Saint Luke's
EAST HOSPITAL

SAINT LUKE'S EAST HOSPITAL
PULMONARY CLINIC - PHASE 2
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

PROJECT TEAM

ARCHITECT
ACI BOLAND, INC.

1710 WYANDOTTE STREET
KANSAS CITY, MO 64108

PHONE 816.763.9600
FAX 816.763.9757

MEP ENGINEER
BRANCH PATTERN

1508 GRAND BOULEVARD
KANSAS CITY, MO 64108

PHONE 816.531.2121

ABBREVIATIONS

AC.	ACOUSTIC/ACOUSTICAL
ADD.	ADDENDUM
ADD'N.	ADDITION
ABC	AGGREGATE BASE COURSE
AFF	ABOVE FINISH FLOOR
AGG.	AGGREGATE
A/C	AIR CONDITIONING
AL.	ALUMINUM
ALT.	ALTERNATE
A.B.	ANCHOR BOLT
&	AND
ARCH.	ARCHITECT
ASP.	ASPHALT
@	AT
ACT	ACOUSTIC CEILING TILE/PANEL
∠	ANGLE
BLKG.	BLOCKING
BSMT.	BASEMENT
BM.	BEAM
B.M.	BENCHMARK
BD.	BOARD
B.O.	BOTTOM OF
BLDG.	BUILDING
CAB'T.	CABINET
C.I.P.	CAST IN PLACE
C.B.	CATCH BASIN
CLG.	CEILING
CEM.	CEMENT/CEMENTITIOUS
CG.	CENTIGRAM
CM	CENTIMETER
CL.	CENTER LINE
CER.	CERAMIC
C.T.	CERAMIC TILE
CHAN.	CHANNEL
[	CHANNEL
CLR.	CLEAR
C.O.	CLEAN OUT
CLOS.	CLOSET
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONST.	CONSTRUCTION
C.J.	CONTROL JOINT CONSTRUCTION JOINT
CONT.	CONTINUOUS
CONTR.	CONTRACTOR
COR'G.	CORRUGATED
CTR.	COUNTER
CTSK.	COUNTERSUNK
C.M.U.	CONCRETE MASONRY UNIT
D.P.	DAMP PROOFING
DB.	DECIBEL
DIAG.	DIAGONAL
DIAM.	DIAMETER
DIM.	DIMENSION
DISP.	DISPENSER
DWL.	DOWEL
DN.	DOWN
D.S.	DOWNSPOUT
DWG.	DRAWING
EA.	EACH
ELEC	ELECTRIC
E.W.C.	ELECTRIC WATER COOLER
EL.	ELEVATION
ELEV.	ELEVATOR
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXH.	EXHAUST
EXPAN.	EXPANSION
E.J.	EXPANSION JOINT
EXIST.	EXISTING
EXT.	EXTERIOR
FT.	FEET / FOOT
FIN.	FINISH
FIXT.	FIXTURE
FL.	FLASHING
FLR.	FLOOR
F.D.	FLOOR DRAIN

FLOR.	FLUORESCENT
FTG.	FOOTING
FND.	FOUNDATION
FR.	FRAME
F.H.C.	FIRE HOSE CAB.
FV.	FIELD VERIFY
GA.	GAUGE
GL.	GLASS / GLAZING
GD.	GRADE
G.	GRAM
GRL.	GRILLE
GRD.	GRID
GND.	GROUND
G.S.	GALVANIZED STEEL
GYP.	GYPSUM
GWB/G.B.	GYPSUM BOARD
H.R.	HAND RAIL
HDN.	HARDENER
HDW.	HARDWARE
HDWD.	HARDWOOD
HTR.	HEATER
HT.	HEIGHT
H.P.	HIGH POINT
H.M.	HOLLOW METAL
HORIZ.	HORIZONTAL
H.B.	HOSE BIB
H.W.	HOT WATER
IN.	INCH / INCHES
I.D.	INSIDE DIAMETER
INSUL.	INSULATION
INT.	INTERIOR
INV.	INVERT
JAN.	JANITOR
JT.	JOINT
JST.	JOIST
K.P.	KICK PLATE
LAM.	LAMINATED
LB.	POUND
LDG.	LANDING
LTH.	LATH
LAV.	LAVATORY
LG.	LENGTH
LOC.	LOCATION
LT.	LIGHT
L.W.C.	LIGHT WEIGHT CONCRETE
LVR.	LOUVER
LOC.	LOCATION
M.O.	MASONRY OPENING
MAT'L..	MATERIAL
MFR.	MANUFACTURER
MB.	MARKER BOARD
MAX.	MAXIMUM
MECH.	MECHANICAL
MTL.	METAL
M.L.	METAL LATH
M.	METER
MIN.	MINIMUM
MLDG.	MOLDING
MULL.	MULLION
N.G.	NATURAL GRADE
NOM.	NOMINAL
N.I.C.	NOT IN CONTRACT
N.T.S.	NOT TO SCALE
NO. / #	NUMBER
OBS.	OBSCURE
O.C.	ON CENTER
OPN'G.	OPENING
O.A.	OVERALL
O.D.	OUTSIDE DIAMETER
O.F.S.	OVERFLOW SCUPPER
O.F.D.	OVERFLOW DRAIN
O.H.D.	OVERHEAD DOOR

PTD.	PAINTED
PG.	PAGE
PLAM.	PLASTIC LAMINATE
PR.	PAIR
PNL.	PANEL
PTN.	PARTITION
d	PENNY
PL	PLATE
PLBG.	PLUMBING
PLYWD.	PLYWOOD
PT.	POINT
P.S.I.	POUNDS PER SQ. IN.
P.S.F.	POUNDS PER SQ. FT.
P.C.	PRECAST
P.L.	PROPERTY LINE
R.	RISER, RISERS
RAD.	RADIUS
R.D.	ROOF DRAIN
RB.	RESILIENT BASE
RE.	REFER TO
REG.	REGISTER
REQ'D.	REQUIRED
REV.	REVISION
RF'G.	ROOFING
RGH.	ROUGH
RM.	ROOM
RND.	ROUND
R.O.	ROUGH OPENING
SCHED.	SCHEDULE
S.C.	SEALED CONCRETE
SCR.	SCREW
SECT.	SECTION
SEL.	SELECT
SHG.	SHEATHING
SHT.	SHEET
SDG.	SIDING
SIM.	SIMILAR
SLDG.	SLIDING
SM.	SMOOTH
SPEC.	SPECIFICATION
SQ.	SQUARE
ST.	STAINED
STD.	STANDARD
S.S. / ST.STL.	STAINLESS STEEL
STRUC.	STRUCTURE
SUSP.	SUSPENDED
SW.BD.	SWITCHBOARD
SYS.	SYSTEM
T.	TREAD
T.C.	TOP OF CURB
T.G.	TEMPERED GLASS
T.O.	TOP OF
T.S.D.	TOP OF STEEL DECK
T.W.	TEACHERS WARDROBE
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
V.	VENT
VERT.	VERTICAL
V.G.	VERTICAL GRAIN
VEST.	VESTIBULE
V.C.T.	VINYL COMPOSITION TILE
VCP	VITREOUS CLAY PIPE
W.W.M.	WELDED WIRE MESH
W.C.	WATER CLOSET
W.H.	WATER HEATER
W.F.	WIDE FLANGE
W/	WITH
W/O	WITHOUT
WD.	WOOD
WDW.	WINDOW
W.W.	WINDOW WALL

LOCATION PLAN

KEY PLAN

KEY PLAN
1" = 100'-0"

SHEET INDEX - PHASE 1

SHEET INDEX - PHASE 2

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Samuel K. Beckman - Architect
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PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description

A0.1

COVER SHEET

1 CODE FOOTPRINT PLAN - PHASE 2
1/8" = 1'-0"

CODE SUMMARY

Project Construction Purpose: Renovation of existing therapy department into new pulmonary clinic
Project Address:
Saint Luke's Lee's Summit
20 NE Saint Luke's Blvd
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: 5,262 SF

Occupancy Group: B

Occupant Load:
Total Square Footage: SF / = 5262
Total Number of Occupants = 53 occupants

Max. egrees distance allowed: 300'
Max provided: 150'

Required Fire Resistance Ratings (in hours)
Per NFPA 101 A.8.2.1.2:

Exterior Bearing Walls	3 HR
Interior Bearing Walls	3 HR
Primary Structural Frame	3 HR
Floor Construction	2 HR
Roof Construction	1 1/2 HR
Interior non-bearing walls	0 HR
Shaft Enclosure	2 HR
Stair 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:

- Smoke Compartments no greater than 22,500 SF

CODE FOOTPRINT LEGEND

PARTITION TYPES
- 0 HR SMOKE PARTITION (SMOKE RESISTIVE)
- 1 HR SMOKE BARRIER
- 1 HR FIRE BARRIER
- 2 HR FIRE BARRIER
- 2 HR FIRE SMOKE BARRIER
- 3 HR FIRE BARRIER

AREA DESIGNATIONS
- EXIT ENCLOSURE
- SHAFT

BOUNDARY DESIGNATIONS
- NOT IN ARCHITECTURAL SCOPE

SYMBOLS
- FIRE EXIT
- OCCUPANT LOAD
- EXIT WIDTH PROVIDED
- EXIT WIDTH REQUIRED
- NEW FIRE EXTINGUISHER CABINET
- EXISTING FIRE EXTINGUISHER CABINET
- EXIT SIGN
- FIRE DOOR RATING
- TRAVEL DISTANCE

RELEASED FOR CONSTRUCTION
As noted on drawings
City of Lee's Summit Permit Services Department
Lee's Summit, Missouri
10/28/2022

SAMUEL K. BECKMAN A-2011012130 ARCHITECT

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PULMONARY CLINIC - PHASE 2
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FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
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Date	8/15/22
Job Number	3-22015
Drawn By	Author
Checked By	Checker

Revision

Number	Date	Description

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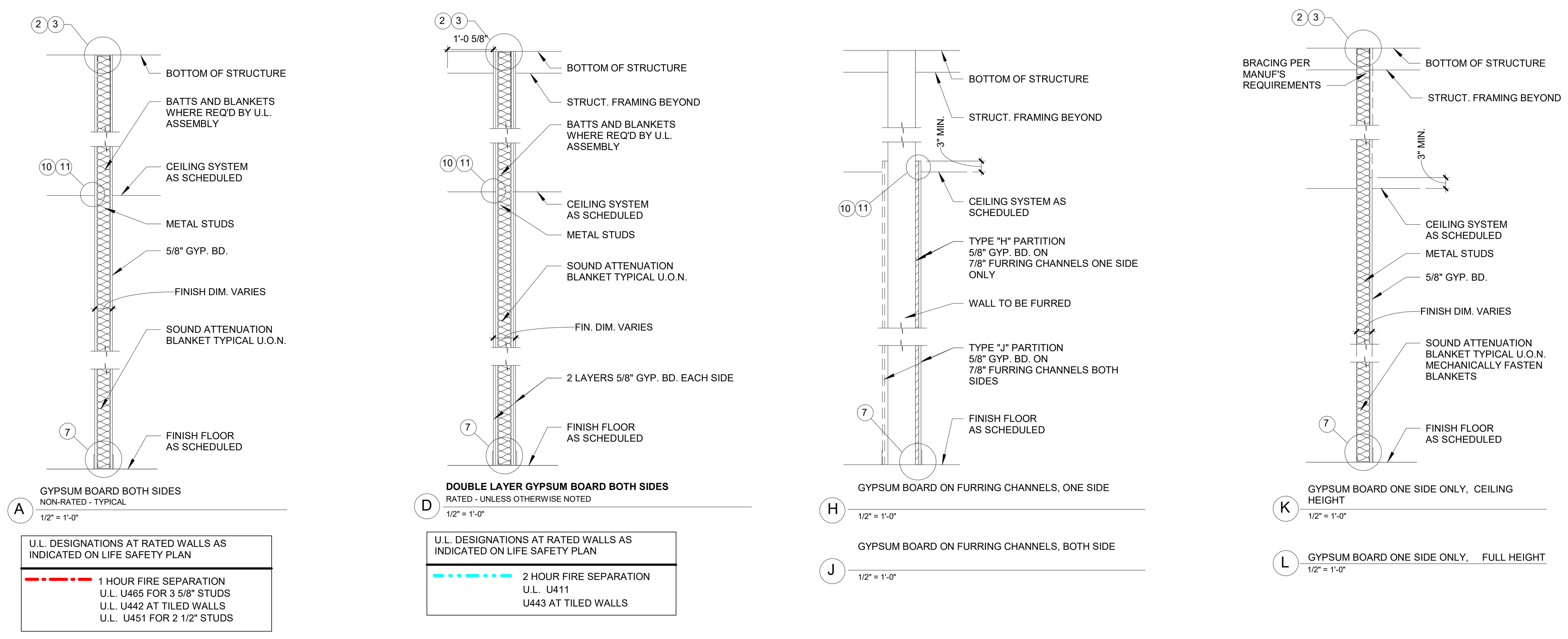
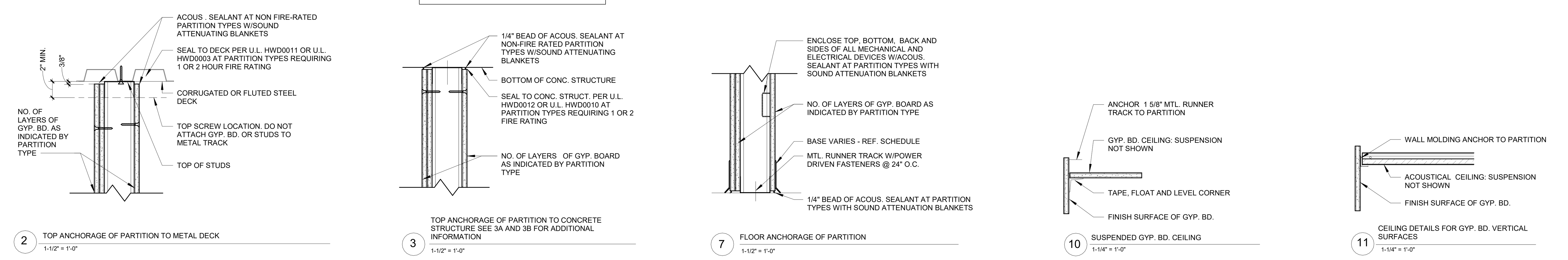
CODE FOOTPRINT PLAN - PHASE 2





PARTITION GENERAL NOTES

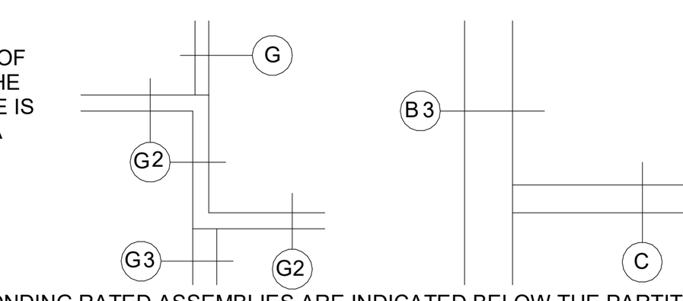
1. UNLESS NOTED OTHERWISE, ALL INTERIOR METAL STUDS ARE 3 5/8" THICK. REFER TO SUFFIX SCHEDULE BELOW FOR LOCATIONS OF METAL STUDS OTHER THAN 3-5/8" THICK. NOTE: STUD THICKNESS (GAUGE) MUST CONFORM TO MANUFACTURER'S RECOMMENDATIONS FOR SPAN (HEIGHT OF STUD)
2. WHERE THE PARTITION TYPE INDICATION IS SHOWN WITH A NUMERICAL SUFFIX, THE METAL STUD THICKNESS SHALL BE AS SCHEDULED BELOW:

SUFFIX	MTL. STUD THICKNESS
1	1-5/8" MTL. STUDS
2	2-1/2" MTL. STUDS
3	6" MTL. STUDS

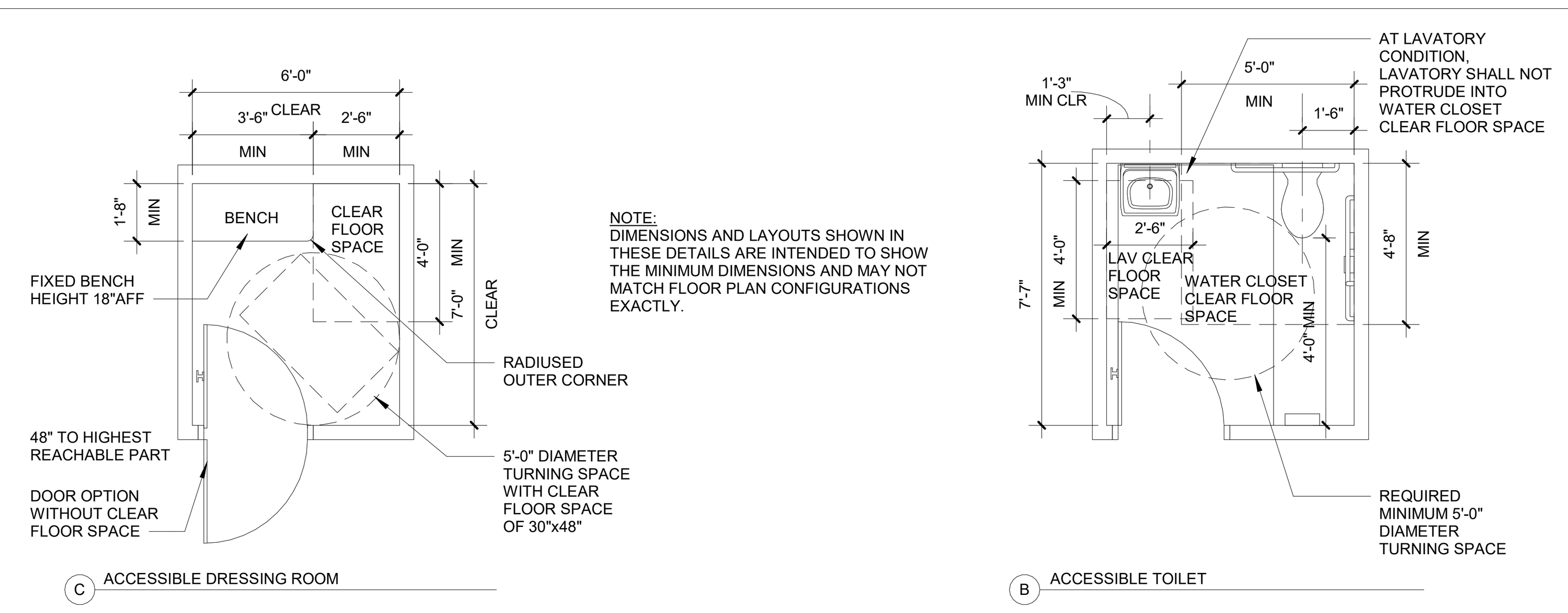
3. UNLESS NOTED OTHERWISE, ALL INTERIOR DRYWALL PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'A' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS.
4. UNLESS NOTED OTHERWISE, ALL CMU PARTITIONS ARE 7-5/8", 8" NOMINAL. REFER TO SUFFIX SCHEDULE BELOW FOR LOCATIONS OF CMU PARTITIONS OTHER THAN 8" NOMINAL.
5. WHERE THE PARTITION TYPE INDICATION IS SHOWN WITH A NUMERICAL SUFFIX, THE CMU THICKNESS SHALL BE AS SCHEDULED BELOW:

SUFFIX	CMU THICKNESS
1	ACTUAL 3-5/8", 4" NOMINAL
2	ACTUAL 5-5/8", 6" NOMINAL
3	ACTUAL 11-5/8", 12" NOMINAL

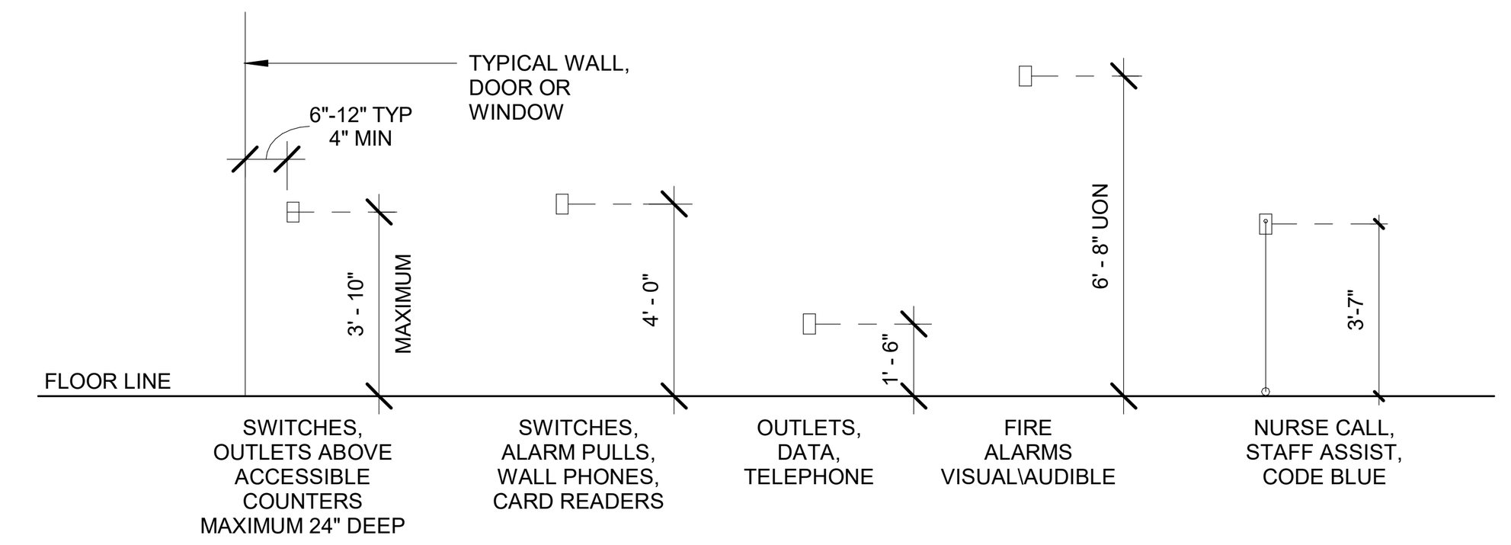
6. UNLESS NOTED OTHERWISE, ALL INTERIOR MASONRY PARTITIONS INDICATED ON THE FLOOR PLAN DRAWING ARE TYPE 'B' PARTITIONS. WHERE OCCURS, RATINGS ARE AS INDICATED ON THE LIFE SAFETY PLANS.
7. ALL STUDS ARE CONTINUOUS FROM FLOOR STRUCTURE TO CEILING STRUCTURE UNLESS NOTED OTHERWISE.
8. METAL STUDS ARE SPACED @ 16" O.C. MAX., UNLESS NOTED OTHERWISE.
9. UNLESS NOTED OTHERWISE, ALL GYPSUM BOARD IS TO BE 5/8" THICK "FIRECODE".
10. THE LOCATION OF A CHANGE IN THE PARTITION TYPE IS INDICATED BY A WALL TAG.



11. THE CORRESPONDING RATED ASSEMBLIES ARE INDICATED BELOW THE PARTITION TYPES.
12. PARTITION TYPE DESIGNATIONS ARE INDICATED ON THE FLOOR PLAN DRAWINGS.
13. PARTITION TYPES DO NOT INCLUDE APPLIED FINISHES CALLED FOR IN THE ROOM FINISH SCHEDULE.
14. AT PARTITION TYPES WHERE MTL. STUDS ARE EXPOSED ON ONE OR BOTH SIDES, CUT STUD 1/4" SHORT AND SCREW BOTH SIDES TO MTL. RUNNER TRACK.



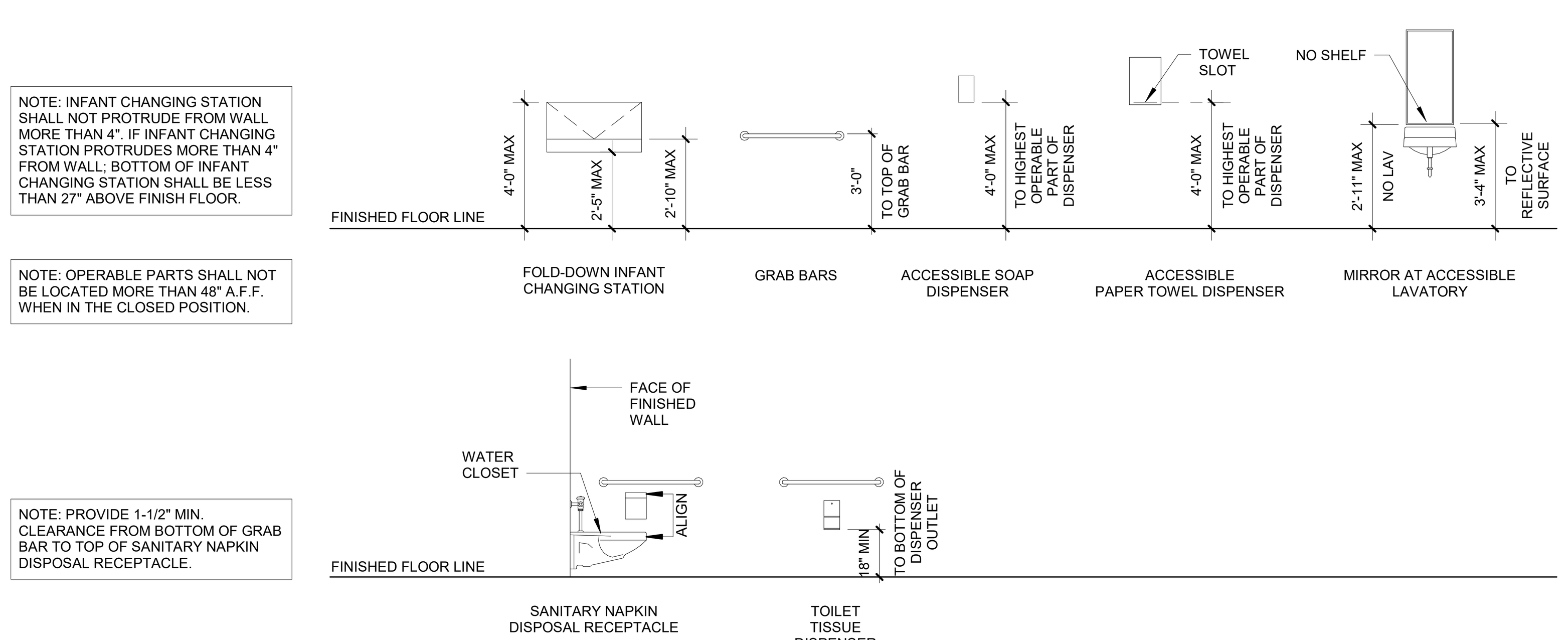
GENERAL ADA TOILET DIMENSIONS
1/4" = 1'-0"



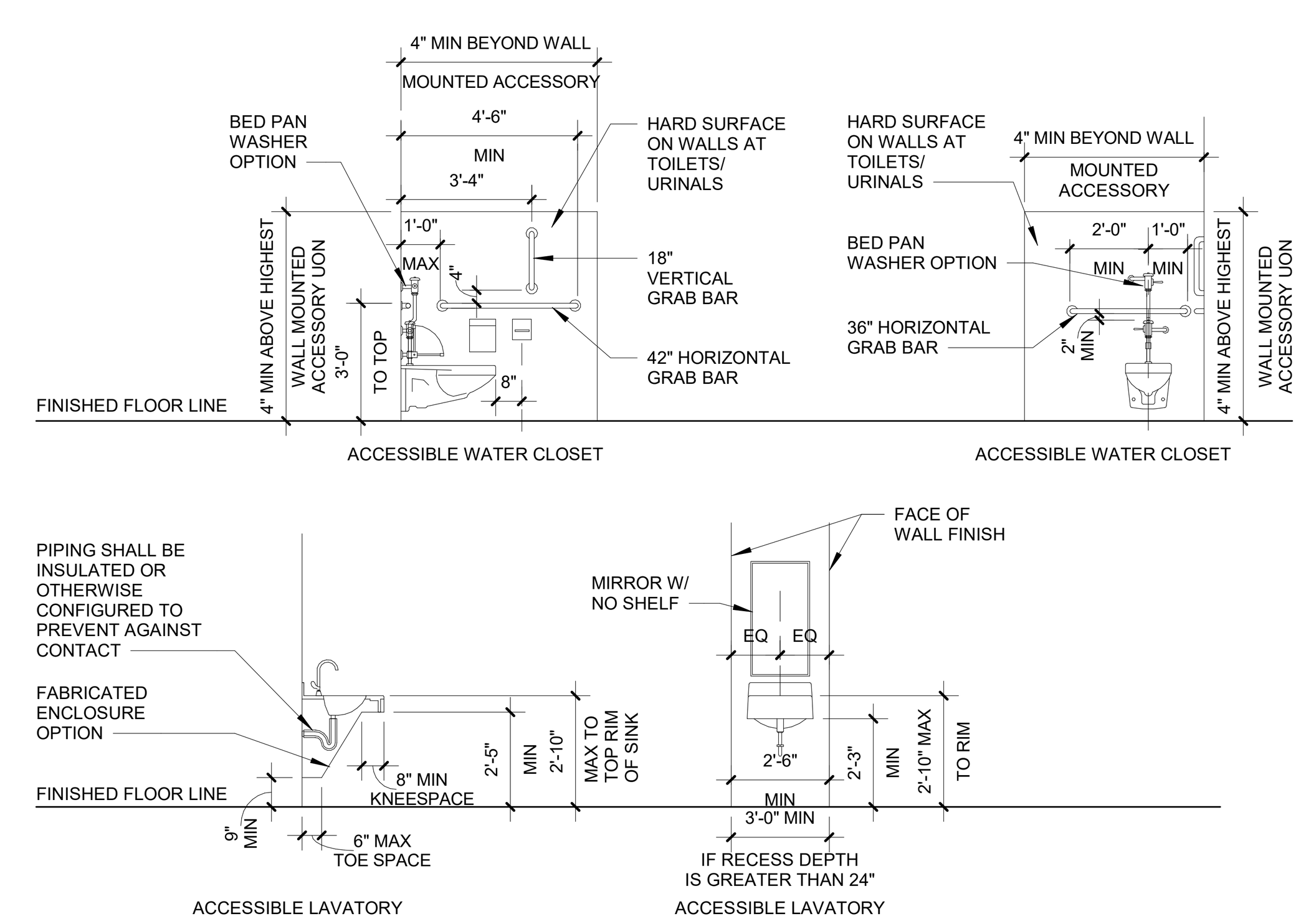
ELECTRICAL DEVICE MOUNTING HEIGHTS
1/4" = 1'-0"

GENERAL NOTES

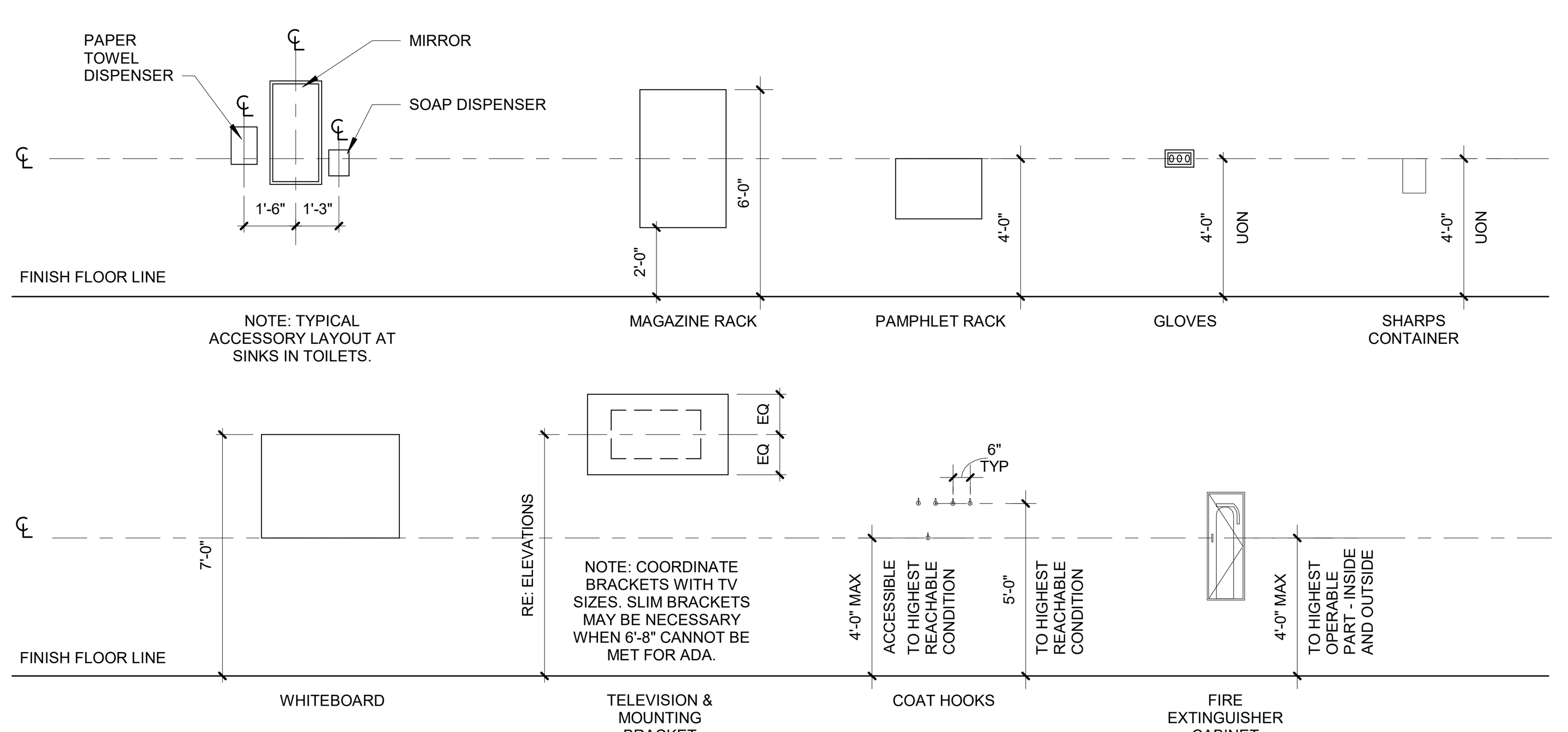
1. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH A.D.A. REQUIREMENTS AND ALL APPLICABLE LOCAL, STATE, AND FEDERAL BUILDING CODES AND REGULATIONS.
2. THE CONTRACTOR IS RESPONSIBLE FOR OBTAINING ALL NECESSARY BUILDING PERMITS.
3. THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY THE ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WTH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SHALL BE COORDINATED WITH THE OWNER.
4. DO NOT SCALE DRAWINGS.
5. THE WORD "ALIGN" AS USED IN THESE DOCUMENTS SHALL SUPERSEDE ANY DIMENSIONAL INFORMATION GIVEN.
6. TYPICAL DIMENSIONS ARE TO FACE OF CONCRETE, DRYWALL, CURTAIN WALL, ETC., OR TO COLUMN CENTERLINE. DIMENSIONS AT WINDOWS ARE TYPICALLY TO FACE OF FRAME. REFER TO PLAN DETAILS FOR ADDITIONAL INFORMATION.
7. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
8. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR CLEAN-UP.
9. THE GENERAL CONTRACTOR SHALL INSPECT AND CHECK THE ADEQUACY AND INSTALLATION OF THROUGH-WALL FLASHING PRIOR TO COVERING WITH FINISH MATERIALS. THIS SHALL INCLUDE, BUT IS NOT LIMITED TO INSPECTION AGAINST HOLES OR PENETRATIONS, APPROPRIATE LAPPING AND SEALING, AND OVERALL WORKMANSHIP IN CONFORMANCE WITH THE SPECIFICATIONS.



TOILET ACCESSORY MOUNTING HEIGHTS
1/4" = 1'-0"



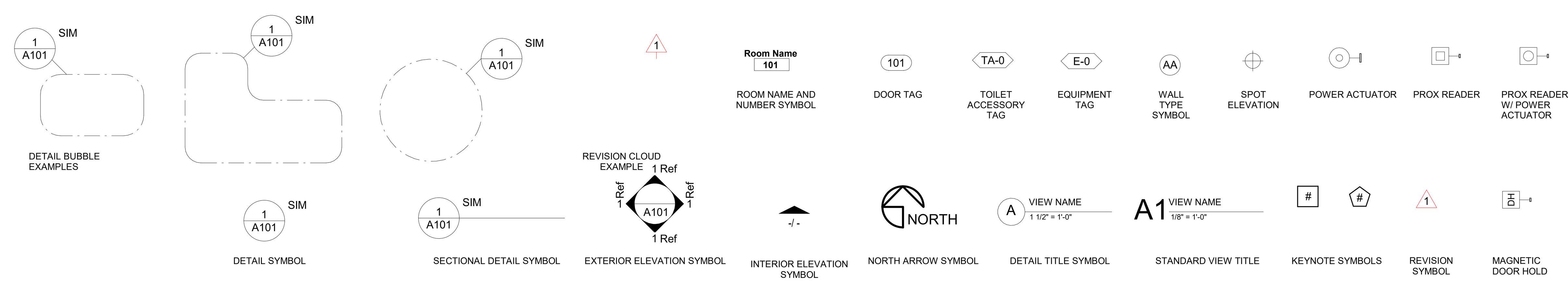
TYPICAL FIXTURE ELEVATION
1/4" = 1'-0"



GENERAL NOTES:

1. ANY OBJECTS PROJECTING MORE THAN 4 INCHES FROM THE FINISHED FACE OF WALL INTO A CIRCULATION PATH SHALL NOT HAVE A HEAD CLEARANCE OF LESS THAN 80" (6'-8").
2. GENERAL CONTRACTOR TO INSTALL FIRE RETARDANT WOOD BLOCKING FOR ALL EQUIPMENT OVER 50LBS AND FIRE RETARDANT PLYWOOD FOR EQUIPMENT UNDER 50 LBS, AS REQUIRED FOR THE MOUNTING OF ALL EQUIPMENT.

