PROJECT TEAM

ARCHITECT ACI BOLAND, INC.

1710 WYANDOTTE STREET KANSAS CITY, MO 64108

PHONE

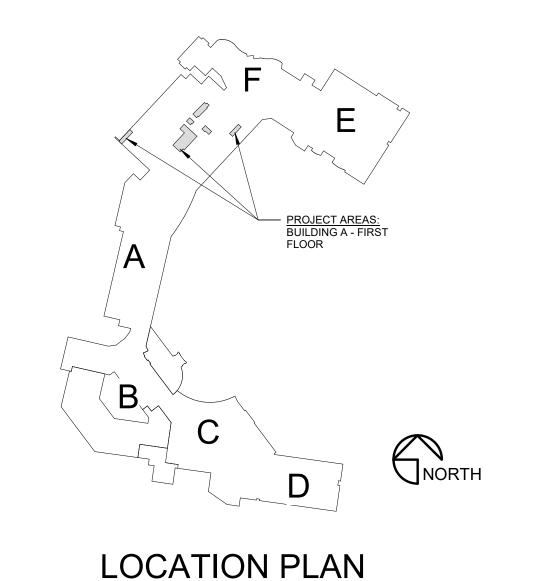
816.763.9600 816.763.9757

MEP ENGINEER

IMEG Corp.

1600 Baltimore, Suite 300 Kansas City, MO 64108 PHONE 816.842.8437

816.842.6441



SLE Hybrid OR 100 NE Saint Luke's Blvd Lee's Summit, MO 64086

ABBREVIATIONS PTD. PAINTED FLUORESCENT ACOUSTIC/ACOUSTICAL FTG. FOOTING PAGE **FOUNDATION** ADD'N. ADDITION PLAM. PLASTIC LAMINATE FRAME AGGREGATE BASE COURSE FIRE HOSE CAB. PNL. PANEL ABOVE FINISH FLOOR FIELD VERIFY PARTITION AGGREGATE PENNY AIR CONDITIONING ALUMINUM PLATE GAUGE PLBG. PLUMBING ALTERNATE GLASS / GLAZING ANCHOR BOLT PLYWD. PLYWOOD GRADE GRAM POINT GRILLE P.S.I. POUNDS PER SQ. IN ARCH. ARCHITEC^{*} GRID ASPHALT P.S.F. POUNDS PER SQ. FT. GND. GROUND P.C. PRECAST GALVANIZED STEEL P.L. PROPERTY LINE ACOUSTIC CEILING TILE/PANEL ANGLE GWB/G.B. GYPSUM BOARD RISER, RISERS BLKG. BLOCKING RAD. RADIUS H.R. HAND RAIL BSMT. BASEMENT R.D. ROOF DRAIN HDN. HARDENER BEAM RESILIENT BASE HDW. HARDWARE BENCHMARK REFER TO HDWD. HARDWOOD BOARD REG. REGISTER HTR. HEATER B.O. BOTTOM OF REQ'D. REQUIRED BLDG. BUILDING HEIGHT REV. REVISION H.P. HIGH POINT RF'G. ROOFING H.M. HOLLOW META CAB'T. CABINET RGH. ROUGH C.I.P. CAST IN PLACE HORIZ. HORIZONTAL RM. ROOM HOSE BIB H.B. CATCH BASIN RND. ROUND HOT WATER CEILING R.O. ROUGH OPENING CEM. CEMENT/CEMENTITIOUS INCH / INCHES INSIDE DIAMETER CENTIMETER SCHED. SCHEDULE INSUL. INSULATION CENTER LINE S.C. SEALED CONCRETE INT. INTERIOR CERAMIC INV. INVERT CERAMIC TILI SECT. SECTION CHANNEL SEL. SELECT JAN. **JANITOR** CHANNEL SHG. SHEATHING JOINT CLEAR SHT. SHEET JOIST CLEAN OUT SDG. SIDING CLOSET SIM. SIMILAR KICK PLATE SLDG. SLIDING COL. COLUMN SMOOTH CONC. CONCRETE SPEC. SPECIFICATION CONN. CONNECTION SQUARE CONST. CONSTRUCTION LDG. LANDING STAINED C.J. CONTROL JOINT LTH. LATH STD. STANDARD CONSTRUCTION JOINT LAVATORY CONT. CONTINUOUS LENGTH ST.STL. STAINLESS STEEL CONTR. CONTRACTOR LOC. LOCATION STRUC. STRUCTURE COR'G. CORRUGATED LIGHT SUSP. SUSPENDED CTR. COUNTER LIGHT WEIGHT CONCRETE SW.BD. SWITCHBOARD CTSK. COUNTERSUNK LOUVER SYS. SYSTEM C.M.U. CONCRETE MASONRY UNIT LOCATION TREAD MASONRY OPENING T.C. TOP OF CURB DECIBEL MATERIAL DIAG. DIAGONAL T.G. TEMPERED GLASS MFR. MANUFACTURER DIAM. DIAMETER TOP OF MARKER BOARD T.S.D. TOP OF STEEL DECK DIM. DIMENSION MAXIMUM T.W. TEACHERS WARDROBE DISPENSER DOWEL TYP. TYPICAL MTL. METAL DN. DOWN METAL LATH D.S. DOWNSPOUT METER U.O.N. UNLESS OTHERWISE NOTED DWG. DRAWING MINIMUM MLDG. MOLDING V. VENT MULLION EA. EACH VERT. VERTICAL ELEC ELECTRIC V.G. VERTICAL GRAIN E.W.C. ELECTRIC WATER COOLER N.G. NATURAL GRADE VEST. VESTIBULE FI EVATION NOM. NOMINAL V.C.T. VINYL COMPOSITION TILE ELEV. ELEVATOR N.I.C. NOT IN CONTRACT VCP VITREOUS CLAY PIPE EQ. EQUAL N.T.S. NOT TO SCALE EQUIP. EQUIPMENT NO. / # NUMBER W.W.M. WELDED WIRE MESH EXH. EXHAUST W.C. WATER CLOSET EXPAN. EXPANSION W.H. WATER HEATER OBS. OBSCURE E.J. EXPANSION JOINT O.C. ON CENTER W.F. WIDE FLANGE EXIST. EXISTING EXT. EXTERIOR OPN'G. OPENING W/ WITH OVERALL W/O WITHOUT

OUTSIDE DIAMETER

O.F.S. OVERFLOW SCUPPER

O.F.D. OVERFLOW DRAIN

O.H.D. OVERHEAD DOOR

FT. FEET / FOOT

FIXT. FIXTURE

FLR. FLOOR

FL. FLASHING

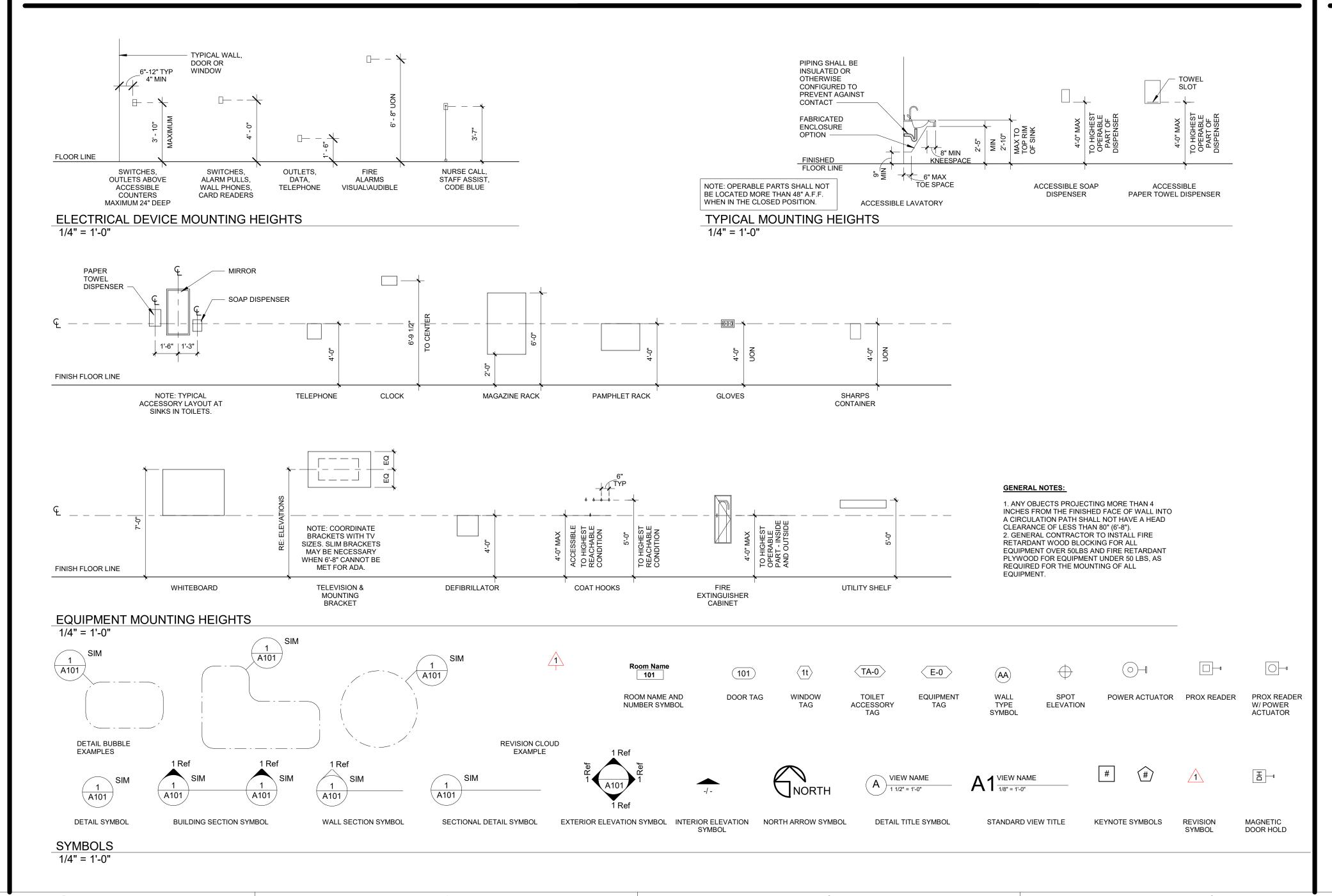
F.D. FLOOR DRAIN

FINISH

WD. WOOD

WDW. WINDOW

W.W. WINDOW WALL



GENERAL COVER SHEET A0.1 CODE FOOTPRINT PLAN A0.2 A0.3 U.L. DESIGN ASSEMBLIES DEMOLITION DEMOLITION PLAN AD2.1 ARCHITECTURE A2.1 FIRST FLOOR OVERALL PLAN **ENLARGED PLANS** 2ND FLOOR PLANS A2.3 FIRST FLOOR REFLECTED CEILING PLAN DOOR AND FRAME SCHEDULE AND DETAILS ROOM FINISH SCHEDULE & FINISH LEGEND INTERIOR ELEVATIONS & DETAILS P000 PLUMBING + MEDICAL GAS COVERSHEET FIRST FLOOR DEMOLITION - PLUMBING FIRST FLOOR DEMOLITION - MED GAS UNDERSLAB - PLUMBING FIRST FLOOR - PLUMBING P221 FIRST FLOOR - MED GAS PLUMBING SCHEDULES MECHANICAL M000 MECHANICAL COVERSHEET M111 FIRST FLOOR DEMOLITION - VENTILATION FIRST FLOOR DEMOLITION - PIPING FIRST FLOOR - VENTILATION FIRST FLOOR - PIPING MECHANICAL DETAILS TEMPERATURE CONTROL MECHANICAL SCHEDULES ME212 SECOND/THIRD FLOOR - VENTILATION/POWER ELECTRICAL E000 **ELECTRICAL COVERSHEET** FIRST FLOOR DEMOLITION - LIGHTING FIRST FLOOR DEMOLITION - POWER E121 FIRST FLOOR DEMOLITION - SYSTEMS FIRST FLOOR - LIGHTING FIRST FLOOR - POWER FIRST FLOOR - SYSTEMS LIGHTING DETAILS & SCHEDULES VENDER SIEMENS SIEMENS PHENO MACHINE STRYKER EQUIPMENT BOOM PRICE ULTRASUITE PRICE ULTRASUITE LAMINAR DIFFUSER - DEFERRED SUBMITTAL



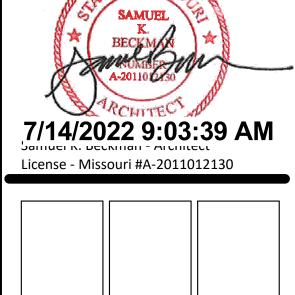
ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WTH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER. DO NOT SCALE DRAWINGS. THE WORD "ALIGN" AS USED IN THESE DOCUMENTS SHALL SUPERSEDE ANY DIMENSIONAL TYPICAL DIMENSIONS ARE TO FACE OF CONCRETE, DRYWALL, CURTAIN WALL, ETC., OR TO

COLUMN CENTERLINE. DIMENSIONS AT WINDOWS ARE TYPICALLY TO FACE OF FRAME. REFER TO PLAN DETAILS FOR ADDITIONAL INFORMATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE

FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP.

THE GENERAL CONTRACTOR SHALL INSPECT AND CHECK THE ADEQUACY AND INSTALLATION OF THROUGH-WALL FLASHING PRIOR TO COVERING WITH FINISH MATERIALS. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO INSPECTION AGAINST HOLES OR PENETRATIONS. APPROPRIATE LAPPING AND SEALING, AND OVERALL WORKMANSHIP IN CONFORMANCE WITH THE SPECIFICATIONS.

COVER SHEET



BOLAND ARCHITECTS

Kansas City, MO 64108

Kansas City | St. Louis

MEP CONSULTANT

1600 Baltimore, Suite 300 Kansas City, Missouri 64108

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Job Number

Checked By

Drawn By

5/31/2022

3-20034

PARTITION GENERAL NOTES - ACOUS . SEALANT AT NON FIRE-RATED PARTITION TYPES W/SOUND UNLESS NOTED OTHERWISE, ALL INTERIOR METAL STUDS ARE 3 5/8" THICK. REFER TO SUFFIX SCHEDULE BELOW FOR LOCATIONS OF METAL STUDS OTHER THAN 3-5/8" THICK. NOTE: STUD THICKNESS (GAUGE) MUST CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SPAN (HEIGHT OF STUD) WHERE THE PARTITION TYPE INDICATION IS SHOWN WITH A NUMERICAL SUFFIX, THE METAL STUD THICKNESS SHALL BE AS SCHEDULED BELOW: SUFFIX MTL. STUD THICKNESS 1-5/8" MTL. STUDS 2-1/2" MTL. STUDS 6" MTL. STUDS UNLESS NOTED OTHERWISE, ALL INTERIOR DRYWALL PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'A' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS. 1. UNLESS NOTED OTHERWISE, ALL INTERIOR MASONRY PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'B' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS. 5. ALL STUDS ARE CONTINUOUS FROM FLOOR STRUCTURE TO CEILING STRUCTURE UNLESS 6. METAL STUDS ARE SPACED @ 16" O.C. MAX., UNLESS NOTED OTHERWISE.

8. THE LOCATION OF

INDICATED BY A

WALL TAG.

A CHANGE IN THE

PARTITION TYPE IS

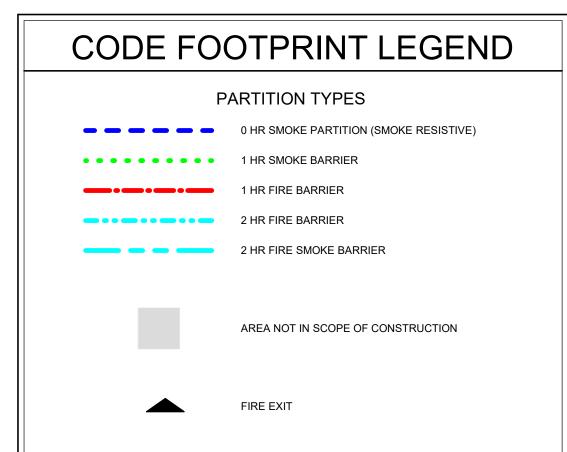
9. THE CORRESPONDING RATED ASSEMBLIES ARE INDICATED BELOW THE PARTITION TYPES. 10. PARTITION TYPE DESIGNATIONS ARE INDICATED ON THE FLOOR PLAN DRAWINGS. 11. PARTITION TYPES DO NOT INCLUDE APPLIED FINISHES CALLED FOR IN THE ROOM FINISH

12. AT PARTITION TYPES WHERE MTL. STUDS ARE EXPOSED ON ONE OR BOTH SIDES, CUT

STUD 1/4" SHORT AND SCREW BOTH SIDES TO MTL. RUNNER TRACK.

7. UNLESS NOTED OTHERWISE, ALL GYPSUM BOARD IS TO BE 5/8" THICK "FIRECODE".

<u>Project Construction Purpose:</u> Hybrid OR and Surgery Department Renovation Project Address: Saint Luke's Lee's Summit 100 NW Saint Luke's Blvd Lee's Summit, MO 64063 2018 International Plumbing Code 2018 International Mechanical Code 2018 International Fuel Gas Code 2018 International Fire Code 2017 National Electrical Code 2009 ICC/ANSI A117.1 as amended and adopted by the City of Lee's Summit 2014 FGI Guidelines for Design & Construction of Hospitals & Outpatient Facilities 100 NW Saint Luke's Blvd Lee's Summit, MO 64063 1710 Wyandotte St. Kansas City, MO 64108 Phone: (816) 763-9600 Fax: (816) 763-9757 Local Authority
Responding Fire Service: Lee's Summit Fire Department Type 1-A -Section 602.2 Type of Construction: (Type 1 - 332 Sprinklered - Section 18.1.6.1) Area of Renovation: Occupancy Group: I-2 - Section 308.3 Occupant Load: 100 gross Table 1004.5 Total Square Footage: 2500 SF / 100 = 25 occupants total Primary Structural Frame Floor Construction Roof Construction Interior non-bearing walls Active Fire Safety Features:
- Fire Alarm System - The fire alarm system is specified as an addressable type system. The device type and locations are per the applicable codes as well as ADA requirements. Smoke Control System - All ductwork penetrating smoke rated walls will have a smoke or combination fire/smoke damper as indicated on construction documents. These dampers will close upon detection of smoke by the area smoke detectors or duct smoke detectors in the air handling - Fire Sprinkler System - Specified to be per NFPA 13. The sprinkler heads are specified to be quick response type. Emergency Lighting and Power - Emergency lighting, life safety and critical loads will receive power from a backup generator located outside the main electrical room. - Illuminated Exit Signs



Passive Fire Safety Features:

- Smoke Compartments no greater than 22,500 SF

License - Missouri #A-2011012130

ARCHITECTS 1710 Wyandotte

Kansas City, MO 64108 T: 816.763.9600

ACI/Boland, Inc.

Kansas City | St. Louis

Licensee's Certificate of Authority Number: Missouri: #000958

MEP CONSULTANT IMEG Corp. 1600 Baltimore, Suite 300 Kansas City, Missouri 64108 T: 816.842.8437 Licensee's Certificate of Authority Number: Missouri: #F001325536

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Checked By

Job Number

Drawn By

2 07.13.22 ADD #2 - CITY

5/31/2022 3-20034

A0.2

CODE FOOTPRINT PLAN

*THIS DRAWING IS INTENDED TO BE PRINTED IN COLOR. USE BLACK AND WHITE COPIES AT YOUR OWN RISK.

Design No. U465 BXUV.U465 Fire-resistance Ratings - ANSI/UL 263

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL fied products, equipment, system, devices, and materials

• Authorities Having Jurisdiction should be consulted before construction. Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field.
 When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate Only products which bear UL's Mark are considered Certified.

BXUV - Fire Resistance Ratings - ANSI/UL 263

BXUV7 - Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada See General Information for Fire-resistance Ratings - ANSI/UL 263

See General Information for Fire Resistance Ratings - CAN/ULC-S101 Certified for Canada Design No. U465

as Canada), respectively

August 25, 2016 Nonbearing Wall Rating — 1 HR. * Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (sucl

1. Floor and Ceiling Runners — (Not Shown) — Channel shaped runners, 3-5/8 in. deep (min), 1-1/4 in. legs, formed from min No. 25 MSG galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. 1A. Framing Members* — Floor and Ceiling Runners — (Not Shown) — As an alternate to Item 1 — Channel shaped, 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

 ${f UNITED}$ ${f METAL}$ ${f PRODUCTS}$ ${f INC}$ — Type SUPREME Framing System

1B. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Item 1 — For use with Item 2B, roprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, ttached to floor and ceiling with fasteners spaced 24 in. OC max. CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

CRACO MFG INC — SmartTrack20™

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

 $1C. \ \textbf{Floor and Ceiling Runners} - (Not \ Shown) - For \ use \ with \ Item \ 2C - Channel \ shaped, \ fabricated \ from \ min \ 20 \ MSG$ 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. 1D. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1C — For use with Item 2D and 4G only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. CLARKDIETRICH BUILDING SYSTEMS — CD ProTRAK

DMFCWBS L L C — ProTRAK

MBA METAL FRAMING — ProTRAK

RAM SALES L L C — Ram ProTRAK

STEEL STRUCTURAL PRODUCTS L L C - Tri-S Protrak

1E. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1D — For use with Item 2E and 4I only, proprietary channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. TELLING INDUSTRIES L L C — TRUE-TRACK™

1F. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1E — For use with KIRII (HONG KONG) LTD - Type KIRII

1G. Framing Members* — Floor and Ceiling Runners — Not Shown — In lieu of Items 1 through 1F — For use with Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide, attached to floor and ceiling with fasteners spaced 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 MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™ Track VT100

1I. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2H, channel shaped runners, 1-1/4 in, wide by min 3-5/8 in, deep fabricated from min 0.020 in, thick galy steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. **TELLING INDUSTRIES L L C** — Viper 20^{TM} Track

2. Steel Studs — Channel shaped, 3-5/8 in. deep (min), formed from min No. 25 MSG galv steel spaced 24 in. OC max. 2A. **Framing Members* — Steel Studs —** As an alternate to Item 2 — Channel shaped studs, min 3-5/8 in. deep, 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

 ${f QUAIL\ RUN\ BUILDING\ MATERIALS\ INC}-{f Type\ SUPREME\ Framing\ System}$

SCAFCO STEEL STUD MANUFACTURING CO - Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

 ${f UNITED}$ ${f METAL}$ ${f PRODUCTS}$ ${f INC}$ — Type SUPREME Framing System

2B. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1B, proprietary channel 1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in. less in length than assembly height. CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™

CRACO MFG INC — SmartStud20™

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Viper20™

2C. **Steel Studs** — (As an alternate to Item 2, For use with Item 4E) — 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. 2D. Framing Members* - Steel Studs - As an alternate to Items 2 through 2C - For use with Item 1D and 4G only annel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

 ${f RAM}$ ${f SALES}$ ${f L}$ ${f C}$ — ${f Ram}$ ${f ProSTUD}$

STEEL STRUCTURAL PRODUCTS L L C - Tri-S ProSTUD

2E. **Framing Members* — Steel Studs —** As an alternate to Items 2 through 2D — For use with Item 1E and 4I only, channel shaped studs, min 3-5/8 in. wide fabricated from min 0.018 in. thick galv steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. TELLING INDUSTRIES L L C — TRUE-STUD™

2F. Framing Members* — Steel Studs — As an alternate to Items 2 through 2E — For use with Item 1F, channel shaped studs, min 3-5/8 in. wide fabricated from min 25 MSG steel, spaced a max of 24 in. OC. Studs to be cut 1/2 in. less than assembly height. KIRII (HONG KONG) LTD - Type KIRII

2H. Framing Members* — Steel Studs — Not Shown — In lieu of Item 2 — For use with Item 1I, proprietary channel shaped steel studs, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel. Studs cut 3/4 in.

STUDCO BUILDING SYSTEMS — CROCSTUD

2G. Framing Members* - Steel Studs - Not Shown - In lieu of Item 2 through 2F - For use with Item 1G.

ry channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly heigh

less in length than assembly height. **TELLING INDUSTRIES L L C** — Viper 20^{TM}

2I. Framing Members* — Steel Studs — In lieu of Item 2 — For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than **EB MéTAL INC** — EB Stud

J. Framing Members* - Steel Studs - In lieu of Item 2 - For use with Item 1, channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 3-5/8 in. deep (min), spaced 24 in. OC max. Studs to be cut 3/4 in. less than assembly height. **OLMAR SUPPLY INC** — PRIMESTUD

2K. Framing Members* — Steel Studs — As an alternate to Item 2 — For use with Item 1B (3-5/8 in. wide track), channel shaped studs, fabricated from min 25 MSG corrosion-protected steel, 1-1/4 in. wide by 3-5/8 in. deep, spaced a max of 24 in. OC. Studs to be cut 3/8 to 3/4 in. less than assembly height. $\textbf{MARINO/WARE, DIV OF WARE INDUSTRIES INC} - \mathsf{StudRite^{tM}}$

3. Batts and Blankets* — (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. See **Batts and Blankets** (BZJZ) category for names of Classified companies. 3A. Fiber, Sprayed* — As an alternate to Batts and Blankets (Item 3) — (100% Borate Formulation) — Spray applied

cellulose material. The fiber is applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product with a nominal dry density of 2.7 lb/ft³. Alternate Application Method: The fiber is

applied without water or adhesive at a nominal dry density of 3.5 lb/ft³, in accordance with the application instructions

U S GREENFIBER L L C — INS735& INS745 for use with wet or dry application. INS765LD and INS770LD are to be used for dry application only 3B. Fiber. Sprayed* — As an alternate to Batts and Blankets (Item 3) and Item 3A — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation ${\tt 3C.} \ \textbf{Fiber, Sprayed*-A} \ \text{Sa an alternate to Batts and Blankets (Item 3)-Spray applied cellulose fiber. The fiber is } \\$ applied with water to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. The minimum dry density shall be 4.30 lbs/ft³.

INTERNATIONAL CELLULOSE CORP - Celbar-RL3D. Batts and Blankets* — For use with Item 8. Nom 3 in. thick, minimum 3.4 pcf mineral wool batts, friction fit

See Batts and Blankets (BZJZ) category for names of manufacturers. 3E, Batts and Blankets* — For use with Item 4P, Placed in stud cavities, any min. 3-1/2 in, thick glass fiber insulation

See Batts and Blankets (BKNV or BZJZ) Categories for names of Classified companies. 4. **Gypsum Board*** – 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to Items 6 (resilient channels) or 6A, 6B or 6C (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. O $\!$ **ACADIA DRYWALL SUPPLIES LTD** — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing **AMERICAN GYPSUM CO** — Types AG-C, AGX-1, M-Glass

BEIJING NEW BUILDING MATERIALS PUBLIC LTD CO - Type DBX-1

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5,

CERTAINTEED GYPSUM INC — Types 1, EGRG, GlasRoc, Type X, Type X-1, Type C, SilentFX, 5/8" Easi-Lite Type X

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC2A, LGFC6A, LGFC-C/A, LGFC-WD, LGLLX **GEORGIA-PACIFIC GYPSUM L L C** — Types 5, 6, 9, C, DAP, DD, DA, DAPC, DGG, DS, GPFS6, LS, Type X, Veneer Plaster Base - Type X, Water Rated - Type X, Sheathing - Type X, Soffit - Type X, TG-C, GreenGlass Type X, Type X ComfortGuard Sound Deadening Gypsum Board, Type LWX, Veneer Plaster Base-Type LWX, Water Rated-Type LWX, Sheathing Type-LWX, Soffit-Type DGLW, Water Rated-Type DGLW, Sheathing Type-DGLW, Soffit-Type DGLW, Type DGLW, Type

Type LW2X, Veneer Plaster Base - Type LW2X, Water Rated - Type LW2X, Sheathing - Type LW2X, Soffit - Type LW2X, Type DGL2W, Water Rated - Type DGL2W, Sheathing - Type DGL2W

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6,

PABCO BUILDING PRODUCTS L L C. DBA PABCO GYPSUM — Types PG-C. PG-9. PG-11. PGS-WRS

PANEL REY S A — Types GREX, PRC, PRC2, PRX, RHX, MDX, ETX

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH Line MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type EX-1

THAI GYPSUM PRODUCTS PCL — Type X, Type C

UNITED STATES GYPSUM CO - Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint

USG BORAL ZAWAWI DRYWALL L L C SFZ — Types C, SCX USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and

CERTAINTEED GYPSUM INC — Type X, Type X-1, Type C, Type EGRG/ GlasRoc

4A. **Gypsum Board*** — (As alternate to Item 4) — Nom 5/8 in, thick gypsum panels with beyeled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Panels attached to steel studs and floor runner with 1 in. long Type S steel screws spaced 8 in. OC when applied horizontally, or 8 in, OC along vertical and bottom edges and 12 in, OC in the field when panels are applied vertically. When used in widths other than 48 in., gypsum panels to be installed horizontally

CGC INC — Types AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and compound, Item 5,

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C - Types LGFC2A, LGFC6A, LGFC-V/A, LGFC-WD **GEORGIA-PACIFIC GYPSUM L L C** - Types DAP, DAPC, DGG, DS

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X, Type C

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint

USG BORAL ZAWAWI DRYWALL L L C SFZ — Types C, SCX

USG MEXICO S A DE C V — Type AR, C, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, USGX, WRC or WRX (Joint tape and

4B. Gypsum Board* — (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item **CGC INC** — Types AR, IP-AR

 $\mathbf{UNITED\ STATES\ GYPSUM\ CO}-\mathsf{Types\ AR,\ IP-AR}$

NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

USG MEXICO S A DE C V — Types AR, IP-AR

4C. **Gypsum Board*** — As an alternate to Items 4, 4A, and 4B - Nom. 5/8 in. thick gypsum panels, with square edges, applied horizontally. Gypsum panels fastened to framing with 1 in. long bugle head steel screws spaced a max 8 in. OC, with last 2 screws 3/4 in. and 4 in. from each edge of board. Horizontal joints need not be backed by steel framing. Horizontal edge joints and horizontal butt joints on opposite sides of studs on interior walls need not be staggered or backed by steel framing. **GEORGIA-PACIFIC GYPSUM L L C** — Type DGG, GreenGlass Type X

4D. **Gypsum Board*** — As an alternate to Items 4, 4A, 4B, and 4C — Nom. 5/8 in. thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Gypsum panels fastened to framing with 1 in. long Type S steel screws 8 in. OC along vertical edges and 12 in. OC in the field when panels are applied vertically. When gypsum panels applied horizontally, fasten to raming with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and in the field. Screws spaced a max 12 in. along the top and bottom edges of the wall for both vertical and horizontal applications. NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSL, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8,

4E. **Gypsum Board*** — (As an alternate to Items 4 through 4D) — Installed as described in Item 4. 5/8 in. thick, 4 ft. wide, paper surfaced, applied vertically only and fastened to the studs and plates with 1 in. long, Type S steel screws spaced, 8 in, OC. Not to be used with item 6.

4F. **Gypsum Board*** — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) - 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. Gypsum board 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. RAY-BAR ENGINEERING CORP — Type RB-LBG

4G. **Gypsum Board*** — (As an alternate to Items 4 through 4F) — For use with Items 1D and 2D only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the

CONTINENTAL BUILDING PRODUCTS OPERATING CO. L. L. C. — Type I GEC6A. I GEC-C/A

NATIONAL GYPSUM CO — Types FSW

UNITED STATES GYPSUM CO - Type SCX

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type SCX

4H. Gypsum Board* — (As an alternate to Items 4 through 4G) — Nominal 5/8 in. thick, 4 ft wide panels, applied PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock ES

4I. **Gypsum Board*** — (As an alternate to Items 4 through 4F) — For use with Items 1E and 2E only, 5/8 in. thick, 4 ft wide, attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the UNITED STATES GYPSUM CO — Type SCX

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type SCX

4]. **Gypsum Board*** — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — 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. Gypsum board 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. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A) MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

4K. Gypsum Board* - (As an alternate to Item 4 and 4A, not for use with Items 1D, 1E, 2D and 2E) - Nom. 5/8 in. thick gypsum panels with beveled, square or tapered edges installed as described in Item 4 and 4A.

UNITED STATES GYPSUM CO - Type ULX

USG MEXICO S A DE C V - Type ULX

4L. **Gypsum Board*** — (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of direct attachment only to steel studs Item 2C). Nom 5/8 in, thick lead backed gypsum panels with beve square or tabered 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 psum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in, wide, max 8 ft long with a max ickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. lon-pe 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, 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

4M. **Gypsum Board*** – (For use with Item 8) – 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board tem 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. T Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fibe Board (Item 8). Secured to outermost studs and floor and ceiling runners with 2 in. long Type S screws spaced 8 in. OC. Gypsum Board joints covered with paper tape and joint compound. Screw heads covered with joint compound. AMERICAN GYPSUM CO — Type AG-C

CERTAINTEED GYPSUM INC — Type FRPC, Type C

CGC INC — Types C, IP-X2, IPC-AR

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Type LGFC-C/A

GEORGIA-PACIFIC GYPSUM L L C — Types 5, DAPC, TG-C

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type PG-C

NATIONAL GYPSUM CO — Types eXP-C, FSK-C, FSW-C

SAINT-GOBAIN GYPROC MIDDLE EAST FZE — Type Gyproc FireStop, Gyproc FireStop MR, Gyproc FireStop M2TECH, Gyproc FireStop ACTIV'Air, Gyproc FireStop MR ACTIV'Air, Gyproc FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine M2TECH, Gyproc Dura

THAI GYPSUM PRODUCTS PCL — Type C

NATIONAL GYPSUM CO — Type FSW

PANEL REY S A — Types PRC, PRC2

UNITED STATES GYPSUM CO — Types C, IP-X2, IPC-AR

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type C

panels, applied vertically and secured as described in Item 4

USG MEXICO S A DE C V — Types C, IP-X2, IPC-AR

PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock 527

40. **Gypsum Board*** — As an alternate to Items 4, 4A, 4B, and 4C — Two layers Nom, 5/16 in, thick gypsum panels applied vertically or horizontally. Horizontal edge joints and horizontal butt joints on opposite sides of studs need not be staggered or backed by steel framing. Horizontal joints on the same side need not be staggered. When applied horizontally, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC and staggered 4 in. OC between layers. When applied vertically, both layers of gypsum board fastened to each side of framing with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges and 12 in. OC in the field, staggered 4 in. OC between layers. Screws spaced a max 12 in. along the top and bottom edges of the wall.

4N. Wall and Partition Facings and Accessories* — (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide

4P. **Gypsum Board*** — As an alternate to Item 4. For use with Item 3E, **Batts and Blankets*** — 5/8 in. thick, 4 ft wide attached to steel studs and floor and ceiling track with 1 in. long, Type S steel screws spaced 8 in. OC. along edges of board and 12 in. OC in the field of the board. Joints oriented vertically and staggered on opposite sides of the assembly. When attached to item 6 (resilient channels) or 6A, 6B or 6C (furring channels), gypsum board is screw attached to furring channels with 1 in. long, Type S steel screws spaced 12 in. OC. UNITED STATES GYPSUM CO - Types ULIX

5. **Joint Tape and Compound** — Vinyl, dry or premixed joint compound, applied in two coats to joints and screw heads; paper tape, 2 in, wide, embedded in first layer of compound over all joints. As an alternate, nominal 3/32 in, thick psum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced, Paper tape and joint compound may be omitted when gypsum boards are supplied with square edges. 6. **Resilient Channel** — (Optional — Not Shown) — 25 MSG galv steel resilient channels spaced vertically max 24 in. OC flange portion attached to each intersecting stud with 1/2 in. long type S-12 pan head steel screws. May not be used with Item 4F or 4J. 6A. **Steel Framing Members*** — (Not Shown) — As an alternate to Item 6, furring channels and Steel Framing Member

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 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels are overlapped 6 in. and tied together with double strand of No. 18 SWG galv steel wire near each end of overlap. As an alternate, ends of adjoining channels may be verlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel. b. Framing Members* — Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring

6B. **Framing Members*** — (Not Shown) — (Optional on one or both sides) — As an alternate to Item 6, furring channel 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 nax. 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 4. b. Steel Framing Members* — Used to attach furring channels (Item 6Ba) to studs (Item 2). Clips spaced max. 48 in. OC. GENIECLIPS secured to studs with No. 8 \times 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into **PLITEQ INC** — Type Genie Clip

PAC INTERNATIONAL L C — Types RSIC-1, RSIC-1 (2.75)

6C. **Steel Framing Members*** — (Optional, Not Shown) — Furring channels and Steel Framing Members as described

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 study with RESILMOUNT Sound Isolation Clips - Type 237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards a side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint b. Steel Framing Members* — Used to attach furring channels (Item 6Ca) to studs. Clips spaced 24 in. OC., and secured to studs with No. 10×2 -1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

. Wall and Partition Facings and Accessories* — (Optional, Not Shown) — Nominal 1/2 in. thick, 4 ft wide panels, for optional use as an additional layer on one or both sides of the assembly. Panels attached in accordance with manufacturer's recommendations. When the QR-500 or QR-510 panel is installed between the steel framing and the UL Classified gypsum board, the required UL Classified gypsum board layer(s) is/are to be installed as indicated as to fastener type and spacing, except that the required fastener length shall be increased by a minimum of 1/2 in. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Board. PABCO BUILDING PRODUCTS L L C, DBA PABCO GYPSUM — Type QuietRock QR-500 and QR-510

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

8. Mineral and Fiber Board* — (Optional, Not Shown) — For optional use as an additional layer on one side of wall. Nom 1/2 in. thick, 4 ft wide with long dimension parallel and centered over studs. Attached to studs and floor and ceiling runners with 1-5/8 in. long Type S steel screws, spaced 12 in. OC and 24 in. OC along all intermediate framing. The required UL Classified gypsum board layer (Item 4M) is to be installed over the Mineral and Fiber Boards. Batts and Blankets, Item 3D, and Adhesive, Item 11, are required. **HOMASOTE CO** — Homasote Type 440-32

9. Lead Batten Strips — (Not Shown, For Use With Item 4E) — Lead batten strips, min 1-1/2 in, wide, max 10 ft long 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 quired behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required 9A. **Lead Batten Strips** — (Not Shown, for use with Item 41) — Lead batten strips, 2 in. wide, max 10 ft long with a mathickness 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 cification OO-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (Item 4J) and optional at remaining stud locations. 10. **Lead Discs or Tabs** — (Not Shown, For Use With Item 4E) — Used in lieu of or in addition to the lead batten strips (Item 8) 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 4E) rneath 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" 10A. **Lead Discs** — (Not Shown, for use with Item 4J) — Max 5/16 in. diam by max 0.140 in. thick lead discs

11. **Adhesive** — Not Shown — (For use with Item 8) — Construction grade adhesive applied in vertical, serpentine, nominal 3/8 in. wide beads down the length of both vertical edges of Mineral and Fiber Board (Item 8). 12. Wall and Partition Facings and Accessories* — (Optional, Not Shown) — For use with Items 1 to 1I, Items 2 to 22, Item 3, Items 4 to 41, Item 5 and Item 6. For maximum fire rating of 1 hour. On one side of the wall, over the first layer of Gypsum Board (Item 4 to Item 41), install RefleXor membrane with the gold side facing outwards. Membrane installed with T50 staples spaced 12 inches on center in both directions as per manufacturer's instructions, seams in membrane to be overlapped by 2 inches. When RefleXor membrane is used an additional layer of Gypsum Board that is identical to the one used in the first layer and as specified in Item 4 to Item 4I shall be installed over the membrane. Th additional layer of Gypsum Board to be installed through the membrane to the stud as specified in Item 4 to Item 4I except the fastener length shall be increased by a minimum of 5/8 inch. Install Batts and Blankets in the stud cavity as per Item 3. On the other side of the wall, prior to the installation of the Gypsum Board, install Resilient Channels as per Item 6. Over the Resilient Channels install 3/4 inch thick SONOpan panel secured to the Resilient Channels with drywall screws and washers spaced at 16 in. OC on the perimeter of the panel and 8 in. OC in the field of the panel. Over the SONOpan panel install the same Gypsum Board as specified in Item 4 to Item 41 with the fastener length increased by minimum 3/4 inch. Not evaluated or intended as a substitute for the required layer(s) of UL Classified Gypsum Boar MSL — RefleXor membrane, SONOpan panel

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification

XHBN.BW-S-0003 - Joint Systems

ONLINE CERTIFICATIONS DIRECTORY System No. BW-S-0003

Specification QQ-L-201f, Grades "B, C or D".

Design/System/Construction/Assembly Usage Disclaimer

XHBN.BW-S-0003

Joint Systems

· Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials. Authorities Having Jurisdiction should be consulted before construction.
 Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the fie When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product
manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each
product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate Only products which bear UL's Mark are considered Certified.

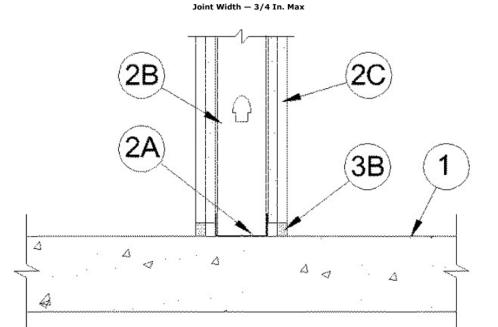
XHBN - Joint Systems

See General Information for Joint Systems

November 18, 2008 Assembly Ratings — 1 and 2 Hr (See Item 2) L Rating At Ambient — Less Than 1 CFM/Lin Ft (See Item 3B)

L Rating At 400°F — Less Than 1 CFM/Lin Ft (See Item 3B)

System No. BW-S-0003



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1. Floor Assembly - Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. Floor may also be constructed of any 6 in. (152 mm) thick UL Classified hollow-core **Precast Concrete Units*.** See Precast Concrete Units category in the Fire Resistance Directory for names of

2. Wall Assembly — The 1 or 2 h 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 or Partition Design in the UL Fire Resistance Directory. In addition, the wall may incorporate a head-of-wall joint system constructed as specified in the HW Series Joint Systems in the UL Fire Resistance Directory. The wall shall include the following construction features: A. **Steel Floor Runner** — Floor runners of wall assembly shall consist of min No. 25 gauge galv steel channels sized to accommodate steel studs (Item 2B). Floor runners to be provided with min 1-1/4 in. (32 mm) flanges. Runners secured with steel fasteners spaced 12 in. (305 mm) OC. B. Studs — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 3/4 in. (13 to 19 mm) less in length than assembly height with bottom nesting in, resting on and fastened to floor runner with sheet metal screws. Stud spacing not to exceed 24 in. (610 mm) OC. C. **Gypsum Board*** — Gypsum board installed to a min total thickness of 5/8 in. (16 mm) or -1/4 in. (32 mm) on each side of wall for a 1 or 2 hr fire rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of the gypsum board and the top of the concrete floor. The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. Joint System — Max separation between top of floor and bottom of gypsum board is 3/4 in. (19 mm). The joint system consists of a packing material and a fill material, as follows A. Packing Material — (Optional, Not Shown) - Mineral wool batt insulation, polyethylene backer rod or glass fiber insulation firmly packed into the gap between the bottom of the gypsum board and the top of the concrete floor and recessed from each surface of the wall to accommodate the required thickness of fill material. B. Fill, Void or Cavity Material*-Sealant — Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall. When mineral wool batt insulation is used as a packing material, min thickness of fill material on each side of the wall is 1/4 in. (6 mm).

SPECIFIED TECHNOLOGIES INC — SpecSeal ES Sealant, SpecSeal LCI Sealant, SpecSeal

Note: L Ratings apply when SpecSeal ES Sealant is used.

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively. Last Updated on 2008-11-18 Ouestions? Print this page Terms of Use Page Top

LC150 Sealant, Pensil 300 Sealant or SpecSeal Series SIL300.

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Page Bottom

Page 1 of 2

System No. HW-D-0044 XHBN.HW-D-0044 Joint Systems

Design/System/Construction/Assembly Usage Disclaimer Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL Certified products, equipment, system, devices, and materials.

Authorities Having Jurisdiction should be consulted before construction.

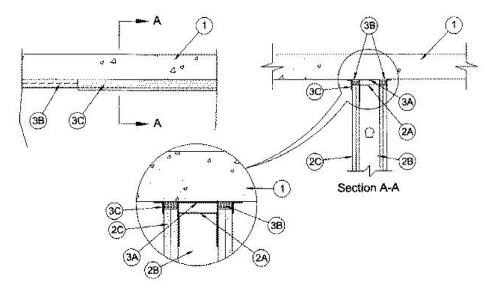
Fire resistance assemblies and products are developed by the design submitter and have been investigated by UL for compliance with applicable requirements. The published information cannot always address every construction nuance encountered in the field When field issues arise, it is recommended the first contact for assistance be the technical service staff provided by the product manufacturer noted for the design. Users of fire resistance assemblies are advised to consult the general Guide Information for each product category and each group of assemblies. The Guide Information includes specifics concerning alternate materials and alternate

XHBN - Joint Systems **XHBN7 - Joint Systems Certified for Canada**

e General Information for Joint Systems e General Information for Joint Systems Certified for Canada

System No. HW-D-0044

December 08, 2015 ANSI/UL2079 CAN/ULC S115 Assembly Ratings -1, 2, 3 and 4 Hr (See Item 2) Jominal Joint Widths — 1-1/2 and 2-1/2 In. (See Item 3) FT Ratings — 1, 2, 3, and 4 Hr (See Item 2) Class II Movement Capabilities - 40 or 50% Compression or Extension (See Item 3) FH Ratings - 1, 2, 3, and 4 Hr (See Item 2) Rating At Ambient — Less Than 1 CFM/Lin Ft FTH Ratings — 1, 2, 3, and 4 Hr (See Item 2) Rating At 400 F — Less Than 1 CFM/Lin Ft ominal Joint Widths -1-1/2 and 2-1/2 In. (See Item 3) L Rating At Ambient — Less Than 1 CFM/Lin Ft



L Rating At 400 F — Less Than 1 CFM/Lin Ft

1. Floor Assembly — Min 4-1/2 in. (114 mm) thick steel-reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m³) structural concrete. 2. Wall Assembly - 1, 2, 3 or 4 hr fire-rated gypsum board/stud wall assembly shall be constructed of the materials and in the manner described in the individual U400, V400 or W400 Series Wall and Partition Design in the UL Fire

A. Steel Floor and Ceiling Runners — Floor and ceiling runners of wall assembly shall consist of galv steel channels sized to accommodate steel studs (Item 2B). When deflection channel (Item 3A) is used, flange height of ceiling runner is to be equal to or greater than flange height of deflection channel and the ceiling runner is to nest within the deflection channel with a 3/4 to 1 in. (19 to 25 mm) gap maintained between the top of the ceiling runner and the top of the deflection channel. When deflection channel is not used, flange height of ceiling runner shall be min 3/4 in. (19 mm) greater than nom joint width. Ceiling runner is secured to concrete floo slab with steel masonry anchors spaced max 24 in. (610 mm) OC. A1. Light Gauge Framing* - Slotted Ceiling Runner — When nom joint width is less than or equal to 1-3/4 in. (45 mm), slotted ceiling runner may be used 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). Ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC. When slotted ceiling runner is used, deflection channel (Item 3A) shall not be used.

BRADY CONSTRUCTION INNOVATIONS INC, DBA SLIPTRACK SYSTEMS — SLP-TRK

CALIFORNIA EXPANDED METAL PRODUCTS CO — CST

Resistance Directory and shall include the following construction features:

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT METAL-LITE INC — The System

THE STEEL NETWORK INC — VertiTrack VT series, 250VT, 362VT, 400VT, 600VT and 800VT A2. Light Gauge Framing* - Vertical Deflection Ceiling Runner — When nom joint width is less than or equal to 1 in. (25 mm), vertical deflection ceiling runner may be used as an alternate to the ceiling runner in Items 3A and 3A1., 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. Vertical

THE STEEL NETWORK INC — VertiTrack VTD362, VTD400, VTD600 and VTD800

deflection ceiling runner secured to concrete floor slab with steel masonry anchors spaced max

4 in. (610 mm) OC. When vertical deflection ceiling runner is used, deflection channel (Item

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 secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC. When notched ceiling runner is used, deflection channel (Item 3A) shall not be used. OLMAR SUPPLY INC — Type SCR

n conjunction with steel studs (Item 2B), ceiling runner (Item 2A) or deflection channel (Item 3A). Clips installed over the top of studs and inserted within the ceiling runner or deflection channel. Clip shall be secured to the ceiling runner or deflection channel with No. 8 self drilling, self tapping steel fasteners through holes provided within the clip. Clip may be secured to the stud with No. 6 pan head steel screw through holes provided within the clip. As an alternate, the legs of the clip may be installed over the top of the stud without attachment in accordance with manufacturer's installation instructions. **FLEX-ABILITY CONCEPTS L L C** — Three Legged Dog Deflection Clip

A4. Light Gauge Framing* —Vertical Deflection Clip* — (Optional) Steel clips can be used

- As an alternate attachment means for the ceiling runner to the underside of the floor when no deflection channel (Item 3A) is used, sound isolation clips installed in accordance with the diam hole in ceiling runner and attached to top of ceiling runner using four min No. 8 by 1/2 in. floor assembly using min 3/16 in. (5 mm) diam by 2-1/2 in. (64 mm) long steel masonry PAC INTERNATIONAL L L C — Type RSIC-U-HD

B. **Studs** — Steel studs to be min 3-1/2 in. (89 mm) wide. Studs cut 1/2 to 1 in. (13 to 25 mm) less in length than assembly height with bottom nesting in and secured to floor runner.

When deflection channel (Item 3A) is used, steel studs attached to ceiling runner (Item 2A) with sheet metal screws located 1/2 in. (13 mm) below the bottom to the deflection channel. When

A5. Steel Framing Members* — Sound Isolation Clips — (Not Shown, For Max 2 Hr Rating)

deflection channel is not used, studs to nest 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 mid-height of slot on each side of wall. When vertical deflection ceiling runner (Item 2A2) is used, steel studs secured to slotted vertical deflection clips, through the bushings, with steel screws at mid-height of each slot. Stud spacing not to exceed 24 in. (610 mm) OC. C. **Gypsum Board*** — Gypsum board sheets installed to a min total 5/8 in., 1-1/4 in., 1-1/2 in. or 2 in. (16, 32, 38 or 51 mm) thickness on each side of wall for 1, 2, 3 or 4 hr rated assemblies, respectively. Wall to be constructed as specified in the individual U400, V400 or W400 Series Design in the UL Fire Resistance Directory, except that a max 1 or 2-1/2 in. (25 or 64 mm) gap (See Item 3) shall be maintained between the top of the gypsum board and the lower surface of the floor. The screws attaching the gypsum board to the studs along the top of

the wall shall be located 1 in. (25 mm) below the bottom of the ceiling runner. No gypsum

board attachment screws shall be driven into the ceiling runner or into the optional deflection The hourly fire rating of the joint system is equal to the hourly fire rating of the wall. . Joint System $oldsymbol{-}$ Max separation between bottom of floor and top of gypsum board (at time of installation of joint system) is 2-1/2 in. (64 mm) for 1 and 2 hr ratings and 1 in. (25 mm) for 3 and 4 hr ratings. The joint system is designed to accommodate a max 50 percent compression or extension from its installed width for max 1-1/2 in. (38 mm) wide joints and a max 40 percent compression or extension from its installed width

> A. **Deflection Channel** — (Optional) - Max 3 in. (76 mm) deep min 24 gauge galv steel channel sized to accommodate ceiling runner (Item 2A). Deflection channel secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC. The ceiling runner (Item 2A) is installed within the deflection channel to maintain a 1/2 to 3/4 in. (13 to 19 mm) gap between the top of the ceiling runner and the top of the deflection channel. The ceiling runner nests inside the deflection channel without attachment compressed 50 percent in thickness and installed cut edge first to completely fill the gap between the top of the gypsum board and the bottom of the concrete floor. When sound isolation clips (Item 2A6) are used, the space between the top of the ceiling runner and the underside of the floor shall be tightly packed with mineral wool batt insulation. The forming material shall be installed flush with both surfaces of wall.

for max 2-1/2 in. (64 mm) wide joints. The joint system shall consist of forming and fill materials, with or without a

ROCK WOOL MANUFACTURING CO — Delta Board

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCKWOOL MALAYSIA SDN BHD — Safe

deflection channel (Item 3A), as follows:

THERMAFIBER INC — SAF C. Fill, Void or Cavity Material* - Sealant - Min 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet thickness) of fill material spray applied on each side of the wall between the top of the wall and the bottom of the floor, and overlap a min 1/2 in. (13 mm) onto gypsum board on both sides of wall. Additional 1/16 in. (1.6 mm) dry thickness (1/8 in. or 3.2 mm wet

thickness) of fill material shall overlap a min 1/2 in. (13 mm) onto the floor on both sides of

* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification Last Updated on 2015-12-08

SPECIFIED TECHNOLOGIES INC — SpecSeal AS200 Elastomeric Spray

License - Missouri #A-2011012130

1710 Wyandotte

Kansas City, MO 64108 T: 816.763.9600 ACI/Boland, Inc. Kansas City | St. Louis

MEP CONSULTANT IMEG Corp.

