A TENANT FINISH PROJECT FOR:

AAC

ADVANCED AESTHETIC CENTER

6 SW 2ND ST., LEE'S SUMMIT, MO 64063

GENERAL NOTES

1. MAINTAIN ACCESS TO EXISTING WALKWAYS, CORRIDORS, AND OTHER ADJACENT OCCUPIED OR USED FACILITIES. DO NOT CLOSE OR OBSTRUCT WALKWAYS, CORRIDORS, OR OTHER OCCUPIED OR USED FACILITIES WITHOUT PERMISSION FROM TENANT.

2. DEFINITIONS:
   - 2.1. REMOVE AND DISCARD: DETACH ITEMS FROM EXISTING CONSTRUCTION AND LEGALLY DISPOSE OF THEM OFF-SITE.
   - 2.2. REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION AND TURN OVER TO TENANT UNDAMAGED.
   - 2.3. RELOCATE: DETACH ITEMS FROM EXISTING CONSTRUCTION, MOVE ITEMS INTACT AND UNDAMAGED, AND REINSTALL THEM WHERE INDICATED.
   - 2.4. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT TO BE REMOVED, BUT ARE TO REMAIN IN PLACE AND BE UNDAMAGED.
   - 2.5. REMOVE AND RECLAIM: DETACH ITEMS FROM EXISTING CONSTRUCTION. AT CONTRACTORS OPTION ITEM MAY BE REUSED AS PART OF NEW WORK. IT SHALL BE THE CONTRACTORS RESPONSIBILITY TO INVENTORY ITEMS TO DETERMINE IF ITEMS WILL FUNCTION AND APPEAR LIKE THE NEW ITEMS SPECIFIED AND CALLED OUT ON THESE DOCUMENTS. IF ITEMS ARE REUSED, CONTRACTOR IS TO CLEAN, REPAIR, OR OTHERWISE BRING ITEMS TO LIKE NEW CONDITION. MODIFY REUSED ITEMS AS REQUIRED AND SUPPLEMENT WITH MATERIALS, AND INCIDENTALS NECESSARY TO EXECUTE A COMPLETE WORKMANLIKE JOB. IF CONTRACTOR CHOOSES TO NOT REUSE ITEM, LEGALLY DISPOSE OF ITEM OFF-SITE AND REPLACE WITH NEW TO MATCH EXISTING.
   - 2.6. PROVIDE: THE MEANING OF THE WORD "PROVIDED" INCLUDES, BUT IS NOT LIMITED TO, FURNISHED, DELIVERED, INSTALLED, FINISHED, MADE FULLY OPERABLE AND COMPLETE. UNLESS SPECIFICALLY NOTED OTHERWISE, ALL WORK DESCRIBED IN THESE DOCUMENTS IS TO BE PROVIDED BY THE CONTRACTOR.

3. 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. CONTRACTOR SHALL COORDINATE THE CUTTING AND PATCHING OF EXISTING CONSTRUCTION NECESSARY TO PERMIT INSTALLATION OR PERFORMANCE OF THE WORK INDICATED IN THESE CONSTRUCTION DOCUMENTS. SAW-CUT CONC. SLAB AS REQUIRED FOR UTILITIES, FOR EQUIPMENT AND SINKS. VERIFY ROUTE AND TRENCH DEPTH IN FIELD. PATCH BACK WITH MATCHING SLAB THICKNESS OVER SAME MATERIAL, COMPACT UNDERLYING MATERIALS TO MEET BEST PRACTICES. DOWEL NEW TO EXISTING WITH #4 REBAR AT 30" OC.

4. THE GENERAL CONTRACTOR OR HIS SUBCONTRACTOR SHALL PROVIDE ALL DESIGN SERVICES AND PERFORM ALL NECESSARY WORK TO PROVIDE PLASTIC LAMINATE CASEWORK AT LOCATIONS INDICATED BY PLAN NOTE F03. WORK UNDER THE CONTRACT SHALL INCLUDE ALL DESIGN SERVICES, LABOR, MATERIALS, AND INCIDENTALS NECESSARY TO EXECUTE A COMPLETE WORKMANLIKE JOB IN ACCORDANCE WITH THE REQUIREMENTS OF ALL APPLICABLE CODES AND ORDINANCES INCLUDING THE AMERICANIZE WITH DISABILITIES ACT GUIDELINES

5. WHERE WALLS, CASEWORK, FINISHES, EQUIPMENT OR OTHER ITEMS AND CONSTRUCTIONS HAVE BEEN REMOVED EXPOSING UNDERLYING WALL AND/OR FLOOR SURFACES, SUCH SURFACES ARE TO BE PATCHED AND REPAIRED AS REQUIRED TO ACCEPT NEW FINISHES. ALL HOLES, DAMAGES, DEFECTS, ETC. IN EXISTING SURFACES ARE TO BE PATCHED TO MATCH EXISTING CONDITIONS.

6. EXISTING CONDITIONS SHOWN ON THESE DRAWINGS ARE BASED UPON BASE BUILDING OR OTHER CONSTRUCTION DOCUMENTS MADE AVAILABLE TO THE DESIGNER BY THE BUILDING MANAGEMENT. ALL AS-BUILT ARCHITECTURAL CONDITIONS HAVE NOT BEEN FIELD VERIFIED AND MAY VARY FROM THOSE SHOWN.

7. PRIOR TO BID: FIELD VERIFY ALL EXISTING CONSTRUCTION TO REMAIN AND INCLUDE COSTS FOR REPAIR AND RECONDITION OF ALL EXISTING CONSTRUCTION TO REMAIN SO THAT IT MEETS THE AESTHETIC AND FUNCTIONAL STANDARD OF QUALITY FOR NEW CONSTRUCTION. BLEND AND MATCH EXISTING CONSTRUCTION WITH NEW CONSTRUCTION. PRIOR TO BID, ADVISE TENANT OF ANY CONDITIONS WHICH CANNOT BE REPAIRED OR RECONDITIONED, BLENDED AND MATCHED. NOTE CONTRACT DOCUMENT REQUIREMENTS FOR EXISTING CONSTRUCTION AND INCLUDE COSTS FOR THIS WORK IN BID PROPOSAL.

8. THE GENERAL CONTRACTOR SHALL, IN THE BIDDING PROCESS, REQUIRE THAT MECHANICAL AND ELECTRICAL SUBCONTRACTORS MAKE A THOROUGH FIELD INSPECTION OF AS-BUILT CONDITIONS OF EXISTING SYSTEMS. AFTER SUCH FIELD VERIFICATION HAS BEEN COMPLETED, THE GENERAL CONTRACTOR AND SUBCONTRACTORS SHALL PROVIDE IN THEIR BIDS, ANY MODIFICATIONS TO THE EXISTING SYSTEMS WHICH MAY BE REQUIRED TO ACCOMMODATE THE PROPOSED REQUIREMENTS FOR THIS TENANT. IF A DETERMINATION OF SUCH MODIFICATIONS CANNOT BE MADE, THE GENERAL CONTRACTOR SHALL NOTIFY THE TENANT, AND AT THE DIRECTION OF THE TENANT, PROVIDE AN AGREED UPON ALLOWANCE TO COVER SUCH WORK.

9. COMMENCING WORK BY A CONTRACTOR OR SUBCONTRACTOR CONSTITUTES ACCEPTANCE OF THE UNDERLYING CONDITIONS AND SURFACES. PRIOR TO PROCEEDING WITH THE WORK, PREPARE EXISTING AND NEW UNDERLYING CONDITIONS AND SUBSTRATE TO COMPLY WITH THE CONTRACT DOCUMENTS, INDUSTRY STANDARDS AND MANUFACTURER'S RECOMMENDATION.

10. FIELD VERIFY ALL ROUGH OPENINGS AND WALL WIDTHS PRIOR TO ORDERING OR FABRICATION OF MATERIALS.

11. DIMENSIONS ARE NOMINAL AND TO THE FACE OF PARTITIONS

12. CLEAN-UP OF RUBBISH AND DEBRIS RESULTING FROM DEMOLITION AND NEW WORK SHALL BE COLLECTED REGULARLY FROM PROJECT SITE AND LEGALLY DISPOSED

13. ALL WEATHER EXPOSED SURFACES SHALL HAVE A WEATHER RESISTIVE BARRIER TO PROTECT THE INTERIOR WALL COVERING AND EXTERIOR OPENINGS SHALL BE FLASHED IN SUCH A MANNER AS TO MAKE THEM WEATHERPROOF

14. BUILDING ADDRESS NUMBERS TO BE PROVIDED ON THE FRONT AND STREET SIDE OF THE BUILDING. SAID NUMBERS SHALL BE A MIN. OF 1' HIGH WITH 1" WIDE STROKES CONTRASTING WITH THEIR BACKGROUND

15. CONTRACTORS ARE RESPONSIBLE FOR ALL MATERIALS AND QUANTITIES SHOWN IN THESE DRAWINGS GRAPHICALLY AS WELL AS THOSE CALLED FOR BY NOTE

16. THE CONTRACTOR SHALL OBTAIN ALL NECESSARY PERMITS TO COMPLETE THE PROPOSED WORK AND SHALL COMPLY WITH ALL LOCAL, STATE, AND FEDERAL REGULATIONS

17. THE TENANT OR THE TENANT'S DESIGNATED REPRESENTATIVE WILL PROVIDE SERVICES IN CONNECTION WITH ADMINISTRATION OF THE CONTRACT

18. ALL WORK SHALL BE PERFORMED IN ACCORDANCE WITH ALL LOCAL LAWS, ORDINANCES, RULES AND REGULATIONS OF THE GOVERNING AGENCIES HAVING JURISDICTION

19. THE CONTRACTOR MUST TAKE ADEQUATE CARE TO PROTECT ALL AREAS OF THE BUILDING WHERE THE WORK OF THIS PROJECT IS LOCATED AS WELL AS THE AREAS ADJACENT TO THE AREA OF THE WORK OF THIS PROJECT SO AS TO PREVENT DAMAGE TO LIFE OR PROPERTY AS A RESULT OF THIS CONSTRUCTION PROJECT

20. ONLY MATERIALS THAT ARE NEW, UNUSED, FREE FROM DEFECTS, AND THE BEST OF THEIR RESPECTIVE KINDS SHALL BE USED. THE BASIS OF QUALITY SHALL BE THE LATEST STANDARDS OF ASTM, ASA OR ASHRA

21. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH ALL OTHER TRADES INCLUDING THOSE OF THE TENANT WHO MAY BE ENGAGED UNDER A SEPARATE CONTRACT

22. INSTALL ALL WORK IN SUCH A MANNER AS TO BE READILY ACCESSIBLE FOR OPERATION, MAINTENANCE AND/OR REPAIRS

23. ALL WORK AND EQUIPMENT SHALL BE CLEANED TO THE SATISFACTION OF THE TENANT BEFORE BEING TURNED OVER FOR USE

24. A COPY OF THE LATEST SET OF CONSTRUCTION DOCUMENTS SHALL BE KEPT AT THE JOB SITE AT ALL TIMES

25. THE CONTRACTOR AND EACH SUBCONTRACTOR SHALL KEEP ACCURATE RECORDS OF ANY MODIFICATION OR DEVIATIONS FROM THE CONTRACT DRAWINGS

26. PROJECT CLOSE OUT DOCUMENTS SHALL BE PROVIDED TO THE TENANT. INCLUDE AS-BUILT DRAWINGS, WARRANTY/MAINTENANCE MANUALS AND TESTING AND SUPERVISION AS REQUIRED. PRESERVE ALL PRINTED INSTRUCTIONS AND WARRANTIES THAT ARE PROVIDED WITH EQUIPMENT OR MATERIALS USED, AND DELIVER SAID PRINTED MATTER TO THE TENANT AT THE TIME OF SUBSTANTIAL COMPLETION. IF REQUESTED BY THE TENANT, INSTRUCT THE MANAGEMENT IN THE PROPER USE AND MAINTENANCE OF ALL ITEMS OF WORK PROVIDED.

27. PROVIDE WORK IN ACCORDANCE WITH THE MANUFACTURE'S RECOMMENDATION, EXCEPT IN THE CASE WHERE THE CONTRACT DOCUMENTS ARE MORE STRINGENT. PROVIDE ANY MISCELLANEOUS ITEMS OR MATERIALS NOT SPECIFICALLY NOTED, BUT REQUIRED FOR PROPER INSTALLATION OF THE WORK.

28. ALL WORK SHALL BE WARRANTED BY THE CONTRACTOR TO BE SATISFACTORY, IN MATERIALS AND WORKMANSHIP, FOR A MINIMUM PERIOD OF ON (1) YEAR, OR FOR THE PERIOD OF WARRANTY CUSTOMARY, SPECIFIED FOR, THE TRADE, CRAFT OR PRODUCT, WHICHEVER IS LONGER.

29. SUBMIT REQUESTS FOR SUBSTITUTIONS OF SPECIFIED ITEMS IN WRITING, ACCOMPANIED BY THE ALTERNATIVE PRODUCT INFORMATION, TO THE TENANT. SUBSTITUTIONS MAY BE CONSIDERED ONLY IF THEY DO NOT SACRIFICE QUALITY, APPEARANCE AND FUNCTION. ACCEPTANCE OF SUBSTITUTIONS IS AT THE SOLE DISCRETION OF THE TENANT.

30. XRAY EQUIPMENT TO BE COORDINATED WITH SUPPLIER. CONTRACTOR TO PROVIDE BLOCKING AS REQUIRED. CONTRACTOR TO PROVIDE HOOK-UPS AS REQUIRED.

31. SHIELDING RECOMMENDATION ARE FOR PRELIMINARY BUDGET PURPOSES ONLY. TENANT WILL HIRE A QUALIFIED MEDICAL PHYSICIST TO PROVIDE SHIELDING DESIGN AND REPORT. FINAL INSTALLATION OF SHIELDING TO BASED ON PHYSICIST'S REPORT.

CODE NOTES

A. INTERIOR TENANT FINISH

B. ALL CONSTRUCTION FOR THIS PROJECT SHALL CONFORM TO THE FOLLOWING BUILDING CODES AS ADOPTED AS AMENDED BY LEES SUMMIT, MISSOURI:
- B.A. 2018 International Building Code
- B.B. 2018 International Plumbing Code
- B.C. 2018 International Mechanical Code
- B.D. 2018 International Fuel Gas Code
- B.E. 2018 International Fire Code
- B.F. 2017 National Electrical Code
- B.G. ICC/ANSI A117.1-2009, Accessible and Usable Buildings and Facilities

C. OCCUPANCY GROUP: B - PROFESSIONAL OFFICE

D. CONSTRUCTION TYPE: COMBUSTIBLE = VB

E. SQUARE FOOTAGE:
- E.A. GROSS = 4,853 SF
- E.B. NET USEABLE (INSIDE FACE OF EXTERIOR WALLS, EXCLUDES MECH. ROOMS) = 4,431 SF

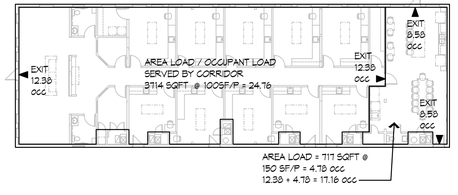
F. OCCUPANT LOAD (SEE PLAN):
- F.A. 4,431SF ÷ 150SF/P BUSINESS AREAS = 29.54 ≈ 30 OCCUPANTS

G. FIRE PROTECTION: NON-SPRINKLED

H. PLUMBING REQUIREMENTS:
- H.1. 30 (OCCUPANT LOAD) / 2 = 15
- H.2. WATER CLOSETS (MEN) = 15 / 25 = 0.60 ≈ 1 PROVIDED
- H.3. WATER CLOSETS (WOMEN) = 15 / 25 = 0.60 ≈ 1 PROVIDED
- H.4. LAVATORIES (MEN) = 15 / 40 = 0.375 ≈ 1 PROVIDED
- H.5. LAVATORIES (WOMEN) = 15 / 40 = 0.375 ≈ 1 PROVIDED
- H.6. DRINKING FOUNTAINS = ACCESSIBLE BREAK ROOM SINK PROVIDE PER CITY ORDINACE

AREA MAP

CODE PLAN



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ADVANCED AESTHETIC CENTER

6 SW 2ND ST., LEE'S SUMMIT, MO 64063

STATE OF MISSOURI · KENNETH KLEFFNER · NUMBER A-5744 · REGISTERED ARCHITECT

06-16-2022

DATE: 6-16-2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

CS

DIVISION 1 - GENERAL REQUIREMENTS

1. GENERAL REQUIREMENTS 01000

2. 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.

3. Satisfy all applicable local codes and ordinances. Reference the cover sheet for list of codes.

4. Contractor to pay for Construction Permit Fees, Excise Tax, Tap Fees, Ect. as applicable to the local Municipalities and Utility Companies.

5. 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 01100

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, USG, 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. Insulation Schedule
   - 2.1. Exterior Walls: batts of fiberglass with foil skrim kraft (FSK) vapor barrier in thickness to match cavity depth
   - 2.2. Gaps and voids around door and window areas and in built up wood lintels:Minimal expanding foam insulation shall be Dow Chemical Great Stuff. It is to be Tack free in 20 minutes and with full cure in 8 hours at room temperature and 50% relative humidity. It is to be paintable and stainable.
   - 2.3. Interior non-loadbearing walls: Unfaced Fiberglass Batts - Certainteed CertaPRO AcoustaTherm Batts in thickness to fill entire cavity.

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

WOOD DOORS

1. Single swing interior doors shall be solid core premium grade wood veneer with matching edges. Specise, stain and finish to be selected by owner. 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 selected by owner. 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 partitions - general: USG 5/8" Sheetrock Brand Firecode X Panels, long edges tapered.
   - 5.2. Interior ceilings and soffits: USG 5/8" Sheetrock Brand Firecode X Panels, long edges tapered.
   - 5.3. Interior partitions in wet areas/toilet rooms: USG 5/8" Sheetrock Brand Glass-Mat Panels Mold Tough Firecode X, long edges tapered.
   - 5.4. Interior partitions to recieve wall tile: USG 5/8" Fiberock Brand Aqua-Tough AR Interior Panels

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: Floor finishes are to be tightly butted together (unless edge protection is specified or is required by the 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. Where flooring is to be tightly butted against ceramic or porcelain tile in addition to subleveler installation beneath the thinner floor material, edge protection is to be provided on tile as indicated in the finish legend.

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 transparent finish (unless noted otherwise):
   - 5.1. 1 ct. General Finishes Pre-Stain Wood Conditioner
   - 5.2. Up to 2 cts (to obtain dark color) General Finishes Dye Concentrates
   - 5.3. 1 ct General Finishes Oil Base Wood Stain
   - 5.4. 1 ct. General Finishes EF High Performance Polyurethane Top Coat-Satin
   - 5.5. Sand between coats using 180 or finer grit sandpaper.
   - 5.6. 1 ct. General Finishes EF High Performance Polyurethane Top Coat-Satin

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 EQUIPMENT INSTALLATION WITH OWNER AND OWNER'S EQUIPMENT SUPPLIER.

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 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 interiors to have plastic laminate to match exteriors unless noted otherwise. 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 1½" radius.
   - 3.1. Plastic Laminate countertops are to be 1¼" thick with plastic laminate faces and 3mm (⅛") flexible PVC edges. Backsplashes are to be provided, 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. Nominal ¾" thick matching backsplashes are to be provided.
   - 3.3. Quartz Surfacing shall be as indicated on Finish Legend. Surfaces of material are to be epoxy joined with inconspicuous seams. Nominal ¾" thick matching backsplashes are to be provided.

4. 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.

5. 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.

6. Hardware shall be heavy-duty satin chrome. Hinges shall be European concealed heavy duty hinges. All doors over 36" tall to have three hinges. All pulls are to be 4" bent wire pulls, unless otherwise noted. Finish to be 26D. Removable panels are to be secured with Hafele Keku push fit fastners.

7. 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.

8. 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.

9. 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.

10. 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".

