A TENANT FINISH PROJECT FOR:

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

GENERAL NOTES

- 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:
- REMOVE AND DISCARD: DETACH ITEMS FROM EXISTING CONSTRUCTION 2.1. AND LEGALLY DISPOSE OF THEM OFF-SITE. REMOVE AND SALVAGE: DETACH ITEMS FROM EXISTING CONSTRUCTION 2.2.
- AND TURN OVER TO TENANT UNDAMAGED. RELOCATE: DETACH ITEMS FROM EXISTING CONSTRUCTION, MOVE ITEMS 2.3.
- INTACT AND UNDAMAGED, AND REINSTALL THEM WHERE INDICATED. 2.4. EXISTING TO REMAIN: EXISTING ITEMS OF CONSTRUCTION THAT ARE NOT O BE REMOVED, BUT ARE TO REMAIN IN PLACE AND BE UNDAMAGED.
- REMOVE AND RECLAIM: DETACH ITEMS FROM EXISTING CONSTRUCTION. 2.5. 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.
- PROVIDE: THE MEANING OF THE WORD "PROVIDED" INCLUDES, BUT IS 2.6. 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 FO3. 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 7" 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
- 23.

ADVANCED AESTHETIC CENTER

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

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.

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

CODE PLAN



AREA MAP





A TENANT FINISH PROJECT FOR:

ADVANCED AESTHETIC CENTER



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

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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 01700

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

CUTTING AND PATCHING

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

DIVISION 2 - SITE WORK

NO WORK THIS SECTION

DIVISION 3 - CONCRETE

REFER TO CUTTING AND PATCHING

DIVISION 4 - MASONRY

NO WORK THIS SECTION

DIVISION 5 - METALS

METAL STUD FRAMING

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

INSULATION

SEALANTS

2. Use gypsum board fasteners that are recommended by gypsum board manufacturer except as otherwise indicated.

DIVISION 6 - WOODS AND PLASTIC

CARPENTRY

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

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 yoids 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.

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

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

- 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)

3. Furnish and install all trim accessories, adhesives and joint treatments per manufacturer's recommendations.

4. All aupsum board to be finished to Level 4 unless noted otherwise.

5. Schedule: (basis of design)

- 5.1. Interior partitions general: USG $\frac{5}{8}$ " Sheetrock Brand Firecode X Panels, long edges tapered. 5.2. Interior ceilings and soffits: USG $\frac{5}{8}$ " Sheetrock Brand Firecode X Panels, long edges tapered.
- Interior partitions in wet areas/toilet rooms: USG 5/8" Sheetrock Brand Glass-Mat Panels Mold 5.3.
- Tough Firecode X, long edges tapered.
- Interior partitions to recieve wall tile: USG $\frac{5}{6}$ " Fiberock Brand Aqua-Tough AR Interior Panels 5.4.

FLOORING GENERAL

- 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

- 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

- Paint all new interior gupsum board walls:
- 1.1. 1 ct. PrepRite 200 Latex Primer and
- 1.2. 2 cts. ProMar 200 Int. Latex Eq-Shel
- 2. Paint all new and exisiting 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

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

- 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 $1\frac{1}{2}$ " radius.
- 3.1. Plastic Laminate countertops are to be $1\frac{1}{4}$ " thick with plastic laminate faces and 3mm ($\frac{1}{2}$ ") 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 $\frac{1}{2}$ " 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 $\frac{3}{4}$ " 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
- 1. 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.
- 3. 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".

GUY GRONBERG ARCHITECTS, P.C. 113 SE 3rd St. Lee's Summit, MO 64063 Phone 816.524.0878 Fax 816.524.8578

A TENANT FINISH PROJECT FOR:

ADVANCED AESTHETIC CENTER

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

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GRONBERG ARCHITECTS, P.C

DATE: 6-16-2022 REV# DATE DESCRIPTION

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PROJECT# 22009

A¹



	TOILET ROOM TYPICAL NOTES	DEMOLITION GENERAL NOTES	DEMO
5INK N	 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. PROVIDE LAVATORY WITH RIM MOUNTED AT 34 INCHES MAXIMUM ABOVE THE 	 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. 	DO1) REMO DO2 EXISTI AND F ROOF
E DRY FRONT CTION	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 OF ABRASIVE SURFACES UNDER LAVATORY. THE CENTERLINE OF THE LAVATORY SHALL BE A MINIMUM OF 15" FROM THE SIDE WALL.	 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 	DO3 REMO AND L DO4 REMO DO5 REMO
DE OF DN TOE	 OWNER PROVIDED MIRROR TO BE 40" MAXIMUM TO REFLECTIVE SURFACE. 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. 	 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 	DOG REMAI
	 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. 	SMOOTH FINISH.	DOB FRAMI DO9 REMO D10 REFER SHEAF
	 SOAP AND PAPER TOWEL DISPENSERS (IF PROVIDED) TO BE INSTALLED AT 34" AFF TO SOAP SPOUT OR TOWEL DISPENSING LOCATION. 		
	 PROVIDE ON EXTERIOR LATCH SIDE OF DOOR MATTE FINISH TOILET ROOM SIGN 60" A.F.F. WITH BRAILLE AND WITH RAISED CONTRASTING LETTERS %" TO 2" TALL WITHOUT SERIFS. 		



	1	FINISH GENERAL NOTES	WALL TYPE LEGEND	FLOC
NOTE WEST NOTE PT1 I PT4 I PT4 I PT4 I PT4 I PT1 I		 FINSH 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 IN FIELD PRIOR TO BEING APPLIED TO NALLS OR SOFFITS. PANT FINISHES INDICATED TO BE ACCENT COLOR ARE TO BE VERIFIED BY OWNER IN FIELD PRIOR TO BEING APPLIED TO NALLS OR SOFFITS. MERE NEW FLOOR FINISHES ARE INDICATED ON THE FINISH SCHEDULE, ANY EXISTING FLOORING IS TO BE REMOVED AND DISCARDED. SUBFLOOR IS TO BE REMOVED AND DISCARDED. SUBFLOOR IS TO BE REMOVED AND DISCARDED BY FLOORING MANUFACTURER FOR EACH TYPE OF FLOORING TO BE PLACED. USE TROMELABLE LEVELING AND PREPARE ALL FLOORS AS RECOMMENDED BY FLOORING MANUFACTURER FOR EACH TYPE OF FLOORING TO BE PLACED. USE TROMELABLE LEVELING AND PATCHING COMPOUND TO FILL CRACKS, HOLES, AND DEPRESSIONS IN SUBSTRATES. TROMELABLE LEVELING AND PATCHING COMPOUND S SHALL BE OF LATEX-MODIFIED, PORTLAND CEMENT BASED OR BLENDED HYDRAULC CEMENT BASED FORMULATION PROVIDED OR APPROVED BY FLOOR COVERING MANUFACTURER FOR APPLICATIONS INCLATED. INTERIOR FINISHES MUST CONFORM TO THE GOVERNING CODE FOR "LASS III" MAX. 25 FOR SMOKE DENSITY CLASSIFICATION. MAX. FLAME SPREAD OF 200 COLOR OF ALL LIGHT SWITCHES, RECEPTACLES AND PLATE COVERS TO BE SELECTED BY INTERIOR DESIGNER. 	 FURR-OUT AROUND THE STRUCTURAL COLUMNS AND MECHANICAL CHASES AS REQUIRED. MINIMIZE DEPTH OF FURRING. PROVIDE SOLID BLOCKING FOR DOORS, WINDOWS, TOLLET PARTITION, ACCESSORIES, HANDRALLS, LAVATORY BRACES, CASEYORK, SHELVING ETC. AS REQUIRED BY MANUFACTURER AND ALL WORK DONE BY CARPENTRY AND MILLWORK TRADES. ALL WOOD REQUERD BY BUILDING CODES SHALL MEET ALL REQUIREMENTS TO THE CODE OF UNDERWRITERS LABORATORIES, INC. VERIFY THE DEPTH OF WALLS PRIOR TO INSTALLING RECESSED FIXTURES. ALL EXPOSED EDGES AND / OR CORNER ON ALL GYPSUM WALL BOARD CONSTRUCTION SHALL HAVE A METAL CORNER TRIM, TAPED AND SPACKLED. 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. ALL OPENINGS IN GYPSUM BOARD PARTITIONS SHALL BE DOUBLE STUDDED. ALL OPENINGS IN GYPSUM BOARD PARTITIONS OF NOMINAL SIZE TO STUDS INDICATED MAY BE SUBSTITUTED. EXISTING TO REMAIN WALL. PATCH AND REPAIR GYPSUM BOARD AS REQUIRED FOR INSTALLATION OF NEW MORK, WHERE NEW FINISHES ARE INDICATED ON THE FINISH SCHEDULE PATCH AND REPAIR SURFACES TO PROVIDE A SMOOTH FINISH. SWITTON SYSUM BOARD PARTITIONS PLANE MORK, WHERE NEW FINISHES ARE INDICATED ON THE FINISH SCHEDULE PATCH AND REPAIR SURFACES TO PROVIDE A SMOOTH FINISH. SYSTING TO REMAIN WALL. FATCH AND REPAIR GYPSUM BOARD AS REQUIRED FOR INSTALLATION OF NEW MORK, WHERE NEW FINISHES ARE INDICATED AN THE FINISH SCHEDULE PATCH AND REPAIR SURFACES TO PROVIDE A SMOOTH FINISH. SYSTINGTURE AT 4-O' O.C. INFILL EXISTING OPENING FROM FLOOR OR SILL TO HEAD PER DETAIL 3/A2 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 MALLS SYSTING OR MODIFIED SHEAR WALL PER STRUCTURAL DRAWINGS. INFIL OR MODIFIED SHEAR WALL PER STRUCT	F01 OB F02 SIDE F03 FL F03 FL F04 OD F05 RE F06 RE F07 MIN F08 V4