Licensee's Certificate of Authority Number:

Missouri: #000958

1600 Baltimore, Suite 300 Kansas City, Missouri 64108 T: 816.842.8437 Licensee's Certificate of Authority Number: Missouri: #F001325536

0 $\boldsymbol{\sigma}$ \Box 0

Job Number

Checked By

Drawn By

Revision

5/31/2022

3-20034

Checker

Author

A3 OVERALL FLOOR PLAN 1/8" = 1'-0"





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HYBRID SLE 100 Lee's

Job Number

Checked By

Drawn By

5/31/2022 3-20034 Author

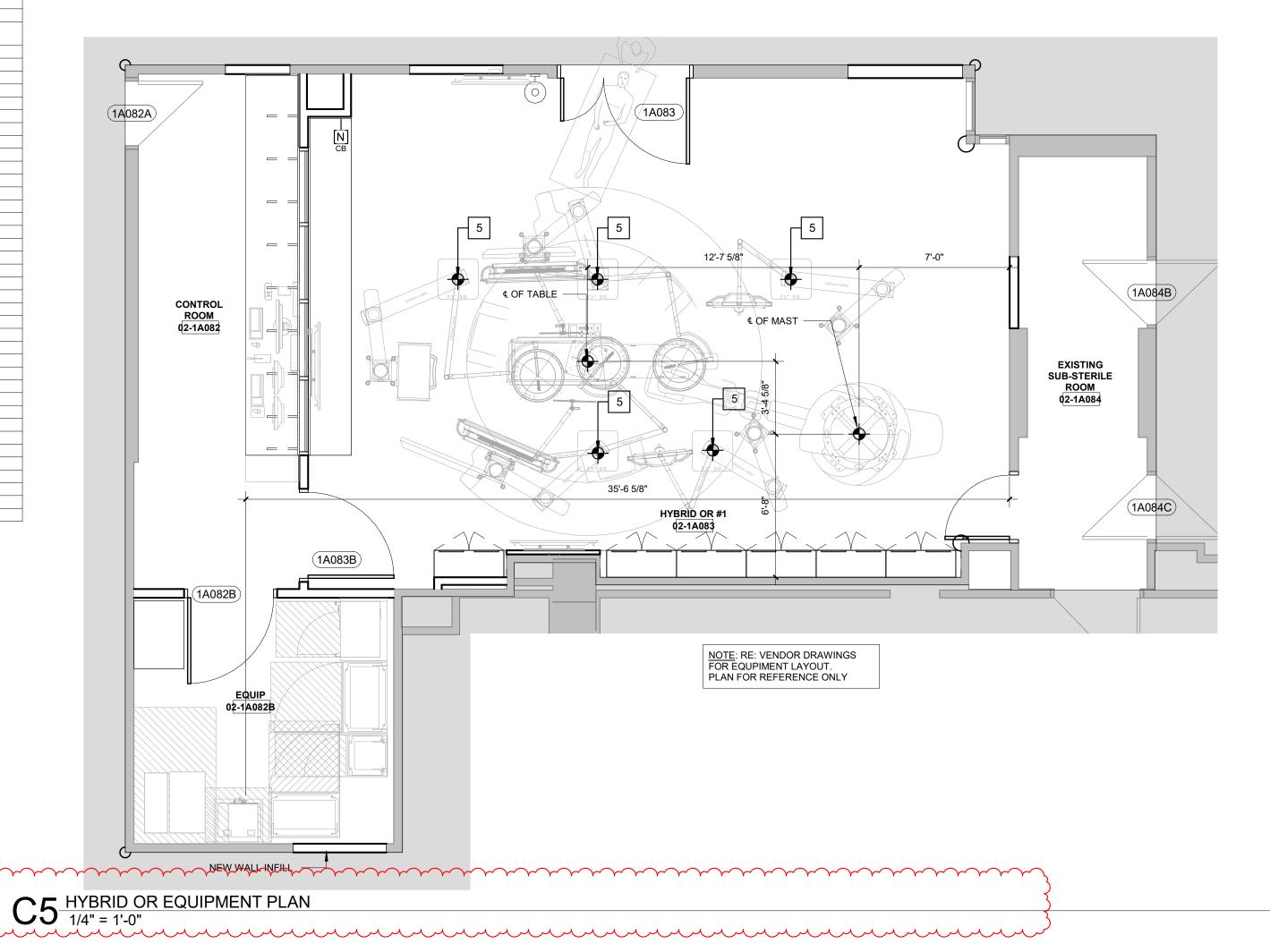
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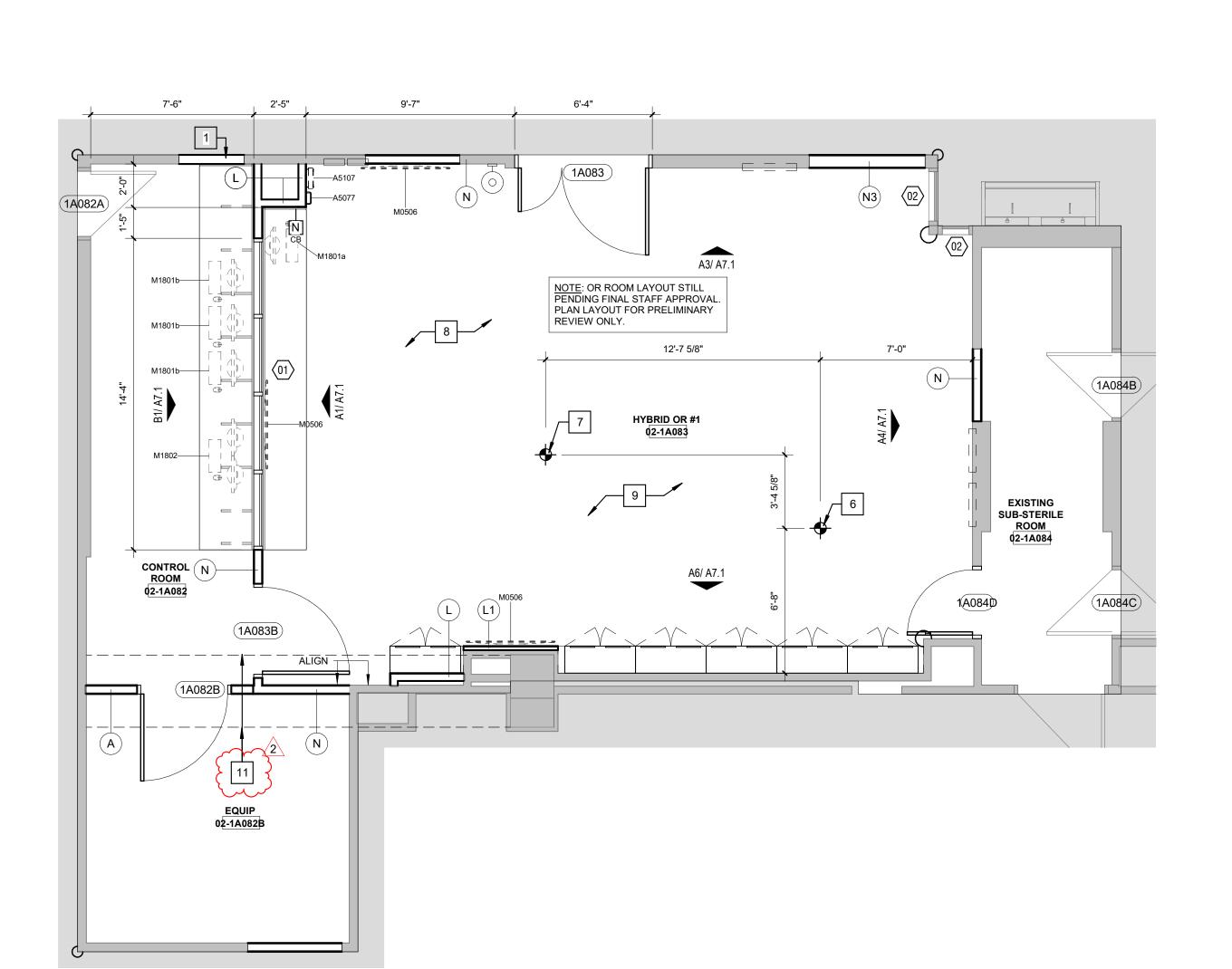
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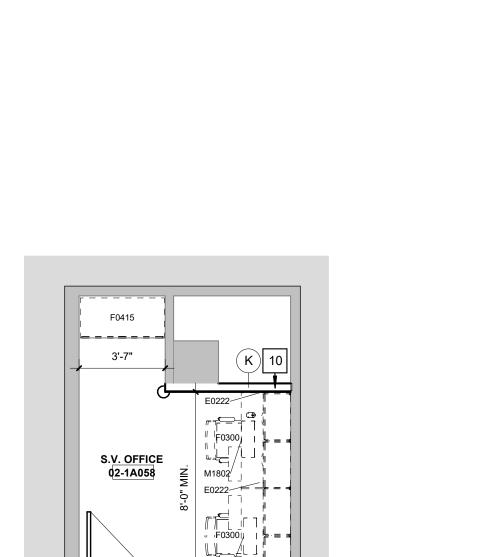
FIRST FLOOR OVERALL PLAN

FFE SCHEDULE

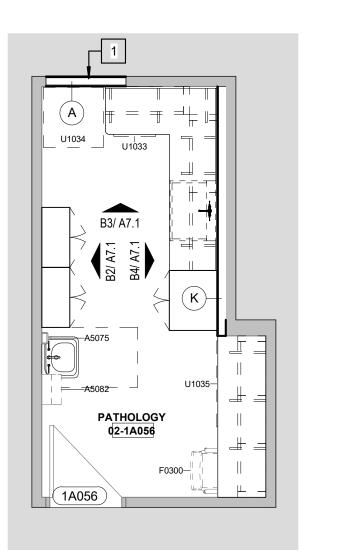




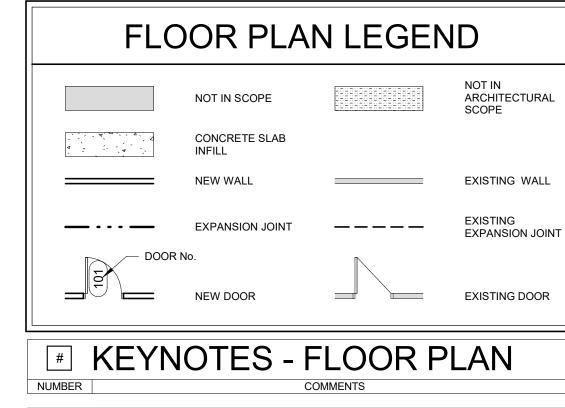
A5 HYBRID OR PLAN 1A083



B3 S.V. OFFICE 02-1A056



A3 PATHOLOGY ROOM 1A056



INFILL EXISTING OPENING WITH NEW CONSTRUCTION TO MATCH ADJACENT WALL THICKNESS, FIRE RATING, AND FINISH APPLY BLACKOUT FILM OVER EXISTING WINDOW INSTALL FIRE RATED BACKING FOR WALL HUNG EQUIPMENT AS DIRECTED BY STAFF 4 STORAGE ROOM EQUIPMENT AND SHELVING TO BE LOCATED BY STAFF. LAYOUT ON PLAN 5 ISOCENTER OF BOOM, RE: RCP, AND VENDOR DRAWINGS FOR FINAL LOCATION. ISOCENTER OF MAST RE: VENDOR DRAWINGS FOR FINAL LOCATION OF NEW HYBRID OR 7 ISOCENTER OF TABLE RE: VENDOR DRAWINGS FOR FINAL LOCATION OF NEW HYBRID OR 8 EXISTING WALLS TO RECEIVE 1/16" LEAD LINING. REMOVE EXISTING WALL FINISH AS NEEDED AND REPLACE WITH NEW GYP AND FINISHES.

COORDINATE FLOOR DEMO WITH STRUCTRUAL ENGINEER AND VENDOR DRAWINGS. LOCATE NEW WALL TIGHT TO EXISTING COLUMN - 8'-0" MIN. CLEARNANCE REQUIRED TO CORRDINATE WITH NEW WORKSTATION CORE A MAXIMUM OF 12" DIAMETER HOLE THROUGH THE MID- DEPTH OF THE GRADE BEAM, LOCATED NEAR MID-SPAN OF THE GRADE BEAM. THE GRADE BEAM IS 24" WIDE AND 32" DEEP. THE TOP OF GRADE BEAM IS 8" BELOW SLAB-ON-GRADE. MULTIPLE CONDUITS CAN RUN THROUGH THIS 12" CORE. IF ADDITIONAL CORE IS REQUIRED, FOLLOW THE SAME PROCEDURE. THE 2ND CORE NEEDS TO BE AT LEAST 2' AWAY FROM THE FIRST CORE (2'

GENERAL PLAN NOTES

REFER TO GENERAL NOTES, LEGENDS & SYMBOLS SHEET FOR ADDITIONAL GENERAL NOTES AS APPLICABLE. DO NOT SCALE DRAWINGS

THE WORD "ALIGN" AS USED IN THESE DOCUMENTS SHALL SUPERSEDE ANY DIMENSIONAL INFORMATION GIVEN.

TYPICAL DIMENSIONS ARE TO FACE OF CONCRETE, DRYWALL, CURTAIN WALL, ETC., OR TO COLUMN CENTERLINE. DIMENSIONS AT WINDOWS ARE TYPICALLY TO FACE OF FRAME. REFER TO PLAN DETAILS FOR ADDITIONAL INFORMATION.

IF MATERIAL SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER SHALL COORDINATE WITH CONTRACTOR ON THE REMOVAL OF SUCH ITEMS.

WORK MAY PROCEED AFTER HAZARDOUS MATERIAL HAS BEEN REMOVED. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED FIRE-TREATED WOOD BLOCKING BEHIND ALL CABINETS, TOILET ACCESSORIES, PLUMBING FIXTURES, AND

OTHER WALL MOUNTED ITEMS AS REQUIRED FOR ADEQUATE SUPPORT. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.

THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR

DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED.

THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.

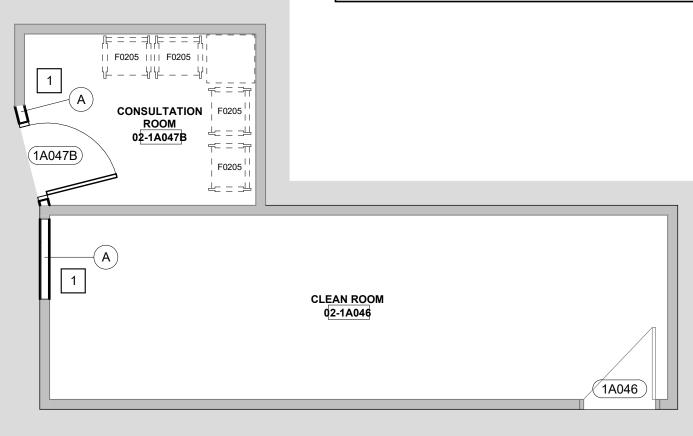
CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW

ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION. DO NOT CLOSE OR OBSTRUCT WALKWAYS, EXITS, OR OTHER FACILITIES USED BY OCCUPANTS OF BUILDINGS WITHOUT WRITTEN PERMISSION FROM AUTHORITIES HAVING JURISDICTION

CONDUCT ALL OPERATIONS IN A SAFE WORKING MANNER TO PREVENT DAMAGE OR INJURY TO ADJACENT SPACES, BUILDING, STRUCTURE, OTHER FACILITIES, AND

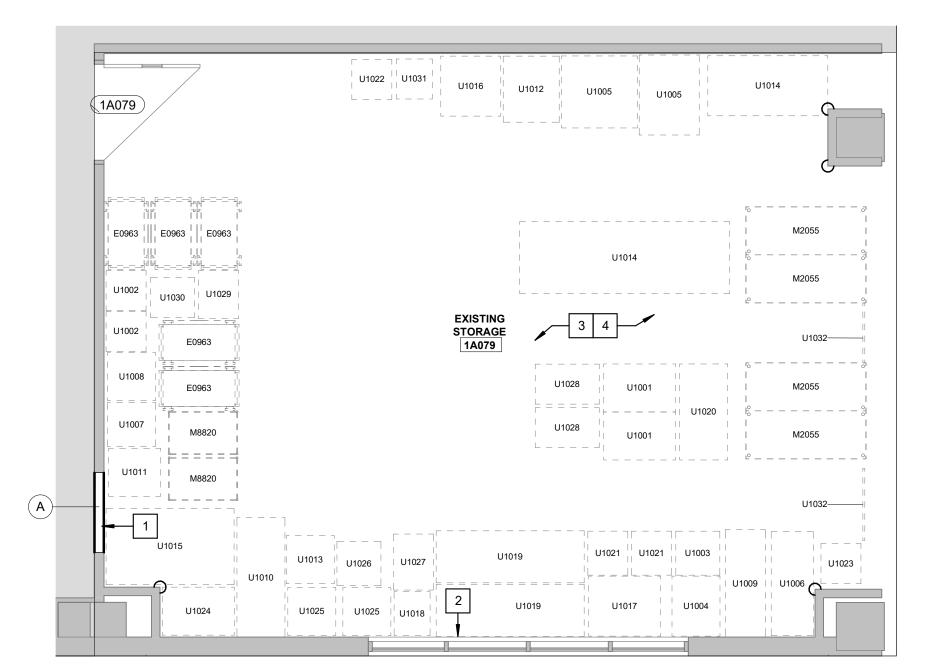
15. SEE FINISH SCHEDULE FOR FINISH LOCATION AND SPECIFICATIONS.

16. SEE DOOR SCHEDULE FOR DOOR SPECIFICATIONS.

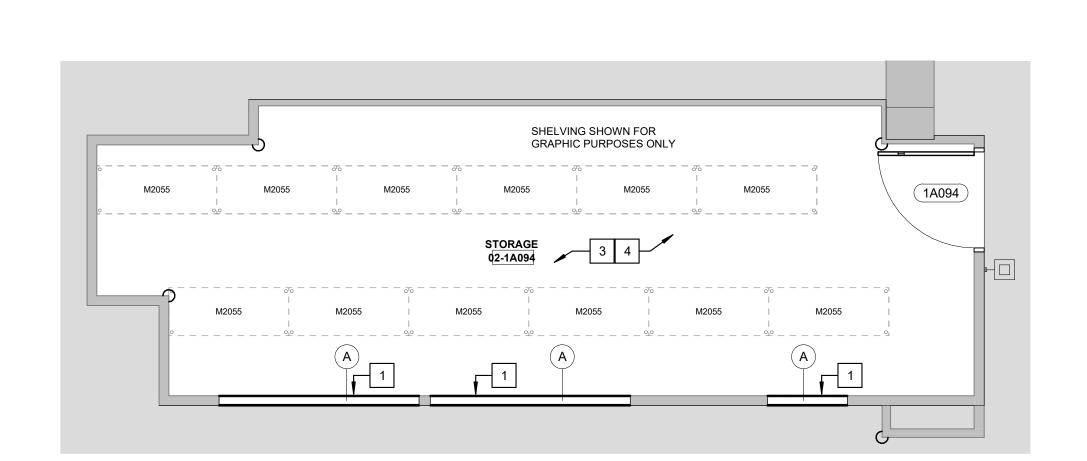


C2 CLEAN ROOM AND CONSULTATION ROOM

1/4" = 1'-0"



B2 EXISTING STORAGE 1A079 1/4" = 1'-0"



A2 STORAGE 1A094
1/4" = 1'-0"

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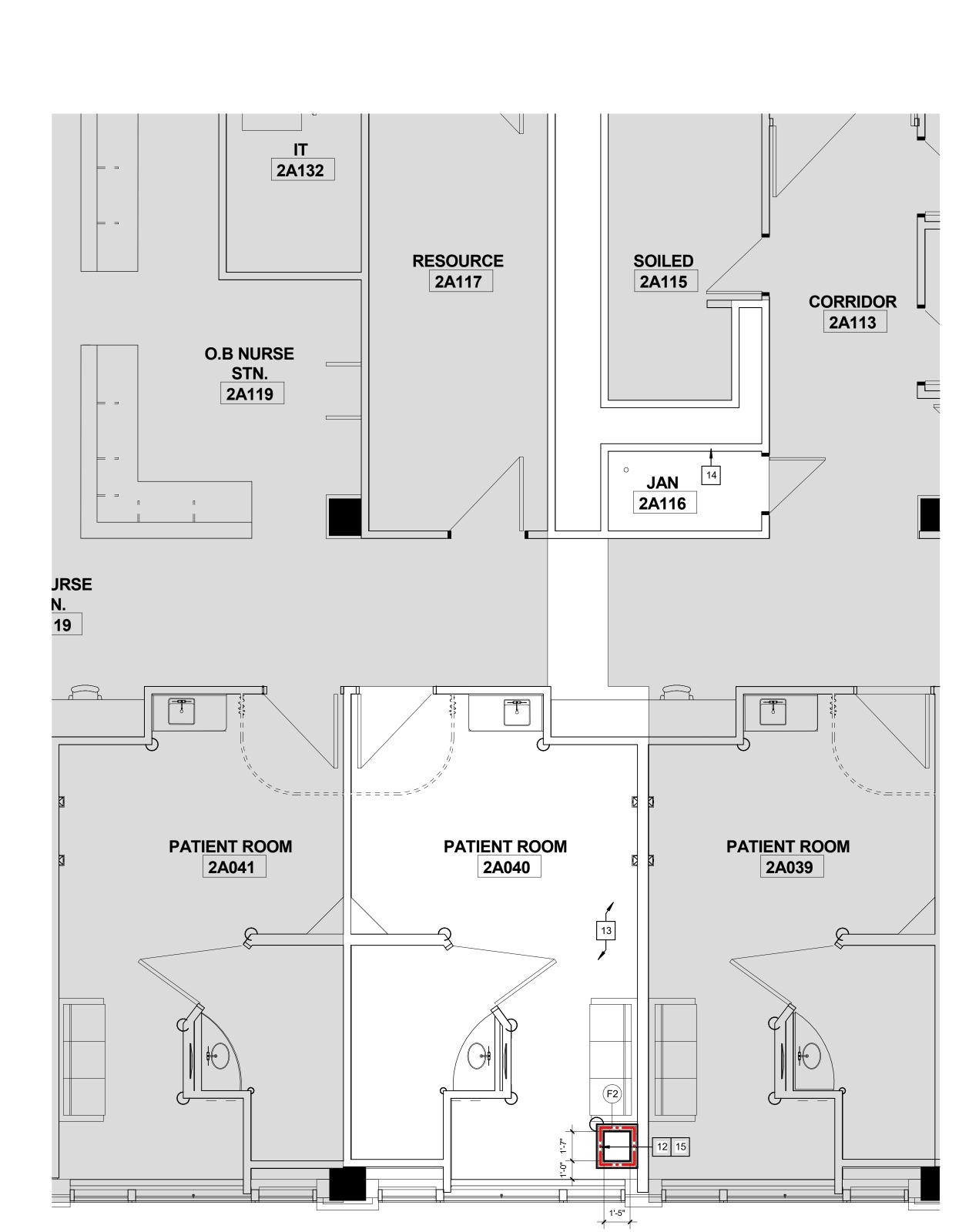
3-20034 Job Number Author Drawn By Checker Checked By

Number Date Description
2 07.13.22 ADD #2 - CITY

A2.2

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ENLARGED PLANS



KEYNOTES - 2ND FLOOR PLAN

12 1-hr RATED CHASE AROUND NEW MECH DUCT. COORDINATE SIZE WITH MECH DRAWINGS. PROVIDE WALL PROTECTION, PAINT, AND BASE TO MATCH EXISTING ROOM FINISHES.

13 REGULE AND REINSTALL PORTION OF CEILING TO COORDINATE WITH NEW MECH DUCT, REF. MECH PLANS MECH PLANS

14 CUT AND PATCH PORTION OF EXISTING JANITOR WALL TO INSTALL NEW MECH. DUCT., REF. MECH FOR SIZE AND LOCATION

15 NEW OPENING IN CONCRETE FLOOR TO BE 1/2" LARGER AT ALL SIDES THAN NEW DUCT SIZE. PRIOR TO CUTTING THE OPENING, THE CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF EXISTING BEAMS AND JOISTS. THE OPENING MUST MISS THE EXISTING BEAMS AND JOISTS. THE OPENING MUST BE CUT NEATLY. OVERCUTTING THE OPENING AND/OR SAW OVERRUNNING AT THE CORNERS ARE NOT ACCEPTABLE.

A1 SECOND FLOOR PLAN
1/4" = 1'-0"

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> 100 NE Saint Luke's Blvd Lee's Summit, MO 64086 HYBRID

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Description

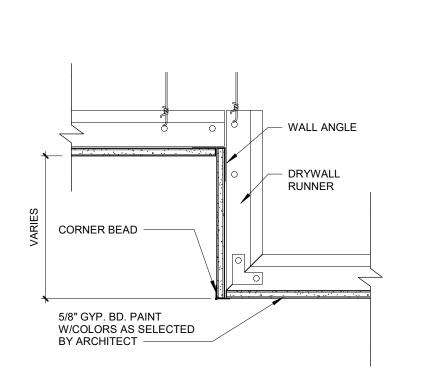
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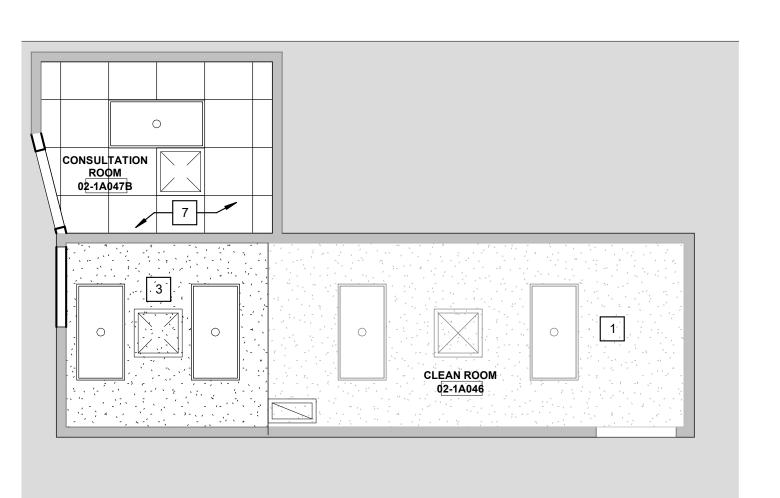
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2ND FLOOR PLANS

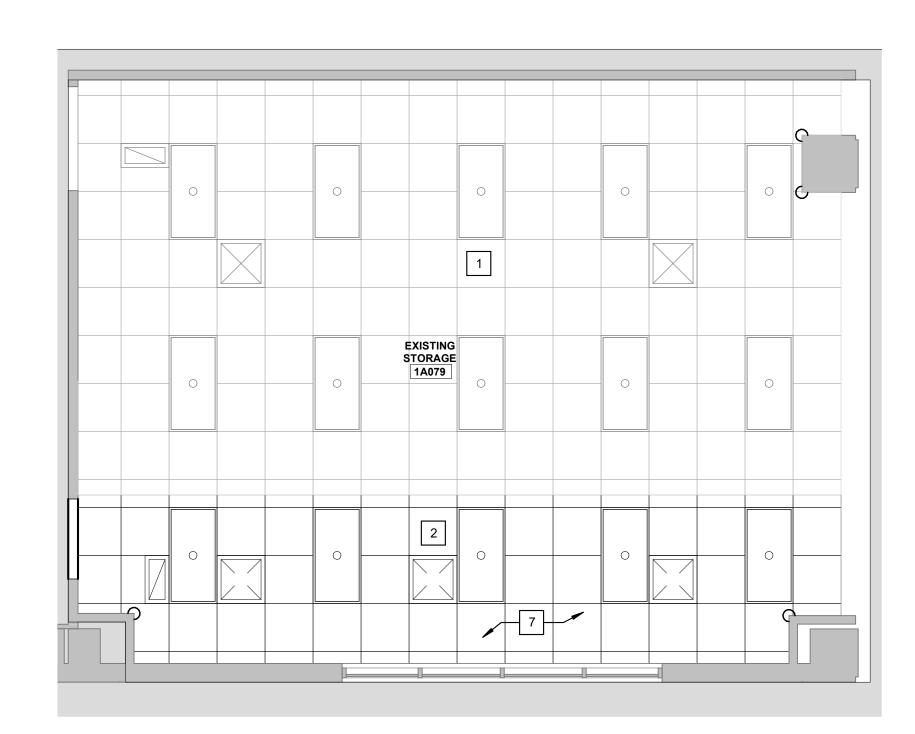
E3 LIGHT SUPPORT 1" = 1'-0"



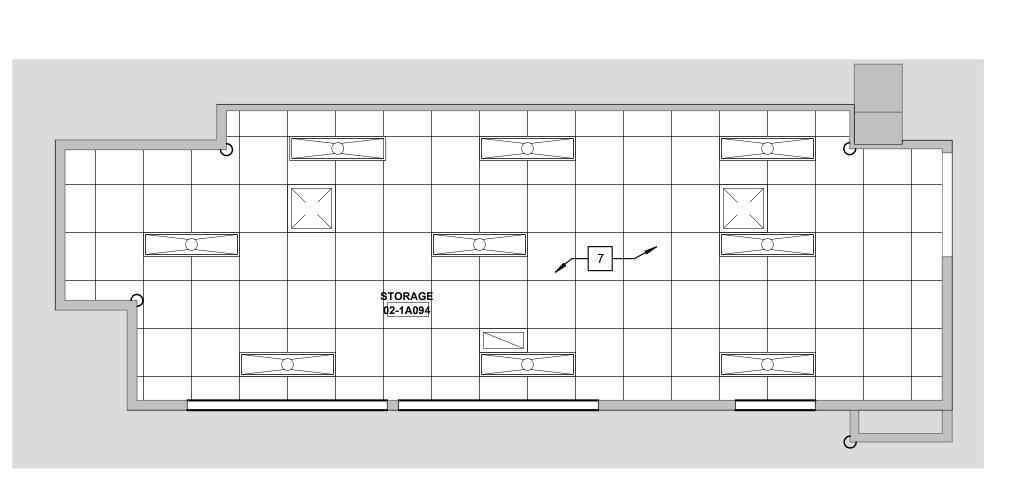
E2 GYPSUM BOARD CEILING DROP 1 1/2" = 1'-0"



C3 CLEAN ROOM RCP 1/4" = 1'-0"



B3 STORAGE RCP 1/4" = 1'-0"



A3 STORAGE ROOM RCP 1/4" = 1'-0"

REFLECTED CEILING NOTES

EXISTING MEPFP DEVICES SHOWN ARE BASED ON EXISTING DRAWINGS AND/OR FIELD OBSERVATIONS. THE OWNER/ARCHITECT DOES NOT GUARANTEE THE ACCURACY/LOCATION OR QUANTITY OF EXISTING DEVICES.

CONTRACTOR TO PROVIDE ALL REQUIRED LABOR, MATERIAL, AND EQUIPMENT NECESSARY TO MEET AND COMPLETE THE REQUIREMENTS OF THE NEW CONSTRUCTION. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREP AS REQUIRED FOR NEW FINISH APPLICATION.

SEE FINISH SCHEDULE FOR FINISH LOCATION AND SPECIFICATIONS.

THIS PLAN SHALL BE USED TO COORDINATE THE CEILING LAYOUT WITH MECHANICAL AND

ELECTRICAL WORK. VERIFY THE EXACT QUANTITY REQUIRED. CONTRACTOR TO REFER TO THE ELECTRICAL PLANS FOR ACTUAL LIGHTING SIZES AND

SEE SPECIFICATIONS FOR CEILING TYPES.

REFER TO ARCHITECTURAL FLOOR PLANS FOR MATERIAL LEGEND OF ALL TYPES. ALL CEILINGS SHALL BE 9'-0" AFF UNLESS OTHERWISE NOTED.

CEILING LEGEND RECESSED CAN LIGHT FIXTURE RE: ELECT 2X4 RECESSED/SURFACE LED LIGHT FIXTURE RE: ELECT 2X2 RECESSED/SURFACE FLUORESCENT LIGHT FIXTURE RE: ELECT

2X2/2x4 LAY-IN ACOUSTICAL CEILING

SUPPLY AIR GRILLE RE: MECH RETURN AIR OR EXHAUST GRILLE RE: MECH

9'-0"

CEILING HEIGHT

9'-0"

KEYNOTES - RCP #__

1 EXISTING CEILING TO REMAIN 2 TIE IN NEW CEILING GRID INTO EXISTING CEILING GRID 3 NEW GYP. BD. CEILING TO TIE INTO EXISTING GYP. BD CEILING. MATCH EXISTING HEIGHT.

4 ISOCENTER OF MAST RE: VENDOR DRAWINGS FOR NEW HYBRID OR EQUIPMENT. ISOCENTER OF TABLE RE: VENDOR DRAWINGS FOR NEW HYBRID OR EQUIPMENT. 6 ISOCENTER OF BOOMS RE: VENDOR DRAWINGS FOR FINAL LOCATION. RE: E3A3.1 FOR LIGHT SUPPORT DETAIL

7 REF. MECHANICAL AND ELECTRICAL FOR CEILING LAYOUT 8 OPEN TO STRUCTURE

9 DIFFUSER ARRAY WITH INTEGRATED LIGHT SYSTEM DEFERRED SUBMITTAL

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> HYBRID 100 Lee'

Checked By

Job Number Drawn By

Number Date Description 2 07.13.22 ADD #2 - CITY

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FIRST FLOOR REFLECTED CEILING

EXISTING SUB-STERILE ROOM 02-1A084 CONTROL ROOM 02-1A082 EQUIP 02-1A082B 7 8 Junion January **A5** HYBRID OR RCP 1/4" = 1'-0"

S.V. OFFICE 02-1A058

B4 S.V. OFFICE RCP 1/4" = 1'-0"

10'-2 1/8".

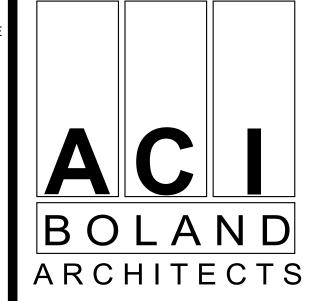
A4 PATHOLOGY RCP 1/4" = 1'-0"

DOOR OPENING DEVICES SHALL BE OPERABLE WITH ONE HAND AND SHALL NOT REQUIRE TIGHT GRASPING, TIGHT PINCHING, OR TWISTING OF THE WRIST. DOOR KNOBS ARE ALL MEANS OF EGRESS DOORS SHALL BE READILY OPENABLE FROM THE SIDE FROM WHICH EGRESS IS TO BE MADE WITHOUT THE USE OF SPECIAL TOOLS, A KEY, SPECIAL KNOWLEDGE OR EFFORT. DOUBLE KEYED DEAD BOLTS ARE PROHIBITED. PROVIDE HARDWARE INCLUDING. BUT NOT LIMITED TO THAT SHOWN IN THE HARDWARE GROUPS FOR THE NORMAL OPERATION AND USE OF EACH DOOR, MAKE RECOMMENDATIONS FOR ADDITIONAL ITEMS IN HARDWARE SUBMITTAL AS REQUIRED. ALL HARDWARE SHALL BE IN COMPLIANCE WITH ADA GUIDELINES AND NATIONAL

BUILDERS HARDWARE ASSOCIATION STANDARDS. HARDWARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.

CONTRACTOR TO SUBMIT DOOR AND HARDWARE SHOP DRAWINGS TO OWNER FOR REVIEW PRIOR TO WORK BEING PERFORMED. FAILURE TO SUBMIT DRAWINGS RESULTS IN THE CONTRACTOR ASSUMING ALL RESPONSIBILITY AT THEIR OWN EXPENSE. OWNER WILL SUPPLY PERMANENT CORES.

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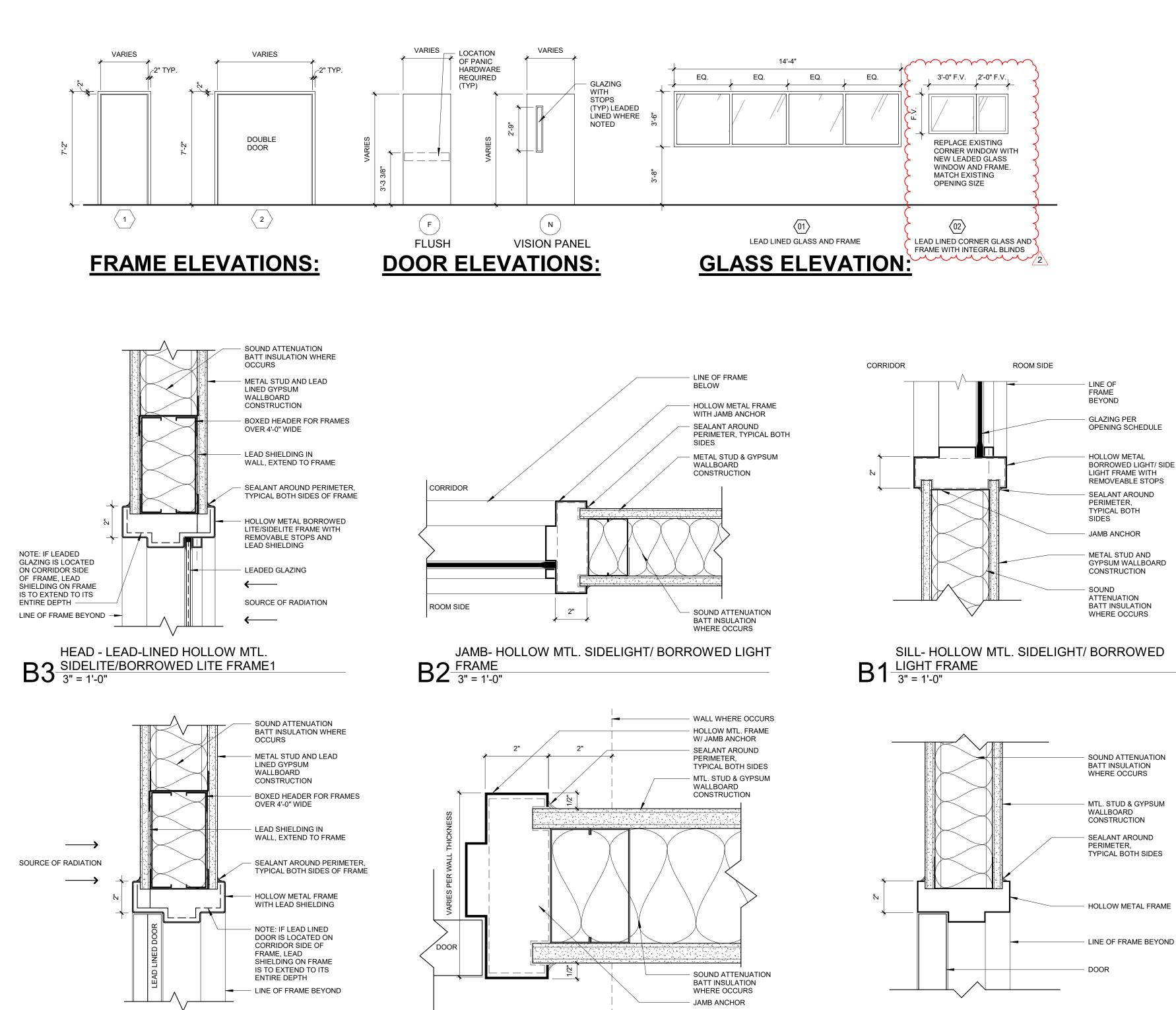
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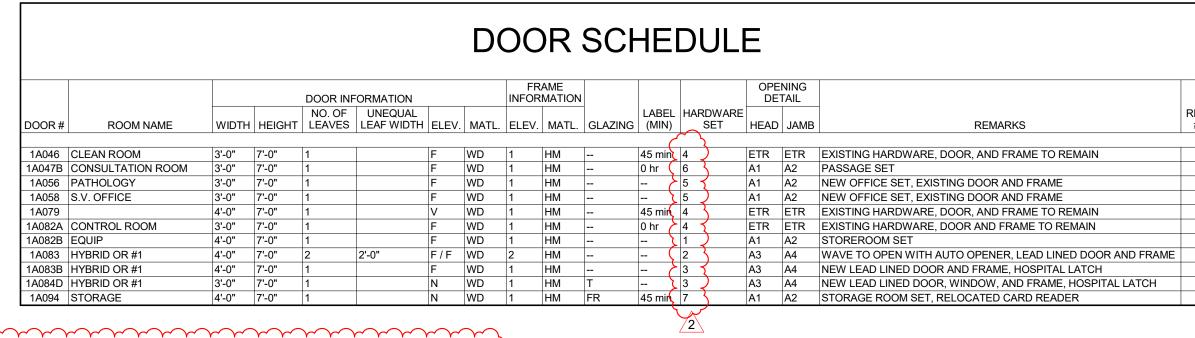
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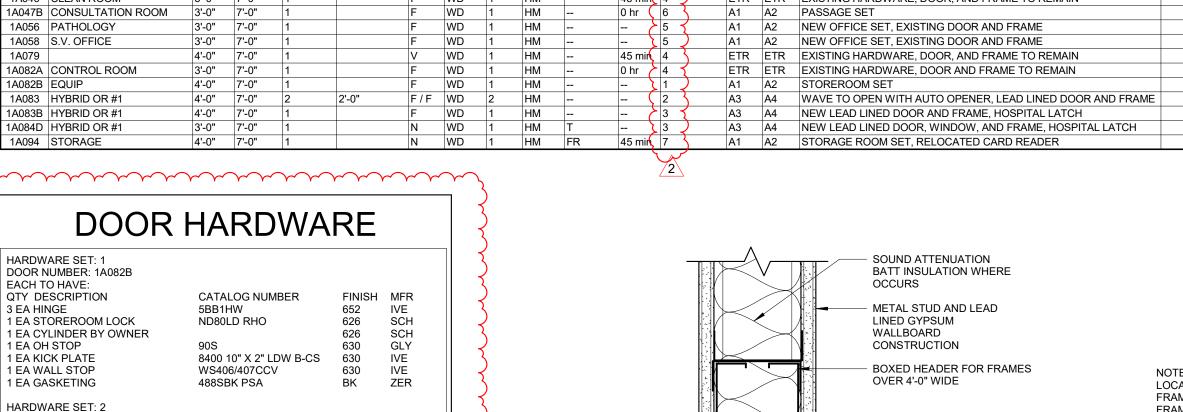
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NOTE: IF LEADED GLAZING IS

FRAME, LEAD SHIELDING ON

FRAME IS TO EXTEND TO ITS

ENTIRE DEPTH —

LOCATED ON CORRIDOR SIDE OF

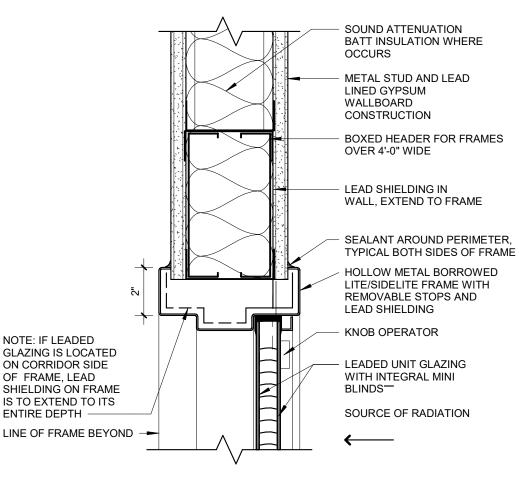
E_____**_**

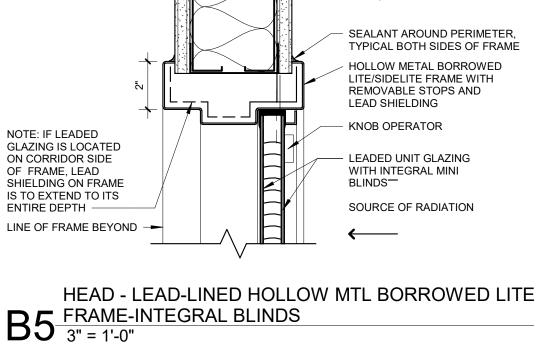
SOURCE OF RADIATION

JAMB - LEAD-LINED HOLLOW MTL.

A5 SIDELITE/BORROWED LITE FRAME AT MULLION

3" = 1'-0"





HOLLOW METAL

LEAD SHIELDING

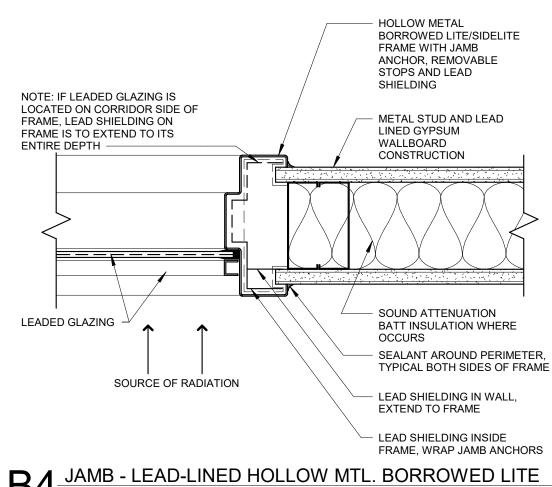
LEADED GLAZING

- REMOVABLE

E------

FRAME MULLION W/

- LINE OF FRAME BELOW



NOTE: IF LEAD LINED DOOR IS

FRAME, LEAD SHIELDING ON

FRAME IS TO EXTEND TO ITS

FRAME, WRAP JAMB ANCHORS

LEAD LINED DOOR

SOURCE OF RADIATION

A4 JAMB - LEAD-LINED HOLLOW MTL. DOOR FRAME1 3" = 1'-0"

LEAD SHIELDING INSIDE

ENTIRE DEPTH -

LOCATED ON CORRIDOR SIDE OF

DOOR & FRAME MAT'L LEGEND

HOLLOW METAL

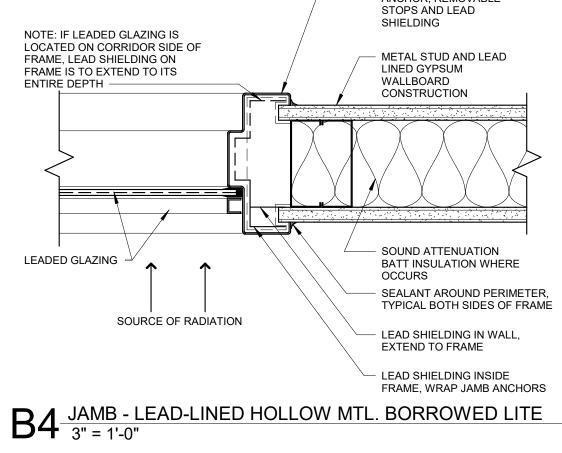
SOLID CORE WOOD

EXISTING TO REMAIN

FIRE-RATED, IMPACT

RESISTANT SAFETY GLAZING

1/4" CLEAR, TEMPERED GLAZING



- HOLLOW METAL FRAME WITH

WELDED JAMB ANCHOR

- METAL STUD AND LEAD

- SOUND ATTENUATION

BATT INSULATION WHERE

- LEAD SHIELDING IN WALL,

EXTEND TO FRAME

- SEALANT AROUND PERIMETER,

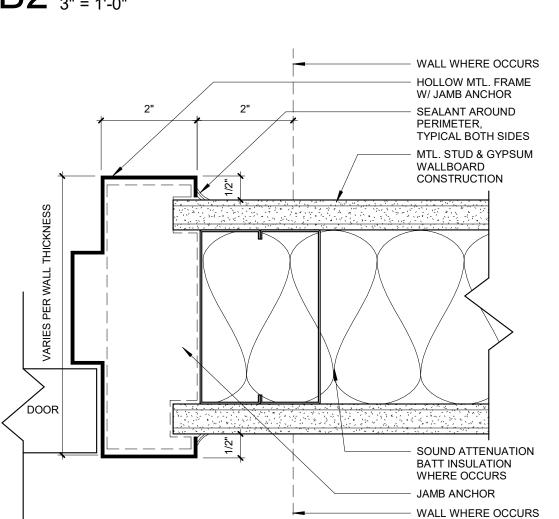
TYPICAL BOTH SIDES OF FRAME

A3 HEAD - LEAD-LINED HOLLOW MTL. DOOR FRAME1

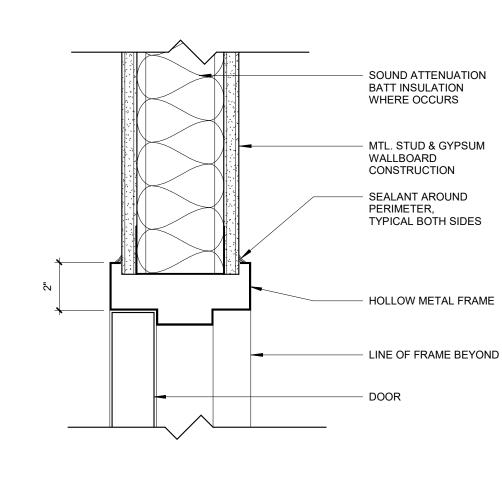
LINED GYPSUM

CONSTRUCTION

WALLBOARD



A2 TYPICAL HOLLOW METAL FRAME 6" = 1'-0"



A1 TYPICAL HEAD- HOLLOW METAL DOOR FRAME
3" = 1'-0"

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DOOR AND FRAME SCHEDULE AND

2 07.13.22 ADD #2 - CITY

DOOR NUMBER: 1A083

2 EA MAGNETIC LOCK

1 EA AUTO OPERATOR

1 EA PRESENCE SENSOR

2 EA INTERMEDIATE PIVOT

2 EA ACTUATOR, TOUCHLESS

DOOR NUMBER: 1A083B 1A084D

DOOR NUMBER: 1A046 1A079 1A082A

1 EA INTERMEDIATE PIVOT

1 EA PUSH/PULL LATCH

1 EA SURFACE CLOSER

CATALOG NUMBER

M420P 12/24 VDC

8200 4" X 16"

8310-810S

SUPERSCAN

488SBK PSA

CATALOG NUMBER

HL6 9010 2 3/4" A L

4040XP EDA

488SBK PSA

ND53LD RHO

CATALOG NUMBER

BY OWNER

ND10S RHO

WS406/407CCV

CATALOG NUMBER

488SBK PSA

OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ENTRY VIA VALID CARD

munimum,

WS406/407CCV

4000 LE SERIES

8402 34" X 1" LDW B-CS 630

LEAD LINED BY DOOR SUPPLIER

8400 10" X 2" LDW B-NH-A 630

CATALOG NUMBER FINISH MFR

REMAINDER OF HARDWARE EXISTING

8400 10" X 2" LDW B-CS 630 IVE

CARD ACCESS BY SECURITY B/O

REMAINDER OF HARDWARE EXISTING

WIRING DIAGRAM BY SECURITY B/O

LOW VOLTAGE POWER BY SECURITY B/O

EXISTING DOOR, FRAME AND HARDWARE TO

TO INTERFACE WITH EQUIPMENT MANUFACTURER, IF REQUIRED)

FINISH MFR

FINISH MFR

630

SCE

HOR

LCN

LCN

ZER

SCH

SCH

LCN

FINISH MFR

FINISH MFR

EACH TO HAVE:

2 EA PIVOT SET

QTY DESCRIPTION

2 EA PUSH PLATE

2 FA ARMOR PLATE

HARDWARE SET: 3

QTY DESCRIPTION

1 EA PIVOT SET

1 EA KICK PLATE

1 EA WALL STOP

EACH TO HAVE:

QTY DESCRIPTION

HARDWARE SET: 5

QTY DESCRIPTION

HARDWARE SET: 6

EACH TO HAVE:

QTY DESCRIPTION

1 EA PASSAGE SET

1 EA KICK PLATE

1 EA WALL STOP

1 EA GASKETING

HARDWARE SET: 7 DOOR NUMBER: 1A094

EACH TO HAVE:

1 EA NOTE

1 FA NOTE

1 FA NOTE

1 FA NOTE

QTY DESCRIPTION

READ. ALWAYS FREE FOR EGRESS.

