLAN - SOUTH

1/8" = 1'-0"



2 LEVEL 3 FLOOR FINISH / WALL PROTECTION PLAN - EAST

1/8" = 1'-0"



KEY PLAN

0 4' 8' 16'

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

LEVEL 3 FFE: 46.0'

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
3941
REGISTERED ARCHITECT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

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Drawing Title: LEVEL 3 FINISH / WALL PROTECTION PLANS	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Building Number: 100
	Date: 05/16/2014	Drawn: BUSH	Checked: CHAMBERS
			Drawing Number: IN101
			Dwg. 28 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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LAST EDITTED: 05-14-2014

ROOM FINISH SCHEDULE

ROOM NO.	ROOM NAME	ROOM FINISH SET	BASE	FLOOR	WALLS	ACCENT WALLS	CEILING	COUNTERTOPS	VERTICAL MILLWORK	MISC	WALL PROTECTION	CODED NOTES
3A-132	T	TLTU1	CTB-01	CT-05	CT-01	CT-02	AT-01	SS-01				
3A-133A	WAITING, QUIET	WAIT1	RB-01, SSB-01	CPT-01	P-01, P-03	WDPNL-01	AT-01, WDGRL-01	SS-02	PLAM-03	DP-02		
3A-133B	MEDIA AREA	WAIT1	RB-01, SSB-01	CPT-01	P-01, P-03	WDPNL-01	AT-01, WDGRL-01	SS-02	PLAM-03	DP-02		
3A-134A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-134B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-135	NURSE STATION	NRST1	RB-01, SSB-01	RFT-01	P-01	P-06	AT-01, GWB	SS-01	SS-03, SS-04, PLAM-04	DP-02		
3A-136A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-136B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-137	CONSULT	CONF1	RB-01	CPT-02, CPT-03	P-05	P-06	AT-01	SS-04	PLAM-02			
3A-138A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-138B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-139	TEAM ROOM	CONF1	RB-01	CPT-02, CPT-03	P-05	P-06	AT-01	SS-04	PLAM-02			
3A-140A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-140B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-141	NOUR	WORK1	SV-01	SV-01	P-07		AT-01	SS-01	PLAM-02			
3A-142A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-142B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-143	OFFICE, PHYSCIAN & CHARTING	OFC1	RB-01	CPT-02	P-07	.	AT-01					
3A-144A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-144B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-145	SOILED	WORK1	SV-01	SV-01	P-07		AT-01	SS-01	PLAM-02			
3A-146	CLEAN	WORK1	SV-01	SV-01	P-07		AT-01	SS-01	PLAM-02			
3A-147A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-147B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-148	NURSE SUB-STATION	NRST1	RB-01, SSB-01	RFT-01	P-01	P-06	AT-01, GWB	SS-01	SS-03, SS-04, PLAM-04	DP-02		
3A-149A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-149B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-150	SOC WRK	OFC1	RB-01	CPT-02	P-07	.	AT-01					
3A-151A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-151B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-152	CONFERENCE / REPORT ROOM	CONF1	RB-01	CPT-02, CPT-03	P-05	P-06	AT-01	SS-04	PLAM-02			
3A-153A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-153B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-154	STORAGE, EQUIPMENT	STOR1	RES-01	RES-01	P-07		AT-01	SS-02	PLAM-02		WP-3	
3A-155A	LOCKER ROOM, STAFF	WORK1	SV-01	SV-01	P-07		AT-01	SS-01	PLAM-02			
3A-155B	ST	TLTU1	CTB-01	CT-05	CT-01	CT-02	AT-01	SS-01				
3A-156	MED GAS	STOR1	RES-01	RES-01	P-07		AT-01	SS-02	PLAM-02		WP-3	
3A-157	H.A.C.	HAC1	RES-01	RES-01	P-07		AT-01					
3A-158A	PATIENT, NEG.	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-158B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-158C	ANTE, NEG.	ANTE	RB-01	SV-02	P-01	P-08	AT-01	SS-01	PLAM-04			
3A-159A	PATIENT, NEG.	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-159B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-159C	ANTE, NEG.	ANTE	RB-01	SV-02	P-01	P-08	AT-01	SS-01	PLAM-04			
3A-160	HEAD NURSE	OFC1	RB-01	CPT-02	P-07	.	AT-01					
3A-161A	PATIENT, NEG.	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-161B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-161C	ANTE, NEG.	ANTE	RB-01	SV-02	P-01	P-08	AT-01	SS-01	PLAM-04			
3A-162	EQUIPMENT BAY	EXST1	EXST-01	EXST-01	EXST-01	EXST-01	EXST-01	EXST-01	EXST-01	EXST-01		
3A-163A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-163B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-165A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-165B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-166	MEDS	WORK1	SV-01	SV-01	P-07		AT-01	SS-01	PLAM-02			
3A-167A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-167B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-168	ALC	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	
3A-169A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-169B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-170A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-170B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-171	OFFICE, PHYSICAN ASSISTANT	OFC1	RB-01	CPT-02	P-07	.	AT-01					
3A-172A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-172B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3A-173A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3A-173B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3C-101A	PATIENT, NEG.	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3C-101B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3C-101C	ANTE, NEG	ANTE	RB-01	SV-02	P-01	P-08	AT-01	SS-01	PLAM-04			
3C-102A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3C-102B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3C-103A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3C-103B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
3C-104A	PATIENT	BRMS1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-01	SS-01, SS-02	PLAM-04			
3C-104B	T	TLTS1	RES-01	RES-01	CT-03	CT-02	GWB-01	SS-02				
C3-9	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-10	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-11A	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-11B	ALC	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-12A	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-12B	X-RAY ALC	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-12C	CRASH CART ALCOVE	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-14	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-15	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-16	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1
C3-22	CORRIDOR	CORR1	RB-01	SV-01, SV-02	P-01	P-02, P-08	AT-02, GWB				WP-1, WP-2	1

CODED FINISH NOTES

1 REFER TO CEILING PLANS FOR LOCATION AND EXTENTS OF GWB SOFFITS, FURRINGS, ETC.

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA - ROSCOE W. CHAMBERS - BEAUFORT, SC - 3941 - REGISTERED ARCHITECT

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Drawing Title: **FINISH SCHEDULES**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **IN601**

Dwg. 29 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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LAST EDITTED: 05-14-2014

FINISH SELECTIONS

MATERIAL CODE	MANUFACTURER	PATTERN / LINE	COLOR	COMMENTS
FLOORING				
CARPET TILE - SPEC SECTION 09 68 00				
CPT-01	MASLAND	QUARRY T7481	PUMICE 84100	LAY IN BRICK PATTERN. EDGE MOLDING TO MATCH CARPET COLOR.
CPT-02	SHAW	UNEARTHED, QUARTZ	SMOKEY QUARTZ 14761	LAY IN BRICK PATTERN - ORIENT WITH LONG DIMENSION OF ROOM. EDGE MOLDING TO MATCH CARPET COLOR.
CPT-03	SHAW		COPPER CJ756	EDGE MOLDING TO MATCH CARPET COLOR.
CERAMIC TILE / PORCELAIN TILE - SPEC SECTION 09 30 13				
CT-05	STONEPEAK CERAMICS	MATERIA 3D COLLECTION UNGLAZED 12" x 24" x 3/8" NOMINAL TILE - PORCELAIN	HEATHER GRAY	USE WITH GT-01 GROUT
RESINOUS FLOOR / BASE - SPEC SECTION 09 67 23.20				
RES-01	STONHARD	STONTEC ERF 1/16" FLAKE	SHENANDOAH BUFF	
RUBBER FLOOR TILE - SPEC SECTION 09 65 19				
RFT-01	MANNINGTON	COLOR FIELDS	WARM WHITE 899	
SHEET VINYL - SPEC SECTION 09 65 16				
SV-02	MANNINGTON	BIOSPEC MD	ECRU 15362	
BASE				
CERAMIC TILE / PORCELAIN TILE - SPEC SECTION 09 30 13				
CTB-01	STONEPEAK CERAMICS	MATERIA 3D COLLECTION UNGLAZED 4" x 24" x 3/8" NOMINAL TILE - FACTORY CUT TO 4" WITH FINISHED BULLNOSE EDGE - PORCELAIN	HEATHER GRAY	USE WITH GT-01 GROUT
RUBBER BASE - SPEC SECTION 09 65 13				
RB-01	ROPPE	PINNACLE STANDARD TOE 4"	129 DOLPHN	TO BE USED AT SHEET VINYL FLOORING
RB-02	ROPPE	PINNACLE NO TOE 4"	129 DOLPHN	TO BE USED AT CARPET
STAINLESS STEEL BASE - SPEC SECTION 05 50 00				
SSB-1	16 GUAGE #304 STAINLESS STEEL	4"		
WALLS				
CERAMIC TILE / PORCELAIN TILE - SPEC SECTION 09 30 13				
CT-01	DAL-TILE	NATURAL HUES 6" x 12" x 5/16" NOMINAL	LACE QH83	USE WITH GT-01 GROUT
CT-02	STONEPEAK CERAMICS	MATERIA 3D COLLECTION - MULTI-SIZE STRIP MOSAIC, HONED FINISH	PEARL HONED USH124M582	USE WITH GT-01 GROUT
CT-03	STONEPEAK CERAMICS	MATERIA 3D COLLECTION - MULTI-SIZE STRIP MOSAIC, HONED FINISH	PLATINUM HONED USH124M583	USE WITH GT-01 GROUT
PAINT - SPEC SECTION 09 91 00				
P-01	SHERWIN-WILLIAMS		SHOJI WHITE SW7042	
P-02	SHERWIN-WILLIAMS		HEARTS OF PALM SW6415	
P-03	BENJAMIN MOORE		CUSTOM	COLOR MATCH TO PLAM-03
P-04	SHERWIN-WILLIAMS		GRAY AREA SW7052	
P-05	SHERWIN-WILLIAMS		WORDLY GRAY SW7043	
P-06	BENJAMIN MOORE		TRANQUIL BLUE 2051-50	
P-07	SHERWIN-WILLIAMS		REPOSE GRAY SW 7015	
P-08	SHERWIN-WILLIAMS		ANONYMOUS SW 7046	
WOOD SPEC SECTION 06 20 00				
WDPNL-01		WHITE OAK - MULTI-SIZE STRIPS - 5/8" TO 1" THICK; 7/8" TO 1-1/2" TALL		HORIZONTAL ORIENTATION; TF-01 FINISH
CEILINGS				
ACOUSTICAL CEILING TILE - SPEC SECTION 09 51 00				
AT-01	ARMSTRONG	OPTIMA #3355 SQUARE TEGULAR 24" x 24" x 1" IN INTERLUDE XL 9/16" GRID	WHITE	PROVIDE SHADOW MOLDING
AT-02	ARMSTRONG	OPTIMA #3353 SQUARE TEGULAR 24" x 48" x 1" IN INTERLUDE XL 9/16" GRID		PROVIDE SHADOW MOLDING
GYPSUM WALL BOARD, PAINTED - SPEC SECTION 09 91 00				
GWB-01				

MATERIAL CODE	MANUFACTURER	PATTERN / LINE	COLOR	COMMENTS
WOOD GRILLES - SPEC SECTION 06 20 00				
WDGRL-01	NORTON INDUSTRIES	FLAT BACKER GRILLE CUSTOM PATTERN RE: 17/AE515	WHITE OAK	TF-01 FINISH
COUNTER TOPS				
SOLID SURFACE - SPEC SECTION 06 61 16				
SS-01	CORIAN		COTTAGE LANE	
SS-02	CORIAN		CONCRETE	
SS-03	CORIAN		RICE PAPER	
SS-04	CORIAN		CANVAS	
VERTICAL MILLWORK				
PLASTIC LAMINATE - SPEC SECTION 12 32 00				
PLAM-02	WILSONART		WALLABY D439-60	
PLAM-03	WILSONART		AMAZON D478-60	
PLAM-04	FORMICA		NEUTRAL WHITE 918	
SOLID SURFACE - SPEC SECTION 06 61 16				
SS-01	CORIAN		COTTAGE LANE	
SS-03	CORIAN		RICE PAPER	
SS-04	CORIAN		CANVAS	
WALL PROTECTION				
WALL PROTECTION CORNER GUARD - SPEC SECTION 10 26 00				
CG-01	INPRO CORPORATION	160F 2" FLUSH MOUNTED OUTSIDE CORNER, TEXTURE SHADOWGRAIN	FEATHER 0238	RE: 14/A515
CG-02	INPRO CORPORATION	140D FLUSH MOUNTED END CAP, TEXTURE SHADOWGRAIN	FEATHER 0238	RE: 14/A515
CG-03	INPRO CORPORATION	160F 2" FLUSH MOUNTED OUTSIDE CORNER, TEXTURE SHADOWGRAIN - 81 DEGREE ANGLE	SHIPROCK 0280	RE: 14/A515
CG-04	INPRO CORPORATION	140D FLUSH MOUNTED END CAP, TEXTURE SHADOWGRAIN	SHIPROCK 0280	RE: 14/A515
WALL PROTECTION CRASH RAIL - SPEC SECTION 10 26 00				
CR-01		1400 4" SURFACE MOUNTED WITH CONTINUOUS ALUMINUM RETAINER, TEXTURE SHADOWGRAIN	FEATHER 0238	RE: 15/A515
WALL PROTECTION HANDRAIL - SPEC SECTION 10 26 00				
HNDRL-01	C-S GROUP	STAINLESS STEEL HANDRAIL HRS-6C WITH STAINLESS STEEL ENDCAPS AND BRACKETS		RE: 16/A515
MISC / TRIM				
CUBICLE CURTAIN - SPEC SECTION 10 28 00				
CC-01	KIRSCH	9600 TRACK		CUBICLE CURTAIN TO BE FACILITY STANDARD
DECORATIVE PLASTIC PANELS - SPEC SECTION 08 80 00				
DP-01	3FORM	VARIA ECORESIN ORGANICS 1/2"	BEAR GRASS FADE	
DP-02	3FORM	VARIA ECORESIN ORGANICS 3/4"	BEAR GRASS	
EXISTING CONDITION - SPEC SECTION 01 00 00				
EXST-01	EXISTING	EXISTING	EXISTING	EXISTING
GROUT - SPEC SECTION 09 30 13				
GT-01	LATICRETE	SPECTRALOCK	MATCH TILE COLOR	1/8" JOINTS
SHOWER CURTAIN - SPEC SECTION 10 28 00				
SC-01	KIRSCH	9600 TRACK	SPLIT TRACK @ PATIENT LIFT RAILS	CURTAIN FABRIC TO BE FACILITY STANDARD
TRANSPARENT WOOD FINISH - SPEC SECTION 09 91 00				
TF-01			POLYURETHANE CLEAR FINISH	SPECIFIED WOOD VENEER FOR DOORS UNO; GRAIN TO BE ORIENTED VERTICALLY

CLARIFICATION OF FINISH ABBREVIATIONS

A		HNDRL	HANDRAIL
AT	ACOUSTICAL CEILING TILE	P	
C		P	PAINT
CC	PATIENT ROOM CUBICLE CURTAIN	PLAM	PLASTIC LAMINATE
CG	CORNER GUARD	PWC	WALL PROTECTION SHEETING
CPT	CARPET TILE	R	
CR	CRASH RAIL	RB	RESILIANT BASE
CT	CERAMIC TILE / PORCELAIN TILE	RES	RESINOUS FLOORING / BASE
CTB	CERAMIC TILE / PORCELAIN TILE BASE	RFT	RUBBER FLOOR TILE
		S	
D		SC	SHOWER CURTAIN
DP	DECORATIVE RESIN / WOOD PANEL	SCC	SEALED CONCRETE
E		SS	SOLID SURFACE
EXPS	EXPOSED STRUCTURE	SV	SHEET VINYL
EXST	EXISTING	W	
G		WDGRL	WOOD GRILLE
GLAZ	GLAZING	WDPNL	WOOD BOARD PANELING
GT	GROUT		
GWB	GYPSUM WALLBOARD		
H			

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941 — REGISTERED ARCHITECT

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Drawing Title: **FINISH SELECTIONS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **IN602**

Dwg. 30 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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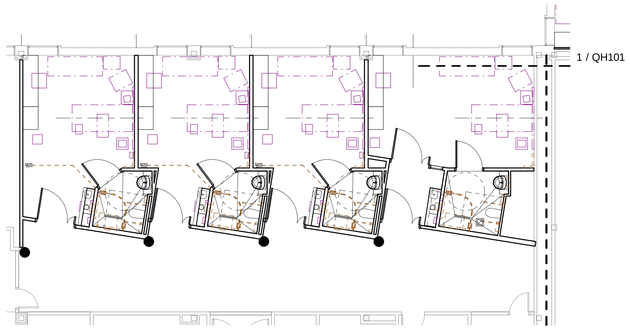
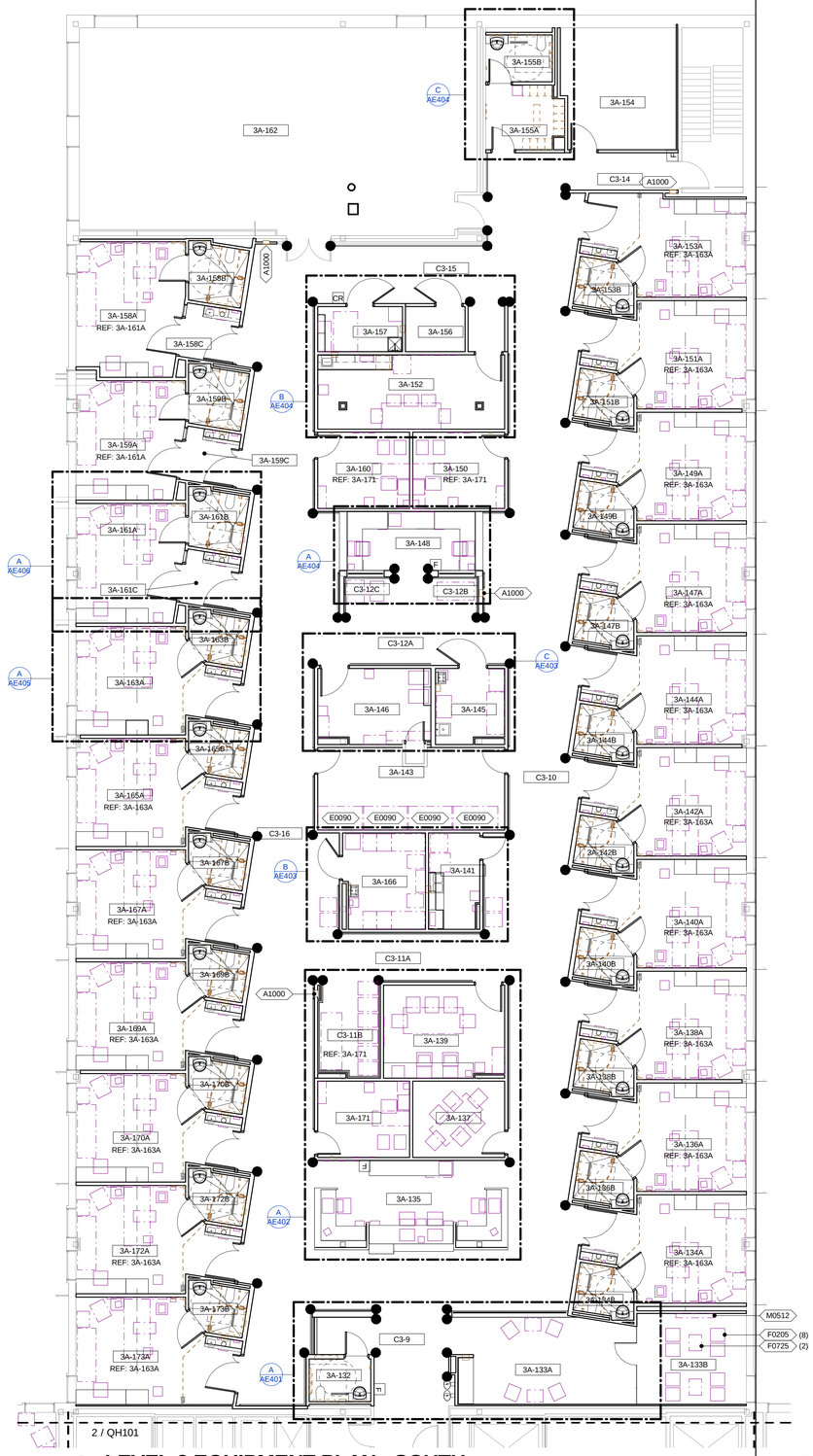


2 **LEVEL 3 EQUIPMENT PLAN - EAST**
1/8" = 1'-0"



1 **LEVEL 3 EQUIPMENT PLAN - SOUTH**
1/8" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

STATE OF SOUTH CAROLINA
ROSCOE W. CHAMBERS
BEAUFORT, SC
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Drawing Title: **LEVEL 3 EQUIPMENT PLANS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **QH101**

Dwg. 31 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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LAST EDITTED: 05-14-2014

ROOM ACCESSORIES SCHEDULE

ROOM NO.	ROOM NAME	ACCESSORIES GROUP
3A-132	T	TA-01
3A-133A	WAITING, QUIET	TA-08
3A-133B	MEDIA AREA	
3A-134A	PATIENT	TA-03
3A-134B	T	TA-02
3A-135	NURSE STATION	
3A-136A	PATIENT	TA-03
3A-136B	T	TA-02
3A-137	CONSULT	
3A-138A	PATIENT	TA-03
3A-138B	T	TA-02
3A-139	TEAM ROOM	
3A-140A	PATIENT	TA-03
3A-140B	T	TA-02
3A-141	NOUR	TA-04
3A-142A	PATIENT	TA-03
3A-142B	T	TA-02
3A-143	OFFICE, PHYSCIAN & CHARTING	
3A-144A	PATIENT	TA-03
3A-144B	T	TA-02
3A-145	SOILED	
3A-146	CLEAN	
3A-147A	PATIENT	TA-03
3A-147B	T	TA-02
3A-148	NURSE SUB-STATION	
3A-149A	PATIENT	TA-03
3A-149B	T	TA-02
3A-150	SOC WRK	
3A-151A	PATIENT	TA-03
3A-151B	T	TA-02
3A-152	CONFERENCE / REPORT ROOM	TA-05
3A-153A	PATIENT	TA-03
3A-153B	T	TA-02
3A-154	STORAGE, EQUIPMENT	
3A-155A	LOCKER ROOM, STAFF	
3A-155B	ST	TA-09
3A-156	MED GAS	
3A-157	H.A.C.	TA-07
3A-158A	PATIENT, NEG.	
3A-158B	T	TA-02
3A-158C	ANTE, NEG.	TA-03
3A-159A	PATIENT, NEG.	
3A-159B	T	TA-02
3A-159C	ANTE, NEG.	TA-03
3A-160	HEAD NURSE	
3A-161A	PATIENT, NEG.	
3A-161B	T	TA-02
3A-161C	ANTE, NEG.	TA-03
3A-162	EQUIPMENT BAY	
3A-163A	PATIENT	TA-03
3A-163B	T	TA-02
3A-165A	PATIENT	TA-03
3A-165B	T	TA-02
3A-166	MEDS	TA-06
3A-167A	PATIENT	TA-03
3A-167B	T	TA-02
3A-168	ALC	
3A-169A	PATIENT	TA-03
3A-169B	T	TA-02
3A-170A	PATIENT	TA-03
3A-170B	T	TA-02
3A-171	OFFICE, PHYSICAN ASSISTANT	
3A-172A	PATIENT	TA-03
3A-172B	T	TA-02
3A-173A	PATIENT	TA-03
3A-173B	T	TA-02
3C-101A	PATIENT, NEG.	
3C-101B	T	TA-02
3C-101C	ANTE, NEG	TA-03
3C-102A	PATIENT	
3C-102B	T	TA-02
3C-103A	PATIENT	TA-03
3C-103B	T	TA-02
3C-104A	PATIENT	TA-03
3C-104B	T	TA-02
C3-9	CORRIDOR	
C3-10	CORRIDOR	
C3-11A	CORRIDOR	
C3-11B	ALC	
C3-12A	CORRIDOR	
C3-12B	X-RAY ALC	
C3-12C	CRASH CART ALCOVE	
C3-14	CORRIDOR	
C3-15	CORRIDOR	
C3-16	CORRIDOR	
C3-22	CORRIDOR	

TOILET ACCESSORIES SCHEDULE

MARK	DESCRIPTION	JSN ACQ/INS ASSIGNMENT
BCS-1	TABLE; DIAPER CHANGING; WALL MOUNTED	CC
GB-12	GRAB BAR; 1-1/4 DIA.; SS; WALL; W/C ACCESSIBLE; 12" LONG	CC
GB-18	GRAB BAR; 1-1/4 DIA.; SS; WALL; W/C ACCESSIBLE; 18" LONG	CC
GB-30SU	SWING UP GRAB BAR; 1-1/4 DIA.; SS; WALL; W/C ACCESSIBLE; 30" LONG	CC
GB-36	GRAB BAR; 1-1/4 DIA.; SS; WALL; W/C ACCESSIBLE; 36" LONG	CC
GB-42	GRAB BAR; 1-1/4 DIA.; SS; WALL; W/C ACCESSIBLE; 42" LONG	CC
HK-1	HOOK; GARMENT; DOUBLE; SS; SURFACE MOUNTED	CC
MR-1	MIRROR; FLOAT GLASS; WITH SS FRAME	CC
MR-2	MIRROR; POSTURE; WALL MOUNTED	CC
PTD-1	DISPENSER; PAPER TOWEL; SS; SEMI-RECESS MOUNTED	CC
RCK-1	SHELF; UTILITY W/ MOP/BROOM HOLDERS; SS; SURF MNTD; 36" LONG	CC
SD-1	DISPENSER; LIQUID SOAP; SS; SURFACE MOUNTED	VV
SDS-1	A5175 SOAP DISH; WITH BAR; SS; RECESSED	CC
SHLF-1	SHELF; 5 DEPTH; SS; SURFACE MOUNTED	CC
SS-1	SEAT;FOLDING;WALL-MOUNTED;SHOWER	CC
ST-1	TRACK, SHOWER, SURFACE MOUNTED, WITH CURTAIN	CC
TPD-1	DISPENSER; TOILET TISSUE; SS; 2-ROLL; SURFACE MNTD	CC

RE: GI003 FOR ACCESSORY MOUNTING REQUIREMENTS

TOILET ACCESSORIES GROUPS

MARK	COUNT
TA-01: PUBLIC RESTROOM	
BCS-1	1/ROOM
GB-36	1/ROOM
GB-42	1/ROOM
HK-1	1/ROOM
MR-1	1/ROOM
PTD-2	1/ROOM
SD-1	1/ROOM
TPD-1	1/ROOM
TA-02: PATIENT TOILET ROOM	
GB-36	2/SHOWER
GB-SU	2/ROOM
MR-1	1/ROOM
PTD-1	1/ROOM
SD-1	1/ROOM
SDS-1	1/ROOM
SS-1	1/ROOM
ST-1	1/ROOM
TPD-1	1/ROOM
TA-03: PATIENT ROOM	
GB-12	1/ROOM
GB-18	1/ROOM
PTD-1	1/ROOM
SD-1	1/ROOM
TA-04: NOURISHMENT STATION	
PTD-1	1/ROOM
SD-1	1/ROOM
TA-05: STAFF WORKROOM, LOUNGE	
PTD-1	1/ROOM
SD-1	1/ROOM
TA-06: MEDICATION ROOM	
PTD-1	1/ROOM
SD-1	1/ROOM
TA-07: H.A. CLOSET	
PTD-1	1/ROOM
RCK-1	1/ROOM
SD-1	1/ROOM
TA-08: WAITING	
PTD-1	1/ROOM
TA-09: STAFF RESTROOM	
GB-36	1/ROOM
GB-42	1/ROOM
HK-1	1/ROOM
MR-1	1/ROOM
PTD-1	1/ROOM
SD-1	1/ROOM
TPD-1	1/ROOM

SPECIALTY / MEDICAL EQUIPMENT SCHEDULE

MARK	DESCRIPTION	JSN ACQ/INS ASSIGNMENT
A-Architectural		
A1000	CABINET, FIRE EXTINGUISHER WITH ELECTRONIC FIRE EXTINGUISHER MONITORING CAPABILITY FOR CONNECTION TO EXISTING FACILITY MONITORING SYSTEM. REUSE EXISTING FIRE EXTINGUISHERS AND ELECTRONIC MONITORING DEVICES; PROVIDE NEW WHERE REQUIRED. CONNECT EXTINGUISHERS TO EXISTING EN-GUAGE ELECTRONIC FIRE EXTINGUISHER MONITORING SYSTEM. (RE)INSTALL MONITORING DEVICES IN ACCORDANCE WITH MANUFACTURER'S SPECIFICATIONS.	CC
A1015	TELEPHONE; DESK; MULTIPLE LINE	VV
A1017	TELEPHONE; WALL MOUNTED; MULTIPLE LINE	VV
A1035	LOCKER; TRIPLE TIER	CC
A1110	HEADWALL; PREFABRICATED; GENERAL; 1 BED	VV
A1200.1	LIFT SYSTEM; OVERHEAD; PATIENT ROOM	CC
A1200.2	LIFT SYSTEM MOTOR PARKING / CHARGING STATION; WALL MOUNTED	CC
A5020	BENCH; LOCKER ROOM; FLOOR MOUNTED	CC
A5107	DISPENSER; GLOVE; SURGICAL/EXAMINATION; WALL MNTD	VV
A5108	WASTE DISPOSAL UNIT; SHARPS	VV
A5180	TRACK, CUBICLE, SURFACE MOUNTED, WITH CURTAIN	CC
E-Modular Casework		
E0090	WORKSTATION; L-SHAPED; FREE STANDING; 36X72	VV
E0210	WORKSURFACE; W/OVERHEAD CAB; WALL MTD; 48 W	VV
E0945.2	CART, COMPUTER, MOBILE, 36"H X 12"W X 32"D	VV
E0948	CART; GENERAL STORAGE; MOBILE; 42H X 32W X 22D	VV
E0954	CART; EMERGENCY; MOBILE; 36H X 36W X 28D	VV
F-Furniture and Furnishings		
F0120	BOOKCASE; EXECUTIVE; 3 SHELF; WOOD	VV
F0205	CHAIR; SIDE; WITH ARMS	VV
F0210	CHAIR; SIDE; WITHOUT ARMS	VV
F0260	CHAIR; HIGH BACK; PATIENT	VV
F0275	CHAIR; SWIVEL; HIGH BACK	VV
F0280	CHAIR; SWIVEL; LOW BACK	VV
F0376	SOFA; SLEEPER	VV
F0400	CABINET; BEDSIDE; DOOR; DRAWER	VV
F0410	CABINET; FILING; HALF HEIGHT; 2 DRAWER	VV
F0420	CABINET; FILING; LATERAL; HALF HEIGHT	VV
F0500	CART; JANITOR'S	VV
F0510	CART; LINEN; SOILED	VV
F0535	CART; UTILITY	VV
F0725	TABLE; OCCASIONAL; EXECUTIVE; WOOD	VV
F0750.1	TABLE; OFFICE 84 X 38	VV
F0750.2	TABLE; OFFICE 96 X 42	VV
F2000	BASKET; WASTEPAPER; ROUND; METAL	VV
F2017	WASTE RECEPTACLE; 24 GAL	VV
F3010.1	BOARD; BULLETIN 36 WIDE	VV
F3010.2	BOARD; BULLETIN 48 WIDE	VV
F3010.3	BOARD; BULLETIN 60 WIDE	VV
F3050	WHITEBOARD; DRY ERASE	VV
F3200	CLOCK; BATTERY; 12 DIAMETER	VV
K-Kitchen Equipment		
K1552	BREWER; COFFEE; AUTO; ELECT; 3 BURNER; FRONT/BACK	VV
K4660	OVEN; MICROWAVE; HEAVY DUTY; 1000 WATTS	CC
M-Miscellaneous		
M0500	TELEVISION 32" FLAT PANEL LCD w/ BKT	VV
M0512	TELEVISION; HDTV; 60" FLAT PANEL LCD w/ BKT	VV
M1801	COMPUTER; MICROPROCESSING; W/FLAT PANEL MONITOR	VV
M1802	WORK STATION; COMPUTER; RETRACTABLE; WALL MOUNTED	VV
M1825	PRINTER; COMPUTER	VV
M1840	PRINTER/COPIER/FAX COMBINATION	VV
M2050	SHELVING; STORAGE; 75H X 36W X 14D	VV
M2070	SHELVING; STORAGE; 77X36X18	VV
M2600	VACUUM; WET/DRY; HEPA FILTRATION	VV
M2650	SCRUBBER; FLOOR; AUTOMATIC; RECHARGEABLE	VV
M3070	HAMPER; LINEN; MOBILE; W/LID	VV
M3150.1	DISTRIBUTION SYSTEM; MEDICATION; AUTOMATIC; TERMINAL UNIT	VV
M3150.2	DISTRIBUTION SYSTEM; MEDICATION; AUTOMATIC; AUXILLARY UNIT	VV
M3150.3	DISTRIBUTION SYSTEM; MEDICATION; AUTOMATIC; TWIN TOWER UNIT	VV
M4255	STAND; IV; ADJUSTABLE	VV
M4266	PUMP; VOLUMETRIC; INFUSION; MULTIPLE LINE	VV
M4665	STRETCHER; RECOVERY; SURGICAL	VV
M4816	WARMING UNIT; PATIENT; AUTOMATIC / MANUAL; AIR	VV
M7010	BED; PATIENT; ELECTRIC	VV
M7040	TABLE; OVERBED	VV
M7250	CART; MEDICATION; UNIT DOSE	VV
R-Refrigeration		
R4000	ICE MAKER; CUBES; 400 POUND	VV
R6200	REFRIGERATOR; U/C OR F/S; 5 CU FT	VV
R7000	REFRIGERATOR; 14 CUBIC FEET	VV
U-USER DEFINED		
U1801	TRAY; KEYBOARD; RETRACTABLE	VV
X-Xray Equipment and Accessories		
X4780	RADIOGRAPHIC UNIT; MOBILE; BATTERY; 100 MA; 100KVP	VV

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

STATE OF SOUTH CAROLINA — ROSCOE W. CHAMBERS, BEAUFORT, SC, 3941 — REGISTERED ARCHITECT

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Drawing Title: **EQUIPMENT SCHEDULE**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Drawn: **BUSH** | Checked: **CHAMBERS**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **QH601**

Dwg. 32 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231 5/22/2014 9:10:09 AM

LAST EDITTED: 05-14-2014

CODE SUMMARY

THE THIRD FLOOR 3 EAST AND SOUTH AREAS, APPROXIMATELY 17,094 SF, IS BEING RENOVATED TO PROVIDE A NEW MED/SURG AREA. THE EXISTING BUILDING IS FIVE STORIES PLUS PENTHOUSE. THE MINIMUM ALLOWABLE TYPE OF CONSTRUCTION FOR AN EXISTING HEALTHCARE OCCUPANCY GREATER THAN 4 STORIES THAT IS FULLY SPRINKLERED IS TYPE II (222) PER NFPA 101, TABLE 19.1.6.1. THE CORRESPONDING IBC TYPE OF CONSTRUCTION IS TYPE IB. TABLE 4.1.1 OF NFPA 220 LISTS THE FIRE RESISTANCE RATINGS OF BUILDING ELEMENTS FOR TYPE II (222) AS FOLLOWS:

EXTERIOR BEARING WALLS	2-HRS
INTERIOR BEARING WALLS	2-HRS
COLUMNS	2-HRS
BEAMS, GIRDERS, TRUSSES AND ARCHES	2-HRS
FLOOR CEILING ASSEMBLIES	2-HRS
NONBEARING WALLS	0-HRS

THE FOLLOWING INFORMATION IS BASED ON NFPA 101, CHAPTER 18 AND THE FACILITY CURRENT STATEMENT OF CONDITIONS DRAWINGS FOR FIRE AND SMOKE RATINGS OF EXISTING WALLS.

THE NEW MED/SURG AREA REPRESENTS SINGLE SMOKE ZONES WITH 1 AND 2-HOUR RATED FIRE AND SMOKE BARRIERS WHERE THE WINGS JOINS THE CENTRAL CORE OF THE BUILDING. THESE EXISTING WALLS ARE JUST OUTSIDE THE WORK AREA AND WILL NOT BE CHANGED BY THE NEW CONSTRUCTION. ANY DAMAGE TO THESE WALLS WILL BE REPAIRED TO MAINTAIN THE EXISTING RATINGS. AN EXISTING MECHANICAL ROOM AT THE FAR END OF THE WING WILL REMAIN SURROUNDED BY A 1-HR RATED FIRE BARRIER. THE EXISTING STAIR AT THE FAR END OF THE AREA WILL REMAIN A 2-HR RATED FIRE BARRIER. A NEW SOILED LINEN STORAGE ROOM AND EQUIPMENT STORAGE ROOM WILL BE 1-HR FIRE RESISTANCE RATED. STORAGE ROOMS (NON-HAZARDOUS) SMALLER THAN 100 SF DO NOT REQUIRE FIRE RATED WALLS.

NEW 10 POUND ABC FIRE EXTINGUISHERS WILL BE PROVIDED AND SPACED AT NO MORE THAN 3,000 SF EACH AND NO MORE THAN 75 FT TRAVEL DISTANCE APART.

NEW EXIT SIGNS ARE PROVIDED TO DIRECT OCCUPANTS TO THE NEAREST EXIT PER NFPA 101.

TRAVEL DISTANCE WILL BE LIMITED TO 200 FT MAXIMUM TO AN EXIT STAIR OR HORIZONTAL EXIT.

COORDINATE NEW HVAC DUCT DETECTORS WITH MECHANICAL CONTRACTOR.

WATER SUPPLY

THE EXISTING WATER SUPPLY FOR SUPPRESSION SYSTEMS WITHIN BUILDING 100 ARE FROM A CITY MAIN SUPPLEMENTED BY A FIRE BOOSTER PUMP RATED FOR 1,500 GPM AT 110 PSI. THE STATIC PRESSURE OF THE CITY SUPPLY TO THE BOOSTER PUMP IS 68 PSI. THIS INFORMATION IS BASED ON A FIRE PUMP TEST BY LIFEGUARD FIRE PROTECTION DATED 6/18/13. WATER IS DISTRIBUTED TO THE MULTIPLE FLOORS OF THE BUILDING VIA NETWORK OF STANDPIPES IN THE BUILDING.

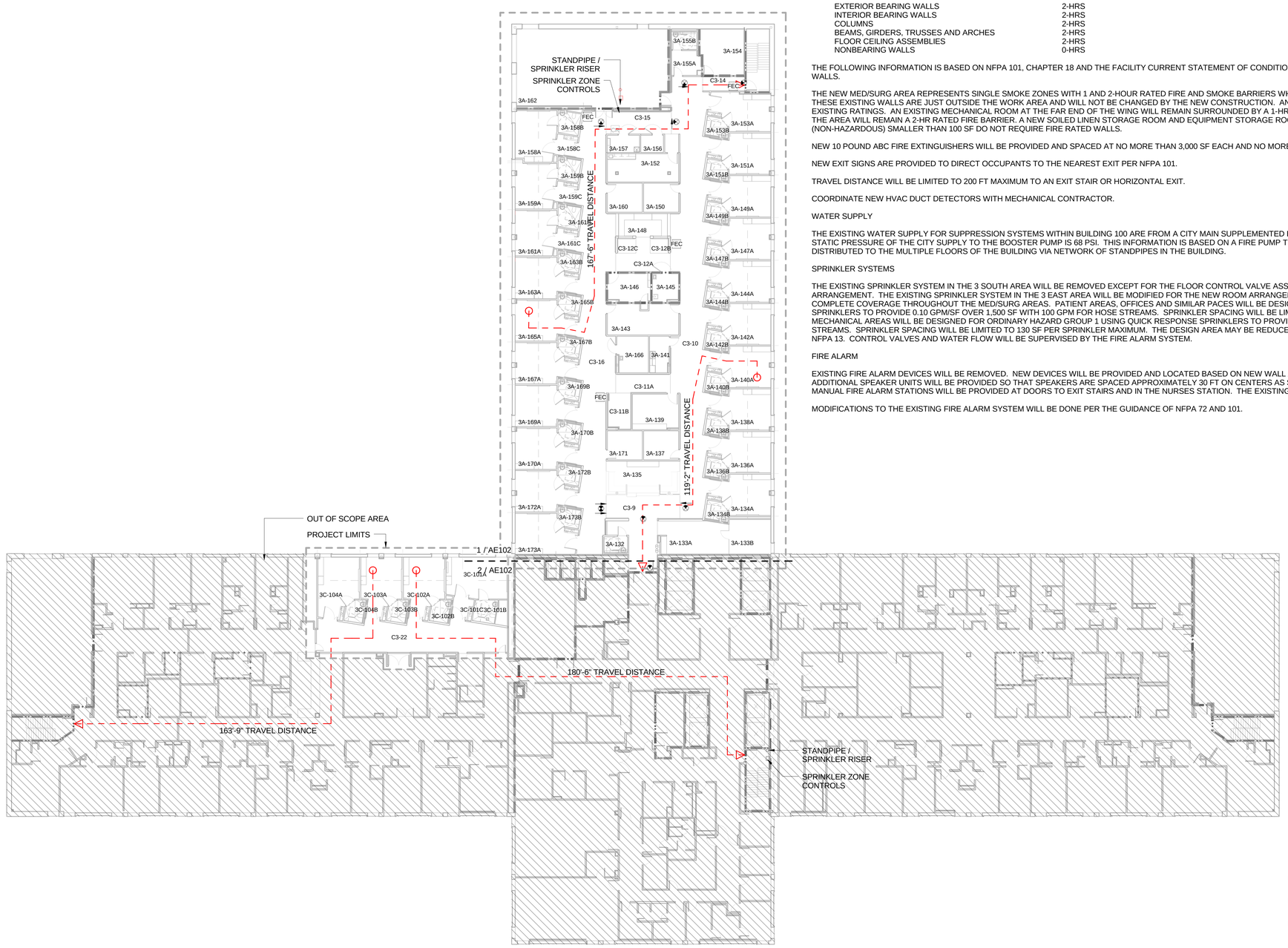
SPRINKLER SYSTEMS

THE EXISTING SPRINKLER SYSTEM IN THE 3 SOUTH AREA WILL BE REMOVED EXCEPT FOR THE FLOOR CONTROL VALVE ASSEMBLY WHICH WILL BE RE-USED FOR THE NEW PIPING ARRANGEMENT. THE EXISTING SPRINKLER SYSTEM IN THE 3 EAST AREA WILL BE MODIFIED FOR THE NEW ROOM ARRANGEMENT. THE NEW SPRINKLER PIPING WILL BE ARRANGED FOR COMPLETE COVERAGE THROUGHOUT THE MED/SURG AREAS. PATIENT AREAS, OFFICES AND SIMILAR PACES WILL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY USING QUICK RESPONSE SPRINKLERS TO PROVIDE 0.10 GPM/SF OVER 1,500 SF WITH 100 GPM FOR HOSE STREAMS. SPRINKLER SPACING WILL BE LIMITED TO 225 SF MAXIMUM. SMALL STORAGE AREAS AND MECHANICAL AREAS WILL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 USING QUICK RESPONSE SPRINKLERS TO PROVIDE 0.15 GPM/SF OVER 1,500 SF WITH 250 GPM FOR HOSE STREAMS. SPRINKLER SPACING WILL BE LIMITED TO 130 SF PER SPRINKLER MAXIMUM. THE DESIGN AREA MAY BE REDUCED FOR QUICK RESPONSE SPRINKLERS AND CEILING HEIGHT PER NFPA 13. CONTROL VALVES AND WATER FLOW WILL BE SUPERVISED BY THE FIRE ALARM SYSTEM.

FIRE ALARM

EXISTING FIRE ALARM DEVICES WILL BE REMOVED. NEW DEVICES WILL BE PROVIDED AND LOCATED BASED ON NEW WALL AND CEILING CONFIGURATIONS. SPEAKER-STROBES AND ADDITIONAL SPEAKER UNITS WILL BE PROVIDED SO THAT SPEAKERS ARE SPACED APPROXIMATELY 30 FT ON CENTERS AS SUGGESTED BY THE VA FIRE PROTECTION DESIGN GUIDE. MANUAL FIRE ALARM STATIONS WILL BE PROVIDED AT DOORS TO EXIT STAIRS AND IN THE NURSES STATION. THE EXISTING SYSTEM IS MONITORED 24 HRS A DAY.

MODIFICATIONS TO THE EXISTING FIRE ALARM SYSTEM WILL BE DONE PER THE GUIDANCE OF NFPA 72 AND 101.



OCCUPANCY CALCULATIONS:

AREA BY WING:

EAST WING: 2,246 SF
SOUTH WING: 16,408 SF
TOTAL: 18,654 SF

OCCUPANT LOAD BY USE:

ASSSEMBLY USE (CONF RM 3A-154): 245 SF / 15 SF/OCC = 16 OCCUPANTS

MECHANICAL ROOM: 1,460 SF / 100 SF / OCC = 15 OCCUPANTS

SOUTH PATIENT AREAS: 14,703 SF / 120 SF / OCC = 123 OCCUPANTS

EAST PATIENT AREAS: 2,246 SF / 120 SF / OCC = 19 OCCUPANTS

TOTAL OCCUPANT LOAD: 173 OCCUPANTS

EGRESS CAPACITY PROVIDED:

SOUTH WING: 1 DOOR @ 34 INCHES CLEAR x 0.2 INCHES PER PERSON = 180 PERSONS
1 DOOR @ 68 INCHES CLEAR x 0.2 INCHES PER PERSON = 340 PERSONS

TOTAL EGRESS CAPACITY PROVIDED = 520 PERSONS

EXISTING PARTITION TO REMAIN

EXISTING ELEMENT TO BE DEMOLISHED

NEW UNRATED PARTITION

NEW / EXISTING 1 HOUR BARRIER

NEW / EXISTING 1 HOUR SMOKE BARRIER

NEW / EXISTING 2 HOUR BARRIER

NEW / EXISTING 2 HOUR SMOKE BARRIER

NEW 1 HOUR CONSTRUCTION BARRIER - USE BARRIER TYPE B14.