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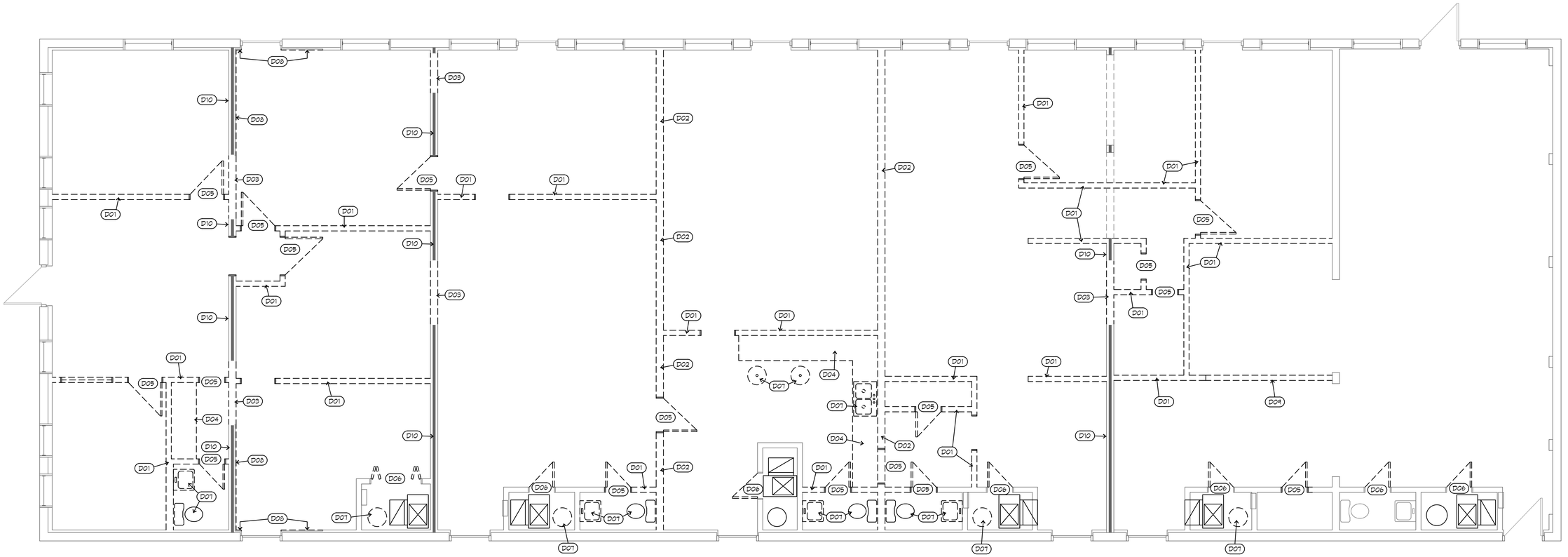
STATE OF MISSOURI · KENNETH J. KUFFNER · NUMBER A-5 · REGISTERED ARCHITECT

06-16-2022

DATE: 6-16-2022 PROJECT# 22009

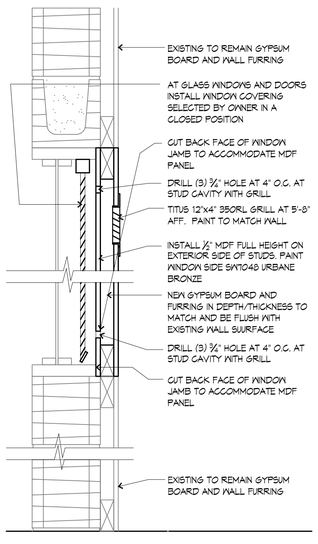
REV#	DATE	DESCRIPTION

A1

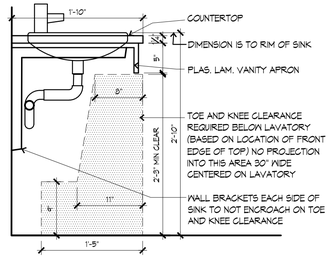


1 DEMOLITION PLAN
1/4"=1'-0"

PLAN NORTH



3 WALL DETAIL
1/4"=1'-0"



2 LAVATORY SECTION
1"=1'-0"

TOILET ROOM TYPICAL NOTES

1. PROVIDE WATER CLOSET WITH SEAT HEIGHT BETWEEN 17 AND 19 INCHES MEASURED TO TOP OF THE SEAT. FLUSH CONTROLS SHALL BE LOCATED ON THE OPEN SIDE OF THE WATER CLOSET. CENTERLINE OF WATER CLOSET SHALL BE 16" TO 18" FROM THE SIDE WALL.
2. PROVIDE LAVATORY WITH RIM MOUNTED AT 34 INCHES MAXIMUM ABOVE THE FINISH FLOOR OR GROUND PER DETAIL 2/A1. BOTTOM OF APRON TO BE 27 INCHES MINIMUM ABOVE THE FINISH FLOOR OR GROUND. WATER SUPPLY AND DRAIN PIPES UNDER LAVATORY SHALL BE INSULATED OR OTHERWISE CONFIGURED TO PROTECT AGAINST CONTACT. THERE SHALL BE NO SHARP OR ABRASIVE SURFACES UNDER LAVATORY. THE CENTERLINE OF THE LAVATORY SHALL BE A MINIMUM OF 15" FROM THE SIDE WALL.
3. OWNER PROVIDED MIRROR TO BE 40" MAXIMUM TO REFLECTIVE SURFACE.
4. PROVIDE TOILET PAPER DISPENSER TO BE 7 INCHES FROM RIM OF TOILET TO CENTER OF TOILET PAPER ROLL(IN PLAN HORIZONTAL.) TOILET PAPER TO BE 19" MINIMUM ABOVE FINISHED FLOOR.
5. PROVIDE GRAB BARS. SIDE HORIZONTAL GRAB BAR TO BE 42" MIN LONG, 12" FROM BACK WALL, AND 33"-36" AFF. SIDE VERTICAL GRAB BAR TO BE 18" MIN. LONG, 40" FROM BACK WALL, AND 40" AFF TO BOTTOM OF BAR. REAR HORIZONTAL GRAB BAR TO BE 36" MIN LONG, 6" MAX FROM BACK WALL, AND 33"-36" AFF. ALL GRAB BARS TO HAVE 1½" MAX DIA. AND 1½" OFFSET FROM WALL.
6. SOAP AND PAPER TOWEL DISPENSERS (IF PROVIDED) TO BE INSTALLED AT 34" AFF TO SOAP SPOUT OR TOWEL DISPENSING LOCATION.
7. PROVIDE ON EXTERIOR LATCH SIDE OF DOOR MATTE FINISH TOILET ROOM SIGN 60" A.F.F. WITH BRAILLE AND WITH RAISED CONTRASTING LETTERS ⅝" TO 2" TALL WITHOUT SERIFS.

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. REMOVAL IS TO INCLUDE THE REMOVAL OF FLOORING ADHESIVES AND MASTICS AS REQUIRED TO MEET THE INSTALLATION REQUIREMENTS FOR THE NEW FLOORING TO BE PLACED.
2. THROUGHOUT PRIMARY AREA OF WORK WHERE NEW CEILINGS HAVE BEEN INDICATED ON THE CEILING PLAN, REMOVE AND DISCARD ACOUSTICAL CEILING TILES AND EXPOSED 'T' GRID. REMOVE AND DISCARD LIGHT FIXTURES. REMOVE AND DISCARD EMERGENCY LIGHTS AND EXIT SIGNS.
3. THROUGHOUT PRIMARY 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.
4. THROUGHOUT PRIMARY AND ALTERNATE AREAS OF WORK WHERE NEW PAINT FINISHES ARE INDICATED ON THE FINISH SCHEDULE REMOVE AND DISCARD EXISTING WALL COVERINGS. PATCH AND REPAIR SURFACES TO PROVIDE A SMOOTH FINISH.

DEMOLITION PLAN NOTES

- D01 REMOVE AND DISCARD WALL AND FRAMING.
- D02 EXISTING LOAD BEARING WALL IS TO BE SHORED. REMOVE AND DISCARD WALL AND FRAMING. REFER TO STRUCTURAL DRAWINGS FOR NEW WORK TO SUPPORT ROOF FRAMING.
- D03 REMOVE AND DISCARD WALL AND FRAMING AND REFRAME WITH NEW JAMB STUDS AND LINTEL PER STRUCTURAL DRAWINGS.
- D04 REMOVE AND DISCARD CASEWORK AND COUNTERTOPS.
- D05 REMOVE AND DISCARD DOOR, FRAME, CASINGS, AND HARDWARE.
- D06 REMOVE AND DISCARD DOOR, CASINGS, AND HARDWARE. FRAME IS EXISTING TO REMAIN
- D07 REMOVE AND DISCARD PLUMBING FIXTURES. REMOVE AND DISCARD UNUSED PLUMBING BACK TO MAIN LINES AND CAP.
- D08 REMOVE AND DISCARD GYPSUM BOARD FROM FACE OF EXISTING TO REMAIN FRAMING.
- D09 REMOVE AND DISCARD HEADER UP TO STRUCTURE.
- D10 REFER TO STRUCTURAL DRAWINGS FOR WORK RELATED TO EXISTING TO REMAIN SHEAR WALLS.

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A TENANT FINISH PROJECT FOR:

AAC
ADVANCED AESTHETIC CENTER

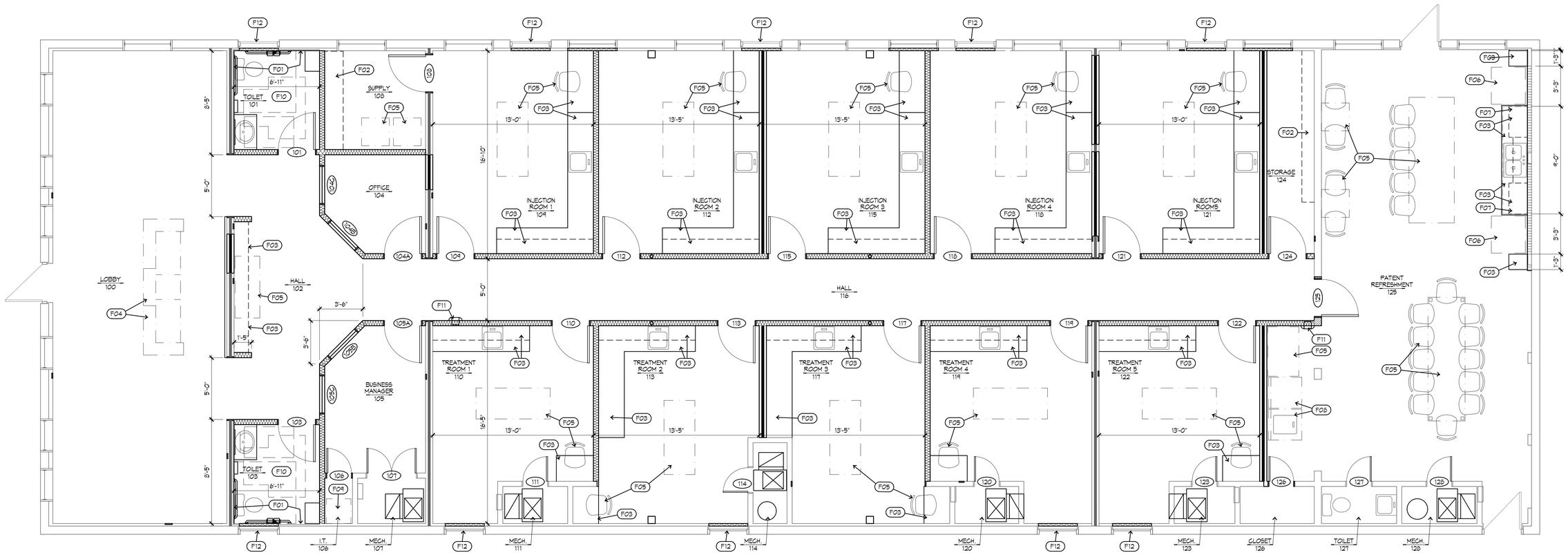
6 SW 2ND ST., LEE'S SUMMIT, MO 64063

STATE OF MISSOURI
KENNETH KIEFFER
NUMBER A-2008020
REGISTERED ARCHITECT
06-16-2022

DATE: 6-16-2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

A2



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

PLAN NORTH

FINISH SCHEDULE

EX EXISTING TO REMAIN FINISH

FLOORING

VVT LUXURY VINYL TILE: PATCRAFT TIMBER GROOVE II 5MM 1559V SPROUT 00113

BASE

WDB NEW WOOD BASEBOARD AND SHOE. PAINT. COORDINATE SIZE AND PROFILES WITH OWNER.

PAINT COLORS

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

PT1 PRIMARY FIELD COLOR: (TO BE DETERMINED)

PT2 ACCENT FIELD COLOR: (TO BE DETERMINED)

PT3 ACCENT COLOR: (TO BE DETERMINED)

PT4 TOILET ROOM COLOR: (TO BE DETERMINED)

PT5 SOFFIT COLOR: (TO BE DETERMINED)

PT6 CEILING COLOR (TO BE DETERMINED)

PT7 DOORS, JAMBS AND CASINGS: (TO BE DETERMINED)

CASEWORK AND MILLWORK FINISHES

L1 BASE CABINETS AND UPPERS: WILSONART WOOD LOOK LAMINATE WITH FINE GRAIN 78 PREMIUM FINISH (TO BE DETERMINED)

L2 COUNTERTOPS (EXCEPT TOILET ROOMS): WILSONART HD HIGH DEFINITION LAMINATE WITH 35, 45, OR 55 PREMIUM FINISH (TO BE DETERMINED)

SS1 COUNTERTOPS IN TOILET ROOMS: WILSONART SOLID SURFACE TO BE SELECTED FROM PRICE GROUP 5.

FINISH SCHEDULE

RM. # 207.#	ROOM NAME	FLOOR	BASE	WALL				NOTES
				NORTH	EAST	SOUTH	WEST	
100	LOBBY	VVT	WDB	PT1,PT2	PT1	PT1	PT1	
101	TOILET	VVT	WDB	PT4	PT4	PT4	PT4	
102	HALL	VVT	WDB	PT1	PT1	PT2	PT1	
103	TOILET	VVT	WDB	PT4	PT4	PT4	PT4	
104	OFFICE	VVT	WDB	PT2	PT1	PT1	PT1	
105	BUS. MGR.	VVT	WDB	PT2	PT1	PT1	PT1	
106	I.T.	VVT	WDB	PT1	PT1	PT1	PT1	
107	MECH.	EX	EX	EX	EX	EX	EX	
108	SUPPLY	VVT	WDB	PT1	PT1	PT1	PT1	
109	INJ. RM. 1	VVT	WDB	PT1	PT1	PT2	PT1	
110	TRT. RM. 1	VVT	WDB	PT2	PT1	PT1	PT1	
111	MECH.	EX	EX	EX	EX	EX	EX	
112	INJ. RM. 2	VVT	WDB	PT1	PT1	PT2	PT1	
113	TRT. RM. 2	VVT	WDB	PT2	PT1	PT1	PT1	
114	MECH.	EX	EX	EX	EX	EX	EX	
115	INJ. RM. 3	VVT	WDB	PT1	PT1	PT2	PT1	
116	HALL	VVT	WDB	PT1	PT1	PT1	PT1	
117	TRT. RM. 3	VVT	WDB	PT2	PT1	PT1	PT1	
118	INJ. RM. 4	VVT	WDB	PT1	PT1	PT2	PT1	
119	TRT. RM. 4	VVT	WDB	PT2	PT1	PT1	PT1	
120	MECH.	EX	EX	EX	EX	EX	EX	
121	INJ. RM. 5	VVT	WDB	PT1	PT1	PT2	PT1	
122	TRT. RM. 5.	VVT	WDB	PT2	PT1	PT1	PT1	
123	MECH	VVT	WDB	PT1	PT1	PT1	PT1	
124	STORAGE	VVT	WDB	PT1	PT1	PT1	PT1	
125	PT. REFRESH.	EX	EX	PT1	PT1	PT1	PT1	
126	CLOSET	EX	WDB	PT1	PT1	PT1	PT1	
127	TOILET	VVT	WDB	PT4	PT4	PT4	PT4	
128	MECH	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.

WALL TYPE LEGEND

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.
6. AT CONTRACTOR OPTION WOOD STUD FRAMING OF NOMINAL SIZE TO STUDS INDICATED MAY BE SUBSTITUTED.

EXISTING TO REMAIN WALL. PATCH AND REPAIR GYPSUM BOARD AS REQUIRED FOR INSTALLATION OF NEW WORK. WHERE NEW FINISHES ARE INDICATED ON THE FINISH SCHEDULE PATCH AND REPAIR SURFACES TO PROVIDE A SMOOTH FINISH.

3⅝" 25 GAUGE MTL. STUDS @ 16" O.C. WITH ⅝" GYPSUM BOARD EACH SIDE AND 3½" UNFACED ACOUSTICAL BATTS. EXTEND ALL TO 4" ABOVE CEILINGS. FOR WALLS LONGER THE 8'-0" BETWEEN TWO 90° CORNERS PROVIDE 45° KICKERS UP TO STRUCTURE AT 4'-0" O.C.

INFILL EXISTING OPENING FROM FLOOR OR SILL TO HEAD PER DETAIL 3/A2

INFILL OPENING WITH FRAMING IN DEPTH AS REQUIRED TO PROVIDE FLUSH SURFACE WITH EXISTING TO REMAIN WALLS

3⅝" 25 GAUGE MTL. STUDS @ 16" O.C. WITH ⅝" GYPSUM BOARD ONE SIDE AND 3½" UNFACED ACOUSTICAL BATTS. EXTEND ALL TO UNDERSIDE OF STRUCTURE.

NEW OR MODIFIED SHEAR WALL PER STRUCTURAL DRAWINGS.

FLOOR PLAN NOTES

F01 OVER EXISTING TO REMAIN FRAMING INSTALL ONE LAYER OF ⅝" GYPSUM BOARD FULL HEIGHT.

F02 SIX HIGH 1" THK. X 14" DP WHITE 85 GRAM MELAMINE SHELVING W/ .020 PVC EDGE. PROVIDE KV 82 SERIES WH 78" LONG STANDARDS W/ 182 SERIES WH BRACKETS TYP. PROVIDE A BRACKET 6" FROM EACH END AND AT 30" MAX O.C.

F03 PLASTIC LAMINATE CASEWORK TO BE DESIGN BUILT BY CONTRACTOR, REFER TO GENERAL NOTE #4. RIM OF SINK(S) AT TOILET 101, TOILET 103 AND PATIENT REFRESHMENT 125 TO BE 2'-10" AFF.

F04 OWNER FURNISHED RECEPTION FURNITURE. FURNITURE TO HAVE TRANSACTION SURFACE WITH MIN. 3'-1" WIDE SECTION AT LESS THAN 34" A.F.F. OWNER PROVIDED FURNITURE NOT IN CONTRACT IS INDICATED THUS

F05 FURNITURE AND EQUIPMENT SUPPLIED BY OWNER IS INDICATED THUS —— . —— COORDINATE REQUIREMENTS WITH OWNER FOR BLOCKING AND HOOK-UPS.

F06 REFRIGERATOR TO BE OWNER FURNISHED CONTRACTOR INSTALLED.

F07 MICROWAVE IN CASEWORK ABOVE TO BE OWNER FURNISHED CONTRACTOR INSTALLED.

F08 WASHER AND DRYER TO BE OWNER FURNISHED AND CONTRACTOR INSTALLED.

F09 COMPUTER SERVER RACK TO BE FURNISHED AND INSTALLED BY OWNERS VENDOR

F10 PROVIDE MOISTURE RESISTANT GYP. BD. IN LIEU OF STANDARD GYP. BD. ON ALL WALL SURFACES OF TOILET ROOM. PROVIDE FIXTURES AND ACCESSORIES AS OUTLINED IN THE TOILET ROOM TYPICAL NOTES ON SHEET A2.

F11 PROVIDE FIRE EXTINGUISHER AND CABINET PER SPECIFICATIONS.

F12 EXISTING DOOR IS TO BE CLOSED AND LOCKED WITH DEADBOLT. REMOVE EXTERIOR KNOB OR PULL AND COVER WITH BLANK PLATE. SEAL PERIMETER OF DOOR WITH BACKERROD AND SEALANT.