1 EA SURFACE CLOSER

DOOR NUMBER: 1A047B

1 EA CYLINDER

EA NOTE

3 EA HINGE

1 EA ENTRANCE LOCK

DOOR NUMBER: 1A056 1A058

1 EA GASKETING HARDWARE SET: 4

1 EA GASKETING

1 EA ASTRAGAL

EACH TO HAVE:

2 EA DOOR PULL

5/31/2022

3-20034

Author

Checker

	ROOM FINISH SCHEDULE													
					W	ALLS			CASE	WORK				
ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	NORTH	EAST	SOUTH	WEST	BASE CABINETS	WALL CABINETS	COUNTERTOPS	SINKS	CEILING	NOTES	
1A079	EXISTING STORAGE	LVT-2	RB-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	-	-	-	-	ACT-1		
02-1A046	CLEAN ROOM	PTM	PTM	PTM	PTM	-	PTM	-	-	-	-	PT-5A		
02-1A047B	CONSULTATION ROOM	LVT-1	RB-1	PT-1	PT-8	PT-1	PT-1	-	-	-	-	ACT-1	FURNITURE EQUIPMENT BY J.A. MARSHALL	
02-14056	PATHOLOGY	RSF-1	IB-1	PT-1A / WP-2	PT-1A / WP-2	PT-1A	PT-1A / WP-2	-	MC-1	SST	SST	ETR		
02-1A058	S.V. OFFICE	LVT-1	RB-2	PT-1	PT-1	PT-8	PT-1	-				ACT-1	FURNITURE EQUIPMENT BY J.A. MARSHALL	
02-1A082	CONTROL ROOM	LVT-2	RB-2	PT-1	PT-1	PT-1	PT-1	-	-	SSF-1	-	AGT-1		
02-1A082B	EQUIP	LVT-2	RB-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	\sim	-	-	- '	OPEN 2		
02-1A083	HYBRID OR #1	RES-1	IB-3	WS-1	WS-1	WS-1	WS-1	MC ₁	-	SSF-1	-	PT-5A		
02-1A084	EXISTING SUB-STERILE ROOM	ETR	PTM	PTM	ETR	ETR	ETR	-	-	-	-	ETR		

- PTM BASE AND PAINT

HYBRID OR #1 02-1A083

CONTROL ROOM 02-1A082

A4 HYBRID OR FINISH PLAN
1/4" = 1'-0"

EQUIP 02-1A082B

LVT-2 RB-2 PT-1/WP-2 PT-1/WP-2 PT-1/WP-2 - - - ACT-1

- PTM BASE AND PAINT

NEW BASE,
 PAINT, AND WALL

TO MATCH REST OF ROOM

SUB-STERILE

ROOM 02-1A084

GENERAL ROOM FINISH SCHEDULE NOTES

REFER TO FINISH PLAN AND INTERIOR ELEVATIONS FOR WALL FINISHES, WALL PROTECTION, CORNER GUARDS, WINDOW TREATMENTS, FLOOR FINISH APPLICATION AND LOCATIONS ALL SOLID WOOD, WOOD VENEER, AND PLASTIC LAMINATE GRAIN SHALL BE VERTICALLY ORIENTED UNLESS OTHERWISE NOTED

ALL FACES AND UNDERSIDES OF SOFFITS AND HEADERS TO BE PT-5 UNLESS OTHERWISE NOTED WALL EXPANSION JOINTS TO BE PT-1 UNLESS OTHERWISE NOTED

DOOR FRAMES, HOLLOW METAL WINDOW FRAMES TO BE PT-4 UNLESS OTHERWISE NOTED

ALL ELECTRICAL PANELS AND METAL GRILLES SHALL BE PTD TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED

ALL COLUMN SURROUND FINISHES TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED WHERE A WALL IS INDICATED TO HAVE PARTIAL OR FULL HT WALL PROTECTION, THE ENTIRE WALL IS TO BE PTD PRIOR TO WALL PROTECTION INSTALLATION EXTEND ALL FINISHES BENEATH, BEHIND, AROUND ALL CASEWORK, EQUIPMENT, SIGNAGE, ETC

SUBMIT SAMPLES OF ALL FINISHES TO ARCHITECT FOR REVIEW PRIOR TO THE ORDERING OF MATERIAL NO IRREGULARITIES OR IMPERFECTIONS SHALL BE PRESENT IN ANY OF THE MATERIAL BEING INSTALLED. IF SUCH ITEMS ARE IDENTIFIED DURING APPLICATION, WORK SHALL BE STOPPED AND THE ARCHITECT

PROVIDE ALL MAINTENANCE MANUALS AND WARRANTY INFORMATION FOR EACH FINISH MATERIAL TO OWNER AT COMPLETION OF THE PROJECT.

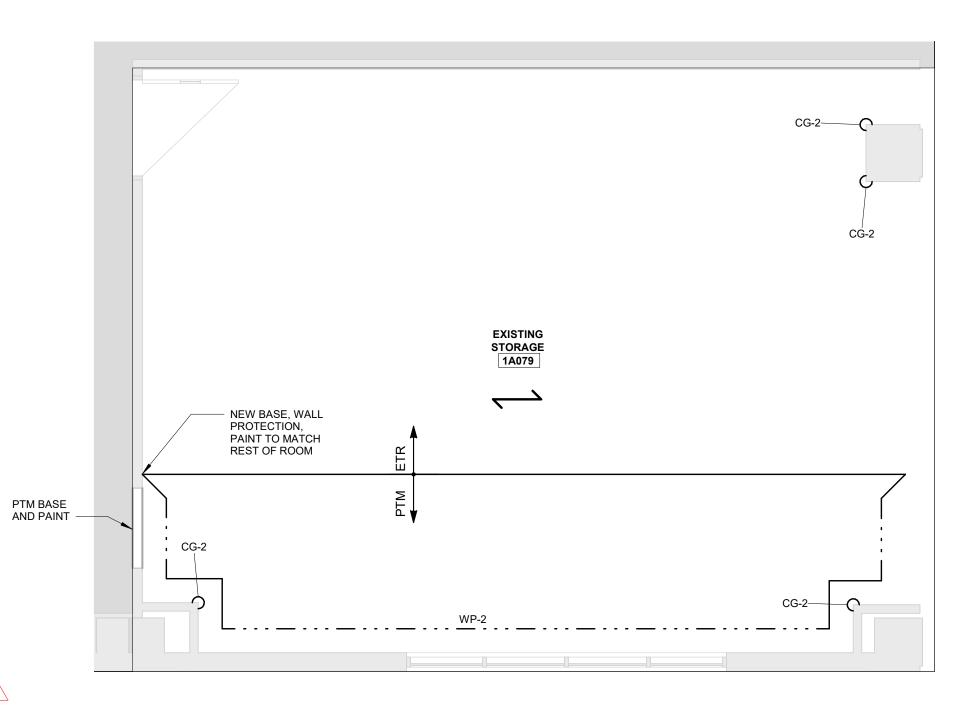
FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE WORK OF FINISH APPLICATIONS. ALL FINISHES SHALL BE INSTALLED AND MAINTAINED PER MANUFACTURER'S RECOMMENDATION AND INDUSTRY STANDARDS. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. SUBSTRATE SHALL BE SMOOTH, FREE OF DEFECTS AND

SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS. ALL MATERIAL TO COMPLY WITH FLAME SPREAD CLASSIFICATION EITHER CLASS (1) ONE OR CLASS A DEPENDING ON GOVERNING CODE IN EFFECT.

SMOKE DEVELOPMENT RATING < 450 FOR ALL FINISHES.

CONSULTATION 02-1A047B PTM BASE AND PAINT NEW BASE, WALL CLEAN ROOM REST OF ROOM _____

C3 CLEAN ROOM / CONSULT FINISH PLAN 1/4" = 1'-0"

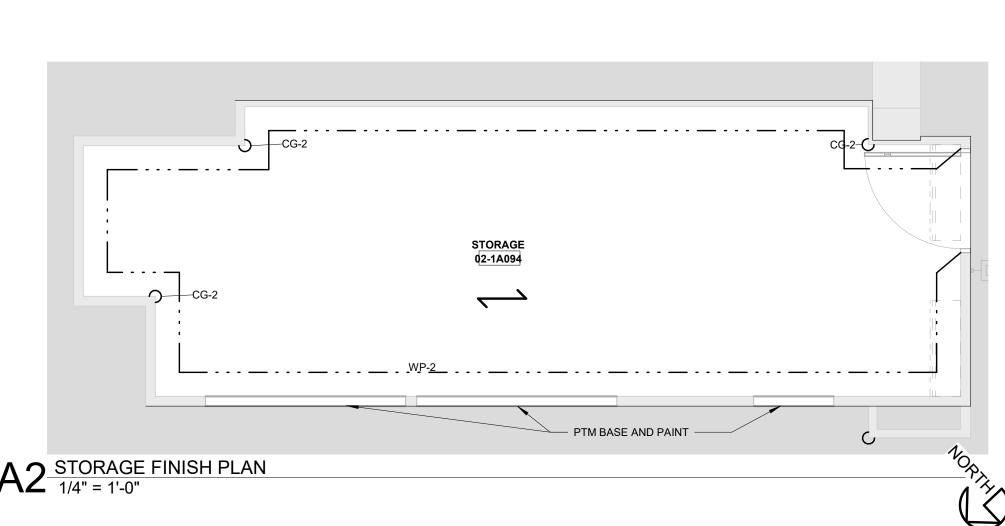


B2 EXISTING STORAGE FINISH PLAN 1/4" = 1'-0"

S.V. OFFICE 02-1A058

- PTM BASE AND PAINT

B3 S.V. OFFICE 02-1A056



License - Missouri #A-2011012130



Kansas City, MO 64108 T: 816.763.9600

ACI/Boland, Inc. Kansas City | St. Louis Licensee's Certificate of Authority Number: Missouri: #000958

MEP CONSULTANT

FINISH FLOOR PLAN LEGEND

WALL TREATMENT FLOOR TRANSITION

CORNER GUARD

FLOOR FINISH DIRECTION

IMEG Corp. 1600 Baltimore, Suite 300 Kansas City, Missouri 64108 T: 816.842.8437 Licensee's Certificate of Authority Number: Missouri: #F001325536

> **BRID** 00 ee 5/31/2022

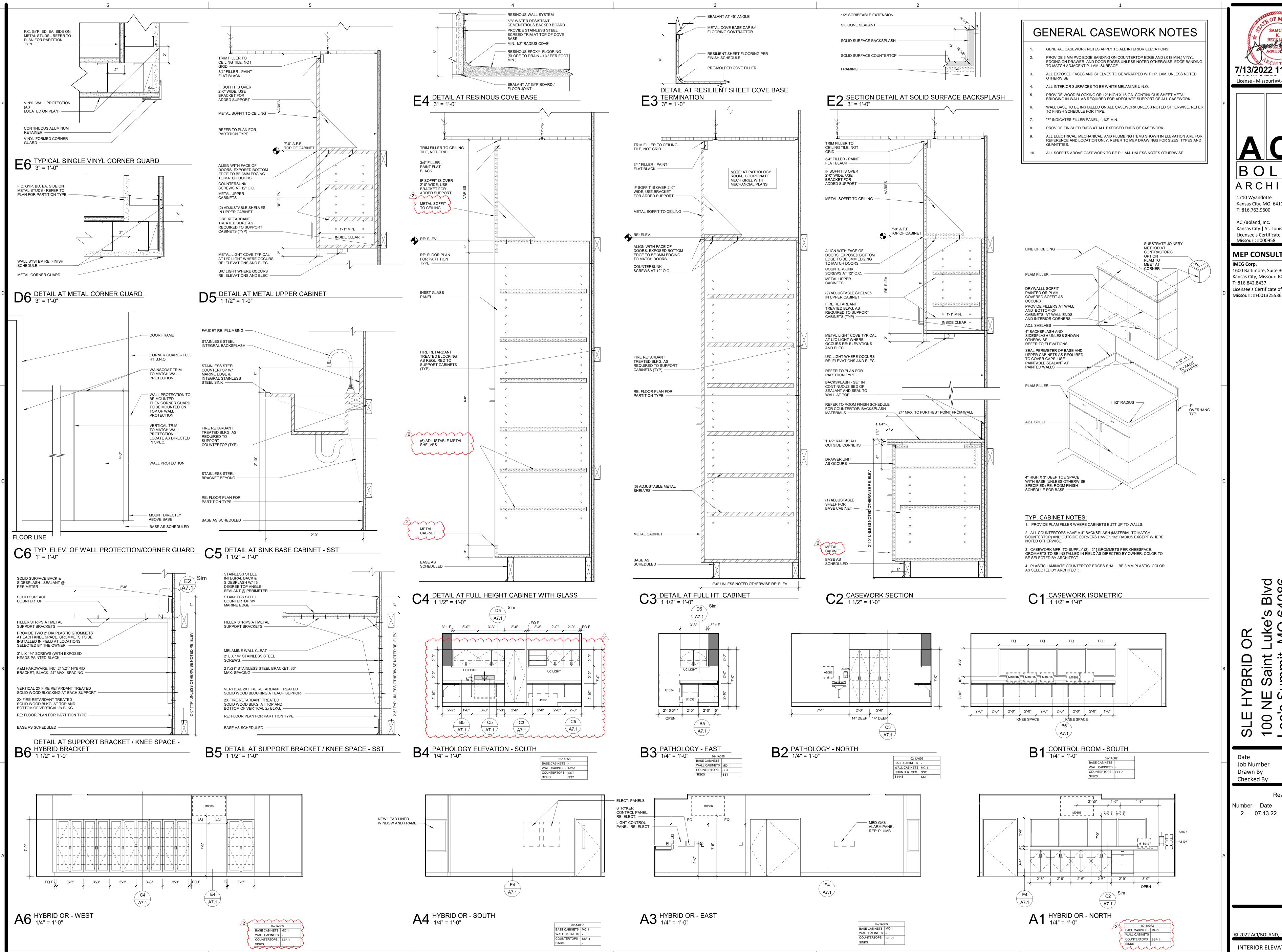
Job Number Drawn By Checked By

3-20034

Number Date Description
2 07.13.22 ADD #2 - CITY

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ROOM FINISH SCHEDULE & FINISH LEGEND



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ARCHITECTS 1710 Wyandotte Kansas City, MO 64108

ACI/Boland, Inc. Kansas City | St. Louis

Licensee's Certificate of Authority Number:

Missouri: #000958

MEP CONSULTANT

1600 Baltimore, Suite 300 Kansas City, Missouri 64108 Licensee's Certificate of Authority Number:

0 0

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Description

2 07.13.22 ADD #2 - CITY

A7.1

© 2022 ACI/BOLAND, Inc INTERIOR ELEVATIONS & DETAILS INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL

	CONTRACTOR ABBREVIATION KEY
ABBR:	DESCRIPTION:
A.C.	ASBESTOS ABATEMENT CONTRACTOR
A.V.C.	AUDIO/VISUAL CONTRACTOR
C.C.	CIVIL CONTRACTOR
C.M.	CONSTRUCTION MANAGER
E.C.	ELECTRICAL CONTRACTOR
F.P.C.	FIRE PROTECTION CONTRACTOR
F.S.C.	FOOD SERVICE CONTRACTOR
G.C.	GENERAL CONTRACTOR
H.C.	HEATING CONTRACTOR
M.C.	MECHANICAL CONTRACTOR
N.C.C.	NURSE CALL CONTRACTOR
P.C.	PLUMBING CONTRACTOR
S.C.	SECURITY CONTRACTOR
T.C.	TECHNOLOGY CONTRACTOR
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR
V.C.	VENTILATION CONTRACTOR

ACTO MASTER COMPANIES AND COMP	——AV——	ACID VENT
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ALARM PANEL HEADWALL A SINGLE GAS OUTLET (AIR) O SINGLE GAS OUTLET (OXYGEN) V SINGLE GAS OUTLET (VACUUM)		
HEADWALL A SINGLE GAS OUTLET (AIR) O SINGLE GAS OUTLET (OXYGEN) V SINGLE GAS OUTLET (VACUUM)		,
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SINGLE GAS OUTLET (OXYGEN) SINGLE GAS OUTLET (VACUUM)	A	
	O	
NITROGEN PRESSURE CONTROL CABINET PRESSURE TRANSDUCER WITH ALARM WIRING		

PLUMBING SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY.

SYMBOL: DESCRIPTION:

PLUMBING ABBREVIATION KEY DESCRIPTION: ACCESS DOOR ABOVE FINISHED FLOOR **BACKFLOW PREVENTER BATHTUB** CB **CATCH BASIN** CI CAST IRON CO CLEANOUT CS **CLINICAL SINK** DIALYSIS BOX DRINKING FOUNTAIN **DUCTILE IRON EXISTING EMERGENCY EYEWASH** ES **EMERGENCY SHOWER** ESE EMERGENCY SHOWER/EYEWASH EWC **ELECTRIC WATER COOLER** FCO FLOOR CLEANOUT FD FLOOR DRAIN FLOW METER FS FLOOR SINK GD GARBAGE DISPOSER GREASE INTERCEPTOR HB HOSE BIBB INVERT ELEVATION (FOR REFERENCE ONLY) LAV LAVATORY MB MOP BASIN MANHOLE MIXING VALVE N.C. NORMALLY CLOSED NIC NOT IN CONTRACT NORMALLY OPEN N.O. **NEUTRALIZATION TANK** OS OIL SEPARATOR RD ROOF DRAIN SCCR SHORT CIRCUIT CURRENT RATING SHOWER SK SINK SERVICE SINK TRENCH DRAIN TRAP PRIMER TYP TYPICAL UR URINAL VTR VENT THROUGH ROOF WATER CLOSET WCO WALL CLEANOUT WASH FOUNTAIN WATER HEATER WASHING MACHINE FIXTURE WM WATER METER WS WATER SOFTENER

UTILITY BOX

YARD CLEANOUT

UNLESS OTHERWISE NOTES

UON

YCO

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

- EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.

 2 NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS.
- NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS
 BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK.
 FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE
- FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS.
- 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE
- REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.

 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF ROOFS, WALLS, AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS.
- CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING.

 6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO
- CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO BIDDING.

 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, PIPING, OR DUCTWORK IN SUCH A FASHION THAT IT
- DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK.

 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT
- REMAIN ACTIVE.

 9. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW SYSTEMS ARE INSTALLED.
- 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM. MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.

MECHANICAL PHASING NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE CONTROL.

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF PHASES. REFER TO GENERAL CONTRACTOR'S INSTRUCTIONS FOR MORE DETAILS AND PHASING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF THE PHASING CRITERIA.
- REVIEW PROJECT PHASING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC. WITH AFFECTED ADJACENT AREAS.
 PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE
- 3. PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE ALARMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL PHASES OF PROJECT.
- INSTALL TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PHASES OF THE PROJECT
 PHASE DEMOLITION WORK TO MINIMIZE DOWNTIME.

PLUMBING GENERAL NOTES:

BE CONSIDERED SHUTOFF VALVES.

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR
- FULLY OPERATIONAL SYSTEMS, WHETHER SPECIFIED OR NOT.

 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER LISTED IS THE
- BASIS OF DESIGN.
 3. CONTRACTOR SHALL VERIFY THAT FIXTURES SUPPLIED ARE APPROVED PER ALL APPLICABLE STATE, LOCAL AND GOVERNING AUTHORITIES.
- ALL FIXTURES SHALL CONFORM TO FEDERAL ACT S.3874
 INVERT ELEVATIONS ARE FROM EXISTING DRAWINGS AND MAY NOT BE ACCURATE. VERIFY
- ALL ELEVATIONS BEFORE BEGINNING WORK.

 6. VERIFY UNDERGROUND PIPE SIZES, INVERT ELEVATIONS, AND LOCATIONS PRIOR TO
- BEGINNING ANY WORK.

 7. REFER TO THE PLUMBING ROUGH-IN SCHEDULE FOR THE SIZES OF BRANCH PIPES TO PLUMBING FIXTURES.
- 8. FOR CLARITY, NOT ALL VALVES HAVE BEEN SHOWN. PROVIDE SHUTOFF VALVES IN DOMESTIC WATER PIPING SERVING EACH ROOM WITH FIXTURES. ANGLE STOPS SHALL NOT
- EXISTING CONDITIONS ON DEMOLITION PLANS ARE PROVIDED TO INDICATE THE GENERAL SCOPE OF ITEMS TO BE REMOVED.
 P.C. SHALL CUT AND PATCH EXISTING AS REQUIRED FOR NEW OR DEMOLITION WORK UNLESS NOTED OTHERWISE.

MEDICAL GAS GENERAL NOTES:

- 1. THE SYMBOLS AND THE MATERIAL LIST ARE FOR THE CONVENIENCE OF THE CONTRACTOR. CONTRACTOR SHALL VERIFY QUANTITIES AND FURNISH ALL MATERIALS REQUIRED FOR FULLY OPERATIONAL SYSTEMS. WHETHER SPECIFIED OR NOT.
- 2. CATALOG NUMBERS SHALL NOT BE CONSIDERED COMPLETE, BUT ARE GIVEN AS AN AID TO THE CONTRACTOR AND TO INDICATE THE QUALITY REQUIRED. CONTRACTOR IS RESPONSIBLE FOR A COMPLETE DESCRIPTION OF MATERIAL ON THESE DRAWINGS AND IN THE SPECIFICATIONS BEFORE ORDERING. THE DESCRIPTION OF THE MATERIAL TAKES PRECEDENCE OVER THE CATALOG NUMBER. THE FIRST MANUFACTURER IS THE BASIS OF
- COORDINATE EXACT LOCATIONS/ELEVATIONS OF MEDICAL GAS OUTLETS WITH ARCHITECTURAL DRAWINGS.
- 4. REFER TO MEDICAL GAS MATERIAL LIST FOR PIPE SIZES TO INDIVIDUAL OUTLETS.

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

MECHANICAL GENERAL NOTES:

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT.
- DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES.
 COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO

VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO

VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES

- OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH FABRICATION OR EQUIPMENT ORDERS.

 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR
- EXPENSE TO OTHERS.
 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL
- CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF DESIGN.
 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY
- AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.

 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND
- 9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS PANELS PRIOR TO BIDDING.
- 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING, AND DUCTS PENETRATE. PENETRATIONS THROUGH ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR
- 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL, PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS
- WITHIN ROOMS.

 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED
 OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL
- RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT.

 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS,
- PIPING, DUCTWORK, ETC.

 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES.

 15. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT
- LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS.

 16. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6'-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED
- ELECTRICAL SPACE INCLUDING; DUCTWORK, PIPING, ETC.

 17. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL

CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.

18. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE

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PLUMBING + MEDICAL GAS SHEET INDEX

P000 PLUMBING + MEDICAL GAS COVERSHEET
P111 FIRST FLOOR DEMOLITION - PLUMBING
P121 FIRST FLOOR DEMOLITION - MED GAS
P210 UNDERSLAB - PLUMBING
P211 FIRST FLOOR - PLUMBING
P221 FIRST FLOOR - MEDICAL GAS
P600 PLUMBING SCHEDULES

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2 07/13/22 ADDENDUM 2

PLUMBING + MEDICAL GAS COVERSHEET

05/31/2022 3-20034

O.R. #7 02-1A092

CORRIDOR

02-1A01H

EQUIPMENT STORAGE

02-1A079

<u>______</u>

RECOVERY 02-1A107L

STORAGE

02-1A081

SHEET NOTES:

1. FIELD VERIFY EXACT LOCATIONS AND SIZES OF EXISTING SANITARY WASTE AND VENT PIPING SERVING PATIENT ROOMS ON SECOND FLOOR

DIRECTLY ABOVE O.R. #1, AS WELL AS EXISTING SHEET METAL DRAIN PANS INSTALLED BELOW THAT PIPING, AND EXISTING SECONDARY DRAIN PIPING (DPP) ABOVE THE CEILING OF THE O.R. DISCONNECT, REMOVE, RELOCATE AND/OR RE-WORK THAT SANITARY PIPING, THOSE DRAIN PANS, AND THE SECONDARY DRAIN PIPING AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW STRUCTURAL SUPPORTS, SURGICAL BOOMS, OTHER MEDICAL EQUIPMENT, MECHANICAL DUCTWORK, AIR TERMINALS, ETC. ALSO INSTALL NEW SHEET METAL DRAIN PANS BELOW ANY EXISTING SANITARY PIPING TO REMAIN THAT WAS NOT DIRECTLY ABOVE THE OLD (SMALLER) O.R. BUT ENDS UP ABOVE THE NEW (LARGER) O.R. ALL RELOCATED/NEW PORTIONS OF DRAIN PANS SHALL BE 3" DEEP, SEALED WATER-TIGHT, AND SHALL BE PITCHED DOWN TO A 1" SECONDARY DRAIN PIPE CONNECTION AT THE LOWEST PART OF THE PAN. THE 1" DPP PIPING FROM EACH PAN SHALL BE PITCHED TO DRAIN BY GRAVITY AND SHALL EITHER DRAIN INTO A NEARBY PAN, OR CONNECT INTO THE EXISTING 1" DPP PIPING EXITING THE O.R.

KEYNOTES:

DISCONNECT AND REMOVE SINK OR LAVATORY, INCLUDING ACCESSORIES. FIELD VERIFY ROUTING OF HOT, COLD AND VENT PIPING AND REMOVE PIPING NOT REQUIRED TO REMAIN BACK TO VALVES OR MAINS AND CAP. CAP SANITARY WASTE PIPING IN WALL OR BELOW SLAB AND PATCH WALL OR SLAB AS REQUIRED.

EXISTING UPPER SHEET METAL DRAIN PAN FOR EXISTING SANITARY WASTE AND VENT

OTHER TRADES. PROTECT UPPER DRAIN PANS

- PIPING IN STRUCTURAL PAN SPACE, SERVING SECOND FLOOR. REFER TO SHEET NOTE #1.

 3. EXISTING LOWER SHEET METAL DRAIN PAN FOR EXISTING 4" SANITARY WASTE MAIN PIPING. CUT VERTICAL PIPES AND REMOVE THE LOWER PIPING, LOWER DRAIN PAN AND SECONDARY DRAIN PIPING AS REQUIRED TO AVOID INTERFERENCE WITH NEW WORK BY
- CONNECTIONS, RE: SHEET P211.

 4. 3/4" PIPING FORMERLY SERVED AN EXTERIOR WALL HYDRANT (BEFORE THE FIRST O.R. ADDITION PROJECT) AND PIPING MAY HAVE BEEN ABANDONED ABOVE CEILING REMOVE PIPING BACK TO CORRIDOR AND CAP, SO THAT NO PIPING REMAINS ABOVE THE NEW O.R., #1.

AND REMAINING PIPING FOR NEW

BRUCE ELDON

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NUMBER

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FIRST FLOOR DEMOLITION PLUMBING

FIRST FLOOR DEMOLITION - PLUMBING

1/8" = 1'-0"

02-1A108

SHEET NOTES:

. REFER TO P000 FOR GENERAL NOTES AND SYMBOLS.

KEYNOTES: #

RECEPTION

. CUT AND CAP 1/2" O, 1/2" MA AND 1" VAC AND REMOVE PIPING AS INDICATED, INCLUDING ASSOCIATED WALL OUTLETS/INLETS NOT SHOWN (APPROXIMATELY 2 O OUTLETS, 2 MA OUTLETS AND 4 VAC INLETS PER PRE-OP ROOM). PATCH WALL AS REQUIRED.

2. CUT 1/2" O ON DOWNSTREAM SIDE OF THE NORMAL AND EMERGENCY OXYGEN SERVICE (CHANGEOVER) VALVES. THE SERVICE VALVES SHALL REMAIN. ALSO CUT 1" MV, 3/4" WAGD, 3/4" N, 1/2" MA AND 1/2" NO AND REMOVE PIPING, ZONE VALVES, CEILING
OUTLETS/INLETS (APPROX. QUANTITY OF 20),
NITROGEN CONTROL PANEL, WALL OUTLETS
(APPROX. QUANTITY OF 2) AND ALARM PANEL
SERVING O.R. #1. PROTECT REMAINING PIPING
FOR NEW CONNECTIONS, RE: SHEET P221. Bruce E. Hart - #E-22817 07/13/2022

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FIRST FLOOR DEMOLITION - MEDICAL GAS

1/8" = 1'-0"

SLEEP #1 02-1A070A 02-1A01A CORRIDOR PIPING TO OTHER ZONE VALVES 02-1A01B PRE-OP HOLDING 8 (23 H.) PIPING FROM SOURCE EQUIPMENT 02-1A059 HOLDING 7 (23 H.) PIPING TO PRE-OP ROOMS — PAIN C-ARM HOLDING 5 (23 H.) 02-1A061 PRE-OP HOLDING 02-1A067 HOLDING 4 (23 H.) PRE-OP HOLDING 02-1A066 PRE-OP HOLDING 02-1A064 02-1A085 ===== PIPING TO BRONC. RM. ZONE VALVES PRE-OP 02+1A098 −ZONE VALVES TO PIPING TO OTHER PRE-OP ROOMS SOURCE EQUIPMENT STERILE 02-A0189 SHARED SOIL 02-1A105 STAFF TLT. RECOVERY 02-1A107B OR #6 OR #5 02-1A090 CORRIDOR |----CORRIDOR 02-1A01L R.N. #3 02-1A01N RECOVERY RECOVERY 02-1A107D | (A2-1A107E RECOVERY 02-1A107L O.R. #7 02-1A092 02-1A108 EQUIPMENT STORAGE 02-1A079

STORAGE

02-1A081

CORRIDOR

02-1A01H

REFER TO P000 FOR GENERAL NOTES AND SYMBOLS.

KEYNOTES: #

OLD DRAWINGS SHOWED A SINK NEAR THIS LOCATION THAT WAS LATER REMOVED. IF POSSIBLE, THE 2" SAN FROM THE NEW SINK SHALL CONNECT TO (PREVIOUSLY-CAPPED) 2" SAN PIPING IN THE WALL ABOVE THE SLAB. IF NOT POSSIBLE, THEN SAWCUT SLAB AS REQUIRED TO INSTALL NEW 2" SAN BELOW SLAB AS INDICATED, THEN PATCH SLAB TO MATCH EXISTING.

IF POSSIBLE, THE 2" SAN FROM THE NEW LAVATORY SHALL CONNECT TO THE EXISTING 2" SAN IN THE WALL ABOVE THE SLAB (SERVING THE ADJACENT SINK ON OPPOSITE SIDE OF WALL). IF NOT POSSIBLE, THEN
SAWCUT SLAB AS REQUIRED TO CONNECT
NEW 2" SAN INTO TOP OF EXISTING 4" SAN
BELOW SLAB AS INDICATED, THEN PATCH SLAB

TO MATCH EXISTING. THE MEP WORK SHOWN IN THIS ROOM IS PRELIMINARY AND WAITING ON FINAL ROOM LAYOUT AND VENDOR EQUIPMENT INFORMATION. REFER TO SEPERATE NARRATIVE ISSUED WITH DOCUMENTS FOR ADDITIONAL INFORMATION FOR PRICING PURPOSES.

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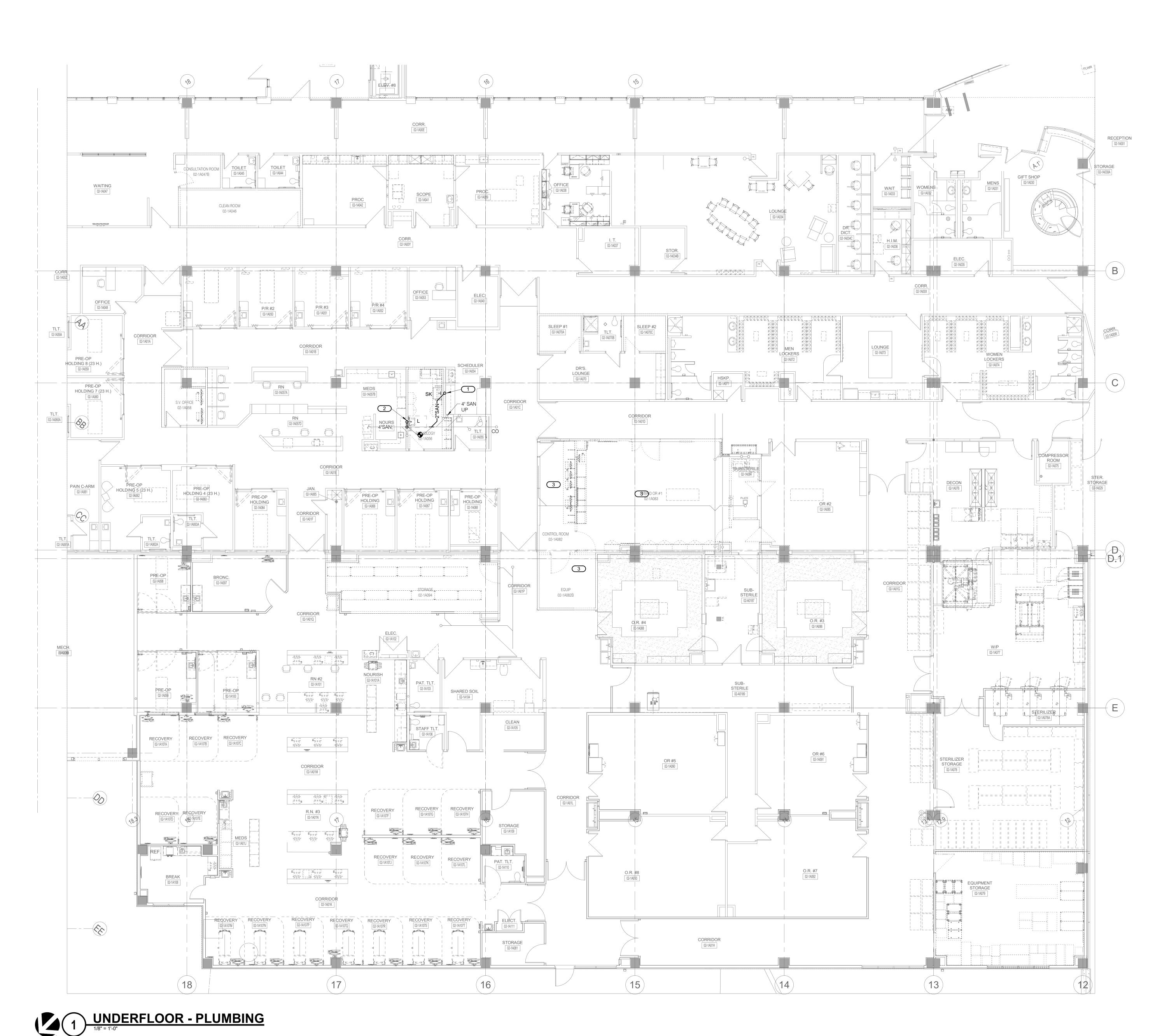
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UNDERSLAB - PLUMBING



STORAGE

02-1A081

CORRIDOR

02-1A01H

^^^^^ SHEET NOTES:

> FIELD VERIFY EXACT LOCATIONS AND SIZES OF EXISTING SANITARY WASTE AND VENT PIPING SERVING PATIENT ROOMS ON SECOND FLOOR DIRECTLY ABOVE O.R. #1, AS WELL AS EXISTING SHEET METAL DRAIN PANS INSTALLED BELOW THAT PIPING, AND EXISTING SECONDARY DRAIN PIPING (DPP) ABOVE THE CEILING OF THE O.R. DISCONNECT, REMOVE, RELOCATE AND/OR RE-WORK THAT SANITARY PIPING, THOSE DRAIN PANS, AND THE SECONDARY DRAIN PIPING AS REQUIRED TO ALLOW FOR INSTALLATION OF NEW STRUCTURAL SUPPORTS, SURGICAL BOOMS, OTHER MEDICAL EQUIPMENT, MECHANICAL DUCTWORK, AIR TERMINALS, ETC. ALSO INSTALL NEW SHEET METAL DRAIN PANS BELOW ANY EXISTING SANITARY PIPING TO REMAIN THAT WAS NOT DIRECTLY ABOVE THE OLD (SMALLER) O.R. BUT ENDS UP ABOVE THE NEW (LARGER) O.R. ALL RELOCATED/NEW PORTIONS OF DRAIN PANS SHALL BE 3" DEEP, SEALED WATER-TIGHT, AND SHALL BE PITCHED DOWN TO A 1" SECONDARY DRAIN PIPE CONNECTION AT THE LOWEST PART OF THE PAN. THE 1" DPP PIPING FROM EACH PAN SHALL BE PITCHED TO DRAIN BY GRAVITY AND SHALL EITHER DRAIN INTO A NEARBY PAN, OR CONNECT INTO THE EXISTING 1" DPP PIPING EXITING THE O.R.

KEYNOTES:

- . ROUTE PIPING DOWN IN WALL TO THE SIDE OF NEW SINK, TO AVOID INTERFERENCE WITH NEW DUCTWORK IN WALL, THEN OFSET BELOW DUCTWORK TO BELOW SINK.

 TURN DRAIN PIPING DOWN ON FACE OF WALL AND TERMINATE OVER EXISTING JANITOR SINK. PROVIDE A SIGN THAT READS, "CONDENSATE DRAIN PIPING FROM
- EQUIPMENT ROOM 1A207." CONNECT TO (3) VERTICAL PIPES WHERE THEY WERE CUT DURING DEMOLITION. INSTALL NEW HORIZONTAL 4" SAN PIPING AT HIGHER ELEVATION (BESIDE EXISTING RETURN AIR DUCTWORK) AS REQUIRED TO AVOID INTERFERENCE WITH NEW WORK BY OTHER TRADES. PIPING MAY TURN DOWN TO A LOWER ELEVATION NEAR PERIMETER OF ROOM, WHERE IT WOULD NOT INTERFERE WITH OTHER WORK. PROVIDE NEW DRAIN

PANS BELOW PIPING AS DESCRIBED IN SHEET

NOTE #1. PROVIDE NEW DRAIN PAN AT HIGH ELEVATION, BELOW EXISTING UPPER SANITARY WASTE AND VENT PIPING THAT WAS FORMERLY IN A DIFFERENT ROOM, BUT IS NOW ABOVE THE NEW , LARGER O.R. #1 AS DESCRIBED IN SHEET NOTE #1. PROVIDE NEW DRAIN PAN AT LOWER ELEVATION, BELOW EXISTING 4" SANITARY WASTE MAIN PIPING THAT WAS FORMERLY IN A DIFFERENT ROOM, BUT IS NOW ABOVE THE NEW, LARGER O.R. #1, AS DESCRIBED IN SHEET NOTE #1.

SPRINKLER NOTE:

PRINKLER CONTRACTOR SHALL DISCONNECT RELOCATE AND/OR REMOVE ANY AND/OR ALL SPRINKLER PIPING AND SPRINKLER HEADS AS REQUIRED BY MECHANICAL, ELECTRICAL AND GENERAL CONTRACTORS. REMOVE ALL PRINKLER HEADS THAT ARE NOT CONCEALED TYPE. AFTER ALL LARGER DUCTWORK AND PIPING HAVE BEEN INSTALLED, SPRINKLER CONTRACTOR SHALL REINSTALL SPRINKLER HEADS AND/OR PIPING REQUIRED TO SPRINKLER REMODELED SPACE. SPRINKLER CONTRACTOR SHALL ALSO INSTALL NEW HEADS AND/OR PIPING AS REQUIRED BY REMODEL OF SPACE. ALL SPRINKLER HEADS SHALL BE CONCEALED TYPE.

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FIRST FLOOR - PLUMBING

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FIRST FLOOR - PLUMBING

1/8" = 1'-0"

STORAGE

02-1A081

CORRIDOR

02-1A01H

SHEET NOTES:

REFER TO P000 FOR GENERAL NOTES AND SYMBOLS.

KEYNOTES:

- . UPDATE LABEL ON ZONE VALVE BOX TO REFLECT ROOMS SERVED. CONNECT TO 1/2" O WHERE IT WAS CUT DURING DEMOLITION, ON DOWNSTREAM SIDE OF EXISTING NORMAL AND EMERGENCY OXYGEN SERVICE (CHANGEOVER) VALVES. ALSO CONNECT TO 1" MV, 3/4" WAGD, 3/4" N, 1/2" MA AND 1/2" NO WHERE THEY WERE CUT DURING DEMOLITION AND EXTEND TO NEW VALVE BOX AS SHOWN. VALVE BOX SHALL FACE CORRIDOR.
- CONNECT 1" MV AND 3/4" N TO PIPING CONNECTIONS ON STRYKER EQUIPMENT BOOM, PER STRYKER'S WRITTEN
 INSTRUCTIONS. BOOM TO HAVE (4) MV INLETS
 AND (1) NITROGEN CONTROL PANEL WITH OUTLÈT.
- CONNECT 1" MV, 3/4" WAGD, 1/2" O, 1/2" MA AND 1/2" NO TO PIPING CONNECTIONS ON STRYKER ANESTHESIA BOOM, PER STRYKER'S WRITTEN INSTRUCTIONS. BOOM TO HAVE (2) MV INLETS. (1) WAGD INLET, (2) O OUTLETS, (1) MA OUTLET ÀŃD (1) NO OUTLÈT. CONNECT 1" MV, 3/4" WAGD, 1/2" O, 1/2" MA AND
- 1/2" NO TO PIPING CONNECTIONS ON STRYKER
 UTILITY BOOM, PER STRYKER'S WRITTEN
 INSTRUCTIONS. BOOM TO HAVE (2) MV INLETS,
 (1) WAGD INLET, ET AND (1) NO OUTLET. COORDINATE EXACT LOCATION OF AREA ALARM PANEL WITH ARCHITECT PRIOR TO INSTALLATION OF PIPING IN WALL, TO ENSURE PIPING DOES NOT INTERFERE WITH PANEL.

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FIRST FLOOR - MEDICAL GAS

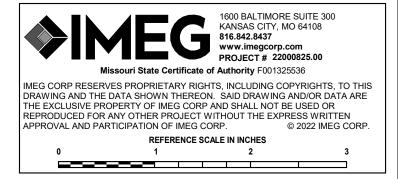
PLUMBING ROUGH-IN SCHEDULE

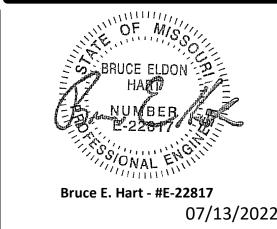
NOTES: (APPLIES TO ALL PLUMBING FIXTURES LISTED BELOW)

1) SIZES SHOWN ARE MINIMUMS. LARGER SIZES SHOWN ON THE DRAWING SHALL DICTATE THE ROUGH-IN SIZE. 2) SANITARY RISERS UP IN WALL TO FIXTURES SHALL BE A MINUMUM OF 2". 3) DOMESTIC WATER BRANCH PIPING OUTSIDE OF THE WALL/CHASE SHALL BE A MINIMUM OF 3/4" UNLESS NOTED OTHERWISE. ONLY THE FINAL RISE-DROP SHALL BE SMALLER. 4) FINAL SANITARY SIZE SHALL MATCH P-TRAP SIZE (REFER TO MATERIAL LIST).

TAG NAME	DESCRIPTION	COLD WATER	HOT WATER	SANITARY	VENT
L-1	LAVATORY	1/2"	1/2"	1 1/2"	1 1/2"
SK-1	SINK	1/2"	1/2"	1 1/2"	1 1/2"

MEDICAL GAS MATERIAL LIST DESCRIPTION MANUFACTURER AND MODEL AAP-1 AREA ALARM PANEL - MODULAR IN DESIGN, DIGITAL TYPE, USED WITH REMOTE BEACONMEDAES OR LOCAL SELF CONTAINED LINE PRESSURE AND LINE VACUUM SENSORS. THE MEDICAL GAS LINES TO BE MONITORED SHALL INCLUDE THE FOLLOWING: MEDICAL AIR VACUUM NITROGEN NITROUS OXIDE WASTE ANESTHETIC GAS DISPOSAL THE MODULE FOR MONITORING EACH GAS OR VACUUM LINE SHALL INCLUDE THE FOLLOWING: AN AUDIBLE WARNING DEVICE THAT WILL SOUND IF THE PRESSURE IN A MEDICAL GAS LINE IS 20% ABOVE OR BELOW ITS NORMALSETTING AND AN "ABNORMAL" RED LIGHT THAT WILL COME ON. A SWITCH SHALL BE PROVIDED TO SILENCE THE AUDIBLE WARNING DEVICE. "ABNORMAL" RED LIGHT WILL REMAIN LIT UNTIL CONDITION HAS BEEN CORRECTED. A BUILT-IN LCD (LIQUID CRYSTAL DISPLAY) WILL CONTINUOUSLY INDICATE THE PRESSURE OR VACUUM AT ALL TIMES. A TEST SWITCH SHALL BE SUPPLIED TO TEST INTERNAL CIRCUITS, LIGHTS ANDWARNING DEVICES. ALL POWER WIRING TO THE ALARM PANEL AND SENSORS TO BE WIRED BY THE ELECTRICAL CONTRACTOR. ALL ALARM WIRING TO THE PANEL IS THIS CONTRACTORS RESPONSIBILITY. ALL WIRING TO COMPLY WITH THE RECOMMENDATION OF THE ALARM PANEL MANUFACTURER AND SHALL BE RUN IN CONDUIT. ALL WIRING SHALL COMPLY WITH THE LATEST EDITION OF THE NATIONAL ELECTRICAL CODE. THIS CONTRACTOR SHALL PROVIDE WIRING DIAGRAMS AND REQUIREMENTS TO THE ELECTRICAL CONTRACTOR. VB-1 VALVE BOX - PAINTED GALVANIZED STEEL WITH PLASTER FRAME, TEMPORARY BEACONMEDAES PLASTER GUARD, IDENTIFICATION COVER AND SHIELD. THE FINISH FRAME SHALL MOUNT TO BOX WITH CONCEALED MOUNTING SCREWS. PLACEMENT OF VALVE HANDLE WITHIN THE BOX SHALL BE SUCH THAT THE EMERGENCY PLASTIC PULL-OUT WINDOW CANNOT BE REPLACED WITH THE VALVE HANDLE IN THE "OFF" POSITION. FACTORY INSTALLED TUBING SHALL EXTEND AT LEAST 3" BEYOND THE BOX, AND THE VALVE BODY SHALL BE SWUNG OUT OF LINE OF HEAT TRANSFER, PERMITTING JOINT TO BE BRAZED WITHOUT OBSTRUCTION OR HEAT DAMAGE TO VALVE. OPEN ENDS OF TUBING SHALL BE CAPPED TO AVOID PREINSTALLATION CONTAMINATION. A 1-1/2" DIAMETER LINE PRESSURE/VACUUM GAUGE SHALL BE SUPPLIED AND INSTALLED DOWNSTREAM OF SHUTOFF VALVE. ALL VALVES SHALL BE PREPARED FOR OXYGEN SERVICE AND SHALL CONFORM TO NFPA #99. ALL VALVES SHALL BE OF BALL-TYPE. WITH DOUBLE O-RING STEM SEAL AND TEFLON BALL SEATING, MINIMUM WORKING PRESSURE OF 400 PSIG, ACTUATED FROM FULL "ON" TO FULL "OFF" BY 90 DEGREE TURN OF VALVE HANDLE. IDENTIFY SERVICE ON EACH VALVE HANDLE. VALVES SHALL BE THE SAME SIZE AS THE PIPING ENTERING THE VALVE. VALVE BOX SHALL CONTAIN THE FOLLOWING VALVES, FROM TOP TO BOTTOM: NITROUS OXIDE, MEDICAL AIR, OXYGEN, NITROGEN, WASTE ANESTHESIA GAS





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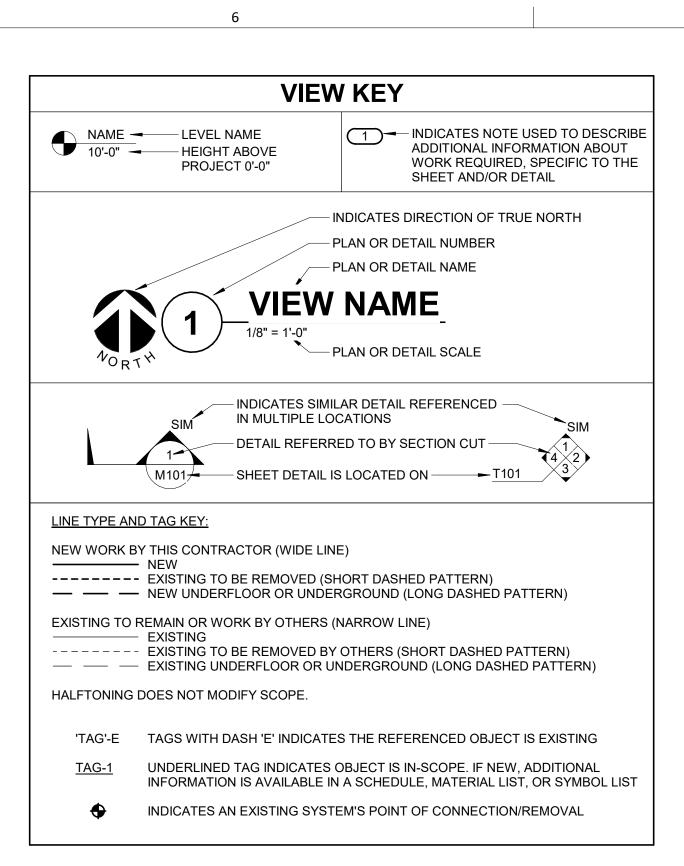
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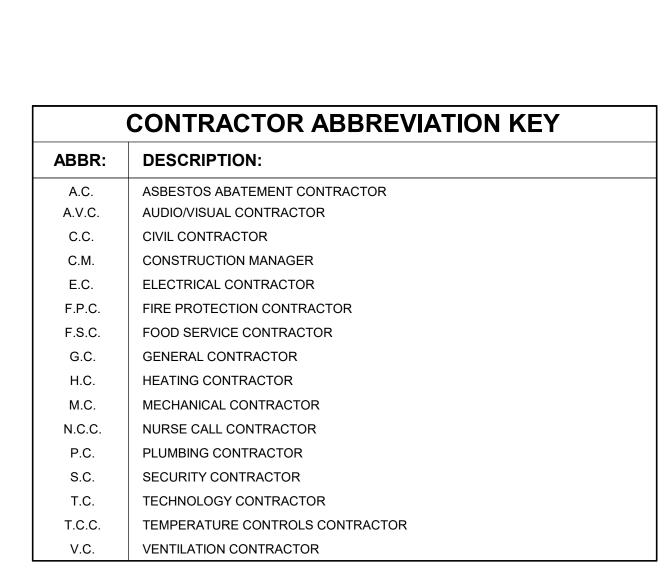
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2 07/13/22 ADDENDUM 2

P600

PLUMBING SCHEDULES





——CS15——	CLEAN STEAM - NUMBER INDICATES PRESSURE IN PSIG.
	CHILLED WATER RETURN
cws	CHILLED WATER SUPPLY
—DPP——	DRAIN
—FOR——	FUEL OIL RETURN
—FOS——	FUEL OIL SUPPLY
—G——	NATURAL GAS
—GV——	GAS REGULATOR VENT
-GWR	GLYCOL WATER RETURN
-GWS	GLYCOL WATER SUPPLY
-HCR	HEATING/CHILLED WATER RETURN
-HCS	HEATING/CHILLED WATER SUPPLY
-HG	REFRIGERANT HOT GAS
HPC——	HIGH PRESSURE CONDENSATE
-HPS	HIGH PRESSURE STEAM
-HWR	HEATING WATER RETURN
-HWS	HEATING WATER SUPPLY
-LCS	LOW PRESSURE CLEAN STEAM
—LIQ——	REFRIGERANT LIQUID
-LPC	LOW PRESSURE CONDENSATE
-LPS	LOW PRESSURE STEAM
-LWR	LOOP WATER RETURN
LWS	LOOP WATER SUPPLY
-MV	MEDICAL VACUUM
-PC	PUMPED CONDENSATE
-PD	PUMPED DISCHARGE
RCR	RADIANT COOLING RETURN
RCS—	RADIANT COOLING SUPPLY
RWR——	REHEAT WATER RETURN
-RWS	REHEAT WATER SUPPLY
-suc	REFRIGERANT SUCTION
-SV	SAFETY RELIEF VENT
-VAC	LAB VACUUM
	PIPE CAP
<u> </u>	PIPE DOWN
o	PIPE UP OR UP/DOWN
	PITCH PIPE IN DIRECTION
-	DIRECTION OF FLOW IN PIPE
	DIELECTRIC CONNECTION
	UNION/FLANGE
	SHUTOFF VALVE NORMALLY OPEN
₩	SHUTOFF VALVE NORMALLY CLOSED
─₩ ──	THROTTLING VALVE
¤	BALANCING VALVE (NUMBER INDICATES GPM)
	AUTOMATIC BALANCING VALVE
−i \$ 	MIXING VALVE
- Şi	CONTROL VALVE (THREE-WAY)
'	
₩——	CONTROL VALVE (TWO-WAY)
	SOLENOID VALVE
	CHECK VALVE
ַ עַעָּעָוּ	BACKFLOW PREVENTER
	BACKI LOW FIXEVENTER
Ĭ	
*	SAFETY/RELIEF VALVE
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	
- □	PRESSURE REDUCING VALVE (LIQUID/GAS)
-6	PRESSURE REDUCING VALVE (STEAM)
	TRIPLE DUTY VALVE (ANGLE TYPE)
T	·
	TRIPLE DUTY VALVE (IN-LINE TYPE)
	PUMP
Ŷ	VACUUM BREAKER
, 	"WYE" - STRAINER
<u> </u>	
	"WYE" - STRAINER W/SHUTOFF VALVE AND HOSE CONNECTION WITH CAP
	BASKET STRAINER
	FLEXIBLE CONNECTION
	PRESSURE/TEMPERATURE TEST PLUG
 b	REDUCER - REFERENCE SPECIFICATION FOR CONCENTRIC/ECCENTRIC AND FOT/FOB
	SUCTION DIFFUSER WITH SUPPORT FOOT
<u> </u>	
용	AUTOMATIC AIR VENT
†	MANUAL AIR VENT
⊤	DDAINI VALVE MUTULIOGE GOMESTICM COST
ž	DRAIN VALVE WITH HOSE CONNECTION AND CAP
→ P	PRESSURE SENSOR (FURNISHED WITH BALL VALVE)
│	PRESSURE GAUGE (FURNISHED WITH BALL VALVE)
	DIFFERENTIAL PRESSURE SENSOR
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	STATIC SWITCH
└-{SP	
FM	FLOW METER
FM	
	FLOW SWITCH
FM	
FM F	FLOW SWITCH FLOW SENSOR
FM F	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE)
FM F	FLOW SWITCH FLOW SENSOR
	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE)
FM F	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE) F&T STEAM TRAP (REFER TO SCHEDULE) INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE)
	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE) F&T STEAM TRAP (REFER TO SCHEDULE) INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE
	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE) F&T STEAM TRAP (REFER TO SCHEDULE) INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE PIPE ANCHOR EXPANSION JOINT
	FLOW SWITCH FLOW SENSOR STEAM TRAP (REFER TO SCHEDULE) F&T STEAM TRAP (REFER TO SCHEDULE) INVERTED BUCKET STEAM TRAP (REFER TO SCHEDULE) ALIGNMENT GUIDE PIPE ANCHOR

MECHANICAL SYMBOL LIST

NOT ALL SYMBOLS MAY APPLY

SYMBOL: DESCRIPTION:

BOILER BLOW DOWN

BOILER FEED WATER

——CBR—— CHILLED BEAM RETURN

——CBS—— CHILLED BEAM SUPPLY

——CR—— CONDENSER WATER RETURN

CONDENSER WATER SUPPLY

——CA—— COMPRESSED AIR

	NOT ALL SYMBOLS MAY APPLY.
OL:	DESCRIPTION:
	DIRECTION OF AIR FLOW
	FLEXIBLE DUCT
	MANUAL VOLUME DAMPER
R	RISE IN DIRECTION OF AIR FLOW
	DROP IN DIRECTION OF AIR FLOW
	DUCT CAP
\leq	DUCT DOWN
\leq	DUCT UP
	SUPPLY/OUTSIDE AIR DUCT SECTION
	RETURN AIR DUCT SECTION
	EXHAUST/RELIEF AIR DUCT SECTION
	4-WAY DIFFUSER WITH BLANKOFF IN ONE DIRECTION
<u> </u> 5	AIR TERMINAL PROPERTIES SYMBOL NECK SIZE/CFM
###	TERMINAL AIR BOX (REFER TO SCHEDULE)
###	TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)
•	FAN POWERED TERMINAL AIR BOX w/REHEAT COIL (REFER TO SCHEDULE)
	HUMIDIFIER
Z	OPPOSED BLADE DAMPER (REFER TO SCHEDULE)
a	PARALLEL BLADE DAMPER (REFER TO SCHEDULE)
•	DIFFERENTIAL PRESSURE SENSOR HUMIDISTAT SENSOR
	HUMIDISTAT / SENSOR
	CARBON MONOXIDE SENSOR
2	CARBON DIOXIDE SENSOR
	OCCUPANCY SENSOR
	PRESSURE SENSOR/MONITOR
]	PRESSURE SENSOR (DUCT MOUNTED)
)	THERMOSTAT/SENSOR
	TEMPERATURE SENSOR
	THERMOSTAT/SENSOR WITH HEAVY DUTY ENCLOSURE
	TEMPERATURE SENSOR WITH WELL
	THERMOMETER WITH WELL (DIAL TYPE)
	THERMOMETER WITH WELL (FILLED TYPE)
XX-Y	AIRFLOW MEASUREMENT SYMBOL XX - AHU SYMBOL Y - SEQUENTIAL NUMBER

	MECHANICAL ABBREVIATION KEY
ABBR:	DESCRIPTION:
AD	ACCESS DOOR
AFF	ABOVE FINISHED FLOOR
С	COMMON
CO	CLEANOUT
CFSD	CONTROL/FIRE/SMOKE DAMPER
DPG (0-2")	DIFFERENTIAL PRESSURE GAUGE (RANGE)
DPS	DIFFERENTIAL PRESSURE SWITCH
EA	EXHAUST/RELIEF AIR
ECFSD	EXISTING CONTROL FIRE SMOKE DAMPER
EFD	EXISTING FIRE DAMPER
EFSD	EXISTING FIRE SMOKE DAMPER
EP	ELECTRICAL TO PNEUMATIC VALVE
ESD	EXISTING SMOKE DAMPER
FD	FIRE DAMPER
FOB	FLAT ON BOTTOM
FOT	FLAT ON TOP
FSD	FIRE/SMOKE DAMPER
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
PS	PRESSURE SWITCH
RA	RETURN AIR
SA	SUPPLY AIR
SCCR	SHORT CIRCUIT CURRENT RATING
SD	SMOKE DAMPER
TAB	TERMINAL AIR BOX
TD	TRANSFER DUCT
TYP	TYPICAL
UC-1	DOOR UNDERCUT BY OTHERS (1" TYPICAL)
UON	UNLESS OTHERWISE NOTES

MECHANICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

- 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING. 2. NOT ALL EXISTING DUCTWORK AND PIPING IS SHOWN. VERIFY EXISTING CONDITIONS
- BEFORE STARTING WORK. NOTIFY ENGINEER OF ANY CONFLICTS WITH NEW WORK. 3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR DUCTWORK AND PIPING BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD
- 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK. 5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING, REMOVAL AND PATCHING OF
- ROOFS. WALLS. AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. 6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF
- CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO 7. WHERE EXISTING MECHANICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH
- NEW EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT. PIPING. OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING MECHANICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. PROVIDE TEMPORARY CONNECTIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING
- CONSTRUCTION. MAINTAIN ACCESS TO EXISTING MECHANICAL INSTALLATIONS THAT REMAIN ACTIVE 9. OBTAIN PERMISSION FROM OWNER BEFORE SHUTTING DOWN ANY SYSTEM FOR ANY

REASON. MAINTAIN SERVICE TO ALL COMPONENTS THAT ARE TO REMAIN UNTIL NEW

SYSTEMS ARE INSTALLED. 10. MAINTAIN EXISTING SYSTEM IN SERVICE UNTIL NEW SYSTEM IS COMPLETE AND READY FOR TIE IN AND SWITCHOVER. DRAIN SYSTEM ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM OWNER BEFORE PARTIALLY OR COMPLETELY DRAINING SYSTEM, MAKE CHANGEOVER TO NEW SYSTEMS WITH MINIMUM OUTAGE.