1 **LEVEL 3 LIFE SAFETY PLAN**
1/16" = 1'-0"

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: Date

CONSULTANTS:

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Drawing Title: LEVEL 3 LIFE SAFETY PLAN

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05/16/2014 | Drawn: BUSH | Checked: MADDRY

Project Number: 544-13-102

Building Number: 100

Drawing Number: FP101

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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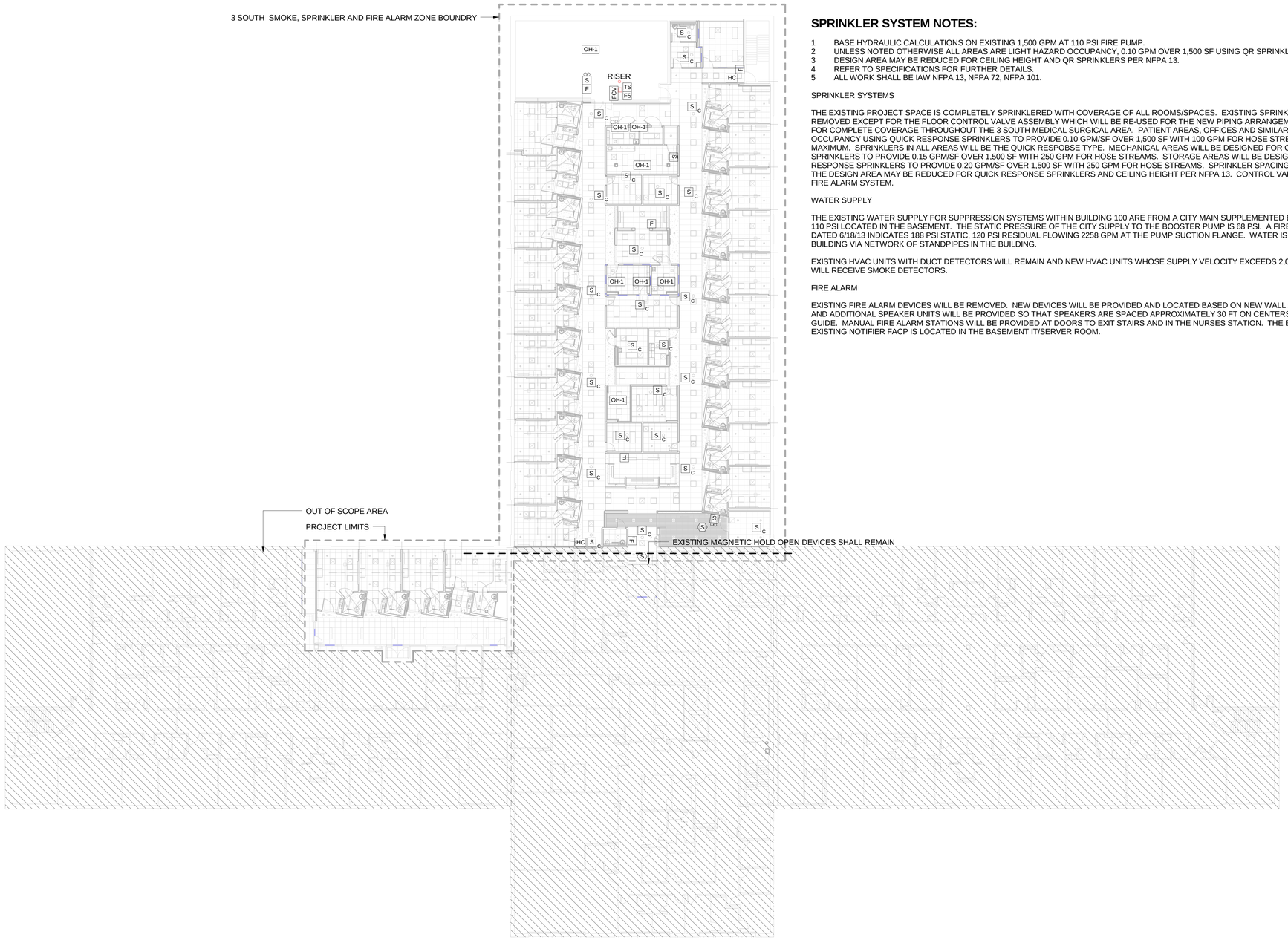

1 LEVEL 3 FIRE PROTECTION PLAN

1/16" = 1'-0"

SPRINKLER SYSTEM NOTES:

1 BASE HYDRAULIC CALCULATIONS ON EXISTING 1,500 GPM AT 110 PSI FIRE PUMP.
2 UNLESS NOTED OTHERWISE ALL AREAS ARE LIGHT HAZARD OCCUPANCY, 0.10 GPM OVER 1,500 SF USING QR SPRINKLERS, 100 GPM FOR HOSES.
3 DESIGN AREA MAY BE REDUCED FOR CEILING HEIGHT AND QR SPRINKLERS PER NFPA 13.
4 REFER TO SPECIFICATIONS FOR FURTHER DETAILS.
5 ALL WORK SHALL BE IAW NFPA 13, NFPA 72, NFPA 101.

SPRINKLER SYSTEMS

THE EXISTING PROJECT SPACE IS COMPLETELY SPRINKLERED WITH COVERAGE OF ALL ROOMS/SPACES. EXISTING SPRINKLER SYSTEM IN THE EXISTING 3 SOUTH WING WILL BE REMOVED EXCEPT FOR THE FLOOR CONTROL VALVE ASSEMBLY WHICH WILL BE RE-USED FOR THE NEW PIPING ARRANGEMENT. THE NEW SPRINKLER PIPING WILL BE ARRANGED FOR COMPLETE COVERAGE THROUGHOUT THE 3 SOUTH MEDICAL SURGICAL AREA. PATIENT AREAS, OFFICES AND SIMILAR PACES WILL BE DESIGNED FOR LIGHT HAZARD OCCUPANCY USING QUICK RESPONSE SPRINKLERS TO PROVIDE 0.10 GPM/SF OVER 1,500 SF WITH 100 GPM FOR HOSE STREAMS. SPRINKLER SPACING WILL BE LIMITED TO 225 SF MAXIMUM. SPRINKLERS IN ALL AREAS WILL BE THE QUICK RESPOBSE TYPE. MECHANICAL AREAS WILL BE DESIGNED FOR ORDINARY HAZARD GROUP 1 USING QUICK RESPONSE SPRINKLERS TO PROVIDE 0.15 GPM/SF OVER 1,500 SF WITH 250 GPM FOR HOSE STREAMS. STORAGE AREAS WILL BE DESIGNED FOR ORDINARY HAZARD GROUP 2 USING QUICK RESPONSE SPRINKLERS TO PROVIDE 0.20 GPM/SF OVER 1,500 SF WITH 250 GPM FOR HOSE STREAMS. SPRINKLER SPACING WILL BE LIMITED TO 130 SF PER SPRINKLER MAXIMUM. THE DESIGN AREA MAY BE REDUCED FOR QUICK RESPONSE SPRINKLERS AND CEILING HEIGHT PER NFPA 13. CONTROL VALVES AND WATER FLOW WILL BE SUPERVISED BY THE FIRE ALARM SYSTEM.

WATER SUPPLY

THE EXISTING WATER SUPPLY FOR SUPPRESSION SYSTEMS WITHIN BUILDING 100 ARE FROM A CITY MAIN SUPPLEMENTED BY A FIRE BOOSTER PUMP RATED FOR 1,500 GPM AT 110 PSI LOCATED IN THE BASEMENT. THE STATIC PRESSURE OF THE CITY SUPPLY TO THE BOOSTER PUMP IS 68 PSI. A FIRE PUMP TEST BY LIFEGUARD FIRE PROTECTION DATED 6/18/13 INDICATES 188 PSI STATIC, 120 PSI RESIDUAL FLOWING 2258 GPM AT THE PUMP SUCTION FLANGE. WATER IS DISTRIBUTED TO THE MULTIPLE FLOORS OF THE BUILDING VIA NETWORK OF STANDPIPES IN THE BUILDING.

EXISTING HVAC UNITS WITH DUCT DETECTORS WILL REMAIN AND NEW HVAC UNITS WHOSE SUPPLY VELOCITY EXCEEDS 2,000 CFM OR RETURN VELOCITY EXCEEDS 15,000 CFM WILL RECEIVE SMOKE DETECTORS.

FIRE ALARM

EXISTING FIRE ALARM DEVICES WILL BE REMOVED. NEW DEVICES WILL BE PROVIDED AND LOCATED BASED ON NEW WALL AND CEILING CONFIGURATIONS. SPEAKER-STROBES AND ADDITIONAL SPEAKER UNITS WILL BE PROVIDED SO THAT SPEAKERS ARE SPACED APPROXIMATELY 30 FT ON CENTERS AS SUGGESTED BY THE VA FIRE PROTECTION DESIGN GUIDE. MANUAL FIRE ALARM STATIONS WILL BE PROVIDED AT DOORS TO EXIT STAIRS AND IN THE NURSES STATION. THE EXISTING SYSTEM IS MONITORED 24 HRS A DAY. THE EXISTING NOTIFIER FACP IS LOCATED IN THE BASEMENT IT/SERVER ROOM.

FIRE PROTECTION DEVICE LEGEND

F	MANUAL FIRE ALARM PULL STATION; 48" MOUNTING HEIGHT U.N.O
S C	SPEAKER; 80" MOUNTING HEIGHT U.N.O.; "C" DENOTES CEILING MOUNT
S	SPEAKER / STROBE; 80" MOUNTING HEIGHT U.N.O.; "C" DENOTES CEILING MOUNT
S	PHOTOELECTRIC SMOKE DETECTOR, ADDRESSABLE
TS	VALVE TAMPER SWITCH
FS	SPRINKLER WATER FLOW SWITCH
FCV	FLOOR CONTROL VALVE ASSEMBLY COMPLETE WITH SUPERVISED CONTROL VALVE, CHECK VALVE, PRESSURE GAUGE, TEST AND DRAIN CONNECTION.
OH-1	ORDINARY HAZARD -1, 0.15 GPM OVER 1,500 SF WITH 250 GPM FOR HOSE STREAMS.
OH-2	ORDINARY HAZARD -1, 0.20 GPM OVER 1,500 SF WITH 250 GPM FOR HOSE STREAMS.

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

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Drawing Title	LEVEL 3 FIRE PROTECTION PLAN
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Project Number	544-13-102
Building Number	100
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Drawn	BUSH
Checked	MADDRY
Drawing Number	FP102
Dwg. 34 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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PLUMBING ABBREVIATIONS

A/E	ARCHITECT / ENGINEER
AD	AREA DRAIN
AFF	ABOVE FINISH FLOOR
AFG	ABOVE FINISH GRADE
AG	AIR GAP
AP	ACCESAN PANEL
AS	AUTOMATIC SPRINKLER
ASD	ADJUSTABLE SPEED DRIVES
ASD	AUTOMATIC SPRINKLER DRAIN
ASHRAE	AMERICAN SOCIETY HEATING, REFRIGERATION, AIR CONDITIONING ENGINEERS
ASME	AMERICAN SOCIETY MECHANICAL ENGINEERS
ASPE	AMERICAN SOCIETY PLUMBING ENGINEERS
ASR	AUTOMATIC SPRINKLER RISER
AV	ACID VENT
AW	ACID WASTE
BFP	REDUCED PRESANURE BACKFLOW PREVENTER
BHP	BREAK HORSEPOWER
BSP	BLACK STEEL PIPE
BT	BATHTUB
BTU	BRITISH THERMAL UNIT
BTUH	BRITISH THERMAL UNIT PER HOUR
C	CELSIUS
CGA	COMPRESSED GAS ASSOCIATION
CI	CAST IRON
CO	CLEANOUT
CS	CLINICAL SINK
CV	CONTROL VALVE
CW	DOMESTIC COLD WATER
DI	DEIONIZED WATER
DN	DOWN
DOE	DEPARTMENT OF ENERGY
DS	DOWNSPOUT
DW	DISHWASHER
DWG	DRAWING
DWH	DOMESTIC WATER HEATER
DWR	DRINKING WATER RETURN
DWS	DRINKING WATER SUPPLY
DWV	DRAIN WASTE VENT
EL	ELEVATION
EMCS	ENERGY MONOSERRAT AND CENTRAL SYSTEM
EPA	ENVIROMENTAL PROTECTION AGENCY
EPACT	ENERGY POLICY ACT
ESC	ESCUTCHEON
ESH	EMERGENCY SHOWER
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EWS	EYE WASH STATION
EX	EXISTING
F	FAHRENHEIT
FCO	FLOOR CLEANOUT
FCW	FILTERED COLD WATER
FD	FLOOR DRAIN
FDC	FIRE DEPARTMENT (HOSE) CONNECTION
FM	FLOW METER
FOP	FUEL OIL PUMP
FOR	FUEL OIL RETURN
FOS	FUEL OIL SUPPLY
FOV	FUEL OIL VENT
FS	FLOOR SINK
FS	FLOW SWITCH
FU	FIXTURE UNITS
GAL	GALLON
GCO	GRADE CLEANOUT
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPR	GAS PRESANURE REGULATOR
GRS	GAS REGULATOR STATION
GT	GREASE TRAP
GVTR	GAS VENT THROUGH ROOF
GWH	GAS FIRED WATER HEATER
H&CW	HOT AND COLD WATER
HB	HOSE BIBB
HD	HUB DRAIN
HEX	HEAT EXCHANGER
HP	HORSEPOWER
HS	HAND SINK
HST	HOT WATER STORAGE TANK (DOMESTIC)
HW	DOMESTIC HOT WATER
HWR	DOMESTIC HOT WATER RETURN
HWR	DOMESTIC WATER RETURN
HWS	DOMESTIC HOT WATER SUPPLY
HWB	HOT WATER BOILER
HWCP	HOT WATER CIRCULATING PUMP
HWP	HOT WATER PUMP
HYD	HYDRANT
ICW	INDUSTRIAL COLD WATER
INV	INVERT
IPC	INTERNATIONAL PLUMBING CODE
IRW	IRRIGATION WATER
IW	INDIRECT WASTE
IWH	INSTANTANEOUS WATER HEATER
IWR	INDUSTRIAL WATER RETURN
IWS	INDUSTRIAL WATER SUPPLY
KW	KILOWATT
KWHR	KILOWATT-HOUR
L/S	LITER PER SECOND
LA	LABORATORY AIR
LAV	LAVATORY
LBS/HR	POUNDS PER HOUR
LCW	LABORATORY COLD WATER
LHW	LABORATORY HOT WATER
LNG	LIQUID NATURAL GAS
LOX	LIQUID OXYGEN
LV	LABORATORY VACUUM
LW	LOW WATER
M	METER
MA	MEDICAL AIR
MAV	MANUAL AIR VENT
MBH	1000 BTUH
MED	MEDICAL
MER	MECHANICAL EQUIPMENT ROOM
MH	MANHOLE
MOU	MEMORANDUM OF UNDERSTADING
MSB	MOP SERVICE BASIN
MV	MEDICAL VACUUM
N2	NITROGEN
N20	NITROUS OXIDE
NC	NORMALLY CLOSED
NG	NATURAL GAS
NIC	NOT IN CONTRACT
NO	NORMALLY OPEN
NOM.	NOMINAL
NPW	NON POTABLE WATER
NTS	NOT TO SCALE
O2	OXYGEN
OC	ON CENTER
OD	OUTSIDE DIAMETER
OFD	OVERFLOW DRAIN
OR	OPERATING ROOM
OVFL	OVERFLOW
PA	PASCAL
PD	PRESSURE DROP OR DIFFERENCE
PDI	PLUMBING AND DRAINAGE INSTITUTE
PG	PRESSURE GAGE
PP	PLUMBING PUMP
PPM	PARTS PER MILLION
PRS	PRESSURE REDUCING STATION
PRV	PRESSURE REDUCING VALVE
PSI	POUNDS PER SQUARE INCH
PSIA	POUNDS PER SQUARE INCH ATMOSPHERE
PSIG	POUNDS PER SQUARE INCH GAUGE
PTRV	PRESSURE TEMPERATURE RELIEF VALVE
PW	POTABLE WATER
RD	ROOF DRAIN
RDL	ROOF DRAIN LEADER
RL	ROOF LEADER
RO	REVERSE OSMOSIS WATER
RWL	RAIN WATER LEADER
SAN	SANITARY SEWER
SCFM	STANDARD CUBIC FOOT/MINUTE
SCW	SOFTENED COLD WATER
SDMH	STORM DRAIN MANHOLE
SHD	SHOWER DRAIN
SMACNA	SHEET METAL AND AIR CONDITIONING CONTRACTORS NATIONAL ASSOCIATION
SP	SUMP PUMP
SPR	SPRINKLER LINE
SQFT	SQUARE FEET
SSTL	STAINLESS STEEL
ST	STORAGE TANK
SW	STORM WATER
TCV	TEMPERATURE CONTROL VALVE
TD	TEMPERATURE DIFFERENCE
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEMP	TEMPERATURE
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSTAT	THERMOSTAT
TWR	TEMPERED WATER RETURN
TWS	TEMPERED WATER SUPPLY
TYP	TYPICAL
UPC	UNIFORM PLUMBING CODE
V	VENT
VAC	VACUUM
VB	VACUUM BREAKER
VCO	VACUUM CLEANER OUTLET
VP	VACUUM PUMP
VS	VENT STACK
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WG	WATER GAGE
WH	WALL HYDRANT
WH	WATER HEATER
WHA	WATER HAMMER ARRESTER
WL	WATER LINE
WM	WATER METER
WPD	WATER PRESANURE DROP
WS	WASTE STACK
YCO	YARD CLEANOUT
YH	YARD HYDRANT

GENERAL NOTES

1. THE PLUMBING SYSTEM SHALL CONFORM TO CURRENT INTERNATIONAL PLUMBING CODE.
2. PROVIDE DOMESTIC HOT WATER A MAXIMUM TEMP OF 110 DEG. F AT THE FIXTURE (PER ADA SPECS), UNLESS SPECIFIC APPLIANCES OR EQUIPMENT SPECIFICALLY REQUIRE HIGHER TEMPERATURE WATER SUPPLY.
3. UNLESS OTHERWISE SPECIFIED OR DIRECTED, PROVIDE IN ACCORDANCE WITH ASHRAE HANDBOOK SERIES (APPROPRIATE CHAPTERS), ASHRAE STANDARD 90.1, AND THE ENERGY CONSERVATION REQUIREMENTS OF THE CONTRACT. SIZE AND PLACE EQUIPMENT SO THAT IT IS EASILY ACCESSIBLE AND REMOVABLE FOR REPAIR OR REPLACEMENT.
4. SEE ARCHITECTURAL PLANS FOR EXACT LOCATION OF ALL PLUMBING FIXTURES.
5. COORDINATE PLUMBING PIPING WITH AIR CONDITIONING DUCTS, ELECTRICAL CONDUIT AND ALL TRADES.
6. CONTRACTOR SHALL VERIFY DISTANCE TO CONNECTION TO EXISTING UTILITIES PRIOR TO BID.
7. ABOVE GROUND DOMESTIC WATER PIPING WILL BE ASTM B88, TYPE "L" COPPER WITH SOLDERED JOINTS AND WROUGHT COPPER ASME B16.22 OR CAST IRON ASME B16.18 FITTINGS. BELOW GROUND DOMESTIC WATER PIPING WILL BE TYPE "K" SOFT COPPER WITH BRAZED JOINTS AND WROUGHT COPPER ASME B16.22 FITTINGS.
8. ABOVE GRADE HORIZONTAL AND VERTICAL RUN SANITARY DRAINAGE, WASTE AND VENT PIPING WILL BE SERVICE-WEIGHT, CAST IRON SOIL PIPE ASTM A888 WITH NO-HUB COUPLINGS AND FITTINGS. BELOW GRADE SANITARY DRAINAGE AND WASTE PIPING WILL BE CAST IRON ASTM A74 HUBBED PIPE AND FITTINGS.
9. ALL SANITARY DRAINAGE, WASTE AND VENT PIPING WILL BE LOCATED EITHER BELOW SLAB, IN PIPE CHASES OR WITHIN WALLS AS REQUIRED. COMPLETE ACCESSIBILITY WILL BE AVAILABLE TO ALL CLEANOUTS IN THE SANITARY DRAINAGE PIPING AND INTERVALS WILL BE SPACED ACCORDING TO THE INTERNATIONAL PLUMBING CODE.
10. PROVIDE VALVES ON ALL BRANCH LINES SERVING TWO OR MORE FIXTURES OR EQUIPMENT ITEMS.
11. REFER TO SPECIFICATIONS FOR ALL MATERIALS NOT LISTED IN SCHEDULES OR OTHERWISE NOTED.
12. DRAINAGE PIPING SHALL BE SLOPED NO LESS THAN THAN 1/8" / FT.
13. ROUGH-IN WASTES AND SUPPLIES TO SPECIAL EQUIPMENT IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND MAKE FINAL CONNECTIONS. ALL SUPPLIES SHALL HAVE SHUT-OFF VALVE. INSTALL VACUUM BREAKERS WHERE REQUIRED BY CODE.
14. VALVES LOCATED ABOVE THE CEILING SHALL BE EASILY ACCESSIBLE BY EITHER REMOVABLE CEILING TILES OR ACCESS PANELS. CONTRACTOR SHALL PROVIDE AND COORDINATE ALL NECESSARY ACCESS PANELS.
15. COMPLETE LAYOUT DRAWINGS SHALL BE AS REQUIRED BY SPECIFICATION 22 05 11 PARAGRAPH, SUBMITTALS. CONSTRUCTION WORK SHALL NOT START ON ANY SYSTEM UNTIL THE LAYOUT DRAWINGS HAVE BEEN APPROVED.

GENERAL FIRE PENETRATION REMEDIATION NOTES

1. SLEEVE AND FIRE STOP ALL PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS IN ACCORDANCE WITH APPLICABLE UL STANDARDS, STATE AND LOCAL CODE REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF FIRE RATED ASSEMBLIES.
2. ALL EXISTING FIRE PENETRATIONS DISTURBED DURING THE COMPLETION OF THE PROJECT'S CONSTRUCTION SHALL BE BROUGHT UP TO APPLICABLE UL STANDARDS, STATE AND LOCAL CODE REQUIREMENTS.
3. ALL EXISTING PENETRATIONS THROUGH RATED WALLS, FLOORS AND CEILINGS SHALL BE BROUGHT INTO COMPLIANCE WITH APPLICABLE UL STANDARDS, STATE AND LOCAL CODE REQUIREMENTS. SEE ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS OF FIRE RATED ASSEMBLIES.

DEDUCTIVE ALTERNATES

1. DEDUCT ALL PLUMBING WORK IN EAST WING.

PLUMBING SYMBOLS

- DIRECTION OF PIPE PITCH (DOWN)
- DIRECTION OF FLOW
- ANCHOR
- REDUCER OR INCREASER
- ECCENTRIC REDUCER
- TOP CONNECTION, 45° OR 90°
- BOTTOM CONNECTION, 45° OR 90°
- SIDE CONNECTION
- CAPPED OUTLET
- RISE OR DROP IN PIPE
- UNION
- PIPE UP
- PIPE DOWN
- POINT OF CONNECTION BETWEEN NEW AND EXISTING WORK
- LIMIT OF DEMOLITION
- INVERTED BUCKET TRAP SET INCLUDING PIPING ACCESANORIES
- FLOAT & THERMOSTATIC TRAP SET INCLUDING PIPING ACCESSORIES
- STRAINER
- THERMOMETER
- PRESSURE GAGE
- FLOW ELEMENT
- CO — CLEAN OUT
- HOSE BIB
- FD TP — FLOOR DRAIN W/ TRAP PRIMER
- 1 — NEW WORK NOTE (SEE SCHEDULE)
- 1 — DEMO WORK NOTE (SEE SCHEDULE)
- ISOLATION VALVE
- WATER HAMMER ARRESTOR
- FCO — SANITARY SEWER CLEANOUT (FLOOR)
- GCO — SANITARY SEWER CLEANOUT (GRADE)
- NEW COLD WATER
- NEW HOT WATER
- SS — NEW SANITARY SEWER
- NEW SAN VENT PIPING
- NEW HOT WATER RECIRCULATION
- EXISTING COLD WATER
- EXISTING HOT WATER
- SS — EXISTING SAN PIPING
- EXISTING HOT WATER RECIRCULATION
- MA — MEDICAL AIR
- O — MEDICAL OXYGEN
- V — MEDICAL VACUUM
- GATE VALVE
- GLOBE VALVE
- GATE VALVE WITH 3/4 " HOSE ADAPTER
- CHECK VALVE
- ANGLE GLOBE VALVE
- BUTTERFLY VALVE
- BALL VALVE
- SOLENOID VALVE (2 POSITION)
- PRESSURE REGULATING VALVE
- AUTOMATIC FLOW CONTROL VALVE
- PRESSURE RELIEF VALVE
- MANUAL AIR VENT
- TEST PLUG (PRESANURE/TEMPERATURE)
- AV — AUTOMATIC AIR VENT

CONSTRUCTION DOCUMENT SUBMISSION
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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 31356 JAY M. DALOIA

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BES DESIGN/BUILD, LLC
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Drawing Title: PLUMBING NOTES, SYMBOLS AND ABBREVIATIONS	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
			Building Number: 100
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Drawing Number: PL001
	Date: 05-16-2014	Checked: CD	Drawn: JL

Dwg. 35 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

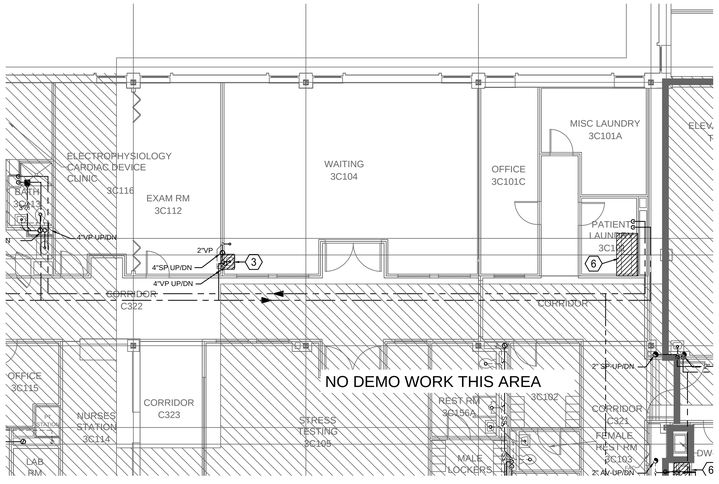
1. DEMOLISH EXISTING WATER CLOSET COMPLETE. DEMOLISH COLD WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.
2. DEMOLISH EXISTING URINAL COMPLETE. DEMOLISH COLD WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.
3. DEMOLISH EXISTING WALL-HUNG LAVATORY COMPLETE. DEMOLISH COLD/HOT WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.
4. DEMOLISH EXISTING COUNTERTOP LAVATORY COMPLETE. DEMOLISH COLD/HOT WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.
5. DEMOLISH EXISTING SHOWER COMPLETE. DEMOLISH COLD/HOT WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.
6. DEMOLISH EXISTING WASHING MACHINE & DRYER COMPLETE. DEMOLISH COLD/HOT WATER AND WASTE PIPING WHERE REQUIRED BACK TO THE POINT OF DISCONNECTION.

GENERAL DEMOLITION NOTES

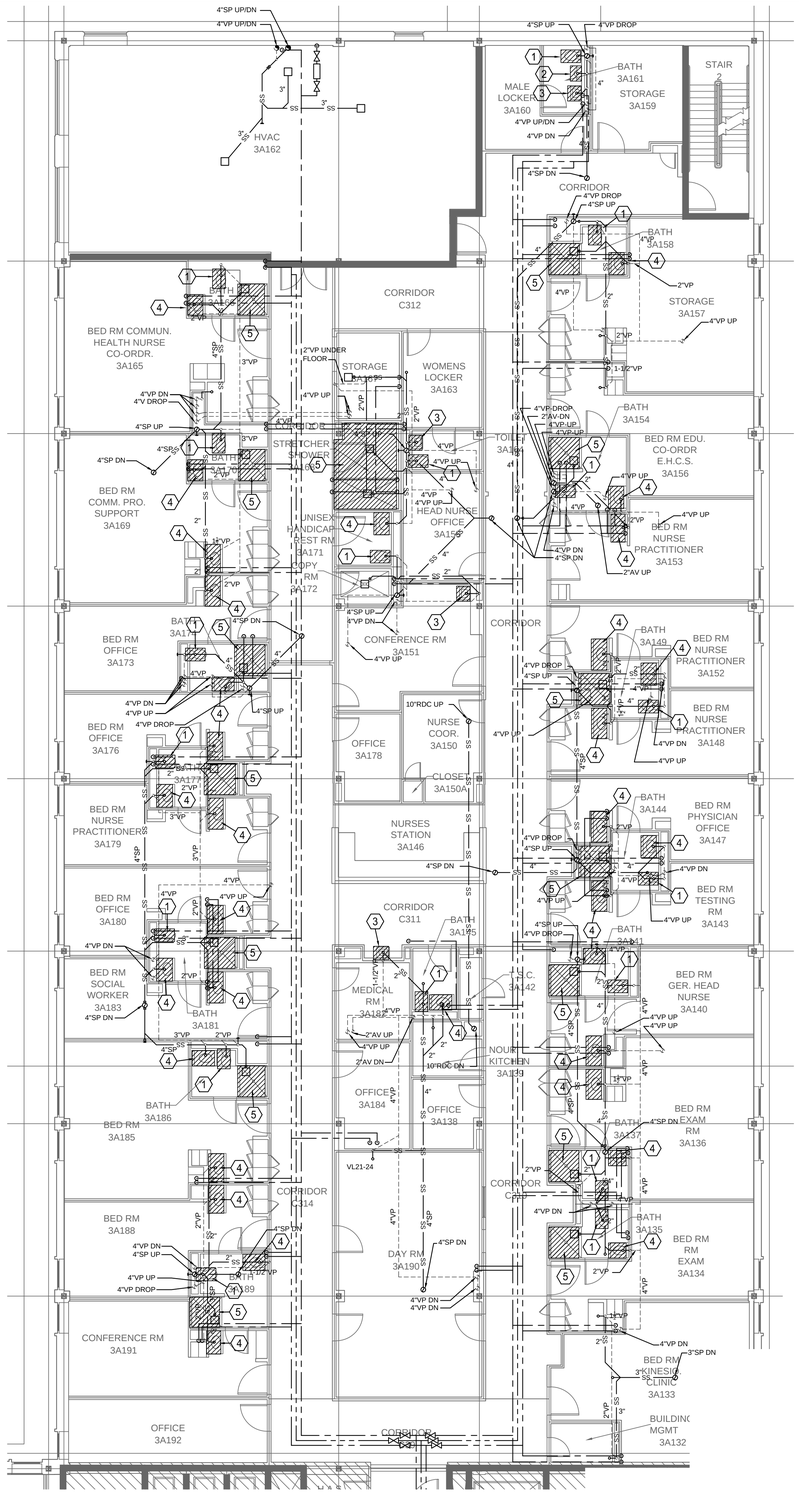
SEE SHEET PL001 FOR GENERAL DEMOLITION NOTES.

PLUMBING SYMBOLS

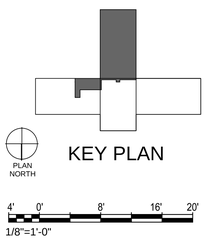
SEE SHEET PL001 FOR PLUMBING SYMBOLS.



2 PLUMBING DEMOLITION PLAN - EAST WING
1/8" = 1'-0"



1 PLUMBING DEMOLITION PLAN - SOUTH WING
1/8" = 1'-0"



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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER 31356 PAUL M. DALOIA

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Drawing Title	PLUMBING DEMOLITION PLAN
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05-16-2014
Checked	CD
Drawn	JL
Project Number	544-13-102
Building Number	100
Drawing Number	PD101
Dwg. 36 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

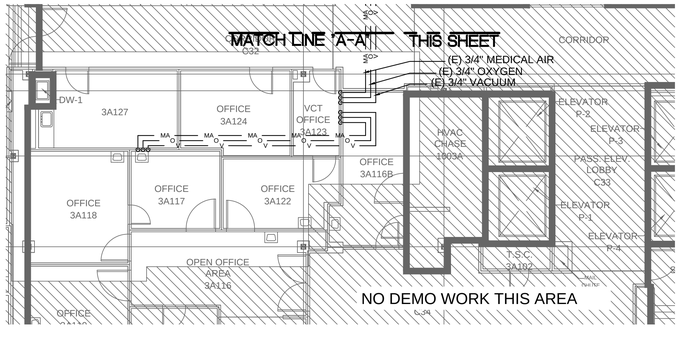
1. DEMOLISH EXISTING AIR FLOWMETER, OXYGEN FLOWMETER & VACUUM PRESSURE REGULATOR IN PATIENT ROOMS. DISCONNECT PIPING AT POINT APPROXIMATELY AS SHOWN.
2. REMOVE ZONE VALVE BOX. RELOCATE AND RECONNECT TO EXISTING PIPING IN NEW WORK.

GENERAL DEMOLITION NOTES

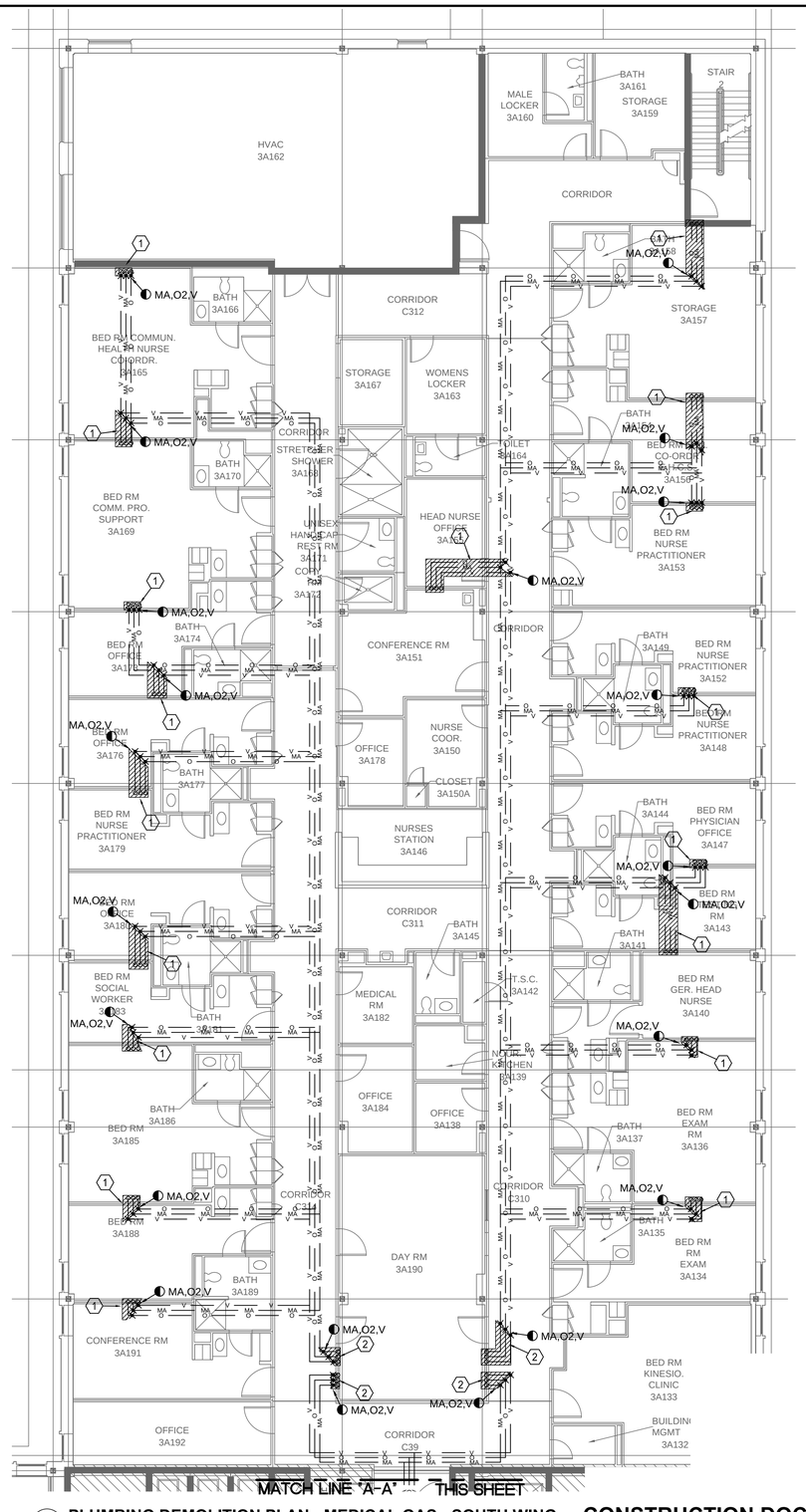
SEE SHEET PL001 FOR GENERAL DEMOLITION NOTES.

PLUMBING SYMBOLS

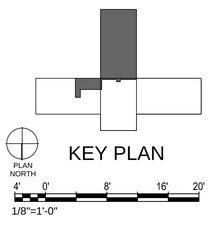
SEE SHEET PL001 FOR PLUMBING SYMBOLS.



2 PLUMBING DEMOLITION PLAN - MEDICAL GAS - EAST WING
1/8" = 1'-0"



1 PLUMBING DEMOLITION PLAN - MEDICAL GAS - SOUTH WING
1/8" = 1'-0"



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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 31956 JAY M. DALOK

ARCHITECT/ENGINEERS:

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766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778 Fax: 251.990.3716

Drawing Title: PLUMBING DEMOLITION PLAN MEDICAL GAS	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
			Building Number: 100
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Drawing Number: PD102
	Date: 05-16-2014	Checked: CD	Drawn: JL
			Dwg. 37 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT
Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

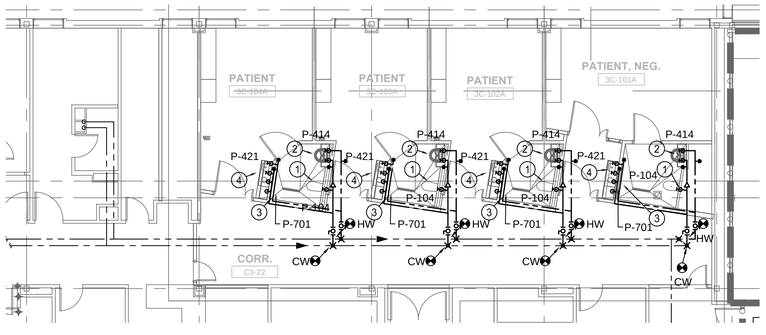
1. INSTALL NEW WALL-HUNG TOILET AND FLUSH VALVE ON FLOOR MOUNTED CARRIER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW LINE.
2. INSTALL NEW WALL-HUNG LAVATORY AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES.
3. INSTALL NEW WALL-MOUNTED SHOWER WITH A SINGLE LEVER MIXING VALVE AND HAND-HELD SPRAY HEAD WITH FLOOR DRAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
4. INSTALL NEW SINGLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
5. INSTALL NEW DOUBLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
6. INSTALL CLINIC SERVICE SINK WITH BED PAN WASHER AND FAUCET. FAUCET WILL REQUIRE 1/2" CW AND HW SUPPLY, FLUSH VALVE WILL REQUIRE 1" CW SUPPLY. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
7. INSTALL NEW REFRIGERATOR ICE MAKER OUTLET BOX. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW LINE.
8. INSTALL NEW SERVICE SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES.
9. INSTALL NEW DRINKING FOUNTAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW PIPING. ROUTE CW SUPPLY FROM REMOTE WATER COOLER LOCATED ABOVE THE CEILING TO WALL MOUNTED DRINKING FOUNTAIN.
10. ROUTE CW SUPPLY FROM REMOTE WATER COOLER ABOVE CEILING TO WALL MOUNTED DRINKING FOUNTAIN.

GENERAL PLUMBING NOTES

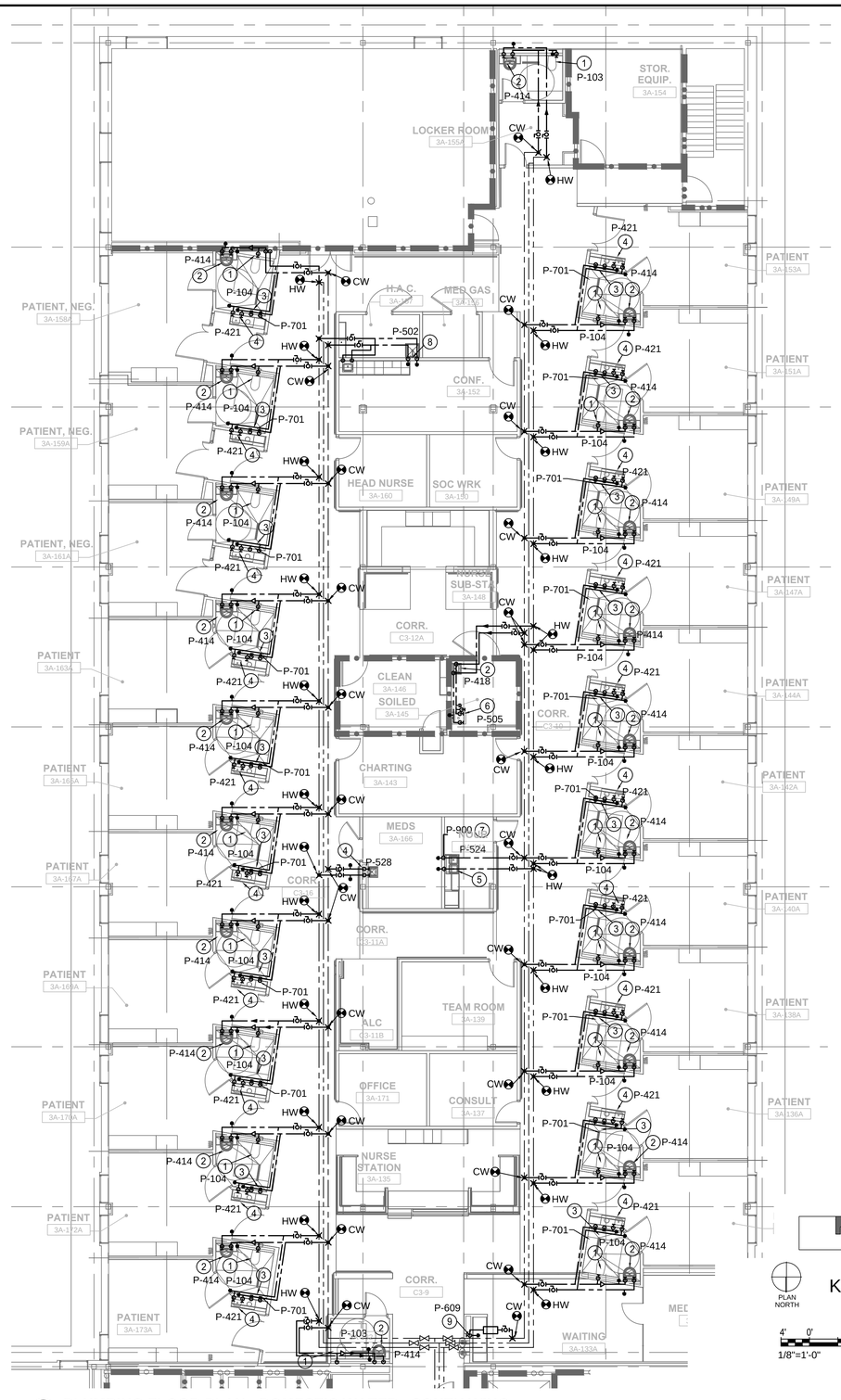
SEE SHEET PL001 FOR GENERAL PLUMBING NOTES.

PLUMBING SYMBOLS

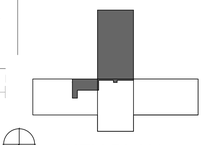
SEE SHEET PL001 FOR PLUMBING SYMBOLS.



2 PLUMBING FLOOR PLAN - DOMESTIC WATER - EAST WING
1/8" = 1'-0"



1 PLUMBING FLOOR PLAN - DOMESTIC WATER - SOUTH WING
1/8" = 1'-0"



KEY PLAN

PLAN NORTH

4' 0' 8' 16' 20'
1/8"=1'-0"

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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 31356 CLAY M. DALONG

ARCHITECT/ENGINEERS:

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Drawing Title: PLUMBING FLOOR PLAN - DOMESTIC WATER - EAST AND SOUTH WING

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: JL

Project Number: 544-13-102

Building Number: 100

Drawing Number: PL101

Dwg. 38 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

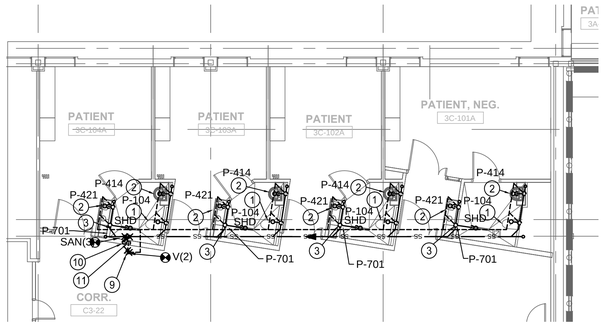
1. INSTALL NEW WALL-HUNG TOILET ON FLOOR MOUNTED CARRIER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
2. INSTALL NEW WALL-HUNG LAVATORY ON FLOOR MOUNTED CARRIER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
3. INSTALL NEW SHOWER FLOOR DRAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
4. INSTALL NEW SINGLE COMPARTMENT COUNTERTOP SINK. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
5. INSTALL NEW DOUBLE COMPARTMENT COUNTERTOP SINK. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
6. INSTALL CLINIC SERVICE SINK WITH BED PAN WASHER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING SAN & V LINES.
7. INSTALL NEW DRINKING FOUNTAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, SAN & V LINES.
8. INSTALL NEW SERVICE SINK. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
9. OFFSET EXISTING SAN, WASTE AND VENT LINES APPROXIMATELY AS SHOWN TO CORRECTLY ALIGN EXISTING VERTICAL DROPS WITH NEW WALLS ON 3RD FLOOR.
10. 4" SAN UP AND DN IN WALL.
11. 4" V UP AND DN IN WALL.
12. (E)4" SAN UP AND DN IN WALL.
13. (E)4" V UP AND DN IN WALL.
14. (E)4" SAN UP.
15. (E)4" V UP.
16. (E)4" SAN DN.
17. (E)4" V DN.
18. (E)2" AV DN.
19. (E)2" AV UP.

GENERAL NOTES

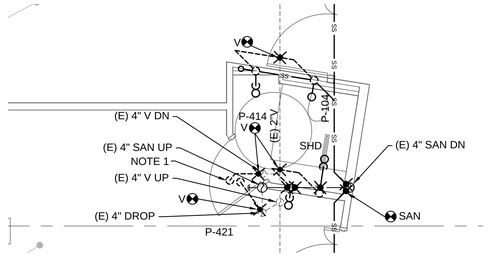
SEE SHEET PL001 FOR GENERAL NOTES.