EQUIPMENT MOUNTING HEIGHTS
1/4" = 1'-0"



SYMBOLS
1/4" = 1'-0"

RELEASED FOR CONSTRUCTION

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Checked By	ABD

Revision

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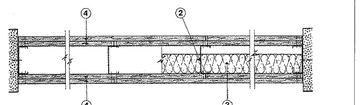
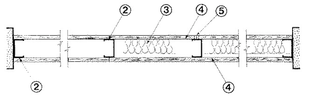
PARTITION TYPES, DETAILS, & SYMBOLS





Design No. U411

October 29, 2008

Nonbearing Wall Rating — 2 HR.

1. **Floor and Ceiling Runner —** (Not Shown) — Min. 25 MSG galv steel 1 in. high, return legs 2-1/2 in. wide (min), attached to floor and ceiling with fasteners 24 in. OC.

2. **Steel Studs —** Min 2-1/2 in. wide, 1-1/4 in. legs, 3/8 in. return, formed of min 25 MSG galv steel max stud spacing 24 in. OC. Studs to be cut 3/4 in. less than assembly height.

3. **Batts and Blankets* —** (Optional) — Mineral wool or glass fiber batts partially or completely filling stud cavity. Fasten each batt to wallboard base layer with a min 9/16 in. long staple. Use five staples for each 4 ft piece. Drive one staple in the center of each piece and a staple at each corner, approx 3 in. from edges.

See Batts and Blankets (BZJZ) category for names of manufacturers.

3A. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) — 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. Nominal dry density of 3.0 lb/ft^3. Alternate application method: The fiber is applied with U.S. Greenfiber LLC Type AD100 hot melt adhesive at a nominal ratio of one part adhesive to 6.6 parts fiber to completely fill the enclosed cavity in accordance with the application instructions supplied with the product. Nominal dry density of 2.5 lb/ft^3.

U S GREENFIBER L L C — — Cocoon2 Stabilized or Cocoon-FRM (Fire Rated Material)

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

4. **Gypsum Board* —** 5/8 in. thick, outer layer paper or vinyl surfaced. (Laminated System) Wallboard applied vertically in two layers. Inner layer attached to studs with 1 in. long Type S steel screws spaced 8 in. OC along vertical edges, and 12 in. OC in the field and outer layer laminated to inner layer with joint compound, applied with a notched spreader producing continuous beads of compound about 3/8 in. in diameter, spaced not greater than 2 in. OC. Joints of laminated outer layer offset 12 in. from inner layer joints Outer layer wallboard attached to floor and ceiling runner track with 1-5/8 in. long Type S steel screws spaced 12 in. OC.

Optional, (Direct Attached System), Inner layer attached to studs with 1 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges. Outer layer attached to the studs over the inner layer with 1-5/8 in. long Type S steel screws spaced 16 in. OC in the field and along the vertical edges and 12 in. OC to the floor and ceiling runners. Joints of screw-attached outer layer offset from inner layer joints. Joints of outer layer may be taped or untaped.

Nom 3/32 in. thick gypsum veneer plaster may be applied to the entire surface of Classified veneer baseboard. Joints reinforced.

AMERICAN GYPSUM CO — Types AG-C, AGX-1, AGX-11.

BEIJING NEW BUILDING MATERIALS PUBLIC

LTD CO — Type DBX-1.

CERTAINTEED GYPSUM INC — Types 1, FRPC, EGRG, ProRoc Type X or ProRoc Type C.

CERTAINTEED GYPSUM CANADA INC — ProRoc Type C, ProRoc Type X or ProRoc Type Abuse-Resistant.

CANADIAN GYPSUM COMPANY — Type AR, C, FCV, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

GEORGIA-PACIFIC GYPSUM L L C — Types 5, 9, C, DAP, DD, DA, DGG, DS, GPFS6.

LAFARGE NORTH AMERICA INC — Types LGFC2, LGFC2A, LGFC3, LGFC6, LGFC6A, LGFC-C, LGFC-C/A.

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

PABCO BUILDING PRODUCTS L L C, DBA

PABCO GYPSUM — Type C, PG-3, PG-5, PG-9, PG-11 or PG-C.

PANEL REY S A — Type PRX, or PRC.

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

TEMPLE-INLAND FOREST PRODUCTS CORP — Types TG-C, Type X, Veneer Plaster Base-Type X, Water Rated-Type X, Sheathing Type-X, Soffit-Type X, GreenGlass Type X.

UNITED STATES GYPSUM CO — Type AR, C, FCV, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

USG MEXICO S A DE C V — Type AR, C, FCV, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC or WRX.

4A. **Gypsum Board* —** (As an alternate to Item 4) — Nom 3/4 in. thick, installed as described in Item 4 with 1-1/4 in. long Type S screws for inner layer and 2-1/4 in. long Type S screws for outer layer.

CANADIAN GYPSUM COMPANY — Types AR, IP-AR.

UNITED STATES GYPSUM CO — Types AR, IP-AR.

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

4B. **Gypsum Board* —** (As an alternate to Item 4 and 4A) —5/8 in. thick, 24 to 54 in. wide, applied horizontally as the outer layer to one side of the assembly. Horizontal joints need not be backed by steel framing. Secured as described in Item 4 for the direct attached system. When used in widths other than 48 in., gypsum panels to be installed horizontally.

CANADIAN GYPSUM COMPANY — Type SHX.

CERTAINTEED GYPSUM INC — ProRoc Type X, ProRoc Type C.

CERTAINTEED GYPSUM CANADA INC — ProRoc Type X, ProRoc Type C.

UNITED STATES GYPSUM CO — Type SHX, FRX-G.

USG MEXICO S A DE C V — Type SHX.

*Bearing the UL Classification Mark

Last Updated on 2008-10-29

ONLINE CERTIFICATIONS DIRECTORY

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

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

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

Nonbearing Wall Rating — 1 HR.

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

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, min 3-5/8 in. deep, attached to floor and ceiling with fasteners 24 in. OC. max.

ALLSTEEL & GYPSUM PRODUCTS INC — Type SUPREME Framing System

CONSOLIDATED FABRICATORS CORP, BUILDING PRODUCTS DIV — Type SUPREME Framing System

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

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. **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 Item 2, channel shaped runners, 1-1/4 in. deep by min 3-5/8 in. wide fabricated from min 25 MSG steel, attached to floor and ceiling with fasteners spaced 24 in. OC max.

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 24 in. OC max.

STUDCO BUILDING SYSTEMS — CROCSTUD Track

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

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

1I. **Framing Members* — Floor and Ceiling Runners —** Not Shown — In lieu of Item 1 — For use with Item 2H, 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.

TELLING INDUSTRIES L L C — Viper20™ 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. Studs to be cut 3/4 in. less than assembly height.

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

QUAIL RUN BUILDING MATERIALS INC — Type SUPREME Framing System

SCAFCO STEEL STUD MANUFACTURING CO — Type SUPREME Framing System

STEEL CONSTRUCTION SYSTEMS INC — Type SUPREME Framing System

UNITED METAL PRODUCTS INC — Type SUPREME Framing System

2B. **Framing Members* — Steel Studs —** Not Shown — In lieu of Item 2 — For use with Item 1B, 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.

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, 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.

CLARKDIETRICH BUILDING SYSTEMS — CD ProSTUD

DMFCWBS L L C — ProSTUD

MBA METAL FRAMING — ProSTUD

RAM SALES L L C — Ram 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. Proprietary 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 — Viper20™

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 assembly height.

EB MéTAL INC — EB Stud

2J. **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.

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

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^3. Alternate Application Method: The fiber is applied without water or adhesive at a nominal dry density of 3.5 lb/ft^3, in accordance with the application instructions supplied with the product.

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

3B. **Fiber, Sprayed* —** As an alternate to Batts and Blankets (Item 3) and Item 3A — Spray applied cellulose insulation material. The fiber is applied with water to interior surfaces in accordance with the application instructions supplied with the product. Applied to completely fill the enclosed cavity. Minimum dry density of 4.3 pounds per cubic ft.

NU-WOOL CO INC — Cellulose Insulation

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/ft^3.

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 between the studs and floor and ceiling runners.

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 bearing the UL Classification Marking as to Surface Burning Characteristics and/or Fire Resistance.

See **Batts and Blankets** (BKNV or BZJZ) Categories for names of Classified companies.

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. OC.

ACADIA DRYWALL SUPPLIES LTD — Type X, 5/8 Type X, Type Blueglass Exterior Sheathing

AMERICAN GYPSUM CO — Types AG-C, AGX-1, M-Glass

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

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

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

NATIONAL GYPSUM CO — Types eXP-C, FSK, FSK-C, FSK-G, FSMR-C, FSW-C, FSW-G, FSW, FSW-3, FSW-5, FSW-6, FSW-8, FSL

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, 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 MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

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

THAI GYPSUM PRODUCTS PCL — Type X, Type C

UNITED STATES GYPSUM CO — Type AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

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 compound, Item 5, optional for use with Type USGX)

4A. **Gypsum Board* —** (As alternate to Item 4) — Nom 5/8 in. thick gypsum panels with beveled, square or tapered edges, applied vertically or horizontally. Vertical joints centered over studs and staggered one stud cavity on opposite sides of studs. 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.

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

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, optional for use with Type USGX)

CONTINENTAL BUILDING PRODUCTS OPERATING CO, L L C — Types LGFC2A, LGFC6A, LGFC-C/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 FireStop M2TECH ACTIV'Air, Gyproc DuraLine, Gyproc DuraLine MR, Gyproc DuraLine M2TECH, Gyproc DuraLine ACTIV'Air, Gyproc DuraLine MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

THAI GYPSUM PRODUCTS PCL — Type X, Type C

UNITED STATES GYPSUM CO — Types AR, C, FRX-G, IP-AR, IP-X1, IP-X2, IPC-AR, SCX, SHX, WRC, WRX, USGX (Joint tape and compound, Item 5, optional for use with Type USGX)

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 compound, Item 5, optional for use with Type USGX)

4B. **Gypsum Board* —** (As an alternate to Items 4 or 4A) — Nom 3/4 in. thick, 4 ft wide, installed as described in Item 4A with screw length increased to 1-1/4 in.

CGC INC — Types AR, IP-AR

UNITED STATES GYPSUM CO — Types AR, 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 framing 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, FSMR-C

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 assembly.

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 vertically and secured as described in Item 4.

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 assembly.

UNITED STATES GYPSUM CO — Type SCX

USG BORAL ZAWAWI DRYWALL L L C SFZ — Type SCX

4J. **Gypsum Board* —** (Not Shown) — (As an alternate to Item 4 when used as the base layer on one or both sides of wall. For direct attachment only to steel studs Item 2C) — Nom 5/8 in. thick lead backed gypsum panels with beveled, square or tapered edges, applied vertically. Vertical joints centered over studs and staggered min 1 stud cavity on opposite sides of studs. Gypsum board secured to studs with 1-1/4 in. long Type S-12 steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. To be used with Lead Batten Strips (see Item 9A) or Lead Discs (see Item 10A).

MAYCO INDUSTRIES INC — Type X-Ray Shielded Gypsum

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

CGC INC — Type ULX

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 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. Wallboard secured to studs with 1-1/4 in. long Type S-12 steel screws gypsum panel steel screws spaced 8 in. OC at perimeter and 12 in. OC in the field. Lead batten strips required behind vertical joints of lead backed gypsum wallboard and optional at remaining stud locations. Lead batten strips, min 2 in. wide, max 8 ft long with a max thickness of 0.14 in. placed on the face of studs and attached to the stud with construction adhesive and two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead discs, nominal 3/8 in. diam by max 0.085 in. thick. Compression fitted or adhered over the screw heads. Lead batten strips and discs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

RADIATION PROTECTION PRODUCTS INC — Type RPP - Lead Lined Drywall

4M. **Gypsum Board* —** (For use with Item 8) — 5/8 in. thick, 4 ft wide, applied vertically over Mineral and Fiber Board (Item 8) with vertical joints located anywhere over stud cavities. Secured to mineral and fiber boards with 1-1/2 in. Type G Screws spaced 8 in. OC along edges of each vertical joint and 12 in. OC in intermediate field of the Mineral and Fiber 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 MR ACTIV'Air, Gyproc DuraLine M2TECH ACTIV'Air

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

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 panels, applied vertically and secured as described in Item 4.

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

4O. **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 gypsum 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 as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-9/16 in. or 2-23/32 in. wide by 7/8 in. deep, spaced 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 overlapped 6 in. and secured together with two self-tapping No. 6 framing screws, min 7/16 in. long at the midpoint of the overlap, with one screw on each flange of the channel.

b. **Framing Members* —** Used to attach furring channels (Item a) to studs (Item 2). Clips spaced 48 in. OC., and secured to studs with 1-5/8 in. wafer or hex head Type S steel screw through the center grommet. Furring channels are friction fitted into clips. RSIC-1 clip for use with 2-9/16 in. wide furring channels. RSIC-1 (2.75) clip for use with 2-23/32 in. wide furring channels.

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

6B. **Framing Members* —** (Not Shown) — (Optional on one or both sides) — As an alternate to Item 6, furring channel and Steel Framing Members as described below:

a. **Furring Channels —** Formed of No. 25 MSG galv steel. 2-3/8 in. wide by 7/8 in. deep, spaced max. 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Gypsum board attached to furring channels as described in Item 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 x 1-1/2 in. minimum self-drilling, S-12 steel screw through the center grommet. Furring channels are friction fitted into clips.

PLITEQ INC — Type Genie Clip

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

a. **Furring Channels —** Formed of No. 25 MSG galv steel. Spaced 24 in. OC perpendicular to studs. Channels secured to studs as described in Item b. Ends of adjoining channels overlapped 6 in. and secured together with four self-tapping No. 8x1/2 Self Drilling screws (2 per side 1 in. and 4 in. from overlap edge). Gypsum board attached to furring channels as described in Item 4. Side joint furring channels shall be attached to studs with RESILMOUNT Sound Isolation Clips - Type A237R located approximately 2 in. from each end of length of channel. Both Gypsum Boards at side joints fastened into channel with screws spaced 8 in. OC, approximately 1/2 in. from joint edge.

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 x 2-1/2 in. coarse drywall screw through the center hole. Furring channels are friction fitted into clips.

STUDCO BUILDING SYSTEMS — RESILMOUNT Sound Isolation Clips - Type A237R

7. **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 with a max thickness of 0.125 in. Strips placed on the interior face of studs and attached from the exterior face of the stud with two 1 in. long Type S-12 pan head steel screws, one at the top of the strip and one at the bottom of the strip. Lead batten strips to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C". Lead batten strips required behind vertical joints of lead backed gypsum board (Item 4E) and optional at remaining stud locations. Required behind vertical joints.

9A. **Lead Batten Strips —** (Not Shown, for use with Item 4J) — Lead batten strips, 2 in. wide, max 10 ft long with a max thickness of 0.140 in. Strips placed on the face of studs and attached to the stud with two min. 1 in. long min. Type S-8 pan head steel screws, one at the top of the strip and one at the bottom of the strip or with one min. 1 in. long min. Type S-8 pan head steel screw at the top of the strip. Lead batten strips to have a purity of 99.5% meeting the Federal specification QQ-L-201f, Grades "B, C or D". Lead batten strips required behind vertical joints of lead backed gypsum wallboard (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) underneath screw locations prior to the installation of the screws. Lead discs or tabs to have a purity of 99.9% meeting the Federal specification QQ-L-201f, Grade "C".

10A. **Lead Discs —** (Not Shown, for use with Item 4J) — Max 5/16 in. diam by max 0.140 in. thick lead discs compression fitted or adhered over steel screw heads. Lead discs to have a purity of 99.5% meeting the Federal Specification QQ-L-201f, Grades "B, C or D".

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 2J, Item 3, Items 4 to 4I, 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 4I), 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 4I 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 Board.

MSL — RefleXor membrane, SONOpan panel

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2016-08-25

ONLINE CERTIFICATIONS DIRECTORY

System No. BW-S-0003
XHBN.BW-S-0003
Joint Systems

Page Bottom

Design/System/Construction/Assembly Usage Disclaimer

- Authorities Having Jurisdiction should be consulted in all cases as to the particular requirements covering the installation and use of UL 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 methods of construction.
- Only products which bear UL's Mark are considered Certified.

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

1. **Floor Assembly —** Min 4-1/2 in. (114 mm) thick reinforced lightweight or normal weight (100-150 pcf or 1600-2400 kg/m^3) 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 manufactures.

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 1-1/4 in. (32 mm) on each side of wall for a 1 or 2 hr fire rated wall, respectively. Wall to be constructed as specified in the individual U400 or V400 Series Design in the UL Fire Resistance Directory except that a max 3/4 in. (19 mm) gap shall be maintained between the bottom of the gypsum board and the top of the concrete floor.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Joint System — Max separation between top of floor and bottom of gypsum board is 3/4 in. (19 mm).** The joint system consists of a packing material and a fill material, as follows:

A. **Packing Material —** (Optional, Not Shown) - Mineral wool batt insulation, polyethylene backer rod or glass fiber insulation firmly packed into the gap between the bottom of the gypsum board and the top of the concrete floor and recessed from each surface of the wall to accommodate the required thickness of fill material.

B. **Fill, Void or Cavity Material*-Sealant —** Min 1/2 in. (13 mm) thickness of fill material installed on each side of the wall between the bottom of the gypsum board and the top of the concrete floor, flush with each surface of the wall. When mineral wool batt insulation is used as a packing material, min thickness of fill material on each side of the wall is 1/4 in. (6 mm).

SPECIFIED TECHNOLOGIES INC — SpecSeal ES Sealant, SpecSeal LCI Sealant, SpecSeal LC150 Sealant, Pensil 300 Sealant or SpecSeal Series SIL300.

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

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2008-11-18

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ONLINE CERTIFICATIONS DIRECTORY

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

Page Bottom

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- 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 methods of construction.
- Only products which bear UL's Mark are considered Certified.

XHBN - Joint Systems

XHBN7 - Joint Systems Certified for Canada

e General Information for Joint Systems

e General Information for Joint Systems Certified for Canada

System No. HW-D-0044

December 08, 2015

ANSI/UL2079	CAN/ULC S115
ssembly Ratings — 1, 2, 3 and 4 Hr (See Item 2)	F Ratings — 1, 2, 3, and 4 Hr (See Item 2)
Nominal Joint Widths — 1-1/2 and 2-1/2 In. (See Item 3)	FT Ratings — 1, 2, 3, and 4 Hr (See Item 2)
lass II Movement Capabilities — 40 or 50% Compression or xtension (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	Nominal Joint Widths — 1-1/2 and 2-1/2 In. (See Item 3)
	Class II Movement Capabilities — 40 or 50% Compression or Extension (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^3) 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 Resistance Directory and shall include the following construction features:

A. **Steel Floor and Ceiling Runners —** Floor and ceiling runners of wall assembly shall consist of 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 floor 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

CLARKDIETRICH BUILDING SYSTEMS — Type SLT, SLT-H

MARINO/WARE, DIV OF WARE INDUSTRIES INC — Type SLT

METAL-LITE INC — The System

SCAFCO STEEL STUD MANUFACTURING CO

TELLING INDUSTRIES L L C — True-Action Deflection Track

THE STEEL NETWORK INC — VertiTrack VT series, 250VT, 362VT, 400VT, 600VT and 800VT

A2. **Light Gauge Framing* - Vertical Deflection Ceiling Runner —** When nom joint width is less than or equal to 1 in. (25 mm), vertical deflection ceiling runner may be used as an alternate to the ceiling runner in Items 3A and 3A1., Vertical deflection ceiling runner to consist of galv steel channel with slotted vertical deflection clips mechanically fastened within runner. Slotted clips, provided with step bushings, for permanent fastening of steel studs. Vertical 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 4A) shall not be used.

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

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

FLEX-ABILITY CONCEPTS L L C — Three Legged Dog Deflection Clip

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 accompanying installation instructions. Sound isolation clip installed through nom 1 in. (25 mm) diam hole in ceiling runner and attached to top of ceiling runner using four min No. 8 by 1/2 in. (13 mm) long self-tapping galv steel screws. Sound isolation clips to be installed adjacent to every stud location but not more than 24 in. (610 mm) OC and attached to the underside of floor assembly using min 3/16 in. (5 mm) diam by 2-1/2 in. (64 mm) long steel masonry anchors.

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 channel.

The hourly fire rating of the joint system is equal to the hourly fire rating of the wall.

3. **Joint System — Max separation between bottom of floor and top of 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 for max 2-1/2 in. (64 mm) wide joints.** The joint system shall consist of forming and fill materials, with or without a 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 attachment.

B. **Forming Material* —** Sections of min 4 pcf (64 kg/m^3) density mineral wool batt 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.

INDUSTRIAL INSULATION GROUP L L C — MinWool-1200 Safing

ROCK WOOL MANUFACTURING CO — Delta Board

ROCKWOOL MALAYSIA SDN BHD — Safe

ROXUL INC — Safe

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 wall.

SPECIFIED TECHNOLOGIES INC — SpecSeal AS200 Elastomeric Spray

*** Indicates such products shall bear the UL or cUL Certification Mark for jurisdictions employing the UL or cUL Certification (such as Canada), respectively.**

Last Updated on 2015-12-08

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
11/10/2022

SAMUEL K. BECKMAN
NUMBER A-2011012130

10/26/2022 4:44:29 PM
Samuel K. Beckman - Architect
License - Missouri #A-2011012130

ACI
BOLAND
ARCHITECTS

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

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description

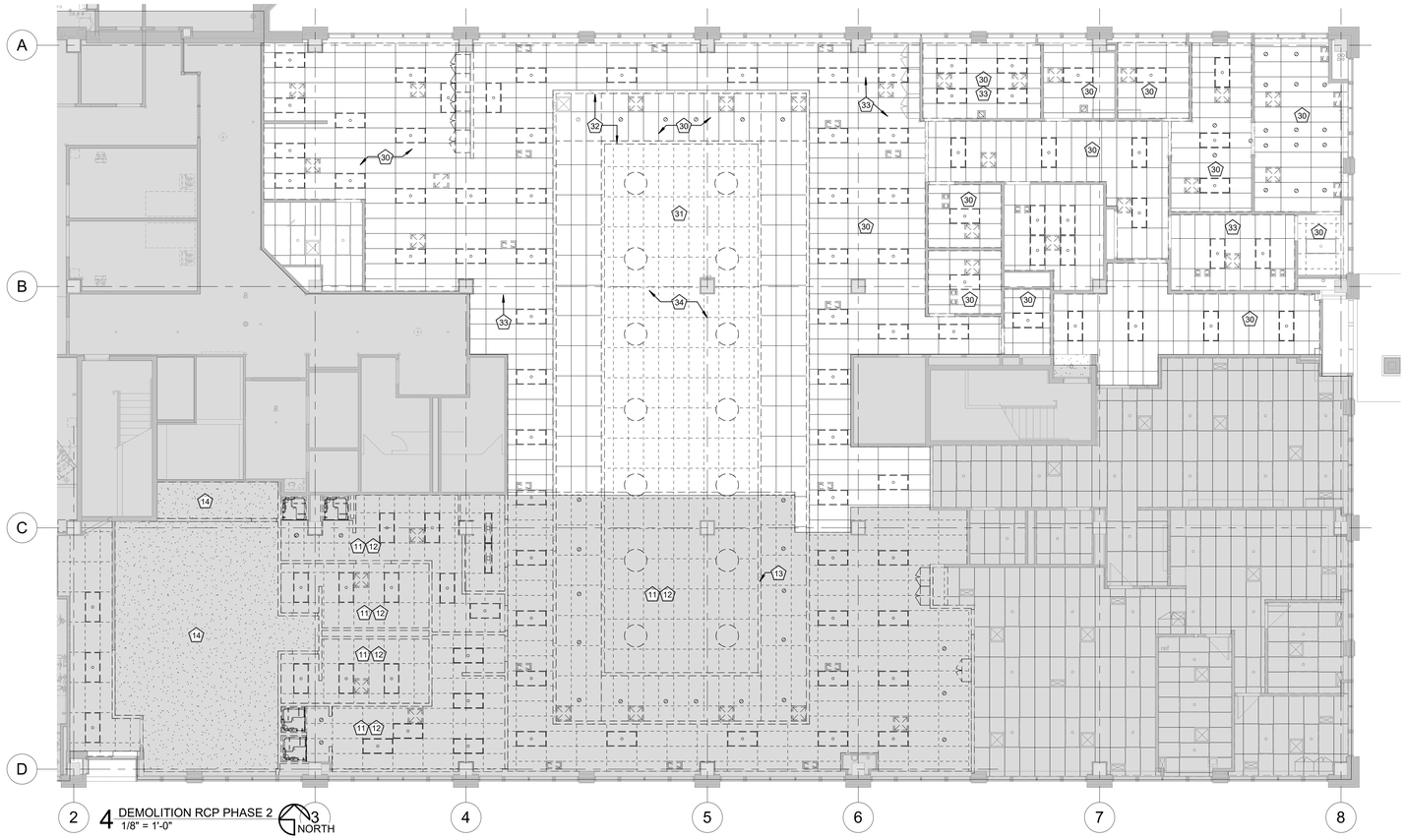
A0.4

U.L. DESIGN ASSEMBLIES

10/26/2022 4:45:15 PM

KEYNOTES - DEMO RCP PH. 2

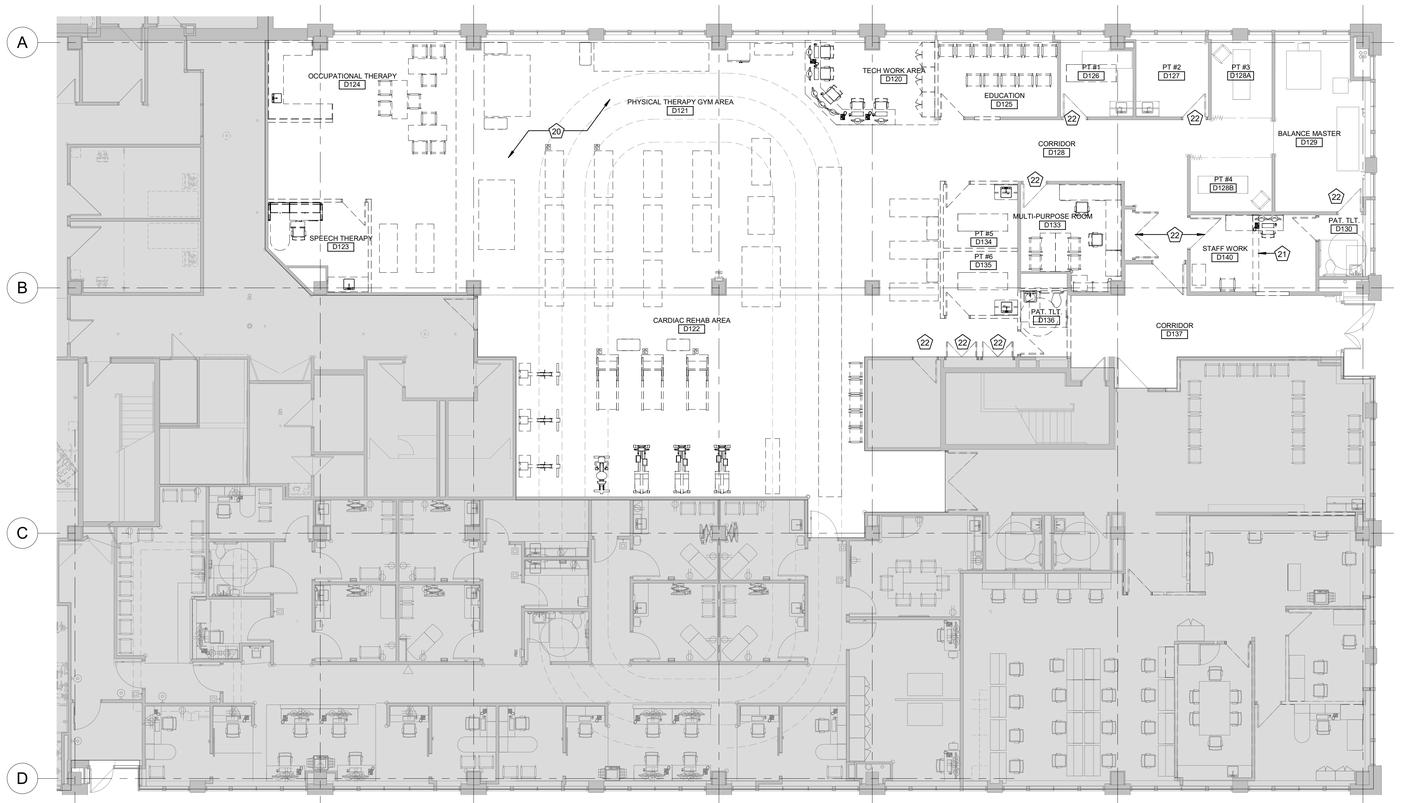
NUMBER	COMMENTS
30	REMOVE EXISTING CEILING TILES, GRID TO REMAIN
31	REMOVE LIGHTS AND DIFFUSERS, RE-MEP. SALVAGE TO OWNER.
32	DEMO GYP SOFFIT AS REQUIRED.
33	REMOVE EXISTING CEILING TILES, MODIFY EXISTING GRID TO COORDINATE WITH NEW CONSTRUCTION
34	DEMO EXISTING GRID AND CEILING TILES.



4 DEMOLITION RCP PHASE 2
1/8" = 1'-0"

KEYNOTES - DEMO PLAN PH. 2

NUMBER	COMMENTS
20	COORDINATE EQUIPMENT RELOCATION WITH OWNER.
21	REMOVE PORTION OF EXISTING FLOORING AND CEILING TO COORDINATE WITH NEW WALL CONSTRUCTION
22	REMOVE EXISTING DOOR, FRAME TO REMAIN



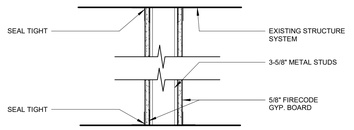
1 DEMO PLAN - PHASE 2
1/8" = 1'-0"

GENERAL DEMOLITION NOTES

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 REQUIRE/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 SPECIFICATIONS FOR ADDITIONAL INFORMATION.
3. 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, CONSTRUCTION AND RENOVATION.
5. ALL DEMOLITION DESCRIBED IN THESE DOCUMENTS SHALL BE COORDINATED WITH PHASING WORK REQUIRED TO COMPLETE THE WORK.
6. 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.
7. 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.
8. 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.
10. WHERE CEILING IS TO REMAIN, REMOVE ALL DAMAGED CEILING PANELS/ TILES AND REPLACE WITH NEW TO MATCH EXISTING.
11. REMOVE AND RETURN TO THE OWNER ALL EXISTING PLUMBING FIXTURES. CAP ALL SUPPLY AND WASTE LINES AS REQUIRED. REFER TO PLUMBING DRAWINGS FOR 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 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.
19. CLEAN AIR GRILLES AND LIGHT FIXTURES THROUGHOUT PROJECT AREA UPON COMPLETION OF WORK.
20. 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

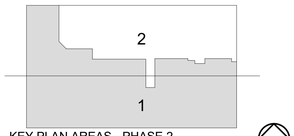
- NOT IN SCOPE
- EXISTING WALL, DOOR, FRAME AND HARDWARE TO REMAIN
- WALLS, DOORS, DOOR/WINDOW FRAMES, EQUIPMENT, FIXTURES, ETC. INDICATED BY DASHED LINES WITHIN THE AREA OF CONSTRUCTION SHALL BE REMOVED. REFER TO THIS SHEET FOR ARCHITECTURAL DEMOLITION NOTES.
- DP — DUST PARTITIONS - THE CONTRACTOR 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.
- DB — 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 OWNER.

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



KEY PLAN AREAS - PHASE 2
1" = 50'-0"

NORTH

RELEASED FOR CONSTRUCTION
As noted on this sheet
City of Lee's Summit Development Services Department
Lee's Summit, Missouri
10/28/2022

SAMUEL K. BECKMAN A-2011012130 ARCHITECT

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Samuel K. Beckman - Architect
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Missouri: #000958

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

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AD2.1.1

DEMOLITION PLAN - PHASE 2

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KEYNOTES - FLOOR PLAN PHASE 2

NUMBER	COMMENTS
10	NEW TECH WORK DESK AND PROVIDE POWER/DATA. RE: MEP.
11	OFFSET WALL PARTITION AS REQUIRED TO CENTER WALL ON EXISTING MULLION. INSTALL MULLION CAP RE: DETAIL
12	PROVIDE F.R. 5/8" PLYWOOD SHEATHING IN EXISTING WALL FOR WALL MOUNTED THERAPY GYM EQUIPMENT. SHEATHING TO EXTEND BETWEEN EXISTING COLUMNS.
14	COORDINATE EQUIPMENT RELOCATION WITH OWNER.
15	NEW WALL INFILL, MATCH EXISTING CONSTRUCTION AND FINISH ON BOTH SIDES.
17	MODIFY EXISTING WALL TO MEET 2-HR RATED CONSTRUCTION

FFE SCHEDULE

TYPE MARK	DESCRIPTION	RESPONSIBILITY	COMMENTS
		CFCI	
A1015	PHONE, DESK	OFOI	
A1066	MIRROR	CFCI	BLOCKING AS REQUIRED, RE: SPECS
A5075	SOAP DISPENSER	OFCI	
A5077	HAND SANITIZER	OFCI	
A5080	PAPER TOWEL DISPENSER	OFCI	
A5109b	GRAB BAR, HORIZONTAL, 60"	CFCI	
A5109c	GRAB BAR, VERTICAL, 18"	CFCI	BLOCKING AS REQUIRED, RE: SPECS
A5180.1	CUBICLE CURTAIN TRACK, 7'-3"W X 7'-6"D, L-SHAPE, SURFACE MOUNTED, W/ CURTAIN	CFCI	ROD/HOOK/ACCESSORIES TO BE CFCI. CURTAIN TO BE OFOI.
A5180.2	CUBICLE CURTAIN TRACK,6'W X 7'-6"D, L-SHAPE, SURFACE MOUNTED, W/ CURTAIN	CFCI	ROD/HOOK/ACCESSORIES TO BE CFCI. CURTAIN TO BE OFOI.
CR020	STORAGE CABINET	VFVI	PROVIDED BY JOHN A. MARSHALL
E0117	WORKSURFACE, 24"D X 48"W	VFVI	PROVIDED BY JOHN A. MARSHALL
E0118	WORKSURFACE, 24"D X 54"W	VFVI	PROVIDED BY JOHN A. MARSHALL
E0120	WORKSURFACE, 24"D X 60"W	VFVI	PROVIDED BY JOHN A. MARSHALL
E0945	WORKSTATION, MOBILE	OFOI	POWER AND DATA AS REQUIRED, RE: MEP
E0955	CRASH CART	OFOI	
F0205	SIDE CHAIR, W/ ARMS	VFVI	
F0300	CHAIR, TASK	VFVI	
F0430	MOBILE FILE CABINET	VFVI	
F0465	FULL HEIGHT STORAGE CABINET	VFVI	NO LOCKS
F0700	PRINTER STAND	OFOI	
F3050	DRY ERASE WHITEBOARD	OFCI	
M0506	MONITOR, TELEVISION, 32"	OFCI	BRACKET, CFCI; BLOCKING AS REQUIRED; POWER & CABLE AS REQUIRED, RE: MEP; COORDINATE FINAL TV SIZE, BRACKET, & MOUNTING HEIGHT W/ OWNER
M1801	COMPUTER MONITOR	OFOI	POWER AND DATA AS REQUIRED, RE: MEP
M1802	DUAL COMPUTER MONITOR	OFOI	POWER AND DATA AS REQUIRED, RE: MEP
M1825	PRINTER	OFOI	POWER AND DATA AS REQUIRED, RE: MEP
M4020	SCALE	OFOI	
M7040	WHEELED ERGO TABLE FOR LAPTOP	OFOI	
M8111	FLUIDOTHERAPY	OFOI	POWER REQUIRED, RE: MEP
M8120	HYDROCULATOR	OFOI	POWER REQUIRED, RE: MEP
M8133	ERGOMETER	OFOI	
M8185	TREADMILL	OFOI	
M8321	BARIATRIC TREATMENT TABLE	OFOI	
M9025	EXAM TABLE W/ CABINET	OFOI	
M9025a	SINGLE EXAM TREATMENT TABLE	OFOI	
R6080	REFRIGERATOR/FREEZER, 20 CU FT	OFOI	POWER REQUIRED, RE: MEP
R6200	REFRIGERATOR	OFOI	POWER REQUIRED, RE: MEP
U1006	ROWING MACHINE	OFOI	POWER REQUIRED, RE: MEP
U1007	ELLIPTICAL	OFOI	
U1009	REBOUNDER	OFOI	
U1010	NUSTEP	OFOI	
U1011	RECUMBENT BIKE	OFOI	
U1012	THERAPY STAIRS	OFOI	
U1013	6'x8' TREATMENT TABLE	OFOI	
U1014	BARIATRIC PARALLEL BARS	OFOI	
U1015	18"x5' TABLE	OFOI	
U1016	TECH WORK AREA DESK	VFVI	PROVIDED BY JOHN A. MARSHALL

GENERAL PLAN NOTES

1. REFER TO GENERAL NOTES, LEGENDS & SYMBOLS SHEET FOR ADDITIONAL GENERAL NOTES AS APPLICABLE.

2. DO NOT SCALE DRAWINGS

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

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

5. IF MATERIAL SUSPECTED OF CONTAINING HAZARDOUS MATERIALS ARE ENCOUNTERED, DO NOT DISTURB. IMMEDIATELY NOTIFY ARCHITECT AND OWNER. OWNER SHALL COORDINATE WITH CONTRACTOR ON THE REMOVAL OF SUCH ITEMS. WORK MAY PROCEED AFTER HAZARDOUS MATERIAL HAS BEEN REMOVED.

