Joe Frogge

Digitally signed by Joe Frogge
DN: CN=Joe Frogge, OU=Development, OU=LS Users, DC=COLS, DC=LOC
Date: 2023.07.28 08:52:57-05'00'

RELEASED FOR CONSTRUCTION
As Noted on Plans Review

Development Services Department
Lee's Summit, Missouri
07/28/2023

STATE OF MISSOURI
KENNETH J. KLEFFNER
NUMBER A2001038309
REGISTERED ARCHITECT

04-07-2023

CODE NOTES

A. NEW BUILDING AND INTERIOR FINISH

B. ALL CONSTRUCTION FOR THIS PROJECT SHALL BE PERFORMED UNDER THE PROVISIONS OF FOLLOWING LIST OF CODES, AS AMENDED BY THE CITY OF LEES SUMMIT, MISSOURI:
- B.1. 2018 International Building Code
- B.2. 2018 International Plumbing Code
- B.3. 2018 International Mechanical Code
- B.4. 2018 International Fuel Gas Code
- B.5. 2018 International Residential Code
- B.6. 2018 International Fire Code
- B.7. 2017 National Electrical Code
- B.8. ICC/ANSI A117.1-2017, Accessible and Usable Buildings and Facilities

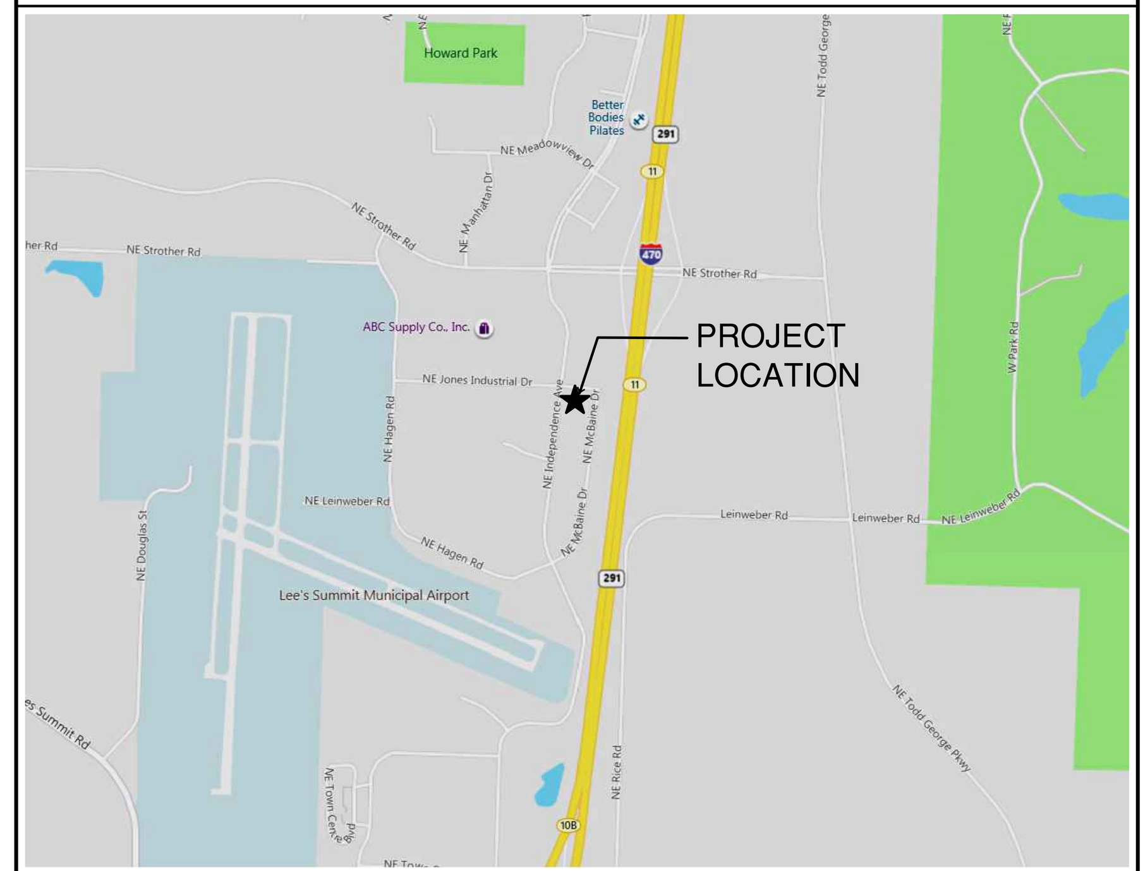
C. Use, Occupancy Classification, and Type of Construction:
- C.1. Tenant Use: Professional Services - Medical Office.
- C.2. Tenant Occupancy Classification: B - Business
- C.3. Building Type of Construction: IIB

D. Tenant Square Foot Calculations:
- D.1. Existing with limited work = 5,500 sf
- D.2. Existing to be remodeled = 681 sf
- D.3. Expansion in empty shell = 1,808 sf
- D.4. Total Tenant area = 7,989 sf

E. Fire Protection Systems:
- E.1. Automatic Sprinkler Systems: Provided.
- E.2. Fire Alarm and Detection Systems: Provided.

F. Tenant Occupant Load (Table 1003.2.2.2): See Code Plan
22.02 + 13.89 + 20.44 + 27.92 + 6.63 = 90.9 = 91 occupants

AREA MAP

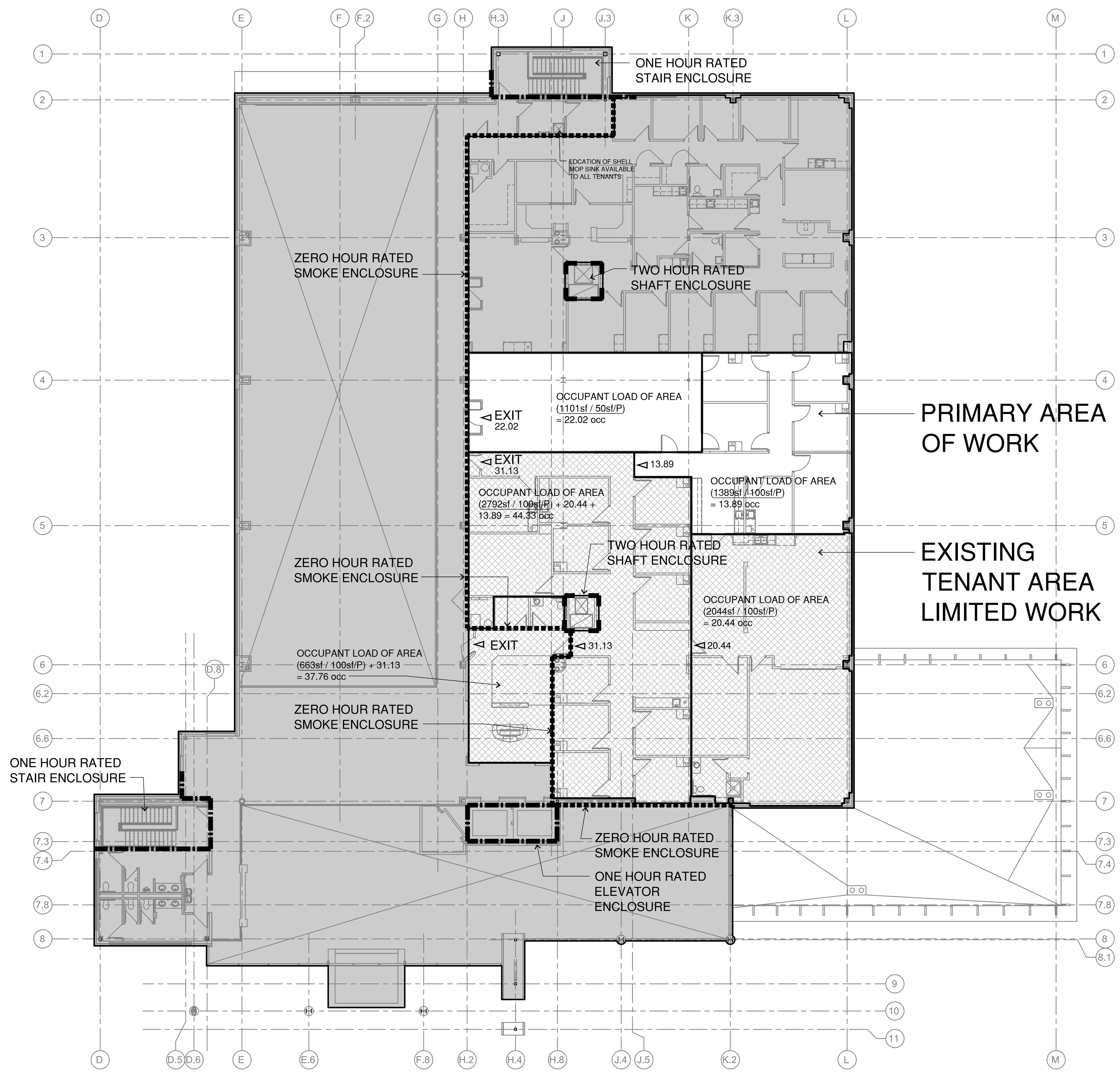


SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

2023 REMODEL

2801 NORTHEAST INDEPENDENCE AVE
SUITE 201
LEE'S SUMMIT
MISSOURI, 64064

CODE PLAN



DRAWING INDEX

CS COVER SHEET AND CODE NOTES

ARCHITECTURAL

- A1 SPECIFICATIONS
- A2 DEMOLITION PLAN, FLOOR PLAN
- A3 CEILING PLAN

MECHANICAL, PLUMBING AND ELECTRICAL

- MP1 MECHANICAL SPECIFICATIONS
- P1 PLUMBING FLOOR PLAN
- M1 MECHANICAL FLOOR PLAN
- E0 ELECTRICAL SPECIFICATIONS, SYMBOLS, AND NOTES
- E1 ELECTRICAL LIGHTING PLAN
- E2 ELECTRICAL POWER PLAN
- E3 ELECTRICAL PANEL AND FIXTURE SCHEDULES

CODE PLAN KEY

◅ 13.17	OCCUPANT LOAD AT OPENING
OCCUPANT LOAD OF AREA (2663sf / 100sf/P) = 26.33 occ	AREA LOAD OF AREA (UNDERLINED) PLUS ALL OTHER ROOMS AND AREAS THAT FEED INTO AREA.
◅ EXIT	SUITE EXIT
▯ FEC	FIRE EXTINGUISHER CABINET

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DATE: 04-07-2023

PROJECT# 22043

CS

DIVISION 1 - GENERAL REQUIREMENTS

GENERAL REQUIREMENTS 01000

1. The General Conditions of the Contract for Construction of A.I.A. Document A201, latest edition, forms part of this contract as if herein bound.
2. Satisfy all applicable local codes and ordinances. Reference the cover sheet for list of codes.
3. Contractor to pay for Construction Permit Fees, Excise Tax, Tap Fees, Ect. as applicable to the local Municipalities and Utility Companies.
4. Contractor is to meet all Building Owner Standards and Instructions for work.

PRODUCTS 01600

1. Where a specific manufacturer's product is named including make or model number or other designation, it has been selected to establish the significant qualities related to type, function, dimension, in-service performance, physical properties, appearance, and other characteristics of the product. Unless otherwise indicated, provided the named product or a product that is equal to or exceeds the specified product.
2. Deliver, store, and handle products using means and methods that will prevent damage, deterioration, and loss, including theft. Comply with manufacturer's written instructions.
3. Provide products complete with accessories, trim, finish, fasteners, and other items needed for a complete installation and indicated use and effect.
4. All products, and materials used in conjuction with, are to be installed in strict conformance with manufacturers instruction.

SPECIAL CONDITIONS 01700

1. General Contractor shall provide all water, light, and power necessary during construction until the completion of the building. All extensions, controls, and equipment beyond the points of temporary service shall be provided under the work of the respective Division requiring the same.
2. The General Contractor shall do all final cleaning of the building construction areas and wash windows.

CUTTING AND PATCHING

1. Contractor is to include as part of his scope all cutting and patching required through careful evaluation of the existing site and the construction documents. All holes, damages, defects, ect. in existing surfaces are to be patched to match existing conditions. Contractor shall coordinate the cutting of existing construction necessary to permit installation or performance of other Work.
2. Patching: Patch construction by filling, repairing, refinishing, closing up, and similar operations. Patch with durable seams that are as invisible as possible. Use materials identical to existing materials. If identical materials are unavailable or cannot be used, use materials that, when installed, will match the visual and functional performance of existing materials. For exposed surfaces, use materials that visually match existing adjacent surfaces to the fullest extent possible. Before patching, verify compatibility with and suitability of substrates, including compatibility with existing and new finishes or primers.
3. Cutting: Cut existing construction by sawing, drilling, breaking, chipping, grinding, and similar operations, including excavation, using methods least likely to damage elements retained or adjoining construction. In general, use hand or small power tools designed for sawing and grinding, not hammering and chopping. Cut holes and slots as small as possible, neatly to size required, and with minimum disturbance of adjacent surfaces. Temporarily cover openings when not in use. Provide temporary support of Work to be cut. Cut concrete using a cutting machine, such as an abrasive saw or a diamond-core drill.

DIVISION 2 - SITE WORK

NO WORK THIS SECTION

DIVISION 3 - CONCRETE

REFER TO CUTTING AND PATCHING

DIVISION 4 - MASONRY

NO WORK THIS SECTION

DIVISION 5 - METALS

METAL STUD FRAMING

1. Metal Studs and Runners: shall be as manufactured by Dietrich, Inryco/Milcor, USC, or approved equal. Studs shall be sized as indicated on the drawings and of gauge recommended by the manufacturers literature. Double studs at door jambs shall be 20 gauge minimum. Standard stud spacing at no more than 16" O.C. unless otherwise noted on drawings.
2. At all walls indicated to extend to underside of decking provide Dietrich SLP-TRK slotted deflection track. Install and finish per manufacturer's recommendations.

DIVISION 6 - WOODS AND PLASTIC

CARPENTRY

1. Each piece of framing lumber shall be identified by the grademark of an approved inspection agency or association. Wood framing and all rough carpentry items shall be installed in accordance with UBC and/or FHA requirements whichever is most restrictive.

DIVISION 7 - THERMAL AND MOISTURE PROTECTION

INSULATION

1. Where insulating materials listed below will not be covered with gypsum board substitute specified insulation w/ product of same thickness and R-value and similar facing, but such shall have a flame spread rating of 25 or less and a smoke developed rating of 50 or less when tested in accordance with ASTM E84 unless more stringent requirements are listed for a specific product.
2. Interior insulation shall be unfaced acoustical batt insulation in thickness to fill entire cavity.
3. Insulation Schedule
   - 3.1. Interior non-loadbearing walls: Unfaced Fiberglass Batts - Certainteed CertaPRO AcoustaTherm Batts

SEALANTS

1. Mildew-Resistant Silicone Rubber Sealant: Silicone rubber-based, one part elastomeric sealant, complying with FS TT-S-0021543, Class A; compounded specifically for mildew resistance and recommended by manufacturer for interior joints in wet areas; passing ANSI A136.1 test for mold growth.
2. Silicone Sealant: One-part nonacid-curing silicone sealant complying with ASTM C920; Type S, Grade NS, Class 25, paintable, for uses at casings, window casings and hollow metal to drywall and masonry.
3. Joints and spaces to be caulked shall be clean, dry and free of dust, loose mortar or other foreign materials. After joints have been filled, they shall be neatly tooled to eliminate air pockets or voids and to provide a smooth, neat appearing surface.
4. Non-Elastomeric Sealants and Caulking Compounds: 1-component acrylic sealant: FS-TT-S-00230, Class B, Type 11, solvent based solids 95% acrylic for uses at exterior window and door frame perimeters and flashing

DIVISION 8 - DOORS AND WINDOWS

STEEL FRAMES AND DOORS 08110

1. Drywall frames shall be manufactured from cold-rolled 16 gauge steel conforming to ASTM A366 or A620 & A568. Frames shall be knock-down, double return back bend (to prevent cutting into wall) flush hairline miter at the corner of the head and jamb, and the corner reinforced with a concealed clip. Each jamb is to have one compression anchor to securely hold the frame between the studs and maintain proper alignment.
2. Welded Frames are to be fabricated of either cold-rolled steel conforming to ASTM ASTM A366 or A620 & A568 at interior locations or hot-dipped galvanized steel conforming to ASTM A924 and A653 at exterior locations both of 16 gauge material. Fabricate frames with mitered or coped and continuously welded corners and seamless face joints. Provide welded frames with temporary spreader bars.
3. All Frames and Doors are to be thoroughly degreased and cleaned of all imperfections and provided with one coat of oven-cured neutral color primer paint. Primer coat shall conform with ANSI A250.10. The primer coat is to be a preparatory base for necessary finish painting.
4. Frame Hardware Provisions: Frames are to be mortised, reinforced and drilled and tapped for all mortise finish hardware. Frames are to be reinforced only for surface mounted hardware, with drilling and tapping to be done in the field by the installation contractor. Steel plates and mortising boxes are to be welded to all hinge and lock reinforcement. Frames are handed. Hinge jambs are to be mortised for hinges with 7 gage steel hinge reinforcement welded in place and drilled and tapped for fasteners in accordance with ANSI A156.7. The strike jamb is to be prepared for 4-7/8" universal strike in accordance with ANSI A 115.1&2. Additional hardware reinforcement (e.g. closer/holder as indicated by hardware schedule) is to be 12 gage minimum steel welded in place. Three door mutes are to be provided per strike jamb and two for double swing heads.
5. Door Hardware Provisions: Hinge preparations are handed. Hinge edges are to be mortised for hinges with 7 gage steel hinge reinforcements welded inside the door edge and drilled and tapped for fasteners in accordance with ANSI A156.7. The lock edge is to have a standard bevel (1:16) and be prepared for locks in accordance with hardware schedule. Additional hardware reinforcement (e.g. closer/pulls as indicated by hardware schedule) is to be 12 gage steel channel.

WOOD DOORS

1. Single swing interior doors shall be solid core premium grade veneer with matching edges. Species (white maple,) stain, finish, size and thickness to match building standard. Comply with requirements of ANSI/NWMA I.S. 1 and Section 1400 of AWI "Architectural Woodwork Quality Standards" except as otherwise indicated. Coordinate stain color with interior designer.

FINISH HARDWARE

1. Provide finish hardware for all doors in project. The Contractor shall verify all keying requirements with owner prior to installation. Finish to be 26d. Hardware mounting heights by the door and hardware institute "Recommended Locations for Builders Hardware". Comply with all ADA requirements for hardware.