PLUMBING SYMBOLS

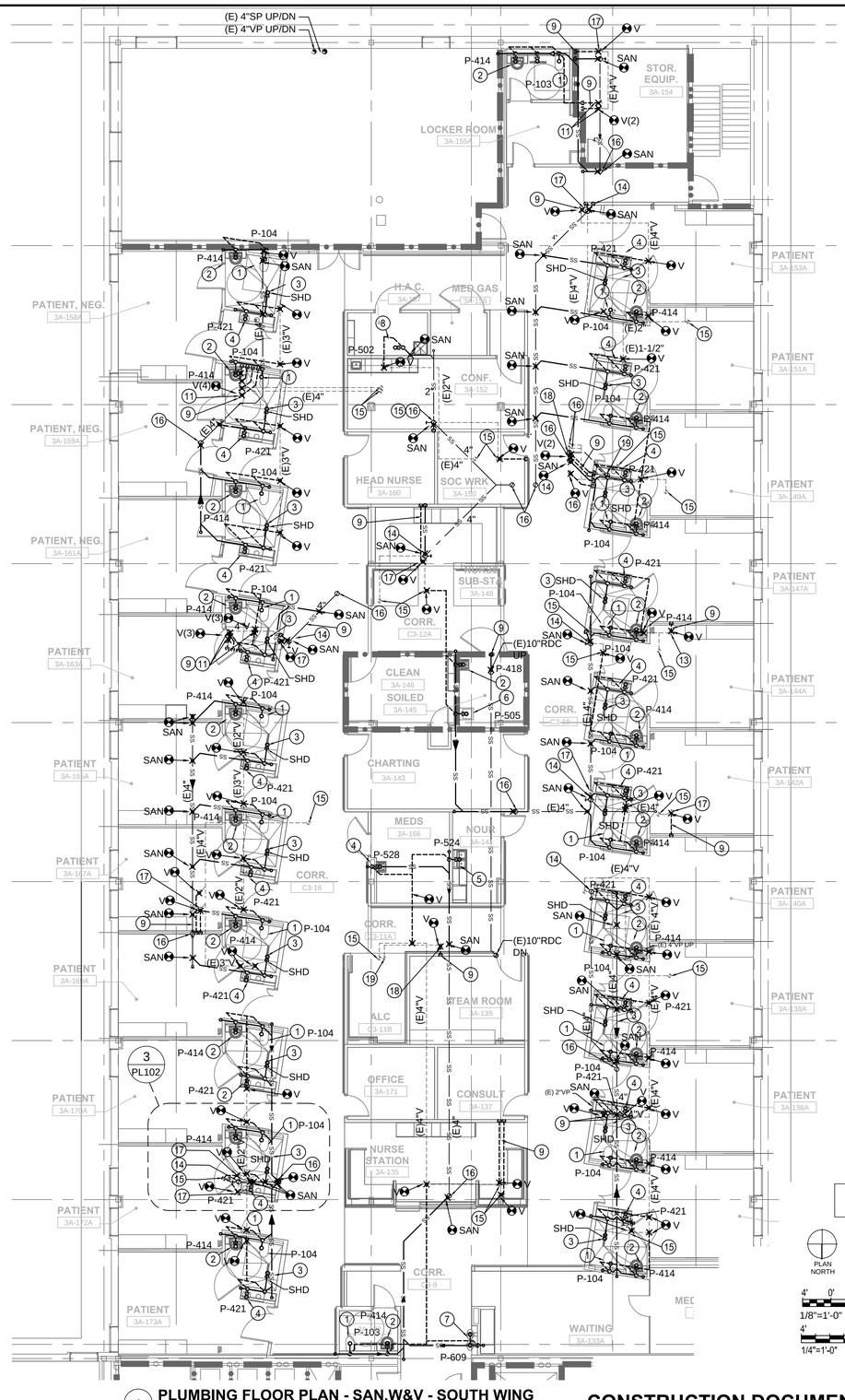
SEE SHEET PL001 FOR PLUMBING SYMBOLS.



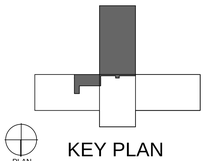
2 **PLUMBING FLOOR PLAN - SAN,W&V - EAST WING**
1/8" = 1'-0"



3 **ENLARGED VIEW - TOILET 3A-172A**
1/4" = 1'-0"



1 **PLUMBING FLOOR PLAN - SAN,W&V - SOUTH WING**
1/8" = 1'-0"



KEY PLAN

PLAN NORTH

4' 0' 8' 16' 20'
1/8"=1'-0"

4' 0' 4' 8'
1/4"=1'-0"

CONSTRUCTION DOCUMENT SUBMISSION
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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 31358 RAY M. DALTON

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
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Phone: 251.990.5778 Fax: 251.990.3716

Drawing Title: **PLUMBING FLOOR PLAN - SANITARY, WASTE AND VENT - EAST AND SOUTH WING**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05-16-2014** | Checked: CD | Drawn: JL

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **PL102**

Dwg. 39 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

SHEET KEYNOTES

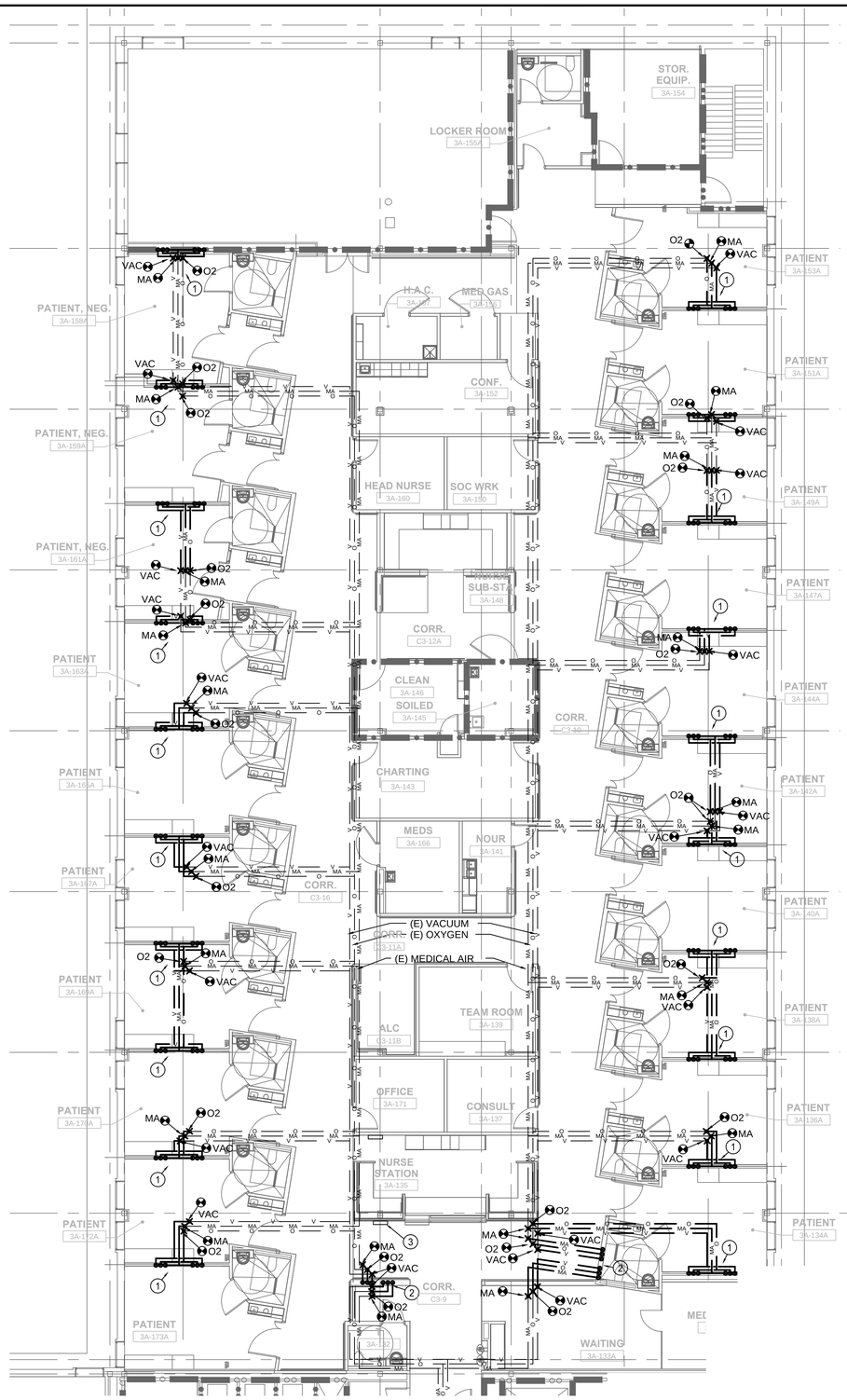
1. INSTALL NEW AIR FLOWMETER, OXYGEN FLOWMETER & VACUUM PRESSURE REGULATOR IN PATIENT ROOMS FOR CONNECTION TO CENTRAL PIPED SYSTEM. TIE IN TO EXISTING SERVICE PIPING AND REUSE AS MUCH AS POSSIBLE.
2. RELOCATE ZONE VALVE BOX TO NEW WALL. RECONNECT NEW SERVICE PIPING TO EXISTING APPROXIMATELY AS SHOWN.
3. PROVIDE MEDICAL ELECTRONIC GAS ALARM PANEL AT NURSE STATION. PROVIDE ALARM PANEL WITH LCD READOUT INDICATING A (SOUTH WING) ZONE LOW, HIGH AND NORMAL OPERATING LEVELS FOR OXYGEN, VACUUM AND MEDICAL AIR. COORDINATE INSTALLATION WITH ELECTRICAL FLOOR PLANS AND REFER TO PLUMBING SPECIFICATIONS 22 62 00 AND 22 63 00.

GENERAL NOTES

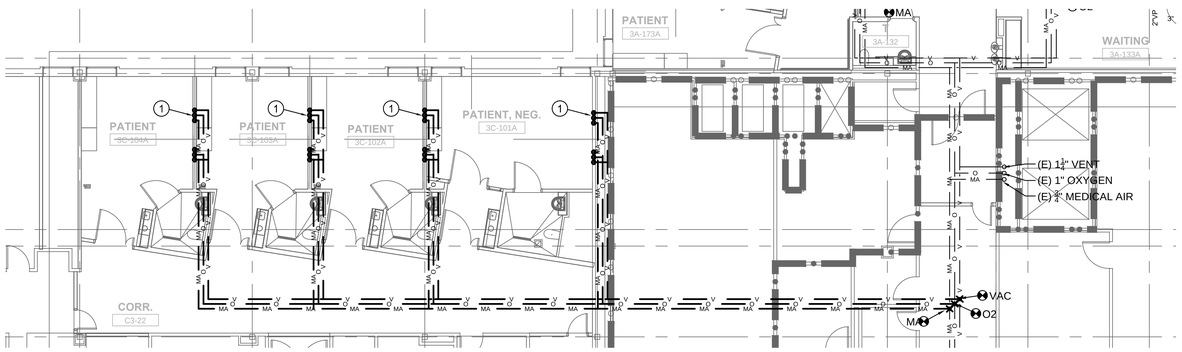
SEE SHEET PL001 FOR GENERAL PLUMBING NOTES.

PLUMBING SYMBOLS

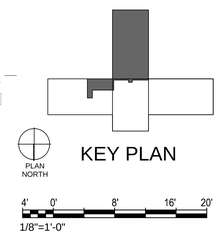
SEE SHEET PL001 PLUMBING SYMBOLS.



1 PLUMBING FLOOR PLAN - MEDICAL GAS - SOUTH WING
1/8" = 1'-0"



2 PLUMBING FLOOR PLAN - MEDICAL GAS - EAST WING
1/8" = 1'-0"



CONSTRUCTION DOCUMENT SUBMISSION
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Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER 31358 CLAY M. DALONG

ARCHITECT/ENGINEERS:

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Phone: 251.990.5778 Fax: 251.990.3716

Drawing Title	PLUMBING FLOOR PLAN - MEDICAL GAS EAST AND SOUTH WING
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05-16-2014
Checked	CD
Drawn	JL
Project Number	544-13-102
Building Number	100
Drawing Number	PL103
Dwg. 40 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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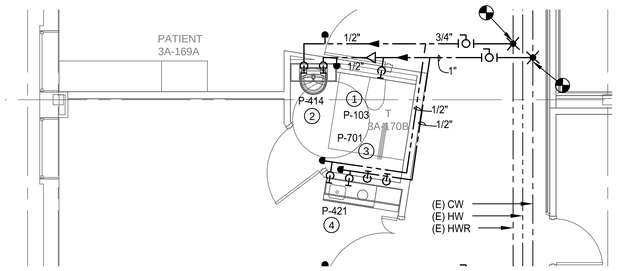
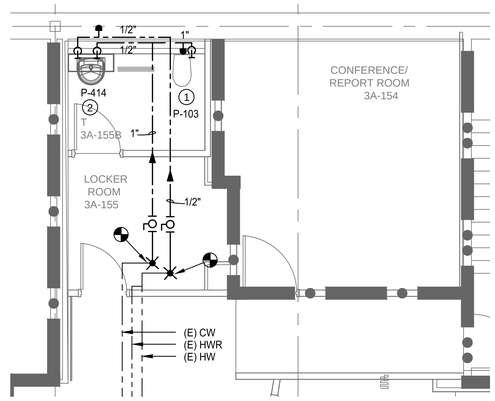
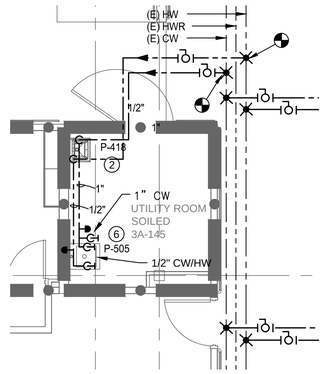


1 **ENLARGED TYPICAL PATIENT TOILET - H&CW**
1/4" = 1'-0"

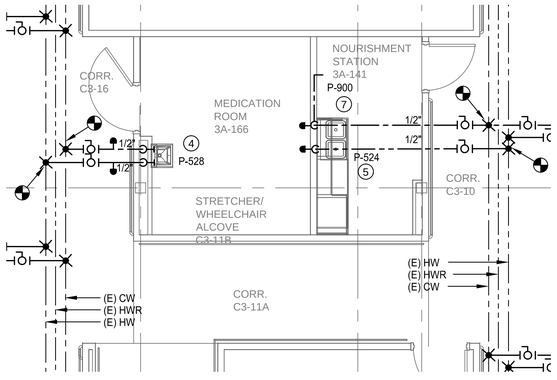
NOTE:
ACTUAL PLUMBING ROUTING VARIES FROM ROOM TO ROOM. SEE DWG. PL101 FOR TIE-IN LOCATIONS AND CORRECT ROOM-SPECIFIC LAYOUT.



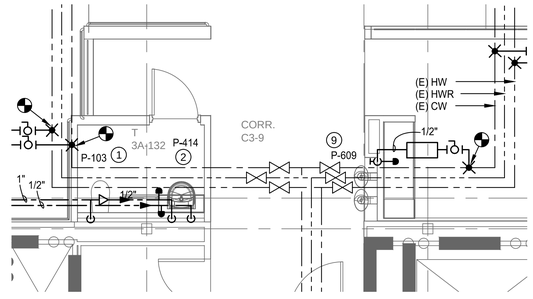
2 **ENLARGED LOCKER ROOM/TOILET/CONF. ROOM - H&CW**
1/4" = 1'-0"



3 **ENLARGED UTILITY SOILED ROOM - H&CW**
1/4" = 1'-0"



4 **ENLARGED NOURISHMENT STA./MEDICATION RM. - H&CW**
1/4" = 1'-0"



5 **ENLARGED PUBLIC TOILET/WATER FOUNTAIN - H&CW**
1/4" = 1'-0"

GENERAL PLUMBING NOTES

SEE SHEET PL001 FOR GENERAL PLUMBING NOTES.

PLUMBING SYMBOLS

SEE SHEET PL001 FOR PLUMBING SYMBOLS.

SHEET KEYNOTES

1. INSTALL NEW WALL-HUNG TOILET AND FLUSH VALVE ON FLOOR MOUNTED CARRIER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW LINE.
2. INSTALL NEW WALL-HUNG LAVATORY AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES.
3. INSTALL NEW WALL-MOUNTED SHOWER WITH A SINGLE LEVER MIXING VALVE AND HAND-HELD SPRAY HEAD WITH FLOOR DRAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
4. INSTALL NEW SINGLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
5. INSTALL NEW DOUBLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
6. INSTALL CLINIC SERVICE SINK WITH BED PAN WASHER AND FAUCET. FAUCET WILL REQUIRE 1/2" CW AND HW SUPPLY, FLUSH VALVE WILL REQUIRE 1" CW SUPPLY. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES
7. INSTALL NEW REFRIGERATOR ICE MAKER OUTLET BOX. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW LINE.
8. INSTALL NEW SERVICE SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES.
9. INSTALL NEW DRINKING FOUNTAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING H&CW LINES.

4' 0' 4' 8'
1/4"=1'-0"

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER 31358 RAY M. DALOK

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Drawing Title: ENLARGED PLUMBING PLANS - DOMESTIC WATER

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: JL

Project Number: 544-13-102

Building Number: 100

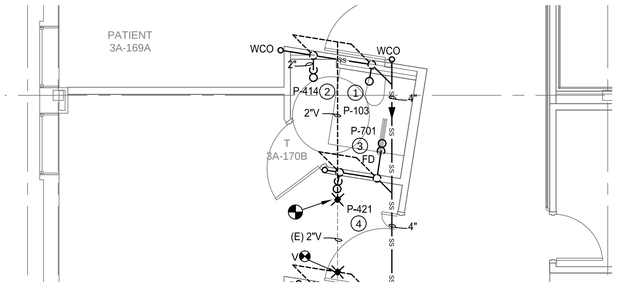
Drawing Number: PL401

Dwg. 41 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

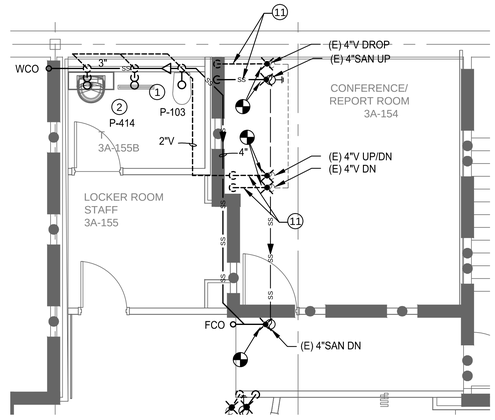
Department of Veterans Affairs

VA FORM 08-6231

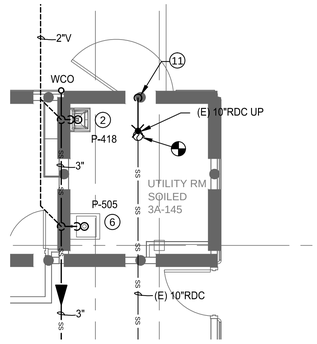


1 **ENLARGD TYPICAL PATIENT TOILET - SAN, W &V**
1/4" = 1'-0"

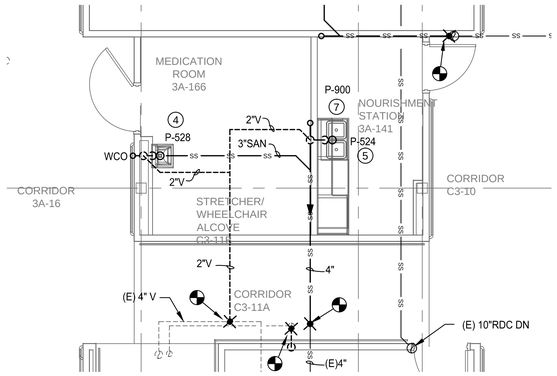
NOTE 1



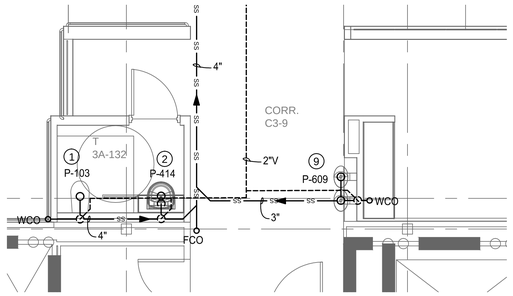
2 **ENLARGED LOCKER ROOM/TOILET/CONF. ROOM - SAN, W &V**
1/4" = 1'-0"



3 **ENLARGED UTILITY ROOM SOILED - SAN, W &V**
1/4" = 1'-0"



4 **ENLARGED NOURISHMENT STA./MEDICATION RM. - SAN, W &V**
1/4" = 1'-0"



5 **ENLARGED PUBLIC TOILET/WATER FOUNTAIN - SAN, W &V**
1/4" = 1'-0"

GENERAL PLUMBING NOTES

FOR GENERAL PLUMBING NOTES, SEE SHEET PL001.

LEGEND

FOR LEGEND, SEE DWG. PL001.

SHEET KEYNOTES

1. INSTALL NEW WALL-HUNG TOILET AND FLUSH VALVE ON FLOOR MOUNTED CARRIER. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, SAN & V LINES.
2. INSTALL NEW WALL-HUNG LAVATORY AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
3. INSTALL NEW WALL-MOUNTED SHOWER WITH A SINGLE LEVER MIXING VALVE AND HAND-HELD SPRAY HEAD WITH FLOOR DRAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
4. INSTALL NEW SINGLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
5. INSTALL NEW DOUBLE COMPARTMENT COUNTERTOP SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
6. INSTALL CLINIC SERVICE SINK WITH BED PAN WASHER AND FAUCET. FAUCET WILL REQUIRE 1/2" CW AND HW SUPPLY, FLUSH VALVE WILL REQUIRE 1" CW SUPPLY. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
7. INSTALL NEW REFRIGERATOR ICE MAKER OUTLET BOX. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW LINE.
8. INSTALL NEW SERVICE SINK AND FAUCET. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, HW, SAN & V LINES.
9. INSTALL NEW DRINKING FOUNTAIN. ROUTE NEW PLUMBING AND TIE-IN TO EXISTING CW, SAN & V LINES.
10. ACTUAL PLUMBING ROUTING VARIES FROM ROOM TO ROOM. SEE DWG. PL102 FOR TIE-IN LOCATIONS AND CORRECT ROOM-SPECIFIC LAYOUT.
11. OFFSET EXISTING SAN AND VENT LINES APPROXIMATELY AS SHOWN TO CORRECTLY ALIGN EXISTING VERTICAL DROPS WITH NEW WALLS ON 3RD FLOOR.

4' 0' 4' 8'
1/4"=1'-0"

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 31956 RALPH M. DALOIA

ARCHITECT/ENGINEERS:

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Drawing Title: **ENLARGED PLUMBING PLANS - SANITARY, WASTE AND VENT**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05-16-2014** | Checked: CD | Drawn: JL

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **PL402**

Dwg. 42 of 78

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Department of Veterans Affairs

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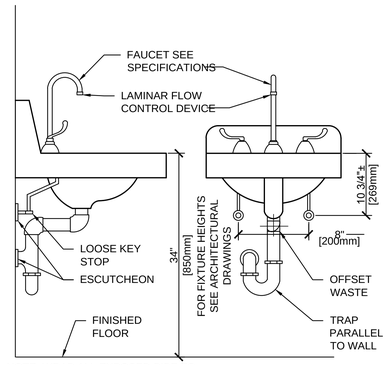
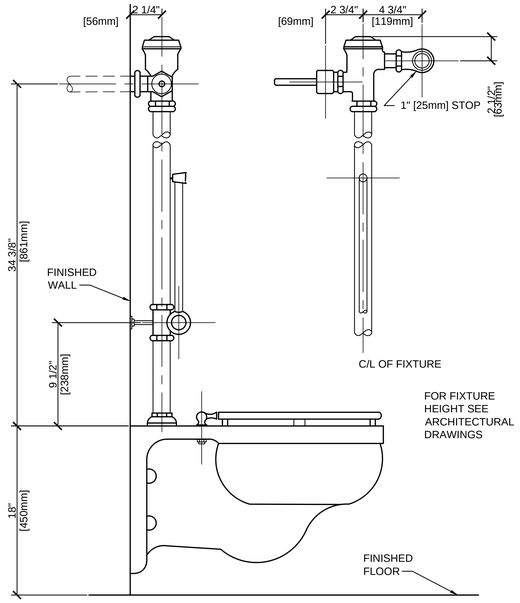


NOTE: WRAP ALL EXPOSED PIPE TO PROTECT FROM POTENTIAL BURNS.

1 TYPICAL WHEELCHAIR LAVATORY DETAIL
NTS



2 WATER CLOSET DETAIL
NTS

NOTES:

1. CENTER CP-25 N/S CAULK WITHIN WALL WITH DAMMING MATERIAL ON ONE SIDE.
2. DEPTH OF CP-25 CAULK:

A) FOR UNINSULATED METAL PIPE:

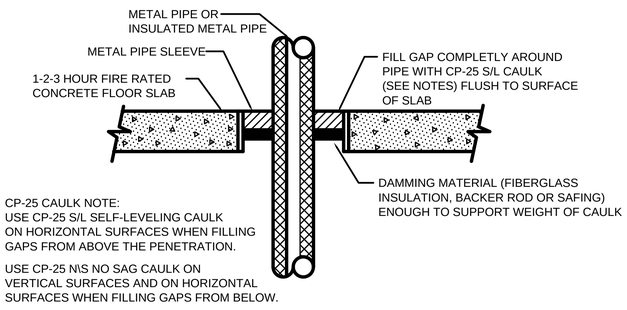
- WET INSTALLED DEPTH OF CP-25 CAULKS DEPENDS ON TYPE AND SIZE OF PIPE: AND DESIRED FIRE RATING.

WET DEPTH	PIPE SIZE	FIRE RATING
1/2"	MAX 8"	1-2 HOURS
1"	MAX 8"	3-4 HOURS

- RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) FIRE TEST AND UL CLASSIFICATION FIRE STOP SYSTEM 49.
- UP TO 40% SHRINKAGE OF CP-25 N/S OR S/L CAULK IS ACCEPTABLE AFTER INITIAL WET DEPTH INSTALLATION.
- MAXIMUM ANNULAR SPACE TO BE FILLED IS 2-1/2"
- IT IS NOT NECESSARY TO REMOVE INSULATION AS IT PENETRATES THE WALL OR FLOOR WHEN USING 3M FIRE BARRIER.

B) FOR INSULATED METAL PIPE:

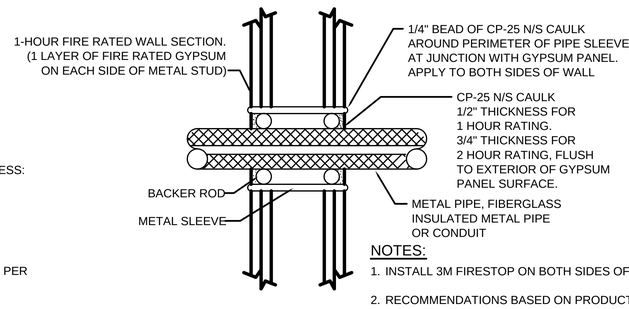
- DEPTH OF CP-25 CAULK DEPENDS ON INSULATION THICKNESS:
  1" OF INSULATION - 1" DEPTH OF CP-25 N/S OR S/L
  2"-3" OF INSULATION - 2" DEPTH OF CP-25 N/S OR S/L
- MINIMUM ANNULAR SPACE TO BE FILLED IS 3/4".
  MAXIMUM ANNULAR SPACE TO BE FILLED IS 2-1/2"
- RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) TIME TEMPERATURE CURVE FIRE EXPOSURE. UL CLASSIFIED PER SYSTEM 91



CP-25 CAULK NOTE:
USE CP-25 S/L SELF-LEVELING CAULK ON HORIZONTAL SURFACES WHEN FILLING GAPS FROM ABOVE THE PENETRATION.

USE CP-25 N\S NO SAG CAULK ON VERTICAL SURFACES AND ON HORIZONTAL SURFACES WHEN FILLING GAPS FROM BELOW.

FLOOR PENETRATION - SECTION VIEW



GYPSUM WALL-SECTION VIEW

NOTES:

1. INSTALL 3M FIRESTOP ON BOTH SIDES OF WALL
2. RECOMMENDATIONS BASED ON PRODUCT PERFORMANCE PER ASTM E-814 (UL 1479) TIME TEMPERATURE FIRE CURVE AND 3M APPLICATIONS ENGINEERING. UL CLASSIFICATION SYSTEM #147

3 PIPE PENETRATION THRU FIRE-RATED WALLS/FLOORS
NTS

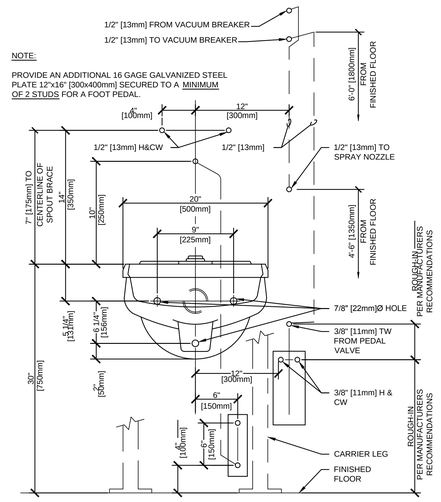
PLUMBING FIXTURE SCHEDULE

ITEM	DESCRIPTION (LOCATION)	CW	HW	WASTE	VENT	REMARKS (SEE NOTE 1)
P-103	WATER CLOSET (PUBLIC AND STAFF ROOM)	1 1/4"	-	4"	2"	ADA COMPLIANT, WHITE, WALL HUNG, VITREOUS CHINA, REAR OUTLET, TOP SPUD, ZURN #Z5615. PROVIDE WITH HINGED OPEN FRONT SEAT ZURN #Z5955-EL AND MANUAL PISTON OPERATED FLUSH VALVE, ZURN 6200-HET, FIXTURE CARRIER.
P-104	WATER CLOSET (TYPICAL PATIENT ROOM)	1 1/4"	-	4"	2"	ADA COMPLIANT, WHITE, WALL HUNG, VITREOUS CHINA, REAR OUTLET, TOP SPUD, ZURN #Z5615. PROVIDE WITH HINGED OPEN FRONT SEAT ZURN #Z5955-EL AND MANUAL PISTON OPERATED FLUSH VALVE, ZURN 6200-HET, FIXTURE CARRIER, BED PAN LUGS AND BED PAN WASHER.
P-414	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, LAVATORY, WALL HUNG, STRAIGHT BACK, VITREOUS CHINA, 8" CENTERS ZURN #5310, WITH GOOSENECK FAUCET & WRIST BLADE HANDLES ZURN #Z831B4-XL, GRID STRAINER, POINT-OF-USE THERMOSTATIC MIXING VALVE, LEONARD #170. FLOOR MOUNTED FIXTURE CARRIER.
P-418	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, LAVATORY, WALL HUNG, STRAIGHT BACK, VITREOUS CHINA, 4" CENTERS ZURN #Z5314, WITH SENSOR FAUCET, HARD WIRED, 0.5 GPM, ZURN #Z6915-CWB-F, GRID STRAINER, FLOOR MOUNTED FIXTURE CARRIER, POINT-OF-USE THERMOSTATIC MIXING VALVE, LEONARD #170.
P-421*	LAVATORY (TYPICAL PATIENT ROOM)	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, SEMI-COUNTERTOP, WHITE, VITREOUS CHINA, AMERICAN STANDARD #9960, 8" CENTER SET , 0.5 GPM, AMERICAN STANDARD #7430.801. THERMOSTATIC MIXING VALVE. GRID STRAINER, CONCEALED PIPING INSTALLATION. (SEE NOTE 4)
P-502	SERVICE SINK	1"	1"	3"	1 1/2"	TERRAZZO TOP, SQUARE TYPE 24"x24"x12", STERN WILLIAMS #SB-900. VACUUM BREAKER WITH BRASS SERVICE SINK FAUCET, ZURN #Z14996-SF
P-505	CLINIC SERVICE SINK	1/2",1" NOTE 3	1/2"	4"	2"	VITREOUS CHINA, WALL MOUNTED, FLUSHING RIM WITH FLUSH VALVE, FAUCET & BED PAN WASHER AMERICAN STANDARD #9512.013, FAUCET #5345.100, SLOAN ROYAL FLUSH VALVE #117H
P-524	SINK	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, DOUBLE BOWL, 33"X22"X7-1/2" DEEP, STAINLESS STEEL, UNDER MOUNT, WITH SWIVEL SPOUT FAUCET & SPRAY HOSE, BASKET STRAINER, ELKAY #LKD2452, POINT-OF-USE THERMOSTATIC MIXING VALVE, LEONARD #170.
P-528	SINK	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, SINGLE BOWL, STAINLESS STEEL, UNDER MOUNT, 22"X22"X6-1/2" DEEP BOWL, BASKET STRAINER, ELKAY #LRAD2222 WITH GOOSENECK FAUCET & 4" WRIST BLADE HANDLES, ELKAY #LK406 W/ SPOUT-8. POINT-OF-USE THERMOSTATIC MIXING VALVE, LEONARD #170.
P-531	SINK (TYPICAL PATIENT ROOM)	1/2"	1/2"	1 1/2"	1 1/2"	ADA COMPLIANT, SINGLE BOWL, CORAIN, UNDERMOUNT, 12-1/2"X14"X6-1/2" DEEP BOWL,GRID STRAINER. DUPONT #809 WITH GOOSENECK FAUCET & 4" WRIST BLADE HANDLES, AMERICAN STANDARD #7430.101, POINT-OF-USE THERMOSTATIC MIXING VALVE, LEONARD #170.
P-609	ELECTRIC WATER COOLER	1/2"	-	1 1/2"	1 1/2"	ADA COMPLIANT, RECESSED, SELF CONTAINED, TWO LEVEL, STAINLESS STEEL WITH REMOTE REFRIGERATION SYSTEM, 8 GPH.
P-701	SHOWER (TYPICAL PATIENT ROOM)	1/2"	1/2"	2"	1 1/2"	ADA COMPLIANT, SINGLE HANDLE SHOWER, WALL MOUNTED, 2.0 GPM, CHROME PLATED FINISH, WITH THERMOSTATIC AND PRESSURE BALANCING VALVE, DIVERTER VALVE, HAND-HELD SHOWER HEAD WITH GLIDE BAR, ADJUSTABLE SHOWER HEAD WITH SWING ARM, SPEAKMAN #SM-5060.
P-900*	ICE MAKER BOX	1/2"	-	-	-	20 GAUGE STEEL BOX WITH CORROSION RESISTANT EPOXY COATING, 1/4 TURN BRASS BALL VALVE OATEY METAL ICEMAKER BOX #38689. WALL MOUNTED IN-LINE WATER FILTER WITH REPLACEABLE CARTRIDGE BASIS OF DESIGN: 3M ICE140-S FILTER SYSTEM.
SHD	SHOWER DRAIN	-	-	2"	2"	18 GAUGE 316L STAINLESS STEEL BODY, 26" LONG AND 1" WIDE INTERNALLY PITCHED CHANNEL DRAIN, 2" DIAMETER CLAMPING OUTLET, STRAINER/DRAIN COVER WITH VANDAL PROOF SCREWS. PROLINE#PLD26

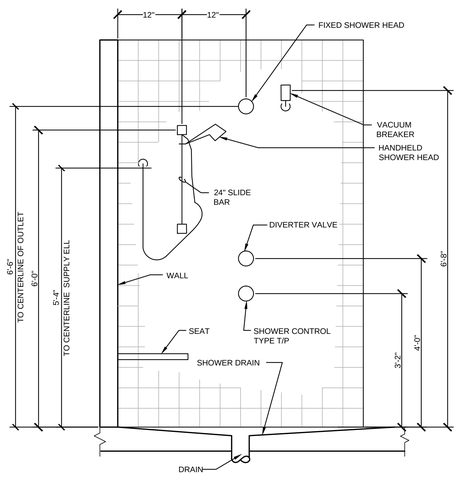
NOTES:

1. BASIS OF DESIGN IS NOT INTENDED TO LIMIT EQUIPMENT SELECTION. PROVIDE INDICATED EQUIPMENT OR EQUIPMENT OF EQUAL PERFORMANCE AND QUALITY.
2. PROVIDE PIPE PROTECTION AT ALL LAVATORY HW/CW PIPING, DRAINS & TRAPS FOR ADA COMPLIANCE.
3. 1/2" CW SUPPLY TO FAUCET, 1" CW SUPPLY TO FLUSH VALVE.

MISCELLANEOUS EQUIPMENT:
WATER HAMMER ARRESTORS: PERMANENTLY SEALED MECHANICAL DEVICE, PRE-CHARGED, THREADED CONNECTION. ASSE 1010 - 2004 CERTIFIED. INSTALL AS CLOSE AS POSSIBLE TO QUICK-CLOSING VALVE. NO ACCESS PANEL REQUIRED. PISTON-TYPE: HARD DRAWN SEALED COPPER BODY WITH PLASTIC RINGS AND PISTON, THREADED ADAPTER: SIOUX CHIEF 650 SERIES OR EQUAL.
*NON-STANDARD ITEM NUMBER.
**ALL GANG PLUMBING, RESTROOM AREAS WILL REQUIRE WATER HAMMER ARRESTORS, NOT EXAM ROOM SINKS.



4 P-505 CLINIC SERVICE SINK ROUGH-IN DETAIL
NTS



5 P-701 PATIENT SHOWER DETAIL
NTS

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Drawing Title: **PLUMBING DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05-16-2014** | Checked: CD | Drawn: JL

Project Number: **544-13-102**

Building Number: **100**

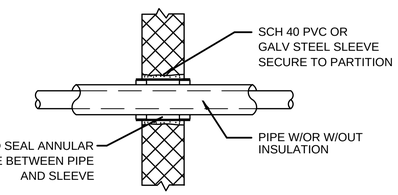
Drawing Number: **PL601**

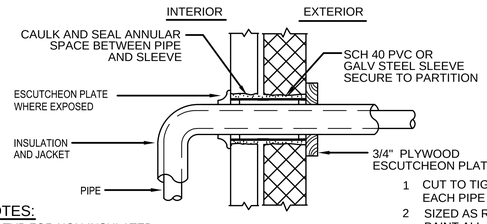
Dwg. 43 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231





1 CUT TO TIGHTLY FIT EACH PIPE
2 SIZED AS REQD; SEAL W/ PAINT ALL SIDES
3 FINISH PAINT TO MATCH ADJACENT WALL AREAS
4 FASTEN TO WALL W/ FLATHEAD SCREWS

NOTES:
1 TYP FOR NON-INSULATED PIPE AND CONDUIT
2 TYP FOR MASONRY OR CONCRETE WALL

NOTE: WHERE PIPING IS EXPOSED AT FINISH WALLS, FLUSH MOUNT SLEEVE AND PROVIDE ESCUTCHEON PLATE.

1 NTS **PIPE PENETRATION THRU WALLS**
(TYPICAL NON FIRE-RATED WALLS)

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: **PLUMBING DETAILS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05-16-2014** | Checked: CD | Drawn: JL

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Building Number: **100**

Drawing Number: **PL602**

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

GENERAL NOTES

1. THE DRAWINGS SHOW THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT, DUCTWORK, PIPING, ETC. THE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING THE MECHANICAL INSTALLATION W/ THE STRUCTURE AND OTHER TRADES AND SHALL PROVIDE ADDITIONAL OFFSETS AND FITTINGS AS NECESSARY.
2. COORDINATE WORK WITH AUTHORITY HAVING JURISDICTION AND OBTAIN ALL PERMITS AND INSPECTIONS.
3. THE HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS SHALL COMPLY WITH THE MOST RECENT INTERNATIONAL MECHANICAL CODE, NFPA 90A, AND LOCAL CODE OFFICIAL REQUIREMENTS. IN THE EVENT OF A CONFLICT BETWEEN CODES, THE MOST STRINGENT SHALL ALWAYS GOVERN.
4. DUCT DIMENSIONS ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS.
5. THE CONTRACTOR SHALL CHECK AND VERIFY ALL CLEARANCES PRIOR TO FABRICATION OR INSTALLATION OF EQUIPMENT, DUCTWORK, AND PIPING SYSTEMS. WHERE CONDITIONS REQUIRE A CHANGE IN DUCT OR PIPE ROUTING, NOTIFY THE CONTRACTING OFFICER FOR AN ACCEPTABLE ALTERNATIVE METHOD. AVOID ROUTING DUCTWORK DIRECTLY OVER LIGHT FIXTURES, DIFFUSERS, AND OTHER CEILING MTD. DEVICES. LOCATE ALL MECHANICAL EQUIPMENT SO THAT FILTERS AND COMPONENTS REQUIRING ACCESS (SERVICE AND MAINTENANCE) ARE FULLY ACCESSIBLE.
6. PROVIDE CURVED RADIUS ELBOWS SUPPLY & RETURN FITTING FOR ALL HVAC UNITS. PROVIDE TURNING VANES IN ALL 90 DEGREE ELBOWS IN ALL RECTANGULAR SUPPLY/RETURN/EXHAUST DUCT SYSTEMS. ANY OFFSETS REQUIRED IN DUCT SYSTEMS SHALL BE INSTALLED PER SMACNA STANDARDS. SHARP ANGLED TRANSITIONS OR OFFSETS 'WILL NOT BE ALLOWED'. PROVIDE DUCT ACCESS DOORS AT LOCATIONS SPECIFIED.
7. INSTALL ALL DUCT MOUNTED DEVICES (DAMPERS, ACCESS DOORS, ETC.) AND PIPING SPECIALTIES IN EASILY ACCESSIBLE LOCATIONS. ADVISE THE CONTRACTING OFFICER IN ADVANCE OF INSTALLATION IF ACCESS WILL BE HINDERED SO AN ALTERNATE LOCATION CAN BE SELECTED.
8. ALL DUCT TAKE-OFFS SHALL BE INSTALLED AS SHOWN BY DETAILS ON THE PLANS WITH A MANUAL BALANCE DAMPER AT EVERY TAKE-OFF. WHERE DUCT RUN-OUT SIZE IS NOT SHOWN PROVIDE DUCT SAME SIZE AS GRILLE NECK SIZE. PRE-INSULATED FLEXIBLE DUCT MAY BE USED FOR FINAL CONNECTION TO SUPPLY/RETURN GRILLES (MAX. LENGTH 6')
9. ALL ROTATING MECHANICAL EQUIPMENT SHALL BE PROVIDED WITH VIBRATION ISOLATION. PROVIDE FLEXIBLE NEOPRENE DUCT CONNECTORS BETWEEN DUCTWORK AND ISOLATED MECHANICAL EQUIPMENT.
10. THE CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FIRE RATED WALLS/FLOORS/CEILINGS BY DUCTWORK PIPING, ETC., WITH U.L. LISTED FIRE STOPPING MATERIAL TO MAINTAIN FIRE RATING OF THE BARRIER.
11. SEISMIC PROTECTION OF EQUIPMENT, DUCTWORK, PIPING AND UTILITIES SHALL BE PROVIDED IN ACCORDANCE WITH SECTION 16 OF THE 2012 EDITION OF THE INTERNATIONAL BUILDING CODE. ALL SEISMIC RESTRAINT AND BRACING SHALL BE SUBSTANTIATED BY MANUFACTURER'S SUBMITTALS PER THE SPECIFICATIONS.
12. BALANCE ALL AIR DISTRIBUTION DEVICES, EXHAUST FANS, AND OUTSIDE AIR QUANTITIES AS SCHEDULED OR SHOWN ON THE DRAWINGS. PROVIDE MARKERS AT ALL DAMPER LOCATIONS SHOWING FULL OPEN/CLOSED POSITIONS AND DAMPER SETTING FOR REQUIRED AIRFLOW. PROVIDE FINAL TEST AND BALANCE REPORT ALONG W/ SCHEMATIC DRAWINGS SHOWING DIFFUSER LOCATION W/ DESIGN AND ACTUAL CFM. THE DIFFUSER TAGS ON THE DRAWINGS SHALL CORRESPOND TO THE DIFFUSER TAGS ON THE REPORT. THIS REPORT SHALL BE SUBMITTED BEFORE THE FINAL INSPECTION IS PERFORMED. SEE THE SPECIFICATIONS FOR ADDITIONAL INFORMATION.
13. ALL PENETRATIONS THROUGH RATED FLOOR/CEILING ASSEMBLIES AND THROUGH FIRE RATED WALL AND SMOKE BARRIER ASSEMBLIES - THOSE CREATED BY REMOVAL OF DEMOLISHED ITEMS UNDER THIS CONTRACT AND THOSE DISCOVERED DURING CONSTRUCTION UNDER THIS CONTRACT AS A RESULT OF PREVIOUS WORK AND THOSE CREATED BY NEW WORK UNDER THIS CONTRACT - MUST BE SEALED AS PART OF THIS CONTRACT. ALL RATED SEPARATIONS MUST MEET CURRENT CODE REQUIREMENTS.
14. ALL CONTAMINATED DUCTS AND FILTERS FOR PATIENT ISOLATION ROOMS SHALL BE LABEL AS "BIOHAZARD" IN ACCORDANCE WITH THE VA STANDARDS AND SPECIFICATIONS.
14. SUPPLY AIR DUCTWORK UPSTREAM OF AIR TERMINAL TO BE SINGLE-WALLED MEDIUM PRESSURE ROUND OR FLAT OVAL. PROVIDE SMACNA STATIC PRESSURE CLASS AS REQUIRED FOR SCHEDULE EXTERNAL STATIC PRESSURE, SEAL CLASS A, INTERNALLY INSULATED, DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
15. SUPPLY AIR DUCTWORK DOWNSTREAM OF AIR TERMINAL UNITS (EXCEPT TAKEOFFS TO SUPPLY AIR DIFFUSERS) TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS DUCT WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
16. RETURN AIR DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
17. OUTSIDE AIR INTAKE DUCTWORK TO BE SINGLE WALL LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED WITH 2" THICK FIBERGLASS WRAP. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
18. EXHAUST AIR DUCTWORK TO BE LOW PRESSURE SINGLE WALL RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A.
19. TRANSFER DUCTS TO BE INTERNALLY INSULATED WITH 1" THICK ACOUSTICAL DUCT LINER. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.

MECHANICAL LEGEND

D1 250 / 8X8	DIFFUSER DESIGNATION (TYPE, CFM, NECK SIZE)
T1	THERMOSTAT, "1" INDICATES DEVICE CONTROLLED
	DIFFUSER, DIRECTION OF FLOW AS INDICATED
	RETURN AIR OUTLET
	EXHAUST AIR OUTLET
UC	DOOR UNDERCUT (1")
20x8	DUCT SIZE, FIRST NO. IS SIDE SHOWN
	ELBOW
	INDICATES ITEMS TO BE DEMOLISHED
FD	FIRE DAMPER WITH ACCESS
	MANUAL VOLUME DAMPER
M	MOTORIZED DAMPER
CV-X	CONSTANT VOLUME UNIT DESIGNATION
FCU-X	FAN COIL UNIT DESIGNATION
VAV-X	VARIABLE AIR VOLUME UNIT DESIGNATION
ATU-X	AIR TERMINAL UNIT DESIGNATION
	P.O.D. POINT OF DISCONNECTION
	P.O.C. POINT OF CONNECTION
OA	OUTSIDE AIR
SA	SUPPLY AIR
RA	RETURN AIR
RH	RELATIVE HUMIDITY
DS	AIR TEMPERATURE SENSOR
AFS	AIR FLOW MEASURING STATION
FZ	FREEZE STAT
DPS	DIFFERENTIAL PRESSURE SENSOR
AI	ANALOG INPUT
AO	ANALOG OUTPUT
DI	DIGITAL INPUT
DO	DIGITAL OUTPUT
EXH AIR	EXHAUST AIR
(E)	EXISTING
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
CHWS	CHILLED WATER SUPPLY
CHWR	CHILLED WATER RETURN
	CONDENSATE
XX	EXISTING PIPING
101	BALL VALVE
SD	SMOKE DETECTOR
R1	ROOM PRESSURE MONITOR, "1" INDICATES DEVICE CONTROLLED

AMBIENT DESIGN CONDITIONS

SEASON	OUTSIDE TEMPERATURE
SUMMER	96°F DB/76°F WB
WINTER	21°F DB

DESIGN CONDITIONS

UNIT	SUMMER SPACE TEMP./HUMIDITY	WINTER SPACE TEMP./HUMIDITY
AHU-13	75°F DB/50% RH	72°F DB/50% RH
FCU'S	75°F DB/50% RH	72°F DB/50% RH
UNIT HEATERS	N/A	40°F DB/--
VENTILATION FANS	85°F DB/--	N/A

NOTES:
1. INSIDE SUMMER RELATIVE HUMIDITY IS +/- 10%.
2. INSIDE WINTER DESIGN TEMPERATURE IS +/- 2 DEG F.
3. INSIDE SUMMER DESIGN TEMPERATURE IS +/- 2 DEG F.