6. CONTRACTOR SHALL FURNISH AND INSTALL CONCEALED FIRE-TREATED WOOD BLOCKING BEHIND ALL CABINETS, TOILET ACCESSORIES, PLUMBING FIXTURES, AND OTHER WALL MOUNTED ITEMS AS REQUIRED FOR ADEQUATE SUPPORT.

REMODEL/RENOVATION NOTES

7.THE CONTRACTOR SHALL FIELD VERIFY EXISTING CONDITIONS AND NOTIFY ARCHITECT OF ANY INCONSISTENCIES OR DISCREPANCIES WITH THE PROJECT DOCUMENTS. ACCESS TO THE SITE AND/OR SPACE UNDER CONSTRUCTION DURING BIDDING AND CONSTRUCTION SALL BE COORDINATED IWTH THE OWNER.

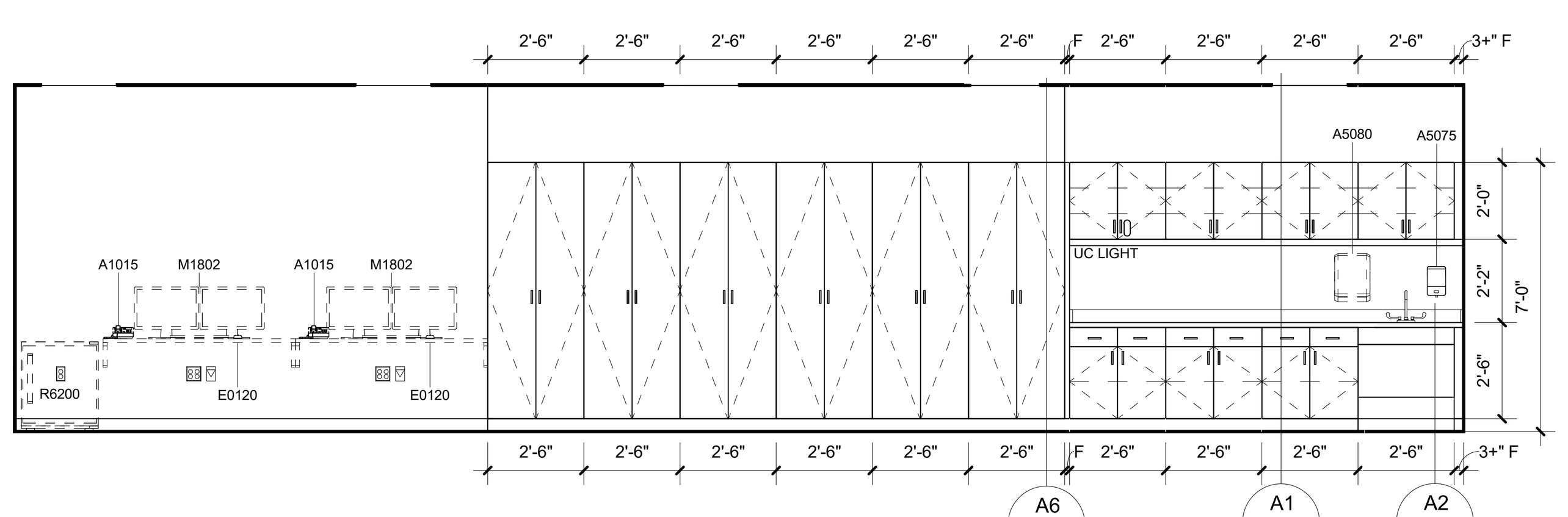
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. THE SUBSTRATE SHALL BE SMOOTH AND FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS..

9. UPON VERIFICATION OF THE EXISTING CONDITIONS, THE CONTRACTOR SHALL DETERMINE AND RECOMMEND THE BEST ACTION TO MINIMIZE THE EXTENT OF REMOVAL WORK FOR INSTALLATION OF NEW WORK.

10. ALL EXISTING CONSTRUCTION TO REMAIN SHALL BE PATCHED, REPAIRED, AND PREPPED AS REQUIRED FOR NEW FINISH APPLICATION.

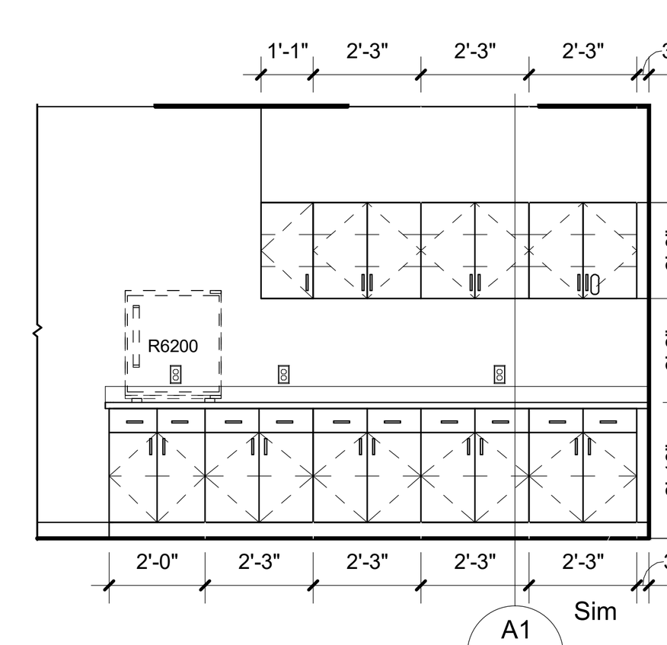
FLOOR PLAN LEGEND

NOT IN SCOPE
NOT IN ARCHITECTURAL SCOPE
CONCRETE SLAB INFILL
NEW WALL
EXISTING WALL
EXPANSION JOINT
EXISTING EXPANSION JOINT
DOOR No.
NEW DOOR
EXISTING DOOR



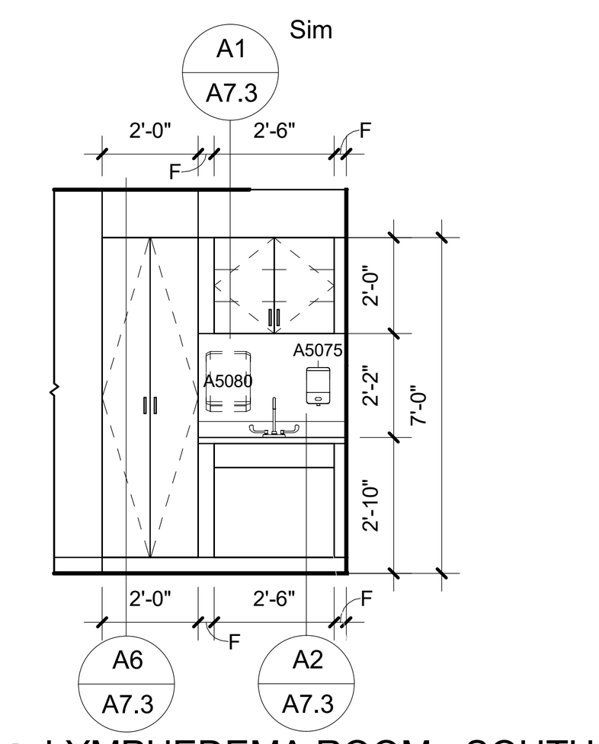
D6 OCCUPATIONAL THERAPY - SOUTH
1/4" = 1'-0"

151	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



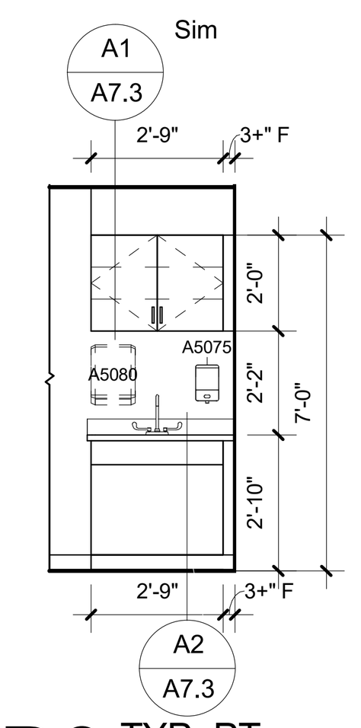
D5 TECH WORK - WEST
1/4" = 1'-0"

154	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	-



D4 LYMPHEDEMA ROOM - SOUTH
1/4" = 1'-0"

165	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



D3 TYP. PT
1/4" = 1'-0"

164	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1

A2 DIMENSION AND ANNOTATION PLAN - PHASE 2
1/4" = 1'-0"

KEY PLAN AREAS - PHASE 2
1" = 50'-0"

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As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
11/10/2022

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Samuel K. Beckman - Architect
License - Missouri #A-2011012130

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Missouri: #000958

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description

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FIRST FLOOR DIMENSION AND ANNOTATION PLAN - AREA A - PHASE 2

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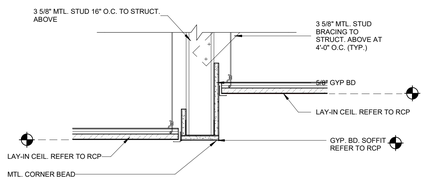
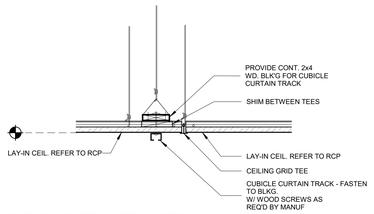


D5 BULKHEAD DETAIL
1 1/2" = 1'-0"



D4 CUBICLE CURTAIN TRACK DTL.
1 1/2" = 1'-0"

CEILING LEGEND

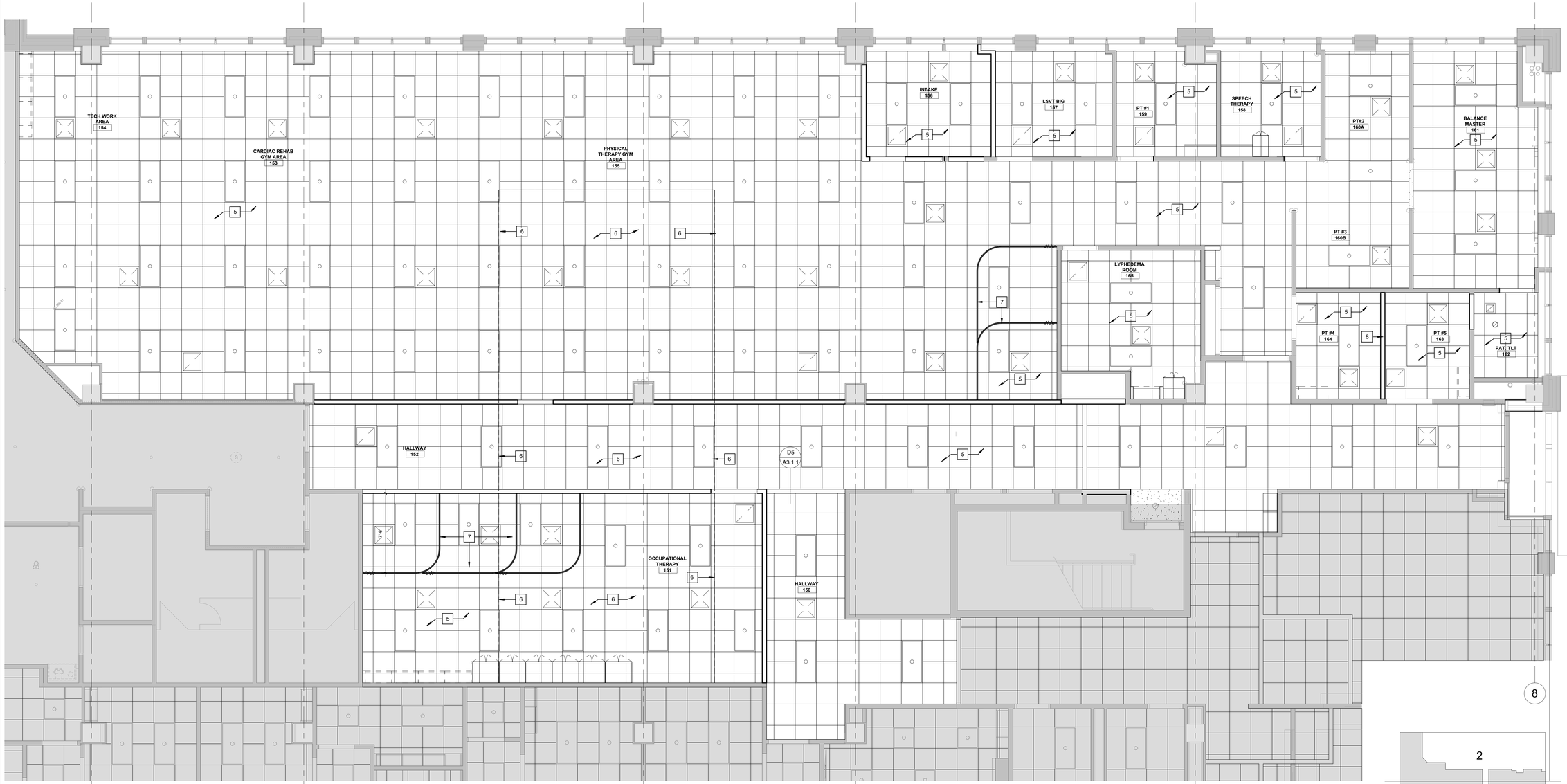
- RECESSED CAN LIGHT FIXTURE RE: ELECT
- 2X4 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- 2X2 RECESSED/SURFACE LIGHT FIXTURE RE: ELECT
- GYP BOARD CEILING - PAINTED W/ CONTROL JOINTS PER SPECS
- 2X2/2x4 LAY-IN ACOUSTICAL CEILING
- EXIT LIGHT WITH FIXTURE MARK CEILING MOUNTED RE: ELECT
- EXIT LIGHT WITH FIXTURE MARK WALL BRACKET RE: ELECT
- SUPPLY AIR GRILLE RE: MECH
- RETURN AIR OR EXHAUST GRILLE RE: MECH
- 9'-0" SOFFIT HEIGHT
- 9'-0" CEILING HEIGHT

REFLECTED CEILING NOTES

1. THIS PLAN SHALL BE USED TO COORDINATE THE CEILING LAYOUT WITH MECHANICAL AND ELECTRICAL WORK. VERIFY THE EXACT QUANTITY REQUIRED.
2. CONTRACTOR TO REFER TO THE ELECTRICAL PLANS FOR ACTUAL LIGHTING SIZES AND FIXTURE TYPES.
3. SEE SPECIFICATIONS FOR CEILING TYPES.
4. REFER TO INTERIOR FINISH SHEET FOR MATERIAL LEGEND OF ALL TYPES.
5. ALL CEILINGS SHALL BE 9'-0" AFF UNLESS OTHERWISE NOTED.

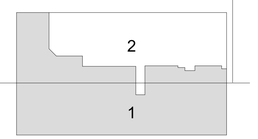
KEYNOTES - RCP PH. 2

Number	Comments
5	EXISTING GRID TO REMAIN. ADD CROSS TEES TO SUPPORT NEW 2X2 CEILING
6	NEW CEILING AND GRID, ALIGN WITH EXISTING GRID
7	NEW CUBICLE CURTAIN TRACK, REF. DETAIL THIS SHEET
8	MODIFY EXISTING GRID TO COORDINATE WITH NEW CONSTRUCTION



A2 REFLECTED CEILING PLAN - PHASE 2
1/4" = 1'-0"

NORTH



KEY PLAN AREAS - PHASE 2
1" = 50'-0"

RELEASED FOR CONSTRUCTION
As noted on the drawings
City of Lee's Summit Permitting Services Department
Lee's Summit, Missouri
10/28/2022

SAMUEL K. BECKMAN A-2011012130 ARCHITECT

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PULMONARY CLINIC - PHASE 2
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LEE'S SUMMIT, MO 64086

Date	8/15/22
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Drawn By	Author
Checked By	Checker

Revision

Number	Date	Description

A3.1.1

REFLECTED CEILING PLAN - PHASE 2

10/26/2022 4:44:43 PM

DOOR HARDWARE SCHEDULE

HARDWARE SET: 01
DOOR NUMBER: 151, 153, 160A, 163
EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5BB1HW	652	IVE
1 EA	STOREROOM LOCK	ND80LD RHO	626	SCH
1 EA	CYLINDER	BY OWNER	626	SCH
1 EA	ELECTRIC STRIKE	6211 FSE 12/16/24/28 VAC/VDC	630	VON
1 EA	OH STOP	905 (AT 153 ONLY)	630	GLY
1 EA	SURFACE CLOSER	4040XP RW/PA	689	LCN
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER
1 EA	DOOR CONTACT	679-05	WHT	SCE
1 EA	NOTE	CARD ACCESS BY SECURITY		B/O
1 EA	NOTE	LOW VOLTAGE POWER BY SECURITY		B/O
1 EA	NOTE	WIRING DIAGRAM BY SECURITY		B/O

OPERATION: DOOR NORMALLY CLOSED AND LOCKED. ENTRY VIA VALID CARD READ. ALWAYS FREE FOR EGRESS.

HARDWARE SET: 02
DOOR NUMBER: 156, 157
EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5BB1HW	652	IVE
1 EA	PASSAGE SET	ND10S RHO	626	SCH
1 EA	KICK PLATE	8400 10" X 2" LDW B-CS	630	IVE
1 EA	WALL STOP	WS406/407CCV	630	IVE
1 EA	GASKETING	488SBK PSA	BK	ZER

HARDWARE SET: 03
DOOR NUMBER: 166
EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
6 EA	HINGE	5BB1HW	652	IVE
1 EA	FIRE EXIT HARDWARE	9927-EO-F-LBR-499F	626	VON
1 EA	FIRE EXIT HARDWARE	9927-L-F-LBR-06-499F	626	VON
1 EA	RIM HOUSING	20-079	626	SCH
1 EA	CYLINDER	BY OWNER	626	SCH
2 EA	SURFACE CLOSER	4040XP EDA	689	LCN
2 EA	PROTECTION PLATE	8400 10" X 1" LDW B-CS	630	IVE
2 EA	MAGNET	SEM7850 12V/24V/120V	689	LCN
1 EA	GASKETING	488SBK PSA	BK	ZER
1 EA	ASTRAGAL (SET)	8193AA	AA	ZER

HARDWARE SET: 04
DOOR NUMBER: 114A, 114B, 114C, 158, 159, 160B, 162, 164, 165, 213, 228
EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
1		REUSE EXISTING HARDWARE		

HARDWARE SET: 05
DOOR NUMBER: 160C
EACH TO HAVE:

QTY	DESCRIPTION	CATALOG NUMBER	FINISH	MFR
3 EA	HINGE	5BB1HW	652	IVE
1 EA	STOREROOM LOCK	ND80LD RHO	626	SCH
1 EA	CYLINDER	BY OWNER	626	SCH

DOOR AND HARDWARE NOTES

1. 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 PROHIBITED.
2. 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.
3. 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.
4. ALL HARDWARE SHALL BE IN COMPLIANCE WITH ADA GUIDELINES AND NATIONAL BUILDERS HARDWARE ASSOCIATION STANDARDS.
5. HARDWARE TO BE INSTALLED PER MANUFACTURER'S RECOMMENDATIONS.
6. 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.
7. OWNER WILL SUPPLY PERMANENT CORES.

DOOR & FRAME MAT'L LEGEND

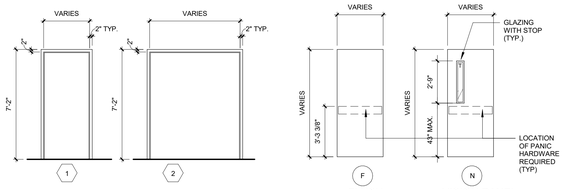
ALUM	ALUMINUM
HM	HOLLOW METAL
WD	SOLID CORE WOOD
FRP	FIBER REINFORCED PANEL

GLAZING LEGEND

T	TEMPERED
F.R.	FIRE RESISTANT

DOOR SCHEDULE PHASE 2

DOOR #	ROOM NAME	DOOR INFORMATION WIDTH	HEIGHT	NO. OF LEAVES	ELEV.	MATL.	FRAME INFORMATION ELEV.	MATL.	GLAZING	LABEL (MIN)	HARDWARE SET	OPENING DETAIL HEAD	JAMB	REMARKS	REV #
114A	HALLWAY	2'-0"	7'-0"	2	F	WD	2	--	--	0 hr	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
114B	HALLWAY	2'-0"	7'-0"	2	F	WD	2	--	--	0 hr	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
114C	HALLWAY	3'-0"	7'-0"	1	F	WD	1	--	--	0 hr	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
151	OCCUPATIONAL THERAPY	4'-0"	7'-0"	1	N	WD	1	HM	--	0 hr	1	A1/A4.1	A2/A4.1	OFFICE SET WITH CARD READER	
153	PHYSICAL THERAPY GYM AREA	3'-0"	7'-0"	1	N	WD	1	HM	--	0 hr	1	A1/A4.1	A2/A4.1	OFFICE SET WITH CARD READER	
156	INTAKE	3'-0"	7'-0"	1	F	WD	1	HM	--	--	2	A1/A4.1	A2/A4.1	PASSAGE SET	
157	LSVT BIG	3'-0"	7'-0"	1	F	WD	1	HM	--	--	2	A1/A4.1	A2/A4.1	PASSAGE SET	
158	PT #1	3'-0"	7'-0"	1	F	WD	1	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
159	SPEECH THERAPY	3'-0"	7'-0"	1	F	WD	1	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
160A	HALLWAY	4'-0"	7'-0"	1	N	WD	1	HM	--	90 min	1	A1/A4.1	A2/A4.1	OFFICE SET WITH CARD READER, F.R. GLASS	
160B	HALLWAY	3'-0"	7'-0"	2	F	WD	2	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
160C	HALLWAY	2'-6"	7'-0"	1	F	WD	1	HM	--	--	5	A1/A4.1	A2/A4.1	STOREROOM LOCKSET	
162	BALANCE MASTER	3'-0"	7'-0"	1	F	WD	1	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
163	PT #5	4'-0"	7'-0"	1	N	WD	1	HM	--	90 min	1	A1/A4.1	A2/A4.1	OFFICE SET WITH CARD READER, F.R. GLASS	
164	PT #4	4'-0"	7'-0"	1	F	WD	1	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
165	LYPHEDEMA ROOM	3'-0"	7'-0"	1	F	WD	1	--	--	--	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
166	HALLWAY	3'-10"	7'-0"	2	F	WD	2	HM	--	90 min	3	A1/A4.1	A2/A4.1	MAG-HOLD OPEN	
213	HALLWAY	3'-10"	7'-0"	2	F	WD	2	--	--	0 hr	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	
228	HALLWAY	4'-0"	7'-0"	1	F	WD	1	--	T--	0 hr	4	ETR	ETR	EXISTING FRAME TO REMAIN, REUSE EXISTING HARDWARE	



FRAME ELEVATIONS:

DOOR ELEVATIONS:

DOOR & FRAME ELEVATIONS PHASE 2
1/4" = 1'-0"

RELEASED FOR CONSTRUCTION
As noted on drawings
City of Lee's Summit Permitting Services Department
Lee's Summit, Missouri
10/28/2022

SAMUEL K. BECKMAN NUMBER A-2011012130 ARCHITECT

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Samuel K. Beckman - Architect
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PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description

A4.1.1

DOOR AND FRAME SCHEDULE AND DETAILS - PHASE 2

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ROOM FINISH SCHEDULE - PHASE 2

ROOM NUMBER	ROOM NAME	FLOOR FINISH	BASE FINISH	WALLS				CASEWORK				CEILING	NOTES	REVISION #
				NORTH	EAST	SOUTH	WEST	BASE CABINETS	WALL CABINETS	COUNTERTOPS	SINKS			
150	HALLWAY	LVT-2	RB-1	PT-1 / WP-2 / HR-1	PT-1 / WP-2 / HR-1	PT-1 / WP-2 / HR-1	PT-1 / WP-2 / HR-1	-	-	-	-	ACT-1		
151	OCCUPATIONAL THERAPY	LVT-2	RB-1	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PLAM-1	PLAM-1	SSF-1	IS-1	ACT-1		
152	HALLWAY	LVT-2	RB-1	PT-1 / WP-2 / HR-1	PT-1 / WP-2	PT-1 / WP-2 / HR-1	PT-1 / WP-2 / HR-1	-	-	-	-	ACT-1		
153	CARDIAC REHAB GYM AREA	RBF-1,2,3	RB-1	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	-	-	-	-	ACT-1		
154	TECH WORK AREA	RBF-1,3	RB-1	PT-1	-	-	PT-1 / WP-2	PLAM-1	PLAM-1	SSF-1	-	ACT-1		
155	PHYSICAL THERAPY GYM AREA	RBF-1,2,3	RB-1	PT-1 / WP-2	PT-1,8 / WP-2	PT-1 / WP-2	PT-1 / WP-2	-	-	-	-	ACT-1		
156	INTAKE	RBF-2	RB-1	PT-1	PT-1,8	PT-1	PT-1	-	-	-	-	ACT-1		
157	LSVT BIG	RBF-2	RB-1	PT-1	PT-1	PT-2	PT-1	-	-	-	-	ACT-1		
158	SPEECH THERAPY	LVT-2	RB-1	PT-1	PT-1	PT-1	PT-8	ETR	ETR	ETR	ETR	ACT-1	5	
159	PT #1	RBF-2	RB-1	PT-1	PT-1 / WP-2	PT-1 / WP-2	PT-8 / WP-2	ETR	ETR	ETR	ETR	ACT-1	5	
160	HALLWAY	RBF-1,2,3	RB-1	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 WP-2	-	-	-	-	ACT-1		
160A	PT#2	RBF-2	RB-1	PT-1	PT-8 / WP-2	-	PT-1 / WP-2	-	-	-	-	ACT-1		
160B	PT #3	RBF-2	RB-1	-	PT-8 / WP-2	PT-1 / WP-2	PT-1 WP-2	-	-	-	-	ACT-1		
160C	ELECT.							PLAM- 2						
161	BALANCE MASTER	RBF-3	RB-1	PT-1	PT-1	PT-1	PT-1	-	-	-	-	ACT-1		
162	PAT. TLT	RSF-2	IB-2	PT-1A	PT-1A	PWT-1	PT-1A	-	-	-	-	ACT-1		
163	PT #5	RBF-2	RB-1	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-8 / WP-2	PLAM-1	PLAM-1	SSF-1	IS-1	ACT-1		
164	PT #4	RBF-2	RB-1	PT-8 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PLAM-1	PLAM-1	SSF-1	IS-1	ACT-1		
165	LYPHEDEMA ROOM	RBF-2	RB-1	PT-1 / WP-2	PT-8 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PLAM-1	PLAM-1	SSF-1	IS-1	ACT-1		
166	HALLWAY	LVT-2	RB-1	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	PT-1 / WP-2	-						

GENERAL ROOM FINISH SCHEDULE NOTES

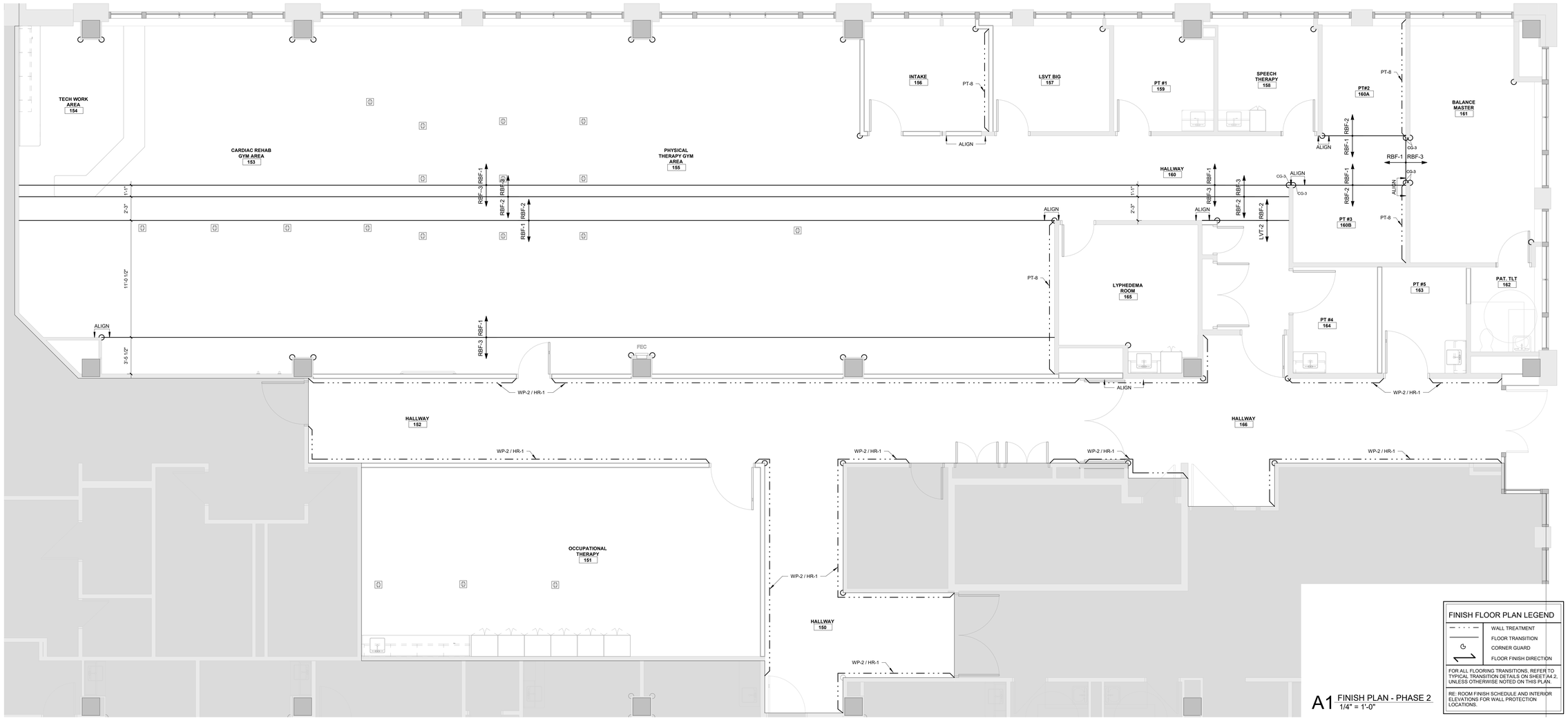
A	REFER TO FINISH PLAN AND INTERIOR ELEVATIONS FOR WALL FINISHES, WALL PROTECTION, CORNER GUARDS, WINDOW TREATMENTS, FLOOR FINISH APPLICATION AND LOCATIONS
B	ALL SOLID WOOD, WOOD VENEER, AND PLASTIC LAMINATE GRAIN SHALL BE VERTICALLY ORIENTED UNLESS OTHERWISE NOTED
C	DOOR FRAMES, HOLLOW METAL WINDOW FRAMES TO BE PT-4 UNLESS OTHERWISE NOTED
D	ALL FACES AND UNDERSIDES OF SOFFITS AND HEADERS TO BE PT-5 UNLESS OTHERWISE NOTED
E	WALL EXPANSION JOINTS TO BE PT-1 UNLESS OTHERWISE NOTED
F	ALL ELECTRICAL PANELS AND METAL GRILLES SHALL BE PTD TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED
G	ALL COLUMN SURROUND FINISHES TO MATCH ADJACENT WALL SURFACE UNLESS OTHERWISE NOTED
H	WHERE A WALL IS INDICATED TO HAVE PARTIAL OR FULL HT WALL PROTECTION, THE ENTIRE WALL IS TO BE PTD PRIOR TO WALL PROTECTION INSTALLATION
I	EXTEND ALL FINISHES BENEATH, BEHIND, AROUND ALL CASEWORK, EQUIPMENT, SIGNAGE, ETC
J	ALL WINDOW SILLS TO BE SSF-2
K	ALL SST SINKS, RE: MEP
L	SUBMIT SAMPLES OF ALL FINISHES TO ARCHITECT FOR REVIEW PRIOR TO THE ORDERING OF MATERIAL.
M	NO IRREGULARITIES OR IMPERFECTIONS SHALL BE PRESENT IN ANY OF THE MATERIAL BEING INSTALLED. IF SUCH ITEMS ARE IDENTIFIED DURING APPLICATION, WORK SHALL BE STOPPED AND THE ARCHITECT NOTIFIED.
N	PROVIDE ALL MAINTENANCE MANUALS AND WARRANTY INFORMATION FOR EACH FINISH MATERIAL TO OWNER AT COMPLETION OF THE PROJECT.
O	FURNISH ALL LABOR, MATERIALS, AND EQUIPMENT NECESSARY TO COMPLETE WORK OF FINISH APPLICATIONS.
P	ALL FINISHES SHALL BE INSTALLED AND MAINTAINED PER MANUFACTURER'S RECOMMENDATION AND INDUSTRY STANDARDS.
Q	THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR EXAMINING AND CONFIRMING ALL SUBSTRATE CONDITIONS WHERE NEW MATERIALS ARE APPLIED. SUBSTRATE SHALL BE SMOOTH, FREE OF DEFECTS AND SHALL CONFORM TO THE REQUIREMENTS OF THE FINISHED MATERIAL MANUFACTURERS RECOMMENDATIONS.
R	ALL MATERIAL TO COMPLY WITH FLAME SPREAD CLASSIFICATION EITHER CLASS (1) ONE OR CLASS A DEPENDING ON GOVERNING CODE IN EFFECT.
S	SMOKE DEVELOPMENT RATING < 450 FOR ALL FINISHES.

SPECIFIC ROOM FINISH SCHEDULE NOTES

1	REFER TO TYPICAL WALL TILE PATTERN ELEVATIONS ON A4.2.
2	FACE OF SOFFIT TO BE THE SAME PAINT COLOR AS ADJACENT WALL. UNDERSIDE OF SOFFIT TO BE PT-9.
3	FACE OF SOFFIT TO BE THE SAME PAINT COLOR AS ADJACENT WALL. UNDERSIDE OF SOFFIT TO BE PT-2.
4	PROVIDE HOLD-DOWN CLIPS FOR VESTIBULE CEILING.
5	EXISTING CASEWORK TO REMAIN.

