SAINT LUKE'S EAST HOSPITAL PULMONARY CLINIC - PHASE 1 20 NE SAINT LUKE'S BLVD. LEE'S SUMMIT, MO 64086

# PROJECT TEAM

**ARCHITECT** ACI BOLAND, INC.

1710 WYANDOTTE STREET KANSAS CITY, MO 64108

816.763.9600 816.763.9757 **MEP ENGINEER BRANCH PATTERN** 

1508 GRAND BOULEVARD KANSAS CITY, MO 64108 PHONE 816.531.2121

**ABBREVIATIONS** ACOUSTIC/ACOUSTICAL PAGE FOUNDATION PLAM. PLASTIC LAMINATE AGGREGATE BASE COURSE F.H.C. FIRE HOSE CAB. ABOVE FINISH FLOOR FIELD VERIFY AGGREGATE AIR CONDITIONING PLATE ALUMINUM PLBG. PLUMBING ALTERNATE PLYWD. PLYWOOD ANCHOR BOL GRAM P.S.I. POUNDS PER SQ. IN ARCHITECT P.S.F. POUNDS PER SQ. F GROUND PRECAST GALVANIZED STEEL P.L. PROPERTY LINE **GYPSUM** GWB/G.B. GYPSUM BOARD RISER, RISERS HAND RAIL HARDENER HARDWARE BENCHMARK REFER TO HDWD. HARDWOOD REGISTER HEATER BOTTOM OF REQ'D. REQUIRED HEIGHT REV. REVISION HIGH POINT RF'G. ROOFING HOLLOW METAI CABINET RGH. ROUGH HORIZ. HORIZONTAL CAST IN PLACE HOSE BIB H.B. CATCH BASIN HOT WATER R.O. ROUGH OPENING CEMENT/CEMENTITIOUS INCH / INCHES INSIDE DIAMETER CENTIMETER CENTER LINE SEALED CONCRETE INTERIOR INVERT CERAMIC TILE CHANNEL SELECT SHEATHING JOINT JOIST CLEAN OUT KICK PLATE SLDG. SLIDING COLUMN

CONC. CONCRETE CONST. CONSTRUCTION LANDING CONTROL JOINT LATH CONSTRUCTION JOINT LAVATORY CONT. CONTINUOUS CONTR. CONTRACTOR LOCATION LIGHT LIGHT WEIGHT CONCRETE LVR. LOUVER LOC. LOCATION MASONRY OPENING MATERIAL

COR'G. CORRUGATED CTR. COUNTER CTSK. COUNTERSUNK C.M.U. CONCRETE MASONRY UNIT DECIBEL DIAG. DIAGONAL MANUFACTURER DIAM. DIAMETER MARKER BOARD DIMENSION MAXIMUM DISPENSER MECHANICAL DWL. DOWEL MTL. METAL DOWN M.L. METAL LATH D.S. DOWNSPOUT METER DWG. DRAWING MINIMUM MLDG. MOLDING MULLION EACH ELEC ELECTRIC E.W.C. ELECTRIC WATER COOLER N.G. NATURAL GRADE ELEVATION NOM. NOMINAL ELEV. ELEVATOR N.I.C. NOT IN CONTRACT EQ. EQUAL N.T.S. NOT TO SCALE EQUIP. EQUIPMENT NO. /# NUMBER EXH. EXHAUST EXPAN. EXPANSION OBS. OBSCURE E.J. EXPANSION JOINT O.C. ON CENTER EXIST. EXISTING OPN'G. OPENING EXT. EXTERIOR

FT. FEET / FOOT

FIXT. FIXTURE

FLR. FLOOR F.D. FLOOR DRAIN

FINISH

FLASHING

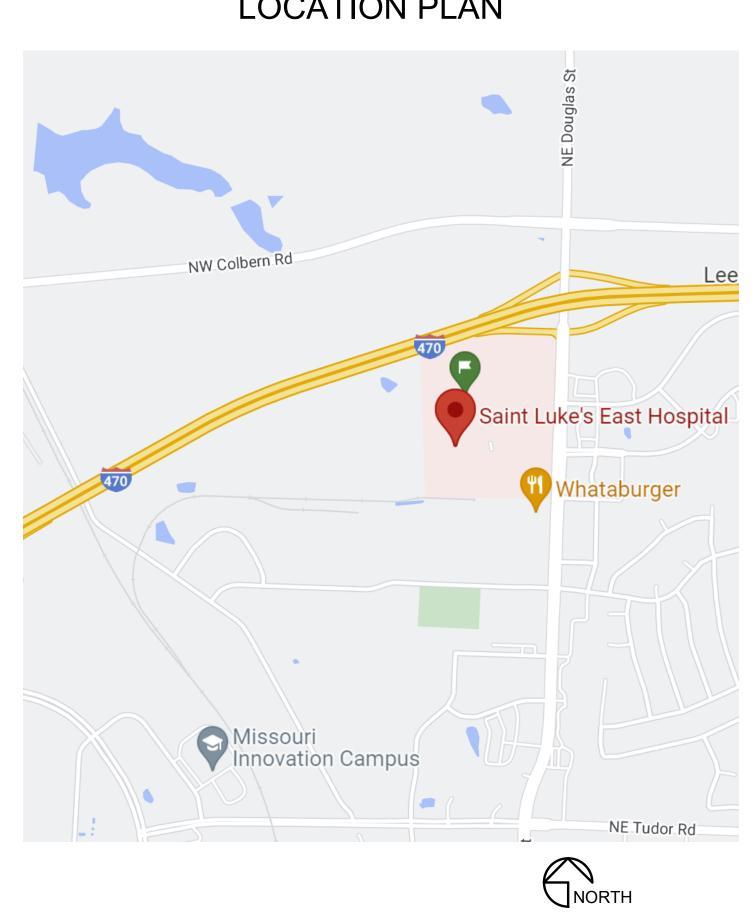
FIN.

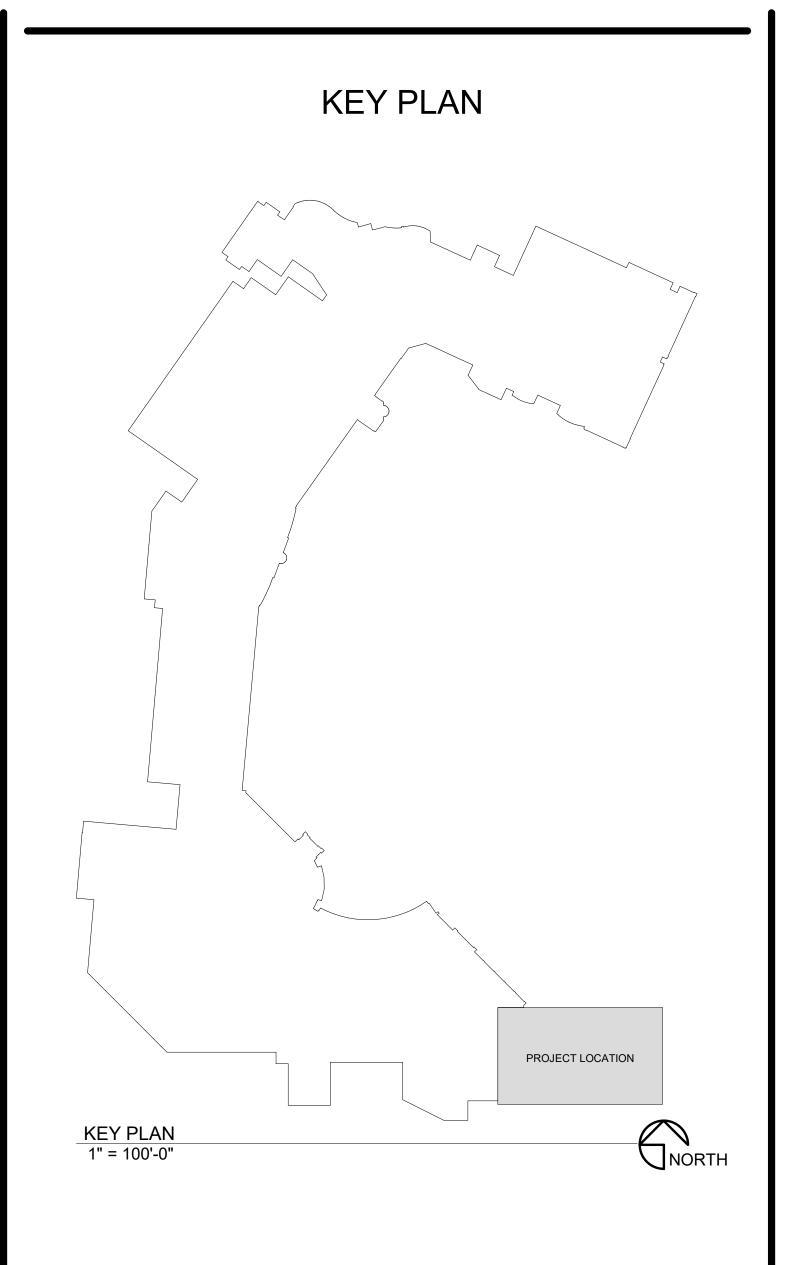
V. VENT VERT. VERTICAL V.G. VERTICAL GRAIN VEST. VESTIBULE V.C.T. VINYL COMPOSITION TILE VCP VITREOUS CLAY PIPE W/ WITH O.A. OVERALL W/O WITHOUT O.D. OUTSIDE DIAMETER WD. WOOD O.F.S. OVERFLOW SCUPPER WDW. WINDOW O.F.D. OVERFLOW DRAIN O.H.D. OVERHEAD DOOR

LOCATION PLAN

PHONE

FAX





## SHEET INDEX

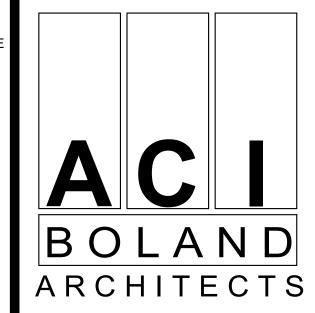
**COVER SHEET** A0.1 CODE FOOTPRINT PLAN PARTITION TYPES, DETAILS, & SYMBOLS U.L. DESIGN ASSEMBLIES DEMOLITION DEMOLITION REFLECTED CEILING PLAN AD3.1 FIRST FLOOR REFLECTED CEILING PLAN - PHASE 1 A3.2 REFLECTED CEILING PLAN - AREA B ROOM FINISH SCHEDULE & FINISH LEGEND INTERIOR DETAILS ELECTRICAL LEGEND PHASE 1 - FIRST FLOOR POWER PLAN PHASE 1 - FIRST FLOOR LIGHTING PLAN PHASE 1 - FIRST FLOOR FIRE ALARM PLAN ELECTRICAL DETAILS

SHEET NUMBER

ELECTRICAL SCHEDULES FIRST FLOOR ELECTRICAL PLAN - DEMOLITION MECHANICAL LEGEND & NOTES FIRST FLOOR HVAC PLAN FIRST FLOOR HYDRONIC PLAN MECHANICAL DETAILS FIRST FLOOR HVAC DEMOLITION PLAN FIRST FLOOR HYDRONIC DEMOLITION PLAN THIRD FLOOR MECHANICAL & ELECTRICAL DEMOLITION PLAN MED3.0 PLUMBING LEGEND & NOTES UNDERFLOOR WASTE/VENT PLAN FIRST FLOOR WASTE/VENT PLAN

FIRST FLOOR MED GAS PLAN PLUMBING DETAILS PLUMBING SCHEDULES PD1.0 UNDERFLOOR WASTE/VENT DEMOLITION PLAN PD2.1 FIRST FLOOR DOMESTIC WATER DEMOLITION PLAN TECHNOLOGY LEGEND

FIRST FLOOR TECHNOLOGY PLAN TECHNOLOGY DIAGRAMS TECHNOLOGY DETAILS TECHNOLOGY DEMOLITION PLAN



**MEP ENGINEER** 

HOSPITA BLVD 4086

8/15/22 3-22015 Job Number Drawn By Checked By

Number Date

© 2022 ACI/BOLAND, Inc **COVER SHEET** 

W.C. WATER CLOSET W.H. WATER HEATER W.F. WIDE FLANGE

SPEC. SPECIFICATION

STD. STANDARD

STRUC. STRUCTURE

SUSP. SUSPENDED

SW.BD. SWITCHBOARD

T.C. TOP OF CURB

TYP. TYPICAL

T.G. TEMPERED GLASS

TOP OF

T.S.D. TOP OF STEEL DECK

U.O.N. UNLESS OTHERWISE NOTED

SQUARE

STAINED

ST.STL. STAINLESS STEE

W.W. WINDOW WALL

W.W.M. WELDED WIRE MESH

Lee's Summit, MO 64063 Code Information
2018 International Building Code
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 State of Missouri Dept. of Health & Environment references the following codes: 2012 NFPA 101 Life Safety Code (LSC) 2018 FGI Guidelines for Design & Construction of Hospitals & Outpatient Facilities Note: If code requirements overlap, the most stringent shall apply. Designer Information
ACI Boland Architects
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
Local Building Inspection:Lee's Summit, MO -Codes Administration Department Type of Construction: 1-A Area of Renovation: PHASE A: 4,145 SF PHASE B: 3,895 SF TOTAL 8040 +/- SF Occupancy Group: B Occupant Load:
Total Square Footage: SF / = 8040 Total Number of Occupants = 81 occupants Required Fire Resistance Ratings (in hours)
Per NFPA 101 A.8.2.1.2: 3 HR 3 HR 3 HR 2 HR 1 1/2 HR Exterior Bearing Walls Interior Bearing Walls Primary Structural Frame Floor Construction Roof Construction 0 HR 2 HR Interior non-bearing walls Shaft Enclosure 2 HR provided 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 units. - 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: CODE FOOTPRINT LEGEND PARTITION TYPES O HR SMOKE PARTITION (SMOKE RESISTIVE)

**CODE SUMMARY** 

20 NE Saint Luke's Blvd

<u>Project Construction Purpose:</u> Renovation of existing therapy department into new pulmonary clinic <u>Project Address:</u> Saint Luke's Lee's Summit

• • • • • • • • 1 HR SMOKE BARRIER 2 HR FIRE BARRIER 2 HR FIRE SMOKE BARRIER 3 HR FIRE BARRIER AREA DESIGNATIONS EXIT ENCLOSURE **BOUNDARY DESIGNATIONS** NOT IN ARCHITECTURAL SCOPE SYMBOLS EXIT WIDTH PROVIDED EXIT WIDTH REQUIRED NEW FIRE EXTINGUISHER CABINET

EXISTING FIRE EXTINGUISHER CABINET

8/15/22 Job Number

3-22015 Author Drawn By Checker Checked By

CONSTRUCTION

8/15/2022 4:37:49 PM

BOLAND

ARCHITECTS

Licensee's Certificate of Authority Number:

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

1710 Wyandotte Kansas City, MO 64108 T: 816.763.9600

Missouri: #000958

Company Title

Address Line 1 City, State, Zip

**Company Title** Address Line 1

City, State, Zip

Company Title

Address Line 1 City, State, Zip

CONSULTANT

Company Title

Address Line 1

City, State, Zip

**CIVIL CONSULTANT** 

Phone Number: 000.000.0000

Phone Number: 000.000.000

MEP CONSULTANT

Phone Number: 000.000.0000

Phone Number: 000.000.0000 Licensee's Certificate of Authority:

**IOSPIT** 

BLVD 4086

Licensee's Certificate of Authority:

Licensee's Certificate of Authority

Licensee's Certificate of Authority:

STRUCTURAL CONSULTANT

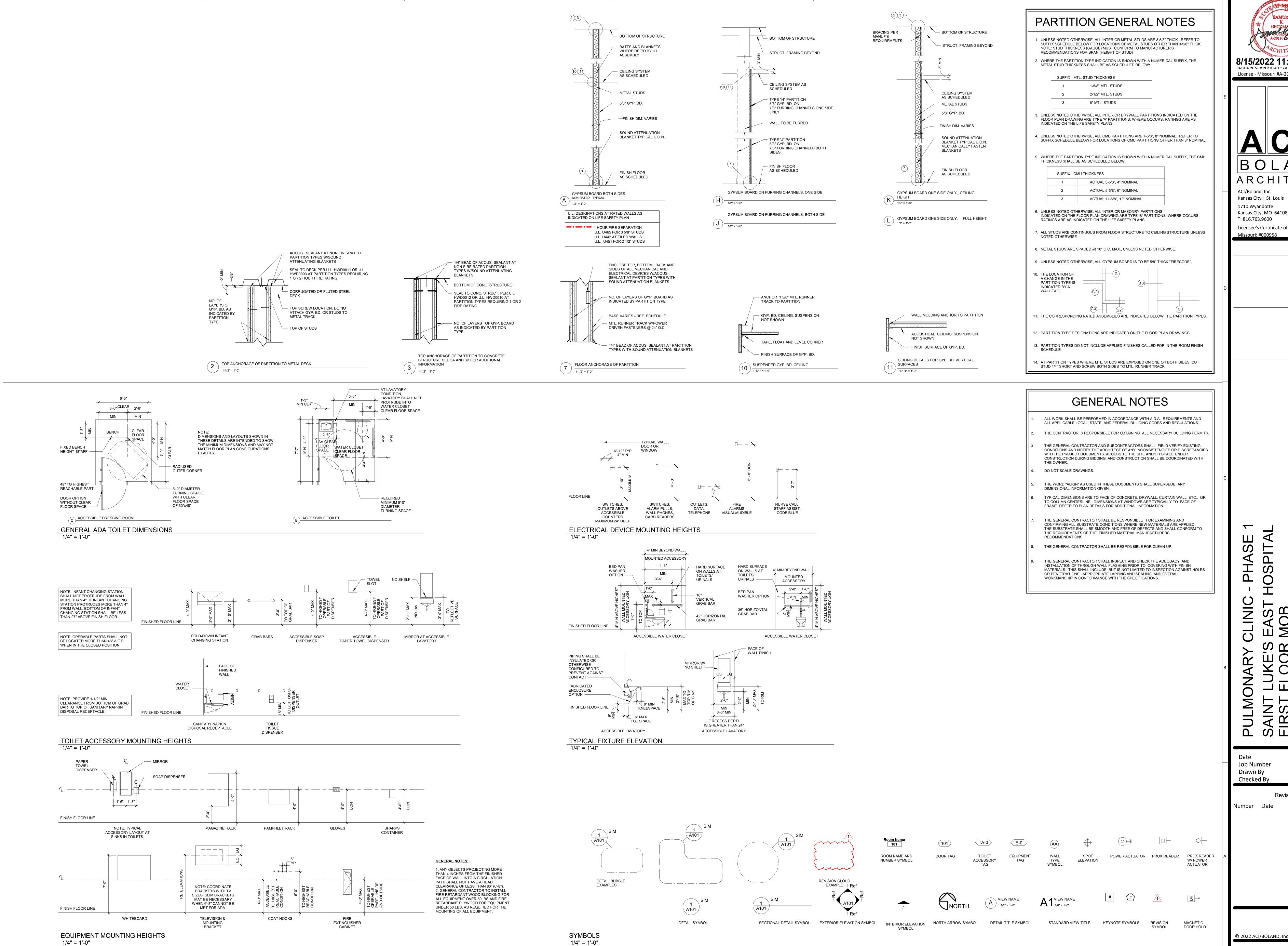
License - Missouri #A-2011012130

CODE FOOTPRINT PLAN

A1 CODE FOOTPRINT PLAN - PHASE 1
1/8" = 1'-0"

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

A0.2



CONSTRUCTION

8/15/2022 11:01:44 AM License - Missouri #A-2011012130

ACI/Boland, Inc. Kansas City | St. Louis 1710 Wyandotte Kansas City, MO 64108 T: 816.763.9600

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

SP BLVD 4086

> 8/15/22 3-22015 KDS

PARTITION TYPES, DETAILS, &

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

### Page Bottom

fied products, equipment, system, devices, and materials

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

• 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 August 25, 2016

as Canada), respectively

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

 ${f QUAIL\ RUN\ BUILDING\ MATERIALS\ INC}$  — 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, proprietary channel shaped runners, 1-1/4 in. wide by min 3-5/8 in. deep fabricated from min 0.020 in. thick galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. CALIFORNIA EXPANDED METAL PRODUCTS CO — Viper20™ Track

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 galv steel, attached to floor and ceiling with fasteners spaced 24 in. OC max. **TELLING INDUSTRIES L L C** — Viper $20^{\text{TM}}$  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

2G. Framing Members\* - Steel Studs - Not Shown - In lieu of Item 2 through 2F - For use with Item 1G. ary channel shaped studs, minimum 3-5/8 in. wide, Studs to be cut 1/2 in. less than the assembly height. STUDCO BUILDING SYSTEMS — CROCSTUD

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

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/ft<sup>3</sup>. 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

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

U S GREENFIBER L L C — INS735& INS745 for use with wet or dry application. INS765LD and INS770LD are to be used

3C. **Fiber, Sprayed\*** — As 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-RL

3D. 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

for dry application only

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-G, 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 aLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine

SIAM GYPSUM INDUSTRY (SARABURI) CO LTD — Type FX-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 M2TECH ACTIV'Air, Gyproc DuraLine M3TECH ACTIV'Air, Gyproc DuraLine M3TECH ACTIV'Air, Gyproc DuraLine M3TECH 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

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

**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. NATIONAL GYPSUM CO — SoundBreak XP Type X Gypsum Board

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 LGFC6A, LGFC-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 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. Ty 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

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

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

PANEL REY S A — Types PRC, PRC2

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

**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

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

**USG MEXICO S A DE C V** — Types C, IP-X2, IPC-AR 4N. Wall and Partition Facings and Accessories\* — (As an alternate to Item 4) — Nominal 5/8 in. thick, 4 ft wide

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. NATIONAL GYPSUM CO — Type FSW

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 rosum 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 b. Flaming Heinbers — Osed to attach forming challenges (term a) to study (term b). Clips spaced 48 in. OC., and secured to study 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 a. Furring Channels — Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced 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.  $10 \times 2$ -1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips. **STUDCO BUILDING SYSTEMS** — RESILMOUNT Sound Isolation Clips - Type A237R

. 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

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 4J) — 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 Specification QQ-L-201f, Grades "B, C or D".

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. The 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

Design/System/Construction/Assembly Usage Disclaimer

XHBN.BW-S-0003

Joint Systems

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 fiel 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.

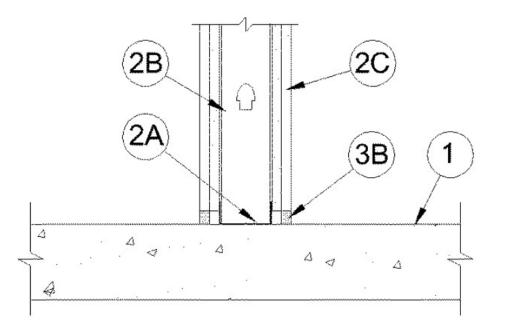
· Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL

XHBN - Joint Systems

See General Information for Joint Systems

System No. BW-S-0003 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) Joint Width - 3/4 In. Max



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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.

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).

3. Joint System — Max separation between top of floor and bottom of gypsum board is 3/4 in. (19 mm). The

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

LC150 Sealant, Pensil 300 Sealant or SpecSeal Series SIL300.

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

Last Updated on 2008-11-18

Ouestions?

\* Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification Print this page Terms of Use Page Top

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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 Only products which bear UL's Mark are considered Certified.

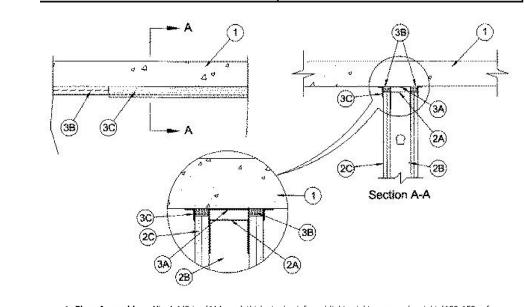
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XHBN - Joint Systems

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)  $\frac{1}{2}$  Joint Widths  $\frac{1}{2}$  1-1/2 and 2-1/2 In. (See Item 3) FT Ratings  $\frac{1}{2}$  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 lominal 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/m<sup>3</sup>) 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:

 ${\bf MARINO/WARE,\,DIV\,\,OF\,\,WARE\,\,INDUSTRIES\,\,INC-} {\bf Type\,\,SLT}$ METAL-LITE INC — The System

SCAFCO STEEL STUD MANUFACTURING CO TELLING INDUSTRIES L L C — True-Action Deflection Track THE STEEL NETWORK INC — VertiTrack VT series, 250VT, 362VT, 400VT, 600VT and 800VT

deflection ceiling runner secured to concrete floor slab with steel masonry anchors spaced max 24 in. (610 mm) OC. When vertical deflection ceiling runner is used, deflection channel (Item **THE STEEL NETWORK INC** — VertiTrack VTD362, VTD400, VTD600 and VTD800

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

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

A4. Light Gauge Framing\* —Vertical Deflection Clip\* — (Optional) Steel clips can be used n conjunction with steel studs (Item 2B), ceiling runner (Item 2A) or deflection channel (Iter 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

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

deflection channel (Item 3A), as follows: 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 attachmen 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 ROCKWOOL MALAYSIA SDN BHD — Safe

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

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

8/15/22 3-22015 Job Number Author Drawn By Checker Checked By Revision

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**J** 

Д

CONSTRUCTION

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ACI/Boland, Inc.

1710 Wyandotte

T: 816.763.9600

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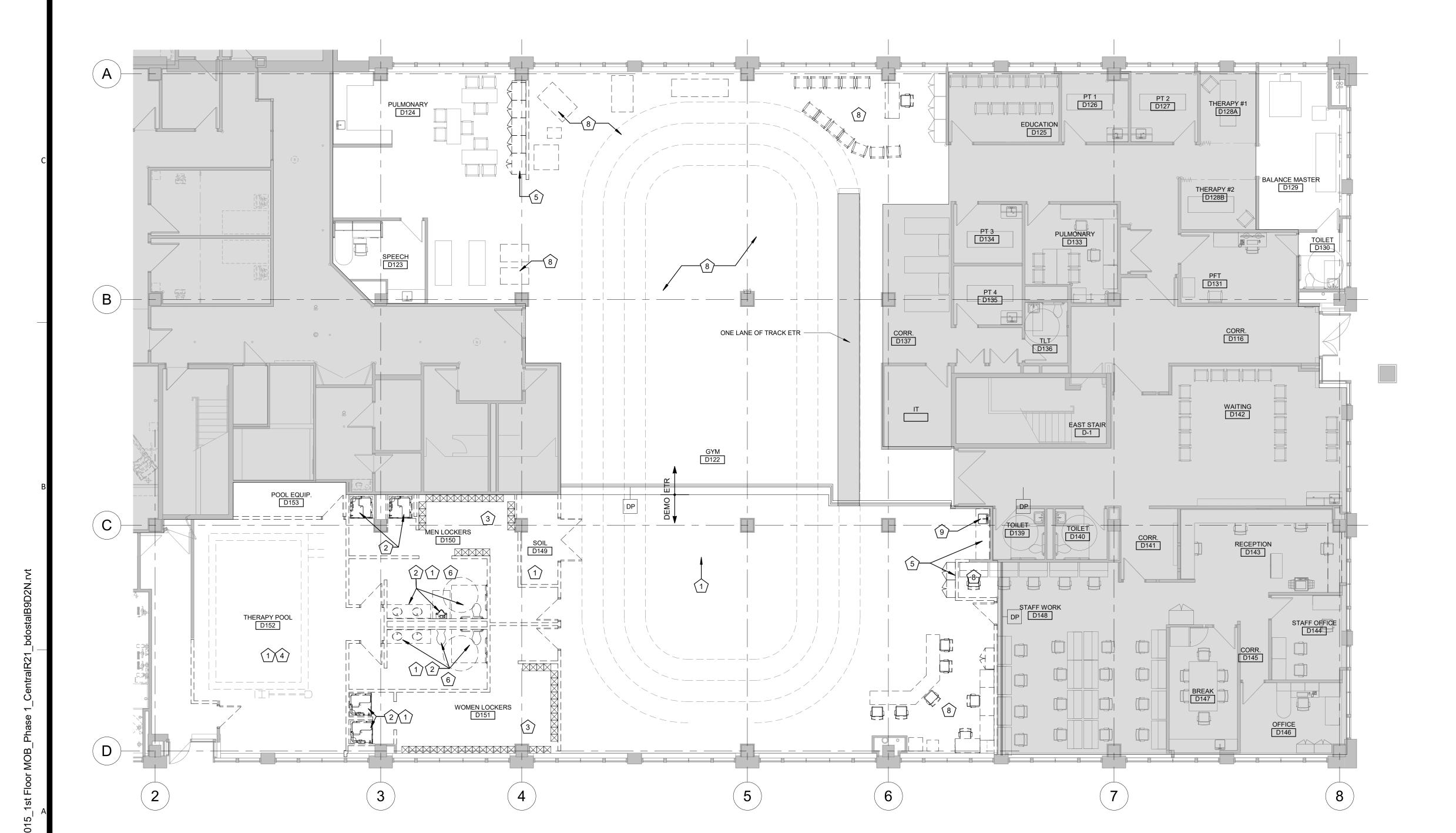
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# KEYNOTES - DEMO PLAN ®

1 DEMO EXISTING FLOORING AND BASE, TYPICAL THROUGHOUT, PREP FOR NEW FINISHES.
2 DEMO PLUMBING FIXTURES AND CAP PLUMBING. RE:MEP.
3 DEMO EXISTING LOCKERS. PATCH AND REPAIR AREA FOR NEW CONSTRUCTION. SALVAGE TO OWNER.
4 DEMO POOL, EQUIPMENT AND ASSOCIATED EQUIPMENT IN IT'S ENTIRITY. PREP TO BE FILLED.
5 DEMO EXISTING CASEWORK. PREP AREA FOR NEW CONSTRUCTION.
6 DEMO TOILET PARTITION.
8 COORDINATE EQUIPMENT RELOCATION WITH OWNER.
9 DEMO EXISTING FIXTURE, RE:MEP. PREP FOR NEW FIXTURE.
11 DEMO EXISTING GRID AND CEILING TILES.

DEMO EXISTING GRID AND CEILING TILES.
 REMOVE LIGHTS AND DIFFUSERS, RE:MEP. SALVAGE TO OWNER.
 DEMO GYP SOFFIT AS REQUIRED.
 DEMO GYP CEILING AS REQUIRED.



A3 DEMO PLAN 1/8" = 1'-0"



### GENERAL DEMOLITION NOTES

SPECIFICATIONS FOR ADDITIONAL INFORMATION.

- 1. THE OWNER SHALL VACATE THE EXISTING ROOMS AS INDICATED ON THE PLAN AND BE RESPONSIBLE FOR THE REMOVAL OF ANY EQUIPMENT WHICH IS TO REMAIN THE PROPERTY OF THE OWNER PRIOR TO ANY WORK DONE BY THE CONTRACTOR FOR THIS PORTION OF THE SEQUENCE.
- 2. INSTALL TEMPORARY DUST PARTITION AND/OR BARRIERS AND OTHER METHODS AS MAY BE REQUIRED/NECESSARY AS INDICATED ON THE PLAN AND AS NECESSARY TO CONTAIN DEMOLITION/ CONSTRUCTION DUST AND DEBRIS WITHIN THE AREA OF CONSTRUCTION. REFER TO DUST PARTITION "DP" ON THIS SHEET AND THE
- IT IS THE INTENT OF THIS DEMOLITION TO REMOVE ALL EXISTING CONSTRUCTION WHICH CONFLICTS WITH THE INTENT OF THE NEW CONSTRUCTION. EVERY DEMOLITION DETAIL MAY NOT NECESSARILY BE COVERED ON THESE DRAWINGS.
- FIELD VERIFY THE EXTENT OF ALL DEMOLITION.

  4. THE CONTRACTOR SHALL USE EXTREME CARE IN THE PROTECTION OF ALL ADJACENT AREAS FOR IT IS IMPERATIVE TO PROVIDE CONTINUOUS OPERATION OF ALL OCCUPIED AREAS DURING THE DEMOLITION
- OCCUPIED AREAS DURING THE DEMOLITION, CONSTRUCTION AND RENOVATION.