DIVISION 9 - FINISHES

GYPSUM DRYWALL

1. Materials shall meet the following standards:
   a. Gypsum Wallboard - ASTM C36
   b. Nails - ASTM C380
   c. Metal Accessories - ASA A97.1
   d. Water Resistant Gypsum Backing Board - ASTM C1278 (paragraph 6.1)
2. Use gypsum board fasteners that are recommended by gypsum board manufacturer except as otherwise indicated.
3. Furnish and install all trim accessories, adhesives and joint treatments per manufacturer's recommendations.
4. All gypsum board to be finished to Level 4 unless noted otherwise.
5. Schedule: (basis of design)
   - 5.1. Interior side of exterior walls: $\frac{1}{2}$" Gold Bond XP Gypsum Board.
   - 5.2. Interior partitions - general: $\frac{5}{8}$" Gold Bond Gypsum Board.
   - 5.3. Interior ceilings and soffits: $\frac{5}{8}$" Gold Bond Gypsum board.
   - 5.4. Interior partitions in wet areas/toilet rooms: $\frac{5}{8}$" Gold Bond XP Gypsum Board.
   - 5.5. Interior partitions to recieve wall tile: $\frac{5}{8}$" Gold Bond eXP Tile Backer
   - 5.6. Interior partitions indicated to receive impact resistant gypsum board: $\frac{5}{8}$" Gold Bond Hi-Impact XP Gypsum Board

FLOORING GENERAL

1. Patch, level and prepare all floors as recommended by flooring manufacturer for each type of flooring to be placed. Use trowelable leveling and patching compound to fill cracks, holes, and depressions in substrates. Trowelable Leveling and Patching Compounds shall be of Latex-modified, portland cement based or blended hydraulic cement based formulation provided or approved by floor covering manufacturer for applications indicated.
2. Transitions between floor finishes: See Finish Legend for edges of tile flooring. At all other locations transitions are to be tightly butted together (unless edge protection is required by flooring manufacturer) At all transitions where finished floor height of a flooring is higher then adjacent floor finish, raise adjacent flooring with ROPPE SUBLEVELER TS-1 so finish heights are equal.

PAINTING GENERAL

1. Paint shall be as manufactured by Sherwin Williams Paints or approved equal.

SURFACE PREPARATION FOR PAINT

1. General: Protect adjacent and underlying surfaces. Remove or mask electrical plates, hardware, light fixture trim, escutcheons, and fittings prior to preparing surfaces of finishing. Correct defects and clean surfaces capable of affecting work of this section. Seal marks that may bleed through surface finishes with compatible sealer.
2. Galvanized Steel: Remove surface contamination and oils and wash with solvent.
3. Uncoated Ferrous Metals: Remove grease, mill scale weld splatter, dirt and rust. Where heavy coatings of scale are evident, remove by hand or power tool wire brushing or sandblasting: wash with solvent. Apply treatment of phosphoric acid solution, ensuring weld joints, bolts and nuts are similarly cleaned. Spot Prime paint after repairs.
4. Shop primed ferrous Metals: Sand and scrape to remove loose primer and rust. Feather edges to make patches inconspicuous. Clean with solvent. Prime bare steel surfaces.
5. Other existing Surfaces: Remove loose, flaking, powdery, and peeling paints. Light sand painted surfaces. Fill holes, cracks, depressions and other imperfections with compatible patching compound; sand flush with surface. Remove oil, grease, and wax by scraping; solvent wash and thoroughly rinse. Remove rust by wire brushing to expose base metal.

PAINTING SCHEDULE

1. Paint all new interior gypsum board walls:
   - 1.1. 1 ct. PrepRite 200 Latex Primer and
   - 1.2. 2 cts. ProMar 200 Int. Latex Eg-Shel
2. Paint all new and exisitng interior gypsum board walls in wet areas (Toilet and Janitor Rooms):
   - 2.1. 1 ct. PrepRite 200 Latex Primer and
   - 2.2. 2 cts. Waterbased Catalyzed Epoxy
3. Interior gypsum board ceilings and soffits (unless noted otherwise):
   - 3.1. 1 ct. PrepRite 200 Latex Primer
   - 3.2. 2 cts. ProMar 200 Int. Latex Flat
4. Interior and Exterior Ferrous metal (metal frames, exposed steel structure, misc. metal):
   - 4.1. Touch up factory prime coat with compatible Metal Primer or
   - 4.2. 1 ct. Sprayed All Surface Enamel oil Primer
   - 4.3. 2 cts. Sprayed Promar 200 Int. Alkyd Eg-Shel Enamel
5. All wood to receive a distressed finish (unless noted otherwise):
   - 5.1. Using multiple techniques (rough sandpaper, chains, ice pics, etc.) mar the surface to create a well worn look with natural, subtle effects that have different angles and depth.
   - 5.2. 1 ct. General Finishes Black Water Based Wood Stain. Wipe Immediately and sand immediately while wet using a random orbital sander with 100 grit sandpaper to expose 75% raw wood.
   - 5.3. 1 ct. General Finishes Light Brown Dye Stain applied immediately after sanding indicated above. Wipe immediately. Let dry for 24 hours.
   - 5.4. 1 ct. General Finishes High Performance Flat Water Based Topcoat.

DIVISION 10 - SPECIALTIES

FIRE EXTINGUISHER

1. Provide fire extinguishers as indicated per plan. Fire extinguisher shall be Cosmic 5E (2A,10B,C) by J.L Industries or approved equal. Cabinets to be Ambassador by J.L Industries or approved equal, Not Fire-Rated, Tub - 10 1/2 x 24 x 5 1/2 inches. Trim Material - Steel, white epoxy primer finish, Trim Style Semi recessed 3" rolled edge. Door Style - Vertical Duo Panel with pull handle, Door Glazing - Clear Safety Glass, with Die Cut Letters - Vertical Red Reverse.

DIVISION 11 - EQUIPMENT

COORDINATE MEDICAL EQUIPMENT INSTALLATION WITH OWNER.

DIVISION 12 - FURNISHINGS

CASEWORK

1. The General Contractor or his Subcontractor shall provide all necessary work to provide plastic laminate casework at locations indicated on these documents. Work under the contract shall include all labor, materials, and incidentals necessary to execute a complete workmanlike job in accordance with the requirements of all applicable codes and ordinances including the Americans with Disabilities Act Guidelines. The General Contractor or his Subcontractor to review shop drawings with Owner to verify casework layout and dimensions.
2. Casework shell units are to be constructed with 3/4" particle board sides and 1/2" particle board backs with plastic laminate or wood veneers on all exterior exposed vertical faces and also on the bottom face of upper wall units. Exposed edges to be .020 polyvinyl chloride impact/chip/mar-resistant edges. All interior surfaces on units with doors/drawers to be 85 gram melamine. For open units refer to interior elevations for interior surface and edges. Base cabinets are to be nominal 24" deep. Upper cabinets are to 14" deep O.A. from back of cabinet at wall to face of doors. Full height cabinets are to be 26" deep unless noted otherwise. Full height cabinets are to be constructed with solid center shelf with doors above and below.
3. Countertops: Outside corners of all countertops to have $1\frac{1}{2}$" radius.
   - 3.1. Plastic Laminate countertops are to be $1\frac{1}{4}$" thick with plastic laminate faces and 3mm ($\frac{1}{8}$") flexible PVC edges. Backsplashes are to be provided as indicated on the interior elevations, and are to have matching plastic laminate on all exposed faces.
   - 3.2. Solid Surface countertops shall be as indicated on Finish Legend. Surfaces of material are to be adhesively joined with inconspicuous seams.
   - 3.3. Quartz Surfacing shall be as indicated on Finish Legend. Surfaces of material are to be epoxy joined with inconspicuous seams.
4. Wood Door Drawer and False Front Panels to have solid oak Stile and rail oak panels to match existing dimensions and profiles of existing to remain optical display casework. Stain and finish per painting specifications.
5. Plastic Laminate Door, Drawer, and False Front Panels to have plastic laminate faces, 85 gram melamine backs, and 3mm (1/8") high impact resistant PVC edges.
6. Shelving to be 1" particle board fully adjustable on 1-1/4" centers. Edge to be .020 polyvinyl chloride impact/chip/mar-resistant edge. Shelving inside units with doors to have 85 gram melamine on top and bottom. Shelving of open units are to have plastic laminate to match the exterior.
7. Hinges shall be European concealed heavy duty hinges. All doors over 36" tall to have three hinges. All pulls are to be Sugatsune SN-95/S morised into edge of drawers and doors. Removable panels are to be secured with Hafele Keku push fit fastners.
8. Drawer boxes to be Blum Meta-Box system or Grass UniDrawer (Unless noted otherwise). Slides to have 100 pound load rate. Drawer box depth is to be within 2" of drawer face panel height. Drawers indicated on drawings as FILE are to have white melamine box with KV 8505 slides and Hafele letter width file frame kit.
9. Provide one 2" dia standard plastic grommet with hole liner and slotted cover for every three linear feet of countertop that has knee space below. If knee space is less than three feet wide provide two grommets. Also provide one 2" dia standard plastic grommet at each location with power and/or data installed in cabinet. Color as selected by interior designer. Exact locations of grommets to be established and be confirmed by owner prior to installation.
10. All particle board is to be of 45-pound density particle board. All plastic laminate is to be General Purpose Type 107 HGS laminate as manufactured by Wilsonart or approved equal.
11. Provide fillers to match casework at sides of all casework abutting adjecent vertical surfaces. Also provide filler panels above upper cabinets where distance between upper cabinet and ceiling above is less than 8".

STATE OF MISSOURI
KENNETH J. KLEFFNER
NUMBER A-2001033309
REGISTERED ARCHITECT

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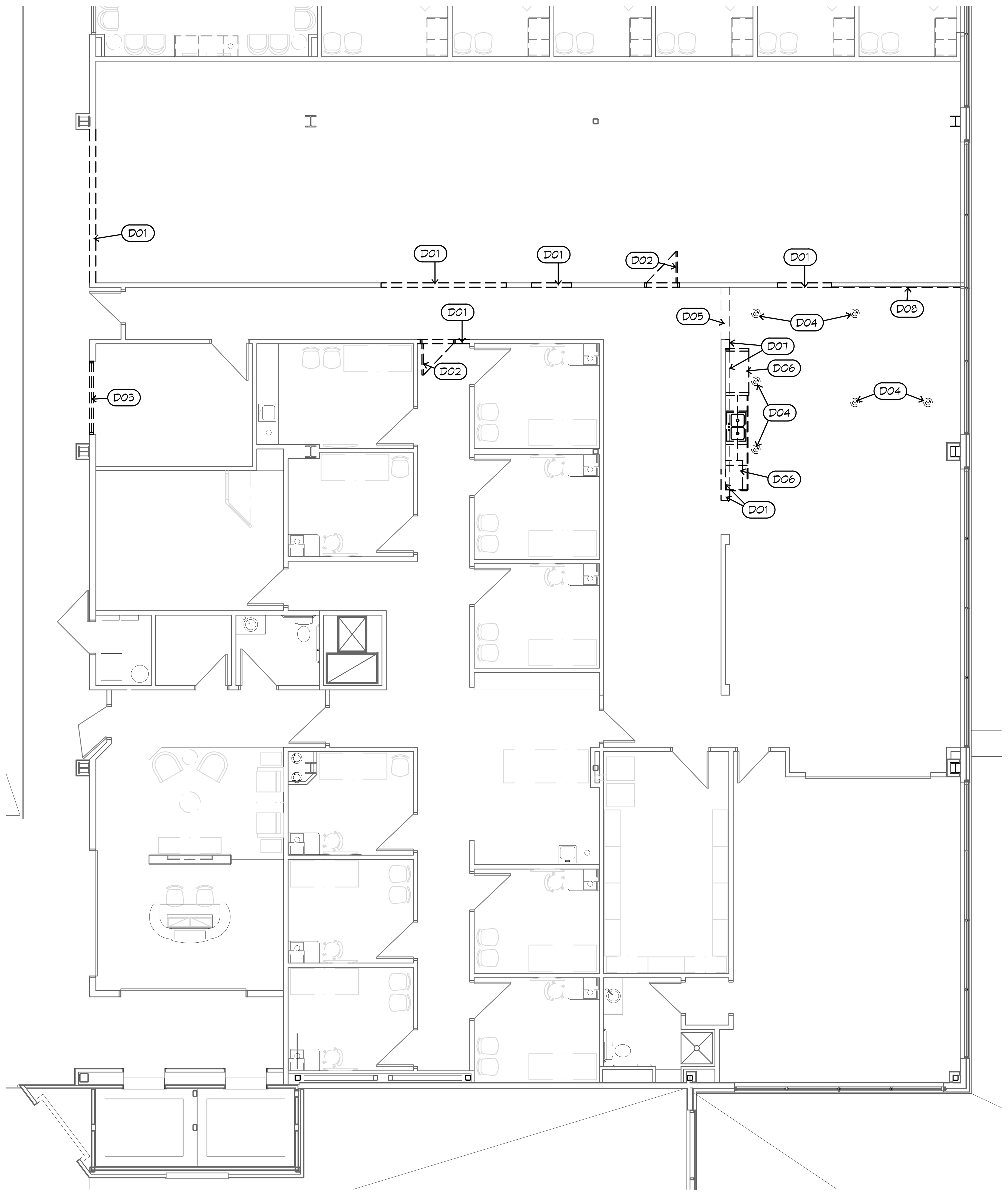
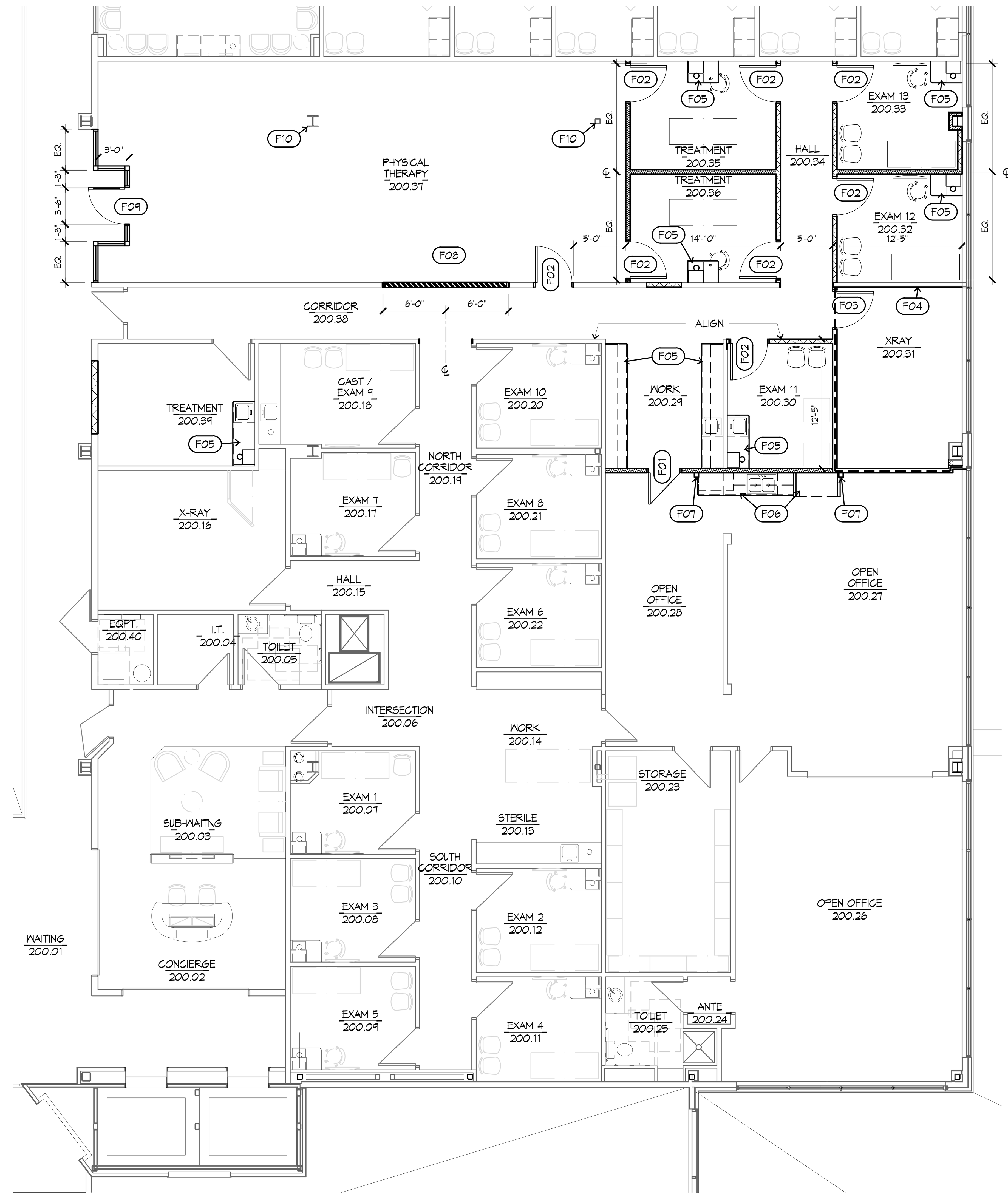
A1



1 DEMOLITION PLAN
1/8"=1'-0"

NORTH



2 FLOOR PLAN
1/8"=1'-0"

NORTH

FLOOR PLAN NOTES

- **F01** NEW OR RECLAIMED 3'-0"x7'-0"x1¾" DOOR TO MATCH EXISTING. PROVIDE NEW OR RECALIMED HOLLOW METAL DRYWALL FRAME. PROVIDE ADA LEVER LOCKSET AND THREE BALL BEARING HINGES. COORDINATE LOCKSET FUNCTION WITH TENANT.
- **F02** NEW 3'-6"x7'-0"x1¾" DOOR TO MATCH EXISTING. PROVIDE NEW HOLLOW METAL DRYWALL FRAME. PROVIDE ADA LEVER LOCKSET AND THREE BALL BEARING HINGES. COORDINATE LOCKSET FUNCTION WITH TENANT.
- **F03** NEW 3'-6"x7'-0"x1¾" DOOR TO MATCH EXISTING. PROVIDE NEW HOLLOW METAL FRAME. PROVIDE ADA LEVER LOCKSET AND THREE BALL BEARING HINGES. COORDINATE LOCKSET FUNCTION WITH TENANT. DOOR AND FRAME AND HARDWARE TO PROVIDE LEAD LINED RATING TO MEET THE REQUIREMENTS OF THE PHYSICISTS REPORT PREPARED FOR THIS LOCATION.
- **F04** OVER EXISTING TO REMAIN METAL STUD FRAMING PROVIDE 1/16" LEAD LINED 5/8" THICK GYPSUM BOARD FROM FLOOR TO 1'-0" ABOVE NEW CEILINGS.
- **F05** PLASTIC LAMINATE CLAD CASEWORK AND COUNTERTOPS TO BE DESIGN/BUILT BY CONTRACTOR TO MATCH EXISTING. COORDINATE ANY MINOR CHANGES AND FINAL APPROVAL WITH TENANT.
- **F06** INSTALL CASEWORK, SINK, FAUCET, APPLIANCES, ETC. INDICATECD TO BE RELOCATED BY DEMOLITION PLAN NOTE 'D06'
- **F07** PROVIDE 5"X5" GYPSUM BOARD PILASTER TO PROVIDE FINISHED CONDITION TO MATCH EXISTING CONDITION PRIOR TO CASEWORK RELOCATION.
- **F08** PROVIDE OPENING IN WALL FROM 36" AFF TO 6" BELOW ACOUSTICAL CEILING. INFILL OPENING WITH DESIGN BUILT ANGLED VERTICAL WOOD SLATS TO MIMIC SIMILAR CONSTRUCTION IN FACILITY.
- **F09** NEW 3'-6"x7'-0"x1¾" DOOR TO MATCH EXISTING DOOR OF SUITE TO NORTH. PROVIDE NEW FULLY WELDED HOLLOW METAL FRAME WITH RETURNS, CORNERS, HORIZONTAL AND VERTICAL MULLIONS, AND CLEAR TEMPEREDD GLAZING TO MATCH SUITE TO NORTH. PROVIDE ADA LEVER LOCKSET AND THREE BALL BEARING HINGES. COORDINATE LOCKSET FUNCTION WITH TENANT.
- **F10** EXPOSED STEEL COLUMN - PAINT.