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GRONBERG ARCHITECTS, P.C

1 6-30-22 CITY COMMENTS

A3



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



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.

<u>HW SET: 01</u> (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

HW SET: 02 (entry/office) EACH TO HAVE:

3 EA HINGE 5BB1 4.5 X 4.5 652 IVE 1 EA ENTRY J-82-5-A US26D DH 1 EA WALL STOP W5407CCV 630 IVE 3 EA SILENCER SR66 GRY IVE

HW 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-76-5-A US26D DH 1 EA WALL STOP WS407CCV 630 IVE 1 SET SEALS 5050C BLK NGP

HW 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 WS407CCV 630 IVE 3 EA SILENCER SR66 GRY IVE

HM 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 A CASINGS PT7.
- B. EXISTING TO REMAIN JAMBS. PROVIDE NEW CASINGS. COORDI SIZE AND PROFILES WITH OWNER. (CASINGS NOT REQUIRED ON OF MECH. ROOMS) PAINT JAMBS AND CASINGS PT7.
- C. NEW WOOD FRAME WITH WINDOW STOPS AND CASING. COORDI SIZE AND PROFILES WITH OWNER. PAINT JAMBS, STOPS AND C PT7. PROVIDE $\frac{1}{4}$ " CLEAR TEMPERED GLASS IN OPENING. HEAD OPENING TO BE A 6'-8" AFF.