MECHANICAL PHASING NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

- 1. REFER TO ARCHITECTURAL DRAWINGS FOR GENERAL DESCRIPTION OF PHASES. REFER TO GENERAL CONTRACTOR'S INSTRUCTIONS FOR MORE DETAILS AND PHASING SCHEDULES AND FOR CONCURRENT WORK. MECHANICAL, ELECTRICAL AND TECHNOLOGY DRAWINGS DEPICT THE INTENT OF THE FINAL DESIGN. THE MECHANICAL, ELECTRICAL, AND TECHNOLOGY DRAWINGS DO NOT DEPICT THE MEANS AND METHODS TO MEET THE REQUIREMENTS OF THE PHASING CRITERIA.
- 2. REVIEW PROJECT PHASING PLANS TO COORDINATE DEMOLITION WORK, OUTAGES, ETC. WITH AFFECTED ADJACENT AREAS.
- 3. PROVIDE TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ZONE VALVES, ZONE ALARMS, ETC. AS NEEDED TO MAINTAIN SERVICE TO ALL AREAS DURING ALL PHASES OF
- 4. INSTALL TEMPORARY DUCTWORK, PIPING, SHUTOFF VALVES, ETC. AS NECESSARY TO KEEP ALL OCCUPIED SPACES OPERATIONAL THROUGHOUT ALL PHASES OF THE PROJECT
- PHASE DEMOLITION WORK TO MINIMIZE DOWNTIME.

TAB PRE-DEMOLITION NOTES:

- BEFORE ANY DEMOLITION WORK IS BEGUN A COMPLETE AIR BALANCE TEST SHALL BE PERFORMED BY THE TESTING, ADJUSTING AND BALANCING (TAB) CONTRACTOR ON EXISTING AIR HANDLERS AND EXHAUST FANS SERVING THE AREAS AFFECTED BY CONSTRUCTION. EQUIPMENT TO BE DEMOLISHED DOES NOT REQUIRE TESTING. PROVIDE AIR BALANCE TESTING ONLY ON EQUIPMENT THAT WILL CONTINUE TO BE USED TO SERVE
- RENOVATED AREAS AFTER THE CONSTRUCTION PHASE IS COMPLETED. 2. AIRFLOW READINGS AT A SUPPLY AIR, RETURN AIR OR EXHAUST AIR FAN SOURCE SHALL BE TAKEN AS NEAR THE FAN(S) AS POSSIBLE, ON THE FAN SIDE OF THE FIRST BRANCH TAKE-OFF (MULTIPLE DUCT TRAVERSES MAY BE REQUIRED AT SOME FANS), FAN SOURCE READINGS SHALL INCLUDE AIRFLOW RATE, TOTAL STATIC PRESSURE, TOTAL QUANTITY AND ACTIVE QUANTITY OF FANS (IF THE FAN SOURCE IS A FAN ARRAY). FAN SPEED, MOTOR NAMEPLATE DATA (HORSEPOWER, VOLTAGE, RATED AMPERAGE), ACTUAL MOTOR AMPERAGE AND VFD FREQUENCY/SPEED READING, OR EC MOTOR SPEED ADJUSTMENT
- 3. PROVIDE DUCT TRAVERSE READINGS AT LOCATIONS DESIGNATED ON THE DRAWINGS BY THE "AIRFLOW MEASUREMENT SYMBOL". THOSE MEASUREMENTS SHALL BE INCLUDED IN THE PRE DEMOLITION REPORT AND SHALL BE DESIGNATED WITH THE IDENTIFIER AS MARKED ON THE DRAWINGS. READINGS SHALL BE DESIGNATED WITH THE ROOM NAME AND NUMBER AS MARKED ON THE DRAWINGS. IF FLOOR PLANS DO NOT HAVE UNIQUE ROOM NAMES AND NUMBERS, TAB CONTRACTOR SHALL INCLUDE FLOOR PLAN WITH UNIQUE NUMBER DESIGNATIONS ASSIGNED TO READINGS THAT MATCH THOSE USED IN THE PRE-DEMOLITION REPORT. DRAWINGS THAT ARE HAND-MARKED WITH RED INK ARE ACCEPTABLE, PROVIDED THEY ARE LEGIBLE. 4. IN THE EVENT A DUCT TRAVERSE LOCATION AS MARKED ON THIS PLAN IS INACCESSIBLE
- FOR MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR READINGS AS REQUIRED TO DETERMINE THE AIRFLOW READING WHERE THE DUCT TRAVERSE SYMBOL IS SHOWN. IN THE EVENT TRAVERSES ARE TAKEN AT ALTERNATE LOCATION(S), TAB CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN.
- 5. TAKE A DUCT STATIC PRESSURE READING AT EACH LOCATION WHERE A DUCT TRAVERSE READING IS TAKEN AND INCLUDE IN THE PRE-DEMOLITION TAB REPORT. 6. TAB CONTRACTOR SHALL COMPILE AND SUBMIT FOUR COPIES OF THE PRE-DEMOLITION REPORT WITHIN 10 WORKING DAYS AFTER THE FIELD MEASUREMENTS ARE COMPLETED. TAB REPORT SHALL BE SUBMITTED FOR REVIEW TO THE ARCHITECT/ENGINEER. TESTING SHALL INCLUDE ALL ITEMS REQUIRED IN THE SPECIFICATIONS.

TAB POST-CONSTRUCTION NOTES:

- 1. AFTER CONSTRUCTION ACTIVITIES ARE COMPLETE, TESTING, ADJUSTING (TAB) AND BALANCING CONTRACTOR SHALL REBALANCE AIR HANDLING UNITS AND EXHAÚST FANS AS REQUIRED TO ACHIEVE THE NEW AIRFLOW VALUES SHOWN ON THE CONSTRUCTION
- 2. AREAS SERVED BY THIS EQUIPMENT WHICH WERE NOT RENOVATED SHALL BE RE-BALANCED TO THE AIRFLOW RATES MEASURED BEFORE THE RENOVATION OCCURRED (REFER TO THE PRE- DEMOLITION REPORT). 3. IF DUCT TRAVERSE LOCATION AS MARKED ON THE DRAWINGS IS INACCESSIBLE FOR

DRAWINGS

- MEASUREMENT, THE TAB CONTRACTOR SHALL PERFORM THE TRAVERSE AT AN ALTERNATE LOCATION OR SHALL TAKE MULTIPLE DUCT TRAVERSES AND/OR GRILLE READINGS AS REQUIRED TO DETERMINE THE FLOW RATE. IN THE EVENT TRAVERSES ARE TAKEN AT AN ALTERNATE LOCATION(S), TAB CONTRACTOR SHALL INCLUDE A DRAWING THAT SHOWS THE LOCATIONS WHERE THE ACTUAL MEASUREMENTS WERE TAKEN.
- 4. A DUCT STATIC PRESSURE READING SHALL BE TAKEN AT EACH LOCATION WHERE A DUCT TRAVERSE READING IS TAKEN AND SHALL BE INCLUDED IN THE FINAL POST-CONSTRUCTION
- 5. TAB CONTRACTOR SHALL COMPILE AND SUBMIT COPIES OF THE FINAL POST-CONSTRUCTION TAB REPORT AS REQUIRED BY SECTION 23 05 93.
- 6. THE FINAL POST CONSTRUCTION REPORT SHALL INCLUDE ALL ITEMS REQUIRED IN THE SPECIFICATIONS.

PIPING GENERAL NOTES:

- 1. THE SIZE OF BRANCH PIPING TO TERMINAL HEATING DEVICES AND COILS SHALL BE 3/4" UNLESS NOTED OTHERWISE.
- 2. PIPE DRAIN LINES FROM EQUIPMENT TO NEAREST FLOOR DRAIN. 3. INSTALL ALL REFRIGERANT LIQUID AND SUCTION PIPING SIZED PER EQUIPMENT MANUFACTURER RECOMMENDATIONS

VENTILATION GENERAL NOTES:

- 1. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO A TERMINAL AIR BOX (TAB) SHALL MATCH THE INLET SIZE UNLESS THE BRANCH IS GREATER THAN 6FEET IN LENGTH, IN WHICH CASE THE BRANCH DUCT SHALL BE SIZED AT A PRESSURE DROP OF 0.07"W.C. PER 100' OF DUCTWORK.
- MATCH THE INLET SIZE. 3. ALIGN TEMPERATURE SENSORS WITH LIGHT SWITCHES AND WHEN IN CLOSE PROXIMITY TO EACH OTHER.

2. UNLESS NOTED OTHERWISE, THE SIZE OF EACH BRANCH DUCT TO AN AIR TERMINAL SHALL

- 4. PROVIDE ACCESS DOORS AT ALL DUCT MOUNTED EQUIPMENT. 5. EXISTING AIR INLET AND OUTLET CFM SHOWN ON DRAWINGS ARE FROM EXISTING DRAWINGS, AND ARE FOR REFERENCE ONLY. CONTRACTOR SHALL USE PRE-BALANCE
- VALUES, AND NOT EXISTING CFM SHOWN ON DRAWINGS. 6. CONTRACTOR MAY REUSE PORTIONS OF EXISTING DUCT PROVIDED SIZES AND PRESSURE CLASSES ARE CORRECT, DUCT IS THOROUGHLY CLEANED AND FREE OF DEFECTS, AND ALL TRANSVERSE JOINTS, LONGITUDINAL SEAMS, AND DUCT WALL PENETRATIONS ARE SEALED AS SPECIFIED FOR NEW DUCTWORK.

MECHANICAL GENERAL NOTES:

THESE NOTES APPLY TO ALL MECHANICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED TO, FIRE PROTECTION, PLUMBING, MEDICAL GAS, VENTILATION, PIPING AND TEMPERATURE

- 1. DRAWINGS SHOWING LOCATIONS OF EQUIPMENT, DUCTWORK, PIPING, ETC. ARE DIAGRAMMATIC AND MAY NOT ALWAYS REFLECT EXACT INSTALLATION CONDITIONS. DRAWINGS SHOW THE GENERAL ARRANGEMENT OF DUCTWORK, PIPING, EQUIPMENT, ETC., AND MAY NOT INCLUDE ALL OFFSETS AND FITTINGS REQUIRED FOR COMPLETE INSTALLATION. THE DRAWINGS SHALL BE FOLLOWED AS CLOSELY AS ACTUAL BUILDING
- CONSTRUCTION AND THE WORK OF OTHERS WILL PERMIT. 2. DO NOT SCALE DRAWINGS. VERIFY ALL DIMENSIONS AND CLEARANCES FROM ARCHITECTURAL, STRUCTURAL, SUBMITTALS, AND OTHER APPROPRIATE DRAWINGS OR
- PHYSICALLY AT SITE. REVIEW ALL DRAWINGS, INCLUDING THOSE OF OTHER TRADES. 3. COORDINATE ALL WORK WITH ALL OTHER TRADES PRIOR TO INSTALLATION TO PROVIDE CLEARANCES REQUIRED FOR OPERATION, MAINTENANCE, CODE COMPLIANCE, AND TO VERIFY NON-INTERFERENCE WITH OTHER WORK. DO NOT FABRICATE PRIOR TO VERIFICATION OF NECESSARY CLEARANCES FOR ALL TRADES. BRING ANY INTERFERENCES

OR CONFLICTS TO THE ATTENTION OF THE ARCHITECT/ENGINEER BEFORE PROCEEDING

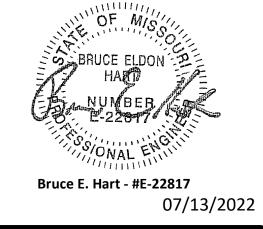
- WITH FABRICATION OR EQUIPMENT ORDERS. 4. REVIEW SPACE REQUIREMENTS OF EQUIPMENT SPECIFIED OR SUBSTITUTED AND MAKE
- REASONABLE ACCOMMODATIONS IN LAYOUT AND POSITIONING TO PROVIDE PROPER
- 5. ANY CHANGES REQUIRED TO ELIMINATE CONFLICTS OR THAT RESULT FROM A FAILURE TO
- COORDINATE SHALL BE MADE BY THE CONTRACTOR WITHOUT ADDITIONAL COST OR EXPENSE TO OTHERS.
- 6. EACH CONTRACTOR IS RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH ELECTRICAL CHANGES REQUIRED FOR EQUIPMENT PROPOSED THAT DIFFERS FROM THE BASIS OF
- 7. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, TECHNOLOGY AUDIO/VISUAL, AND OTHER MECHANICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.
- 8. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO WALLS, FLOORS, CEILINGS, AND ROOFS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND
- GC FOR ACCESS TO VALVES, DUCTWORK ACCESSORIES, DAMPERS, ETC. COORDINATE PANEL TYPE AND COLOR WITH ARCHITECT. NOTIFY THE GC OF THE REQUIRED ACCESS 10. SEAL ALL FLOOR, WALL, AND ROOF PENETRATIONS AIRTIGHT WHERE CONDUITS, PIPING,

9. IN AREAS WITH DRYWALL CEILINGS COORDINATE LOCATIONS OF ACCESS PANELS WITH THE

- AND DUCTS PENETRATE. PENETRATIONS THROUGH ROOF SHALL BE SEALED AIRTIGHT WITH WATERPROOFING MATERIALS RECOMMENDED BY MANUFACTURER FOR OUTDOOR 11. CAULK ALL PIPE AND DUCT PENETRATIONS OF FULL HEIGHT NON-FIRE RATED WALL,
- PARTITION, FLOOR, AND ROOF ASSEMBLIES. THIS IS ESSENTIAL TO PREVENT NOISE TRANSMISSION FROM ONE ROOM TO ANOTHER AND TO PROVIDE THE DESIRED NC LEVELS 12. WHERE PIPES AND DUCTS ARE SHOWN TO PENETRATE FLOORS, PROVIDE SLEEVED
- OPENINGS WITH THE TOP EDGE RAISED ABOVE FLOOR SURFACE IN ACCORDANCE WITH ALL RELEVANT SPEC SECTIONS. SEAL SLEEVE PERIMETER TO BE WATERTIGHT. 13. EQUIPMENT SIZES AND SERVICE CLEARANCE REQUIREMENTS VARY AMONG DIFFERENT MANUFACTURERS. CONSULT APPROVED SHOP DRAWINGS FOR EQUIPMENT SIZES AND REQUIRED SERVICE CLEARANCES. COORDINATE WITH LAYOUT OF EQUIPMENT PADS.
- PIPING, DUCTWORK, ETC. 14. DO NOT BLOCK TUBE PULL OR EQUIPMENT SERVICE CLEARANCES. 15. MAINTAIN A MINIMUM WORKING CLEARANCE OF 3'-6" IN FRONT OF ALL ELECTRICAL EQUIPMENT REQUIRING MAINTENANCE, INSPECTION, AND TESTING INCLUDING BUT NOT
- LIMITED TO PANELS, DISTRIBUTION PANELS, SWITCHBOARDS, MOTOR CONTROL CENTERS, TRANSFORMERS, EQUIPMENT DISCONNECTS AND STARTERS. 16. MAINTAIN THE DEDICATED ELECTRICAL EQUIPMENT SPACE DEFINED BY THE WIDTH / DEPTH OF ELECTRICAL EQUIPMENT MEASURED FROM THE FLOOR TO A HEIGHT 6'-0" ABOVE THE EQUIPMENT OR THE STRUCTURAL CEILING, WHICHEVER IS LOWER. SYSTEMS FOREIGN TO
- THE ELECTRICAL DISTRIBUTION SYSTEM ARE NOT ALLOWED IN THE DEDICATED ELECTRICAL SPACE INCLUDING; DUCTWORK, PIPING, ETC.
- 17. PROVIDE CONCRETE EQUIPMENT PAD FOR ALL FLOOR MOUNTED EQUIPMENT. PAD SHALL EXTEND MINIMUM 6" BEYOND ALL SIDES OF EQUIPMENT.
- 18. DO NOT SUPPORT EQUIPMENT, PIPING, OR DUCTWORK FROM METAL DECKING OR OTHER NON-STRUCTURAL BUILDING ELEMENTS. ANCHORS EMBEDDED IN CONCRETE SHALL BE CRACKED CONCRETE APPROVED IN ACCORDANCE WITH SPECIFICATIONS.

MECHANICAL SHEET INDEX MECHANICAL COVERSHEET FIRST FLOOR DEMOLITION - VENTILATION FIRST FLOOR DEMOLITION - PIPING FIRST FLOOR - VENTILATION FIRST FLOOR - PIPING MECHANICAL DETAILS TEMPERATURE CONTROL MECHANICAL SCHEDULES SECOND/THIRD FLOOR - VENTILATION/POWER GRAND TOTAL: 9

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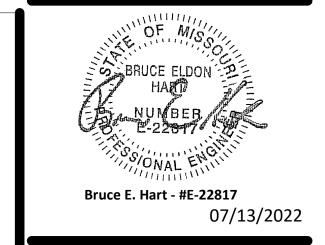
MECHANICAL COVERSHEET

TIRST FLOOR DEMOLITION - VENTILATION

SHEET NOTES:

. SOME TERMINAL AIR BOX TAGS SHOWN ON THESE DRAWINGS ARE BASED ON ROOM NUMBERS SERVED IN THE NEW WORK AND MAY NOT MATCH THE BOX TAGS IN THE FACILITY MANAGEMENT AND CONTROL SYSTEM (FMCS).

AIR TERMINALS SHOWN TO BE DEMOLISHED MAY INSTEAD BE CLEANED AND RE-USED, IF THEY ARE IN GOOD CONDITION AND MATCH THE TYPE AND SIZE OF AIR TERMINALS IN THE NEW DESIGN.



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2 07/13/22 ADDENDUM 2

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> REFERENCE SCALE IN INCHES

- DISCONNECT AIR TERMINALS AS REQUIRED TO RELOCATE INTO

NEW CEILING GRID.

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FIRST FLOOR DEMOLITION -VENTILATION

STORAGE

02-1A081

O.R. #7 02-1A092

CORRIDOR

02-1A01H

EQUIPMENT STORAGE A-10-28-E

TA-10-27-E

(13)

FIRST FLOOR DEMOLITION - PIPING

02-1A108

SHEET NOTES:

I. SOME TERMINAL AIR BOX TAGS SHOWN ON THESE DRAWINGS ARE BASED ON ROOM NUMBERS SERVED IN THE NEW WORK AND MAY NOT MATCH THE BOX TAGS IN THE FACILITY MANAGEMENT AND CONTROL SYSTEM (FMCS).

KEYNOTES: #

. VERIFY THERMOSTAT IS LOCATED IN THIS ROOM. IF NOT, FIELD VERIFY LOCATION, DISCONNECT THERMOSTAT AND RELOCATE IT TO THIS ROOM.
2. CUT 1" HWS/HWR AND REMOVE PIPING TO TERMINAL AIR BOX, INCLUDING VALVES AND ACCESSORIES. PROTECT REMAINING 1" PIPING FOR NEW CONNECTIONS, RE: SHEET M221. DISCONNECT AND REMOVE OR #1 TEMPERATURE, HUMIDITY AND ROOM PRESSURE ALARM PANEL, INCLUDING ASSOCIATED CONTROL WIRING AND PRESSURE SENSOR CEILING PLATES NOT SHOWN. PATCH WALL AND CEILINGS AS REQUIRED.

Bruce E. Hart - #E-22817 07/13/2022

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SHEET NOTES:

I. SOME TERMINAL AIR BOX TAGS SHOWN ON THESE DRAWINGS ARE BASED ON ROOM NUMBERS SERVED IN THE NEW WORK AND MAY NOT MATCH THE BOX TAGS IN THE FACILITY MANAGEMENT AND CONTROL

SYSTEM (FMCS).

2. AIR TERMINALS SHOWN TO BE DEMOLISHED MAY INSTEAD BE CLEANED AND RE-USED, IF THEY ARE IN GOOD CONDITION AND MATCH THE TYPE AND SIZE OF AIR TERMINALS IN THE NEW DESIGN.

KEYNOTES:

- BALANCE EXISTING AIR TERMINAL TO NEW AIRFLOW RATE (CFM) INDICATED.
 NEW LOCATION FOR AIR TERMINAL THAT WAS DISCONNECTED DURING DEMOLITION. BALANCE TO NEW AIRFLOW RATE (CFM)
- INDICATED.
 3. 30x6 EA DOWN IN WALL TO AIR TERMINAL.
 INSTALL AIR TERMINAL JUST ABOVE
 COUNTERTOP. COORDINATE EXACT LOCATION
 WITH ARCHITECT.
 I. MOUNT EXHAUST AIR TERMINAL INSIDE TOP OF
- STORAGE CABINET.

 NEW OPERATING ROOM TEMPERATURE & HUMIDITY CONTROL PANEL. COORDINATE EXACT LOCATION WITH ARCHITECT. PANEL SHALL HAVE 7" TOUCHSCREEN AND
- ACCESSORIES AS REQUIRED.

 INSTALL NEW RETURN AIR TERMINAL IN WALL
 OF CHASE WITH BOTTOM APPROX. 8" ABOVE
 FINISHED FLOOR.
- APPROXIMATE LOCATION FOR DUCT MOUNTED RETURN AIR TEMPERATURE AND HUMIDITY SENSORS FOR THE NEW HYBRID O.R. #1. COORDINATE EXACT LOCATION TO ENSURE THESE ITEMS ARE ACCESSIBLE THROUGH AN ARCHITECTURAL CEILING ACCESS PANEL.

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Date Job Number Drawn By Checked By

Revision

05/31/2022 3-20034 MJL

Number Date Description 2 07/13/22 ADDENDUM 2

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M211

FIRST FLOOR - VENTILATION

FIRST FLOOR - VENTILATION

1/8" = 1'-0"

SHEET NOTES:

I. SOME TERMINAL AIR BOX TAGS SHOWN ON THESE DRAWINGS ARE BASED ON ROOM NUMBERS SERVED IN THE NEW WORK AND MAY NOT MATCH THE BOX TAGS IN THE FACILITY MANAGEMENT AND CONTROL SYSTEM (FMCS).

EXISTING FMCS IS A JOHNSON METASYS SYSTEM. IF A NEW FMCS NETWORK CONTROLLER OR ANY OTHER CENTRALIZED HARDWARE IS REQUIRED TO ALLOW FOR THE NEW CONTROLS, OR IF NEW COMMUNICATIONS WIRING IS REQUIRED, OR IF FMCS SOFTWARE UPDATES ARE REQUIRED, THEN ANY/ALL OF THOSE SHALL BE INCLUDED IN THE SCOPE OF WORK.



INSTALL TEMPERATURE AND HUMIDITY SENSORS FOR HYBRID OR #1 1A051 IN THE NEW RETURN AIR DUCTWORK DOWNSTREAM OF RAY-1A051 AND UPSTREAM OF THE TIE-IN TO THE RETURN AIR DUCT MAIN SERVING OTHER AREAS. COORDINATE EXACT LOCATION SUCH THAT SENSORS ARE ACCESSIBLE VIA A CEILING ACCESS PANEL.

Bruce E. Hart - #E-22817 07/13/2022

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M221

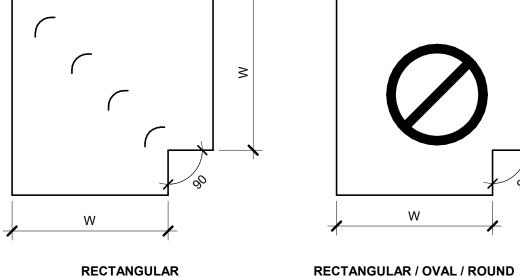
© 2020 ACI/BOLAND, Inc FIRST FLOOR - PIPING

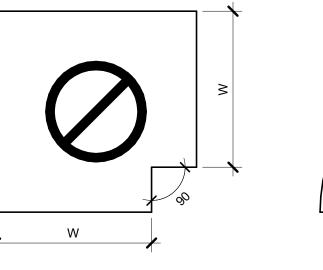
FIRST FLOOR - PIPING

1/8" = 1'-0"

MITERED ELBOW

WITH VANES





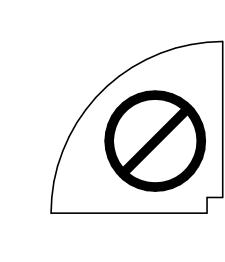
MITERED ELBOW

WITHOUT VANES

TYPE RE4

NOT ALLOWED

NOTED OTHERWISE.



FOURTH EDITION, SECTION 5.14 "SPLITTER VANES" AND SMACNA

HVAC DUCT CONSTRUCTION STANDARDS, THIRD EDITION, FIGURES 4-2 AND 4-9 AND CHARTS 4-1 AND 4-1M. ELBOW SHALL HAVE THREE SPLITTER VANES AND r/W = 0.10 (R/W = 0.60) UNLESS

> RECTANGULAR **RADIUS ELBOW WITH** SQUARE THROAT **NOT ALLOWED**

ELBOW CONSTRUCTION

RECTANGULAR

MITERED ELBOW

TYPE RE6

USE ONLY AS PART OF OFFSETS

DRAWINGS. OFFSETS ABOVE 30°

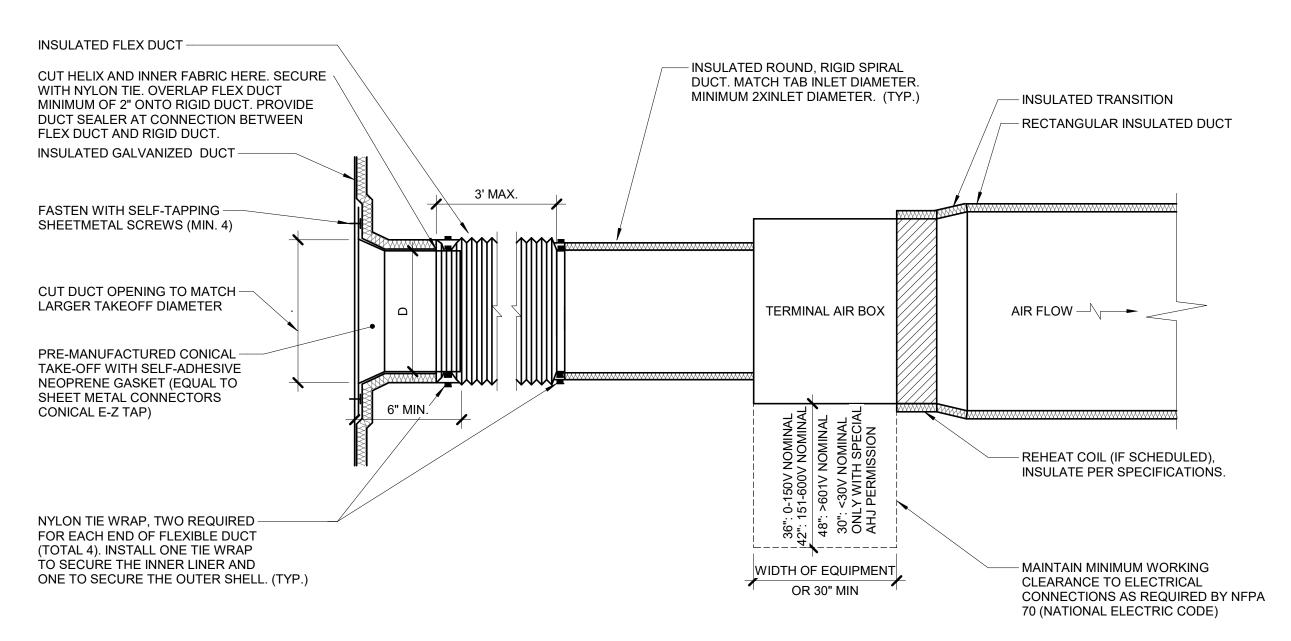
TYPE 2 OR AS SHOWN ON

SHALL BE TYPE RE1.

AND TRANSITIONS PER FIGURE 4-7

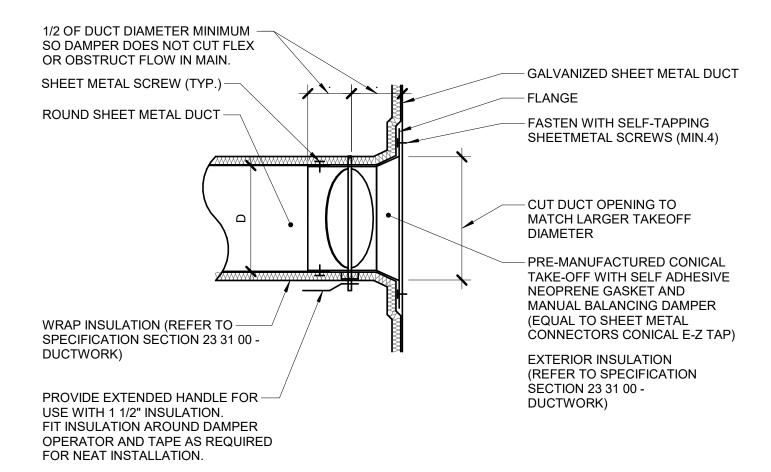
- 1. BEAD, CROSSBREAK, AND REINFORCE FLAT SURFACES AS IN
- STRAIGHT DUCT. . REFER TO SPECIFICATIONS FOR ADDITIONAL INFORMATION. 3. DEFAULT ELBOW SHALL BE TYPE "RE1". 4. ELBOW TYPES SHALL BE INSTALLED AS SHOWN AND NOT BE SUBSTITUTED WITHOUT PERMISSION. EXCEPTION: RE1 OR RE3

MAY BE SUBSTITUTED FOR RE2.



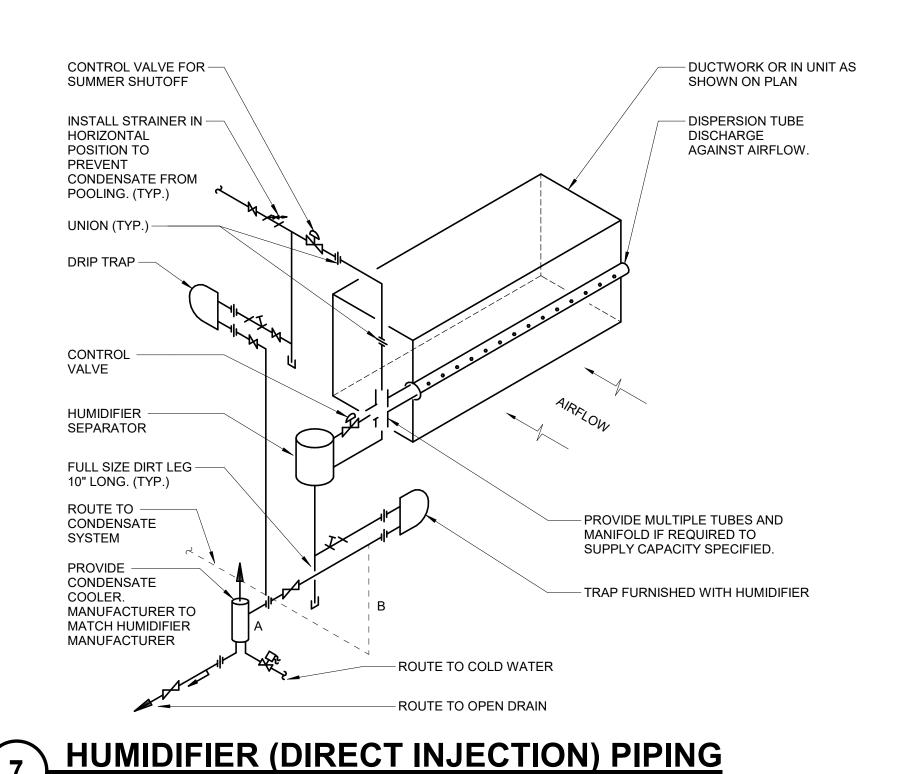
TERMINAL AIR BOX - SINGLE DUCT - WRAPPED NO SCALE

- 1. THIS DETAIL APPLIES ONLY TO TAPS OFF WRAPPED DUCTS. 2. THIS DETAIL APPLIES TO TERMINAL AIR BOXES WITH ROUND INLETS AND
- RECTANGULAR OUTLETS. 3. DUCT LEADING TO TAB INLET MUST BE STRAIGHT FOR 1.5 DIAMETER
- 4. MAINTAIN VAPOR BARRIER FROM MAIN TO BRANCH DUCT



NOSCALE ROUND DUCT TAP CONNECTION (CONICAL/WRAPPED)

- 1. THIS DETAIL APPLIES ONLY TO TAPS OFF UNLINED DUCTS. 2. TAP DOES NOT NEED TO BE CONICAL IF THE TAP IS NOT LOCATED BETWEEN FANS AND TERMINAL AIR BOXES, DUCT IS NOT OVER 2" PRESSURE CLASS, AND ROUND DUCT IS NOT OVER 12" DIAMETER.
- 3. MANUFACTURED TAP/DAMPER COMBINATIONS WITH LESS THAN 1/2 DUCT DIAMETER SPACING BETWEEN THE MAIN DUCT AND THE DAMPER SHAFT ARE ACCEPTABLE ONLY IF THE DAMPER SHAFT IS INSTALLED PARALLEL TO THE AIR FLOW IN THE MAIN DUCT.



- MOUNT HUMIDIFIER MANIFOLD

- HUMIDIFIER DISPERSION TUBES.

PER MANUFACTURER'S

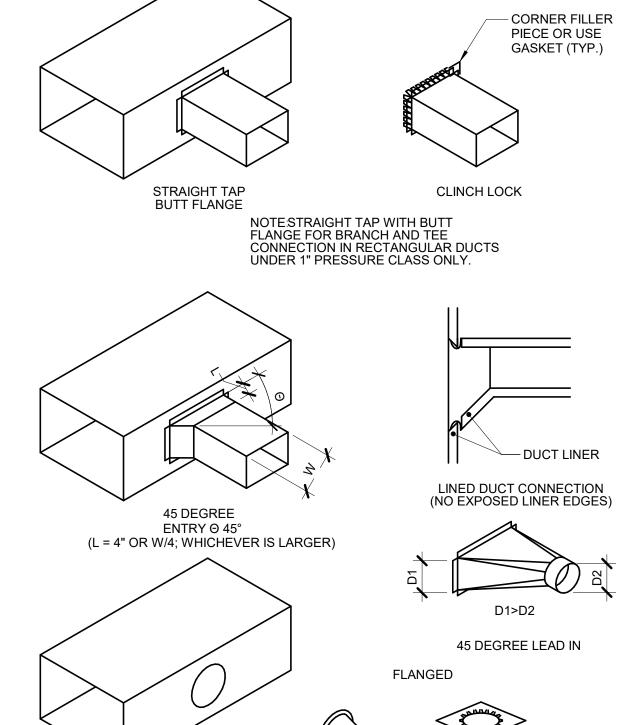
RECOMMENDATIONS.

FLEXIBLE DUCT. -MAX. LENGTH PER SPECIFICATIONS SUSPEND ELBOW ATTACH FLEX DUCT WITH TIE TO THE HARD DUCT. REFER TO NOTE 1. - DRAW BANDS SNUG **HARD DUCT** WITHOUT CRUSHING FLEXIBLE DUCT PROVIDE DURABLE — 1X DUCT DIAMETER ELBOW SUPPORT. MINIMUM STRAIGHT REFER TO NOTE 2. TRIM STRAPS AFTER TIGHTENING

STRUCTURE

DIFFUSER CONNECTION DETAIL (W/ RADIUS FORMING ELBOW)

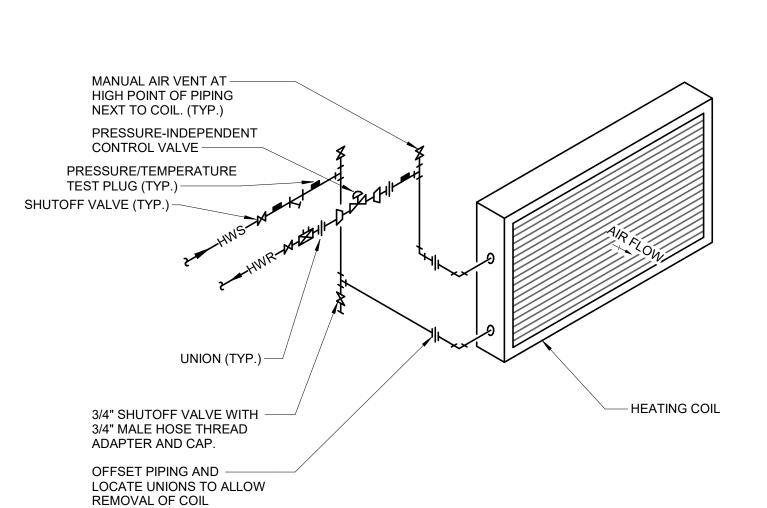
- 1. TO ATTACH FLEX DUCT TO THE HARD DUCT, TAPE THE INNER LINER TO THE HARD DUCT THEN ATTACH WITH TWO NYLON TIE WRAPS; ONE FOR THE INNER LINER AND ONE FOR THE OUTER
- SHELL. FOLD THE OUTER SHELL INSIDE ITSELF SO IT HAS NEAT EDGES PRIOR TO TIE WRAPPING.
- 2. DURABLE ELBOW SUPPORT ACCEPTABLE MANUFACTURER AND MODEL: HART AND COOLEY - SMARTFLOW, THERMAFLEX -FLEXFLOW, TITUS - FLEXRIGHT, OR APPROVED EQUAL.



45 DEGREE

ENTRY Θ 45°

- 1. DO NOT USE CONNECTIONS WITH SCOOPS.
- 2. FIT ALL CONNECTIONS TO AVOID VISIBLE OPENINGS AND SECURE THEM SUITABLY FOR THE PRESSURE CLASS.
- 3. ADDITIONAL MECHANICAL FASTENERS ARE REQUIRED FOR 4"W.G. AND OVER. 4. SEE SPECIFICATIONS FOR ADDITIONAL INFORMATION.



STANDARD DUCT

FLANGED CONNECTION -

WELDED TO BOTTOM OF

DUCT DRIP PAN.

PLUS 1" MINIMUM.

1" THREADED PIPE COUPLING -

SYSTEM STATIC PRESSURE -

CONSTRUCTION

1. CONSTRUCT HUMIDIFIER DUCT SECTION FROM 304L STAINLESS STEEL. FULLY WELD ALL SEAMS. WELD OR FORM ON FLANGES TO MATCH STANDARD DUCTWORK FLANGES. STAINLESS STEEL SHALL BE A MINIMUM OF 16 GAUGE, BUT NOT LESS THAN REQUIRED FOR THE PRESSURE CLASS

STAINLESS STEEL, ALL WELDED SEAMS

- SLOPE BOTTOM OF DUCT TOWARDS DRAIN

OUTLET MINIMUM 1/8" PER FOOT.

• TO INDIRECT WASTE CONNECTION

- 1" DRAIN BY CONTRACTOR

— CLEANOUT BY CONTRACTOR

SPECIFIED FOR THE SYSTEM. 2. COORDINATE HUMIDIFIER LOCATION AND HOLE(S) FOR STEAM INLET(S) WITH CONTRACTOR. CONTRACTOR TO SEAL AIR TIGHT WHERE PIPE PENETRATES DUCTWORK.

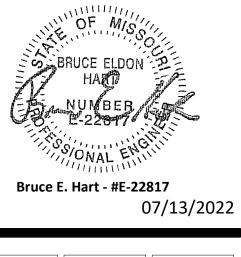
DUCT MOUNTED HUMIDIFIER DETAIL



BALANCE VALVE SIZING REQUIREMENTS.

1. SEE SPECIFICATION SECTION 23 21 00 - HYDRONIC PIPING FOR

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MECHANICAL DETAILS

MOTOR

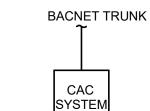
PUMP

CONTACTOR

NORMALL CLOSED CONTACT
NORMALLY OPEN CONTACT

OPPOSED BLADE DAMPER
PARALLEL BLADE DAMPER

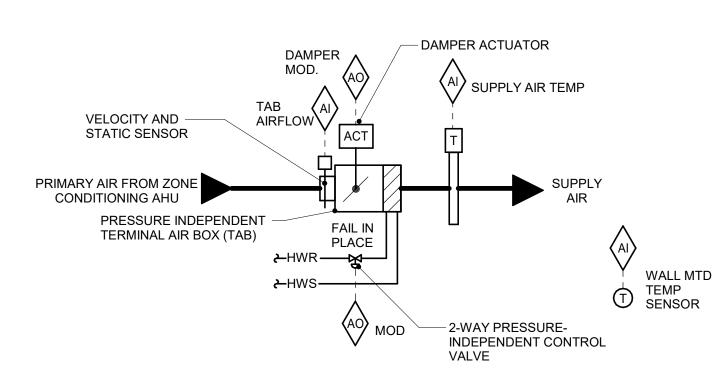
TEMPE	RATURE CONTROLS ABBREVIATION KEY
ABBR:	DESCRIPTION:
EA	EXHAUST/RELIEF AIR
MA	MIXED AIR
MV	MIXING VALVE
N.C.	NORMALLY CLOSED
NIC	NOT IN CONTRACT
N.O.	NORMALLY OPEN
OA	OUTSIDE AIR
TYP	TYPICAL
RA	RETURN AIR
SA	SUPPLY AIR
UON	UNLESS OTHERWISE NOTES



SEQUENCE OF OPERATION

COMPUTER ROOM AIR-CONDITIONING UNIT (CAC) SYSTEM INCLUDES FACTORY-MOUNTED CONTROLS WITH BACNET COMMUNICATIONS CAPABILITY. PROVIDE A BACNET CONNECTION TO THE FACILITY MANAGEMENT AND CONTROL SYSTEM (FMCS), AND COORDINATE WITH THE OWNER THE POINTS TO MAP TO THE FMCS, AND PROVIDE GRAPHICS ON FMCS OPERATOR INTERFACE

COMPUTER ROOM UNIT SYSTEM CONTROL DIAGRAM 12" = 1'-0"



SEQUENCE OF OPERATION:

FMCS TAB CONTROLLER SHALL MODULATE THE TAB DAMPER AND TAB HEATING WATER REHEAT COIL TO MAINTAIN SPACE SETPOINT BASED ON A SIGNAL FROM A WALL MOUNTED TEMPERATURE SENSOR.

AT FULL COOLING, THE TAB SHALL BE OPEN TO MAXIMUM CFM POSITION. THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.

UPON A FALL IN SPACE TEMPERATURE, THE TAB SHALL MODULATE CLOSED UNTIL SPACE SETPOINT IS MAINTAINED, OR UNTIL IT REACHES ITS MINIMUM SCHEDULED CFM POSITION THE REHEAT COIL CONTROL VALVE SHALL BE CLOSED.

UPON A FURTHER FALL IN SPACE TEMPERATURE, THE REHEAT COIL CONTROL VALVE SHALL MODULATE OPEN TO MAINTAIN SPACE SETPOINT UNTIL THE SUPPLY AIR TEMPERATURE IS 20°F ABOVE ROOM TEMPERATURE SETPOINT.

UPON A FURTHER FALL IN SPACE TEMPERATURE, TAB SHALL OPEN TO MAINTAIN SETPOINT UNTIL TAB AIRFLOW REACHES ITS MAXIMUM HEATING SETTING. THE REHEAT CONTROL VALVE SHALL CONTINUE TO MODULATE OPEN TO MAINTAIN MAXIMUM DELTA T LISTED ABOVE.

THE FMCS OPERATOR SHALL HAVE THE ABILITY TO ADJUST, OVERRIDE, AND DISPLAY TEMPERATURES AND SET POINTS FROM THE EXISTING FMCS WORKSTATION.

ALARMS, INTERLOCKS & SAFETIES:

SEND AN ALARM TO THE FMCS OPERATOR INTERFACE IF THE SPACE TEMPERATURE IS MORE THAN 10°F (ADJ.) ABOVE OR BELOW SETPOINT.

2 TAB CONTROL W/ HOT WATER REHEAT

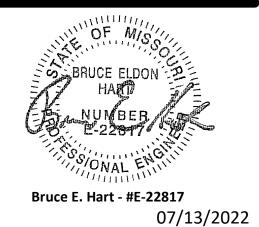
TEMPERATURE CONTROL GENERAL NOTES:

- 1. REFER TO EQUIPMENT SCHEDULES TO CROSS REFERENCE WHICH CONTROL DIAGRAMS APPLY TO WHICH ITEMS OF EQUIPMENT. REFER TO TERMINAL AIR BOX (TAB) SCHEDULES FOR TEMP SENSOR REQUIREMENTS FOR EACH TAB.
- EACH D.I., D.O., A.I. AND A.O. POINT SHOWN FOR ALL CONTROL DIAGRAMS SHALL BE DISCRETE FROM ALL OTHER POINTS EXCEPT AS SPECIFICALLY NOTED.
 ALL WIRING, CONTROL COMPONENTS, DEVICES AND PROGRAMMING SHOWN ON THE
- ALL WIRING, CONTROL COMPONENTS, DEVICES AND PROGRAMMING SHOWN ON THESE CONTROL DRAWINGS SHALL BE PROVIDED BY THE TCC UNLESS SPECIFICALLY NOTED OTHERWISE.
 TEMPERATURE CONTROL CABLING, CONDUIT, BOXES, IDENTIFICATION: REFER TO THE
- SPECIFICATIONS FOR A COMPLETE LIST OF REQUIREMENTS.

 5. ALL ACTUATORS SHALL BE OF THE ELECTRICAL TYPE FOR THIS PROJECT UNLESS AN ACTUATOR IS SPECIFICALLY INDICATED ON THE DRAWINGS OR SPECIFICATIONS TO BE PNEUMATIC.