WALL TYPE LEGEND

(existing wall symbol)	EXISTING WALL TO REMAIN.
(wall symbol)	3⅝" 25 GAUGE MTL. STUDS @ 16" O.C. WITH ⅝" GYPSUM BOARD EACH SIDE AND 3½" UNFACED BATT INSULATION. EXTEND TO 3" ABOVE DROPPED CEILINGS. BRACE TOP OF WALL WITH 45° METAL STUD KICKERS UP TO STRUCTURE AT 4'-0" O.C.
(wall symbol)	3⅝" 25 GAUGE MTL. STUDS @ 16" O.C. WITH ⅝" GYPSUM BOARD EACH SIDE AND 3½" UNFACED BATT INSULATION. EXTEND TO UNDERSIDE OF CONCRETE DECK. PROVIDE DEEP LEG DEFLECTION TRACK AT TOP OF WALL INSTALLED PER MANUFACTURER'S STANDARDS. PROVIDE ACCOUSTICAL SEALANT AT PERIMETERS AND THROUGH WALL PENETRATIONS.
(wall symbol)	3⅝" 25 GAUGE MTL. STUDS @ 16" O.C. WITH 1/16" LEAD LINED ⅝" THICK GYPSUM BOARD ON IMAGING ROOM SIDE OF WALL FROM FLOOR TO 1'-0" ABOVE NEW CEILINGS. PROVIDE ⅝" GYPSUM BOARD ABOVE LEAD LINED GYPSUM BOARD AND ON ENTIRE OPPOSITE FACE. FILL ALL VOIDES WITH 3½" R-11 UNFACED ACOUSTICAL BATTS. EXTEND ALL TO UNDERSIDE OF ROOF DECK. PROVIDE DEEP LEG DEFLECTION TRACK AT TOP OF WALL INSTALLED PER MANUFACTURER'S STANDARDS. VERIFY THICKNESS REQUIRED OF LEAD LINING TO MEET THE REQUIREMENTS OF THE PHYSICISTS REPORT PREPARED FOR THIS LOCATION.
(wall symbol)	FURR OUT UTILITIES AND/OR COLUMN WITH 3⅝" 25 GAUGE MTL. STUDS AT 16" O.C. WITH ⅝" GYPSUM BOARD ON ONE SIDE. EXTEND TO 3" ABOVE DROPPED CEILINGS.

DEMOLITION PLAN NOTES

- **D01** REMOVE AND DISCARD PORTION OF EXISTING GYPSUM BOARD PARTITION AND REFRAME AS REQUIRED FOR NEW LAYOUT AND OPENINGS INDICATED ON FLOOR PLAN
- **D02** REMOVE AND RECLAIM DOOR FRAME AND HARDWARE.
- **D03** REMOVE AND DISCARD INTERIOR WINDOW AND FRAME.
- **D04** REMOVE AND SALVAGE LIGHT FIXTURE.
- **D05** REMOVE AND DISCARD GYPSUM BOARD SOFFIT.
- **D06** RELOCATE CASEWORK, SINK, FAUCET, APPLIANCES, ETC. TO LOCATION INDICATED BY PLAN NOTE.
- **D07** REMOVE AND DISCARD EAST SIDE GYPSUM BOARD AND METAL STUD FRAMING FROM DOUBLE WIDTH PARTITION; END CAP AND ABOVE CASEWORK.
- **D08** REMOVE AND DISCARD GYPSUM BOARD FROM FACE OF FRAMING FROM FLOOR TO 1'-0" ABOVE NEW CEILINGS. METAL STUD FRAMING IS EXISTING TO REMAIN.

DEMOLITION GENERAL NOTES

1. THROUGHOUT AREA OF WORK WHERE NEW FLOORING IS INDICATED ON THE FINISH SCHEDULE, REMOVE AND DISCARD EXISTING FLOORING AND WALL BASE. SCRAPE AND REMOVE ANY FLOORING ADHESIVES AND MASTICS TO EXTENT REQUIRED TO MEET THE INSTALLATION REQUIREMENTS FOR THE NEW FLOORING TO BE PLACED.
2. THROUGHOUT AREA OF WORK REMOVE AND DISCARD ALL UNUSED ELECTRICAL OUTLETS AND SIMILAR DEVICES EXCEPT AT EXISTING TO REMAIN WALL LOCATIONS. REMOVE AND DISCARD ALL UNUSED CONDUIT AND WIRE BACK TO ELECTRICAL SERVICE.

WALL TYPE NOTES

1. FURR-OUT AROUND THE STRUCTURAL COLUMNS AND MECHANICAL CHASES AS REQUIRED. MINIMIZE DEPTH OF FURRING.
2. PROVIDE SOLID BLOCKING FOR DOORS, WINDOWS, TOILET PARTITION, ACCESSORIES, HANDRAILS, LAVATORY BRACES, CASEWORK, SHELVING ETC. AS REQUIRED BY MANUFACTURER AND ALL WORK DONE BY CARPENTRY AND MILLWORK TRADES. ALL WOOD REQUIRED BY BUILDING CODES SHALL MEET ALL REQUIREMENTS TO THE CODE OF UNDERWRITERS LABORATORIES, INC. VERIFY THE DEPTH OF WALLS PRIOR TO INSTALLING RECESSED FIXTURES.
3. ALL EXPOSED EDGES AND / OR CORNER ON ALL GYPSUM WALL BOARD CONSTRUCTION SHALL HAVE A METAL CORNER TRIM, TAPED AND SPACKLED.
4. ALL NEW GYPSUM BOARD PARTITIONS TO BE PROPERLY PREPARED, PATCHED, SPACKLED AND SANDED, ETC., TO PROVIDE A SMOOTH FINISH AND AS REQUIRED TO RECEIVE NEW FINISHES.
5. ALL OPENINGS IN GYPSUM BOARD PARTITIONS SHALL BE DOUBLE STUDDED.

STATE OF MISSOURI — KENNETH J. KLEFFNER — NUMBER A-2001033309 — REGISTERED ARCHITECT
04-07-2023

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SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 22043

A2

FINISH SCHEDULE

RM. #	ROOM NAME	FLOOR	BASE	WALL				
				W	N	E	S	
01	WAITING	EX	EX	EX	EX	EX	EX	
02	CONCIERGE	EX	EX	EX	EX	EX	EX	
03	SUB-WAITING	EX	EX	EX	EX	EX	EX	
04	I.T.	EX	EX	EX	EX	EX	EX	
05	TOILET	EX	EX	EX	EX	EX	EX	
06	INTERSECTION	EX	EX	EX	EX	EX	EX	
07	EXAM 1	EX	EX	EX	EX	EX	EX	
08	EXAM 3	EX	EX	EX	EX	EX	EX	
09	EXAM 5	EX	EX	EX	EX	EX	EX	
10	S. CORRIDOR	EX	EX	EX	EX	EX	EX	
11	EXAM 4	EX	EX	EX	EX	EX	EX	
12	EXAM 2	EX	EX	EX	EX	EX	EX	
13	STERILE	EX	EX	EX	EX	EX	EX	
14	WORK	EX	EX	EX	EX	EX	EX	
15	HALL	EX	EX	EX	EX	EX	EX	
16	XRAY	EX	EX	EX	EX	EX	EX	
17	EXAM 7	EX	EX	EX	EX	EX	EX	
18	CAST/EXAM 9	EX	EX	EX	EX	EX	EX	
19	N. CORRIDOR	EX	EX	EX	EX	EX	EX	
20	EXAM 10	EX	EX	EX	EX	EX	EX	
21	EXAM 8	EX	EX	EX	EX	EX	EX	
22	EXAM 6	EX	EX	EX	EX	EX	EX	
23	STORAGE	EX	EX	EX	EX	EX	EX	
24	ANTE	EX	EX	EX	EX	EX	EX	
25	TOILET	EX	EX	EX	EX	EX	EX	
26	OPEN OFFICE	EX	EX	EX	EX	EX	EX	
27	OPEN OFFICE	CONC	EX, B1	P1	EX	EX	EX	
28	OPEN OFFICE	CONC	EX, B1	P1	EX	EX	EX	
29	WORK	WVT	B1	P1	P1	P1	P1	
30	EXAM 11	WVT	B1	P1	P1	P1	P1	
31	XRAY	WVT	B1	P1	P1	P1	P1	
32	EXAM 12	WVT	B1	P1	P1	P1	P1	
33	EXAM 13	WVT	B1	P1	P1	P1	P1	
34	HALL	WVT	B1	P1	P1	P1	P1	
35	TREATMENT	WVT	B1	P1	P1	P1	P1	
36	TREATMENT	WVT	B1	P1	P1	P1	P1	
37	PH. THERAPY	CONC	B1	P1	P1	P1	P1	
38	CORRIDOR	WVT	B1	P1	P1	P1	P1	
39	TREATMENT	WVT	EX, B1	P1	P1	P1	P1	
40	EQPT	EX	EX	EX	EX	EX	EX	

FINISH GENERAL NOTES

1. *FINISH MATERIALS LISTED HERE-IN ARE TO ESTABLISH THE SIGNIFICANT QUALITIES RELATED TO TYPE, FUNCTION, DIMENSION, PRICE, PHYSICAL PROPERTIES, APPEARANCE, AND OTHER CHARACTERISTICS OF THE PRODUCT. FINAL SELECTION OF ALL FINISHES ARE TO BE CONFIRMED BY OWNER OR OWNER'S INTERIOR DESIGNER.*
2. PAINT FINISHES INDICATED TO BE ACCENT COLOR ARE TO BE VERIFIED BY OWNER IN FIELD PRIOR TO BEING APPLIED TO WALLS OR SOFFITS.
3. WHERE NEW FLOOR FINISHES ARE INDICATED ON THE FINISH SCHEDULE, ANY EXISTING FLOORING IS TO BE REMOVED AND DISCARDED. SUBFLOOR IS TO BE PREPPED AS REQUIRED TO RECEIVE NEW FINISH INDICATED.
4. PATCH, LEVEL AND PREPARE ALL FLOORS AS RECOMMENDED BY FLOORING MANUFACTURER FOR EACH TYPE OF FLOORING TO BE PLACED. USE TROWELABLE LEVELING AND PATCHING COMPOUND TO FILL CRACKS, HOLES, AND DEPRESSIONS IN SUBSTRATES. TROWELABLE LEVELING AND PATCHING COMPOUNDS SHALL BE OF LATEX-MODIFIED, PORTLAND CEMENT BASED OR BLENDED HYDRAULIC CEMENT BASED FORMULATION PROVIDED OR APPROVED BY FLOOR COVERING MANUFACTURER FOR APPLICATIONS INDICATED.
5. INTERIOR FINISHES MUST CONFORM TO THE GOVERNING CODE FOR "CLASS III" MAX. 25 FOR SMOKE DENSITY CLASSIFICATION. MAX. FLAME SPREAD OF 200
6. COLOR OF ALL LIGHT SWITCHES, RECEPTACLES AND PLATE COVERS TO BE SELECTED BY INTERIOR DESIGNER.

FINISH LEGEND

EX EXISTING TO REMAIN SURFACE / FINISH - NO WORK

FLOORING

CPT CARPET

WVT WOOD LOOK LUXURY VINYL TILE

CONC ONE PRIME COAT OF SCOFIELD SELECTSEAL PLUS THINNED WITH 1 PINT OF WATER PER GALLON TO YIELD A DRY FILM THICKNESS OF MINIMUM 0.85 MILS. SECOND COAT OF SCOFIELD SELECTSEAL PLUS FULL STRENGTH TO YIELD OF A DRY FILL THICKNESS OF MINIMUM 1.1 MILS.

PAINT COLORS

NOTE: ALSO REFER TO PAINT SCHEDULE IN SPECIFICATIONS FOR PAINTS.

P1 PRIMARY FIELD COLOR: (TO BE DETERMINED)

P2 ACCENT FIELD COLOR: (TO BE DETERMINED)

P3 ACCENT COLOR: (TO BE DETERMINED)

P4 EPOXY PAINT COLOR: (TO BE DETERMINED)

P5 PROJECTION SCREEN PAINT: (TO BE DETERMINED)

P6 PAINT HOLLOW METAL FRAMES: (TO BE DETERMINED)

P7 CEILING WHITE: (MATCH WHITE COLOR OF CEILING TILES)

CASEWORK AND MILLWORK FINISHES

PL1 WILSONART PRODUCT TYPE 335 COLUMBIAN WALNUT 7943K-07 TEXTURED GLOSS FINISH WITH AEON

PL2 WILSONART SOLICOR PROUCT TYPE 160 DESIGNER WHITE D354-60 MATTE

PL3 WILSONART PRODUCT TYPE 335 BRAZILWOOD 7943-38 FINE VELVET TEXTURE

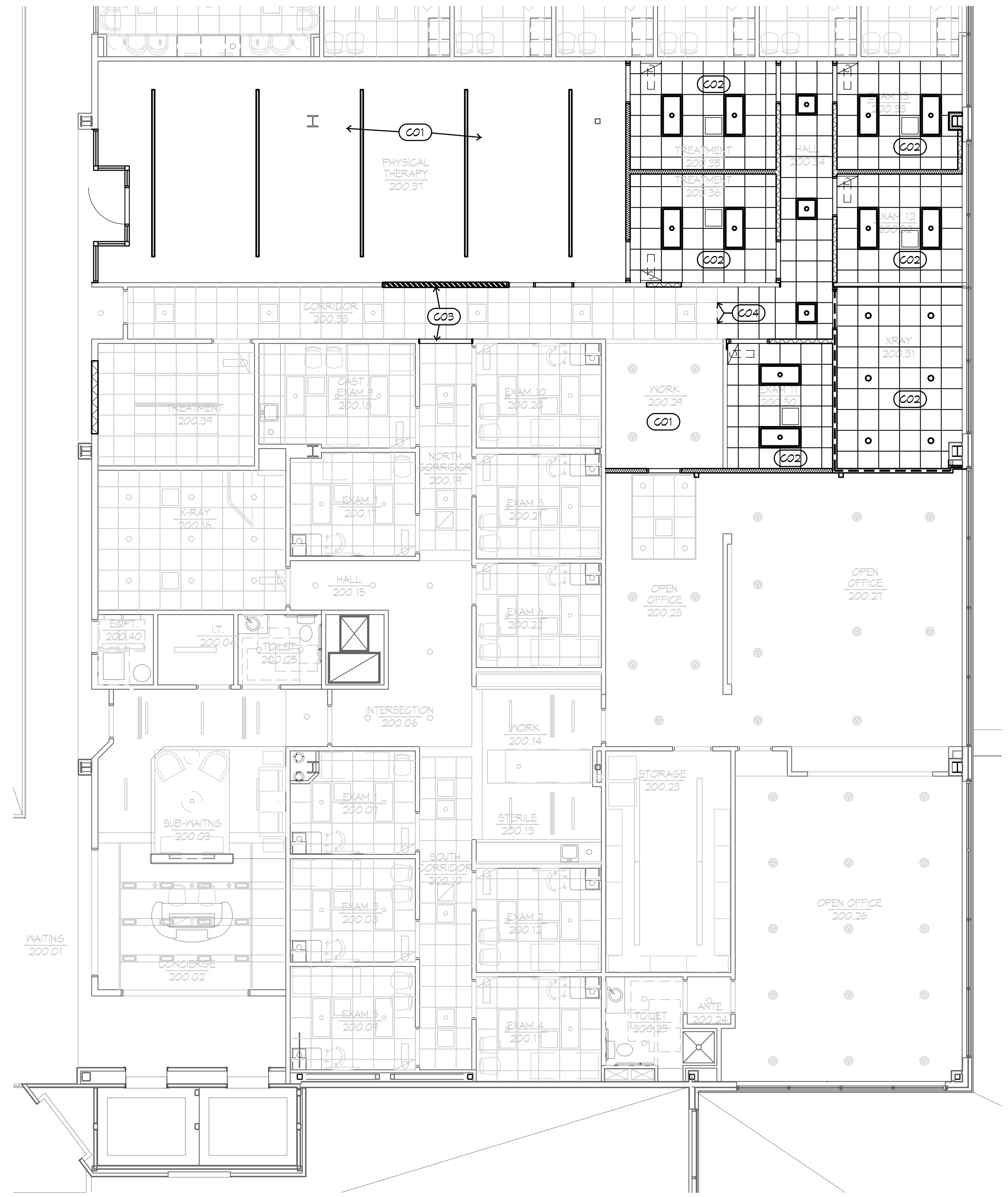
PL4 WILSONART PRODUCT TYPE 419 MATTE NATURAL ALUMINUM 6252

PL5 WILSONART PRODUCT TYPE 335 STERLING ASH 7995-38 FINE VELVET TEXTURE

QZ1 QUARTZ SURFACING CAMBRIA WATERFORD 2CM

SS1 SOLID SURFACE FOR WINDOW SILLS - TBD

ACP DECORATIVE ACRYLIC PANEL - 3FORM, LUMICOR OR EQUAL - TBD



1 CEILING PLAN
1/8"=1'-0"

NORTH

CEILING PLAN NOTES

C01 NO CEILING IN THIS ROOM OR AREA. OPEN TO STRUCTURE ABOVE.

C02 PROVIDE ACOUSTICAL CEILING TILE AND EXPOSED 'T' GRID TO MATCH EXISTING. MATCH EXISTING CEILING HEIGHTS.

C03 PROVIDE NEW 5" WIDE GYPSUM BOARDHEADER ON METAL FRAMING AT 1" BELOW LOWEST ADJACENT CEILING - PAINT.