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A TENANT FINISH PROJECT FOR:

AAC
ADVANCED AESTHETIC CENTER

6 SW 2ND ST., LEE'S SUMMIT, MO 64063

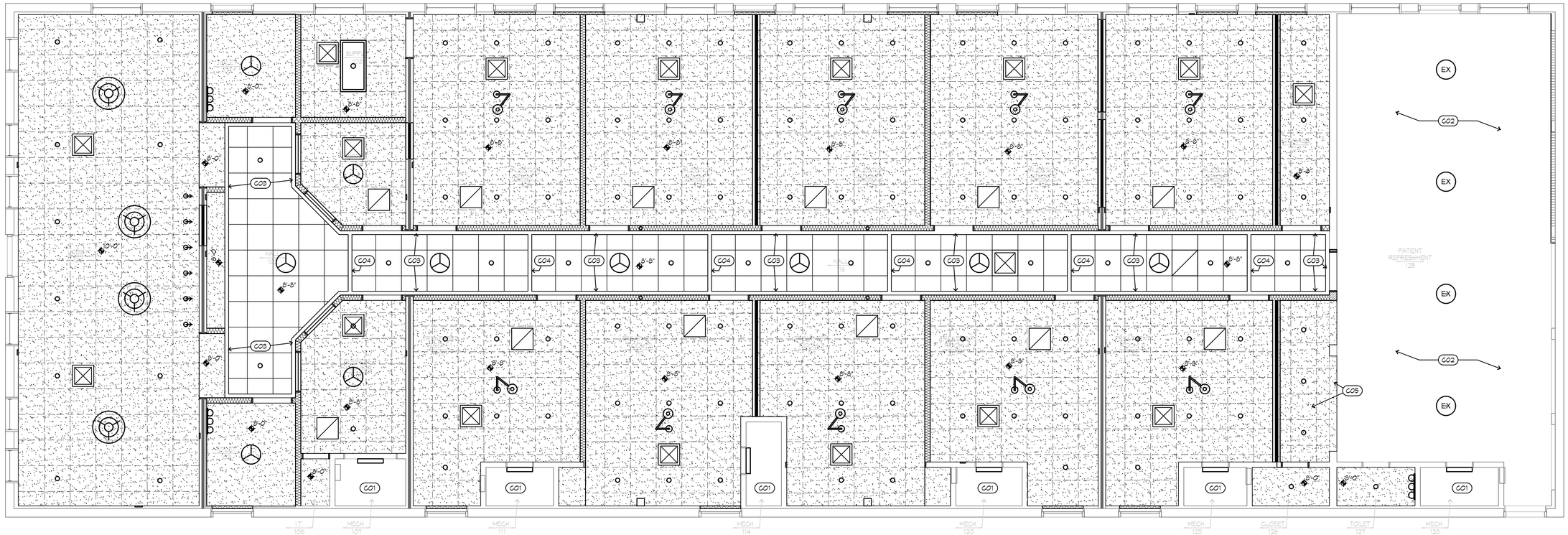
STATE OF MISSOURI — KENNETH KURT GRONBERG — NUMBER A-5114 — REGISTERED ARCHITECT

06-16-2022

DATE: 6-16-2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

A3



1 CEILING PLAN
1/4"=1'-0"

PLAN NORTH

HARDWARE SCHEDULE

NOTE: DOOR HARDWARE LISTED HERE-IN IS TO ESTABLISH THE SIGNIFICANT QUALITIES RELATED TO TYPE, FUNCTION, DIMENSION, PRICE, PHYSICAL PROPERTIES, APPEARANCE, AND OTHER CHARACTERISTICS OF THE PRODUCT. PROVIDE THE LISTED PRODUCT OR APPROVED EQUAL. FINAL SELECTION OF ALL DOOR HARDWARE IS TO BE ESTABLISHED AND APPROVED BY THE OWNER'S CONSTRUCTION MANAGER.

H/W SET: 01 (passage)
EACH TO HAVE:
3 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA PASSAGE J-75-S-A US26D DH
1 EA WALL STOP W5407CCV 630 IVE
3 EA SILENCER SR66 GRY IVE

H/W SET: 02 (entry/office)
EACH TO HAVE:
3 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA ENTRY J-82-S-A US26D DH
1 EA WALL STOP W5407CCV 630 IVE
3 EA SILENCER SR66 GRY IVE

H/W SET: 03 (toilet)
EACH TO HAVE:
2 EA HINGE 35P1 4.5 X 4.5 652 IVE
1 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA PRIVACY J-76-S-A US26D DH
1 EA WALL STOP W5407CCV 630 IVE
1 SET SEALS 5050C BLK NSP

H/W SET: 04 (pair)
EACH TO HAVE:
6 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA PASSAGE J-75-S-A US26D DH
1 EA WALL STOP W5407CCV 630 IVE
3 EA SILENCER SR66 GRY IVE

H/W SET: 05 (push/pull)
EACH TO HAVE:
2 EA HINGE 35P1 4.5 X 4.5 652 IVE
1 EA HINGE 5BB1 4.5 X 4.5 652 IVE
1 EA PUSH PLATE 8200 4"X16" 626 IVE
1 EA PULL PLATE 8302 4"X16", 8" PULL 626 IVE
1 EA OH STOP 905 630 GLY
3 EA SILENCER SR64 GRY IVE

FRAME TYPES

A. NEW WOOD FRAME WITH STOPS. PROVIDE NEW CASINGS. COORDINATE SIZE AND PROFILES WITH OWNER. PAINT JAMBS AND CASINGS PT1.
B. EXISTING TO REMAIN JAMBS. PROVIDE NEW CASINGS. COORDINATE SIZE AND PROFILES WITH OWNER. (CASINGS NOT REQUIRED ON INSIDE OF MECH. ROOMS) PAINT JAMBS AND CASINGS PT1.
C. NEW WOOD FRAME WITH WINDOW STOPS AND CASING. COORDINATE SIZE AND PROFILES WITH OWNER. PAINT JAMBS, STOPS AND CASINGS PT1. PROVIDE ¼" CLEAR TEMPERED GLASS IN OPENING. HEAD OF OPENING TO BE A 6'-8" AFF.

DOOR TYPES

1. OWNER FURNISHED CONTRACTOR INSTALLED DOOR - PAINT PT1.

DOOR SCHEDULE

DOOR #	DOOR OR OPN'G SIZE	FRAME	DOOR	HRDW #	NOTE
101	3'-0" x 8'-8" x 1-3/4"	A	1	03	
103	3'-0" x 8'-8" x 1-3/4"	A	1	03	
104A	3'-0" x 8'-8" x 1-3/4"	A	1	02	
104B	3'-0" x 3'-8"	C	-	-	
104C	3'-0" x 3'-8"	C	-	-	
105A	3'-0" x 8'-8" x 1-3/4"	A	1	02	
105B	3'-0" x 3'-8"	C	-	-	
105C	3'-0" x 3'-8"	C	-	-	
106	2'-0" x 8'-8" x 1-3/4"	A	1	02	
107	PAIR 2'-0" x 8'-8" x 1-3/4"	A	1	04	
108	3'-0" x 8'-8" x 1-3/4"	A	1	02	
109	3'-0" x 8'-8" x 1-3/4"	A	1	02	
110	3'-0" x 8'-8" x 1-3/4"	A	1	02	
111	2'-0" x 8'-8" x 1-3/4"	B	1	01	
112	3'-0" x 8'-8" x 1-3/4"	A	1	02	
113	3'-0" x 8'-8" x 1-3/4"	A	1	02	
114	2'-0" x 8'-8" x 1-3/4"	B	1	01	
115	3'-0" x 8'-8" x 1-3/4"	A	1	02	
117	3'-0" x 8'-8" x 1-3/4"	A	1	02	
118	3'-0" x 8'-8" x 1-3/4"	A	1	02	
119	3'-0" x 8'-8" x 1-3/4"	A	1	02	
120	2'-0" x 8'-8" x 1-3/4"	B	1	01	
121	3'-0" x 8'-8" x 1-3/4"	A	1	02	
122	3'-0" x 8'-8" x 1-3/4"	A	1	02	
123	2'-0" x 8'-8" x 1-3/4"	B	1	01	
124	3'-0" x 8'-8" x 1-3/4"	A	1	02	
125	3'-0" x 8'-8" x 1-3/4"	A	1	05	
126	2'-0" x 8'-8" x 1-3/4"	B	1	01	
127	2'-0" x 8'-8" x 1-3/4"	B	1	03	
128	2'-0" x 8'-8" x 1-3/4"	B	1	01	

2 PERIMETER TRIM
3"=1'-0"

3 CROSS HALL TRIM
3"=1'-0"

CEILING LEGEND

8'-0" — ELEVATION OF CEILING ABOVE FINISHED FLOOR.

ARMSTRONG DUNE TEGULAR 2'X2' ACOUSTICAL CEILING TILE IN ARMSTRONG 9/16" EXPOSED 'T' CEILING GRID

GYPSUM BOARD CEILING ON ARMSTRONG GYPSUM BOARD CEILING SUSPENSION SYSTEM.

GYPSUM BOARD CEILING OR SOFFIT OF ONE LAYER OF ⅝" GYP. BD. ON METAL STUD FRAMING

CEILING NOTES

CO1 NO CEILING THIS ROOM. EXPOSED TO STRUCTURE ABOVE.
CO2 NO CEILING THIS ROOM. EXPOSED TO STRUCTURE ABOVE. PAINT ALL EXPOSED STRUCTURE, CONDUITS, PIPING AND MECHANICALS.
CO3 PROVIDE TRIM AT PERIMETER OF HALL PER DETAIL 2/A4.
CO4 PROVIDE TRIM ACROSS HALL PER DETAIL 3/A4.
CO5 ALIGN CEILING WITH EXISTING TO REMAIN HEADER AND FINISH FLUSH

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A TENANT FINISH PROJECT FOR:

AAC
ADVANCED AESTHETIC CENTER

6 SW 2ND ST., LEE'S SUMMIT, MO 64063

STATE OF MISSOURI KENNETH J. KLEFFNER NUMBER A-2007018762 REGISTERED ARCHITECT

06-16-2022

DATE: 6-16-2022 PROJECT# 22004

REV#	DATE	DESCRIPTION

A4

1. ALL WORK SHALL CONFORM TO 2018 INTERNATIONAL BUILDING CODE AS ADOPTED AND AMENDED BY THE CITY OF LEE'S SUMMIT, MISSOURI.
2. DESIGN LOADS
   - A. OVERALL BUILDING CLASSIFICATIONS
     - 1. RISK CATEGORY — II
     - 2. SNOW IMPORTANCE FACTOR, I_s — 1.00
     - 3. ICE IMPORTANCE FACTOR - WIND, I_w — 1.00
     - 4. SEISMIC IMPORTANCE FACTOR, I_e — 1.00
   - B. SLAB ON GRADE FLOOR LOADS
     - 1. LIVE LOAD — 100 PSF
     - 2. CONCENTRATED LOAD — 3000 LB ACTING ON AN AREA 4.5 IN. BY 4.5 IN.
   - C. ROOF DEAD AND LIVE LOADS
     - 1. DEAD LOAD — 20 PSF
     - 2. LIVE LOAD — 20 PSF
   - D. ROOF SNOW LOADS
     - 1. GROUND SNOW LOAD, P_g — 20 PSF
     - 2. FLAT ROOF SNOW LOAD, P_f — 14 PSF
     - 3. SNOW EXPOSURE FACTOR, C_e — 1.0
     - 4. THERMAL FACTOR, C_t — 1.0
     - 5. SLOPE FACTOR, C_s — 1.0
     - 6. DRIFTING — PER CODE
   - E. WIND LOADS
     - 1. BASIC WIND SPEED (3 SECOND GUST) — 109 MPH
     - 2. EXPOSURE CATEGORY — C
     - 3. INTERNAL PRESSURE COEFFICIENT, GC_{pi} — +/- 0.18
   - F. SEISMIC LOADS
     - 1. S_S — 0.1
     - 2. S_1 — 0.068
     - 3. SITE CLASS — D
     - 4. S_{DS} — 0.106
     - 5. S_{D1} — 0.109
     - 6. SEISMIC DESIGN CATEGORY — B
     - 7. SEISMIC FORCE RESISTING SYSTEM — WOOD WALLS SHEATHED WITH SHEAR PANELS OF ALL OTHER MATERIALS
     - 8. DESIGN BASE SHEAR — C_sW
     - 9. DESIGN RESPONSE COEFFICIENT, C_S — 0.053
     - 10. RESPONSE MODIFICATION COEFFICIENT, R — 2
     - 11. ANALYSIS PROCEDURE USED — EQUIVALENT LATERAL FORCE (ELF) PROCEDURE
   - G. ROOF RAIN LOADS
     - 1. 60-MIN DURATION/100 YEAR RAIN INTENSITY, i — 3.52 IN/H
     - 2. 15-MIN DURATION/100 YEAR RAIN INTENSITY, i — 7.49 IN/H
3. CONTRACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR TO FABRICATION.
4. IF DISCREPANCIES EXIST BETWEEN CONTRACT DRAWINGS, AND/OR SHOP DRAWINGS NOTIFY THE ENGINEER OF RECORD.
5. THE CONTRACTOR SHALL REVIEW DRAWINGS FROM ALL OTHER DISCIPLINES FOR PERTINENT MISC. ITEMS OR INFORMATION RELATED TO THE STRUCTURAL WORK AND COORDINATE AS REQUIRED.
6. THE BUILDING IS NOT STRUCTURALLY STABLE UNTIL ALL CONNECTIONS, FRAMING, SHEAR WALLS, PERMANENT BRACING, AND EXTERIOR LOAD-BEARING WALLS ARE COMPLETE AND HAVE ACHIEVED THEIR RESPECTIVE DESIGN STRENGTHS. CONTRACTOR IS SOLELY RESPONSIBLE FOR MAINTAINING STRUCTURAL STABILITY DURING ERECTION AND CONSTRUCTION. TEMPORARY BRACING SYSTEMS ARE NOT TO BE REMOVED UNTIL STRUCTURAL WORK IS COMPLETE.
7. PROVIDE ADEQUATE SHORING DURING CONSTRUCTION TO RESIST FORCES SUCH AS WIND AND UNBALANCED LOADS DUE TO CONSTRUCTION. DO NOT BACKFILL UNTIL CONCRETE HAS CURED 14 DAYS.
8. FOUNDATIONS
   - *A.* FOUNDATIONS ARE DESIGNED TO BEAR ON 1500 PSF FOR STRIP FOOTINGS ON SOIL AND 1500 PSF FOR SPREAD FOOTINGS ON SOIL.
9. CONCRETE
   - A. CAST-IN-PLACE CONCRETE CONSTRUCTION SHALL CONFORM TO LATEST APPLICABLE AMERICAN CONCRETE INSTITUTE DOCUMENTS, ACI-301, 305, 306, 315, 318, AND 347 UNLESS NOTED OTHERWISE IN THESE CONTRACT DOCUMENTS.
   - B. ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A 28 DAY COMPRESSIVE STRENGTH AND HAVE MAXIMUM WATER/CEMENT RATIOS AS FOLLOWS:
     - 1. FOOTINGS, GRADE BEAMS, WALLS, BEAMS, COLUMNS: 4000 PSI (w/c MAX 0.45)
     - 2. SLAB ON GRADE: 4000 PSI (w/c MAX 0.42)
     - 3. REFER TO THE SPECIFICATION FOR AIR-ENTRAINED CONCRETE.
   - C. SLABS-ON-GRADE SHALL DEVELOP A 90 DAY COMPRESSIVE STRENGTH.
   - D. IT IS THE INTENT OF THESE CONCRETE SPECIFICATIONS THAT THE CONTRACTOR SUPPLY CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN ORDER TO LIMIT PLASTIC SHRINKAGE CRACKING IN FRESHLY PLACED CONCRETE. IT IS EXPECTED THAT PRODUCING WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDITION OF WATER-REDUCING CHEMICAL ADMIXTURES.
   - E. CONCRETE MIX DESIGNS SHALL INCLUDE ALL APPLICABLE ADMIXTURES.
   - F. CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C-145) AS DELIVERED IN THE FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATTAIN A MAXIMUM SLUMP OF 8" FOR WORKABILITY IF ADMIXTURE IS TO BE ADDED IN THE FIELD IS SHALL BE ADDED THROUGH THE USE OF AN EXTERNAL MEASURING DEVICE (I.E. 5 GALLON BUCKET).
   - G. ALL CONTROL JOINTS IN CONCRETE SLABS-ON-GRADE SHALL BE CUT TO 1/3 OF DEPTH WHEN USING WET-CUTTING PROCESS AND 1/4 OF DEPTH WHEN USING EARLY-ENTRY DRY-CUT PROCESS. CUT JOINTS AS SOON AS APPLICABLE PER PROCESS USED AFTER CONCRETE HAS BEEN PLACED WITHOUT DISLODGING AGGREGATE, OR USE A KEYED COLD JOINT.
   - H. PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RESPONSIBILITY OF THE GENERAL CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDINATED ALL DIMENSIONS, ELEVATIONS, OPENINGS, RECESS, AND BLOCKOUTS AS SHOWN ON ANY CONTRACT DRAWINGS. IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT SHALL BE THE CONTRACTOR'S RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER FOR NECESSARY CORRECTIVE ACTION.
   - I. EMBEDDED ITEMS ARE TO BE FURNISHED AND INSTALLED BY THE CONTRACTOR PRIOR TO PLACING CONCRETE.
   - J. ANCHOR RODS AND ANCHOR BOLTS SHALL BE HELD IN PLACE WITH A RIGID TEMPLATE
   - K. HORIZONTAL JOINTS BEYOND THOSE SHOWN IN THE CONTRACT DOCUMENTS SHALL NOT BE CONSTRUCTED WITHOUT THE APPROVAL OF THE ARCHITECT AND ENGINEER.
10. REINFORCING STEEL
    - A. ALL REINFORCING SHALL BE ASTM A615 GRADE 60, EXCEPT WELDED REINFORCING WHICH SHALL BE ASTM A706 GRADE 60.
    - B. ALL WELDED WIRE FABRIC SHALL BE ASTM A82 COLD DRAWN WIRE.
    - C. ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE GALVANIZED OR HAVE PLASTIC-COATED FEET.
    - D. PROVIDE CORNER BARS AT THE EXTERIOR FACE OF ALL WALL AND FOOTING CORNERS EQUAL TO HORIZONTAL BARS.
    - E. REINFORCING SHALL BE DETAILED, FABRICATED, PLACE, AND SUPPORTED IN ACCORDANCE WITH ACI 315, LATEST APPLICABLE EDITION.
    - F. STANDARD COVERAGE OF REINFORCING SHALL BE AS FOLLOWS UNLESS NOTED OTHERWISE.
      - 1. PERMANENTLY EXPOSED TO WEATHER
        - A. CAST AGAINST EARTH — 3"
        - B. IN CONTACT WITH WATER — 3"
        - C. FORMED — 2"
      - 2. NOT EXPOSED TO EARTH OR WEATHER
        - A. SLABS AND WALLS — 3/4"
        - B. BEAMS AND COLUMNS — 1 1/2"
    - G. SPLICE LENGTH
      - 1. 3000 PSI CONCRETE
        - A. NON-COATED — 55 db (BAR DIAMETER)
        - B. EPOXY COATED — 83 db
      - 2. 4000 PSI CONCRETE
        - A. NON-COATED — 48 db
        - B. EPOXY COATED — 72 db
      - 3. 5000 PSI CONCRETE
        - A. NON-COATED — 43 db
        - B. EPOXY COATED — 64 db
    - H. REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL NOT BE FIELD BENT, EXCEPT AS SHOWN AND NOTED ON THE CONTRACT DRAWINGS OR PERMITTED BY THE ENGINEER OF RECORD.
    - I. ALL REINFORCEMENT AND EMBEDDED ITEMS INCLUDING PLATES AND ANCHOR RODS SHALL BE ACCURATELY PLACED, ADEQUATELY SUPPORTED, AND SECURED AGAINST DISPLACEMENT BEFORE CONCRETE IS PLACED. NEITHER REINFORCEMENT NOR EMBEDDED ITEMS SHALL BE PLACED INTO FRESHLY PLACED CONCRETE UNLESS APPROVED BY THE ENGINEER OF RECORD.
11. ROUGH CARPENTRY
    - A. HEADERS, JOISTS, AND RAFTERS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)
      - 1. F_B — 875 PSI
      - 2. F_V — 135 PSI
      - 3. F_C — 1150 PSI
      - 4. E — 1400 KSI
    - B. INTERIOR WALLS AND EXTERIOR WALLS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)
      - 1. F_B — 875 PSI
      - 2. F_V — 135 PSI
      - 3. F_C — 1150 PSI
      - 4. E — 1400 KSI
    - C. ALL LVL MEMBERS SHALL BE MICROLLAM 2.0E OR APPROVED EQUAL.
    - D. ALL WOOD FRAMING MEMBERS INDICATED ARE NOMINAL SIZES. PROVIDE ACTUAL DRESSED SIZES, KILN-DRIED, WITH MAXIMUM IN-PLACE MOISTURE CONTENT OF 19%.
    - E. ALL BOLTS ARE A36 OR A307, GRADE 1, AND ALL NAILS ARE COMMON WIRE NAILS UNLESS NOTED OTHERWISE.
    - F. LAY ALL STRUCTURAL PANELS WITH FACE GRAIN PERPENDICULAR TO SUPPORTING MEMBERS AND OFFSET END JOINTS 4'-0". PANELS TO BE APA RATED AND STAMPED FOR THE LOADING SHOWN IN SECTION 2 "DESIGN" AND SHOULD MATCH THE SUPPORT SPACING SHOWN ON THE PLANS.
    - G. FASTENER QUALITY, QUANTITY, SIZE, AND SPACING SHALL COMPLY WITH IBC FASTENING SCHEDULE (TABLE 2304.9) UNLESS NOTED OTHERWISE.
    - H. ALL WOOD IN CONTACT WITH CONCRETE OR EXPOSED TO WEATHER SHALL BE PRESERVATIVE TREATED.
12. POST CONSTRUCTION ANCHORS
    - A. EMBEDMENT DEPTH SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD-BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE.
    - B. OBSERVATION AND VERIFICATION OF EMBEDMENT HOLE CLEANING, DEPTH, AND ANCHOR INSTALLATION IS REQUIRED FOR ALL EPOXY ANCHORS.
    - C. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS ARE THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS, CURRENT WITH THE REQUIREMENTS OF THE PROJECT.
13. STRUCTURAL ENGINEER SITE OBSERVATIONS
    - A. THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES.
    - B. THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS, METHODS, PROCEDURES,TECHNIQUES, OR SEQUENCES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR, OR AN OTHER PERSONS PERFORMING ANY OF THE WORK, OR THE FAILURE OF ANY OF THEM TO CARRY OUT THE WORK IN ACCORDANCE WITH THE CONTRACT DOCUMENTS.
    - C. PERIODIC SITE OBSERVATION BY FIELD REPRESENTATIVES OF LEIGH & O'KANE L.L.C. IS SOLELY FOR THE PURPOSE OF DETERMINING IF THE WORK OF THE CONTRACTOR IS PROCEEDING IN ACCORDANCE WITH THE STRUCTURAL CONTRACT DOCUMENTS. THIS LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR CONTINUOUS TO CHECK THE QUALITY OR QUANTITY OF WORK, BUT RATHER PERIODIC IN AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR.
14. SUBMITTALS
    - A. ALL SHOP DRAWINGS AND SUBMITTALS MUST BE REVIEWED AND APPROVED BY THE CONTRACTOR PRIOR TO SUBMITTAL. ENGINEER'S REVIEW OF SHOP DRAWINGS IS LIMITED TO CHECKING FOR GENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM THE DESIGN DRAWINGS, QUANTITIES, DIMENSIONAL ERRORS, OR OMISSIONS IN THE SHOP DRAWINGS.
    - B. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS OF THESE CONTRACT DOCUMENTS.
    - C. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING ITEMS.
      - 1. CONCRETE MIX DESIGN AND MATERIALS
      - 2. CONCRETE REINFORCING STEEL
    - D. PROVIDE A FINAL, "FOR CONSTRUCTION" SET OF ALL SHOP DRAWINGS TO THE ENGINEER OF RECORD PRIOR TO FABRICATION OR CONSTRUCTION OF THOSE ITEMS.
15. SPECIAL INSPECTIONS
    - A. THE FOLLOWING MINIMUM ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH THE BUILDING CODE.
      - 1. CONCRETE PLACING
      - 2. CONCRETE REINFORCING
      - 3. BOLTS EMBEDDED IN CONCRETE / POST-INSTALLED ANCHORS
      - 4. ANCHOR RODS
    - B. THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIOR TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF THE WORK.