  5. ALL DEMOLITION DESCRIBED IN THESE DOCUMENTS SHALL BE COORDINATED WITH PHASING WORK REQUIRED TO COMPLETE THE WORK.
- THE CONTRACTOR SHALL COORDINATE ALL DEMOLITION WORK WITHIN OCCUPIED SPACES ABOVE, BELOW AND ADJACENT TO THE WORK, THE CONTRACTOR SHALL NOTIFY THE OWNER AND THE MANAGEMENT OF THE OCCUPIED SPACES ABOVE, BELOW, AND ADJACENT TO THE WORK, TWO WEEKS PRIOR TO COMMENCING WORK. SUCH SPACES ARE TO REMAIN OCCUPIED DURING DEMOLITION AND ALL WORK SHALL BE PERFORMED IN SUCH A MANNER TO MINIMIZE DISRUPTION TO OCCUPIED SPACES. EXISTING FLOOR, WALL AND CEILING FINISHES TO REMAIN SHALL BE PROTECTED AND ANY DAMAGE DONE AS A RESULT OF DEMOLITION WORK SHALL BE REPAIRED.
- IN AREAS SCHEDULED FOR DEMOLITION, THE CONTRACTOR SHALL REMOVE ALL ACCESSORIES. GRAB BARS, MIRRORS, SOAP AND PAPER TOWEL DISPENSERS, SHELVES, BULLETIN BOARDS, ETC., SHALL BE TURNED OVER TO THE OWNER, EXCEPT FOR RELOCATED ITEMS.
- WHERE NEW FINISHES ARE CALLED FOR, REMOVE AND DISCARD EXISTING FLOORING, CEILINGS AND WALL COVERING THROUGH-OUT AREA DESIGNATED FOR NEW CONSTRUCTION AND PREP EXISTING FLOOR AND WALL SUBSTRATE TO RECEIVE THE INSTALLATION OF NEW FINISH AS SCHEDULED.
- 9. SEE NEW WORK PLAN FOR REPAIR AND PREPARATION OF ADJACENT SURFACES.

  WHERE CEILING IS TO REMAIN, REMOVE ALL DAMAGED CEILING PANELS/ TILES AND

REPLACE WITH NEW TO MATCH EXISTING.

ADDITIONAL INFORMATION.

12. THE CONTRACTOR SHALL PATCH TO MATCH ADJACENT SURFACES OF EXISTING WALLS. FLOOR, AND CEILINGS IN ALL AREAS THAT REQUIRE THE REMOVAL OF

REMOVE AND RETURN TO THE OWNER ALL EXISTING PLUMBING FIXTURES. CAP ALL

SUPPLY AND WASTE LINES AS REQUIRED. REFER TO PLUMBING DRAWINGS FOR

- GENERAL MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION WORK AND OF EQUIPMENT AND FIXTURES.

  13. THE CONTRACTOR SHALL PROVIDE FOR ALL NECESSARY TEMPORARY RELOCATION AND MAINTENANCE OF ALL EXISTING UTILITIES WHICH ARE CURRENTLY IN USE AND
- WHICH MUST BE TEMPORARILY RELOCATED DURING CONSTRUCTION OF NEW AREAS AND RENOVATION OF EXISTING AREAS.

  14. REFER TO MECHANICAL, ELECTRICAL, PLUMBING, AND FIRE PROTECTION DRAWINGS
- FOR WORK REQUIRED FOR NEW CONSTRUCTION..

  15. WHERE REMOVAL OF EXISTING PARTITIONS, EQUIPMENT, ETC. DISTURBS EXISTING MECHANICAL, PLUMBING OR ELECTRICAL SERVICES, THE CONTRACTOR SHALL MAKE PERMANENT REVISIONS/PROVISIONS AS REQUIRED T MAINTAIN SERVICES AND IF NECESSARY, PROVIDE TEMPORARY SERVICES TO AREAS NOT SCHEDULED FOR

DEMOLITION, RENOVATION, AND/OR NEW CONSTRUCTION.

- 16. WHERE EXISTING WALLS, CEILINGS, OR FLOORS ARE DAMAGED BY THE CONTRACTOR FOR ACCESS TO SERVICES AND NEW CONSTRUCTION WHICH MAY NOT BE INDICATED IN THE CONTRACT DOCUMENTS, THE CONTRACTOR SHALL BE RESPONSIBLE TO PATCH TO MATCH MATERIAL AND FINISHES TO ORIGINAL CONDITIONS. IF EXISTING FINISHES CANNOT BE MATCHED, THE ENTIRE WALL, CEILING, OR FLOOR SHALL BE REFINISHED TO THE NEAREST CORNER OR POSITIVE BREAKING POINT.
- 17. WHEN DEMOLITION CAUSES DAMAGE TO FLOOR SLAB, WALL, OR CEILING SURFACES WHICH WILL REMAIN EXPOSED IN THE FINISHED WORK, SUCH CONDITIONS SHALL BE REPAIRED AND LEVELED AS REQUIRED TO RECEIVE NEW FINISHES.
- 18. WHEN DEMOLITION EXPOSES DAMAGE TO FLOOR SLAB, WALL, OR CEILING SURFACES WHICH WILL REMAIN EXPOSED IN THE FINISHED WORK, SUCH CONDITIONS SHALL BE REPORTED TO THE ARCHITECT AND OWNER WITH A RECOMMENDATION FOR RESOLUTION OF THE CONDITIONS.
- CLEAN AIR GRILLES AND LIGHT FIXTURES THROUGHOUT PROJECT AREA UPON COMPLETION OF WORK.
   WHERE EXISTING PHONE, DATA, OR PHONE/DATA OUTLETS ARE REMOVED, THE
- WHERE EXISTING PHONE, DATA, OR PHONE/DATA OUTLETS ARE REMOVED, THE CONTRACTOR SHALL USE EXTREME CARE IN PULLING WIRE THROUGH THE EXISTING CONDUITS, COIL AND WRAP ABOVE EXISTING CEILING FOR REUSE.
- 21. WHERE EXTERIOR WALLS, WINDOWS, AND/OR DOORS ARE BEING REMOVED, THE CONTRACTOR WILL BE RESPONSIBLE TO CONSTRUCT TEMPORARY PARTITIONS AS REQUIRED TO ENSURE THAT THE EXISTING BUILDINGS REMAIN WATERTIGHT, SECURE, AND WITHOUT DRAFTS DURING DEMOLITION WORK. THESE PARTITIONS SHALL REMAIN IN PLACE DURING THE NEW CONSTRUCTION WORK, OR AS REQUIRED TO MAINTAIN THIS SEPARATION.
- 22. PROVIDE SHORING AND BRACING AS REQUIRED DURING DEMOLITION AND NEW CONSTRUCTION

### DEMOLITION LEGEND

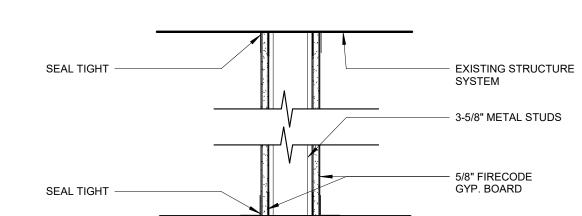
NOT IN SCOPE

EXISTING WALL, DOOR, FRAME AND HARDWARE TO REMAIN

WALLS, DOORS, DOOR/WINDOW FRAMES, EQUIPMENT, FIXTURES, ETC. INDICATED BY DASHED LINES WITHIN THE AREA OF CONSTRUCTION SHALL BE REMOVED. REFER TO THIS SHEET FOR ARCHITECTURAL DEMOLITION NOTES.

DUST PARTITIONS - THE CONTRACTOR SHALL MAKE EVERY
EFFORT TO ENSURE THE EXISTING BUILDING TO BE COMPLETELY
PROTECTED AGAINST INFILTRATION OF DUST AND MOISTURE
DURING THE COURSE OF DEMOLITION/ CONSTRUCTION WITH DUST
PARTITIONS ACROSS CORRIDORS AND OPENINGS THRU EXISTING
WALLS. ALL CONSTRUCTION WORK CREATING ANY TYPE OF DUST
THROUGHOUT THE BUILDING SHALL BE SHIELDED BY DUST
PROTECTION. PROVIDE DOOR OPENING AS REQUIRED FOR
EMERGENCY EGRESS.

DUST BARRIERS - (2) LAYERS 6 MIL PVC W/ STUDS @ 4'-0" O.C. DUST BARRIER. THE CONTRACTOR SHALL MAKE EVERY EFFORT TO ENSURE THE EXISTING BUILDING TO BE COMPLETELY PROTECTED AGAINST THE INFILTRATION OF DUST & MOISTURE DURING THE COURSE OF DEMOLITION/ CONSTRUCTION. PROVIDE DOOR OPENING AS REQUIRED FOR EMERGENCY EGRESS.



WHERE DUST PARTITIONS ARE TO REMAIN THROUGH CONSTRUCTION, THEY SHALL BE CONSTRUCTED OF 3-5/8" METAL STUDS WITH CONTINUOUS TOP AND BOTTOM RUNNERS. PARTITIONS SHALL EXTEND TIGHT FROM FLOOR TO THE EXISTING CEILING OR STRUCTURE ABOVE, AND COPED AROUND DUCTS, PIPES, ETC., THAT PENETRATE THE PARTITION. THE ENTIRE PARTITION SHALL BE COVERED WITH 5/8" FIRE RATED GYP. BOARD SCREWED TO STUDS, ALL JOINTS BETWEEN SHEATHING, AT WALLS, AT FLOORS, CEILINGS, AROUND PIPES, ETC., TAPED AND SEALED TIGHT TO ENSURE DUST-PROOFING.

THE CONTRACTOR SHALL COVER AND SEAL IN A DUST-TIGHT MANNER ALL EXISTING OPENINGS, GRILLES, JOINTS AROUND DOORS AND FRAMES, ETC., WITH FIRE RETARDANT SHEET AND/OR TAPE AS APPROPRIATE WHERE SUCH OPENINGS, ETC., OCCUR IN EXISTING PARTITIONS SEPARATING EXISTING AREAS FROM CONSTRUCTION AREAS. THE CONTRACTOR SHALL MAINTAIN AND REPAIR ANY DUST BARRIERS AS DETERMINED BY, AND TO THE SATISFACTION OF, THE

SMOKE TIGHT (NON-COMBUSTIBLE CONSTRUCTION)
PARTITION)
1 1/2" = 1'-0"

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CONSTRUCTION

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Date 8/15/22
Job Number 3-22015
Drawn By Author
Checked By Checker

Checked By

Revision

Date Descrip

Date Description

AD2.1

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DEMOLITION PLAN

**A1** DEMOLITION RCP 1/8" = 1'-0"

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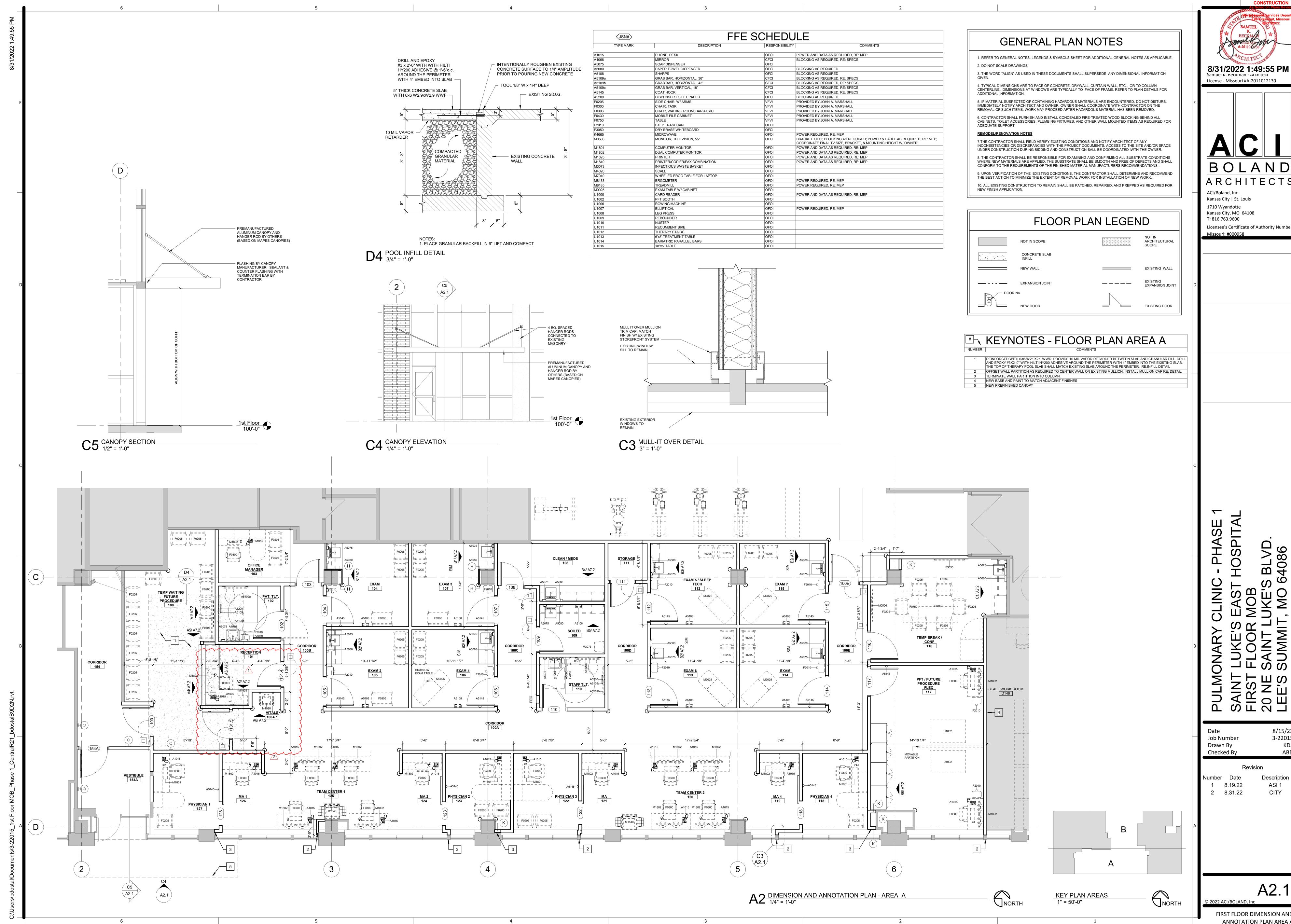
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NORTH

KEY PLAN AREAS 1" = 50'-0"

DEMOLITION REFLECTED CEILING



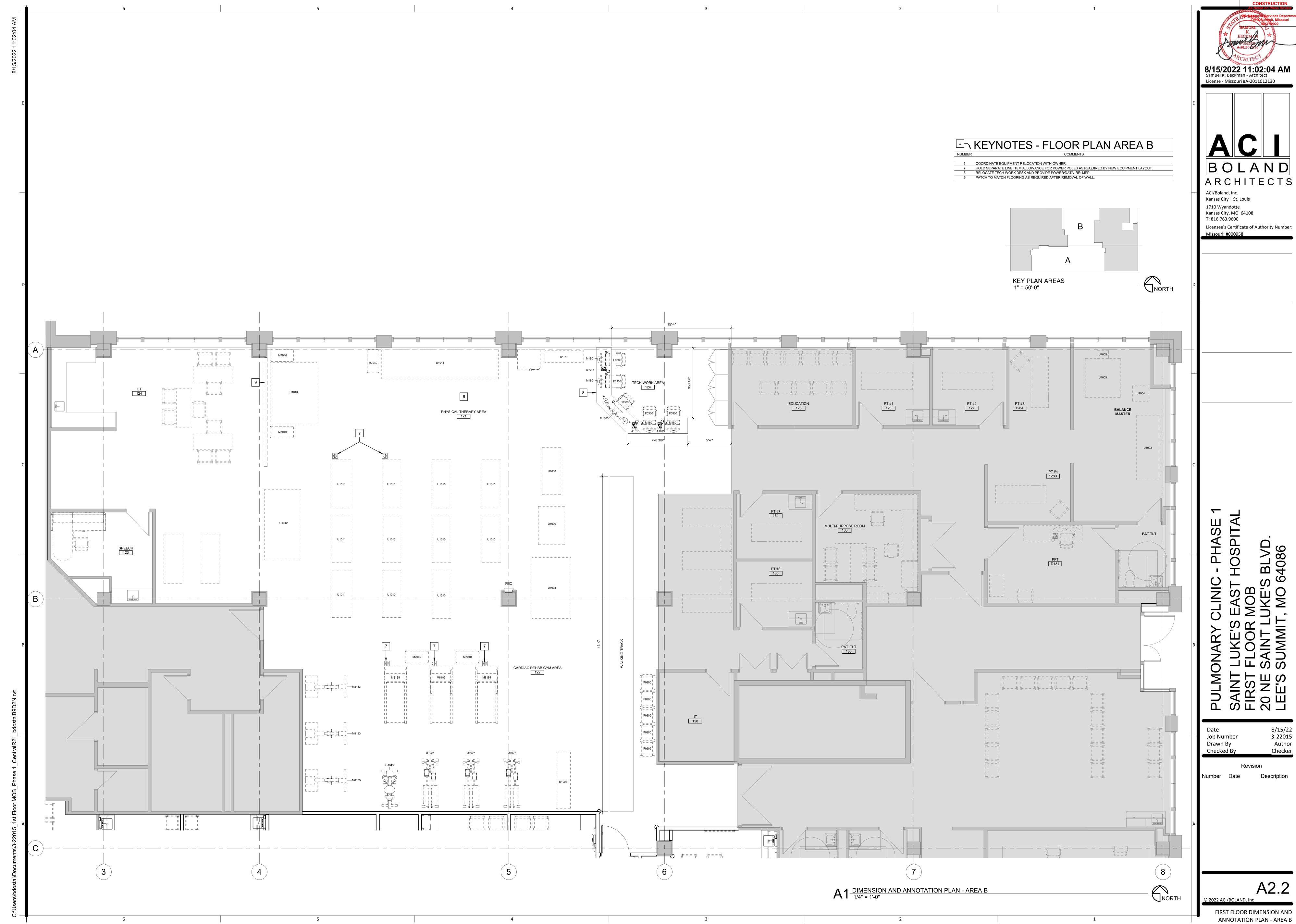
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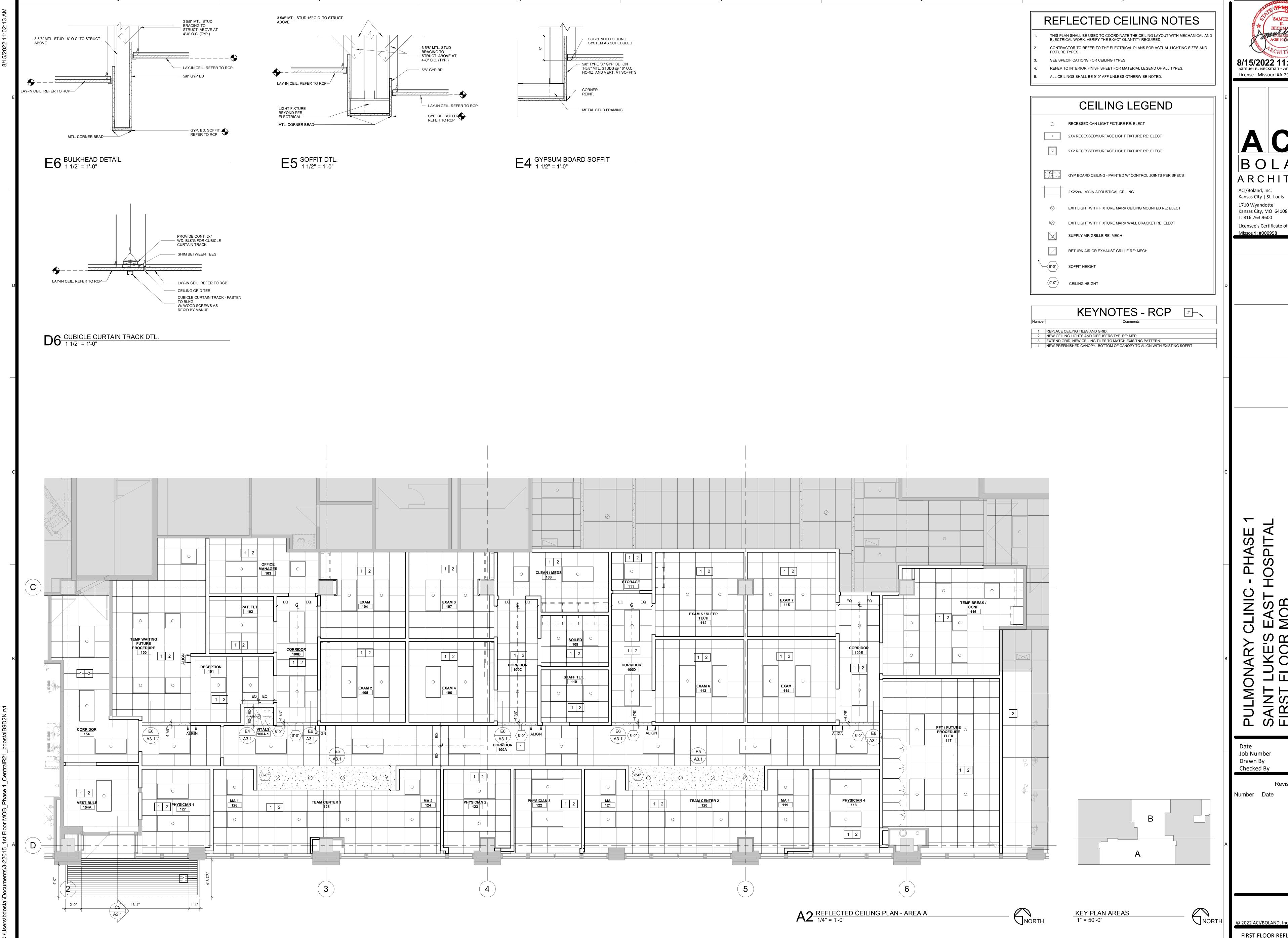
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A2.1

FIRST FLOOR DIMENSION AND ANNOTATION PLAN AREA A





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FIRST FLOOR REFLECTED CEILING PLAN - PHASE 1

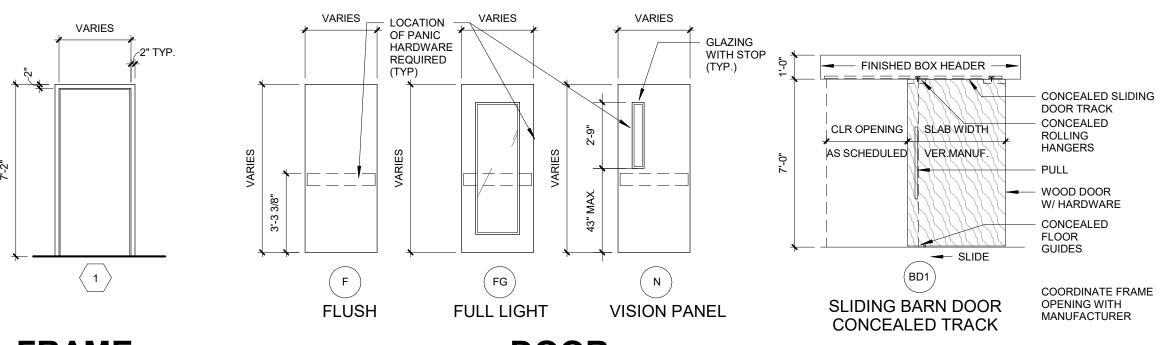


GLA	ZING LEGEND
GL-1	GLAZING DESCRIPTION
GL-2	GLAZING DESCRIPTION
GL-3	GLAZING DESCRIPTION
GL-4	GLAZING DESCRIPTION

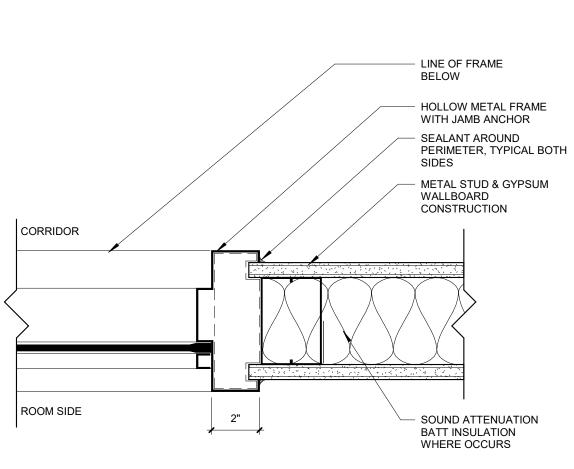
### DOOR AND HARDWARE NOTES

- 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.

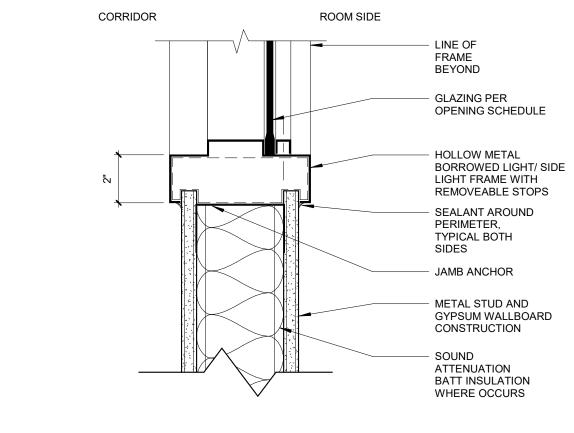
			DOOR	INFORMA	TION			AME MATION				OPENIN	NG DETAIL		
DOOR #	ROOM NAME	WIDTH	HEIGHT	NO. OF LEAVES	ELEV.	MATL.	ELEV.	MATL.	GLAZING		HARDWARE SET	HEAD	JAMB	REMARKS	REV #
100	CORRIDOR	3'-6"	7'-0"	1	N	WD	1	НМ	F.R.	90 min				CARD READER ON PULL SIDE; PANIC BAR AND AUTO OPENER AND WAVE TO OPEN BOTH SIDES	
100E	CORRIDOR	3'-6"	7'-0"	1	N	WD	1	НМ						CARD READER WITH DELAYED PANIC ON PUSH SIDE	
102	PAT. TLT.	3'-6"	7'-0"	1	F	WD	1	HM						RESCUE HARDWARE	
103	OFFICE MANAGER	3'-0"	7'-0"	1	F	WD	1	НМ						OFFICE SET W/ KEYED LOCK	
104	EXAM	3'-6"	7'-0"	1	F	WD	1	HM						PASSAGE SET	
105	EXAM 2	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
106	EXAM 4	3'-6"	7'-0"	1	F	WD	1	HM						PASSAGE SET	
107	EXAM 3	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
108	CLEAN / MEDS	3'-0"	7'-0"	1	F	WD	1	НМ						CARD READER	
109	SOILED	3'-0"	7'-0"	1	F	WD	1	НМ		45 min				CARD READER	
110	STAFF TLT.	3'-0"	7'-0"	1	F	WD	1	НМ						PRIVACY LOCK	
111	STORAGE	3'-0"	7'-0"	1	F	WD	1	НМ						CARD READER	
112	EXAM 5 / SLEEP TECH	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
113	EXAM 6	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
114	EXAM	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
115	EXAM 7	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
116	TEMP BREAK / CONF	3'-6"	7'-0"	1	F	WD	1	НМ						CARD READER ON PUSH SIDE	
	PFT / FUTURE PROCEDURE FLEX	3'-6"	7'-0"	1	F	WD	1	НМ						PASSAGE SET	
118	MA 4	3'-0"	7'-0"	1	BD2	WD		ALUM				8/A4.1 SIM.	2 & 3/A4 SIM.	AD SLIDING DOOR WITH PRIVACY LOCK	
122	MA	3'-0"	7'-0"	1	BD2	WD		ALUM				8/A4.1 SIM.	2 & 3/A4 SIM.	AD SLIDING DOOR WITH PRIVACY LOCK	
123	MA 2	3'-0"	7'-0"	1	BD2	WD		ALUM				8/A4.1 SIM.	2 & 3/A4 SIM.	AD SLIDING DOOR WITH PRIVACY LOCK	
128	PHYSICIAN 1	3'-0"	7'-0"	1	BD2	WD		ALUM				8/A4.1 SIM.	2 & 3/A4 SIM.	AD SLIDING DOOR WITH PRIVACY LOCK	
131.4	RECEPTION	3'-0"	7'-0"	1	F	WD	1	НМ						CARD READER ON BOTH PUSH/PULL SIDES	
131.5	CORRIDOR	3'-6"	7'-0"	1	N	WD	1	НМ						CARD READER ON PULL SIDE. DOOR RELEASE BUTTON AT RECEPT. DESK, PANIC BAR WITH DELAYED EGRESS	
154A	VESTIBULE	3'-6"	7'-0"	1	FG	WD	1	НМ						PANIC BAR, AUTO OPENER AND WAVE TO OPEN	



**FRAME ELEVATIONS**: <u>DOOR</u> **ELEVATIONS:** 



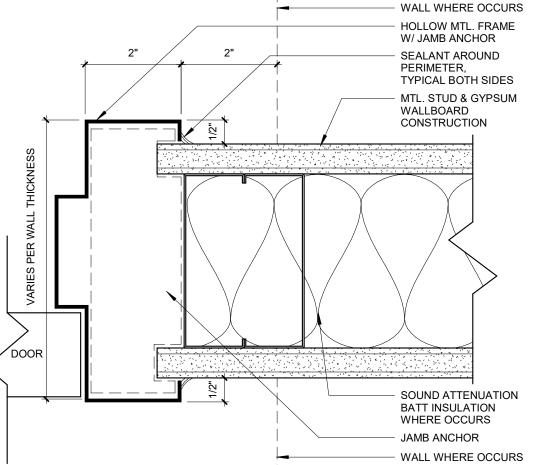




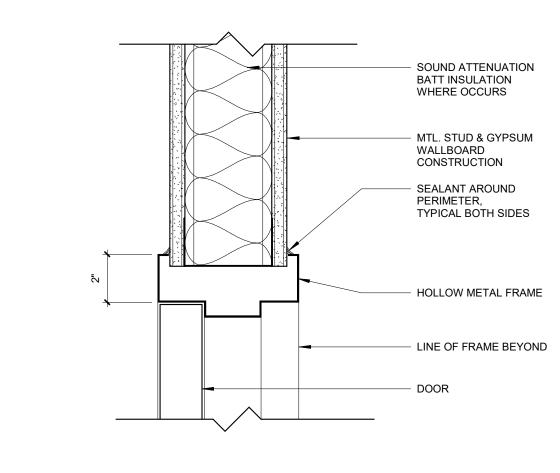
SILL- HOLLOW MTL. SIDELIGHT/ BORROWED LIGHT

FRAME

3" = 1'-0"



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



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

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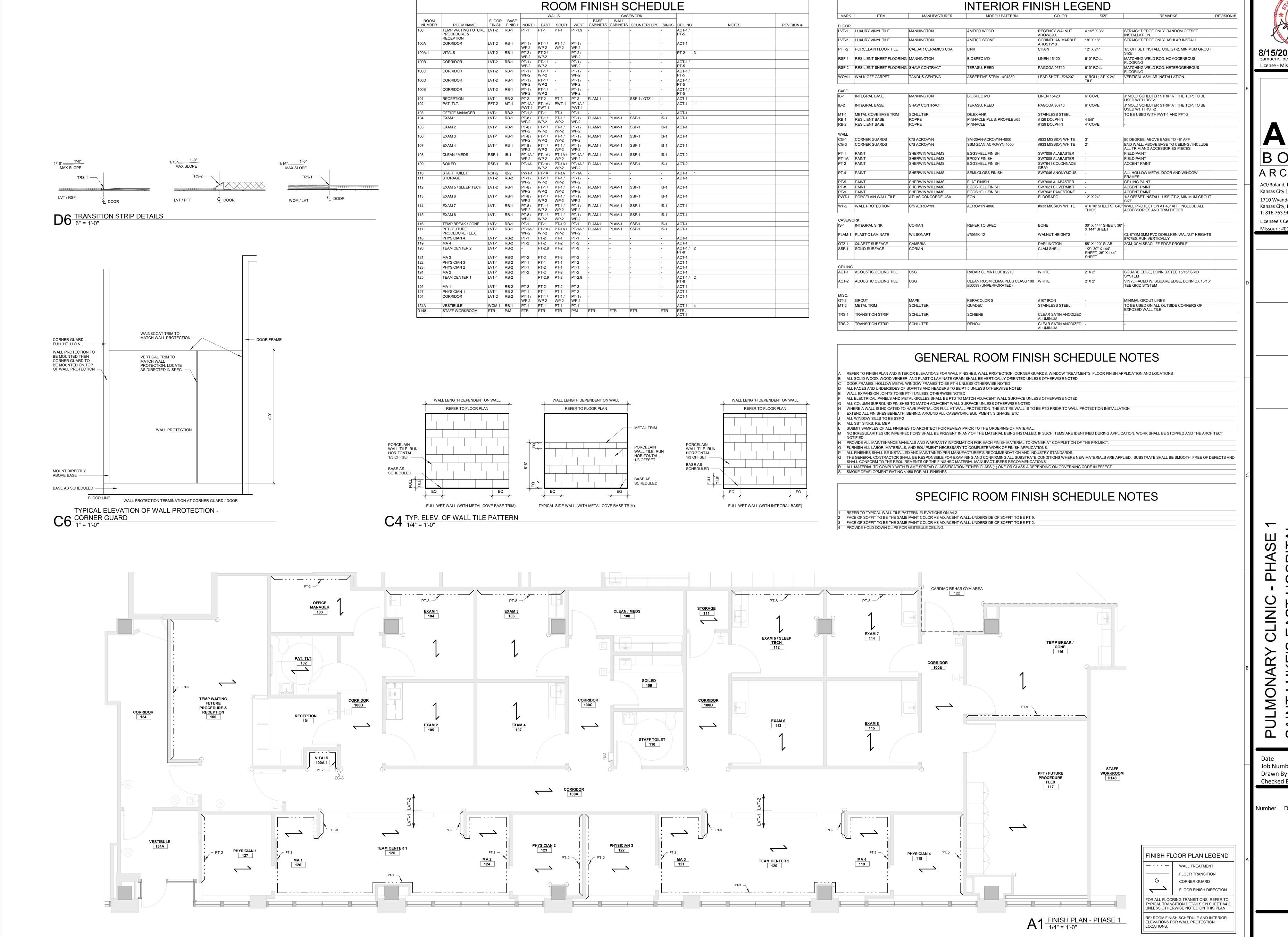
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JACE BLVD. MO 64086