C04 SPLICE NEW EXPOSED 'T' GRID INTO EXISTING EXPOSED 'T' GRID.

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A3

MECHANICAL SPECIFICATIONS

1. GENERAL PROVISIONS:
   A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE PLUMBING AND MECHANICAL SYSTEMS OUTLINED.
   B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.
   C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
   D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
   E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, PIPE, DUCT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
   F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
   G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
2. OPERATION AND MAINTENANCE MANUALS:
   A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
   B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.
   C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE BOUND IN A 3-RING BINDER AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC.
3. MANUFACTURERS:
   A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.
4. TESTING, BALANCING, AND CLEANING:
   A. ALL PIPING SHALL BE TESTED FOR LEAKS BEFORE BEING CONCEALED IN WALL CONSTRUCTION OR COVERED WITH INSULATION.
   B. SEWER AND VENT PIPING SHALL BE HYDROSTATICALLY TESTED WITH NO LESS THAN 10 FEET OF HEAD FOR A PERIOD OF NOT LESS THAN 15 MINUTES, PER THE LOCAL PLUMBING CODE, WITH NO LEAKS.
   C. DOMESTIC WATER PIPING SHALL BE HYDROSTATICALLY TESTED AT A PRESSURE OF NOT LESS THAN 1-1/2 TIMES THE OPERATING PRESSURE, BUT NOT LESS THAN 60 PSI, FOR A PERIOD OF NOT LESS THAN 2 HOURS, WITH NO LEAKS.
   D. DUCTWORK AND PIPING SHALL BE BALANCED BY QUALIFIED INDEPENDENT BALANCING PERSONNEL WHO HAVE PREVIOUS EXPERIENCE WITH BALANCING PROCEDURES AND ARE CERTIFIED BY THE ASSOCIATED AIR BALANCE COUNCIL (AABC) OR NATIONAL ENVIRONMENTAL BALANCING BUREAU (NEBB).
      1) BALANCING SHALL INCLUDE THE BALANCING OF THE EQUIPMENT AND AIR DISTRIBUTION SYSTEMS TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION OF PERFORMANCE OF ALL EQUIPMENT AND AUTOMATIC CONTROLS.
      2) WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE REPORTS SHALL BE CERTIFIED PROOF THAT THE SYSTEMS HAVE BEEN TESTED, ADJUSTED, AND BALANCED IN ACCORDANCE WITH THE REFERENCED STANDARDS, AND AN ACCURATE REPRESENTATION OF HOW THE SYSTEMS HAVE BEEN INSTALLED AND ARE OPERATING. REPORTS SHALL BE BOUND IN A VINYL BINDER AND THE BINDER LABELED OR MAY BE AN ELECTRONIC PDF SUBMITTAL.
   E. BEFORE DOMESTIC WATER PIPING IS PLACED IN SERVICE, ALL DOMESTIC WATER DISTRIBUTION SYSTEMS, INCLUDING THOSE FOR COLD WATER AND HOT WATER SYSTEMS, SHALL BE FLUSHED, STERILIZED AND CHLORINATED IN ACCORDANCE WITH HEALTH DEPARTMENT REGULATIONS. THE SYSTEMS SHALL BE THOROUGHLY FLUSHED OF ALL DIRT AND FOREIGN MATTER, THEN FILLED WITH WATER TREATED WITH 50 PPM OF CHLORINE. DURING THE FILLING PROCESS, VALVES AND FAUCETS SHALL BE OPENED SEVERAL TIMES TO ASSURE TREATMENT OF THE ENTIRE SYSTEM. THE TREATED WATER SHALL BE LEFT IN THE SYSTEM FOR 24 HOURS AFTER WHICH TIME THE SYSTEM SHALL BE FLUSHED; IF THE RESIDUAL CHLORINE IS NOT LESS THAN 10 PPM, THE FLUSHING SHALL BE REPEATED. AFTER STERILIZATION, SAMPLES OF WATER IN THE SYSTEM SHALL BE APPROVED BY THE BOARD OF HEALTH.
5. PLUMBING:
   A. PROVIDE AN APPROVED WATER HAMMER ARRESTOR FOR EACH PLUMBING FIXTURE SUPPLY AS REQUIRED BY FIXTURE MANUFACTURER.
   B. ALL EXPOSED WASTE PIPE SHALL BE CHROME PLATED BRASS PIPE. NO FERROUS PIPE.
   C. PROVIDE CLEANOUTS AT EACH CHANGE OF DIRECTION AND AT 100 FOOT INTERVALS IN STRAIGHT RUNS.
   D. PROVIDE ACCESS PANELS FOR ALL CONCEALED VALVES AND TRAPS.
   E. CLEANOUTS:
      1) VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
      2) QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
      3) CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
      4) UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
      5) WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.
   F. PROVIDE DIELECTRIC UNIONS WITH APPROPRIATE END CONNECTIONS TO MATCH THE PIPE SYSTEM IN WHICH INSTALLED (SCREWED, SOLDERED, OR FLANGED). PROVIDE DIELECTRIC UNIONS ON ALL PIPING CONNECTIONS TO HOT WATER HEATERS AND EXPANSION TANKS.
6. PIPING:
   A. DOMESTIC COLD AND HOT WATER (ABOVEGROUND).
      1) TYPE L HARD DRAWN COPPER TUBING, ASTM B-88.
         a) WROUGHT COPPER SOLDERED FITTINGS, ASTM B75 ALLOY C12200. ANSI B16.22, MSS SP-104.
         b) MECHANICAL PRESS COPPER FITTINGS FOR USE IN PLUMBING OR MECHANICAL APPLICATIONS. ASME B16.22, ASME B16.51, OR ASME B16.18. MECHANICAL PRESS COPPER FITTINGS SHALL CONFORM TO IAPMO PS-117 OR ASME B16.51.
      2) VALVES
         a) TO BE INSTALLED ON THE FIXTURE SUPPLY TO EACH PLUMBING FIXTURE.
         b) TO BE INSTALLED ON THE WATER SUPPLY SIDE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT.
         c) TYPES:
            1. GATE VALVE: JOMAR T-13-301G OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1.
            2. GLOBE VALVE: JOMAR T-93 OR EQUAL.
            3. BALL VALVE: JOMAR JP100PNP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. UL842, CSA 3371-12 & 3371-92, FM, CALIFORNIA CODE AB1953, NSF61 ANNEX G APPROVED.
            4. BALL VALVE: JOMAR T-100NE OR EQUAL. UL842, FM, CSA, NSF 61-8, MSS SP-110
   B. LEAD CONTENT OF WATER SUPPLY PIPE AND FITTINGS:
      1) PIPE AND PIPE FITTINGS, INCLUDING VALVES AND FAUCETS, UTILIZED IN THE WATER SUPPLY SYSTEM SHALL NOT HAVE MORE THAN 8% LEAD CONTENT.
      2) PIPE, PIPE FITTINGS, JOINTS, VALVES, FAUCETS, AND FIXTURE FITTINGS UTILIZED TO SUPPLY WATER FOR DRINKING OR COOKING PURPOSES SHALL COMPLY WITH NSF 372 AND SHALL HAVE A WEIGHTED AVERAGE LEAD CONTENT OF 0.25% OR LESS.
   C. SANITARY SEWER AND VENTS.
      (ABOVE GROUND, INTERIOR TO THE BUILDING).
      1) ABS PIPE AND FITTINGS: ABS PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS." FOR PLASTIC PIPING COMPONENTS, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER." FOR PLASTIC SEWER PIPING. SOLID-WALL ABS PIPE: ASTM D 2661, SCHEDULE 40. CELLULAR-CORE ABS PIPE: ASTM F 628, SCHEDULE 40 ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235. (NOT FOR USE IN A RETURN AIR PLENUM)
      2) PVC PIPE AND FITTINGS: PVC PIPE AND FITTINGS SHALL COMPLY WITH NSF 14, "PLASTICS PIPING SYSTEMS COMPONENTS AND RELATED MATERIALS." FOR PLASTIC PIPING COMPONENTS, INCLUDE MARKING WITH "NSF-DWV" FOR PLASTIC DRAIN, WASTE, AND VENT PIPING AND "NSF-SEWER." FOR PLASTIC SEWER PIPING. SOLID-WALL PVC PIPE: ASTM D 2665, DRAIN, CELLULAR-CORE PVC PIPE: ASTM F 891, SCHEDULE 40, WASTE, AND VENT. PVC SOCKET FITTINGS: ASTM D 2665, MADE TO ASTM D 3311, DRAIN, WASTE, AND VENT PATTERNS AND TO FIT SCHEDULE 40 PIPE. ADHESIVE PRIMER: ASTM F 656. SOLVENT CEMENT: ASTM D 2564. (NOT FOR USE IN A RETURN AIR PLENUM)
      3) HUBLESS CAST IRON SOIL PIPE AND FITTINGS: HUBLESS CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 888 AND CISPI STANDARD 301. HUBLESS COUPLINGS SHALL CONFORM TO CISPI STANDARD 310 AND BE CERTIFIED BY NSF® INTERNATIONAL.
      4) HUB AND SPIGOT CAST IRON SOIL PIPE AND FITTINGS: HUB AND SPIGOT CAST IRON PIPE AND FITTINGS SHALL BE MANUFACTURED FROM GRAY CAST IRON AND SHALL CONFORM TO ASTM A 74.
   D. ALL PIPE HANGERS AND SUPPORTS SHALL BE STANDARD PRODUCTS OF GRINNELL, FEE AND MASON, OR ELCEN. HANGER SPACING SHALL BE IN ACCORDANCE WITH MSS-SP-69.
   E. SLEEVES
      1) PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK. ALL SLEEVES SHALL BE OF SUFFICIENT SIZE TO PERMIT PIPE MOVEMENT DUE TO EXPANSION AND CONTRACTION AND TO ACCOMMODATE PIPE INSULATION.
      2) INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL. PACK BETWEEN PIPE AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
      3) ROOF: PROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WATERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.
      4) PROTECTION AGAINST CONTACT: METALLIC PIPING, EXCEPT FOR CAST IRON, DUCTILE IRON AND GALVANIZED STEEL SHALL NOT BE PLACED IN DIRECT CONTACT WITH STEEL FRAMING MEMBERS, CONCRETE, OR CINDER WALLS AND FLOORS OR OTHER MASONRY. METALLIC PIPING SHALL NOT BE PLACED IN DIRECT CONTACT WITH CORROSIVE SOIL. SHEATHING USED TO PREVENT DIRECT CONTACT SHALL HAVE A THICKNESS OF GREATER THAN .008; AND THE SHEATHING SHALL BE MADE OF PLASTIC. ANY PIPE THAT PASSES THROUGH A FOUNDATION WALL OR FOOTING SHALL BE PROVIDED WITH A RELIEVING ARCH, OR A PIPE SLEEVE SHALL BE BUILT INTO THE FOUNDATION WALL. THE SLEEVE SHALL BE TWO SIZES GREATER THAN THE PIPE PASSING THOUGH THE WALL OR FOOTING.
      5) PLUMBING VENTS: FLASH ROOF VENT INTO ROOFING SYSTEM AS REQUIRED BY THE ROOFING CONTRACTOR TO MAINTAIN EXISTING ROOF WARRANTY. ALL PLUMBING VENT TERMINALS SHALL TERMINATE A MINIMUM OF 12" ABOVE ROOF OR EQUAL TO HEIGHT OF PARAPET, WHICHEVER IS GREATER.
   F. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.

MECHANICAL SPECIFICATIONS (CONTINUED)

7. INSULATION AND DUCT LINING:
   A. ALL INSULATIONS AND ACCESSORIES SHALL HAVE A FIRE HAZARD CLASSIFICATION WITH A FLAME SPREAD RATING OF NOT OVER 25, A FUEL CONTRIBUTION RATING OF NOT OVER 50, AND A SMOKE DEVELOPED RATING OF NOT OVER 50, IN ACCORDANCE WITH NFPA.
   B. PIPE INSULATION - ABOVE GRADE:
      1) THE PIPING INSULATION USED SHALL HAVE A THERMAL CONDUCTIVITY OF 0.27 Btu PER in/hr*sqft*F° OR LESS.
      2) FIBERGLASS INSULATION WITH FACTORY APPLIED VAPOR BARRIER, ASJ JACKET, FACTORY APPLIED PRESSURE SEALING LONGITUDE LAP JOINT, NO STAPLES, ZESTON PREMOLDED PVC FITTING COVERS. INSTALLATION SHALL BE IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
      3) FLEXIBLE CLOSED CELL ELASTOMERIC THERMAL INSULATION, UNSLIT OR PRESLIT WITH PRESSURE SENSITIVE ADHESIVE SYSTEM FOR CLOSURE AND VAPOR SEALING, EQUAL TO ARMSTRONG AP ARMAFLEX OR ARMAFLEX 2000.
      4) FOR NON CIRCULATING SYSTEMS, THE FIRST 8 FEET OF INLET AND OUTLET PIPING BETWEEN THE TANK AND THE HEAT TRAP (INCLUDING THE HEAT TRAP) MUST BE INSULATED.
      5) FOR CIRCULATING SYSTEMS, ALL HOT WATER PIPING IN THE CIRCULATION LOOP MUST BE INSULATED AS SPECIFIED BELOW.
      6) INSULATION SCHEDULE:
         a) DOMESTIC COLD WATER 1/2"
         b) DOMESTIC HOT WATER 1"
   C. DUCTWORK: ACOUSTICAL INSULATION.
      1) DUCT LINING: 2 LB/CF, THICKNESS AS SCHEDULED, AIR STREAM SIDE COATED, INSTALL PER SMACNA STANDARDS.
         a) DUCT LINING SCHEDULE:
            (1) RECTANGULAR SUPPLY DUCT 1/2" ; THROUGHOUT THE FIRST 10 FEET OF DUCT.
            (2) RETURN AIR DUCT 1/2" ; THROUGHOUT THE FIRST 10 FEET OF DUCT.
            (3) SOUND BOOTS 1"
   D. DUCTWORK: THERMAL INSULATION.
      1) DUCT COVERING: 3/4 LB/CF, FIBERGLASS BLANKET WITH FACTORY APPLIED VAPOR BARRIER AND FACING, THICKNESS AS SCHEDULED, INSTALLATION IN ACCORDANCE WITH MANUFACTURERS RECOMMENDATIONS.
         a) DUCT COVERING SCHEDULE: MINIMUM R-6
            (1) ROUND SUPPLY DUCT 2" (CONCEALED BY CEILING)
            (2) RECTANGULAR SUPPLY DUCT 2" (CONCEALED BY CEILING)
            (3) RETURN AIR DUCT 2" (CONCEALED BY CEILING)
      2) EXPOSED SPIRAL DUCT.
         b) SPIRAL DUCT LINING: JOHNS MANVILLE SPIRACOUSTIC PLUS ROUND DUCT LINER SYSTEM, VSD, SD, AND LD SIZES, 5"Ø AND UP. MEETS ASTM E 84 25/50 FLAME AND SMOKE, ASHRAE 62, MEA#231-06-M, SMACNA APPLICATION STANDARDS FOR DUCT LINERS, NAIMA FIBERGLASS DUCT LINER STANDARD. 1" THICKNESS, AIR STREAM SIDE COATED, INSTALL PER SMACNA STANDARDS.
8. DUCTWORK:
   A. ALL DUCTWORK, UNLESS OTHERWISE INDICATED, SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 521, LOCKFORMING QUALITY, WITH G 90 ZINC COATING IN ACCORDANCE WITH ASTM A 525; AND MILL PHOSPHATIZED FOR EXPOSED LOCATIONS.
   B. WHERE DUCTWORK IS INDICATED TO BE EXPOSED TO VIEW IN OCCUPIED SPACES, PROVIDE MATERIALS WHICH ARE FREE FROM VISUAL IMPERFECTIONS INCLUDING PITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR PAINTING.
   C. DUCTWORK, METAL GAUGES, REINFORCING, ETC. SHALL BE CONSTRUCTED IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS," LATEST EDITION FOR A 2 INCH WATER GAUGE STATIC PRESSURE.
      1) RECTANGULAR DUCT:
         a) ELBOWS, UNLESS INDICATED OTHERWISE SHALL BE CONSTRUCTED WITH CENTERLINE RADIUS OF NOT LESS THAN 1.5 DUCT WIDTH OR SQUARE ELBOW WITH DOUBLE WALL STREAMLINE VANES.
         b) RETURN AIR ACOUSTICAL ELBOWS AND SOUND BOOTS SHALL BE A SQUARE ELBOW WITH NO TURNING VANES.
         c) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.
      2) ROUND AND OVAL SPIRAL SEAM DUCT:
         a) PROVIDE RADIUS TYPE FITTINGS FABRICATED OF MULTIPLE SECTIONS WITH MAXIMUM 15 DEGREE CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES ARE INDICATED PROVIDE CONICAL TYPE TEES.
         b) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.
         c) AS AN OPTION, PROVIDE FACTORY-FABRICATED DUCT AND FITTINGS, IN LIEU OF SHOP-FABRICATED DUCT AND FITTINGS.
            (1) ELBOWS: ONE PIECE CONSTRUCTION FOR 90 DEGREES AND 45 DEGREE ELBOW 14" AND SMALLER. PROVIDE MULTIPLE GORE CONSTRUCTION FOR LARGER DIAMETERS WITH STANDING SEAM CIRCUMFERENTIAL JOINT.
            (2) DIVIDED FLOW FITTINGS: 90 DEGREE TEES, CONSTRUCTED WITH SADDLE TAP SPOT WELDED AND BONDED TO DUCT FITTING BODY.
         d) ROUND LONGITUDINAL SEAM DUCT. USE FOR RIGID METAL DUCT ON LEAVING SIDE OF DUCT IN CONCEALED LOCATIONS FOR EXTENSION TO FLEX FOR DIFFUSERS, UNLESS OTHERWISE INDICATED.
   D. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEETMETAL SIZES, ALLOWANCE FOR DUCT LINER HAS BEEN MADE WHERE APPLICABLE.
   E. INSTALLATION OF METAL DUCTWORK:
      1) GENERAL: ASSEMBLE AND INSTALL DUCTWORK IN ACCORDANCE WITH RECOGNIZED INDUSTRY PRACTICES WHICH WILL ACHIEVE AIR-TIGHT SYSTEMS (MAXIMUM 5% LEAKAGE) WITH NO OBJECTIONABLE NOISE, AND CAPABLE OF PERFORMING INDICATED SERVICE. INSTALL EACH RUN WITH MINIMUM NUMBER OF JOINTS. ALIGN DUCTWORK ACCURATELY WITH INTERNAL SURFACES SMOOTH. SUPPORT DUCTS RIGIDLY WITH SUITABLE STRAPS, BRACES, HANGERS AND ANCHORS IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS" LATEST EDITION. DUCT HANGERS SHALL BE OF THE TYPE WHICH WILL HOLD DUCTS TRUE-TO-SHAPE AND TO PREVENT BUCKLING. SUPPORT VERTICAL DUCTS AT EVERY FLOOR.
      2) AUXILIARY STEEL: PROVIDE AUXILIARY STEEL AS REQUIRED TO ADEQUATELY SUPPORT DUCTWORK.
      3) ROUTING: LOCATE DUCTWORK RUNS, EXCEPT AS OTHERWISE INDICATED, VERTICALLY AND HORIZONTALLY AND AVOID DIAGONAL RUNS WHEREVER POSSIBLE. LOCATE RUNS AS INDICATED BY DIAGRAMS, DETAILS AND NOTATIONS OR, IF NOT OTHERWISE INDICATED, RUN DUCTWORK IN SHORTEST ROUTE WHICH DOES NOT OBSTRUCT USABLE SPACE OR BLOCK ACCESS FOR SERVICING BUILDING AND ITS EQUIPMENT. HOLD DUCTS CLOSE TO WALLS, OVERHEAD CONSTRUCTION, COLUMNS, AND OTHER STRUCTURAL AND PERMANENT ENCLOSURE ELEMENTS OF BUILDING. WHEREVER POSSIBLE IN FINISHED AND OCCUPIED SPACES, CONCEAL DUCTWORK FROM VIEW BY LOCATING IN MECHANICAL SHAFTS, HOLLOW WALL CONSTRUCTION OR ABOVE SUSPENDED CEILINGS. DO NOT ENCASE HORIZONTAL RUNS IN SOLID PARTITIONS, EXCEPT AS SPECIFICALLY SHOWN. COORDINATE LAYOUT WITH SUSPENDED CEILING AND LIGHTING LAYOUTS AND SIMILAR FINISHED WORK.
      4) DO NOT ROUTE DUCTWORK THROUGH ELECTRICAL EQUIPMENT SPACES AND ENCLOSURES, UNLESS INDICATED OTHERWISE.
      5) PENETRATIONS:
         a) WHERE DUCTS PASS THROUGH INTERIOR PARTITIONS OR EXTERIOR WALLS, AND ARE EXPOSED TO VIEW, CONCEAL SPACE BETWEEN OPENING AND DUCT OR DUCT INSULATION WITH SHEET METAL FLANGES OF SAME GAGE AS DUCT. OVERLAP OPENING ON 4 SIDES BY AT LEAST 1-1/2". FASTEN TO DUCT AND WALL.
         b) WHERE DUCTS PASS THROUGH FIRE-RATED FLOORS, WALLS, OR PARTITIONS, PROVIDE FIRESTOPPING BETWEEN DUCT AND WALL.
      6) COORDINATION: COORDINATE DUCT INSTALLATIONS WITH INSTALLATION OF ACCESSORIES, DAMPERS, COIL FRAMES, EQUIPMENT, CONTROLS, AND OTHER ASSOCIATED WORK WITH THE DUCTWORK SYSTEM.
      7) INSTALLATION: INSTALL METAL DUCTWORK IN ACCORDANCE WITH SMACNA "HVAC DUCT CONSTRUCTION STANDARDS", LATEST EDITION.
   F. EQUIPMENT CONNECTIONS:
      1) CONNECT METAL DUCTWORK TO EQUIPMENT AS INDICATED. PROVIDE FLEXIBLE CONNECTION FOR EACH DUCTWORK CONNECTION TO EQUIPMENT MOUNTED ON VIBRATION ISOLATORS, AND/OR EQUIPMENT CONTAINING ROTATING MACHINERY. PROVIDE ACCESS DOORS AS REQUIRED.
   G. SEAL ALL CONCEALED DUCTWORK JOINTS WITH NON-HARDENING, NON-MIGRATING MASTIC SEALANT, AS RECOMMENDED FOR SEALING SEAMS AND JOINTS IN DUCTWORK. OIL BASE CAULKING AND GLAZING COMPOUNDS SHALL NOT BE ACCEPTABLE. DUCTS SHALL BE SEALED TO THE CLASS LEVEL LISTED BELOW.