INTERIOR FINISH LEGEND

MARK	ITEM	MANUFACTURER	MODEL/ PATTERN	COLOR	SIZE	REMARKS	REVISION #
FLOOR							
LVT-1	LUXURY VINYL TILE	MANNINGTON	AMTICO WOOD	REGENCY WALNUT AROWI8200	4 1/2" X 36"	STRAIGHT EDGE ONLY. RANDOM OFFSET INSTALLATION	
LVT-2	LUXURY VINYL TILE	MANNINGTON	AMTICO STONE	CORINTHIAN AROSTV13	18" X 18"	STRAIGHT EDGE ONLY. ASHLAR INSTALL	
PFT-2	PORCELAIN FLOOR TILE	CAESAR CERAMICS USA	LINK	CHAIN	12" X 24"	1/3 OFFSET INSTALL. USE GT-2, MINIMUM GROUT SIZE	
RBF-1	RUBBER FLOORING	NORA	NORAMENT SATURA	5105 CYGNUS	39.53" X 39.53", 3.5 MM	DRYFIX ADHESIVE	
RBF-2	RUBBER FLOORING	NORA	NORAMENT SATURA	5106 VULPECULA	39.53" X 39.53", 3.5 MM	DRYFIX ADHESIVE	
RBF-3	RUBBER FLOORING	NORA	NORAMENT SATURA	5113 SAGITTA	39.53" X 39.53", 3.5 MM	DRYFIX ADHESIVE	
RSF-1	RESILIENT SHEET FLOORING	MANNINGTON	BIOSPEC MD	LINEN 15420	6'-0" ROLL	MATCHING WELD ROD. HOMOGENEOUS FLOORING	
RSF-2	RESILIENT SHEET FLOORING	SHAW CONTRACT	TERASU, REED	PAGODA 96710	6'-0" ROLL	MATCHING WELD ROD. HETEROGENEOUS FLOORING	
WOM-1	WALK-OFF CARPET	TANDUS-CENTIVA	ASSERTIVE STRIA - #04839	LEAD SHOT - #26207	6' ROLL; 24" X 24" TILE	VERTICAL ASHLAR INSTALLATION	
BASE							
IB-1	INTEGRAL BASE	MANNINGTON	BIOSPEC MD	LINEN 15420	6" COVE	J' MOLD SCHLUTER STRIP AT THE TOP; TO BE USED WITH RSF-1	
IB-2	INTEGRAL BASE	SHAW CONTRACT	TERASU, REED	PAGODA 96710	6" COVE	J' MOLD SCHLUTER STRIP AT THE TOP; TO BE USED WITH RSF-2	
MT-1	METAL COVE BASE TRIM	SCHLUTER	DILEX-AHK	STAINLESS STEEL	-	TO BE USED WITH PWT-1 AND PFT-2	
RB-1	RESILIENT BASE	ROPPE	PINNACLE PLUS, PROFILE #65	#129 DOLPHIN	4-5/8"	-	
RB-2	RESILIENT BASE	ROPPE	PINNACLE	#129 DOLPHIN	4" COVE	-	
WALL							
CG-1	CORNER GUARDS	C/S ACROVYN	SM-20AN-ACROVYN-4000	#933 MISSION WHITE	3"	90 DEGREE. ABOVE BASE TO 48" AFF	
CG-3	CORNER GUARDS	C/S ACROVYN	SSM-25AN-ACROVYN-4000	#933 MISSION WHITE	2"	END WALL. ABOVE BASE TO CEILING / INCLUDE ALL TRIM AND ACCESSORIES PIECES	
HR-1	HANDRAILS	C/S ACROVYN	HRB-20N	#378 BRUSHED NICKEL	5-5/8" X 3"	VERIFY WITH EXISTING CENTER WHAT HANDRAILS ARE INSTALLED. THIS SPECIFICATION IS ANY NEW FACILITIES THAT NEED HANDRAILS GOING FORWARD	
PT-1	PAINT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW7008 ALABASTER	-	FIELD PAINT	
PT-1A	PAINT	SHERWIN WILLIAMS	EPOXY FINISH	SW7008 ALABASTER	-	FIELD PAINT	
PT-2	PAINT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW7641 COLONNADE GRAY	-	ACCENT PAINT	
PT-4	PAINT	SHERWIN WILLIAMS	SEMI-GLOSS FINISH	SW7046 ANONYMOUS	-	ALL HOLLOW METAL DOOR AND WINDOW FRAMES	
PT-5	PAINT	SHERWIN WILLIAMS	FLAT FINISH	SW7008 ALABASTER	-	CEILING PAINT	
PT-8	PAINT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW7621 SILVERMIST	-	ACCENT PAINT	
PT-9	PAINT	SHERWIN WILLIAMS	EGGSHELL FINISH	SW7642 PAVESTONE	-	ACCENT PAINT	
PWT-1	PORCELAIN WALL TILE	ATLAS CONCORDE USA	EON	ELDORADO	12" X 24"	1/3 OFFSET INSTALL. USE GT-2, MINIMUM GROUT SIZE	
WP-2	WALL PROTECTION	C/S ACROVYN	ACROVYN 4000	#933 MISSION WHITE	4' X 10' SHEETS; .040" THICK	WALL PROTECTION AT 48" AFF, INCLUDE ALL ACCESSORIES AND TRIM PIECES	
CASEWORK							
IS-1	INTEGRAL SINK	CORIAN	REFER TO SPEC	BONE	30" X 144" SHEET, 36" X 144" SHEET	-	
PLAM-1	PLASTIC LAMINATE	WILSONART	#7965K-12	WALNUT HEIGHTS	-	CUSTOM 3MM PVC DOELLKEN WALNUT HEIGHTS 8707ES. RUN VERTICALLY	
QTZ-1	QUARTZ SURFACE	CAMBRIA	-	DARLINGTON	55" X 120" SLAB	2CM, 3CM SEACLIFF EDGE PROFILE	
SSF-1	SOLID SURFACE	CORIAN	-	CLAM SHELL	1/2": 30" X 144" SHEET, 36" X 144" SHEET	-	
CEILING							
ACT-1	ACOUSTIC CEILING TILE	USG	RADAR CLIMA PLUS #2210	WHITE	2' X 2'	SQUARE EDGE, DONN DX TEE 15/16" GRID SYSTEM	
ACT-2	ACOUSTIC CEILING TILE	USG	CLEAN ROOM CLIMA PLUS CLASS 100 #56099 (UNPERFORATED)	WHITE	2' X 2'	VINYL FACED W/ SQUARE EDGE, DONN DX 15/16" TEE GRID SYSTEM	
MISC.							
ETR	EXISTING TO REMAIN	-	-	-	-	-	
GT-2	GROUT	MAPEI	KERACOLOR S	#107 IRON	-	MINIMAL GROUT LINES	
MT-2	METAL TRIM	SCHLUTER	QUADEC	STAINLESS STEEL	-	TO BE USED ON ALL OUTSIDE CORNERS OF EXPOSED WALL TILE	
TRS-1	TRANSITION STRIP	SCHLUTER	SCHIENE	CLEAR SATIN ANODIZED ALUMINUM	-	-	
TRS-2	TRANSITION STRIP	SCHLUTER	RENO-U	CLEAR SATIN ANODIZED ALUMINUM	-	-	



A1 FINISH PLAN - PHASE 2
1/4" = 1'-0"

FINISH FLOOR PLAN LEGEND

	WALL TREATMENT
	FLOOR TRANSITION
	CORNER GUARD
	FLOOR FINISH DIRECTION

FOR ALL FLOORING TRANSITIONS, REFER TO TYPICAL TRANSITION DETAILS ON SHEET A4.2, UNLESS OTHERWISE NOTED ON THIS PLAN.

RE: ROOM FINISH SCHEDULE AND INTERIOR ELEVATIONS FOR WALL PROTECTION LOCATIONS.

RELEASED FOR CONSTRUCTION
As noted on submitted documents
City of Lee's Summit Permitting Services Department
Lee's Summit, Missouri
10/28/2022

SAMUEL K. BECKMAN ARCHITECT A-2011012130

10/26/2022 4:44:45 PM
Samuel K. Beckman - Architect
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Missouri: #000958

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description

A4.2.1

ROOM FINISH SCHEDULE & FINISH LEGEND - PHASE 2

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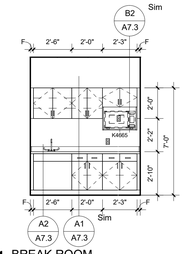
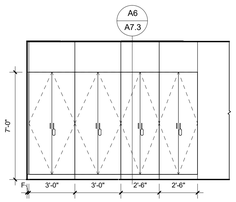


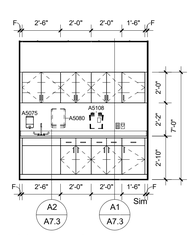
C1 BREAK ROOM
1/4" = 1'-0"

116	
BASE CABINETS	PLAM- 1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



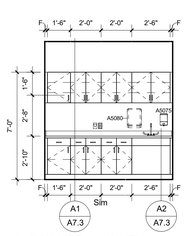
B6 PFT/FUTURE PROCEDURE FLEX - WEST
1/4" = 1'-0"

117	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	
SINKS	



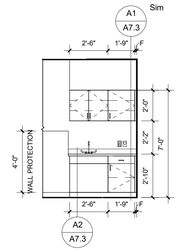
B5 SOILED - NORTH
1/4" = 1'-0"

109	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



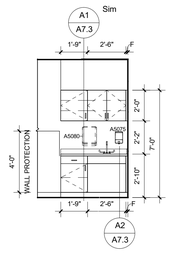
B4 CLEAN/MEDS - SOUTH
1/4" = 1'-0"

108	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



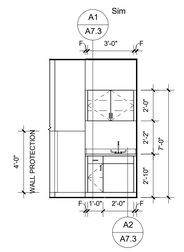
B3 EXAM/SLEEP TECH - WEST
1/4" = 1'-0"

112	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



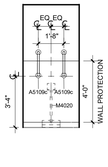
B2 TYP EXAM - WEST
1/4" = 1'-0"

105	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



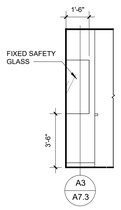
B1 EXAM VARIANTS - WEST
1/4" = 1'-0"

104	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	IS-1



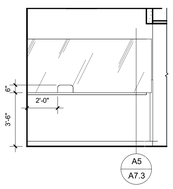
A6 TYP. VITALS - NORTH
1/4" = 1'-0"

100A	
BASE CABINETS	PLAM-1
WALL CABINETS	PLAM-1
COUNTERTOPS	SSF-1
SINKS	



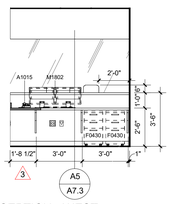
A5 RECEPTION - SOUTH A
1/4" = 1'-0"

101	
BASE CABINETS	PLAM-1
WALL CABINETS	-
COUNTERTOPS	SSF-1 / QTZ-1
SINKS	



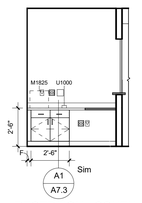
A4 RECEPTION - EAST B
1/4" = 1'-0"

101	
BASE CABINETS	PLAM-1
WALL CABINETS	-
COUNTERTOPS	SSF-1 / QTZ-1
SINKS	



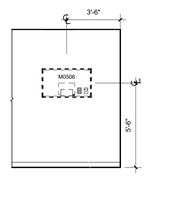
A3 RECEPTION - WEST
1/4" = 1'-0"

101	
BASE CABINETS	PLAM-1
WALL CABINETS	-
COUNTERTOPS	SSF-1 / QTZ-1
SINKS	



A2 RECEPTION - SOUTH
1/4" = 1'-0"

101	
BASE CABINETS	PLAM-1
WALL CABINETS	-
COUNTERTOPS	SSF-1 / QTZ-1
SINKS	



A1 TEMP WAITING - EAST
1/4" = 1'-0"

100	
BASE CABINETS	-
WALL CABINETS	-
COUNTERTOPS	-
SINKS	-

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

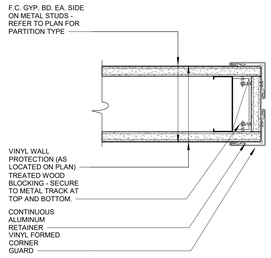
Date	8/15/22
Job Number	3-22015
Drawn By	KDS
Checked By	ABD

Revision

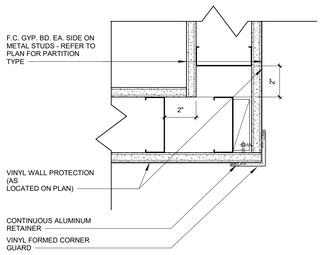
Number	Date	Description
3	9.9.22	ASI 3

A7.2

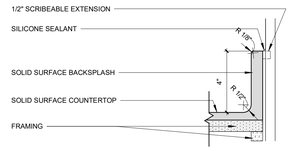
INTERIOR ELEVATIONS



E5 TYPICAL DOUBLE VINYL CORNER GUARD
3" = 1'-0"



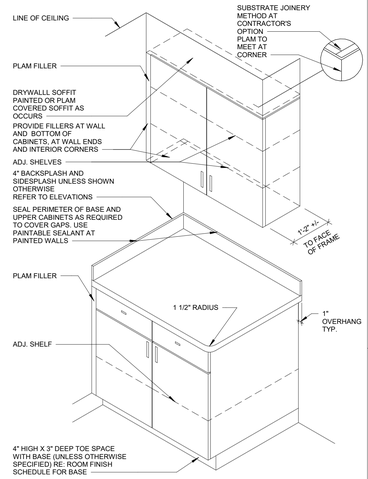
E4 TYPICAL SINGLE VINYL CORNER GUARD
3" = 1'-0"



E3 SECTION DETAIL AT SOLID SURFACE BACKSPLASH
3" = 1'-0"

GENERAL CASEWORK NOTES

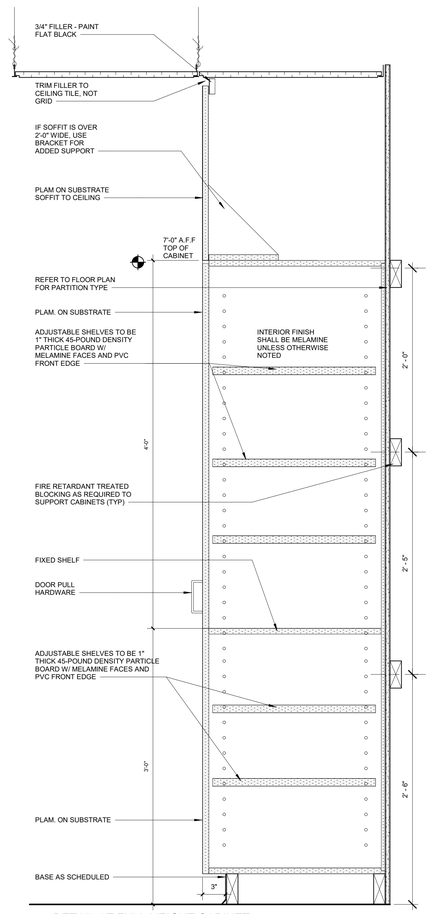
1. GENERAL CASEWORK NOTES APPLY TO ALL INTERIOR ELEVATIONS.
2. PROVIDE 3 MM PVC EDGE BANDING ON COUNTERTOP EDGE AND 3MM VINYL EDGING ON DRAWER, AND DOOR EDGES UNLESS NOTED OTHERWISE. EDGE BANDING TO MATCH ADJACENT P. LAM. SURFACE.
3. ALL EXPOSED FACES AND SHELVES TO BE WRAPPED WITH P. LAM. UNLESS NOTED OTHERWISE.
4. ALL INTERIOR SURFACES TO BE WHITE MELAMINE U.N.O.
5. PROVIDE WOOD BLOCKING OR 12" HIGH X 16 GA. CONTINUOUS SHEET METAL BRIDGING IN WALL AS REQUIRED FOR ADEQUATE SUPPORT OF ALL CASEWORK..
6. WALL BASE TO BE INSTALLED ON ALL CASEWORK UNLESS NOTED OTHERWISE. REFER TO FINISH SCHEDULE FOR TYPE.
7. "F" INDICATES FILLER PANEL, 1-1/2" MIN.
8. "EP" INDICATES END PANEL, 1-1/2" MIN.
9. PROVIDE FINISHED ENDS AT ALL EXPOSED ENDS OF CASEWORK.
10. ALL ELECTRICAL, MECHANICAL, AND PLUMBING ITEMS SHOWN IN ELEVATION ARE FOR REFERENCE AND LOCATION ONLY. REFER TO MEP DRAWINGS FOR SIZES, TYPES AND QUANTITIES.
11. ALL SOFFITS ABOVE CASEWORK TO BE P. LAM. UNLESS NOTES OTHERWISE.



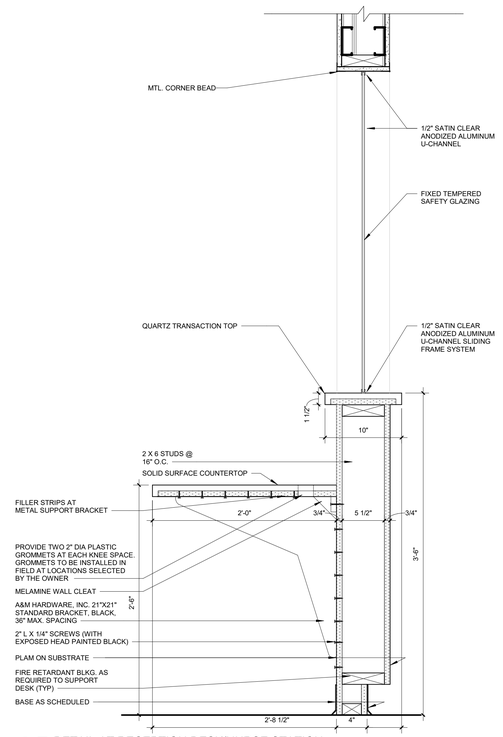
TYP. CABINET NOTES:

1. PROVIDE PLAM FILLER WHERE CABINETS BUTT UP TO WALLS.
2. ALL COUNTERTOPS HAVE A 4" BACKSPLASH (MATERIAL TO MATCH COUNTERTOP) AND OUTSIDE CORNERS HAVE 1 1/2" RADIUS EXCEPT WHERE NOTED OTHERWISE.
3. CASEWORK MFR. TO SUPPLY (2) - 2" [GROMMETS PER KNEESPACE, GROMMETS TO BE INSTALLED IN FIELD AS DIRECTED BY OWNER. COLOR TO BE SELECTED BY ARCHITECT.
4. PLASTIC LAMINATE COUNTERTOP EDGES SHALL BE 3 MM PLASTIC. COLOR AS SELECTED BY ARCHITECT)

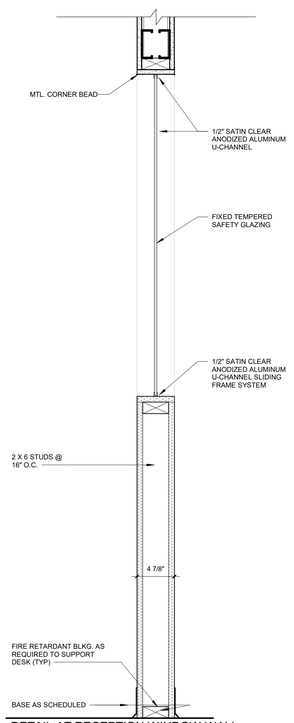
D1 CASEWORK ISOMETRIC
1 1/2" = 1'-0"



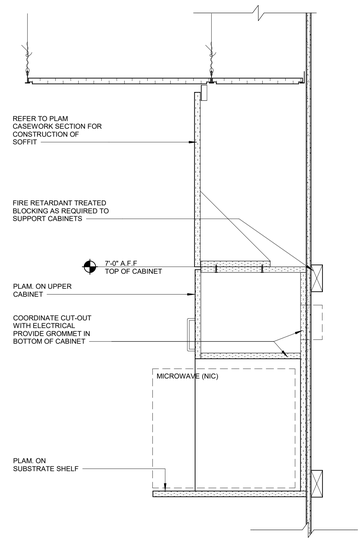
A6 DETAIL AT FULL HEIGHT CABINET
1 1/2" = 1'-0"



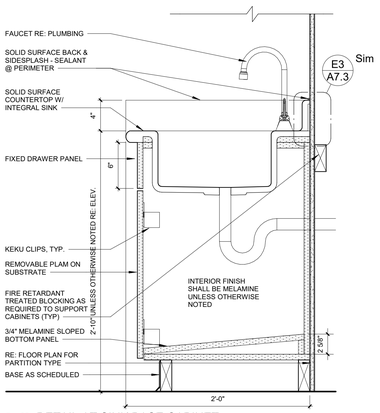
A5 DETAIL AT RECEPTION DESK/NURSE STATION
1 1/2" = 1'-0"



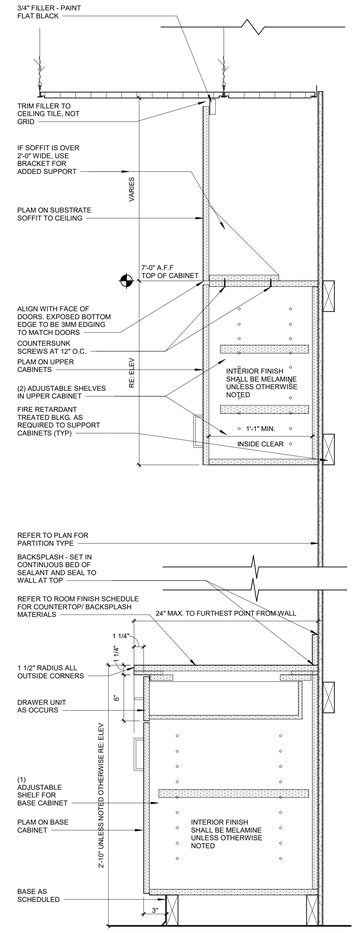
A3 DETAIL AT RECEPTION WINDOW WALL
1 1/2" = 1'-0"



B2 WALL-MOUNTED MICROWAVE SHELF
1 1/2" = 1'-0"



A2 DETAIL AT SINK BASE CABINET
1 1/2" = 1'-0"



A1 CASEWORK SECTION
1 1/2" = 1'-0"

10/26/2022 4:44:51 PM
Samuel K. Beckman - Architect
License - Missouri #A-2011012130

ACI BOLAND ARCHITECTS
ACI/Boland, Inc.
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T: 816.763.9600
Licensee's Certificate of Authority Number:
Missouri: #000958

PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

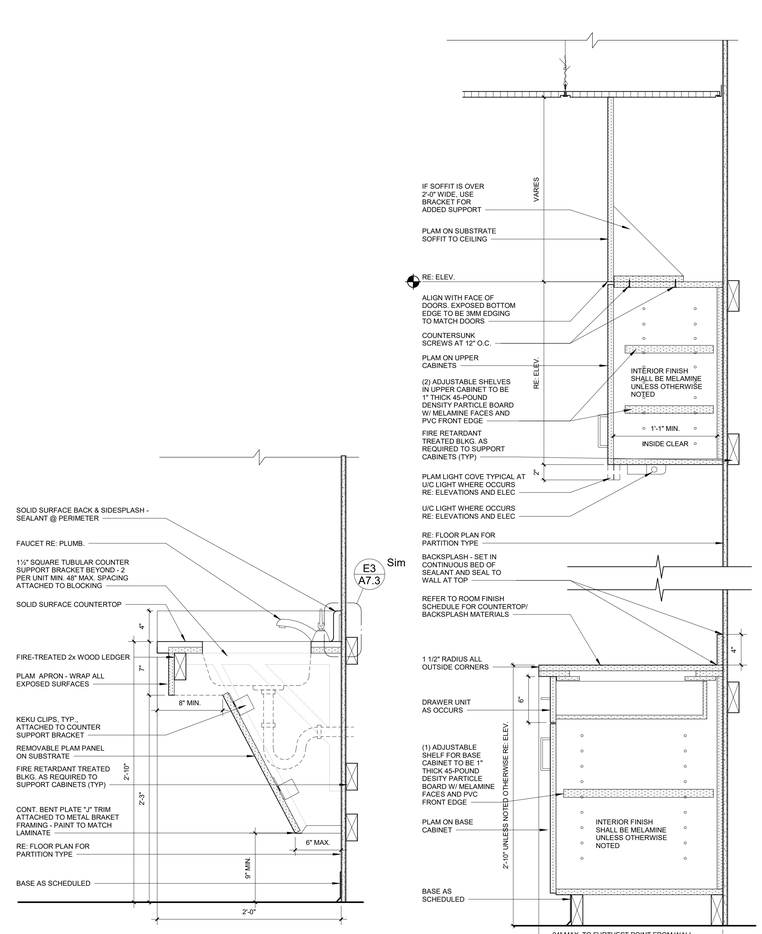
Number	Date	Description

A7.3

INTERIOR DETAILS

GENERAL CASEWORK NOTES

1. GENERAL CASEWORK NOTES APPLY TO ALL INTERIOR ELEVATIONS.
2. PROVIDE 3 MM PVC EDGE BANDING ON COUNTERTOP EDGE AND 3MM VINYL EDGING ON DRAWER, AND DOOR EDGES UNLESS NOTED OTHERWISE. EDGE BANDING TO MATCH ADJACENT P. LAM. SURFACE.
3. ALL EXPOSED FACES AND SHELVES TO BE WRAPPED WITH P. LAM. UNLESS NOTED OTHERWISE.
4. ALL INTERIOR SURFACES TO BE WHITE MELAMINE U.N.O.
5. PROVIDE WOOD BLOCKING OR 12" HIGH X 16 GA. CONTINUOUS SHEET METAL BRIDGING IN WALL AS REQUIRED FOR ADEQUATE SUPPORT OF ALL CASEWORK..
6. WALL BASE TO BE INSTALLED ON ALL CASEWORK UNLESS NOTED OTHERWISE. REFER TO FINISH SCHEDULE FOR TYPE.
7. "F" INDICATES FILLER PANEL, 1-1/2" MIN.
8. "EP" INDICATES END PANEL, 1-1/2" MIN.
9. PROVIDE FINISHED ENDS AT ALL EXPOSED ENDS OF CASEWORK.
10. ALL ELECTRICAL, MECHANICAL, AND PLUMBING ITEMS SHOWN IN ELEVATION ARE FOR REFERENCE AND LOCATION ONLY. REFER TO MEP DRAWINGS FOR SIZES, TYPES AND QUANTITIES.
11. ALL SOFFITS ABOVE CASEWORK TO BE P. LAM. UNLESS NOTES OTHERWISE.



A1 DETAIL AT CASEWORK
1 1/2" = 1'-0"

A2 DETAIL AT APRON SINK BASE CABINET - SOLID SURFACE
1 1/2" = 1'-0"

RELEASED FOR CONSTRUCTION
As noted on this sheet
City of Lee's Summit Permitting Services Department
Lee's Summit, Missouri
10/26/2022

SAMUEL K. BECKMAN A-2011012130 STATE OF MISSOURI REGISTERED ARCHITECT

10/26/2022 4:48:52 PM
Samuel K. Beckman - Architect
License - Missouri #A-2011012130

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Licensee's Certificate of Authority Number:
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PULMONARY CLINIC - PHASE 2
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
20 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

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

Revision

Number	Date	Description
3	9.9.22	ASI 3

A7.3.1

INTERIOR DETAILS - PHASE 2

ELECTRICAL LEGEND

THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

ONE LINE AND RISER

- PANEL XXX — PANEL
- CURRENT TRANSFORMER, RATED AS SPECIFIED OR REQUIRED
- M — MOTOR: HORSEPOWER AS INDICATED ON PLANS OR DIAGRAMS
- SPD — SURGE PROTECTION DEVICE
- GROUND CONNECTION
- LSIG — CIRCUIT BREAKER, RATING AS SHOWN. LSIG DENOTES ELECTRONIC TRIP UNIT WITH ADJUSTABLE SETTINGS FOR: L= LONG TIME TRIP DELAY, S= SHORT TIME TRIP DELAY, I= INSTANTANEOUS, G= GROUND FAULT
- 800A3P — SWITCH, RATING AS SHOWN
- 400A FRN — FUSE, FUSE AMPACITY AND TYPE AS SHOWN
- M — UTILITY METER (AS REQUIRED BY UTILITY)
- SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
- FUSED DISCONNECT
- COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
- T T-XX — TRANSFORMER, TYPE AND RATING AS SHOWN
- CONDUIT CONNECTION
- G — CIRCUIT BREAKER WITH GROUND FAULT PROTECTION
- G — FUSE WITH GROUND FAULT PROTECTION
- ATS-XX — AUTOMATIC TRANSFER SWITCH
- GROUND CONNECTION WITH TEST WELL
- GROUND ROD
- POLE MOUNTED UTILITY TRANSFORMER
- G — ENGINE GENERATOR
- ST — SHUNT TRIP
- X — SHORT CIRCUIT TAG DESIGNATION
- XXXX — FEEDER TAG DESIGNATION

CONDUIT DESIGNATIONS

- XX-XXX — PANEL NAME - CIRCUIT NUMBER
  BRANCH CIRCUITS HOMERUN USE NUMBER 12 AWG WIRE, UNLESS OTHERWISE NOTED. ALL CIRCUITS SHALL CONTAIN A GROUND AND NEUTRAL CONDUCTOR, UNLESS NOTED OTHERWISE. CONTRACTOR SHALL PROVIDE MULTI-WIRE CIRCUIT HANDLE TIES AS FINAL FIELD INSTALLED WIRING REQUIRES.
- XX-# — PANEL NAME - CIRCUIT NUMBER
  HOME RUNS SHALL USE #12 AWG WIRE UNO.
- CONDUIT AND WIRE CONCEALED, 3/4" UNLESS OTHERWISE NOTED. CONDUIT USED FOR SWITCH LEGS, AND CONDUIT USED FOR CONTROL WIRING
- CONDUIT AND WIRE EMBEDDED IN CONCRETE OR BELOW GRADE
- CONDUIT TURNING DOWN
- CONDUIT TURNING UP
- CONDUIT CONTINUATION
- CONDUIT CAPPED FOR FUTURE USE

POWER

- PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER SURFACE MOUNTED
- PANELBOARD, ELECTRICAL DISTRIBUTION PANEL, OR LOAD CENTER RECESS MOUNTED

SUBSCRIPTS ADJACENT DEVICES INDICATE THE FOLLOWING:

G = GFCI
T = TAMPER RESISTANT
AC = MOUNT 6" ABOVE COUNTER OR BACKSPLASH
U = DEVICE WITH USB CHARGING PORT
WC = RECEPTACLE FOR WALL COMPUTER, RE: DETAIL 3, SHEET E4.0
WP = WEATHER PROOF
H = HOSPITAL GRADE
UC = MOUNT 12" UNDER COUNTER

- 20 AMP, 125V, NEMA 5-20R SIMPLEX RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE
- 20 AMP, 125V, NEMA 5-20R DUPLEX RECEPTACLE, CONNECTED TO ESSENTIAL POWER, SHALL BE HOSPITAL GRADE UNLESS OTHERWISE NOTED, SHALL BE RED IN COLOR.
- 20 AMP, 125V, NEMA 5-20R QUAD RECEPTACLE, CONNECTED TO ESSENTIAL POWER, SHALL BE HOSPITAL GRADE UNLESS OTHERWISE NOTED, SHALL BE RED IN COLOR.
- 20 AMP, 125V, SPLIT CIRCUIT DUPLEX RECEPTACLE CONNECTED TO NORMAL POWER WITH THE TOP RECEPTACLE CONTROLLED THROUGH RELAY AND THE BOTTOM RECEPTACLE UNCONTROLLED. RECEPTACLE SHALL BE FACTORY MARKED IN ACCORDANCE TO NEC 406.6(E). THE CONTROLLED RECEPTACLE MARKING SHALL BE PRINTED ON THE FACE OF THE RECEPTACLE TO DIFFERENTIATE THE CONTROLLED RECEPTACLE FROM THE OTHER RECEPTACLES.
- 20 AMP, 125V, SPLIT CIRCUIT DOUBLE DUPLEX RECEPTACLE CONNECTED TO NORMAL POWER WITH LEFT DUPLEX RECEPTACLE CONTROLLED THROUGH RELAY AND THE RIGHT DUPLEX RECEPTACLE UNCONTROLLED. RECEPTACLE SHALL BE FACTORY MARKED IN ACCORDANCE TO NEC 406.6(E). THE CONTROLLED RECEPTACLE MARKING SHALL BE PRINTED ON THE FACE OF THE RECEPTACLE TO DIFFERENTIATE THE CONTROLLED RECEPTACLE FROM THE OTHER RECEPTACLES.
- 20 AMP, 125V, NEMA 5-20R DUPLEX FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
- 20 AMP, 125V, NEMA 5-20R CEILING FLOOR RECEPTACLE, 3/4" CONDUIT
- 20 AMP, 125V, NEMA 5-20R QUAD FLOOR RECEPTACLE, 3/4" CONDUIT RUN CONCEALED IN FLOOR SLAB
- 20 AMP, 125V, NEMA 5-20R QUAD CEILING RECEPTACLE, 3/4" CONDUIT
- J — JUNCTION BOX, WALL MOUNTED
- J — JUNCTION BOX, FLOOR MOUNTED
- J — JUNCTION BOX, CEILING MOUNTED
- SPECIAL RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN
- SPECIAL RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
- SPECIAL RECEPTACLE, CEILING MOUNTED, CONFIGURATION AS NOTED ON PLAN
- PP — POWER (SERVICE) POLE
- FURNITURE FEED RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN
- FURNITURE FEED RECEPTACLE, FLOOR MOUNTED, CONFIGURATION AS NOTED ON PLAN POWER POKE THRU CONNECTION
- FURNITURE FEED RECEPTACLE, WALL MOUNTED, CONFIGURATION AS NOTED ON PLAN
- PLUGMOLD, REFER TO DRAWING FOR LENGTHS
- SAFETY SWITCH, NON-FUSED, 240V, U.N.O.
- FUSED DISCONNECT
- COMBINATION STARTER/DISCONNECT (SIZE AS INDICATED)
- COMBINATION DISCONNECT, WITH RECEPTACLE, REFER TO DRAWING FOR SIZE
- PHOTOCELL
- EMERGENCY POWER OFF (EPO) BUTTON
- ADA — ADA DOOR OPENER
- HTT 0' - 0" — SELF-REGULATING HEATED CABLE – LENGTH AS SHOWN IN DRAWINGS. REFERENCE ELECTRICAL/PLUMBING PLANS FOR SPECIFICATION OF COMPLETE HEAT-TRACE SYSTEM. ARROW DENOTES DIRECTION

LIGHTING

NOTE: UPPER CASE LETTER DENOTES LUMINAIRES TYPE, LOWER CASE LETTER ADJACENT TO LUMINAIRE INDICATES SWITCH THAT CONTROLS LUMINAIRES. MOUNTING IS NOTED ON LUMINAIRE SCHEDULE

- LIFE SAFETY POWER SHADING
- CRITICAL POWER SHADING
- A — RECESSED LUMINAIRE
- A — SURFACE LUMINAIRE
- A — WALL MOUNTED LUMINAIRE
- A — LINEAR PENDANT LUMINAIRE
- A — PENDANT LUMINAIRE
- A — STRIP TYPE LUMINAIRE, LENGTHS AS NOTED ON LUMINAIRE SCHEDULE
- A — SURFACE MOUNTED DOWNLIGHT
- A — RECESSED MOUNTED DOWNLIGHT
- A — WALL MOUNTED LUMINAIRE
- A — WALL WASH LUMINAIRE
- A — RECESSED STEP LIGHT LUMINAIRE
- TRACK LUMINAIRE
- A A — CEILING MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED
- A — EMERGENCY BATTERY LUMINAIRE (2 HEAD) 84" AFF, UNLESS OTHERWISE NOTED
- A — EMERGENCY BATTERY LUMINAIRE (2 HEAD) WITH MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED MOUNT AT 84" AFF, UNLESS OTHERWISE NOTED
- A A — WALL MOUNTED EXIT SIGN. PROVIDE DIRECTIONAL CHEVRONS AS REQUIRED
- A — SINGLE POLE MOUNTED, EXTERIOR LUMINAIRE
- A — DOUBLE POLE MOUNTED, EXTERIOR LUMINAIRE
- A — QUAD POLE MOUNTED, EXTERIOR LUMINAIRE
- A — BOLLARD LUMINAIRE
- A — CEILING FAN
- S_x — SINGLE POLE SWITCH
  (SWITCH LOWER CASE LETTER INDICATES DEVICE CONTROL)
  3= THREE WAY SWITCH
  K= KEYED SWITCH
  TO= MOTOR THERMAL OVERLOAD SWITCH
  HOA=HAND-OFF-AUTOMATIC
  OS= OCCUPANCY SENSOR
  LVD= LOW VOLTAGE DIMMER
  4= FOUR WAY SWITCH
  D= DIMMER SWITCH
  T= TIMER
  P= PILOT LIGHT
  VS= VACANCY SENSOR
  M=MOTOR SPEED CONTROL
- S_x — LOW VOLTAGE LIGHTING CONTROL DEVICE, REFERENCE SCHEDULE
- ## — CEILING MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT
- ## — WALL MOUNTED SENSOR; VS= VACANCY, OS= OCCUPANCY, DL= DAYLIGHT

MISCELLANEOUS

- X — KEY NOTE DESIGNATION
- X — KEY NOTE DESIGNATION
- 1 — REVISION NUMBER DESIGNATION
- NEW TO EXISTING CONNECTION
- DEMO TO EXISTING CONNECTION
- XX — SPECIALTY EQUIPMENT (BY OTHERS)

FIRE ALARM

- FACP — FIRE ALARM CONTROL PANEL
- FARA — FIRE ALARM REMOTE ANNUNCIATOR PANEL
- FATC — FIRE ALARM CONTROL PANEL
- BACP — BACKUP FIRE ALARM CONTROL PANEL
- HVAC — HVAC FIRE ALARM CONTROL PANEL
- EVAC — VOICE EVACUATION FIRE ALARM CONTROL PANEL
- SCP — FIRE ALARM SMOKE CONTROL PANEL
- NAC — FIRE ALARM NOTIFICATION CIRCUIT PANEL
- M2W — FIRE ALARM MASTER 2-WAY CONTROL PANEL
- AMP — FIRE ALARM AMPLIFIER RACK PANEL
- MIC — FIRE ALARM MICROPHONE PANEL
- SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
- L — SMOKE DETECTOR, EARLY WARNING LASER DETECTION
- CO — CARBON MONOXIDE DETECTOR
- FD — FLAME DETECTOR
- HD — HEAT DETECTOR
- G — GAS DETECTOR
- 2 — DUCT SMOKE DETECTOR, ADDRESSABLE PHOTO ELECTRIC
- FIRE ADA ALARM STROBE MOUNTED
- FIRE ADA ALARM HORN
- FIRE ALARM AUDIBLE AND ADA STROBE LIGHT
- FIRE ADA ALARM SPEAKER
- FIRE ALARM SPEAKER AND ADA STROBE LIGHT
- FIRE ADA ALARM STROBE CEILING MOUNTED
- FIRE ADA ALARM HORN CEILING MOUNTED
- FIRE ALARM AUDIBLE AND ADA STROBE LIGHT CEILING MOUNTED
- FIRE ADA ALARM SPEAKER CEILING MOUNTED
- FIRE ALARM SPEAKER AND ADA STROBE LIGHT CEILING MOUNTED
- F — FIRE ALARM MANUAL PULL STATION, ADDRESSABLE DOUBLE ACTION
- MAGNETIC DOOR HOLDER
- FS — FIRE ALARM FLOW SWITCH
- TS — FIRE ALARM TAMPER SWITCH
- CM — FIRE ALARM CONTROL MODULE (W/ INPUT/OUTPUT MODULE)
- RTS — DUCT DETECTOR REMOTE INDICATOR ALARM AND TEST
- M2W — TWO WAY COMMUNICATION MASTER STATION
- 2W — TWO WAY CALL STATION

STD. MOUNTING HEIGHTS U.N.O.

ARCHITECTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER MOUNTING HEIGHTS INDICATED ON ELECTRICAL DRAWINGS. DIMENSION TO CENTERLINE UNO.

RECEPTACLES	18"
RECEPTACLES IN EQUIPMENT ROOMS	46"
RECEPTACLES (EXTERIOR)	24"
RECEPTACLES (GARAGES)	24"
ALARMS, SWITCHES AND CONTROLS	46"
SAFETY SWITCHES	46"
ADA DOOR OPENER	46"
STARTERS	48"
PANELS (TOP)	72"
FIRE ALARM PULL STATIONS (HANDLE)	44"
STROBES	96" OR 6" BELOW CEILING, WHICHEVER IS LOWER
FIRE ALARM BELLS (EXTERIOR)	12'-0"
FIRE ALARM CONTROL PANELS (TOP)	66"
ANNUNCIATION PANELS	48"
REMOTE INDICATING LIGHTS (EQUIPMENT ROOMS)	48"
REMOTE INDICATING LIGHTS (FINISHED AREAS)	CEILING
EXIT SIGNS (WALL MOUNTED BOTTOM)	6" ABOVE DOOR
MAXIMUM HEIGHT OF OPERABLE COMPONENTS	48" TO TOP
PHOTOCELLS	12'-0"

ABBREVIATIONS

A	AMPS, AIR (COMPRESSED)
AC	ABOVE COUNTER
AF	FUSE RATING
AFC	ABOVE FINISHED CEILING
AFEA	AREA FOR EVACUATION ASSISTANCE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AIC	AMPERE INTERRUPTING CURRENT
AL	ALUMINUM
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
AV	AUDIO VISUAL
BFF	BELOW FINISHED FLOOR
BKR	BREAKER
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
C	CONDUIT
CATV	CABLE TELEVISION SYSTEM
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CM	COFFEE MAKER
CT	CURRENT TRANSFORMER
CU	COPPER, CONDENSING UNIT
CW	CLOTHES WASHER
(D)	DEMOLISHED
DN	DOWN
DPDT	DOUBLE POLE, DOUBLE THROW
DPST	DOUBLE POLE, SINGLE THROW
DW	DISHWASHER
(E)	EXISTING
ECD	ELECTRIC CLOTHES DRYER
ENCL	ENCLOSURE
EPO	EMERGENCY POWER OFF
ETR	EXISTING TO REMAIN
EWC	ELECTRIC WATER COOLER
FBO	FURNISHED BY OTHERS
FF	FINISHED FLOOR
FHC	FIRE HOSE CABINET
FLA	FULL LOAD AMPS
FLR	FLOOR
FRZR	FREEZER
FVNR	FULL VOLTAGE, NON REVERSING
GD	GARBAGE DISPOSAL
GFI	GROUND FAULT CIRCUIT INTERRUPTER (PERSONAL PROTECTION ON DEVICE)
GFP	GROUND FAULT PROTECTED FROM UPSTREAM
GFR	GROUND FAULT RELAY
GND	GROUND
HOA	HAND OFF AUTOMATIC
HP	HORSEPOWER
HPS	HIGH PRESSURE SODIUM
HTG	HEATING
HTR	HEATER
ISCA	AVAILABLE SHORT-CIRCUIT CURRENT (AMPS)
IG	ISOLATED GROUND
KCMIL	1000 CIRCULAR MILS
KV	KILOVOLT
KVA	KILOVOLT AMPS
KVAR	KILOVOLT AMPS REACTIVE
KW	KILOWATT
KWH	KILOWATT HOUR
LED	LIGHT EMITTING DIODE
LF	LINEAR FEET
LRA	LOCKED ROTOR AMPS
MATV	MASTER ANTENNA TELEVISION SYSTEM
MCA	MINIMUM CIRCUIT AMPACITY
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MDP	MAIN DISTRIBUTION PANEL
MFP	MULTI-FUNCTION PRINTER
MFR	MANUFACTURER
MH	MANHOLE
MSB	MAIN SWITCHBOARD
MTD	MOUNTED
MW	MICROWAVE
(N)	NEW
N/A	NOT APPLICABLE
N/C	NOT IN CONTRACT
N/O,N/C	NORMALLY OPEN, NORMALLY CLOSED
N/L	NIGHT LIGHT
OC	ON CENTER
OV	OVEN
PDU	POWER DISTRIBUTION UNIT
PH,ø	PHASE
PJ	PROJECTOR
PLOT	PLOTTER
PNL	PANEL
PRINT	PRINTER (SMALL)
PT	POTENTIAL TRANSFORMER
QTY	QUANTITY
(R)	RELOCATED
RA	RETURN AIR
RANGE	RANGE\STOVE
RCP	REFLECTED CEILING PLAN
REF	REFRIGERATOR
REV	REVISION
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
SA	SUPPLY AIR
SD	SMOKE DETECTOR
SF	SQUARE FEET
SPDT	SINGLE POLE, DOUBLE THROW
SPST	SINGLE POLE, SINGLE THROW
SP	STATIC PRESSURE
SWBD	SWITCHBOARD
TL	TWISTLOCK
TV	TELEVISION
TYP	TYPICAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDER SLAB
UL	UNDERWRITERS LABORATORIES, INC.
UNO	UNLESS NOTED OTHERWISE
UPS	UNINTERRUPTIBLE POWER SUPPLY
USB	RECEPTACLE W/ INTEGRATED USB PORT
V	VOLTAGE
VAC	VOLTS ALTERNATING CURRENT, VACUUM
VM	VENDING MACHINE
W	WATTS
W/	WITH
W/O	WITHOUT
WP	WEATHERPROOF
WT	WATERTIGHT, WEIGHT
XFMR	TRANSFORMER
XP	EXPLOSION PROOF

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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABIGAIL PAINTER
NUMBER PE-2010015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
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Sheet Title: ELECTRICAL LEGEND
Sheet No.: E2.0.1

ELECTRICAL REMODEL NOTES

1. 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.
2. 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 WORK.
3. 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.
4. 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, RACEWAY ABANDONED, AND BLANK COVER PLATES PROVIDED.
5. 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 PERSONNEL ADVISED OF SUCH WORK.
6. WHERE THE REUSE OF EXISTING RACEWAYS, CONDUCTORS, DEVICES, ETC. IS 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.
7. CLEAN AND RELAMP EXISTING FIXTURES WHICH ARE REMOVED AND REINSTALLED.
8. THE OWNER SHALL HAVE FIRST SALVAGE RIGHTS TO ITEMS REMOVED AS PART OF DEMOLITION. REMOVE AND PROPERLY DISPOSE OF DEMOLISHED ITEMS.
9. PROTECT STRUCTURE AND OWNER EQUIPMENT FROM DAMAGE. IMMEDIATELY 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 OTHERWISE. PREPARE LISTING OF ALL EXISTING DAMAGED ITEMS AND SUBMIT TO OWNER PRIOR TO BEGINNING WORK.
10. 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.
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

1. COORDINATE THE LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND DEVICES WITH ARCHITECTURAL DRAWINGS. WHERE LUMINAIRES OR DEVICES ARE NOT SPECIFICALLY INDICATED, COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
2. CONNECT EMERGENCY LIGHTING AND EXIT SIGNS AHEAD OF LOCAL SWITCHING.
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.
4. RECESSED LIGHT FIXTURES INSTALLED IN GYP. BOARD OR PLASTER CEILINGS SHALL HAVE PLASTER FRAMES INSTALLED PRIOR TO CEILING MATERIAL.
5. 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.
6. 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.
8. 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.
9. 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 SPACE.
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 TECHNOLOGY TYPE.

FIRE ALARM GENERAL NOTES

1. 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

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. REVIEW ARCHITECTURAL, STRUCTURAL, MECHANICAL, AND OTHER DRAWINGS FOR ADDITIONAL SCOPE REQUIREMENTS PRIOR TO BID.
3. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
4. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE CURRENT ADOPTED EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND STANDARDS.
5. OBTAIN PERMITS AND INSPECTIONS REQUIRED.
6. 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.
7. CONTRACTOR SHALL REPLACE EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS CONTRACT.
8. 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.
9. 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 CIRCUIT.
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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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2010015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: ELECTRICAL NOTES
Sheet No.: E2.0.2

N

1 PHASE 2 - FIRST FLOOR ELECTRICAL DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 & E0.2 FOR ELECTRICAL LEGEND AND ADDITIONAL GENERAL NOTES.
2. REFERENCE ARCHITECTURAL DRAWINGS FOR PHASING AND AREAS OF RENOVATION.
3. EXISTING CONDITIONS SHOWN WERE TAKEN FROM FACILITY PROVIDED AS-BUILT DRAWINGS AND ON-SITE FIELD OBSERVATIONS. EACH CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.
4. COORDINATE CEILING DEMOLITION WORK WITH ARCHITECTURAL DRAWINGS AND WITH GENERAL CONTRACTOR.
5. CONTRACTOR SHALL PROVIDE TEMPORARY LIGHTING AND POWER AS REQUIRED.
6. ALL EQUIPMENT, CONDUITS, AND WIRING REMOVED ON SITE SHALL BE DISPOSED OF IN ACCORDANCE WITH PROJECT REQUIREMENTS. REFER TO SPECIFICATIONS.
7. RESTORE CIRCUIT CONTINUITY IF CIRCUIT WAS BROKEN OR HAS TO BE DISCONNECTED BY REMOVAL OF DEVICES. WHERE DEVICES ARE EXISTING TO REMAIN, THE CONTRACTOR SHALL PROTECT CONDUIT AND WIRING SERVING THESE DEVICES, AND MAINTAIN UP-TO-DATE PANELBOARD DIRECTORIES.
8. **HEAVY RENOVATION:** UNLESS OTHERWISE NOTED, DEMOLISH EXISTING LIGHTING, WIRING DEVICES, BRANCH AND FEEDER CIRCUIT WIRING AND CONDUIT, AND OTHER ELECTRICAL EQUIPMENT. EXISTING ELECTRICAL SYSTEMS REQUIRED TO SERVE OUT-OF-SCOPE AREAS SHALL REMAIN. IF REQUIRED BY NEW WORK PLANS, EXISTING CIRCUITS SERVING OUT-OF-SCOPE AREAS SHALL BE MAINTAINED.
9. ANY EXISTING CIRCUITS THAT ARE MADE SPARE AS A RESULT OF DEMOLITION SHALL BE IDENTIFIED AS "SPARE" IN THEIR RESPECTIVE PANELBOARD DIRECTORY.

DEMOLITION KEY NOTES X (THIS SHEET)

A. EXISTING PANELBOARD TO REMAIN.

B. MAINTAIN EXISTING BACKBOX AND CIRCUIT FOR USE IN NEW-WORK PHASE. DEMOLISH WIRING DEVICE AND COVERPLATE.

C. DEMOLISH PUSH PAD FOR AUTOMATIC DOOR OPERATOR. EXTEND WIRING TO NEW WAVE PAD OPERATOR LOCATION.

D. EXISTING TO REMAIN DOOR OPERATOR. MAINTAIN WIRING AND DEVICES. MAKE READY TO CONNECT TO NEW WAVE PAD OPERATORS.

E. EXISTING TO REMAIN WIRING DEVICE (INSTALLED IN PHASE 1).

F. SYSTEMS, EQUIPMENT, WIRING DEVICES, FEEDERS, CIRCUITS, LIGHT FIXTURES, CONTROLS, AND FIRE ALARM DEVICES IN THIS SPACE ARE EXISTING TO REMAIN, UNLESS OTHERWISE NOTED.

HATCH LEGEND (THIS SHEET)

HEAVY RENOVATION (SEE GENERAL NOTES FOR DESCRIPTION)

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.

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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs

Sheet Title:
PHASE 2 - FIRST FLOOR ELECTRICAL DEMOLITION PLAN

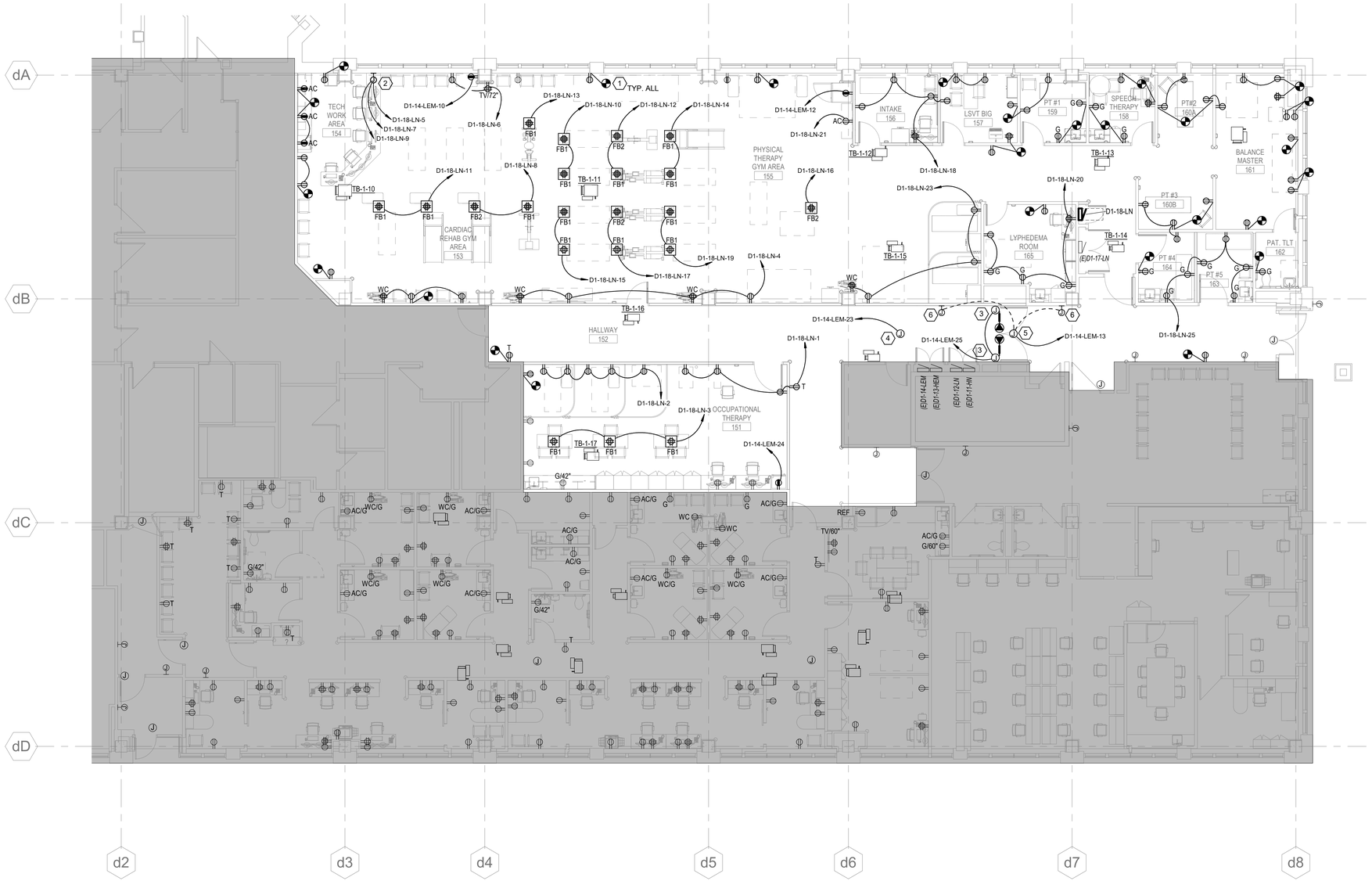
Sheet No.:
ED2.1.1

GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 & E0.2 FOR ELECTRICAL LEGEND AND ADDITIONAL GENERAL NOTES.
2. REFERENCE ARCHITECTURAL DRAWINGS FOR PHASING AND AREAS OF RENOVATION.
3. EXISTING CONDITIONS SHOWN WERE TAKEN FROM FACILITY PROVIDED AS-BUILT DRAWINGS AND ON-SITE FIELD OBSERVATIONS. EACH CONTRACTOR SHALL VERIFY EXISTING CONDITIONS PRIOR TO PERFORMING WORK.

KEY NOTES (X) (THIS SHEET)

1. PROVIDE NEW WIRING DEVICE AND COVERPLATE IN EXISTING BACKBOX. CONNECT TO EXISTING CIRCUITING AS REQUIRED. REFER TO ELECTRICAL DEMOLITION DRAWING FOR ADDITIONAL INFORMATION.
2. CONNECTION TO PREWIRED FURNITURE SYSTEM POWER WHIP. HOMERUN(S) SHOWN FOR MINIMUM CIRCUIT REQUIREMENTS. PROVIDE JUNCTION BOX AS REQUIRED. RECEPTACLES ARE INTEGRAL TO FURNITURE SYSTEM PANELS AND PROVIDED BY FURNITURE VENDOR. CONNECT IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS. COORDINATE WITH LOW VOLTAGE DRAWINGS FOR ADDITIONAL FURNITURE FEED COMPONENTS.
3. CONNECTION TO MOTORIZED DAMPER. FIELD COORDINATE J-BOX LOCATION. CONNECT IN ACCORDANCE WITH MANUFACTURER'S REQUIREMENTS.
4. J-BOX BOUNTED TO STRUCTURE ABOVE ACCESSIBLE CEILING FOR CONNECTION TO VAV BOX CONTROL TRANSFORMER POWER. CONNECT TO 120V CONTROL TRANSFORMER AT VAV BOX LOCATIONS AND PROVIDE LOCAL DISCONNECT AS REQUIRED. CONNECT NO MORE THAN TEN (10) VAV BOXES PER CIRCUIT. COORDINATE WITH MECHANICAL AND CONTROLS VENDORS.
5. CONNECTION TO AUTOMATIC DOOR OPERATOR. PROVIDE TOGGLE SWITCH DISCONNECT ABOVE ACCESSIBLE CEILING ADJACENT TO EQUIPMENT SERVED. COORDINATE ADDITIONAL REQUIREMENTS WITH DOOR HARDWARD SCHEDULE PRIOR TO ROUGH-IN. CONNECT TO WAVE OPERATORS AS REQUIRED.
6. BACK BOX FOR WAVE OPERATORS BY DIVISION 8. CONNECT TO AUTOMATIC DOOR OPERATOR AS REQUIRED. VERIFY FINAL DEVICE LOCATION WITH ARCHITECT PRIOR TO ROUGH-IN.



N

1 PHASE 2 - FIRST FLOOR POWER PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

BranchPattern
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BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2010015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: PHASE 2 - FIRST FLOOR POWER PLAN
Sheet No.: E2.1.1

GENERAL NOTES (THIS SHEET)

1. COORDINATE THE LOCATION AND MOUNTING HEIGHT OF LUMINAIRES AND DEVICES WITH ARCHITECTURAL DRAWINGS. WHERE LUMINAIRES OR DEVICES ARE NOT SPECIFICALLY INDICATED, COORDINATE LOCATIONS AND MOUNTING HEIGHTS WITH ARCHITECT PRIOR TO ROUGH-IN.
2. CONNECT EMERGENCY LIGHTING AND EXIT SIGNS AHEAD OF LOCAL SWITCHING.
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.
4. RECESSED LIGHT FIXTURES INSTALLED IN GYP. BOARD OR PLASTER CEILINGS SHALL HAVE PLASTER FRAMES INSTALLED PRIOR TO CEILING MATERIAL.
5. 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.
6. 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.
8. 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.

KEY NOTES (X) (THIS SHEET)

1. CENTER VANITY LIGHT 6" ABOVE MIRROR. COORDINATE WITH ARCHITECTURAL ELEVATIONS.
2. PROVIDE NEW 20A/1P BREAKER FOR EACH LIGHTING CIRCUIT AS SHOWN, IN THE RESPECTIVE EXISTING PANELBOARD.
3. MASTER OVERRIDE SWITCH FOR LIGHT FIXTURES IN CORRESPONDING CORRIDOR.

LIGHTING

CIRCUIT ZONE BOUNDARY

CONTROL ZONE CIRCUITING/BOUNDARY. PROVIDE CONTROL ZONE FOR EACH ROOM UNLESS INDICATED OTHERWISE. PROVIDE POWER PACK FOR EACH CONTROL ZONE.

REFERENCE LIGHTING CONTROLS SCHEDULE FOR CONTROL ZONE TYPE DESCRIPTIONS

NORMAL POWER CIRCUIT
EMERGENCY POWER CIRCUIT

DAYLIGHTING:

PRIMARY DAYLIGHT ZONE

SECONDARY DAYLIGHT ZONE

PROVIDE DAYLIGHT SENSOR IF LIGHTING EXCEEDS 150W IN PRIMARY DAYLIGHT ZONE OR 300W WITHIN SIDELIT DAYLIGHT ZONE. PRIMARY CAN CONTROL UP TO 150W WITHIN THE SECONDARY DAYLIGHT ZONE.

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.

N

1 PHASE 2 - FIRST FLOOR LIGHTING PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: PHASE 2 - FIRST FLOOR LIGHTING PLAN
Sheet No.: E2.2.1

GENERAL NOTES (THIS SHEET)

1. REFER TO SHEET E0.1 & E0.2 FOR SYMBOL LEGEND AND ADDITIONAL GENERAL NOTES.
2. 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.
3. 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.
4. PROVIDE ALL NECESSARY CONNECTIONS TO POWERED DOORS TO ALLOW FREE EGRESS UPON ALARM CONDITIONS AS REQUIRED.

KEY NOTES (X) (THIS SHEET)

1. SMOKE BARRIER DOORS. PROVIDE DOOR HOLD OPENS AND CONNECT TO FIRE ALARM SYSTEM AS REQUIRED.

N

1 PHASE 2 - FIRST FLOOR FIRE ALARM PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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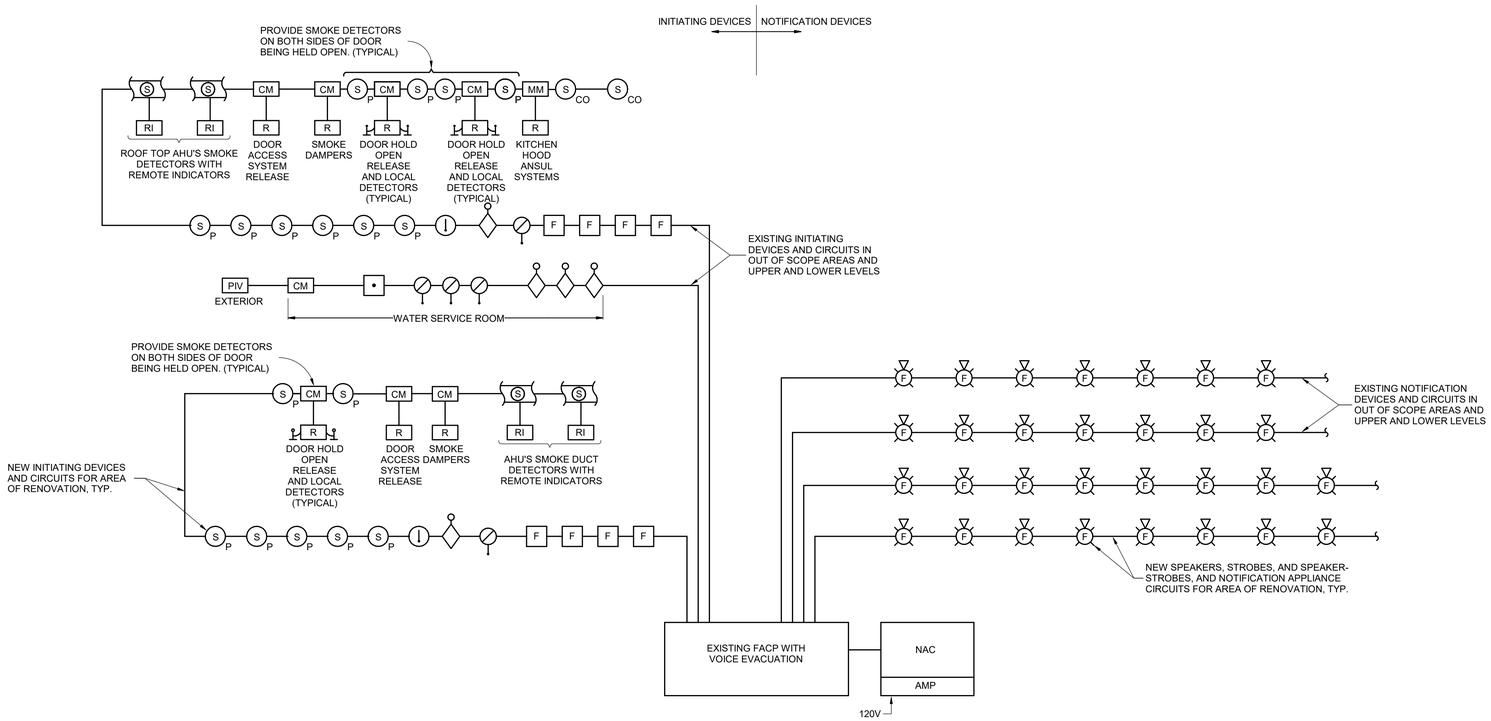
BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2018015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

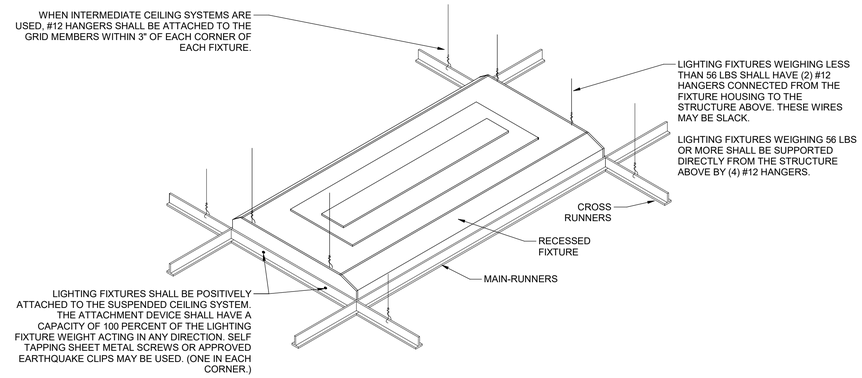
Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: PHASE 2 - FIRST FLOOR FIRE ALARM PLAN
Sheet No.: E2.3.1



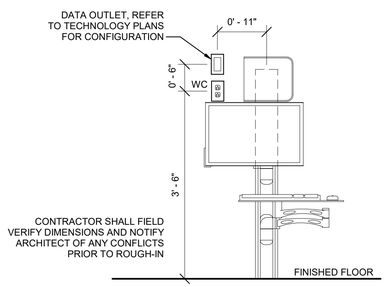
1 FIRE ALARM RISER
SCALE: NONE

FIRE ALARM GENERAL NOTES

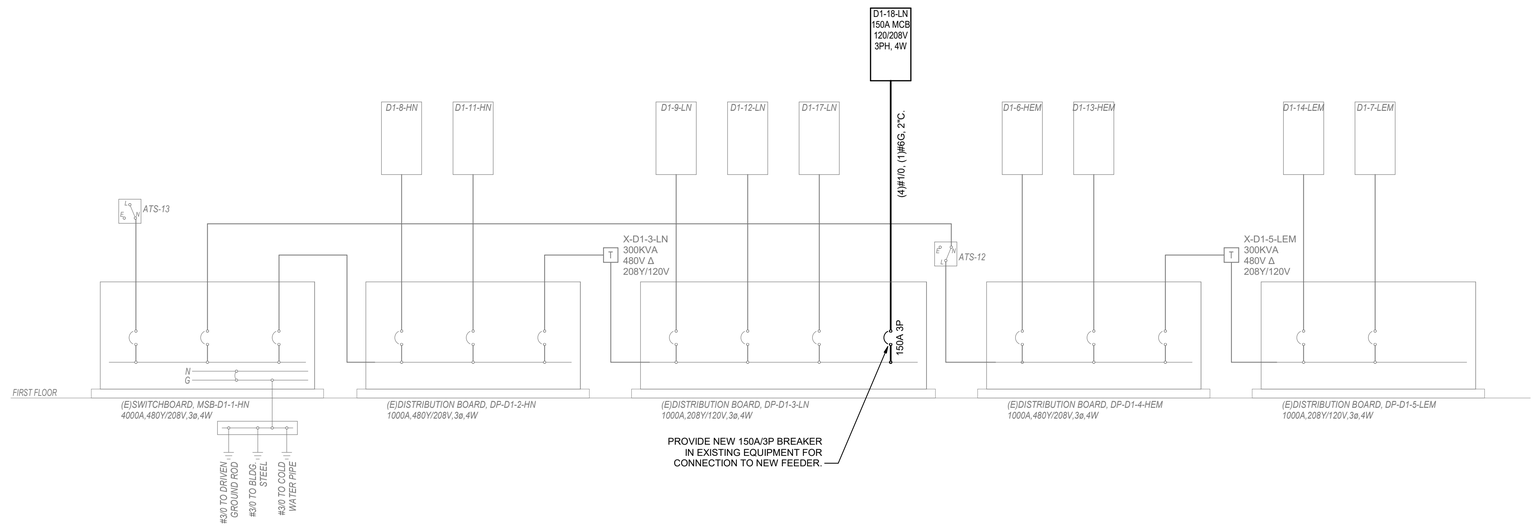
1. PROVIDE FIRE ALARM SYSTEM EQUIPMENT THAT IS INDICATED ON THE RISER AND IN PLANS. REFER TO PLANS FOR ADDITIONAL LOCATIONS AND QUANTITIES.
2. WIRING SHALL BE IN CONDUIT.
3. WORK SHALL BE PERFORMED IN A WORKMANLIKE MANNER TO THE SATISFACTION OF THE ARCHITECT/ENGINEER.
4. WORK, MATERIALS AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL AND STATE CODES AND ORDINANCES.
5. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
6. GUARANTEE THE INSTALLATION AGAINST DEFECTS IN MATERIALS AND WORKMANSHIP WHICH MAY OCCUR UNDER NORMAL USAGE FOR A PERIOD OF ONE YEAR AFTER OWNER'S ACCEPTANCE. DEFECTS SHALL BE PROMPTLY REMEDIED WITHOUT COST TO THE OWNER.
7. PROVIDE RECORD DRAWINGS TO ARCHITECT/ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS REROUTING, ETC.
8. SYSTEMS SHALL BE TESTED FOR PROPER OPERATION. IF TESTS INDICATE THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
9. PROVIDE DEVICES, CONDUIT, WIRES, AND CABLE AS DIRECTED BY THE EQUIPMENT MANUFACTURER. MATERIALS, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE IN EVERY RESPECT. SUBMIT SINGLE LINE DIAGRAM OF SYSTEM WITH SHOP DRAWINGS. THIS SINGLE LINE DIAGRAM SHALL SHOW DEVICES, CONDUIT, WIRE, CABLE SIZES, AND EQUIPMENT TO BE USED, AND SHALL BE STAMPED AND SIGNED BY STATE OR LOCAL FIRE DEPARTMENT AS APPLICABLE. SYSTEM CALIBRATION AND TESTING SHALL BE BY A FACTORY CERTIFIED TECHNICIAN.
10. SYSTEM SUPPLIER SHALL PROVIDE ALARM DEVICES WITH THE APPROPRIATE CANDELA AND DECIBEL RATINGS TO COMPLY WITH ADA REQUIREMENTS. PROVIDE ADDITIONAL DEVICES AS REQUIRED.
11. PROVIDE ADDITIONAL NOTIFICATION ALARM CIRCUIT POWER SUPPLIES AS REQUIRED. DOCUMENT POWER SUPPLY LOCATIONS AND PROTECT WITH A NEARBY SMOKE DETECTOR.
12. COORDINATE WITH SPRINKLER SYSTEM(S). PROVIDE TAMPER, FLOW, CONTROL, AND MONITOR DEVICES AS REQUIRED.
13. ANNUNCIATOR DISPLAY SHALL INCLUDE DESCRIPTIVE ROOM NAME AND LOCATION APPROVED BY ENGINEER / OWNER.
14. AUDIBLE DEVICE LOUDNESS SHALL BE ADJUSTABLE.
15. DOOR HOLD OPENS SHALL HAVE TIME OF DAY FUNCTION. SOME DOORS ARE TO BE RELEASED (CLOSED) IN THE EVENING AT A PROGRAMMABLE TIME.



2 LAY-IN FIXTURE MOUNTING
SCALE: NONE



3 WALL COMPUTER RECEPTACLE
SCALE: NONE



4 ELECTRICAL ONE-LINE DIAGRAM - PHASE 2
SCALE: NONE

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
11/10/2022

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BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
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LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
ABHINAV PANDEY
NUMBER PE-2010015824
PROFESSIONAL ENGINEER
10/21/2022

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: ELECTRICAL DETAILS
Sheet No.: E2.4.0

FLOOR BOX SCHEDULE

TAG	MANUFACTURER	MODEL #	ACTIVATION / COVERPLATE	DEVICES	REMARKS
FB1	WIREMOLD	RFB2-OG	FLANGELESS BLANK / FPBT##	TWO (2) DUPLEX	1
FB2	WIREMOLD	RFB4-OG	FLANGELESS BLANK / FPBT##	TWO (2) DUPLEX	1,2

NOTES:
a. VERIFY CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.
b. PROVIDE ACCESSORIES AS REQUIRED FOR DEVICE INSTALLATION. PROVIDE BLANK PLATES AS REQUIRED FOR UNUSED BOX COMPARTMENTS AND ACCESSORIES.

REMARKS:
1. VERIFY COVER TYPE AND FINISH WITH ARCHITECT PRIOR TO ORDERING.
2. PROVIDE TWO (2) ADDITIONAL SPARE CONDUIT SIZED PER MAXIMUM FLOOR BOX KNOCKOUT SIZE.

LUMINAIRE SCHEDULE - INTERIOR

FIXTURE TYPE	FIXTURE DESCRIPTION	MANUFACTURER	CATALOG NUMBER	SOURCE INFO				INPUT VA	VOLTAGE	REMARKS
				TYPE	LUMENS	COLOR	CRI			
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	
U2	24" UNDERCABINET FIXTURE. EXTRUDED ALUMINUM HOUSING WITH ANTIMICROBIAL FINISH. HIGH IMPACT RESISTANT POLYCARBONATE LENS. INTEGRAL ROCKER SWITCH.	KENALL	MAUCLED-I-MW-24-11L35K-120-SW	LED	1300 lm	3500K	80	11 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 RED LETTERS AND WHITE THERMOPLASTIC HOUSING. SEE PLANS FOR MOUNTING	WILLIAMS	EXIT-R-EM-WHT-D	LED				5 VA	277 V	

GENERAL NOTES:
a. SEE SPECIFICATIONS FOR ADDITIONAL REQUIREMENTS FOR LUMINAIRES.
b. CONTRACTOR TO VERIFY LUMINAIRE CATALOG NUMBER AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING.