DOOR TYPES

1. OWNER FURNISHED CONTRACTOR INSTALLED DOOR - PAINT PT

	DOC	DR SCHEDULE				WALL PER WALL TYPES	CEILING LEGEND	CEILING NOTES
	<i>D00</i> R #	DOOR OR OPN'G SIZE	FRAME	DOOR	HRDW # NOTE		.8'-8" ELEVATION OF CEILING ABOVE FINISHED FLOOR	(CO1) NO CEILING THIS ROOM EXPOSED TO STRUCTURE ABOVE
>	101	3'-0" x 6'-8" x 1-3/4"	A	1	03	SCREWS AT 12" O.C.		
	103	3'-0" x 6'-8" x 1-3/4"	A	1	03			NO CEILING THIS ROOM. EXPOSED TO STRUCTURE ABOVE. PAINT ALL
TE	104A	3'-0" x 6'-8" x 1-3/4"	A	1	02		TILE IN ARMSTRONG ¹⁵ / ₄ " EXPOSED 'T' CEILING GRID	EXPOSED STRUCTURE, CONDUITS, PIPING AND MECHANICALS.
SIDE	104B	3'-0" × 3'-8"	C	-	-			(CO3) PROVIDE TRIM AT PERIMETER OF HALL PER DETAIL 2/A4
	1040	3'-0" x 3'-8"	C	-	-			
ie Ngg	105A	3'-0" x 6'-8" x 1-3/4"	A	1	02			CO4 PROVIDE TRIM ACROSS HALL PER DETAIL 3/A4.
=	105B	3'-0" x 3'-8"	C	-	-			
	1050	3'-0" x 3'-8"	ى ا	-	-			ALIGN CEILING MITH EXISTING TO REMAIN HEADER AND FINISH FLOSH
	106	2'-0" x 6'-8" x 1-3/4"	A	1	02		CYPSUM BOARD CEILING ON ARMSTRONG GYPSUM	
	107	PAIR 2'-0" x 6'-8" x 1-3/4"	A	1	04		BOARD CEILING SUSPENSION SYSTEM.	
	108	3'-0" x 6'-8" x 1-3/4"	A	1	02			
	109	3'-0" x 6'-8" x 1-3/4"	A	1	02			
	110	3'-0" x 6'-8" x 1-3/4"	A	1	02	¾"x3½" 545 - PAINT		
	111	2'-0" x 6'-8" x 1-3/4"	В	1	01			
	112	3'-0" × 6'-8" × 1-3/4"	A	1	02			
	113	3'-0" × 6'-8" × 1-3/4"	A	1	02	PERIMETER TRIM	GYPSUM BOARD CEILING OR SOFFIT OF ONE LAYER	OF
	114	2'-0" × 6'-8" × 1-3/4"	B	1	01	(2)	⁷ ∕ [™] GYP. BD. ON METAL STUD FRAMING	
	115	3'-0" × 6'-8" × 1-3/4"	A	1	02			
	117	3'-0" x 6'-8" x 1-3/4"	A	1	02			
	118	3'-0" × 6'-8" × 1-3/4"	A .	1	02			
	119	3-0" × 6-8" × 1-3/4"	A _	1	02			
	120	2-0" × 6-8" × 1-3/4"	B	1		PROVIDE WIRE THE TO		
	121	3-0 × 6-8 × 1-3/4	A	1	02	STRUCTURE AT 24 0.0.		
	122	3-0 × 6-8 × 1-3/4	A	1	02	PARRALEL TO EXPOSED 'T'		A TENANT FINISH PROJECT FOR:
	120	2-0 × 6-8 × 1-3/4		1		PROVIDE WOOD SCREWS AT	GUY GRONBERG	white OF M
	124	3-0 × 6-0 × 1-5/4	A .	1	02	OF 'T' WOOD SCREW EACH		
	125	2'-0" × 6'-8" × 1-3/4"		1	01			
	120	2'-0' × 6'-8" × 1-3/4"	В	1			lij de dru de la cummit na calacia	
	121	2'-0' × 6'-8" × 1-3/4"	В	1	01		Elees Summit, MO 64065	
	120			I			Fax 816.524.8578	ADVANCED AESTHETIC CENTER
								6 SW 2ND ST., LEE'S SUIVIVIIT, INO 64063
								06-16-20
						AT 24" O C FOR CROWN	This dra instrumer	awing has been provided as an DATE: 6-16-2022 PROJECT# 22009
						3½"	under his use on th	is supervision and is inteded for his project only. Pursuant to the REV# DATE DESCRIPTION
						3¼"x3½" 545 - PAINT /	Architectu of 1990, J	all drawings, specifications, ideas