	CLASS B	CLASS A	CLASS C	CLASS B
1) UNCONDITIONED SPACES	CLASS C	CLASS B	CLASS B	CLASS C
2) CONDITIONED SPACES (PLENUM)	SUPPLY ≤ 2" W.C.	SUPPLY > 2" W.C.	EXHAUST/DRYER	RETURN

9. FLEXIBLE DUCT:
   A. ATCO 9056 (R-6), OR EQUAL
   B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK.
   C. MAXIMUM LENGTH OF 5'-0".

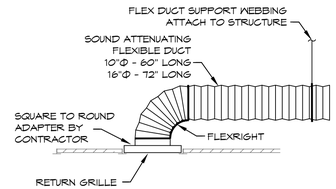
MECHANICAL SPECIFICATIONS (CONTINUED)

10. REMODELING WORK:
   A. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MECHANICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.
   B. EQUIPMENT TO BE SALVAGED:
      1) DISCONNECT AND REMOVE, EXISTING MECHANICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.
      2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.
   C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.
   D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.
   E. LOCATE, IDENTIFY, AND PROTECT MECHANICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHERE MECHANICAL SERVICES ARE LOCATED IN A WALL, ETC. TO BE DEMOLISHED, REROUTE PIPING TO NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF THE SYSTEM. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
   F. REMOVE ALL PIPING TO BE DEMOLISHED BACK TO PIPE MAIN OR EDGE OF PROJECT AREA, AND CAP PIPE.
   G. PIPING AND DUCTS EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO NOT INTERFERE WITH NEW INSTALLATIONS. PIPING AND DUCTS TO REMAIN SHALL BE APPROVED BY THE ARCHITECT. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. DRAIN AND CAP PIPING AND DUCTS ALLOWED TO REMAIN ABOVE CEILING OR BELOW FLOOR, CONCEALED FROM VIEW, EXCEPT AS OTHERWISE NOTED. PATCH FLOOR TO MATCH EXISTING.
   H. PIPE AND DUCT SHALL BE CONCEALED WITH NEW OR EXISTING CONSTRUCTION WHENEVER POSSIBLE, UNLESS INDICATED OTHERWISE.

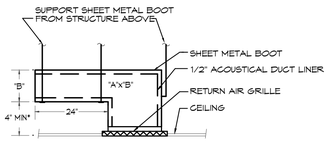
DIFFUSER SCHEDULE

MARK	MFGR	MODEL	BORDER TYPE	NECK SIZE	FACE SIZE	FINISH	DAMPER	ACCESSORIES	NOTES
SD-1	TITUS	OMNI	3	10"Ø	24"x24"	WHITE	-	-	-
SD-2				8"Ø			-	-	-
SD-3				6"Ø			-	-	-
RG-1		PAR		10"Ø	24"x12"		-	PROVIDE 10"Ø TITUS FLEXABOOT	2
RG-2				22"x10"			-	-	-
RG-3				22"x22"	24"x24"		-	SOUND BOOT	1
TG-1		350RL		12"x6"	-		-	-	-
TG-2				18"x12"	-		-	-	-
SR-1	LINX INDUSTRIES	RGS-3	-	17"x6"	-	GALVANIZED	AIR SCOOP	-	-
SR-2			-	17"x3"	-			-	-

NOTES: 1. SEE RA SOUND BOOT DETAIL FOR CLARITY.
2. SEE ACOUSTICAL RETURN BOOT DETAIL FOR CLARITY.

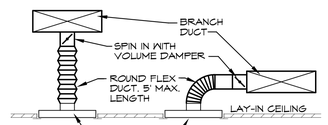


ACOUSTICAL RETURN BOOT DETAIL
SCALE: NONE



* MAY VARY AS REQUIRED FOR CLEARANCE WITH LIGHT FIXTURES, ETC.

RA SOUND BOOT DETAIL
NO SCALE



DIFFUSER DETAIL
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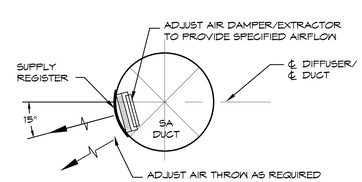

SUPPLY REGISTER DETAIL
SCALE: NONE

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MISSOURI, 64064

SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 19615

MP0

BC PROJECT #: 19615
MISSOURI PE COA #2009003629

PLUMBING GENERAL NOTES:

1. INSTALL ALL PIPE, ETC. AS HIGH AS POSSIBLE.
2. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
3. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATIONS AND MOUNTING HEIGHTS OF FIXTURES.
4. REFER TO ARCHITECTURAL & STRUCTURAL DRAWINGS FOR REQUIREMENTS FOR SUPPORTING PIPING, EQUIPMENT, ETC. FROM THE STRUCTURE. PROVIDE ADDITIONAL STEEL AS REQUIRED TO PROPERLY SUPPORT SYSTEMS FROM THE STRUCTURE.
5. LOCATE PIPING IN CEILING VOID BELOW. ALL PENETRATIONS OF FLOOR SHALL BE IN ACCORDANCE WITH BUILDING REQUIREMENTS. ALL SAWCUTTING AND CORE DRILLING SHALL BE PERFORMED AS REQUIRED BY LANDLORD.
6. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
7. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.

PLUMBING SYMBOLS

—I—I—	SOIL AND WASTE PIPING BELOW FLOOR/GRADE
—V—	SANITARY VENT PIPING ABOVE GRADE
— - —	DOMESTIC COLD WATER PIPING
— - - —	DOMESTIC HOT WATER PIPING

PLUMBING PLAN NOTES:

1. CONNECT 1-1/2" WASTE TO EXISTING SANITARY SEWER AS REQUIRED. VERIFY EXACT LOCATION, DIRECTION OF FLOW, AND ELEVATION PRIOR TO INSTALLATION OF ANY PIPING.
2. CONNECT ½" CW TO EXISTING DOMESTIC CW AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING.
3. CONNECT ½" HW TO EXISTING DOMESTIC HW AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING.
4. CONNECT 1-1/2" VENT TO EXISTING VENT AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING.
5. RELOCATE EXISTING SINK AS SHOWN.
6. CONNECT TO EXISTING CW, HW, WASTE, AND VENT IN WALL. OFFSET AND EXTEND PIPING AS REQUIRED.
7. REMOVE EXISTING DISHWASHER PIPING.
8. RELOCATE EXISTING ICE BOX AS SHOWN. DEMOLISH CW PIPING BACK TO MAIN AND CAP.
9. ROUTE ½" HOT WATER TO DISHWASHER. PROVIDE FLEXIBLE DRAIN HOSE FROM DISHWASHER TO SINK TAILPIECE.

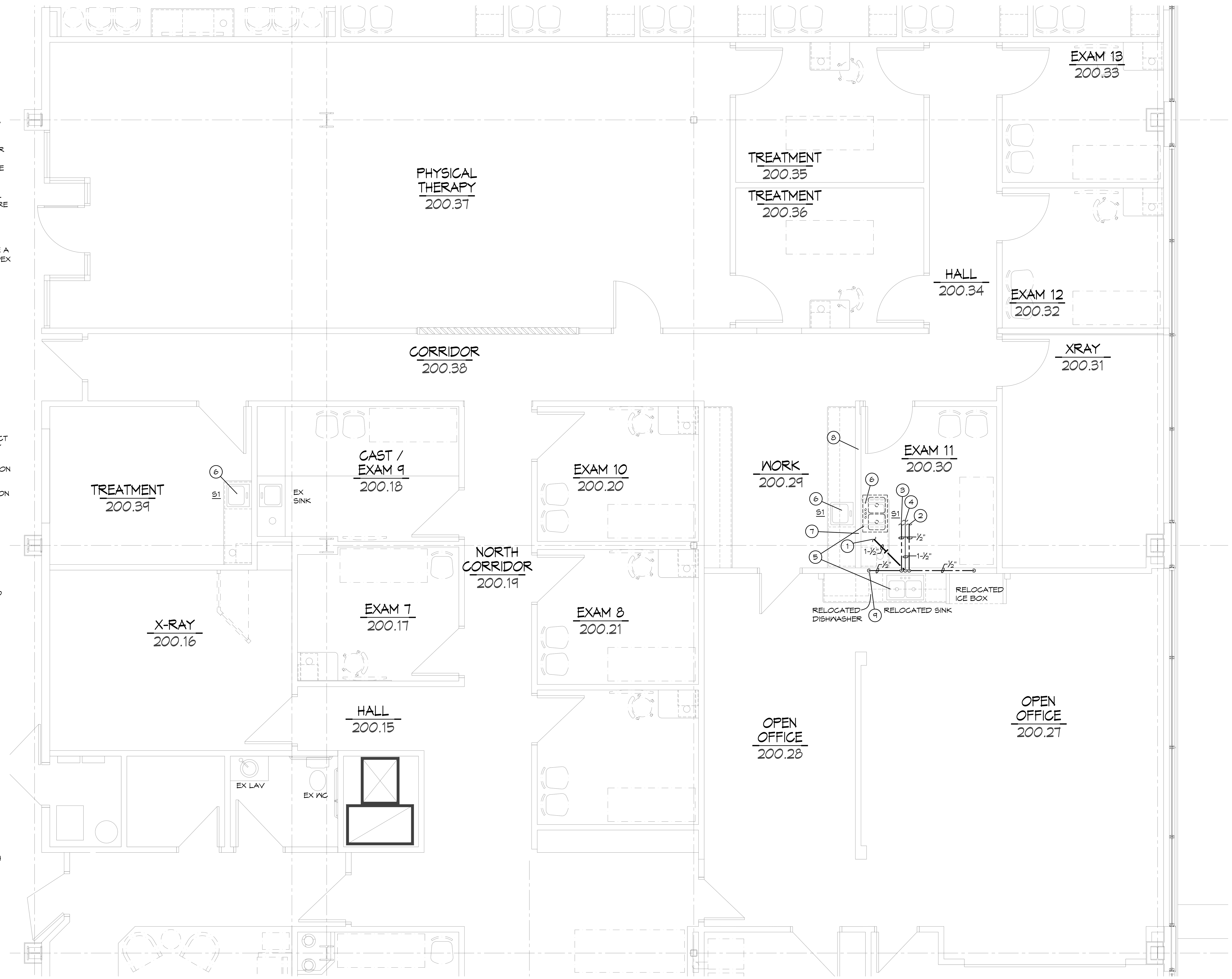
PLUMBING FIXTURE BRANCH PIPING SCHEDULE

FIXTURE	WASTE	VENT	CW	HW
SINK	1-1/2"	1-1/2"	1/2"	1/2"

NOTE: INDIVIDUAL VENTS FOR FIXTURES ON PLANS AND RISER DIAGRAMS HAVE BEEN INCREASED WHERE HORIZONTAL VENT LENGTH IS IN EXCESS OF THE MAXIMUM DISTANCE INDICATED BY THE CODE.

PLUMBING FIXTURE SCHEDULE: (OR EQUAL)

S1 SINK:ELKAY, #LRAD-1918, 16"x11-1/2"x 6-1/2" DEEP BOWL, 18-3/8"x 17-3/8" CUT-OUT, ADA COMPLIANT, SINGLE COMPARTMENT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, DELTA #141-DST FAUCET WITH SINGLE METAL LEVER HANDLE, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS.



PLUMBING FLOOR PLAN
SCALE: 1/4" = 1'-0"

BC PROJECT #: 19615
MISSOURI PE COA #2009003629

4/7/2023

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER
PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

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SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 19615

P1

MECHANICAL GENERAL NOTES:

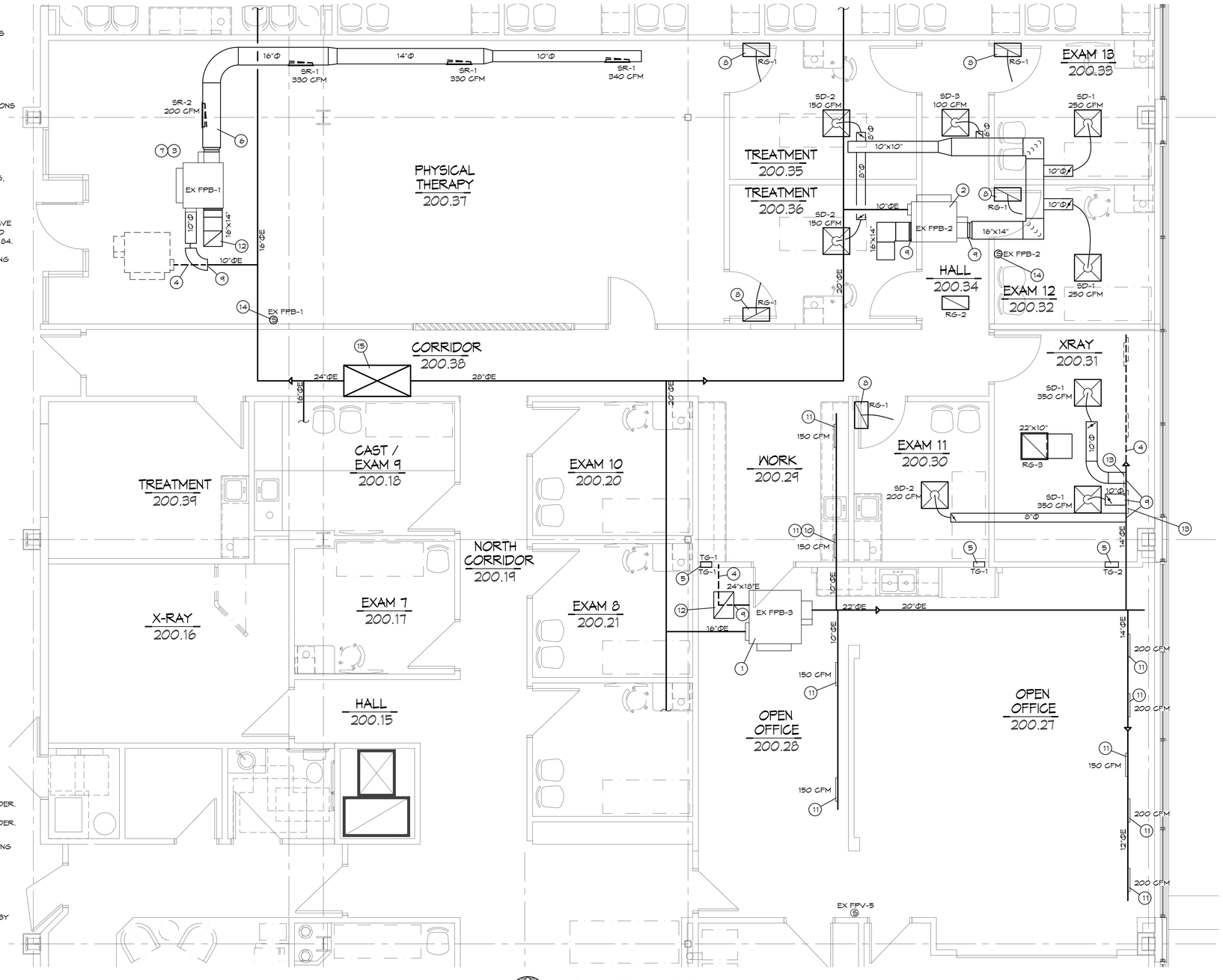
1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE MECHANICAL SYSTEMS.
3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT LOCATIONS OF DIFFUSERS.
4. INSTALL ALL DUCT, PIPE, ETC. AS HIGH AS POSSIBLE.
5. DUCT SIZES SHOWN ARE ACTUAL SHEET METAL SIZES AND INCLUDE AN ALLOWANCE FOR DUCT LINER WHERE APPLICABLE.
6. PROVIDE FLEXIBLE CONNECTION BETWEEN DUCTWORK AND ROOFTOP UNITS, EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. ALL MATERIALS WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
9. ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