PLAN SYMBOL KEY

- F? = FOOTING TYPE (REFER TO FOOTING SCHEDULE)
- C? = COLUMN TYPE (REFER TO COLUMN SCHEDULE)
- W? = WOOD WALL TYPE (REFER TO WOOD WALL SCHEDULE)
- SW? = SHEAR WALL TYPE (REFER TO WOOD WALL SCHEDULE)
- CW? = CONCRETE WALL TYPE (REFER TO CONCRETE WALL SCHEDULE)
- MW? = MASONRY WALL TYPE (REFER TO MASONRY WALL SCHEDULE)
- = SHEAR WALL HOLDOWN
- = MOMENT FRAME CONNECTION
- = BEAM SPLICE CONNECTION

WALL TYPE KEY

- = LOAD BEARING WALL
- = NON-LOAD BEARING WALL
- = SHEAR WALL

HATCH PATTERN KEY

- = CONCRETE IN SECTION
- = EARTH IN SECTION
- = EPOXY IN SECTION
- = EXISTING IN PLAN AND SECTION
- = GRANULAR FILL IN SECTION
- = GRATING IN PLAN AND SECTION
- = GROUT IN SECTION
- = INSULATION IN SECTION
- = PLYWOOD IN SECTION
- = SNOW DRIFT LOADING IN PLAN
- = STEEL IN SECTION
- = TOPPING IN SECTION
- = WOOD END GRAIN IN SECTION
- = WOOD FACE GRAIN IN SECTION

STANDARD ABBREVIATIONS

ALT.	ALTERNATE
A.B.	ANCHOR BOLT
ARCH.	ARCHITECT
@	AT
BM.	BEAM
BOT.	BOTTOM
B.O.	BOTTOM OF
BLDG.	BUILDING
CL.	CENTER LINE
CLR.	CLEAR
COL.	COLUMN
CONC.	CONCRETE
CONN.	CONNECTION
CONT.	CONTINUOUS
C.J.	CONTROL JOINT
DET.	DETAIL
DIA.	DIAMETER
DIM.	DIMENSION
DWG(S)	DRAWING(S)
EA.	EACH
ELEV.	ELEVATION
EL.	ELEVATION
EQ.	EQUAL
EQUIP.	EQUIPMENT
EXIST.	EXISTING
EXT.	EXTERIOR
F.S.	FAR SIDE
FIN.	FINISH
FLR.	FLOOR
FTG.	FOOTING
FOUND.	FOUNDATION
GALV.	GALVANIZED
GYP.	GYPSUM
H.S.	HEADED STUD
HI	HIGH
HORIZ.	HORIZONTAL
INSUL.	INSULATION
INT.	INTERIOR
LOC.	LOCATION
LLH	LONG LEG HORIZONTAL
LLO	LONG LEG OUT
LLV	LONG LEG VERTICAL
LONG.	LONGITUDINAL
LO	LOW
MSRY.	MASONRY
MAX.	MAXIMUM
MECH.	MECHANICAL
MIN.	MINIMUM
MIR.	MIRRORED
N.S.	NEAR SIDE
N.A.	NOT APPLICABLE
N.T.S.	NOT TO SCALE
O.C.	ON CENTER
OPNG.	OPENING
PL.	PLATE
R.	RADIUS
RE:	REFERENCE
REINF.	REINFORCING
REQ'D	REQUIRED
SCHED.	SCHEDULE
SEC.	SECTION
SHT.	SHEET
SIM.	SIMILAR
SQ.	SQUARE
S.S.	STAINLESS STEEL
STL.	STEEL
T&B	TOP & BOTTOM
T.O.	TOP OF
TRANS.	TRANSVERSE
TYP.	TYPICAL
U.N.O.	UNLESS NOTED OTHERWISE
VERT.	VERTICAL
W/	WITH
W/O	WITHOUT

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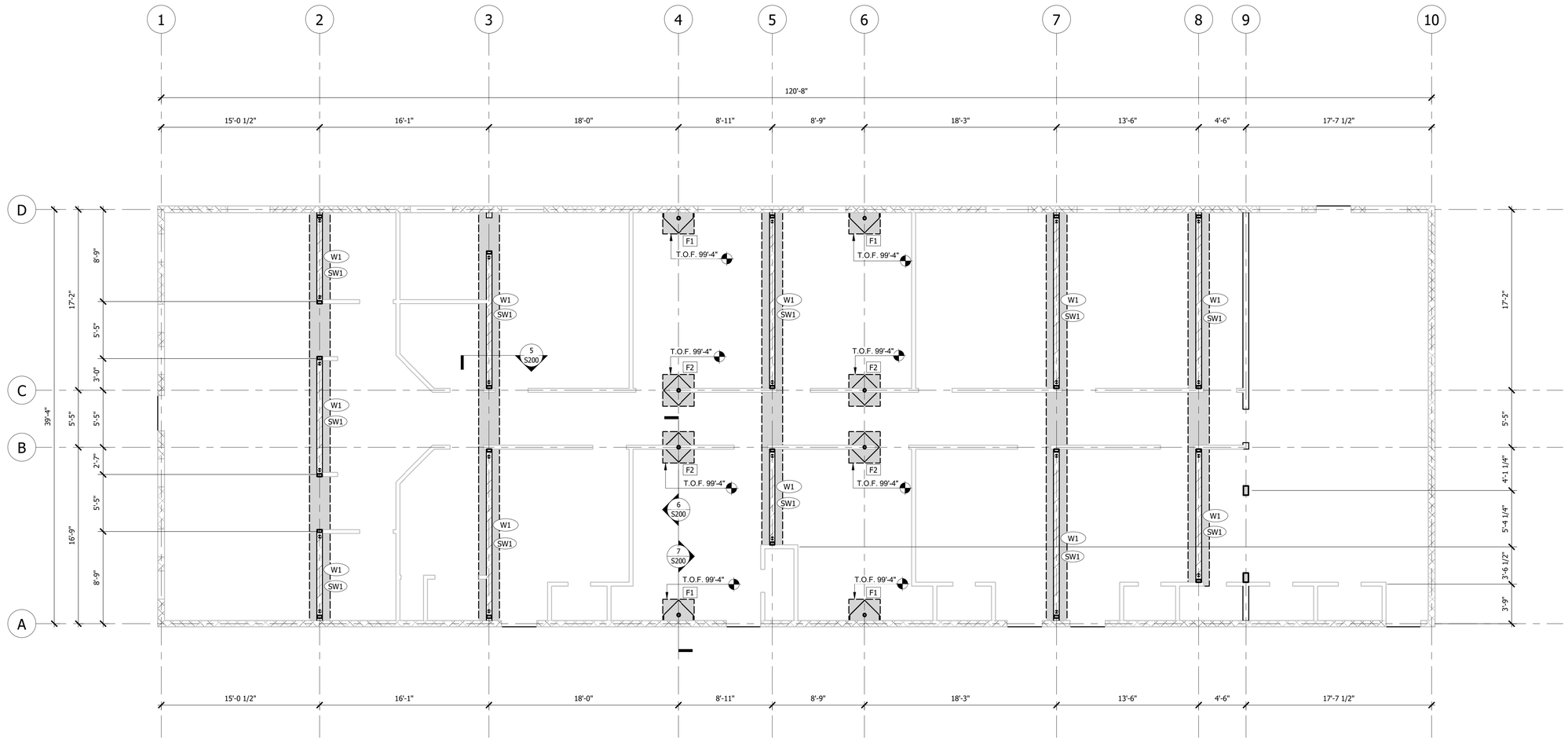
STATE OF MISSOURI — WAYNE NEEL HESS — NUMBER PE-2010019551 — 06/16/22 — PROFESSIONAL ENGINEER

DATE: 06/15/2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

S001



1 FOUNDATION PLAN
3/16" = 1'-0"

FOUNDATION PLAN NOTES:

1. TOP OF CONCRETE SLAB ELEVATION = 100'-0".
2. WHERE EXISTING SLAB IS REMOVED, REPLACE WITH 4" SLAB ON GRADE REINFORCED WITH #4@ 16" O.C. EA WAY, UNLESS NOTED OTHERWISE.
3. DOWEL NEW SLAB INTO EXISTING SLAB PER DETAIL 13/S200
4. ISOLATION JOINTS PER DETAIL 9/S200.
5. CONTRACTOR TO COORDINATE ALL FLOOR AND SLAB PENETRATIONS WITH ALL OTHER DISCIPLINES.
6. DURING INSTALLATION OF ALL POST CONSTRUCTION ANCHORS, CARE MUST BE TAKEN TO AVIOD ALL REINFORCING.
7. REFER TO ARCHITECTURAL FOR NON-LOAD BEARING WALL LOCATIONS.
8. REFER TO ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
9. REFER TO SHEET S200 FOR SHEAR WALL INFORAMTION AND TYPICAL DETAILS.
10. ALL SILL ANCHORS TO BE 4" LONG X 1/2" DIA. SIMPSON TITEN HD @ 36" O.C.
11. CONTRACTOR TO SHORE EXISTING FRAMING PRIOR TO REMOVING EXISTING LOAD BEARING WALLS
12. NEW WALLS, COLUMNS, AND BEAMS MUST BE IN PLACE PRIOR TO REMOVAL OF SHORING
13. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION
14. CONTRACTOR TO DETERMINE THICKNESS OF EXISTING SLAB ON GRADE. IF EXISTING SLAB ON GRADE IS LESS THAN 12" THICK UNDER LOAD BEARING WALLS, CONTRACTOR TO REMOVE EXISTING SLAB ON GRADE IN THE AREA SHOWN AND REPLACE WITH NEW 12" SLAB ON GRADE W/ #4 @ 12" O.C. EACH WAY.
15. CONTRACTOR TO VERIFY EXISTENCE OF LOAD BEARING WALL AT FRAME LINE 9. IF WALL AT FRAME LINE 9 IS NOT LOAD BEARING, NOTIFY ENGINEER OF RECORD

STUD WALL SCHEDULE

CALLOUT	PLATES	STUDS	SPACING	INT. FINISH	EXT. FINISH
W1	2X6	2X6	16"	1/2" GYP.	1/2" GYP.

FOOTING SCHEDULE

CALLOUT	COUNT	LENGTH	WIDTH	THICKNESS	REINFORCING
F1	4	2'-0"	3'-0"	1'-6"	
F2	4	3'-0"	3'-0"	1'-6"	(4) #5 EACH WAY TOP AND BOTTOM

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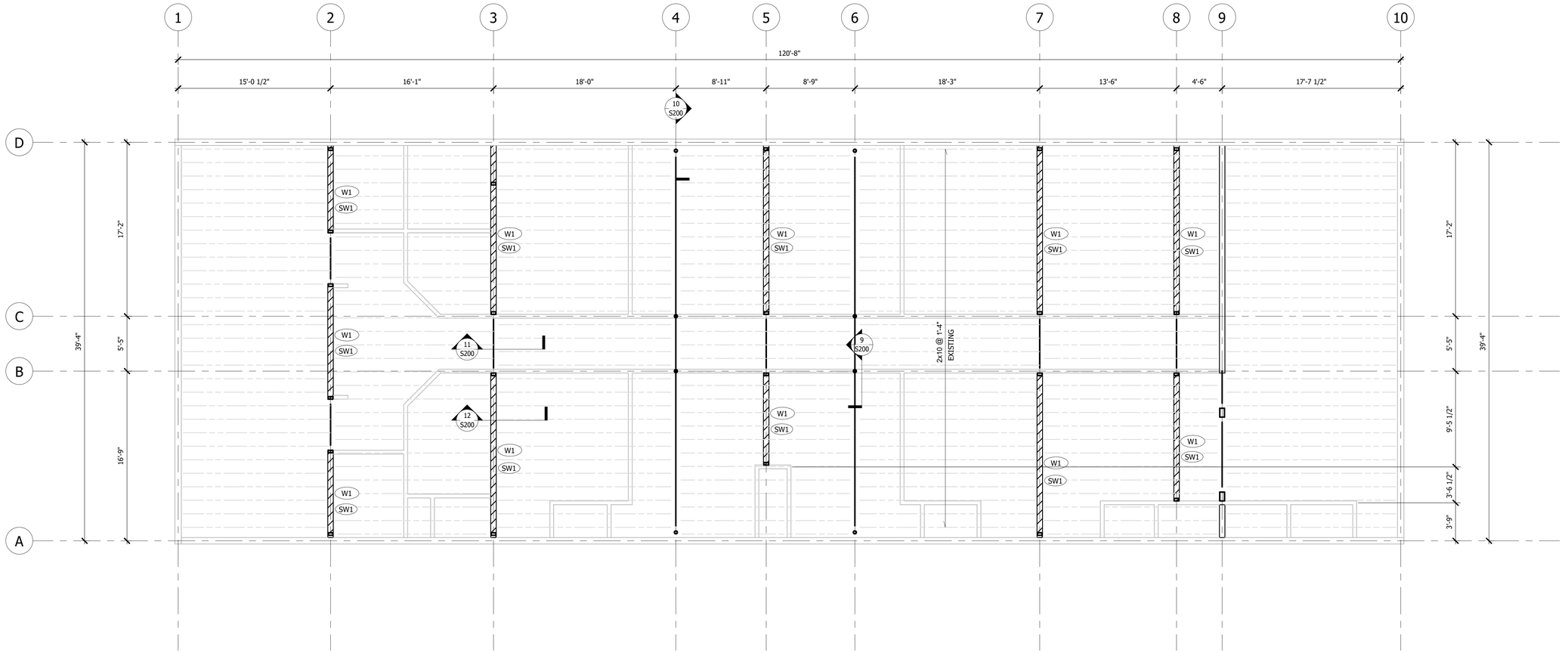
STATE OF MISSOURI
WAYNE NEEL HESS
NUMBER PE-2010019551
06/16/22
PROFESSIONAL ENGINEER

DATE: 06/15/2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

S101



1 ROOF FRAMING PLAN
3/16" = 1'-0"

ROOF FRAMING PLAN NOTES:

1. CONTRACTOR TO SHORE EXISTING FRAMING PRIOR TO REMOVING EXISTING LOAD BEARING WALLS
2. NEW WALLS, COLUMNS, AND BEAMS MUST BE IN PLACE PRIOR TO REMOVAL OF SHORING
3. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL DEMOLITION INFORMATION
4. REFER TO ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE PLANS.
5. REFER TO SHEET S200 FOR SHEAR WALL INFORMATION AND TYPICAL DETAILS
6. NON-LOAD BEARING STUD WALLS SHALL HAVE 1" GAP BETWEEN TOP OF STUD AND BOTTOM OF ROOF FRAMING
7. CONTRACTOR TO VERIFY EXISTING WALL AT FRAME LINE 9 IS LOAD BEARING. IF WALL AT FRAME LINE 9 IS NOT LOAD BEARING, NOTIFY ENGINEER OF RECORD

STUD WALL SCHEDULE

CALLOUT	PLATES	STUDS	SPACING	INT. FINISH	EXT. FINISH
W1	2X6	2X6	16"	1/2" GYP.	1/2" GYP.