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1.	ALL W THE C	ORK SHALL CONFORM TO 2018 INTERNATIONAL BUILDING CODE	AS ADOPTED AND AMENDED BY	11.	ROUGH A.	HCARPENTRY HEADERS, JOISTS, AND RAFTERS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS (EXAMPLE SPECIES: #2 SOPLICE_DIME_ETD)
2.	DESIO A.	IN LOADS OVERALL BUILDING CLASSIFICATIONS				REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)1. F_B 875 PSI2. F_V 135 PSI
		 RISK CATEGORY SNOW IMPORTANCE FACTOR, Is ICE IMPORTANCE FACTOR - WIND, I 	II 1.00 1.00			3. Fc 1150 PSI 4. E 1400 KSI
	B.	 SEISMIC IMPORTANCE FACTOR - WIND, Iw SEISMIC IMPORTANCE FACTOR, Ie SLAB ON GRADE FLOOR LOADS 	1.00		В.	INTERIOR WALLS AND EXTERIOR WALLS SHALL MEET OR EXCEED THE FOLLOWING MINIMUM REQUIREMENTS. (EXAMPLE SPECIES: #2 SPRUCE-PINE-FIR)
		1. LIVE LOAD 2. CONCENTRATED LOAD	100 PSF 3000 LB ACTING ON AN AREA			I. FB 875 PSI 2. Fv 135 PSI 3. Fc 1150 PSI
	C.	ROOF DEAD AND LIVE LOADS	4.5 IN. BY 4.5 IN.		C.	4. E 1400 KSI ALL LVL MEMBERS SHALL BE MICROLLAM 2.0E OR APPROVED FOUAL.
	_	1. DEAD LOAD 2. LIVE LOAD	20 PSF 20 PSF		D.	ALL WOOD FRAMING MEMBERS INDICATED ARE NOMINAL SIZES. PROVIDE ACTUAL DRESSED SIZES, KILN-DRIED, WITH MAXIMUM IN-PLACE MOISTURE CONTENT OF 19%.
	D.	ROOF SNOW LOADS 1. GROUND SNOW LOAD, Pg 2. FLAT ROOF SNOW LOAD, P	20 PSF		E.	ALL BOLTS ARE A36 OR A307, GRADE 1, AND ALL NAILS ARE COMMON WIRE NAILS UNLESS NOTED OTHERWISE.
		 FLAT ROOF SNOW LOAD, Pf SNOW EXPOSURE FACTOR, Ce THERMAL FACTOR, Ce 	14 PSF 1.0 1.0		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
		5. SLOPE FACTOR, C_s 6. DRIFTING	1.0 PFR CODE			SHOWN IN SECTION 2 "DESIGN" AND SHOULD MATCH THE SUPPORT SPACING SHOWN ON TH PLANS.
	E.	WIND LOADS 1. BASIC WIND SPEED (3 SECOND GUST)	109 MPH		G. ц	SCHEDULE (TABLE 2304.9) UNLESS NOTED OTHERWISE.
		 EXPOSURE CATEGORY INTERNAL PRESSURE COEFFICIENT, GC_{pi} 	C +/- 0.18			TREATED.
	F.	SEISMIC LOADS 1. S _s	0.1	12.	POST C A.	CONSTRUCTION ANCHORS EMBEDMENT DEPTH SHALL BE DEFINED AS THE DISTANCE FROM THE SURFACE OF THE LOAD
		2. S ₁ 3. SITE CLASS 4 Spc	0.008 D 0.106		в	BEARING BASE MATERIAL TO THE DEEPEST PART OF THE ANCHOR AFTER THE ANCHOR HAS BEEN DRIVEN INTO THE HOLE. OBSERVATION AND VERTECATION OF EMBEDMENT HOLE CLEANING DEPTH AND ANCHOR
		5. S _{D1} 6. SEISMIC DESIGN CATEGORY	0.109 B		Б. С.	INSTALLATION IS REQUIRED FOR ALL EPOXY ANCHORS. EQUIVALENT ANCHORS MAY BE SUBMITTED FOR THE ENGINEER'S APPROVAL. SUBMITTALS A