MECHANICAL SYMBOLS

	NEW SUPPLY DIFFUSER
	NEW RETURN AIR GRILLE
	EXHAUST GRILLE/FAN
(S)	REMOTE TEMPERATURE SENSOR, MOUNTED 48" A.F.F.
	NEW DUCTWORK
32"x14"	SIZE OF RECTANGULAR DUCT
6"Ø	SIZE OF ROUND DUCT
	FLEXIBLE DUCTWORK
	FLEXIBLE CONNECTION TO FAN
(3)	FLOOR PLAN NOTE DESIGNATION
S.A.	SUPPLY AIR
R.A.	RETURN AIR
EXH.	EXHAUST AIR
	TRANSITION IN DUCT SIZE
	ELBOW WITH TURNING VANES
	MANUAL VOLUME DAMPER
	SUPPLY AIR DUCT UP/DOWN
	RETURN AIR DUCT UP/DOWN
	EXHAUST AIR DUCT UP/DOWN
RTU-1	SCHEDULED MECHANICAL EQUIPMENT
	EXIST'G DUCT TO REMAIN
	EXIST'G DUCT TO BE REMOVED
	EXISTING FLEXIBLE DUCTWORK
32"x14"E	SIZE OF EXISTING DUCT
	EXISTING SUPPLY DIFFUSER

MECHANICAL PLAN NOTES:

1. FAN POWERED BOX IS EXISTING TO REMAIN. VERIFY BOX IS IN PROPER WORKING ORDER.
2. FAN POWERED BOX IS EXISTING TO REMAIN. VERIFY BOX IS IN PROPER WORKING ORDER. BALANCE TO 900 CFM.
3. FAN POWERED BOX TO BE RELOCATED AS SHOWN. VERIFY BOX IS IN PROPER WORKING ORDER. BALANCE TO 1,200 CFM.
4. DEMOLISH EXISTING DUCTWORK AS SHOWN. SEAL AND CAP ANY OPENINGS AIR TIGHT.
5. INSTALL BOTTOM OF RETURN GRILLE 10'-0" AFF AS REQUIRED.
6. INSTALL DUCT AS HIGH AS POSSIBLE.
7. SUPPORT UNIT FROM STRUCTURE AND PROVIDE VIBRATION ISOLATION AS REQUIRED BY THE MANUFACTURER. PROVIDE ADDITIONAL SUPPORT STEEL AS REQUIRED.
8. PROVIDE AND INSTALL 10"Ø TITUS FLEXABOOT ON RG-1 AS REQUIRED AND AS DETAILED.
9. CONNECT TO EXISTING AS REQUIRED. FIELD VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY DUCTWORK.
10. FIELD VERIFY EXACT LOCATION OF SUPPLY GRILLE. SHIFT INTO ROOM WORK 200.29 IF GRILLE IS LOCATED IN NEW WALL.
11. BALANCE EXISTING SUPPLY GRILLE TO CFM LISTED.
12. TURN RETURN DUCT UP FOR SOUND ABATEMENT.
13. REMOVE EXISTING SUPPLY REGISTER AND SEAL DUCT AIR TIGHT.
14. RELOCATE EXISTING TEMPERATURE SENSOR TO LOCATION SHOWN.
15. FIELD VERIFY EXISTING RTU IS PROVIDING MINIMUM 625 CFM OF O.A. TO THIS SPACE.



NORTH

MECHANICAL FLOOR PLAN

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

OUTDOOR AIR CALCULATIONS

UNIT	Area (sqft)	OCCUPANCY CLASSIFICATION	Occupant Density #/1000 sqft	People outdoor airflow rate in breathing zone, (Rp) cfm/person	Area outdoor airflow rate in breathing zone, (Ra) cfm/sqft	Exhaust airflow rate cfm/sqft	Breathing zone outdoor airflow (Vbz)	Zone air distribution effectiveness (Ez)	Zone outdoor airflow (cfm)
EX RTU	1065	Physical therapy	20	15	0		320	0.8	399
	2125	Office spaces	5	5	0.06		181	0.8	226
								Total	625

BC PROJECT #: 19615
MISSOURI PE COA #2009003629

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
Date: 4/7/2023
Lee's Summit, Missouri
Development Services Department

STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER PE-2004026504
PROFESSIONAL ENGINEER
REGISTERED

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ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 19615

M1

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS:
   - A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE ELECTRICAL SYSTEMS OUTLINED.
   - B. OBTAIN ALL PERMITS, FEES, LICENSES, INSPECTIONS, AND CERTIFICATES OF COMPLIANCE OR APPROVAL AS REQUIRED BY THE AUTHORITIES.
   - C. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH THE LATEST APPROVED EDITION OF THE NATIONAL ELECTRIC CODE (NEC) AND ALL APPLICABLE LAWS, CODES AND REGULATIONS OF THE GOVERNMENTAL BODIES HAVING JURISDICTION OVER THE SITE.
   - D. ALL TESTING REQUIRED BY AUTHORITIES SHALL BE CONSIDERED PART OF THIS WORK.
   - E. DURING CONSTRUCTION, ALL FIXTURES, EQUIPMENT, CONDUIT, ETC. SHALL BE COVERED, PLUGGED, OR CAPPED AS REQUIRED TO KEEP CLEAN AND UNDAMAGED. ALL DAMAGED ITEMS SHALL BE RESTORED TO ORIGINAL CONDITION OR REPLACED. ALL PROTECTIVE COVERING SHALL BE REMOVED BEFORE FINAL ACCEPTANCE.
   - F. PROVIDE ALL NECESSARY CUTTING AND PATCHING OF WALLS, FLOORS, CEILINGS, AND ROOFS AS NECESSARY. PATCH AROUND ALL OPENINGS SHALL MATCH ADJACENT AREA. COORDINATE ALL ROOFING WORK WITH OWNER OR RESPONSIBLE PARTY, SO THAT THE EXISTING ROOFING WARRANTY WILL BE MAINTAINED.
   - G. CONTRACTOR SHALL GUARANTEE ALL WORK AND MATERIALS AGAINST DEFECTS FOR A PERIOD OF ONE YEAR FROM FINAL ACCEPTANCE.
   - H. CONTRACTOR SHALL PROVIDE ACCESS PANELS WHERE NECESSARY FOR CONCEALED ELECTRIAL COMPONENTS.
   - I. CONTRACTOR SHALL PROMPTLY CALL ENGINEERS ATTENTION TO ANY APPARENT CONTRADICTIONS, AMBIGUITIES, ERRORS, DISCREPANCIES, OR OMISSIONS IN THE PLANS OR SPECIFICATIONS.
2. OPERATION AND MAINTENANCE MANUALS:
   - A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING DIAGRAMS, CATALOG CUTS, LUBRICATION AND PREVENTIVE MAINTENANCE INSTRUCTIONS, PARTS LISTS, ETC. FOR ALL EQUIPMENT FURNISHED UNDER THIS CONTRACT.
   - B. ALL LITERATURE AND INSTRUCTIONS SHIPPED WITH THE EQUIPMENT SHALL BE SAVED FOR INCLUSION IN THE OPERATION AND MAINTENANCE MANUALS.
   - C. ALL LITERATURE LISTED ABOVE AND ALL PAPERS LISTING WARRANTIES, ETC. SHALL BE COLLATED AND LABELED WITH THE PROJECT NAME, ADDRESS, ARCHITECT, ENGINEER, CONTRACTORS, ETC. CONTRACTORS, ETC. DOCUMENTS SHALL BE COMPILED AND BOUND IN DIGITAL FILE OR 3 RING BINDER.
3. MANUFACTURERS:
   - A. MANUFACTURERS, MODEL NUMBERS, ETC. INDICATED OR SCHEDULED ON THE DRAWINGS SHALL BE INTERPRETED AS HAVING ESTABLISHED A STANDARD OF QUALITY AND SHALL NOT BE CONSTRUED AS LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN, UNLESS NOTED OTHERWISE.
4. TESTING, AND BALANCING:
   - A. ALL CIRCUITS SHALL BE TESTED FOR CONTINUITY, SHORTS, AND GROUNDS BEFORE CONNECTNG TO THE PROPER PHASE AS DESIGNED TO BALANCE THE LOADING BETWEEN PHASES.
   - B. POWER AND LIGHTING PANELS SHALL BE PROPERLY PHASED TO DISTRIBUTE THE LOAD AND SHALL BE CONNECTED AND ADJUSTED TO OPERATE AS SPECIFIED.
   - C. ALL MOTORS AND SIMILAR EQUIPMENT SHALL BE CHECKED FOR PROPER PHASE ROTATION AND OPERATION.
5. RACEWAYS:
   - A. CONDUIT INSIDE THE BUILDING SHALL BE METALLIC TUBING (EMT), BEARING THE UL LABEL, WITH COMPRESSION TYPE FITTINGS OR SCREW SET FITTINGS.
   - B. CONDUIT EXPOSED TO THE WEATHER, INSTALLED UNDERGROUND, IN CONCRETE, OR USED FOR SERVICE ENTRANCE SHALL BE STANDARD RIGID CONDUIT (GALVANIZED) WITH THREADED FITTINGS.
   - C. UNDERGROUND CONDUIT MAY BE POLYVINYL CHLORIDE WITH A DEFLECTION TEMPERATURE, UNDER LOAD AT 264 PSI, OF 70 DEGREES C, AND A TENSILE STRENGTH OF 5,200 PSI. JOINTS SHALL BE FLUSH SOLVENT WELDED IN ACCORDANCE WITH THE MANUFACTURER'S INSTRUCTIONS. CONDUIT SHALL BE EQUAL TO CARLON POWER AND COMMUNICATIONS DUCT TYPE DB (DIRECT BURIAL). CONDUIT AND FITTINGS SHALL BE PRODUCED BY THE SAME MANUFACTURER.
   - D. FLEXIBLE METAL CONDUIT SHALL ONLY BE USED FOR CONNECTIONS TO MOTORS, TRANSFORMERS, AND LIGHT FIXTURES. MAXIMUM LENGTH SHALL BE 6'-0".
6. CONDUCTORS:
   - A. WIRES SHALL BE CONTINUOUS WITHOUT SPLICES OR TAPS IN CONDUIT RUNS. ALL SPLICES SHALL BE MADE IN JUNCTION, PULL, OR OUTLET BOXES. ALL WIRE SHALL BE INSTALLED IN CONDUIT, WIREWAYS, OR OTHER PROTECTIVE COVER SANCTIONED BY CODES.
   - B. CONDUCTORS FOR LIGHTING AND POWER SHALL BE COPPER, MINIMUM NO. 12 A.W.G., 600 VOLT.
   - C. NO. 10 GAUGE AND SMALLER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), SOLID CONDUCTOR, UNLESS OTHERWISE INDICATED.
   - D. NO. 8 GAUGE AND LARGER CONDUCTORS SHALL BE TYPE THWN (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED, UNLESS OTHERWISE INDICATED.
   - E. SERVICE ENTRANCE AND PANEL FEEDER CONDUCTORS, NO. 3 GAUGE AND LARGER SHALL BE TYPE XHHW-2 (WET LOCATIONS) OR THHN (DRY LOCATIONS), STRANDED COPPER, UNLESS OTHERWISE INDICATED.
7. MC CABLE:
   - A. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (10 AWG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 90°C FOR DRY LOCATIONS, WITH NYLON OR EQUIVALENT UL LISTED JACKET, PER UL STANDARD 83 THE THREE CONDUCTORS SHALL BE TWISTED TOGETHER WITH THE COPPER GROUNDING CONDUCTOR, SUITABLE FILLERS, AND WRAPPED IN BINDER TAPE. THE ASSEMBLY SHALL BE ARMORED WITH SPIRALLY WRAPPED INTERLOCKED ARMOR OF ALUMINUM OR GALVANIZED STEEL.
   - B. CABLES SHALL BE TESTED IN ACCORDANCE WITH UL STANDARD 1569 FOR TYPE MC CABLE AND RATED AT 600 VOLTS, 90 DEG. C FOR DRY LOCATIONS AND 75 DEG. C FOR WET LOCATIONS.
   - C. MC CABLE INSTALLED IN PATIENT CARE AREAS SHALL BE "HCF" TYPE WITH GREEN INSULATED COPPER GROUNDING CONDUCTOR, BARE ALUMINUM GROUNDING/BONDING CONDUCTOR AND INTERLOCKED GREEN ALUMINUM ARMOR LISTED FOR USE AS AN EQUIPMENT GROUNDING CONDUCTOR IN CONJUCTION WITH THE BARE ALUMINUM BONDING CONDUCTOR.
     1) CABLES SHALL MEET ALL NEC REQUIREMENTS FOR ARTICLE 517 AND SHALL BE UL LISTED FOR USE IN HEALTH CARE FACILITIES.
     2) HCF CABLE SHALL NOT BE USED IN HAZARDOUS ANESTHETIZING AREAS.
8. WIRING DEVICES:
   - A. WALL SWITCHES SHALL BE SPECIFICATION GRADE, QUIET TYPE, FLUSH TOGGLE SWITCH, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES.
     1) SINGLE POLE: HUBBELL #CS1221-X, OR EQUAL.
     2) THREE WAY: HUBBELL #CS1223-X, OR EQUAL.
     3) AS SPECIFIED ON PLANS
   - B. RECEPTACLES SHALL BE SPECIFICATION GRADE, DUPLEX, GROUNDING, THREE-WIRE TYPE, RATED FOR 20 AMPS, WITH THERMOPLASTIC COVER PLATES. HUBBELL #CR5352-X, OR EQUAL.
   - C. GROUND FAULT INTERRUPTER RECEPTACLES (GFI) SHALL BE HUBBELL #GF20-XL. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.
   - D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5352G, ORANGE COLOR. DEVICE COVER PLATES SHALL BE AS HEREINBEFORE SPECIFIED.
   - E. RECEPTACLES OUTSIDE BUILDING AND WHERE NOTED AS WEATHERPROOF, SHALL BE LISTED WEATHER-RESISTANT HUBBEL #GFTR20-X OR EQUAL AND SHALL BE INSTALLED IN A WEATHERPROOF ENCLOSURE WHICH SHALL BE INTERMATIC WP1010MD OR WP1010MMD DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.
   - F. VERIFY DEVICES AND DEVICE COVERPLATES COLOR WITH ARCHITECT.
9. BOXES:
   - A. HOT DIPPED GALVANIZED STEEL BOXES. PROVIDE TYPE TO SUIT CONDITIONS FOR INSTALLATION.
   - B. ALL BOXES SHALL BE FLUSH MOUNTED, UNLESS INDICATED OTHERWISE.
10. PANELBOARDS:
    - A. PANELBOARDS ARE EXISTING AND SHALL BE REUSED. PROVIDE ADDITIONAL BREAKERS AS REQUIRED TO CONNECT CIRCUITS AS SHOWN ON THE DRAWINGS. ADDITIONAL BREAKERS SHALL BE THERMAL MAGNETIC, QUICK-BREAK BOLT ON CIRCUIT BREAKERS WITH ONE HANDLE FOR SINGLE OR MULTI-POLE RATINGS AND SHALL BE COMPATIBLE WITH EXISTING PANELS.
    - B. COMPLETE EXISTING DIRECTORY AS REQUIRED TO IDENTIFY NEW CIRCUIT, LISTING LOAD SERVED AND OTHER PERTINENT DATA.