DEDUCTIVE ALTERNATES

1. DEDUCT ALL MECHANICAL WORK IN EAST WING.

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VA FORM 08-6231

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Drawing Title: **MECHANICAL NOTES, SYMBOLS, AND ABBREVIATIONS**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05-16-2014** | Checked: **CD** | Drawn: **CD**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **MH001**

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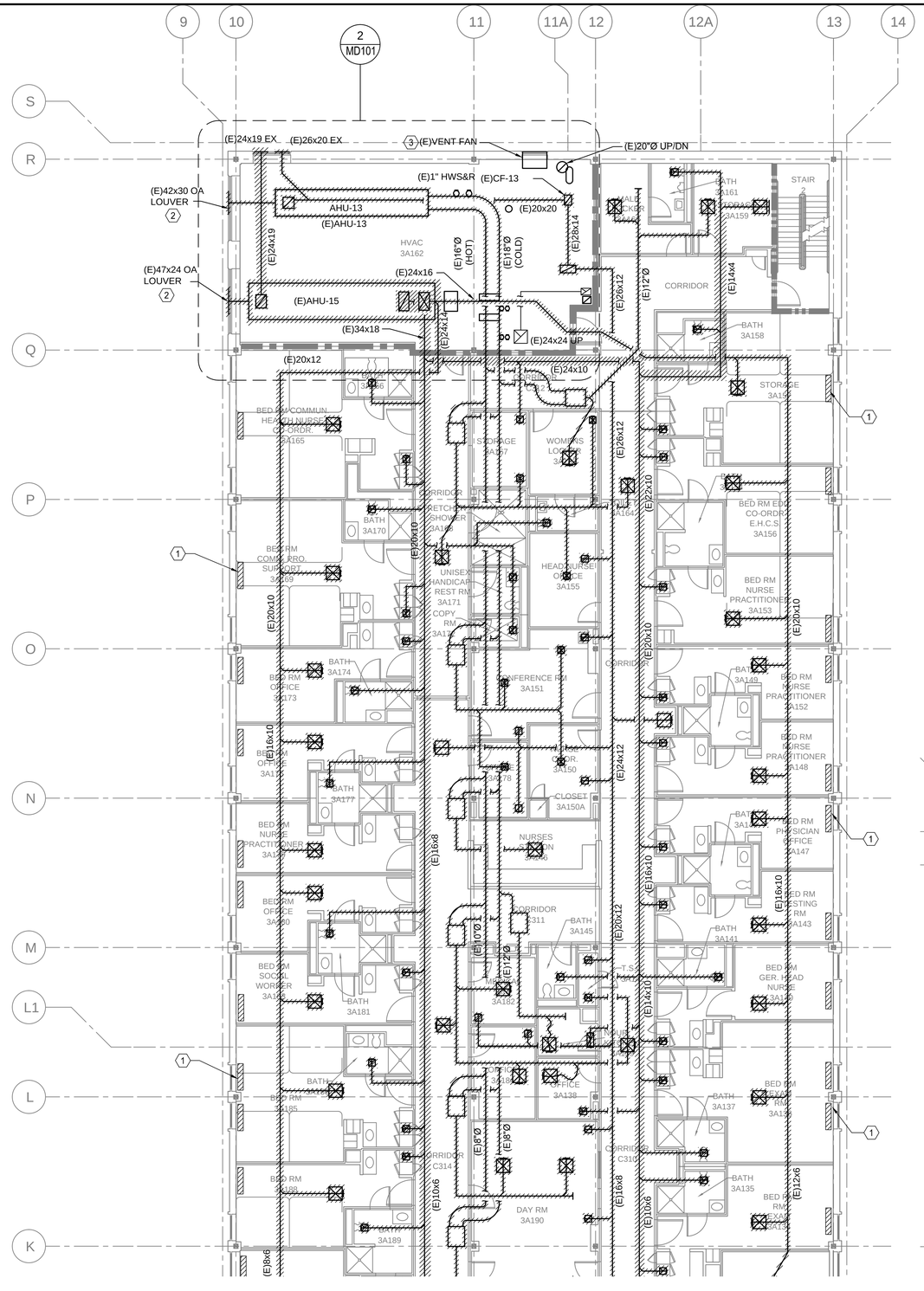


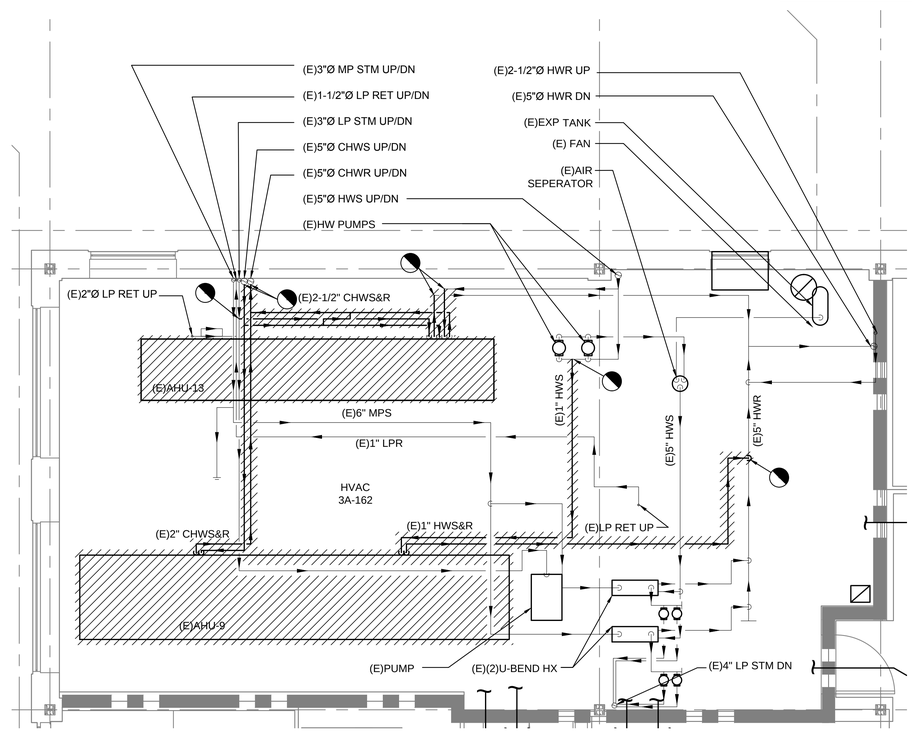
1 **SOUTH WING - DEMOLITION**
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

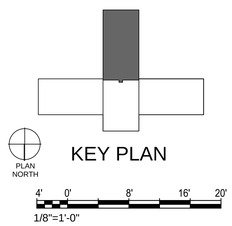
1. ALL DUCTWORK, EQUIPMENT, AND PIPING SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR SPECIFIC INFORMATION. EXISTING DUCT TAKE-OFFS MAY BE REUSED IN NEW WORK IF CORRECT SIZE AND LOCATION.
2. SHADED AREAS OF THIS PLAN ARE NOT WITHIN THE PROJECT SCOPE OF WORK AND ARE SHOWN FOR REFERENCE ONLY.
3. LOCATION OF EXISTING EQUIPMENT, DUCTWORK, AIR OUTLETS, CONTROLS AND ALL CONCEALED WORKS, ETC. ARE APPROXIMATE. THE CONTRACTOR SHALL EXAMINE THE SITE PRIOR TO BUILDING AND AFTER DEMOLITION HAS EXPOSED "AS-BUILT" CONDITIONS TO VERIFY EACH AIR OUTLET, AND EQUIPMENT LOCATION. THE CONTRACTOR SHALL MAKE ADJUSTMENTS AND/OR ALTERATIONS AS NECESSARY TO INSTALL COMPLETE AND OPERABLE SYSTEMS IN ACCORDANCE WITH THE CODES HAVING JURISDICTION AT NO ADDITIONAL COST TO THE GOVERNMENT
4. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF AIR OUTLETS, EQUIPMENT, CONTROLS, ETC. SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH, SEE ARCHITECTURAL DRAWINGS FOR NEW FINISH SCHEDULE. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORKS UNDER EMPLOY OF THE GENERAL CONTRACTOR.
5. DURING THE LIFE OF THE CONTRACT (CONSTRUCTION AND DEMOLITION TO POINT OF BENEFICIAL OCCUPANCY BY OWNER). THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF THE CONTRACT AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.
6. NOT ALL CONTROL CIRCUITS AND DEVICES ARE INDICATED. FOR EACH CONTROL AND, DEVICE THERE IS A CIRCUIT OR FEEDER BACK TO THE POINT OF ORIGIN. WHERE WALLS, FLOORS OR CEILING ARE TO BE DEMOLISHED ALL MATERIAL, SURFACE OR FLUSH MOUNTED THEREON SHALL BE REMOVED UNLESS INDICATED OR REQUIRED TO REMAIN TO SERVE A DEVICE.
7. DEMOLISH CONTROLS AND DEVICES PERTAINING TO THE HVAC EQUIPMENT BEING DEMOLISHED OR REPLACED. NEW DDC SYSTEM SHALL BE AN EXTENSION OF EXISTING BUILDING MANAGEMENT SYSTEM. SEE MECHANICAL CONTROLS SHEET FOR DETAIL INFORMATION.
8. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATION FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.
9. DEMOLISH ALL PIPING BACK TO THE MAIN AND CAP. LEAVE NO DEAD END BRANCHES. NO PIPING SHALL BE ABANDONED ABOVE THE CEILING OR BELOW THE FLOOR UNLESS NOTED OTHERWISE. PATCH FLOOR AND WALL PENETRATIONS LEFT BEHIND FROM DEMOLISHED PIPING TO MATCH EXISTING CONDITIONS .
10. ALL WORK MUST BE ACCOMPLISHED IN PHASES AS SPECIFIED AND/OR INDICATED. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. THE BUILDING WILL BE OCCUPIED AND IN OPERATION DURING THE LIFE OF THE CONTRACT. WORK SHALL BE ACCOMPLISHED IN AREAS AND/OR PHASES SO AS TO PERMIT CONTINUOUS OPERATION OF THE FACILITIES, INCLUDING HANGAR BARRELS AND ADMINISTRATIVE AREAS. THESE FACILITIES ARE IN USE 24 HOURS PER DAY, 7 DAYS A WEEK. THE CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO MAINTAIN SYSTEMS (INCLUDING FIRE DETECTION/ALARM,LIFE SAFETY, FIRE PROTECTION SYSTEMS, HVAC SYSTEMS, CONTROL SYSTEMS, ETC.)
11. THE CONTRACTOR SHALL COORDINATE WITH THE CONTRACTING OFFICER FOR ACCESS TO AREAS OF THE BUILDING NOT IN CONTRACT WHICH WILL REMAIN OPERATIONAL DURING CONSTRUCTION. ANY BREAKS IN UTILITY OR HVAC SERVICE SHALL BE COORDINATED WITH THE CONTRACTING OFFICER PRIOR TO WORK COMMENCING.

DEMOLITION KEY NOTES

1. FAN COIL UNIT (SOUTH & EAST WINGS) TO BE REMOVED AND ASSOCIATED PIPING TO BE DRAINED AND REMOVED. PATCH FLOOR TO MATCH EXISTING. REFER TO MECHANICAL DETAILS. (TYPICAL)
2. DEMOLISH EXISTING MECHANICAL LOUVERS AND EXTERIOR WALL, AS REQUIRED, FOR DEMOLITION OF EXISTING AIR HANDLING UNITS. PROVIDE WALL OPENING LARGE ENOUGH TO INSTALL NEW AIR HANDLING UNIT INTO BUILDING.
3. REMOVE AND RELOCATE EXISTING EXHAUST FAN. REUSE EXISTING WALL OPENING FOR INSTALLATION OF NEW EXHAUST LOUVER. REFER TO MECHANICAL FLOOR PLAN MH101.



2 **ENLARGED MECHANICAL ROOM - DEMOLITION**
1/8" = 1'-0"



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Drawing Title: MECHANICAL DEMOLITION PLAN SOUTH WING	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
			Building Number: 100
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Drawing Number: MD101
	Date: 05-16-2014	Checked: CD	Drawn: CD
			Dwg. 46 of 78

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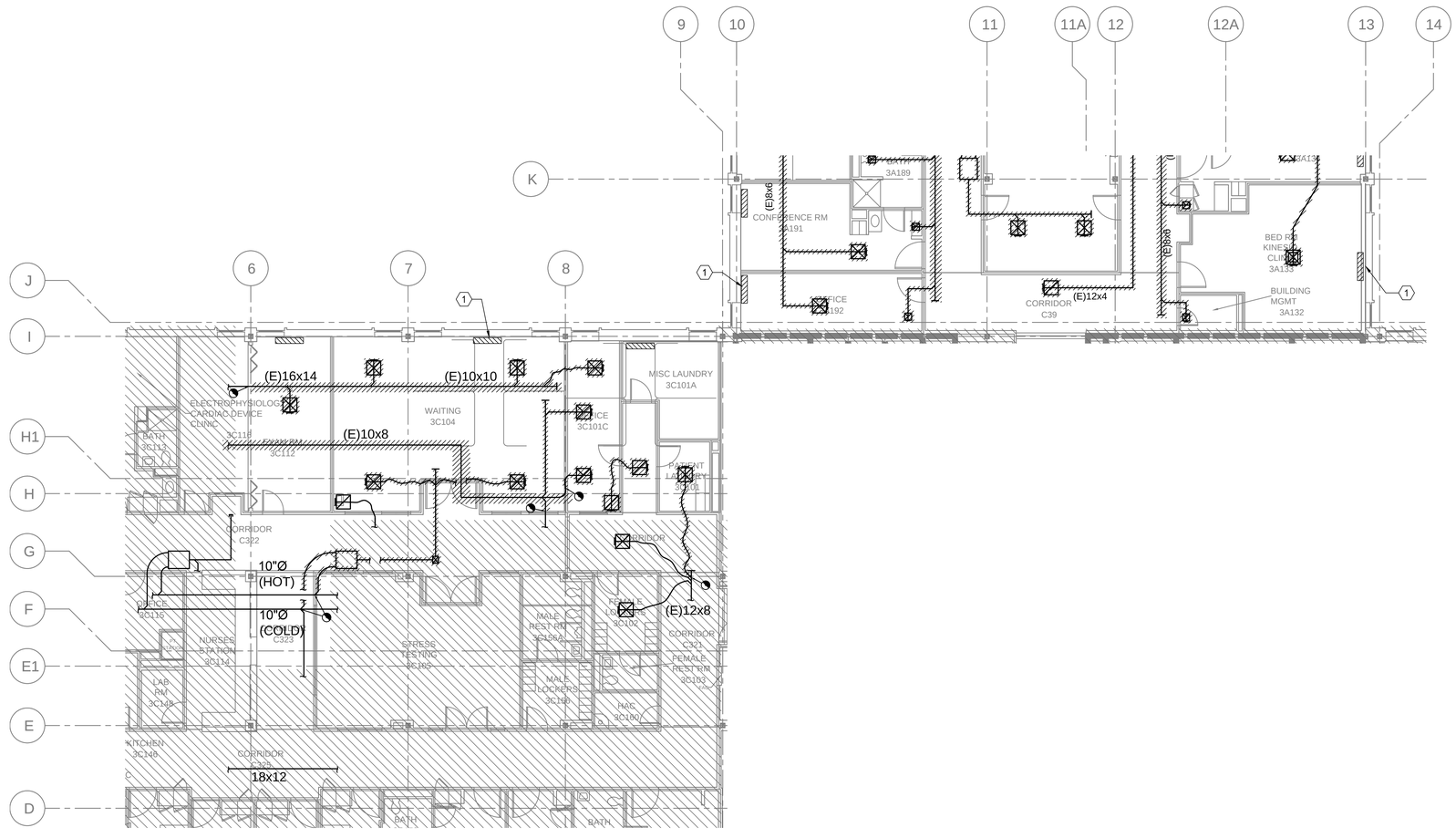
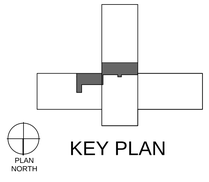


1 **EAST & SOUTH WING - DEMOLITION**

1/8" = 1'-0"



KEY PLAN

4' 0' 8' 16' 20'

1/8"=1'-0"

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Drawing Title
MECHANICAL DEMOLITION PLAN
EAST WING & PARTIAL SOUTH WING

Approved: Project Director

Project Title
RENOVATE MEDICAL SURGICAL UNIT

Location
W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date	Checked	Drawn
05-16-2014	CD	CD

Project Number
544-13-102

Building Number
100

Drawing Number
MD102

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Department of Veterans Affairs

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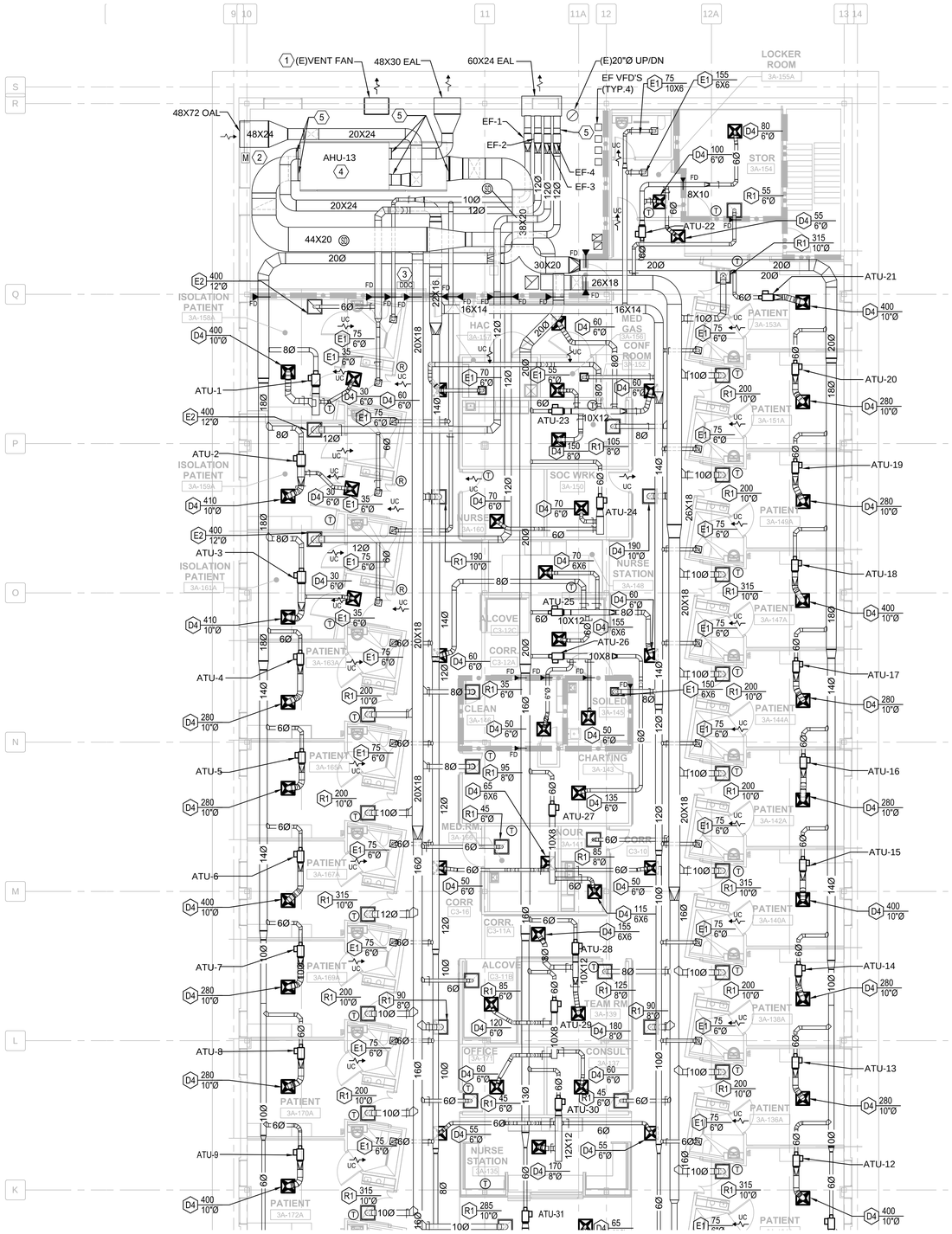


1 **SOUTH WING - NEW WORK**

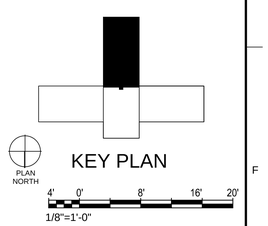
1/8" = 1'-0"

GENERAL WORK NOTES

1. PROVIDE NEW AIR TERMINAL UNIT (ATU) AS SCHEDULED.
2. PROVIDE NEW AIR OUTLET AS SCHEDULED.
3. PROVIDE NEW DUCTWORK WITH HANGERS AND SUPPORTS WITH APPLIED CONNECTORS.
4. PROVIDE NEW SPACE TEMPERATURE SENSOR (THERMOSTAT)
5. SEE SHEET MP101 AND MP102 FOR MECHANICAL PIPING IN THIS AREA.
6. INSPECT EXISTING FIRE AND SMOKE DAMPERS TO REMAIN AND VERIFY THAT THEY ARE IN PROPER WORKING ORDER. REPORT ANY DEFICIENCIES TO THE CONTRACTING OFFICER'S REPRESENTATIVE.

SHEET KEY NOTES

1. RELOCATE EXISTING MECHANICAL ROOM VENTILATION EXHAUST FAN.
2. EXTEND 48X72 INSULATED PLENUM BOX AT THE OUTSIDE AIR LOUVER. EXTEND AN OPEN 48X30 DUCT INTO MECHANICAL WITH A MOTOR OPERATED DAMPER WHICH IS LINKED TO THE OPERATION OF THE RELOCATED MECHANICAL EXHAUST VENTILATION FAN. THE MOTOR OPERATED DAMPER IS NORMALLY CLOSED AND SHALL OPEN WHEN THE FAN IS OPERATING TO PROVIDE A VENTILATION AIR PATHWAY IN THE MECHANICAL ROOM.
3. DDC PANEL MOUNTED ON WALL. CONTROL PANEL SHALL PROVIDE A LOCAL CONTROL PORT TO CONNECT INTO BUILDING CONTROL NETWORK. FIELD COORDINATE EXACT LOCATION WITH EXISTING CONDITIONS.
4. MOUNT AIR HANDLING UNIT ON 3" HIGH CONCRETE HOUSEKEEPING PAD. ROUTE CONDENSATE DRAINS TO NEAREST FLOOR DRAIN. INSULATE CONDENSATE PIPING IN ACCORDANCE WITH SPECIFICATIONS. REFER TO DETAIL ON SHEET MH502.
5. TRANSITION DUCT DOWN TO FULL-SIZE OF AIR HANDLING OPENING. PROVIDE FLEXIBLE DUCT CONNECTION AT AIR HANDLER. (TYPICAL)
6. PROVIDE EXHAUST FAN WITH FILTER BOX FOR MERV 7 PREFILTER AND MERV 17 HEPA FILTER DOWNSTREAM OF FAN. (TYPICAL)



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Revisions:	Date

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Drawing Title: MECHANICAL HVAC PLAN SOUTH WING

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: CD

Project Number: 544-13-102

Building Number: 100

Drawing Number: MH101

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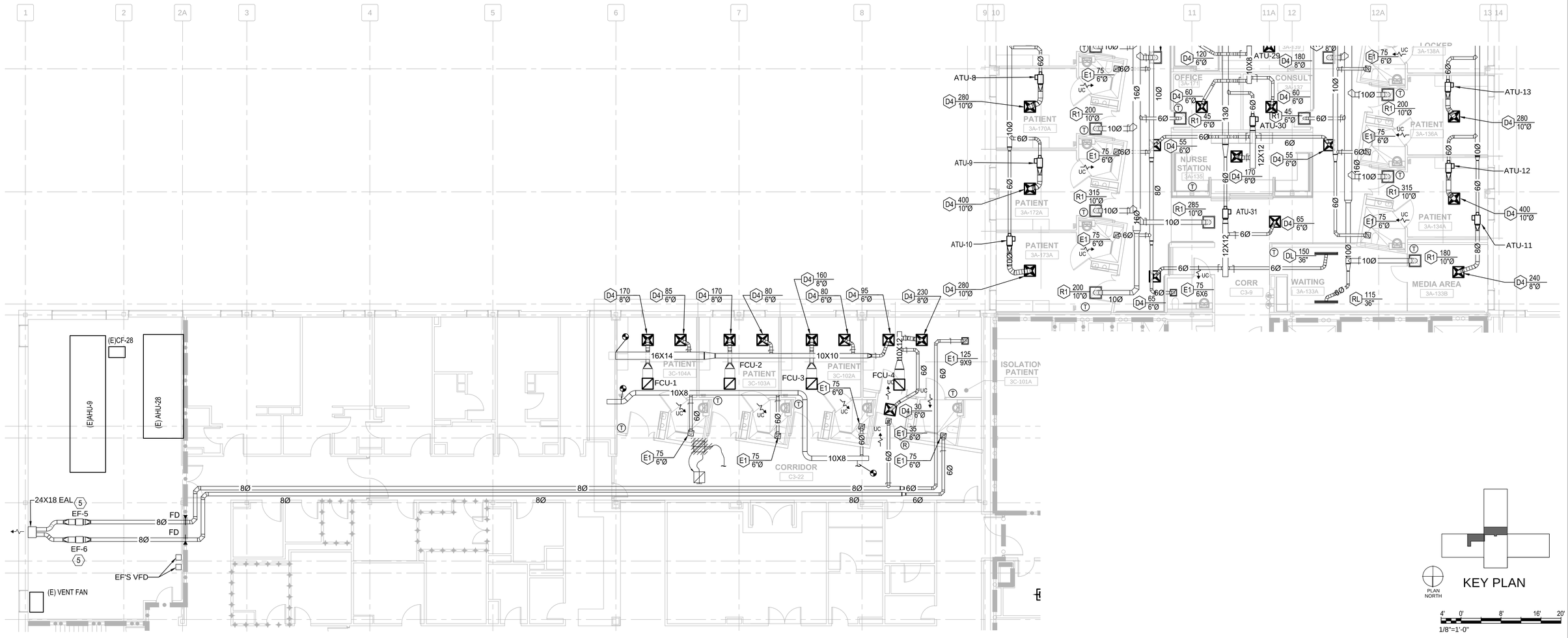
GENERAL WORK NOTES

1. PROVIDE NEW FAN COIL UNIT (FCU) AS SCHEDULED.
2. PROVIDE NEW AIR OUTLET AS SCHEDULED.
3. PROVIDE NEW DUCTWORK WITH HANGERS AND SUPPORTS WITH APPLIED CONNECTORS.
4. PROVIDE NEW SPACE TEMPERATURE SENSOR (THERMOSTAT)
5. CONNECT NEW AIR DEVICES TO EXISTING DUCTWORK, AS SHOWN. EXISTING DUCT TAKE-OFFS MAY BE REUSED IF CORRECT SIZE AND LOCATION.
6. SEE SHEET MP101 AND MP102 FOR MECHANICAL PIPING IN THIS AREA.
7. INSPECT EXISTING FIRE AND SMOKE DAMPERS TO REMAIN AND VERIFY THAT THEY ARE IN PROPER WORKING ORDER. REPORT ANY DEFICIENCIES TO THE CONTRACTING OFFICER'S REPRESENTATIVE.
8. ALL CONTAMINATED DUCTS AND FILTERS FOR PATIENT ISOLATION ROOMS SHALL BE LABEL AS "BIOHAZARD" IN ACCORDANCE WITH THE VA STANDARDS AND SPECIFICATIONS.

SHEET KEY NOTES

1. PROVIDE EXHAUST FAN WITH FILTER BOX FOR MERV 7 PREFILTER AND MERV 17 HEPA FILTER DOWNSTREAM OF FAN. (TYPICAL)



1 EAST & SOUTH WING - NEW WORK
1/8" = 1'-0"

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Drawing Title: **MECHANICAL HVAC PLAN EAST WING & PARTIAL SOUTH WING**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

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Project Number: **544-13-102**
Building Number: **100**
Drawing Number: **MH102**
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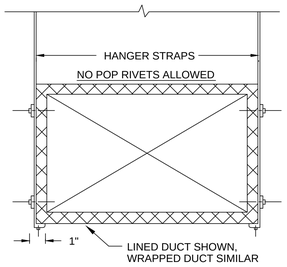
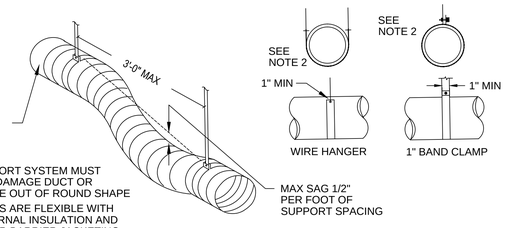
NO. 10x3/4" SELF TAPPING CADMIUM PLATED SHEET METAL SCREWS TO ANCHOR STRAPS TO DUCT AND JOISTS. ALL STRAPS SHALL BE TIGHT AGAINST DUCT AND MEMBERS.

HANGER SIZES FOR RECTANGULAR DUCT			
MAX. SIDE	HANGER	HORIZONTAL SUPPORT ANGLE	MAXIMUM SPACING
UP TO 34"	1" X 18 GAUGE STRAP	NONE REQUIRED	8'-0"
34" TO 40"	1" X 18 GAUGE STRAP	NONE REQUIRED	6'-0"



1 DUCT STRAP HANGER DETAIL

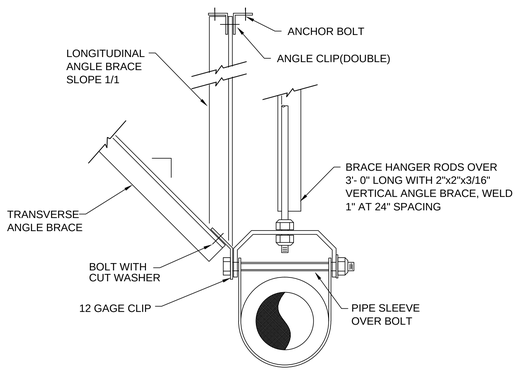
SCALE: NTS



NOTES:
1 SUPPORT SYSTEM MUST NOT DAMAGE DUCT OR CAUSE OUT OF ROUND SHAPE
2 DUCTS ARE FLEXIBLE WITH EXTERNAL INSULATION AND VAPOR BARRIER JACKETING
3 MIN CENTER LINE BEND RADIUS IS ONE DIA, (OR INSIDE RADIUS OF D/2)
4 MAX. LENGTH 3 FT BETWEEN SUPPORTS.

2 STRAIGHT SECTION FLEXIBLE DUCT (TYPICAL)

SCALE: NTS

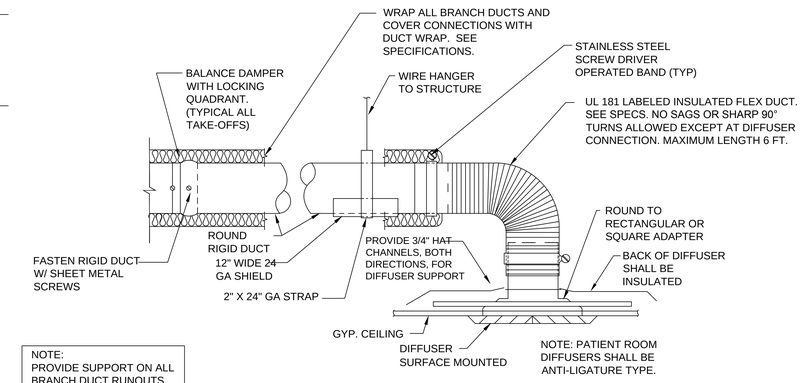


PIPE SIZE	*ANGLE BRACE ANGLE	BOLT TO ANGLE	CLIP OR INSERT	ANCHOR BOLT
2-1/2"	2"x2" 16GA	3/8"	3"x3"x1/4"	3/8"
3" & 4"	2-1/2"x2-1/2" 16GA	3/8"	3"x3"x1/4"	1/2"
5" & 6"	2-1/2"x2-1/2" 16GA	1/2"	5"x3"x1/2"	3/4"

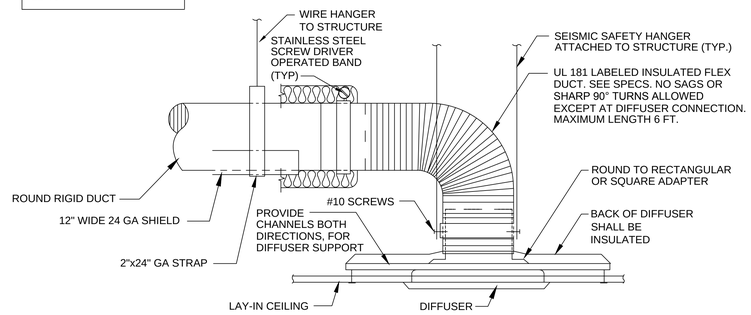
*1-5/8"x 1-5/8" GAGE CHANNEL MAY BE USED
GA = GAUGE

3 TYPICAL SEISMIC BRACING

SCALE: NTS



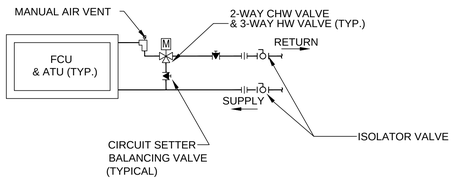
NOTE:
PROVIDE SUPPORT ON ALL BRANCH DUCT RUNOUTS. MINIMUM OF TWO SUPPORTS ON BRANCH DUCTS OVER 6'-0" IN LENGTH.



NOTE: AIR DEVICES LOCATED IN LAY-IN CEILINGS SHALL BE PROVIDED WITH SEISMIC SAFETY SUPPORTS , PER THE SEISMIC SPECIFICATION.

5 DIFFUSER CONNECTION

SCALE: NTS

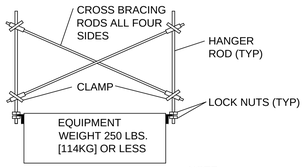


NOTES

1. USE DIELECTRIC UNIONS WHERE PIPING AND APPENDAGE MATERIAL DIFFER.
2. BALANCE SYSTEM AT COOLING FLOW RATES WITH THROUGH COILS. THEN BALANCE BYPASS FLOWS TO MATCH FLOW THROUGH ADJACENT COIL.
3. SIZE CIRCUIT SETTER FOR REQUIRED FLOW. PROVIDE REDUCERS AS REQUIRED.
4. INSTALL CONTROL VALVES IN ACCESSIBLE CEILING LOCATIONS.
5. PROVIDE TAMPER PROOF CEILING ACCESS PANELS FOR PATIENT ROOMS.
6. FAN COIL UNITS SHALL BE PROVIDED WITH FACTORY CONTROL VALVE PACKAGES (2-WAY CHW & 3-WAY HW).
7. ATU REHEAT COILS SHALL BE PROVIDED WITH A 3-WAY HW VALVE.

4 TYPICAL HYDRONIC PIPING AT FAN COIL UNIT & AIR TERMINAL UNIT

SCALE: NTS

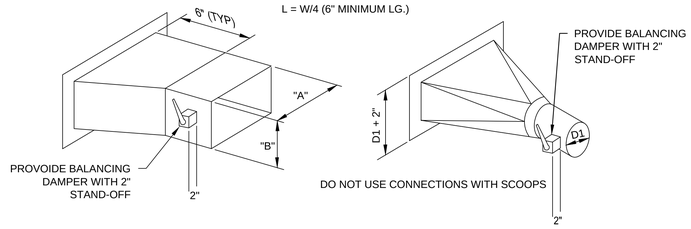


SEISMIC BRACING FOR LIGHT SUSPENDED EQUIPMENT

NOTE:
NOT REQUIRED FOR AIR TERMINAL UNITS.

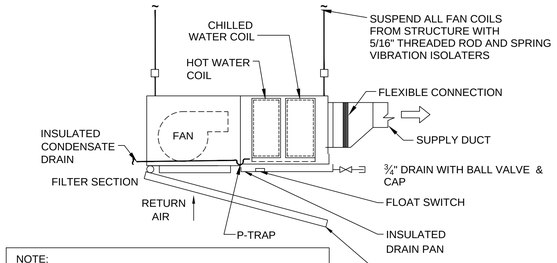
6 SEISMIC BRACING FOR EQUIPMENT

SCALE: NTS



7 45 DEGREE BRANCH TAKEOFF LOW PRESSURE DUCTWORK

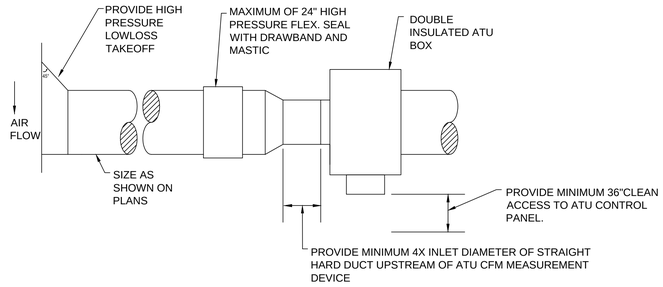
SCALE: NTS



NOTE:
1. COORDINATE INSTALLATION OF CEILING ACCESS PANEL TO ALLOW EASY ACCESS TO FACTORY HOT WATER AND CHILLED WATER COIL CONTROL VALVE PACKAGES.

8 FAN COIL UNIT - ABOVE CEILING

SCALE: NTS



9 AIR TERMINAL UNIT

SCALE: NTS

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

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Drawing Title: MECHANICAL DETAILS

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: CD

Project Number: 544-13-102

Building Number: 100

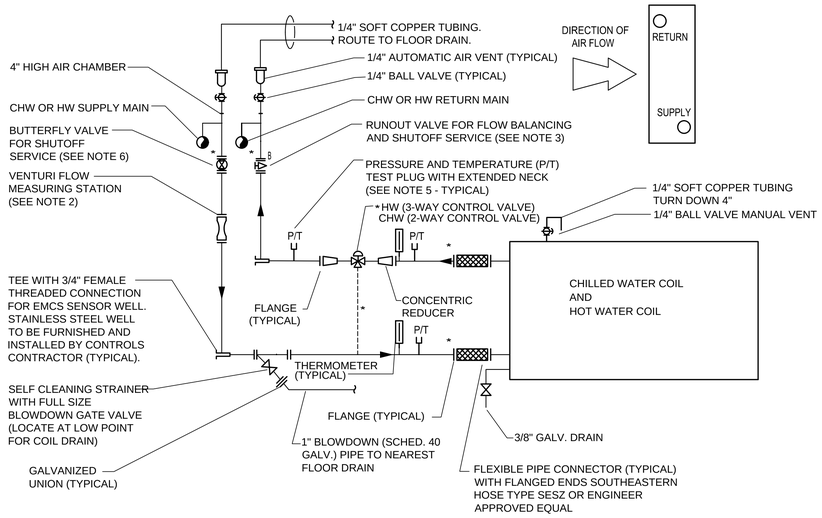
Drawing Number: MH501

Dwg. 50 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

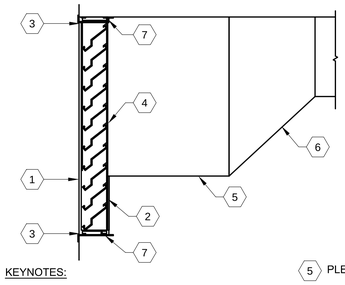


NOTES:

1. CHW AND HW SUPPLY AND RETURN PIPING SHALL BE AS PER SPECIFICATION. INSTALL BOLTED FLANGES IN ALL LOCATIONS INDICATED AND ELSEWHERE WHERE REQUIRED FOR EASE OF SERVICE.
2. VENTURI FLOW METERS SHALL BE CAST IRON FLANGED, STEEL IS NOT ALLOWABLE.
3. RUNOUT VALVES SHALL BE COMBINATION TIGHT SHUTOFF VALVE AND BALANCING VALVE WITH MEMORY POSITIONING DEVICE WITH FLANGED ENDS, WITHOUT DRAIN AND P/T PLUGS. AFTER THE HYDRONIC TEST AND BALANCE HAS BEEN COMPLETED THE CONTRACTOR SHALL POSITION THE MEMORY STOP ON EACH VALVE TO PREVENT OPENING OF THE VALVE BEYOND THE FINAL BALANCE SETTINGS.
4. INSTALL P/T PLUGS IN WELDED "THREAD-O-LET" FITTING.
5. PROVIDE ALL VALVES, P/T PLUGS AND VENTURI MEASURING PORTS WITH EXTENDED STEMS TO ACCOMMODATE INSULATION THICKNESS.

1 TYPICAL AHU COIL CONNECTION DIAGRAM

SCALE: NTS

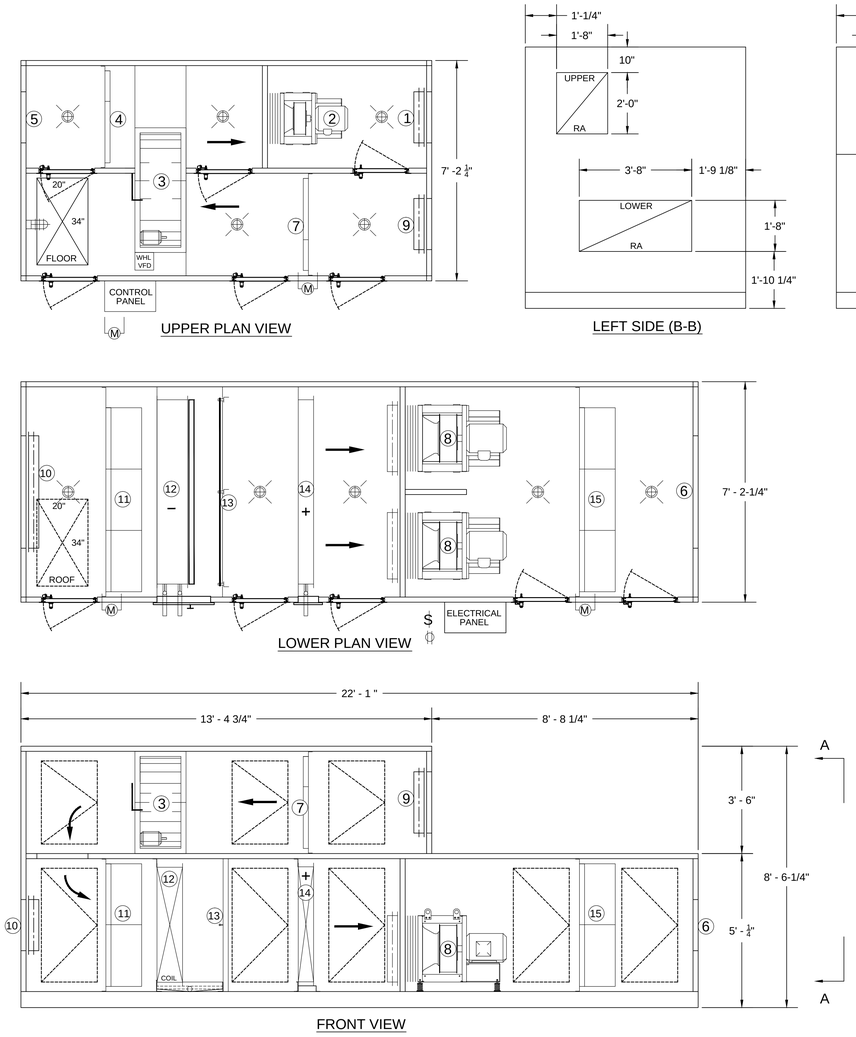


KEYNOTES:

1. OUTSIDE OR EXHAUST AIR LOUVER .
2. BLANK OFF UNUSED PORTION OF LOUVER WITH 20 GA. GALVANIZED SHEET METAL AND SEAL WEATHER TIGHT.
3. SEAL WEATHER PROOF
4. BIRD SCREEN
5. PLENUM FOR TRANSITION TO DUCT.
6. PROVIDE SLOPE TRANSITION FROM DUCTWORK CONNECTION TO BOTTOM OF LOUVER FOR DRAINING OF ANY WATER INTRUSION.
7. FASTEN LOUVER TO STRUCTURE ACCORDING TO MANUFACTURER.