 6. MODULATING SIGNALS SHALL BE DISPLAYED AS % OPEN (SIGNALS DISPLAYED AS %
- CLOSED ARE NOT ACCEPTABLE).
 ALL CONTROL COMPONENTS SUCH AS RELAYS, SWITCHES, DDC CONTROLLERS, ETC. SHALL BE MOUNTED IN STEEL ENCLOSURES WITH STEEL MOUNTING BACKPLATES PER SPECIFICATION 23 09 00.
 EACH CONTROL PANEL SHALL HAVE A LAMINATED COPY OF THE APPLICABLE SEQUENCE
- 8. EACH CONTROL PANEL SHALL HAVE A LAMINATED COPY OF THE APPLICABLE SEQUENCE OF OPERATION AND CONTROL DIAGRAM INDICATING THE POINTS, COMPONENTS AND OPERATION OF EQUIPMENT ASSOCIATED WITH EACH PANEL. REFER TO SECTION 23 09 00 FOR ADDITIONAL REQUIREMENTS.
 9. TCC SHALL WIRE THE CONTROL SIGNAL FROM THE ASSOCIATED AIR HANDLING UNIT
- CONTROL PANEL TO CONTROL SIGNAL FROM THE ASSOCIATED AIR HANDLING UNIT CONTROL PANEL TO CONTROL THE OPERATION OF SMOKE DAMPERS IN ACCORDANCE WITH SEQUENCE OF OPERATION. TCC SHALL PROVIDE ALL WIRING, CONDUIT, TRANSFORMERS, FUSING AND ALL OTHER ELECTRICAL COMPONENTS REQUIRED FOR COMPLETE INSTALLATION.
- 10. TCC SHALL EXTEND CONTROL SIGNAL FROM ADDRESSABLE RELAY DEVICE SERVING EACH AIR HANDLING UNIT. REFER TO ELECTRICAL DRAWINGS FOR LOCATIONS. TCC SHALL EXTEND AND TERMINATE WIRING AS REQUIRED FOR EQUIPMENT SHUTDOWN.
- 11. TCC SHALL PROVIDE LOW VOLTAGE WIRING FROM POWER SUPPLIES TO ALL CONTROLLERS, MONITORS, COMPONENTS AND DEVICES REQUIRING 24 VAC POWER. ADDITIONAL POWER SUPPLIES NOT SHOWN AND REQUIRED FOR A COMPLETE AND OPERATIONAL SYSTEM SHALL BE PROVIDED BY THE TEMPERATURE CONTROL CONTRACTOR. THE TEMPERATURE CONTROL CONTRACTOR SHALL PROVIDE FINANCIAL PROVISIONS WITHIN THEIR BID FOR THE ELECTRICAL CONTRACTOR TO PROVIDE BRANCH POWER TO THE ADDITIONAL POWER SUPPLIES. COORDINATE THE LOCATION OF ADDITIONAL POWER SUPPLY CABINET WITH THE ELECTRICAL CONTRACTOR.
- 12. TCC SHALL PROVIDE THERMOSTATS FOR AUTOMATIC CONTROL OF EQUIPMENT AS REQUIRED BY THESE CONTROL DRAWINGS. THERMOSTAT CONTACT AMP RATING SHALL BE MINIMUM 125% OF THE MAX. CURRENT DRAW FOR THE EQUIPMENT BEING SERVED. WHERE THERMOSTATS CONTROL THE STARTING OF MOTORS (I.E. FANS), THERMOSTATS SHALL BE DATED FOR MOTOR STARTING APPLICATIONS.
- RATED FOR MOTOR STARTING APPLICATIONS.

 13. CONTROL DIAGRAMS ARE SCHEMATIC IN NATURE AND DO NOT SHOW ALL REQUIRED CONTROL DEVICES AND COMPONENTS. REFER TO FLOOR PLANS, FLOW DIAGRAMS AND DETAILS FOR ADDITIONAL CONTROL DEVICES, COMPONENTS AND REQUIREMENTS NOT SHOWN ON THESE CONTROL DRAWINGS.
- 14. TCC SHALL PROVIDE ALL CONTROL COMPONENTS AND ACCESSORIES AS REQUIRED FOR EQUIPMENT TO BE CONTROLLED AS DESCRIBED IN THE SEQUENCE OF OPERATION REGARDLESS OF WHETHER ALL CONTROL COMPONENTS OR POINTS ARE SHOWN IN THE ASSOCIATED CONTROL DIAGRAM.





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TEMPERATURE CONTROL

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1.INDOOR UNIT IS CEILING CASSETTE TYPE AND OUTDOOR UNIT IS COOLING-ONLY TYPE CONDESING UNIT WITH INVERTER COMPRESSOR.
2.COOLING CAPACITY IS BASED ON INDOOR/ENTERING IAR CONDITIONS OF 75°F DB AND 45% RH AND OUTDOOR AMBIENT TEMPERATURE OF 105°F. SENSIBLE COOLING CAPACITY SHALL BE A MIN. OF 33.4 MBH.

3.UNIT SHALL BE CAPABLE OF CONTINUOUS OPERATION AT OUTDOOR AMBIENT TEMPERATUE AS LOW AS -20°F. PROVIDE WITH WIND BAFFLES AS REQUIRED.

4.FURNISH SYSTEM WITH FACTORY-MOUNTED CONTROLS, INCLUDING COMMUNICATIONS CARD TO ALLOW REMOTE ACCESS TO THE CONTROLS THROUGH A BACNET COMMUNICATIONS LINK, A DRAIN PAN/LEVEL SENSOR (TO SHUT OFF INDOOR UNIT TO PREVENT DRAIN PAN OVERFLOW), A WALL-MOUNTED (NOT HANDHELD) CONTROLLER, AND A COMMON ALARM CONTACT. 5.PROVIDE SYSTEM WITH REFRIGERANT PIPING ANS SPEC AS RECOMMENDED BY MANFACTURER. M.C. SHALL CONFIRM PIPING LENGTH IN THE FIELD, AND SHALL CHARGE SYSTEM WITH REFRIGERANT R-410A AS REQUIRED.

INDOOR UNIT									OUTDOOR UNIT							ELECTRICAL											
					COOLING		ı	MAX. DIMENSION	IS								OUTSIDE	E UNIT MAX. DIN	ENSIONS			DISC	ONNECT	CONTROLLER/	STARTER		
TAG NAME AREA SERVED	CFM	MCA	VOLTAGE	PHASE	MBH	HEATING MBH	LENGTH	WIDTH	HEIGHT	WEIGHT	MODEL	SEER	MCA	MOCP	VOLTAGE	PHASES	HEIGHT	LENGTH	WIDTH	WEIGHT	MODEL	BY (NOTE A)	TYPE (NOTE B)	BY (NOTE A)	SCCR	MANUFACTURER	NOTES
CAC-1A027	1200	2.0	208	1	33.9	0	38"	38"	12"	70	TPLAOA0421EA70B	21	25	31	208	1	4'-5"	3'-6"	1'-3"	215	TRUYAO 421KA70NA	E.C.	NF	MFR	5000	MITSUBISHI TRANE	SEE NOTES ABOVE.

TERMINAL AIR BOX SCHEDULE - SINGLE DUCT NEW

1.NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE. 2.TOTAL AIR PRESSURE DROP OF TAB AND REHEAT COIL SHALL NOT EXCEED 0.50" WC. 3.CONTROL TYPE: 1-TAB WITH HOT WATER REHEAT.

4.SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE.

5.HEATING COIL IS BASED ON HEATING AIR FLOW. WATER PRESSURE DROP OF REHEAT COILS SHALL NOT EXCEED 5'. PROVIDE REHEAT COILS SEPARATE FROM BOXES IF REQUIRED TO MEET WATER PRESSURE DROP REQUIREMENTS. WHEN LAT °F, EWT °F, AND GPM VALUES ARE BLANK, HEATING COIL IS NOT REQUIRED FOR TAB.

[6.HEATING COIL SELECTION SHALL BE BASED ON A FIXED LEAVING AIR TEMPERATURE AND VARIABLE FLOW (GPM). PROVIDE FINAL MAXIMUM FLOW RATE (GPM) TO TEST & BALANCE AND TERMPERATURE CONTROLS CONTRACTORS.

			CFM		HE	ATING COI	L (NOTES	5, 6)	MIN. INLET	CONTROL TYPE	SENSOR TYPE		MODEL	
	TAG NAME	COOLING MAX.	HEATING MAX.	MIN.	EAT °F	LAT °F	EWT °F	MAX. GPM	SIZE (IN.) DIA.	(NOTE 3)	(NOTE 4)	MANUFACTURER	(NOTES 1, 2)	NOTES

TAGNAME	INLET SIZE	COOLING MAX_CFM	COOLING MIN. CEM
A-4-1A048-E	8"	600	600
A-4-1A082-E	confirme	1590	1590
A-4-1A090-E	16"	1640	1640
A-4-1A210-E	8"	170	170
A-10-06-E	12"	500	500
A-10-14-E	8"	360	360

SUPPLY/RETURN/EXHAUST AIR VALVE SCHEDULE

1.NEITHER RADIATED NOR DISCHARGE SOUND LEVELS SHALL EXCEED NC 35 AT 1.5" INLET STATIC PRESSURE WHEN TESTED PER AHRI STANDARD 885-2008 USING 5/8" 20-LB DENSITY MINERAL FIBER CEILING TILE. 2.REFER TO SPECIFICATION SECTION [239500], VENTURI VALVE AIRFLOW CONTROL SYSTEM.

3.PROVIDE ROOM INTEGRATOR TO CONNECT DIRECTLY TO FMCS VIA NETWORK. 4.FAST ACTING VALVE. REFER TO CONTROL DRAWINGS FOR DESCRIPTION OF CONTROL TYPE.

5.SENSOR TYPES: 1 - SENSOR ONLY, 2 - SENSOR WITH ADJUSTMENT, 3 - SENSOR WITH OVERRIDE, 4 - SENSOR WITH ADJUSTMENT AND OVERRIDE.

						AV SIZE, CO	NFIGURATION					
TAG NAME	AREA SERVED	COOLING MAX.	MIN.	HEATING MAX.	PRESSURE DROP	MIN. INLET SIZE (IN.) DIA.	CONFIGURATION	CONTROL TYPE (NOTE 4)	SENSOR TYPE (NOTE 5)	MANUFACTURER	MODEL	NOTES
RAV-1A051		0	2350	0	0.13	16"	HORIZONTAL	VARIABLE VOLUME WITH ELECTRIC ACTUATOR AND FLOW FEEDBACK		CRC	CRC-CLV-16	
SAV-1A051		2600	2600	2600	0.13	16"	HORIZONTAL	VARIABLE VOLUME WITH ELECTRIC ACTUATOR AND		CRC	CRC-CLV-16	

COIL SCHEDULE - WATER

N 1	IOTES:																					
				Е	AT	L	.AT	TOTAL	A.P.D. IN.				W.P.D. FT.	MA	X. DIMENSION	NS	1	WEIGHT				
'	TAG NAME	AREA SERVED	CFM	DB °F	WB °F	DB °F	WB °F	MBH	W.C.	EWT °F	LWT °F	GPM	HEAD	LENGTH	WIDTH	HEIGHT	DRY	OPERATING	MANUFACTURER	MODEL	NOTES	
	RHC-14051		2600	42 N	0.0	85.0	0.0	120	0.40	190	160	8.0	5.0	24		18	n	n				

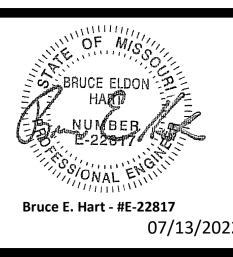
AIR TERMINAL SCHEDULE

NOTES: 1.CONTRACTOR SHALL DETERMINE PROPER BORDER TYPE TO MATCH CEILING CONSTRUCTION.

TAG NAME	FACE SIZE (IN.) (NOTE 2)	TYPE	BORDER (NOTE 1)	MATERIAL	FINISH	VOLUME DAMPER REQUIRED	MANUFACTURER	MODEL	NOTES
EG-1	INLET +2	35 DEGREE DEFLECTION	1 1/4"	STEEL	WHITE	NO	TITUS	350R	
RG-1	24x12	PERFORATED FACE	LAY-IN	STEEL	WHITE	NO	TITUS	350R	DUCTED RETURN
RG-3	20x32	PERFORATED FACE	LAY-IN	STEEL	WHITE	NO	TITUS	350R	FACE ONLY - NON DUCTED
RG-4	24x12	PERFORATED FACE	LAY-IN	STEEL	WHITE	NO	TITUS	350R	DUCTED RETURN
SD-1	24x24	PANEL FACE	LAY-IN	STEEL	WHITE	NO	TITUS	OMNI	



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	INLET SIZE		COOLING		
~~TAGNAME~~~	~~((N) DIA~~	COOLING MAX CEN	MIN CEM	HEATING WAXIMUM CEM	REHEAT COLL GPW
A-4-1A048-E	8"	600	600	600	1.3
A-4-1AU82-E	my jun			,590	3.4
A-4-1A090-E	16"	1640	1640	1,640	3.5
A-4-1A210-E	8"	170	170	170	
A-10-06-E	12"	500	500	500	1.6
A-10-14-E	8"	360	360	360	1.2





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MEP CONSULTANT

IMEG Corp. 1600 Baltimore, Suite 300 Kansas City, Missouri 64108 T: 816.842.8437 Licensee's Certificate of Authority Number: Missouri: F001325536

> 0 0 05/31/2022

Job Number Drawn By Checked By

3-20034

2 07/13/22 ADDENDUM 2

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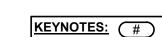
MECHANICAL SCHEDULES

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EF-A-06-E

THIRD FLOOR - POWER

3/32" = 1'-0"



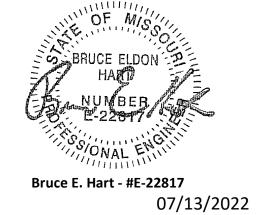
- CUT 20x20 EA AND REMOVE UPSTREAM DUCTWORK BACK DOWN TO FIRST FLOOR. IF REMOVAL OF DUCTWORK ABOVE CORRIDOR WOULD REQUIRE A SHUTDOWN OF CORRIDOR, COORDINATE WITH OWNER. OWNER MAY ALLOW THAT DUCT WORK TO BE CAPPED ON BOTH SIDES OF CORRIDOR AND ABANDONED
- IN PLACE. CUT WALL OF JANITOR CLOSET AS REQUIRED TO REMOVE DUCT RISER. COORDINATE EXACT LOCATION OF NEW DUCT RISER WITH ARCHITECT AND STRUCTURAL ENGINEER. SAWCUT SLAB AS DIRECTED BY STRUCTURAL ENGINEER. INSTALL DUCT ACCESS DOOR ABOVE SLAB AND COORDINATE WITH GENERAL CONTRACTOR TO INSTALL AN ARCHITECTURAL ACCESS DOOR IN FRONT OF THE DUCT ACCESS DOOR, IF REQUIRED FOR
- ACCESS. INSTALL NEW SA DUCT RISER DOWN THRU SECOND FLOOR SLAB IN SAME LOCATION WHERE THE OLD EA RISER WAS REMOVED. INSTALL DUCT ACCESS DOOR IN ACCESSIBLE LOCATION BELOW SLAB. PATCH WALL OF JANITOR CLOSET AS REQUIRED. DISCONNECT AND REMOVE MOTOR
- CONTROLS (COMBINATION STARTER/DISCONNECT SWITCH) FOR EF-A-06-E. PROVIDE AND INSTALL NEW VARIABLE FREQUENCY DRIVE IN SAME LOCATION. DISCONNECT AND REMOVE 1 HP MOTOR FROM EXISTING FAN. PROVIDE AND INSTALL NEW 2
- HP, 460-VOLT, 3Ø MOTOR ON FAN. RE-BALANCE FAN TO SAME AIRFLOW RATE THAT WAS MEASURED PRIOR TO DEMOLITION. DISCONNECT EXISTING 480V, 3Ø, #12 W CIRCUIT FROM LINE AND LOAD SIDE OF EXISTING EF-A-06-E MOTOR

STARATER/DISCONNECT TO ALLOW FOR ITS REMOVAL AND RE-CONNECT SAME CIRCUIT TO

LINE AND LOAD SIDE OF NEW VFD. DISCONNECT EXISTING 480V, 3Ø, #12 W CIRCUIT FROM EXISTING EXHAUST FAN MOTOR TO ALLOW FOR MOTOR REMOVAL AND RECONNECT SAME XIRCUIT TO NEW EXHAUST

FAN MOTOR.

REPLACE EXISTING FUSES IN DISCONNECT SWITCH SERVING EXHAUST FAN #EF-A-06-E WITH 6.25A FUSES. NEW FUSES SHALL MATCH TYPE OF EXISTING FUSES.



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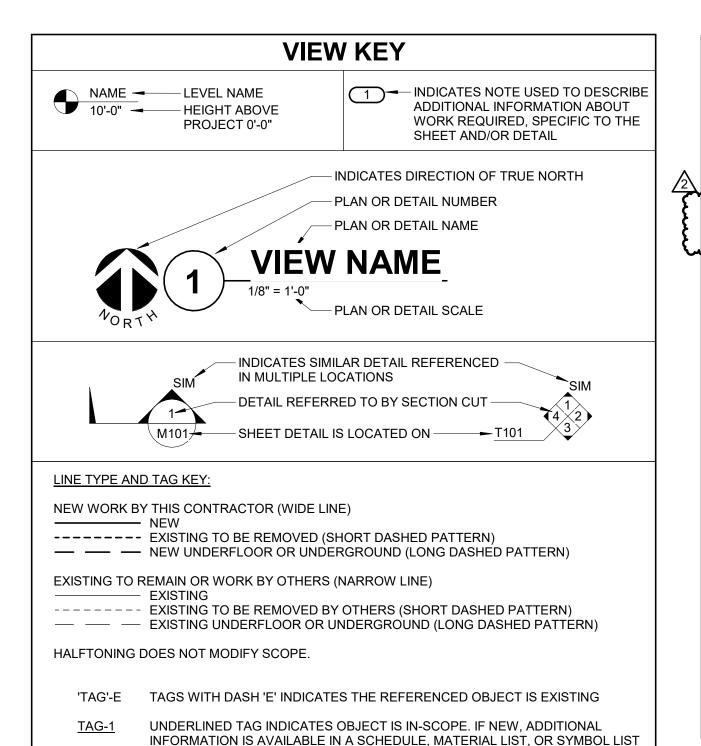
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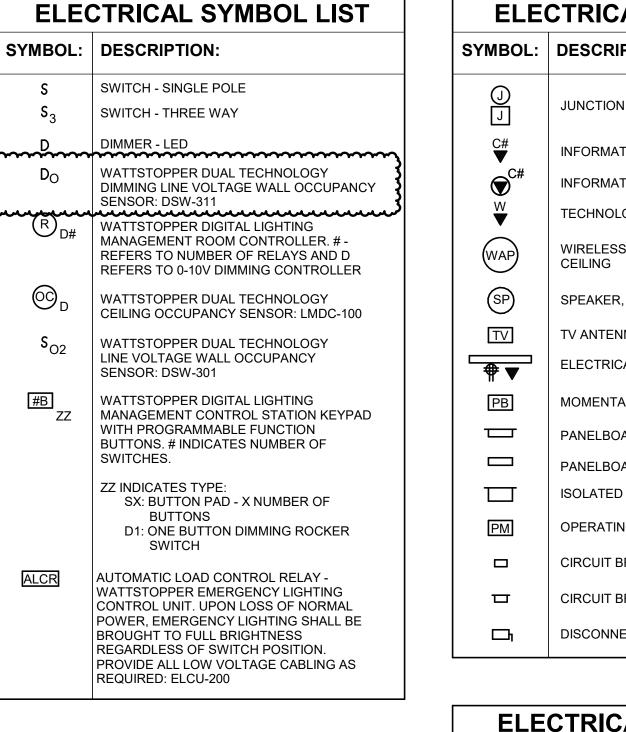
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SECOND/THIRD FLOOR VENTILATION/POWER



CONTRACTOR ABBREVIATION KEY								
ABBR:								
A.C.	ASBESTOS ABATEMENT CONTRACTOR							
A.V.C.	AUDIO/VISUAL CONTRACTOR							
C.C.	CIVIL CONTRACTOR							
C.M.	CONSTRUCTION MANAGER							
E.C.	ELECTRICAL CONTRACTOR							
F.P.C.	FIRE PROTECTION CONTRACTOR							
F.S.C.	FOOD SERVICE CONTRACTOR							
G.C.	GENERAL CONTRACTOR							
H.C.	HEATING CONTRACTOR							
M.C.	MECHANICAL CONTRACTOR							
N.C.C.	NURSE CALL CONTRACTOR							
P.C.	PLUMBING CONTRACTOR							
S.C.	SECURITY CONTRACTOR							
T.C.	TECHNOLOGY CONTRACTOR							
T.C.C.	TEMPERATURE CONTROLS CONTRACTOR							
V.C.	VENTILATION CONTRACTOR							

INDICATES AN EXISTING SYSTEM'S POINT OF CONNECTION/REMOVAL



ELECTRICAL SYMBOL LIST							
SYMBOL:	DESCRIPTION:						
	LINEAR LUMINAIRES						
	TROFFER						
\circ	DOWNLIGHT LUMINAIRE						
\otimes	SINGLE FACE EXIT SIGN						
	DOUBLE FACE EXIT SIGN						
∜ √ ⊘	WALL/CEILING EMERGENCY EXIT SIGN						
	EMERGENCY UNIT						
<u> </u>							
LUMINAIRE SYMBOL KEY							

DESCRIPTION:

NORMAL BRANCH LUMINAIRE

CRITICAL BRANCH LUMINAIRE

ELECTRICAL SYMBOL LIST						
SYMBOL:	DESCRIPTION:					
0-	JUNCTION BOX					
C#	INFORMATION OUTLET, WALL					
©C#	INFORMATION OUTLET, CEILING					
W	TECHNOLOGY ROUGH-IN, WALL PHONE					
WAP	WIRELESS ACCESS POINT WITH ENCLOSURE, CEILING					
SP	SPEAKER, CEILING					
TV	TV ANTENNA OUTLET					
₩▼	ELECTRICAL WIREWAY WITH DEVICES SHOWN					
РВ	MOMENTARY PUSHBUTTON OPERATOR					
	PANELBOARD - RECESS MOUNT					
	PANELBOARD - SURFACE MOUNT					
	ISOLATED POWER PANEL					
PM	OPERATING ROOM POWER MODULE					
	CIRCUIT BREAKER - SURFACE MOUNTED.					
	CIRCUIT BREAKER - FLUSH MOUNTED.					
	DISCONNECT SWITCH					

ELECTRICAL SYMBOL LIST							
SYMBOL:	DESCRIPTION:						
=	DUPLEX RECEPTACLE, 125V						
₩	DUPLEX GFI RECEPTACLE, 125V						
=	ISOLATED GROUND RECEPTACLE, 125V						
S	ISOLATED GROUND RECEPTACLE WITH SURGE SUPPRESSION, 125V						
s =	ISOLATED GROUND QUAD RECEPTACLE WITH SURGE SUPPRESSION, 125V						
-0	SIMPLEX RECEPTACLE, 125V						
-	RECEPTACLE, 125V						
≢	RECEPTACLE 125V, 50A, 125V						
-	RECEPTACLE, 6-20R, 250V						
	RECEPTACLE, 6-30R, 250V						
=	RECEPTACLE, 6-50R, 250V						
0	RECEPTACLE, 7-20R, 277V						
-	RECEPTACLE, 7-30R, 277V						
\$	RECEPTACLE, 7-50R, 277V						
→	RECEPTACLE, 14-20R, 125/250V						
→	RECEPTACLE, 14-30R, 125/250V						
⇒	RECEPTACLE, 14-50R, 125/250V						
=	RECEPTACLE, 14-60R, 125/250V						

RECEPTACLE, 15-20R, 250V, 3PH

RECEPTACLE, 15-30R, 250V, 3PH

RECEPTACLE, 15-50R, 250V, 3PH

RECEPTACLE, 15-60R, 250V, 3PH

RECEPTACLE, LOCKING TYPE, L5-20R, 125V

RECEPTACLE, LOCKING TYPE, L5-30R, 125V

RECEPTACLE, LOCKING L6-20R, 250V

RECEPTACLE, LOCKING L6-30R, 250V

RECEPTACLE, LOCKING L7-20R, 277V

RECEPTACLE, LOCKING L7-30R, 277V

RECEPTACLE, L16-20R, 480V, 3PH

RECEPTACLE, L16-30R, 480V, 3PH

QUAD RECEPTACLE, 125V QUAD GFI RECEPTACLE, 125V

RECEPTACLE, LOCKING L14-20R, 125/250V

RECEPTACLE, LOCKING L14-30R, 125/250V

RECEPTACLE, LOCKING L15-20R, 250V, 3PH

RECEPTACLE, LOCKING L15-30R, 250V, 3PH

RECEPTACLE, LOCKING L21-20R, 120/208V, 3PH

RECEPTACLE, LOCKING L21-30R, 120/208V, 3PH

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ELECTRICAL SYMBOL LIST SYMBOL: DESCRIPTION:

SYMBOL:	DESCRIPTION:
SECL	JRITY SYMBOLS LIST
	# = CANDELA RATING CD = CANDELA RATING SELECTED BY NICET DESIGNER
	COMBINATION AUDIO HORN/CHIME AND VISUAL ALARM DEVICE, CEILING OR WALL MOUNTED
	M = MINI-HORN S = SLEEPING / PATIENT ROOM
F F	AUDIO HORN/CHIME ALARM DEVICE, CEILING OR WALL MOUNTED
	# = CANDELA RATING. CD = CANDELA RATING SELECTED BY NICET DESIGNER
аP	FIRE ALARM VISUAL ALARM DEVICE, CEILING OR WALL MOUNT
	CARBON MONOXIDE / STROBE H = COMBINATION SMOKE / HEAT DETECTOR ION = IONIZATION TYPE ID = IN DUCT DETECTOR SA = STAND ALONE WITH SOUNDER SB = SOUNDER BASE SV = STAND ALONE WITH SOUNDER AND 177 CANDELA STROBE

FIRE ALARM SMOKE DETECTOR.

CO = COMBINATION SMOKE / CARBON

CEILING OR WALL MOUNT

BLANK - PHOTOELECTRIC

AT = ATTIC (LOCATED IN)

BT = BEAM TRANSMITTER

COH = COMBINATION SMOKE /

COS = COMBINATION SMOKE /

CARBON MONOXIDE / HEAT

BR = BEAM RECEIVER

MONOXIDE

CR1	SECURITY CREDENTIAL READER TYPE 1, WALL
MD	INTRUSTION DETECTION MOTION DETECTOR, CEILING
MD	INTRUSTION DETECTION MOTION DETECTOR, WALL
AA	INTRUSTION DETECTION MOTION AUDIBLE ALARM, WALL
DC	INTRUSTION DETECTION DOOR CONTACT SWITCH, WALL
NURSI	E CALL SYMBOL LIST
NURSI SYMBOL:	E CALL SYMBOL LIST DESCRIPTION:

NURSE CALL SINGLE PATIENT BED

NURSE CALL CODE BLUE STATION, WALL

NURSE CALL STAFF ASSIST STATION,

NURSE CALL DOME LIGHT, CEILING

NURSE CALL ZONE DOME LIGHT, CEILING

STATION, WALL

SECURITY CREDENTIAL READER

(EXISTING), WALL

ELECTRICAL LIGHTING DEMOLITION NOTES:

REMOVED. THE DRAWINGS ARE INTENDED TO INDICATE THE SCOPE OF WORK REQUIRED AND DO NOT INDICATE EVERY BOX. CONDUIT. OR WIRE THAT MUST BE REMOVED. THE CONTRACTOR SHALL VISIT THE SITE PRIOR TO SUBMITTING A BID AND VERIFY EXISTING CONDITIONS. 2. EQUIPMENT REMOVAL IN CERTAIN LOCATIONS MAY REQUIRE THE INSTALLATION OF A JUNCTION BOX TO RECONNECT CIRCUITS THAT REMAIN IN OPERATION. EXTEND CONDUIT

1. THE ELECTRICAL LIGHTING DRAWINGS INDICATE EXISTING ELECTRICAL ITEMS TO BE

AND WIRING AS REQUIRED TO MAINTAIN POWER TO REMAINING EQUIPMENT. 3. BALLASTS MANUFACTURED PRIOR TO 1980 CONTAIN PCBs AND SHALL BE DISPOSED OF BY A FEDERAL OR STATE E.P.A. APPROVED METHOD AND IN ACCORDANCE WITH

SPECIFICATIONS. 4. HID AND FLUORESCENT LAMPS CONTAIN MERCURY AND SHALL BE DISPOSED OF BY A

FEDERAL OR STATE E.P.A. APPROVED METHOD. 5. REUSE EXISTING CONDUIT, CIRCUITS AND LIGHTING CONTROL WHERE POSSIBLE. PROVIDE NEW CONDUIT AND WIRE WHERE SHOWN. MISSING OR REQUIRED TO INSTALL THE NEW

LIGHT FIXTURES. 6. VERIFY MANUFACTURERS INSTALLATION GUIDELINES WITH EXISTING FIELD CONDITIONS PRIOR TO BIDDING AND ORDERING NEW LIGHT FIXTURES AND INSTALLATION MATERIAL. 7. MATCH EXISTING PAINTED SURFACES. WHERE REPLACED LUMINAIRE DOES NOT FULLY COVER EXISTING JUNCTION BOX OR PAINTED SURFACE. PROVIDE CUSTOM BACK PLATE

OF WATER AND CAULK WHERE NECESSARY. 8. COORDINATE EXISTING LIGHTING CONTROL AS NECESSARY TO MEET EXISTING CONTROL SEQUENCES. VERIFY WITH OWNER ANY CHANGES.

ELECTRICAL RENOVATION NOTES:

THESE NOTES APPLY TO ALL ELECTRICAL SHEETS AND TRADES, INCLUDING BUT NOT LIMITED

WHERE NECESSARY TO COVER ANY FIELD CONDITIONS THAT WOULD ALLOW INTRUSION

TO, LIGHTING, POWER, AND SYSTEMS. 1. EXISTING CONDITIONS ARE SHOWN BASED ON INFORMATION OBTAINED FROM FIELD SURVEYS, EXISTING BUILDING DOCUMENTS, AND STAFF. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS BEFORE PROCEEDING.

2. NOT ALL EXISTING EQUIPMENT, LUMINAIRES, AND CONDUIT ARE SHOWN. VERIFY EXISTING CONDITIONS AND REPORT ANY CONFLICTS WITH NEW WORK BEFORE STARTING WORK.

3. FIELD VERIFY THE AVAILABLE CLEARANCES FOR CONDUITS BEFORE FABRICATION. RISES AND DROPS MAY BE NECESSARY BECAUSE OF EXISTING FIELD CONDITIONS. 4. EACH CONTRACTOR SHALL FIELD VERIFY ACCESSIBILITY TO THE AREA OF THEIR WORK AND SHALL NOTIFY THE GENERAL CONTRACTOR PRIOR TO BIDDING IF OTHER UTILITIES ARE REQUIRED TO BE REMOVED OR RELOCATED TO ALLOW ACCESS TO THEIR AREA OF WORK.

5. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CUTTING. REMOVAL AND PATCHING OF WALLS AND FLOORS ASSOCIATED WITH WORK BY ALL CONTRACTORS. CONTRACTORS SHALL NOTIFY THE GC OF AFFECTED AREAS PRIOR TO BIDDING. 6. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR REMOVAL AND REPLACEMENT OF

CEILINGS, CEILING TILES, AND CEILING GRIDS ASSOCIATED WITH AREAS OF WORK BY ALL CONTRACTORS. NOTIFY THE GENERAL CONTRACTOR OF AFFECTED AREAS PRIOR TO WHERE EXISTING ELECTRICAL SYSTEMS ARE LOCATED IN AREAS THAT CONFLICT WITH NEW

EQUIPMENT, PIPING, OR DUCTWORK TO BE INSTALLED, EACH CONTRACTOR SHALL EITHER ARRANGE NEW EQUIPMENT, CONDUIT, OR DUCTWORK IN SUCH A FASHION THAT IT DOES NOT CONFLICT WITH EXISTING SYSTEMS, OR REWORK EXISTING ELECTRICAL SYSTEMS TO ALLOW FOR INSTALLATION OF NEW EQUIPMENT, PIPING, OR DUCTWORK. 8. COORDINATE ALL LUMINAIRE LOCATIONS WITH STRUCTURAL TRUSS AND BEAMS PRIOR TO ROUGH-IN

9. FULLY SHADED FIXTURES INDICATE EMERGENCY LUMINAIRES.

10. WHERE LUMINAIRE QUANTITIES OR LAYOUT DIFFER BETWEEN ELECTRICAL LIGHTING PLANS AND ARCHITECTURAL REFLECTED CEILING PLANS, HIGHER QUANTITY SHALL TAKE PRECEDENCE. CONTRACTOR SHALL CONFIRM QUANTITY AND LAYOUT WITH DESIGN TEAM.

TYPICAL REMODEL:

1. ALL LUMINAIRES SHOWN TO BE DEMOLISHED SHALL BE DISPOSED OF IF NOT REQUIRED BY OWNER FOR ATTIC STOCK. CONFIRM WITH OWNER PRIOR TO DISPOSAL IF THE LAMPS, LENS OR SUBSET OF LUMINAIRES SHOULD BE TURNED OVER FOR ATTIC STOCK. 2. REMOVE EXISTING LUMINAIRES AND WALL SWITCHES WHERE SHOWN, LOCATE AND

IDENTIFY ELECTRICAL CIRCUIT SERVING REMOVED LUMINAIRES FOR REUSE WITH NEW DEVICES.

3. COORDINATE HOURS OF ACCESS WITH OWNER. 4. REMOVE EXISTING LUMINAIRE AND PREPARE FOR INSTALLATION OF NEW LUMINAIRE IN

SAME LOCATION OR NEW LOCATION. REFER TO E201 FOR NEW WORK. 5. MATCH EXISTING FACEPLATE FINISH AND TYPE FOR ALL LOCATIONS WHERE NEW WALL CONTROL DEVICE IS BEING INSTALLED.

6. WHERE WALL SWITCH DEVICE IS REMOVED AND NOT REPLACED. PROVIDE WITH BLANK SWITCH PLATE 7. EXPOSED 3/4" CONDUIT TO NEW OR EXISTING FIXTURES OR DEVICES IS ACCEPTABLE AS

LONG AS IT IS INSTALLED IN A NEAT AND ORDERLY METHOD AND MEETS ADOPTED CODES. COORDINATE NEW RUNS WITH OWNER PRIOR TO INSTALLATIONS. 8. REUSE EXISTING CONDUIT, WIRE, CONTROL AND JUNCTION BOXES. PROVIDE NEW IF

REQUIRED TO INSTALL THE NEW LUMINAIRE. 9. PROVIDE (1) UNSWITCHED LEG FROM PANEL SERVING THE EMERGENCY FIXTURES TO THE SENSOR LEG SERVING THE NEW BATTERY BACK UP IN NEW LUMINAIRES. 10. CONNECT NEW LUMINAIRES TO CIRCUIT THAT SERVED PREVIOUSLY REMOVED LUMINAIRE USING THE SAME SIZE WIRE AND CONDUIT. EXTEND CONDUIT AND CONDUCTORS AS

REQUIRED TO MAKE CONNECTION. CONDUIT IN GOOD CONDITION SHALL BE REUSED IN 11. NEW OCCUPANCY SENSORS TO BE INSTALLED IN A MANUAL ON/AUTO OFF'

CONFIGURATION. 12. REPLACE CEILING TILES WITH LIKE IN AREAS WITH A REDUCTION IN LUMINAIRE. REUSE EXISTING CEILING TILES WHERE APPLICABLE. PROVIDE NEW TO MATCH EXISTING IF REQUIRED. ADJUST AND MOVE AIR RETURN GRILLS AS REQUIRED TO COORDINATE WITH REVISED LUMINAIRE LAYOUT IN AREAS WITH A LAYIN CEILING.

13. COORDINATE LOCATIONS OF NEW LUMINAIRES WITH EXISTING DUCT, PIPING, STRUCTURAL AND CEILING MOUNTED DEVICES.

ELECTRICAL GENERAL NOTES:

1. {L###} INDICATES THE LIGHTING SEQUENCE OF OPERATION FOR THE SPACE. REFER TO THE LIGHTING SEQUENCE OF OPERATION MATRIX ON SHEET E400.

2. "NL" INDICATES LUMINAIRE IS UNSWITCHED FOR NIGHT LIGHT. 3. "SE" INDICATES LUMINAIRE IS SWITCHED/CONTROLLED DURING NORMAL OPERATION AND OPERATES FROM EMERGENCY CIRCUIT UPON LOSS OF POWER. 4. SHADED LUMINAIRE OR DEVICE INDICATES LUMINAIRE OR DEVICE IS CONNECTED TO AN EMERGENCY CIRCUIT. 5. REFER TO SHEET E400 FOR LUMINAIRE SCHEDULE.

6. { B#} PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF RAISE/LOWER AND/OR SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS AND THE LIGHTING SEQUENCE OF OPERATIONS (L##). COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER. REFER TO 7 VACANCY/OCCUPANCY SENSOR LAYOUT: SENSORS ARE SHOWN ON THE PLANS FOR

DESIGN INTENT AND MAY NOT REPRESENT EVERY DEVICE. PROVIDE MANUFACTURER SPECIFIC FLOOR PLAN LAYOUTS SHOWING LOCATION, ORIENTATION, AND COVERAGE AREA OF EACH CONTROL DEVICE, SENSOR, AND CONTROLLER/INTERFACE. AREAS REQUIRING MULTIPLE SENSOR DEVICES FOR APPROPRIATE COVERAGE, SUBMIT SPECIFIC MANUFACTURER-APPROVED SENSOR LAYOUT AS AN OVERLAY DIRECTLY ON THE PROJECT DRAWINGS, EITHER IN PRINT OR APPROVED ELECTRONIC FORM.

LUMINAIRE KEY: F1 = FIXTURE TAG 1 = CIRCUIT NUMBER

a = SWITCH DESIGNATION NL = SUBSCRIPT (IF APPLICABLE) Z = ZONE DESIGNATION

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: F1/1/a/NL

DEVICE KEY: DEVICE A = MOUNTING (IF APPLICABLE) 1 = CIRCUIT NUMBER

*IF LABEL IS ORIENTED HORIZONTALLY A SLASH WILL SEPARATE THIS INFORMATION. EX: A / 1 ELECTRICAL MOUNTING SUBSCRIPT KEY

MOUNT AT +6" TO CENTERLINE ABOVE COUNTER OR BACKSPLASH MOUNT AT CEILING MOUNT ORIENTED HORIZONTALLY MOUNT IN CASEWORK

MOUNT IN MODULAR FURNITURE MOUNT IN SURFACE RACEWAY EWC ELECTRIC WATER COOLER

ELECTRICAL INSTALLATION NOTES:

1. THE COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE ADA STANDARDS FOR ACCESSIBLE DESIGN. REFER TO THE ADA GUIDELINES FOR ALL CONFIGURATION DETAILS ON THIS PAGE FOR ADDITIONAL INFORMATION. 2. CIRCUIT NUMBERS ARE SHOWN FOR CIRCUIT IDENTIFICATION. CIRCUITING SHALL AGREE WITH NUMBERING ON THE PANEL PROVIDED. COMMON NEUTRALS MAY NOT BE USED FOR BRANCH CIRCUITS. BALANCE THE LOAD ON PANEL AS EVENLY AS POSSIBLE BETWEEN EACH

3. LIFE SAFETY, CRITICAL, EQUIPMENT BRANCH WIRING FOR FEEDERS AND BRANCH CIRCUITS SHALL BE ROUTED IN SEPARATE RACEWAY, JUNCTION BOXES, PULL BOXES, AND CABINETS. WIRING FOR EACH BRANCH SHALL BE INDEPENDENT FROM OTHER BRANCHES, INCLUDING

THE NORMAL BRANCH. 4. FLUSH MOUNT ALL LIGHTING CONTROL DEVICES AT +42" FROM FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. DEVICES MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. 5. FLUSH MOUNT ALL DUPLEX RECEPTACLES AND TECHNOLOGY OUTLETS AT +18" FROM

FLOOR (CENTERLINE DIMENSION), EXCEPT WHERE OTHERWISE NOTED. RECEPTACLES AND OUTLETS MAY BE SURFACE MOUNTED WHEN CONDUIT IS SPECIFIED EXPOSED. MOUNT EXTERIOR LOCATED RECEPTACLES WITH WHILE-IN-USE COVERS AT +20" FROM FINISHED GRADE (CENTER DIMENSIONS) TO MAINTAIN INSTALLATION ADA COMPLIANCE. 6. ALL MATERIALS USED TO SEAL PENETRATIONS OF FIRE RATED WALLS AND FLOORS SHALL BE TESTED AND CERTIFIED AS A SYSTEM PER ASTM E814 STANDARDS FOR FIRE TESTS OF

THROUGH-PENETRATION FIRESTOPS. 7. CONNECTION FOR ELECTRIC WATER COOLERS (EWC) SHALL BE A JUNCTION BOX CONCEALED BEHIND WATER COOLER ACCESS PLATE OR BE A GFI RECEPTACLE LOCATED DIRECTLY BELOW AND CENTERED ON EWC. CONTRACTOR SHALL VERIFY TYPE OF EWC TO 8. MOUNT ALL FIRE ALARM PULL STATIONS AT +42" FROM FLOOR (CENTERLINE DIMENSION)

EXCEPT WHERE OTHERWISE NOTED. 9. INSTALL ALL WALL MOUNTED FIRE ALARM NOTIFICATION DEVICES AT 90" ABOVE FINISHED FLOOR OR 6" BELOW THE CEILING, WHICHEVER IS LOWER, EXCEPT WHERE OTHERWISE NOTED. HEIGHT SHALL BE MEASURED TO THE TOP OF THE DEVICE. 10. CONTRACTOR SHALL COORDINATE THE LOCATION OF ALL CEILING MOUNTED DEVICES AND EQUIPMENT WITH LUMINAIRES, SPRINKLER, AND CEILING DIFFUSERS. CENTER ALL DEVICES

IN CEILING TILE PATTERN. SMOKE DETECTORS AND OCCUPANCY/VACANCY SENSORS SHALL BE LOCATED NO CLOSER THAN 3 FEET TO AN AIR SUPPLY DIFFUSER OR RETURN GRILLE. 11. CONTRACTOR SHALL VERIFY ALL FURNITURE. MODULAR FURNITURE. AND EQUIPMENT LOCATIONS WITH ARCHITECTURAL PLANS, ELEVATIONS, AND REVIEWED SHOP DRAWINGS. PRIOR TO MAKING THE ACTUAL ELECTRICAL INSTALLATION, THIS CONTRACTOR SHALL ADJUST RECEPTACLES, OUTLETS, OR CONNECTION LOCATIONS TO ACCOMMODATE FURNITURE AND/OR EQUIPMENT.

12. ELECTRICAL AND TECHNOLOGY EQUIPMENT SHALL BE MOUNTED TO AVOID IMPEDANCE OF. OPERATION OF, AND/OR ACCESS TO ELECTRICAL AND MECHANICAL EQUIPMENT. ALL MOUNTING OF ELECTRICAL AND TELECOMMUNICATIONS EQUIPMENT, ON EQUIPMENT SUPPLIED BY ANOTHER CONTRACTOR, SHALL BE APPROVED IN ADVANCE BY THE OTHER CONTRACTOR.

13. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL OPENINGS REQUIRED IN WALLS. ALL OPENINGS SHALL BE REPAIRED TO MATCH EXISTING BY A QUALIFIED CONTRACTOR AT THE EXPENSE OF THIS CONTRACTOR. ALL CONDUITS THROUGH WALLS SHALL BE GROUTED OR SEALED INTO OPENINGS.

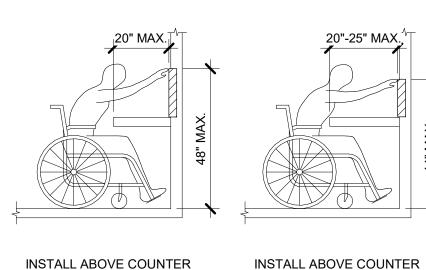
14. ALL WELDING SHALL BE ACCORDING TO AMERICAN WELDING SOCIETY STANDARDS. CONTRACTOR SHALL FURNISH TO THE ARCHITECT/ENGINEER CERTIFICATES QUALIFYING EACH WELDER, PRIOR TO START OF WORK. THE ARCHITECT/ENGINEER RESERVES THE RIGHT TO REQUIRE QUALIFYING DEMONSTRATION, AT THE CONTRACTOR'S EXPENSE, OF

ANY WELDERS ASSIGNED TO THE JOB. 15. EACH CONTRACTOR IS RESPONSIBLE FOR DAMAGE CAUSED BY THEIR ACTIONS TO THE WALLS, FLOORS, AND CEILINGS. THE CONTRACTOR WHOSE WORK CAUSES DAMAGE IS

RESPONSIBLE FOR PATCHING TO MATCH ORIGINAL CONSTRUCTION, FIRE RATING, AND 16. REFER TO ARCHITECTURAL REFLECTED CEILING PLAN, ELECTRICAL, AND OTHER ELECTRICAL PLANS FOR EXACT LOCATIONS OF ALL CEILING MOUNTED DEVICES, OTHER THAN SPRINKLERS.

	ELECTRICAL ABBREVIATION KEY						
ABBR:	DESCRIPTION:						
AFF	ABOVE FINISHED FLOOR						
С	CONDUIT						
GFI	GROUND FAULT INTERRUPTER						
N.C.	NORMALLY CLOSED						
NIC	NOT IN CONTRACT						
N.O.	NORMALLY OPEN						
SV	SOLENOID VALVE						
TYP	TYPICAL						
UON	UNLESS OTHERWISE NOTED						

	ELECTRICAL SHEET INDEX						
E000	ELECTRICAL COVERSHEET						
E101	FIRST FLOOR DEMOLITION - LIGHTING						
E111	FIRST FLOOR DEMOLITION - POWER						
E121	FIRST FLOOR DEMOLITION - SYSTEMS						
E201	FIRST FLOOR - LIGHTING						
E211	FIRST FLOOR - POWER						
E221	FIRST FLOOR - SYSTEMS						
E400	LIGHTING DETAILS & SCHEDULES						
GRAND TOTA	AL: 8						



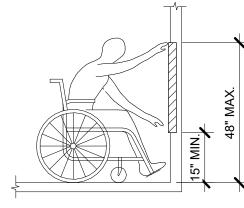
DEVICE AT 44" ABOVE

FINISHED FLOOR.

ADA GUIDELINES - FRONT ACCESS

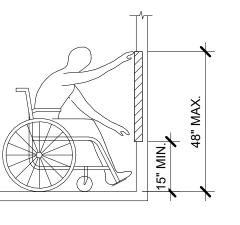
DEVICE AT 40" ABOVE

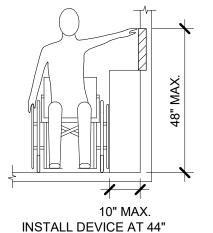
FINISHED FLOOR.

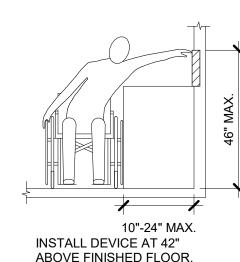


INSTALL DEVICE AT 18"

ABOVE FINISHED FLOOR.







ABOVE FINISHED FLOOR. ABOVE FINISHED FLOOR ADA GUIDELINES - SIDE ACCESS

1600 BALTIMORE SUITE 30 KANSAS CITY, MO 64108 816.842.8437 www.imegcorp.com PRO.IECT # 22000825.00 Missouri State Certificate of Authority F001325536 THE EXCLUSIVE PROPERTY OF IMEG CORP AND SHALL NOT BE USED OR PRODUCED FOR ANY OTHER PROJECT WITHOUT THE EXPRESS WRITTEN PPROVAL AND PARTICIPATION OF IMEG CORP. REFERENCE SCALE IN INCHES

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ELECTRICAL COVERSHEET

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0 0

05/31/2022 3-20034

ADDENDUM 2

E000

ESA

0

07/13/22

Job Number

Drawn By Checked By

Bruce E. Hart - #E-22817

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ADA STANDARDS FOR ACCESSIBLE DESIGN

STORAGE

02-1A081

CORRIDOR

02-1A01H

SHEET NOTES:

I. REFER TO SHEET E000 FOR GENERAL NOTES. NOT ALL GENERAL NOTES SHALL APPLY TO THIS SHEET.

KEYNOTES: #

DISCONNECT AND REMOVE LIGHT FIXTURE.
MAINTAIN NORMAL BRANCH CONDUIT AND WIRE FOR EXTENSION AND CONNECTION TO NEW LIGHT FIXTURE. REFER TO NEW WORK PLAN FOR MORE INFORMATION. REMOVE ALL CONDUIT AND WIRE NOT REQUIRED TO DISCONNECT AND REMOVE LIGHT FIXTURE.
MAINTAIN CRITICAL BRANCH CONDUIT AND WIRE FOR EXTENSION AND CONNECTION TO NEW LIGHT FIXTURE. REFER TO NEW WORK PLAN FOR MORE INFORMATION. REMOVE ALL CONDUIT AND WIRE NOT REQUIRED TO

DISCONNECT, REMOVE, AND RELOCATE EXISTING DEVICE. REFER TO NEW WORK PLAN FOR MORE INFORMATION. Bruce E. Hart - #E-22817 07/13/2022

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2 07/13/22 ADDENDUM 2

E101

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FIRST FLOOR DEMOLITION - LIGHTING

1/8" = 1'-0"

FIRST FLOOR DEMOLITION -LIGHTING

SHEET NOTES:

I. REFER TO SHEET E000 FOR GENERAL NOTES. NOT ALL GENERAL NOTES SHALL APPLY TO THIS SHEET. 2. ## IN CIRCUIT IDENTIFICATION AT DEVICES
INDICATES EXACT CIRCUIT FROM INDICATED
PANEL SERVING DEVICE SHALL BE FIELD

KEYNOTES: #

DISCONNECT AND REMOVE DEVICE. MAINTAIN NORMAL BRANCH CONDUIT AND WIRE FOR EXTENSION AND CONNECTION TO NEW DEVICE. REFER TO NEW WORK PLAN FOR MORE INFORMATION. REMOVE ALL CONDUIT AND WIRE NOT REQUIRED TO REMAIN. DISCONNECT AND REMOVE DEVICE. MAINTAIN CRITICAL BRANCH CONDUIT AND WIRE FOR EXTENSION AND CONNECTION TO NEW DEVICE. REFER TO NEW WORK PLAN FOR MORE INFORMATION. REMOVE ALL CONDUIT AND WIRE NOT REQUIRED TO REMAIN. DISCONNECT AND REMOVE ALL DEVICES,

WIRING, AND CONDUIT LOCATED IN THIS

AND DEVICE LOCATIONS.

ROOM. FIELD VERIFY EXISTING CONDITIONS

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FIRST FLOOR DEMOLITION - POWER

FIRST FLOOR DEMOLITION - POWER

STORAGE

02-1A081

CORRIDOR

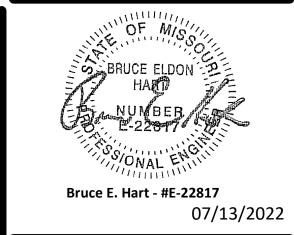
02-1A01H

SHEET NOTES:

REFER TO SHEET E000 FOR GENERAL NOTES.
 NOT ALL GENERAL NOTES SHALL APPLY TO
 THIS SHEET.

KEYNOTES: #

SMOKE DETECTOR WITH AUXILIARY CONTACTS FOR NURSE CALL INTERFACE.
 DISCONNECT, REMOVE, RELOCATE, AND RECONNECT DEVICE. EXTEND CONDUIT AND CABLING AS REQUIRED TO RECONNECT DEVICE. REFER TO NEW WORK FOR MORE INFORMATION. REMOVE ALL CABLING AND CONDUIT NOT REQUIRED TO REMAIN.
 DISCONNECT AND REMOVE ALL DEVICES, WIRING, AND CONDUIT LOCATED IN THIS ROOM. FIELD VERIFY EXISTING CONDITIONS AND DEVICE LOCATIONS.
 COORDINATE RELOCATION OF EXISTING CEILING MOUNTED DEVICE WITH OWNER.