		7. SEISMIC FORCE RESISTING SYSTEM	WOOD WALLS SHEATHED WITH SHEAR PANELS OF ALL		-	THE CONTRACTOR'S RESPONSIBILITY AND MUST INCLUDE EVALUATION REPORTS FROM THE INTERNATIONAL CONFERENCE OF BUILDING OFFICIALS, CURRENT WITH THE REQUIREMENT
		8. DESIGN BASE SHEAR	OTHER MATERIALS CsW	13.	STRUC	OF THE PROJECT. TURAL ENGINEER SITE OBSERVATIONS
		 DESIGN RESPONSE COEFFICIENT, Cs RESPONSE MODIFICATION COEFFICIENT, R ANALYSIS PROCEDURE USED 	0.053 2 EQUIVALENT LATERAL FORCE		Α.	THE CONTRACT STRUCTURAL DRAWINGS REPRESENT THE FINISHED STRUCTURE AND, EXCEPT WHERE SPECIFICALLY SHOWN, DO NOT INDICATE THE METHOD OR MEANS OF
	G	ROOF RAIN LOADS	(ELF) PROCEDURE			CONSTRUCTION. THE CONTRACTOR SHALL SUPERVISE AND DIRECT THE WORK AND SHALL BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCES
	э.	 60-MIN DURATION/100 YEAR RAIN INTENSITY, i 15-MIN DURATION/100 YEAR RAIN INTENSITY. i 	3.52 IN/H 7.49 IN/H		В.	THE ENGINEER SHALL NOT HAVE CONTROL NOR CHARGE OF, AND SHALL NOT BE RESPONSIBLE FOR, CONSTRUCTION MEANS METHODS PROCEDURES TECHNICULES OP
3.	CONT	RACTOR SHALL FIELD VERIFY ALL EXISTING DIMENSIONS PRIOR 1	O FABRICATION.			SEQUENCES, FOR SAFETY PRECAUTIONS AND PROGRAMS IN CONNECTION WITH THE WORK, FOR THE ACTS OR OMISSION OF THE CONTRACTOR, SUBCONTRACTOR. OR AN
4.	IF DIS ENGIN	CREPANCIES EXIST BETWEEN CONTRACT DRAWINGS, AND/OR SHIEER OF RECORD.	OP DRAWINGS NOTIFY THE			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.
5. c		ONTRACTOR SHALL REVIEW DRAWINGS FROM ALL OTHER DISCIP S OR INFORMATION RELATED TO THE STRUCTURAL WORK AND CO	LINES FOR PERTINENT MISC. ORDINATE AS REQUIRED.		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
0.		ANENT BRACING, AND EXTERIOR LOAD-BEARING WALLS ARE COM RESPECTIVE DESIGN STRENGTHS, CONTRACTOR IS SOLELY RESP	PLETE AND HAVE ACHIEVED			LIMITED SITE OBSERVATION SHOULD NOT BE CONSTRUED AS EXHAUSTIVE OR
	STRU(CTURAL STABILITY DURING ERECTION AND CONSTRUCTION. TEMI	PORARY BRACING SYSTEMS ARE			AN EFFORT TO GUARD THE OWNER AGAINST DEFECTS AND DEFICIENCIES IN THE WORK OF THE CONTRACTOR
7.	PROV UNBA	IDE ADEQUATE SHORING DURING CONSTRUCTION TO RESIST FOR LANCED LOADS DUE TO CONSTRUCTION. DO NOT BACKFILL UNTIL	ces such as wind and . Concrete has cured 14	14.	SUBMIT	
8.	DAYS. FOUN	DATIONS			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 CENERAL CONFORMANCE WITH DESIGN DRAWINGS AND STRENGTH OF
	А.	FOUNDATIONS ARE DESIGNED TO BEAR ON 1500 PSF FOR STRI PSF FOR SPREAD FOOTINGS ON SOIL.	P FOOTINGS ON SOIL AND 1500			COMPONENTS AND MATERIALS. CONTRACTOR IS RESPONSIBLE FOR ANY CHANGES FROM TH DESIGN DRAWINGS QUANTITIES DIMENSIONAL ERRORS OR OMISSIONS IN THE SHOP