2 TYPICAL LOUVER MOUNTING DETAIL

SCALE: NTS



3 AIR HANDLING UNIT (AHU-13)

SCALE: NTS

DETAIL NOTES LEGEND

1. EXHAUST AIR OPENING W/DAMPER
2. EXHAUST FAN
3. ENTHALPY WHEEL
4. UPPER RETURN AIR FILTER BANK
5. UPPER RETURN AIR OPENING
6. SUPPLY AIR OPENING
7. OUTSIDE AIR FILTER BANK
8. SUPPLY FAN
9. OUTSIDE AIR OPENING W/DAMPER
10. LOWER RETURN AIR OPENING
11. LOWER RETURN AIR FILTER BANK
12. COOLING COIL W/ MOISTURE ELMINATORS
13. UV LIGHTS
14. HEATING COIL
15. SUPPLY AIR FILTER BANK

DETAIL SYMBOLS

- MOTOR
- FILTER GAUGE
- 1 1/2" NPT DRAIN
- WHEEL PURGE
- AIRFLOW DIRECTION
- LIGHTS
- $ LIGHT SWITCH
- RECEPTACLE

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

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Drawing Title	MECHANICAL DETAILS
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05-16-2014
Checked	CD
Drawn	CD
Project Number	544-13-102
Building Number	100
Drawing Number	MH502
Dwg. 51 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

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NEW AIR HANDLING UNIT SCHEDULE

MARK	ZONE	SUPPLY FAN CFM	SUPPLY FAN E.S.P.	SUPPLY FAN FAN HP	SUPPLY FAN VOLTS PHASE	EXHAUST FAN CFM	EXHAUST FAN E.S.P.	EXHAUST FAN FAN HP	EXHAUST FAN VOLTS PHASE	O.A. CFM	COIL COOLING TOTAL MBH	COIL COOLING SENS. MBH	COIL COOLING ENT. AIR DB	COIL COOLING ENT. AIR WB	COIL COOLING LVG. AIR DB	COIL COOLING LVG. AIR WB	COIL COOLING EWT °F	COIL COOLING LWT °F	COIL COOLING GPM (MIN)	COIL COOLING WATER PD (FT)	COIL HEATING MBH	COIL HEATING ENT. AIR DB	COIL HEATING LVG. AIR DB	COIL HEATING EWT °F	COIL HEATING LWT °F	COIL HEATING GPM (MIN)	COIL HEATING WATER PD (FT)	REMARKS
AHU-13	3 SOUTH	8900	2.5	(2) 5	460/3	1870	0.5	5	460/3	2460	300.00	212.31	77	65	55	54	45	55	60	10.6	176.61	67	86	180	160	17.6	10	

NOTES:
1. CLEAN AND FLUSH OUT CHILLED WATER AND HOT WATER COILS AND PIPING STRAINERS.
2. PROVIDE UNIT WITH SINGLE POWER POINT CONNECTION AND FACTORY PROGRAMMED CONTROL PANEL.
3. PROVIDE WITH MERV 7 AND MERV 11 PREFILTERS AND MERV 14 FINAL FILTER.
4. PROVIDE WITH UV LIGHT.
5. BASIS OF DESIGN: SEMCO MODEL EP BUT IS NOT INTENDED TO LIMIT SELECTION. PROVIDE INDICATED EQUIPMENT OR EQUIPMENT OF EQUAL CAPACITY, QUALITY AND PERFORMANCE.
6. PROVIDE (2) PLENUM FANS WITH AN ISOLATION BLANK OFF PLATE TO ISOLATE A FAN NOT IN OPERATION DUE TO FAILURE.
7. AIR HANDLER SCHEDULE DATA IS BASED ON THE PEAK BLOCK LOAD OF THE SPACES.
8. PIPE ALL CONDENSATE FROM UNITS TO DRAIN WITH TRAP. PROVIDE PADS AND BASE RAILS OF SUFFICIENT HEIGHT TO ENABLE CORRECT TRAP DEPTH. TRAP CONDENSATE PIPING AT UNIT AND ROUTE TO FLOOR DRAIN.
9. PROVIDE 2-WAY CHILLED CONTROL VALVE AND 3-WAY HOT WATER CONTROL VALVE.

REGISTER, LOUVER & GRILLE SCHEDULE

MARK	TYPE	SERVICE	SYMBOL	BLOW	REMARKS/NOTES
D4	SQUARE DIRECTIONAL LOUVER FACE CEILING DIFFUSER	SUPPLY		4-WAY	24"x24" SQUARE LOUVERED ALUMINUM CONSTRUCTION. SUITABLE FOR INSTALLATION IN LAY-IN AND HARD GYPSUM BOARD CEILINGS. PROVIDE NECESSARY FRAME AND T-BAR. BASIS OF DESIGN: TITUS TMSA.
R1	RETURN REGISTER FIXED ANGLED VANES	RETURN		-	22"x22" SQUARE NECK PLUS 7/8" FRAME. 0° ANGLED VANES WITH 3/4" SPACING.SUITABLE FOR INSTALLATION IN LAY-IN AND HARD GYPSUM BOARD CEILINGS. PROVIDE NECESSARY FRAME AND T-BAR. ALUMINUM CONSTRUCTION. BASIS OF DESIGN: TITUS 355ZFL.
E1	EXHAUST REGISTER FIXED ANGLED VANES	EXHAUST		-	10"x10" SQUARE NECK PLUS 7/8" FRAME. 0° ANGLED VANES WITH 1/2" SPACING. ALUMINUM CONSTRUCTION. SUITABLE FOR INSTALLATION IN LAY-IN AND HARD GYPSUM BOARD CEILINGS. PROVIDE NECESSARY FRAME AND T-BAR. PROVIDE GRILLE WITH OPPOSED BLADE DAMPER. BASIS OF DESIGN: TITUS 355ZFL.
E2	EXHAUST REGISTER FIXED ANGLED VANES	EXHAUST		-	14"x14" SQUARE NECK PLUS 7/8" FRAME. 0° ANGLED VANES WITH 1/2" SPACING. ALUMINUM CONSTRUCTION. SUITABLE FOR INSTALLATION IN LAY-IN AND HARD GYPSUM BOARD CEILINGS. PROVIDE NECESSARY FRAME AND T-BAR. PROVIDE GRILLE WITH OPPOSED BLADE DAMPER. BASIS OF DESIGN: TITUS 355ZFL.
DL	LINEAR SLOT DIFFUSER	SUPPLY		-	ALUMINUM (2) 3/4" SLOTS 36" LONG STEEL MODULAR LINEAR INSULATED PLENUM BOX. BASIS OF DESIGN: TITUS ML-38 & MPI-38
RL	LINEAR SLOT DIFFUSER	RETURN		-	ALUMINUM (2) 3/4" SLOTS 36" LONG STEEL MODULAR LINEAR INSULATED PLENUM BOX. BASIS OF DESIGN: TITUS MLR-38 & MPI-38

EXISTING AIR HANDLING UNIT SCHEDULE

MARK	ZONE	SUPPLY FAN CFM	SUPPLY FAN E.S.P.	SUPPLY FAN FAN HP	SUPPLY FAN VOLTS PHASE	O.A. CFM	COIL COOLING TOTAL MBH	COIL COOLING SENS. MBH	COIL COOLING ENT. AIR DB	COIL COOLING ENT. AIR WB	COIL COOLING LVG. AIR DB	COIL COOLING LVG. AIR WB	COIL COOLING EWT °F	COIL COOLING LWT °F	COIL COOLING GPM (MIN)	COIL COOLING WATER PD (FT)	COIL HEATING MBH	COIL HEATING ENT. AIR DB	COIL HEATING LVG. AIR DB	COIL HEATING EWT °F	COIL HEATING LWT °F	COIL HEATING GPM (MIN)	COIL HEATING WATER PD (FT)	REMARKS
(E)AHU-9	1-5 EAST	9,200	2.5	15	460/3Ø	9,200	331.78		96	78	55	54	45		66	9.2		60	87	160	130	34.6	0.5	TRANE #K04L55685A

NOTES:
1. ALL DUCTWORK WITH EXTERNAL STATIC PRESSURE OF 3" OR GREATER REQUIRES A DUCT AIR LEAK TEST (DALT).
2. ALL DUCTWORK WITH LESS THAN 3" EXTERNAL STATIC PRESSURE DOES NOT REQUIRE DALT.
3. THE EXISTING AIR HANDLER SCHEDULES ARE PROVIDED FOR REFERENCE TO BE USED DURING SYSTEM TESTING, ADJUSTING, AND BALANCING.
4. SYSTEM AIR FLOW RATES, FOR AIR HANDLING UNITS SERVING MULTIPLE FLOORS, WERE CALCULATED USING VALUES PROVIDED IN EXISTING DRAWINGS.
5. CONTRACTOR SHALL TEST AND VERIFY EXISTING DUCT SMOKE DETECTORS ARE WORKING. CONTRACTOR SHALL REPORT DISCREPANCIES TO CONTRACTING OFFICER.
6. CONTRACTOR SHALL TEST AND VERIFY EXISTING AHU DAMPERS, VALVES OR SENSORS ARE WORKING. CONTRACTOR SHALL REPORT DISCREPANCIES TO CONTRACTING OFFICER.
7. PROVIDE AHU WITH NEW REPLACEMENT AIR FILTERS.
8. CLEAN AND FLUSH OUT CHILLED WATER AND HOT WATER COILS AND PIPING STRAINERS.
9. UNIT SERVES MULTIPLE FLOORS AND MUST REMAIN IN OPERATION. COORDINATE ANY HVAC SERVICE INTERRUPTION WITH CONTRACTING OFFICER.

FAN COIL UNIT SCHEDULE

UNIT NO.	FAN CFM	FAN E.S.P.	FAN HP	FAN VOLTS PHASE	FAN FLA	COIL COOLING TOTAL MBH	COIL COOLING SENS. MBH	COIL COOLING ENT. AIR DB	COIL COOLING ENT. AIR WB	COIL COOLING LVG. AIR DB	COIL COOLING LVG. AIR WB	COIL COOLING EWT °F	COIL COOLING LWT °F	COIL COOLING GPM (MIN)	COIL COOLING WATER PD (MAX)	COIL HEATING MBH	COIL HEATING ENT. AIR DB	COIL HEATING LVG. AIR DB	COIL HEATING EWT °F	COIL HEATING LWT °F	COIL HEATING GPM (MIN)	COIL HEATING WATER PD (MAX)	DIMENSIONS (LxWxH)	WEIGHT (LBS)	REMARKS
FCU-1	220	0.25	1/4	115/1/60	0.6	4.7	4.5	74°F	56°F	55°F	52°F	44	68	0.5	12 FT	4.8	70°F	80°F	180	160	0.5	10 FT	41.3"x9.8"x25.2"	97	1-4
FCU-2	340	0.25	1/4	115/1/60	0.8	7.1	6.9	74°F	56°F	55°F	52°F	44	68	1.0	12 FT	7.5	70°F	90°F	180	160	1.0	10 FT	46.3"x9.8"x25.2"	125	1-4
FCU-3	220	0.25	1/4	115/1/60	0.6	4.7	4.5	74°F	56°F	55°F	52°F	44	68	0.5	12 FT	4.8	70°F	90°F	180	160	0.5	10 FT	41.3"x9.8"x25.2"	97	1-4
FCU-4	375	0.25	1/4	115/1/60	1.1	8.0	7.3	74°F	56°F	55°F	52°F	44	68	1.0	12 FT	8.3	70°F	90°F	180	160	1.0	10 FT	29.9"x50.3"x12.8"	128	1-4

NOTES:
1. BASIS OF DESIGN IS TRANE MODEL FCEBB BUT IS NOT INTENDED TO LIMIT SELECTION. PROVIDE INDICATED EQUIPMENT OR EQUIPMENT OF EQUAL CAPACITY, QUALITY AND PERFORMANCE.
2. UNITS TO BE EQUIPPED WITH FACTORY PIPING AND VALVE PACKAGE (CONTRACTOR TO COORDINATE LEFT OR RIGHT HAND), FRONT DUCT COLLAR, AUTOMATIC AIR VENT, AND DISCONNECT SWITCH.
3. UNIT WITH BOTTOM STAMPED LOUVER.
4. PROVIDE WITH 2-WAY CHILLED WATER CONTROL VALVE AND 3-WAY HOT WATER CONTROL VAVLE

EXHAUST FAN SCHEDULE

SYMB.	AREA SERVED	CFM	SP IN. H_2O	RPM MAX.	ELECT V/Ø/HZ	SONES	MOUNT	HP	DESIGN BASE MFG. & MODEL, OR EQUAL	NOTES
EF-1	TOILET	225	2.5	2646	208/1/60	35	INLINE	3/4	GREENHECK MODEL BSQ-80-7	1,2,3
EF-2	ISOLATION RM.	435	2.5	2646	208/1/60	33	INLINE	3/4	GREENHECK MODEL BSQ-80-7	1,2,3
EF-3	ISOLATION RM.	435	2.5	2646	208/1/60	33	INLINE	3/4	GREENHECK MODEL BSQ-80-7	1,2,3
EF-4	ISOLATION RM.	435	2.5	2646	208/1/60	33	INLINE	3/4	GREENHECK MODEL BSQ-80-7	1,2,3
EF-5	ISOLATION RM.	100	3.0	2646	208/1/60	22	INLINE	1.5	GREENHECK MODEL BSQ-120-15	1,2,3
EF-6	TOILET	100	3.0	2646	208/1/60	22	INLINE	1.5	GREENHECK MODEL BSQ-120-15	1,2,3

NOTES:
1. THE BASIS OF DESIGN IS GREENHECK BUT IS NOT INTENDED TO LIMIT SELECTION. PROVIDE INDICATED EQUIPMENT OR EQUIPMENT OF EQUAL PERFORMANCE, QUALITY, AND CAPACITY.
2. PROVIDE FILTER BOX WITH MERV 7 PREFILTER AND MERV 17 HEPA FILTER DOWNSTREAM OF EXHAUST FAN.
3. PROVIDE VARIABLE SPEED DRIVE FOR ISOLATION ROOM PRESSURIZATION CONTROL, REFER TO SEQUENCE OF OPERATION.

CONSTRUCTION DOCUMENT SUBMISSION
FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:

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Drawing Title: MECHANICAL SCHEDULES

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Project Number: 544-13-102

Building Number: 100

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: CD

Drawing Number: MH601

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

AIR TERMINAL UNIT SCHEDULE

BOX NO.	SERVING	CFM		INLET SIZE (DIA.)	HEATING COIL				EWT (DEG. F)	LWT (DEG. F)	HW FLOW RATE (GPM)	CONTROL VALVE (CV)	REMARKS
		MAX	MIN		HEATING CFM	TOTAL HEATING LOAD (MBH)	EAT (DEG. F)	LAT (DEG. F)					
ATU-1	PATIENT, NEG.	430	430	8"Ø	430	14.3	55.0	85.0	180.0	160.0	1.4	0.9	1,2,3,4
ATU-2	PATIENT, NEG.	430	430	8"Ø	430	14.3	55.0	85.0	180.0	160.0	1.4	0.9	1,2,3,4
ATU-3	PATIENT, NEG.	430	430	8"Ø	430	14.3	55.0	85.0	180.0	160.0	1.4	0.9	1,2,3,4
ATU-4	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-5	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-6	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-7	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-8	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-9	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-10	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-11	MEDIA AREA	240	80	6"Ø	80	2.6	55.0	85.0	180.0	160.0	0.3	0.2	1,2,3,4
ATU-12	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-13	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-14	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-15	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-16	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-17	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-18	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-19	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-20	PATIENT	280	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-21	PATIENT	400	240	6"Ø	240	7.8	55.0	85.0	180.0	160.0	0.8	0.5	1,2,3,4
ATU-22	LOCKER ROOM, STAFF	180	65	6"Ø	65	2.1	55.0	85.0	180.0	160.0	0.2	0.1	1,2,3,4
ATU-23	CONFERENCE/REPORT	330	200	8"Ø	200	6.5	55.0	85.0	180.0	160.0	0.7	0.4	1,2,3,4
ATU-24	OFFICE, HEAD NURSE	140	50	6"Ø	50	1.1	55.0	85.0	180.0	160.0	0.1	0.1	1,2,3,4
ATU-25	NURSE SUB-STATION	345	200	6"Ø	110	2.4	55.0	85.0	180.0	160.0	0.2	0.1	1,2,3,4
ATU-26	CLEAN/SOILED LINEN	235	100	6"Ø	100	2.2	55.0	85.0	180.0	160.0	0.2	0.1	1,2,3,4
ATU-27	MED.RM/NOURISHMENT	280	150	6"Ø	210	4.6	55.0	85.0	180.0	160.0	0.5	0.3	1,2,3,4
ATU-28	TEAM ROOM	335	180	6"Ø	180	3.9	55.0	85.0	180.0	160.0	0.4	0.2	1,2,3,4
ATU-29	CONSULT/OFFICES	260	130	6"Ø	130	2.8	55.0	85.0	180.0	160.0	0.3	0.2	1,2,3,4
ATU-30	NURSE STATION	280	155	6"Ø	155	3.4	55.0	85.0	180.0	160.0	0.3	0.2	1,2,3,4
ATU-31	CORRIDOR	255	175	6"Ø	175	3.8	55.0	85.0	180.0	160.0	0.4	0.2	1,2,3,4

NOTES:
1. BASIS OF DESIGN IS TITUS DESV AND IS NOT INTENDED TO LIMIT SELECTION. PROVIDE EQUIPMENT OF EQUAL PERFORMANCE, CAPACITY, AND QUALITY.
2. REFER TO TYPICAL ATU DETAIL AND TYPICAL THREE-WAY CONTROL VALVE DETAIL ON SHEET MH501 FOR INSTALLATION.
3. UNIT SHALL BE PROVIDED WITH FLOW MEASUREMENT TAPS ON AIR VELOCITY SENSOR.

ENTHALPY WHEEL SCHEDULE

UNIT NUMBER	OA CFM	EA CFM	SUMMER							SUMMER							NOTES
			RA		OA		SUPPLY			RA		OA		SUPPLY			
			EDB (°F)	EWB (°F)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOT. EFF. (%)	EDB (°F)	EWB (°F)	EDB (°F)	EWB (°F)	LDB (°F)	LWB (°F)	TOT. EFF. (%)	
AHU-13	2460	1870	72	60	92	74	79.3	65.6	83.7	70	55.8	24	24	32.1	31.2	83.7	1-4

NOTES:
1. BASIS OF DESIGN IS SEMCO BUT IS NOT INTENDED TO LIMIT SELECTION. PROVIDE INDICATED EQUIPMENT OR EQUIPMENT OF EQUAL CAPACITY AND QUALITY.
2. PROVIDE MERV 7 FILTERS ON EXHAUST AND OUTSIDE AIR INTAKE UPSTREAM OF ENTHALPY WHEEL.
3. PROVIDE VARIABLE SPEED ENTHALPY WHEEL MOTOR DRIVE WITH TEMPERATURE CONTROLLER AND FROST CONTROL SEQUENCE.
4. SCHEDULED AIR FLOW RATES DO NOT ACCOUNT FOR (294 CFM) OF TRANSFER AIR THROUGH PURGE SEALS BETWEEN ENTHALPY WHEEL EXHAUST AIR AND OUTSIDE AIR DECKS.

CONSTRUCTION DOCUMENT SUBMISSION
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Drawing Title: MECHANICAL SCHEDULES

Approved: Project Director

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Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05-16-2014 | Checked: CD | Drawn: CD

Project Number: 544-13-102

Building Number: 100

Drawing Number: MH602

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

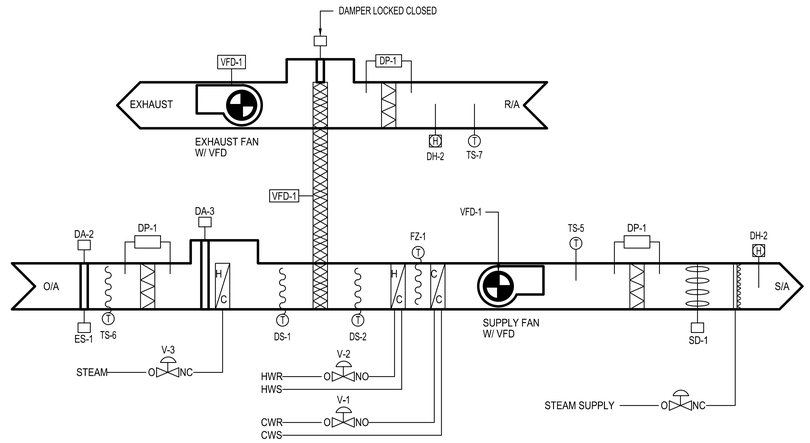
CONTROLS SYMBOL LEGEND

ITEM SYMBOL	DESCRIPTION
TS	DUCT TEMPERATURE SENSOR
	SMOKE DAMPER
DH H	DUCT HUMIDITY SENSOR
	DUCT HUMIDIFIER
H C	HEATING COIL
C C	COOLING COIL
E C	ELECTRIC RE-HEAT COIL
	FAN
FZ	FREEZESTAT
	2-WAY CONTROL VALVE
DA	DAMPER ACTUATOR
AFS	AIRFLOW MEASURING STATION
	3-WAY CONTROL VALVE
DPS	STATIC PRESSURE SWITCH
SPT	STATIC PRESSURE TRANSMITTER
HPS	STATIC SAFETY SWITCH
SD	SMOKE DAMPER

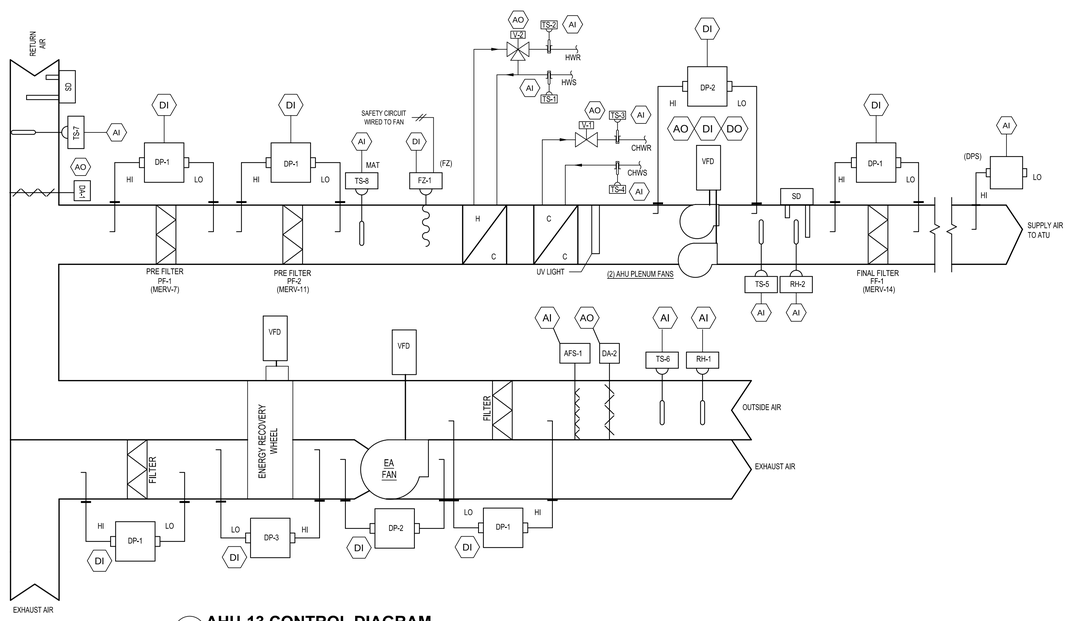
CONTROL LEGEND

V-1	COOLING COIL MOTORIZED CONTROL VALVE, N.O.
V-2	HEATING COIL MOTORIZED CONTROL VALVE, N.O.
V-3	STEAM MOTORIZED CONTROL VALVE, N.O.
DDCP	DIRECT DIGITAL CONTROL PANEL
DP-1	DIFFERENTIAL PRESSURE SENSOR/SWITCH ACROSS FILTER
DP-2	DIFFERENTIAL PRESSURE SENSOR/SWITCH ACROSS FAN
DP-3	DIFFERENTIAL PRESSURE SENSOR/SWITCH ACROSS WHEEL
VFD-1	MOTOR STATUS (ON/OFF) & FAN SPEED (HZ)
MD-1	MOTORIZED DAMPER - 2 POSITION
SD	SMOKE DETECTOR (UNITS OVER 2000 CFM)
TS-1	HOT WATER SUPPLY TEMPERATURE SENSOR
TS-2	HOT WATER RETURN TEMPERATURE SENSOR
TS-3	CHILLED WATER SUPPLY TEMPERATURE SENSOR
TS-4	CHILLED WATER RETURN TEMPERATURE SENSOR
TS-5	*SUPPLY AIR TEMPERATURE SENSOR*
TS-6	OUTSIDE AIR TEMPERATURE SENSOR
TS-7	RETURN AIR TEMPERATURE SENSOR
TS-8	MIXED AIR TEMPERATURE SENSOR
FZ-1	FREEZE STAT
TS-11	*SPACE AIR TEMPERATURE SENSOR*
RH-1	OUTSIDE AIR HUMIDITY SENSOR
RH-2	SUPPLY AIR HUMIDITY SENSOR (POST REHEAT)
DA-1	RETURN AIR DAMPER ACTUATOR
DA-2	OUTSIDE AIR DAMPER ACTUATOR
DA-3	BYPASS DAMPER
STM	STEAM
AFS-1	OUTSIDE AIR FLOW MEASURING STATION

* CONTROL LEGEND APPLIES TO THIS SHEET ONLY



1 **(E)AHU-9 100% OA CONTROL DIAGRAM**
NTS



2 **AHU-13 CONTROL DIAGRAM**
NTS

GENERAL NOTES:

ALL CONTROL DIAGRAMS AND SEQUENCE OF OPERATIONS BASED ON EXISTING CONDITIONS. THESE ARE FOR REFERENCE ONLY AND ARE NOT TO BE CHANGED.

SEQUENCE OF OPERATION (E)AHU-9

GENERAL OVERVIEW:
THE SEQUENCE OF OPERATION FOR (E) AHU-15 IS PROVIDED HERE WAS COPIED FROM EXISTING PLANS AND IS PROVIDED HERE FOR INFORMATION ONLY. THE CONTRACTOR SHALL VERIFY THE AIR HANDLER CONTROLS THE EXISTING SENSORS, DAMPERS, CONTROL VALVES AND OTHER ASSOCIATED APPURTENANCES ARE IN GOOD WORKING. THE CONTRACTOR SHALL REPORT ANY EQUIPMENT DEFICIENCIES TO THE CONTRACTING OFFICER.

SCHEDULE:
THE AHU OPERATES ON AN OCCUPIED/UNOCCUPIED SCHEDULE SET BY THE BUILDING OWNER.

OCCUPIED:
THE OUTDOOR AIR DAMPER IS OPENED. THE SUPPLY AND EXHAUST FANS ARE ENERGIZED, AND SET TO AN ADJUSTABLE SPEED.
THE HEAT WHEEL DRIVE IS ENERGIZED AND SET TO AN ADJUSTABLE SPEED.
IN THE HEATING MODE, THE PREHEAT COIL FACE & BYPASS DAMPER AND CONTROL VALVE WILL MODULATE TO MAINTAIN THE PREHEAT DISCHARGE SETPOINT OF 60 DEGREES.
IN THE COOLING MODE, THE COOLING COIL VALVE WILL MODULATE TO MAINTAIN A SUPPLY AIR SETPOINT OF 50 DEGREES.
IF THE SUPPLY AIR AND HUMIDITY LEVELS ARE SATISFIED, THE HEAT WHEEL BYPASS DAMPER WILL BE OPENED.
THE RETURN AIR HUMIDITY SENSOR WILL MODULATE THE HUMIDIFIER VALVE TO MAINTAIN THE RETURN AIR HUMIDITY SETPOINT. A SUPPLY AIR HUMIDITY SENSOR WILL LIMIT THE HUMIDIFIER TO AN 80% SUPPLY HUMIDITY LEVEL. WHEN THE HUMIDIFIER IS NOT REQUIRED, THE CONTROL AND SOLENOID VALVES WILL BOTH CLOSE.

UNOCCUPIED:
THE SUPPLY AND EXHAUST FANS ARE OFF, THE HEAT WHEEL STOPPED, AND THE OUTDOOR AIR DAMPER CLOSES. THE COOLING COIL VALVE CLOSES. THE PREHEAT VALVE MODULATES TO MAINTAIN A 50 DEGREE AHU CASE TEMPERATURE.

SAFETIES:
THE FOLLOWING SAFETIES WILL SHUT THE AHU FANS DOWN, CLOSE THE OUTDOOR AIR DAMPER AND REGISTER AN ALARM WITH THE EMCS. BOTH REQUIRE MANUAL RESET:
-AIR TEMPERATURE LEAVING THE PREHEAT COIL DROPS BELOW 35 DEGREES.
-DUCT SMOKE DETECTOR SENSES PRODUCTS OF COMBUSTION.
-SUPPLY DUCT STATIC PRESSURE EXCEEDS SETPOINT.
-OA PLENUM STATIC PRESSURE DROPS BELOW SETPOINT.
WHEN THE SAFETY CONTROL IS RESET, THE AHU WILL AUTOMATICALLY RESTART.

MONITORING:
THE PRE, FINAL AND RETURN FILTER PRESSURE DROPS ARE MONITORED WITH AN ADJUSTABLE ALARM LIMIT.

SEQUENCE OF OPERATION AHU-13

STARTING AND STOPPING OF EQUIPMENT SHALL BE ACCOMPLISHED THROUGH A VFD. THE UNIT SHALL BE STARTED AUTOMATICALLY BY THE DDC SYSTEM AND ALL CONTROLS ACTIVATED SUBJECT TO FIRE ALARM RELAY, SAFETIES AND OVERLOADS.

OCCUPIED MODE: THE OA DAMPER SHALL OPEN TO THE BALANCED POSITION. THE AHU FAN SHALL OPERATE CONTINUOUSLY WITHIN THE SPECIFIED SETPOINTS.

UNOCCUPIED MODE: THE OA DAMPER SHALL BE CLOSED. THE AHU FAN SHALL OPERATE ONLY AS NECESSARY TO SATISFY SPACE TEMPERATURE SETPOINTS.

COOLING COIL FREEZE PROTECTION: THE DDC SYSTEM SHALL CLOSE THE OUTSIDE AIR DAMPER ANYTIME THE COOLING COIL ENTERING AIR TEMPERATURE FALLS BELOW 40°F FOR LONGER THAN 5 MINUTES. THE LOW LIMIT FREEZE STAT SHALL STOP THE AHU FAN MOTOR ANYTIME THE COOLING COIL ENTERING AIR TEMPERATURE FALLS BELOW 35°F AND AN ALARM WILL BE POSTED TO THE DDC SYSTEM.

DISCHARGE TEMPERATURE CONTROL: THE DDC SYSTEM SHALL MODULATE THE TWO-WAY CHILLED WATER AND THREE-WAY HOT WATER VALVE AS REQUIRED TO MAINTAIN THE DISCHARGE AIR TEMPERATURE AT SET POINT.

FAN SPEED CONTROL: THE ADJUSTABLE VARIABLE FREQUENCY DRIVE SHALL MODULATE FAN SPEED AS REQUIRED TO MAINTAIN A CONSTANT STATIC PRESSURE AT THE DUCT MOUNTED STATIC PRESSURE SENSOR. THE DUCT STATIC PRESSURE SENSOR WILL BE LCOATED APPROXIMATELY 2/3 OF THE DISTANCE TO THE MOST HYDRAULICALLY REMOTE TERMINAL UNIT AS DETERMINE BY TEST & BALANCE. THE DUCT STATIC PRESSURE SET POINT SHALL BE SET AT THE MINIMUM REQUIRED FOR TEST AND BALANCE. WHEN NONE OF THE ATU'S ASSOCIATED WITH THE AHU HAVE BEEN IN FULL COOLING MODE FOR FIVE MINUTES, THE DDC SHALL RESET THE DUCT STATIC PRESSURE DOWN 0.15". AHU AIRFLOW SHALL BE LIMITED TO SCHEDULED MAXIMUM AND MINIMUM VALUES. AHU FAN SHALL RUN CONTINUOUSLY.

OUTSIDE AIR CONTROL: THE AUTOMATIC OUTSIDE AIR AND RETURN AIR DAMPERS SHALL MODULATE - BASED ON A SIGNAL FROM THE OUTSIDE AIR THERMAL DISPERSION AIRFLOW MEASURING STATION (AFMS) - TO MAINTAIN A CONSTANT OUTSIDE AIR FLOW RATE. IF THE OUTSIDE AIR DAMPER REACHES FULL OPEN AND OUTSIDE AIR VOLUME IS NOT SATISFIED, THEN THE AUTOMATIC CONTROL DAMPER IN THE RETURN AIR DUCT SHALL MODULATE CLOSED TO MAINTAIN SCHEDULED OUTSIDE AIRFLOW. UPON FAILURE, THE OA DAMPER SHALL BE NORMALLY CLOSED. WHENEVER THE AHU OPERATES DURING UNOCCUPIED MODE, THE OA DAMPER SHALL REMAIN CLOSED.

ENTHALPY WHEEL CONTROL: DURING THE COOLING SEASON THE WHEEL SHALL OPERATE CONTINUOUSLY WHEN THE ENTHALPY OF THE OUTDOOR AIR IS GREATER THAN THE ENTHALPY OF THE EXHAUST AIR. HOWEVER, WHEN THE ENTHALPY OF THE OUTDOOR AIR DROPS BELOW THE ENTHALPY OF THE EXHAUST AIR THE WHEEL SHALL TURN OFF.

THE ENTHALPY WHEEL'S VARIABLE FREQUENCY DRIVE SHALL MODULATE ENTHALPY WHEEL SPEED DURING THE WINTER TO PREVENT FROST.

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Drawing Title: MECHANICAL CONTROLS DIAGRAMS AND CONTROL LEGENDS	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
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			Dwg. 54 of 78

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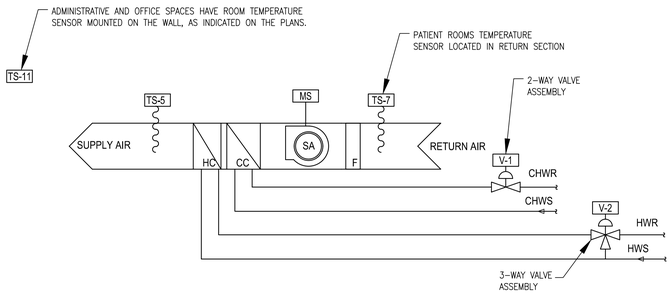


1 FAN COIL UNIT
NTS

	SYSTEM POINT SCHEDULE										INPUTS										OUTPUTS								NOTE
	SOFTWARE										HARDWARE										HARDWARE								
	CONTROL PROGRAM FUNCTION										ANALOG								DIGITAL		ANALOG			DIGITAL					
	GRAPHIC DISPLAY	GRAPHIC PROGRAMMING	TIME SCHEDULING	ALARM STATUS							ENTERING WATER TEMPERATURE	SUPPLY AIR TEMPERATURE	ACTUAL ZONE TEMPERATURE	FAN SPEED MODE (HI-MED-LOW)	VALVE (POSITION)	CONDENSATE OVERFLOW ALARM	FLOW SENSOR (CFM)	CHILLED WATER VALVE	HEATING WATER VALVE		ZONE TEMPERATURE SETPOINT	HEATING WATER VALVE	PRIMARY AIR VALVE POSITION		START/STOP	FAN SPEED (HI-MED-LOW)			
FAN COIL UNITS (FCU)	■	■	■	■							■	■	■	■	■	■		■	■			■				■	■		
AIR TERMINAL UNITS (ATU)												■	■				■					■	■	■					

DDC POINTS LIST
NTS

SEQUENCE OF OPERATION FAN COIL UNIT (FCU)

GENERAL:

A FAN COIL UNIT (FAN SPEED, COOLING COIL VALVE OPENING, AND HEATING COIL VALVE OPENING) SHALL BE CONTROLLED BY ITS TERMINAL CONTROL UNIT (TCU) BASED ON A TIMED OCCUPANCY AS SCHEDULED FOR THE SPACE IT SERVES. COORDINATE THE FACTORY MOUNTING AND WIRING OF THE DDC CONTROLS WITH THE FAN COIL UNIT MANUFACTURER.

PRIVATE OFFICE SPACES: A WALL MOUNTED SPACE TEMPERATURE THERMOSTAT SHALL CONTROL ROOM CONDITIONS THROUGH THE TCU AND ENABLE THE ROOM OCCUPANTS TO VARY THE SPACE SETPOINT OVER A LIMITED RANGE AS DETERMINED BY THE BUILDING DDC. THE SPACE TEMPERATURE SENSOR SHALL DISPLAY TEMPERATURE SETPOINT AND SPACE TEMPERATURE. THE SPACE TEMPERATURE SENSOR SHALL PROVIDE A TIMED OVERRIDE SCHEDULE THROUGH AN ON/OFF BUTTON.

PUBLIC SPACES: A WALL MOUNTED SPACE TEMPERATURE SENSOR SHALL CONTROL ROOM CONDITIONS THROUGH THE TCU AND SHALL NOT HAVE ANY VISIBLE MEANS OF SETPOINT ADJUSTMENT. ADJUSTMENT SHALL BE VIA THE DIGITAL CONTROLLER TO WHICH IT IS CONNECTED.

PATIENT ROOMS: A SPACE TEMPERATURE SENSOR SHALL BE MOUNTED IN THE RETURN SECTION OF THE UNIT TO PREVENT TAMPERING. THE SPACE TEMPERATURE SETPOINT AND SPACE TEMPERATURE DISPLAY WILL BE ACCESSIBLE THROUGH THE BUILDING DDC SYSTEM WITH GRAPHIC DISPLAY.

OCCUPIED MODE:

THE FAN COIL UNIT IS INSTALLED WITH A THREE-SPEED FAN MOTOR. DURING THE OCCUPIED MODE, THE FAN MOTOR OF A FAN COIL UNIT IS ALWAYS RUNNING TO MAINTAIN THE MINIMUM AIR CHANGE RATE FOR THE SPACE. HOWEVER, FAN MOTOR SPEEDS, VALVE OPENINGS ON THE CHILLED WATER COIL OR THE HOT WATER HEATING COIL MAY VARY THROUGH ITS TERMINAL CONTROL UNIT.

THE TCU ALLOWS THE MODULATING CONTROL VALVES (HOT WATER AND CHILLED WATER) AND THREE-SPEED FAN TO WORK COOPERATIVELY TO MEET PRECISE CAPACITY REQUIREMENTS WHILE MINIMIZING FAN SPEED AND VALVE POSITION. AS THE CAPACITY INCREASES AT LOW FAN SPEED, THE WATER VALVE OPENS. WHEN THE LOW FAN SPEED CAPACITY IS MEET THE FAN SWITCHES TO MEDIUM FAN SPEED AND THE WATER VALVE REPOSITIONS TO MEET TO MAINTAIN THE AN EQUIVALENT CAPACITY. THE REVERSE SEQUENCE TAKES PLACE WITH A DECREASE IN CAPACITY.

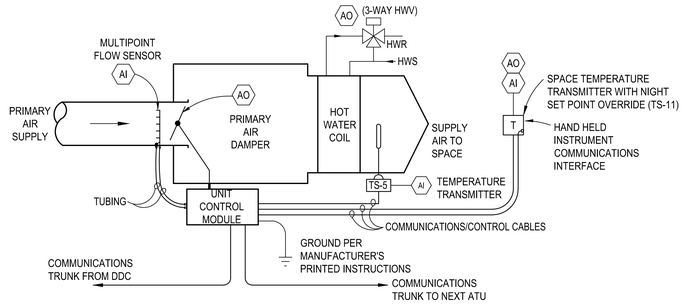
IN SUMMER THE TCU SHALL SWITCH ITS FAN MOTOR SPEED FROM THE LOWEST TO THE HIGHEST WHILE OPEN AND MODULATE THE CONTROL VALVE TO THE MAXIMUM OPENING ON THE COOLING COIL TO MAINTAIN THE SPACE SETPOINT OF 75°F (ADJUSTABLE). ON A DROP IN SPACE TEMPERATURE, THE TCU SHALL MODULATE THE CONTROL VALVE TO ITS MINIMUM AND CLOSE IT (ADJUSTABLE) AND SWITCH THE FAN MOTOR FROM THE HIGHEST TO THE LOWEST.

IN WINTER THE TCU SHALL SWITCH ITS FAN MOTOR SPEED FROM THE LOWEST TO THE HIGHEST WHILE OPEN AND MODULATE THE CONTROL VALVE TO THE MAXIMUM OPENING ON THE HEATING COIL TO MAINTAIN THE SPACE SETPOINT OF 70°F (ADJUSTABLE). ON A RISE IN SPACE TEMPERATURE, THE TCU SHALL MODULATE THE CONTROL VALVE TO ITS MINIMUM AND CLOSE IT (ADJUSTABLE) AND SWITCH THE FAN MOTOR SPEED FROM THE HIGHEST TO THE LOWEST.

UNOCCUPIED MODE:
THE BUILDING IS OCCUPIED CONTINUOUSLY (24 HR/DAY & 7 DAY/WEEK).

SMOKE MODE:

THE BUILDING DDC SHALL INSTRUCT THE TCU OF A FAN COIL UNIT TO STOP THE FAN OPERATION AND CLOSE THE CONTROL VALVES ON ITS COOLING COIL AND HEATING COIL WHEN SMOKE IS DETECTED AND FIRE ALARM SYSTEM IS ACTIVATED.



2 AIR TERMINAL UNIT CONTROL DIAGRAM
NTS

SEQUENCE OF OPERATION AIR TERMINAL UNIT (ATU)

GENERAL

EACH TERMINAL UNIT SHALL BE PROVIDED WITH A TERMINAL CONTROL MODULE (TCM). THE TCM SHALL BE FIELD MOUNTED. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER TO EACH TERMINAL UNIT. UNIT AIRFLOW SHALL BE MONITORED BY AN INTEGRAL, MULTIPLE POINT, AVERAGING FLOW SENSING DEVICE AND A TRANSDUCER TO MAINTAIN AIRFLOW WITHIN 5% OF RATED CFM DOWN TO A MINIMUM CFM AS SCHEDULED, INDEPENDENT OF CHANGES IN SYSTEM STATIC PRESSURE.

OCCUPIED MODE
WHEN THE DDC SYSTEM HAS THE BUILDING "OCCUPIED", THE PRIMARY AIR DAMPER SHALL MODULATE OPEN ON A RISE IN SPACE TEMPERATURE AND SHALL MODULATE CLOSED TO IT'S MINIMUM POSITION ON A FALL IN SPACE TEMPERATURE. IF THE PRIMARY AIR DAMPER IS IN IT'S MINIMUM POSITION AND THE SPACE TEMPERATURE CONTINUES TO FALL BELOW SETPOINT, THEN THE 3-WAY HEATING WATER CONTROL VALVE SHALL MODULATE AND THE PRIMARY AIR DAMPER SHALL MODULATE TO THE HEATING CFM POSITION TO MAINTAIN THE SPACE TEMPERATURE SETPOINT.

UNOCCUPIED MODE
WHEN THE DDC SYSTEM HAS THE BUILDING "UNOCCUPIED" THE HEATING WATER CONTROL VALVE SHALL MODULATE FULLY TO THE BYPASS POSITION AND THE PRIMARY DAMPER SHALL MODULATE TO IT'S MINIMUM POSITION. IF THE SPACE TEMPERATURE SHOULD FALL BELOW NIGHT SETBACK SETPOINT, THE AIR TERMINAL UNIT SHALL OPERATE AS DESCRIBED IN THE VAV AIR HANDLING UNIT "UNOCCUPIED MODE" ABOVE. THE ZONE TEMPERATURE SENSOR WITH SET POINT ADJUSTMENT SHALL BE PROVIDED WITH NIGHT SETBACK OVERRIDE, AND A COMMUNICATIONS JACK. ZONE TEMPERATURE SET POINT ADJUSTMENTS SHALL BE LIMITED BY THE DDC TO +/- 3°F OF THE PROGRAMMED VALUE.

SEQUENCE OF OPERATION FOR ISOLATION ROOMS

GENERAL
THE ISOLATION ROOMS ARE CONSIDERED CONTINUOUSLY OCCUPIED AND THE HVAC SYSTEMS OPERATE CONTINUOUSLY.

OCCUPIED MODE
THE ROOM PRESSURE CONTROLLER MODULATES THE CONSTANT VOLUME SUPPLY AIR TERMINAL AND THE PATIENT ROOM EXHAUST FAN TO MAINTAIN THE AIRFLOW DIFFERENTIAL, BASED ON WHETHER THE ROOM IS SET FOR NEGATIVE OR NEUTRAL PRESSURIZATION AT THE ROOM PRESSURIZATION MONITOR PANEL. THE SUPPLY AIR TERMINAL UNIT REHEAT WILL MODULATE TO MAINTAIN ROOM TEMPERATURE SETPOINT. THE BATHROOM EXHAUST FAN WILL MODULATE TO MAINTAIN THE FIXED EXHAUST AIR FLOW SETPOINT. IF THE ROOM PRESSURIZATION IS OUT OF RANGE, AN ALARM WILL WILL SOUND ROOM PRESSURIZATION MONITOR PANEL.

ISOLATION ROOM EXHAUST FANS
THE EXHAUST FANS SHALL RUN CONTINUOUSLY. THE DDC SYSTEM SHALL MONITOR THE EXHAUST FAN STATUS AND HEPA FILTER PRESSURE DROP. IF THE HEPA FILTER PRESSURE DROP EXCEEDS THE SETPOINT, A ALARM LIGHT WILL BE ENERGIZED AT THE AIR FILTER SENSOR AND A ALARM SIGNAL WILL BE SENT TO THE DDC SYSTEM.

ROOM PRESSURIZATION MONITORING
A HALLWAY MOUNTED ROOM PRESSURIZATION MONITOR PANEL (RPM) WILL MONITOR THE ROOM PRESSURIZATION LEVEL AS COMPARED TO THE CORRIDOR AND REPORT THAT VALUE TO THE DDC SYSTEM. IF THE ROOM PRESSURE IS OUTSIDE OF THE PRESET ALARM LIMITS, A LOCAL ALARM WILL BE INITIATED, AS WELL AS A SOFTWARE ALARM TO THE DDC SYSTEM.

THE RPM CONTAINS A 3-POSITION KEY SWITCH THAT ALLOWS SETTING THE ROOM TO A POSITIVE, NEGATIVE OR NEUTRAL PRESSURE COMPARED TO THE CORRIDOR.

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Drawing Title: MECHANICAL CONTROLS DIAGRAMS

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Dwg. 55 of 78

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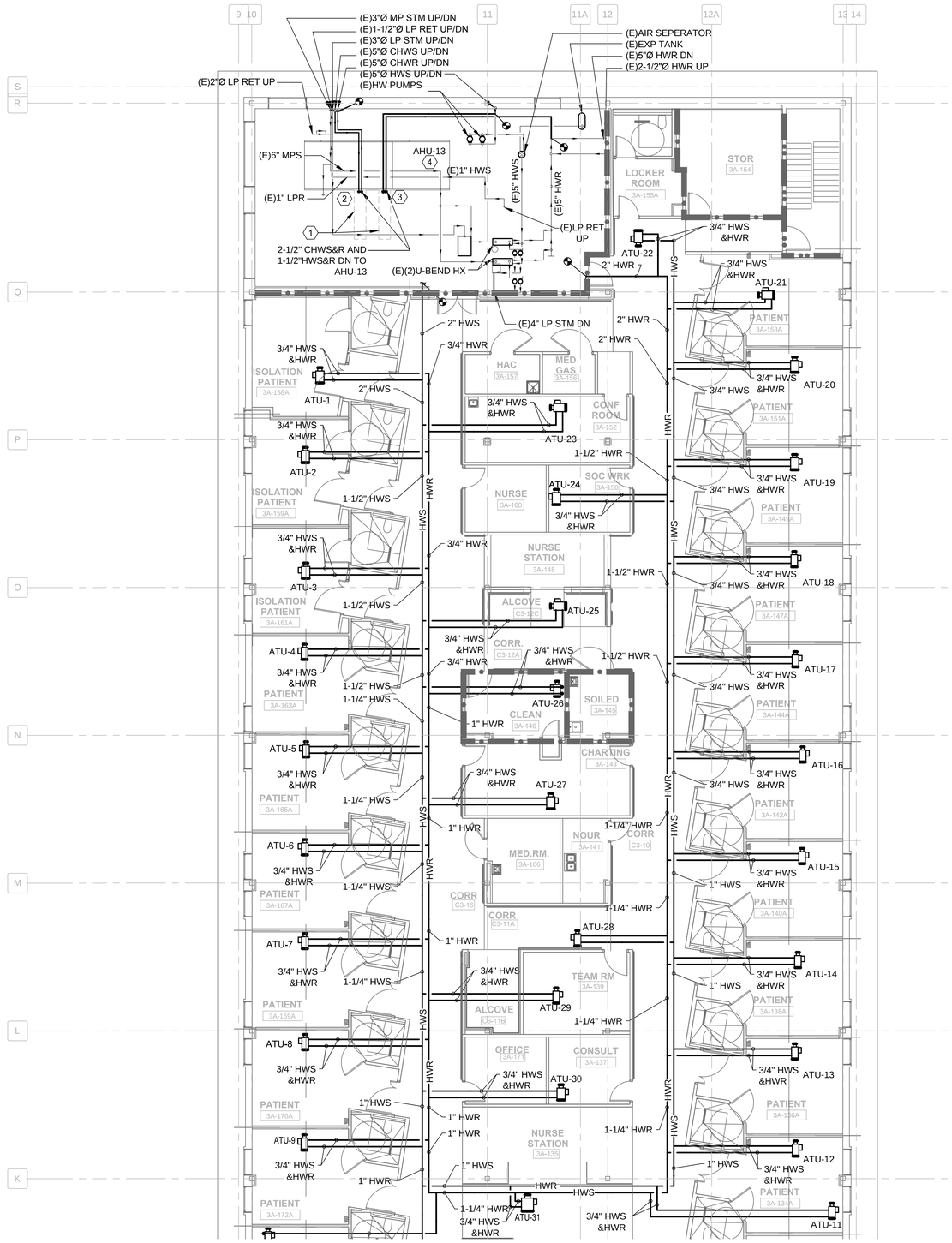
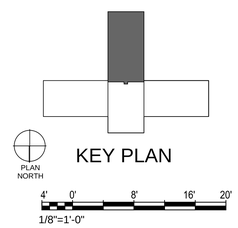


1 **SOUTH WING - NEW WORK**
1/8" = 1'-0"

SHEET KEY NOTES

1. AIR HANDLING UNIT SERVICE CLEARANCE FOR COIL PULL SHOWN AS DASHED LINE FOR REFERENCE.
2. CHILLED WATER SUPPLY AND RETURN LINES DOWN TO AIR HANDLER COIL CONNECTION. REFER PIPING INSTALLATION DETAIL ON SHEET MH502.
3. HOT WATER SUPPLY AND RETURN LINES DOWN TO AIR HANDLER COIL CONNECTION. REFER PIPING INSTALLATION DETAIL ON SHEET MH502.
4. ROUTE CONDENSATE TO FLOOR DRAINS. FIELD VERIFY EXACT LOCATION OF NEAREST DRAIN. REFER TO CONDENSATE TRAP DETAIL ON SHEET MH501.