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FIRST FLOOR DEMOLITION - SYSTEMS

FIRST FLOOR DEMOLITION - SYSTEMS

1/8" = 1'-0"

STORAGE

02-1A081

CORRIDOR

02-1A01H

FIRST FLOOR - LIGHTING

1/8" = 1'-0"

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SHEET NOTES:

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 PANELBOARD SCHEDULES SHALL BE UPDATED AS REQUIRED TO REFLECT CHANGES TO CIRCUITING.

KEYNOTES: #

CONNECT NEW FIXTURE TO PREVIOUSLY
 DISCONNECTED AND MAINTAINED NORMAL
 BRANCH CONDUIT AND WIRE IN AREA. EXTEND
 CONDUIT AND WIRE AS REQUIRED FOR
 CONNECTION. REFER TO DEMOLITION PLAN

FOR MORE INFORMATION.

2. CONNECT NEW FIXTURE TO PREVIOUSLY DISCONNECTED AND MAINTAINTED CRITCAL CONDUIT AND WIRE IN AREA. EXTEND CONDUIT AND WIRE AS REQUIRED FOR CONNECTION. REFER TO DEMOLITION PLAN FOR MORE INFORMATION.

B. RELOCATED DEVICE. REFER TO DEMOLITION PLAN FOR MORE INFORMATION.

I. THE MEP WORK SHOWN IN THIS ROOM IS PRELIMINARY AND WAITING ON FINAL ROOM LAYOUT AND VENDOR EQUIPMENT INFORMATION. REFER TO SEPERATE NARRATIVE ISSUED WITH DOCUMENTS FOR ADDITIONAL INFORMATION FOR PRICING PURPOSES.

BRUCE ELDON
HART
NUMBER
E-220 T

Bruce E. Hart - #E-22817
07/13/2022

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Number Date Description 2 07/13/22 ADDENDUM 2

E201

FIRST FLOOR - LIGHTING

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CONNECT DEVICES TO

PREVIOUSLY MAINTAINED
A1-31 CIRCUIT LISTED

SHEET NOTES:

- REFER TO SHEET E000 FOR GENERAL NOTES.
 NOT ALL GENERAL NOTES SHALL APPLY TO
 - THIS SHEET.

 PANELBOARD SCHEDULES SHALL BE UPDATED AS REQUIRED TO REFLECT CHANGES TO CIRCUITING.
 - AS REQUIRED TO REFLECT CHANGES TO CIRCUITING.

 3. ## IN CIRCUIT IDENTIFICATION AT DEVICES INDICATES DEVICE SHALL BE CONNECTED TO EXISTING SPARE 20A, 1P BRANCH CIRCUIT BREAKER IN INDICATED PANEL OR TO CIRCUIT BREAKER MADE SPARE BY DEMOLITION. CIRCUIT NUMBERS UTILIZED SHALL BE INDICATED ON AS-BUILT MARK-UPS.

KEYNOTES: #

- . CONNECT DEVICE TO PREVIOUSLY
 DISCONNECTED AND MAINTAINED NORMAL
 CONDUIT AND WIRE. EXTEND CONDUIT AND
 WIRE AS REQUIRED FOR CONNECTION. REFER
 TO DEMOLITION PLAN FOR MORE
- INFORMATION.
 CONNECT DEVICE TO PREVIOUSLY
 DISCONNECTED AND MAINTAINED CRITICAL
 CONDUIT AND WIRE. EXTEND CONDUIT AND
 WIRE AS REQUIRED FOR CONNECTION. REFER
 TO DEMOLITION PLAN FOR MORE
 INFORMATION.
- HALF OF SUFACE RACEWAY DUPLEX
 RECEPTACLES SHALL BE CONNECT TO ONE (1)
 DEDICATED CIRCUIT AND OTHER HALF OF
 SURFACE RACEWAY DUPLEX RECEPTACELES
 SHALL BE TO ONE (1) OTHER DEDICATED
 CIRCUIT. CIRCUIT CONNECTED TO DUPLEX
 RECEPTACLES SHALL ALTERNATE ALONG
 SURFACE RACEWAY.
 THE MEP WORK SHOWN IN THIS ROOM IS
- THE MEP WORK SHOWN IN THIS ROOM IS PRELIMINARY AND WAITING ON FINAL ROOM LAYOUT AND VENDOR EQUIPMENT INFORMATION. REFER TO SEPERATE NARRATIVE ISSUED WITH DOCUMENTS FOR ADDITIONAL INFORMATION FOR PRICING PURPOSES.

OF M/S

BRUCE ELDON

HATT

NUMBER

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E211

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FIRST FLOOR - POWER

FIRST FLOOR - POWER

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REFERENCE SCALE IN INCHES

0 1 2 3

A1-31-15

CORRIDOR 02-1A01L

RECOVERY 02-1A107L

STORAGE

02-1A081

SHEET NOTES:

I. REFER TO SHEET E000 FOR GENERAL NOTES. NOT ALL GENERAL NOTES SHALL APPLY TO THIS SHEET.

KEYNOTES: #

O.R. #7 02-1A092

CORRIDOR

02-1A01H

I. RELOCATED DEVICE. EXTEND CABLING AND CONDUIT AS REQUIRED TO RECONNECT DEVICE. REFER TO DEMOLITION PLAN FOR MORE INFORMATION.

THE MEP WORK SHOWN IN THIS ROOM IS PRELIMINARY AND WAITING ON FINAL ROOM LAYOUT AND VENDOR EQUIPMENT INFORMATION. REFER TO SEPERATE NARRATIVE ISSUED WITH DOCUMENTS FOR ADDITIONAL INFORMATION FOR PRICING PURPOSES.

Bruce E. Hart - #E-22817 07/13/2022

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2 07/13/22 ADDENDUM 2

E221

FIRST FLOOR - SYSTEMS

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FIRST FLOOR - SYSTEMS

1/8" = 1'-0"

RECOVERY RECOVERY 02-1A107D | (A2-1A107E

02-1A108

R.N. #3 02-1A01N

DRIVER W H DIA. S PER TYPE QTY LUMENS (MIN) VOLTS TYPE MANUFACTURER AND MODEL DIRECT TROFFER WITH PRISMATIC LENS. SPRING LOADED CAM ACTION LATCHES. ALL FIXTURE STEEL POST PAINTED BAKED WHITE RE 2'-0" 2'-0" 4 3/8" 21 W | FIX | LED | 1 | 2,600 LUMENS | 120 V | 0-10V | WILLIAMS 50 SPRING LOADED CAM ACTION LATCHES. ALL FIXTURE STEEL POST PAINTED BAKED WHITE DIRECT TROFFER WITH PRISMATIC LENS. RE 4'-0" 2'-0" 4 3/8" 25 W FIX LED 1 3,300 LUMENS 120 V SPRING LOADED CAM ACTION LATCHES. ALL FIXTURE STEEL POST PAINTED BAKED WHITE 114 W FIX LED 0-10V | WILLIAMS MDS SYMMETRIC ACRYLIC SHIELDING AND TRIPLE GASKETING. SPRING LOADED CAM ACTION LATCHES. WHITE ANTI-MICROBIAL FINISH. PROVIDE CUSTOM LUMEN PACKAGE. 6" APERATURE DOWNLIGHT WITH MEDIUM 6 5/8" 6" 9 W FIX LED 1 1,000 LUMENS 120 V 0-10V WILLIAMS 6DR DISTRIBUTION. SATIN-GLOW ANODIZE REFLECTOR WITH TOP DIFFUSE LENS. O WL 1'-0" 3 3/4" 4 9/16" EMERGENCY UNIT, TWO ADJUSTABLE EM WILLIAMS EMER/LED HEADS, WHITE THERMOPLASTIC HOUSING. SELF TEST & DIAGNOSTICS OF INVERTER 25 W FIX LED 1 3,300 LUMENS 120 V 0-10V WILLIAMS 12 O SU 4'-0" 2'-0" 3 DIRECT TROFFER WITH SOLID SIDES AND ACTION LATCHES. ALL FIXTURE STEEL POST PAINTED BAKED WHITE ENAMEL. PROVIDE

49 W | FIX | LED | 1 | 5,800 LUMENS | 277 V

2,400 LUMENS

LIGHTING SEQUENCE OF OPERATION

UNDER CABINET UNIT WITH SOLID FRONT & O UC 4'-0" 4 7/8"

METAL LAMP SHIELD WITH ACRYLIC

PAINTED STEEL HOUSING.

PAINTED STEEL HOUSING.

DIFFUSE ACRYLIC LENS, ANTI-MICROBIAL

DIFFUSE ACRYLIC LENS, ANTI-MICROBIAL

I. {L##} DENOTES THE LIGHTING SEQUENCE OF OPERATIONS FOR THIS SPACE. 2. I#BI PUSH BUTTON REFERS TO SCENE QUANTITY. CONTROL STATION SHALL BE CAPABLE OF [RAISE/LOWER AND] SWITCHING ON/OFF FOR MULTIPLE SCENES AS INDICATED ON SHEETS AND THE LIGHTING SEQUENCE OF OPERATIONS $\{L\#\}$. COORDINATE QUANTITIES OF BUTTONS FOR CONTROL STATIONS WITH LIGHTING CONTROL MANUFACTURER. . [Z#] DENOTES LIGHTING CONTROL ZONE. PROVIDE SEPARATE CONTROL OF EACH CONTROLLED ZONE. LUMINAIRES ASSOCIATED WITH THE SAME ZONE SHALL OPERATE TOGETHER WITHIN THE SAME PROGRAMMED SCENE. 4. a = SWITCH DESIGNATION FOR LIGHTING CONTROL

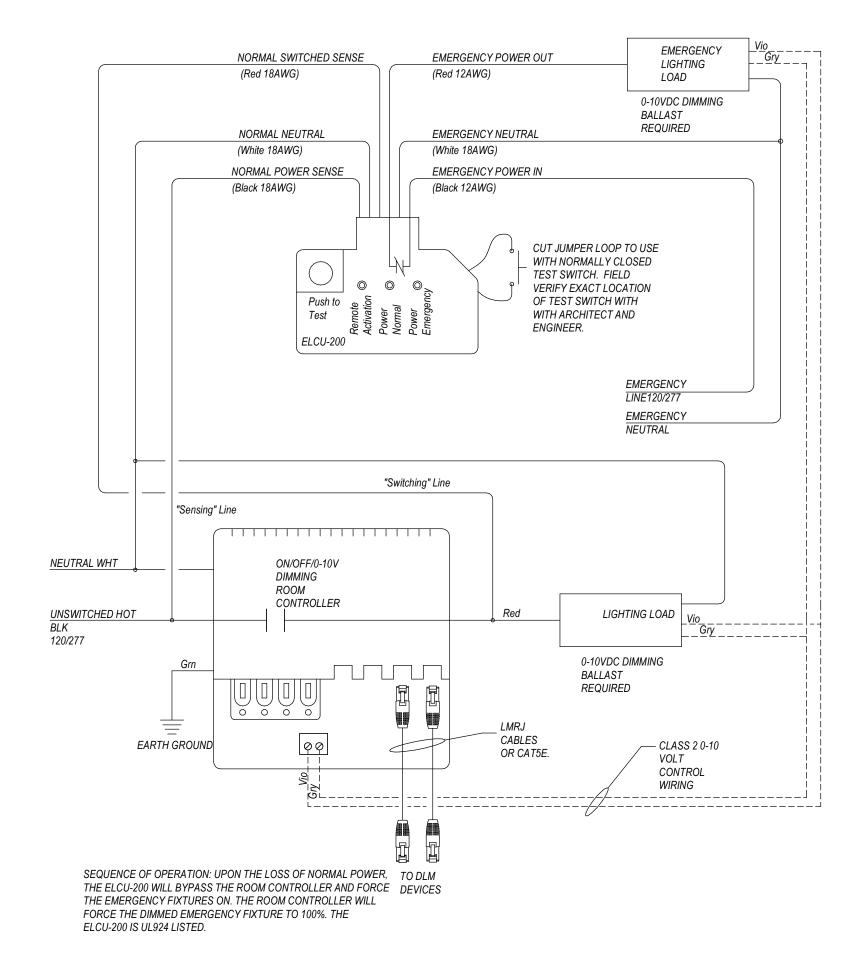
5. VERIFY AND COORDINATE ALL TIME CLOCK SETTINGS WITH OWNER PRIOR TO FINAL PROGRAMMING. S. VERIFY AND COORDINATE ALL PUSH BUTTON WALL DEVICES AND QUANTITIES OF INDIVIDUAL BUTTONS WITH SCENES AND 7. VERIFY AND COORDINATE ALL PUSH BUTTON QUANTITIES AND SCENE NAMES WITH OWNER PRIOR TO SUBMITTING ENGRAVING TEMPLATE TO MANUFACTURER.

{LD1} Sequence: Dimmed lights are vacancy controlled in this space. ON: The lights are turned on using wall dimmer.

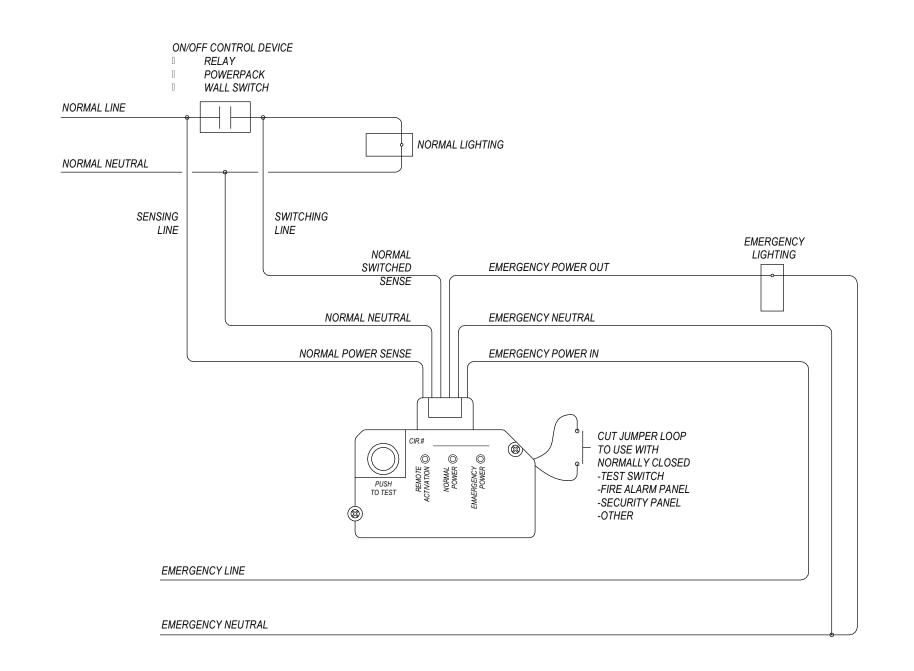
CONTROL: The lights are dimmed using wall dimmer. OFF: After the space has been vacant for 15 minutes, the lights will automatically turn off.

ON: The lights turned on using switches. OFF: After the space has been vacant for 15 minutes, the lights will automatically turn off.

{LS2} Sequence: Switched lights are manually controlled in this space. ON: The lights turned on using switches. OFF: The lights turn off using switches.



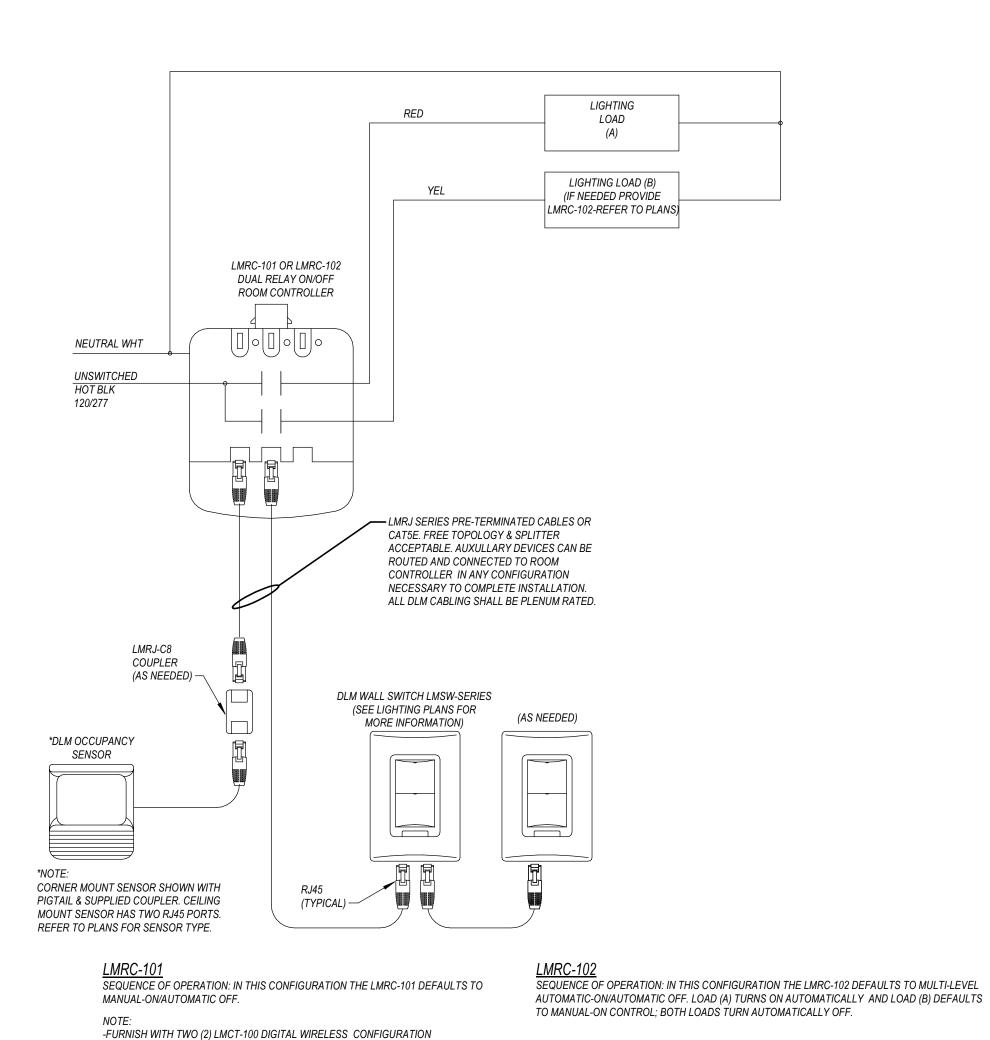
DETAIL OF LMRC UNIT, DRIVER, **AND ELCU-200 EMERGENCY** 1 BYPASS UNIT

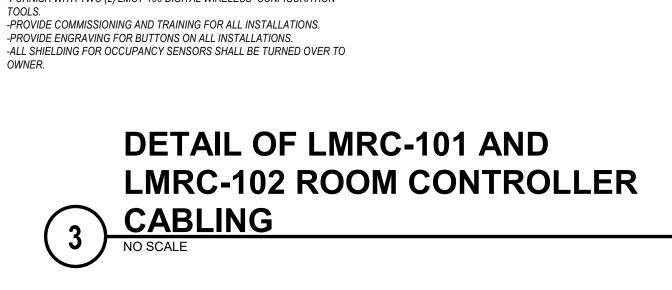


DETAIL OF AUTOMATIC LIGHTING CONTROL RELAY - NORMAL AND EMERGENCY SWITCHED

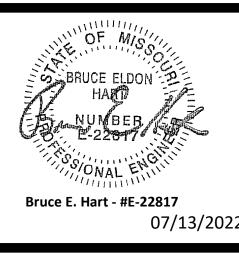
TOGETHER

NO SCALE









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Job Number

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2 07/13/22 ADDENDUM 2

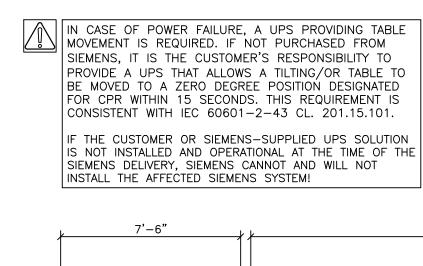
05/31/2022

3-20034

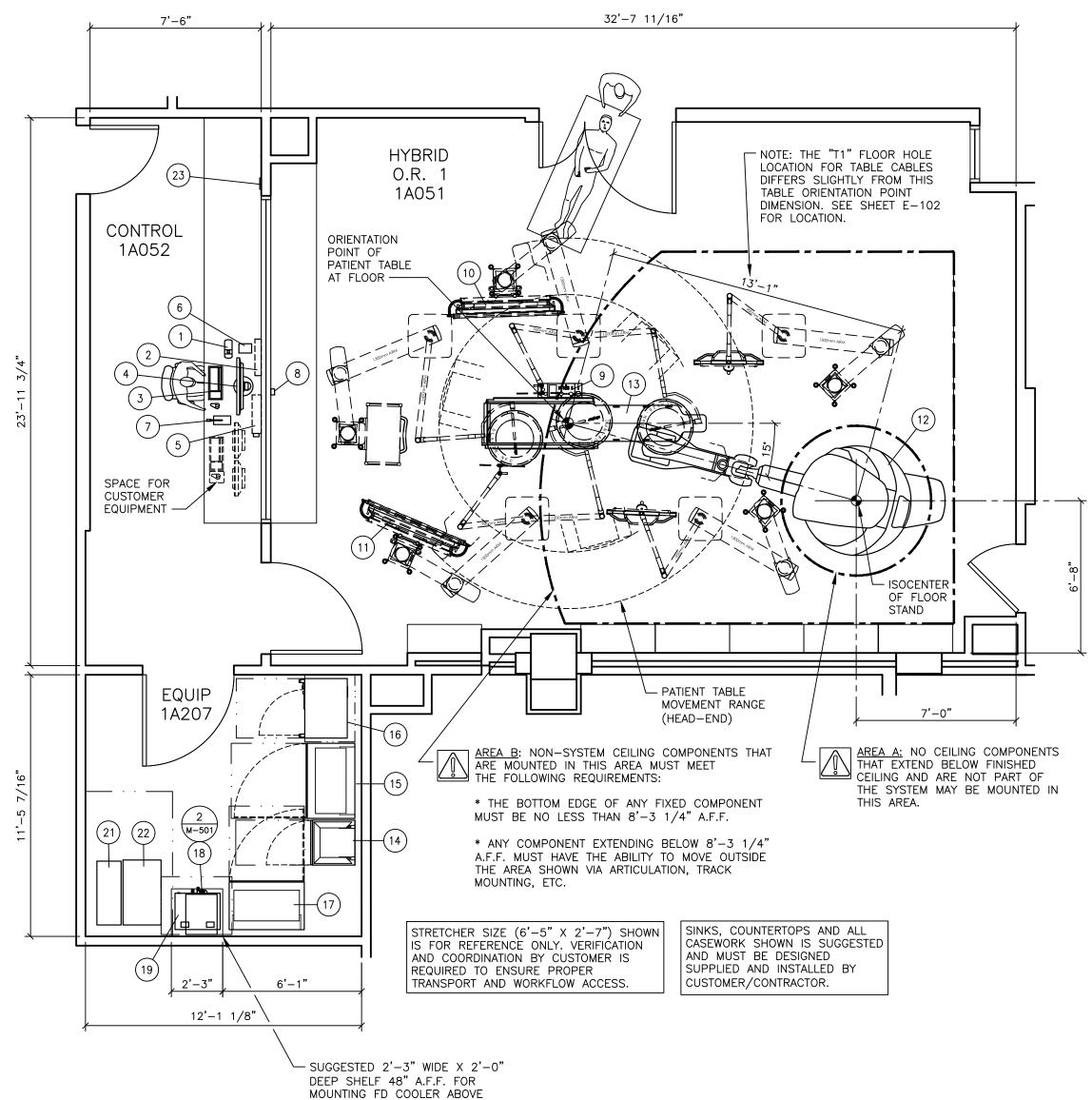
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LIGHTING DETAILS & SCHEDULES



THIS SET OF FINAL DRAWINGS IS REFLECTIVE OF THE LATEST SALES CONFIGURATION. ANY CHANGES TO THIS SALES CONFIGURATION MAY REQUIRE A REVISION TO THIS PROJECT PLAN IF REQUESTED, SIEMENS WILL PRODUCE A REVISED SET OF FINAL DRAWINGS TO REFLECT THE CHANGES, HOWEVER SIEMENS IS NOT RESPONSIBLE FOR ANY CONSTRUCTION COSTS ASSOCIATED WITH THE CHANGES THAT OCCUR FROM THIS PLAN MODIFICATION.



EQUIPMENT LEGEND DESCRIPTION SMS | WEIGHT | BTU/HR | DIMENSIONS (INCHES) REMARKS (LBS) TO AIR 1) | CPC (CENTRAL POWER CONTROL) N/A 9 5/8 2 1/2 ON CONTROL COUNTER (2) CONTROL INTERFACE BOARD 13 1/2 ON WALL UNDER COUNTER 18 342 19 1/4 3 1/4 2 1/8 MTD. UNDER COUNTER OR (3) | KEYBOARD 2.2 342 17 1/2 6 1/8 ON CONSOLE 18 1/2 ON COUNTER OR CONSOLE 4) 32" LARGE CONTROL ROOM DISPLAY 41 512 30) INJECTOR WALL BOX - CONTROL ROOM 18 342 20 1/4 | 4 3/4 13 3/8 ON WALL UNDER COUNTER) INTERCOM POWER UNIT 1 3/8 ON COUNTER 6 3/4 ___ ___ INTERCOM MICROPHONE/LOUDSPEAKER (CONTROL ROOM) ___ 4 1/2 2 ON COUNTER 8) | INTERCOM LOUDSPEAKER (PROCEDURE ROOM) 3 1/4 WALL MOUNTED ___ 9) TABLE CONTROL MODULES 4 ON TABLE OR TROLLEY 13 ___ 23 7 1/2 1,706 OEM BOOM MOUNTED 10) | 55" LARGE DISPLAY - BOOM 1 (MONITOR ONLY) 90 49 3/4 5 1/4 29 11) | 55" LARGE DISPLAY - BOOM 2 (MONITOR ONLY) 90 1,706 49 3/4 5 1/4 29 OEM BOOM MOUNTED 12) ARTIS PHENO FLOOR STAND W/ MOUNTING PLATE 3,428 ROBOT FLOOR MOUNTED 1,706 TABLE FLOOR MOUNTED 3) | PATIENT TABLE (T1) | 1,200 ___ (PU) | 551 23 5/8 | 23 1/4 | 63 1/2 | FLOOR MOUNTED 14) GENERATOR (ACX) (VE21 SOFTWARE) 4,095 5) SYSTEM CONTROL CABINET **(SCI)** | 870 13,649 39 1/2 | 25 1/2 | 74 3/4 | FLOOR MOUNTED FLOOR STAND CONTROL CABINET FLOOR MOUNTED 396 3,412 31 1/4 22 1/2 42 7) ATIS IMAGE SYSTEM (VE2x VERSION) 772 5,971 39 1/2 | 25 1/2 | 74 3/4 | FLOOR MOUNTED TUBE COOLING UNIT 16 1/2 | 28 1/4 | 19 1/4 | FLOOR OR SHELF MOUNTED 80 15,355 11 3/4 | FLOOR OR SHELF MOUNTED) | FD COOLER (CU2) | 55 1,979 23 5/8 19) MEDRAD ARTERION INJECTOR INTEGRATED PEDESTAL 346 ---(20) | MEDRAD ARTERION INJECTOR INTEGRATED PEDESTAL 22 57 3/8 SEE MFG REQUIREMENTS | 47 5/16 | I -MOUNTED (REMOVED) EATON 9355 15KVA UPS AND BATTERY 12 3/4 33 1/2 47 3/4 SEE MFG REQUIREMENTS 8,134 755 EATON 9355 OUTPUT TRANSFORMER CABINET 490 20 34 1/8 66 SEE MFG REQUIREMENTS ___ EATON 9355 REMOTE MONITORING DEVICE **₹MD** 0.5 SEE MFG REQUIREMENTS 6 3 ___

TRANSPORT/STORAGE FLAT PANEL DETECTOR

N SYSTEMS WITH FLAT PANEL DETECTORS, THE DETECTOR IS REMOVED FROM THE STAND FOR TRANSPORT TO THE CUSTOMER. THE LIMITED FRANSPORT AND STORAGE CONDITIONS APPLY FOR THE DETECTOR. FLAT PANEL DETECTOR:

TEMPERATURE RANGE: -4° F TO 158° F RELATIVE HUMIDITY: 10% TO 95% NON CONDENSING AIR PRESSURE: 700 hPa TO 1060 hPa

TRANSPORT FRAME REQUIREMENTS

	COMPONENT	LENGTH	WIDTH	HEIGHT	WEIGHT
LONGITUDINAL	FLOOR STAND	80"	43"	73"	2,811 LBS.
CASTORS	C-ARM	103"	39"	72"	1,102 LBS.
TRANSVERSE	FLOOR STAND	80"	57 "	73"	2,811 LBS.
CASTORS	C-ARM	88"	53"	72"	1,102 LBS.

DDG ISOT AU SOTONISO TO DE COMPLETED DESCRIS SOUIDMENT DEL IVISDV	IDEEEDENIGE OUEET
PROJECT MILESTONES TO BE COMPLETED BEFORE EQUIPMENT DELIVERY	REFERENCE SHEET
 Storage area available for storing items during installation	A-101
Lead shielding (walls, doors, windows) complete	A-101
Climate control functioning 24 hours a day, 7 days a week	A-101
Delivery path verified for largest piece, including rails	A-101
Casework complete in control room	A-101
All walls primed and painted. Flooring installed	A-101
Room lighting complete and functional	A-101
Network drops active and IP addresses obtained for Siemens Remote Services (SRS)	A-102
Nothing hanging below ceiling in area shaded on drawing	A-102
Floor thickness and anchoring spec's verified. If req'd, alt solutions per engineer of record in place	S-101
All conduits, troughs, in-floor pull boxes and/or core drills avoid conflict with floor plate anchors	S-101
Unistrut installed to correct height, location, and levelness (check minimum ceiling height)	S-102
Cable runs checked to ensure maximum lengths not exceeded	E-101
X-Ray warning light and wiring installed	E-101
Contractor supplied electrical wiring / pigtails installed	E-102
Cable inlets located per plans	E-102
EPO's installed and functional	E-102
UPS started and functional	E-102
Ancillary equipment (OEM items, booms, etc) installed	E-102
Breakers installed and facility power available	E-501
All rooms containing Siemens equipment are clean and dust-free	A-101

ARCHITECTURAL NOTES

1) ALL PRELIMINARY EQUIPMENT LAYOUTS SUBMITTED BY SIEMENS HEALTHCARE ARE BASED ON THE RECOMMENDED SPACE NECESSARY FOR THE OPERATION AND SERVICEABILITY OF THE EQUIPMENT BEING PROPOSED. SIEMENS WILL NOT SUBMIT AN EQUIPMENT LAYOUT THAT IS NOT IN THE BEST INTEREST OF BOTH THE CUSTOMER AND SIEMENS. ALL EQUIPMENT LAYOUTS ARE BASED EITHER ON AN ACTUAL SITE SURVEY OR ARCHITECTURAL DRAWINGS SUPPLIED TO SIEMENS. SIEMENS WILL NOT BE RESPONSIBLE FOR ANY ALTERATIONS THAT ENCROACH WITHIN DESIGNATED SAFETY AND SERVICE CLEARANCE ZONES AS INDICATED ON DRAWINGS (I.E., PIPE CHASES, VENTILATION DUCTS, CASEWORK, AND SOFFITS, ETC.) MADE BY THE CUSTOMER OR REQUIRED BY A CUSTOMER'S ARCHITECTURAL FIRM ONCE PRELIMINARY DRAWINGS HAVE BEEN SUBMITTED AND APPROVED. DO NOT ALTER ANY SPECIFICATIONS AND/OR DIMENSIONS WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. 2) SIEMENS HEALTHCARE IS NOT AN ARCHITECTURAL OR ENGINEERING FIRM. DRAWINGS SUPPLIED BY SIEMENS ARE NOT CONSTRUCTION DRAWINGS. THEREFORE, THESE DRAWINGS ARE TO BE USED ONLY FOR INFORMATION TO COMPLEMENT ACTUAL CONSTRUCTION DRAWINGS AVAILABLE FROM A CUSTOMER APPOINTED ARCHITECTURAL REPRESENTATIVE OR A CUSTOMER'S ENGINEERING DESIGN GROUP. THE CUSTOMER'S ARCHITECT AND GENERAL CONTRACTOR SHALL BE ULTIMATELY RESPONSIBLE FOR COMPLIANCE WITH ALL APPLICABLE CODES AND PROFESSIONAL DESIGN REQUIREMENTS INCLUDING OSHA/NEC SAFETY CLEARANCE REQUIREMENTS IN ADDITION TO SIEMENS-REQUIRED SAFETY/SERVICE CLEARANCES SHOWN. 3) THE CUSTOMER IS RESPONSIBLE FOR ALL ROOM AND AREA

PREPARATION COSTS, PROFESSIONAL FEES, PERMITS, REPORTS, AND INSPECTION FEFS.

4) EQUIPMENT WARRANTIES, EXPRESSED OR IMPLIED ON THE PART OF SIEMENS SHALL BE CONTINGENT UPON STRICT COMPLIANCE WITH THE ARCHITECTURAL, STRUCTURAL, ELECTRICAL, MECHANICAL AND RECOMMENDATIONS AND REQUIREMENTS CONTAINED IN THESE DRAWINGS, UNLESS SPECIFIED OTHERWISE.

5) ALL DIMENSIONS SHOWN ARE FROM FINISHED SURFACES UNLESS SPECIFIED OTHERWISE. 6) THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION

PHYSICIST. ACTUAL PROTECTION REQUIREMENTS SHALL BE SPECIFIED BY A REGISTERED RADIATION PHYSICIST AT CUSTOMER'S ENGAGEMENT AND EXPENSE. RESPONSIBILITY FOR ALL INFORMATION AS TO THE ROOM LOCATION, USE, AND NUMBER OF ANTICIPATED EXAMINATIONS TO BE PERFORMED PER TIME PERIOD SHALL BE PROVIDED TO THE PHYSICIST BY THE CUSTOMER. THE CUSTOMER SHALL FURTHER TAKE ALL RESPONSIBILITY IN THE COMMUNICATION AND COORDINATION OF ACTIVITIES OF THE RADIATION PHYSICIST AND THE ARCHITECTURAL

REPRESENTATIVE. 7) SIEMENS HEALTHCARE SHALL BE RESPONSIBLE FOR SIEMENS EQUIPMENT INSTALLATION, CALIBRATION, CONNECTION AND INSTALLATION OF SIEMENS PROVIDED CABLES. THE CUSTOMER/ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR TERMINATIONS OF CUSTOMER/ELECTRICAL CONTRACTOR-SUPPLIED CABLES TO SIEMENS EQUIPMENT. IN THE EVENT THAT SPECIFIC TRADE RULES OR LICENSE REQUIREMENTS PROHIBIT THIS THE CUSTOMER SHALL INITIATE THE SERVICES OF APPROVED OTHER CONTRACTORS AND PAY FOR SELECTED, APPROVED PARTIES TO PERFORM THIS WORK WITH SUPERVISION PROVIDED BY SIEMENS. CALIBRATION WHEN ACCOMPLISHED OUTSIDE OF NORMAL INSTALLATION SEQUENCES DUE TO CONTRACTOR OR TRADE RULE ACTIONS OR REQUIREMENTS SHALL BE SUPPORTED BY, CHARGED TO, AND ACCEPTED BY THE CUSTOMER AS AN ADDITIONAL INSTALLATION EXPENSE. 8) THE CUSTOMER SHALL COORDINATE WITH SIEMENS PROJECT MANAGER THE LOCATIONS AND TRAVEL OF ALL ANCILLARY EQUIPMENT TO BE

CEILING OR WALL MOUNTED (I.E.: O.R. LIGHTS, MEDICAL GAS COLUMNS, PHYSIOLOGICAL MONITORING INJECTORS, CRT PLATFORMS, SPRINKLER HEADS, SMOKE DETECTORS, ELECTRICAL OUTLETS, HVAC GRILLES, SPEAKERS, AND GENERAL ROOM LIGHTING, ETC.). 9) THE GENERAL CONTRACTOR/CUSTOMER SHALL BE RESPONSIBLE FOR ALL FINAL PAINT, TOUCH-UP AND ANY COSMETIC OR TRIM WORK WHICH NEEDS TO BE OR IS REQUIRED TO BE COMPLETED AFTER THE

INSTALLATION OF THE SIEMENS EQUIPMENT AND ANY ASSOCIATED 10) CUSTOMER/CONTRACTOR MUST ASSIST SIEMENS INSTALLERS WITH INSTALLATION OF EQUIPMENT ABOVE 14'-0". REFER TO THE ELECTRICAL NOTES ON SIEMENS SHEET E-101 FOR MORE DETAILS.

MAGNETIC FIELD PRECAUTIONS

THE PRESENCE OF MAGNETIC FIELDS IN THE VICINITY OF EQUIPMENT MAY HAVE AN ADVERSE EFFECT. IT IS THE CUSTOMER'S RESPONSIBILITY TO VERIFY THAT THE FOLLOWING VALUES ARE NOT EXCEEDED. MAXIMUM ALLOWABLE MAGNETIC FIELD DEVICES COMPUTERS, MAGNETIC DISK DRIVES, 1.0mT (10 GAUSS) OSCILLOSCOPES, PROCESSORS X-RAY TUBES, B/W MONITORS, MAGNETIC 0.5mT (5 GAUSS) DATA CARRIERS, DATA STORAGE DRIVES SIEMENS CT SCANNERS 0.2mT (2 GAUSS) COLOR MONITORS, SIEMENS LINEAR 0.15mT(1.5 GAUSS) ACCELERATORS 0.05mT(0.5 GAUSS) X-RAY IMAGE INTENSIFIENS, OCHER LINEAR ACCELERATORS

STATE AGENCY REVIEW

MAGNETIC FIELDS SHOULD BE MEASURED PRIOR TO DELIVERY

PRIOR TO SIEMENS EQUIPMENT INSTALLATION, APPROVAL OF CONSTRUCTION OR STRUCTURAL MODIFICATIONS UTILIZING X-RAY FOR DIAGNOSTIC OR THERAPEUTIC PURPOSES, MUST BE OBTAINED BY THE CUSTOMER FROM THE APPROPRIATE STATE AGENCY, IF APPLICABLE.

RESOURCE LIST (SMS USE ONLY)

DESIGNATION PG NUMBER ATHE-PGR.891.01.02.02 ARTIS PHENO

REV. 31

Г		
	CEILING HEIGHT RANGE	RECOMMENDED CEILING HEIGHT
	9'-1 1/16" - 10'-2"	9'-6"

		PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: FAX: EMAIL: MARK.BUXTON@SIEMENS-HEAL	THINEERS.COM	(SIEMENS
			E SAINT LUKES BLVD,	T LEES , LEES SUMMIT, MO S PHENO SURGERY PE	64086
06/20/22	REMOVED INJECTOR PER SALES ORDER	THIS TITLE BLOCK WITHOUT	PROJECT #:		SHEET:
6/08/22	PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS	SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	2102	2395	
			CLIEFT OF	DDAWN DV.	

D, LEES SUMMIT, MO 64086 IS PHENO SURGERY PRO 2395 E. SANDIFER

ATTENTION:

NOTE: THE UPS IS SUPPLIED AND DELIVERED TO

MOVING FROM LOADING DOCK TO FINAL LOCATION

CUSTOMER'S ELECTRICIAN IS RESPONSIBLE FOR

AND COMPLETING ALL CONNECTIONS. THE UPS

ENVIRONMENT. SIEMENS PROJECT MANAGER WILL

NON-SIEMENS (OEM) DISPLAY BOOMS CONTAINING

IMPORTANT SAFETY CRITERIA: FAILURE TO MEET

RISK OF INJURY TO PATIENTS, PERSONNEL

HE FOLLOWING REQUIREMENTS MAY RESULT IN

1) IT MUST BE POSSIBLE TO MANUALLY MOVE THE

(19 LBS) WHEN POSITIONING THE DISPLAY BOOM

BOOM VERTICALLY WITH A FORCE LESS THAN 85 N

2) TO AVOID THE RISK OF CRUSHING PERSONS OR

ANGIOGRAPHY SYSTEM COMES INTO CONTACT WITH

DAMAGING EQUIPMENT IN THE EVENT THAT THE

THE DISPLAY BOOM, IT MUST BE POSSIBLE TO

DIRECTION WITH A FORCE LESS THAN 50 N (11

3) MOTORIZED, HEIGHT-ADJUSTABLE DISPLAY

BOOMS WHICH CANNOT MANUALLY BE PUSHED

IT IS RECOMMENDED THAT INSTALLATION OF 3RD

PARTY DISPLAY BOOMS BE COORDINATED WITH TH

INSTALLATION OF THE SIEMENS SYSTEM. IN ORDER

TO ENSURE THE SIMULTANEOUS INSTALLATION OF

PLANNING PROCESS TO ENSURE THAT THE BOOM

MANUFACTURER'S LEAD TIME CAN BE COORDINATED

THE THIRD-PARTY MANUFACTURER IS RESPONSIBLE

THIRD-PARTY MANUFACTURER IS RESPONSIBLE FOR

INSTALLING THE SIEMENS COMPONENTS IN THE

RESPONSIBILITY FOR ANY DAMAGE TO SIEMENS

INSTRUCTIONS AND/OR TRAINING AS APPROPRIATE

MANUFACTURER MUST BE PRESENT WHENEVER ANY

ARCHITECTURAL EQUIPMENT PLAN

-FINISHED CEILING

COMPONENTS WHICH ARE NOT INSTALLED IN

ACCORDANCE WITH SIEMENS SPECIFICATIONS.

DISPLAY BOOM IN ACCORDANCE WITH SIEMENS

WITH THE DELIVERY OF THE SIEMENS EQUIPMENT.

CUSTOMER SHOULD TAKE STEPS EARLY IN THE

THE SYSTEM AND THE DISPLAY BOOM, THE

FOR THE INSTALLATION, MAINTENANCE, AND

SERVICE OF THE DISPLAY BOOM(S). THE

SPECIFICATIONS. SIEMENS ASSUMES NO

SIEMENS TECHNICIANS MUST BE GIVEN

BY THE 3RD PARTY MANUFACTURER FOR

MAINTENANCE/SERVICE OF THE SIEMENS

TECHNICIAN FROM THE THIRD-PARTY

SERVICE WORK IS PERFORMED.

FLOOR STAND-

COMPONENTS (I.E. DISPLAY, CABLES), OR A

PUSH THE BOOM AWAY IN A HORIZONTAL

SCHEDULE UPS STARTUP PRIOR TO DELIVERY OF

CUSTOMER'S LOADING DOCK BY SIEMENS.

MUST NOT BE LOCATED IN A PATIENT

SIEMENS IMAGING EQUIPMENT.

OR DAMAGE TO THE EQUIPMENT!

SIEMENS MONITÒRS:

OVER THE PATIENT.

AWAY MAY NOT BE USED.

DELIVERY AND INSTALLATION:

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES. - THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

TUBE COOLER. SHELF PROVIDED

THE "B10" FIXPOINT IS A

THRU-FLOOR PENETRATION

ACCESSORIES AT THE TABLE FOR WHICH CABLE ROUTING THROUGH THE SIEMENS TABLE BASE WOULD

CUSTOMER-SUPPLIED GAS/UTILITY BOX ON THE FLOOR. NOTÉ: THE

2'-0" DISTANCE FROM TABLE
SOCENTER SHOWN HERE APPLIES
TO A CABLE PENETRATION POINT
ONLY. SEE DIAGRAM FOR

POSSIBLE BOX PLACEMENT AND

HEIGHT OPTIONS. VALIDATE EXACT

NONE

PLACEMENT WITH SIEMENS

- PROJECT MANAGER.

BE PROHIBITED. THIS OPENING

CAN BE ELIMINATED AS REQUIRED, OR IT CAN BE COMBINED INTO A

PROVIDED AS A MEANS OF CONNECTING A TABLE INJECTOR OR OTHER NON-SIEMENS

BY CUSTOMER/CONTRACTOR.

SUSPENSION

3'-8" MIN.

TYPICAL SYSTEM ELEVATION

4'-10" MAX.

5'-10" MIN.

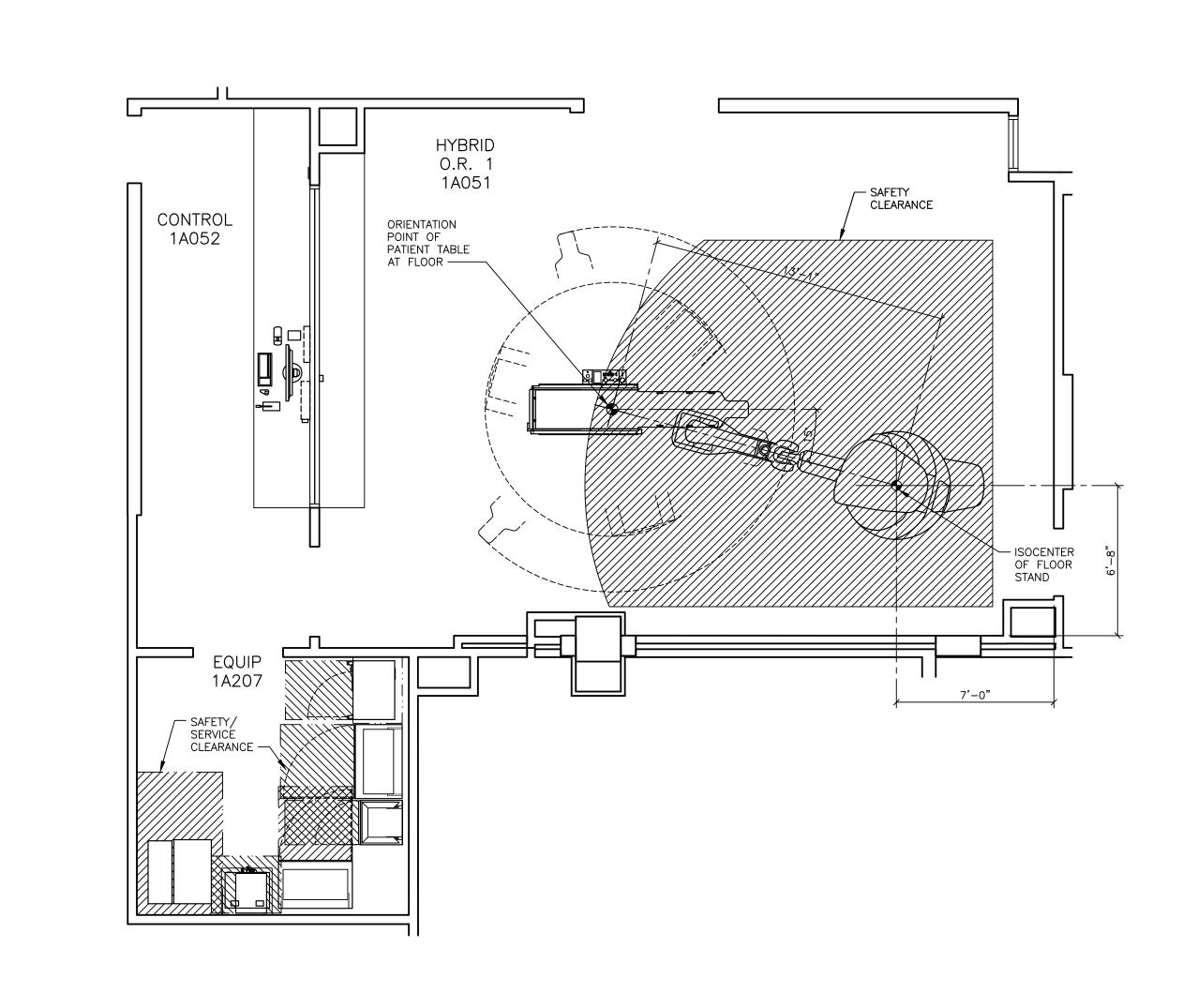
- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

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

 $- \, \text{ALL}$ DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES. THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

ALL RIGHTS ARE RESERVED. DESCRIPTION SCALE: AS NOTED -ISSUE BLOCK-

REF. #: 30267218 06/08/22



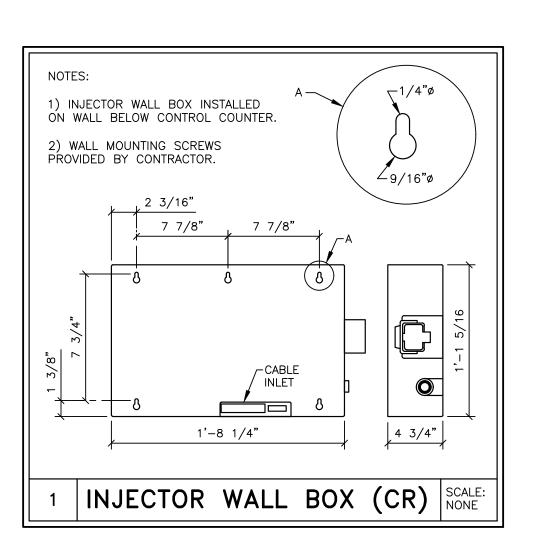
DESCRIPTION

-ISSUE BLOCK-

DATE

SAFETY/SERVICE CLEARANCE PLAN

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



CEILING NOTES 1) ALL CEILING MOUNTED LIGHT FIXTURES, MECHANICAL REGISTERS
AND SPRINKLER HEADS SHALL BE FLUSH WITH FINISHED CEILING, SHALL
BE OUTSIDE OF ALL HATCHED AREAS AND SHALL BE SPECIFIED BY
THE ARCHITECT OF RECORD AND SUBSEQUENT CONSULTING ENGINEERS. 2) THE ACTUAL CEILING DESIGN AND COORDINATION OF LIGHTING AND MECHANICAL SYSTEMS SHALL BE THE RESPONSIBILITY OF THE ARCHITECT OF RECORD AND HIS SUBSEQUENT CONSULTING ENGINEERS. 3) THE CUSTOMER/CONTRACTOR SHALL BE RESPONSIBLE FOR FABRICATING, SUPPLYING AND INSTALLING ALL LIGHT, MECHANICAL AND STRUCTURAL SUPPORTING SYSTEMS. SIEMENS MEDICAL SOLUTIONS INC. IS ONLY RESPONSIBLE FOR THE SUPPLYING, INSTALLING AND CALIBRATION OF SMS EQUIPMENT AS SPECIFIED ON THE EQUIPMENT SCHEDULE AS SHOWN ON SHEET A-101. 4) ALL ELECTRICAL AND STRUCTURAL SYSTEMS SHOWN ON THE REFLECTED CEILING PLAN HAVE BEEN COORDINATED WITH THE EQUIPMENT LOCATIONS AS SHOWN ON THE 1/4" SCALE ARCHITECTURAL EQUIPMENT PLAN (SHEET A-101). ANY CHANGES TO THE SMS EQUIPMENT CONFIGURATION AS SHOWN, DUE TO PLACEMENT OF LIGHTING, STRUCTURAL, ELECTRICAL AND MECHANICAL SYSTEMS, MUST BE APPROVED IN WRITING BY THE SMS PROJECT MANAGER PRIOR TO THE COMPLETION OF CONSTRUCTION DOCUMENTS.

CEILING	RECOMMENDED
HEIGHT	CEILING
RANGE	HEIGHT
9'-1 1/16" - 10'-2"	9'-6"

_							
				PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: FAX: EMAIL: MARK.BUXTON@SIEMENS-HEALT		SIEME	INS
				100 NE	S EAST LEES E SAINT LUKES BLVD, LEES SUMMIT, MO YBRID OR 1 - ARTIS PHENO SURGERY PI	64086	ИΙΤ
	\triangle	06/20/22	REMOVED INJECTOR PER SALES ORDER	THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT	PROJECT #:	SHEET:	
	\triangle	06/08/22	PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS	SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	2102395	ΙΛ 1	N2

06/08/22

ALL RIGHTS ARE RESERVED.