(E)Branch Panel: D1-14-LEM

Location: | **Volts:** 208Y/120V | **K.A.I.C. Rating:** 10
Supply From: | **Phases:** 3 | **Mains Type:** MCB
Mounting: Surface | **Wires:** 4 | **Mains / Design Rating:** 100 A
Enclosure: Type 1 | **Bus Rating:** 100 A
Phase Created: Existing

Notes	CKT NO.	Circuit Description	Load Classification	Trip	Poles	A		B		C		Poles	Trip	Load Classification	Circuit Description	CKT NO.	Notes
(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	180			1	20 A	R	REC: 153 CRASH CART	10	(R)
(E)	11	IT ROOM	--	20 A	1					360	180	1	20 A	R	REC: 155 REFRIG.	12	(R)
(R)	13	J-BOX: AUTO DOOR PT	E	20 A	1	180	1,200					1	20 A	R	REC: FREEZER	14	(E)
(E)	15	RECEPT COMPUTER	--	20 A	1			360	180			1	20 A	--	HYPERBARIC CHAMBER	16	(E)
(E)	17	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)	21	D129 EMG CAN LIGHTS	--	20 A	1			480	500			1	20 A	--	DOOR OPENER	22	(E)
(R)	23	J-BOX: VAV PWR PT	E	20 A	1					180	180	1	20 A	R	REC: 151 FREEZER	24	(R)
(R)	25	J-BOX: FIRE-SMOKE...	E	20 A	1	360	180					1	20 A	--	D133 MASTER NURSE CALL	26	(E)
(E)	27	J-BOX: VAV PWR...	E	20 A	1			180	900			1	20 A	--	D131 FREEZER	28	(E)
(E)	29	J-BOX: VAV PWR...	E	20 A	1					180	720	1	20 A	--	D131 MANUAL FILL HOT...	30	(E)
(E)	31	J-BOX: AUTO DOOR...	E	20 A	1	500	360					1	20 A	--	GYM WORK DESK	32	(E)
	33	SPACE	--	--	1			--	--			1	--	--	SPACE	34	
	35	SPACE	--	--	1					--	--	1	--	--	SPACE	36	
	37	SPACE	--	--	1	--	--					1	--	--	SPACE	38	
	39	SPACE	--	--	1			--	--			1	--	--	SPACE	40	
	41	SPACE	--	--	1					--	--	1	--	--	SPACE	42	
					Total Load:	4,650 VA		3,790 VA		3,450 VA							
					Total Amps:	39 A		32 A		29 A							

	Load Classification		Connected Load	Demand Factor	NEC Demand Load
L	Lighting		0 VA	0.00%	0 VA
C	Continuous		0 VA	0.00%	0 VA
R	Total Receptacle Load	1st 10,000 VA	1,740 VA	100%	1,740 VA
	1,740 VA	Remaining	0 VA	0%	0 VA
M	Total Motor Load	Largest Motor	0 VA	0.00%	0 VA
	0 VA	Remaining	0 VA	0.00%	0 VA
E	Equipment		1,580 VA	100.00%	1,580 VA
A	Appliance		0 VA	0.00%	0 VA
LC	Load Center (# of...	0	0 VA	0.00%	0 VA

Phase Balance	
82 %	A-B
92 %	B-C
75 %	C-A

Panel Totals	
Connected Load (VA):	11,890 VA
NEC Demand Load (VA):	11,890 VA
Connected Load (A):	33 A
NEC Demand Load (A):	33 A
Spare Capacity (A):	86 A
Spare Capacity (%):	86

Notes:
(E) - EXISTING CIRCUIT, (R) - REUSE BREAKER FOR NEW CIRCUIT, (N) - NEW BREAKER

Branch Panel: D1-18-LN

Location: ELEC 160C | **Volts:** 208Y/120V | **K.A.I.C. Rating:** 10
Supply From: DP-D1-3-LN | **Phases:** 3 | **Mains Type:** MCB
Mounting: Surface | **Wires:** 4 | **Mains / Design Rating:** 150 A
Enclosure: Type 1 | **Bus Rating:** 150 A
Phase Created: Phase 2

Notes	CKT NO.	Circuit Description	Load Classification	Trip	Poles	A		B		C		Poles	Trip	Load Classification	Circuit Description	CKT NO.	Notes
	1	REC: OCC THERAPY 151	R	20 A	1	720	900					1	20 A	R	REC: OCC THERAPY 151	2	
	3	FLR BOX: 151	R	20 A	1			1,080	1,080			1	20 A	R	REC: 155 WRKSTN SOUTH	4	
	5	J-BOX: 154 TECH	R	20 A	1					1,080	540	1	20 A	R	REC: 153 TV	6	
	7	J-BOX: 154 TECH	R	20 A	1	1,080	720					1	20 A	R	FLR BOX: 153 (TREADMILL)	8	
	9	J-BOX: 154 TECH	R	20 A	1			1,080	720			1	20 A	R	FLR BOX: 155 (NUSTEP)	10	
	11	FLR BOX: 153 (TREADMILL)	R	20 A	1					720	720	1	20 A	R	FLR BOX: 155 (ELLIPTICAL)	12	
	13	FLR BOX: 153 (BIKE)	R	20 A	1	360	720					1	20 A	R	FLR BOX: 155 (RECUMBENT)	14	
	15	FLR BOX: 155 (NUSTEP)	R	20 A	1			720	360			1	20 A	R	FLR BOX: 155 (REBOUNDER)	16	
	17	FLR BOX: 155 (ELLIPTICAL)	R	20 A	1					720	1,080	1	20 A	R	REC: INTAKE 156	18	
	19	FLR BOX: 155 (RECUMBENT)	R	20 A	1	720	1,080					1	20 A	R	REC: LYPHED 165	20	
	21	REC: 155 COUNTER	R	20 A	1			180	0			1	20 A	--	SPARE	22	
	23	REC: 155 SW TRTMNT...	R	20 A	1					900	0	1	20 A	--	SPARE	24	
	25	REC: PT 163, 164	R	20 A	1	1,080	0					1	20 A	--	SPARE	26	
	27	SPARE	--	20 A	1			0	0			1	20 A	--	SPARE	28	
	29	SPARE	--	20 A	1					0	0	1	20 A	--	SPARE	30	
	31	SPARE	--	20 A	1	0	0					1	20 A	--	SPARE	32	
	33	SPARE	--	20 A	1			0	0			1	20 A	--	SPARE	34	
	35	SPARE	--	20 A	1					0	0	1	20 A	--	SPARE	36	
	37	SPARE	--	20 A	1	0	0					1	20 A	--	SPARE	38	
	39	SPARE	--	20 A	1			0	0			1	20 A	--	SPARE	40	
	41	SPARE	--	20 A	1					0	0	1	20 A	--	SPARE	42	
	43	SPARE	--	20 A	1	0	0					1	20 A	--	SPARE	44	
	45	SPARE	--	20 A	1			0	0			1	20 A	--	SPARE	46	
	47	SPARE	--	20 A	1					0	0	1	20 A	--	SPARE	48	
	49	BUSSED SPACE	--	--	1	--	--					1	--	--	BUSSED SPACE	50	
	51	BUSSED SPACE	--	--	1			--	--			1	--	--	BUSSED SPACE	52	
	53	BUSSED SPACE	--	--	1					--	--	1	--	--	BUSSED SPACE	54	
	55	BUSSED SPACE	--	--	1	--	--					1	--	--	BUSSED SPACE	56	
	57	BUSSED SPACE	--	--	1			--	--			1	--	--	BUSSED SPACE	58	
	59	BUSSED SPACE	--	--	1					--	--	1	--	--	BUSSED SPACE	60	
					Total Load:	7,380 VA		5,220 VA		5,760 VA							
					Total Amps:	62 A		44 A		49 A							

	Load Classification		Connected Load	Demand Factor	NEC Demand Load
L	Lighting		0 VA	0.00%	0 VA
C	Continuous		0 VA	0.00%	0 VA
R	Total Receptacle Load	1st 10,000 VA	10,000 VA	100%	10,000 VA
	18,360 VA	Remaining	8,360 VA	50%	4,180 VA
M	Total Motor Load	Largest Motor	0 VA	0.00%	0 VA
	0 VA	Remaining	0 VA	0.00%	0 VA
E	Equipment		0 VA	0.00%	0 VA
A	Appliance		0 VA	0.00%	0 VA
LC	Load Center (# of...	0	0 VA	0.00%	0 VA

Phase Balance	
71 %	A-B
91 %	B-C
79 %	C-A

Panel Totals	
Connected Load (VA):	18,360 VA
NEC Demand Load (VA):	14,180 VA
Connected Load (A):	51 A
NEC Demand Load (A):	39 A
Spare Capacity (A):	111 A
Spare Capacity (%):	74

Notes:

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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

No.	Description	Date

Designed By: AE
Drawn By: AE
Reviewed By: JB
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: ELECTRICAL SCHEDULES
Sheet No.: E2.5.0

MECHANICAL LEGEND

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

PIPING

HYDRONIC

- HWS — HEATING HOT WATER SUPPLY
- HWR — HEATING HOT WATER RETURN
- CWS — CHILLED WATER SUPPLY
- CWR — CHILLED WATER RETURN
- HCS — HOT/CHILLED WATER SUPPLY
- HCR — HOT/CHILLED WATER RETURN
- CS — CONDENSER WATER SUPPLY
- CR — CONDENSER WATER RETURN
- HPWS — HEAT PUMP WATER SUPPLY
- HPWR — HEAT PUMP WATER RETURN
- CD — CONDENSATE DRAIN
- RL — REFRIGERANT LIQUID
- RG — REFRIGERANT HOT GAS
- RS — REFRIGERANT SUCTION

STEAM

- HPS — HIGH PRESSURE STEAM
- HPC — HIGH PRESSURE CONDENSATE
- MPS — MEDIUM PRESSURE STEAM
- MPC — MEDIUM PRESSURE CONDENSATE
- LPS — LOW PRESSURE STEAM
- LPC — LOW PRESSURE CONDENSATE
- PCR — PUMPED CONDENSATE RETURN

MISCELLANEOUS

- SMS — SNOW MELT WATER SUPPLY
- SMR — SNOW MELT WATER RETURN
- FOS — FUEL OIL SUPPLY
- FOR — FUEL OIL RETURN
- FOV — FUEL OIL VENT
- LPG — LIQUEFIED PETROLEUM GAS
- G — NATURAL GAS

DIRECT DIGITAL CONTROLS

- TEMPERATURE SENSOR WITH THERMOWELL
- DUCT MOUNTED TEMPERATURE SENSOR
- LOW LIMIT TEMPERATURE SENSOR
- DIFFERENTIAL PRESSURE SENSOR
- DIFFERENTIAL PRESSURE TRANSMITTER
- HI/LO DIFFERENTIAL PRESSURE TRANSMITTER
- AIR FLOW STATION
- CHILLED WATER COOLING COIL
- HOT WATER HEATING COIL
- DX COOLING COIL

VALVES / SYMBOLS

- DIRECTION OF FLOW IN PIPING
- TWO WAY CONTROL VALVE
- THREE WAY CONTROL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALANCING VALVE
- SOLENOID VALVE
- CONTROL VALVE
- THERMOSTATIC MIXING VALVE
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- CHECK VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- PRESSURE REDUCING VALVE
- VACUUM BREAKER
- VENTURI
- GAS COCK
- SIGHT GLASS
- BALL VALVE
- 3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION AND CAP ON CHAIN
- THERMOSTATIC TRAP
- F&T TRAP
- GATE VALVE
- PRESSURE GAUGE
- PRESSURE GAUGE WITH PIGTAIL
- THERMOMETER, THERMOMETER W/ TEST WELL
- PRESSURE/TEMPERATURE PORT
- UNION
- FLANGE CONNECTION
- PIPING ELBOW UP
- PIPING ELBOW DOWN
- PIPING TEE UP
- PIPING TEE DOWN
- PIPING CAP
- GAUGE COCK
- WATER HAMMER ARRESTOR
- PIPING REDUCER
- PRESSURE REGULATING VALVE
- FLEXIBLE CONNECTOR
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PIPE ANCHOR / ROOF PIPING SUPPORT
- EXPANSION JOINT
- PIPE GUIDE
- PRESSURE SWITCH
- TEMPERATURE SENSOR
- DIFFERENTIAL PRESSURE SENSOR

NOTE: ALL DUCT DIMENSIONS SHOWN ON DRAWINGS ARE INSIDE DIMENSIONS.

HVAC

- LINEAR SLOT DIFFUSER
- INSULATED FLEXIBLE DUCT (MAXIMUM 6'-0" LONG)
- BRANCH DUCT WITH 45° TAP AND MANUAL VOLUME DAMPER
- BRANCH DUCT WITH CONICAL FITTING AND MANUAL VOLUME DAMPER
- ELBOW WITH TURNING VANES
- SUPPLY OR OUTSIDE AIR DUCT UP
- SUPPLY OR OUTSIDE AIR DUCT DOWN
- RETURN OR TRANSFER AIR DUCT UP
- RETURN OR TRANSFER AIR DUCT DOWN
- EXHAUST AIR DUCT UP
- EXHAUST AIR DUCT DOWN
- SD-1 10"ø 250 — TYPE, NECK SIZE, CFM AT SUPPLY DIFFUSER OR REGISTER
- RG-1 10x10 250 — TYPE, THROAT SIZE, CFM AT RETURN GRILLE OR REGISTER
- ER-1 10x10 — TYPE, SIZE AT EXHAUST GRILLE OR REGISTER
- MANUAL VOLUME DAMPER
- SQUARE TO ROUND TRANSITION
- XX — SENSORS:
  T = TEMPERATURE
  H = HUMIDISTAT
  T/H = COMBINATION TEMPERATURE/HUMIDISTAT
  T/C = COMBINATION TEMPERATURE/CARBON DIOXIDE
  CO^2 = CARBON DIOXIDE
  CO = CARBON MONOXIDE
  DP = DIFFERENTIAL PRESSURE
  NO* = NITROGEN OXIDE
- FD — FIRE DAMPER
- RD — RADIATION DAMPER
- FSD — FIRE/SMOKE DAMPER
- SD — SMOKE DAMPER
- M — MOTORIZED DAMPER
- ROUND/OVAL DUCT RISER
- 12x6 — RECTANGULAR DUCT (PLAN DIMENSION SHOWN FIRST)
- 12ø — ROUND DUCT
- 30/24 — FLAT OVAL DUCT (PLAN DIMENSION SHOWN FIRST)
- FLEXIBLE DUCT
- TRANSITION IN DUCT SIZE
- OPPOSED BLADE DAMPER
- PARALLEL BLADE DAMPER

MISCELLANEOUS

- 1 / M1 — SECTION CUT:
  UPPER NUMBER INDICATED DRAWING NUMBER
  LOWER NUMBER INDICATES SHEET NUMBER
- CONNECTION POINT OF NEW WORK TO EXISTING
- CONNECTION POINT OF DEMOLITION TO EXISTING
- 1 / M1 — DETAIL REFERENCE:
  UPPER NUMBER INDICATES DETAIL NUMBER
  LOWER NUMBER INDICATES SHEET NUMBER
- # — RISER DESIGNATION
- X — NOTE REFERENCE SYMBOL
- EXISTING LINEWORK
- DEMOLITION LINEWORK
- NEW LINEWORK

ABBREVIATIONS

A/C	AIR CONDITIONING
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BOD	BOTTOM OF DUCT
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STRUCTURE
BTU	BRITISH THERMAL UNIT
CH	CHILLER
CFM	CUBIC FEET PER MINUTE
CRAC	COMPUTER ROOM AIR CONDITIONING UNIT
CRCU	COMPUTER ROOM CONDENSING UNIT
CT	COOLING TOWER
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
(D)	DEMOLISHED
DB	DRY BULB
DDC	DIRECT DIGITAL CONTROL
DN	DOWN
DX	DIRECT EXPANSION
(E)	EXISTING TO REMAIN
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EDB	ENTERING DRY BULB
EF	EXHAUST FAN
ERV	ENERGY RECOVERY VENTILATOR
EWB	ENTERING WET BULB
EWT	ENTERING WATER TEMPERATURE
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FSD	FIRE/SMOKE DAMPER
GPM	GALLONS PER MINUTE
HD	HEAD
HP	HORSEPOWER, HEAT PUMP
HOA	HAND OFF AUTOMATIC
HRV	HEAT RECOVERY VENTILATOR
HSTAT	HUMIDISTAT
HTG	HEATING
IN WC	INCHES OF WATER COLUMN
LAT	LEAVING AIR TEMPERATURE
LRA	LOCKED ROTOR AMPS
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE UP AIR UNIT
MBH	1000 BTU PER HOUR
MCA	MINIMUM CIRCUIT AMPACITY
MFR	MANUFACTURER
MMBH	1,000,000 BTU PER HOUR
(N)	NEW
N/A	NOT APPLICABLE
NC	NOISE CRITERIA, NORMALLY CLOSED
NO	NORMALLY OPEN
OA	OUTSIDE AIR
PH,Ø	PHASE
PRV	PRESSURE REDUCING VALVE
(R)	RELOCATED EXISTING
RA	RETURN AIR
RH	RELATIVE HUMIDITY
RLA	RUNNING LOAD AMPS
RPM	REVOLUTIONS PER MINUTE
RTU	ROOF TOP UNIT
SA	SUPPLY AIR
SD	SMOKE DAMPER
SF	SQUARE FEET, SUPPLY FAN
SP	STATIC PRESSURE
SS	STAINLESS STEEL
ST	SOUND TRAP, STEAM TRAP
STM	STEAM
TA	TRANSFER AIR OPENING
TD	TRANSFER DUCT
TDH	TOTAL DYNAMIC HEAD
TSTAT	THERMOSTAT
TYP	TYPICAL
UH	UNIT HEATER
VAC	VACUUM
VAV	VARIABLE AIR VOLUME
W	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER COLUMN
WPD	WATER PRESSURE DROP

MTG. HEIGHTS U.N.O.

THERMOSTATS (USER ADJ.)	48" AFF
CONTROLS (CENTERLINE)	48" AFF

MECHANICAL GENERAL NOTES

1. 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.
2. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.
3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.
4. 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.
5. 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.
6. SUPPORTS - EQUIPMENT, PIPING, DUCTWORK 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.
7. COORDINATE EXACT LOCATION OF ALL DUCTWORK, AIR TERMINAL UNITS, PIPING, ETC., WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.
8. WHERE MOUNTING HEIGHTS ARE NOT DETAILED OR DIMENSIONED, INSTALL MECHANICAL SERVICES AND OVERHEAD EQUIPMENT TO PROVIDE THE MAXIMUM HEADROOM POSSIBLE.
9. ALL DUCTWORK, PIPING, AND TEMPERATURE CONTROL CONDUIT 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 MECHANICAL 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.
12. 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 700.
13. THE LOCATION OF EXISTING UNDERGROUND UTILITIES IS 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 SIZE AND LOCATION OF CONCRETE HOUSEKEEPING PADS WITH GENERAL CONTRACTOR.
16. PROVIDE MINIMUM 36" ACCESS CLEARANCE TO ALL FAN POWERED BOX AND VAV BOX MAINTENANCE PANELS.
17. CONTRACTOR TO COORDINATE DUCTWORK WITH FIRE RATED WALLS AND FLOORS SHOWN ON ARCHITECTURAL DRAWINGS, MAINTAINING NECESSARY RATING OF WALLS. CONTRACTOR IS RESPONSIBLE FOR ALL CONNECTIONS TO SMOKE-FIRE DAMPERS.
18. ALL SA DUCT BRANCH TAKE-OFFS TO DIFFUSER TO BE SAME SIZE AS DIFFUSER NECK UNLESS OTHERWISE NOTED.
19. ALL INLET DUCT SIZES OF VARIABLE AIR VOLUME OR FAN-POWERED BOX UNITS SHALL BE AS PER BOX SCHEDULE ON MECHANICAL SCHEDULE.
20. ALL DUCTWORK DIMENSIONS, AS SHOWN ON THE DRAWINGS, ARE INTERNAL CLEAR DIMENSIONS AND DUCT SIZE SHALL BE INCREASED TO COMPENSATE FOR DUCT LINING THICKNESS.
21. PROVIDE MIN. OF 5'-0" OF DUCT FROM ROOM TERMINAL UNITS TO FIRST DIFFUSER TAKE-OFFS.
22. CONTRACTOR SHALL COORDINATE LOCATION OF ALL DIFFUSERS AND GRILLES WITH STRUCTURAL, ELECTRICAL, AND ARCHITECTURAL REFLECTED CEILING PLANS.
23. PROVIDE SIZES AND NUMBER OF REFRIGERANT LINES ACCORDING TO MANUFACTURER'S RECOMMENDATIONS.
24. BEFORE INSTALLATION, EQUIPMENT CONTRACTOR SHALL VERIFY THAT COILS CAN BE REMOVED WITHOUT INTERFERENCE. CONTRACTOR SHALL PROVIDE ADEQUATE ACCESS AND COIL REMOVAL SPACE FOR ALL EQUIPMENT.
25. ACCESS PANELS ARE REQUIRED (MIN. 18"X18") FOR ACCESS TO EVERY VALVE, DAMPER, AIR TERMINAL UNIT, AND CONTROL SENSOR IF NOT OTHERWISE ACCESSIBLE.
26. ALL PIPING BRANCH TAKE-OFFS TO REHEAT COIL, CABINET HEATERS, AND UNIT HEATERS SHALL BE INSTALLED WITH A 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.

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
11/10/2022

BranchPattern
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BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009020026
PROFESSIONAL ENGINEER
2022-10-21

No.	Description	Date

Designed By: Designer
Drawn By: Author
Reviewed By: Checker
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs

Sheet Title: MECHANICAL LEGEND AND NOTES

Sheet No.: M2.0.1

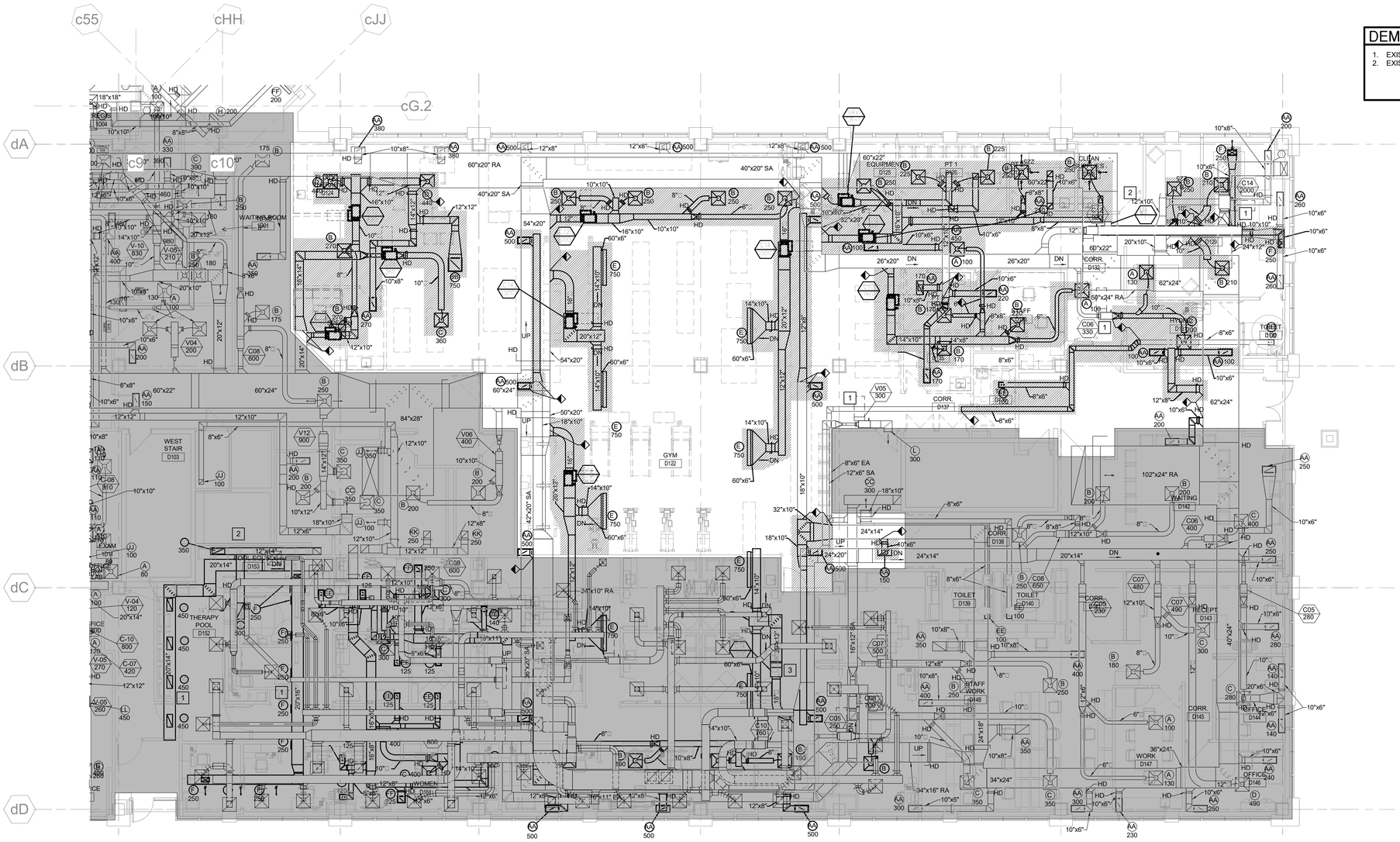
RELEASED FOR CONSTRUCTION
As Noted on Plans Review
~~Development Services Department~~
Lee's Summit, Missouri
11/10/2022

GENERAL NOTES (THIS SHEET)

1. SEE 2M0.1 FOR SYMBOLS LEGEND AND NOTES.

DEMOLITION KEY NOTES X (THIS SHEET)

1. EXISTING VAV BOX TO REMAIN.
2. EXISTING HUMIDIFIER TO REMAIN.



N

1 PHASE 2 - FIRST FLOOR HVAC DEMOLITION PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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PROFESSIONAL ENGINEER
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Drawn By: Author
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Submittal Level: 100% CDs

Sheet Title:
PHASE 2 - FIRST FLOOR HVAC DEMOLITION PLAN

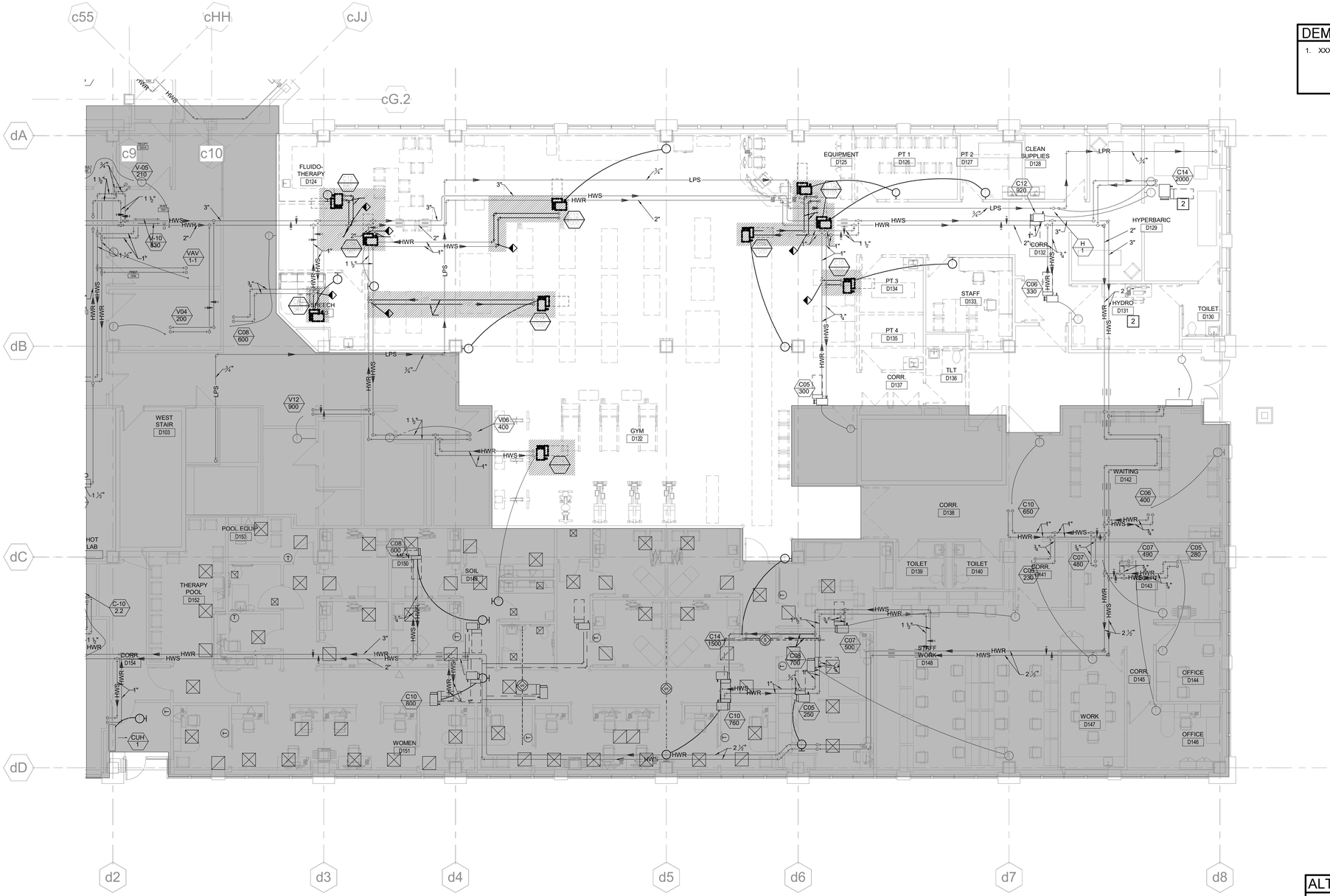
Sheet No.:
MD2.1.0

GENERAL NOTES (THIS SHEET)

1. SEE SHEET 2M0.1 FOR SYMBOLS LEGEND AND NOTES.

DEMOLITION KEY NOTES X (THIS SHEET)

1. XXXXX



N

1 FIRST FLOOR HYDRONIC PHASE 2 - DEMOLITION
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

ALTERATION SHADING LEGEND

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Sheet Title:
PHASE 2 - FIRST FLOOR HYDRONIC DEMOLITION PLAN

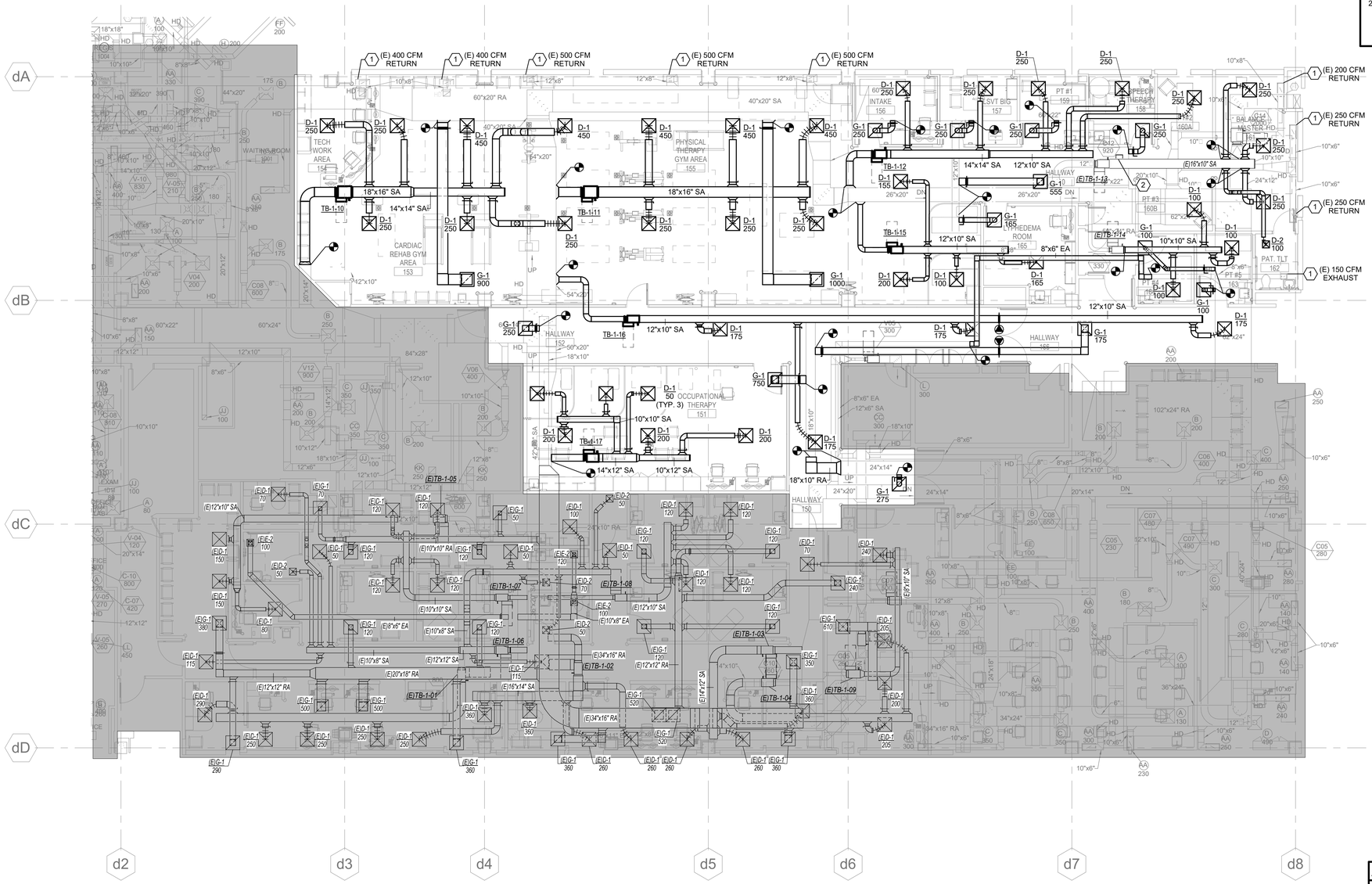
Sheet No.:
MD2.1.1

GENERAL NOTES (THIS SHEET)

1. SEE SHEET 2M0.1 FOR SYMBOLS LEGEND AND NOTES.
2. USE HIGH EFFICIENCY DUCT TAKEOFFS FOR ALL NEW DUCT CONNECTIONS.

KEY NOTES (X) (THIS SHEET)

1. CLEAN AND REPAINT EXISTING AIR DEVICE. REBALANCE TO CFM SHOWN.
2. EXISTING HUMIDIFIER DISPERSION GRID TO REMAIN.



N

1 PHASE 2 - FIRST FLOOR HVAC PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

ALTERATION SHADING LEGEND

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RICKI MANKTALA
NUMBER PE-2009-000026
PROFESSIONAL ENGINEER
2022-10-21

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Designed By: Designer
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Project No: 1203001
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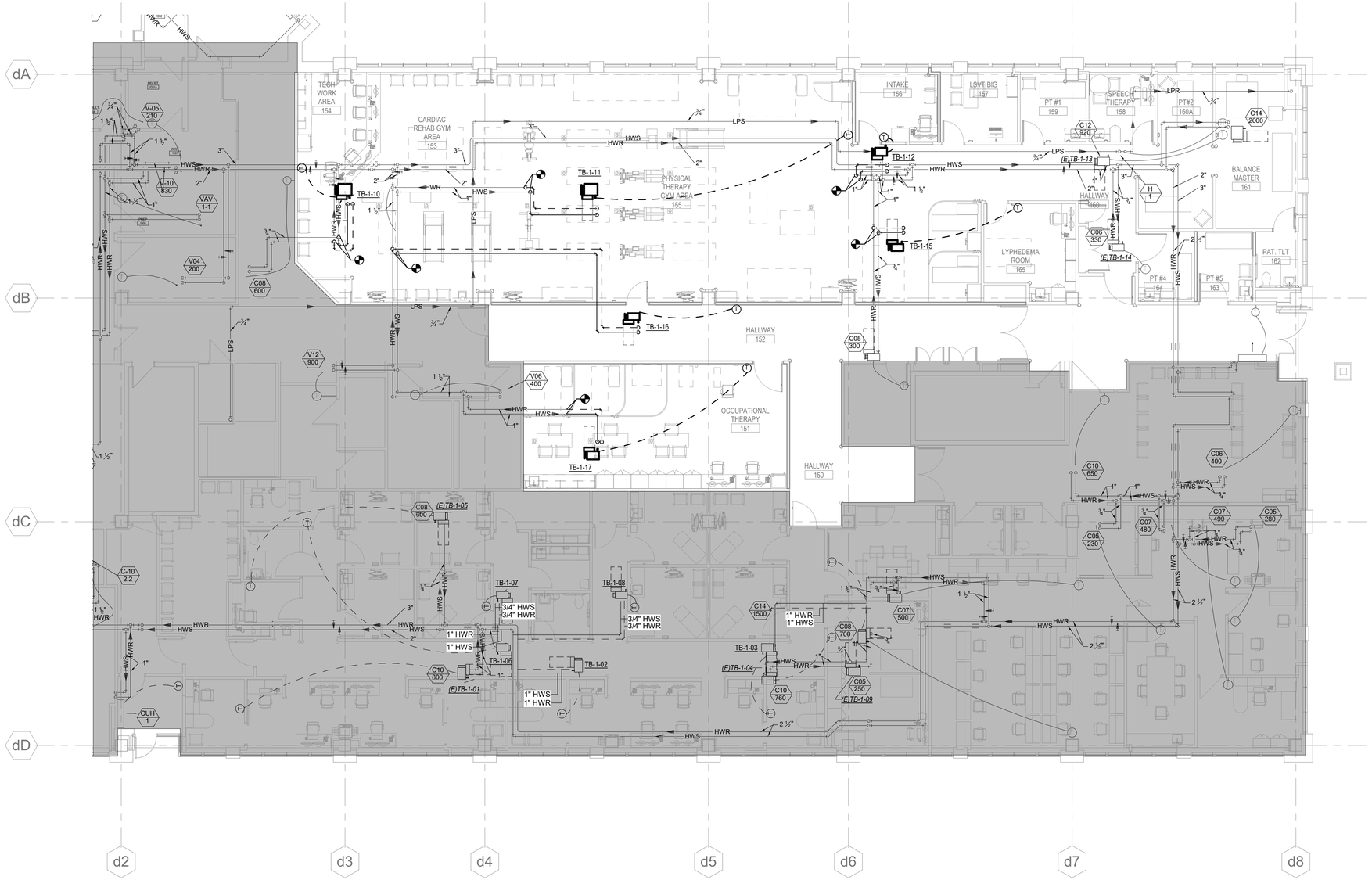
Submittal Level: 100% CDs
Sheet Title: PHASE 2 - FIRST FLOOR HVAC PLAN
Sheet No.: M2.1.0

GENERAL NOTES (THIS SHEET)

1. SEE SHEET 2M0.1 FOR MECHANICAL LEGENDS, AND NOTES.



N

1 PHASE 2 - FIRST FLOOR HYDRONIC PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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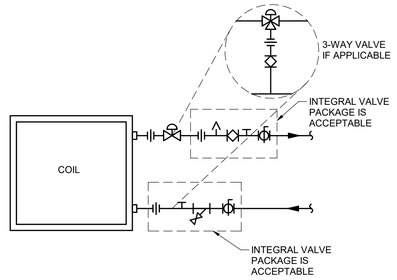
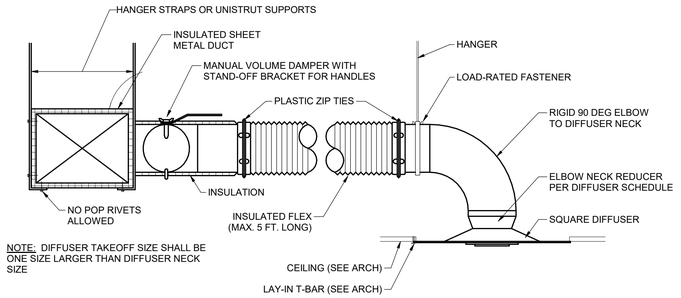


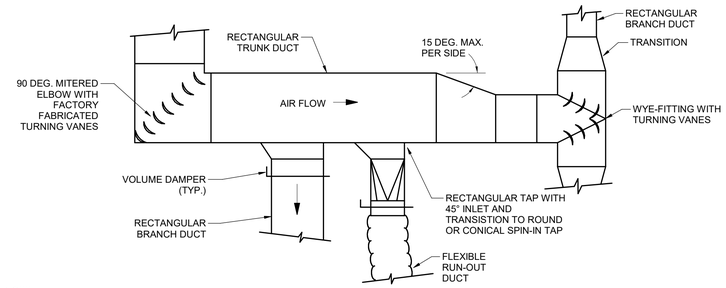
NOTE:
1. REFER TO AIR TERMINAL UNIT SCHEDULE FOR RUNOUT PIPE SIZE. MINIMUM PIPE SIZE SHALL BE 3/4".
2. FIELD INSULATE HWS/R HEADER AND CASING IF NOT FACTORY INSULATED.