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DOOR AND FRAME SCHEDULE AND DETAILS



SAMUEL

CONSTRUCTION

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**IOSPIT** 

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ROOM FINISH SCHEDULE & FINISH

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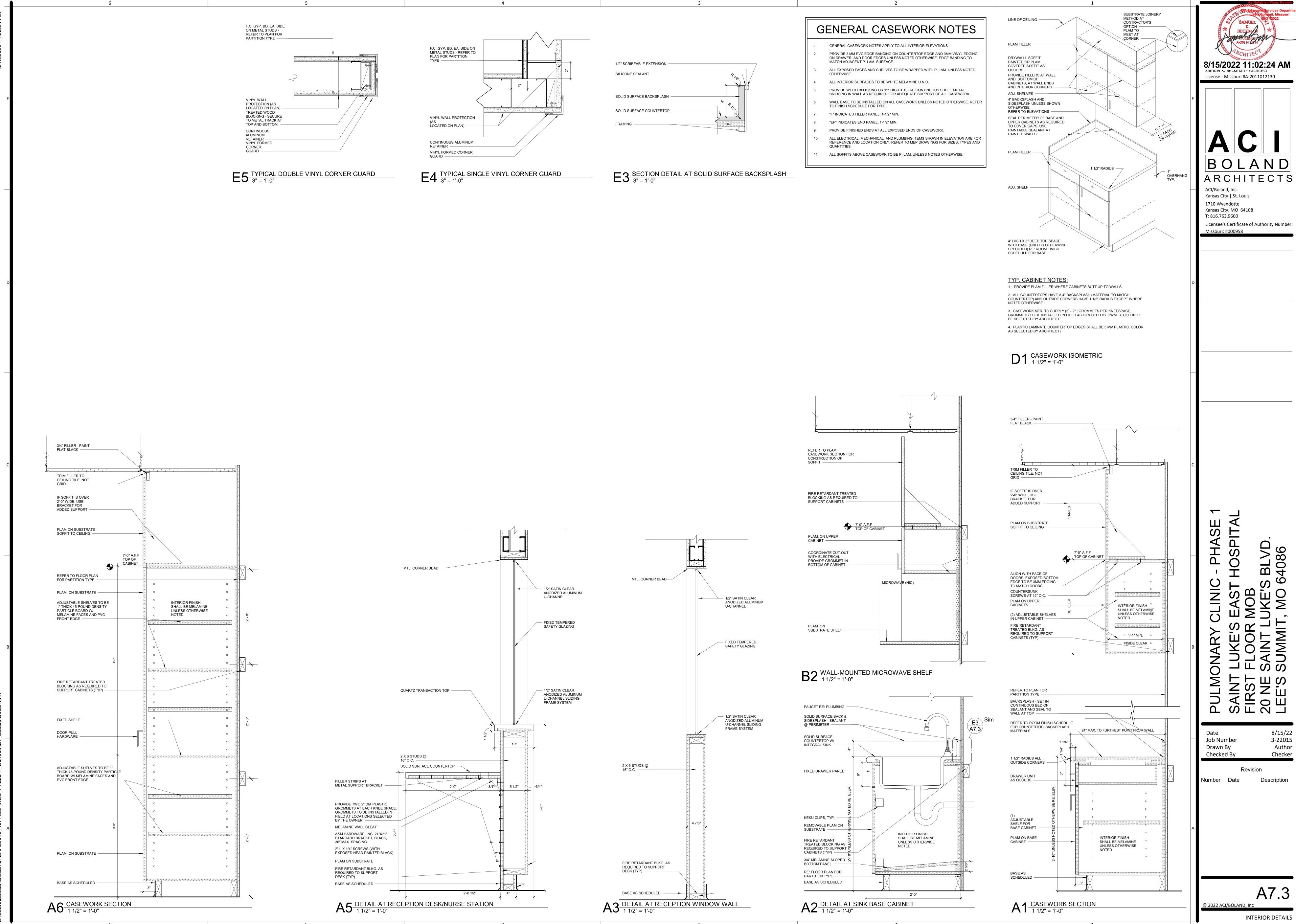
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Number Date

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INTERIOR ELEVATIONS



INTERIOR DETAILS

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ELECTRICAL LEGEND

E0.1

ELECTRICAL LEGEND **ABBREVIATIONS** THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS **LIGHTING** FIRE ALARM AMPS, AIR (COMPRESSED) POWER ONE LINE AND RISER ABOVE COUNTER **FUSE RATING** ABOVE FINISHED CEILING UPPER CASE LETTER DENOTES LUMINAIRES TYPE. LOWER CASE LETTER AREA FOR EVACUATION ASSISTANCE PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER ADJACENT TO LUMINAIRE INDICATES SWITCH THAT CONTROLS LUMINAIRES. FIRE ALARM CONTROL PANEL ABOVE FINISHED FLOOR SURFACE MOUNTED XXX MOUNTING IS NOTED ON LUMINAIRE SCHEDULE ABOVE FINISHED GRADE FARA FIRE ALARM REMOTE ANNUNCIATOR PANEL AMPERE INTERRUPTING CURRENT PANEL PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER FATC FIRE ALARM CONTROL PANEL RECESS MOUNTED LIFE SAFETY POWER SHADING **AUTOMATIC TRANSFER SWITCH** BACP BACKUP FIRE ALARM CONTROL PANEL AMERICAN WIRE GAUGE AUDIO VISUAL SUBSCRIPTS ADJACENT DEVICES INDICATE THE FOLLOWING: HVAC HVAC FIRE ALARM CONTROL PANEL CRITICAL POWER SHADING **BELOW FINISHED FLOOR** CURRENT TRANSFORMER, RATED AS SPECIFIED OR REQUIRED G = GFCI **EVAC** VOICE EVACUATION FIRE ALARM CONTROL PANEL BREAKER T = TAMPER RESISTANT H = HOSPITAL GRADE **BOTTOM OF STRUCTURE** SCP AC = MOUNT 6" ABOVE COUNTER OR BACKSPLASH UC = MOUNT 12" UNDER COUNTER FIRE ALARM SMOKE CONTROL PANEL BRITISH THERMAL UNIT MOTOR: HORSEPOWER AS INDICATED ON PLANS OR DIAGRAMS RECESSED LUMINAIRE USB = DEVICE WITH USB CHARGING PORT FIRE ALARM NOTIFICATION CIRCUIT PANEL CABLE TELEVISION SYSTEM M2W SPD SURGE PROTECTION DEVICE FIRE ALARM MASTER 2-WAY CONTROL PANEL CLOSED CIRCUIT TELEVISION 20 AMP, 125V, NEMA 5-20R SIMPLEX RECEPTACLE AMP SURFACE LUMINAIRE FIRE ALARM AMPLIFIER RACK PANEL CEILING **GROUND CONNECTION** 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE COFFEE MAKER MIC FIRE ALARM MICROPHONE PANEL CURRENT TRANSFORMER CIRCUIT BREAKER, RATING AS SHOWN. LSIG DENOTES ELECTRONIC TRIP COPPER, CONDENSING UNIT WALL MOUNTED LUMINAIRE SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE UNIT WITH ADJUSTABLE SETTINGS FOR: L= LONG TIME TRIP DELAY, S= **CLOTHES WASHER** LSIG SHORT TIME TRIP DELAY, I= INSTANTANEOUS, G= GROUND FAULT **DEMOLISHED** SMOKE DETECTOR, EARLY WARNING LASER DETECTION 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE, MOUNTED 6" ABOVE SWITCH, RATING AS SHOWN LINEAR PENDANT LUMINAIRE COUNTER AND/OR ABOVE BACKSPLASH, UNLESS OTHERWISE NOTED DOUBLE POLE, DOUBLE THROW 800A3P DOUBLE POLE, SINGLE THROW CARBON MONOXIDE DETECTOR 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE, MOUNTED 6" ABOVE DISHWASHER FUSE, FUSE AMPACITY AND TYPE AS SHOWN COUNTER AND/OR ABOVE BACKSPLASH, UNLESS OTHERWISE NOTED PENDANT LUMINAIRE (FD) FLAME DETECTOR ELECTRIC CLOTHES DRYER FRN 20 AMP, 125V, SPLIT CIRCUIT DUPLEX RECEPTACLE CONNECTED TO NORMA **FNCLOSURE** POWER WITH THE TOP RECEPTACLE CONTROLLED THROUGH RELAY AND THE **HEAT DETECTOR** EMERGENCY POWER OFF UTILITY METER (AS REQUIRED BY UTILITY) BOTTOM RECEPTACLE UNCONTROLLED. RECEPTACLE SHALL BE FACTORY EXISTING TO REMAIN STRIP TYPE LUMINAIRE, LENGTHS AS NOTED ON LUMINAIRE SCHEDULE MARKED IN ACCORDANCE TO NEC 406.6(E). THE CONTROLLED RECEPTACLE ELECTRIC WATER COOLER GAS DETECTOR MARKING SHALL BE PRINTED ON THE FACE OF THE RECEPTACLE TO FURNISHED BY OTHERS DIFFERENTIATE THE CONTROLLED RECEPTACLE FROM THE OTHER SAFETY SWITCH, NON-FUSED, 240V, U.N.O. FINISHED FLOOR RECEPTACLES. SURFACE MOUNTED DOWNLIGHT DUCT SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC FIRE HOSE CABINET FULL LOAD AMPS 20 AMP, 125V, SPLIT CIRCUIT DOUBLE DUPLEX RECEPTACLE CONNECTED TO FUSED DISCONNECT RECESSED MOUNTED DOWNLIGHT NORMAL POWER WITH LEFT DUPLEX RECEPTACLE CONTROLLED THROUGH FIRE ADA ALARM STROBE MOUNTED FRZR FRFF7FR RELAY AND THE RIGHT DUPLEX RECEPTACLE UNCONTROLLED. RECEPTACLE **FVNR** FULL VOLTAGE, NON REVERSING SHALL BE FACTORY MARKED IN ACCORDANCE TO NEC 406.6(E). THE COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED) CONTROLLED RECEPTACLE MARKING SHALL BE PRINTED ON THE FACE OF FIRE ADA ALARM HORN GROUND FAULT CIRCUIT INTERRUPTER WALL MOUNTED LUMINAIRE THE RECEPTACLE TO DIFFERENTIATE THE CONTROLLED RECEPTACLE FROM (PERSONAL PROTECTION ON DEVICE) THE OTHER RECEPTACLES. GROUND FAULT PROTECTED FROM UPSTREAM TRANSFORMER, TYPE AND RATING AS SHOWN GROUND FAULT RELAY FIRE ALARM AUDIBLE AND ADA STROBE LIGHT WALL WASH LUMINAIRE 20 AMP, 125V, NEMA 5-20R DUPLEX FLOOR RECEPTACLE, 3/4" CONDUIT CONDUIT CONNECTION RUN CONCEALED IN FLOOR SLAB HAND OFF AUTOMATIC FIRE ADA ALARM SPEAKER HORSEPOWER CIRCUIT BREAKER WITH GROUND FAULT PROTECTION RECESSED STEP LIGHT LUMINAIRE HIGH PRESSURE SODIUM 20 AMP, 125V, NEMA 5-20R CEILING FLOOR RECEPTACLE, 3/4" CONDUIT FIRE ALARM SPEAKER AND ADA STROBE LIGHT HEATER 20 AMP, 125V, NEMA 5-20R QUAD FLOOR RECEPTACLE, 3/4" CONDUIT RUN FUSE WITH GROUND FAULT PROTECTION TRACK LUMINAIRE AVAILABLE SHORT-CIRCUIT CURRENT (AMPS) CONCEALED IN FLOOR SLAB ISOLATED GROUND FIRE ADA ALARM STROBE CEILING MOUNTED 20 AMP, 125V, NEMA 5-20R QUAD CEILING RECEPTACLE, 3/4" CONDUIT CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED  $t \otimes t \stackrel{\leftrightarrow}{\otimes}$ 1000 CIRCULAR MILS **AUTOMATIC TRANSFER SWITCH** FIRE ADA ALARM HORN CEILING MOUNTED KILOVOLT AMPS JUNCTION BOX, WALL MOUNTED KILOVOLT AMPS REACTIVE **GROUND CONNECTION WITH TEST WELL** KII OWATT EMERGENCY BATTERY LUMINAIRE (2 HEAD) 84" AFF, UNLESS OTHERWISE NOTED FIRE ALARM AUDIBLE AND ADA STROBE LIGHT CEILING MOUNTED KILOWATT HOUR JUNCTION BOX, FLOOR MOUNTED **GROUND ROD** LIGHT EMITTING DIODE JUNCTION BOX, CEILING MOUNTED LINEAR FEET EMERGENCY BATTERY LUMINAIRE (2 HEAD) WITH MOUNTED EXIT SIGN. FIRE ADA ALARM SPEAKER CEILING MOUNTED POLE MOUNTED UTILITY TRANSFORMER LOCKED ROTOR AMPS PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED MOUNT AT 84" AFF, UNLESS OTHERWISE NOTED SPECIAL RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN MASTER ANTENNA TELEVISION SYSTEM FIRE ALARM SPEAKER AND ADA STROBE LIGHT CEILING MOUNTED MINIMUM CIRCUIT AMPACITY **ENGINE GENERATOR** WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED MAIN CIRCUIT BREAKER SPECIAL RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN MOTOR CONTROL CENTER FIRE ALARM MANUAL PULL STATION, ADDRESSABLE DOUBLE ACTION MOTORIZED DAMPER MAIN DISTRIBUTION PANEL SPECIAL RECEPTACLE, CEILING MOUNTED, CONFIGURATION AS NOTED ON PLAN MAGNETIC DOOR HOLDER SHUNT TRIP MULTI-FUNCTION PRINTER SINGLE POLE MOUNTED, EXTERIOR LUMINAIRE MANUFACTURER FIRE ALARM FLOW SWITCH MANHOLE POWER (SERVICE) POLE MAIN SWITCHBOARD SHORT CIRCUIT TAG DESIGNATION FIRE ALARM TAMPER SWITCH MOUNTED **□•**□ DOUBLE POLE MOUNTED, EXTERIOR LUMINAIRE FURNITURE FEED RECEPTACLE, FLOOR MOUNTED, CONFIGURATION MICROWAVE FEEDER TAG DESIGNATION (XXXX) FIRE ALARM CONTROL MODULE (W/ INPUT/OUTPUT MODULE) NOTED ON PLAN NOT APPLICABLE QUAD POLE MOUNTED, EXTERIOR LUMINAIRE POWER POKE THRU CONNECTION, FLOOR MOUNTED, CONFIGURATION AS RTS DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST NOT IN CONTRACT NOTED ON PLAN N/O,N/C NORMALLY OPEN, NORMALLY CLOSED TWO WAY COMMUNICATION MASTER STATION NIGHT LIGHT FURNITURE FEED RECEPTACLE, WALL MOUNTED, CONFIGURATION **BOLLARD LUMINAIRE** ON CENTER CONDUIT DESIGNATIONS TWO WAY CALL STATION OVEN NOTED ON PLAN POWER DISTRIBUTION UNIT **CEILING FAN** PLUGMOLD, REFER TO DRAWING FOR LENGTHS XX-XXX PANEL NAME - CIRCUIT NUMBER **PROJECTOR** BRANCH CIRCUITS HOMERUN USE NUMBER 12 AWG WIRE, UNLESS STD. MOUNTING HEIGHTS U.N.O. PLOTTER OTHERWISE NOTED. ALL CIRCUITS SHALL CONTAIN A GROUND AND SAFETY SWITCH, NON-FUSED, 240V, U.N.O. PANFI SINGLE POLE SWITCH NEUTRAL CONDUCTOR, UNLESS NOTED OTHERWISE. CONTRACTOR PRINTER (SMALL) PRINT (SWITCH LOWER CASE LETTER INDICATES DEVICE CONTROL) SHALL PROVIDE MULTI-WIRE CIRCUIT HANDLE TIES AS FINAL FIELD POTENTIAL TRANSFORMER ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS **FUSED DISCONNECT** 3= THREE WAY SWITCH 4= FOUR WAY SWITCH INSTALLED WIRING REQUIRES. INDICATED ON ELECTRICAL DRAWINGS. DIMENSION TO CENTERLINE UNO. K= KEYED SWITCH D= DIMMER SWITCH QUANTITY TO= MOTOR THERMAL OVERLOAD SWITCH T= TIMER PANEL NAME - CIRCUIT NUMBER COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED) RELOCATED HOA=HAND-OFF-AUTOMATIC P= PILOT LIGHT HOME RUNS SHALL USE #12 AWG WIRE UNO. **RETURN AIR** RECEPTACLES OS= OCCUPANCY SENSOR VS= VACANCY SENSOR RANGE\STOVE COMBINATION DISCONNECT, WITH RECEPTACLE, REFER TO DRAWING FOR RANGE CONDUIT AND WIRE CONCEALED, 3/4" UNLESS OTHERWISE NOTED, LVD= LOW VOLTAGE DIMMER M=MOTOR SPEED CONTROL RECEPTACLES IN EQUIPMENT ROOMS REFLECTED CEILING PLAN CONDUIT USED FOR SWITCH LEGS, AND CONDUIT USED FOR CONTROL RECEPTACLES (EXTERIOR) REFRIGERATOR LOW VOLTAGE LIGHTING CONTROL DEVICE, REFERENCE SCHEDULE REVISION PHOTOCELL RECEPTACLES (GARAGES) RELATIVE HUMIDITY CONDUIT AND WIRE EMBEDDED IN CONCRETE OR BELOW GRADE **RUNNING LOAD AMPS** ALARMS, SWITCHES AND CONTROLS **EMERGENCY POWER OFF (EPO) BUTTON** REVOLUTIONS PER MINUTE SAFETY SWITCHES CEILING MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT ADA DOOR OPENER CONDUIT TURNING DOWN ADA ADA DOOR OPENER SMOKE DETECTOR STARTERS 48" WALL MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT SQUARE FEET CONDUIT TURNING UP PANELS (TOP) SINGLE POLE, DOUBLE THROW SELF-REGULATING HEATED CABLE - LENGTH AS SHOWN IN DRAWINGS. REFERENCE ELECTRICAL/PLUMBING PLANS FOR SPECIFICATION OF SINGLE POLE, SINGLE THROW FIRE ALARM PULL STATIONS (HANDLE) STATIC PRESSURE CONDUIT CONTINUATION 96" OR 6" BELOW CEILING, WHICHEVER IS LOWER **MISCELLANEOUS** COMPLETE HEAT-TRACE SYSTEM. ARROW DENOTES DIRECTION SWBD SWITCHBOARD FIRE ALARM BELLS (EXTERIOR) 12'-0" TWISTLOCK CONDUIT CAPPED FOR FUTURE USE FIRE ALARM CONTROL PANELS (TOP) 66" TELEVISION ANNUNCIATION PANELS 48" TYPICAL  $\langle X \rangle$  KEY NOTE DESIGNATION REMOTE INDICATING LIGHTS (EQUIPMENT ROOMS) UNDERFLOOR REMOTE INDICATING LIGHTS (FINISHED AREAS) CEILING KEY NOTE DESIGNATION UNDERGROUND UNDER SLAB EXIT SIGNS (WALL MOUNTED BOTTOM) 6" ABOVE DOOR UNDERWRITERS LABORATORIES, INC. 48" TO TOP MAXIMUM HEIGHT OF OPERABLE COMPONENTS REVISION NUMBER DESIGNATION UNI ESS NOTED OTHERWISE UNINTERRUPTIBLE POWER SUPPLY 12'-0" PHOTOCELLS RECEPTACLE W/ INTEGRATED USB PORT NEW TO EXISTING CONNECTION VOLTS ALTERNATING CURRENT, VACUUM DEMO TO EXISTING CONNECTION VENDING MACHINE (XX) SPECIALTY EQUIPMENT (BY OTHERS) WITH WITHOUT WEATHERPROOF WATERTIGHT, WEIGHT XFMR TRANSFORMER EXPLOSION PROOF

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**ELECTRICAL NOTES** 

Sheet No.: E0.2

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ELECTRICAL REMODEL NOTES

REMOVE BOLD ITEMS INDICATED ON PLAN. ITEMS INDICATED WITH (E) ARE EXISTING TO REMAIN. MAINTAIN CIRCUITING TO EXISTING ITEMS OR RECIRCUIT AS INDICATED ON PLANS.

EXISTING INFORMATION INDICATED ON THE DRAWINGS HAS BEEN TAKEN FROM OWNER FURNISHED DRAWINGS AND / OR LIMITED FIELD OBSERVATIONS. THE ELECTRICAL CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS PRIOR TO BIDDING AND PROVIDE REMOVAL AND/OR RELOCATION OF EXISTING CONDUITS, CONDUCTORS, DEVICES, FIXTURES, OR OTHER EQUIPMENT AS INDICATED ON THE PLANS OR AS REQUIRED TO COORDINATE WITH THE NEW

REFER TO ARCHITECTURAL DEMOLITION DRAWINGS FOR LOCATION AND EXTENT OF DEMOLITION REQUIRED. PROVIDE ELECTRICAL DEMOLITION REQUIRED. CONTRACTOR SHALL VISIT SITE PRIOR TO BID TO DETERMINE EXTENT OF WORK INVOLVED. PROVIDE LABOR AND MATERIALS AS REQUIRED TO MAINTAIN AND/OR RESTORE CONTINUITY OF SERVICE TO EXISTING CIRCUITS.

REMOVE EXISTING UNUSED CONDUIT, WIRE, CABLE, JUNCTION BOXES, DEVICES, LIGHTS, FIRE ALARM COMPONENTS, AND ELECTRICAL APPURTENANCES. COMPLETE WITH ASSOCIATED CIRCUITING TO SOURCE. WHERE IT IS NOT FEASIBLE TO REMOVE THE ABOVE, DEVICE AND WIRE SHALL BE REMOVED,

SYSTEM OUTAGES SHALL BE PERMITTED ONLY AT TIMES APPROVED BY OWNER. IN WRITING. WORK WHICH COULD RESULT IN AN ACCIDENTAL OUTAGE (BEYOND BRANCH CIRCUITS) SHALL BE PERFORMED WITH THE OWNER'S MAINTENANCE

PERMISSIBLE, VERIFY THE CONDUCTORS ARE CONTINUOUS AND MODIFICATIONS IN THIS PHASE OF WORK WILL NOT RENDER EXISTING DEVICES OR JUNCTION BOXES INACCESSIBLE. RELOCATE JUNCTION BOXES OR DEVICES WHICH ARE MADE INACCESSIBLE FROM WORK PERFORMED. RESUPPORT EXISTING ITEMS AS REQUIRED BY CODE.

CLEAN AND RELAMP EXISTING FIXTURES WHICH ARE REMOVED AND REINSTALLED.

B. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ITEMS REMOVED AS PART OF DEMOLITION. REMOVE AND PROPERLY DISPOSE OF DEMOLISHED ITEMS.

REPLACE OR REPAIR, TO ORIGINAL CONDITION, DAMAGE CAUSED BY THE CONTRACTOR WHETHER EQUIPMENT APPEARS TO BE CURRENTLY IN USE OR NOT, UNLESS WRITTEN AUTHORIZATION FROM THE OWNER INDICATES TO OWNER PRIOR TO BEGINNING WORK.

BUILDING GROUNDING / LIGHTNING PROTECTION SYSTEMS PRIOR TO ANY EXCAVATION. REPLACE OR REPAIR DAMAGED UTILITIES AND GROUNDING / LIGHTNING PROTECTION SYSTEMS TO ORIGINAL CONDITION.

COORDINATE THE LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND DEVICES WITH ARCHITECTURAL DRAWINGS. WHERE LUMINAIRES OR DEVICES

2. CONNECT EMERGENCY LIGHTING AND EXIT SIGNS AHEAD OF LOCAL SWITCHING.

RACEWAY ABANDONED, AND BLANK COVER PLATES PROVIDED.

PERSONNEL ADVISED OF SUCH WORK. WHERE THE REUSE OF EXISTING RACEWAYS, CONDUCTORS, DEVICES, ETC. IS

PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT

10. FIELD LOCATE EXISTING UNDERGROUND PUBLIC AND OWNER UTILITIES AND

11. IF SUSPECTED HAZARDOUS MATERIALS ARE ENCOUNTERED IN ANY EXISTING BUILDING COMPONENTS THAT WILL BE DISTURBED DURING THE PROJECT, IMMEDIATELY NOTIFY OWNER/ARCHITECT PRIOR TO DISRUPTION OF THE MATERIAL

**ELECTRICAL LIGHTING NOTES** 

ARE NOT SPECIFICALLY INDICATED, COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.

3. COORDINATE PENDANT HUNG INDUSTRIAL STRIP(S) IN UNFINISHED AREAS WITH PIPING, DUCTWORK, EQUIPMENT, CABLE TRAY, ETC. TO AVOID CONFLICTS. MAKE MINOR ADJUSTMENTS TO LUMINAIRE LOCATIONS AS REQUIRED.

RECESSED LIGHT FIXTURES INSTALLED IN GYP. BOARD OR PLASTER CEILINGS SHALL HAVE PLASTER FRAMES INSTALLED PRIOR TO CEILING MATERIAL.

FIXTURES RECESSED IN "T-BAR" CEILING SHALL BE SUPPORTED INDEPENDENTLY OF CEILING SYSTEM WITH HANGER WIRES UP TO STRUCTURE. SECURE HANGER WIRES TO CORNERS OF FIXTURE. CLIP FIXTURE TO GRID ON TWO SIDES WITH FACTORY-FURNISHED CLIPS. FINAL ELECTRICAL CONNECTION TO FIXTURE SHALL BE MADE WITH FLEXIBLE CONDUIT OR UL LISTED ASSEMBLY.

VERIFY TRIM COMPATIBILITY WITH CEILING TYPE INDICATED IN ARCHITECTURAL REFLECTED CEILING PLAN PRIOR TO ORDERING LUMINAIRES. MODIFY TRIMS AS REQUIRED TO WORK WITH SPECIFIED CEILINGS.

7. LOSS OF UTILITY POWER SHALL ENERGIZE EMERGENCY EGRESS LIGHTING. COMPONENTS OF SYSTEM SHALL BE UL LISTED FOR EMERGENCY TRANSFER.

PROVIDE COSTS FOR ADDING 3 ADDITIONAL EXIT SIGNS PER LEVEL AS REQUIRED BY THE FIRE MARSHAL AT THE TIME OF FINAL INSPECTION. LOCATE AS REQUIRED BY FIRE MARSHAL.

PROVIDE OCCUPANCY/VACANCY SENSOR RELAYS AND POWER PACKS FOR LIGHTING CONTROL FUNCTION INDICATED. PROVIDE 1 SET OF AUXILIARY CONTACTS IN LOW VOLTAGE SENSORS FOR HVAC CONTROLS.

10. SET VACANCY/OCCUPANCY SENSORS TO 15 MINUTE TIME DELAY UNLESS NOTED OTHERWISE. DO NOT EXCEED MAXIMUM CODE REQUIRED TIME DELAY.

11. CONNECT OCCUPANCY SENSOR(S) AHEAD OF LOCAL LIGHTING CONTROLS.

12. WHERE MULTIPLE VACANCY/OCCUPANCY SENSORS ARE LOCATED IN THE SAME ROOM OR SPACE, CONNECT SO EACH SENSOR CONTROLS ALL LIGHTING (EXCEPT NON-SWITCHED EMERGENCY LIGHTING) WITHIN THAT ROOM OR

13. PROVIDE LOW VOLTAGE VACANCY/OCCUPANCY SENSORS WHERE MULTIPLE SENSORS ARE USED TO CONTROL THE SAME LUMINAIRE(S).

14. PROVIDE WALL MOUNTED VACANCY/OCCUPANCY SENSOR TO MATCH THE SPECIFIED DEVICE COLOR.

15. INSTALL WALL MOUNTED OCCUPANCY SENSOR IN VACANCY MODE.

16. VACANCY/OCCUPANCY SENSOR VENDOR SHALL PROVIDE LAYOUT OF DEVICES AND PROPER DEVICE SELECTION FOR COMPLETE COVERAGE OF AREAS. SUBMIT SHOP DRAWINGS WHICH INDICATE LOCATIONS AND DEVICE TYPE AT EACH LOCATION. PROVIDE ADDITIONAL DEVICES AS REQUIRED. CONTRACTOR SHALL ADJUST DEVICES AS REQUIRED SO THE COVERAGE AREA CORRESPONDS TO THE AREA CONTROLLED AND SHALL RETURN TO SITE AS REQUIRED WITHIN 1 YEAR OF FINAL COMPLETION TO READJUST OR REPLACE ANY DEVICE WHICH IS NOT PROPERLY FUNCTIONING. THE LOCATION OF THE VACANCY/OCCUPANCY SENSOR(S) ON THESE DRAWING ARE DIAGRAMMATIC.

17. DO NOT LOCATE VACANCY/OCCUPANCY SENSORS WITHIN 3' OF AN HVAC SUPPLY DEVICE.

18. CEILING MOUNTED VACANCY/OCCUPANCY SENSORS SHALL BE DUAL

### FIRE ALARM GENERAL NOTES

PROVIDE FIRE ALARM SYSTEM DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET ADOPTED CODES. THE SYSTEM SHALL BE COMPLETE AND OPERATIONAL IN EVERY RESPECT. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT INDICATES DEVICES, CONDUIT, WIRE, CABLE SIZES AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.

### **ELECTRICAL GENERAL NOTES**

DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.

REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND OTHER DRAWINGS FOR ADDITIONAL SCOPE REQUIREMENTS PRIOR TO BID.

WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE

WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE CURRENT

ADOPTED EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND STANDARDS.

OBTAIN PERMITS AND INSPECTIONS REQUIRED.

SATISFACTION OF THE ARCHITECT/ENGINEER.

3. FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT SUPPLIED.

CONTRACTOR SHALL REPLACE EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS CONTRACT.

CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT IN A TIMELY MANNER WILL NOT BE ACCEPTED AS A REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.

SYSTEMS SHALL BE COMPLETE, AND READY FOR CONTINUOUS OPERATION.

10. DEVICE BOXES SHALL BE MINIMUM 4" SQUARE.

11. PROVIDE NEW UPDATED TYPED PANELBOARD DIRECTORIES FOR PANELS MODIFIED OR INSTALLED AS A PART OF THIS PROJECT.

12. CONDUITS PENETRATING THROUGH ROOF SHALL BE APPROVED BY OWNER'S ROOFING CONTRACTOR. INSTALLATION SHALL BE WATERTIGHT AND PERFORMED BY OWNER'S ROOFING CONTRACTOR AT ELECTRICAL CONTRACTOR'S EXPENSE.

13. FINAL CONNECTIONS TO MOTORS, TRANSFORMERS, AND OTHER VIBRATING EQUIPMENT SHALL BE WITH FLEXIBLE CONDUIT AND APPROVED FITTINGS THAT DO NOT REDUCE THE USABLE INTERNAL DIAMETER OF THE CONDUIT. REFERENCE SPECIFICATIONS FOR SPECIFIC PRODUCTS. DO NOT SECURE CONDUITS, DISCONNECTS, OR DEVICES TO DUCTWORK OR MECHANICAL EQUIPMENT.