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Drawing Title: **MECHANICAL PIPING PLAN SOUTH WING**

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

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Dwg. 56 of 78

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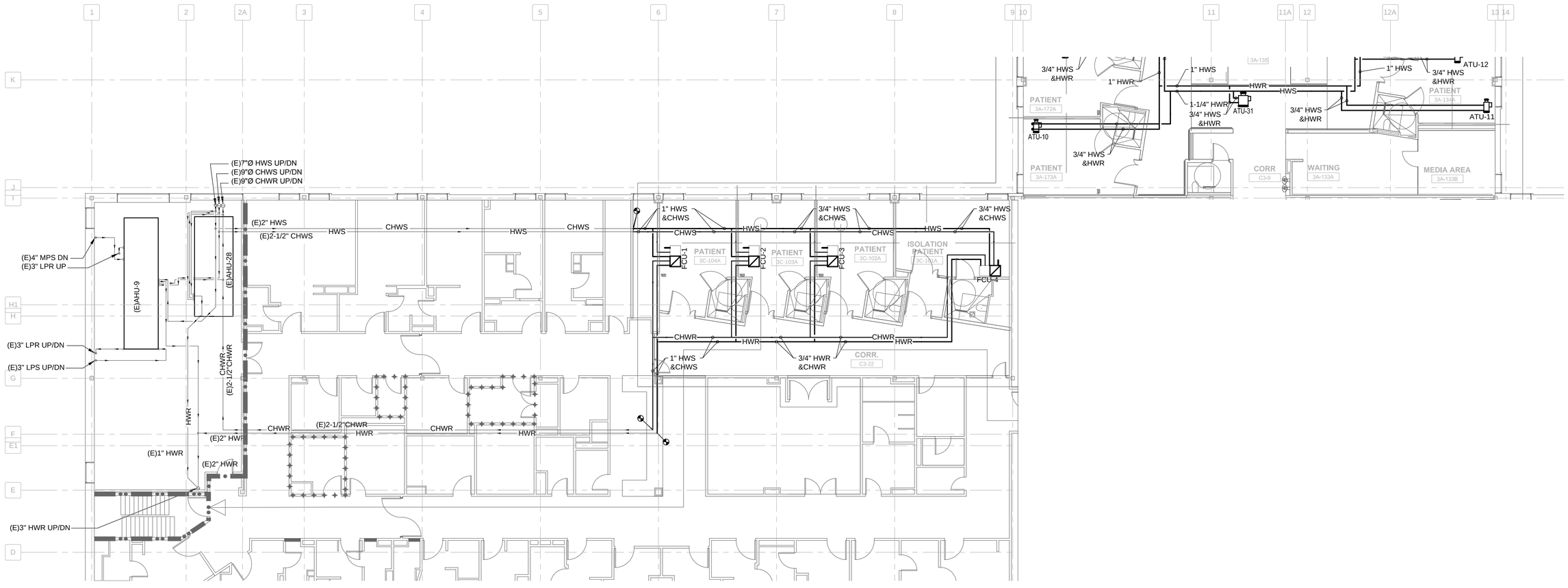
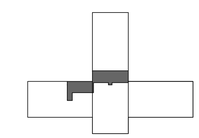


1 **PARTIAL SOUTH & EAST WING - NEW WORK**
1/8" = 1'-0"



KEY PLAN

PLAN NORTH

4' 0' 8' 16' 20'
1/8"=1'-0"

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Drawing Title
MECHANICAL PIPING PLAN
EAST WING & PARTIAL SOUTH WING

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Location
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Building Number **100**

Drawing Number **MP102**

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

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ELECTRICAL NOTES

1. MATERIALS, EQUIPMENT AND SYSTEMS SHALL MEET ALL PERTINENT REQUIREMENTS OF THE AMERICAN SOCIETY FOR TESTING MATERIALS (ASTM), 2011 NATIONAL ELECTRICAL CODE (NEC). THE UNDERWRITERS LABORATORY (UL), THE NATIONAL ELECTRIC MANUFACTURER'S ASSOCIATION (NEMA), NATIONAL FIRE PROTECTION (NFPA), AMERICAN NATIONAL STANDARDS INSTITUTE (ANSI), AND OTHER NATIONALLY RECOGNIZED AGENCIES AS WELL AS APPLICABLE CODES.
2. ANYTHING DRAWN OR SPECIFIED SHALL NOT BE CONSTRUED TO CONFLICT WITH ANY LOCAL, MUNICIPAL OR STATE LAW, REGULATION OR ORDINANCE WHICH GOVERNS THE INSTALLATION OF ANY ELECTRICAL OR RELATED WORK. ITEMS SHALL NOT BE INSTALLED IN CONFLICT WITH THE NEC. RESOLVE ANY AND ALL CONFLICTS BEFORE INSTALLATION AT NO ADDITIONAL EXPENSE TO THE OWNER.
3. ALL ELECTRICAL EQUIPMENT SHALL BE LISTED AND LABELED FOR THE QUALIFIED USE. VERIFY CIRCUIT BREAKER INTERRUPT CAPACITY NEEDED FOR EACH PANEL WITH LOCAL UTILITY. FOR BID PURPOSES, ASSUME 40,000 AIC FOR SERVICE ENTRANCE EQUIPMENT, AND 22,000 AIC ELSEWHERE. BALANCE THE POWER EQUALLY (+/- 10%) ON ALL PHASES.
4. THE SYSTEMS SHOWN ON DRAWINGS SHALL BE PROVIDED TO SERVE ALL FIXTURES, EQUIPMENT, AND AREAS WITHIN THE CONTRACT LIMIT LINES AS SET FORTH BY THE ARCHITECTURAL SOLUTION FOR THE PROJECT. THE BIDDING AND CONTRACT REQUIREMENTS, GENERAL REQUIREMENTS, AND GENERAL PROVISIONS SHALL APPLY TO THIS SECTION. SYSTEMS SHALL INCLUDE ALL EQUIPMENT, APPURTENANCES, SAFETY DEVICES, AND CONTROLS NECESSARY FOR THE INTENDED SERVICE.
5. ALL PERMITS AND FEES REQUIRED FOR THE WORK SHALL BE SECURED AND PAID FOR BY THE ELECTRICAL CONTRACTOR AND INCLUDED IN THE BID PRICE.
6. WHERE JOB CONDITIONS REQUIRE CHANGES FROM THE CONTRACT DOCUMENTS THAT DO NOT CHANGE THE SCOPE OF INSTALLATION OR NATURE OF WORK REQUIRED, THE CONTRACTOR SHALL MAKE SUCH CHANGES WITHOUT ADDITIONAL COST TO THE OWNER. NO OTHER CHANGES MAY BE MADE WITHOUT WRITTEN PERMISSION OF THE OWNER.
7. BIDDERS SHALL BE LICENSED CONTRACTORS IN ACCORDANCE WITH LOCAL AND STATE LAWS.
8. ALL EQUIPMENT SHALE BE NEW AND UNUSED. ALL EQUIPMENT SHALL BE INSTALLED IN STRICT CONFORMANCE TO MANUFACTURER'S RECOMMENDATIONS, EXCEPT WHERE THESE SPECIFICATIONS REQUIRE A HIGHER QUALITY INSTALLATION THAN RECOMMENDED BY THE MANUFACTURER.
9. ALL INSTALLED SYSTEMS, DEVICES AND RELATED ITEMS SHALL BE TESTED IN PLACE ON SITE. REPLACE ANY AND ALL CONTRACTOR SUPPLIED DEFECTIVE DEVICES, ITEMS OR SYSTEMS AT CONTRACTOR'S OWN EXPENSE BEFORE COMPLETION OF THE PROJECT.
10. CONTRACTOR SHALL GUARANTEE ALL WORK FOR WHICH MATERIALS ARE FURNISHED, FABRICATED, OR FIELD ERECTED, ALL FACTORY ASSEMBLED EQUIPMENT FOR WHICH NO SPECIFIC MANUFACTURER'S GUARANTEE IS FURNISHED, AND ALL WORK IN CONNECTIONS WITH INSTALLING MANUFACTURER'S GUARANTEED EQUIPMENT. THIS CONTRACTOR'S GUARANTEE SHALL EXIST FOR A PERIOD OF ONE (1) YEAR FROM THE DATE OF FINAL OWNER ACCEPTANCE OF THE WORK AND SHALL APPLY TO DEFECTS IN MATERIAL AND TO DEFECTIVE WORKMANSHIP OF ANY KIND.
11. VERIFY FINAL LOCATIONS FOR ROUGH-INS WITH FIELD MEASUREMENTS AND WITH THE REQUIREMENT OF THE FACTUAL EQUIPMENT TO BE CONNECTED. VERIFY ALL DIMENSIONS BY FIELD MEASUREMENT.
12. SEQUENCE, COORDINATE, AND INTEGRATE INSTALLATIONS OF ELECTRICAL MATERIALS AND EQUIPMENT FOR EFFICIENT FLOW OF THE WORK. GIVE PARTICULAR ATTENTION TO LARGE EQUIPMENT REQUIRING POSITIONING PRIOR TO CLOSING-IN THE BUILDING. COORDINATE THE CUTTING AND PATCHING OF BUILDING COMPONENTS TO ACCOMMODATE INSTALLING OF ELECTRICAL EQUIPMENT AND MATERIALS.
13. COORDINATE THE INSTALLATION OF ELECTRICAL MATERIALS AND EQUIPMENT ABOVE CEILINGS WITH SUSPENSION SYSTEM, MECHANICAL EQUIPMENT AND SYSTEMS, AND STRUCTURAL COMPONENTS. COORDINATE ELECTRICAL EQUIPMENT AND MATERIALS INSTALLATION WITH OTHER BUILDING COMPONENTS.
14. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL ELECTRICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
15. COORDINATE CONNECTION OF ELECTRICAL SYSTEMS WITH EXTERIOR UNDERGROUND AND OVERHEAD UTILITIES AND SERVICES. COMPLY WITH REQUIREMENTS OF GOVERNING REGULATIONS, FRANCHISED SERVICE COMPANIES, AND CONTROLLING AGENCIES. PROVIDE REQUIRED CONNECTION FOR EACH SERVICE.
16. DO NOT ENDANGER OR DAMAGE INSTALLED WORK THROUGH PROCEDURES AND PROCESSES OF CUTTING AND PATCHING. ARRANGE FOR REPAIRS REQUIRED TO RESTORE OTHER WORK BECAUSE OF DAMAGE CAUSED AS A RESULT OF ELECTRICAL INSTALLATIONS.
17. BIDDERS SHALL THOROUGHLY ACQUAINT THEMSELVES WITH THE CONDITIONS UNDER WHICH THEIR WORK IS TO BE PERFORMED. THEY SHALL EXAMINE ALL SERVICES, EQUIPMENT, SURFACES, ETC., WHICH THIS WORK IS IN ANY WAY DEPENDENT UPON AND BRING ANY DISCREPANCIES DETERMINED OR OMISSIONS FOUND IN THE DRAWINGS TO THE OWNER'S ATTENTION BEFORE SUBMITTING BID.
18. VERIFY MECHANICAL EQUIPMENT SWITCH AND CONNECTION REQUIREMENTS, ITEM BY ITEM, WITH THE MECHANICAL CONTRACTOR, BEFORE WIRING EQUIPMENT. RESOLVE ANY DISCREPANCIES WITHOUT FURTHER COST TO OWNER.
19. ALL WIRING SHALL BE IN CONDUIT, 1/2" EMT MINIMUM WITH SET SCREW FITTINGS SUPPORTED AT 10'-0" INTERVALS.
20. ALL WIRING SHALL BE THHN/THWN COPPER (NO. 12 AWG MINIMUM) UNLESS OTHERWISE NOTED. WIRE AND CONDUIT SIZES ARE SHOWN ON THE PANEL SCHEDULE.
21. ALL LIGHTS SHALL BE SUPPORTED AND SECURED IN ACCORDANCE WITH MANUFACTURERS' RECOMMENDATIONS. THE SUPPORT SHALL BE FROM A BUILDING SUPPORT MEMBER AND NOT THE FIRE PROTECTION SYSTEM OR OTHER PIPES.
22. ALL PANELS, CONTROL DEVICES AND MISCELLANEOUS ELECTRICAL APPARATUS SHALL BE CLEARLY MARKED FOR EASY IDENTIFICATION AND SAFETY. USE BLACK PLASTIC OR BAKELITE NAME PLATE ENGRAVED WITH WHITE LETTERS 1/4" HIGH. PUNCHED TAPE IS NOT ACCEPTABLE.
23. PANELS SHALL BE PROVIDED WITH A TYPEWRITTEN DIRECTORY AFFIXED TO INSIDE OF PANEL DOOR WITH A CLEAR PLASTIC SLEEVE.
24. THE ELECTRICAL DRAWINGS ARE DIAGRAMMATIC AN D ARE FOR CIRCUIT ALLOCATION ONLY. DO NOT SCALE DRAWINGS.
25. ELECTRICAL CONTRACTOR SHALL FURNISH RECORD SET OF DRAWINGS WITH ANY DEVIATIONS MARKED IN RED INK.

GENERAL DEMOLITION NOTES

A. EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.

B. REMOVE ALL ACCESSIBLE ABANDONED WIRING OF ALL TYPES, OR CAP AND LABEL IN JUNCTION BOX FOR RE-USE, IN COMPLIANCE WITH THE NATIONAL ELECTRIC CODE.

C. MAINTAIN AND RESTORE, IF INTERRUPTED, ALL CONDUITS AND CONDUCTORS PASSING THROUGH RENOVATED AREAS AND SERVICING UNDISTURBED AREAS.

D. ALL ITEMS SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WITH ALL TRADES.

E. LOCATION OF EXISTING EQUIPMENT, CONDUITS, OUTLETS, DEVICES, CONTROLS AND ALL CONCEALED WORKS, ETC. ARE APPROXIMATE.

F. NOT ALL CIRCUITS AND DEVICES ARE INDICATED. FOR EACH DEVICE INDICATED FOR DEMOLITION THERE IS A CIRCUIT OR FEEDER BACK TO THE POINT OF ORIGIN. ALL CIRCUITS AND DEVICES SHALL BE DEMOLISHED UNLESS NOTED OTHERWISE.

G. EXISTING PIPING AND/OR CONDUIT RUN CONCEALED IN FLOOR SLAB OR UNDERGROUND AND NOT INDICATED OR SPECIFIED FOR REUSE IN NEW WORK SHALL BE ABANDONED UNLESS NOTED OTHERWISE. CUT PIPING AND/OR CONDUIT AT FLOOR. ALL REPAIRS SHALL BE BY TRADES SKILLED IN FINISH WORK. MODIFY EXISTING OPENINGS TO BE REUSED IN NEW WORK BY SAW CUTTING OR CORING.

H FLUORESCENT LAMPS AND BALLASTS SHALL BE CONSIDERED HAZARDOUS WASTE.

I. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF OUTLETS, EQUIPMENT, CONTROLS, ETC. SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORK.

J. DURING THE LIFE OF THE CONTRACT (CONSTRUCTION AND DEMOLITION TO POINT OF BENEFICIAL OCCUPANCY BY OWNER), THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF THE CONTRACT AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.

K. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.

L. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRIC SAFETY CODE (ANSI/IEEE C-2) AND THE NATIONAL ELECTRIC CODE (NFPA 70).

M. LIGHTING FIXTURES INDICATED FOR DEMOLITION SHALL REMAIN PROPERTY OF THE GOVERNMENT. REMOVE, PRESERVE, AND STORE THESE LIGHT FIXTURES ON SITE AS DIRECTED BY THE CONTRACTING OFFICER.

N. ALL OPENINGS IN RATED CONSTRUCTION NOT USED IN TEH NEW WORK SHALL BE CLOSED WITH FIRE RATED MATERIAL TO MATCH ADJACENT FINISH AND NEW CONSTRUCTION. MODIFY EXISTING OPENINGS TO BE REUSED IN THE NEW WORK BY SAW CUTTING.

FIRE STOPPING NOTES

ALL PIPES, DUCTS, CONDUITS AND CABLES PASSING THROUGH THE FOLLOWING WALLS/CEILINGS SHALL BE FIRE STOPPED WITH 3M FIRE BARRIER CAULK CP 25. INSTALL PER MANUFACTURER'S INSTRUCTIONS AND TO SATISFY THE FOLLOWING FIRE RATING REQUIREMENTS:

ELEVATOR MACHINE ROOM: - 2 HOUR FIRE RATING FOR WALLS AND CEILINGS

MECHANICAL ROOM
COMMON WALL BETWEEN
OLD AND NEW CONSTRUCTION: - 1 HOUR FIRE RATING FOR WALLS

ELECTRICAL LEGEND

	RECEPTACLE, DUPLEX, WALL MOUNTED
GFCI	RECEPTACLE, DUPLEX, GFCI POWER
T	RECEPTACLE, DUPLEX, TAMPER RESISTANT
	RECEPTACLE, DUPLEX, STANDARD FLOOR MOUNTED
	RECEPTACLE, QUADRAPLEX, WALL MOUNTED
	TELEPHONE TERMINAL CABINET
TTB	TELEPHONE BACKBOARD WALL MOUNTED
	OUTLET, COMBINATION TELEPHONE/DATA COMMUNICATION
TV	CATV OUTLET
	DATA OUTLET
	PHONE OUTLET
M	PHONE OUTLET (MULTIPLE LINES)
	SPECIAL RECEPTACLE
J	JUNCTION BOX
S S3 SM	SWITCH, 125V, 20A, CEILING MOUNTED 3 = 3-WAY, M = MOTION SENSOR
	RACEWAY IN WALLS OR CEILING
	PANEL BOARD, SURFACE MOUNTED
MDP-1	HOME RUN TO PANEL BOARD, NUMBER IS CIRCUIT NUMBER
	DISCONNECT SWITCH, RATING, POLES, FUSING, AND ENCLOSURE RATING NOTED
	RECESSED DOWNLIGHT
	2x4 LIGHT FIXTURE
	1x4 LIGHT FIXTURE
	2x4 EMERGENCY LIGHT FIXTURE
	1x4 EMERGECY LIGHT FIXTURE
	2x2 EMERGENCY LIGHT FIXTURE
M	DUAL TECHNOLOGY MOUNTED MOTION SENSOR
	EXIT SIGN
AC	ABOVE COUNTER
UNO	UNLESS NOTED OTHERWISE
NTS	NOT TO SCALE
	LADDER CABLE TRAY
FM	FLOOR MOUNTED
	RACK, 2 POST
	PTZ CAMERA, CCTV

NURSE CALL/INTERCOM LEGEND

NCMS	NURSE CALL MASTER STATION
PB	NURSE CALL CALL PUSH BUTTON SWITCH
D	WIRELESS DURESS PUSHBUTTON (LOCATED UNDER DESKTOP)
	INTERCOM/NURSE CALL DOME LIGHT

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

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Drawing Title: ELECTRICAL NOTES, LEGEND, AND ABBREVIATIONS

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: E001

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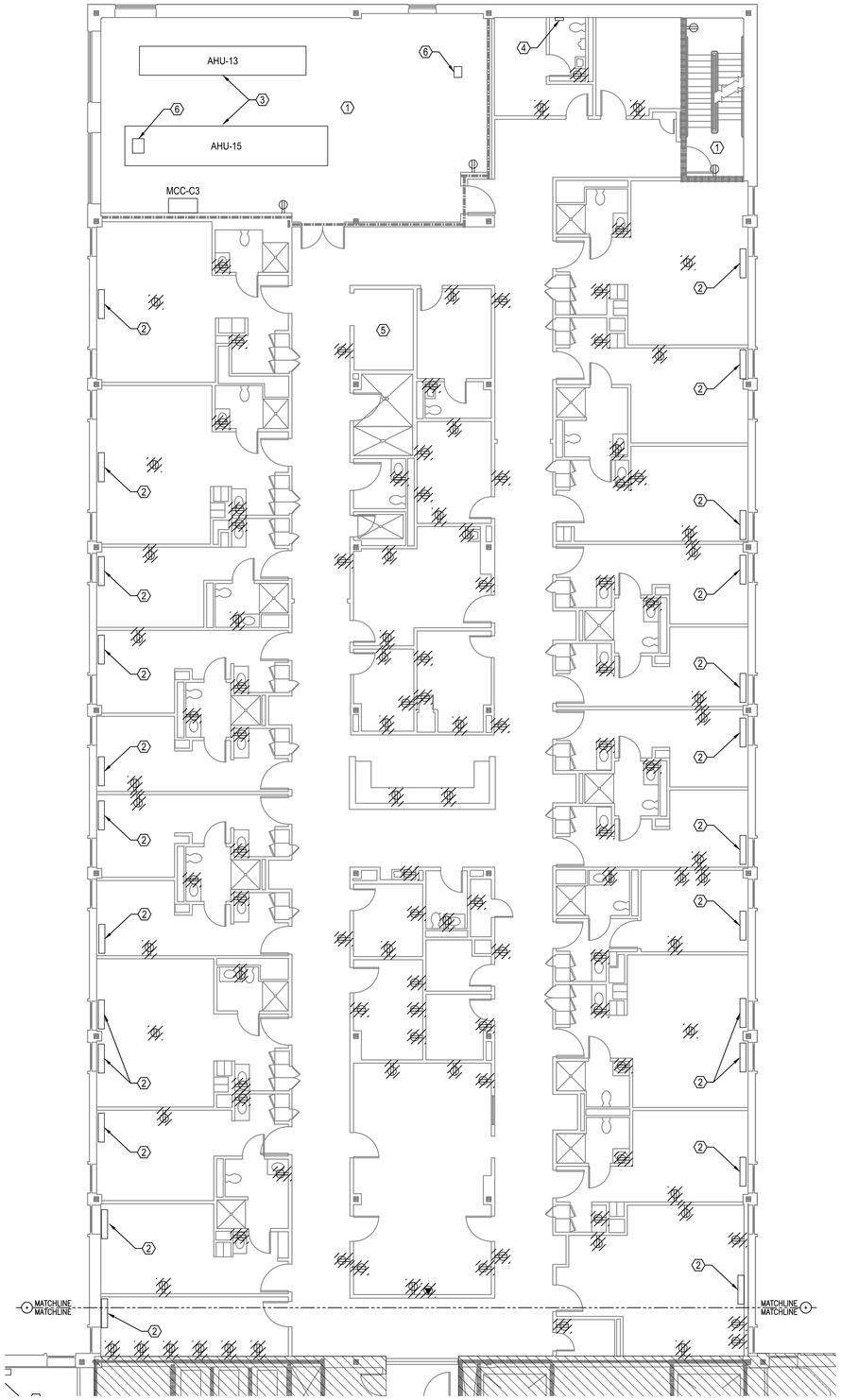
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



POWER PLAN - DEMOLITION

SCALE 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
2. ALL ITEMS SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WITH ALL TRADES.
3. LOCATION OF EXISTING EQUIPMENT, CONDUITS, OUTLETS, DEVICES, CONTROLS AND ALL CONCEALED WORKS, ETC. ARE APPROXIMATE.
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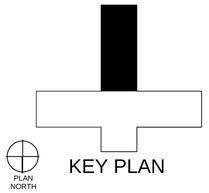
10. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRIC SAFETY CODE (ANSI/IEEE C-2) AND THE NATIONAL ELECTRIC CODE (NFPA 70).

DEMOLITION NOTES

1. EXISTING RECEPTACLES IN THIS ARE SHALL REMAIN OPERABLE DURING CONSTRUCTION.
2. DEMOLISH EXISTING FAN COIL UNIT CIRCUIT COMPLETE BACK TO EXISTING PANEL 'E3R2', INCLUDING BUT NOT LIMITED TO CONDUIT AND WIRING.
3. DEMOLISH EXISTING AIR HANDLING UNIT CIRCUIT COMPLETE BACK TO EXISTING MOTOR CONTROL CENTER 'C3', INCLUDING BUT NOT LIMITED TO CIRCUIT BREAKER, CONDUIT AND WIRING.
4. DEMOLISH EXISTING ELECTRIC HEATER CIRCUIT COMPLETE BACK TO EXISTING PANEL '3R9', INCLUDING BUT NOT LIMITED TO CONDUIT AND WIRING.
5. DEMOLISH EXISTING CEILING MOUNTED HOIST RECEPTACLE COMPLETE BACK TO EXISTING PANEL 'E3R1', INCLUDING BUT NOT LIMITED TO CONDUIT AND WIRING.
6. DEMOLISH EXISTING EXHAUST FAN CIRCUIT COMPLETE BACK TO EXISTING MOTOR CONTROL CENTER 'C3', INCLUDING BUT NOT LIMITED TO CIRCUIT BREAKER, CONDUIT AND WIRING.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA LICENSED PROFESSIONAL ENGINEER No. 13668 ROGER L. BLIE 5/21/014

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Drawing Title: POWER PLAN - DEMOLITION

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **ED101**

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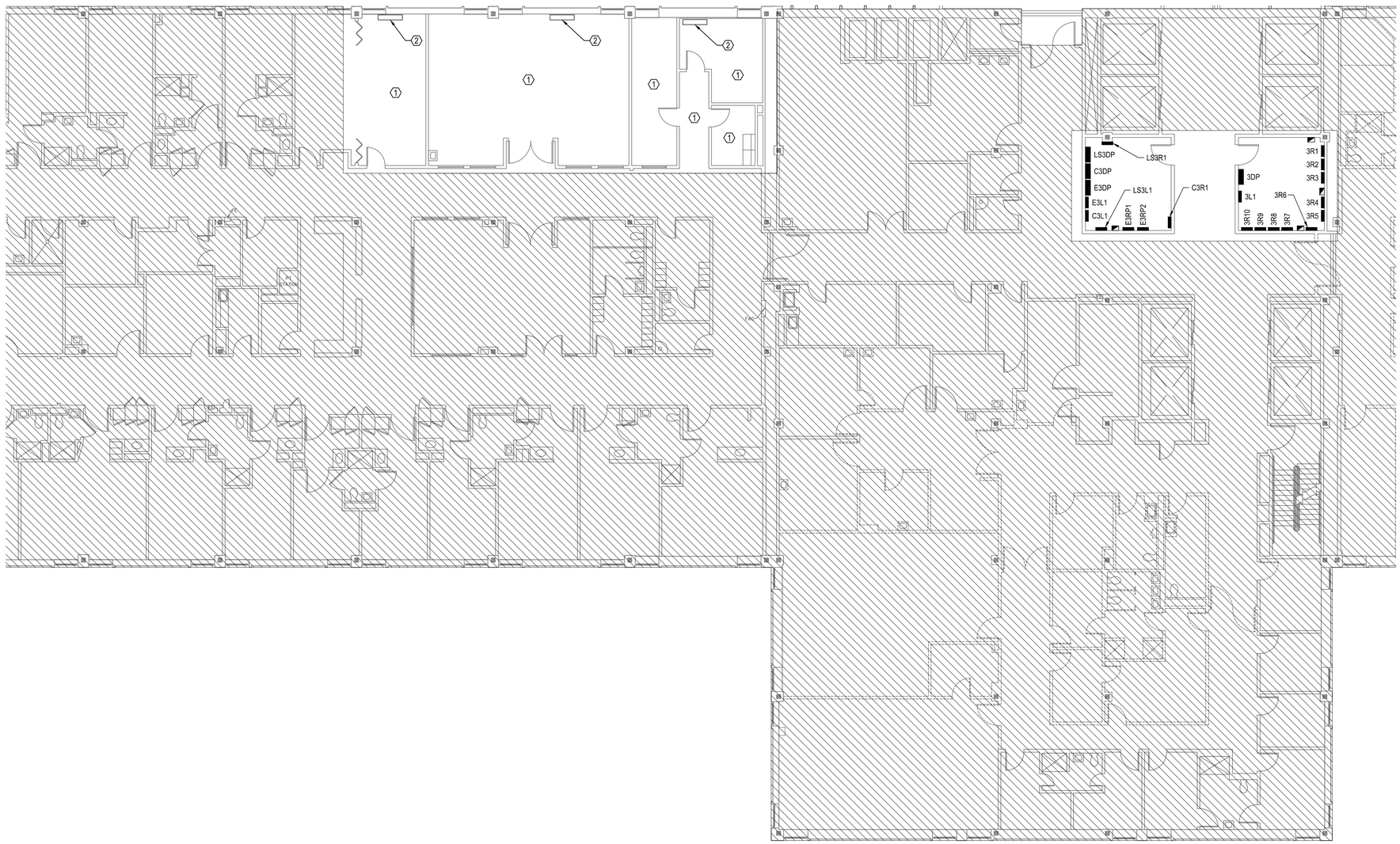
Department of Veterans Affairs

VA FORM 08-6231



POWER PLAN - DEMOLITION

SCALE 1/8" = 1'-0"

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1. EXISTING EQUIPMENT, SUCH AS LIGHTING FIXTURES, WIRING DEVICES, CONDUITS, ETC., SHOWN ON PLANS TO BE REMOVED COMPLETELY. CUT/CAP CONDUITS AT THE AREA OF WORK PERIMETER AND REMOVE CONDUIT WITHIN THE WORK AREA, DISCONNECT WIRING AT THE OVERCURRENT PROTECTIVE DEVICE AND REMOVE WIRING COMPLETELY FROM THE ABANDONED CONDUITS.
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DEMOLITION NOTES

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2. DEMOLISH EXISTING FAN COIL UNIT CIRCUIT COMPLETE BACK TO EXISTING PANEL 'E3R2', INCLUDING BUT NOT LIMITED TO CONDUIT AND WIRING.
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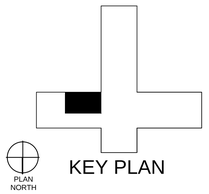

KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER LICENSE No. 13668 5/21/014 ROGER L. BLUE

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
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Drawing Title: POWER PLAN - DEMOLITION

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **ED102**

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Department of Veterans Affairs

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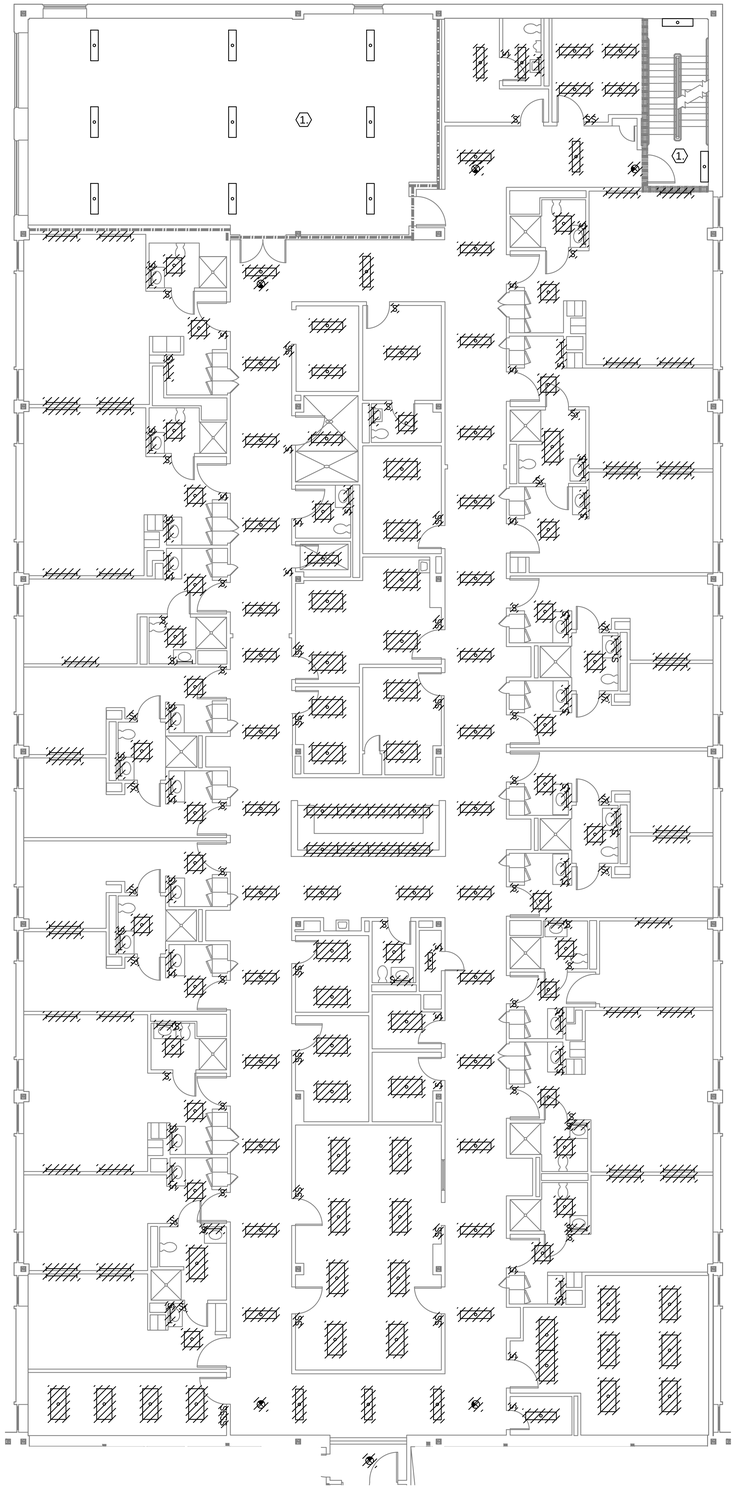

LIGHTING PLAN - DEMOLITION

SCALE 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. ALL ITEMS SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WITH ALL TRADES.
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GENERAL DEMOLITION NOTES

(1) LIGHTING FIXTURES IN THIS AREA SHALL REMAIN IN OPERATION DURING THIS CONTRACT.

PLAN NORTH

KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

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Drawing Title	LIGHTING PLAN - DEMOLITION
Approved: Project Director	
Project Title	**RENOVATE MEDICAL SURGICAL UNIT**
Location	**W.J. BRYAN DORN VAMC; COLUMBIA, SC**
Date	**05/16/2014**
Checked	**RLB**
Drawn	**DLA**
Project Number	**544-13-102**
Building Number	**100**
Drawing Number	**ED103**
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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

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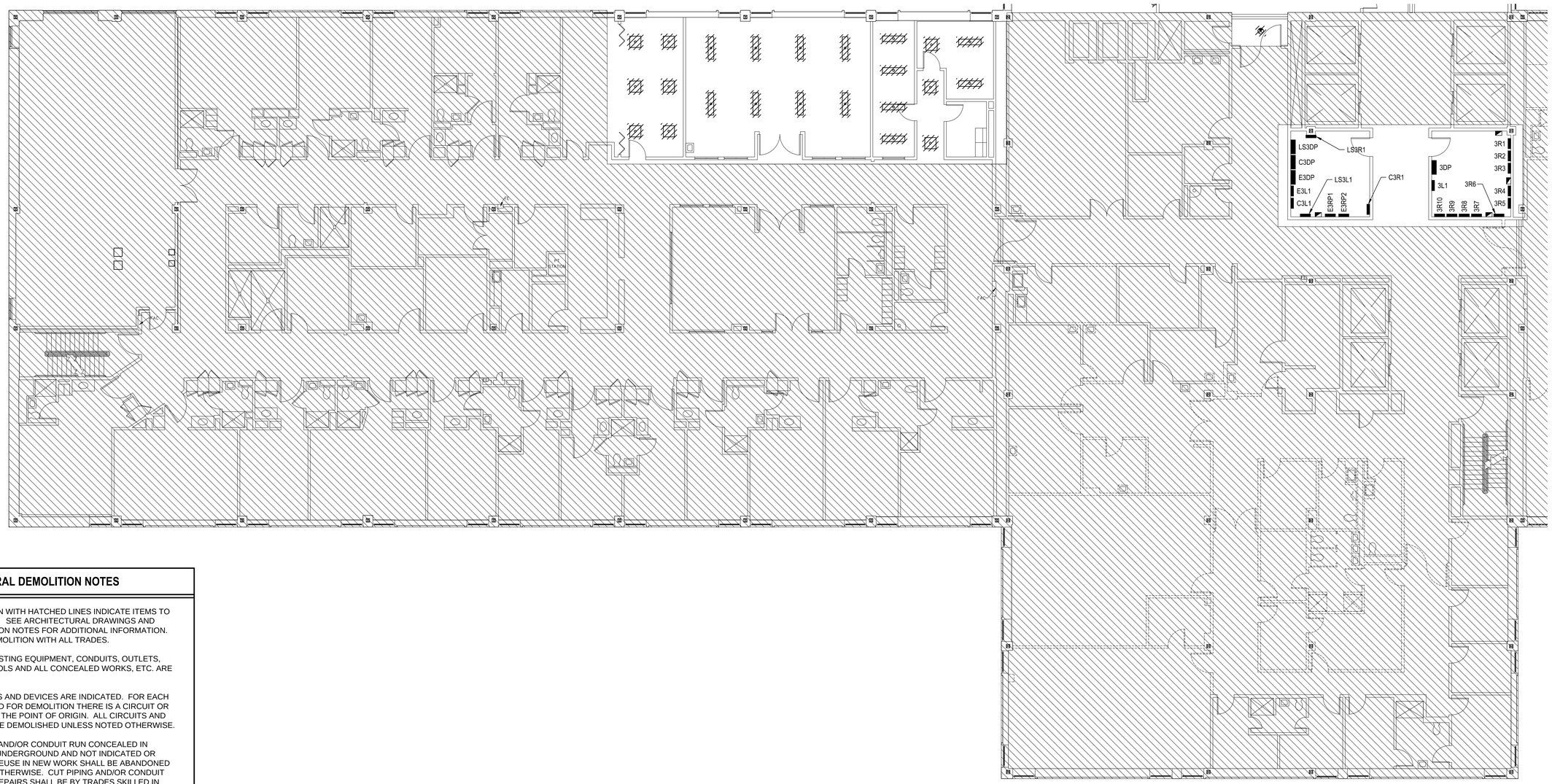

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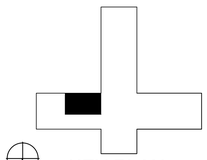
3. NOT ALL CIRCUITS AND DEVICES ARE INDICATED. FOR EACH DEVICE INDICATED FOR DEMOLITION THERE IS A CIRCUIT OR FEEDER BACK TO THE POINT OF ORIGIN. ALL CIRCUITS AND DEVICES SHALL BE DEMOLISHED UNLESS NOTED OTHERWISE.
4. EXISTING PIPING AND/OR CONDUIT RUN CONCEALED IN FLOOR SLAB OR UNDERGROUND AND NOT INDICATED OR SPECIFIED FOR REUSE IN NEW WORK SHALL BE ABANDONED UNLESS NOTED OTHERWISE. CUT PIPING AND/OR CONDUIT AT FLOOR. ALL REPAIRS SHALL BE BY TRADES SKILLED IN FINISH WORK. MODIFY EXISTING OPENINGS TO BE REUSED IN NEW WORK BY SAW CUTTING OR CORING.
5. FLUORESCENT LAMPS AND BALLASTS SHALL BE CONSIDERED HAZARDOUS WASTE.
6. ALL OPENINGS AND SURFACES MADE BARE BY DEMOLITION AND/OR REMOVAL OF OUTLETS, EQUIPMENT, CONTROLS, ETC. SHALL BE REPAIRED AND/OR PATCHED TO MATCH ADJACENT FINISH. PREPARE SURFACES TO RECEIVE NEW FINISH. SEE ARCHITECTURAL DRAWINGS FOR ADDITIONAL INFORMATION. ALL REPAIRS AND NEW FINISH SHALL BE BY TRADES SKILLED IN FINISH WORK.
7. DURING THE LIFE OF THE CONTRACT (CONSTRUCTION AND DEMOLITION TO POINT OF BENEFICIAL OCCUPANCY BY OWNER), THE CONTRACTOR SHALL PROTECT ALL SYSTEMS OR PORTIONS OF SYSTEMS TO REMAIN FOR REUSE FROM DAMAGE. ALL SYSTEMS SHALL BE TESTED IN SERVICE AFTER COMPLETION OF THE CONTRACT AND MADE COMPLETE AND OPERABLE AT NO ADDITIONAL COST TO THE GOVERNMENT.
8. SEE ARCHITECTURAL DRAWINGS AND SPECIFICATIONS FOR ADDITIONAL INFORMATION. COORDINATE ALL DEMOLITION WITH ALL TRADES INVOLVED.
9. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE LATEST EDITIONS OF THE NATIONAL ELECTRIC SAFETY CODE (ANSI/IEEE C-2) AND THE NATIONAL ELECTRIC CODE (NFPA 70).