1 AIR TERMINAL BOX COIL
SCALE: NONE



NOTE: DIFFUSER TAKEOFF SIZE SHALL BE ONE SIZE LARGER THAN DIFFUSER NECK SIZE

2 DIFFUSER/DUCT CONNECTION
SCALE: NONE



NOTE:
ALL DUCTWORK SHALL BE SEALED IN ACCORDANCE WITH SMACNA FOR SEAL CLASS A.
SEE SPEC FOR INSULATION REQUIREMENTS

3 LOW PRESSURE DUCT CONNECTION
SCALE: NONE

NOTE:
DUCT GAUGE USED SHALL BE SUITABLE FOR 4" W.G. IN ACCORDANCE WITH SMACNA CONSTRUCTION STANDARDS. DUCT SHALL BE SEALED FOR SEAL CLASS A.

4 MEDIUM PRESSURE DUCT CONSTRUCTION
SCALE: NONE

5 ROUND FROM RECTANGULAR TAKE-OFF
SCALE: NONE

NOTE:
1. REFER TO AIR TERMINAL UNIT SCHEDULE FOR RUNOUT PIPE SIZE. MINIMUM PIPE SIZE SHALL BE 3/4".
2. FIELD INSULATE HWS/R HEADER AND CASING IF NOT FACTORY INSULATED.
3. INTEGRAL VALVE PACKAGES ARE ACCEPTABLE.

6 TYPICAL VAV BOX CONNECTION
SCALE: NONE

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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009100026
PROFESSIONAL ENGINEER
2022-10-21

No.	Description	Date

Designed By: Designer
Drawn By: Author
Reviewed By: Checker
Project No: 1203001
Date: 10/25/22
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Sheet Title: MECHANICAL DETAILS
Sheet No.: M2.4.0

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
~~Development Services Department~~
Lee's Summit, Missouri
11/10/2022

AIR OUTLET AND INLET SCHEDULE

MARK	MANUF. & MODEL	TYPE	MODULE SIZE, IN	NECK SIZE (W X H OR DIA), IN	MAX AIRFLOW CFM	MATERIAL	FINISH	OPPOSED BLADE DAMPER	BORDER	PERFORMANCE MAX. NC	PERFORMANCE MAX. SPD, IN	NOTES:
D-1	TITUS TMS	LOUVERED SQUARE CEILING DIFFUSER 4-WAY THROW	24 X 24	6	140	STEEL	WHITE	NO	LAY-IN OR SURFACE (REF: RCP)	30	0.10	
				8	250					30	0.10	
				10	380					30	0.10	
				12	500					30	0.10	
D-2	TITUS TMS	LOUVERED SQUARE CEILING DIFFUSER 4-WAY THROW	12 X 12	6	155	STEEL	WHITE	NO	LAY-IN OR SURFACE (REF: RCP)	30	0.10	
				8	220					30	0.10	
G-1	TITUS PAR	PERFORATED LAY-IN RETURN / EXHAUST	24 X 24	6 X 6	100	STEEL	WHITE	NO	LAY-IN OR SURFACE (REF: RCP)	30	0.10	
				8 X 8	200					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	

NOTES:
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 TO ORDERING.
GEN EQUIVALENT MANUFACTURERS ARE KRUEGER, PRICE, CARNES, ANEMOSTAT, NAILOR.

10/21/2022 11:04

TERMINAL BOX SCHEDULE

MARK	BASIS OF DESIGN Manuacturer "Model"	RUNOUT SIZE DIA in.	INLET SIZE DIA in.	DESIGN MAX AIRFLOW cfm	HEATING AIRFLOW cfm	MIN AIRFLOW cfm	HOT WATER COIL MIN. NO. OF ROWS	HOT WATER COIL MIN. OUTPUT mbh	HOT WATER COIL MAX. WATER FLOW gpm	HOT WATER COIL MAX. WATER P.D. ft. H2O	NOTES
TB-1-10	TITUS "DESV"	16 Ø	14 Ø	2100	1500	1500	3	66.6	6.7	2.5	1-4
TB-1-11	TITUS "DESV"	16 Ø	14 Ø	2100	1500	1500	3	66.6	6.7	2.5	1-4
TB-1-12	TITUS "DESV"	14 Ø	12 Ø	1250	675	625	3	26.0	2.6	1.5	1-4
TB-1-13	*TITUS "DESV"*	*12 Ø*	*10 Ø*	*850*	*850*	*400*		*32.7*	*3.3*		5
TB-1-14	*TITUS "DESV"*	*8 Ø*	*6 Ø*	*300*	*300*	*300*		*9.2*	*0.9*		5
TB-1-15	TITUS "DESV"	10 Ø	8 Ø	620	620	620	2	23.9	24.0	2.0	1-4
TB-1-16	TITUS "DESV"	10 Ø	8 Ø	650	420	415	2	16.2	1.6	2.0	1-4
TB-1-17	TITUS "DESV"	10 Ø	8 Ø	675	675	675	2	26.0	2.6	2.0	1-4

NOTES:
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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PLUMBING LEGEND

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

PIPING

Line label	Description
	DOMESTIC COLD WATER
	DOMESTIC HOT WATER
	DOMESTIC HOT WATER RECIRC.
140°	140°F DOMESTIC HOT WATER
140°	140°F DOMESTIC HOT WATER RECIRC.
PS	PRIMARY STORM DRAIN
SS	SECONDARY STORM DRAIN
SPD	SANITARY PUMPED DISCHARGE
SAN	SANITARY WASTE
CD	CONDENSATE DRAIN
V	SANITARY VENT
GW	GREASE WASTE
AW	ACID WASTE
AV	ACID VENT
LPG	LIQUEFIED PETROLEUM GAS (PROPANE)
NG	NATURAL GAS
CA	COMPRESSED AIR
F	FIRE SUPPRESSION

MISCELLANEOUS

- SECTION CUT: UPPER NUMBER INDICATES DRAWING NUMBER, LOWER NUMBER INDICATES SHEET NUMBER (1 / M1)
- CONNECTION POINT OF NEW WORK TO EXISTING
- CONNECTION POINT OF DEMOLITION TO EXISTING
- DETAIL REFERENCE: UPPER NUMBER INDICATES DETAIL NUMBER, LOWER NUMBER INDICATES SHEET NUMBER (1 / M1)
- RISER DESIGNATION (#)
- NOTE REFERENCE SYMBOL (X)
- EXISTING LINEWORK
- DEMOLITION LINEWORK
- NEW LINEWORK

GAS AND VACUUM PIPING

Line label	Description
MA	MEDICAL AIR
DA	DENTAL AIR
LA	LABORATORY AIR
O	OXYGEN
N2O	NITROUS OXIDE
OE	ORAL EVACUATION
MV	MEDICAL-SURGICAL VACUUM
WAGD	WASTE ANESTHESIA GAS DISPOSAL (WAGD)
MVW	COMBINATION MEDICAL VACUUM AND WAGD
CO2	CARBON DIOXIDE
N	NITROGEN
IA	INSTRUMENT AIR
MAI	MEDICAL AIR COMPRESSOR INTAKE
VE	VACUUM PUMP EXHAUST

GAS AND VACUUM VALVES / SYMBOLS

- ZONE VALVE BOX
- ALARM PANEL (REFERENCE SCHEDULES FOR TYPE)
- WALL MOUNTED MEDICAL AIR OUTLET
- WALL MOUNTED OXYGEN OUTLET
- WALL MOUNTED INSTRUMENT AIR OUTLET
- WALL MOUNTED MEDICAL-SURGICAL VACUUM INLET
- WALL MOUNTED DENTAL AIR OUTLET
- WALL MOUNTED CARBON DIOXIDE OUTLET
- WALL MOUNTED NITROUS OXIDE AIR OUTLET
- WALL MOUNTED WAGD INLET

VALVES / SYMBOLS

- DIRECTION OF FLOW IN PIPING
- TWO WAY CONTROL VALVE
- THREE WAY CONTROL VALVE
- BUTTERFLY VALVE
- GLOBE VALVE
- BALANCING VALVE
- SOLENOID VALVE
- CONTROL VALVE
- THERMOSTATIC MIXING VALVE
- TRIPLE DUTY VALVE WITH PRESSURE PORTS
- CHECK VALVE
- STRAINER
- STRAINER WITH BLOWOFF
- RELIEF/SAFETY VALVE
- PRESSURE REDUCING VALVE
- VACUUM BREAKER
- VENTURI
- GAS COCK
- SIGHT GLASS
- BALL VALVE
- 3/4" BALL DRAIN VALVE WITH 3/4" HOSE CONNECTION AND CAP ON CHAIN
- THERMOSTATIC TRAP
- F&T TRAP
- GATE VALVE
- PRESSURE GAUGE
- PRESSURE GAUGE WITH PIGTAIL
- THERMOMETER, THERMOMETER W/ TEST WELL
- PRESSURE/TEMPERATURE PORT
- UNION
- FLANGE CONNECTION
- PIPING ELBOW UP
- PIPING ELBOW DOWN
- PIPING TEE UP
- PIPING TEE DOWN
- PIPING CAP
- GAUGE COCK
- WATER HAMMER ARRESTOR
- PIPING REDUCER
- PRESSURE REGULATING VALVE
- FLEXIBLE CONNECTOR
- AUTOMATIC AIR VENT
- MANUAL AIR VENT
- PIPE ANCHOR / ROOF PIPING SUPPORT
- EXPANSION JOINT
- PIPE GUIDE
- VTR — VENT THRU ROOF
- 3"FS-1 — FLOOR SINK, SIZE AND TYPE
- 3"FD-1 — FLOOR DRAIN, SIZE AND TYPE
- 3"RD-1 — ROOF DRAIN, SIZE AND TYPE
- HB / WH — HOSE BIBB / WALL HYDRANT
- CO / WCO — LINE CLEANOUT / WALL CLEANOUT
- FCO — FLOOR CLEANOUT
- GCO — GRADE CLEANOUT
- HT 0' - 0" — SELF-REGULATING HEATED CABLE – LENGTH AS SHOWN IN DRAWINGS. REFERENCE ELECTRICAL PLANS FOR SPECIFICATION OF COMPLETE HEAT-TRACE SYSTEM. ARROW DENOTES DIRECTION

ABBREVIATIONS

AAV	AIR ADMITTANCE VALVE
AD	AREA DRAIN
AFF	ABOVE FINISHED FLOOR
AV	ACID VENT
AW	ACID WASTE
BF	BOTTLE FILLER
BFP	BACKFLOW PREVENTER
BHP	BRAKE HORSEPOWER
BP	BOOSTER PUMP
BT	BATH TUB
BTU	BRITISH THERMAL UNIT
CB	CATCH BASIN
CD	CONDENSATE DRAIN
CO	CLEANOUT
CP	CIRCULATION PUMP
CW	COLD WATER
DEG,°	DEGREES
DDC	DIRECT DIGITAL CONTROL
DF	DRINKING FOUNTAIN
DN	DOWN
DSN	DOWNSPOUT NOZZLE
DT	DILUTION TANK
DW	DIRECT WASTE
(E)	EXISTING TO REMAIN
EEW	EMERGENCY EYE WASH
ES	EMERGENCY SHOWER
ESP	EXTERNAL STATIC PRESSURE
	ELEVATOR SUMP PUMP
EWC	ELECTRIC WATER COOLER
EWT	ENTERING WATER TEMPERATURE
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FFE	FINISHED FLOOR ELEVATION
FHC	FIRE HOSE CABINET
FPM	FEET PER MINUTE
FS	FLOOR SINK
G	NATURAL GAS
GCO	GRADE CLEANOUT
GD	GARBAGE DISPOSAL
GPM	GALLONS PER MINUTE
GT	GAS TURRET
GV	GAS VALVE
GWH	GAS WATER HEATER
HB	HOSE BIBB
HD	HEAD
HP	HORSEPOWER
HW	HOT WATER
HWC	HOT WATER CIRCULATION
HX	HEAT EXCHANGER
HZ	HERTZ
IE	INVERT ELEVATION
IMB	ICE MAKER BOX
IN.WC	INCHES OF WATER COLUMN
IW	INDIRECT WASTE
KW	KILOWATT
L	LAVATORY
LBS	POUNDS
LPG	LIQUEFIED PETROLEUM GAS
LS	LAUNDRY SINK
LWT	LEAVING WATER TEMPERATURE
MBH	1000 BTU PER HOUR
MFR	MANUFACTURER
MH	MANHOLE
MSB	MOP SINK BASIN
(N)	NEW
N2	NITROGEN
N/A	NOT APPLICABLE
NC	NORMALLY CLOSED
NO	NORMALLY OPEN
O2	OXYGEN
OD	OVERFLOW DRAIN
PH,ø	PHASE
PIV	POST INDICATOR VALVE
PRV	PRESSURE REDUCING VALVE
PT	PLASTER TRAP
QTY	QUANTITY
(R)	RELOCATED EXISTING
RC	REFRIGERANT CHARGE
RD	ROOF DRAIN
RPM	REVOLUTIONS PER MINUTE
S	SINK
SA	SHOCK ARRESTOR
SAN	SANITARY
SE	SEWAGE EJECTOR
SF	SQUARE FEET
SH	SHOWER
SP	SUMP PUMP
ST	STORM, STORAGE TANK
TD	TRENCH DRAIN
TDH	TOTAL DYNAMIC HEAD
TEA	THERMAL EXPANSION ABSORBER
TG	TRAP GUARD
TMV	THERMOSTATIC MIXING VALVE
TP	TRAP PRIMER
TSP	TOTAL STATIC PRESSURE
TW	TEPID WATER
U	URINAL
U/F	UNDERFLOOR
U/G	UNDERGROUND
U/S	UNDERSLAB
V	VENT
VAC	VACUUM
VTR	VENT THROUGH ROOF
WB	WASHER BOX
WC	WATER COLUMN, WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT

PLUMBING GENERAL NOTES

1. 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.
2. CONTRACTOR SHALL VISIT THE JOB SITE PRIOR TO SUBMITTING A BID TO COVER THE CONDITIONS AT THE SITE INFORMING THEMSELVES OF ALL DETAILS.
3. ALL WORK SHALL COMPLY WITH ALL APPLICABLE FEDERAL, STATE AND LOCAL CODES, LAWS, ACTS AND ORDINANCES, AND ALL AUTHORITIES HAVING JURISDICTION.
4. 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.
5. 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.
6. 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.
7. COORDINATE EXACT LOCATION OF ALL PIPING AND EQUIPMENT WITH STRUCTURAL, ARCHITECTURAL, ELECTRICAL, AND OTHER MECHANICAL SYSTEMS.
8. 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.
12. 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 700.
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 CONTRACTOR.
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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Sheet No.: P2.0.1

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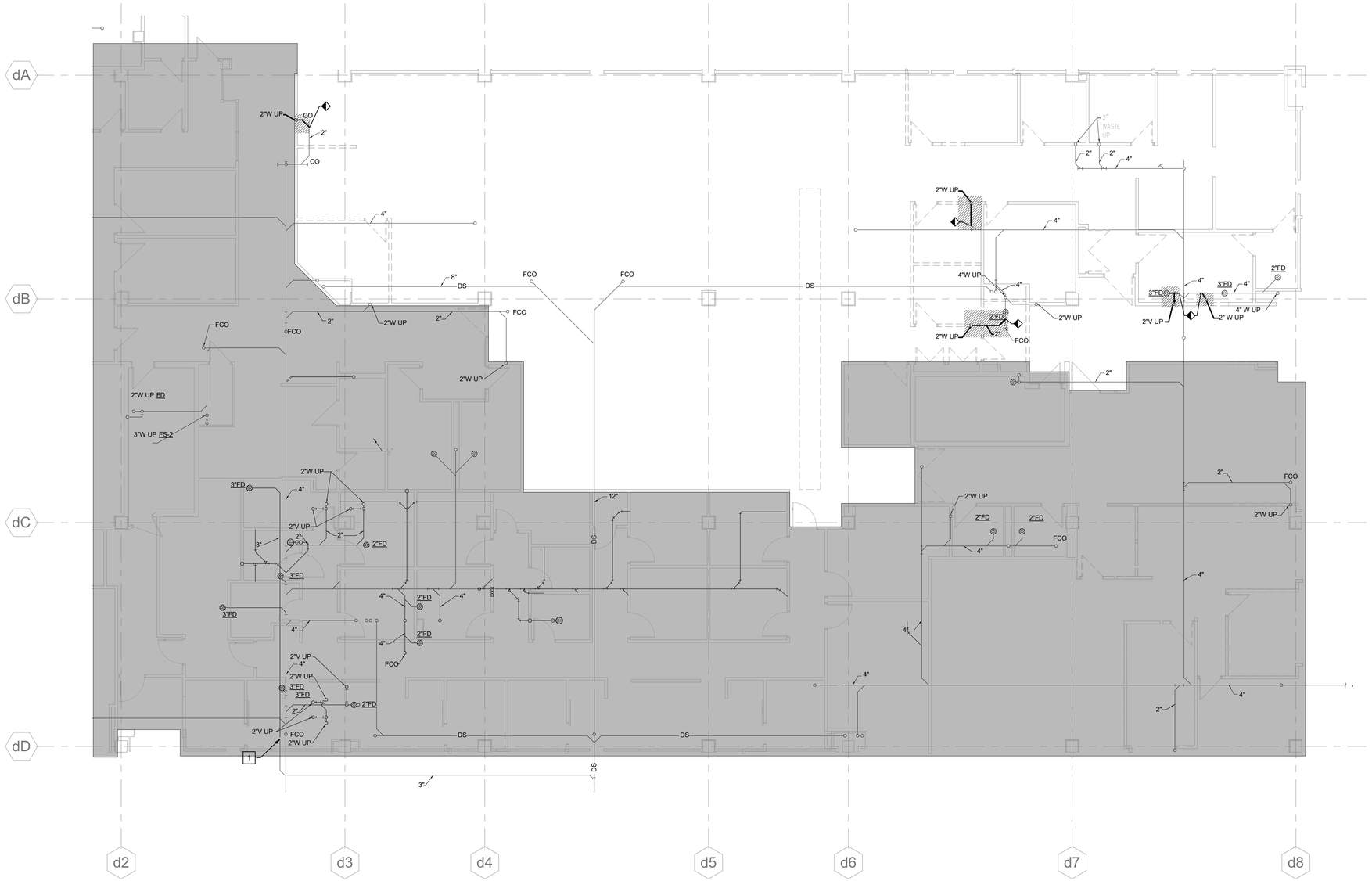
11/10/2022

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGEND, AND NOTES.



N

1 PHASE 2 - UNDERFLOOR WASTE/VENT - DEMOLITION
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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Sheet Title:
PHASE 2 - UNDERFLOOR WASTE/VENT DEMOLITION PLAN

Sheet No.:
PD2.1.0

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGEND, AND NOTES.

KEY NOTES (X) (THIS SHEET)

1. DEMOLISH PLUMBING FIXTURE.

N

1 PHASE 2 - FIRST FLOOR WASTE/VENT - DEMOLITION
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

ALTERATION SHADING LEGEND

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PHASE 2 - FIRST FLOOR WASTE/VENT DEMOLITION PLAN

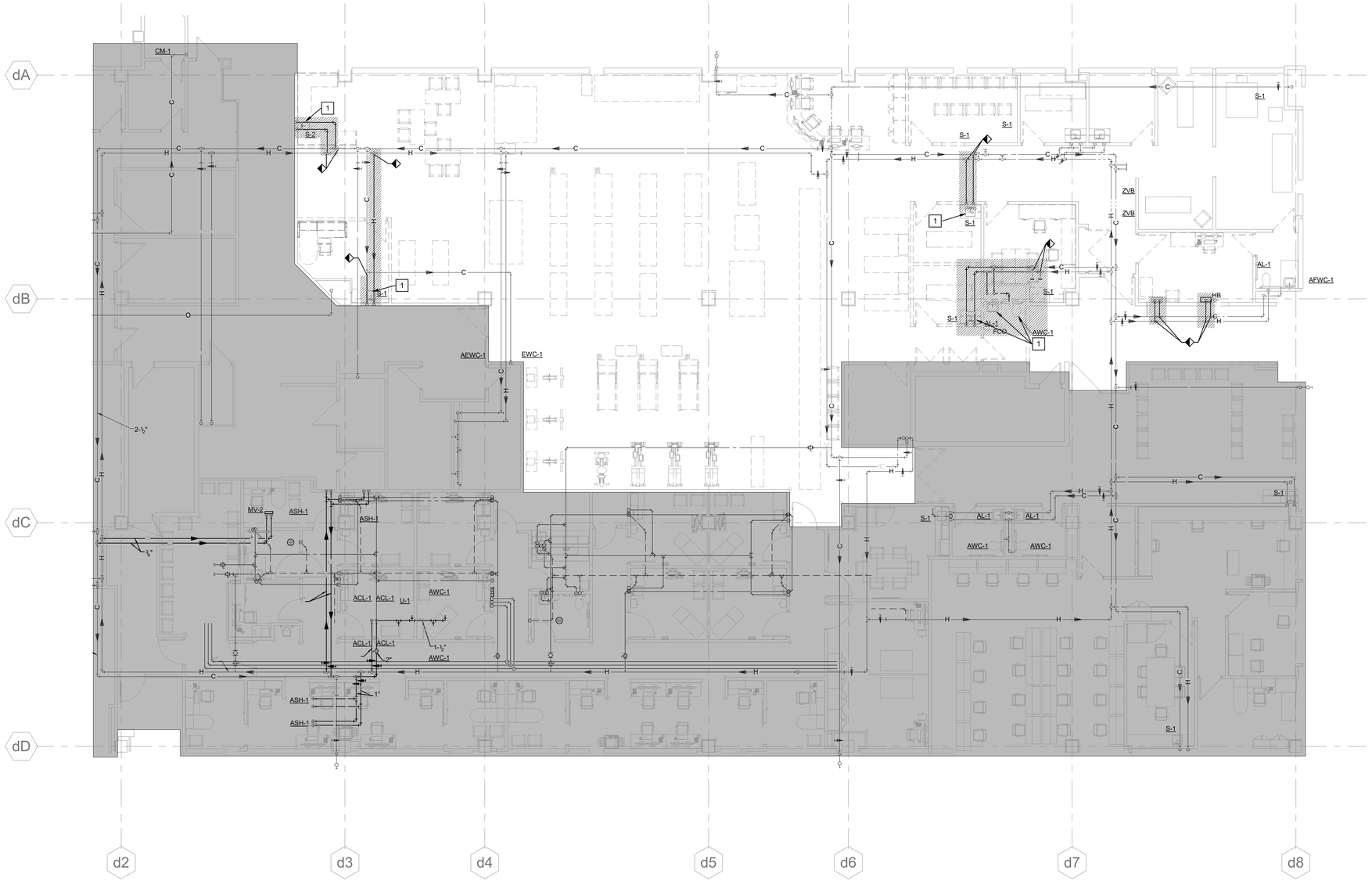
Sheet No.: PD2.1.1

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGEND, AND NOTES.

DEMOLITION KEY NOTES X (THIS SHEET)

1. DEMOLISH PLUMBING FIXTURE.



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1 PHASE 2 - FIRST FLOOR DOMESTIC WATER - DEMOLITION
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

ALTERATION SHADING LEGEND

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PHASE 2 - FIRST FLOOR DOMESTIC WATER DEMOLITION PLAN

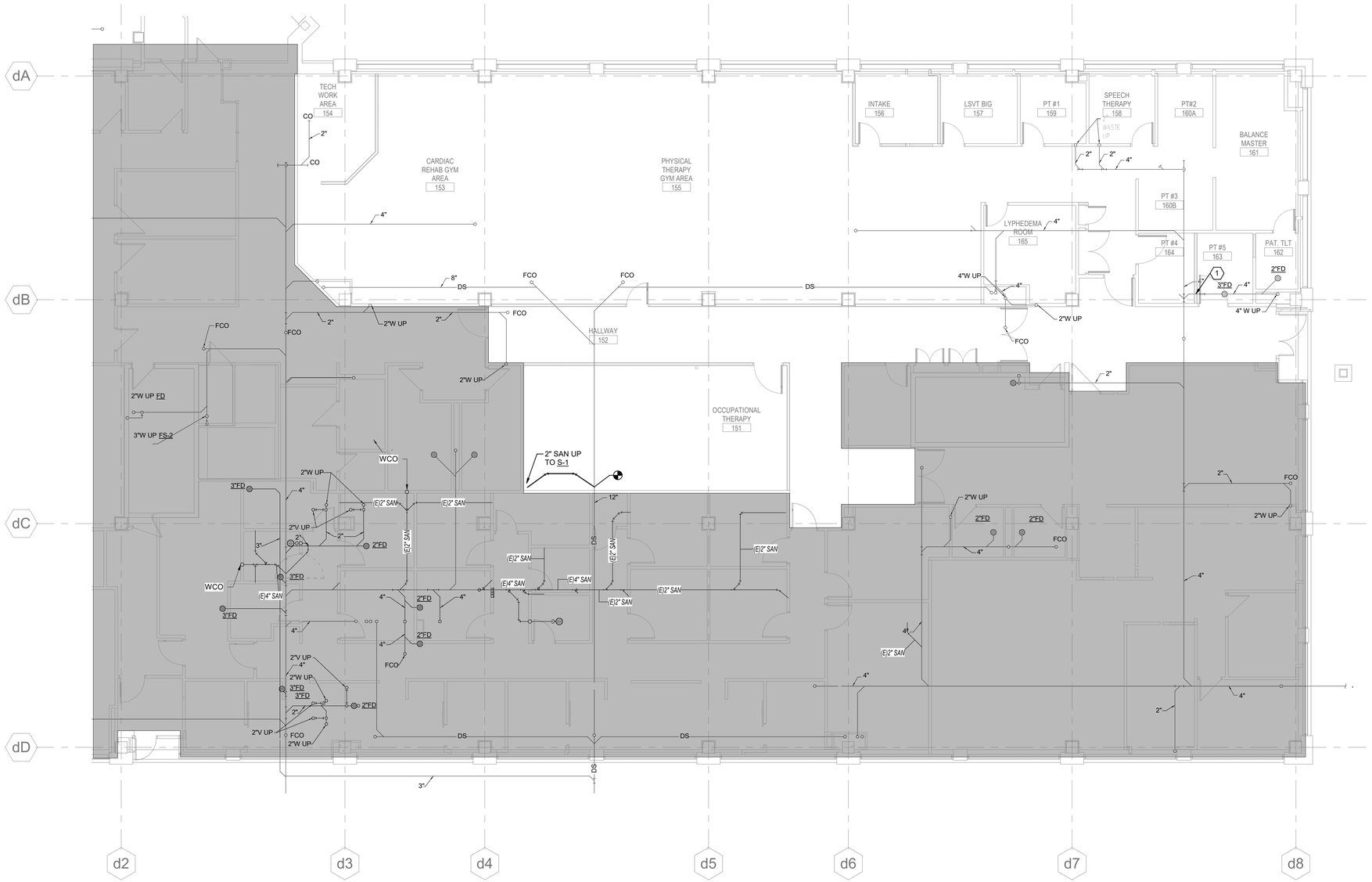
Sheet No.: PD2.2.1

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGENDS, AND NOTES.

KEY NOTES (X) (THIS SHEET)

1. CONNECT NEW VENT TO EXISTING SAN. RUN VENT UP THROUGH WALL.



N

1 PHASE 2 - UNDERFLOOR WASTE/VENT PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

ALTERATION SHADING LEGEND

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Submittal Level: 100% CDs

Sheet Title:
PHASE 2 - UNDERFLOOR WASTE/VENT PLAN

Sheet No.:
P2.1.0

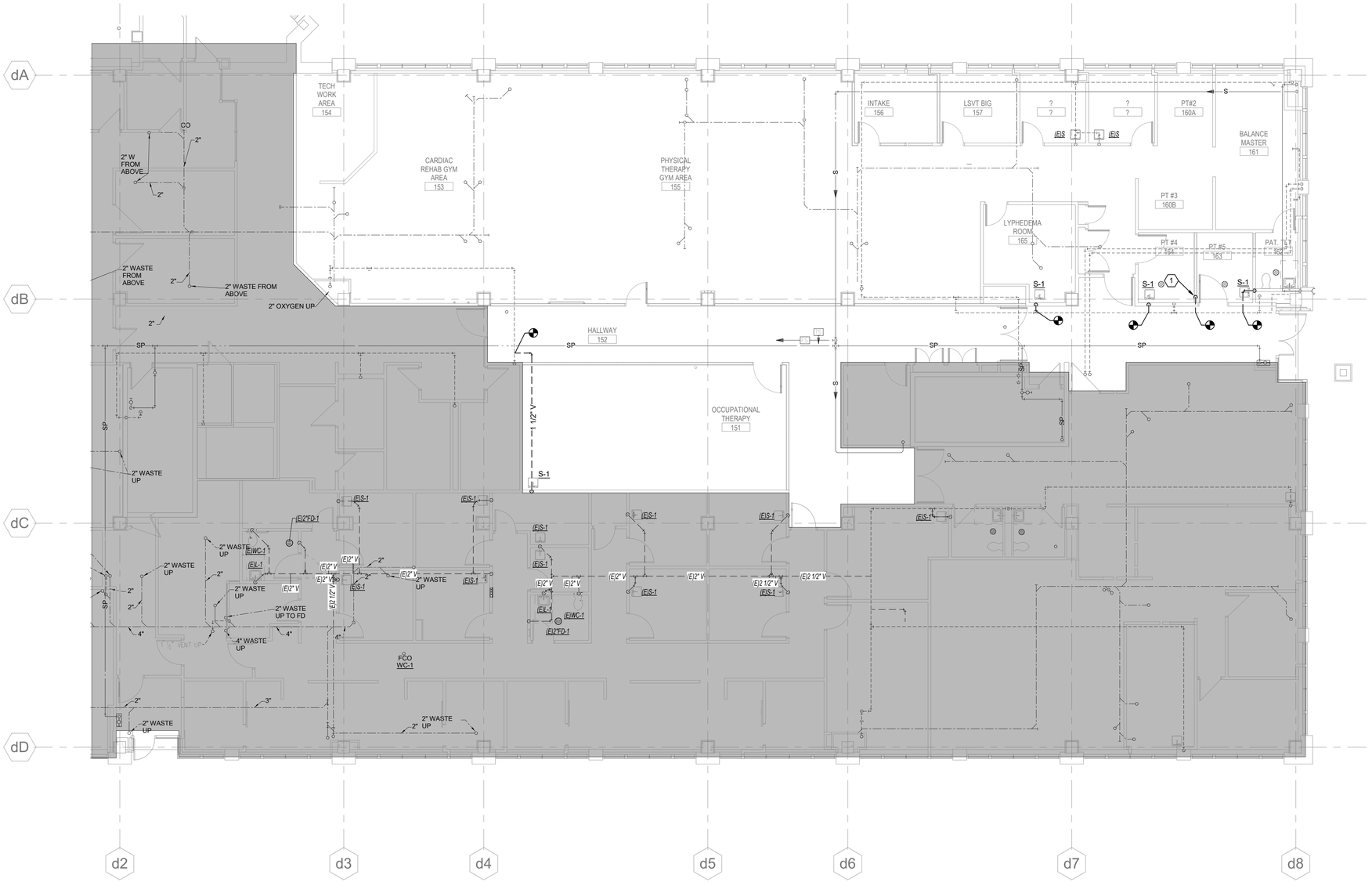
RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Development Services Department
Lee's Summit, Missouri
11/10/2022

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGENDS, AND NOTES.

KEY NOTES (X) (THIS SHEET)

1. CONNECT NEW VENT TO EXISTING SAN. RUN VENT UP THROUGH WALL.



N

1 PHASE 2 - FIRST FLOOR WASTE/VENT PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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BETTER BUILT ENVIRONMENTS

PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

STATE OF MISSOURI
RICKI MANKTALA
NUMBER PE-2009100026
PROFESSIONAL ENGINEER
2022-10-21

No.	Description	Date

Designed By: Designer
Drawn By: Author
Reviewed By: Checker
Project No: 1203001
Date: 10/25/22
Submittal Level: 100% CDs
Sheet Title: PHASE 2 - FIRST FLOOR WASTE/VENT PLAN

Sheet No.: P2.1.1

GENERAL NOTES (THIS SHEET)

1. SEE SHEET P0.1 FOR PLUMBING SYMBOLS, LEGENDS, AND NOTES.

N

1 PHASE 2 - FIRST FLOOR DOMESTIC WATER PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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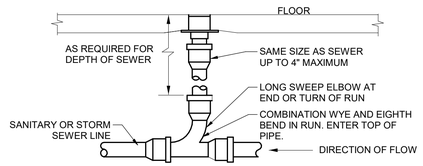
Submittal Level: 100% CDs

Sheet Title:
PHASE 2 - FIRST FLOOR DOMESTIC WATER PLAN

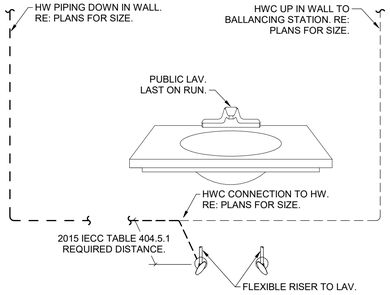
Sheet No.:
P2.2.1



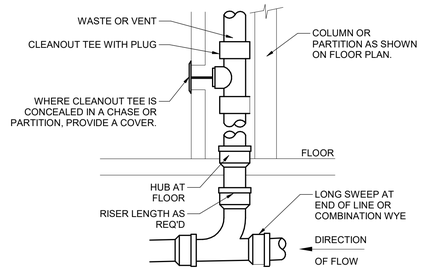
1. PROVIDE CLEANOUT TOP WITH VARIATIONS SUITABLE FOR FLOOR COVERING (CARPET MARKER, RECESSED FOR TILE, SCORIATED CAST IRON FOR UNFINISHED FLOORS).