14. WHERE PANELS ARE INSTALLED FLUSH WITH WALLS, EMPTY CONDUITS SHALL BE EXTENDED FROM THE PANEL TO AN ACCESSIBLE SPACE ABOVE OR BELOW. A MINIMUM OF ONE 3/4" CONDUIT SHALL BE INSTALLED FOR EVERY THREE SINGLE POLE SPARE CIRCUIT BREAKERS OR SPACES, OR FRACTION THEREOF, BUT NOT LESS THAN TWO CONDUITS.

15. ELECTRICAL SYSTEMS COMPONENTS SHALL BE LISTED OR LABELED BY UL OR OTHER RECOGNIZED TESTING FACILITY.

16. PROVIDE AN INSULATED GROUND CONDUCTOR WITH EACH LINE VOLTAGE

17. PROVIDE A DEDICATED NEUTRAL CONDUCTOR FOR EACH BRANCH CIRCUIT REQUIRING A NEUTRAL CONDUCTOR. PROVIDE MULTI-POLE BREAKERS FOR EACH MULTI-WIRE BRANCH CIRCUIT SERVING EQUIPMENT OR FURNITURE.

18. REFERENCE DIVISION 22 AND 23 DRAWINGS AND SPECIFICATIONS FOR LOCATION AND REQUIREMENTS OF MECHANICAL AND PLUMBING EQUIPMENT. PROVIDE SERVICE TO AND CONNECT EQUIPMENT AS REQUIRED.

19. PROVIDE FUSES SIZED PER MANUFACTURERS RECOMMENDATIONS.

20. COORDINATE THE EXACT MOUNTING LOCATIONS OF WALL AND FLOOR DEVICES WITH ARCHITECTURAL AND EQUIPMENT PLANS AND ELEVATIONS.

21. REFER TO TECHNOLOGY DRAWINGS AND SPECIFICATIONS FOR LOW-VOLTAGE SYSTEMS INFRASTRUCTURE REQUIREMENTS. ELECTRICAL CONTRACTOR SHALL PROVIDE ALL CONDUITS AND BACKBOXES REQUIRED FOR LOW-VOLTAGE SYSTEMS.

22. RACEWAYS SHALL NOT BE ROUTED HORIZONTALLY ABOVE ROOF. RACEWAY SHALL PENETRATE ROOF AT LOCATION OF EQUIPMENT SERVED.

23. FIELD LOCATE EXISTING UNDERGROUND PUBLIC AND OWNER UTILITIES AND BUILDING GROUNDING/LIGHTNING PROTECTION SYSTEMS PRIOR TO ANY EXCAVATION. REPLACE OR REPAIR DAMAGED UTILITIES AND GROUNDING/LIGHTNING PROTECTION SYSTEMS TO ORIGINAL CONDITION.

24. PROVIDE FAN RATED BOXES CAPABLE OF SUPPORTING 70 POUNDS FOR BACK BOXES USED TO SUPPORT CEILING FANS.

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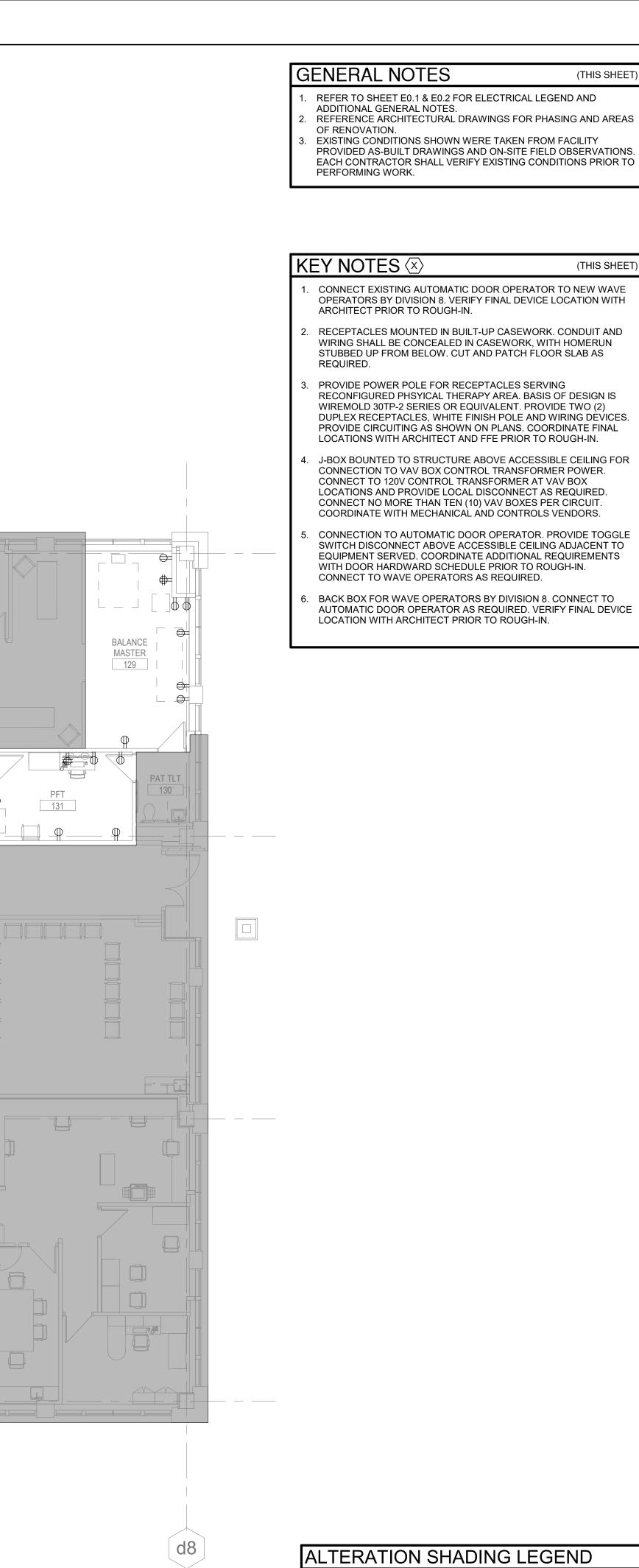
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AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION

Sheet No.:

SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY.

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D1-12-LN-2

D1-14-LEM-27 TB-1-03

PHASE 1 - FIRST FLOOR POWER PLAN

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

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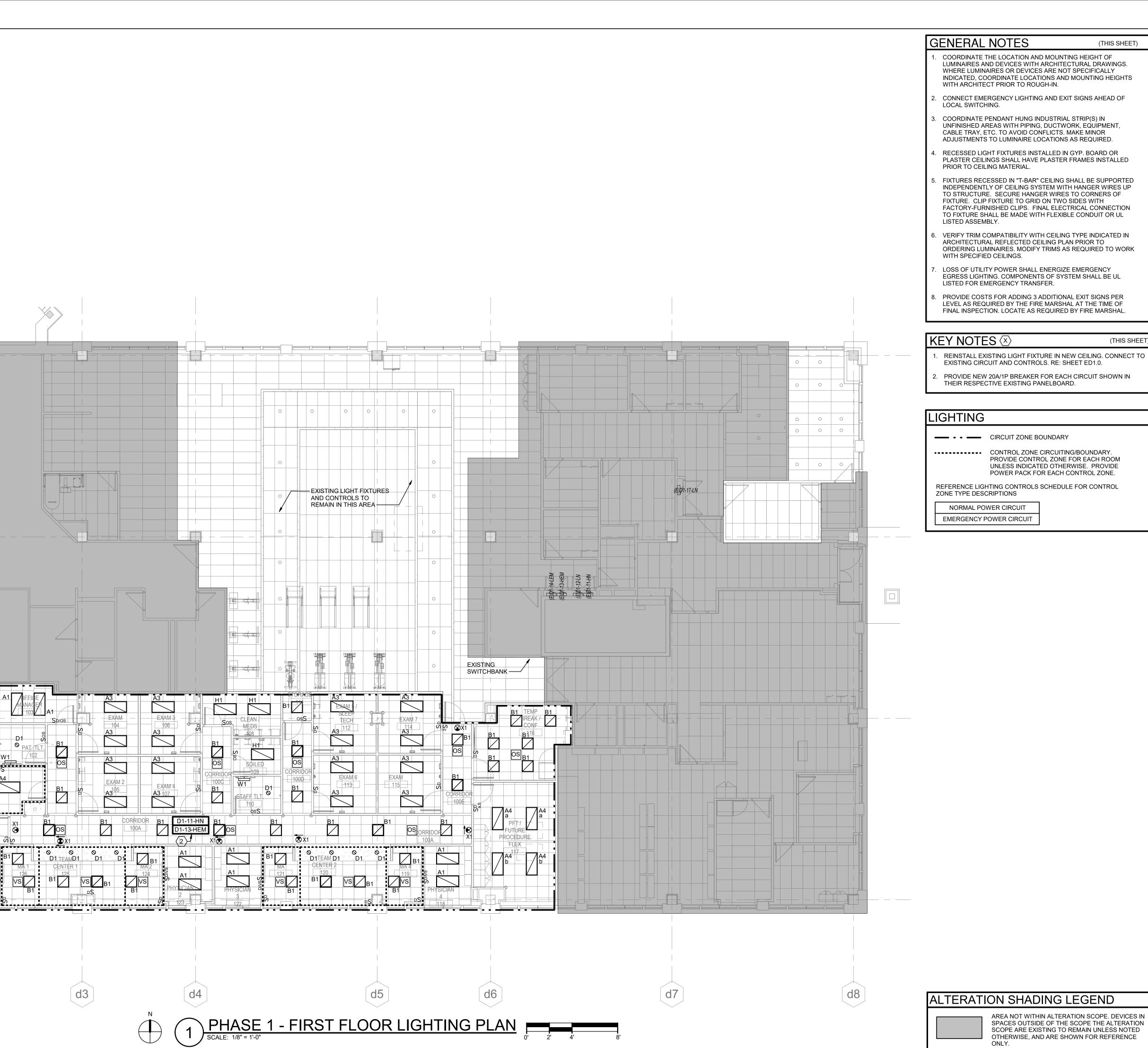
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PHASE 1 - FIRST FLOOR LIGHTING PLAN

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**BranchPattern** 

EAST HOSPITAL MOB UKE'S BLVD. , MO 64086 ULMONARY PHASE 1 - P SAINT LUKE'S E FIRST FLOOR N 100 NE SAINT L LEE'S SUMMIT,

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Reviewed By: JB Project No:

1203001 Date: 08/15/22

Submittal Level: 100% CDs

PHASE 1 - FIRST FLOOR FIRE ALARM PLAN

Sheet No.:

AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION

SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY.

Sheet Title:

E3.1

GENERAL NOTES (THIS SHEET)

REFER TO SHEET E001 & E002 FOR SYMBOL LEGEND AND

ADDITIONAL GENERAL NOTES. PROVIDE FIRE ALARM SYSTEM DEVICES, CONDUIT, WIRES AND CABLES AS DIRECTED BY EQUIPMENT MANUFACTURER. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET ADOPTED CODES. THE SYSTEM SHALL BE COMPLETE AND OPERATIONAL IN EVERY RESPECT. SHOP DRAWINGS SHALL INCLUDE A SINGLE LINE DIAGRAM THAT INDICATES DEVICES, CONDUIT, WIRE, CABLE SIZES, AND EQUIPMENT TO BE USED. SHOP DRAWINGS SHALL BE STAMPED AND SIGNED BY A REGISTERED ENGINEER PROVIDED BY THE FIRE ALARM VENDOR. SYSTEM CALIBRATION AND TESTING SHALL BE BY FACTORY CERTIFIED TECHNICIAN.

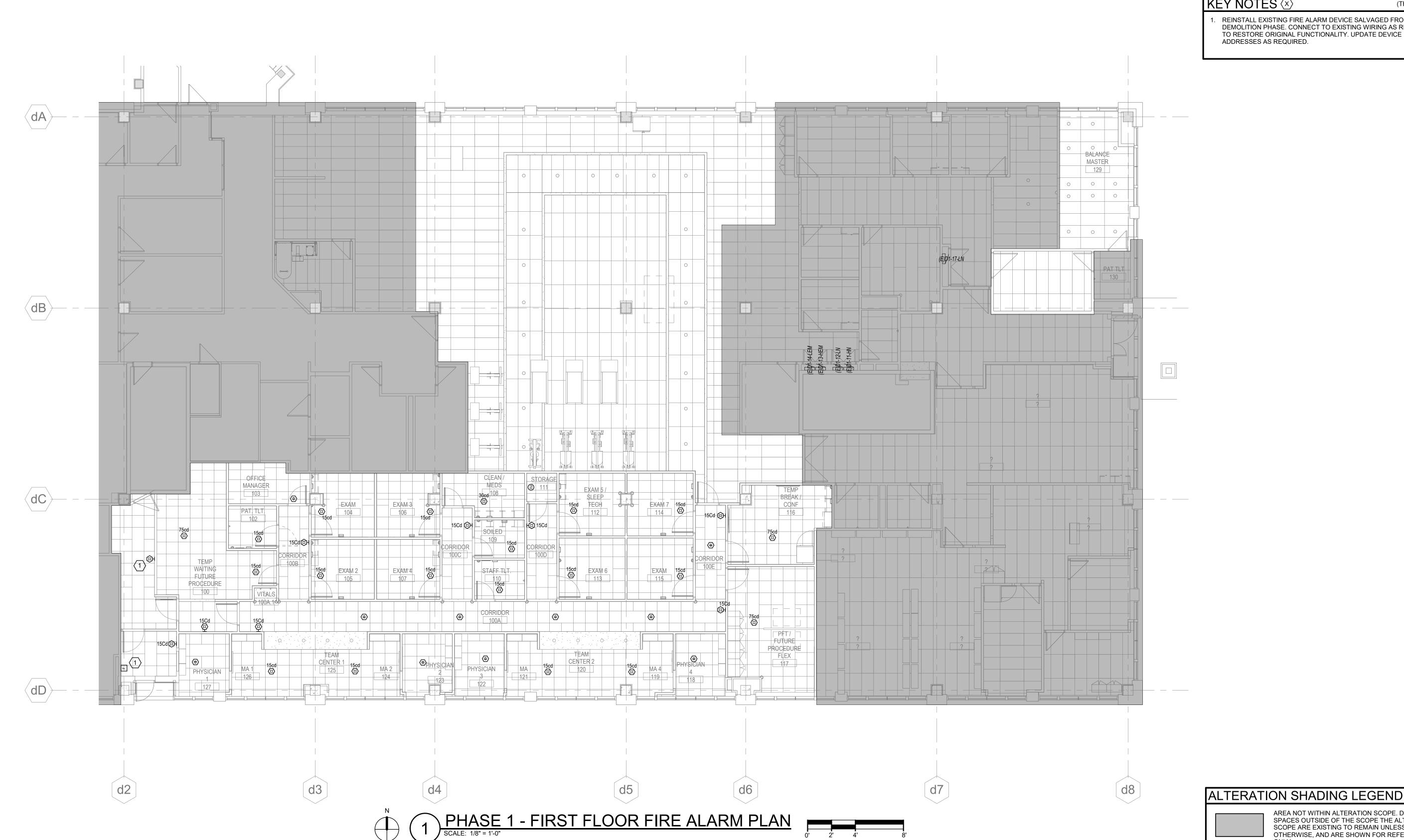
PROVIDE ALL REQUIRED EQUIPMENT FOR A FULLY FUNCTIONING DIGITAL ADDRESSABLE VOICE EVACUATION SYSTEM, TO INCLUDE AS NEEDED: POWER SUPPLIES FOR NACS, AMPLIFIERS FOR SPEAKER CIRCUITS, ANNUNCIATIORS, AND FIRE ALARM PANELS.

PROVIDE ALL NECESSARY CONNECTIONS TO POWERED DOORS TO ALLOW FREE EGRESS UPON ALARM CONDITIONS AS REQUIRED.

KEY NOTES 🗵

(THIS SHEET)

REINSTALL EXISTING FIRE ALARM DEVICE SALVAGED FROM DEMOLITION PHASE. CONNECT TO EXISTING WIRING AS REQUIRED TO RESTORE ORIGINAL FUNCTIONALITY. UPDATE DEVICE ADDRESSES AS REQUIRED.



Lee's Summit, Misso

RELEASED FOR CONSTRUCTION

Drawn By: Reviewed By: JB Project No: 1203001

08/15/22 Submittal Level: 100% CDs

Sheet Title: ELECTRICAL SCHEDULES

Sheet No.:

E5.0

	LUMINA	IRE SCH	IEDULE - INTERIO	OR						
FIXTURE	EIVTUDE DESCRIPTION	MANUFACTURER	CATALOG NUMBER		SOURC	E INFO				REMARK
TYPE	FIXTURE DESCRIPTION	WANUFACTURER	CATALOG NUMBER	TYPE	LUMENS	COLOR	CRI	INPUT VA	VOLTAGE	REWARK
A1	2' X 4' VOLUMETRIC LED RECESSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CURVED ACRYLIC CENTER DIFFUSER. 0-10V DIMMING DRIVER.	WILLIAMS	PT-24-L38/835-RA-(L32)-DIM-UNV	LED	3200 lm	3500K	80	26 VA	277 V	
A2	2' X 4' VOLUMETRIC LED RECESSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CURVED ACRYLIC CENTER DIFFUSER. 0-10V DIMMING DRIVER.	WILLIAMS	PT-24-L38/835-RA-DIM-UNV	LED	3800 lm	3500K	80	26 VA	277 V	
A3	2' X 4' VOLUMETRIC LED RECESSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CURVED ACRYLIC CENTER DIFFUSER. 0-10V DIMMING DRIVER.	WILLIAMS	PT-24-L49/835-RA-DIM-UNV	LED	4900 lm	3500K	80	38 VA	277 V	
A4	2' X 4' VOLUMETRIC LED RECESSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CURVED ACRYLIC CENTER DIFFUSER. 0-10V DIMMING DRIVER.	WILLIAMS	PT-24-L61/835-RA-DIM-UNV	LED	6100 lm	3500K	80	49 VA	277 V	
B1	2' X 2' VOLUMETRIC LED RECESSED TROFFER. COLD-ROLLED STEEL HOUSING, PAINTED AFTER FABRICATION, WITH CURVED ACRYLIC CENTER DIFFUSER.	WILLIAMS	PT-22-L26/835-RA-DRV-UNV	LED	2600 lm	3500K	80	22 VA	277 V	
D1	6" DIAMETER RECESSED LED DOWNLIGHT. ALUMINUM HOUSING AND HEAT SINK, GALVANIZED STEEL MOUNTING PAN WITH ADJUSTABLE MOUNTING ARMS. FLUSH PRISMATIC TEMPERED LENS, WIDE DISTRIBUTION, AND WHITE POWDER COAT TRIM.	WILLIAMS	6DR-TL-L10/835-DIM-UNV-L-W-OF-WH	LED	750 lm	3500K	80	9 VA	277 V	
H1	2' X 4' FLAT LENS LED TROFFER. COLD-ROLLED STEEL HOUSING AND DOOR FRAME, PAINTED AFTER FABRICATION, WITH FROSTED ACRYLIC LENS.	WILLIAMS	50G-S24-L33/835-S-AF12125-DRV-UNV	LED	3300 lm	3500K	80	25 VA	277 V	
W1	24" WALL MOUNTED LED VANITY FIXTURE. SATIN NICKEL FINISH MOUNTING HARDWARE AND END CAPS, WITH CURVED FROSTED LENS. ADA COMPLIANT. ARCHITECT TO CONFIRM FINISH PRIOR TO ORDERING.	TECH LIGHTING	700BCBAS-24-S-LED927-277	LED	1000 lm	2700K	90	24 VA	277 V	
X1	CEILING MOUNT LED EXIT SIGN WITH WHITE THERMOPLASTIC HOUSING. SEE PLANS FOR MOUNTING	WILLIAMS	EXIT-R-EM-WHT-D	LED				5 VA	277 V	
OFNEDAL										

a. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LUMINAIRES.

b. CONTRACTOR TO VERIFY LUMINAIRE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.

			LI	GHTIN	NG CO	NTRC	L SCH	IEDULE	
ZONE NAME	MANUAL CONTROL	OCCUPANCY SENSOR	VACANCY SENSOR	DAYLIGHT SENSOR	TIMECLOCK/ PHOTOCELL		SENSOR TIMEOUT (MIN.)	FUNCTIONAL DESCRIPTION	REMARKS
CONFERENCE/MEETING ROOM	DIMMER & SWITCH	Yes	No	No	No	CEILING	20	LOW VOLTAGE DIMMER SWITCH FOR MANUAL ON/MANUAL OFF AND DIMMING. MAINTAIN 30FC.	
COPY/PRINT ROOM	SWITCH	No	Yes	No	No	CEILING	20	SINGLE POLE SWITCH FOR MANUAL ON/MANUAL OFF.	
CORRIDOR/LOBBY	SWITCH	Yes	No	No	No	CEILING		EMERGENCY LUMINAIRES SHALL AUTOMATICALLY TURN ON TO 100% UPON LOSS OF NORMAL POWER.	
JANITOR/STORAGE ROOM, LARGE	SWITCH	No	Yes	No	No	CEILING	15	SINGLE POLE SWITCH FOR MANUAL ON/MANUAL OFF.	
JANITOR/STORAGE ROOM, SMALL	SWITCH	No	Yes	No	No	WALL	15	SINGLE POLE SWITCH FOR MANUAL ON/MANUAL OFF.	
LOUNGE/BREAKROOM	SWITCH	No	Yes	No	No	WALL/ CEILING	20	SINGLE POLE SWITCH FOR MANUAL ON/MANUAL OFF.	
OFFICE ROOM	DIMMER & SWITCH	No	Yes	Yes	No	CEILING	20	LOW VOLTAGE DIMMER SWITCH FOR MANUAL ON/MANUAL OFF AND DIMMING. MAINTAIN 30FC.	
RESTROOM, LARGE	NONE	Yes	No	No	No	CEILING	15		
RESTROOM, SMALL	NONE	Yes	No	No	No	WALL	15		

- a. OCCUPANCY SENSOR CONTROLS LUMINAIRES FOR AUTO ON/AUTO OFF.
- b. VACANCY SENSOR CONTROLS LUMINAIRES FOR MANUAL ON/OFF AND AUTO OFF AFTER TIMEOUT.
- c. DAYLIGHT SENSOR CONTROLS LUMINAIRE OUTPUT WITHIN DAYLIGHTING ZONE.
- d. TIMECLOCK AND PHOTOCELL CONTROL LUMINAIRES FOR AUTO ON/AUTO OFF.

- 1. LUMINAIRES SHALL BE CONTROLLED TO TURN ON TO 50% UPON OCCUPANCY.
- 2. LUMINAIRES SHALL BE CONTROLLED TO DIM CONTINOUSLY FROM 100% TO 15% OR LOWER.
- 3. LUMINAIRES SHALL BE CONTROLLED TO DIM TO 50%.
- 4. COORDINATE TIME SCHEDULE WITH OWNER.
- 5. PROVIDE LIGHTING CONTROL RELAY PANEL CAPABLE OF 0-10V DIMMING.
- 6. TIMECLOCK AND PHOTOCELL OVERRIDE OCCUPANCY SENSOR CONTROL FROM DAWN TO DUSK. 7. NOT ALL ROOMS REQUIRE DAYLIGHT HARVESTING. REFER TO PLANS FOR DAYLIGHT ZONES.

		Location: Supply From: Mounting: So Enclosure: Ty Phase Created: Ex	/pe 1				F	Volts: Phases: Wires:		0V			Mains	K.A.I.C. Ratin Mains Typ / Design Ratin Bus Ratin	e: MCB g: 100 A		
Notes	CKT NO.		Load Classification	Trip	Poles	A	4	E	3	C	<b>;</b>	Poles	Trip	Load Classification	Circuit Description	CKT NO.	Note
(E)	1	IT ROOM		20 A	1	360	150					1	20 A		XFMR VAV	2	(E)
(E)	3	IT ROOM		20 A	1			360	150			1	20 A		XFMR VAV	4	(E)
(E)	5	CUH		20 A	1					600	150	1	20 A		XFMR VAV	6	(E)
(E)	7	DOOR OPERATOR		20 A	1	500	500					1	20 A		DOOR OPERATOR	8	(E)
(E)	9	DOOR OPERATOR		20 A	1			500	1,080			1	20 A	R	REC: TECH WORK DESK	10	(R)
(E)	11	IT ROOM		20 A	1					360	1,080	1	20 A	R	REC: TECH WORK DESK	12	(R)
(E)	13	SPARE		20 A	1	0	1,200					1	20 A	R	REC: FREEZER	14	(R)
(E)	15	RECEPT COMPUTER		20 A	1			360	180			1	20 A		HYPERBARIC CHAMBER	16	(E)
(E)		RECEPT PRINTER		20 A	1					720	180	1	20 A		NURSE CALL CABINET	18	(E)
(E)	19	MED GAS ALARM		20 A	1	180	180					1	20 A		HYPERBARIC CHAMBER	20	(E)
(E)		D129 EMG CAN LIGHTS		20 A	1			480	500			1	20 A		DOOR OPENER		(E)
(N)		PHYS THERAPY PWR POLES	R	20 A	1					720	0	 1	20 A		SPARE	22	(E)
(N)		PHYS THERAPY PWR POLES		20 A	1	1,080	180			v		1	20 A		D133 MASTER NURSE CALL	26	(E)
(N)		J-BOX: VAV PWR	E	20 A	1	1,000	100	180	900			<u>·</u> 1	20 A		D131 FREEZER	28	(E)
(N)		J-BOX: VAV PWR	E	20 A	1			100	000	180	720	1	20 A		D131 MANUAL FILL HOT	30	(E)
(N)		J-BOX: AUTO DOOR	E	20 A	1	500	360			100	720	<u>·</u> 1	20 A		GYM WORK DESK	32	(E)
(14)		SPACE			1	300	300					<u>'</u> 1			SPACE	34	(-)
	_	SPACE			1							' 1			SPACE	36	
	_	SPACE			1							' 1			SPACE	38	
					1							1			SPACE	40	
		SPACE			1							1					
	41	SPACE		 Tot	al Load:	5,19	0.1/4	4,690	0.1/4	 4,710		1			SPACE	42	
					I Amps:	43		39		39							
		Load Classification		Con	nected L	.oad	Den	nand Fac	ctor	NEC I	Demand	Load	Phase	Balance	Panel Totals		
L		hting			0 VA			0.00%			0 VA						
С		ntinuous			0 VA			0.00%			0 VA		l	% A-B	Connected Load (VA): 1		
R			1st 10,000 VA	-	5,160 VA			100%		į.	5,160 VA		100 % B-C		NEC Demand Load (VA): 1		VA
N 4		5,160 VA	Remaining		0 VA			0%			0 VA		91 % C-A		Connected Load (A): 4		
M	_	Total Motor Load 0 VA	Largest Motor Remaining		0 VA 0 VA			0.00%			0 VA 0 VA		-		NEC Demand Load (A): 4 Spare Capacity (A): 8		
E	Fai	uipment	remaining		860 VA			0.00% 100.00%			860 VA		_		Spare Capacity (%): 8		
A		pliance			0 VA			0.00%	'		0 VA				Spare Capacity (70).	_	
LC		ad Center (# of	0		0 VA			0.00%			0 VA						

		Location: Supply From: Mounting: Enclosure: Phase Created:	Surface Type 1				ı	Volts: Phases: Wires:	-	20V			Mains	K.A.I.C. Ratin Mains Typ / Design Ratin Bus Ratin	e: MCB g: 100 A		
Notes	CKT NO.	Circuit Description	Load Classification	Trip	Poles		<b>A</b>	E	3	C	<b>;</b>	Poles	Trip	Load Classification	Circuit Description	CKT NO.	Notes
(E)	1	D128A,D129 RECEPTS		20 A	1	540	1,500					1	20 A	R	REC: COFFEE 116	2	(R)
(E)	3	D125/CORRIDOR RECEPTS		20 A	1			540	1,500			1	20 A	R	REC: MICROWAVE 116	4	(R)
(E)	5	D126 RECEPTS		20 A	1					360	1,200	1	20 A	R	REC: REFRIG 116	6	(R)
(E)	7	D127 RECEPTS		20 A	1	360	1,080					1	20 A	R	REC: BREAK 116	8	(R)
(E)	9	D133 RECEPTS		20 A	1			360	1,620			1	20 A	R	REC: PROCEDURE 117	10	(R)
(R)	11	REC: OFFICE 103	R	20 A	1					1,080	1,620	1	20 A	R	REC: EXAM 114	12	(R)
(R)	13	REC: TLT 102	R	20 A	1	1,440	1,620					1	20 A	R	REC: EXAM 115	14	(R)
(R)	15	REC: PROCEDURE 100	R	20 A	1			1,440	1,080			1	20 A	R	REC: PHYSICIAN 118	16	(R)
(R)		REC: PHYSICIAN 127	R	20 A	1			, -	,	1,080	1,080	1	20 A	R	REC: MA 119, 121	18	(R)
(E)		EXISTING LOAD		20 A	1	0	1,080			.,	.,	1	20 A	R	REC: TEAM CENTER 120	20	(R)
(E)		REC: D131		20 A	1		1,000	360	1,080			1	20 A	R	REC: TEAM CENTER 120	22	(R)
(E)		REC: D131		20 A	1			300	1,000	360	900	<u>'</u>	20 A	R	REC: COPIER 120	24	(R)
		REC: D131		20 A	1	180	1,620			300	300	1	20 A	R	REC: EXAM 113	26	
(E)		REC: D131				100	1,020	100	1 600			1				28	(R)
(E)			 D	20 A	1			180	1,620	4.000	000	1	20 A	R	REC: EXAM 112		(R)
(R)		REC: SOILED 109, TLT 110	R	20 A	1	4.000	000			1,080	900	1	20 A	R	REC: CLEAN 108, STOR 111	30	(R)
(R)		REC: PHYSICIAN 122	R	20 A	1	1,080	600					2	30 A		REC: 14-30R D131	32	(E)
(R)		REC: EXAM 106	R	20 A	1			1,620	600							34	
(R)		REC: EXAM 107	R	20 A	1					1,620	1,080	1	20 A	R	REC: MA 124, 126	36	(N)
(R)	37	REC: EXAM 104	R	20 A	1	1,620	1,080					1	20 A	R	REC: TEAM CENTER 125	38	(N)
(R)	39	REC: EXAM 105	R	20 A	1			1,620	900			1	20 A	R	REC: COPIER 125	40	(N)
(R)	41	REC: PHYSICIAN 123	R	20 A	1					1,080	1,080	1	20 A	R	REC: TEAM CENTER 125	42	(N)
				Tota	al Load:	13,80	00 VA	14,52	20 VA	14,52	0 VA						
				Tota	Amps:	11:	5 A	12:	2 A	122	2 A						
		Load Classification		Con	nected L	_oad	Den	nand Fa	ctor	NEC I	Demand	Load	Phase	Balance	Panel Totals		
L	Ligi	hting			0 VA			0.00%			0 VA						
С	Cor	ntinuous			0 VA			0.00%			0 VA			% A-B	Connected Load (VA): 42	2,840	VA
R		Total Receptacle Load	1st 10,000 VA		0,000 V			100%			0,000 VA			% B-C	NEC Demand Load (VA): 28		VA
		38,400 VA	Remaining	2	8,400 V	4		50%		1	4,200 VA	4	96	% C-A	Connected Load (A): 1		
М		Total Motor Load	Largest Motor		0 VA			0.00%			0 VA				NEC Demand Load (A): 79		
	-	0 VA	Remaining		0 VA			0.00%			0 VA				Spare Capacity (A): 60		
E		uipment			0 VA			0.00%			0 VA				Spare Capacity (%): 60	j .	
Α		pliance			0 VA			0.00%			0 VA						
LC otes:	Loa	ad Center (# of	0		0 VA			0.00%			0 VA						

Lee's Summit, Misso 08/31/2022

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Branch

HOSPIT ULMONA

E'S BLVI 64086

PHAS SAINT FIRST 100 NE LEE'S

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Drawn By:

Reviewed By:

Project No:

1203001 08/15/22

Submittal Level:

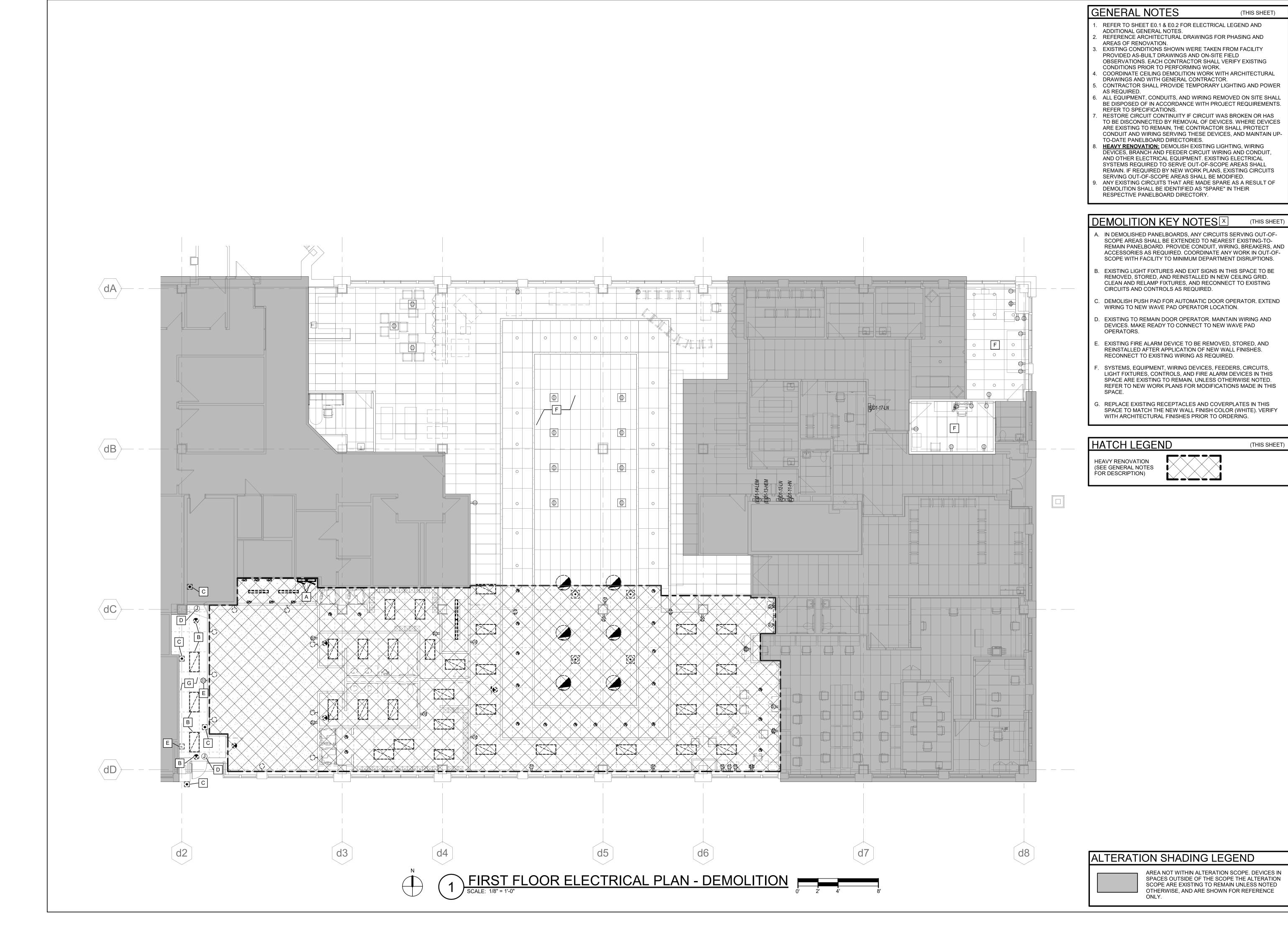
Sheet Title:

FIRST FLOOR ELECTRICAL PLAN -DEMOLITION

SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY.