ELECTRICAL SPECIFICATIONS (CONTINUED)

11. DISCONNECTS:
    - A. DISCONNECTS SHALL BE EXTERNALLY OPERATED, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS FOR PAD LOCKING. FUSED AND NON-FUSED DISCONNECT SWITCHES SHALL BE PROVIDED AS INDICATED.
    - B. INDOOR SWITCHES SHALL BE NEMA 1 AND OUTDOOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED OTHERWISE.
12. FUSES:
    - A. FUSES PROTECTING CIRCUIT BREAKER PANELS SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES WITH 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR RATINGS ABOVE 60 AMPERES.
    - B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 SECONDS AT 500% RATING. FUSES SHALL HAVE CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 AMPERES RMS SYM INTERRUPTING CAPACITY. FUSING ELEMENTS SHALL BE COPPER.
13. LIGHT FIXTURES:
    - A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXTURE AND THE BUILDING STRUCTURE. SUPPORT WIRES SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED STEEL WIRE, SOFT ANNEALED.
    - B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTLETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND FIXTURE RACEWAYS. WEATHERPROOF WIRING IS REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE WITH NEC REQUIREMENTS.
    - C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS.
14. SLEEVES:
    - A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SLEEVES AS REQUIRED FOR THIS WORK.
    - B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALANT.
    - C. ROOF: FROSET OR EQUAL, MANUFACTURED PVC SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. COORDINATE WITH ROOFING CONTRACTOR AND FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.
15. GROUNDING:
    - A. GROUND ALL ELECTRICAL APPARATUS IN ACCORDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250, AND ANY LOCAL REQUIREMENTS. INSURE CONTINUOUS BOND WHERE FLEXIBLE CONDUIT IS USED. PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE CONDUIT.
    - B. BOND METAL PIPING SYSTEMS IN COMPLIANCE WITH NEC 250.4(A)(4).
16. REMODELING WORK:
    - A. DEMOLITION: DISCONNECT, DEMOLISH AND REMOVE ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.
    - B. EQUIPMENT TO BE SALVAGED:
      1) DISCONNECT AND REMOVE EXISTING ELECTRICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE.
      2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT.
    - C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED.
    - D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE.
    - E. PROVIDE ALL ALTERATIONS AND REWORK INDICATED AND/OR REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF ALL EXISTING ELECTRICAL SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. LOCATE, IDENTIFY, AND PROTECT ELECTRICAL SERVICES PASSING THROUGH REMODELING AREA AND SERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
      1) ABANDONED CONDUIT SHALL HAVE WIRE REMOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN WALLS OR PARTITIONS SHALL HAVE DEVICES AND WIRE REMOVED, AND SHALL BE COVERED.
      2) WHERE EXISTING CONDUITS TERMINATE AT AN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR TO BE REMOVED, DISCONNECT AND REMOVE DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE CUT BACK AND CAPPED (BELOW THE FLOOR OR ABOVE THE CEILING) SO NOT TO CREATE AN OBSTRUCTION. PATCH FLOOR TO MATCH EXISTING.
      3) WHERE EXISTING CIRCUITS EXTEND BEYOND THE OUTLET IN THE EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, FURNISH AND INSTALL NEW CONDUIT AND WIRE TO EITHER REROUTE THE CIRCUIT OR FEED THE REMAINING OUTLET(S) FROM ANOTHER CIRCUIT, AS REQUIRED, IN SUCH A MANNER AS NOT TO REVISE THE CIRCUIT. ALL REROUTED CONDUIT SHALL BE APPROVED BY THE ARCHITECT.
      4) WHERE EXISTING OUTLETS IN A WALL, CEILING, OR FLOOR TO BE REMOVED ARE ESSENTIAL TO MAINTAN OPERATION OF OTHER REMAINING OUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT LOCATION. EXISTING WIRING DEVICES SHALL NOT BE REUSED, UNLESS OTHERWISE INDICATED.
      5) WHERE LIGHTING FIXTURES ARE INDICATED TO BE DEMOLISHED, REMOVE ALL WIRE AND MODIFY THE EXISTING CONDUIT (IF APPLICABLE) FOR THE NEW LIGHTING. ALL UNUSED CONDUIT SHALL BE REMOVED.
      6) WHERE A TELEPHONE CIRCUIT EXTENDS BEYOND AN OUTLET IN AN EXISTING WALL, CEILING, OR FLOOR TO BE REMOVED, PROVIDE NECESSARY EMPTY CONDUIT AND NOTIFY THE OWNER WHO WILL REQUEST THE OWNER TO ARRANGE WITH THE TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT REMAIN.
      7) WHERE EXISTING CONDUIT AND WIRE RUNS ARE LOCATED IN OR ATTACHED TO AN EXISTING WALL, CEILING OR FLOOR TO BE REMOVED, THEY SHALL BE REROUTED IN EITHER NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF CIRCUITS UNLESS OTHERWISE INDICATED.
      8) CONDUIT SHALL BE CONCEALED WITHIN THE EXISTING BUILDING CONSTRUCTION WHEREVER POSSIBLE, EXCEPT WHERE OTHERWISE INDICATED.
      9) EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED.
17. BOXES IN FIRE RATED ASSEMBLIES:
    - A. OUTLET BOXES THAT DO NOT EXCEED 16 SQUARE INCHES AND INSTALLED IN FIRE RATED WALLS SHALL NOT BE INSTALLED CLOSER THAN 24" HORIZONTAL INCHES TO OTHER OUTLET BOXES.
    - B. IF BOXES MUST BE INSTALLED WITHIN 24" OF EACH OTHER THAN BOTH OUTLET BOXES SHALL BE PROTECTED WITH LISTED PUTTY PADS, 3M FIRE BARRIER MOLDABLE PUTTY + OR EQUAL.
18. FIRE ALARM SYSTEM:
    - A. ELECTRICAL CONTRACTOR SHALL PROVIDE DESIGN BUILD ENERGINEERED SHOP DRAWINGS OF FIRE ALARM SYSTEM TO BE INSTALLED. PROVIDE DEVICES, CONDUIT, WIRES, CABLE, PROGRAMMING AND TESTING AS DIRECTED BY EQUIPMENT MANUFACTURER AND LOCAL FIRE DEPARTMENT FOR A CODE COMPLIANT FIRE ALARM/DETECTION SYSTEM. MATERIALS, EQUIPMENT, AND WORKMANSHIP SHALL MEET PREVAILING CODES. THE SYSTEM SHALL BE COMPLETE AND OPERABLE. SUBMIT ONE LINE DIAGRAM OF SYSTEM WITH SIZES AND BATTERY CALCULATIONS. EQUIPMENT TO BE NEW AND SHALL BE STAMPED, SIGNED, CALIBRATION AND TESTED BY FACTORY CERTIFIED TECHNICIAN. FIRE ALARM DEVICES ARE SHOWN FOR INTENT ONLY FOR PERMITTING PROCESS. CONTRACTOR IS RESPONSIBLE FOR INCLUDING IN BID/DESIGN ALL NECESSARY DEVICES (ANNUNCIATOR(S), NOTIFICATION APPLIANCES, INITIATING DEVICES, AND ADDITIONAL COMPONENTS).

ELECTRICAL SYMBOLS LIST

CIRCUITING & NOTES

+46"	SPECIAL MOUNTING HEIGHT FOR ASSOCIATED DEVICE (CENTERLINE OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
WP	WEATHERPROOF ENCLOSURE ON DEVICE
RE	RELOCATE EXISTING, REFER TO ARCH DEMO
E	EXISTING TO REMAIN
EM	EMERGENCY BATTERY BACKUP
TR	TAMPER RESISTANT OUTLET
USB	COOPER #TR7756-X OR EQUAL DUPLEX RECEPTACLE WITH DUAL USB CHARGING PORTS. PROVIDE 2-1/8" DEEP BACK BOX.
(TIE)	PARTIAL HOMERUN. REFER TO PLANS FOR ADDITIONAL DEVICES CONNECTED TO THIS CIRCUIT.
X	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
2 LP	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 WIRE IN CONDUIT, UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	GROUNDING CONDUCTOR, #12 WIRE UNLESS NOTED OTHERWISE ON DRAWINGS OR SPECIFICATION
	CONDUIT ROUTED UNDER FLOOR/GRADE

LIGHTING

	EMERGENCY TWIN HEAD LIGHT FIXTURE
	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
A	STRIP FIXTURE WITH TYPE DESIGNATION
A	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
A NL	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
A	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
A	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION

POWER DEVICES

	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED OTHERWISE
	DEVICE MOUNTED ABOVE COUNTER AND/OR SPLASH GUARD
	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
J	JUNCTION BOX
	NON-FUSED DISCONNECT SWITCH
	FUSED DISCONNECT SWITCH
M	MOTOR WITH DESIGNATION

CONTROLS

S	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S_3	THREE-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
S_D	DIMMER SWITCH, TOP OF BOX AT 48" AFF
S_M	MANUAL MOTOR STARTER WITH OVERLOADS
S_O	INFRARED OCCUPANCY SENSOR, WATT STOPPER #PW-100, TOP OF BOX AT 48" AFF

ELECTRICAL SYMBOLS LIST (CONTINUED)

FIRE ALARM - FIRE ALARM SYSTEM IS EXISTING TO REMAIN. PROVIDE ADDITIONAL COMPATIBLE DEVICES AND CONNECT TO EXISTING SYSTEM AS REQUIRED.

	FIRE ALARM HORN/STROBE COMBINATION SIGNAL, CENTERLINE AT 6'-8" AFF
	FIRE ALARM VISUAL STROBE, CENTERLINE AT 6'-8" AFF

COMMUNICATIONS

	DATA/TELEPHONE OUTLET WITH ¾" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, 4"X4"X2-1/8" BACK BOX WITH SINGLE GANG RING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. DATA CABLING TO BE INSTALLED COMPLETE, PROVIDE TWO CAT-6 CABLES TO EACH LOCATION, 1 VOICE, 1 DATA. SEE SHEET E5 FOR ADDITIONAL INFORMATION
TV	FLAT SCREEN TELEVISION - PROVIDE AND INSTALL ONE (1) PASS & SEYMOUR #TV1WTV55N OR EQUAL RECESSED TV BOX WITH DUPLEX SURGE PROTECTION. PROVIDE 1" CONDUIT FROM TV BOX TO ABOVE FINISHED CEILING RUN (1) DATA CABLE FROM TV BOX BACK TO IT RACK IN IT ROOM. MOUNT BOX AT 6' AFF UNLESS NOTED OTHERWISE (VERIFY) CAT6 WIRE TO BE TERMINATED TO AN RJ45 CONNECTOR ON THE BOX. NO COAXIAL CABLE REQUIRE.

ELECTRICAL GENERAL NOTES:

1. COORDINATE ALL WORK WITH OTHER TRADES AND EXISTING CONDITIONS AS REQUIRED TO PROPERLY INSTALL ALL SYSTEMS AS INTENDED, WITHIN THE CONFINES OF THE SPACES AVAILABLE, AND WITHOUT INTERFERENCES.
2. WHERE CONDUIT IS SHOWN UNDER FLOOR, CORE DRILL PENETRATION, AND ROUTE CONDUIT IN SPACE BELOW. NO STRUCTURAL ELEMENTS SHALL BE CORE DRILLED.
3. IT IS THE ELECTRICAL CONTRACTORS RESPONSIBILITY TO PROPERLY BALANCE ALL BRANCH CIRCUITS BETWEEN THE PHASES OF THE SYSTEM REGARDLESS OF CIRCUITING INDICATED.
4. ALL EXPOSED RACEWAYS SHALL BE IN EMT CONDUIT, MC CABLE IS NOT PERMITTED IN EXPOSED AREAS.
5. ELECTRICAL CONTRACTOR SHALL REMOVE ALL EXISTING ELECTRICAL EQUIPMENT, FIXTURES, SYSTEMS, CONDUIT AND WIRE, ETC. NOT BEING REUSED. DO NOT JUST ABANDON.
6. ELECTRICAL CONTRACTOR TO COORDINATE MANUFACTURER ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT BEING FURNISHED WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN. EQUIPMENT DISCONNECTS TO BE PROVIDED BY ELECTRICAL CONTRACTOR UNLESS NOTED OTHERWISE IN MECHANICAL SCHEDULES.
7. REFER TO ARCHITECTURAL DRAWINGS FOR EXACT LOCATION OF LIGHT FIXTURES AND DEVICES.
8. ALL ELECTRICAL DEVICES ARE EXISTING AND TO REMAIN UNLESS NOTED OTHERWISE OR CONFLICT WITH NEW CONSTRUCTION. MAINTAIN PROPER OPERATION OF ALL EXISTING ELECTRICAL.
9. ALL MATERIALS EXPOSED WITHIN PLENUMS SHALL BE NONCOMBUSTIBLE OR SHALL HAVE A FLAME SPREAD INDEX OF NOT MORE THAN 25 AND A SMOKE-DEVELOPED INDEX OF NOT MORE THAN 50 WHEN TESTED IN ACCORDANCE WITH ASTM E 84.
10. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
11. FIRE ALARM SYSTEM IS SHOWN FOR SCHEMATIC PURPOSES. THE FIRE ALARM CONTRACTOR IS RESPONSIBLE FOR PROVIDING DESIGN AND SHOP DRAWINGS SUBMITTAL TO FIRE MARSHAL FOR APPROVAL AS REQUIRED BY THE FIRE MARSHAL. IT IS THE CONTRACTORS RESPONSIBILITY TO PROVIDE ADDITIONAL DEVICES, POWER SUPPLIES, ETC FOR COMPLIANCE WITH CODE.
12. ALL BRANCH CIRCUITS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 3% VOLTAGE DROP. ALL FEEDERS SHALL BE SIZED TO ALLOW FOR A MAXIMUM OF 2% VOLTAGE DROP. ELECTRICAL CONTRACTOR SHALL VERIFY WIRING INDICATED IS SUFFICIENT AND INCREASE CONDUCTOR SIZE AS REQUIRED BASED OFF ACTUAL INSTALLED LENGTH OF CONDUCTORS.
13. PROVIDE LOW VOLTAGE WIRING BETWEEN ALL 0-10V DIMMING DRIVERS CONTROLLED BY 0-10V DIMMERS PER MANUFACTURER'S INSTRUCTIONS WHETHER INDICATED ON PLANS OR NOT.

HEALTH CARE FACILITY NOTES:

1. PATIENT AREAS (EXAM) SHALL COMPLY WITH NEC ARTICLE 517 FOR HEALTH CARE FACILITIES.
2. ALL BRANCH CIRCUITS SUPPLYING PATIENT AREAS SHALL HAVE REDUNDANT GROUNDING PER NEC 517.13(a) & (b). ALL UNDER FLOOR CONDUITS FOR BRANCH CIRCUITS SHALL BE METALLIC.
3. ALL DEVICES IN PATIENT CARE AREAS SHALL BE HOSPITAL GRADE, GROUNDING, THREE WIRE TYPE, RATED FOR 20 AMPS, WITH COVER PLATES. HUBBELL #HBL8300-H, OR EQUAL. VERIFY COLOR WITH ARCHITECT.

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
4/7/2023
Development Services Department
Lee's Summit, Missouri
Date: 4/7/2023

STATE OF MISSOURI
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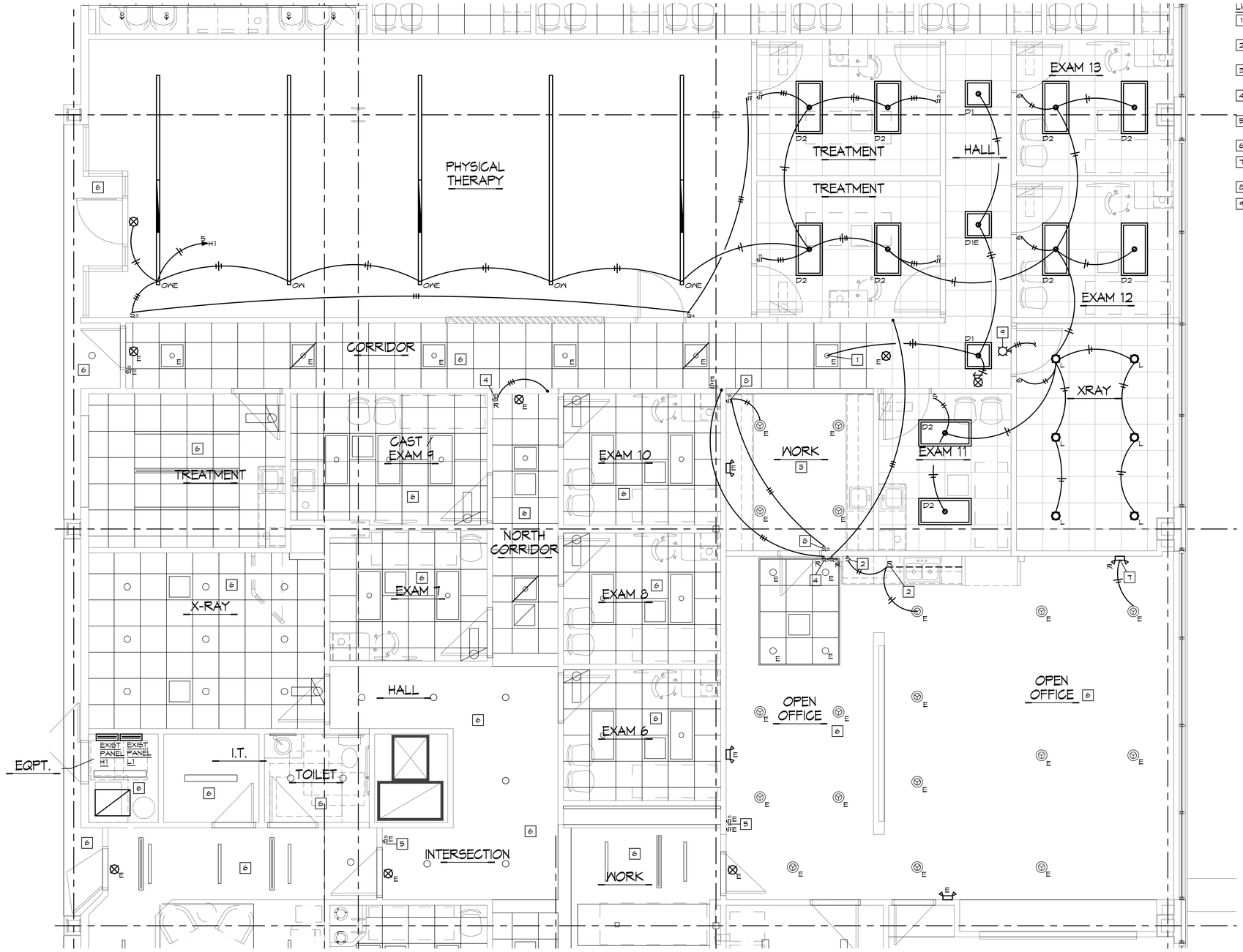
SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 19615

E0

BC PROJECT #: 19615
MISSOURI PE COA #2009003629



LIGHTING PLAN NOTES:

1. CONNECT NEW FIXTURE TO CIRCUIT AND CONTROLS OF EXISTING FIXTURES IN THE AREA.
2. RELOCATE EXISTING UNDER CABINET LIGHTING AND CONTROLS TO NEW LOCATION AND CONNECT TO EXISTING LIGHTING CIRCUIT.
3. SEPARATE LIGHTING IN THIS AREA FROM EXISTING CONTROLS AND CONNECT TO NEW CONTROLS AS SHOWN.
4. RELOCATE EXISTING LIGHTING CONTROLS. EXTEND CIRCUITING FROM EXISTING SWITCH LOCATION TO NEW SWITCH LOCATION AND RECONNECT. REFER TO KEY NOTE 5.
5. EXISTING OPEN OFFICE LIGHTING CONTROLS TO REMAIN. CONNECT TO RELOCATED CONTROLS REFER TO KEYNOTE 4.
6. LIGHTING IN THIS AREA IS EXISTING TO REMAIN.
7. RELOCATE EXISTING EMERGENCY LIGHT TO NEW LOCATION AND RECONNECT TO EXISTING CIRCUIT.
8. PROVIDE NEW SWITCHES FOR EXISTING LIGHT FIXTURES IN NEWLY CREATED SPACE.
9. X-RAY IN USE LIGHT. SEE KEYNOTE "XIL" & "XILC" SHEET E2 FOR CONTROLS.

IN ADDITION TO AREAS NOTED WITH KEYNOTE 6 ALL LIGHT FIXTURES TAGGED AS "E" ARE EXISTING TO REMAIN. FIXTURES TAGGED WITH "R" ARE RELOCATED.