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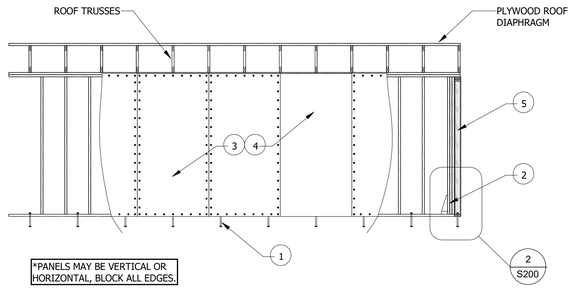
DATE: 06/15/2022 PROJECT# 22009

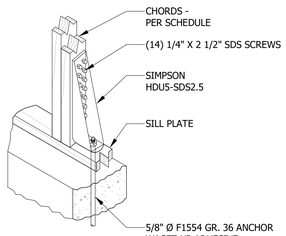
REV#	DATE	DESCRIPTION

S102

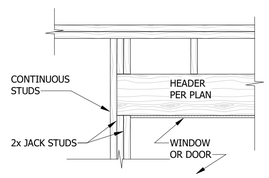
SHEAR WALL			SHEAR WALL SW1		
LOCATION	ITEM	ITEM	SIZE	SPACING	REMARKS
1ST FLOOR	5	CHORDS	(2) 2X6	EA. CHORD	SPF #2 GRADE
	4	SHEATHING ATTACHMENT	5d 5d	4" O.C. 4" O.C.	ALL INTERMIDATE SUPPORTS ALL PANEL EDGES
	3	SHEATHING TYPE	1/2"	BLOCKED	GYPSUM WALLBOARD ON BOTH SIDES
	2	HOLDOWN	-	EA. CHORD	HDU5-SDS2.5 - SEE DET. 2/S200
	1	BASE CONNECTION	1/2" Ø	36" O.C.	4" LONG SIMPSON TITEN HD



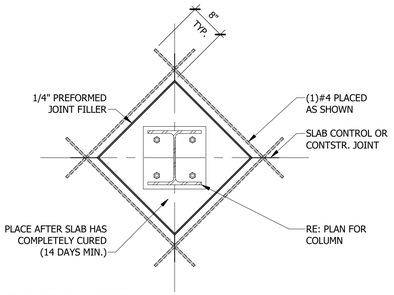
1 SW1 SHEATHING PATTERN
1/4" = 1'-0"



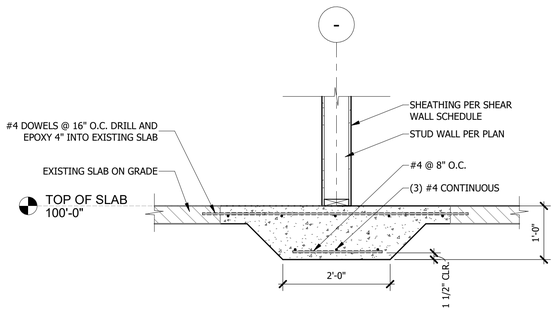
2 SHEAR WALL HOLDOWN DETAIL
1 1/2" = 1'-0"



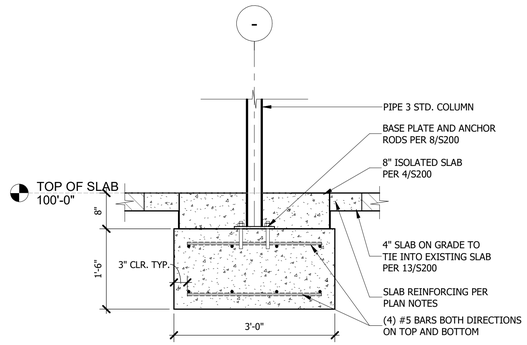
3 JACK STUD DETAIL
3/4" = 1'-0"



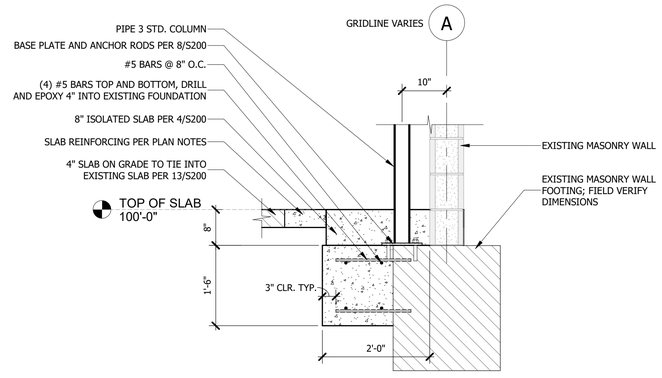
4 ISOLATION JOINT
3/4" = 1'-0"



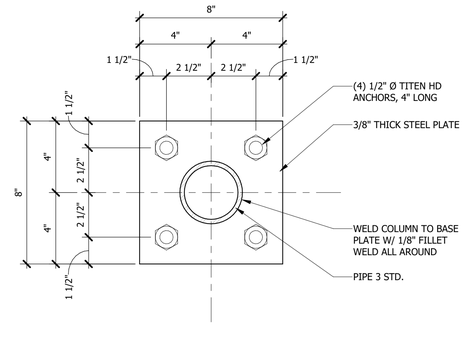
5 THICKENED SLAB UNDER LOAD BEARING WALLS
3/4" = 1'-0"



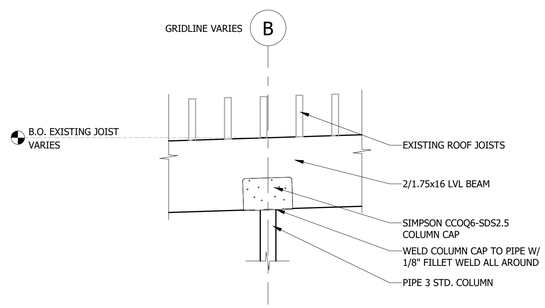
6 TYPICAL FOUNDATION SECTION AT PIPE COLUMN
3/4" = 1'-0"



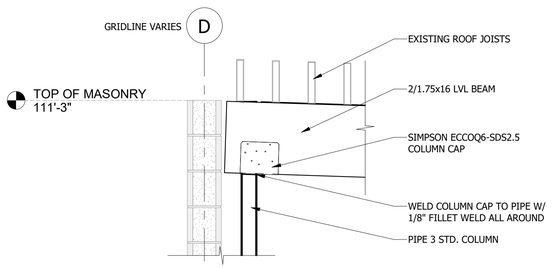
7 TYPICAL FOUNDATION SECTION AT EDGE COLUMN
3/4" = 1'-0"



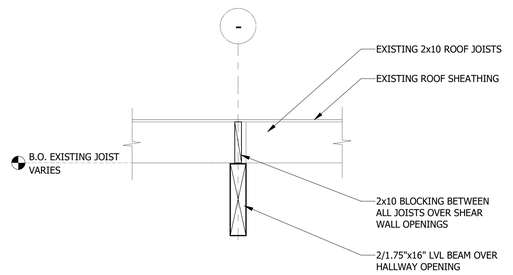
8 TYPICAL PIPE COLUMN BASE PLATE DETAIL
3" = 1'-0"



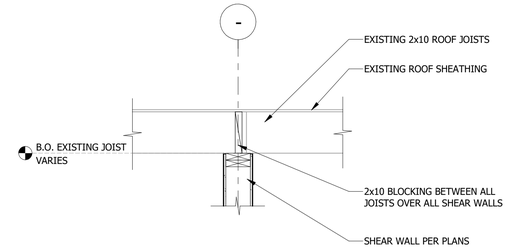
9 PIPE COLUMN TO LVL BEAM CONNECTION (TYP.)
3/4" = 1'-0"



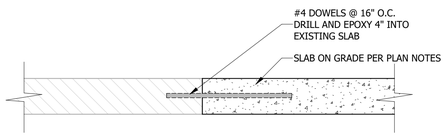
10 EDGE PIPE COLUMN TO LVL BEAM (TYP.)
3/4" = 1'-0"



11 JOIST BLOCKING OVER OPENINGS (TYP.)
3/4" = 1'-0"



12 JOIST BLOCKING OVER SHEAR WALLS (TYP.)
3/4" = 1'-0"



13 NEW TO EXISTING SLAB DETAIL
1 1/2" = 1'-0"

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DATE: 06/15/2022 PROJECT# 22009

REV#	DATE	DESCRIPTION

S200

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. MOTORS:
   A. PROVIDE THERMAL OVERLOAD PROTECTION FOR EACH MOTOR PROVIDED BY THIS WORK.
5. 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; ARE 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.
6. 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.
   G. WATER HEATERS:
      1) EVERY WATER HEATER SHALL HAVE AN APPROVED MEANS INSTALLED ON THE COLD WATER SUPPLY LINE ABOVE THE EQUIPMENT TO PREVENT SIPHONING OF A STORAGE WATER HEATER OR TANK.
      2) BOTTOM FED WATER HEATERS AND TANKS CONNECT TO WATER HEATERS SHALL HAVE A VACUUM RELIEF VALVE INSTALLED. ANSI Z21.22.
      3) STORAGE HEATERS OPERATING ABOVE ATMOSPHERIC PRESSURE SHALL HAVE AN APPROVED PRESSURE RELIEF VALVE AND/OR TEMPERATURE RELIEF VALVE.
   H. ALL SEWER PIPING LOCATED INSIDE THE BUILDING SHALL BE INSTALLED WITH THE FOLLOWING SLOPES.
      1) INSTALL 2-1/2" AND SMALLER PIPE AT 1/4" PER FOOT FALL.
      2) INSTALL 3" AND LARGER PIPE AT 1/8" PER FOOT FALL.
      3) INSTALL ALL GREASE WASTE PIPING AT 1/4" PER FOOT FALL.
7. PIPING:
   A. DOMESTIC COLD, HOT, AND HOT WATER RECIRCULATING (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) PEX, HIGH-DENSITY CROSS-LINKED POLYETHYLENE TUBING SHALL BE MANUFACTURED TO THE REQUIREMENTS OF ASTM F876 AND MEET THE STANDARD GRADE HYDROSTATIC PRESSURE RATINGS FROM PLASTIC PIPE INSTITUTE IN ACCORDANCE WITH TR-4/03.
         a) PEX-A AND PEX-B MEETING ANSI/NSF61 AND ANSI/NSF372 STANDARDS FOR POTABLE WATER SAFETY AND LEAD-FREE STANDARDS AND MUST BE MARKED WITH "PW-S", "NSF-61-S" OR OTHER NSF-APPROVED MARKING. ASTM F2023 FOR USE WITH CHLORINATED WATER.
         b) PEX MECHANICAL, CRIMP/INSERT OR EXPANSION FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE. INCREASE PEX PIPING SIZE TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER FOR SUPPLY MAINS.
      3) 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/S-3015 OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1.
            2. GLOBE VALVE: JOMAR T-100 OR EQUAL.
            3. BALL VALVE: JOMAR JP100PKP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. ULB42, CSA 3311-12 & 3311-M2, PM, CALIFORNIA CODE AB1953, NSF61 ANNEX G APPROVED.
            4. BALL VALVE: JOMAR T-100NE OR EQUAL. ULB42, PM, CSA, NSF 61-S, MSS SP-110
   B. DOMESTIC COLD, AND HOT WATER (UNDERGROUND).
      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.
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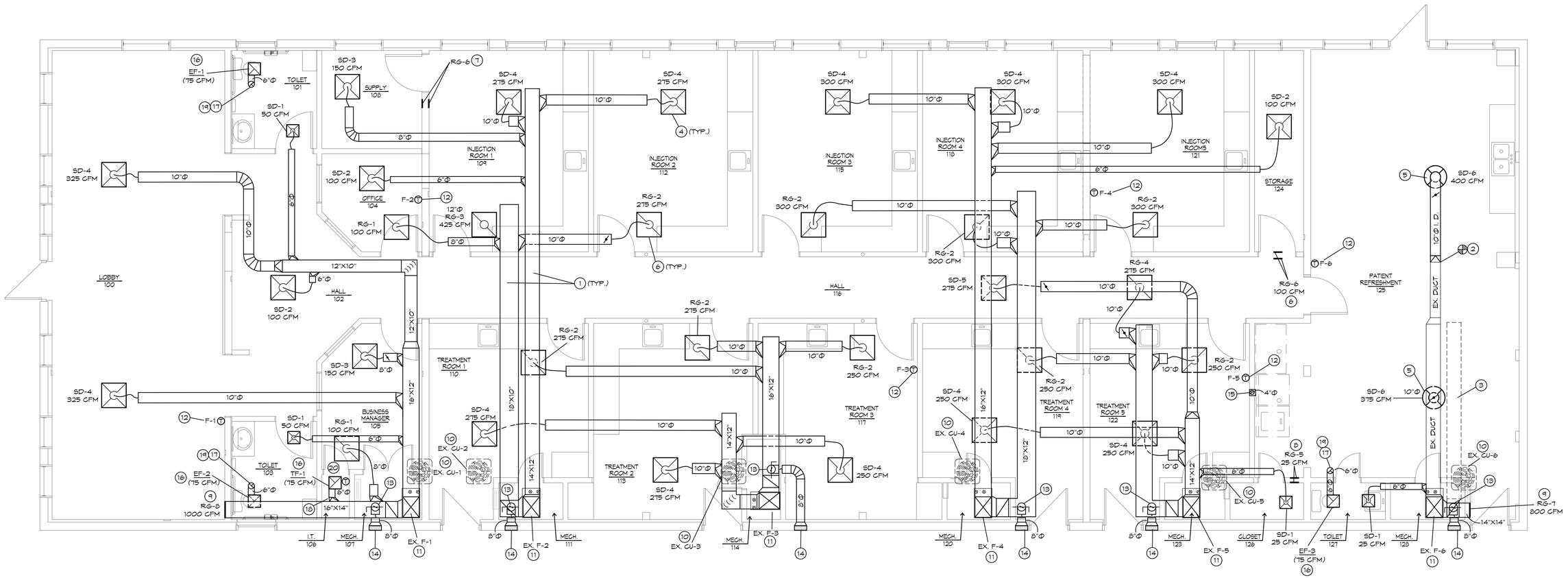
         a) PEX-A AND PEX-B MEETING ANSI/NSF61 AND ANSI/NSF372 STANDARDS FOR POTABLE WATER SAFETY AND LEAD-FREE STANDARDS AND MUST BE MARKED WITH "PW-S", "NSF-61-S" OR OTHER NSF-APPROVED MARKING. ASTM F2023 FOR USE WITH CHLORINATED WATER.
         b) PEX MECHANICAL, CRIMP/INSERT OR EXPANSION FITTINGS INSTALLED IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE. INCREASE PEX PIPING SIZE TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER FOR SUPPLY MAINS.
         c) HDPE, PIGMENTED BLUE THROUGHOUT. CTS SIZES 1"-2" ANWA C901 4710 DR9 PC250
            IPS SIZES 2"-3", ANWA C901 4710 DR11 PC200
   C. DOMESTIC WATER SERVICE, 1"-3"
      1) TYPE K SOFT DRAWN COPPER TUBING, ASTM B-88.
         a) Cast Copper Alloy Fittings for Flared Copper Tube, ASME/ANSI B16.26.
      2) HDPE, PIGMENTED BLUE THROUGHOUT. CTS SIZES 1"-2" ANWA C901 4710 DR9 PC250
         IPS SIZES 2"-3", ANWA C901 4710 DR11 PC200
         MATERIAL AND INSTALLATION MUST CONFORM TO WATER DEPARTMENT REQUIREMENTS.
   D. 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 FITINGS 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.
   E. SANITARY SEWER AND VENTS.
      (UNDERGROUND, 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.

MECHANICAL SPECIFICATIONS (CONTINUED)

      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, 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.
      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.
   F. 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.
      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.
      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.
   G. 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.
   H. 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 ACCOMODATE PIPE INSULATION.
      2) INTERIOR PARTITIONS: 18 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.
   I. PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.
8. WATER HEATERS
   A. DOMESTIC-WATER EXPANSION TANKS:
      1. DESCRIPTION: STEEL, PRESSURE-RATED TANK CONSTRUCTED WITH WELDED JOINTS AND FACTORY-INSTALLED, BUTYL-RUBBER DIAPHRAGM. INCLUDE AIR PRECHARGE TO MINIMUM SYSTEM-OPERATING PRESSURE AT TANK.
      2. CONSTRUCTION:
         a. TAPPINGS: FACTORY-FABRICATED STEEL, WELDED TO TANK BEFORE TESTING AND LABELING. INCLUDE ASME B1.20.1 PIPE THREAD.
         b. INTERIOR FINISH: COMPLY WITH NSF 61 AND NSF 372 BARRIER MATERIALS FOR POTABLE-WATER TANK LININGS, INCLUDING EXTENDING FINISH INTO AND THROUGH TANK FITTINGS AND OUTLETS.
         c. AIR-CHARGING VALVE: FACTORY INSTALLED.
      3. CAPACITY AND CHARACTERISTICS:
         a. WORKING-PRESSURE RATING: 150 PSIG .
9. 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" FOR PIPING UP TO 1-1/4"Ø, & 1-1/2" FOR PIPING 1-1/2"Ø AND LARGER
         c) HOT WATER RECIRCULATING 1"
         d) CONDENSATE DRAINS INSIDE BUILDING 1/2"
   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.
   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"
            (2) RECTANGULAR SUPPLY DUCT 2"
            (3) RETURN AIR DUCT 2"
            (4) OUTDOOR AIR 2"
      2) EXPOSED SPIRAL DUCT.
         a) DOUBLE WALL SPIRAL - DOUBLE WALL INSULATED SPIRAL DUCT AND FITTINGS WITH PERFORATED 1"LINER WITH A K VALUE OF 0.27.
         b) SPIRAL DUCT LINING: JOHNS MANVILLE SPIRACOUSTIC PLUS ROUND DUCT LINER SYSTEM, VSD, SD, AND LD SIZES, 5'-0 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.
10. DUCTWORK:
   A. ALL DUCTWORK, UNLESS OTHERWISE INDICATED, SHALL BE FABRICATED FROM GALVANIZED SHEET STEEL COMPLYING WITH ASTM A 527, 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 FITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, NCLUDING THOSE WHICH WOULD MPAIR 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 OF 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.

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

11. FLEXIBLE DUCT:
   A. ATCO 906B (R-6), OR EQUAL.
   B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK.
   C. MAXIMUM LENGTH OF 5'-0".
12. EXHAUST & TRANSFER FANS.
   A. CENTRIFUGAL CEILING EX



MECHANICAL FLOOR PLAN

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

MECHANICAL PLAN NOTES:

1. PROVIDE MAIN SUPPLY AND RETURN DUCTWORK ABOVE CEILING FOR EACH OF THE UNIT. ROUTE DUCTWORK UP HIGH AND SUPPORT FROM THE STRUCTURE. ALL DUCTWORK SHALL BE INSTALLED IN ACCORDANCE WITH SMACNA STANDARDS. COORDINATE ROUTING OF DUCTWORK WITH LIGHT HOUSINGS, ELECTRICAL CONDUIT, PIPING ETC., TO AVOID CONFLICT. DUCTWORK INSULATION SHALL BE AT LEAST 3" FROM LIGHT HOUSINGS. REUSE EXISTING SUPPLY AND RETURN DUCTWORK WHERE POSSIBLE. FIELD VERIFY ALL EXISTING CONDITION.
2. INSTALL DOUBLED WALLED ROUND SPIRAL SUPPLY DUCTWORK AND CONNECT TO EXISTING DUCTWORK.
3. DEMOLISH EXISTING RETURN DUCTWORK.
4. PROVIDE CEILING MOUNTED DIFFUSERS AS DETAILED.
5. PROVIDE ROUND DUCT MOUNTED EXPOSED SUPPLY DIFFUSERS AS DETAILED.
6. PROVIDE DUCTED RETURN TRANSFER GRILLES.
7. PROVIDE HIGH LOW RETURN TRANSFER GRILLE. ENCLOSED ROOM SIDE GRILLE SHALL BE MOUNTED AT 12" AFF AND OPEN AREA GRILLE SHALL BE MOUNTED AT 1'-0" AFF.
8. PROVIDE RETURN TRANSFER GRILLE ON EACH SIDE OF WALL. MOUNTED ABOVE DOOR.
9. RETURN GRILLE MOUNTED AT 8'-6" AFF.
10. EXISTING SPLIT SYSTEM CONDENSING UNIT ON ROOF TO REMAIN. PROVIDE PREVENTIVE MAINTENANCE AS SCHEDULED.
11. EXISTING SPLIT SYSTEM GAS FIRED UNIT TO REMAIN. PROVIDE PREVENTIVE MAINTENANCE AS SCHEDULED.
12. PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT WITH CONTROL FOR HEATING AND COOLING. MOUNT THERMOSTAT 48" ABOVE THE FINISHED FLOOR. COORDINATE THE FINAL LOCATION OF THE THERMOSTAT WITH TENANT PRIOR TO INSTALLATION OF WIRING.
13. PROVIDE DUCTWORK TO PROVIDE OUTDOOR FRESH AIR FOR VENTILATION. CONNECT OUTDOOR AIR TO RETURN DUCT WITH BALANCING DAMPER AND FLEX CONNECTION. SEE SCHEDULE FOR OUTDOOR AIR REQUIREMENT.
14. PROVIDE OUTDOOR AIR INTAKE WALL CAP WITH BIRD SCREEN. ALL OUTDOOR AIR INTAKE SHALL BE LOCATED MIN. OF 10 FEET FROM EXHAUST, FLUE AND VENTS.