ED1.0

100% CDs



CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE.

MINIMUM OF THREE (3) PIPE DIRECTION CHANGES.

27. ALL HWS/HWR TAKE-OFFS TO REHEAT COILS TO BE A MINIMUM OF 3/4" PIPE SIZE.

MECHANICAL LEGEND **ABBREVIATIONS** NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS VALVES / SYMBOLS HVAC PIPING A/C AIR CONDITIONING AFF ABOVE FINISHED FLOOR AHU AIR HANDLING UNIT **HYDRONIC** LINEAR SLOT DIFFUSER DIRECTION OF FLOW IN PIPING BOD BOTTOM OF DUCT HEATING HOT WATER SUPPLY BOP BOTTOM OF PIPE \*\*\*\* TWO WAY CONTROL VALVE INSULATED FLEXIBLE DUCT (MAXIMUM 6'-0" LONG) BOS BOTTOM OF STRUCTURE BTU BRITISH THERMAL UNIT ← —HWR— → HEATING HOT WATER RETURN THREE WAY CONTROL VALVE BRANCH DUCT WITH 45° TAP AND MANUAL VOLUME DAMPER CH CHILLER CHILLED WATER SUPPLY **BUTTERFLY VALVE** CFM CUBIC FEET PER MINUTE BRANCH DUCT WITH CONICAL FITTING AND MANUAL CRAC COMPUTER ROOM AIR CONDITIONING UNIT CHILLED WATER RETURN VOLUME DAMPER GLOBE VALVE CRCU COMPUTER ROOM CONDENSING UNIT COOLING TOWER HOT/CHILLED WATER SUPPLY BALANCING VALVE CONDENSING UNIT **ELBOW WITH TURNING VANES** CUH CABINET UNIT HEATER HOT/CHILLED WATER RETURN SOLENOID VALVE DEMOLISHED CONDENSER WATER SUPPLY DRY BULB SUPPLY OR OUTSIDE AIR DUCT UP CONTROL VALVE DIRECT DIGITAL CONTROL CONDENSER WATER RETURN DN DOWN SUPPLY OR OUTSIDE AIR DUCT DOWN DX DIRECT EXPANSION THERMOSTATIC MIXING VALVE HEAT PUMP WATER SUPPLY EXISTING TO REMAIN (E) RETURN OR TRANSFER AIR DUCT UP ← —HPWR — ← HEAT PUMP WATER RETURN TRIPLE DUTY VALVE WITH PRESSURE PORTS EXHAUST AIR **ENTERING AIR TEMPERATURE** CHECK VALVE CONDENSATE DRAIN RETURN OR TRANSFER AIR DUCT DOWN EDB ENTERING DRY BULB EXHAUST FAN STRAINER REFRIGERANT LIQUID ERV ENERGY RECOVERY VENTILATOR EXHAUST AIR DUCT UP EWB ENTERING WET BULB STRAINER WITH BLOWOFF EWT ENTERING WATER TEMPERATURE REFRIGERANT HOT GAS EXHAUST AIR DUCT DOWN ← — RS — ← REFRIGERANT SUCTION FCU FAN COIL UNIT RELIEF/SAFETY VALVE FIRE DAMPER TYPE, NECK SIZE, CFM AT SUPPLY DIFFUSER OR **STEAM** FSD FIRE/SMOKE DAMPER PRESSURE REDUCING VALVE GPM GALLONS PER MINUTE HIGH PRESSURE STEAM VACUUM BREAKER TYPE, THROAT SIZE, CFM AT RETURN GRILLE OR REGISTER HIGH PRESSURE CONDENSATE VENTURI HORSEPOWER, HEAT PUMP TYPE, SIZE AT EXHAUST GRILLE OR REGISTER HOA HAND OFF AUTOMATIC MEDIUM PRESSURE STEAM GAS COCK HRV HEAT RECOVERY VENTILATOR HSTAT HUMIDISTAT MEDIUM PRESSURE CONDENSATE MANUAL VOLUME DAMPER SIGHT GLASS HTG HEATING LOW PRESSURE STEAM

SQUARE TO ROUND TRANSITION

T/H = COMBINATION TEMPERATURE/HUMIDISTAT

T/C = COMBINATION TEMPERATURE/CARBON DIOXIDE

RECTANGULAR DUCT (PLAN DIMENSION SHOWN FIRST)

FLAT OVAL DUCT (PLAN DIMENSION SHOWN FIRST)

DP = DIFFERENTIAL PRESSURE NO<sup>x</sup> = NITROGEN OXIDE

H = HUMIDISTAT

CO = CARBON MONOXIDE

SENSORS:

FIRE DAMPER

RADIATION DAMPER

FIRE/SMOKE DAMPER

MOTORIZED DAMPER

ROUND/OVAL DUCT RISER

TRANSITION IN DUCT SIZE

OPPOSED BLADE DAMPER

PARALLEL BLADE DAMPER

UPPER NUMBER INDICATED DRAWING NUMBER

CONNECTION POINT OF NEW WORK TO EXISTING

CONNECTION POINT OF DEMOLITION TO EXISTING

LOWER NUMBER INDICATES SHEET NUMBER

UPPER NUMBER INDICATES DETAIL NUMBER

LOWER NUMBER INDICATES SHEET NUMBER

SMOKE DAMPER

**ROUND DUCT** 

FLEXIBLE DUCT

—-**—**(**)**FD

\_\_\_ SD

12x6 **→** 

12ø

30/24

11111

**MISCELLANEOUS** 

**SECTION CUT:** 

RISER DESIGNATION

EXISTING LINEWORK

NEW LINEWORK

DEMOLITION LINEWORK

NOTE REFERENCE SYMBOL

 $\leftarrow\leftarrow\leftarrow$ 

T = TEMPERATURE

CO<sup>2</sup> = CARBON DIOXIDE

IN WC INCHES OF WATER COLUMN

LAT LEAVING AIR TEMPERATURE

LOCKED ROTOR AMPS

MAU MAKE UP AIR UNIT

MFR MANUFACTURER

OA OUTSIDE AIR

PH,Ø PHASE

STM STEAM

MBH 1000 BTU PER HOUR

MMBH 1,000,000 BTU PER HOUR

NOT APPLICABLE

NORMALLY OPEN

PRV PRESSURE REDUCING VALVE

RELOCATED EXISTING

SQUARE FEET, SUPPLY FAN

SOUND TRAP, STEAM TRAP

RELATIVE HUMIDITY

RETURN AIR

RTU ROOF TOP UNIT

SUPPLY AIR SMOKE DAMPER

STATIC PRESSURE

STAINLESS STEEL

TA TRANSFER AIR OPENING

TRANSFER DUCT

TDH TOTAL DYNAMIC HEAD

VAV VARIABLE AIR VOLUME

WPD WATER PRESSURE DROP

MTG. HEIGHTS U.N.O.

48" AFF

48" AFF

TSTAT THERMOSTAT TYP TYPICAL

UH UNIT HEATER

VAC VACUUM

W/O WITHOUT

WB WET BULB

WC WATER COLUMN

THERMOSTATS (USER ADJ.)

**CONTROLS (CENTERLINE)** 

RLA RUNNING LOAD AMPS RPM REVOLUTIONS PER MINUTE

LWT LEAVING WATER TEMPERATURE

MINIMUM CIRCUIT AMPACITY

BALL VALVE

GATE VALVE

FLANGE CONNECTION

PIPING TEE UP

── PIPING TEE DOWN

PIPING CAP

GAUGE COCK

PIPING REDUCER

FLEXIBLE CONNECTOR

AUTOMATIC AIR VENT

MANUAL AIR VENT

EXPANSION JOINT

→ PIPE GUIDE

── PRESSURE SWITCH

TEMPERATURE SENSOR

WATER HAMMER ARRESTOR

PRESSURE REGULATING VALVE

PIPE ANCHOR / ROOF PIPING SUPPORT

DIFFERENTIAL PRESSURE SENSOR

PIPING ELBOW DOWN

AND CAP ON CHAIN

PRESSURE GAUGE

PRESSURE GAUGE WITH PIGTAIL

PRESSURE/TEMPERATURE PORT

THERMOMETER, THERMOMETER W/ TEST WELL

THERMOSTATIC TRAP

← — LPC — → LOW PRESSURE CONDENSATE

SMS —— SMS —— SNOW MELT WATER SUPPLY

FUEL OIL SUPPLY

S —— G —— NATURAL GAS

DIRECT DIGITAL CONTROLS

SNOW MELT WATER RETURN

LIQUEFIED PETROLEUM GAS

T DUCT MOUNTED TEMPERATURE SENSOR

AIR FLOW STATION

DX COOLING COIL

CHILLED WATER COOLING COIL

HOT WATER HEATING COIL

LOW LIMIT TEMPERATURE SENSOR

TEMPERATURE SENSOR WITH THERMOWELL

DIFFERENTIAL PRESSURE SENSOR

DIFFERENTIAL PRESSURE TRANSMITTER

HI/LO DIFFERENTIAL PRESSURE TRANSMITTER

**MISCELLANEOUS** 

3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION

Project No:

1203001

08/15/22

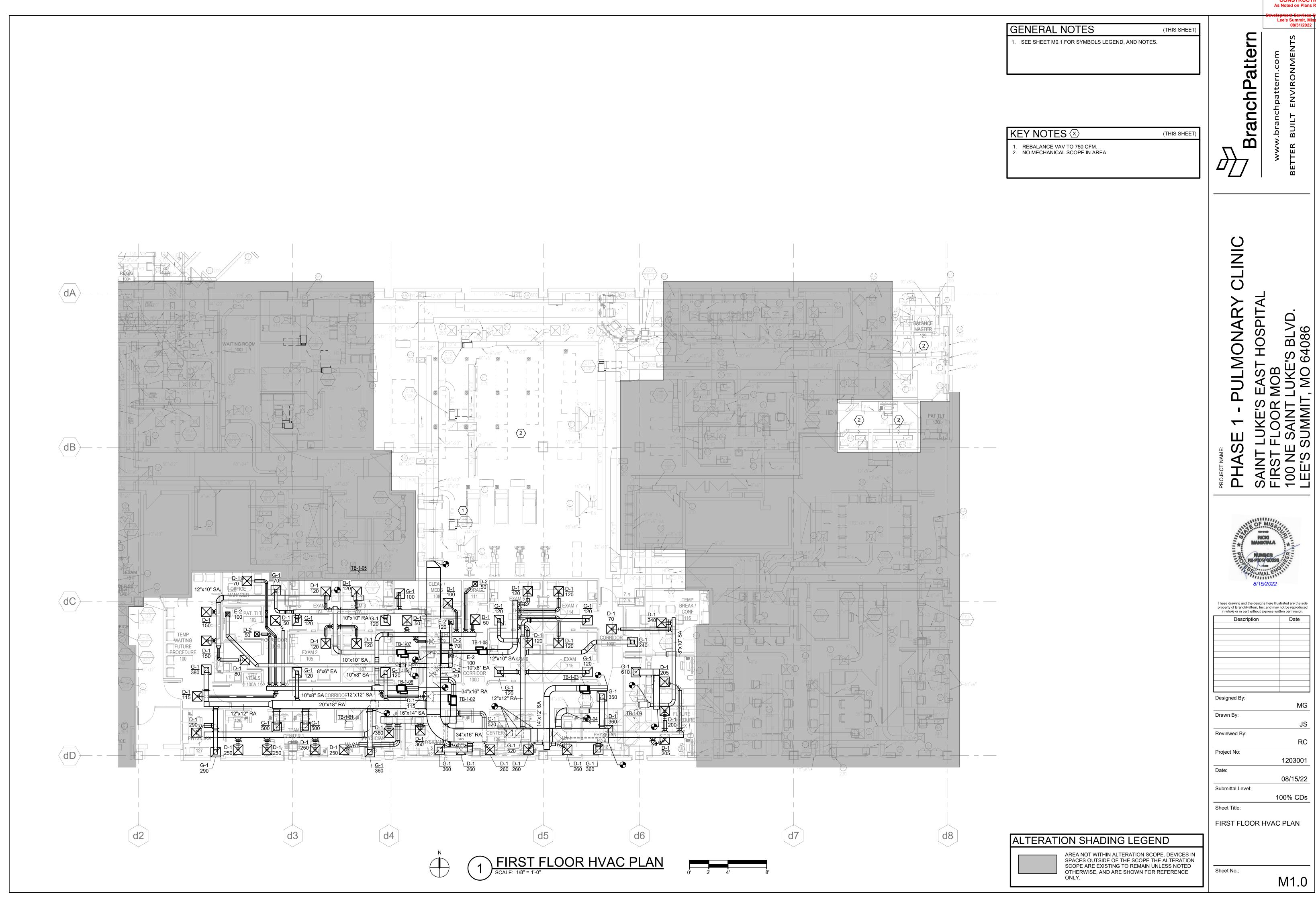
Submittal Level: 100% CDs Sheet Title:

MECHANICAL LEGEND &

NOTES

Sheet No.:

M0.1

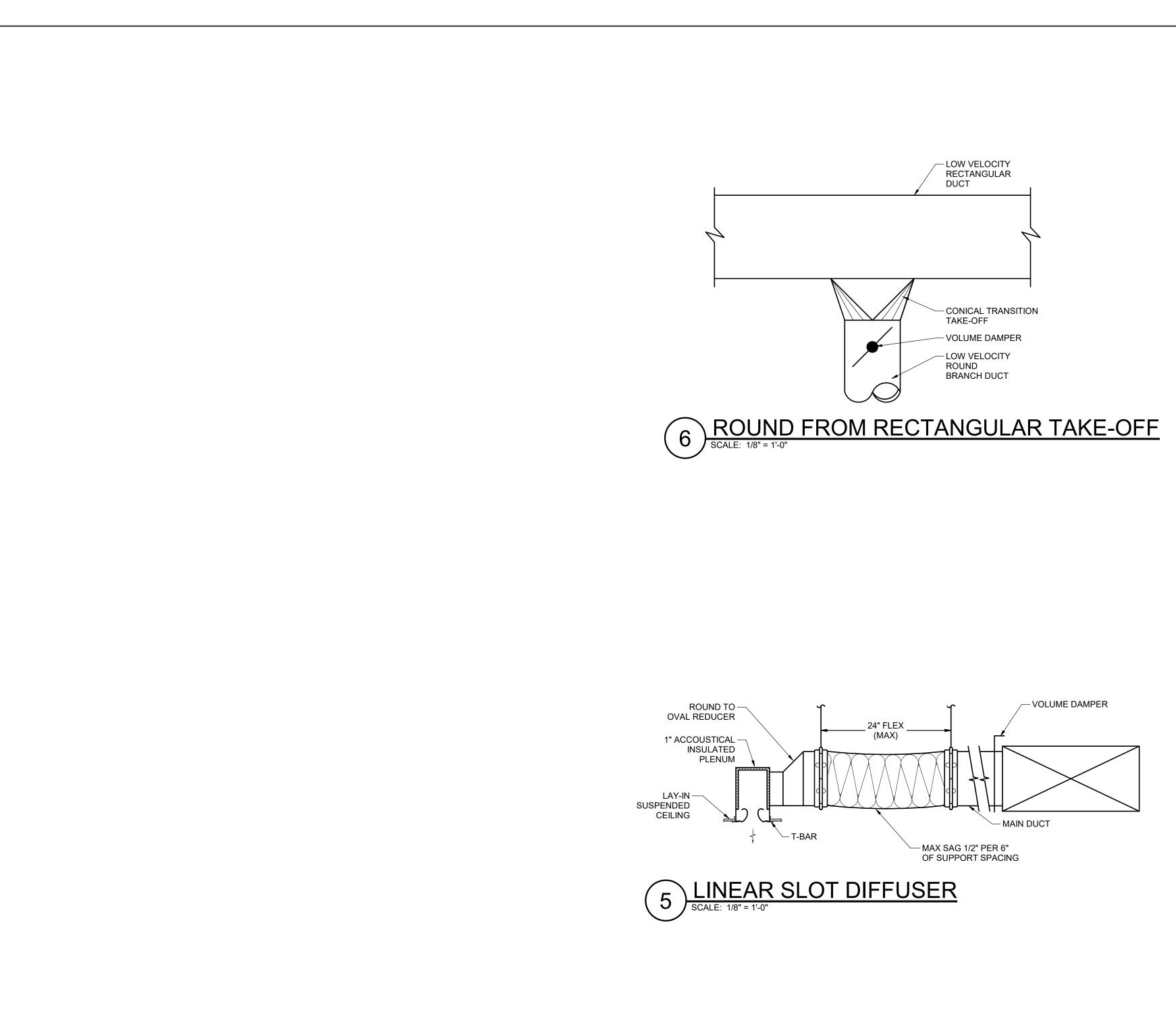


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As Noted on Plans Review GENERAL NOTES (THIS SHEET) BranchPattern SEE SHEET M0.1 FOR MECHANICAL LEGENDS, AND NOTES. KEY NOTES ⊗ (THIS SHEET) RELCATE EXISTING THERMOSTAT SERVING EQUIPMENT TO LOCATION SHOWN.
 NO HYDRONIC SCOPE IN AREA. HOSPITAL PHA SAIN FIRS 100 N LEE'S dC These drawing and the designs here Illustrated are the sole property of BranchPattern, Inc. and may not be reproduced in whole or in part without express written permission. WAITING FUTURE PROCEDURE +3/4" HWS -3/4" HWR Designed By: Drawn By: Reviewed By: RC Project No: 1203001 Date: 08/15/22 Submittal Level: 100% CDs Sheet Title: FIRST FLOOR HYDRONIC PLAN **ALTERATION SHADING LEGEND** AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY. FIRST FLOOR HYDRONIC PLAN
SCALE: 1/8" = 1'-0" Sheet No.: M1.1

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SMOOTH-RADIUS DIE STAMPED -

ABOVE 12"ø.

-45° WYE FITTING

- SMOOTH RADIUS

7 MEDIUM PRESSURE DUCT CONSTRUCTION
SCALE: 1/8" = 1'-0"

DIE-STAMPED 45° ELBOW

12"ø AND BELOW. 5-SEGMENT FOR

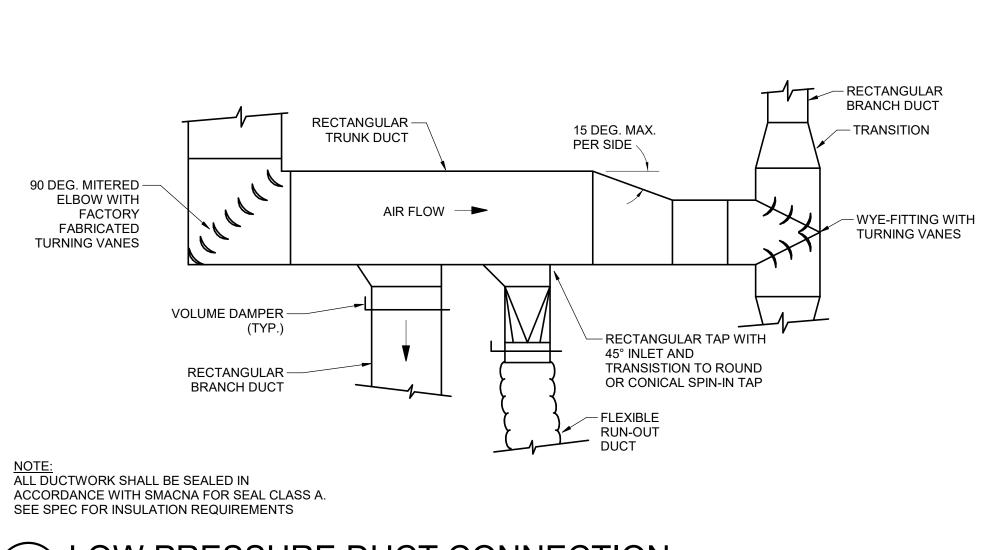
- CONICAL TEE FITTING

NOTE: DUCT GAUGE USED SHALL BE SUITABLE FOR 4"

CONSTRUCTION STANDARDS. DUCT SHALL BE

W.G. IN ACCORDANCE WITH SMACNA

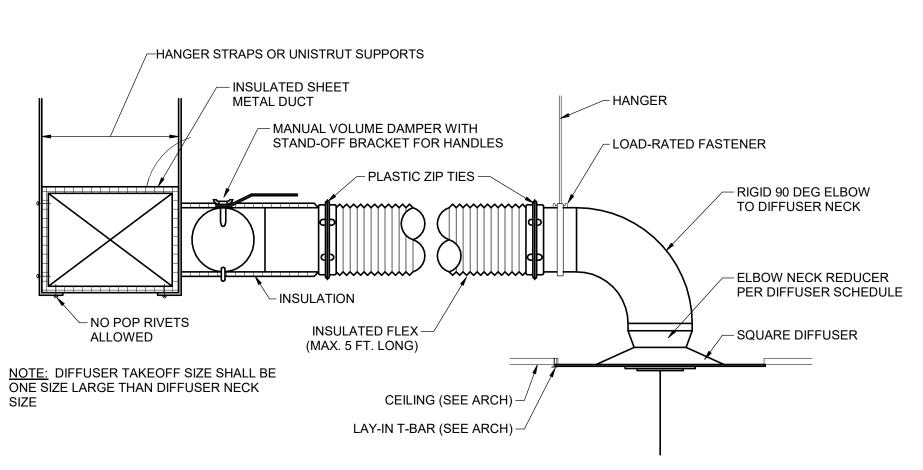
SEALED FOR SEAL CLASS A.



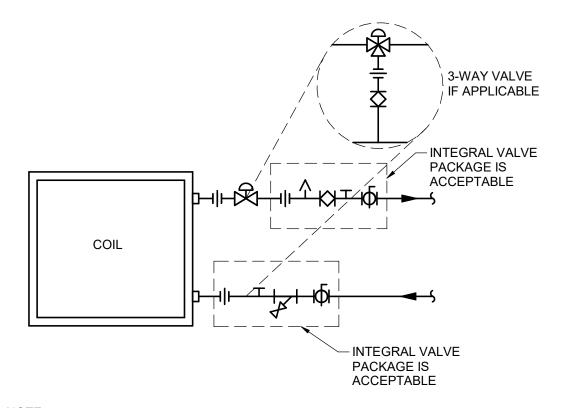
4 LOW PRESSURE DUCT CONNECTION
SCALE: 1/8" = 1'-0"

TYPICAL VAV BOX CONNECTION

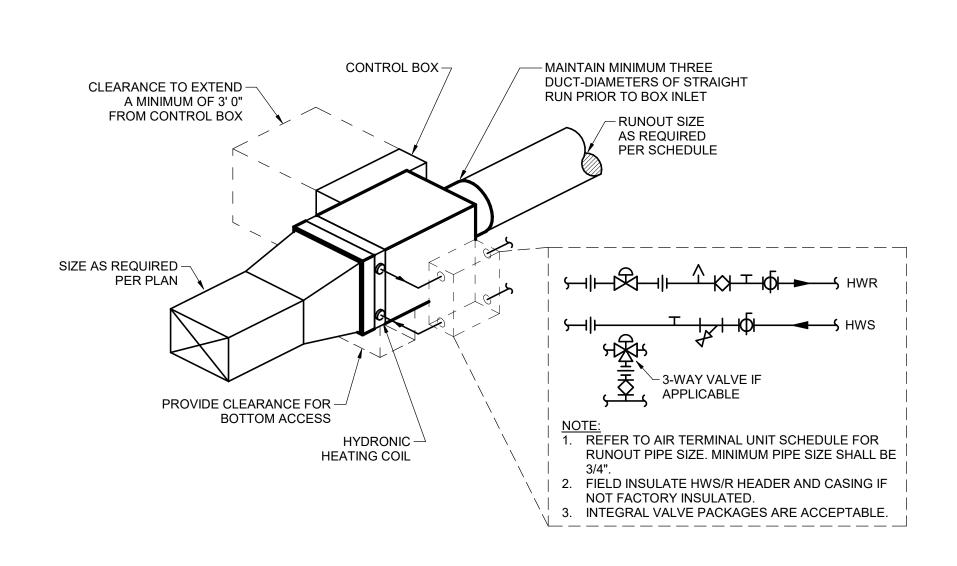
SCALE: 1/8" = 1'-0"

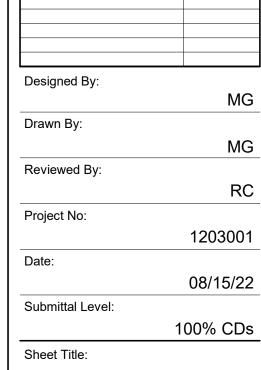


3 DIFFUSER/DUCT CONNECTION
SCALE: 1/8" = 1'-0"



2 AIR TERMINAL BOX COIL
SCALE: 1/8" = 1'-0"





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**BranchPattern** 

HOSPITAL

PHA SAIN FIRS 100 N LEE'S

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MONARY

MECHANICAL DETAILS

Sheet No.:

M4.0

8/11/2022 16:44

EAST HOSPITAL MOB UKE'S BLVD. , MO 64086 PHASE 1 - P
SAINT LUKE'S E
FIRST FLOOR N
100 NE SAINT L
LEE'S SUMMIT,

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Description	Date
Designed By:	
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	M
Drawn By:	
,.	

JS Reviewed By: RC Project No: 1203001

08/15/22 Submittal Level: 100% CDs

Sheet Title:

MECHANICAL SCHEDULES

Sheet No.:

M5.0

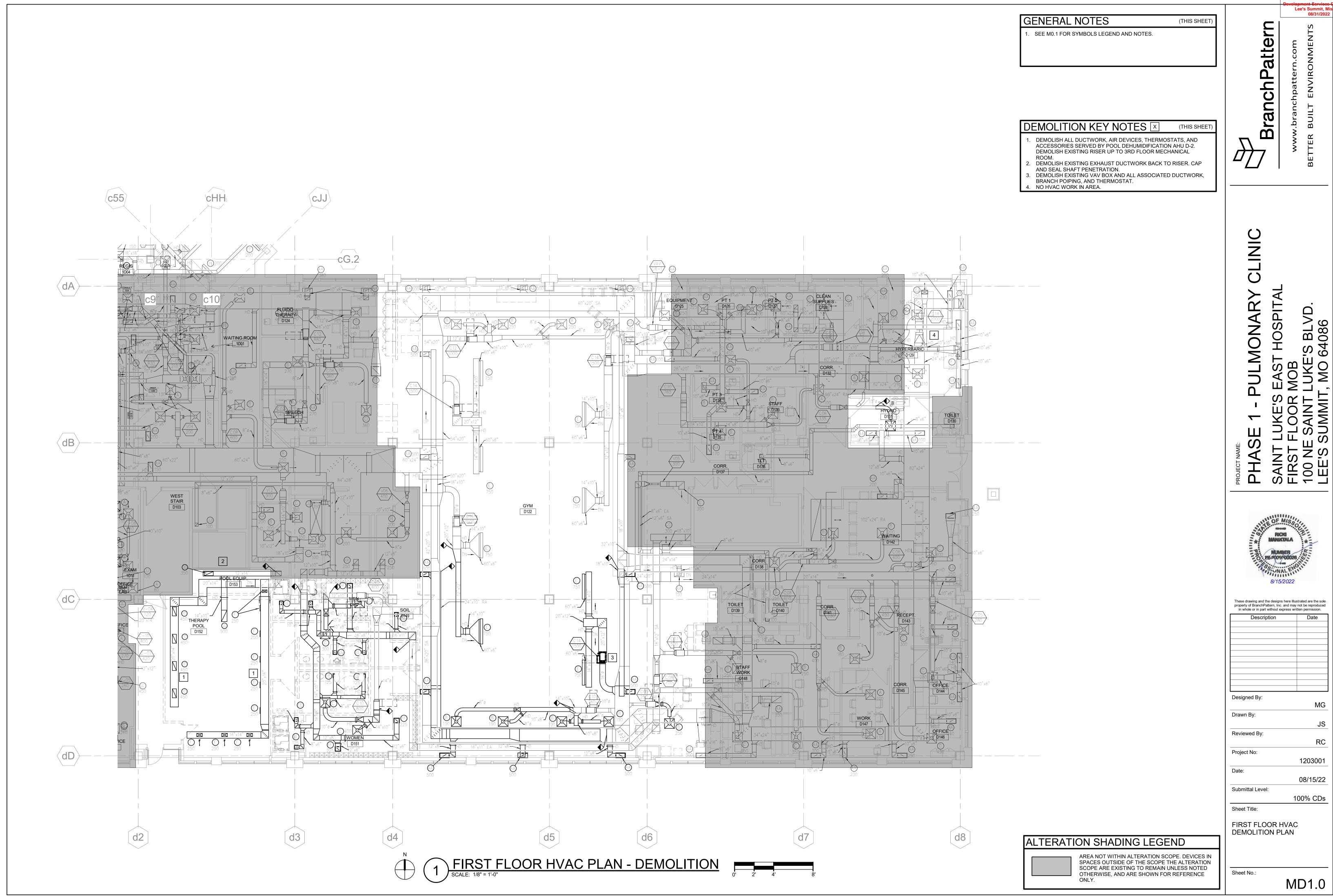
AIR (	OUTLET	<b>AND INLET SCHEDU</b>	LE									
	MANUF. &		MODULE	NECK SIZE	MAX AIRFLOW			OPPOSED BLADE		PERFO		
MARK	MODEL	TYPE	SIZE, IN	(W X H OR DIA), IN	CFM	MATERIAL	FINISH	DAMPER	BORDER	MAX. NC	MAX. SPD, IN	NOTES:
D-1	TITUS TMS	LOUVERED SQUARE CEILING DIFFUSER	24 X 24	6	140	STEEL	WHITE	NO	LAY-IN OR SURFACE	30	0.10	
		4-WAY THROW		8	250				(REF: RCP)	30	0.10	
				10	380					30	0.10	
				12	500					30	0.10	
D-2	TITUS TMS	LOUVERED SQUARE CEILING DIFFUSER	12 X 12	6	155	STEEL	WHITE	NO	LAY-IN OR SURFACE	30	0.10	
		4-WAY THROW		8	220				(REF: RCP)	30	0.10	
G-1	TITUS PAR	PERFORATED LAY-IN	24 X 24	6 X 6	100	STEEL	WHITE	NO	LAY-IN OR SURFACE	30	0.10	
		RETURN / EXHAUST		8 X 8	200				(REF: RCP)	30	0.10	
				10 X 10	300					30	0.10	
				12 X 12	450					30	0.10	
				15 X 15	650					30	0.10	
				18 X 18	1100					30	0.10	
				22 X 22	1500					30	0.10	
E-2	TITUS PAR	PERFORATED LAY-IN	12 X 12	6	100	STEEL	WHITE	NO	LAY-IN OR SURFACE	30	0.10	
		RETURN / EXHAUST		6 X 6	125				(REF: RCP)	30	0.10	

GEN BORDER TYPES SHALL BE COMPATIBLE WITH ARCHITECTURAL CEILING TYPE FOR THE ROOM IN WHICH THE AIR DEVICE IS LOCATED. CONTRACTOR TO CONFIRM BORDER TYPE PRIOR ...