LIGHTING PLAN - DEMOLITION

SCALE 1/8" = 1'-0"



PLAN NORTH

KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER LICENSE No. 13668 ROGER L. BLUE 5/21/09

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: LIGHTING PLAN - DEMOLITION

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

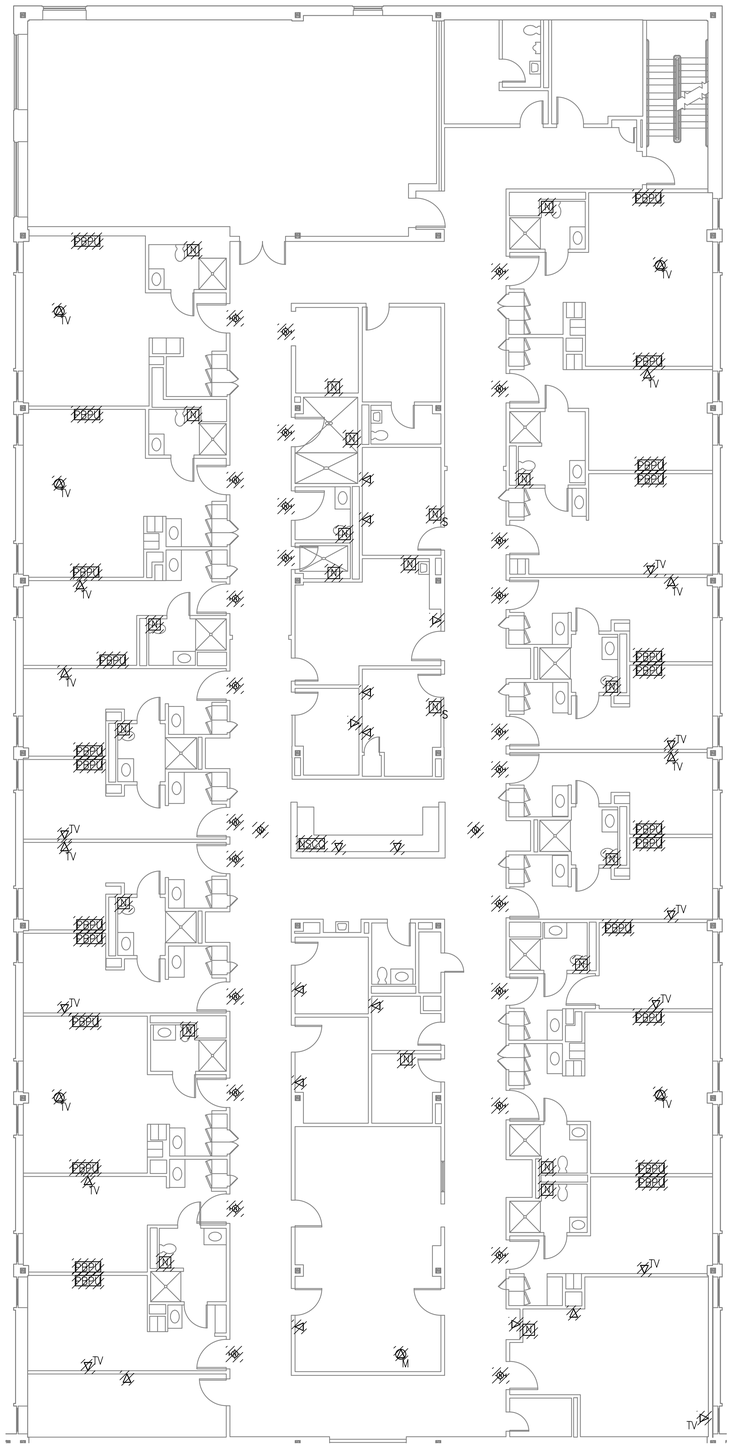
Drawing Number: **ED104**

Dwg. 62 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



SECONDARY ELECTRICAL SYSTEMS - DEMOLITION

SCALE 1/8" = 1'-0"

GENERAL DEMOLITION NOTES

1. ALL ITEMS SHOWN WITH HATCHED LINES INDICATE ITEMS TO BE DEMOLISHED. SEE ARCHITECTURAL DRAWINGS AND CODED DEMOLITION NOTES FOR ADDITIONAL INFORMATION. COORDINATE DEMOLITION WITH ALL TRADES.
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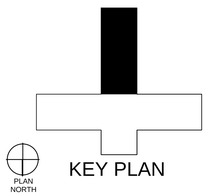


KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA REGISTERED PROFESSIONAL ENGINEER NO. 13668 ROGER L. BLUE 5/21/14

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: SECONDARY ELECTRICAL SYSTEMS DEMOLITION

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

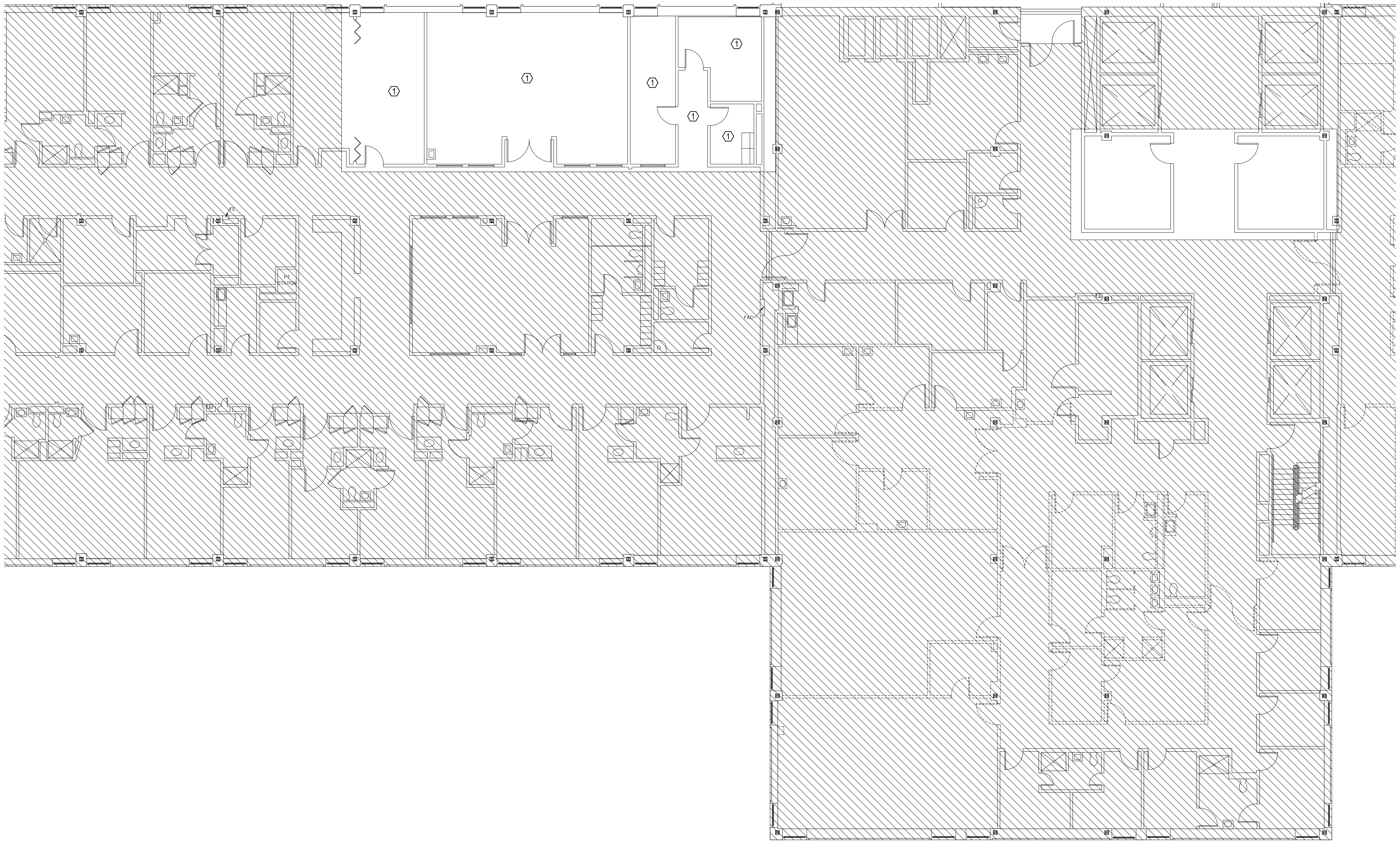
Drawing Number: **ED105**

Dwg. 63 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



SECONDARY ELECTRICAL SYSTEMS - DEMOLITION

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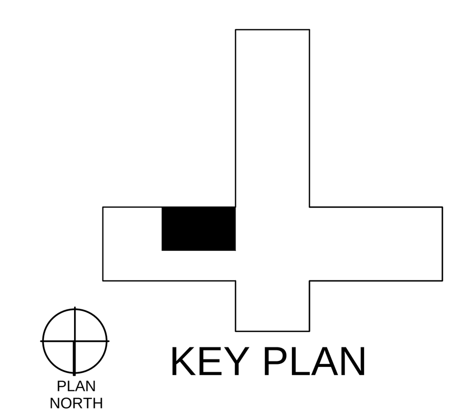
DEMOLITION NOTES

1. DEMOLISH EXISTING SECONDARY SYSTEMS IN THIS AREA COMPLETE. DEVICES IN OTHER AREAS, NOT INDICATED FOR DEMOLITION, SHALL REMAIN OPERABLE DURING CONSTRUCTION.



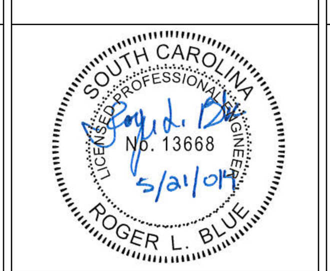
KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION

FULLY SPRINKLERED

Revisions: | Date

CONSULTANTS:



ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: SECONDARY ELECTRICAL SYSTEMS DEMOLITION

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date	Checked	Drawn
05/16/2014	RLB	DLA

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **ED106**

Dwg. 64 of 78

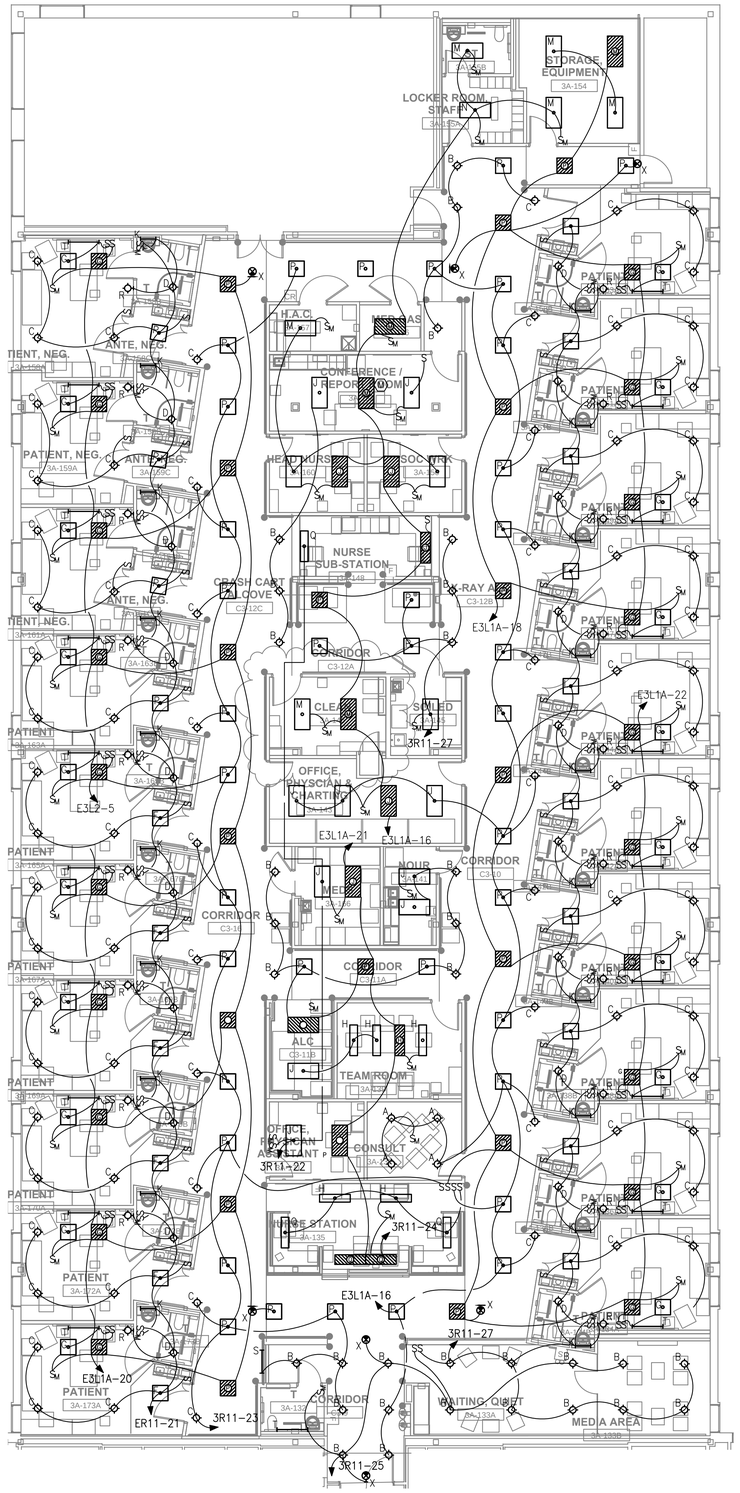
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

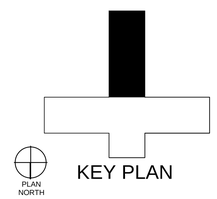
GENERAL NEW WORK NOTES

1. ALL ELECTRICAL WIRING CONDUIT, DEVICES, EQUIPMENT, AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. PROVIDE ALL CONDUCTORS, CONDUITS, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2012 EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (IEEE C-2) APPROVED OR ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE NATIONAL ELECTRICAL CODE (NFPA 70).
3. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
4. ALL INTERIOR ELECTRICAL WIRING SHALL BE IN METALLIC CONDUIT UNLESS OTHERWISE NOTED.
5. PROVIDE FLEXIBLE METALLIC CONDUIT TO ALL MOTOR OPERATE EQUIPMENT.
6. PLANS SHOW REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. HOMERUNS SHOWN ARE SCHEMATIC. HOMERUNS MAY ORIGINATE FROM DIFFERENT LOCATIONS. ALL WIRES, INCLUDING HOMERUNS, SHALL BE DELINEATED ON RECORD DRAWINGS.
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.



LIGHTING PLAN - NEW WORK

SCALE 1/8" = 1'-0"



KEY PLAN

LIGHTING FIXTURE SCHEDULE

TYPE	MFG	PART NUMBER	VOLTS	LAMP	LUMENS/LAMP	WATTS	DESCRIPTION
A	GOTHAM	AF 2/32TRT MVOLT 8AR	277V	(2) 32W CFL	2400	69	RECESSED DOWNLIGHT
B	GOTHAM	AF 2/26DTT 8AR MVOLT	277V	(2) 26W CFL	1800	62	RECESSED DOWNLIGHT
C	GOTHAM	AF 1/18TRT 6AR MVOLT	277V	(1) 18W CFL	1200	22	RECESSED DOWNLIGHT
D	GOTHAM	LGFLP 2/32TRT 8DFR MVOLT	277V	(2) 32W CFL	2400	60.7	RECESSED DOWNLIGHT
F	LITHONIA	2GT8 3 17 A12125 MVOLT 1/3 GEB10IS	277V	(3) 17W T8	1200	66	2'x2' RECESSED FIXTURE
G	HEALTHCARE	HPT5 MVOLT ALB TIA-3-17 LV 1C 4XT8 AM	120V	(7) 17W T8	1200	91.2	2'x2' RECESSED FIXTURE
H	LITHONIA	PMO G B 2 32 9LS MVOLT GEB10IS LP735	277V	(2) 32W T8	2900	58	1'x4' RECESSED FIXTURE
J	LITHONIA	2PMO G B 2 32 27 LS MVOLT GEB10RS LP 735	277V	(2) 32W T8	2900	58	2'x4' RECESSED FIXTURE
K	PINNACLE	E4R-2T8 2 FLF UNV 1C W	277V	(2) 17W T8	1200	24.8	WALL MOUNTED FIXTURE
L	LITHONIA	2GT8 2 17 A12125 MVOLT GEB10IS	277V	(2) 17W T8	1200	24.8	2'x2" RECEDDED FIXTURE
M	LITHONIA	2GT8 2 32 A12125 MVOLT GEB10IS	277V	(2) 32W T8	2400	58	2'x4' RECESSED FIXTURE
N	LITHONIA	2GT8 3 32 A12125 MVOLT 1/3 GEB10IS	277V	(3) 32W T8	2400	88	2'x4' RECESSED FIXTURE
P	LITHONIA	2GT8 2 17 A12125 MVOLT GEB10IS	277V	(2) 17W T8	1200	24.8	2'x2' RECESSED FIXTURE
Q	FOCAL POINT	FMES-PA-2T5-1C-VOLT-S-C18-TS-4'	277V	(2) 28W T8	2900	63	4' SUSPENDED FIXTURE
R	KENALL	MCSL-HO-MW-2L35K-DV-IP64-SBX	277V	LED	N/A	1.3	SEMI-RECESSED WALL FIXTURE
S	FOCAL POINT	FMEW-PA-1T5HO-1C-VOLT-S-WM-FINISH-4'	277V	(1) 54W T5	4450	63	4' WALL MOUNTED FIXTURE
T	KENALL	MPW-48-MW-FA-2/2-32-RS-120-EL-PCX	120V	(4) 32W T8	2900	117	4' WALL MOUNTED FIXTURE
X	LITHONIA	LQM S W 3 R 120/277 ELN SD	277V	LED	N/A	1.8	EXIT FIXTURE

NOTE:
1. MANUFACTURER AND MODEL NUMBERS ARE PROVIDED AS BASIS OF DESIGN ONLY AND ARE NOT TO LIMIT SELECTION. CONTRACTOR SHALL PROVIDE SCHEDULED EQUIPMENT OR EQUIPMENT OF EQUAL QUALITY.
2. LAMP COLOR FOR ALL FLUORESCENT FIXTURES SHALL BE 3500 KELVIN AND SHALL BE FROM THE SAME MANUFACTURER.

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/14

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: LIGHTING PLAN - NEW WORK

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

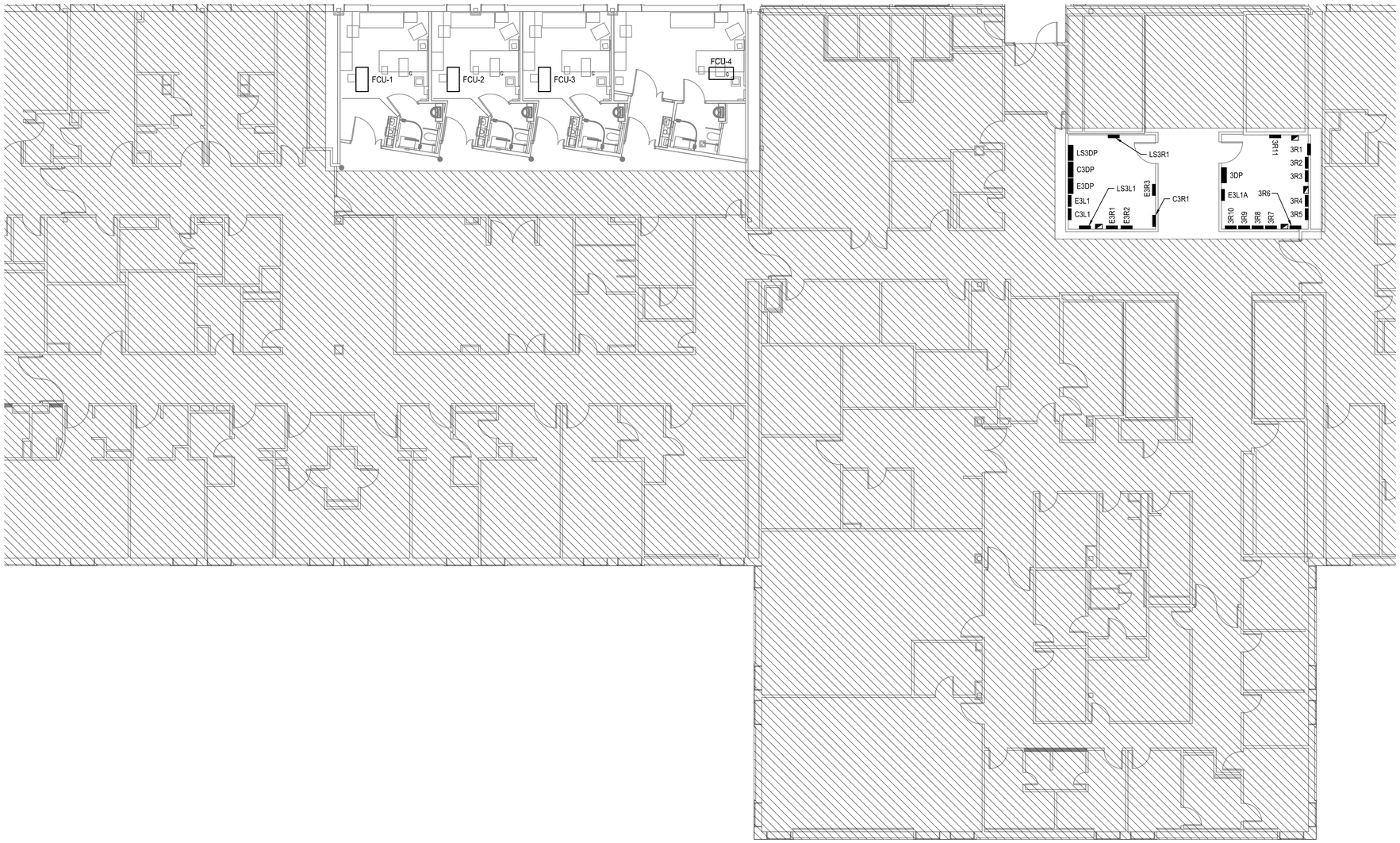
Drawing Number: **EL101**

Dwg. 65 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



LIGHTING PLAN - NEW WORK

SCALE 1/8" = 1'-0"

GENERAL NEW WORK NOTES

1. ALL ELECTRICAL WIRING CONDUIT, DEVICES, EQUIPMENT, AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. PROVIDE ALL CONDUCTORS, CONDUITS, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
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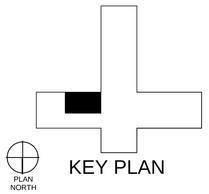
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.

NEW WORK NOTES

1. CONNECT NEW LIGHTING FIXTURE TO EXISTING CORRIDOR LIGHTING CIRCUIT.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 13668 ROGER L. BLUE 5/21/01

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: LIGHTING PLAN - NEW WORK

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/162014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

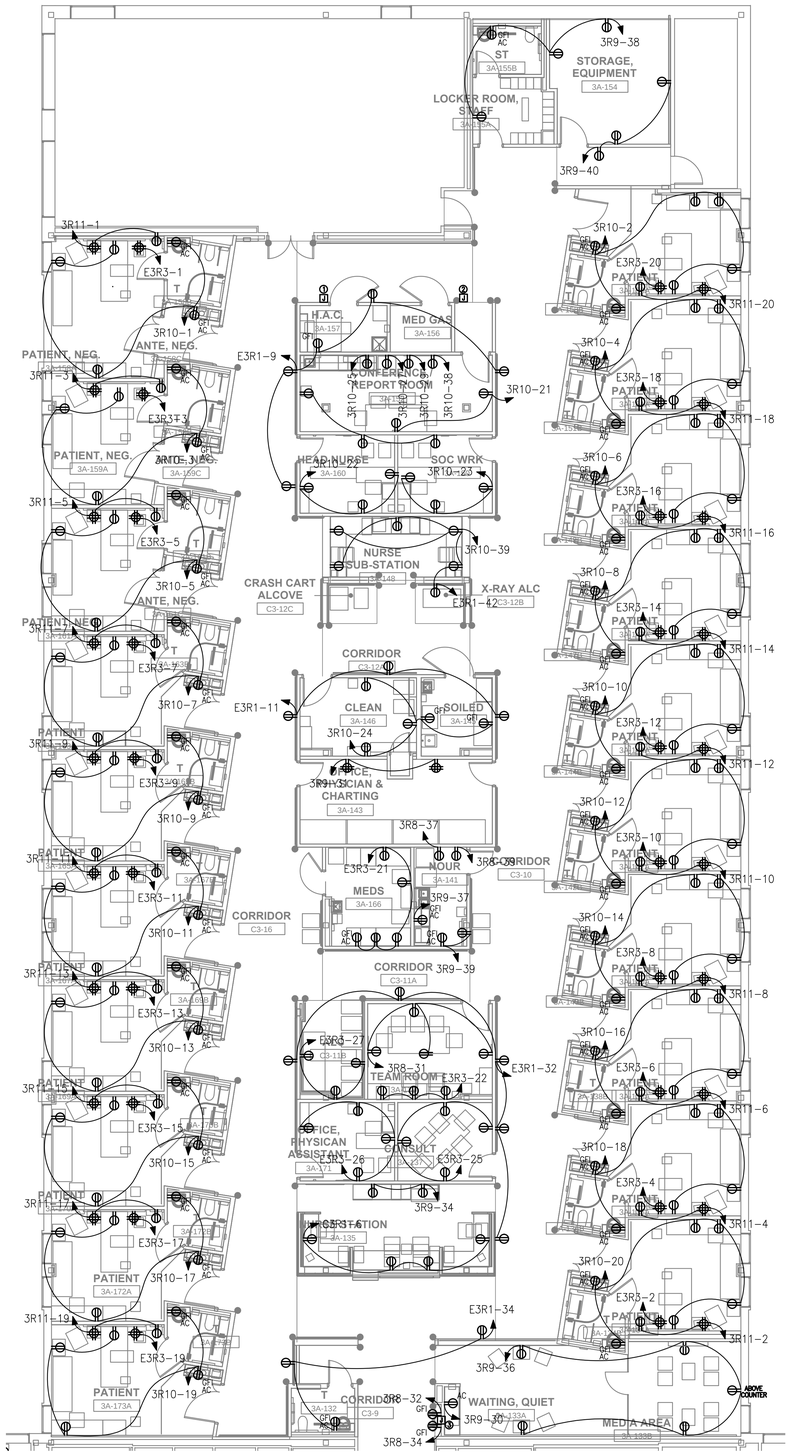
Drawing Number: **EL102**

Dwg. 66 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



POWER PLAN - NEW WORK

SCALE 1/8" = 1'-0"

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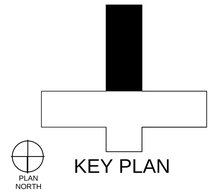
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.

NEW WORK NOTES

1. PROVIDE JUNCTION BOX FOR ACCESS CONTROL. SEE ACCESS CONTROL DETAIL ON DRAWING ET101. SEE MOUNTING DETAIL ON ET501.
2. PROVIDE JUNCTION BOX FOR 120V POWER TO MEDICAL GAS CONTROL POWER. SEE MOUNTING DETAIL ON ET501.
3. PROVIDE JUNCTION BOX FOR 120V TO WATER FOUNTAINS. SEE MOUNTING DETAIL ON ET501.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/31/07

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

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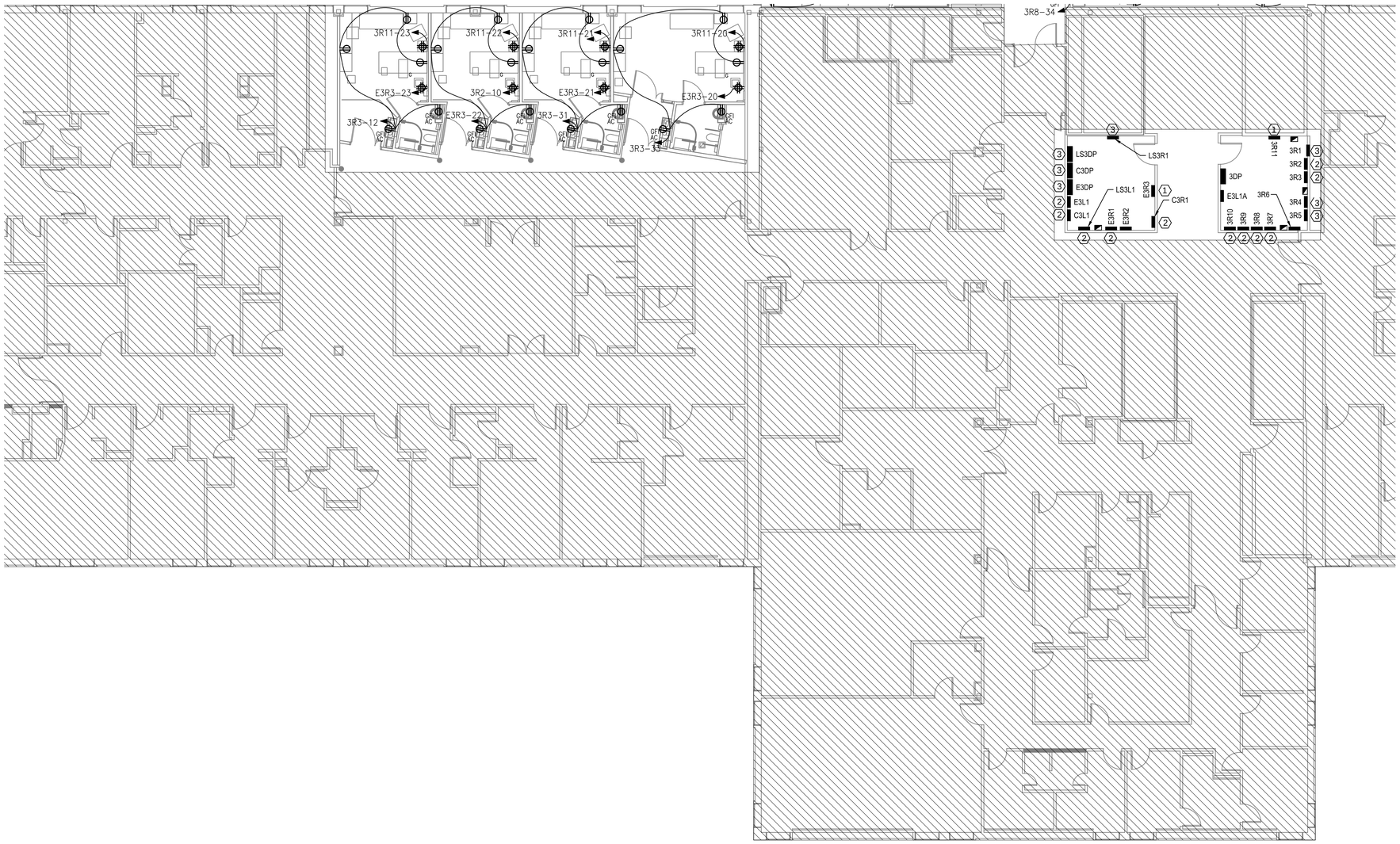
Drawing Title: POWER PLAN - NEW WORK	Project Title: RENOVATE MEDICAL SURGICAL UNIT		Project Number: 544-13-102
			Building Number: 100
Approved: Project Director	Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC		Drawing Number: EP101
	Date: 05/16/2014	Checked: RLB	Drawn: DLA

Dwg. 67 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



POWER PLAN - NEW WORK

SCALE 1/8" = 1'-0"

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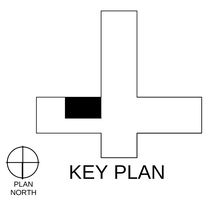
6. PLANS SHOW REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. HOMERUNS SHOWN ARE SCHEMATIC. HOMERUNS MAY ORIGINATE FROM DIFFERENT LOCATIONS. ALL WIRES, INCLUDING HOMERUNS, SHALL BE DELINEATED ON RECORD DRAWINGS.
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.

NEW WORK NOTES

1. NEW PANEL
2. EXISTING PANEL W/NEW CIRCUITS
3. EXISTING PANEL (NOT USED)



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: POWER PLAN - NEW WORK

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

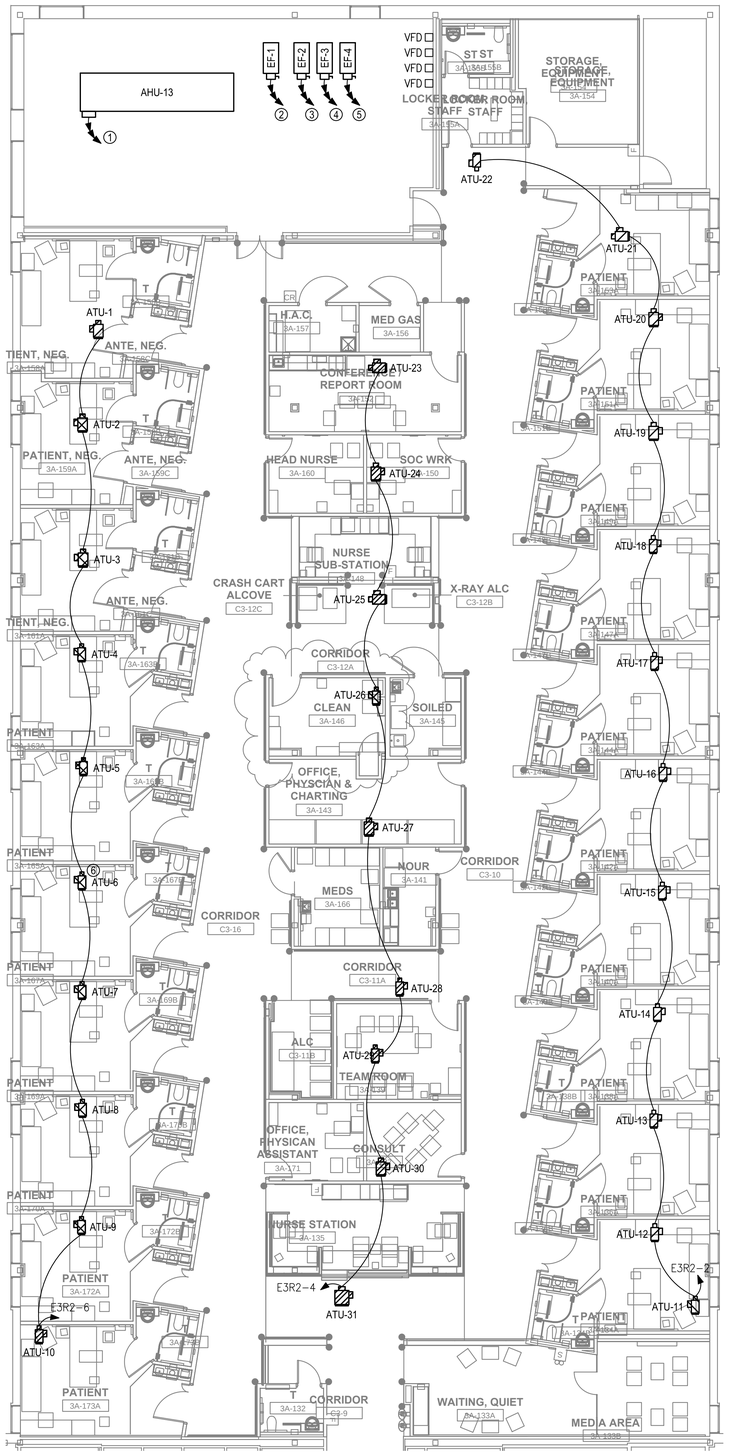
Drawing Number: **EP102**

Dwg. 68 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



HVAC POWER PLAN - NEW WORK

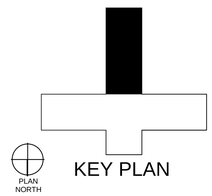
SCALE 1/8" = 1'-0"

GENERAL NEW WORK NOTES

1. ALL ELECTRICAL WIRING CONDUIT, DEVICES, EQUIPMENT, AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. PROVIDE ALL CONDUCTORS, CONDUITS, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2012 EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (IEEE C-2) APPROVED OR ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE NATIONAL ELECTRICAL CODE (NFPA 70).
3. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
4. ALL INTERIOR ELECTRICAL WIRING SHALL BE IN METALLIC CONDUIT UNLESS OTHERWISE NOTED.
5. PROVIDE FLEXIBLE METALLIC CONDUIT TO ALL MOTOR OPERATE EQUIPMENT.
6. PLANS SHOW REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. HOMERUNS SHOWN ARE SCHEMATIC. HOMERUNS MAY ORIGINATE FROM DIFFERENT LOCATIONS. ALL WIRES, INCLUDING HOMERUNS, SHALL BE DELINEATED ON RECORD DRAWINGS.
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.

NEW WORK NOTES

1. PROVIDE NEW 45A, 480V, 3Ø CIRCUIT BREAKER IN SPARE SPACE OF EXISTING MCC-3C LEFT BARE BY DEMOLITION OF EXISTING AHU13. NEW CIRCUIT SHALL BE (3) #8 AWG W/ #10 GND; 3/4" CONDUIT.
2. PROVIDE NEW 20A, 480V, 3Ø CIRCUIT BREAKER IN SPARE SPACE OF EXISTING MCC-3C LEFT BARE BY DEMOLITION OF EXISTING AHU15. NEW CIRCUIT SHALL BE (3) #12 AWG W/ #12 GND; 3/4" CONDUIT.
3. PROVIDE NEW 20A, 480V, 3Ø CIRCUIT BREAKER IN SPARE SPACE OF EXISTING MCC-3C LEFT BARE BY DEMOLITION OF EXISTING EXHAUST FAN 13 . NEW CIRCUIT SHALL BE (3) #12 AWG W/ #12 GND; 3/4" CONDUIT.
4. PROVIDE NEW 20A, 480V, 3Ø CIRCUIT BREAKER IN SPARE SPACE OF EXISTING MCC-3C LEFT BARE BY DEMOLITION OF EXISTING EXHAUST FAN 15. NEW CIRCUIT SHALL BE (3) #12 AWG W/ #12 GND; 3/4" CONDUIT.
5. PROVIDE NEW 20A, 480V, 3Ø CIRCUIT BREAKER IN SPARE SPACE OF EXISTING MCC-3C. NEW CIRCUIT SHALL BE (3) #12 AWG W/ #12 GND; 3/4" CONDUIT.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title	HVAC POWER PLAN - NEW WORK
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Project Number	544-13-102
Building Number	100
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Checked	RLB
Drawn	DLA
Drawing Number	EP103
Dwg. 69 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

HVAC POWER PLAN - NEW WORK

SCALE 1/8" = 1'-0"

GENERAL NEW WORK NOTES

1. ALL ELECTRICAL WIRING CONDUIT, DEVICES, EQUIPMENT, AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. PROVIDE ALL CONDUCTORS, CONDUITS, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
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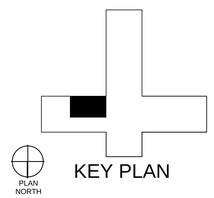
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.

NEW WORK NOTES

1. SEE ENLARGED PATIENT ROOM PLAN ON THIS SHEET FOR RECEPTACLE LAYOUT.
2. POWER TO EF-5 & EF-6 FROM MCC-C3.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

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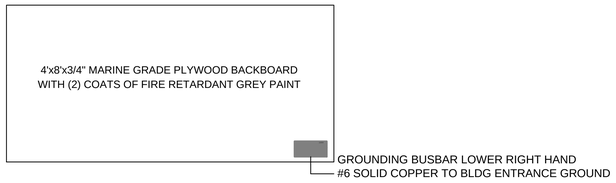
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title	HVAC POWER PLAN - NEW WORK
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Checked	RLB
Drawn	DLA
Project Number	544-13-102
Building Number	100
Drawing Number	EP104
Dwg.	70 of 78

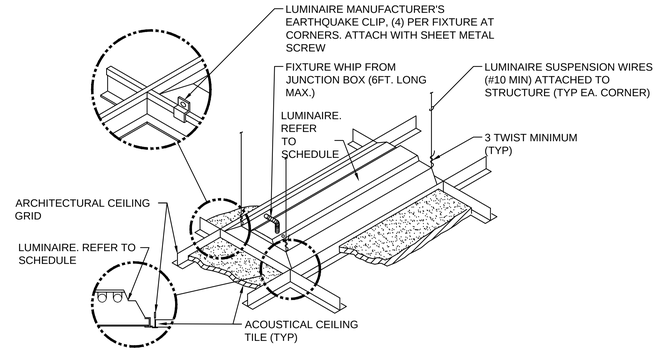
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

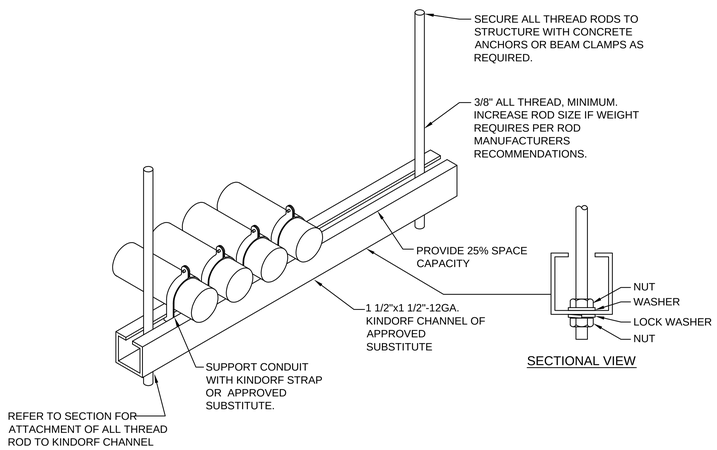
VA FORM 08-6231



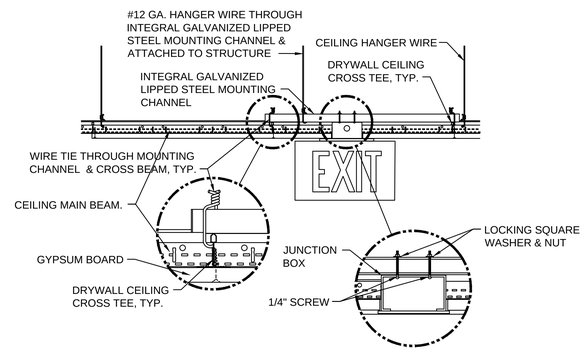
DATA/COMM BACKBOARD
NTS



SEISMIC RESTRAINT FOR FLUORESCENT
TROFFER LIGHT FIXTURE
NTS

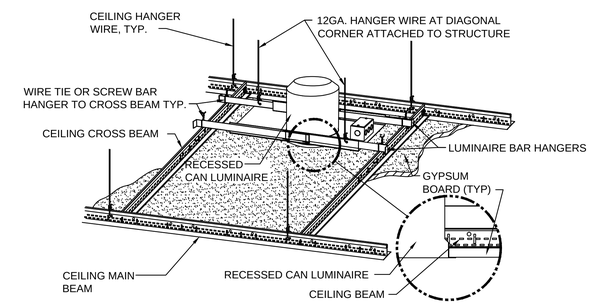


TRAPEZE SUPPORT DETAIL
NTS

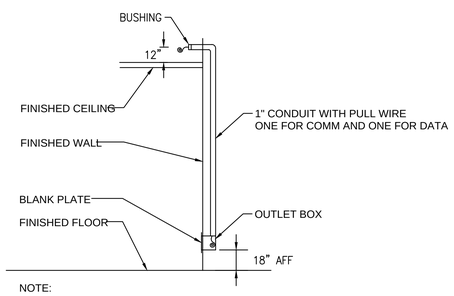


NOTE: EXIT SIGN LETTERING TO BE IN RED ONLY. USE
SHADED QUADRANTS AND ARROWS TO INDICATE DIRECTION

EXIT SIGN MOUNTING - GYPBOARD CEILING
NTS

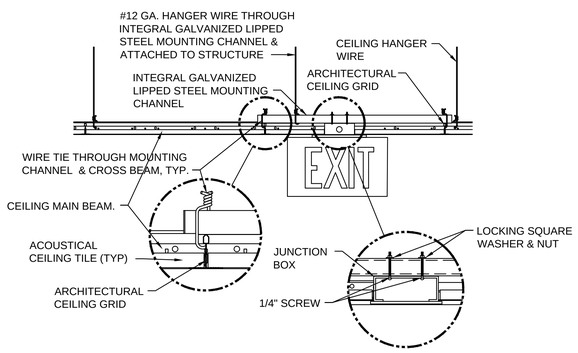


DOWNLIGHT MOUNTING - GYPBOARD CEILING
NTS



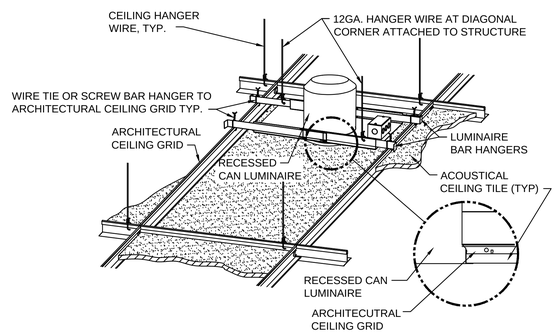
NOTE:
1. CONTRACTOR SHALL PROVIDE BOX, BLANK PLATE, CONDUIT AND PULLWIRE ONLY.

COMM/DATA OUTLET
NTS



NOTE: EXIT SIGN LETTERING TO BE IN RED ONLY. USE
SHADED QUADRANTS AND ARROWS TO INDICATE DIRECTION

EXIT SIGN MOUNTING - LAY-IN CEILING
NTS



DOWNLIGHT MOUNTING - LAY-IN CEILING
NTS

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER
No. 13668
ROGER L. BLUE
5/21/014

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: ELECTRICAL DETAILS

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

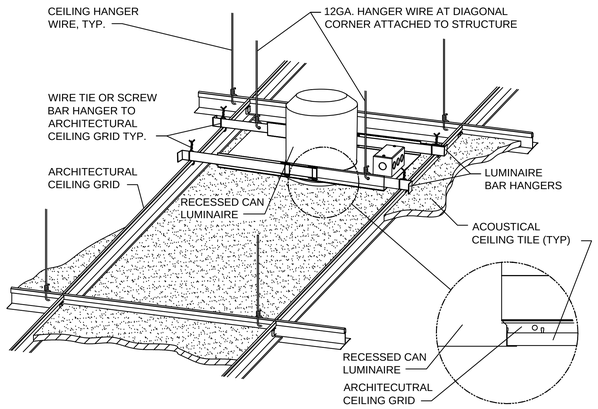
Drawing Number: **E501**

Dwg. 71 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

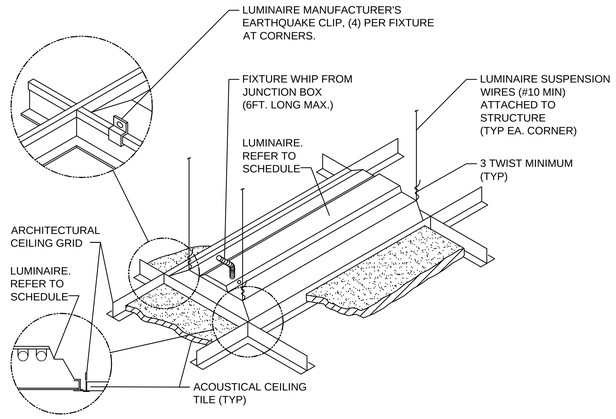
Department of Veterans Affairs

VA FORM 08-6231



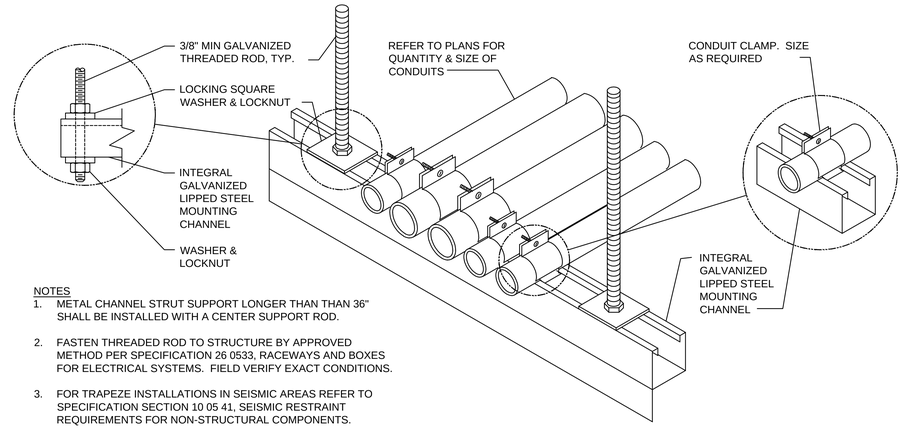
DOWNLIGHT MOUNTING - LAY-IN CEILING

NTS



LUMINAIRE MOUNTING - LAY-IN CEILING

NTS

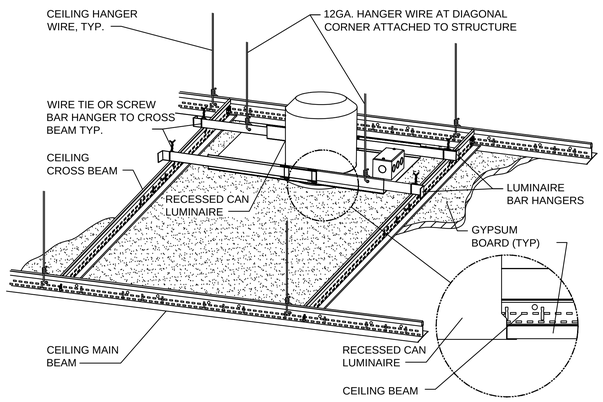


NOTES

1. METAL CHANNEL STRUT SUPPORT LONGER THAN THAN 36" SHALL BE INSTALLED WITH A CENTER SUPPORT ROD.
2. FASTEN THREADED ROD TO STRUCTURE BY APPROVED METHOD PER SPECIFICATION 26 0533, RACEWAYS AND BOXES FOR ELECTRICAL SYSTEMS. FIELD VERIFY EXACT CONDITIONS.
3. FOR TRAPEZE INSTALLATIONS IN SEISMIC AREAS REFER TO SPECIFICATION SECTION 10 05 41, SEISMIC RESTRAINT REQUIREMENTS FOR NON-STRUCTURAL COMPONENTS.