NORTH

ELECTRICAL LIGHTING PLAN

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

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Department of Public Services
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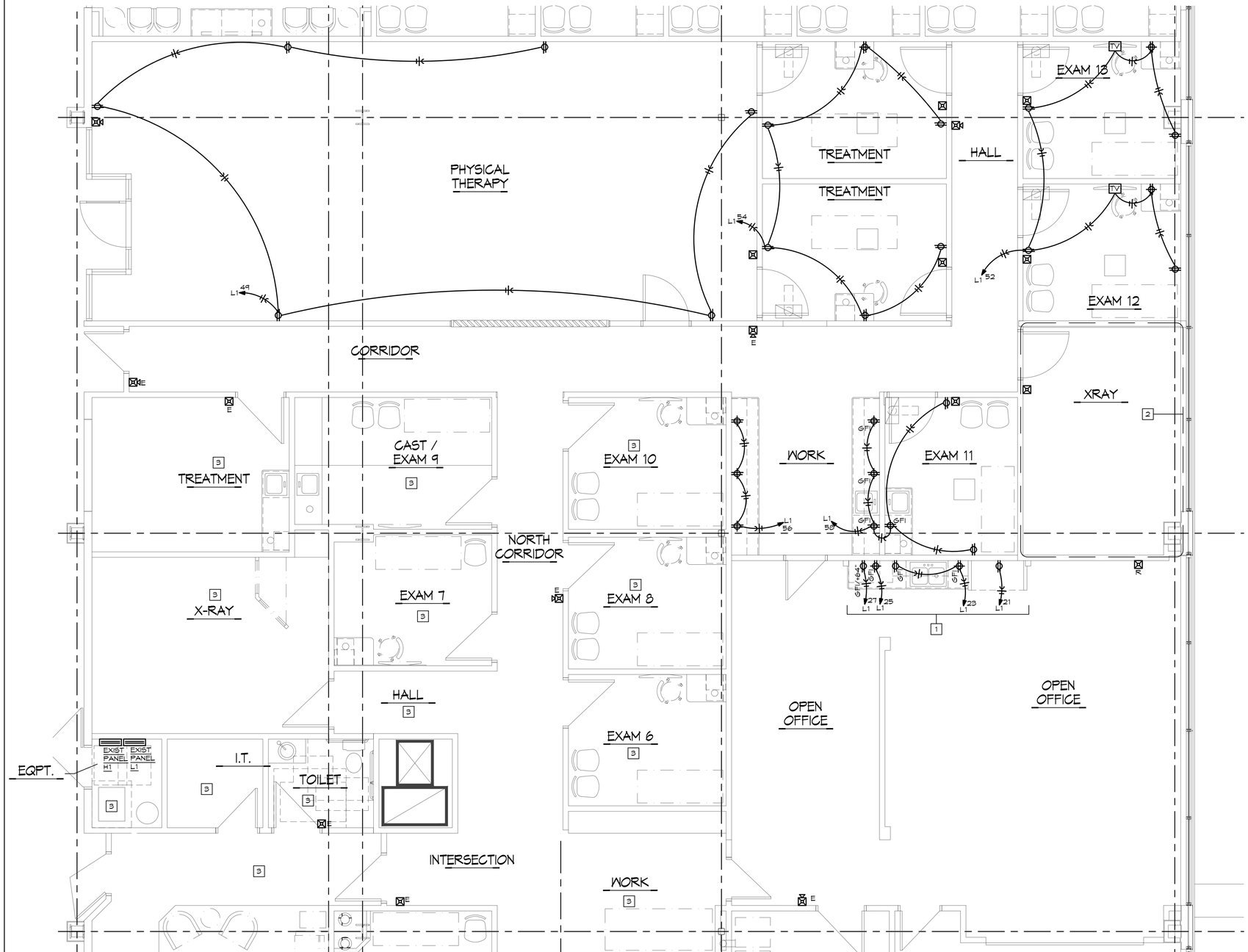
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

PROJECT# 19615

E1

BC PROJECT #: 19615
MISSOURI PE COA #2009003629



ALL DEVICES LABELED WITH "E" ARE EXISTING TO REMAIN.

NORTH

ELECTRICAL POWER PLAN

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

POWER PLAN NOTES:

1. EXTEND EXISTING CIRCUITS FROM EXISTING LOCATION AND RECONNECT AS SHOWN.
2. PROVIDE DEVICES FOR X-RAY SIMILAR TO EXAMPLE ELECTRICAL LAYOUT GE PROTEUS DETAIL THIS SHEET. ADJUST LAYOUT TO FIT ACTUAL SPACE. VERIFY WITH VENDORS FINAL DOCUMENTATION PRIOR TO ROUGH-IN.
3. AREA IS EXISTIGN TO REMAIN, NO WORK.

X-RAY POWER PLAN NOTES:

(A) MAIN DISCONNECT, 480V, 90A WITH MAGNETIC CONTACTOR. FLUSH MOUNTED (SOME OVERHANG MAY OCCUR IN 3-3/4" STUD WALLS) AVAILABLE FROM "GE" AT 800-558-5102 PART #E4502ST. FEED (3)CONDUCTORS AND (1)#1/0 GROUND TO "XG" SEE FEED CHART. CUSTOMER/CONTRACTOR TO SUPPLY AND INSTALL ALL NECESSARY COMPONENTS. REUSE OF EXISTING "A" CONTACTOR FROM CUSTOMER RELOCATION SITE IS ACCEPTABLE, HOWEVER CONTRACTOR WILL HAVE TO REMOVE AND REINSTALL AT NEW LOCATION.

(XG) (1) 16"X16"X4" JUNCTION BOX
(1) COVER PLATE (SPLIT COVER)
(2) 2-1/2" CHASE NIPPLE INSTALLED BY CONTRACTOR (CENTER IN COVER)
(2) 1-1/2" 90 DEGREE METAL FLEX CONNECTORS
(1) 6FT LENGTH OF 1-1/2" METAL FLEX CONDUIT

(XT) (1) 16"X4" VERTICAL WALL DUCT (WIRE RACE WAY) CONNECT TO TOP OF "XG" USE MULTIPLE COVER (MIN 3)

(CS) (1) 8"X8"X4" JUNCTION BOX MOUNTED 48.0"AFF CENTER OF BOX.
(1) COVER
(1) 2-1/2" CHASE NIPPLE INSTALLED BY CONTRACTOR (CENTER IN COVER)

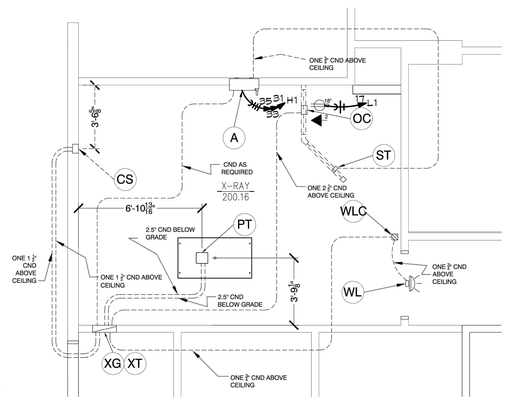
(PT) (1) 8"X8"X4" JUNCTION BOX, MOUNTED FLUSH TO THE FINISHED FLOOR AS INDICATED.

(ST) SINGLE GANG 2-1/2" DEEP FLUSH MOUNTED JUNCTION BOX, SUPPLY AND INSTALL MUSHROOM HEAD "EMERGENCY STOP BUTTON" 60.0"A.F.F. WIRE TO "A" MAIN DISCONNECT MAGNETIC CONTACTOR PER N.E.C. SUPPLIED AND INSTALLED BY ELECTRICAL CONTRACTOR.

(OC) (1) 6"X6"X4" JUNCTION BOX
(1) 2-1/2" CHASE NIPPLE INSTALLED BY CONTRACTOR (CENTER IN COVER)
(1) COVER PLATE

(WL) WARNING LIGHT (X-RAY ON), USE INCANDESCENT LIGHT FIXTURE, DO NOT USE FLUORESCENT. SUPPLIED AND INSTALLED BY CONTRACTOR.

(WLC) WARNING LIGHT (X-RAY ON) LIGHT CONTROLLER, AVAILABLE FROM GE HEALTH CARE AT 800-558-5102, PART NUMBER (E4502RL) 24 VOLT CONTROLLER. PULL SET OF WIRES TO "XG" FOR DRY CONTACT CONNECTION TO X-RAY EQUIPMENT, LEAVING 6.0' OF EXPOSED WIRE IN COIL, TAG AND LABEL "FOR WARNING LIGHT" SUPPLIED AND INSTALLED BY CONTRACTOR.



ELECTRICAL LAYOUT GE PROTEUS
SCALE: 1/2" = 1'-0"
MINIMUM CEILING HEIGHT: 9'-3.0"

BC PROJECT #: 19615
MISSOURI PE COA #2009003629

RELEASED FOR CONSTRUCTION
As Noted on Plans Review
4/7/2023
Development Services Department
Lee's Summit, Missouri
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STATE OF MISSOURI
BRETT M. HERMANN
NUMBER PE-2018035615
REGISTERED PROFESSIONAL ENGINEER

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MISSOURI, 64064

SANO ORTHOPEDICS
ADVANCED ORTHOPEDICS & SPORTS MEDICINE EXPERTS

DATE: 04-07-2023

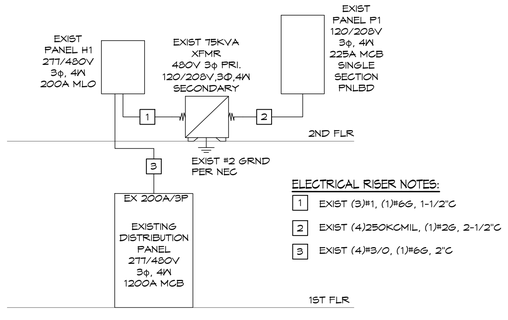
PROJECT# 19615

E2

LIGHT FIXTURE SCHEDULE

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LIGHT SOURCE	DESCRIPTION	EQUIVALENT MANUFACTURERS
D1 D1E	LITHONIA 2BLT2 40L ADP GZ10 LP480 D1E: W/ EL14LSD	UNIV 32	LED 3300LUM 4000K	2' X 2' TROFFER D1E - W/ EMERGENCY BATTERY BACKUP	
D2	LITHONIA 2BLT4 48L ADP GZ10 LP840	UNIV 38	LED 4800LUM 4000K	2' X 4' TROFFER	
L	LITON CH428UE-D10/GR4L17SW-T40	UNIV 16	LED 1500LUM 4000K	6" CAN LIGHT W/ SPECULAR REFLECTOR	
ON	MARK ARCHITECTURAL LIGHTING S4PD-LSL-16FT-MSL4-80CRI-40K-1000LMF-SCT-MIN10-FLL-MVOLT-WHTT	UNIV 8W/LF	LED 1000LUM/LF 4000K	SLOT 4 16' PENDANT, WHITE, 0-10V DIMMING	
ONE	MARK ARCHITECTURAL LIGHTING S4PD-LSL-16FT-MSL4-80CRI-40K-1000LMF-SCT-MIN10-FLL-MVOLT-WHTT-1E10WLCP	UNIV 8W/LF	LED 1000LUM/LF 4000K	SLOT 4 16' PENDANT, WHITE, 0-10V DIMMING ONE 4' SECTION WITH EMERGENCY BATTERY BACKUP	
	LITHONIA ELM4L	120 2	INCL	EMERGENCY LIGHT WITH TWIN ADJUSTABLE 2 WATT LED HEADS AND BATTERY, MOUNT AT 7'-6"±, TO CLEAR OBSTACLES. (PROVIDES 1 FC AVG. ON 3'-9" CENTER FIXTURE SPACING) DAMP LOCATION RATED	SURE-LITES LITHONIA OR EQUAL
⊗	LITHONIA EDG-1-R-EL	UNIV 3	INCL	EDGE LIT EXIT LIGHT WITH LED LAMPS, RED LETTERS ON WHITE BACKGROUND, VERIFY MOUNTING CONFIGUREATION AND FINISH, BATTERY BACKUP	SURE-LITES LITHONIA OR EQUAL

NOTES:



ELECTRICAL RISER NOTES:

1. EXIST (3)#1, (1)#6G, 1-1/2"C
2. EXIST (4)250KCMIL, (1)#2G, 2-1/2"C
3. EXIST (4)#3/0, (1)#6G, 2"C

EXIST ELECTRICAL RISER DIAGRAM

SCALE: NONE — SHOWN FOR REFERENCE ONLY

EXIST PANEL: H1		VOLTS:	277/480V		PH:	3Ø	WIRE:	4W	LOCATION:		UTILITY ROOM			MOUNTING:	SURFACE	
BUS: 225A		MAIN:	200A MLO		IC:	14,000	RMS SYM AMPS							FEEDER:	SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION		CKT NO
1	EX. PATIENT AREA LTG [EX]	20	1	12	2,417			17,510								2
3	EX. OFFICE LIGHTING [EX]	20	1	12		2,200			20,910		1	3	125	EX. PANEL L1		4
5	PHY THERAPY/PATIENT LTG	20	1	12			988			16,550				VIA 75KVA XFMR [EX]		6
7					7,660			3,000								8
9	EX. FPV-1 [EX]	30	3	10		7,660			3,000		12	3	20	EX. FPV-2 [EX]		10
11							7,660			3,000						12
13					2,600			2,600								14
15	EX. FPV-3 [EX]	20	3	12		2,600			2,600		12	3	20	EX. FPV-4 [EX]		16
17							2,600			2,600						18
19					6,500			2,800								20
21	EX. FPV-5 [EX]	30	3	10		6,500			2,800		12	3	20	EX. FPV-6 [EX]		22
23							6,500			2,800						24
25					3,878			2,200								26
27	EX. X-RAY [EX]	100	*3	1		3,878			2,200		12	3	20	FAN POWERED BOX [EX]		28
29							3,878			2,200						30
31					3,878							1	20	SPARE [EX]		32
33	X-RAY	100	3	1		3,878						1	20	SPARE [EX]		34
35							3,878					1	20	SPARE [EX]		36
37	SPARE [EX]	20	1									1	20	SPARE [EX]		38
39	SPARE [EX]	20	1									1	20	SPARE [EX]		40
41	SPARE [EX]	20	1									1	20	SPARE [EX]		42
NOTES:					26,933	26,716	25,504	26,110	31,510	27,150						
[EX]-EXISTING BRKR					53,043		52,226		52,654					TOTAL CONNECTED LOAD:		159,923 VA
*COORDINATE FEEDER SIZE WITH X-RAY VENDOR REQUIREMENTS														NEC DEMAND LOAD:		156,047 VA
PROVIDE ADDITIONAL COMPATIBLE BREAKERS AS REQ'D														DEMAND AMPS @ 480 VOLT / 3Ø:		188.66 A

EXIST PANEL: L1		VOLTS:	120/208V		PH:	3Ø	WIRE:	4W	LOCATION:		UTILITY ROOM			MOUNTING:	SURFACE	
BUS: 225A		MAIN:	225A MCB		IC:	10,000	RMS SYM AMPS							FEEDER:	SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ØA	ØB	ØC	ØA	ØB	ØC	WIRE	POLE	AMPS	DESCRIPTION		CKT NO
1	EX. CONCIERGE DESK [EX]	20	1	12	500			1,440			12	1	20	EX. EXAM 3 & 5 [EX]		2
3	EX. CONCIERGE SIGNAGE [EX]	20	1	12		1,200			1,440		12	1	20	EX. EXAM 2 & 4 [EX]		4
5	EX. SUB-WAITING RECEPT [EX]	20	1	12			720			1,440	12	1	20	EX. EXAM 1 & 6 [EX]		6
7	EX. STERILE RECEPTS [EX]	20	1	12	720			1,440			12	1	20	EX. EXAM 8 & 10 [EX]		8
9	EX. WORK RECEPTS [EX]	20	1	12		720			1,440		12	1	20	EX. EXAM 7 & 9 [EX]		10
11	SPARE [EX]	20	1							1,500	12	1	20	EX. POD RECEPTS [EX]		12
13	SPARE [EX]	20	1					1,500			12	1	20	EX. POD RECEPTS [EX]		14
15	EX. XRAY CONTROLS [EX]	20	1	12		540			1,500		12	1	20	EX. POD RECEPTS [EX]		16
17	XRAY CONTROLS	20	1	12			540			1,500	12	1	20	EX. POD RECEPTS [EX]		18
19	SPARE [EX]	20	1					900			12	1	20	EX. COPIER [EX]		20
21	EX. REFRIGERATOR [GFI] [EX]	20	1	12		900			540		12	1	20	EX. COPIER/FAX RECEPTS [EX]		22
23	EX. GALLEY DW/RCPTS [EX]	20	1	12			680			1,440	12	1	20	EX. FLEX RECEPTS [EX]		24
25	EX. COFFEE MAKER [EX]	20	1	12	900			540			12	1	20	EX. OPEN OFFICE RCPTS [EX]		26
27	EX. MICROWAVE [EX]	20	1	12		1,200			540		12	1	20	EX. OPEN OFFICE RCPTS [EX]		28
29	EX. RR/STORAGE RECEPTS [EX]	20	1	12			360			540	12	1	20	EX. OPEN OFFICE RCPTS [EX]		30
31	EX. WATER HEATER [EX]	30	2	10	2,250			1,500			12	1	20	EX. WASHER [EX]		32
33						2,250			2,200		10	2	30	EX. DRYER [EX]		34
35	EX. RR/HALLWAY RCPTS [EX]	20	1	12			1,080			2,200						36
37	EX. COFFEE RECEPT [GFI] [EX]	20	1	12	500			400			12	1	20	EX. EXHAUST FAN [EX]		38
39	EX. EXAM ROOM LTG [EX]	20	1	12		840			500		12	1	20	EX. IT RACK/WKRM RCPTS [EX]		40
41	EX. CONCIERGE LIGHTING [EX]	20	1	12			350			900	12	1	20	EX PATIO/QUIET/RR RCPTS [EX]		42
43	EX. OVERHEAD DOOR [EX]	20	1	12	1,500			1,080			12	1	20	EX EXAM RECEPTS [EX]		44
45	EX. OVERHEAD DOOR [EX]	20	1	12		1,500			1,080			1	20	EX EXAM RECEPTS [EX]		46
47	EX. OVERHEAD DOOR [EX]	20	1	12			1,500			720	12	1	20	EX WORK RM RECEPTS [EX]		48
49	PHYSICAL THERAPY RECEPTS	20	1	12	1,080			720			12	1	20	EX WORK RM RECEPTS [EX]		50
51	SPARE [EX]	20	1							1,440	12	1	20	EXAM RECEPTS		52
53	SPARE [EX]	20	1							1,080	12	1	20	TREATMENT RECEPTS		54
55	SPARE [EX]	20	1					540			12	1	20	WORK COUNTER RECEPTS		56
57	SPARE [EX]	20	1							1,080	12	1	20	WORK/EXAM RECEPTS		58
59	SPARE [EX]	20	1									1	20	SPARE [EX]		60
NOTES:					7,450	9,150	5,230	10,060	11,760	11,320						
[GFI]-GFCI BRKR, [EX]-EXISTING BRKR					17,510		20,910		16,550					TOTAL CONNECTED LOAD:		54,970 VA
														NEC DEMAND LOAD:		44,493 VA
PROVIDE ADDITIONAL COMPATIBLE BREAKERS AS REQ'D														DEMAND AMPS @ 208 VOLT / 3Ø:		123.50 A

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