MECHANICAL PLAN NOTES CONTINUED:

15. CONNECT 4"Ø DRYER VENT BOX AS REQUIRED BY THE MANUFACTURER WITH BACK DRAFT DAMPER. ROUTE DRYER EXHAUST DUCT UP TO ROOF. PROVIDE GOOSENECK PER MANUFACTURE. SEAL PENETRATION WEATHER TIGHT. MAINTAIN 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
16. PROVIDE CEILING MOUNTED FAN WITH INTEGRAL BACKDRAFT DAMPER. SUPPORT UNIT FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
17. ROUTE EXHAUST DUCT UP TO WEATHER HEAD. ENSURE MIN. 10'-0" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
18. TRANSFER AIR FAN TO CONNECT INTO RETURN AIR DUCT.
19. CUT EXISTING ROOF AND FLASH INTO ROOF AS REQUIRED. ALL ROOFING WORK SHALL BE PERFORMED BY BUILDING OWNER'S ROOFING CONTRACTOR (AT THIS CONTRACTOR'S EXPENSE) TO MAINTAIN EXISTING ROOF WARRANTY. VERIFY APPROVED ROOFING CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.
20. COORDINATE WITH GC TO PROVIDE LOUVERED DOOR.

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 EXHAUST FANS, AND OTHER MOTORIZED EQUIPMENT.
7. NO DUCT SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
8. ALL MECHANICAL SYSTEMS SHALL BE BALANCED BY A CERTIFIED BALANCING CONTRACTOR. REFER TO SPECIFICATIONS FOR DETAILS.

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6/16/2022
STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER
ERIK B. KNUDSEN
NUMBER PE-2004026504

DATE: 6-16-2022 Permit Set PROJECT# 22009		
REV#	DATE	DESCRIPTION

MECHANICAL FLOOR PLAN

M1

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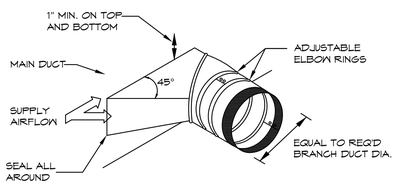
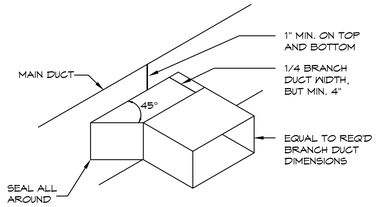


BRANCH DUCT TAKEOFF DETAIL
SCALE: NONE



BRANCH DUCT TAKEOFF DETAIL
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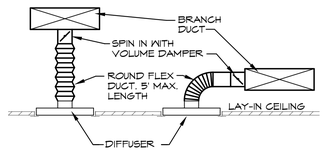
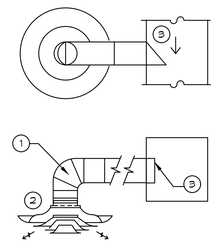


DIFFUSER DETAIL
SCALE: NONE



NOTE

1. PROVIDE MANUFACTURED 90 DEGREE OR STRAIGHT COLLAR.
2. CLAMP
3. SCOOPE

EXPOSED ROUND SUPPLY DIFFUSER
SCALE: NONE

MECHANICAL SYMBOLS

- NEW SUPPLY DIFFUSER
- NEW RETURN AIR GRILLE
- EXHAUST GRILLE/FAN
- T — THERMOSTAT, MOUNTED AT 48" AFF
- M — MOTORIZED DAMPER/LOUVER
- 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
- M — MOTORIZED CONTROL DAMPER
- SUPPLY AIR DUCT UP/DOWN
- RETURN AIR DUCT UP/DOWN
- EXHAUST AIR DUCT UP/DOWN
- UP — CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW
- RTU-1 — SCHEDULED MECHANICAL EQUIPMENT
- EXISTG DUCT TO REMAIN

EXISTING SPLIT SYSTEM HAVC SHOULD HAVE A PREVENTATIVE MAINTENANCE CHECK-UP TO INCLUDE THE FOLLOWING CRITERIA

1. CHANGE ALL FILTERS.
2. CLEAN ALL CONDENSATE DRAIN PANS AND FLUSH ALL CONDENSATE DRAIN LINES.
3. CLEAN ALL EVAPORATOR AND CONDENSER COILS WITH A NON-ACID CLEANER.
4. CHECK FOR REFRIGERANT LEAKS AND REPAIR AS NECESSARY (RECHARGE SYSTEM AS NEEDED.)
5. CHANGE ALL BELTS.
6. GREASE ALL MOVING PARTS AND BEARING.
7. CHECK DUCTWORK CONNECTIONS AND REPAIR AS NEEDED.
8. CHECK OUTDOOR AIR CONNECTION AND REPAIR AS NEEDED.
9. ALL UNITS SHALL BE FUNCTIONING PROPERLY.
10. COORDINATE WITH LANDLORD FOR REQUIRED REPAIR.

EXHAUST & TRANSFER FAN SCHEDULE

MARK	MFGR	MODEL	CFM	EXTERNAL STATIC P. IN. WG.	RPM	ELECTRICAL VOLT/Ø/HZ	ELECTRICAL FWR	FAN TYPE	CONTROLS	NOTES
EF-1	COOK	GC-148	75	0.3	1,075	120/1/60	32 W	CEILING EXHAUST	LIGHT	1
EF-2	"	"	"	"	"	"	"	"	"	1
EF-3	"	"	"	"	"	"	"	"	"	1
TF-1	"	"	"	"	"	"	"	"	THERMOSTAT	2,3

NOTES:
1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), AND WEATHER HEAD.
2. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER & VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING).
3. PROVIDE LINE VOLTAGE COOLING ONLY THERMOSTAT FOR CONTROL OF FAN, SET TO 80°F.

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 effectivene ss (Ez)	Zone outdoor airflow (cfm)
EX. F-1	538	Lobby 100	10	5	0.06		59	0.8	74
	190	Hall 102	0	0	0.06		11	0.8	14
	92	Business Manager 105	5	5	0.06		8	0.8	10
							Total		98
EX. F-2	180	Treatment 110	10	25	0.06		56	0.8	70
	212	Treatment 113	10	25	0.06		66	0.8	82
	198	Treatment 117	10	25	0.06		61	0.8	77
							Total		229
EX. F-3	60	Office 104	5	5	0.06		5	0.8	6
	65	Supply 108	0	0	0.12		8	0.8	10
	214	Injection Room 109	10	25	0.06		66	0.8	83
	214	Injection Room 112	10	25	0.06		66	0.8	83
							Total		182
EX. F-4	214	Injection Room 115	10	25	0.06		66	0.8	83
	214	Injection Room 218	10	25	0.06		66	0.8	83
	214	Injection Room 221	10	25	0.06		66	0.8	83
	65	Storage 124	0	0	0.06		4	0.8	5
							Total		254
EX. F-5	384	Hall 116	0	0	0.06		23	0.8	29
	203	Treatment 119	10	25	0.06		63	0.8	79
	214	Treatment 122	10	25	0.06		66	0.8	83
							Total		190
EX. F-6	660	Patient Refreshment 125	25	5	0.06		122	0.8	153
							Total		153

NOTES: 1. PROVIDE 200 CFM OF OUTDOOR AIR FOR EACH OF THE UNITS.

DIFFUSER, REGISTER & GRILLE SCHEDULE

MARK	MFGR	MODEL	NECK SIZE	FACE SIZE	FINISH	NOTES
SD-1	TITUS	OMNI/1	6"Ø	12"X12"	WHITE	1
SD-2	"	"	"	20"X20"	"	1
SD-3	"	"	8"Ø	"	"	1
SD-4	"	"	10"Ø	"	"	1
SD-5	"	OMNI/3	"	24"X24"	"	-
SD-6	"	TMR	"	18-1/4"Ø	"	-
RG-1	"	PAR/1	8"Ø	20"X20"	"	1
RG-2	"	"	10"Ø	"	"	1
RG-3	"	"	12"Ø	"	"	1
RG-4	"	PAR/3	10"Ø	24"X24"	"	-
RG-5	"	350RL	6"X6"	-	"	-
RG-6	"	"	12"X8"	-	"	-
RG-7	"	"	14"X14"	-	"	-
RG-8	"	"	16"X14"	-	"	-

NOTES: 1. PROVIDE WITH OPPOSED BLADE DAMPER.

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MECHANICAL SCHEDULE & DETAILS

M2

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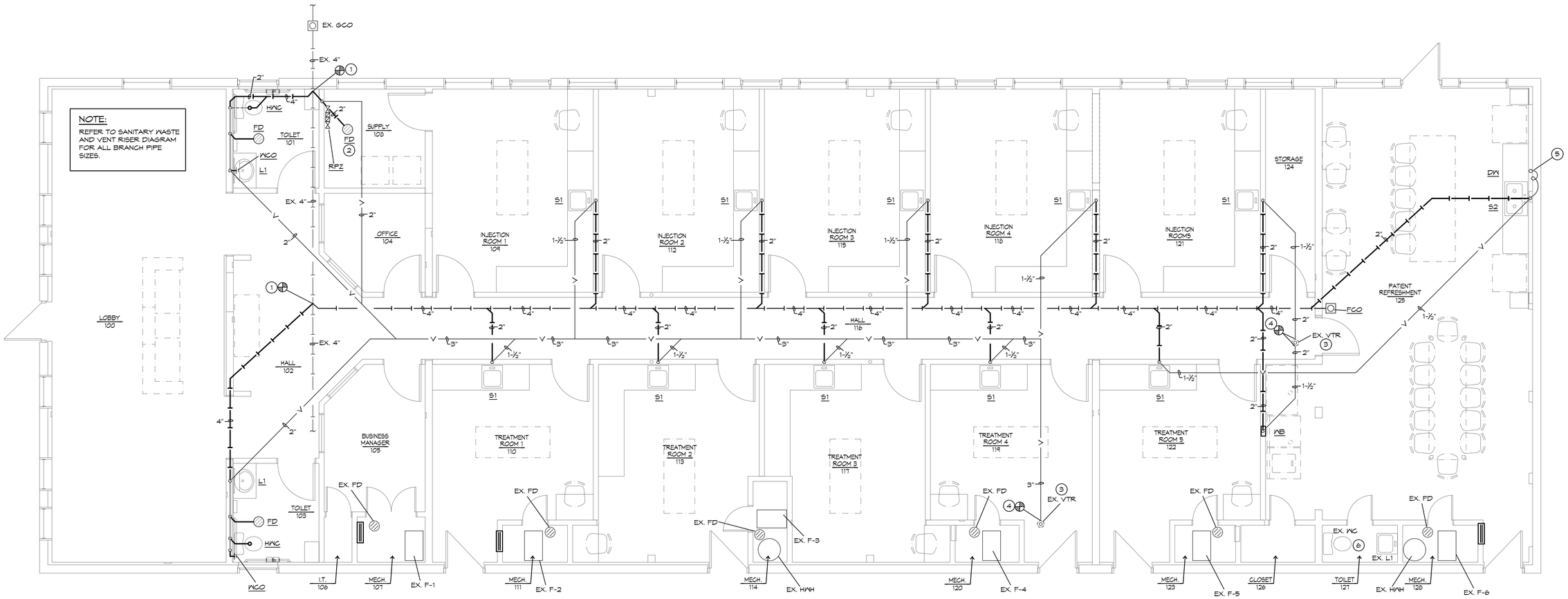

NORTH

WASTE & VENT PLAN

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

PLUMBING FIXTURE BRANCH PIPING SCHEDULE

FIXTURE	WASTE	VENT	CW	HW
WATER CLOSET (TANK TYPE)	4"	2"	1/2"	- -
LAVATORY	1-1/4"	1-1/4"	1/2"	1/2"
SINK	1-1/2"	1-1/2"	1/2"	1/2"
FLOOR DRAIN	2"	2"	- -	- -
WASHER BOX	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 DRAINAGE CALCULATIONS

FIXTURE	QUANTITY	FU	TOTAL FU
WATER CLOSET	2	4	8
EX. WATER CLOSET	1	4	4
LAVATORY	2	1	2
EX. LAVATORY	1	1	1
SINK (MEDICAL)	10	1	10
SINK (BREAK ROOM)	1	2	2
WASHER BOX	1	2	2
FLOOR DRAIN	3	2	6
DISHWASHER	1	2	6
EX. FLOOR DRAIN	6	2	12
TOTAL			49 FU

VENT MAINS - 4"
WASTE MAIN - 4"

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. SAWCUT EXISTING FLOOR AS REQUIRED FOR INSTALLATION OF UNDERFLOOR PIPING. PATCH FLOOR TO MATCH EXISTING.
6. NO PIPING SHALL BE ROUTED OVER THE TOP OF ELECTRICAL PANELS.
7. CONTRACTOR TO TEST WATER PRESSURE ON SITE AND PROVIDE PRESSURE REDUCING VALVE ON WATER SERVICE IF PRESSURE IS OVER 80 PSI.

PLUMBING PLAN NOTES:

1. CONNECT NEW SANITARY LINE TO EXISTING SANITARY LINE. FIELD VERIFY LOCATION, ELEVATION AND DIRECTION OF FLOW PRIOR TO INSTALLATION OF ANY NEW PIPING.
2. ROUTE RPZ DRAIN PIPING TO FLOOR DRAIN WITH AIR GAP. REFER TO DOMESTIC WATER PLAN FOR LOCATION OF RPZ.
3. LOCATION OF 4" VTR. VERIFY MINIMUM 10' FT. CLEARANCE FROM ANY FRESH IN TAKE.
4. CONNECT VENT PIPE TO EXISTING VENT PIPE. PLUMBING CONTRACTOR SHALL VERIFY EXACT LOCATION OF EXISTING VENT PIPE IN FIELD PRIOR TO INSTALLATION OF ANY NEW PIPING.
5. CONNECT DRAIN HOSE FROM DISHWASHER TO SINK TAILPIPE WITH AIR GAP FITTING PER MANUFACTURER'S INSTRUCTION.
6. ALL PLUMBING FIXTURES ARE EXISTING TO REMAIN IN THIS AREA. NO NEW PLUMBING WORK.

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WASTE & VENT PLAN

P1

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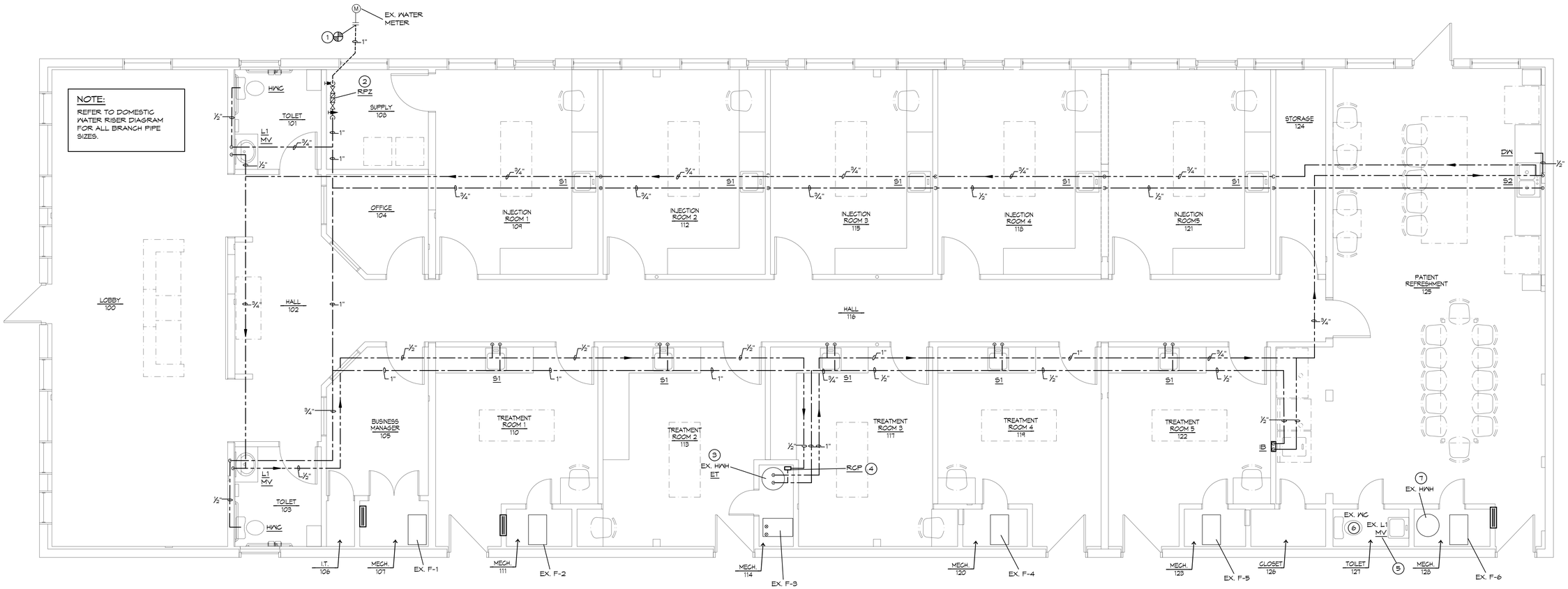

NORTH

DOMESTIC WATER PLAN

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

PLUMBING FIXTURE WATER COUNT

FIXTURE	QUANTITY	CW FU	CW TOTAL FU	HW FU	HW TOTAL FU	COMBINED FU	COMBINED TOTAL FU
WATER CLOSET	2	5	10	0	0	5	10
EX. WATER CLOSET	1	5	5	0	0	5	5
LAVATORY	2	1.5	3	1.5	3	2	4
EX. LAVATORY	1	1.5	1.5	1.5	1.5	2	2
SINK (MEDICAL)	10	1.5	15	1.5	15	2	20
SINK (BREAK ROOM)	1	2.25	2.25	2.25	2.25	3	3
DISHWASHER	1	0	0	1.4	1.4	1.4	1.4
WASHER BOX	1	2	2	2	2	3	3
			38.75 FU		25.15 FU		48.4 FU

COLD WATER MAIN - 1"
HOT WATER MAIN - 1"

PEX PIPING REQUIREMENTS

PIPE SIZES GIVEN ON THE DRAWINGS ARE NOMINAL COPPER PIPE SIZE. IF PEX PIPING IS USED, INCREASE PEX PIPING ONE SIZE ABOVE LISTED SIZES AS REQUIRED TO EQUAL OR EXCEED COPPER PIPE INSIDE DIAMETER.

PLUMBING PLAN NOTES:

1. CONNECT C/N TO EXISTING DOMESTIC C/N AS REQUIRED. VERIFY EXACT LOCATION PRIOR TO INSTALLATION OF ANY PIPING.
2. PROVIDE 1" REDUCED PRESSURE ZONE BACKFLOW PREVENTOR FOR DOMESTIC WATER AND INSTALL BELOW DOMESTIC RPZ. SEE WATER RISER DIAGRAM FOR MORE INFORMATION.
3. REUSE EXISTING ELECTRIC WATER HEATER. MAKE HOT AND COLD WATER PIPING CONNECTIONS THROUGH DIELECTRIC UNIONS. PROVIDE AND INSTALL ALL HARDWARE AND APPURTENANCES FOR COMPLETE INSTALLATION PER APPLICABLE CODES AND MANUFACTURER'S RECOMMENDATIONS. PROVIDE THERMAL EXPANSION TANK.
4. CONNECT HOT WATER RECIRC. PIPING BACK TO WATER HEATER AS REQUIRED. REFER TO RISER DIAGRAM FOR MORE INFORMATION.
5. PROVIDE THERMOSTATIC MIXING VALVE IN EXISTING LAVATORY IF NONE ARE PRESENT.
6. ALL PLUMBING FIXTURES ARE EXISTING TO REMAIN IN THIS AREA. NO NEW PLUMBING WORK.
7. EXISTING ELECTRIC WATER HEATER SERVING EXISTING RESTROOM TO REMAIN.