REF. #: 30267218

SCALE: AS NOTED

2102395 E. SANDIFER

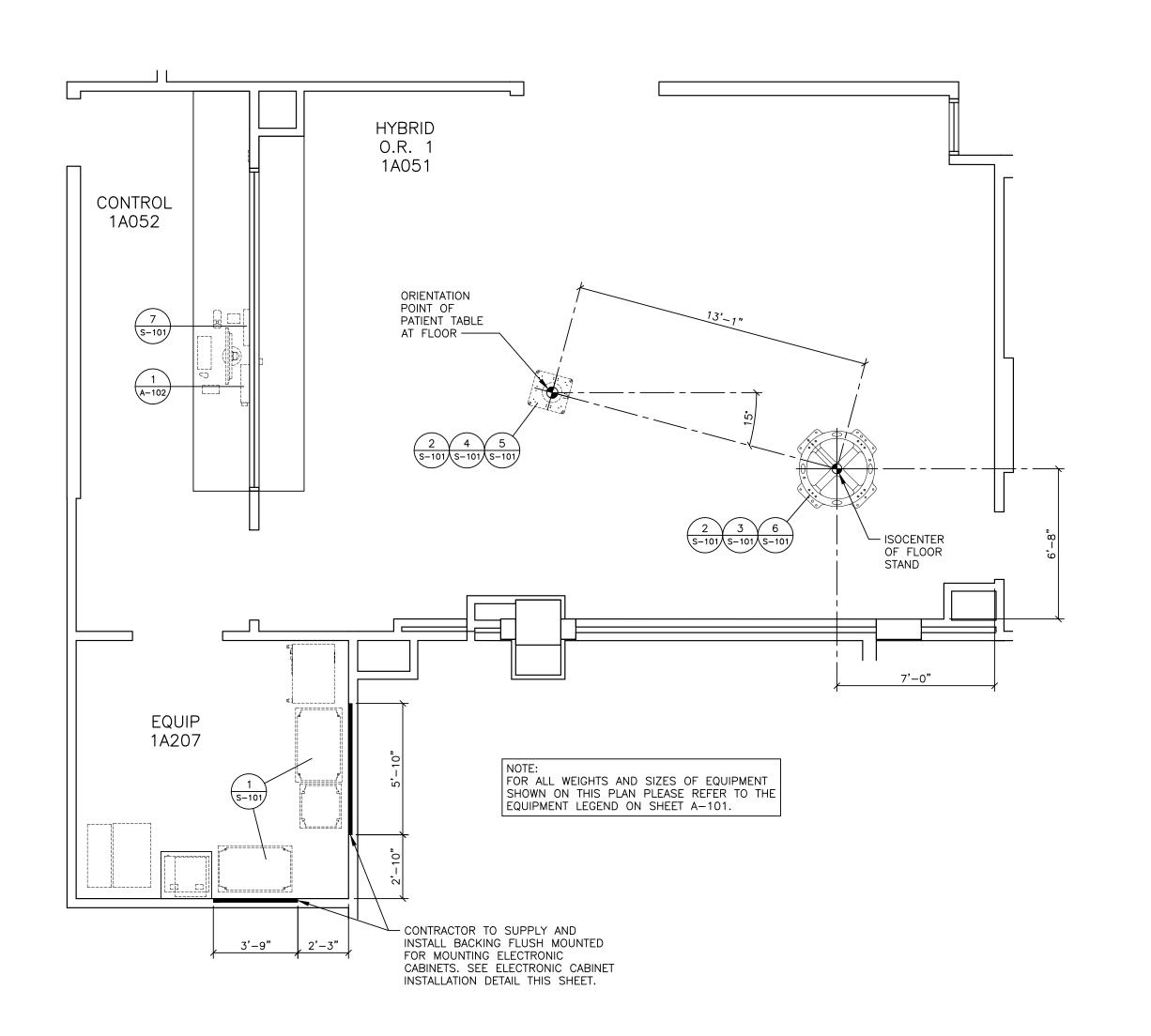
ATTENTION:

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PHYSICIST TO SPECIFY RADIATION PROTECTION.

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STRUCTURAL FLOOR PLAN

FLOOR STAND PLATE

EFFECTIVE FORCES:

| MOUNTING | TENSILE FORCE | LATERAL FORCE (LBS.) (LBS.) 1,680 1,217 1,728 1,728 553 PRESSURE 1,534 1,385 PRESSURE 1,345 PRESSURE 553 1,084 1,006 1,217 1,084 1,345 1,992

* ASSUMING A 2,733 LB. FLOOR STAND PLUS 397 LB. C-ARM

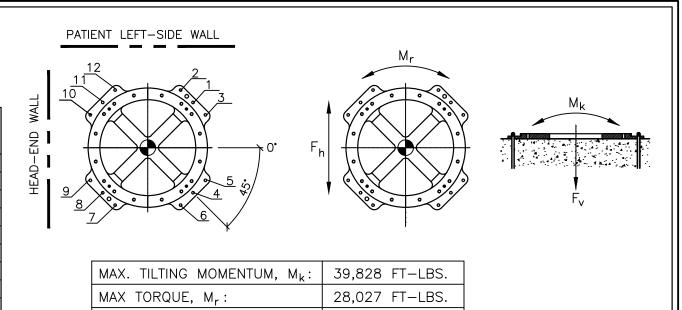
1,992

1,992

1,385

1,534

- * THE SPECIFICATIONS INCLUDE STATIC AND DYNAMIC FORCES
- *MAX. TENSILE FORCE AT ±45 DEG.



4,047 LBS.

5,395 LBS.

MAX. CONCRETE COMPRESSION:	0.08%
MAX. CONCRETE COMPRESSION STRESS:	0.519 LBS/MM
RESULTING TENSILE FORCE:	10,879 LBS.
RESULTING COMPRESSIVE FORCE:	15,734 LBS.

FLOOR STAND NOTES:

MAX HORIZONTAL FORCE, Fh:

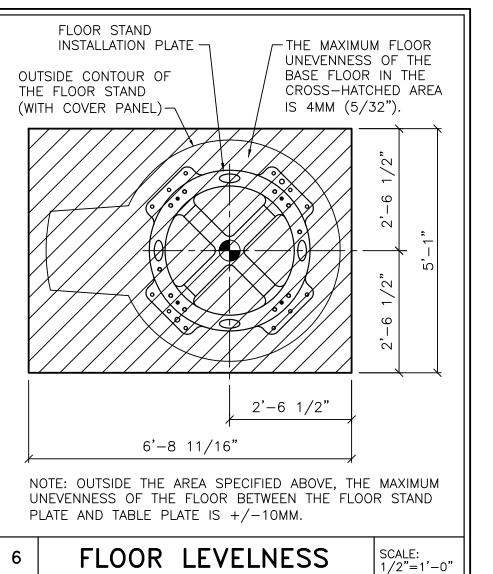
MAX VERTICAL FORCE, F.

MAXIMUM TENSILE FORCE OCCURS AT ±45 DEGREES. DUE TO THE ROTATIONAL RANGE OF THE FLOOR STAND, TENSILE FORCES CAN OCCUR AT EVERY ATTACHMENT POINT OF THE MOUNTING PLATE. MAXIMUM BENDING IN THE AREA OF THE FLOOR STAND INSTALLATION PLATE IS 3MM WHEN A VERTICAL FORCE OF 3,147 LBS. IS EXERTED.

FLOOR LOADS

SCALE: NONE

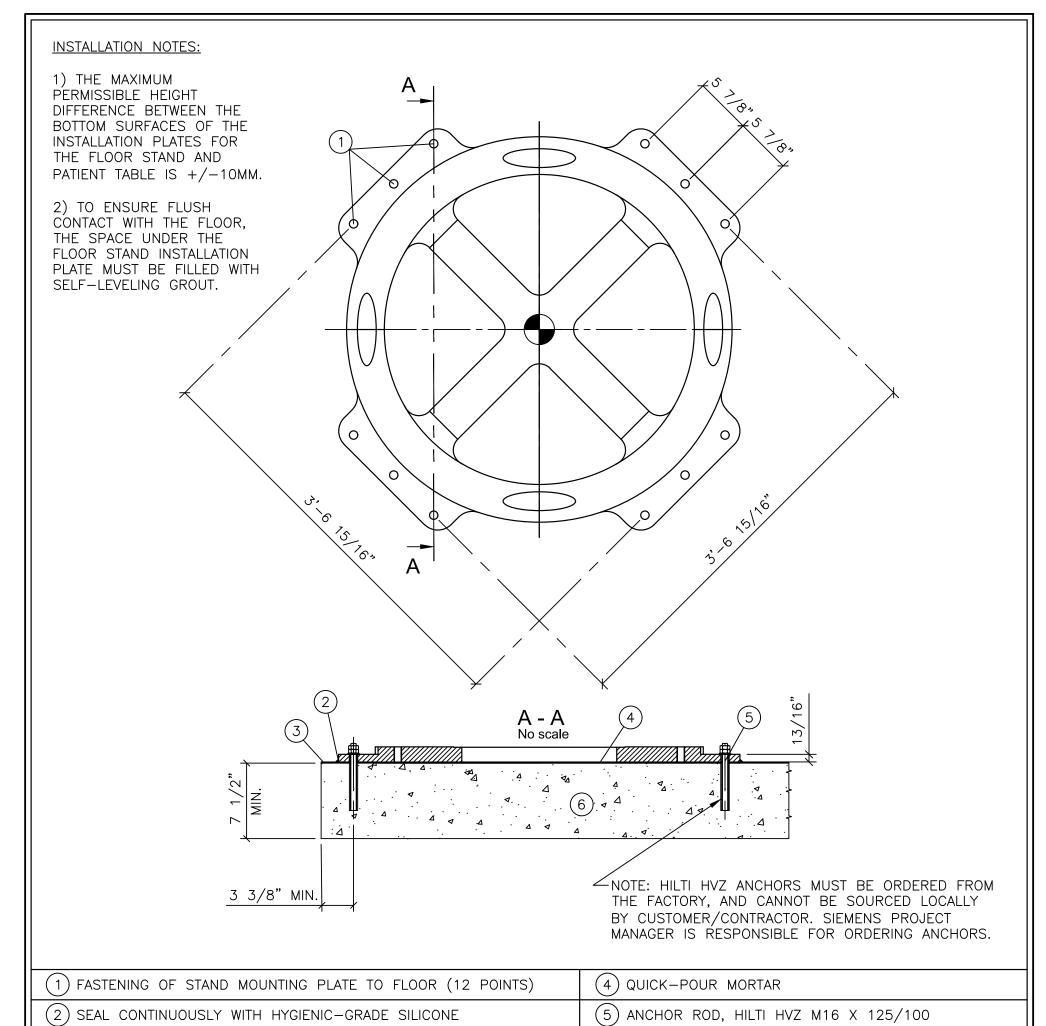
SCALE: 1/4" = 1'-0'



1'-8 1/16" 13/16 1'-6 1/16" INSTALLATION PLATE SUPPLIED AND INSTALLED BY SIEMENS SOLID CONCRETE 1 MOUNTING USING (4) HILTI HEAVY-DUTY EXPANSION BOLTS, HSL-3 M12/25, SUPPLIED BY SIEMENS. MINIMUM CONCRETE QUALITY IS C20/25. MAX. TENSILE FORCE PER MOUNTING POINT: 2,226 LBS. *2 OPENING IN INSTALLATION PLATE *3 CABLE OPENING IN THE FLOOR (OFF CENTER FROM TABLE O.P.)

- *4 PATIENT TABLE ORIENTATION POINT INSTALLATION DIRECTLY ON SOLID CONCRETE
- 4 TABLE MOUNTING PLATE SCALE: NONE

CABLE OPENING IN FLOOR — ∠SOLID CONCRETE EITHER 5" BARE CONCRETE CORE, OR 6" CONDUIT DEPENDING LOCAL REQUIREMENTS. - INSTALLATION INSULATION PARTS -PLATE SEAL CONTINUOUSLY-WITH HYGIENIC-GRADE ` SILICONE -M12 THREADED RODS (ISO 8.8 HARDNESS) FLOOR COVERING -SUPPLIED BY CUSTOMER/CONTRACTOR. TABLE INSTALLATION PLATE WITH THREADED RODS 5 TABLE MOUNTING PLATE SCALE: NONE



(3) FLOOR COVERING (6) SOLID CONCRETE (MIN. C20/25 REQUIRED)

NOTE: LOAD ON EACH MOUNTING POINT MAX. TENSILE FORCE SEE "STATIC FLOOR" DETAIL. FLOOR MOUNTING

USING STUDS (THREADED BARS) THROUGH THE CEILING OF THE ROOM BELOW. (INCLUDED IN SHIPMENT)

3 INSTALLATION OF STAND MOUNTING PLATE DIRECTLY TO CONCRETE | SCALE: NONE

DATE

DESCRIPTION

-ISSUE BLOCK-

STRUCTURAL NOTES

) THE CUSTOMER/CONTRACTOR SHALL FURNISH AND INSTALL ALL STRUCTURAL SUPPORT MEMBERS AND NEEDED HARDWARE FOR THE INSTALLATION OF THE SIEMENS EQUIPMENT. 2) THE OVERHEAD STRUCTURAL SUPPORT SYSTEM SHALL BE FIXED,

RÍGID AND BRACED FOR SWAY. 3) ALL STRUCTURAL SUPPORT MEMBERS SHALL BE TRUE, SQUARE, LEVEL. PARALLEL AND COPLANAR WITH RESPECT TO EACH OTHER. WITH A HORIZONTAL STRUCTURAL SUPPORT MEMBER TO BE LOCATED AND SET

WITH A TRANSIT. 4) ALL STRUCTURAL SUPPORT DETAILS SHOWN ARE SAMPLE DETAILS BÁSED UPON TYPICAL AND STANDARD BUILDING PRACTICES AND ARE NOT INTENDED AS ACTUAL CONSTRUCTION DETAILS. ALL CONSTRUCTION DETAILS AND SUPPORT CALCULATIONS SHALL BE PREPARED BY A PROFESSIONAL STRUCTURAL ENGINEER AT THE CUSTOMER'S EXPENSE. IN THE EVENT AN EXISTING SUPPORT SYSTEM IS TO BE USED, IT WILL BE

THE CUSTOMER'S RESPONSIBILITY TO VERIFY THE INTEGRITY OF THAT 5) MOUNTING PLATES, FRAMES, AND HARDWARE SUPPLIED BY SIEMENS AS DETAILED IN THIS DRAWING SET ARE INSTALLED BY SIEMENS UNLESS OTHERWISE REQUIRED. ANY DEVIATION FROM THE PROVIDED MATERIALS OR MOUNTING METHODS MUST BE DESIGNED AND DOCUMENTED BY THE STRUCTURAL ENGINEER OF RECORD. ALTERNATE MOUNTING MATERIALS (I.E. ANCHORS, THREADED ROD, BACKING PLATES, ETC.) MUST BE

ASSISTANCE FROM THE CUSTOMER/CONTRACTOR WITH INSTALLATION WHEN UTILIZING ALTERNATE MOUNTING MATERIALS. 6) ALL CEILING FIXTURES (I.E. AIR SUPPLY GRILLES, AIR RETURN GRILLES, EXHAUST GRILLES, SPRINKLER HEADS, INCANDESCENT AND FLUORESCENT LIGHT FIXTURES, INTERCOM SPEAKERS, MEDICAL GAS COLUMNS, ETC.) SHALL BE INSTALLED FLUSH MOUNTED WITH THE FINISHED CEILING TO PROVIDE FREE AND UNRESTRICTED TRAVEL OF THE

SUPPLIED BY THE CUSTOMER/CONTRACTOR. SIEMENS MAY REQUIRE

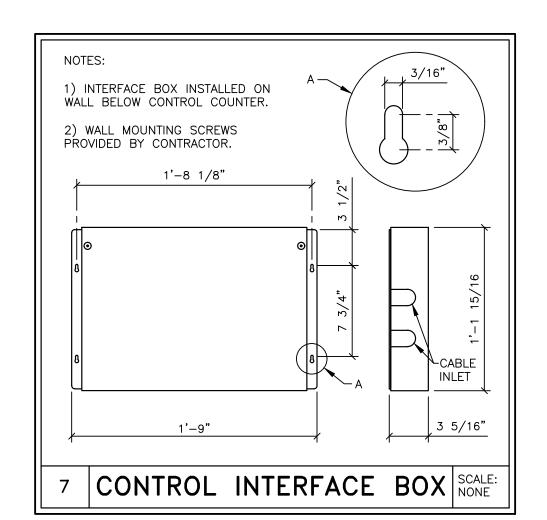
SMS CEILING MOUNTED EQUIPMENT. 7) THE BOTTOM SIDE OF THE UNISTRUT CEILING GRID AND ANY CEILING MOUNTED SUPPORT PLATES ARE TO BE INSTALLED FLUSH WITH THE FINISHED CEILING. THE CUSTOMER/CONTRACTOR SHALL ALSO PROVIDE COVERSTRIPS FOR THE UNISTRUT.

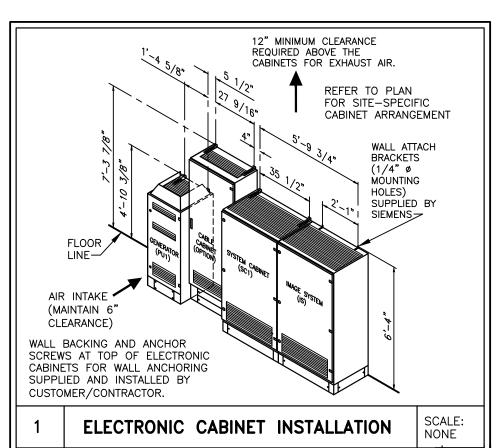
8) THE STRUCTURAL PLANNING AS SHOWN ON THE 1/4" STRUCTURAL PLAN HAS BEEN COORDINATED WITH THE EQUIPMENT LOCATION AS SHOWN ON THE 1/4" EQUIPMENT LAYOUT PLAN. FOR THIS REASON, ANY DEVIATIONS FROM THE STRUCTURAL PLANNING AS SHOWN MUST BE APPROVED BY SMS PLANNING DEPARTMENT.

9) THE STRUCTURAL ENGINEER OF RECORD SHALL BE RESPONSIBLE FOR THE DESIGN AND DETAIL OF FLOOR, WALL, AND CEILING STRUCTURES IN ACCORDANCE WITH THE STRUCTURAL INFORMATION SHOWN, AND LOCAL GOVERNING BUILDING CODES. 10) ALL ANCHORS, SUPPORTS AND BRACES FOR SECURING THE SIEMENS EQUIPMENT ON THE UNDERSIDE OF THE CONCRETE SLAB (WHETHER SUPPLIED BY SIEMENS OR CONTRACTOR) SHALL BE SECURED IN A

ALL WORK FOR SECURING THESE MOUNTS SHALL BE BY THE

MANNER TO PREVENT THEM FROM FALLING DURING A DE-INSTALLATION.





RECOMMENDED CEILING **HEIGHT** CEILING RANGE HEIGHT 9'-1 1/16" - 10'-2" 9'-6"

						REV.
			PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: FAX: EMAIL: MARK.BUXTON@SIEMENS-HEAL		SIEME	ENS
			100 NE	S EAST LEES E SAINT LUKES BLVD, LEES SUMMIT, MO YBRID OR 1 - ARTIS PHENO SURGERY F	64086	МΙΤ
\triangle	06/20/22	REMOVED INJECTOR PER SALES ORDER	THIS TITLE BLOCK WITHOUT	PROJECT #:	SHEET:	
\triangle	06/08/22	PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS	SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	2102395	C 1	

ATTENTION:

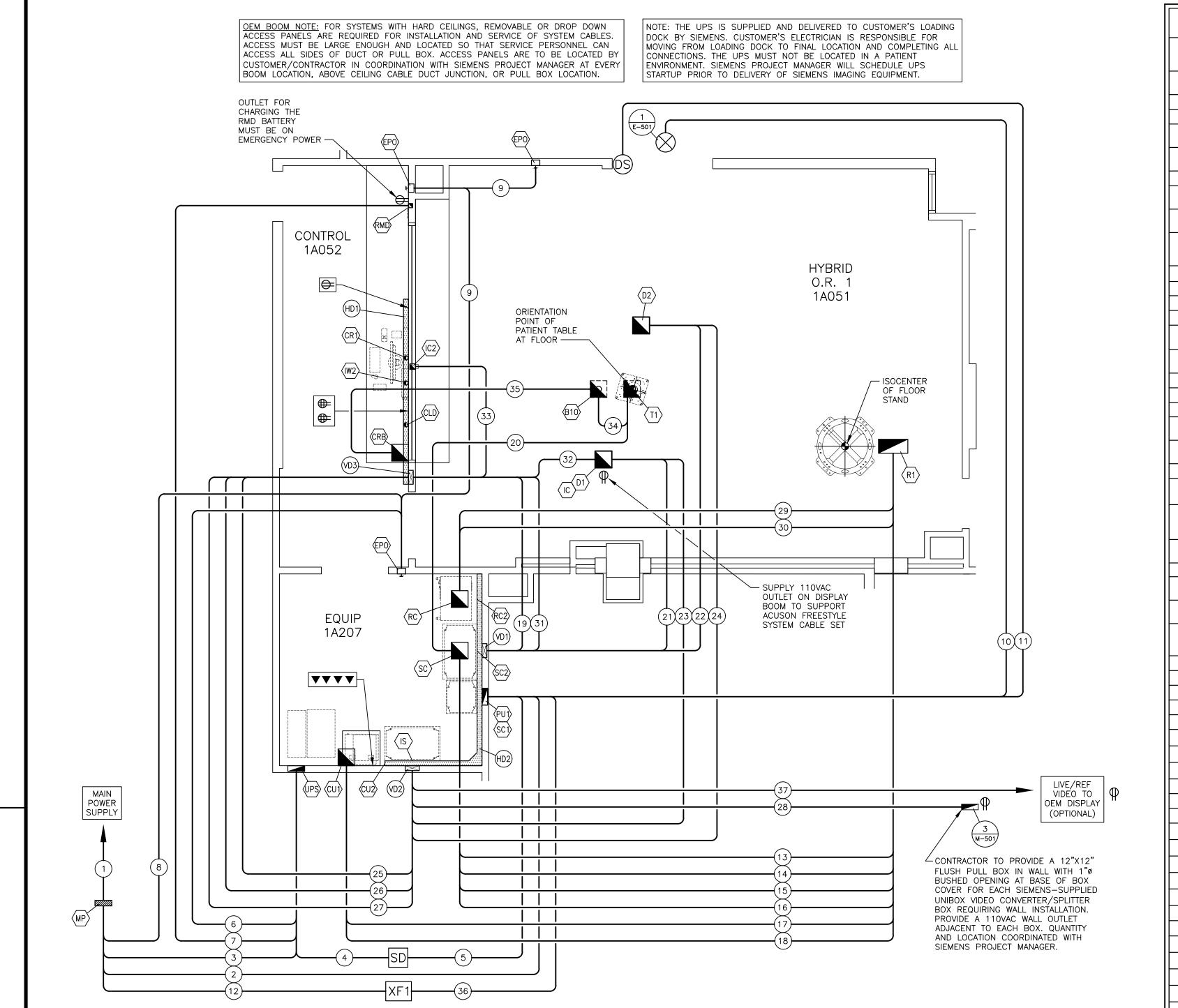
- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES. - THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION DOCUMENTS FOR REFERENCE.

- ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES. THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION PHYSICIST TO SPECIFY RADIATION PROTECTION.

FULL EXTENT OF THE LAW. ALL RIGHTS ARE RESERVED. REF. #: 30267218 SCALE: AS NOTED

06/08/22



ELECTRICAL RACEWAY PLAN

SYMBOLS ALL MAY NOT APPLY CIRCUIT BREAKER BY CUSTOMER/CONTRACTOR OPENING IN RACEWAY OR TRENCHDUCT PULLBOX IN (FLOOR/WALL/CEILING) OPENING IN ACCESS FLOORING WARNING LIGHT (X-RAY ON) DOOR SAFETY SWITCH (EPO) EMERGENCY POWER OFF BUTTON TRENCH DUCT CEILING DUCT UNDER FLOOR DUCT SURFACE DUCT \boxtimes VERTICAL DUCT THERNET CONNECTION TO CUSTOMER'S INFORMATION SYSTEMS NETWORK (VERIFY WITH SMS PROJECT MANAGER) \Rightarrow 110 VOLT, 20 AMP, HOSPITAL GRADE DUPLEX OUTLET 110 VOLT, 20 AMP, HOSPITAL GRADE QUAD OUTLET

DESCRIPTION REMARKS SYM SIZE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR AS REQUIRED PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH REMOVABLE TOP COVER WITH 4"Ø BUSHED TABLE ACCESSORIES BUSHED OPENING IN TOP OF HORIZONTAL DUCT "HD1" C-ROOM LD INPUTS 3"ø CONTROL ROOM DISTRIBUTOR BUSHED OPENING IN TOP OF HORIZONTAL DUCT "HD1" PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH REMOVABLE TOP COVER. CONNECT TO AS REQUIRED CONTROL ROOM BOX PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH REMOVABLE TOP COVER AND (1) 5"0 AS REQUIRED COOLING UNITS BUSHING IN CENTER OF REMOVABLE COVER FOR CABLE EXIT. COOLING UNITS OPENING AT END OF RACEWAY "HD2" AS REQUIRED LARGE DISPLAY 1 PULL BOX MOUNTED ABOVE FINISHED CEILING WITH REMOVABLE BOTTOM COVER WITH 4"0 BUSHED OPENING. PULL BOX MOUNTED ABOVE FINISHED CEILING WITH REMOVABLE BOTTOM COVER WITH 4"0 LARGE DISPLAY 2 BUSHED OPENING. EMERGENCY OFF BUTTONS FOR CIRCUIT BREAKERS. EPO'S MUST PREVENT RESETTING OF CIRCUIT EMERGENCY POWER OFF BREAKERS WHEN IN OFF POSITION. EPO'S MUST BE RECESSED OR SHIELDED. FINAL LOCATION DETERMINED BY CUSTOMER. INTERCOM COMFORT MIC FIXPOINT DESIGNATION, SAME PULL BOX AS "D1". PULL BOX MOUNTED FLUSH IN FINISHED WALL ABOVE CONTROL WINDOW INTERCOM COMFORT SPEAKER AS REQUIRED IMAGE SYSTEM 6"ø BUSHED OPENING IN HORIZONTAL DUCT "HD2" COVER AT FLOOR LINE OPERATION IN CONTROL RM BUSHED OPENING IN TOP OF HORIZONTAL DUCT "HD1". BREAKER PANEL MAIN PANEL WITH MAIN BREAKER. LOCATION DETERMINED BY CUSTOMER/CONTRACTOR. SEE CUSTOM PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH DEPTH AS REQUIRED FOR BURIED FLOOR STAND 21" X 10" CONDUIT CONNECTIONS. SEE DETAIL 1, SHEET E-102. PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH 6" BUSHED OPENING IN TOP COVER. FLOOR STAND CABINET BUSHED OPENING IN HORIZONTAL DUCT "HD2" COVER AT FLOOR LINE FLOOR STAND CABINET UPS REMOTE DISPLAY AS REQUIRED I SINGLE-GANG RJ45 JACK AS REQUIRED PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH REMOVABLE TOP COVER WITH (2) 6"\$ SYSTEM CABINET AS REQUIRED PULL BOX MOUNTED FLUSH IN FINISHED WALL AT FLOOR LINE. CONNECT BOX TO RACWAY SYSTEM CABINET SYSTEM CABINET BUSHED OPENING IN HORIZONTAL DUCT "HD2" COVER AT FLOOR LINE 3-PHASE (PLUS N,G) 30A, 600V HD FUSIBLE SERVICE DISCONNECT LOCATED AT EYE-LEVEL, UPS SERVICE DISCONNECT WITHIN 10' OF SIEMENS SYSTEM CABINET (SC1) AND 30A RK5 FUSES. SEE POWER SCHEDULE AS REQUIRED PULL BOX MOUNTED FLUSH IN FINISHED FLOOR WITH REMOVABLE TOP COVER WITH 5"0 **(11)** BUSHED OPENING. SEE DETAIL 4, SHEET S-101 FOR TABLE ANCHOR PATTERN. DO NOT CUT CONCRETE WITHIN 3 1/2" OF TABLE ANCHORS. PULL BOX MOUNTED FLUSH IN FINISHED WALL AT FLOOR LINE. PROVIDE BOX WITH REMOVABLE | 15KVA UPS AS REQUIRED FRONT COVER WITH 4"Ø BUSHED OPENING. STEP-DOWN TRANSFORMER. SEE POWER SCHEDULE XFMR FOR TABLE OUTLET HORIZONTAL DUCT MOUNTED ON FINISHED WALL AT FLOOR LINE. PROVIDE DUCT WITH HORIZONTAL WALL DUCT 3 1/2" X 10" REMOVABLE FRONT COVER. CONNECT TO VERTICAL DUCT "VD3" AS SHOWN. HORIZONTAL DUCT MOUNTED ON FINISHED WALL AT FLOOR LINE. PROVIDE DUCT WITH HORIZONTAL WALL DUCT 3 1/2" X 18" REMOVABLE FRONT COVER. CONNECT TO VERTICAL DUCTS "VD1" AND "VD2" AS SHOWN. 3 1/2" X 10" VERTICAL DUCT MOUNTED FLUSH IN FINISHED WALL. BEGIN DUCT AT FLOOR LINE AND EXTEND VERTICAL DUCT UP WALL ABOVE FINISHED CEILING. PROVIDE JUNCTION BOX (SIZED BY E.C.) AT TOP OF DUCT FOR CONDUIT TRANSITIONS. EC TO SIZE CONDUIT FROM PANEL TO "MP" SEE "POWER SCHEDULE" CONDUIT FROM "MP" TO "PU1" EC TO SIZE SEE "POWER SCHEDULE" EC TO SIZE CONDUIT FROM "MP" TO "UPS" WITH FLEX CONDUIT FROM UPS BOX TO UPS CABINET. SEE "POWER SCHEDULE" EC TO SIZE CONDUIT FROM "UPS" TO "SD" WITH FLEX CONDUIT FROM UPS BOX TO OUTPUT XFMR CABINET. SEE "POWER SCHEDULE" EC TO SIZE CONDUIT FROM "SD" TO "SC1" SFF "POWER SCHEDULE" CONDUIT FROM "UPS" TO "EPO" WITH FLEX CONDUIT FROM UPS BOX TO UPS CABINET. SEE "POWER SCHEDULE" 3/4"ø CONDUIT FROM "RMD" TO "UPS" SEE "POWER SCHEDULE" SEE "POWER SCHEDULE" CONDUIT FROM "MP" TO "EPO" EC TO SIZE CONDUIT FROM "EPO" TO "EPO" CONDUIT FROM "SC1" TO "WL" EC TO SIZE CONDUIT FROM "SC1" TO "DS" EC TO SIZE EC TO SIZE CONDUIT FROM "MP" TO "XF1" (OPTIONAL) TABLE POWER OUTLET CONDUIT FROM "R1" TO "SC" (PU1) IN FLOOR 2"ø MAX. CONDUIT LENGTH 50' CONDUIT FROM "R1" TO "SC" (PU1) IN FLOOR (2) 3"ø MAX. CONDUIT LENGTH 50' 2**"**ø CONDUIT FROM "R1" TO "SC" (SC1) IN FLOOR MAX. CONDUIT LENGTH 47' CONDUIT FROM "R1" TO "SC" (SC1) IN FLOOR MAX. CONDUIT LENGTH 48' CONDUIT FROM "R1" TO "CU1" IN FLOOR FOR LIQUID COOLING HOSES MAX. CONDUIT LENGTH 90' 3"ø 2**"**ø CONDUIT FROM "R1" TO "CU1" IN FLOOR FOR LIQUID COOLING HOSES MAX. CONDUIT LENGTH 42' 2**"**ø CONDUIT FROM "VD1" (SC1) TO "VD3" (CR1 MAX. CONDUIT LENGTH 31' CONDUITS FROM "SC" (SC1) TO "T1" IN FLOOR (2) 3**"**ø MAX. CONDUIT LENGTH 40' CONDUIT FROM "VD1" (SC1) TO "D1' MAX. CONDUIT LENGTH 50' CONDUIT FROM "VD1" (SC1) TO "D2' 3"ø MAX. CONDUIT LENGTH 50' 2 1/2"ø CONDUIT FROM "VD2" (IS) TO "D1" MAX. CONDUIT LENGTH 62' CONDUIT FROM "VD2" (IS) TO "D2" MAX. CONDUIT LENGTH 62' 2 1/2"ø MAX. CONDUIT LENGTH 28' (2) 2**"**ø CONDUITS FROM "VD2" (IS) TO "VD3" (CR1) (26) CONDUITS FROM "VD2" (IS) TO "VD3" (CR1) MAX. CONDUIT LENGTH 57' 2 1/2"ø CONDUITS FROM "VD2" (IS) TO "VD3" (CLD) MAX. CONDUIT LENGTH 80' (2) 3**"**ø VARIES CONDUIT(S) FROM "VD2" (IS) TO CUSTOMER SOURCES MAX. CONDUIT LENGTH 80' CONDUIT FROM "RC" TO "R1" IN FLOOR MAX. CONDUIT LENGTH 40' CONDUIT FROM "RC" TO "R1" IN FLOOR MAX. CONDUIT LENGTH 40' 3"ø CONDUIT FROM "VD1" (SC1) TO "VD3" (IW2) 2**"**ø MAX. CONDUIT LENGTH 31' 3/4**"**ø CONDUIT FROM "VD3" TO "IC" MAX. CONDUIT LENGTH 62' 3/4"ø CONDUIT FROM "VD3" TO "IC2" MAX. CONDUIT LENGTH 62' 3"ø CONDUIT FROM "T1" TO "B10" IN FLOOR CONDUIT FROM "CRB" TO "B10" IN FLOOR (OPTION) (CUSTOMER PATIENT MONITORING) 3"ø CONDUIT FROM "XF1" TO "SC1" ("T1") (OPTIONAL TABLE POWER OUTLET) MAX. CONDUIT LENGTH 60'

CONDUIT FROM "VD2" (IS) TO "CUSTOMER MONITOR" (LIVE+REF VIDEO TO OEM OPTION)

ELECTRICAL LEGEND

ELECTRICAL NOTES

) COMPLIANCE: ELECTRICAL WORK SHALL BE IN COMPLIANCE WITH THE NATIONAL ELECTRICAL CODE (NFPA-70), O.S.H.A. REGULATIONS, AS WELL AS APPLICABLE REGULATIONS OF CITY, COUNTY, STATE AND FEDERAL AGENCIES. PROVIDE MATERIALS AND EQUIPMENT THAT COMPLY WITH ANSI, IEEE AND NEMA STANDARDS AND ARE U.L. LISTED AND LABELED. THE CUSTOMER'S/CONTRACTOR'S WORK AND ALL EQUIPMENT INSTALLED SHALL COMPLY WITH THE CURRENT EDITION OF THE NATIONAL ELECTRICAL CODE ADOPTED/ENFORCED BY THE AUTHORITY HAVING JURISDICTION. QUALITY ASSURANCE: THE CONTRACTOR SHALL VERIFY EXISTING CONDITIONS IN THE FIELD TO INSURE THAT THE NEW WORK WILL FIT INTO THE EXISTING STRUCTURE AS SHOWN ON THE DRAWINGS. SHOULD ANY CONDITIONS EXIST OR BE DISCOVERED THAT PREVENT THE INSTALLATION OF WORK AS SHOWN, THE CONTRACTOR SHALL NOTIFY THE OWNER'S REPRESENTATIVE PRIOR TO FABRICATION OF EQUIPMENT, OR THE PERFORMANCE OF ANY WORK THAT MAY BE AFFECTED. DO NOT ALTER DRAWINGS, DIMENSIONS, OR SPECIFICATIONS IN ANY WAY WITHOUT CONTACTING AND RECEIVING WRITTEN CONFIRMATION FROM SIEMENS PROJECT MANAGER. ALL DIMENSIONS ARE FROM FINISHED SURFACES. CONDUIT AND PULL BOXES TO BE INSTALLED BY THE CUSTOMER/CONTRACTOR WITH LOCATIONS BEING FIELD VERIFIED BY THE SIEMENS PROJECT MANAGER. POWER SUPPLY SOURCE: POWER SUPPLIES FOR SIEMENS HEALTHCARE EQUIPMENT SHALL BE FROM A MEDICAL IMAGING PANEL OR BUILDING SERVICE EQUIPMENT THAT IS A GROUNDED 3 OR 4-WIRE 'WYE' SOURCE PER THE SPECIFIC EQUIPMENT OPERATION REQUIREMENTS. A DEDICATED CIRCUIT SHALL BE PROVIDED THAT IS KEPT ENTIRELY FREE AND INDEPENDENT OF ALL OTHER BUILDING WIRING. NO ELEVATORS, GENERATORS, PUMPS, HVAC OF SIMILAR EQUIPMENT SHALL BE CONNECTED TO THE SAME CIRCUIT OR MEDICAL IMAGING PANEL THAT SERVES THE SIEMENS HEALTHCARE EQUIPMENT. F THE POWER SUPPLY SOURCE DOES NOT MEET THE SPECIFIC SIEMENS EQUIPMENT POWER REQUIREMENTS, THE CONTRACTOR SHALL PROVIDE THE NECESSARY EQUIPMENT REQUIRED TO ESTABLISH THE POWER SUPPLY IN ACCORDANCE WITH THE REQUIRED POWER SUPPLY PARAMETERS OF THE SIEMENS EQUIPMENT. THE CONTRACTOR SHALL COORDINATE THIS WORK WITH THE CUSTOMER AND/OR UTILITY COMPANY FIELD REPRESENTATIVE. 4) WORK FURNISHED BY CUSTOMER/CONTRACTOR: WORK NOT PROVIDED BY SÍEMENS HEALTHCARE BUT SHOWN ON DRAWINGS TO BE FURNISHED AND INSTALLED BY CUSTOMER/CONTRACTOR INCLUDES, BUT IS NOT LIMITED TO THE FOLLOWING, UNLESS NOTED OTHERWISE: ELECTRICAL RACEWAYS AND DUCTS, WIRING TROUGHS, PULL BOXES, CONDUITS, CIRCUIT BREAKERS, ACCESS PANELS, EMERGENCY OFF BUTTONS, DOOR SWITCHES, WARNING LIGHTS, WIRING, WIRING DEVICES, CONNECTORS, LIGHTING EQUIPMENT AND GROUNDING) RACEWAY AND CONDUIT NOTES: ALL CONDUITS SHALL BE INSTALLED IN

COMPLIANCE WITH THE CURRENT ENFORCED EDITION OF THE NATIONAL ELECTRICAL CODE. CONDUIT BODIES SHALL NOT BE USED. WHERE A CONDUIT ENTERS A BOX, FITTING, OR OTHER ENCLOSURE, AN INSULATED THROAT CONNECTOR SHALL BE PROVIDED TO PROTECT THE WIRE FROM ABRASION. ALL CONNECTORS FOR EMT SHALL BE COMPRESSION OR DOUBLE SET SCREW

KEEP RACEWAYS AT LEAST 6 INCHES AWAY FROM PARALLEL RUNS OF FLUES OR STEAM AND HOT WATER PIPES. INSTALL RACEWAY RUNS ABOVE WATER AND STEAM PIPES PROVIDED THAT CABLE RUN DISTANCES ARE MAINTAINED. USE TEMPORARY CLOSURES TO PREVENT FOREIGN MATTER FROM ENTERING RACEWAY CONDUIT RUNS ARE SHOWN SCHEMATICALLY. INSTALL CONDUIT WITH A MINIMUM OF BENDS IN THE SHORTEST PRACTICAL DISTANCE CONSIDERING

THE BUILDING CONSTRUCTION AND OBSTRUCTIONS, EXCEPT AS OTHERWISE INDICATED. THE CONTRACTOR SHALL MAKE CERTAIN THAT ANY CONDUIT/RACEWAY RUNS CONTAINING SIEMENS HEALTHCARE CABLES DO NOT EXCEED THE SPECIFIED MAXIMUM DISTANCES AS SHOWN ON THE ELECTRICAL DETAILS. LISTED CONDUIT SIZES FOR SIEMENS-SUPPLIED CABLES MUST BE MAINTAINED IN ORDER TO ENABLE THE TOTAL CABLE BUNDLE INCLUDING CONNECTORS TO BE PULLED THROUGH WITHOUT DAMAGE.

PROVIDE ENCLOSED METAL WIRE DUCT RACEWAY SYSTEM WHERE SHOWN ON DRAWINGS WITH DIVIDERS TO SEPARATE THE DUCT INTO TWO OR THREE SEPARATE COMPARTMENTS AS SHOWN ON THE SIEMENS PLANS (FOR POWER AND SIEMENS HEALTHCARE CABLING). DIVIDERS AND CROSSOVER PIECES TO BE PROVIDED AS NECESSARY. THE CABLE TO CABLE AS WELL AS THE CIRCUIT TO CIRCUIT SEPARATION REQUIREMENT WAS EVALUATED DURING THE UL SYSTEM CERTIFICATION OF THE EQUIPMENT. ADDITIONAL SEPARATION OF THE SYSTEM CABLE ASSEMBLIES INTO SEPARATE OR PARTITIONED RACEWAYS, UNLESS OTHERWISE NOTED, IS NOT NECESSARY TO INSURE SEPARATION OF

PROVIDE WIRE DUCT/RACEWAY WITH ACCESSIBLE REMOVABLE COVERS.

LOCATIONS OF BUILDING MATERIAL OPENINGS (I.E. ACCESS PANELS) TO BE CUT IN FIELD ARE TO BE COORDINATED WITH THE DRAWING REQUIRMENTS AND BUILDING STRCTURE. THOSE THAT ARE NOT INDICATED OR INTERFER WITH BUILDING ELEMENTS SHALL BE COORDINATED WITH SIEMENS PROJECT MANAGER. ELECTRICAL PULL BOXES AND RACEWAY COVERS SHALL BE ISTALLED IN A MANNER TO ALLOW ACCESSIBILITY MAINTENANCE. CONTRACTORS MUST PROVIDE PULL STRINGS FOR ALL CONDUIT AND WIRE DUCT/RACEWAY. IN-FLOOR TRENCH DUCT AND FLUSH FLOOR BOXES SHALL BE PROVIDED WITH FULLY GASKETED REMOVABLE COVERS. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED HIGHER THAN 14 FEET ABOVE FINISHED FLOOR, THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP THE SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE. WHEN JUNCTION BOXES AND WIRE DUCT/RACEWAY ARE MOUNTED ABOVE A HARD CEILING (I.E. SHEET ROCK), A 24" x 24" ACCESS PANEL IS REQUIRED AT EACH JUNCTION BOX AND WITHIN 2 FEET OF EACH RACEWAY TRANSITION (SUCH AS A 90 DEGREE ELBOW OR TEE) IN DUCT/RACEWAY. THERE MUST BE FREE AND CLEAR ACCESS TO JUNCTION BOXES AND WIRE DUCT/RACEWAY. WHEN ACCESS PANELS ARE LOCATED MORE THAN 3 FEET FROM JUNCTION BOXES AND WIRE DUCT/RACEWAY THE ELECTRICAL CONTRACTOR SHALL PROVIDE TWO ELECTRICIANS TO HELP SIEMENS INSTALLERS PULL SIEMENS SUPPLIED CABLES AT CUSTOMER'S EXPENSE.

6) WIRING: ALL WIRING INSTALLED SHALL BE 600 VOLT CLASS, STRANDED TYPE THHN/THWN-2, SINGLE CONDUCTOR ANNEALED COPPER FOR A MAXIMUM OPERATING TEMPERATURE OF 90° C (194° F), SIZED AS INDICATED. INSTALLED IN METAL RACEWAYS. THE CUSTOMER/CONTRACTOR SHALL LEAVE A MINIMUM 10 FEET OF WIRE TAILS AT ALL OUTLÉT POINTS WITH WIRE IDENTIFICATION TAGGED AT BOTH ENDS FOR FINAL CONNECTION BY THE CUSTOMER/ELECTRICAL CONTRACTOR.

) SHORT CIRCUIT REQUIREMENTS: ALL CIRCUIT BREAKERS SUPPLIED FOR THE SIEMENS EQUIPMENT REQUIREMENTS SHALL BE RATED HIGHER THAN TH SHORT CIRCUIT AVAILABLE AT THE TERMINALS OF THE ELECTRICAL EQUIPMENT AS DETERMINED BY THE ENGINEER OF RECORD, BUT NOT LESS THAN 35,000A RMS SYMMETRICAL AT 480V, 3-PHASE, 60 HERTZ. THE CONTRACTOR SHALL OBTAIN THE CORRECT SHORT CIRCUIT CURRENT RATING OF ALL THE NEW EQUIPMENT FOR INSTALLATION FROM THE ENGINEER OF RECORD.

CONDUIT LENGTH CALCULATIONS

IF SITE-SPECIFIC CONDITIONS EXCEED THE FOLLOWING ASSUMED VALUES, THEN ADDITIONAL LENGTH MUST BE SUBTRACTED BY THE ELECTRICAL CONTRACTOR FROM THE MAXIMUM CONDUIT LENGTHS

F DUCT LOCATIONS ARE ALTERED FROM THE SHOWN LAYOUT, IT S THE ELECTRICAL CONTRACTOR'S RESPONSIBILITY TO RECALCULATE THE MAXIMUM CONDUIT LENGTHS. ASSUMED VALUES USED IN CALCULATING STATED MAXIMUM CONDUIT LENGTHS:

VERTICAL DUCTS - 12'-0" FLOOR PENETRATIONS - 3'-0"

CEILING RECOMMENDED CEILING HEIGHT **HEIGHT** RANGE 9'-1 1/16" - 10'-2" 9'-6"

2**"**ø

1 1/2"ø

(417) 576-7820 MAIL: MARK.BUXTON@SIEMENS-HEALTHINEERS.COM 06/20/22 REMOVED INJECTOR PER SALES ORDE PRELIMINARY VERSION 'B' DATED 04/19/ 06/08/22 APPROVED BY CUSTOMER FOR FINAL DATE DESCRIPTION

ST LUKES EAST LEES SUMMIT 100 NE SAINT LUKES BLVD, LEES SUMMIT, MO 64086 TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.

OJECT MANAGER: MARK BUXTON

MAX. CONDUIT LENGTH 80'

HYBRID OR 1 - ARTIS PHENO SURGERY PRO PROJECT #: 2102395

- THIS DRAWING IS DESIGNED TO CONFORM TO FEATURES AND EQUIPMENT REQUIREMENTS PRESENTED DOCUMENTS FOR REFERENCE. AT THE TIME OF THEIR PREPARATION. SINCE BOTH THESE FACTORS ARE SUBJECT TO DESIGN MODIFICATION, THEY ARE NOT TO BE USED FOR CONSTRUCTION PURPOSES.

-ALL DIMENSIONS SHOWN ON THIS DRAWING ARE FROM FINISHED SURFACES. THIS DRAWING DOES NOT PROVIDE RADIATION SHIELDING REQUIREMENTS FOR X-RAY AND ASSOCIATED EQUIPMENT. THE CUSTOMER IS RESPONSIBLE FOR CONSULTING WITH A REGISTERED RADIATION

PHYSICIST TO SPECIFY RADIATION PROTECTION.

ALL RIGHTS ARE RESERVED. REF. #: 30267218 SCALE: AS NOTED -ISSUE BLOCK-06/08/22

ATTENTION: - THIS SET OF PLANS REPRESENTS A COMPLETE SET OF DETAILS AND SHOULD NOT BE SEPARATED.