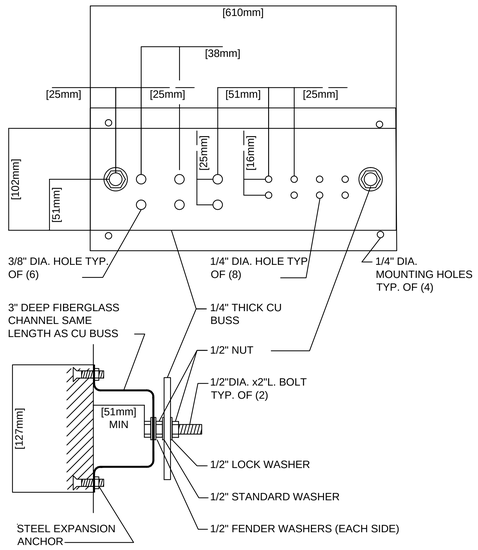
CONDUIT TRAPEZE MOUNTING DETAIL

NTS



DOWNLIGHT MOUNTING - GYPBOARD CEILING

NTS



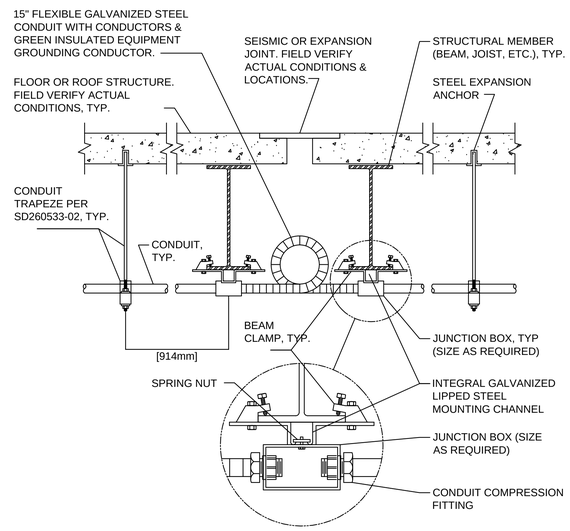
SECTION

GENERAL NOTES

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

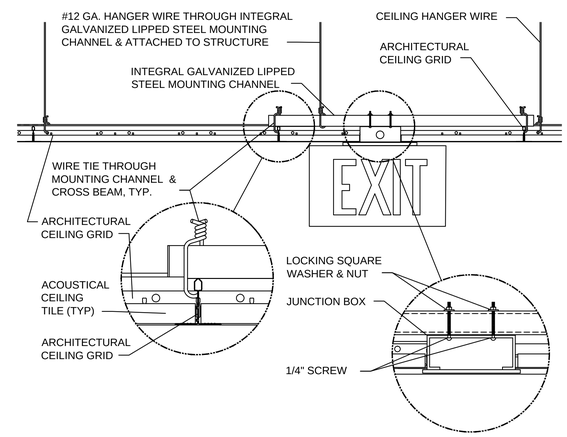
GROUNDING BAR DETAIL

NTS



CONDUIT JOINT CROSSING DETAIL

NTS



EXIT SIGN MOUNTING - LAY-IN CEILING

NTS

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

THESE DRAWINGS ARE NOT TO BE USED FOR CONSTRUCTION, BIDDING, RECORDATION, CONVEYANCE, SALES, OR AS THE BASIS FOR THE ISSUANCE OF A PERMIT

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: ELECTRICAL DETAILS

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: E502

Dwg. 72 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

PANEL: 3R8 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1	¾	1	10	10	10	20	1		PBPU-RM 3A-158A						PBPU-RM 3A-167A		1	20	10	10	10	1	¾	2
3	¾	1	10	10	10	20	1		PBPU-RM 3A-158A						PBPU-RM 3A-167A		1	20	10	10	10	1	¾	4
5	¾	1	10	10	10	20	1		PBPU-RM 3A-158A						PBPU-RM 3A-167A		1	20	10	10	10	1	¾	6
7	¾	1	10	10	10	20	1		PBPU-RM 3A-159A						PBPU-RM 3A-169A		1	20	10	10	10	1	¾	8
9	¾	1	10	10	10	20	1		PBPU-RM 3A-159A						PBPU-RM 3A-169A		1	20	10	10	10	1	¾	10
11	¾	1	10	10	10	20	1		PBPU-RM 3A-159A						PBPU-RM 3A-169A		1	20	10	10	10	1	¾	12
13	¾	1	10	10	10	20	1		PBPU-RM 3A-161A						PBPU-RM 3A-170A		1	20	10	10	10	1	¾	14
15	¾	1	10	10	10	20	1		PBPU-RM 3A-161A						PBPU-RM 3A-170A		1	20	10	10	10	1	¾	16
17	¾	1	10	10	10	20	1		PBPU-RM 3A-161A						PBPU-RM 3A-170A		1	20	10	10	10	1	¾	18
19	¾	1	10	10	10	20	1		PBPU-RM 3A-163A						PBPU-RM 3A-172A		1	20	10	10	10	1	¾	20
21	¾	1	10	10	10	20	1		PBPU-RM 3A-163A						PBPU-RM 3A-172A		1	20	10	10	10	1	¾	22
23	¾	1	10	10	10	20	1		PBPU-RM 3A-163A						PBPU-RM 3A-172A		1	20	10	10	10	1	¾	24
25	¾	1	10	10	10	20	1		PBPU-RM 3A-165A						PBPU-RM 3A-173A		1	20	10	10	10	1	¾	26
27	¾	1	10	10	10	20	1		PBPU-RM 3A-165A						PBPU-RM 3A-173A		1	20	10	10	10	1	¾	28
29	¾	1	10	10	10	20	1		PBPU-RM 3A-165A						PBPU-RM 3A-173A		1	20	10	10	10	1	¾	30
31	¾	1	10	10	10	20	1		RECPT-RM 3A-139						WATER COOLER		1	20	12	12	12	1	¾	32
33	¾	1	10	10	10	20	1		RECPT-RM 3A-139						WATER COOLER		1	20	12	12	12	1	¾	34
35						20	1		SPARE						EXISTING CIRCUIT									36
37	¾	1	8	8	8	20	1		ICE MAKER	10.5					EXISTING CIRCUIT									38
39	¾	1	8	8	8	20	1		REFRIGERATOR	15.0					EXISTING CIRCUIT									40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: 3R2 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						PBPU-RM 3C-104A		1	20	10	10	10	1	¾	2
3									EXISTING CIRCUIT						PBPU-RM 3C-104A		1	20	10	10	10	1	¾	4
5									EXISTING CIRCUIT						PBPU-RM 3C-104A		1	20	10	10	10	1	¾	6
7									EXISTING CIRCUIT						PBPU-RM 3C-103A		1	20	10	10	10	1	¾	8
9									EXISTING CIRCUIT						PBPU-RM 3C-103A		1	20	10	10	10	1	¾	10
11									EXISTING CIRCUIT						PBPU-RM 3C-103A		1	20	10	10	10	1	¾	12
13									EXISTING CIRCUIT						PBPU-RM 3C-102A		1	20	10	10	10	1	¾	14
15									EXISTING CIRCUIT						PBPU-RM 3C-102A		1	20	10	10	10	1	¾	16
17									EXISTING CIRCUIT						PBPU-RM 3C-102A		1	20	10	10	10	1	¾	18
19									EXISTING CIRCUIT						PBPU-RM 3C-101A		1	20	10	10	10	1	¾	20
21									EXISTING CIRCUIT						PBPU-RM 3C-101A		1	20	10	10	10	1	¾	22
23									EXISTING CIRCUIT						PBPU-RM 3C-101A		1	20	10	10	10	1	¾	24
25									EXISTING CIRCUIT						EXISTING CIRCUIT									26
27									EXISTING CIRCUIT						EXISTING CIRCUIT									28
29									EXISTING CIRCUIT						EXISTING CIRCUIT									30
31									EXISTING CIRCUIT						EXISTING CIRCUIT									32
33									EXISTING CIRCUIT						EXISTING CIRCUIT									34
35									EXISTING CIRCUIT						EXISTING CIRCUIT									36
37									EXISTING CIRCUIT						EXISTING CIRCUIT									38
39									EXISTING CIRCUIT						EXISTING CIRCUIT									40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: C3R1 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5									EXISTING CIRCUIT					7.2	RECPT-RM 3A-135		1	20	10	10	10	1	¾	6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						EXISTING CIRCUIT									10
11									EXISTING CIRCUIT						EXISTING CIRCUIT									12
13									EXISTING CIRCUIT						EXISTING CIRCUIT									14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18
19									EXISTING CIRCUIT						EXISTING CIRCUIT									20
21									EXISTING CIRCUIT						EXISTING CIRCUIT									22
23									EXISTING CIRCUIT						EXISTING CIRCUIT									24
25									EXISTING CIRCUIT						EXISTING CIRCUIT									26
27									EXISTING CIRCUIT						EXISTING CIRCUIT									28
29									EXISTING CIRCUIT						EXISTING CIRCUIT									30
31									EXISTING CIRCUIT						EXISTING CIRCUIT									32
33									EXISTING CIRCUIT						EXISTING CIRCUIT									34
35									EXISTING CIRCUIT						EXISTING CIRCUIT									36
37									EXISTING CIRCUIT						EXISTING CIRCUIT									38
39									EXISTING CIRCUIT						EXISTING CIRCUIT									40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: 3R9 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1	¾	1	10	10	10	20	1		PBPU-RM 3A-153A						PBPU-RM 3A-142A		1	20	10	10	10	1	¾	2
3	¾	1	10	10	10	20	1		PBPU-RM 3A-153A						PBPU-RM 3A-142A		1	20	10	10	10	1	¾	4
5	¾	1	10	10	10	20	1		PBPU-RM 3A-153A						PBPU-RM 3A-142A		1	20	10	10	10	1	¾	6
7	¾	1	10	10	10	20	1		PBPU-RM 3A-151A						PBPU-RM 3A-140A		1	20	10	10	10	1	¾	8
9	¾	1	10	10	10	20	1		PBPU-RM 3A-151A						PBPU-RM 3A-140A		1	20	10	10	10	1	¾	10
11	¾	1	10	10	10	20	1		PBPU-RM 3A-151A						PBPU-RM 3A-140A		1	20	10	10	10	1	¾	12
13	¾	1	10	10	10	20	1		PBPU-RM 3A-149A						PBPU-RM 3A-138A		1	20	10	10	10	1	¾	14
15	¾	1	10	10	10	20	1		PBPU-RM 3A-149A						PBPU-RM 3A-138A		1	20	10	10	10	1	¾	16
17	¾	1	10	10	10	20	1		PBPU-RM 3A-149A						PBPU-RM 3A-138A		1	20	10	10	10	1	¾	18
19	¾	1	10	10	10	20	1		PBPU-RM 3A-147A						PBPU-RM 3A-136A		1	20	10	10	10	1	¾	20
21	¾	1	10	10	10	20	1		PBPU-RM 3A-147A						PBPU-RM 3A-136A		1	20	10	10	10	1	¾	22
23	¾	1	10	10	10	20	1		PBPU-RM 3A-147A						PBPU-RM 3A-136A		1	20	10	10	10	1	¾	24
25	¾	1	10	10	10	20	1		PBPU-RM 3A-144A						PBPU-RM 3A-134A		1	20	10	10	10	1	¾	26
27	¾	1	10	10	10	20	1		PBPU-RM 3A-144A						PBPU-RM 3A-134A		1	20	10	10	10	1	¾	28
29	¾	1	10	10	10	20	1		PBPU-RM 3A-144A						PBPU-RM 3A-134A		1	20	10	10	10	1	¾	30
31	¾	1	10	10	10	20	1		RECPT-RM 3A-143						SPARE		1	20					¾	32
33						20	1		SPARE						RECPT-RM 3A-135		1	20	10	10	10	1	¾	34
35						20	1		SPARE						RECPT-RM 3A-133A,B		1	20	12	12	12	1	¾	36
37	¾	1	8	8	8	20	1		RECPT-RM 3A-141	10.0				4.5	RECPT-RM 3A-154,155B		1	20	10	10	10	1	¾	38
39	¾	1	8	8	8	20	1		COFFEE MAKER	15.0				4.5	RECPT-RM 3A-154		1	20	10	10	10	1	¾	40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: 3R3 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5									EXISTING CIRCUIT						EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						EXISTING CIRCUIT									10
11									EXISTING CIRCUIT					7.2	RECPT-RM 3C-104A,B		1	20	10	10	10	1	¾	12
13									EXISTING CIRCUIT					7.2	RECPT-RM 3C-103A,B		1	20	10	10	10	1	¾	14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18
19									EXISTING CIRCUIT						EXISTING CIRCUIT									20
21									EXISTING CIRCUIT						EXISTING CIRCUIT									22
23									EXISTING CIRCUIT						EXISTING CIRCUIT									24
25									EXISTING CIRCUIT						EXISTING CIRCUIT									26
27									EXISTING CIRCUIT						EXISTING CIRCUIT									28
29									EXISTING CIRCUIT						EXISTING CIRCUIT									30
31	¾	1	10	10	10	20	1		RECPT-RM 3C102A,B	7.2					EXISTING CIRCUIT									32
33	¾	1	10	10	10	20	1		RECPT-RM 3C101A,B	7.2					EXISTING CIRCUIT									34
35									EXISTING CIRCUIT						EXISTING CIRCUIT									36
37									EXISTING CIRCUIT						EXISTING CIRCUIT									38
39									EXISTING CIRCUIT						EXISTING CIRCUIT									40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: E3L1 (EXISTING) — VOLTAGE: 480/277V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5	¾	1	10	10	10	20	1		LTS-RM C3-12C, 3A-165A, 167A, 169A, 170A, 172A	4.0					EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						EXISTING CIRCUIT									10
11									EXISTING CIRCUIT						EXISTING CIRCUIT									12
13									EXISTING CIRCUIT						EXISTING CIRCUIT									14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18

PANEL: E3L1A (EXISTING) — VOLTAGE: 480/277V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5									EXISTING CIRCUIT						EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						SPARE		1	20						10
11									EXISTING CIRCUIT						SPARE		1	20						12
13									EXISTING CIRCUIT						SPARE		1	20						14
15									EXISTING CIRCUIT					4.0	LTS-RM 3A-143, 146, 148, 152, 154, 155, 158		1	20	10	10	10	1	¾	16
17									EXISTING CIRCUIT					8.0	LTS-RM 3A-149B, 151B, 153B, 154, 147, C3-121B		1	20	10	10	10	1	¾	18
19									EXISTING CIRCUIT					4.0	LTS-RM 3A-165A, 167A, 169A, 170A, 172A, 173A, C3-12C		1	20	10	10	10	1	¾	20
21	¾	1	10	10	10	20	1		LTS-RM 3A-135, 137, 139, 166, C3-11B					4.0	LTS-RM C3-10, 3A-134, 136, 138, 140, 142, 144		1	20	10	10	10	1	¾	22
23									EXISTING CIRCUIT						EXISTING CIRCUIT									24
25									EXISTING CIRCUIT						EXISTING CIRCUIT									26
27									EXISTING CIRCUIT						EXISTING CIRCUIT									28
29									EXISTING CIRCUIT						EXISTING CIRCUIT									30

PANEL: 3R10 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1	¾	1	10	10	10	20	1		RECPT-RM 3A-158A,B,C	6.0				6.0	RECPT-RM 3A-153A,B		1	20	10	10	10	1	¾	2
3	¾	1	10	10	10	20	1		RECPT-RM 3A-159A,B,C	6.0				6.0	RECPT-RM 3A-151A,B		1	20	10	10	10	1	¾	4
5	¾	1	10	10	10	20	1		RECPT-RM 3A-161A,B,C	6.0				6.0	RECPT-RM 3A-149A,B		1	20	10	10	10	1	¾	6
7	¾	1	10	10	10	20	1		RECPT-RM 3A-163A,B	6.0				6.0	RECPT-RM 3A-147A,B		1	20	10	10	10	1	¾	8
9	¾	1	10	10	10	20	1		RECPT-RM 3A-165A,B	6.0				6.0	RECPT-RM 3A-144A,B		1	20	10	10	10	1	¾	10
11	¾	1	10	10	10	20	1		RECPT-RM 3A-167A,B	6.0				6.0	RECPT-RM 3A-142A,B		1	20	10	10	10	1	¾	12
13	¾	1	10	10	10	20	1		RECPT-RM 3A-169A,B	6.0				6.0	RECPT-RM 3A-140A,B		1	20	12	12	12	1	¾	14
15	¾	1	10	10	10	20	1		RECPT-RM 3A-170A,B	6.0				6.0	RECPT-RM 3A-138A,B		1	20	12	12	12	1	¾	16
17	¾	1	10	10	10	20	1		RECPT-RM 3A-172A,B	6.0				6.0	RECPT-RM 3A-136A,B		1	20	12	12	12	1	¾	18
19	¾	1	10	10	10	20	1		RECPT-RM 3A-173A,B	6.0				6.0	RECPT-RM 3A-134A,B		1	20	12	12	12	1	¾	20
21	¾	1	10	10	10	20	1		RECPT-RM 3A-152						RECPT-RM 3A-160		1	20	12	12	12	1	¾	22
23	¾	1	10	10	10	20	1		RECPT-RM 3A-150						RECPT-RM 3A-146		1	20	12	12	12	1	¾	24
25	¾	1	8	8	8	20	1		MICROWAVE	8.4					EXISTING CIRCUIT									26
27	¾	1	6	6	6	20	1		REFRIGERATOR	15.0					EXISTING CIRCUIT									28
29	¾	1	8	8	8	20	1		VENDING MACHINE	7.0					EXISTING CIRCUIT									30
31									EXISTING CIRCUIT						EXISTING CIRCUIT									32
33									EXISTING CIRCUIT						EXISTING CIRCUIT									34
35									EXISTING CIRCUIT						EXISTING CIRCUIT									36
37									EXISTING CIRCUIT					7.0	VENDING MACHINE		1	20	8	8	8	1	¾	38
39	¾	1	12	12	12	20	1		RECPT-RM 3A-148	1.5					EXISTING CIRCUIT									40
41									EXISTING CIRCUIT						EXISTING CIRCUIT									42

PANEL: E3R1 (EXISTING) — VOLTAGE: 208/120V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5									EXISTING CIRCUIT						EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9	¾	1	10	10	10	20	1		RECPT-CORRIDOR	7.2					EXISTING CIRCUIT									10
11	¾	1	10	10	10	20	1		RECPT-CORRIDOR	5.4					EXISTING CIRCUIT									12
13									EXISTING CIRCUIT						EXISTING CIRCUIT									14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18
19									EXISTING CIRCUIT						EXISTING CIRCUIT									20
21									EXISTING CIRCUIT						EXISTING CIRCUIT									22
23									EXISTING CIRCUIT						EXISTING CIRCUIT									24
25									EXISTING CIRCUIT						EXISTING CIRCUIT									26
27									EXISTING CIRCUIT						EXISTING CIRCUIT									28
29									EXISTING CIRCUIT						EXISTING CIRCUIT									30
31									EXISTING CIRCUIT					5.4	RECPT-CORRIDOR		1	20	10	10	10	1	¾	32
33									EXISTING CIRCUIT					5.4	RECPT-CORRIDOR3A-132		1	20	10	10	10	1	¾	34
35									EXISTING CIRCUIT						EXISTING CIRCUIT									36
37									EXISTING CIRCUIT						EXISTING CIRCUIT									38
39									EXISTING CIRCUIT						EXISTING CIRCUIT									40
41									EXISTING CIRCUIT					9.0	RECPT-RM 3A-148,C3-12B		1	20	10	10	10	1	¾	42

PANEL: C3L1 (EXISTING) — VOLTAGE: 480/277V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5						20	1		SPARE						EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						EXISTING CIRCUIT									10
11									EXISTING CIRCUIT						EXISTING CIRCUIT									12
13									EXISTING CIRCUIT						EXISTING CIRCUIT									14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18

PANEL: LS3L1 (EXISTING) — VOLTAGE: 480/277V 3P 4W — TYPE: SURFACE MOUNT — MAINS:

CKT	SIZE CONDUIT	NO. RUNS	NEUT	PHASE	GRD.	AMP TRIP	POLE	KAIC	DESIGNATION	AMPS	ØA	ØB	ØC	AMPS	DESIGNATION	KAIC	POLE	AMP TRIP	GRD.	PHASE	NEUT	NO. RUNS	SIZE CONDUIT	CKT
1									EXISTING CIRCUIT						EXISTING CIRCUIT									2
3									EXISTING CIRCUIT						EXISTING CIRCUIT									4
5						20	1		SPARE						EXISTING CIRCUIT									6
7									EXISTING CIRCUIT						EXISTING CIRCUIT									8
9									EXISTING CIRCUIT						EXISTING CIRCUIT									10
11									EXISTING CIRCUIT						EXISTING CIRCUIT									12
13									EXISTING CIRCUIT						EXISTING CIRCUIT									14
15									EXISTING CIRCUIT						EXISTING CIRCUIT									16
17									EXISTING CIRCUIT						EXISTING CIRCUIT									18

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Revisions: | Date

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Drawing Title: ELECTRICAL PANEL SCHEDULES

Approved: Project Director

Project Title: RENOVATE MEDICAL SURGICAL UNIT

Location: W.J. BRYAN DORN VAMC; COLUMBIA, SC

Date: 05/16/2014 | Checked: RLB | Drawn: DLA

Project Number: 544-13-102

Building Number: 100

Drawing Number: E601

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

PANEL: 3R11 (NEW) TYPE: SURFACE MOUNT
VOLTAGE: 208/120V 3P 4W MAINS:

CIRCUIT NO.	POWER CABLE SIZE CONDUIT	NO.RUNS	NEUT	PHASE	GRD.	DEVICE AMP TRIP	POLE	KAIC	BRANCH CIRCUIT DESIGNATION	AMPS	PHASE LOAD (KVA) ØA	ØB	ØC	AMPS	BRANCH CIRCUIT DESIGNATION	DEVICE KAIC	POLE	AMP TRIP	GRD.	POWER CABLE PHASE	NEUT	NO.RUNS	SIZE CONDUIT	CURCUIT NO.
1	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	2
3	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	4
5	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	6
7	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	8
9	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	10
11	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	12
13	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	14
15	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	16
17	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	18
19	¾	1	10	10	10	20	1		RECPT- RM	4.0				4.0	RECPT- RM		1	20	10	10	10	1	¾	20
21	¾	1	10	10	10	20	1		LTGS-RM 3A-158 A,B,C 159 A,B,C, 161 A,B,C 163 A,B,C, 165 A,B,C 167 A,B, 170 A,B, 172 A,B. 173 A,B	4.0				4.0	LTS-RM 3A-148, 150, 154, 156, 155A, 155B, 166, 171		1	20	10	10	10	1	¾	22
23	¾	1	10	10	10	20	1		LTGS-RM 3A-C3-9, 10, 16 3A-132	4.0				4.0	LTGS-RM C3-11A, 3A-116, 137, 139, 141, 143, 168, 171		1	20	10	10	10	1	¾	24
25	¾	1	10	10	10	20	1		LTGS-RM 3A-133A,B, C3-10	4.0				4.0	LTGS-RM C3-9, 10, 14, 15, 3A-154		1	20	10	10	10	1	¾	26
27	¾	1	10	10	10	20	1		LTGS-RM 3A-145, 146, 148, 152, 160	4.0				4.0	LTGS-RM 3C-101 A,B, 102 A,B, 103 A,B, 104 A,B		1	20	10	10	10	1	¾	28
29						20	1		SPARE	4.0				4.0	SPARE		1	20						30
31						20	1		SPARE						SPARE		1	20						32
33						20	1		SPARE						SPARE		1	20						34
35						20	1		SPARE						SPARE		1	20						36
37									-						-									38
39									-						-									40
41									-						-									42

PANEL: E3R3 (NEW) TYPE: SURFACE MOUNT
VOLTAGE: 208/120V 3P 4W MAINS:

CIRCUIT NO.	POWER CABLE SIZE CONDUIT	NO.RUNS	NEUT	PHASE	GRD.	DEVICE AMP TRIP	POLE	KAIC	BRANCH CIRCUIT DESIGNATION	AMPS	PHASE LOAD (KVA) ØA	ØB	ØC	AMPS	BRANCH CIRCUIT DESIGNATION	DEVICE KAIC	POLE	AMP TRIP	GRD.	POWER CABLE PHASE	NEUT	NO.RUNS	SIZE CONDUIT	CURCUIT NO.
1	¾	1	10	10	10	20	1		RECPT- RM 3A-158A	4.0				4.0	RECPT- RM 3A-134A		1	20	10	10	10	1	¾	2
3	¾	1	10	10	10	20	1		RECPT- RM 3A-159A	4.0				4.0	RECPT- RM 3A-136A		1	20	10	10	10	1	¾	4
5	¾	1	10	10	10	20	1		RECPT- RM 3A-161A	4.0				4.0	RECPT- RM 3A-138A		1	20	10	10	10	1	¾	6
7	¾	1	10	10	10	20	1		RECPT- RM 3A-163A	4.0				4.0	RECPT- RM 3A-140A		1	20	10	10	10	1	¾	8
9	¾	1	10	10	10	20	1		RECPT- RM 3A-165A	4.0				4.0	RECPT- RM 3A-142A		1	20	10	10	10	1	¾	10
11	¾	1	10	10	10	20	1		RECPT- RM 3A-167A	4.0				4.0	RECPT- RM 3A-144A		1	20	10	10	10	1	¾	12
13	¾	1	10	10	10	20	1		RECPT- RM 3A-169A	4.0				4.0	RECPT- RM 3A-147A		1	20	10	10	10	1	¾	14
15	¾	1	10	10	10	20	1		RECPT- RM 3A-170A	4.0				4.0	RECPT- RM 3A-149A		1	20	10	10	10	1	¾	16
17	¾	1	10	10	10	20	1		RECPT- RM 3A-172A	4.0				4.0	RECPT- RM 3A-151A		1	20	10	10	10	1	¾	18
19	¾	1	10	10	10	20	1		RECPT- RM 3A-173A	4.0				4.0	RECPT- RM 3A-153A		1	20	10	10	10	1	¾	20
21						20	1		SPARE					4.0	RECPT- RM 3A-159A		1	20	10	10	10	1	¾	22
23	¾	1	10	10	10	20	1		RECPT- RM 3A-152	4.0				4.0	RECPT- RM 3A-139A		1	20	10	10	10	1	¾	24
25	¾	1	10	10	10	20	1		RECPT- RM 3A-137	4.0				4.0	RECPT- RM 3A-171		1	20	10	10	10	1		26
27						20	1		SPARE						SPARE		1	20						28
29						20	1		SPARE						SPARE		1	20						30
31						20	1		SPARE						SPARE		1	20						32
33						20	1		SPARE						SPARE		1	20						34
35						20	1		SPARE						SPARE		1	20						36
37									-						-									38
39									-						-									40
41									-						-									42

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Revisions:	Date

CONSULTANTS:

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Drawing Title: ELECTRICAL PANEL SCHEDULES

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** Checked: **RLB** Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

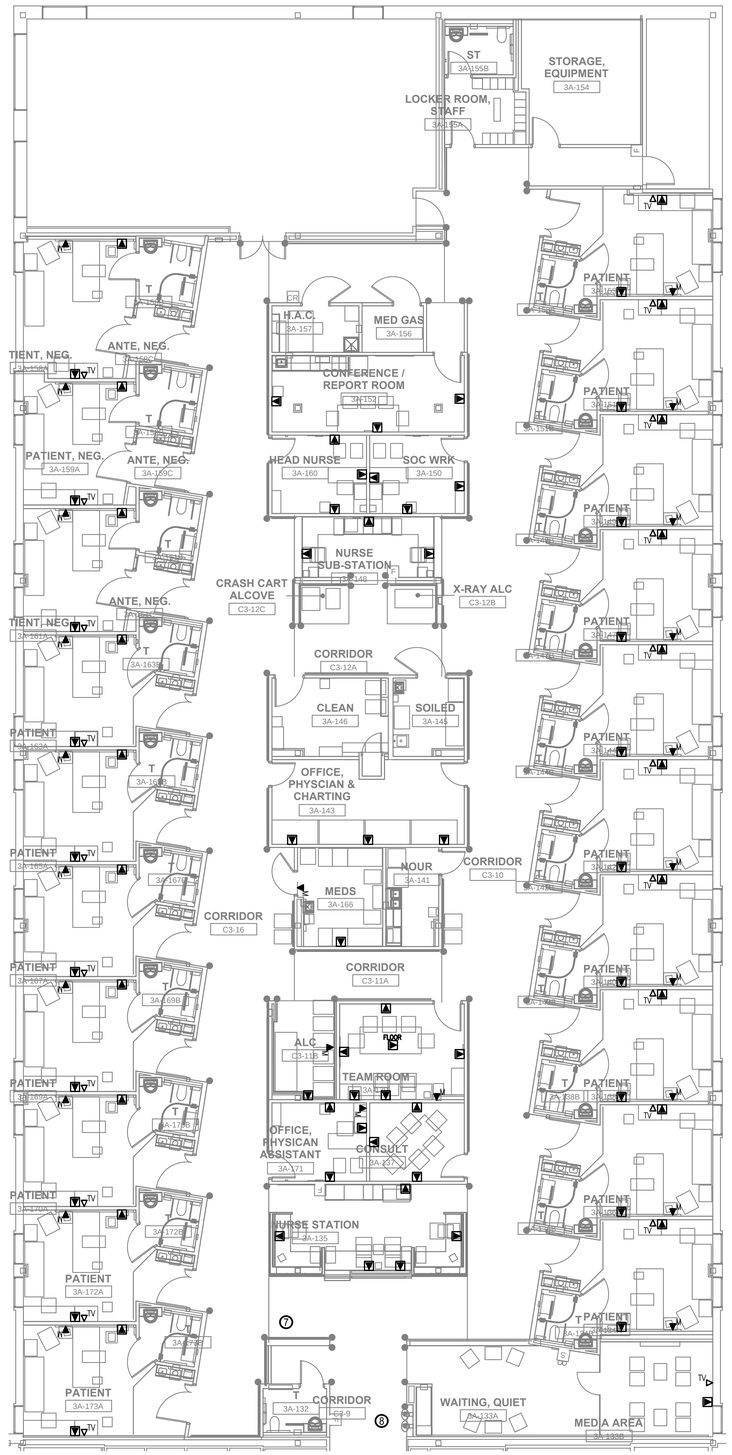
Drawing Number: **E602**

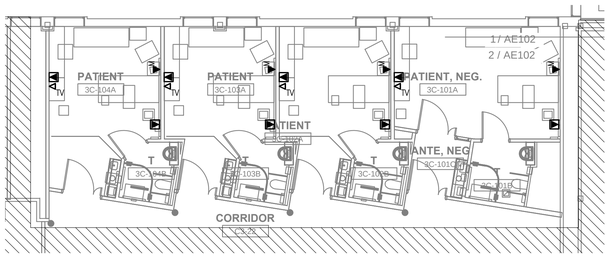
Dwg. 74 of 78

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231



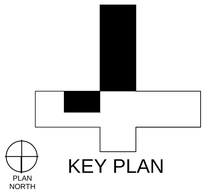


DATA/COMM PLAN - NEW WORK

SCALE 1/8" = 1'-0"

GENERAL NEW WORK NOTES

1. ALL ELECTRICAL WIRING CONDUIT, DEVICES, EQUIPMENT, AND MATERIALS SHALL BE NEW UNLESS OTHERWISE NOTED. PROVIDE ALL CONDUCTORS, CONDUITS, MISCELLANEOUS FITTINGS, ETC. FOR A COMPLETE AND OPERABLE SYSTEM.
2. ALL ELECTRICAL WORK SHALL BE IN ACCORDANCE WITH THE 2012 EDITION OF THE NATIONAL ELECTRIC SAFETY CODE (IEEE C-2) APPROVED OR ADOPTED BY THE LOCAL AUTHORITY HAVING JURISDICTION AND THE NATIONAL ELECTRICAL CODE (NFPA 70).
3. ALL CONDUCTORS SHALL BE COPPER UNLESS OTHERWISE NOTED.
4. ALL INTERIOR ELECTRICAL WIRING SHALL BE IN METALLIC CONDUIT UNLESS OTHERWISE NOTED.
5. PROVIDE FLEXIBLE METALLIC CONDUIT TO ALL MOTOR OPERATE EQUIPMENT.
6. PLANS SHOW REQUIRED BRANCH CIRCUITS INDICATED BY CIRCUIT NUMBER. HOMERUNS SHOWN ARE SCHEMATIC. HOMERUNS MAY ORIGINATE FROM DIFFERENT LOCATIONS. ALL WIRES, INCLUDING HOMERUNS, SHALL BE DELINEATED ON RECORD DRAWINGS.
7. COORDINATE WITH ALL TRADES AND EXISTING CONDITIONS PRIOR TO CONSTRUCTION.
8. ALL EXIT LIGHTING SHALL BE PROVIDED WITH UNSWITCHED POWER.



KEY PLAN

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER NO. 13668 ROGER L. BLIE 5/31/01

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title	DATA/COMM PLAN - NEW WORK
Approved: Project Director	
Project Title	RENOVATE MEDICAL SURGICAL UNIT
Location	W.J. BRYAN DORN VAMC; COLUMBIA, SC
Date	05/16/2014
Checked	RLB
Drawn	DLA
Project Number	544-13-102
Building Number	100
Drawing Number	ET101
Dwg. 75 of 78	

OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231

GENERAL NEW WORK NOTES

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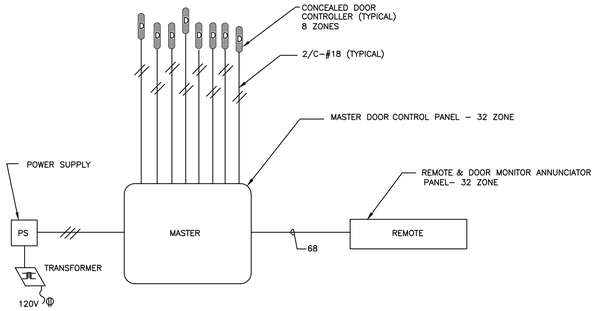
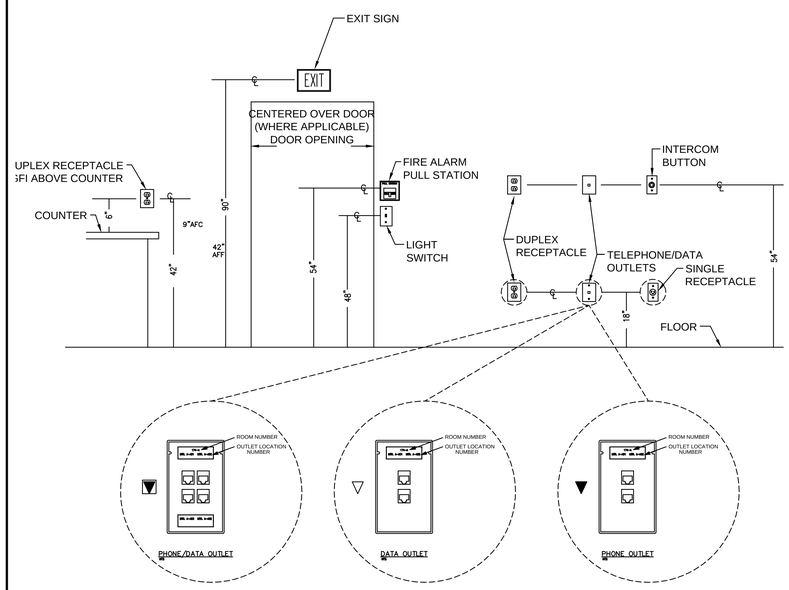
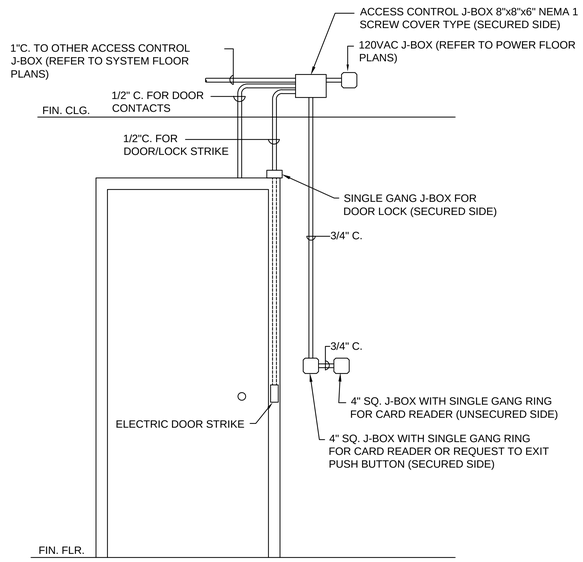


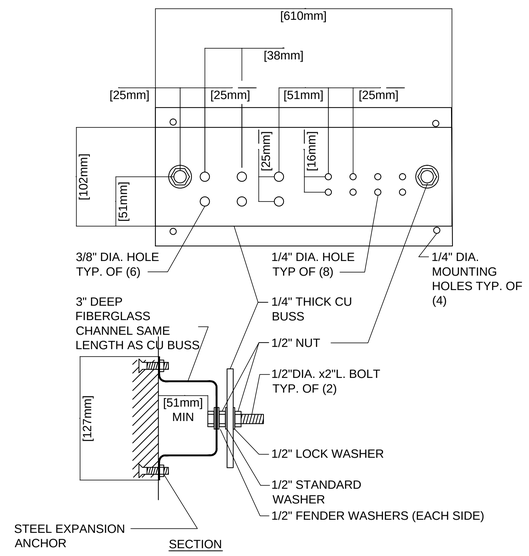
DOOR MONITOR SYSTEM RISER DIAGRAM
NO SCALE



MOUNTING HEIGHT DETAIL
NO SCALE

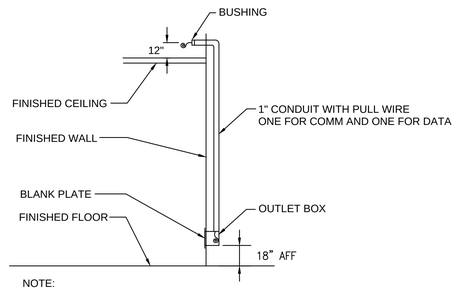


ACCESS CONTROL DETAIL
NO SCALE



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

TELECOM BUSBAR DETAIL
NO SCALE



NOTE:
1. CONTRACTOR SHALL PROVIDE BOX, BLANK PLATE, CONDUIT AND PULLWIRE ONLY.

CONDUIT AND OUTLET DETAIL
NO SCALE

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/014

ARCHITECT/ENGINEERS:

BES DESIGN/BUILD, LLC
766 Middle St, Fairhope, AL 36532
Phone: 251.990.5778
Fax: 251.990.3716

Drawing Title: DATA/COMMUNICATIONS DETAILS

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: ET501

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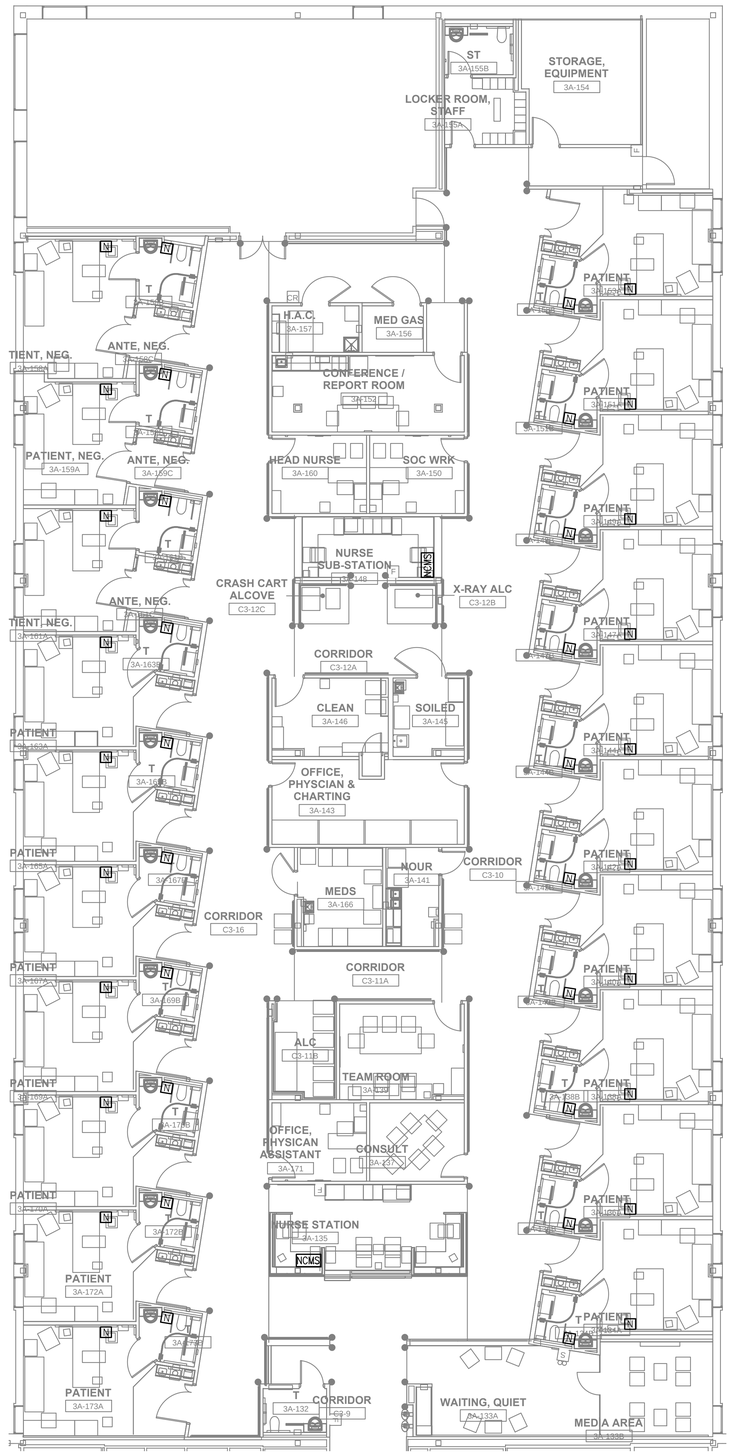
OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231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3A-155B
STORAGE, EQUIPMENT
3A-154
LOCKER ROOM, STAFF
3A-155A
H.A.C.
3A-157
MED GAS
3A-156
CONFERENCE / REPORT ROOM
3A-152
HEAD NURSE
3A-160
SOC WRK
3A-150
NURSE SUB-STATION
3A-148
NCMS
CRASH CART ALCOVE
C3-12C
X-RAY ALC
C3-12B
CORRIDOR
C3-12A
CLEAN
3A-146
SOILED
3A-145
OFFICE, PHYSICIAN & CHARTING
3A-143
NOUR
3A-141
CORRIDOR
C3-10
MEDS
3A-166
CORRIDOR
C3-16
CORRIDOR
C3-11A
ALC
C3-11B
TEAM ROOM
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OFFICE, PHYSICAN ASSISTANT
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CONSULT
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CORRIDOR
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C3-9
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3A-161BT
PATIENT
3A-161BU
PATIENT
3A-161BV
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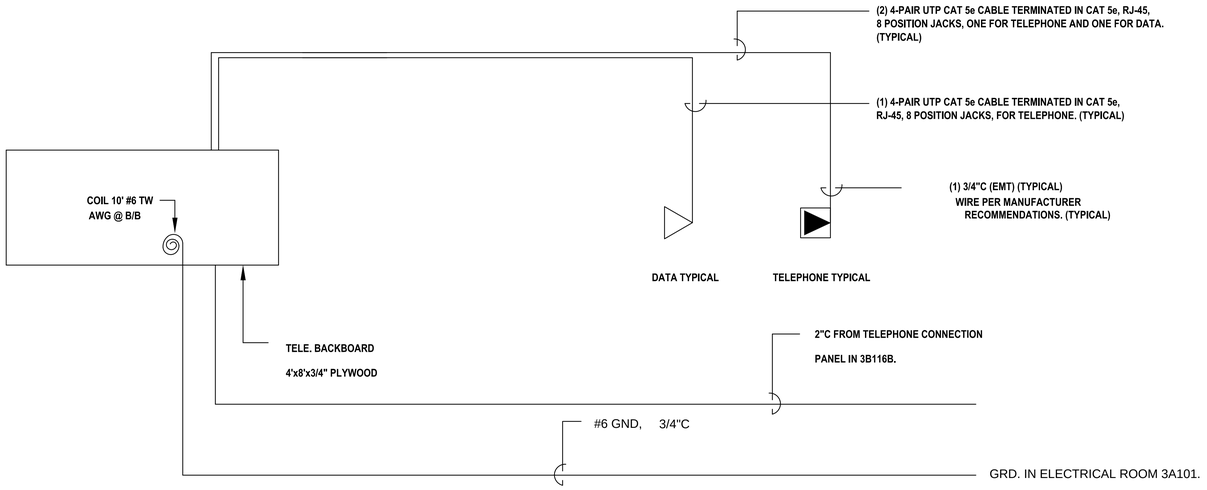
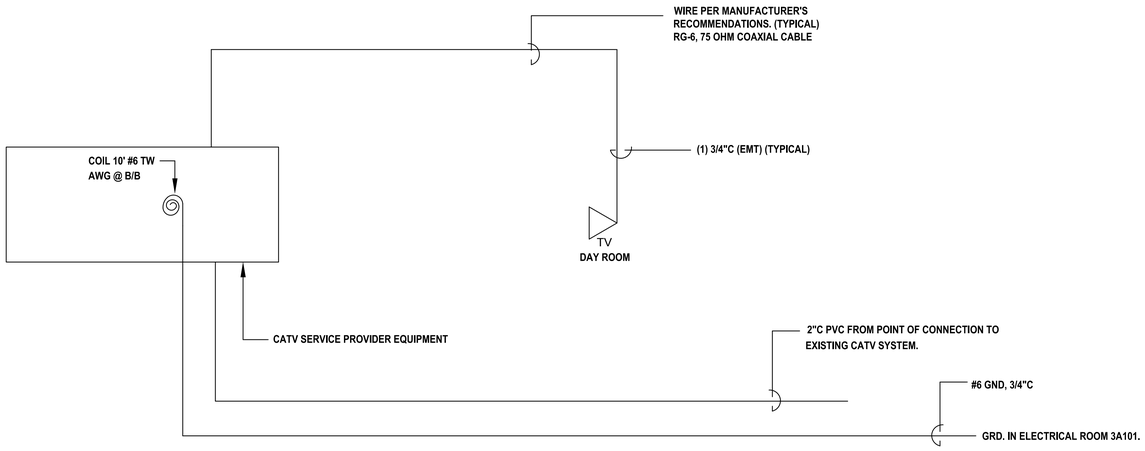
PATIENT
3A-161CA



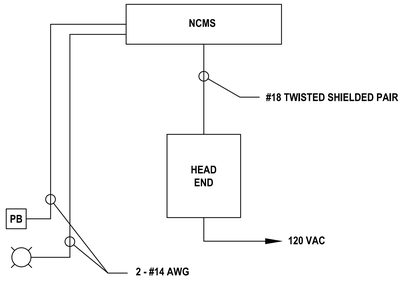
PHONE & DATA SYSTEM

NTS



MASTER ANTENNA TV SYSTEM

NTS



NURSE CALL/INTERCOM RISER DIAGRAM

NTS

CONSTRUCTION DOCUMENTS SUBMISSION
FULLY SPRINKLERED

Revisions:	Date

CONSULTANTS:

SOUTH CAROLINA PROFESSIONAL ENGINEER No. 13668 ROGER L. BLUE 5/21/014

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Drawing Title: SECONDARY SYSTEMS DIAGRAMS

Approved: Project Director

Project Title: **RENOVATE MEDICAL SURGICAL UNIT**

Location: **W.J. BRYAN DORN VAMC; COLUMBIA, SC**

Date: **05/16/2014** | Checked: **RLB** | Drawn: **DLA**

Project Number: **544-13-102**

Building Number: **100**

Drawing Number: **EY601**

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OFFICE OF CONSTRUCTION AND FACILITIES MANAGEMENT

Department of Veterans Affairs

VA FORM 08-6231