GEN EQUIVALENT MANUFACTURERS ARE KRUEGER, PRICE, CARNES, ANEMOSTAT, NAILOR.

MARK	BASIS	RUNOUT	INLET	DESIGN	HEATING	MIN	HOT	DT			
	OF DESIGN	SIZE	SIZE	MAX AIRFLOW	AIRFLOW	AIRFLOW	MIN. NO.	CALCULATED OUTPUT	MAX. WATER	MAX. WATER	NOTES
		DIA	DIA				OF		FLOW	P.D.	
	Manuacturer "Model"	in.	in.	cfm	cfm	cfm	ROWS	mbh	gpm	ft. H2O	
1-01	TITUS "DESV"	-	10 ø	1080	470	330	-	27.4	2.0	-	5
1-02	TITUS "DESV"	14 ø	12 ø	1140	380	350	2	27.0	2.0	0.6	1,2,3,4
1-03	TITUS "DESV"	14 ø	12 ø	1170	430	360	2	27.0	2.0	0.6	1,2,3,4
1-04	TITUS "DESV"	-	10 ø	610	285	285	-	16.3	1.0	-	5
1-05	TITUS "DESV"	-	8 ø	380	265	300	-	14.5	1.0	-	5
1-06	TITUS "DESV"	10 ø	9 ø	760	760	565	2	33.6	2.0	0.5	1,2,3,4
1-07	TITUS "DESV"	8 ø	7 ø	480	420	480	2	18.5	1.0	0.2	1,2,3,4
1-08	TITUS "DESV"	8 ø	7 ø	480	420	480	2	18.5	1.0	0.2	1,2,3,4
1-09	TITUS "DESV"	-	5 ø	310	310	285	-	14.5	1.0	-	5

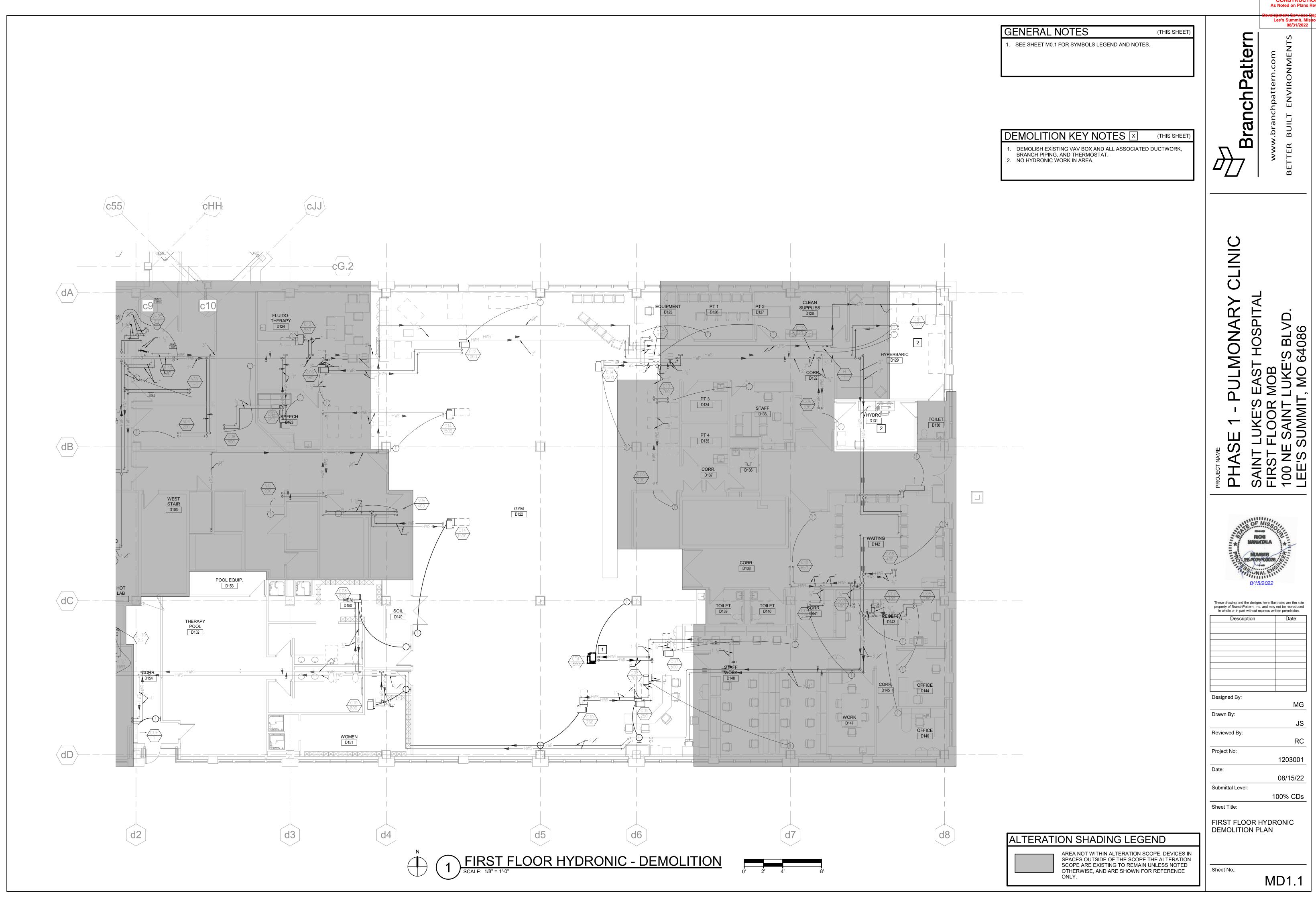
- 1. BOX SELECTIONS MADE WITH NO LINER AND 0.3" STATIC PRESSURE DOWNSTREAM OF THE BOX.
- 2. NC LEVELS DETERMINED USING AHRI 885-2005, APPENDIX E.
- 3. HOT WATER COILS SELECTED AT MAXIMUM AIRFLOW, 140°F EWT, 55°F EAT, 95°F LAT, AND 30% PROPYLENE GLYCOL MIXTURE.
- 4. PROVIDE 8x8 INSULATED ACCESS PANEL.
- 5. EXISTING BOX TO REMAIN. REBALANCE TO AIRFLOWS AND GPM SHOWN.



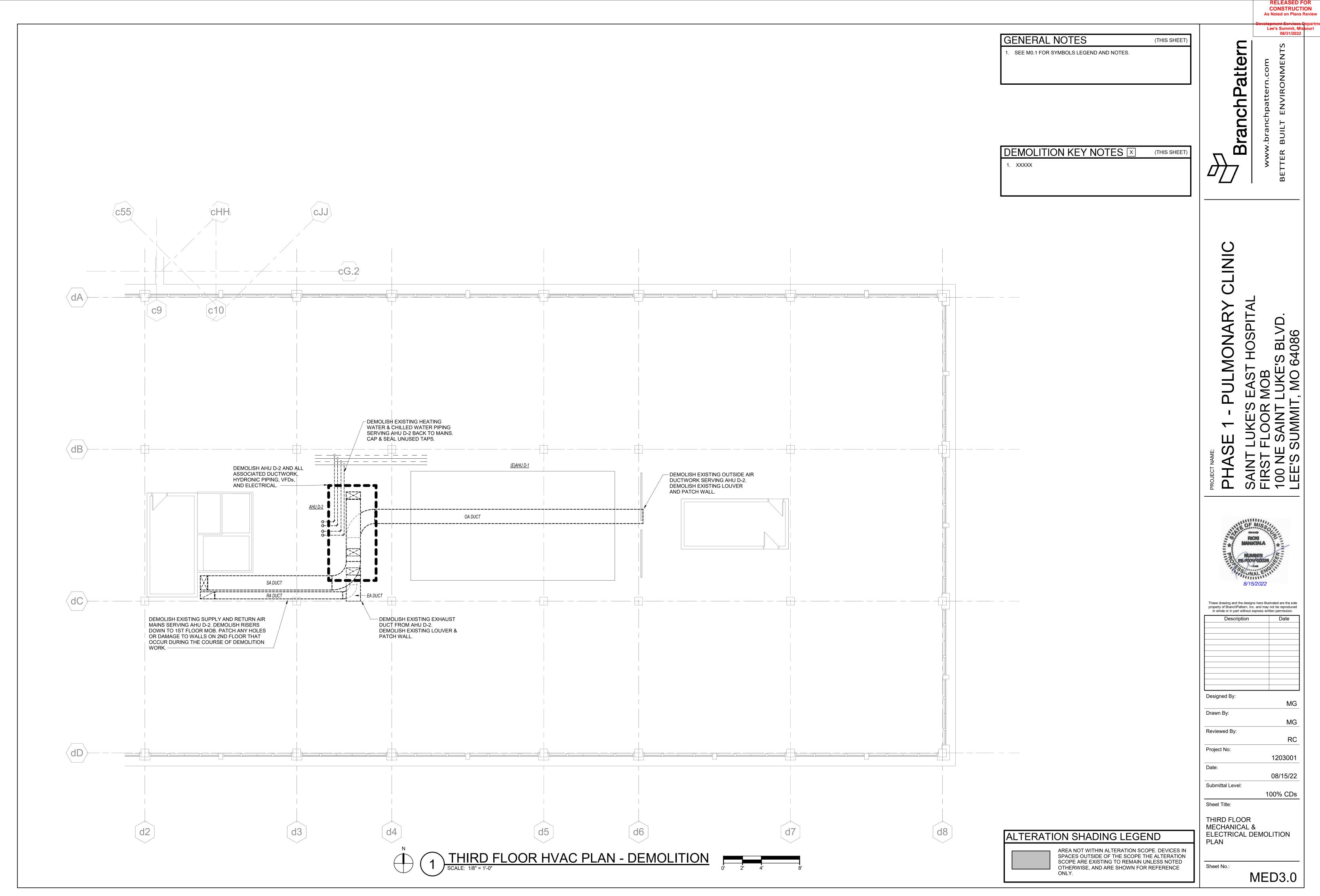
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Designed By: MG Drawn By:

RC Project No: 1203001

08/15/22 Submittal Level: 100% CDs

Sheet Title:

Reviewed By:

PLUMBING LEGEND & NOTES

Sheet No.:

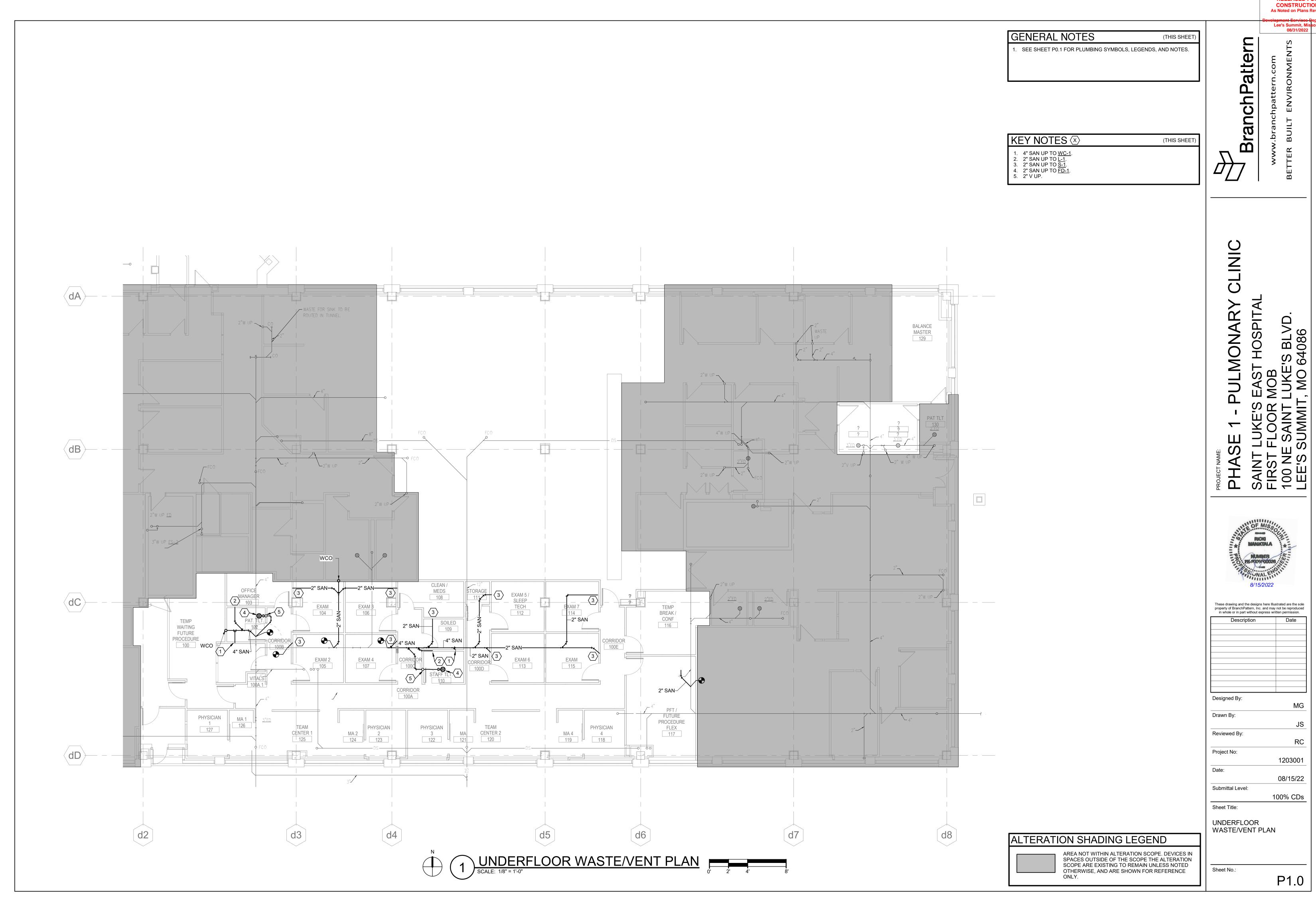
P0.1

PLUMBING LEGEND MEDICAL GAS LEGEND GAS AND VACUUM PIPING **ABBREVIATIONS** NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS PIPING VALVES / SYMBOLS AAV AIR ADMITTANCE VALVE S MEDICAL AIR AREA DRAIN DENTAL AIR ABOVE FINISHED FLOOR DIRECTION OF FLOW IN PIPING → OMESTIC COLD WATER ACID VENT LABORATORY AIR ΑW ACID WASTE TWO WAY CONTROL VALVE OXYGEN — − − → DOMESTIC HOT WATER **BOTTLE FILLER** —— N2O ——— NITROUS OXIDE BACKFLOW PREVENTER S → - - - S DOMESTIC HOT WATER RECIRC. THREE WAY CONTROL VALVE BRAKE HORSEPOWER ORAL EVACUATION BOOSTER PUMP **5** − − − 140°**-5** 140°F DOMESTIC HOT WATER BUTTERFLY VALVE BATH TUB MEDICAL-SURGICAL VACUUM BTU BRITISH THERMAL UNIT  $----140^{\circ}$  140°F DOMESTIC HOT WATER RECIRC. GLOBE VALVE WASTE ANESTHESIA GAS DISPOSAL (WAGD) CATCH BASIN COMBINATION MEDICAL VACUUM AND WAGD PRIMARY STORM DRAIN  $\longrightarrow$  MVM  $\longrightarrow$ BALANCING VALVE CONDENSATE DRAIN CLEANOUT CARBON DIOXIDE SECONDARY STORM DRAIN SOLENOID VALVE CIRCULATION PUMP NITROGEN CW COLD WATER INSTRUMENT AIR CONTROL VALVE SAN ——— SANITARY WASTE DDC DIRECT DIGITAL CONTROL MEDICAL AIR COMPRESSOR INTAKE DRINKING FOUNTAIN THERMOSTATIC MIXING VALVE VACUUM PUMP EXHAUST CONDENSATE DRAIN DOWN DSN DOWNSPOUT NOZZLE TRIPLE DUTY VALVE WITH PRESSURE PORTS SANITARY VENT **DILUTION TANK** GAS AND VACUUM VALVES / SYMBOLS DW DIRECT WASTE CHECK VALVE GREASE WASTE EXISTING TO REMAIN STRAINER **EMERGENCY EYE WASH** ACID WASTE **EMERGENCY SHOWER** ZONE VALVE BOX STRAINER WITH BLOWOFF EXTERNAL STATIC PRESSURE ACID VENT **ELEVATOR SUMP PUMP** ALARM PANEL (REFERENCE SCHEDULES FOR TYPE) RELIEF/SAFETY VALVE EWC ELECTRIC WATER COOLER LIQUEFIED PETROLEUM GAS (PROPANE) EWT ENTERING WATER TEMPERATURE WALL MOUNTED MEDICAL AIR OUTLET NATURAL GAS PRESSURE REDUCING VALVE FCO FLOOR CLEANOUT WALL MOUNTED OXYGEN OUTLET FLOOR DRAIN COMPRESSED AIR VACUUM BREAKER WALL MOUNTED INSTRUMENT AIR OUTLET FINISHED FLOOR ELEVATION FIRE HOSE CABINET WALL MOUNTED MEDICAL-SURGICAL VACUUM INLET ———— FIRE SUPPRESSION VENTURI FEET PER MINUTE FLOOR SINK WALL MOUNTED DENTAL AIR OUTLET GAS COCK WALL MOUNTED CARBON DIOXIDE OUTLET NATURAL GAS MISCELLANEOUS SIGHT GLASS GCO GRADE CLEANOUT WALL MOUNTED NITROUS OXIDE AIR OUTLET **GARBAGE DISPOSAL** BALL VALVE GPM GALLONS PER MINUTE WALL MOUNTED WAGD INLET SECTION CUT: GAS TURRET 3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION UPPER NUMBER INDICATES DRAWING NUMBER GAS VALVE AND CAP ON CHAIN  $M_1$ LOWER NUMBER INDICATES SHEET NUMBER GWH GAS WATER HEATER THERMOSTATIC TRAP HOSE BIBB CONNECTION POINT OF NEW WORK TO EXISTING CONNECTION POINT OF DEMOLITION TO EXISTING HORSEPOWER  $\hookrightarrow$ **HOT WATER** GATE VALVE DETAIL REFERENCE: HOT WATER CIRCULATION M<sub>1</sub> UPPER NUMBER INDICATES DETAIL NUMBER HEAT EXCHANGER PRESSURE GAUGE LOWER NUMBER INDICATES SHEET NUMBER HERTZ PRESSURE GAUGE WITH PIGTAIL RISER DESIGNATION INVERT ELEVATION ICE MAKER BOX IN.WC INCHES OF WATER COLUMN  $\langle x \rangle$ NOTE REFERENCE SYMBOL THERMOMETER, THERMOMETER W/ TEST WELL INDIRECT WASTE EXISTING LINEWORK KW KILOWATT PRESSURE/TEMPERATURE PORT DEMOLITION LINEWORK LAVATORY POUNDS **NEW LINEWORK** LPG LIQUEFIED PETROLEUM GAS FLANGE CONNECTION I ALINDRY SINK LWT LEAVING WATER TEMPERATURE PIPING ELBOW UP —О MBH 1000 BTU PER HOUR PIPING ELBOW DOWN GAS AND VACUUM PIPING MFR MANUFACTURER MANHOLE PIPING TEE UP MSB MOP SINK BASIN → MA MEDICAL AIR PIPING TEE DOWN —DA——→ DENTAL AIR NITROGEN NOT APPLICABLE N/A PIPING CAP LABORATORY AIR NORMALLY CLOSED NORMALLY OPEN **GAUGE COCK** OXYGEN — N2O — → NITROUS OXIDE OXYGEN WATER HAMMER ARRESTOR OD OVERFLOW DRAIN — OE — → ORAL EVACUATION PIPING REDUCER PH,ø PHASE POST INDICATOR VALVE PRESSURE REGULATING VALVE ─WAGD───── WASTE ANESTHESIA GAS DISPOSAL (WAGD) PRESSURE REDUCING VALVE PLASTER TRAP MVW — COMBINATION MEDICAL VACUUM AND WAGD FLEXIBLE CONNECTOR QTY QUANTITY CARBON DIOXIDE AUTOMATIC AIR VENT NITROGEN RELOCATED EXISTING REFRIGERANT CHARGE MANUAL AIR VENT INSTRUMENT AIR **ROOF DRAIN** RPM REVOLUTIONS PER MINUTE MEDICAL AIR COMPRESSOR INTAKE Y PIPE ANCHOR / ROOF PIPING SUPPORT EXPANSION JOINT SHOCK ARRESTOR SAN SANITARY PIPE GUIDE SEWAGE EJECTOR GAS AND VACUUM VALVES / SYMBOLS SQUARE FEET \_\_|LVTR VENT THRU ROOF SHOWER SUMP PUMP 3"FS-1 FLOOR SINK, SIZE AND TYPE STORM, STORAGE TANK ZONE VALVE BOX FLOOR DRAIN, SIZE AND TYPE TRENCH DRAIN ALARM PANEL (REFERENCE SCHEDULES FOR TYPE) TOTAL DYNAMIC HEAD ROOF DRAIN, SIZE AND TYPE THERMAL EXPANSION ABSORBER 3"RD-1 WALL MOUNTED MEDICAL AIR OUTLET TRAP GUARD TMV THERMOSTATIC MIXING VALVE HOSE BIBB / WALL HYDRANT WALL MOUNTED OXYGEN OUTLET TRAP PRIMER WALL MOUNTED INSTRUMENT AIR OUTLET TSP TOTAL STATIC PRESSURE LINE CLEANOUT / WALL CLEANOUT TEPID WATER WALL MOUNTED MEDICAL-SURGICAL VACUUM INLET FCO FLOOR CLEANOUT WALL MOUNTED DENTAL AIR OUTLET UNDERFLOOR **GRADE CLEANOUT** WALL MOUNTED CARBON DIOXIDE OUTLET UNDERGROUND UNDERSLAB U/S SELF-REGULATING HEATED CABLE - LENGTH AS SHOWN WALL MOUNTED NITROUS OXIDE AIR OUTLET HT)0' - 0" IN DRAWINGS. REFERENCE ELECTRICAL PLANS FOR WALL MOUNTED WAGD INLET SPECIFICATION OF COMPLETE HEAT-TRACE SYSTEM. VAC VACUUM ARROW DENOTES DIRECTION VTR VENT THROUGH ROOF WB WASHER BOX WATER COLUMN, WATER CLOSET WCO WALL CLEANOUT WH WALL HYDRANT

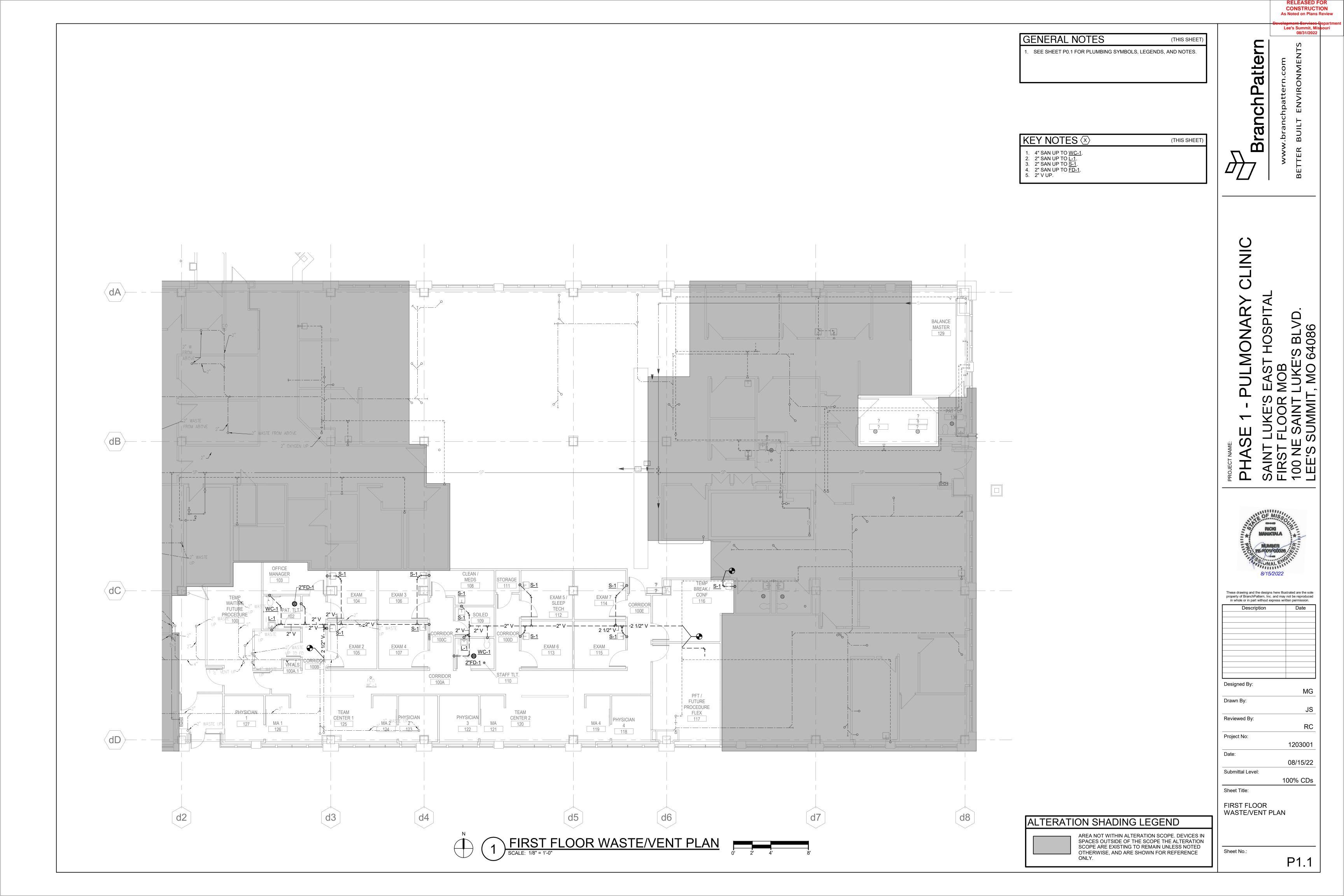
THE PLANS ARE, TO A GREAT EXTENT, DIAGRAMMATIC IN NATURE, DRAWING SCALES SHOULD BE VERIFIED FROM DIMENSIONS ON ARCH. PLANS. THE INFORMATION PRESENTED IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN EXACT LOCATION, MEASUREMENTS LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE.