BC PROJECT #: 22358
MISSOURI PE COA #2009003629

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BC ENGINEERS INCORPORATED
5720 Reeder Shawnee, Ks. 66203 (913)262-1772

6/16/2022
STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER
ERIK B. KNUDSEN
NUMBER PE-2004026504

DATE: 6-16-2022 Permit Set PROJECT# 22009

REV#	DATE	DESCRIPTION

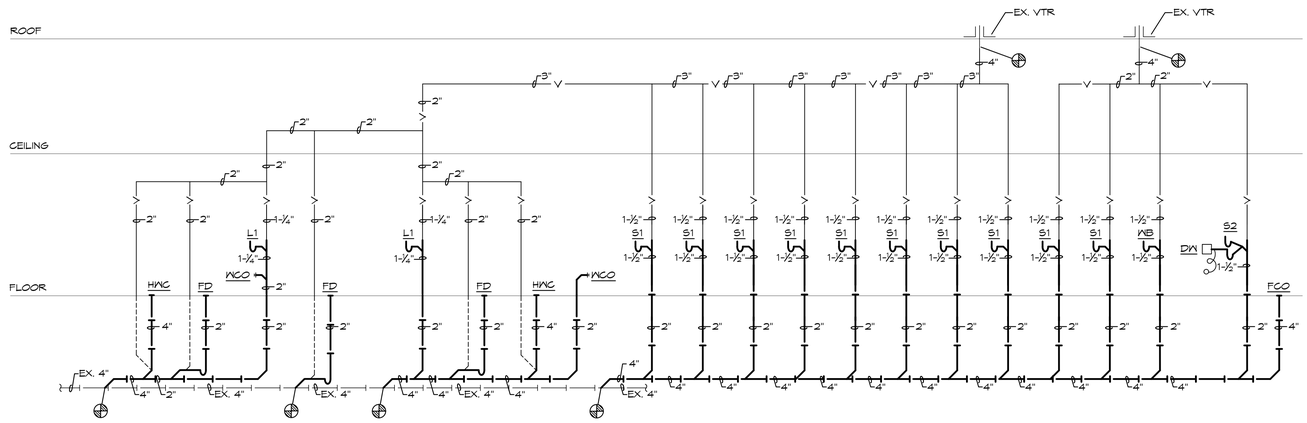
WATER & GAS PLAN

P2

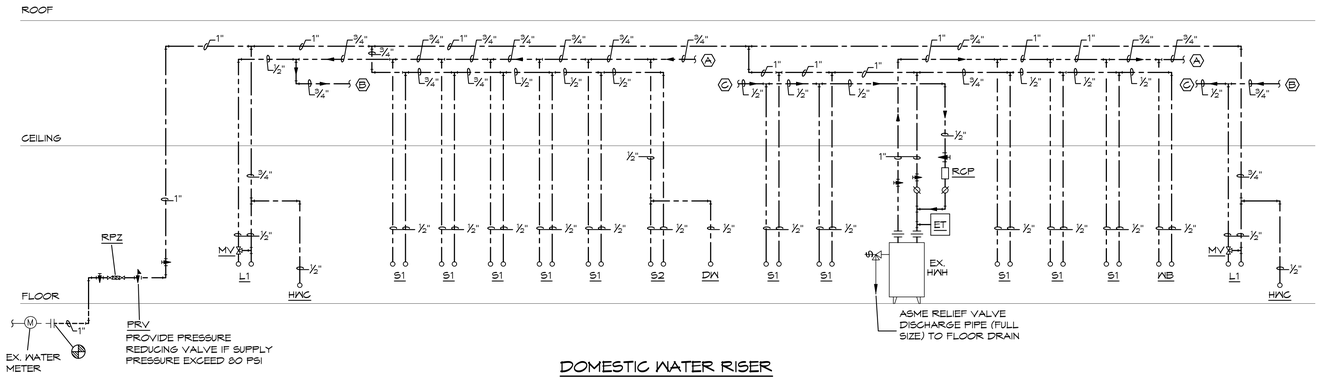
SHEET FILE LOCATION: N:\2022\22358\PLBG\22358P.DWG LAST SAVED: 6/16/2022 7:12 AM BY: SUNIL

PLUMBING SYMBOLS

- SOIL AND WASTE PIPING BELOW FLOOR/GRADE
- SOIL AND WASTE PIPING ABOVE FLOOR/GRADE
- SANITARY VENT PIPING ABOVE GRADE
- SANITARY VENT PIPING BELOW GRADE
- DOMESTIC COLD WATER PIPING
- DOMESTIC HOT WATER PIPING
- DOMESTIC HOT WATER RECIRCULATION PIPING
- EQUIPMENT DRAIN LINE
- PIPING TURNING DOWN
- PIPING TURNING UP
- TEE TOP CONNECTION
- UNION
- BACKFLOW PREVENTER
- FD — FLOOR DRAIN
- FCO — FLOOR CLEAN OUT
- WCO — WALL CLEAN OUT
- GCO — GRADE CLEAN OUT
- VALVE
- BALANCING VALVE
- SOLENOID VALVE
- PRESSURE REGULATOR
- CHECK VALVE
- CONNECT TO EXISTING
- I.E. — INVERT ELEVATION OF PIPE
- MATCH MARKS ON PLUMBING RISER DIAGRAM
- CHECK VALVE
- THERMOMETER
- PRESSURE GUAGE
- TEMPERATURE AND PRESSURE RELIEF VALVE



SANITARY WASTE RISER DIAGRAM



DOMESTIC WATER RISER

PLUMBING FIXTURE SCHEDULE (OR EQUAL):

HVAC HANDICAP WATER CLOSET: TOTO, #CST744EL(R)N, "DRAKE CLOSE COUPLED TOILET", 1.28 GALLON FLUSH, 16-1/2" HIGH ELONGATED BOWL, FLOOR MOUNTED, FLOOR OUTLET, TANK TYPE, VITREOUS CHINA, SIPHON-JET ACTION, #SC834 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER. HANDLE ON HIDE SIDE OF FIXTURE.

L1 HANDICAP LAVATORY, UNDERMOUNT: TOTO, #LT569#01, VITREOUS CHINA, 17"x 14" OVAL BASIN, DELTA #501 FAUCET WITH SINGLE METAL LEVER HANDLE, OFFSET GRID DRAIN WITH 1-1/4" TAILPIECE, CHROME PLATED P-TRAP(MOUNTED PARALLEL WITH WALL), CHROME PLATED ANGLE STOPS AND RISERS,INSULATE EXPOSED DRAIN, WATER SUPPLIES, AND VALVES WITH PROVRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.

S1 SINK: ELKAY CROSSTOWN #ECTSR25229TBG SINGLE BOWL STAINLESS STEEL SINK, WITH DELTA ESSA 9113DST, SINGLE HANDLE PULL-OUT FAUCET, POLISHED CHROME FAUCET, #LK-35 BASKET STRAINER, CHROME PLATED ANGLE STOPS AND RISERS, SINK CUT-OUT IN CASEWORK SHALL BE BY CASEWORK CONTRACTOR.

S2 BREAK ROOM SINK: ELKAY CROSSTOWN #ECTSR33229TBG DOUBLE BOWL 18 GAUGE STAINLESS STEEL SINK, WITH DELTA ESSA 9113DST, SINGLE HANDLE PULL-OUT FAUCET,, POLISHED CHROME. , ADA COMPLIANT, SINGLE COMPARTMENT, SELF-RIMMING STAINLESS STEEL SINK WITH SATIN FINISH AND SOUND DAMPENING UNDERCOATING, AERATOR, CHROME PLATED CAST BRASS P-TRAP WITH CLEANOUT, CHROME PLATED ANGLE STOPS AND RISERS, IN-SINK-ERATOR #BADGER 5 DISPOSAL, 1/2 HP, 120 VOLT.

FD FLOOR DRAIN: SIOUX CHIEF, #842, PVC FLOOR DRAIN WITH ADJUSTABLE TOP AND CAST BRASS STRAINER. PROVIDE WITH #2642 QUAD CLOSE TRAP SEAL DEVICE.

MV MIXING VALVE: WATTS, #LFUSG-B, THERMOSTATIC CONTROLLED MIXING VALVE, LEAD FREE BRONZE BODY, LOCKED TEMPERATURE ADJUSTMENT CAP (VANDAL RESISTANT), COPPER ENCAPSULATED THERMOSTAT ASSEMBLY WITH BRASS SHUTTLE, STAINLESS STEEL SPRINGS, INTEGRAL CHECK VALVES ON HOT AND COLD INLETS. (SET TO 110°F). ASSE 1070 LISTED.

ET HOT WATER EXPANSION TANK: AMTROL, #ST-12, 4.4 GALLON EXPANSION TANK WITH DIAPHRAGM.

RCP HOT WATER RE-CIRCULATING PUMP: BELL & GOSSETT, #SERIES NBF-10, 3 GPM @ 7 FT. HEAD, 1/12 HP, 120 VOLT, WITH HONEYWELL #L6006C1018 AQUASTAT & TACO #265-3 7-DAY DIGITAL TIMER, 120°-125°F, ¾" Ø PIPE.

WB WASHER BOX : SIOUX CHIEF'S "OXBOX" 696 SERIES WASHER OUTLET BOX WITH BUILT IN WATER HAMMER ARRESTER WITH 1-1/2" DRAIN OUTLET AND TAILPIECE, AND 1/2" HOT & COLD WATER CONNECTION.

RPZ REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LF009, LEAD FREE BRONZE BODY CONSTRUCTION, TWO, IN-LINE INDEPENDENT CHECK VALVES, REPLACEABLE CHECK SEATS WITH AN INTERMEDIATE RELIEF VALVE, AND BALL VALVE TEST COCKS. REQUIRED SIZE 1".

DW DISHWASHER: OWNER FURNISHED, CONTRACTOR INSTALLED, CONNECT TO HW AND DRAIN PIPING UNDER SINK AS REQUIRED. PROVIDE HOSE, PIPING AND SHUT-OFF VALVES AS REQUIRED TO MAKE CONNECTIONS.

FCO/WCO VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL.
QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL.
CARPETED FLOOR: JR SMITH #4020-Y, OR EQUAL.
UNFINISHED FLOOR: JR SMITH #4020, OR EQUAL.
WALL: JR SMITH #4472, OR EQUAL, 24" ABOVE THE FLOOR.

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6/16/2022
STATE OF MISSOURI
ERIK B. KNUDSEN
NUMBER PE-2004026504
REGISTERED PROFESSIONAL ENGINEER

DATE: 6-16-2022 Permit Set PROJECT# 22009		
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PLUMBING SCHEDULE, RISER & DETAILS

P3

SHEET FILE LOCATION: N:\2022\22358\PLBG\22358P.DWG LAST SAVED: 6/16/2022 7:12 AM BY: SUNIL

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 CONNECTING 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.
   F. ALUMINUM SERVICE WIRE MAY BE USED FOR SERVICE ENTRANCE CONDUCTORS AND/OR PANEL FEEDERS ONLY. ALL OTHER WIRING SHALL BE COPPER CONDUCTORS AS HEREINBEFORE SPECIFIED.
   G. ALUMINUM CONDUCTORS SHALL BE TYPE XHHW-2, ALCAN, "STABILOY" TYPE ALLOY CONDUCTORS UTILIZING "AA-8030" ALUMINUM ALLOY. CONDUCTORS SHALL BE UL LISTED.
   H. ALL ALUMINUM CONDUCTORS SHALL BE TERMINATED IN CONNECTIONS OR LUGS WHICH ARE DUAL RATED (AL7CU OR AL9CU) AND ARE LISTED BY UL FOR USE WITH ALUMINUM OR COPPER CONDUCTORS AND SHALL BE SIZED TO ACCEPT ALUMINUM CONDUCTORS OF THE AMPACITY SPECIFIED.
7. MC CABLE:
   A. MC CABLE SHALL CONSIST OF INTERLOCK ARMORED CABLE MADE OF THREE OR FOUR TYPE THHN SOLID (#8 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.
   D. MC CABLE INSTALLED UNDERGROUND IN PATIENT CARE AREAS SHALL BE "HCF MCAP" TYPE PVC JACKETED ALL PURPOSE CABLE WITH 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 DIRECT BURIAL IN EARTH, EMBEDDED IN CONCRETE AND SUITABLE FOR WET LOCATIONS.
      2) HCF MCAP 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 #CR5352IG, 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 #WP1010MHD OR #WP1010MHND DIECAST METAL WEATHERPROOF RECEPTACLE COVER. COVER SHALL BE WEATHER PROOF RATED WHILE IN USE.
   F. VERIFY DEVICES AND DEVICE COVERPLATES COLOR AND STYLE 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.

ELECTRICAL SPECIFICATIONS (CONTINUED)

10. LOAD CENTERS:
   A. FURNISH AND INSTALL CIRCUIT BREAKER LOAD CENTERS AS SHOWN ON THE DRAWINGS. LOAD CENTERS SHALL BE LISTED BY UL AND SO LABELED, AND SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT CAPACITY INDICATED ON THE PANEL SCHEDULE. LOAD CENTERS SHALL BE EQUAL TO GENERAL ELECTRIC POWER MARK SERIES WITH PLUG IN TYPE BREAKERS.
   B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PORTIONS OF UL STANDARD 489 AND NEMA AB-1. CIRCUIT BREAKERS SHALL BE PLUG-IN TYPE, WITH COMMON TRIP, UL RATED TO CARRY 100% OF NAMEPLATE RATING CONTINUOUSLY IN FREE AIR AT 25 DEGREE C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING AND FULLY INTERCHANGEABLE WITHOUT DISTURBING ADJACENT UNITS. WIRE TERMINALS SHALL BE RATED 75 DEGREES C.
      1) BREAKERS SHALL MEET APPLICABLE NEMA AND/OR UL SPECIFICATIONS.
      2) ALL BREAKERS SHALL BE "HACR" RATED.
   C. PANELBOARD BOXES SHALL BE GALVANIZED SHEET STEEL WITH AMPLE WIRING GUTTER SPACE IN ACCORDANCE WITH NEC. FRONTS SHALL BE OF SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE RUST INHIBITOR PRIMER. PANELBOARDS SHALL BE EQUIPPED WITH ONE PIECE DOOR, SEMI-CONCEALED HINGES, DOOR LATCH, AND DIRECTORY CARD-HOLDER.
   D. PANELBOARD INTERIORS SHALL CONSIST OF REINFORCED GALVANIZED SHEET STEEL FRAMES WITH ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BREAKAGE IN HANDLING. BUS BARS SHALL BE SEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL SIZED SOLID ALUMINUM NEUTRAL AND GROUND BUS.
   E. BUS BAR BRACING SHALL BE UL LISTED AT 10,000 SYMMETRICAL AMPERES MINIMUM. ADDITIONAL BRACING SHALL BE PROVIDED AS REQUIRED TO MEET OR EXCEED INDICATED AVAILABLE FAULT CURRENTS.
   F. DIRECTORY CARDS SHALL BE COMPLETELY FILLED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND LOAD SERVED. CIRCUIT BREAKERS SHALL BE IDENTIFIED BY CIRCUIT NUMBER LABELS AS HEREINBEFORE SPECIFIED.
   G. LOAD CENTERS INSTALLED IN ACCESSIBLE DWELLING UNITS SHALL MEET ALL REQUIREMENTS OF ANSI A117.1. OPENING LATCH AND ALL BREAKERS SHALL BE MOUNTED BETWEEN 48" AND 15" AFF. CONTRACTOR SHALL VERIFY WITH ARCHITECT IF UNIT IS ACCESSIBLE PRIOR TO ROUGH IN.
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: PROSET 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 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. 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 ELECTRICAL SOURCE, BUT 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 MAINTAIN 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.

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
WR	WEATHERPROOF RESISTANT DEVICE
IG	ISOLATED GROUND DEVICE
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
	FLOOR BOX

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

COMMUNICATIONS

	DATA/TELEPHONE OUTLET WITH MINIMUM ¾" CONDUIT STUBBED UP TO ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING
TV	FLAT SCREEN TELEVISION - PROVIDE AND INSTALL ONE (1) HUBBELL #RR1510X RECESSED TAMPER-RESISTANT DUPLEX RECEPTACLE WITH COVERPLATE AND ONE(1) HUBBELL #HBL260 TWO GANG LARGE CAPACITY WALL BOX (UP TO 2" KNOCKOUT) W/ MUD RING AND COVERPLATE FOR DATA. PROVIDE 2'C WITH PULL STRING TO ABOVE ACCESSIBLE CEILING FOR DATA CABLES. MOUNT BOX AT 7'-6" AFF UNLESS NOTED OTHERWISE (VERIFY)

MISCELLANEOUS

	COMBINATION POWER AND DATA FLOORBOX
T	LINE VOLTAGE THERMOSTAT PROVIDED BY MECHANICAL CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING

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, VERIFY IF FLOOR IS STRUCTURAL SLAB OR SLAB ON GRADE. IF STRUCTURAL SLAB, CORE DRILL PENETRATION, AND ROUTE CONDUIT IN SPACE BELOW. IF SLAB ON GRADE, SAW CUT EXISTING FLOOR SLAB AS REQUIRED FOR INSTALLATION OF UNDER FLOOR CONDUIT. NO STRUCTURAL ELEMENTS SHALL BE CORE DRILLED OR SAW CUT. WHEN SAW CUTTING, PATCH FLOOR TO MATCH EXISTING SURFACE AS REQUIRED.
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. ALL ELECTRICAL DEVICES ARE EXISTING AND TO REMAIN UNLESS NOTED OTHERWISE OR CONFLICT WITH NEW CONSTRUCTION. MAINTAIN PROPER OPERATION OF ALL EXISTING ELECTRICAL.
8. 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.
9. EACH BRANCH CIRCUIT SHALL HAVE A DEDICATED NEUTRAL PER NEC 210.4.
10. 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.
11. 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.
12. ALL 120 VOLT 20 AMP RECEPTACLES IN KITCHEN SHALL BE GFCI PROTECTED PER NEC 210.8 (B)(2). (GFCI DEVICE OR GFCI BREAKER AS INDICATED ON PLANS)

HEALTH CARE FACILITY NOTES:

1. PATIENT AREAS (TREATMENT AND INJECTION ROOMS) 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.
4. NEC 2017 - ALL RECEPTACLES INSTALLED IN BUSINESS OFFICES, CORRIDORS, WAITING ROOMS, AND SIMILAR ROOMS ACCESSIBLE TO THE PUBLIC SHALL BE TAMPER RESISTANT PER NEC 406.12(5)

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6/16/2022

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BC ENGINEERS INCORPORATED
5720 Reeder Shawnee, Ks. 66203 (913)262-1772

DARIN T. SEIDEL NUMBER PE-2009003629 STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER

DATE: 6-16-2022 Permit Set PROJECT# 22009

REV#	DATE	DESCRIPTION

ELECTRICAL SPECIFICATIONS

E0

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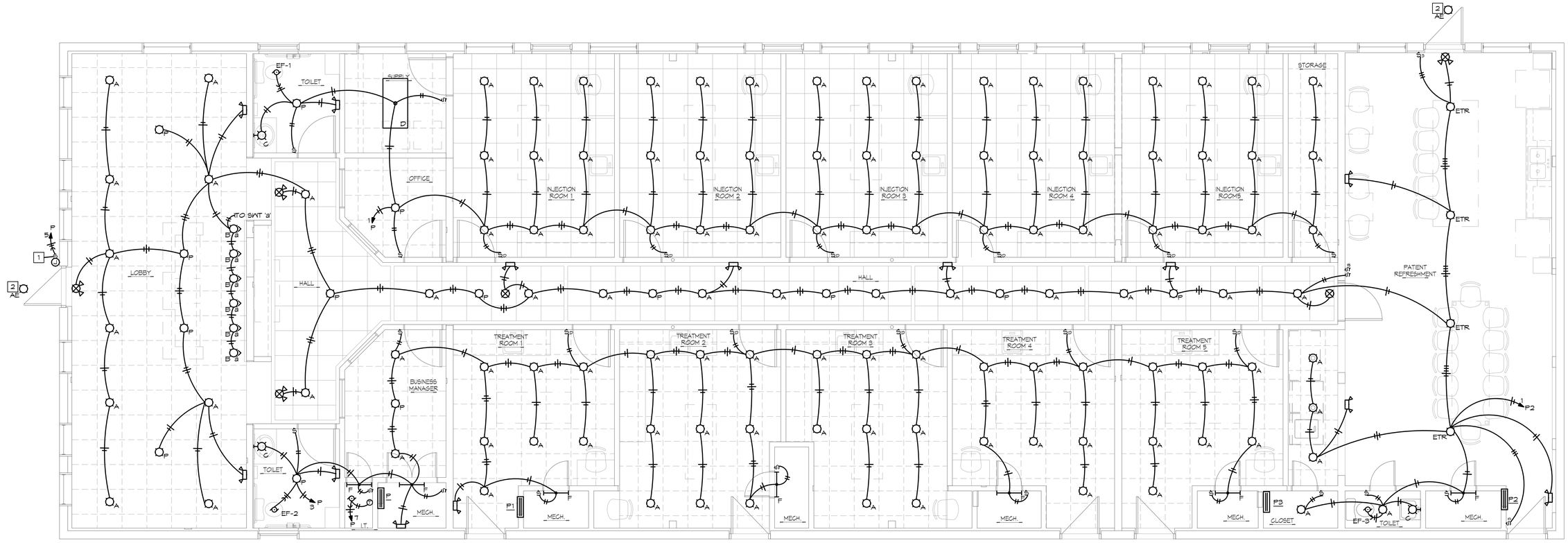


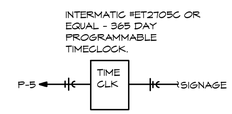
ELECTRICAL LIGHTING PLAN

NORTH

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

LIGHTING PLAN NOTES:

1. JUNCTION BOX WITH DISCONNECTING MEANS PER NEC FOR CONNECTION TO BUILDING MOUNTED SIGNAGE. VERIFY EXACT LOCATION AND CONNECT TO SIGN PER MANUFACTURER'S INSTRUCTIONS. ROUTE CIRCUIT THRU TIMECLOCK, SEE DETAIL, THIS SHEET.
2. REPLACE EXISTING RECESSED LIGHT WITH NEW FIXTURE AND CONNECT TO EXISTING CIRCUIT SERVING EXTERIOR LIGHTING.