- IT IS RECOMMENDED THAT THE SIEMENS DRAWINGS BE INCORPORATED WITH THE CONSTRUCTION

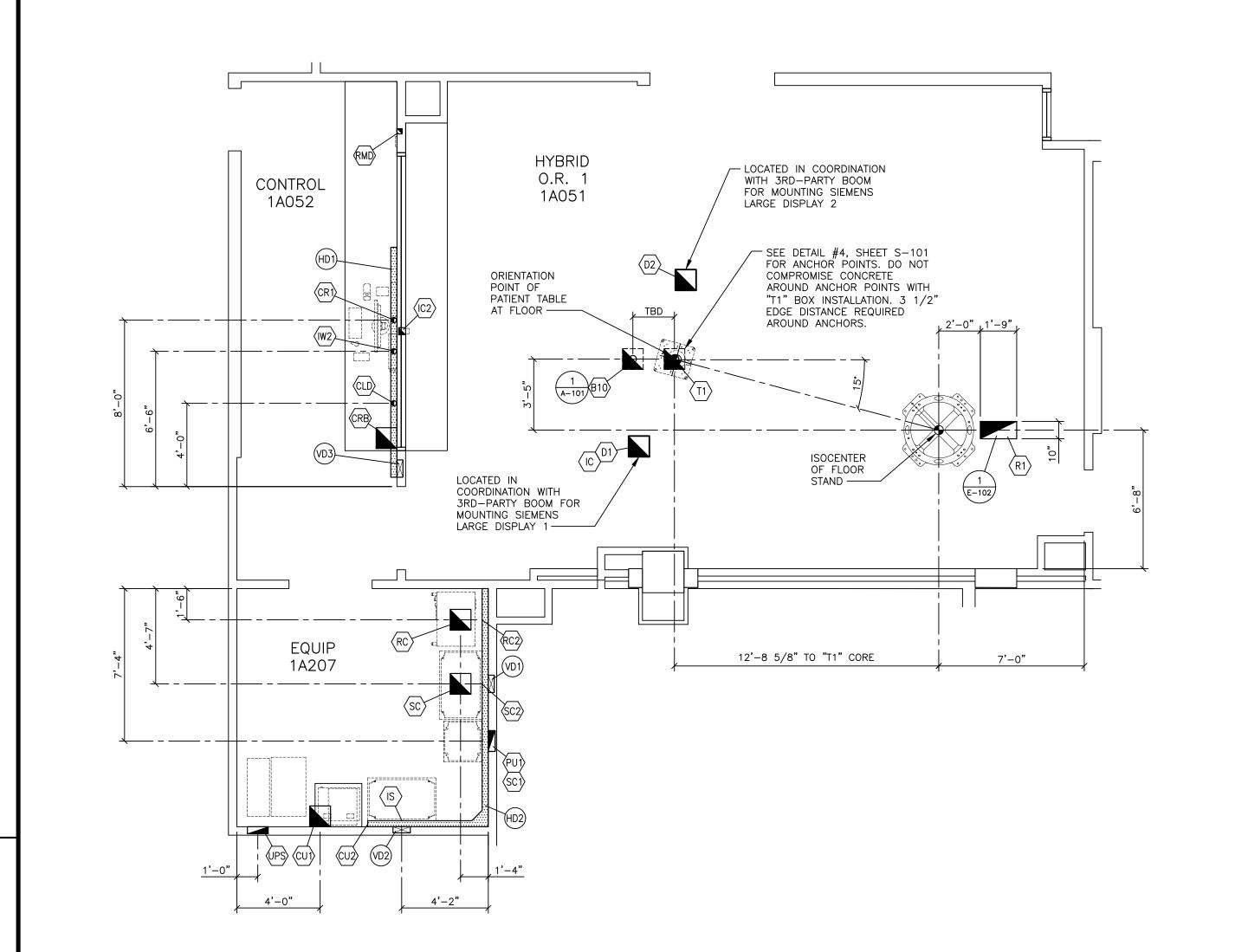
SCALE: 1/4" = 1'-0'

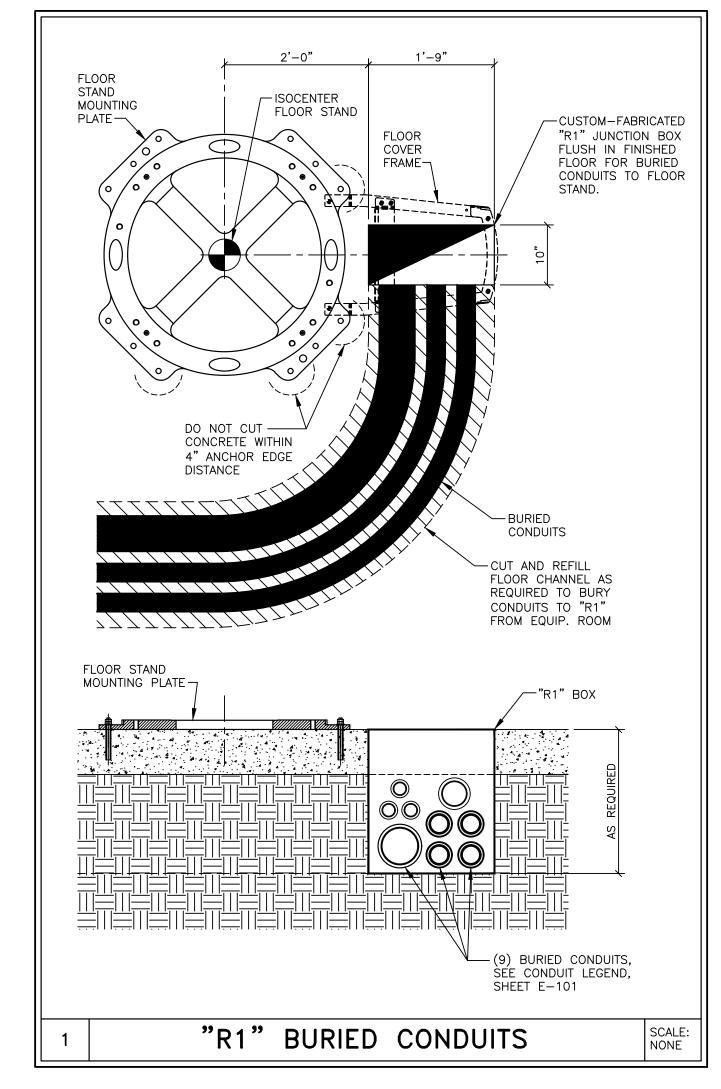
E. SANDIFER

SIEMENS

ARTIS PHENO

REV. 31





FROM	VIA	то	DESCRIPTION	REMARKS
PANEL	1	MP	ELECTRICAL CONTRACTOR TO SIZE PLUS GROUND	SEE "POWER SCHEDULE"
MP	2	PU1	3#2, 1#2 GROUND AND CONNECT	SEE "POWER SCHEDULE"
MP	3	UPS	ELECTRICAL CONTRACTOR TO SIZE	SEE "POWER SCHEDULE"
UPS	4	SD	ELECTRICAL CONTRACTOR TO SIZE PLUS GROUND	SEE "POWER SCHEDULE"
SD	5	SC1	ELECTRICAL CONTRACTOR TO SIZE PLUS GROUND (MAX #6 AWG)	SEE "POWER SCHEDULE"
UPS	6	EPO	2#12	SEE "POWER SCHEDULE"
RMD	7	UPS	CAT 5 NETWORK CABLE, UP TO 328'	SEE "POWER SCHEDULE"
MP	8	EPO	2#12	SEE "POWER SCHEDULE"
EP0	9	EPO	4#12, PLUS GROUND	SEE "POWER SCHEDULE"
SC1	10	WL	14-18 AWG	SEE "LIGHTING DETAIL" SHEET E-501
SC1	11	DS	24V SIGNAL, 2#14-18 AWG	DOOR SWITCH
MP	12	XF1	EC TO SIZE (OPTIONAL TABLE POWER OUTLET)	SEE "POWER SCHEDULE"

FROM	VIA	то	DESCRIPTION	REMARKS
R1	13,SC	PU1		MAXIMUM LENGTH 57'
R1	14,SC	PU1	(2) HIGH VOLTAGE CABLES	MAXIMUM LENGTH 57'
R1	15,SC	SC1		MAXIMUM LENGTH 51'
R1	16,SC	SC1		MAXIMUM LENGTH 52'
R1	17	CU1	LIQUID COOLING HOSES (KLUVER TUBE COOLER)	MAXIMUM LENGTH 96'
R1	18	CU1	LIQUID COOLING HOSES (FD COOLER)	MAXIMUM LENGTH 52'
SC1	19,VD1,VD3,HD1	CR1	FOR CONTROL ROOM OPTIONS (CONTROL MODULES, FOOT SWITCH, DISPLAY, ECC)	MAXIMUM LENGTH 62'
SC1	20,SC	T1		MAXIMUM LENGTH 45'
SC1	HD2	CU1	KLUVER TUBE COOLER	MAXIMUM LENGTH 98'
SC1	HD2	CU2	FD COOLER	MAXIMUM LENGTH 32'
SC1	CABINET BASE	PU1		MAXIMUM LENGTH 16'
SC1	HD2	IS		MAXIMUM LENGTH 26'
SC1	21,VD1	D1	LARGE DISPLAY 1	MAXIMUM LENGTH 62'
SC1	22,VD1	D2	LARGE DISPLAY 2	MAXIMUM LENGTH 62'
IS	23,VD2	D1	LARGE DISPLAY 1	MAXIMUM LENGTH 75'
IS	24,VD2	D2	LARGE DISPLAY 2	MAXIMUM LENGTH 75'
IS	25,VD2,VD3,HD1	CR1		MAXIMUM LENGTH 59'
IS	26,VD2,VD3,HD1	CR1		MAXIMUM LENGTH 88'
T1	CONDUIT 20	IS	CAT AND FIBER CABLES	MAXIMUM LENGTH 118'
T1	CONDUIT 20	IS	FIBER CABLES FOR LD INPUTS AT TABLE SIDE	MAXIMUM LENGTH 118'
IS	27,VD2,VD3,HD1	CLD	CUSTOMER LD INPUTS IN CONTROL ROOM	MAXIMUM LENGTH 118'
IS	28,VD2	CUSTOMER SOURCES	CUSTOMER LD INPUTS IN PROCEDURE ROOM	MAXIMUM LENGTH 118'
SC1	HD1	RC		MAXIMUM LENGTH 32'
RC	29	R1		MAXIMUM LENGTH 44'
RC	30	R1		MAXIMUM LENGTH 44'
SC1	31,VD1,VD3,HD1	IW2	2ND OPERATION IN CONTROL RM (HANDSWITCH, INJECTOR, ETC.)	MAXIMUM LENGTH 62'
VD3	32	IC	INTERCOM PROCEDURE ROOM MICROPHONE	MAXIMUM LENGTH 82'
VD3	33	IC2	INTERCOM PROCEDURE ROOM LOUDSPEAKER	MAXIMUM LENGTH 82'
T1	34	B10		
CRB	35	B10	CUSTOMER PATIENT MONITORING, ETC.	
XF1	36	T1	OPTIONAL TABLE POWER OUTLET	MAXIMUM LENGTH 91'
IS	37,VD2	CUSTOMER MONITOR	LIVE+REF VIDEO TO OEM (OPTION)	MAXIMUM LENGTH 110'

ELECTRICAL DIMENSION PLAN

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

RECOMMENDED CEILING CEILING HEIGHT RANGE HEIGHT 9'-1 1/16" - 10'-2" 9'-6"

ARTIS PHENO REV. 31 PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: SIEMENS MAIL: MARK.BUXTON@SIEMENS-HEALTHINEERS.COM ST LUKES EAST LEES SUMMIT 100 NE SAINT LUKES BLVD, LEES SUMMIT, MO 64086 HYBRID OR 1 — ARTIS PHENO SURGERY PRO THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW. PROJECT #: 06/20/22 REMOVED INJECTOR PER SALES ORDER 2102395 PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS 06/08/22 ALL RIGHTS ARE RESERVED. DATE DESCRIPTION E. SANDIFER

SCALE: AS NOTED REF. #: 30267218

-ISSUE BLOCK-

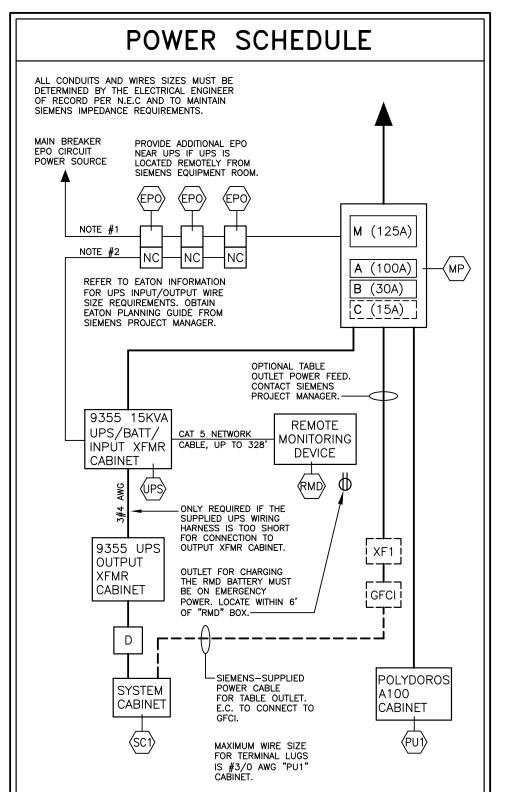
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06/08/22



ITEM	QTY		DESCRIPTION				
MP	1	MAIN PANEL MOUNTED.	MAIN PANEL WITH CIRCUIT BREAKERS FLUSH OR SURFACE MOUNTED.				
М	1		MAIN BREAKER MUST HAVE TRIPPING DEVICE SO WHEN ANY EPO IS PRESSED, THE MAIN BREAKER TRIPS.				
		MAIN BREAK	KER AMPS:	125			
		VOLTS	PHASES	NEUTRAL	GROUND	TOTAL WIRES	
		480/277Y	3	1	1	5 (NOTE 1)	
Α	1	BREAKER A	BREAKER AMPS: 100 (FOR PU1)				
		VOLTS	PHASES	NEUTRAL	GROUND	TOTAL WIRES	
		480Y	3	0	1	4 (NOTE 1)	
В	1	BREAKER A	BREAKER AMPS: 30 (FOR SC1)				
		VOLTS	PHASES	NEUTRAL	GROUND	TOTAL WIRES	
		480/277Y	3	1	1	5 (NOTE 1)	
С	1	BREAKER AMPS: 15 (FOR STEP-DOWN XFMR "XF1")				MR "XF1")	
		VOLTS	PHASES	NEUTRAL	GROUND	TOTAL WIRES	
		480	1 (L1,L2)	0	1	3	
•		NEUTRAL TO				SIZED PER NEC 80% RATED	
D	1	3_PHASE (DITIC N C)	304 600V	/ HD FIISIE	RLE SERVICE	

110	IL. OIVE	ESS OTTERWISE NOTED, ALL BREAKERS WILL BE 60% NATED
D	1	3-PHASE (PLUS N,G) 30A, 600V HD FUSIBLE SERVICE DISCONNECT LOCATED AT EYE-LEVEL, WITHIN 10' OF SIEMENS SYSTEM CABINET (SC1) AND 30A RK5 FUSES.
XF1	1	1.5kVA, 480V PRIMARY, 120V GROUNDED SECONDARY STEP-DOWN SINGLE-PHASE TRANSFORMER WITH PRIMARY AND SECONDARY FUSE PROTECTION FOR TABLE OUTLET POWER,

CONNECTED TO AN ADJACENT FLUSH WALL-MOUNTED 15A, 125VAC UL 943 GFCI WITH BLANK FACE (NO CONTACT OPENINGS OR NEMA CONFIGURATION) WITH LED INDICATION, PUSH-TO-TEST AND PUSH-TO-RESET BUTTONS, AND A CLEAR LEXAN HINGED COVER TO AVOID INADVERTENT MANUAL TRIP.

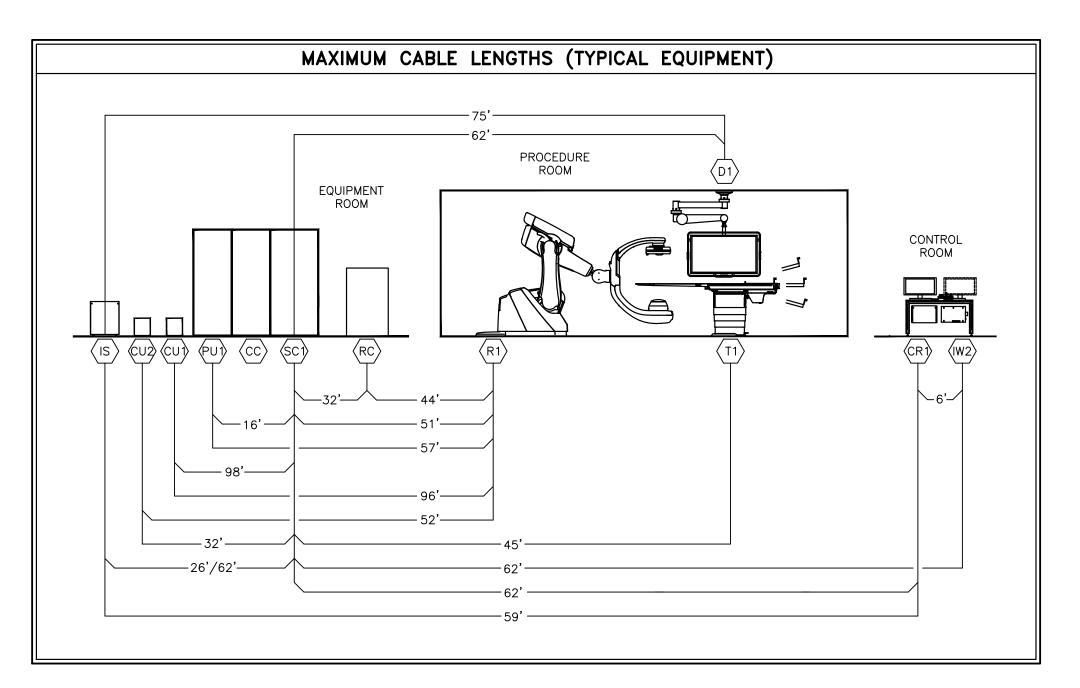
| EPO | VARIES | NOTE 1 - EPO CIRCUIT #1

MAIN CIRCUIT BREAKER EMERGENCY POWER OFF BUTTON WITH PROTECTIVE COVER THAT PREVENTS ACCIDENTAL ACTIVATION. THE EPO MUST BE OF FAIL-SAFE DESIGN. ALL EPO'S TO HAVE <u>MECHANICAL LATCHING MECHANISM</u>. EPO MUST BE RESET BEFORE MAIN BREAKER CAN RESUME OPERATION. CONTACTS AND WIRING CONFIGURATION TO BE DESIGNED BY ELECTRICAL ENGINEER OF RECORD.

NOTE 2 - EPO CIRCUIT #2 EPO CONTACTS TO BE <u>NORMALLY CLOSED</u>, WIRED IN SERIES, CONNECTED TO 9355 UPS ONLY.

THE EPOs MUST BE INSTALLED BY A QUALIFIED ELECTRICAL CONTRACTOR ACCORDING TO NATIONAL ELECTRICAL CODE, STATE AND LOCAL REGULATIONS. MEASURES SHOULD BE TAKEN TO DESIGN THE CIRCUIT IN SUCH A WAY THAT IT WILL ALWAYS WORK WHEN THE MEDICAL EQUIPMENT IS POWERED. THE CUSTOMER IS SOLELY RESPONSIBLE FOR THE IMPLEMENTATION OF THE EPOs AND THEIR ASSOCIATED CIRCUITS AND MUST MAKE THE FINAL DETERMINATION CONSIDERING ALL SITE CONDITIONS AND REGULATORY FACTORS.

ALL ITEMS LISTED IN THIS SCHEDULE SHALL BE SUPPLIED AND INSTALLED BY CUSTOMER/CONTRACTOR.



POWER REQUIREMENTS

480Y/277V, 3 PHASE, 5-WIRE, 60 HZ. MINIMUM POWER SUPPLY:

IF AN ON-SITE TRANSFORMER IS REQUIRED TO OBTAIN OPERATING VOLTAGE, IT MUST BE OF SUFFICIENT CAPACITY AND CHARACTERISTICS TO MAINTAIN SUPPLY VOLTAGE AND IMPEDANCE REQUIREMENTS (TRANSFORMER AND CONDUCTORS).

	X-RAY GENERATOR (PU1) MOMENTARY RATING: (RADIOGRAPHIC EXPOSURE)	162 KVA
	X-RAY GENERATOR (PU1) LONG-TIME RATING: (FLUOROSCOPY)	8 KVA
	SYSTEM CABINET (SC1) LONG-TIME RATING:	17.2 KVA
	LINE IMPEDANCE	\leq 125 m Ω (A100 GENERATOR) \leq 400 m Ω (ACX GENERATOR)
- 1		

POWER QUALITY PARAMETERS

MAXIMUM LINE VOLTAGE VARIATION ±10% OF SYSTEM VOLTAGE PHASE IMBALANCE: FREQUENCY VARIATION: ± 1 HZ

POWER SUPPLY NOTES:

- 1. INCOMING POWER SUPPLIES FOR SIEMENS EQUIPMENT SHOULD BE DEDICATED (BACK TO SOURCE), ISOLATED AND INSULATED FROM ANY OTHER EQUIPMENT SUCH AS ELEVATORS, GENERATORS, HVAC SYSTEMS, ETC.
- 2. SIEMENS HEALTHCARE REQUIRES THAT THE INCOMING POWER MEETS THE POWER QUALITY REQUIREMENTS.

GROUNDING NOTES

EQUIPMENT GROUNDING CONDUCTOR TO COMPLY WITH THE FOLLOWING:

1) SIZE GROUNDING WIRE TO SIEMENS EQUIPMENT PER POWER SCHEDULE REQUIREMENTS. 2) DERIVED FROM THE ELECTRICAL SERVICE, TRANSFORMER OR MAIN DISTRIBUTION PANEL FEEDING THE SIEMENS EQUIPMENT.

3) RUN IN THE SAME CONDUIT, TROUGH OR RACEWAY AS THE PHASE CONDUCTORS. 4) CONTINUOUS, WITH NO BREAKS OR USE OF CONDUIT, CHASSIS OR EARTH AS THE SOLE GROUNDING PATH.

5) BONDED TO CHASSIS AND/OR CONDUIT IN ACCORDANCE WITH THE NEC REQUIREMENTS. 6) MINIMIZE CONNECTIONS OR TERMINALS TO ENSURE CONTINUITY OVER THE LIFE OF THE INSTALLATION.

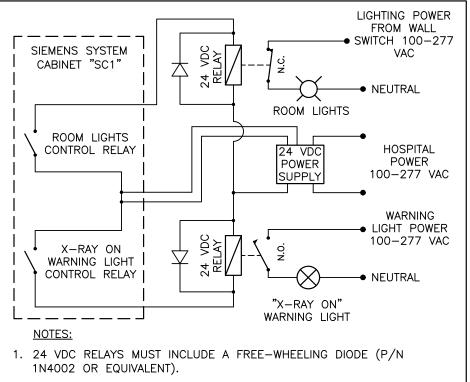
7) AS A NORM, THERE SHOULD NOT BE ANY CURRENT PRESENCE ON THE GROUND CONDUCTOR, BUT IT IS ACCEPTABLE TO HAVE <500mA DURING OPERATION OF THE IMAGING EQUIPMENT.

UPS BACKUP REQUIREMENT

IF A SIEMENS TILTING/O.R. TABLE IS PURCHASED, A UPS PROVIDING TABLE MOVEMENT IS REQUIRED. IF NOT PURCHASED FROM SIEMENS, IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE A UPS THAT ALLOWS A TILTING/O.R. TABLE TO BE MOVED TO A ZERO DEGREE TILT POSITION DESIGNATED FOR CPR WITHIN 15 SECONDS. IF THE CUSTOMER OR SIEMENS—SUPPLIED UPS SOLUTION IS NOT INSTALLED AND OPERATIONAL AT THE TIME OF THE SIEMENS IMAGING SYSTEM INSTALLATION, SIEMENS CANNOT AND WILL NOT TURNOVER THE AFFECTED SIEMENS SYSTEM!

TABLE POWER OUTLET SAFETY

NOTE: LIFE-SUSTAINING EQUIPMENT MUST NOT BE CONNECTED TO THE TABLE POWER OUTLET (IF INSTALLED) IN THE SIEMENS PATIENT TABLE. POWER WILL BE DISCONNECTED IF EPO BUTTON IS PRESSED. TABLE OUTLET IS 120V, FUSED AT 5A.



ALL WIRING THAT CONNECTS TO SIEMENS "SC1" CABINET MUST BE

- ALL ITEMS PROVIDED BY CUSTOMER ELECTRICAL CONTRACTOR EXCEPT CONTACTS INSIDE SIEMENS "SC1" CABINET (ITEMS INSIDE DOTTED
- 14-18 AWG STRANDED WIRE.
- . ONLY 3 WIRES LABELED "24 VDC", "ROOM LIGHTS" AND "X-RAY ON" SHOULD BE SENT TO SIEMENS "SC1" CABINET.
- . 24 VDC RELAYS ARE TO BE SELECTED BY ELECTRICAL CONTRACTOR TO HANDLE THE VOLTAGE AND AMPERAGE OF LIGHTING CURCUIT.
- 6. IF NEEDED, A SWITCH TO BLOCK RADIATION CAN BE INSTALLED IN SERIES WITH THE DOOR CONTACT. * THE SWITCH (24 VDC / 20 MA) MUST BE PROVIDED ON SITE.
- * CONTROL USING +24 V FROM THE SYSTEM CONTROL CABINET * PLAN THE SWITCH SO THAT UNINTENTIONAL OPERATION IS NOT

* THE SWITCH MUST BE PROVIDED WITH AN APPROPRIATE SYMBOL (OR DESIGNATION) FROM WHICH THE FUNCTION CAN BE RECOGNIZED. WARNING LIGHT/ROOM LIGHT SCHEMATIC

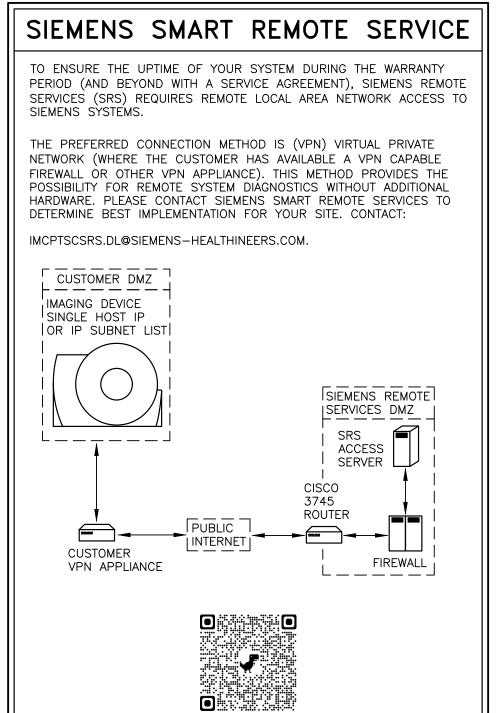
LIGHTING DETAIL

POWER QUALITY

SCALE: NONE

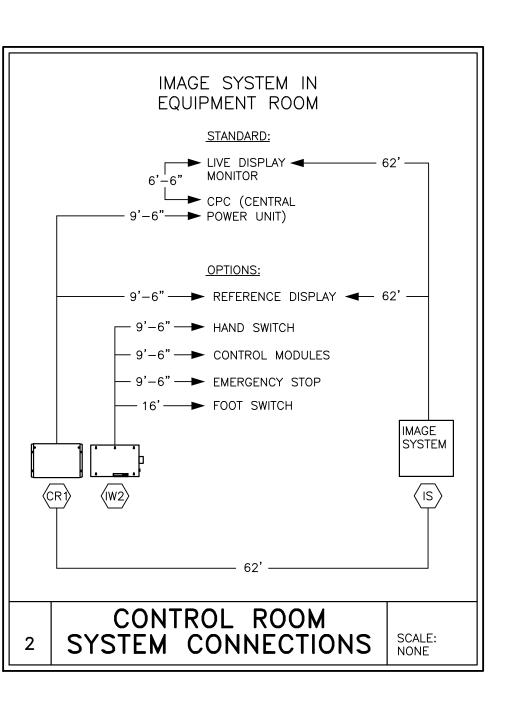
POOR POWER WILL ALTER EQUIPMENT PERFORMANCE IT IS IN THE CUSTOMER'S INTEREST THAT THE ELECTRICAL CONTRACTOR BE RESPONSIBLE FOR TESTING AND VERIFYING THAT THE EQUIPMENT POWER SUPPLY COMPLIES WITH THE SIEMENS

SPECIFICATIONS.



NETWORK REQUIREMENT

A GIGABIT NETWORK IS REQUIRED FOR ADEQUATE IMAGE DATA TRANSFER SPEED BETWEEN THE IMAGER AND 3D RECONSTRUCTION WORKSTATION, WORKFLOW AND CLINICAL NEEDS DEMAND 3D IMAGES BE AVAILABLE FOR REVIEW BY CLINICAL STAFF IMMEDIATELY UPON ACQUISITION.



CABLE PROTECTION

CABLES ARE NOT PLENUM RATED. ALL CABLES MUST BE ROUTED IN CABLE DUCTS OR CABLE CONDUITS.

ARTIS PHENO REV. 31

			PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: FAX: EMAIL: MARK.BUXTON@SIEMENS-HEAL	THINEERS.COM	SIEMENS
			100 N	S EAST LEE E SAINT LUKES BLVD, LEES SUMMIT, YBRID OR 1 - ARTIS PHENO SURGE	MO 64086
\triangle	06/20/22	REMOVED INJECTOR PER SALES ORDER	THE USE OR REPRODUCTION OF THIS TITLE BLOCK WITHOUT	PROJECT #:	SHEET:
\triangle	06/08/22	PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS	SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	2102395	≦」 匚
SYM	DATE	DESCRIPTION	ALL RIGHTS ARE RESERVED.	SHEET OF DRAWN BY: 6 7 F SAND	

REF. #: 30267218

SCALE: AS NOTED

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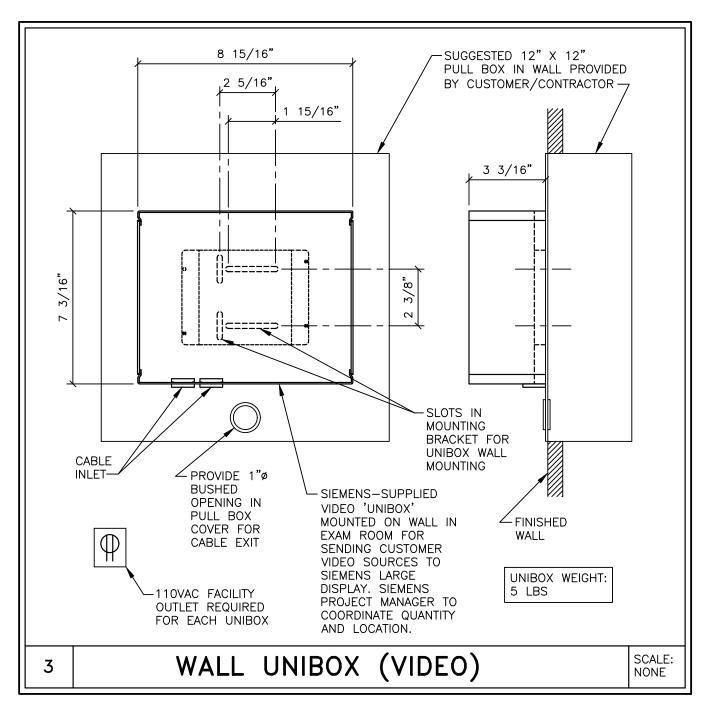
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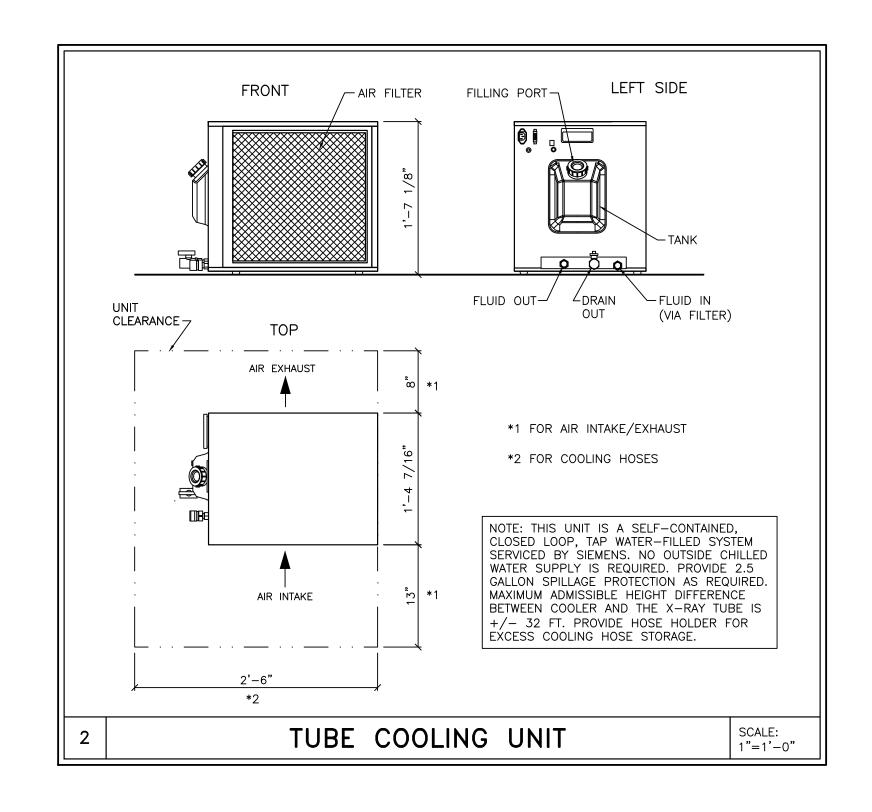
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E. SANDIFER 06/08/22



Н	EAT L	OADS	3	
FOR BTU'S OF SEIMENS LEGEND, SHEET A-101.	EQUIPMENT,	REFER TO	THE	EQUIPMENT

	ENVIRONMENTAL	CONDITIONS
EXAMINATION AND CONTROL ROOM		59°F-86°F (RECOMMENDED TEMPERATURE 72°F) 20% - 75% NON-CONDENSING
IMAGE SYSTEM (IS)		509 CFM
POLYDOROS GENERATOR (PU1)		94 ĆFM
SYSTEM CONTROL CABINET (SC1)		
TUBE COOLING UNIT (CU1)	TEMPERATURE RANGE: RELATIVE HUMIDITY: AIR FLOW VOLUME: MAX. NOISE GENERATION:	559 CFM
FD COOLING UNIT (CU3)	TEMPERATURE RANGE: RELATIVE HUMIDITY: MAX. NOISE GENERATION:	59°F-86°F (RECOMMENDED TEMPERATURE 72°F) 20% - 75% NON-CONDENSING 48 dB(A)
FLOOR STAND ROBOTIC CABINET (RC)	TEMPERATURE RANGE: MAX. NOISE GENERATION:	50°F-95°F (RECOMMENDED TEMPERATURE 70°F) 67 dB(A)
FLOOR STAND WITH FLAT DETECTOR (R1)	MAXIMUM TEMPERATURE G ATMOSPHERIC PRESSURE: SHOCKS: VIBRATIONS: MAX. NOISE GENERATION:	700hPa — 1040hPa MAXIMUM 10G/16MS MAXIMUM 0.1 G/10—200HZ



CEILING RECOMMENDED CEILING HEIGHT RANGE HEIGHT 9'-1 1/16" - 10'-2" 9'-6"

							REV. 31
			PROJECT MANAGER: MARK BUXTON TEL: (417) 576-7820 VMAIL: EXT: FAX: EMAIL: MARK.BUXTON@SIEMENS-HEAL	THINEERS.COM		SIEMI	ENS
				SAINT LUKES BLVD,	LEES SUMMIT, MO PHENO SURGERY PI	64086	MIT
\triangle	06/20/22	REMOVED INJECTOR PER SALES ORDER	THIS TITLE BLUCK WITHOUT	PROJECT #:		SHEET:	
\triangle	06/08/22	PRELIMINARY VERSION 'B' DATED 04/19/22 APPROVED BY CUSTOMER FOR FINALS	SIEMENS AUTHORIZATION WILL RESULT IN PROSECUTION UNDER FULL EXTENT OF THE LAW.	2102	2395	N M F	1
SYM	DATE	DESCRIPTION	ALL RIGHTS ARE RESERVED.	SHEET OF 7	DRAWN BY: F. SANDIFFR	V -	$\mathcal{N} I$

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REF. #: 30267218 -ISSUE BLOCK-SCALE: AS NOTED 06/08/22

ST. LUKES EAST HOSPITAL

HYBRID OR 1

100 NE ST LUKES BLVD, LEE'S SUMMIT, MO 64086 DATE: 05 JUL 22

DIRECTORY

SALES REP: TRACEY WISTROM 417.693.4606

TRACEY.WISTROM@STRYKER.COM

PROJECT MANAGER: FRED SIMPSON 573.772.0405

FRED.SIMPSON@STRYKER.COM

ENGINEER: TRAVIS ZUBER 314.591.3166

TRAVIS.ZUBER@STRYKER.COM

TABLE OF CONTENTS

REVISION SUMMARY(C) SHEET SECTION

EQUIPMENT LAYOUTS(R) SHEET SECTION

PRE-INSTALL NOTES(P) SHEET SECTION

ENGINEERING APPROVAL

AUTHORIZED SIGNATURE:

DRAWING#: MO-1026094_7

APPROVED REVISION: 7

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10 LAKE SIDE PARKWAY, SUITE OWER MOUND, TX 75028



REP: TRACEY WISTROM PM: FRED SIMPSON

TITLE

PLOT STAMP: COAXUM. JARMEL I DATE: 7/5/2022 2:21 PL

SUMMARY LIST OF CHANGES		
KEY#	DESCRIPTION OF CHANGE	ROOM #
1	CHANGED MOUNT "D" FROM POWERED TO FIXED BOOM	hybrid or 1
2	ADDED LOCATION OF PTZ CAMERA TO WEST WALL	HYBRID OR 1
3	CHANGED LIGHT/LEAD SHIELD ARMS FROM $\frac{1000}{900}$ TO $\frac{1100}{1000}$ ON MOUNTS "F" AND "F1"	HYBRID OR 1
4	ADDED IN-LIGHT CAMERA TO MOUNT "F"	HYBRID OR 1
5	CHANGED MOUNT "E1" FROM ANESTHESIA TO UTILITY BOOM	HYBRID OR 1
6	ADDED CONDUIT FOR PTZ CAMERA TO CONDUIT SCHEDULE	hybrid or 1
7	ADDED CONDUIT FOR "L-X" IN CONDUIT SCHEDULE	HYBRID OR 1



1410 LAKESIDE PARKWAY, SUITE 10 FLOWER MOUND, TEXAS 75028 PHONE: (877) 789-8106 FAX: (972) 410-7001 www.stryker.com

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REVISION SUMMARY

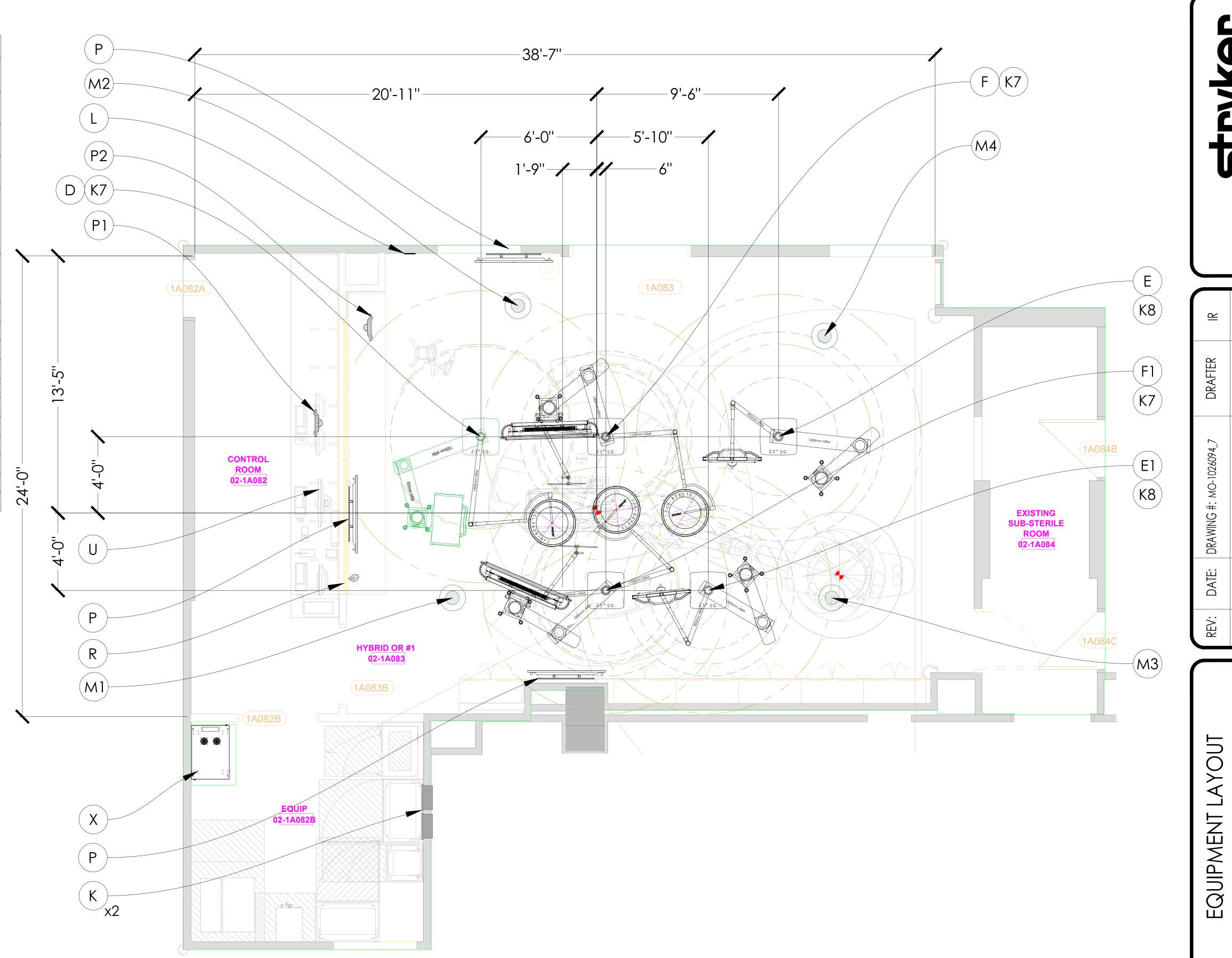
ST. LUKES EAST HOSPITAL HYBRID OR 1 LEE'S SUMMIT, MO 64086



EQUIPMENT SCHEDULE				
KEY	NAME	QTY		
D	S-SERIES SFS-3-C EQUIPMENT BOOM 1300mm TOP ARM & 850mm BOTTOM ARM WITH 1400mm 628 NFC ARM	1		
Е	S-SERIES SPS-2-C ANESTHESIA BOOM 1300mm TOP ARM WITH 900mm UDM ARM	1		
E1	S-SERIES SPS-2-C UTILITY BOOM 1000mm TOP ARM WITH 900mm UDM ARM	1		
F	S-SERIES SPS-2-C MONITOR BOOM 1000mm TOP ARM WITH 1100mm SLX 628 NFC ARM & 1000mm LEAD SHIELD ARM WITH IN-LIGHT CAMERA	1		
F1	S-SERIES SPS-2-C MONITOR BOOM 1000mm TOP ARM WITH 1100mm SLX 628 NFC ARM & 1000mm LEAD SHIELD ARM	1		
K	SLX SK BOX (RECESSED)	2		
K7	TC LIGHT JUNCTION BOX	3		
K8	TC UDM JUNCTION BOX	2		
L	SLX WALL CONTROL (RECESSED)	1		
M1-M4	CEILING MOUNTED CIRCULAR SPEAKERS	4		
Р	55" WALL MONITOR	3		
P1	PRIMARY COR IP TOUCHPANEL	1		
P2	SECONDRAY COR IP TOUCHPANEL	1		
R	WALL MOUNTED PTZ CAMERA	1		
U	CONTROL ROOM DESK	1		
X	COR IP RACK (ADJACENT)	1		

CONDUIT SCHEDULE				
CONDUIT RUN	CONDUIT	CONDUIT		
ITEM - ITEM	QTY	SIZE		
D - F	1	1''		
D - X	2	2''		
E - X	1	2"		
E1 - X	1	2"		
F - F1	1	1"		
F - X	1	2''		
K - L	1	1"		
K - *	1	1"		
K7 - K	2	1"		
K8 - X	1	$1\frac{1}{4}$ "		
L - X	1	1"		
M1 - M2	1	<u>3</u> 4		
M1 - X	1	<u>3</u> 11 4		
M3 - M4	1	<u>3</u> 11 4		
M3 - X	1	<u>3</u> 11 4		
P - X	1	1 1/4"		
P1 - X	1	1 1/4"		
P2 - X	1	1 1/4"		
R - X	1	1 1/4"		
IJ-X	3	1 1 '		

* - NEAREST ELECTRICAL PANEL



FINAL
SH
AUTOCAD DRAWING TEMPLATE | TEM100XX | REV. A

REP: TRACEY WISTROM PM: FRED SIMPSON

HYBRID

ST. LUKES EAST HOSPITAL HYBRID OR 1 LEE'S SUMMIT, MO 64086

R - HY 1

PLOT STAMP:COAXUM, JARMEL | DATE: 7/5/2022 2:21 PM

SCALE: 3/8" = 1'

- 1. ALL CONDUIT RUNS INCLUDE INSULATED BUSHINGS AND PULL STRINGS.
- 2. CONDUIT RUNS CANNOT EXCEED 45' FROM END-TO-END. DO NOT EXCEED FOUR (4) 90 DEGREE BENDS.
- 3. CABLES BETWEEN ITEMS OVER 45 FEET IN LENGTH ARE PROVIDED BY THE CUSTOMER / CONTRACTOR. PLEASE REFER TO EQUIPMENT LIST FOR CABLE SPECIFICATIONS.
- 4. THE PRE-INSTALL MANUAL REQUIREMENTS SUPERSEDE ALL PRE-INSTALL NOTES IN THIS DRAWING PACKAGE.
- 5. EQUIPMENT LIST:

	PRE-INSTALL NOTES SCHEDULE
KEY ITEM	NAME
E	S-SERIES TC BOOM WITH UDM
ITEM	NAME
	- REFER TO ROOM LAYOUT FOR CONDUIT SIZE. TERMINATE ALL CONDUITS WITHIN 18-INCHES OF THE CENTER OF THE CEILING MOUNT. PLUMBING:
	- INSTALL VALVE BRIDGE TO TOP OF PRE-INSTALL PLATE. ALL GAS LINES MUST BE TERMINATED WITH STRYKER SUPPLIED GAS RISERS BY CUSTOMER/MEDGAS INSTALLER.
	- ALL FINAL DISS CONNECTIONS TO BE MADE BY CUSTOMER/MEDGAS INSTALLER AFTER STRYKER INSTALLATION. (REV A)



NOTES PRE-INSTALL

ST. LUKES EAST HOSPITAL HYBRID OR 1 LEE'S SUMMIT, MO 64086 REP: TRACEY WISTROM

PM: FRED SIMPSON

P-1

AUTOCAD DRAWING TEMPLATE | TEM100XX | REV. A

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- 5. EQUIPMENT LIST:

	PRE-INSTALL NOTES SCHEDULE
EM	NAME
K	CHROMOPHARE SK BOX (RECESSED)
IX	ENCLOSURE DIMENSIONS/MOUNTING:
	- RECESSED MOUNT COLLAR IS REQUIRED FOR INSTALLATION
	- SINGLE ENCLOSURE RECESSED DIMENSIONS 19.69'" X 15.75" x 7.87" (1-2 LIGHTHEADS), WEIGHT =
	69 LBS INCLUDING DECORATIVE TRIM
	- DOUBLE ENLCOSURE RECESSED DIMENSIONS 19.69"" x 31.5"" X 7.87"" (3-4 LIGHTHEADS), WEIGHT =
	135 LBS INCLUDING DECORATIVE TRIM
	- WALL CUTOUT MUST ALLOW AN ADDITIONAL 0.39'"' ON ALL 4 SIDES TO ACCOMODATE DECORATIVE TRIM FRAME
	- CONTRACTOR SHOULD MEASURE TARGET WALL BEFORE INSTALLATION TO VERIFY SUFFICIENT
	DEPTH TO ACCOMODATE ENCLOSURE DIMENSIONS
	- REQUIRES RECESSED MOUNT COLLAR AND (OPTIONAL) DECORATIVE TRIM PLATE
	- INTEGRATED LIGHT CONTROL (OPTIONAL) MUST BE INDICATED AT TIME OF ORDER. ADD 2 LBS
	INTEGRATED EIGHT GOTTINGE (OF HOTAL) MOOT BE INDIGATED AN INVIE OF GROEK. ABB 2 EBO
	CONDUIT:
	- MAXIMUM LENGTH OF 45 FEET (15M) OF CONDUIT RUN TO BOTH THE MOUNTING PLATE AND THE
	TO WALL CONTROL BOX
	- TWO (2) 1'"' FROM SK ENCLOSURE TO EACH LIGHT MOUNTING LOCATION,
	- ONE (1) 1'"' BETWEEN LIGHT MOUNTING LOCATIONS,
	- ONE (1) 1'"' FOR MAINS 120VAC TO SK ENCLOSURE (UP TO TWO(2)) LIGHTS PER CIRCUIT).
	POWER:
	- MAINS AC POWER SHOULD BE 120 VAC, 50/60 HZ CONNECTED WITH 3 WIRE, 12 AWG MIN., 600 Y
	TERMINATED TO FUSED TERMINAL BLOCK INSIDE THE SK ENCLOSURE
	- DC WIRING FROM SK ENCLOSURE TO MOUNTING PLATE SHOULD BE 12 AWG, 600 VOLT, 1 WIRE
	PAIR PER LIGHT HEAD AND 1 GROUND WIRE PER MOUNTING PLATE. WIRES TERMINAT AT
	NON-FUSED TERMINAL BLOCK INSIDE THE SK ENCLOSURE AND FALL A MINIMUM OF 18 INCHES
	BELOW THE CEILING AT THE MOUNTING PLATE
	- CONTRACTOR IS RESPONSIBLE FOR RUNNING POWER FROM AN AC MAINS SUPPLY TO THE SK
	BOX
	- CONTRACTOR IS RESPONSIBLE FOR RUNNING DC WIRING FROM THE SK ENCLOSURE TO THE
	SURGICAL LIGHT MOUNTING PLATE
	- CONTRACTOR IS RESPONSIBLE FOR MAKING BOTH AC AND DC CONNECTIONS IN THE SK
7	TC LIGHT JUNCTION BOX
\ /	IS TO BE MOUNTED WITHIN 3FT OF BOOM MOUNT AND ACCESSABLE FROM THE ACCESS PANEL.
	- UPON EQUIPMENT INSTALLTION AN ELECTRONICS MODULE WILL BE INSTALLED BY STRYKER
	INSTALLATION TEAM AND THE LOW VOLTAGE CAN BE TERMINATED TO THE MODULE PLATE BY THE
	ELECTRICIAN.
	(REV A)
L	CHROMOPHARE WALL CONTROL PLATE (RECESSED)
	CONDUIT: ONE (1) 1" CONDUIT WITH FINISH GROMMETS TO SK ENCLOSURE OR ON TUBE
	ELECTRONICS. '
	BACK BOX: NONE. WALL CONTROL RECEIVES CONDUIT.
	POWER: NONE

	PRE-INSTALL NOTES SCHEDULE
KEY ITEM	NAME
	FLUSH MOUNTED CIRCULAR CEILING SPEAKERS
	CONDUIT:
	- REFER TO ROOM LAYOUT FOR CONDUIT QUANTITY AND SIZE STRUCTURAL:
	- CUSTOMER/CONTRACTOR TO CUT ONE 10 3/4" DIA. CIRCLE AT SPEAKER MOUNTING LOCATION.
	- OUTER DIA. DIMENSION IS 13.4"
	- PROVIDE 5" MINIMUM CEILING CLEARANCE.
	(REV A)
P	55" WALL MONITOR CONDUIT:
	- REFER TO ROOM LAYOUT FOR CONDUIT QUANTITY AND SIZE
	BACK BOX:
	- ONE (1) 4"W X 4"H JUNCTION BOX WITH SINGLE-GANG MUD RING
	- MOUNTED DIRECTLY ABOVE THE TOP OF THE MOUNTING BRACKET.
	POWER:
	- ONE (1) STANDARD DUPLEX OUTLET MOUNTED ADJACENT TO JUNCTION BOX.
	STRUCTURAL: - CUSTOMER/CONTRACTOR TO MOUNT STRYKER PROVIDED BRACKET TO THE WALL IN THE DESIRED
	LOCATION WITH PROPER REINFORCEMENT TO SUPPORT THE MONITOR PRIOR TO STRYKER
	INSTALLATION.
	DIMENSIONS: 48.8'"' x 28.1'"' x 2.7'"'
	STRYKER-PROVIDED WALL BRACKET DEPTH: 2.7'"'
P1	NOTE: STRYKER PROJECT MANAGER WILL PROVIDE MOUNTING SPECIFICATIONS. COR IP TOUCHPANEL (PRIMARY)
• •	CONDUIT:
	- REFER TO ROOM LAYOUT FOR CONDUIT QUANTITY AND SIZE
	BACK BOX:
	- ONE (1) 4"W X 4"H JUNCTION BOX WITH SINGLE-GANG MUD RING
	- MOUNT J-BOX WITHIN 18" OF TOUCH PANEL LOCATION
	POWER: - TWO (2) QUAD OUTLETS WITHIN 18" OF TOUCH PANEL LOCATION.
	(Rev A)
P2	COR IP TOUCHPANEL (SECONDARY)
	CONDUIT:
	- REFER TO ROOM LAYOUT FOR CONDUIT QUANTITY AND SIZE
	BACK BOX:
	- ONE (1) 4"W X 4"H JUNCTION BOX WITH SINGLE-GANG MUD RING - MOUNT J-BOX WITHIN 18" OF TOUCH PANEL LOCATION
	POWER:
	- ONE (1) QUAD OUTLET WITHIN 18" OF TOUCH PANEL LOCATION.
	(Rev A)



NOTES **PRE-INSTALL**

ST. LUKES EAST HOSPITAL HYBRID OR 1 LEE'S SUMMIT, MO 64086



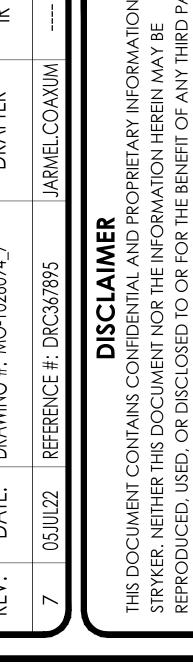
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P-2

- 1. ALL CONDUIT RUNS INCLUDE INSULATED BUSHINGS AND PULL STRINGS.
- 2. CONDUIT RUNS CANNOT EXCEED 45' FROM END-TO-END. DO NOT EXCEED FOUR (4) 90 DEGREE BENDS.
- 3. CABLES BETWEEN ITEMS OVER 45 FEET IN LENGTH ARE PROVIDED BY THE CUSTOMER / CONTRACTOR. PLEASE REFER TO EQUIPMENT LIST FOR CABLE SPECIFICATIONS.
- 4. THE PRE-INSTALL MANUAL REQUIREMENTS SUPERSEDE ALL PRE-INSTALL NOTES IN THIS DRAWING PACKAGE.
- 5. EQUIPMENT LIST:

	PRE-INSTALL NOTES SCHEDULE			
KEY ITEM	NAME			
R	WALL MOUNTED HD PTZ CAMERA			
	CONDUIT:			
	REFER TO ROOM LAYOUT FOR CONDUIT QUANTITY AND SIZE			
	BACK BOX:			
	- ONE (1) 4"W X 4"H JUNCTION BOX WITH SINGLE-GANG MUD RING			
	- FLUSH MOUNT J-BOX IN WALL 12" BELOW FINISHED CEILING			
	DATA:			
	- ADD SINGLE DATA PLATE WITHIN 6'"' OF PTZ MOUNT			
	POWER: NONE			
	STRUCTURAL:			
	- CUSTOMER/CONTRACTOR TO MOUNT STRYKER PROVIDED BRACKET TO THE WALL IN THE DESIREI			
	LOCATION WITH PROPER REINFORCEMENT TO HD PAN/TILT/ZOOM CAMERA PRIOR TO STRYKER			
	INSTALLATION.			
	(REV A)			
X	COR IP ADJACENT RACK (CUSTOMER PROVIDED)			
	CONNECTED OR IP SYSTEM (<65' from OR)			
	THE BELOW COUNTS ARE PER OR			
	SPACE REQUIREMENTS:			
	- CUSTOMER-SUPPLIED FOUR POST, 19" RACK, 29" Depth			
	- MUST ACCOMMODATE UP TO 24RU PER ROOM. SPECIFIC RU REQUIREMENT CAN BE CONFIRMED			
	BY STRYKER ENGINEERING.			
	DATA: TWO (2) ETHERNET CONNECTIONS			
	BACKBOX: N/A			
	NOTE: ALL CONDUITS CONSOLIDATED TO THE RACK LOCATION WITHIN THE A/V CLOSET			
	POWER:			
	- TWELVE (12) ELECTRICAL RECEPTACLES			
	- THREE (3) 20A ELECTRICAL CIRCUITS TOTAL. EACH QUAD WILL HAVE ONE (1) 20A CIRCUIT			
	- ALL CIRCUIT REQUIREMENTS SHOULD BE BASED OFF LOCAL BUILDING CODE OR WHAT IS			
	SPECIFIED UNDER THE IBC.			
	- A UPS IS REQUIRED FOR AT LEAST (1) OF THE 20A CIRCUITS			
	- IF POWERSTRIPS ARE NOT ALLOWED, CONSULT YOUR STRYKER PM FOR NUMBER OF OUTLETS.			
	- CONNECT RACK TO BUILDING'S EARTH GROUND USING 8 AWG.			
	(Rev A)			





NOTES PRE-INSTALL

ST. LUKES EAST HOSPITAL HYBRID OR 1 LEE'S SUMMIT, MO 64086

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P-3

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