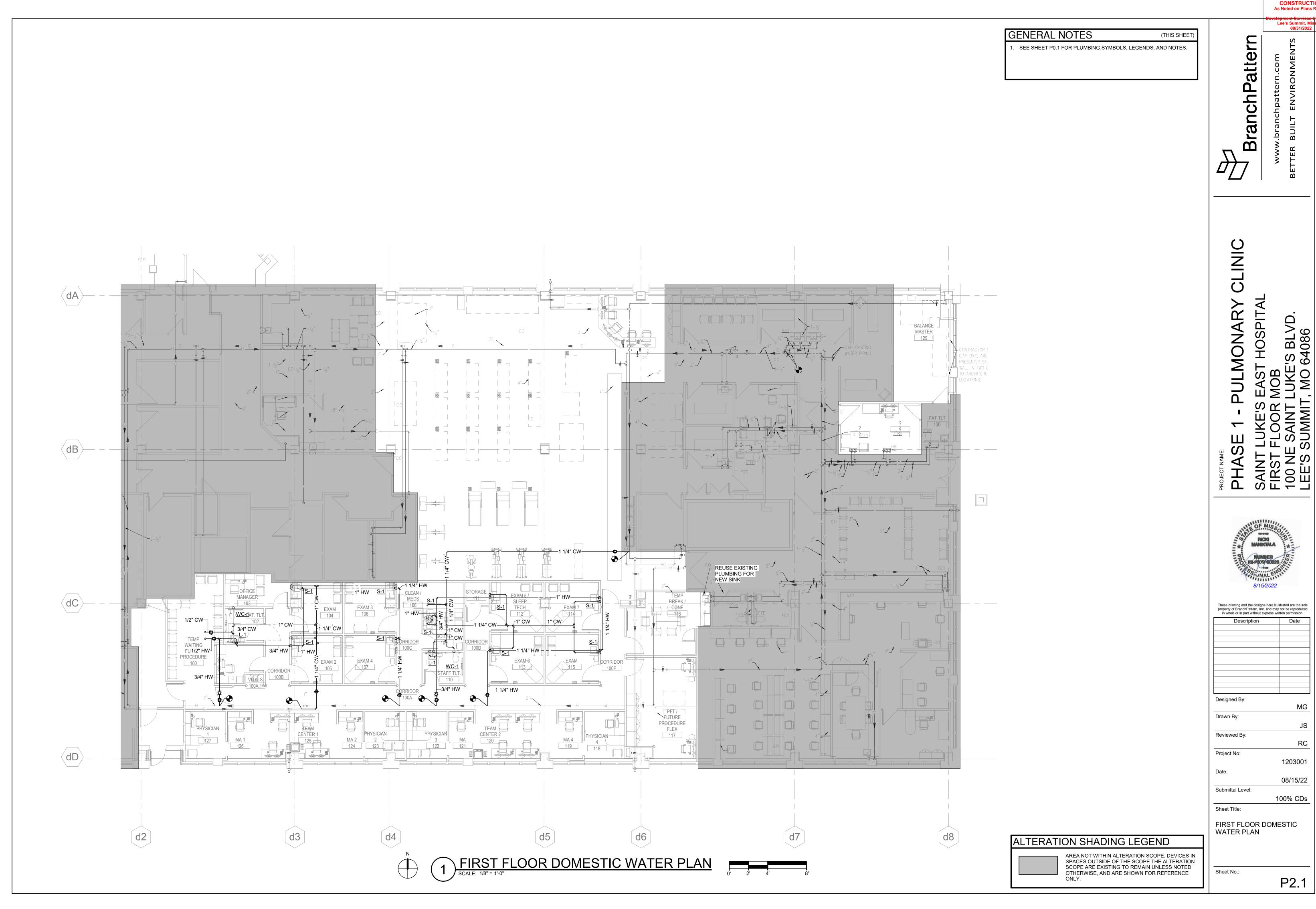
PLUMBING GENERAL NOTES

- CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.
- ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.
- THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS. THE OWNER'S DESIGN CRITERIA. UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD PRACTICE AND SAFETY, AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.
- RECORD DRAWINGS PREPARE AND SUBMIT TO THE OWNER RECORD DRAWINGS INDICATING THE EXACT LOCATION OF ALL EQUIPMENT INCLUDING THE EQUIPMENT'S "AS INSTALLED" SIZE(S). MANUFACTURER, MODEL NUMBERS, AND PERFORMANCE RATINGS.
- SUPPORTS EQUIPMENT, PIPING, OR ANY OTHER ACCESSORY SHALL NOT BE SUPPORTED FROM OTHER PIPING, DUCTWORK, METAL ROOF DECK, LATERAL BRACING BRIDGING, OR CONDUIT. ITEMS SHALL ONLY BE SUPPORTED FROM BUILDING STRUCTURE.
- COORDINATE EXACT LOCATION OF ALL PIPING AND EQUIPMENT WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.
- WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
- 9. ALL PIPING TO VIBRATING EQUIPMENT SHALL HAVE FLEXIBLE CONNECTORS.
- 10. COORDINATE ALL ROOF AND CHASE PENETRATIONS WITH STRUCTURAL DRAWINGS AND ROOF INSTALLER.
- 11. OWNER TO HAVE CHOICE SALVAGE OF ALL PLUMBING FIXTURES AND EQUIPMENT WHICH ARE PLANNED TO BE REMOVED BY CONTRACTOR. EQUIPMENT NOT SALVAGED BY OWNER SHALL BE REMOVED FROM SITE AND PROPERLY DISPOSED OF BY THE CONTRACTOR.
- BEFORE REMOVAL OF ANY MECHANICAL EQUIPMENT, CONTRACTOR SHALL RECOVER USED REFRIGERANT IN A PROPERLY LABELED D.O.T. APPROVED REFILLABLE CYLINDER TO MEET E.P.A. STANDARDS. RECOVERED REFRIGERANT MUST BE CHEMICALLY ANALYZED AND REPROCESSED OR DISPOSED OF PER E.P.A. REQUIREMENTS, SECTION 608 OF THE CLEAN AIR ACT AND A.R.I. STANDARD
- 13. THE LOCATIONS OF EXISTING UNDERGROUND UTILITIES ARE SHOWN IN AN APPROXIMATE WAY ONLY. THE CONTRACTOR SHALL DETERMINE THE EXACT LOCATION OF ALL EXISTING UTILITIES BEFORE COMMENCING WORK.
- 14. ALL TESTS SHALL BE COMPLETED BEFORE ANY MECHANICAL EQUIPMENT OR PIPING INSULATION IS APPLIED.
- 15. CONCRETE HOUSEKEEPING PADS TO SUIT MECHANICAL EQUIPMENT SHALL BE SIZED AND LOCATED BY THE MECHANICAL CONTRACTOR. MINIMUM CONCRETE PAD THICKNESS SHALL BE 4 INCHES. PAD SHALL EXTEND BEYOND THE EQUIPMENT A MINIMUM OF 4 INCHES ON EACH SIDE. CONCRETE HOUSEKEEPING PADS SHALL BE PROVIDED BY THE GENERAL CONTRACTOR. IT SHALL BE THE RESPONSIBILITY OF THE MECHANICAL CONTRACTOR TO COORDINATE THE SIZES AND LOCATIONS OF CONCRETE HOUSEKEEPING PADS WITH THE GENERAL
- 16. ACCESS PANELS ARE REQUIRED (MIN. 18"X18", UNLESS NOTED OTHERWISE IN SPECIFICATIONS) FOR ACCESS TO EVERY VALVE AND CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE. ACCESS PANEL SHALL BE APPROVED BY ARCHITECT/ENGINEER. COORDINATE PANEL LOCATIONS WITH THE ARCHITECT PRIOR TO INSTALLATION.
- 17. PROVIDE SHUTOFF VALVES IN ALL DOMESTIC WATER PIPING SYSTEM BRANCHES IN WHICH BRANCH PIPING SERVES TWO OR MORE FIXTURES.
- 18. ROUTE ALL PIPING PARALLEL TO BUILDING WALLS, STRUCTURE AND FEATURES, AS HIGH AS POSSIBLE, AND OFFSET AS NECESSARY TO AVOID STRUCTURAL MEMBERS, MECHANICAL EQUIPMENT AND THE LIKE.
- 19. REFER TO ARCHITECTURAL DRAWINGS FOR MOUNTING HEIGHTS OF STANDARD AND ACCESSIBLE PLUMBING FIXTURES.
- 20. SLOPE ALL SANITARY WASTE PIPE SIZES 3" AND UNDER AT 1/4" PER FOOT (2.08%) MINIMUM, UNLESS NOTED OTHERWISE.
- 21. SLOPE ALL SANITARY WASTE PIPE SIZES 4" AND ABOVE AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.
- 22. SLOPE ALL STORM AND OVERFLOW STORM PIPING AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.
- 23. SLOPE ALL CONDENSATE DRAINAGE PIPING AT 1/8" PER FOOT (1.04%) MINIMUM, UNLESS NOTED OTHERWISE.



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**GENERAL NOTES** (THIS SHEET) BranchPattern . SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGEND, AND NOTES. KEY NOTES 🕸 (THIS SHEET) ROUTE 1/2" V, MA, AND O2 TO EACH FUTURE PROCEDURE ROOM. TERMINATE ABOVE CEILING AND CAP FOR FUTURE USE.
 CAP FOR FUTURE USE dA ST HOSPITAL JLMONARY E'S BLVD. 64086 PHAS SAINT FIRST 100 NE LEE'S 1/2" LA— PROVIDE NEW 1/2"V, 1/2"O, 1/2"MA LINES TO NEW WALL OUTLETS IN EACH ROOM. CLEAN / MEDS dC EXAM 5 / SLEEP TECH 112 These drawing and the designs here Illustrated are the sole property of BranchPattern, Inc. and may not be reproduced in whole or in part without express written permission. WAITING FUTURE PROCEDURE 1/2" MV 1/2" O 1/2" LA Designed By: MG FUTURE PROCEDURE FLEX Drawn By: Reviewed By: RC Project No: 1203001 Date: 08/15/22 Submittal Level: 100% CDs Sheet Title: FIRST FLOOR MED GAS PLAN ALTERATION SHADING LEGEND AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY. FIRST FLOOR MED GAS PLAN

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

0' 2' 4' 8' Sheet No.: P3.1

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ROOM SIDE

GAUGE

ZONE VALVE BOX, VALVE,

EXTENSIONS BY ZVB

MANUFACTURER

(RE: PLANS AND SCHEDULES FOR DESIGNATION.) SCHEDULES DICTATE NUMBER OF VALVES REQUIRED FOR EACH PARTICULAR INSTANCE.

HWC UP IN WALL TO ─ ✓

PLANS FOR SIZE.

BALLANCING STATION. RE:

- HWC CONNECTION TO HW.

✓ FLEXIBLE RISER TO LAV.

RE: PLANS FOR SIZE.

HOT WATER RECIRC IECC 404.5.1

SCALE: NONE

PRESSURE GAUGE AND PIPE

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Submittal Level: 100% CDs

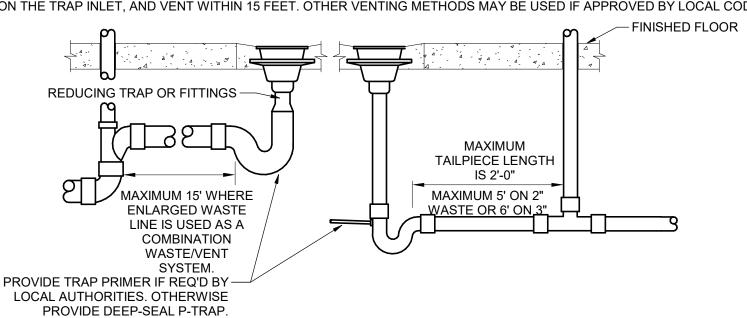
Sheet Title:

PLUMBING DETAILS

Sheet No.:

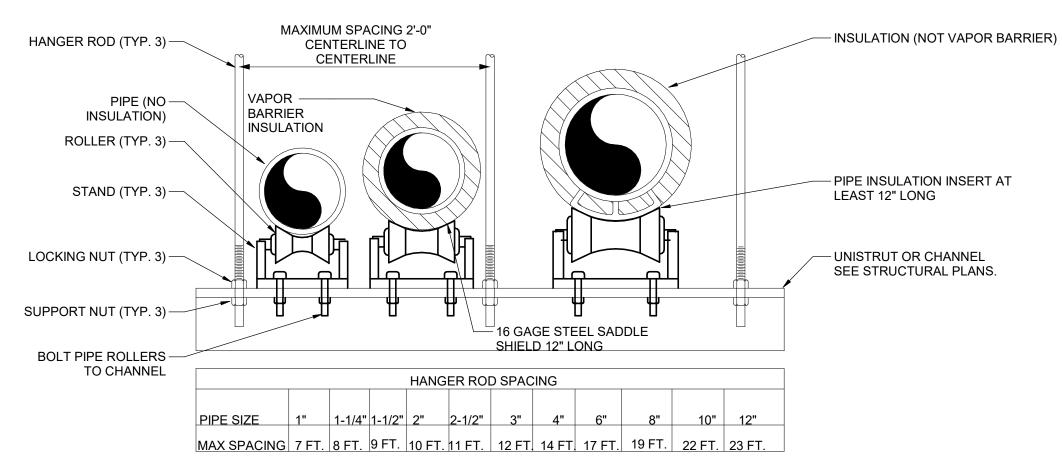
P4.0

PROVIDE AN INDIVIDUAL VENT ON ALL FLOOR DRAINS. INSTALL VENT IN PARTITION OR CHASE WHERE SHOWN ON PLAN. HORIZONTAL VENT BELOW FLOOR IS NOT PERMITTED. IF FLOOR DRAIN/SINK IS MORE THAN 5' ON A 2" WASTE OR 6' ON A 3" WASTE FROM THE PARTITION, PROVIDE A TRAP AND WASTE LINE TWO PIPE SIZES LARGER THAN THE DRAIN/SINK OUTLET, WITH A REDUCER ON THE TRAP INLET, AND VENT WITHIN 15 FEET. OTHER VENTING METHODS MAY BE USED IF APPROVED BY LOCAL CODE.



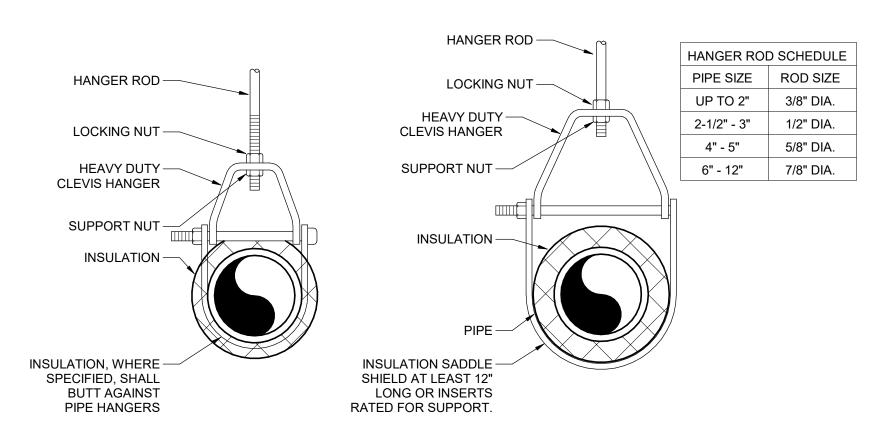
LOCATE FLOOR DRAIN/SINK WHERE SHOWN ON DIMENSIONED ARCHITECTURAL PLAN. IF FLOOR STRUCTURE INTERFERES WITH PLACEMENT, MOVE SIDEWAYS IF POSSIBLE, OTHERWISE MOVE BACK. ALWAYS LOCATE WHERE EASILY ACCESSIBLE, BUT NOT IN FOOT TRAFFIC. IF SITUATION IS FLOOR SLAB ON GRADE, PROVIDE BACKFILL PER SPECIFICATIONS. IF FLOOR IS EXISTING, SAW CUT OR CORE DRILL IT. SET DRAIN BODY IN PLACE & POUR AROUND IT. IF SITUATION IS FLOOR NOT ON GRADE, REFER TO "FLOOR

# FLOOR DRAIN/SINK INSTALLATION SCALE: NONE



NOTE: TRAPEZE HANGERS APPLY TO ALL MULTIPLE HORIZONTAL RUNS WITH OR WITHOUT VAPOR BARRIER INSULATION. COORDINATE INSTALLATION WITH ALL OTHER CONDITIONS TO ALLOW SPACE FOR OTHER SERVICES.

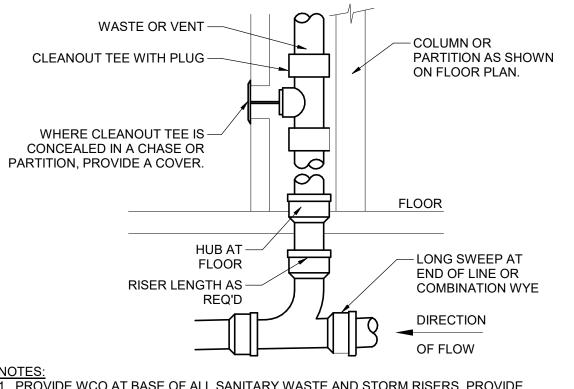
# TRAPEZE HANGER



SINGLE HORIZONTAL RUNS WITH NO VAPOR BARRIER **INSULATION** 

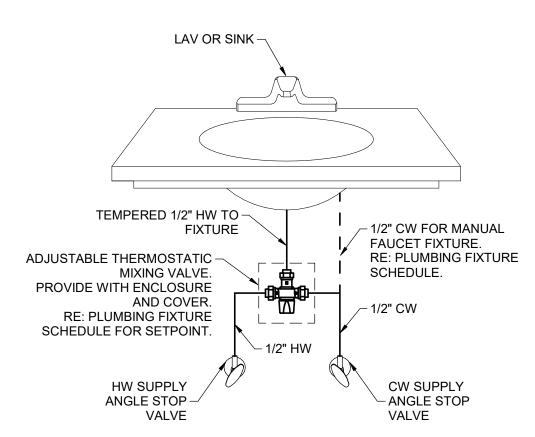
SINGLE HORIZONTAL RUNS WITH VAPOR BARRIER



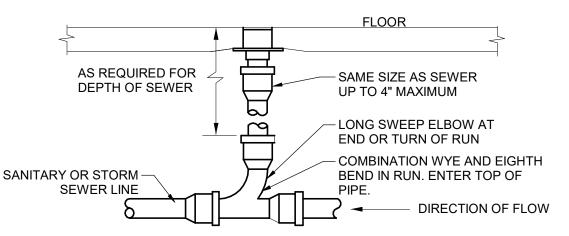


NOTES:

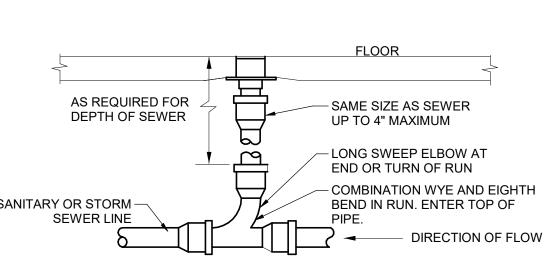
1. PROVIDE WCO AT BASE OF ALL SANITARY WASTE AND STORM RISERS. PROVIDE WCO WHERE SHOWN ON PLANS, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT. CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS. REFER TO PLUMBING FIXTURE SCHEDULE FOR FURTHER INFORMATION. 2. CLEANOUT FACE SHALL BE WITHIN 1-1/2" OF WALL SURFACE. PROVIDE EXTENSION



THERMOSTATIC MIXING VALVE
SCALE: NONE

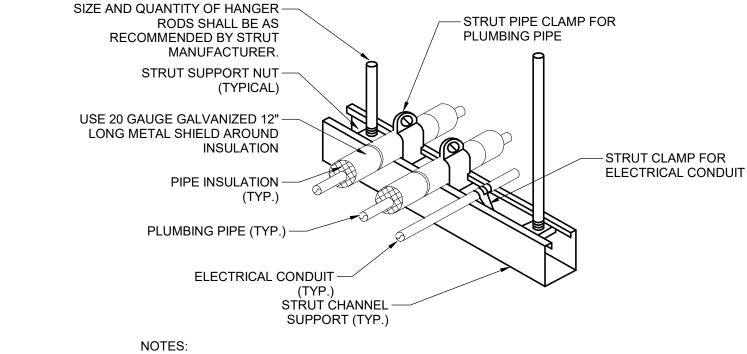


THAN 45 DEGREES, AT 100' INTERVALS ON STRAIGHT RUNS, AND/OR WHERE SHOWN ON PLANS. PROVIDE BACKFILL PER ARCHITECTURAL SPECIFICATIONS LOCATE CLEANOUTS WHERE THERE IS 18" CLEAR AROUND. CONSULT LOCAL CODES FOR OTHER FCO REQUIREMENTS.



1. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED CAST IRON FOR UNFINISHED FLOORS).

2. LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER



1. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON SAME SUPPORT CHANNEL WHERE PRACTICAL. 2. SUPPORT CHANNEL LENGTH SHALL NOT BE DETERMINED UNTIL ALL PIPING AND CONDUIT TO BE SUPPORTED IS COORDINATED.

TRAPEZE PIPE HANGER

SOURCE SIDE

FIELD CONNECTIONS BY

CONTRACTOR (TYP.)

- HW PIPING DOWN IN WALL.

2015 IECC TABLE 404.5.1 REQUIRED DISTANCE.

RE: PLANS FOR SIZE.

3-PIECE SHUTOFF

**VALVE** 

ZONE VALVE BOX DETAIL
SCALE: NONE

PUBLIC LAV

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Description	Date
Designed By:	

Designed by.	
	M
Drawn By:	
	J
Reviewed By:	
	R
Project No:	
	120300
Date:	
	08/15/2

08/15/22 Submittal Level: 100% CDs

Sheet Title:

PLUMBING SCHEDULES

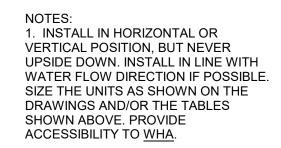
Sheet No.:

P5.0

LUI	MBING FIX	SLOAN   ST-2459-STG   WALL HUNG, SIPHON JET, GLAZING, ELONGATED RIM, ADA MOUNTING HEIGHT.   1.28   YES   - 4"   2"   5									
TURE	COMPONENT	MANUFACTURER	MODEL	DESCRIPTION		ACCESSIBLE	ELECTRICAL	WASTE	VENT	cw	HW
VC-1	WATER CLOSET SEAT FLUSH VALVE	BEMIS	2155SSCT	OPEN FRONT SOLID PLASTIC SEAT.	1.28	YES	-	4"	2"	1"	-
	LAVATORY FAUCET			OPERATED FAUCET, WITH MV-1. PROVIDE WITH IPS CORP 2018SLSS3003 IN PUBLIC/PATIENT AREAS.	0.5	YES	-	2"	1-1/2"	1/2"	1/2"
	SINK FAUCET			MANUALLY OPERATED FAUCET WITH 4" CENTERS.	1.0	-	-	2"	1-1/2"	1/2"	1/2"
VHA	WATER HAMMER ARRESTOR	SIOUX CHIEF	652-A		-	-	-	-	-	PER DETAIL	-
D-1	FLOOR DRAIN	ZURN	ZN415B	CAST IRON FLOOR DRAIN, 6" DIAMETER STRAINER, 8"DIA. BODY, SEEPAGE SLOTS, COMBO MEMBRANE CLAMP AND ADJUSTABLE COLLAR, LIGHT DUTY NICKEL BRONZE STRAINER.	-	-	-	PER PLAN	-	-	-
CO	FLOOR CLEANOUT	ZURN	ZN1400-BZ1-BP-VP	ADJUSTABLE, COATED CAST IRON BODY, BRONZE THREADED PLUG, ROUND SCORIATED NICKEL BRONZE MEDIUM-DUTY TOP.	-	-	-	PER PLAN	-	-	-
VCO	WALL CLEANOUT	ZURN	Z1446-BP	EPOXY COATED CAST IRON BODY WITH BRONZE PLUG, ROUND STAINLESS STEEL WALL ACCESS COVER, AND SECURING SCREW.	-	-	-	PER PLAN	-	-	-

HOT WATER MIXING VALVE SCHEDULE											
							ELECTRI	ICAL			
MARK	MANUFACTURER &	MINIMUM	MAXIMUM	INLET WATER	OUTLET WATER	PRESSURE	VOLTS	PH			
	MODEL OR EQUAL	GPM	GPM	TEMP (F)	TEMP (F)	DROP (PSI)			NOTES:		
MV-1	LEONARD 170A-LF	0.25	1.9	125	105	20	N/A	N/A	1		

	MANUFACTURER &			VALVE:	SIZE (IN.	)						
//ARK	MODEL OR EQUAL	ZONE VALVE BOX LOCATION	ROOMS SERVED	MA	0	MV	WAGD	N2O	LA	IΑ	CO2	NOTES
VB-1	POWEREX - ZVBNXXXXXXX	HALLWAY 170	PROCEDURE 176		Х	Х			Х			1,2



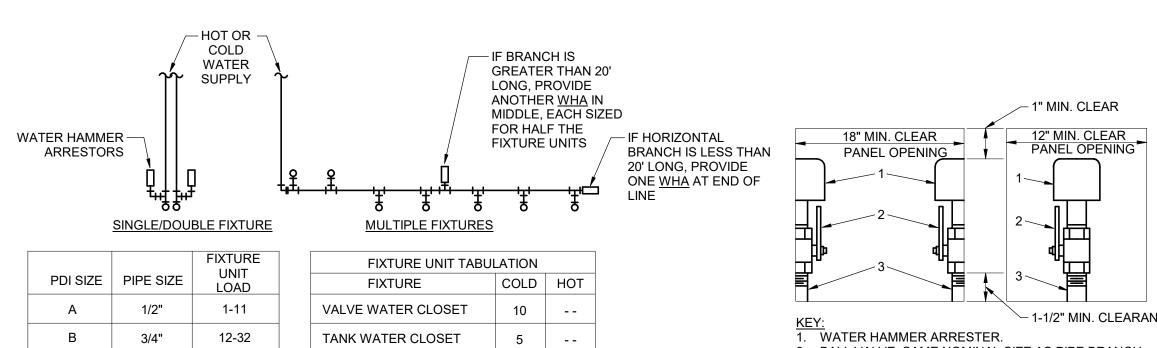
NO AERATORS ON ALL LAVATORIES AND SINKS.

**GENERAL NOTE:** 

2. INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. PROVIDE A <u>WHA</u> AT ALL QUICK-CLOSING VALVES.

3. FOR INDIVIDUAL SINKS/LAVATORIES WITH SOLENOID VALVES, INSTALL COMBINATION LOOSE KEY ANGLE STOP WITH WATER HAMMER ARRESTOR.

4. WATER HAMMER ARRESTORS MAY BE INSTALLED ABOVE CEILING.



SLE FIXTURE		MULTIPLE FIXTURES		
	_			
FIXTURE UNIT		FIXTURE UNIT TABUI	_ATION	
LOAD		FIXTURE	COLD	НОТ
1-11		VALVE WATER CLOSET	10	
12-32		TANK WATER CLOSET	5	
33-60		URINAL	5	
61-113		LAVATORY/SINK	1.5	1.5
114-154		JANITOR'S SINK	3	3
155-330		SHOWER/BATHTUB	2	2

<u>E</u>	MULTIPLE FIXTURES	_	
	FIXTURE UNIT TABU	LATION	
	FIXTURE	COLD	НОТ
	VALVE WATER CLOSET	10	
	TANK WATER CLOSET	5	
	URINAL	5	
	LAVATORY/SINK	1.5	1.5
	JANITOR'S SINK	3	3
	SHOWED/BATHTUB	2	2

20' LONG, PROVIDE ONE <u>WHA</u> AT END OF LINE		
	KEY:  1. WATER HAMMER ARRESTER.  2. BALL VALVE, SAME NOMINAL SIZE AS PIPE BRANCH IN CHASE. OPENING IN BALL VALVE TO MATCH PIPE ID.  3. PIPE SAME SIZE AS BRANCH IN CHASE TO WHICH IT IS ATTACHED.	

SIZE AS PIPE BRANCH TO MATCH PIPE ID. CHASE TO WHICH IT

NOTE:
1. PROVIDE REDUCER IF REQUIRED BETWEEN VALVE AND WATER HAMMER ARRESTER.

∠ 1" MIN. CLEAR

1 WATER HAMMER ARRESTOR AND PANEL

SCALE: NONE

С

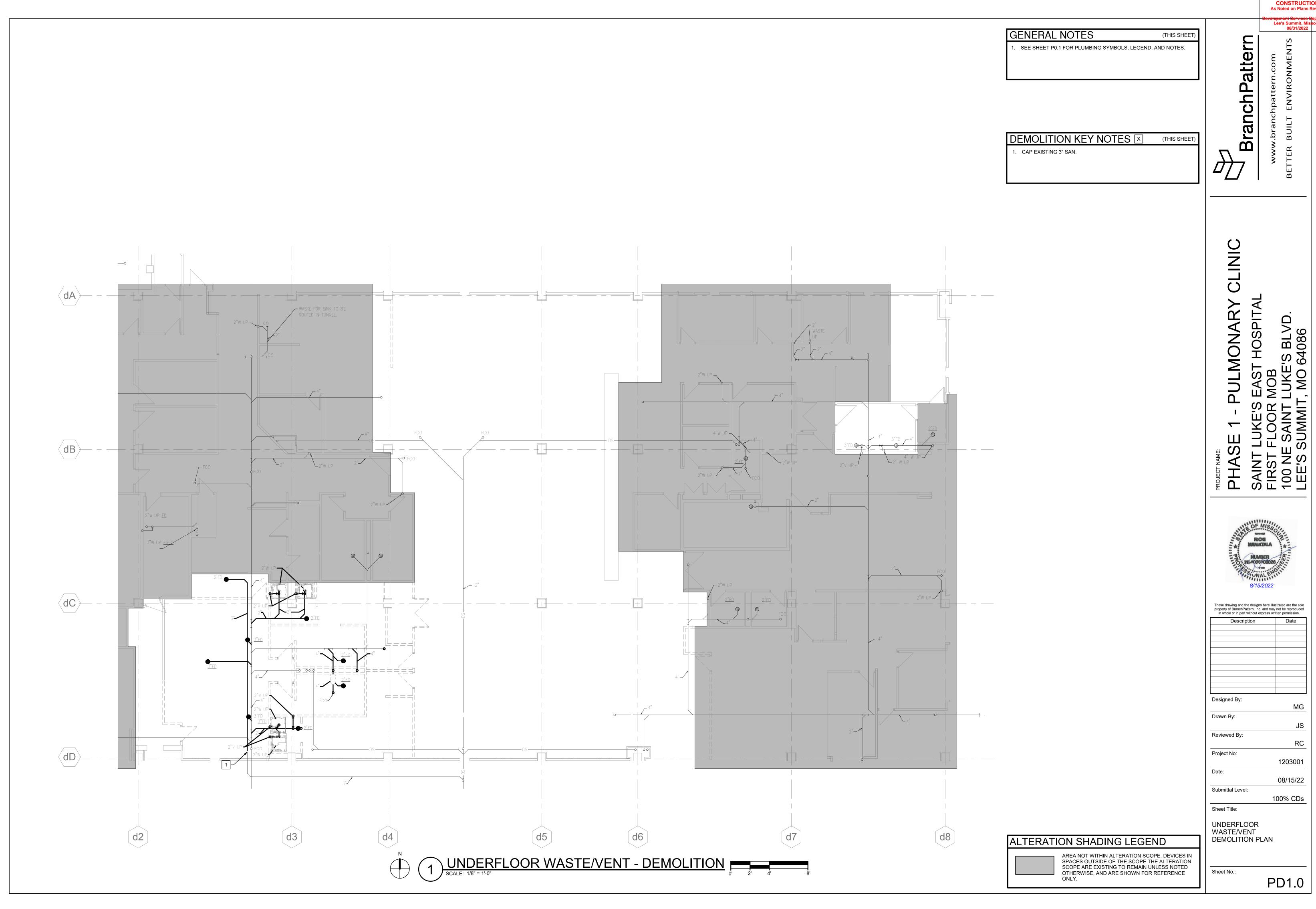
D

1"

1-1/4"

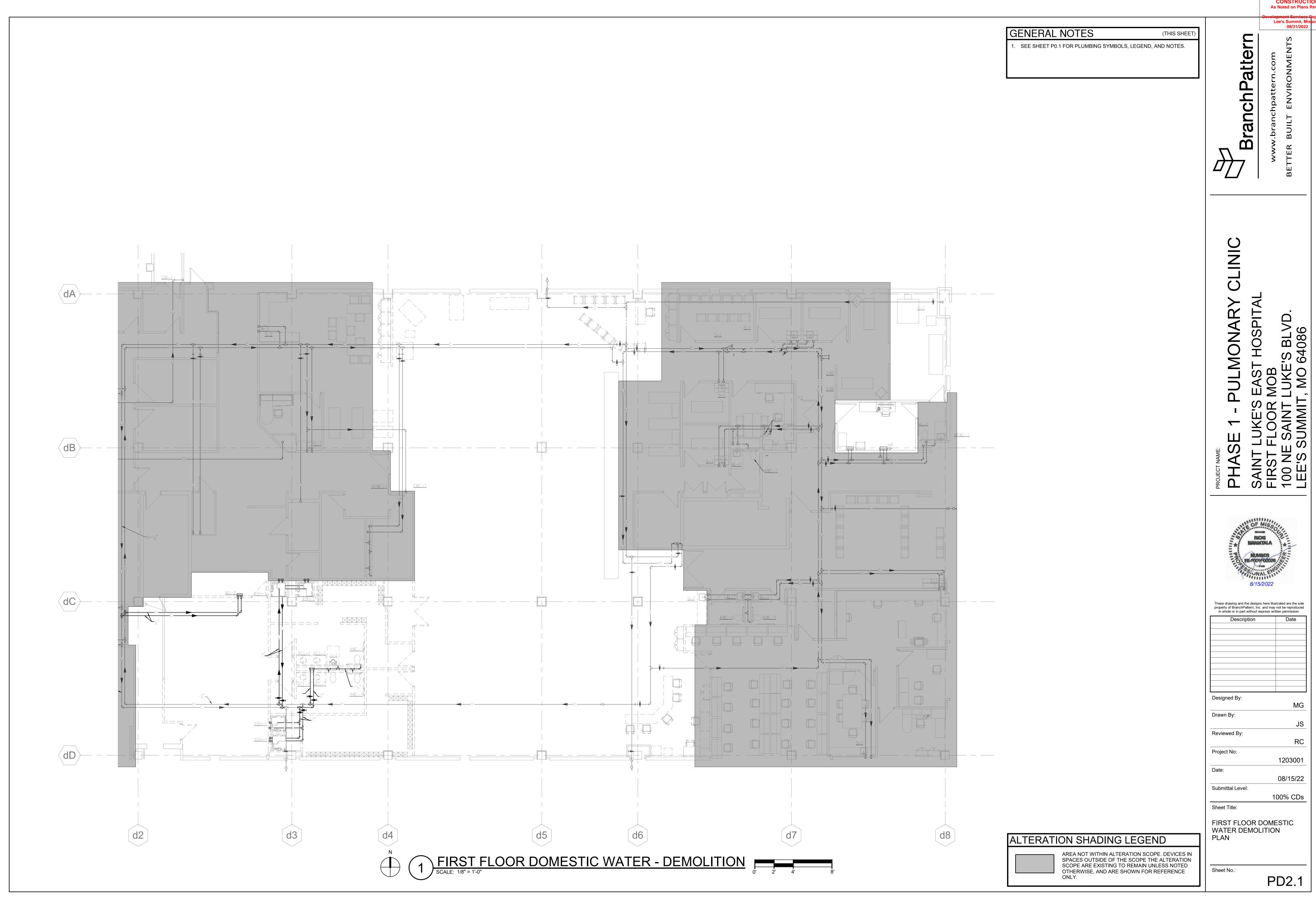
1-1/2"

2"



RELEASED FOR
CONSTRUCTION
As Noted on Plans Review





RELEASED FOR
CONSTRUCTION
As Noted on Plans Review

TECHNOLOGY SHEET INDEX

T0.1 TECHNOLOGY LEGEND T0.2 TECHNOLOGY NOTES

T3.0 TECHNOLOGY DIAGRAMS

T4.0 TECHNOLOGY DETAILS

TD1.0 TECHNOLOGY DEMOLITION PLAN T1.0 FIRST FLOOR TECHNOLOGY PLAN

> Designed By: Drawn By:

Reviewed By: Project No: 1203001

Date: 08/15/22 Submittal Level: 100% CDs

Sheet Title:

TECHNOLOGY LEGEND

Sheet No.:

T0.1

MM

MM

JB

SYME	BOL TYP	PES						ABBREVI	ATIONS
NOTE: THIS IS	S A MASTER SYMB	OLS LIST. A	LL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL	DRAWINGS				AC ABOVE COUNTE AFF ABOVE FINISHEI	
TELECOM SY	MBOLS							C CONDUIT	
			DN WALL. XX INDICATES TYPE, DEVICE INFORMATION.  XX  TELECOM DATA DEVICE MOUNTE REFER TO SCHEDULE BELOW FO		TYPE,  TELECOM DATA DEVICE MOUNTED ON CEILING. XX REFER TO SCHEDULE BELOW FOR DEVICE INFORM	INDICATES TYPE, XX TELECOM ANALOG DEVICE MOUNTED OF MATION. ∇ REFER TO SCHEDULE BELOW FOR DEVI		CFOI CONTRACTOR F (E) EXISTING	FURNISHED AND CONTRACTOR INSTALLED FURNISHED AND OWNER INSTALLED
			D ON FLOOR. XX INDICATES TYPE, OTHER TO SCHEDULE BELOW TYPE, REFER TO SCHEDULE BELOW.		N.	FOR DEVICE XX INDICATES TYPE, REFER TO SCHEDU		ÉF ENTRANCE FAC ER EQUIPMENT RO GND GROUND	
CEILING	G. XX INDICATES T		ION DEVICE MOUNTED ON R TO SCHEDULE BELOW FOR		INFORMATION.	INFORMATION.		IG ISOLATED GROU LAN LOCAL AREA NE	TWORK
AV SYMBOLS	E INFORMATION.							LC LUCENT CONNE  Mbps MEGABITS PER  MM MULTIMODE	
Y SCHED	OULE BELOW FOR	DEVICE INFO		XX INDICATES TYPE, REFER NFORMATION.	AV DEVICE MOUNTED ON CEILING. XX INDICATES TO SCHEDULE BELOW FOR DEVICE INFORMATION.	YPE, REFER TO  AV CAMERA MOUNTED ON WALL. XX IND SCHEDULE BELOW FOR DEVICE INFORM			SHED AND CONTRACTOR INSTALLED SHED AND OWNER INSTALLED E PLANT
SCHED	OULE BELOW FOR I	ON CEILING.  DEVICE INFO	XX INDICATES TYPE, REFER TO DRMATION.					PBB PRIMARY BOND PoE POWER OVER E PoE+ POWER OVER E	THERNET
	RITY DEVICE MOUN		ALL. XX INDICATES TYPE, REFER SECURITY DEVICE MOUNTED ON		REFER SECURITY DEVICE MOUNTED ON CEILING. XX INDIC.	SATES TYPE, REFER (XX) SECURITY CAMERA MOUNTED ON WALL		RU RACK UNIT (1.75	<b>"</b> )
SECUR		INTED ON CI	INFORMATION.  EILING. XX INDICATES TYPE, DEVICE INFORMATION.	E INFORMATION.	TO SCHEDULE BELOW FOR DEVICE INFORMATION.	TO SCHEDULE BELOW FOR DEVICE INFO	RMATION.	QTY QUANTITY  SBB SECONDARY BC  SEF SERVICE ENTRA  SM SINGLE MODE	
SYSTEM TYPE	MOUNTING TYPE	TYPE	DESCRIPTION	MOUNTING	INFRASTRUCTURE BOX	INFRASTRUCTURE CONDUIT	REFERENCE COUNT		CATIONS INDUSTRY ASSOCIATION
AUDIOVISUAL	CEILING	S	LOUDSPEAKER FOR ROOM SYSTEM	-	INTEGRAL TO LOUNDSPEAKER BACKCAN (PROVIDED BY AV CONTRACTOR)	NA, PLENUM CABLING	14	UG UNDERGROUND	
AUDIOVISUAL	WALL	AV	AV INTERFACE (2 DATA, 1 HDMI POINT TO POINT TO DISPLAY BOX)	1' - 6" AFF	4-11/16" SQUARE WITH 2-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(1) 1-1/4" STUBBED TO ACCESSIBLE CEILING	1	UNO UNLESS OTHER UPS UNINTERRUPTIE	WISE NOTED BLE POWER SUPPLY
AUDIOVISUAL	WALL	D	DISPLAY - SHARED BOX FOR POWER, (2) DATA AND AV (HDMI CONNECTION TO "AV" BOX)	6' - 0" AFF	CHIEF #PAC525	(2) 1-1/4" STUBBED TO ACCESSIBLE CEILING	1	UTP UNSHIELDED TV W/ WITH	VISTED PAIR
AUDIOVISUAL	WALL	TV	TV OUTLET WITH (1) COAX AND (1) DATA, REFER TO TECHNOLOGY DETAIL SHEETS FOR ADDITIONAL INFORMATION.	6' - 0" AFF	4 SQUARE WITH 1 GANG MUD-RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(2) 1" C. TO IN-ROOM MEDIA PANEL, UNO	5	W/ WITH W/O WITHOUT WAO WORK AREA OU	JTLET
DATA DEVICE	WALL	2	2-PORT TELECOM OUTLET	1' - 6" AFF	4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(1) 1" C TO ACCESSIBLE CEILING SPACE	50	WAP WIRELESS ACC	
DATA DEVICE	WALL	2AC	2-PORT DATA OUTLET MOUNTED ABOVE COUNTER	6" ABOVE COUNTERTOP OR MATCH ELECTRICAL BOXES		(1) 1" C. TO NEAREST ACCESSIBLE CEILING	1	XC CROSS-CONNEC	CT
DATA DEVICE	WALL	4	4-PORT TELECOM OUTLET	1' - 6" AFF	4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(1) 1" C TO ACCESSIBLE CEILING SPACE	2		
DISPLAY  NURSE CALL	SURFACE WALL	EP	EMERGENCY PULL CORD STATION	8' - 0" AFF 4' - 0" AFF	4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED  SURFACE MOUNT DEVICE TO UNDERSIDE OF DESK AND ROUTE TO	1" C TO NEAREST ACCESSIBLE CEILING	1	EQUIPME	NT LEGEND
SECURITY	WALL	DR	Door Release Button Wall Box	1' - 6" AFF	(1) 4" X 4", FLUSH MOUNTED, 2-1/8" DEEP BACK BOX W / 1-GANG PLASTER RING  4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8"	(1) 3/4" CONDUIT TO NEAREST ACCESSIBLE CEILING	1		FLAT PANEL DISPLAY, REFER TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
SECURITY SECURITY	WALL	R	CARD READER	3' - 10" AFF	DEEP BACK BOX	(1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING	9		PROJECTION SCREEN, REFER
CAMERA	CEILING	90	SURVEILLANCE CAMERA - INTERIOR 90 DEGREE	-	N/A	N/A, PLENUM CABLING	7		TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
CAMERA	CEILING	360	SURVEILLANCE CAMERA - INTERIOR 360 DEGREE	-	N/A	N/A, PLENUM CABLING	7		LADDER RACK
									4-POST RACK
									2-POST RACK
								XX	WALL PANEL, "XX" INDICATES TYPE, CHECK ABBREVIATIONS LIST FOR TYPE.

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Description	Date
Designed By:	
	M

Drawn By: MM Reviewed By: JB Project No: 1203001 Date: 08/15/22

Submittal Level: Sheet Title:

TECHNOLOGY NOTES

Sheet No.:

T0.2

100% CDs

GENERAL NOTES	RESPONSIE	BILITY MATRIX			
DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.	SYSTEM	SCOPE DESCRIPTION	SPECIFICATION SECTION	FURNISHED BY	INSTALLED BY
REFER TO ALL ARCHITECTURAL/ELECTRICAL/STRUCTURAL/CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.	ALL LOW-VOLTAGE SYSTEMS	BACKBOXES AND CONDUIT	DIVISION 26	CONTRACTOR	CONTRACTOR
FINAL CONNECTIONS TO EQUIPMENT SHALL BE IN ACCORDANCE WITH MANUFACTURER'S APPROVED WIRING DIAGRAMS, DETAILS, AND INSTRUCTIONS. IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO PROVIDE		GROUNDING BUSBAR	DIVISION 26	CONTRACTOR	CONTRACTOR
MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.		GROUND AND BONDING TO EQUIPMENT	27 12 00	CONTRACTOR	CONTRACTOR
WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.		DISCONTINUOUS PATHWAYS (J-HOOKS, RINGS)	27 11 50	CONTRACTOR	CONTRACTOR
PROVIDE PERMITS AND INSPECTIONS REQUIRED. SYSTEM SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE.		CONTINUOUS PATHWAYS (TRAY)	27 11 50	NOT IN CONTRACT	NOT IN CONTRA
CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE	COMMUNICATIONS	CABLING	27 15 00	CONTRACTOR	CONTRACTOR
ACCEPTED AS REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.		FACEPLATES, CABLE TERMINATIONS AND TESTING	27 15 00 / 27 08 00	CONTRACTOR	CONTRACTOR
ALL SYSTEMS SHALL BE COMPLETE AND FULLY OPERATIONAL. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE		RACKS, ENCLOSURES, LADDER TRAY	27 11 00	CONTRACTOR	CONTRACTOR
ENGINEER RESERVES THE RIGHT TO APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.  PROVIDE RECORD DRAWINGS TO THE ARCHITECT/ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM	NETWORK ACTIVE DEVICES	WIRELESS ACCESS POINTS (WAPS)	N/A	OWNER	CONTRACTOR
ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT		NETWORK SWITCHES	N/A	OWNER	OWNER
FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS		SERVERS / COMPUTERS / PHONES	N/A	OWNER	OWNER
SECTION. 2. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS		UPS AND PDU	27 11 00	CONTRACTOR	CONTRACTOR
PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMERS PADS, SAW CUTTING AND PATCHING,		CLOCKS	N/A	NOT IN CONTRACT	NOT IN CONTRAC
CONCRETE PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH		MASS NOTIFICATION SYSTEM	N/A	NOT IN CONTRACT	NOT IN CONTRA
EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.  THE DATA GIVEN ON THE DRAWING IS AS EXACT AS COULD BE SECURED. THE CONTRACTOR SHALL OBTAIN		DISTRIBUTED ANTENNA SYSTEM (RADIO / CELL REPEATER OR BOOSTER)	N/A	NOT IN CONTRACT	NOT IN CONTRA
EXACT LOCATION, MEASUREMENTS, LEVELS, ETC. AT THE SITE AND SHALL SATISFACTORILY ADAPT THE WORK TO THE ACTUAL CONDITIONS AT THE PROJECT SITE. I. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN. I. ROUTE ALL WIRE AND CONDUIT CONCEALED, FOR ALL SYSTEMS, UNLESS NOTED OTHERWISE.	AV	CABLING, FACEPLATES, CABLE TERMINATIONS AND TESTING	27 41 00 / 27 15 00	CONTRACTOR	CONTRACTOR
6. ACCURATE RECORDS OF WORK MODIFICATIONS (AS-BUILTS) SHALL BE KEPT DAILY. 7. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE		DISPLAYS	27 41 00	CONTRACTOR	CONTRACTOR
OWNERS DESIGN CRITERIA, UTILITY COMPANY REQUIREMENTS, APPLICABLE INDUSTRY STANDARDS OF GOOD		RACKS, ENCLOSURES, HOUSINGS	27 41 00	CONTRACTOR	CONTRACTOR
PRACTICE AND SAFETY AND THE MANUFACTURER'S STRICTEST RECOMMENDATIONS FOR EQUIPMENT AND PRODUCT APPLICATION AND INSTALLATION.		AV EQUIPMENT	27 41 00	CONTRACTOR	CONTRACTOR
3. VALIDATE ALL QUANTITIES. DEVICES SHOWN ON PLANS TAKE PRECEDENCE OVER SCHEDULE QUANTITIES. ). CARD READERS MUST BE WITHIN 6" OF DOOR FRAME, UNO.		PERFORMANCE SYSTEM EQUIPMENT (AUDITORIUM)	N/A	NOT IN CONTRACT	NOT IN CONTRAC
		CABLE / ANTENNA TELEVISION (CATV)	27 41 33	CONTRACTOR	CONTRACTOR
GENERAL INFRASTRUCTURE NOTES		PROJECTION SCREENS	N/A	NOT IN CONTRACT	NOT IN CONTRAC
ALINEITAL IIVI ITAGIITOOTOTTE NOTEG		PUBLIC ADDRESS SYSTEMS	27 51 16	CONTRACTOR	CONTRACTOR
IF THE ENCLOSURE, BOXES AND CABINETS SPECIFIED ARE NOT PROVIDED FROM THE MANUFACTURER WITH		SOUND MASKING	N/A	NOT IN CONTRACT	NOT IN CONTRAC
THE REQUIRED KNOCKOUTS FOR THE SPECIFIED CONDUIT, FIELD CUT ALL REQUIRED KNOCKOUTS TO TERMINATE THE QUANTITY AND SIZE OF THE SPECIFIED CONDUITS.	ELECTRONIC SECURITY	CABLING	28 13 00 / 27 15 00	CONTRACTOR	CONTRACTOR
MAINTAIN MAXIMUM SEPARATION BETWEEN AV SYSTEM CONDUIT AND ALL POWER CONDUIT. INSTALL NYLON PULL STRINGS IN ALL CONDUIT.		FACEPLATES, CABLE TERMINATIONS AND TESTING	28 13 00	CONTRACTOR	CONTRACTOR
INSTALL ALL CONDUIT IN A CONCEALED FASHION. SURFACE MOUNTED CONDUIT WILL NOT BE ACCEPTED		ENCLOSURES, HOUSINGS, POWER SUPPLIES	28 13 00	CONTRACTOR	CONTRACTOR
UNLESS SPECIFICALLY IDENTIFIED IN THE DRAWINGS. COVER ALL INSTALLED JUNCTION BOXES AND MUD RINGS WITH BLANK COVER PLATES.		ACCESS CONTROL - DOOR DEVICES	28 13 00	CONTRACTOR	CONTRACTOR
ALL CONDUIT SHALL BE A MINIMUM DIAMETER OF 3/4" UNLESS NOTED OTHERWISE. ALL CONDUIT SHALL BE THIN-WALL EMT UNLESS NOTED OTHERWISE. CONDUIT SIZES AND TERMINATION SHALL		ACCESS CONTROL - CONTROLLER / SERVER	28 13 00	CONTRACTOR	CONTRACTOR
BE AS NOTED ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS.		ENTRY INTERCOM	N/A	NOT IN CONTRACT	NOT IN CONTRAC
MAXIMUM OF TWO 90-DEGREE BENDS OR 50 LINEAR FEET BETWEEN PULL BOXES. ADDITIONAL PULL BOXES		SURVEILLANCE - CAMERAS	28 23 00	CONTRACTOR	CONTRACTOR

NURSE CALL

SURVEILLANCE - RECORDING / SERVERS (NVR) AND

INTRUSION DETECTION (MOTION, GLASS BREAK)

FACEPLATES, CABLE TERMINATIONS AND TESTING

ENCLOSURES, HOUSINGS, POWER SUPPLIES

DEVICES (PULL STATIONS, DOME LIGHTS)

CABLING

28 23 00

N/A

27 52 23

27 52 23

27 52 23

27 52 23

CONTRACTOR

NOT IN CONTRACT

CONTRACTOR

CONTRACTOR

CONTRACTOR

CONTRACTOR

CONTRACTOR

NOT IN CONTRACT

CONTRACTOR

CONTRACTOR

CONTRACTOR

CONTRACTOR

## **GENERA**

- IF THE ENCL THE REQUIRE **TERMINATE**
- MAINTAIN MA
- INSTALL ALL UNLESS SPE
- COVER ALL

- ALL CONDUIT ALL CONDUIT BE AS NOTE
- MAXIMUM OF
- MOUNT BOXES ON WALLS AT THE HEIGHTS NOTED ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS IF ELECTRICAL BOXES ARE AT SIMILAR BUT DIFFERENT HEIGHTS, MOUNT BOXES TO MATCH ELECTRICAL BOX

HEIGHTS, (18" AFF OR 46" AFF, ETC.). DIMENSIONS SHOWN ON THESE DRAWINGS ARE TO THE CENTER OF BOX

UNLESS OTHERWISE NOTED. IF MATCHING HEIGHTS WITH ELEC DOES NOT FOLLOW ADA OR OTHER APPLICABLE CODES OR STANDARDS, SUBMIT A RFI FOR CLARIFICATION. PROVIDE NYLON BUSHINGS ON ALL CONDUIT STUBS AND NON-TERMINATED CONDUIT ENDS.

### GENERAL AV INSTALLATION NOTES

INSTALL ALL EQUIPMENT IN COMPLIANCE WITH THE MANUFACTURER'S WRITTEN INSTRUCTIONS, SEISMIC CODES, AND INDUSTRY ACCEPTED RIGGING PRACTICES. SUPPORT EQUIPMENT WEIGHT FROM STRUCTURE ABOVE CEILINGS. DURING THE SUBMITTAL PROCESS, PROVIDE SHOP DRAWINGS WHICH DETAIL PROPOSED MOUNTING FOR ALL SUCH EQUIPMENT.

## GENERAL GROUNDING NOTES

- ISOLATE ALL EQUIPMENT FROM CONDUIT AND BUILDING STEEL.
- GROUND COMMUNICATIONS SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH ANSI-TIA-EIA GROUNDING STANDARD AND APPLICABLE NEC REQUIREMENTS.
- ALL RACKS, METALIC BACKBOARDS, CABLE TRAYS, SPLICE CASES, ETC. IN A TECHNICAL EQUIPMENT SPACE (EITHER RESIDING IN OR ENTERING/EXITING) SHALL BE GROUNDED TO THEIR RESPECTIVE GROUND SYSTEM
- USING A #6 AWG (MINIMUM) COPPER BONDING CONDUCTOR. ALL GROUND WIRES USED FOR TECHNICAL SYSTEM GROUNDING SHALL BE IDENTIFIED AT THEIR TERMINATION
- POINTS WITH GREEN WRAP/TAPE. THESE GROUNDS SHALL BE LABELED/IDENTIFIED AS "TECHNICAL POWER SYSTEM GROUND".

EAST HOSPITAL MOB UKE'S BLVD. MO 64086 JLMONARY PHAS SAINT FIRST 100 NE LEE'S

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Designed By:

Drawn By: MM Reviewed By:

Project No: 1203001 08/15/22

Date: Submittal Level:

Sheet Title:

FIRST FLOOR TECHNOLOGY PLAN

AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION Sheet No.:

SCOPE ARE EXISTING TO REMAIN UNLESS NOTED OTHERWISE, AND ARE SHOWN FOR REFERENCE ONLY.

T1.0

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**GENERAL NOTES** THE INSTALLATION OF NEW LOW-VOLTAGE PATHWAYS SHOULD BE COORDINATED IN THE FIELD WITH ALL TRADES BEFORE COMMENCING WORK.

. ALL PRIMARY CABLE PATHWAYS TO BE SUPPORTED BY METALLIC

JHOOKS, AND SIZED AS REQUIRED TO SUPPORT INITIAL CABLE QUANTITIES PLUS GROWTH PER SPECIFICATIONS.

TELECOM CONTRACTOR TO COORDINATE WITH OWNER, ELECTRICAL CONTRACTOR AND FURNITURE INSTALLER. ELECTRICAL CONTRACTOR TO PROVIDE PATHWAY FROM ABOVE FINISHED CEILING DOWN TO FURNITURE PATHWAYS AND INSTALLATION PLATES FOR DATA CABLING. TELECOM CONTRACTOR TO COORDINATE WITH FURNITURE INSTALLER FOR COMPATIBLE TERMINATION HARDWARE FOR DATA OUTLETS.

OWNER TO PROVIDE HEAT MAP SHOWING WIRELESS ACCESS POINT LOCATIONS FOR RENOVATED SPACE.

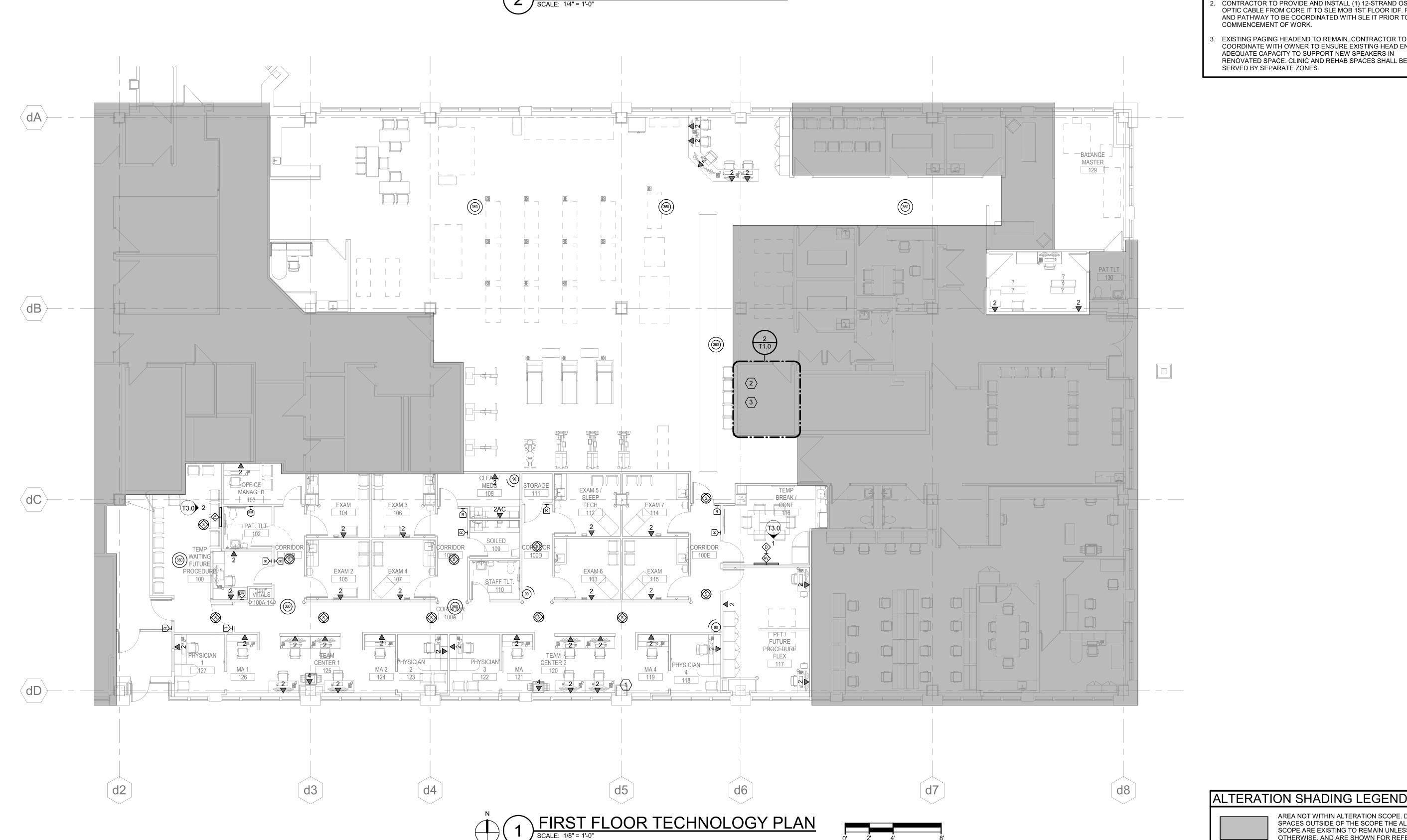
### KEY NOTES 🕸

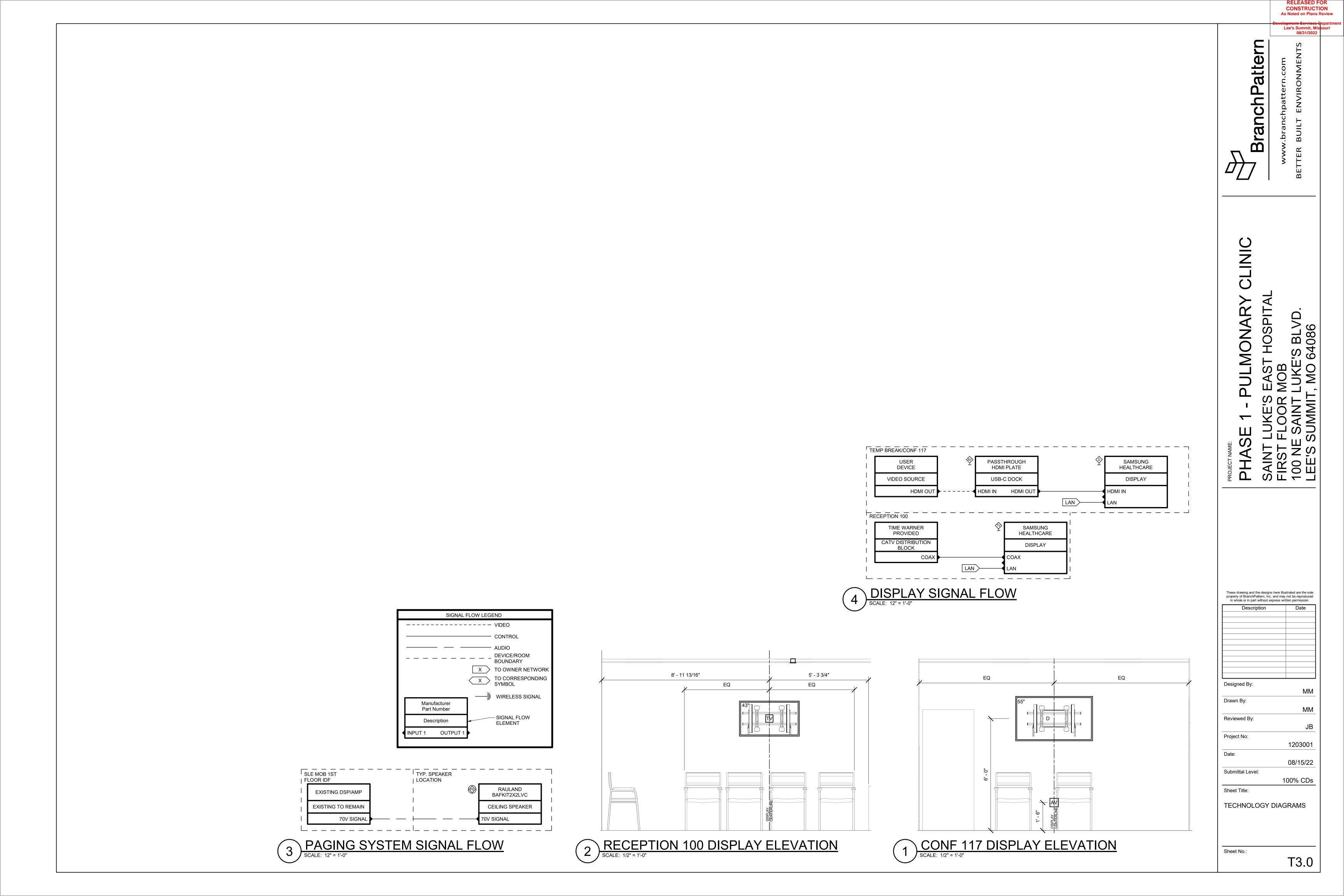
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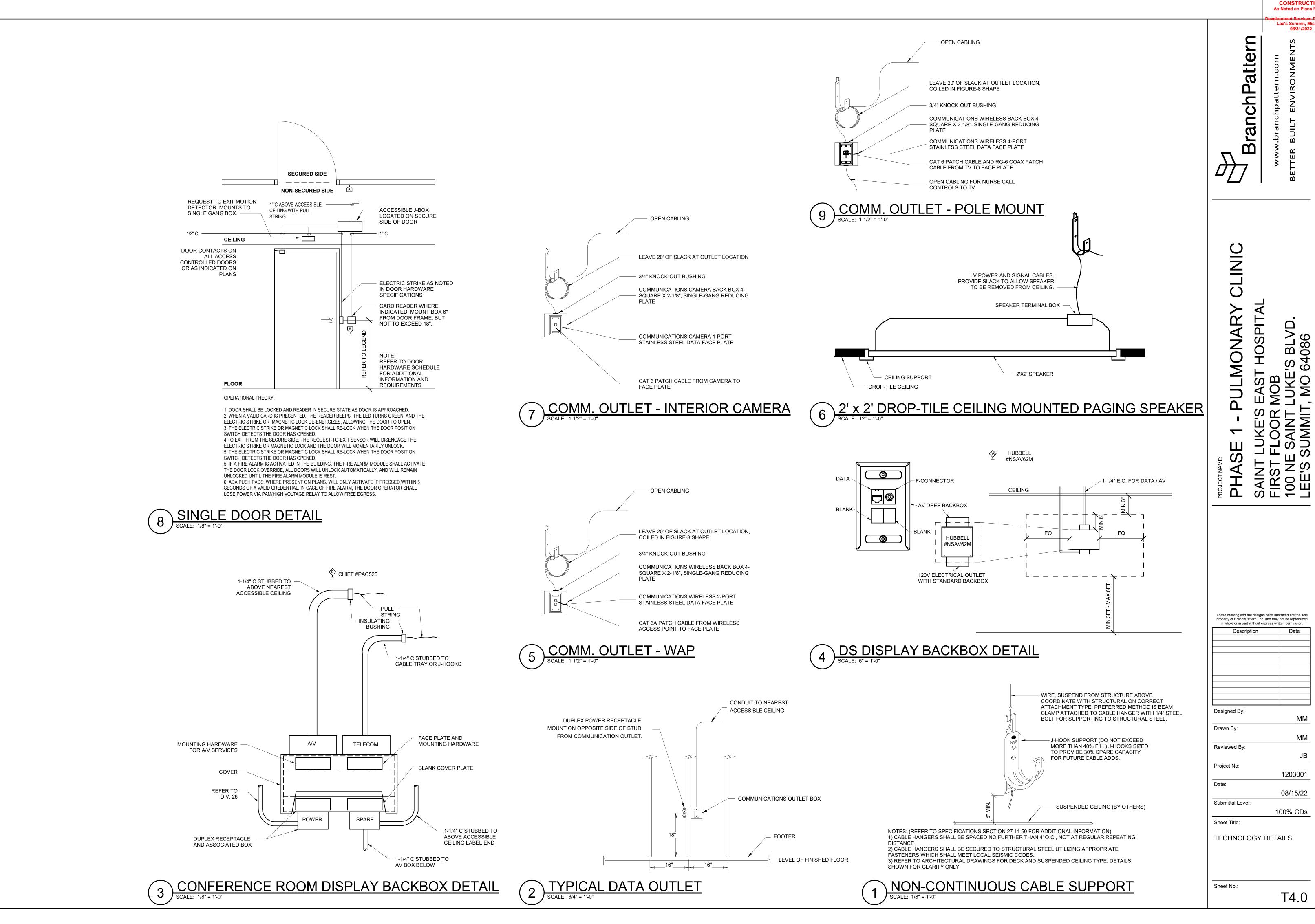
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- EXISTING SIRIUS XM HEAD END TO BE RELOCATED. COORDINATE FINAL LOCATION WITH OWNER.
- CONTRACTOR TO PROVIDE AND INSTALL (1) 12-STRAND OS2 FIBER OPTIC CABLE FROM CORE IT TO SLE MOB 1ST FLOOR IDF. ROUTING AND PATHWAY TO BE COORDINATED WITH SLE IT PRIOR TO COMMENCEMENT OF WORK.
- EXISTING PAGING HEADEND TO REMAIN. CONTRACTOR TO COORDINATE WITH OWNER TO ENSURE EXISTING HEAD END HAS ADEQUATE CAPACITY TO SUPPORT NEW SPEAKERS IN RENOVATED SPACE. CLINIC AND REHAB SPACES SHALL BE SERVED BY SEPARATE ZONES.

2 EXISTING IT ROOM TO REMAIN
SCALE: 1/4" = 1'-0"







CONSTRUCTION As Noted on Plans Review

Lee's Summit, Misso 08/31/2022

Lee's Summit, Misso 08/31/2022

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EAST HOSPITAL MOB UKE'S BLVD. MO 64086 PHAS SAINT FIRST 100 NE LEE'S

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Drawn By:

MM Reviewed By: Project No:

1203001 08/15/22 Submittal Level:

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Sheet Title:

TECHNOLOGY DEMOLITION PLAN

AREA NOT WITHIN ALTERATION SCOPE. DEVICES IN SPACES OUTSIDE OF THE SCOPE THE ALTERATION

SCOPE ARE EXISTING TO REMAIN UNLESS NOTED

Sheet No.: TD1.0