SIGNAGE CONTROL DIAGRAM

BC PROJECT #: 22358
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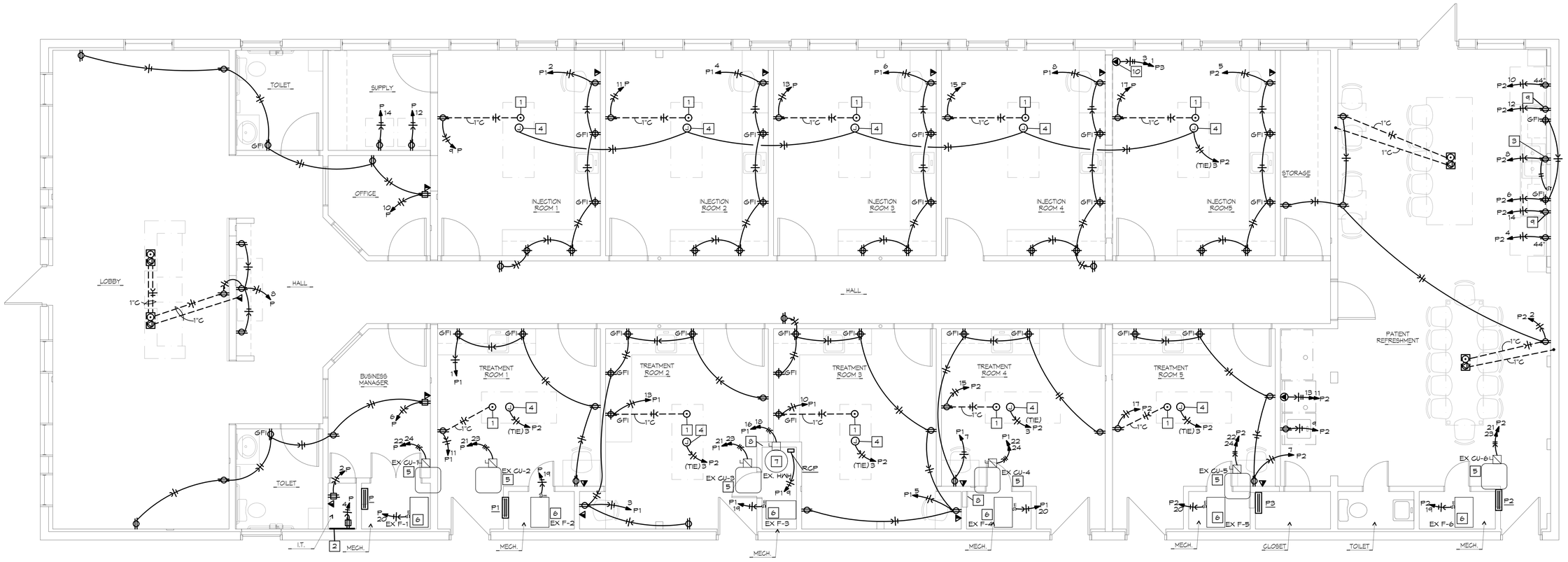
ELECTRICAL LIGHTING PLAN

E1

SHEET FILE LOCATION: N:\2022\22358\ELEC\22358E.DWG LAST SAVED: 6/16/2022 11:15 AM BY: ME



NORTH

ELECTRICAL POWER PLAN

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

VERIFY ALL ELECTRICAL/DATA OUTLET LOCATIONS WITH OWNER PRIOR TO ROUGH-IN. VERIFY LOCATION FOR WALL MOUNTED MONITORS, FLOOR BOX ROUGH-IN LOCATION AND ANY ADDITIONAL OUTLET LOCATIONS.

POWER PLAN NOTES:

1. VERIFY EXACT LOCATION OF FLOOR BOX WITH OWNER PRIOR TO ROUGH-IN.
2. VERIFY LOCATION OF 2'X4'X3/4" FIRE RETARDANT PLYWOOD TELEPHONE BACKBOARD. TERMINATE AS DIRECTED BY TELEPHONE AND INTERNET SERVICE PROVIDER. VERIFY ROUTING AND DISTANCE.
3. SPLIT-WIRED DUPLEX RECEPTACLE MOUNTED UNDER SINK IN CASEWORK FOR POWER TO GARBAGE DISPOSAL AND DISHWASHER. TOP OUTLET SWITCHED FOR DISPOSAL, BOTTOM OUTLET UNSWITCHED FOR DISHWASHER. DEVICE TO BE GFCI PROTECTED BY GFCI BREAKER IN PANEL.
4. PROVIDE JUNCTION BOX FOR PROCEDURE LIGHT MOUNTED IN CEILING, CONNECT PER MANUFACTURERS SPECIFICATIONS. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
5. EXISTING CONDENSING UNIT ON ROOF TO BE CONNECT TO NEW PANEL AS INDICATED ON PLANS.
6. EXISTING FURNACE TO BE CONNECTED TO NEW PANEL AS INDICATED ON PLANS.
7. EXISTING WATER HEATER TO BE CONNECTED TO NEW PANEL AS INDICATED ON PLANS.
8. EXISTING PANEL TO BE REMAIN BUT NOT BE USED.
9. MICROWAVE MOUNTED IN UPPER CASE WORK. VERIFY EXACT LOCATION PRIOR TO ROUGH-IN.
10. VERIFY ALL ELECTRICAL REQUIREMENTS AND LOCATION FOR LASER MACHINE PRIOR TO ROUGH-IN. PROVIDE ALL ELECTRICAL COMPONENTS REQUIRED AND CONNECT COMPLETE.

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STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER
DARIN T. SEIDEL
NUMBER PE-2009003629

DATE: 6-16-2022 Permit Set PROJECT# 22009		
REV#	DATE	DESCRIPTION

ELECTRICAL POWER PLAN

E2

SHEET FILE LOCATION: N:\2022\22358\ELEC\22358E.DWG LAST SAVED: 6/16/2022 11:15 AM BY: ME

LOAD CENTER: P		VOLTS: 120/240V			PH: 1Φ		3W		LOCATION: MECHRM 107			MOUNTING: SURFACE	
BUS: 125A		MAIN: 100A MLO			IC: 10,000				RMS SYM AMPS			FEEDER: SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	INJECTION/OFFICE LTG	20	1	12	1,292		360		12	1	20	IT RCPT	2
3	TREATMENT/OFFICE LTG	20	1	12		1,162		360	12	1	20	PHONEBOARD RCPT	4
5	SIGNAGE	20	1	12	1,200		1,080		12	1	20	MANAGER/SEATING RCPT	6
7	TF-1	20	1	12		100		1,080	12	1	20	LOBBY RCPT	8
9	INJECTION RM 1 CHAIR	20	1	12	360		1,080		12	1	20	OFFICE/LOBBY RCPT	10
11	INJECTION RM 2 CHAIR	20	1	12		360		1,000	12	1	20	FREEZER	12
13	INJECTION RM 3 CHAIR	20	1	12	360		1,000		12	1	20	FRIDGE	14
15	INJECTION RM 4 CHAIR	20	1	12		360				1	20	SPARE	16
17	INJECTION RM 5 CHAIR	20	1	12	360					1	20	SPARE	18
19	EX F-2	15	1	12		1,200		1,200	12	1	15	EX F-1	20
21	EX CU-2	25	2	10	1,740		2,040		10	2	30	EX CU-1	22
23						1,740		2,040					24
NOTES:					5,312	4,922	5,560	5,680					
					10,872		10,602					TOTAL CONNECTED LOAD:	21,474 VA
												NEC DEMAND LOAD:	19,988 VA
												DEMAND AMPS @ 240 VOLT / 1Φ:	83.28 A

LOAD CENTER: P1		VOLTS: 120/240V			PH: 1Φ		3W		LOCATION: TRTRM 1			MOUNTING: FLUSH	
BUS: 125A		MAIN: 100A MLO			IC: 10,000				RMS SYM AMPS			FEEDER: SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	TREATMENT RM 1	20	1	12	1,080		1,260		12	1	20	INJECTION RM 1	2
3	TREATMENT RM 2	20	1	12		1,080		1,080	12	1	20	INJECTION RM 2	4
5	TREATMENT RM 3	20	1	12	1,260		1,080		12	1	20	INJECTION RM 3	6
7	TREATMENT RM 4	20	1	12		1,080		1,260	12	1	20	INJECTION RM 4	8
9	RECIRC PUMP	20	1	12	180		360		12	1	20	TREATMENT RM 3 CHAIR	10
11	TREATMENT RM 1 CHAIR	20	1	12		360				1	20	SPARE	12
13	TREATMENT RM 2 CHAIR	20	1	12	360					1	20	SPARE	14
15	SPARE	20	1					2,250	10	2	30	EX WATER HEATER	16
17	SPARE	20	1				2,250						18
19	EX F-3	15	1	12				1,200	12	1	15	EX F-4	20
21	EX CU-3	15	2	12	1,236		2,400		12	2	20	EX CU-4	22
23						1,236		2,400					24
NOTES:					4,116	3,756	7,350	5,190					
					11,466		11,946					TOTAL CONNECTED LOAD:	23,412 VA
												NEC DEMAND LOAD:	23,117 VA
												DEMAND AMPS @ 240 VOLT / 1Φ:	96.32 A

LOAD CENTER: P2		VOLTS: 120/240V			PH: 1Φ		3W		LOCATION: REFRESH			MOUNTING: FLUSH	
BUS: 125A		MAIN: 100A MLO			IC: 10,000				RMS SYM AMPS			FEEDER: SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	PATIENT/HALLTG	20	1	12	1,702		1,080		12	1	20	PATIENT REFRESH RCPT	2
3	PROCEDURE LTG	20	1	12		1,000		1,000	12	1	20	FRIDGE [GF]	4
5	INJECTION RM 5	20	1	12	1,080		360		12	1	20	REFRESH COUNTER RCPT	6
7	TREATMENT RM 5	20	1	12		1,080		500	12	1	20	REFRESH DISPOSAL/DISH [GF]	8
9	WASHER [GF]	20	1	12	800		1,000		12	1	20	FRIDGE [GF]	10
11	DRYER	30	2	10		2,496		1,000	12	1	20	REFRESH MICROWAVE [GF]	12
13					2,496		1,000		12	1	20	REFRESH MICROWAVE [GF]	14
15	TREATMENT RM 4 CHAIR	20	1	12		360				1	20	SPARE	16
17	TREATMENT RM 5 CHAIR	20	1	12	360					1	20	SPARE	18
19	EX F-6	15	1	12		1,200		1,200	12	1	15	EX F-5	20
21	EX CU-6	15	2	12	1,236		1,236		12	2	15	EX CU-5	22
23						1,236		1,236					24
NOTES:					7,674	7,372	4,676	4,936					
[GF]-GFCI BRKR 5mA					12,350		12,308					TOTAL CONNECTED LOAD:	24,658 VA
												NEC DEMAND LOAD:	21,876 VA
												DEMAND AMPS @ 240 VOLT / 1Φ:	91.15 A

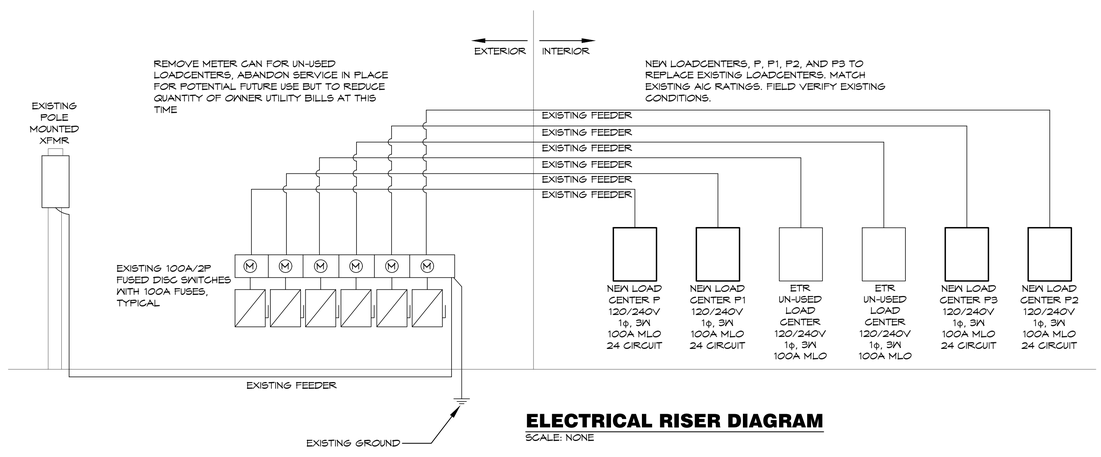
LOAD CENTER: P3		VOLTS: 120/240V			PH: 1Φ		3W		LOCATION: CLOSET			MOUNTING: SURFACE	
BUS: 125A		MAIN: 100A MLO			IC: 10,000				RMS SYM AMPS			FEEDER: SEE RISER DIAGRAM	
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦA	ΦB	ΦA	ΦB	WIRE	POLE	AMPS	DESCRIPTION	CKT NO
1	LASER MACHINE	30	2	10	2,880					1	20	SPARE	2
3						2,880				1	20	SPARE	4
5	SPARE	20	1							1	20	SPARE	6
7	SPARE	20	1							1	20	SPARE	8
9	SPARE	20	1							1	20	SPARE	10
11	SPARE	20	1							1	20	SPARE	12
13	SPARE	20	1							1	20	SPARE	14
15	SPARE	20	1							1	20	SPARE	16
17	SPARE	20	1							1	20	SPARE	18
19	SPARE	20	1							1	20	SPARE	20
21	SPARE	20	1							1	20	SPARE	22
23	SPARE	20	1							1	20	SPARE	24
NOTES:					2,880	2,880	0	0					
					2,880		2,880					TOTAL CONNECTED LOAD:	5,760 VA
												NEC DEMAND LOAD:	5,760 VA
												DEMAND AMPS @ 240 VOLT / 1Φ:	24.00 A

LIGHT FIXTURE SCHEDULE

MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LAMPS	DESCRIPTION	EQUIVALENT MANUFACTURERS
A	LITHONIA LDN6 40/20 L06 AR LSS 120 EZ1	120 22.6	LED 2000 LUM 4000K	6" RECESSED CAN LED DOWNLIGHT, 4,000 KELVIN, 2000 LUMEN	WILLIAMS COOPER OR EQUAL
AE	LITHONIA LDN6 40/20 L06 AR LSS 120 EZ1 EL	120 22.6	LED 2000 LUM 4000K	6" RECESSED CAN LED DOWNLIGHT, 4,000 KELVIN, 2000 LUMEN, WITH 10W EMERGENCY BATTERY PACK	WILLIAMS COOPER OR EQUAL
B	LITHONIA LDN6 40/20 LN6 AR LSS 120 EZ1	120 22.6	LED 2000 LUM 4000K	6" RECESSED WALL WASH LED DOWNLIGHT, 4,000 KELVIN, 2000 LUMEN	WILLIAMS COOPER OR EQUAL
C	WALL SCONCE	120	LED INCL	OWNER PROVIDED LED WALL SCONCE, CONTRACTOR INSTALLED. $150.00 ALLOWANCE PER FIXTURE	
D	LITHONIA EPANL-2X4-3000LM-80CRI-40K-MIN10-ZT-MVOLT	120 29	LED 3000 LUM 4000K	2'X4' GRID LAY-IN LED FLAT PANEL FIXTURE, 3000 LUMEN, 4000 KELVIN	WILLIAMS, COOPER, OR EQUAL
F	LITHONIA MNSL L24 2LL MVOLT 40K 80CRI M6	120 20	LED 2500 LUM 4000K	2 FT LED STRIP FIXTURE, 2500 LUMEN, 4000K, WALL MOUNT ABOVE DOOR. VERIFY EXACT LOCATION WITH ARCHITECT	WILLIAMS COOPER OR EQUAL
P	PENDANT	120	LED	OWNER PROVIDED LED PENDANT, CONTRACTOR INSTALLED. $300.00 ALLOWANCE PER FIXTURE	
ETR	EXISTING TO REMAIN				
⊄	LITHONIA EU2L M12	120 6	LED INCL	EMERGENCY LIGHT WITH TWIN ADJUSTABLE HEADS WITH BATTERY BACK-UP, MOUNT AT 7'-6"±, TO CLEAR OBSTACLES. (PROVIDES 1 FC AVG. ON 18' CENTER FIXTURE SPACING), WHITE FINISH	SURE-LITES DUAL-LITE OR EQUAL
⊗	LITHONIA EGBR LED M6	120 1	INCL	INTEGRATED EXIT/UNIT COMBOS, RED LETTERS. VERIFY FINISH WITH ARCHITECT UNIVERSAL MOUNT, BATTERY BACKUP	SURE-LITES LITHONIA OR EQUAL

NOTES:

1. MEDICAL - ALL LAMPS SHALL BE 4000° KELVIN AND A MINIMUM CRI OF 82 UNLESS SPECIFIED OTHERWISE



ELECTRICAL RISER DIAGRAM

SCALE: NONE

BC PROJECT #: 22358
MISSOURI PE COA #2009003629

GUY GRONBERG ARCHITECTS, P.C.
113 SE 3rd St.
Lee's Summit, MO 64063
Phone 816.524.0878
Fax 816.524.0578

ADVANCED AESTHETIC CENTER
6 SW 2ND ST., LEE'S SUMMIT, MO 64063

6/16/2022
STATE OF MISSOURI REGISTERED PROFESSIONAL ENGINEER
DARIN T. SEIDEL
NUMBER PE-2009003629

BC ENGINEERS INCORPORATED
5720 Reeder Shawnee, Ks. 66203 (913)262-1772

DATE: 6-16-2022 Permit Set PROJECT# 22009		
REV#	DATE	DESCRIPTION

ELECTRICAL SCHEDULES AND DETAILS

E3

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