2. LOCATE AT BUILDING EXIT, AT ENDS OF RUNS, AT TURNS OF PIPE GREATER 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 FLOOR CLEANOUT
SCALE: NONE

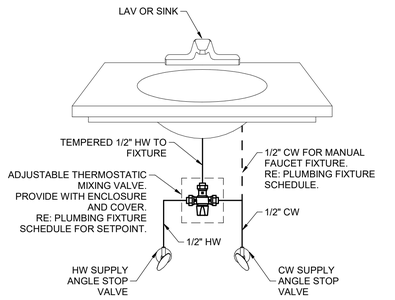


2 HOT WATER RECIRC IECC 404.5.1
SCALE: NONE

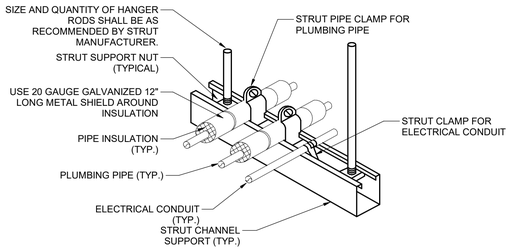


NOTES:
1. PROVIDE WCO AT BASE OF ALL SANITARY WASTE AND STORM RISERS. PROVIDE WCO WHERE SHOWN ON PLANS, AND ON SANITARY WASTE BRANCHES NOT SERVED WITH A FLOOR CLEANOUT. CONSULT LOCAL CODES FOR OTHER WCO REQUIREMENTS. REFER TO PLUMBING FIXTURE SCHEDULE FOR FURTHER INFORMATION.
2. CLEANOUT FACE SHALL BE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

3 WALL CLEANOUT
SCALE: NONE

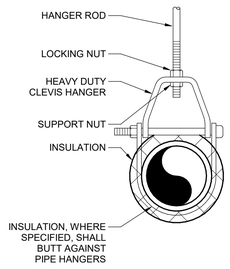


4 THERMOSTATIC MIXING VALVE
SCALE: NONE

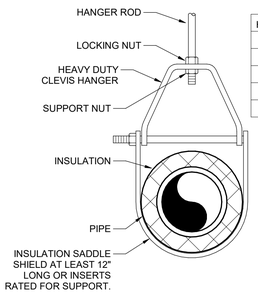


NOTES:
1. PIPE AND CONDUIT OF ALL TRADES MAY BE COMBINED ON SAME SUPPORT CHANNEL WHERE PRACTICAL.
2. SUPPORT CHANNEL LENGTH SHALL NOT BE DETERMINED UNTIL ALL PIPING AND CONDUIT TO BE SUPPORTED IS COORDINATED.

5 TRAPEZE PIPE HANGER
SCALE: NONE



SINGLE HORIZONTAL RUNS WITH NO VAPOR BARRIER INSULATION

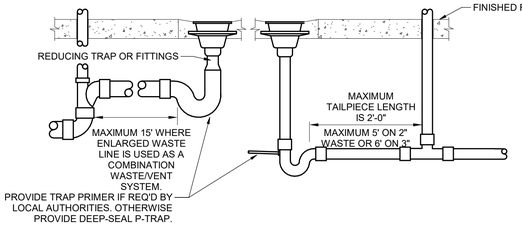


HANGER ROD SCHEDULE	
PIPE SIZE	ROD SIZE
UP TO 2"	3/8" DIA.
2-1/2" - 3"	1/2" DIA.
4" - 5"	5/8" DIA.
6" - 12"	7/8" DIA.

SINGLE HORIZONTAL RUNS WITH VAPOR BARRIER INSULATION

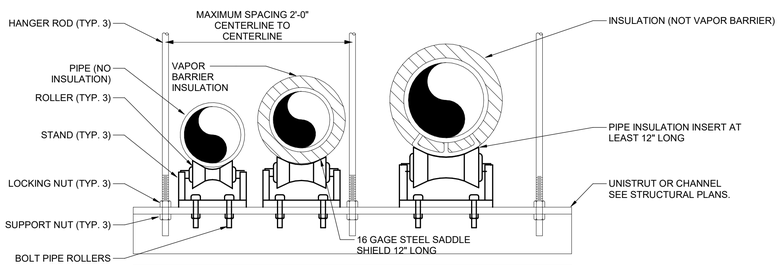
6 CLEVIS HANGER
SCALE: NONE

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 PENETRATION" DETAIL FOR VENTS.

7 FLOOR DRAIN/SINK INSTALLATION
SCALE: NONE



HANGER ROD SPACING												
PIPE SIZE	1"	1-1/4"	1-1/2"	2"	2-1/2"	3"	4"	6"	8"	10"	12"
MAX SPACING	7 FT.	8 FT.	9 FT.	10 FT.	11 FT.	12 FT.	14 FT.	17 FT.	19 FT.	22 FT.	23 FT.

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.

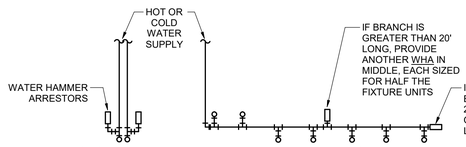
8 TRAPEZE HANGER
SCALE: NONE

NOTES:
1. INSTALL IN HORIZONTAL OR VERTICAL POSITION, BUT NEVER UPSIDE DOWN. INSTALL IN LINE WITH WATER FLOW DIRECTION IF POSSIBLE. SIZE THE UNITS AS SHOWN ON THE DRAWINGS AND/OR THE TABLES SHOWN ABOVE. PROVIDE ACCESSIBILITY TO WHA.

2. INSTALL PER PDI STANDARDS AND MANUFACTURER'S INSTRUCTIONS. PROVIDE A WHA 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.

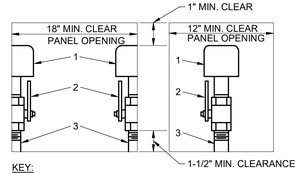


SINGLE/DOUBLE FIXTURE

MULTIPLE FIXTURES

PDI SIZE	PIPE SIZE	FIXTURE UNIT LOAD
A	1/2"	1-11
B	3/4"	12-32
C	1"	33-60
D	1-1/4"	61-113
E	1-1/2"	114-154
F	2"	155-330

FIXTURE UNIT TABULATION		
FIXTURE	COLD	HOT
VALVE WATER CLOSET	10	- -
TANK WATER CLOSET	5	- -
URINAL	5	- -
LAVATORY/SINK	1.5	1.5
JANITOR'S SINK	3	3
SHOWER/BATHTUB	2	2



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.

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

9 WATER HAMMER ARRESTOR AND PANEL
SCALE: NONE

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Sheet Title: PLUMBING DETAILS

Sheet No.: P2.4.0

PLUMBING FIXTURE & EQUIPMENT CONNECTION SCHEDULE

FIXTURE	COMPONENT	MANUFACTURER	MODEL	DESCRIPTION	FLOW RATE (GPM/GPF)	ACCESSIBLE	ELECTRICAL	WASTE	VENT	CW	HW
WC-1	WATER CLOSET SEAT FLUSH VALVE	SLOAN BEMIS SLOAN	ST-2459-STG 2155SSCT REGAL 111 XL CV-1.28	WALL HUNG, SIPHON JET, GLAZING, ELONGATED RIM, ADA MOUNTING HEIGHT. OPEN FRONT SOLID PLASTIC SEAT. MANUALLY OPERATED FLUSH VALVE.	1.28	YES	-	4"	2"	1"	-
L-1	LAVATORY FAUCET	ZURN ZURN	Z5344 Z812B4-XL-28F	WALL HUNG, 4" CENTERS, PROVIDE WITH CARRIER, COORDINATE WITH WALL THICKNESS. MANUALLY OPERATED FAUCET, WITH MV-1. PROVIDE WITH IPS CORP 2018SLSS3003 IN PUBLIC/PATIENT AREAS. PROVIDE GRID DRAIN, 17 GAUGE P-TRAP, ANGLE SUPPLIES W/L.K. STOPS, INSULATION KIT.	0.5	YES	-	2"	1-1/2"	1/2"	1/2"
S-1	SINK FAUCET	JUST MFG ZURN ENCON	SL-1617-A-GR Z831B4-XL-FC 0104128	SELF RIMMING, SINGLE COMPARTMENT, DROP IN, TYPE 304, 18 GAUGE STAINLESS STEEL SINK BASIN. MANUALLY OPERATED FAUCET WITH 4" CENTERS. COUNTERMOUNT SWING AWAY EYEWASH. 10.5" ARM WITH POLISHED CHROME FINISH PROVIDE GRID DRAIN, OFFSET, 17 GAUGE P-TRAP, ANGLE SUPPLIES W/L.K. STOPS, INSULATION KIT.	1.0	-	-	2"	1-1/2"	1/2"	1/2"
WHA	WATER HAMMER ARRESTOR	SIOUX CHIEF	652	PISTON-TYPE WATER HAMMER ARRESTOR, PROVIDE WITH LINE SIZE BALL VALVE FOR ISOLATION AND PROVIDE WITH ACCESS.	-	-	-	-	-	PER DETAIL	-
FD-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	-	-	-
FCO	FLOOR CLEANOUT	ZURN	ZN1400-BZ1-BP-VP	ADJUSTABLE, COATED CAST IRON BODY, BRONZE THREADED PLUG, ROUND SCORIATED NICKEL BRONZE MEDIUM-DUTY TOP.	-	-	-	PER PLAN	-	-	-
WCO	WALL CLEANOUT	ZURN	Z1446-BP	EPOXY COATED CAST IRON BODY WITH BRONZE PLUG, ROUND STAINLESS STEEL WALL ACCESS COVER, AND SECURING SCREW.	-	-	-	PER PLAN	-	-	-

GENERAL NOTE: NO AERATORS ON ALL LAVATORIES AND SINKS.

HOT WATER MIXING VALVE SCHEDULE

MARK	MANUFACTURER & MODEL OR EQUAL	MINIMUM GPM	MAXIMUM GPM	INLET WATER TEMP (F)	OUTLET WATER TEMP (F)	PRESSURE DROP (PSI)	ELECTRICAL VOLTS	ELECTRICAL PH	NOTES:
MV-1	LEONARD 170A-LF-BP-BRKT-CP	0.25	1.9	125	105	20	N/A	N/A	1

NOTES
1 POINT-OF-USE MIXING VALVE FOR SINKS AND LAVATORIES.

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Sheet Title: PLUMBING SCHEDULES
Sheet No.: P2.5.0

SYMBOL TYPES

NOTE: THIS IS A MASTER SYMBOLS LIST. ALL SYMBOLS, ABBREVIATIONS, ETC. MAY NOT NECESSARILY BE USED ON ALL DRAWINGS

TELECOM SYMBOLS

- XX — TELECOM DATA DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA DEVICE MOUNTED ON FLOOR. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- XX — TELECOM DATA DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
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AV SYMBOLS

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- AV DEVICE MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV CAMERA MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
- AV CAMERA MOUNTED ON CEILING. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.

SECURITY SYMBOLS

- XX — SECURITY DEVICE MOUNTED ON WALL. XX INDICATES TYPE, REFER TO SCHEDULE BELOW FOR DEVICE INFORMATION.
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SYSTEM TYPE	MOUNTING TYPE	TYPE	DESCRIPTION	MOUNTING	INFRASTRUCTURE BOX	INFRASTRUCTURE CONDUIT	REFERENCE	COUNT
AUDIOVISUAL	CEILING	S	LOUDSPEAKER FOR ROOM SYSTEM	-	INTEGRAL TO LOUNDSPEAKER BACKCAN (PROVIDED BY AV CONTRACTOR)	NA, PLENUM CABLING		23
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	(1) 1" C. TO NEAREST ACCESSIBLE CEILING		1
DATA DEVICE	CEILING	WAP	1-PORT TELECOM OUTLET IN CEILING FOR WIRELESS ACCESS POINT	-	4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(1) 1" C TO ACCESSIBLE CEILING SPACE		10
DATA DEVICE	WALL	1	1-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		1
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		16
DATA DEVICE	WALL	2WC	WALL COMPUTER 2-PORT TELECOM OUTLET - SEE DETAIL #3 ON E4.0 FOR ADDITIONAL INFORMATION	4' - 0" 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		4
NURSE CALL	WALL	EB	STAFF EMERGENCY PUSH BUTTON STATION	4' - 0" AFF	4-11/16" SQUARE BOX, 2-1/2" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED	1" C TO NEAREST ACCESSIBLE CEILING		10
NURSE CALL	WALL	EP	EMERGENCY PULL CORD STATION	4' - 0" AFF	SINGLE GANG BOX, 2-1/8" DEEP, WITH 13/16" DEEP 1-DEVICE MUD RING, FLUSH MOUNTED	1" C TO NEAREST ACCESSIBLE CEILING		1
SECURITY	WALL	R	CARD READER	3' - 10" AFF	4-11/16" SQUARE WITH 1-DEVICE MUD RING, FLUSH MOUNTED, 2-1/8" DEEP BACK BOX	(1) 3/4" C STUBBED INTO NEAREST ACCESSIBLE CEILING		4

ABBREVIATIONS

AC	ABOVE COUNTER
AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CFCI	CONTRACTOR FURNISHED AND CONTRACTOR INSTALLED
CFOI	CONTRACTOR FURNISHED AND OWNER INSTALLED
(E)	EXISTING
EF	ENTRANCE FACILITY
ER	EQUIPMENT ROOM
GND	GROUND
IG	ISOLATED GROUND
LAN	LOCAL AREA NETWORK
LC	LUCENT CONNECTOR
Mbps	MEGABITS PER SECOND
MM	MULTIMODE
OFCI	OWNER FURNISHED AND CONTRACTOR INSTALLED
OFOI	OWNER FURNISHED AND OWNER INSTALLED
OSP	OUTSIDE CABLE PLANT
PBB	PRIMARY BONDING BUSBAR
PoE	POWER OVER ETHERNET
PoE+	POWER OVER ETHERNET PLUS
RU	RACK UNIT (1.75")
QTY	QUANTITY
SBB	SECONDARY BONDING BUSBAR
SEF	SERVICE ENTRANCE FACILITY
SM	SINGLE MODE
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
TYP	TYPICAL
UG	UNDERGROUND
UNO	UNLESS OTHERWISE NOTED
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED PAIR
W/	WITH
W/O	WITHOUT
WAO	WORK AREA OUTLET
WAP	WIRELESS ACCESS POINT
XC	CROSS-CONNECT

EQUIPMENT LEGEND

- FLAT PANEL DISPLAY, REFER TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
- PROJECTION SCREEN, REFER TO DISPLAY TABLE BELOW FOR ANNOTATION DESCRIPTIONS.
- LADDER RACK
- 4-POST RACK
- 2-POST RACK
- XX — WALL PANEL, "XX" INDICATES TYPE, CHECK ABBREVIATIONS LIST FOR TYPE.

TECHNOLOGY SHEET INDEX

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Submittal Level: 100% CDs
Sheet Title: TECHNOLOGY LEGEND
Sheet No.: T2.0.1

GENERAL NOTES

1. DO NOT SCALE DRAWINGS. VERIFY DIMENSIONS ON ARCHITECTURAL DRAWINGS AND IN FIELD PRIOR TO COMMENCEMENT OF WORK.
2. REFER TO ALL ARCHITECTURAL/ELECTRICAL/STRUCTURAL/CIVIL AND MECHANICAL DRAWINGS FOR ADDITIONAL REQUIREMENTS AND INFORMATION.
3. 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 MATERIALS AND EQUIPMENT COMPATIBLE WITH EQUIPMENT ACTUALLY SUPPLIED.
4. WORK, MATERIALS, AND EQUIPMENT SHALL CONFORM TO THE LATEST EDITIONS OF LOCAL, STATE, AND NATIONAL CODES AND ORDINANCES.
5. PROVIDE PERMITS AND INSPECTIONS REQUIRED.
6. SYSTEM SHALL BE TESTED FOR PROPER OPERATION. IF TESTS SHOW THAT WORK IS DEFECTIVE, CONTRACTOR SHALL MAKE CORRECTIONS NECESSARY AT NO COST TO OWNER.
7. CONTRACTOR'S FAILURE TO ORDER OR RELEASE ORDER FOR MATERIALS AND/OR EQUIPMENT WILL NOT BE ACCEPTED AS REASON TO SUBSTITUTE ALTERNATE MATERIALS, EQUIPMENT, OR INSTALLATION METHODS.
8. ALL SYSTEMS SHALL BE COMPLETE AND FULLY OPERATIONAL.
9. IT IS THE INTENT OF THESE DRAWINGS AND SPECIFICATIONS TO ESTABLISH A STANDARD OF QUALITY. THE ENGINEER RESERVES THE RIGHT TO APPROVE METHODS AND MATERIALS NOT REFLECTED HEREIN.
10. PROVIDE RECORD DRAWINGS TO THE ARCHITECT/ENGINEER. DRAWINGS SHALL INCLUDE ALL ADDENDUM ITEMS, CHANGE ORDERS, ALTERATIONS, REROUTINGS, ETC.
11. CONTRACTOR SHALL BE RESPONSIBLE FOR REPLACING EQUIPMENT WHICH IS DAMAGED DUE TO INCORRECT FIELD WIRING PROVIDED UNDER THIS SECTION, OR FACTORY WIRING IN EQUIPMENT PROVIDED UNDER THIS SECTION.
12. VERIFY EXACT LOCATIONS OF EXISTING AND NEW UNDERGROUND UTILITIES, PIPING, AND RACEWAY SYSTEMS PRIOR TO TRENCHING. PROVIDE NECESSARY TRENCHING, BACKFILL, EXCAVATION, SUPPORTS, SERVICE FEEDERS (CONDUIT AND/OR WIRE), PULLBOXES, TRANSFORMERS PADS, SAW CUTTING AND PATCHING, CONCRETE PAVING, ETC. REQUIRED. BACKFILL TRENCHES TO 90% COMPACTION AND PATCH TO MATCH EXISTING. CONTRACTOR SHALL OBTAIN AND VERIFY EXACT UTILITY COMPANY DRAWINGS AND REQUIREMENTS.
13. THE DATA GIVEN ON THE DRAWING 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.
14. VERIFY EXACT LOCATION OF EQUIPMENT TO BE FURNISHED BY OTHERS PRIOR TO ROUGH-IN.
15. ROUTE ALL WIRE AND CONDUIT CONCEALED, FOR ALL SYSTEMS, UNLESS NOTED OTHERWISE.
16. ACCURATE RECORDS OF WORK MODIFICATIONS (AS-BUILTS) SHALL BE KEPT DAILY.
17. THE COMPLETED INSTALLATION SHALL BE IN ACCORDANCE WITH ALL ENGINEERING REQUIREMENTS, THE OWNERS 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.
18. VALIDATE ALL QUANTITIES. DEVICES SHOWN ON PLANS TAKE PRECEDENCE OVER SCHEDULE QUANTITIES.
19. CARD READERS MUST BE WITHIN 6" OF DOOR FRAME, UNO.

GENERAL INFRASTRUCTURE NOTES

1. IF THE ENCLOSURE, BOXES AND CABINETS SPECIFIED ARE NOT PROVIDED FROM THE MANUFACTURER WITH THE REQUIRED KNOCKOUTS FOR THE SPECIFIED CONDUIT, FIELD CUT ALL REQUIRED KNOCKOUTS TO TERMINATE THE QUANTITY AND SIZE OF THE SPECIFIED CONDUITS.
2. MAINTAIN MAXIMUM SEPARATION BETWEEN AV SYSTEM CONDUIT AND ALL POWER CONDUIT.
3. INSTALL NYLON PULL STRINGS IN ALL CONDUIT.
4. INSTALL ALL CONDUIT IN A CONCEALED FASHION. SURFACE MOUNTED CONDUIT WILL NOT BE ACCEPTED UNLESS SPECIFICALLY IDENTIFIED IN THE DRAWINGS.
5. COVER ALL INSTALLED JUNCTION BOXES AND MUD RINGS WITH BLANK COVER PLATES.
6. ALL CONDUIT SHALL BE A MINIMUM DIAMETER OF 3/4" UNLESS NOTED OTHERWISE.
7. ALL CONDUIT SHALL BE THIN-WALL EMT UNLESS NOTED OTHERWISE. CONDUIT SIZES AND TERMINATION SHALL BE AS NOTED ON THE TECHNOLOGY INFRASTRUCTURE DRAWINGS.
8. MAXIMUM OF TWO 90-DEGREE BENDS OR 50 LINEAR FEET BETWEEN PULL BOXES. ADDITIONAL PULL BOXES NOT SHOWN ON DRAWINGS MAY BE REQUIRED. CONDUIT ROUTING IS AT THE ELECTRICAL CONTRACTOR'S DISCRETION.
9. 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.
10. PROVIDE NYLON BUSHINGS ON ALL CONDUIT STUBS AND NON-TERMINATED CONDUIT ENDS.

GENERAL AV INSTALLATION NOTES

1. 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

1. ISOLATE ALL EQUIPMENT FROM CONDUIT AND BUILDING STEEL.
2. GROUND COMMUNICATIONS SYSTEMS AND EQUIPMENT IN ACCORDANCE WITH ANSI-TIA-EIA GROUNDING STANDARD AND APPLICABLE NEC REQUIREMENTS.
3. 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.
4. 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".

RESPONSIBILITY MATRIX

SYSTEM	SCOPE DESCRIPTION	SPECIFICATION SECTION	FURNISHED BY	INSTALLED BY
ALL LOW-VOLTAGE SYSTEMS	BACKBOXES AND CONDUIT	DIVISION 26	CONTRACTOR	CONTRACTOR
	GROUNDING BUSBAR	DIVISION 26	CONTRACTOR	CONTRACTOR
	GROUND AND BONDING TO EQUIPMENT	27 12 00	CONTRACTOR	CONTRACTOR
	DISCONTINUOUS PATHWAYS (J-HOOKS, RINGS)	27 11 50	CONTRACTOR	CONTRACTOR
	CONTINUOUS PATHWAYS (TRAY)	27 11 50	NOT IN CONTRACT	NOT IN CONTRACT
COMMUNICATIONS	CABLING	27 15 00	CONTRACTOR	CONTRACTOR
	FACEPLATES, CABLE TERMINATIONS AND TESTING	27 15 00 / 27 08 00	CONTRACTOR	CONTRACTOR
	RACKS, ENCLOSURES, LADDER TRAY	27 11 00	CONTRACTOR	CONTRACTOR
NETWORK ACTIVE DEVICES	WIRELESS ACCESS POINTS (WAPS)	N/A	OWNER	CONTRACTOR
	NETWORK SWITCHES	N/A	OWNER	OWNER
	SERVERS / COMPUTERS / PHONES	N/A	OWNER	OWNER
	UPS AND PDU	27 11 00	CONTRACTOR	CONTRACTOR
	CLOCKS	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	MASS NOTIFICATION SYSTEM	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	DISTRIBUTED ANTENNA SYSTEM (RADIO / CELL REPEATER OR BOOSTER)	N/A	NOT IN CONTRACT	NOT IN CONTRACT
AV	CABLING, FACEPLATES, CABLE TERMINATIONS AND TESTING	27 15 00	CONTRACTOR	CONTRACTOR
	DISPLAYS	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	RACKS, ENCLOSURES, HOUSINGS	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	AV EQUIPMENT	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	PERFORMANCE SYSTEM EQUIPMENT (AUDITORIUM)	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	CABLE / ANTENNA TELEVISION (CATV)	27 41 33	CONTRACTOR	CONTRACTOR
	PROJECTION SCREENS	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	PUBLIC ADDRESS SYSTEMS	27 51 16	CONTRACTOR	CONTRACTOR
	SOUND MASKING	N/A	NOT IN CONTRACT	NOT IN CONTRACT
ELECTRONIC SECURITY	CABLING(ACCESS CONTROL/SURVEILLANCE)	28 13 00 / 27 15 00	CONTRACTOR	CONTRACTOR
	FACEPLATES, CABLE TERMINATIONS AND TESTING	28 13 00	CONTRACTOR	CONTRACTOR
	ENCLOSURES, HOUSINGS, POWER SUPPLIES	28 13 00	CONTRACTOR	CONTRACTOR
	ACCESS CONTROL - DOOR DEVICES	28 13 00	CONTRACTOR	CONTRACTOR
	ACCESS CONTROL - CONTROLLER / SERVER	28 13 00	CONTRACTOR	CONTRACTOR
	ENTRY INTERCOM	N/A	NOT IN CONTRACT	NOT IN CONTRACT
	SURVEILLANCE - CAMERAS	28 23 00	CONTRACTOR	CONTRACTOR
	SURVEILLANCE - RECORDING / SERVERS (NVR) AND LICENSES	28 23 00	CONTRACTOR	CONTRACTOR
	INTRUSION DETECTION (MOTION, GLASS BREAK)	N/A	NOT IN CONTRACT	NOT IN CONTRACT
NURSE CALL	CABLING	27 52 23	CONTRACTOR	CONTRACTOR
	FACEPLATES, CABLE TERMINATIONS AND TESTING	27 52 23	CONTRACTOR	CONTRACTOR
	ENCLOSURES, HOUSINGS, POWER SUPPLIES	27 52 23	CONTRACTOR	CONTRACTOR
	DEVICES (PULL STATIONS, DOME LIGHTS)	27 52 23	CONTRACTOR	CONTRACTOR

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PROJECT NAME:
PHASE 2 - PHYSICAL THERAPY
SAINT LUKE'S EAST HOSPITAL
FIRST FLOOR MOB
100 NE SAINT LUKE'S BLVD.
LEE'S SUMMIT, MO 64086

No.	Description	Date

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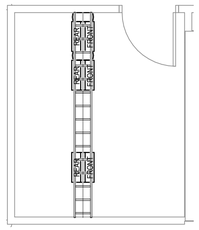
Sheet No.: T2.0.2



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

GENERAL NOTES (THIS SHEET)

1. THE INSTALLATION OF NEW LOW-VOLTAGE PATHWAYS SHOULD BE COORDINATED IN THE FIELD WITH ALL TRADES BEFORE COMMENCING WORK.
2. ALL PRIMARY CABLE PATHWAYS TO BE SUPPORTED BY METALLIC JHOOKS, AND SIZED AS REQUIRED TO SUPPORT INITIAL CABLE QUANTITIES PLUS GROWTH PER SPECIFICATIONS.
3. 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.
4. WIRELESS ACCESS POINTS SHOWN ARE BASED ON OWNER DESIRED LOCATIONS.
5. REUSE EXISTING CARD READERS WHEN POSSIBLE. CONTRACTOR TO CONFIRM WITH OWNER EXISTING EQUIPMENT IS SATISFACTORY WITH REGARDS TO CURRENT SPEC.
6. REUSE EXISTING NURSE CALL DEVICES WHEN POSSIBLE. CONTRACTOR TO CONFIRM WITH OWNER EXISTING EQUIPMENT IS SATISFACTORY WITH REGARDS TO CURRENT SPEC.

KEY NOTES (X) (THIS SHEET)

1. APPROXIMATE LOCATION OF RELOCATED EXISTING SIRIUS XM RADIO HEAD END. COORDINATE FINAL LOCATION WITH OWNER.
2. SPEAKER WITH CONNECTION TO SIRIUS XM RADIO WITH DEDICATED VOLUME CONTROL. COORDINATE SPEAKER AND VOLUME CONTROL WITH OWNER.

N

1 PHASE 2 - FIRST FLOOR TECHNOLOGY PLAN
SCALE: 1/8" = 1'-0"

0' 2' 4' 8'

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.

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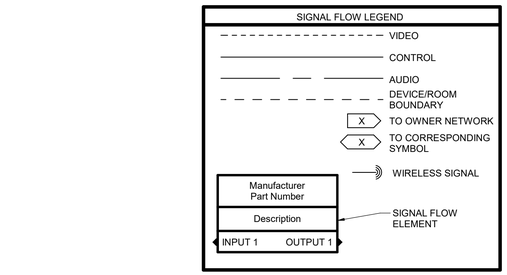

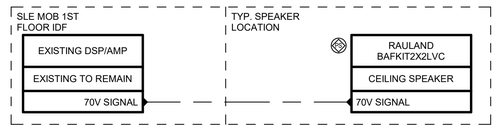

1 PAGING SYSTEM SIGNAL FLOW
SCALE: 12" = 1'-0"

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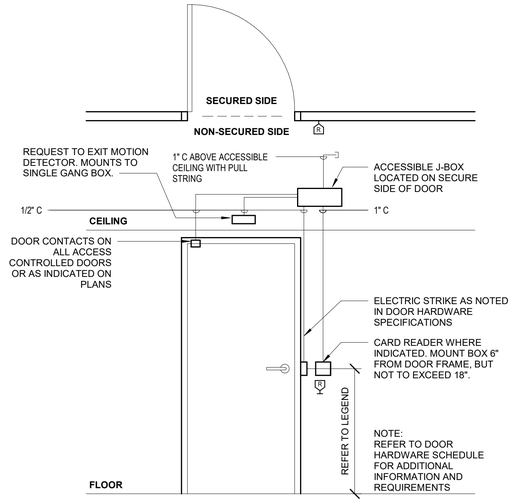
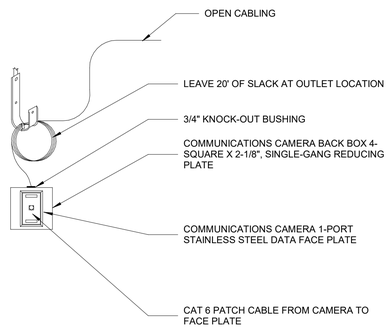


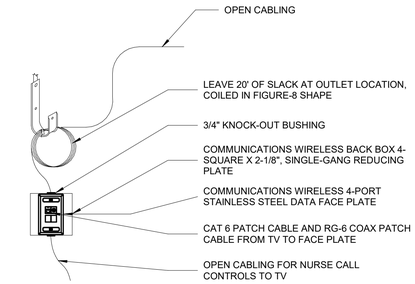
OPERATIONAL THEORY:

1. DOOR SHALL BE LOCKED AND READER IN SECURE STATE AS DOOR IS APPROACHED.
2. WHEN A VALID CARD IS PRESENTED, THE READER BEEPS, THE LED TURNS GREEN, AND THE ELECTRIC STRIKE OR MAGNETIC LOCK DE-ENERGIZES, ALLOWING THE DOOR TO OPEN.
3. THE ELECTRIC STRIKE OR MAGNETIC LOCK SHALL RE-LOCK WHEN THE DOOR POSITION SWITCH DETECTS THE DOOR HAS OPENED.
4. TO EXIT FROM THE SECURE SIDE, THE REQUEST-TO-EXIT SENSOR WILL DISENGAGE THE ELECTRIC STRIKE OR MAGNETIC LOCK AND THE DOOR WILL MOMENTARILY UNLOCK.
5. THE ELECTRIC STRIKE OR MAGNETIC LOCK SHALL RE-LOCK WHEN THE DOOR POSITION SWITCH DETECTS THE DOOR HAS OPENED.
5. IF A FIRE ALARM IS ACTIVATED IN THE BUILDING, THE FIRE ALARM MODULE SHALL ACTIVATE THE DOOR LOCK OVERRIDE, ALL DOORS WILL UNLOCK AUTOMATICALLY, AND WILL REMAIN UNLOCKED UNTIL THE FIRE ALARM MODULE IS REST.
6. ADA PUSH PADS, WHERE PRESENT ON PLANS, WILL ONLY ACTIVATE IF PRESSED WITHIN 5 SECONDS OF A VALID CREDENTIAL. IN CASE OF FIRE ALARM, THE DOOR OPERATOR SHALL LOSE POWER VIA PAMHIGH VOLTAGE RELAY TO ALLOW FREE EGRESS.

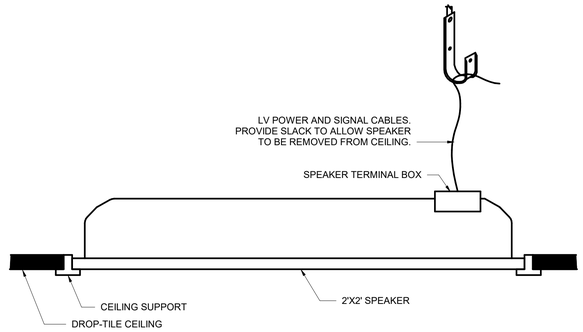
8 SINGLE DOOR DETAIL
SCALE: 1/8" = 1'-0"



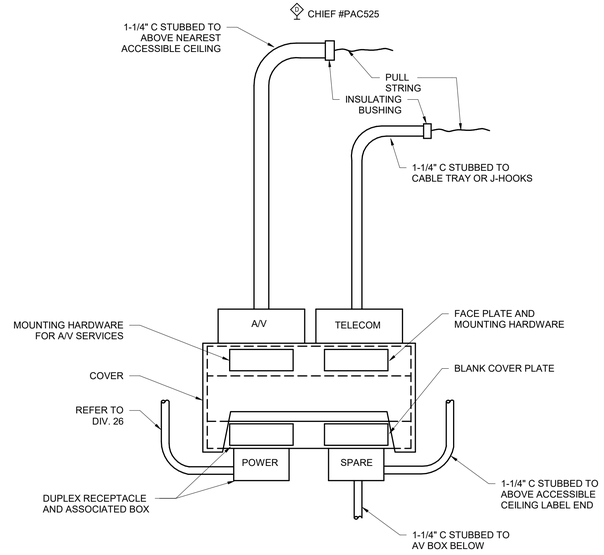
2 COMM. OUTLET - INTERIOR CAMERA
SCALE: 1 1/2" = 1'-0"



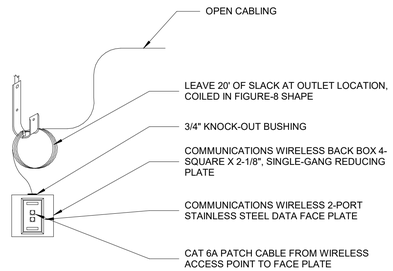
3 COMM. OUTLET - POLE MOUNT
SCALE: 1 1/2" = 1'-0"



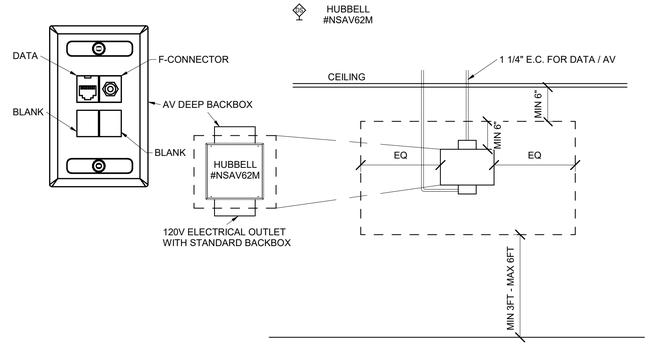
1 2' x 2' DROP-TILE CEILING MOUNTED PAGING SPEAKER
SCALE: 12" = 1'-0"



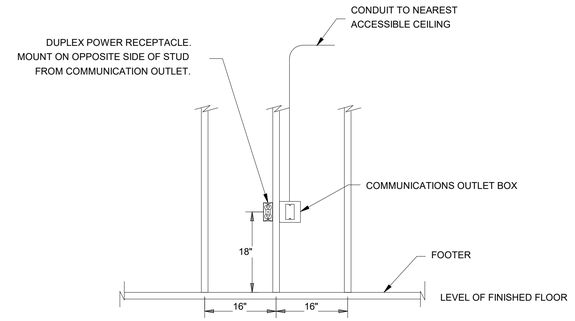
5 CONFERENCE ROOM DISPLAY BACKBOX DETAIL
SCALE: 1/8" = 1'-0"



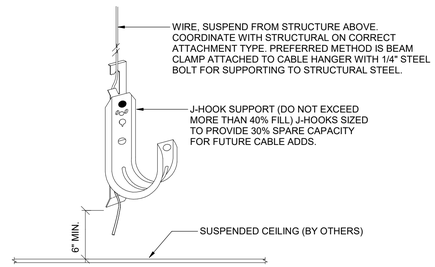
4 COMM. OUTLET - WAP
SCALE: 1 1/2" = 1'-0"



6 DS DISPLAY BACKBOX DETAIL
SCALE: 6" = 1'-0"



9 TYPICAL DATA OUTLET
SCALE: 3/4" = 1'-0"



NOTES: (REFER TO SPECIFICATIONS SECTION 27 11 50 FOR ADDITIONAL INFORMATION)
1) CABLE HANGERS SHALL BE SPACED NO FURTHER THAN 4' O.C., NOT AT REGULAR REPEATING DISTANCE.
2) CABLE HANGERS SHALL BE SECURED TO STRUCTURAL STEEL UTILIZING APPROPRIATE FASTENERS WHICH SHALL MEET LOCAL SEISMIC CODES.
3) REFER TO ARCHITECTURAL DRAWINGS FOR DECK AND SUSPENDED CEILING TYPE. DETAILS SHOWN FOR CLARITY ONLY.

7 NON-CONTINUOUS CABLE SUPPORT
SCALE: 1/8" = 1'-0"

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