9.	CONC	RETE			В.	DRAWINGS. ALL SHOP DRAWINGS MUST BE ORIGINAL DOCUMENTS AND SHALL NOT BE REPRODUCTIONS
	А.	AMERICAN CONCRETE INSTITUTE DOCUMENTS, ACI-301, 305, 3	06, 315, 318, AND 347 UNLESS		C.	THESE CONTRACT DOCUMENTS. CONTRACTOR SHALL SUBMIT STRUCTURAL SHOP DRAWINGS FOR THE FOLLOWING ITEMS.
	В.	ALL CONCRETE, UNLESS NOTED OTHERWISE, SHALL DEVELOP A STRENGTH AND HAVE MAXIMUM WATER/CEMENT RATIOS AS FO	28 DAY COMPRESSIVE DLLOWS:		5	CONCRETE MIX DESIGN AND MATERIALS CONCRETE REINFORCING STEEL DON//DE A FINAL #FOR CONSTRUCTION# SET OF ALL SHOP DRAWINGS TO THE ENGINEER OF
		 FOOTINGS, GRADE BEAMS, WALLS, BEAMS, COLUMNS: SLAB ON GRADE: 	4000 PSI (w/c MAX 0.45) 4000 PSI (w/c MAX 0.42)		D.	RECORD PRIOR TO FABRICATION OR CONSTRUCTION OF THOSE ITEMS.
	C.	3. REFER TO THE SPECIFICATION FOR AIR-ENTRAINED CO SLABS-ON-GRADE SHALL DEVELOP A 90 DAY COMPRESSIVE STR	NCRETE. ENGTH.	15.	SPECIA A.	AL INSPECTIONS THE FOLLOWING MINIMUM ITEMS REQUIRE SPECIAL INSPECTION IN ACCORDANCE WITH TH
	D.	CONCRETE MIXES WITH A MINIMUM AMOUNT OF WATER IN OR SHRINKAGE CRACKING IN ERESHIV PLACED CONCRETE IT IS F	THE CONTRACTOR SUPPLY DER TO LIMIT PLASTIC (PECTED THAT PRODUCING			1. CONCRETE PLACING
		WORKABILITY FOR CONCRETE MIXES WILL REQUIRE THE ADDI CHEMICAL ADMIXTURES.	TION OF WATER-REDUCING			 BOLTS EMBEDDED IN CONCRETE / POST-INSTALLED ANCHORS ANCHOR RODS
	E. F.	CONCRETE MIX DESIGNS SHALL INCLUDE ALL APPLICABLE ADM CONCRETE SLUMP SHALL BE A MAXIMUM OF 4" +/- 1" (ASTM C-	IXTURES. 145) AS DELIVERED IN THE		В.	THE CONTRACTOR SHALL REQUEST SPECIAL INSPECTION OF THE ITEMS LISTED ABOVE PRIC TO THOSE ITEMS BECOMING INACCESSIBLE AND UNOBSERVABLE DUE TO PROGRESSION OF
		FIELD. CONTRACTOR MAY USE CHEMICAL ADMIXTURES TO ATT FOR WORKABILITY IF ADMIXTURE IS TO BE ADDED IN THE FIEL	AIN A MAXIMUM SLUMP OF 8" .D IS SHALL BE ADDED			THE WORK.
	G.	THROUGH THE USE OF AN EXTERNAL MEASURING DEVICE (I.E. ALL CONTROL JOINTS IN CONCRETE SLABS-ON-GRADE SHALL B	5 GALLON BUCKET). E CUT TO 1/3 OF DEPTH WHEN			
		PROCESS. CUT JOINTS AS SOON AS APPLICABLE PER PROCESS IN BEEN PLACED WITHOUT DISLODGING AGGREGATE OR USE A K	JSED AFTER CONCRETE HAS			
	Н.	PRIOR TO PLACING CONCRETE IN ANY LOCATION, IT IS THE RE CONTRACTOR TO HAVE THOROUGHLY CHECKED AND COORDIN	SPONSIBILITY OF THE GENERAL ATED ALL DIMENSIONS,			
		ELEVATIONS, OPENINGS, RECESS, AND BLOCKOUTS AS SHOWN IN THE EVENT ERRORS, CONFLICTS, OR OMISSIONS EXIST, IT S	ON ANY CONTRACT DRAWINGS. HALL BE THE CONTRACTOR'S			
	Ŧ	RESPONSIBILITY TO CONTACT THE ARCHITECT OR ENGINEER F ACTION.				
	ı. 1	PLACING CONCRETE. ANCHOR RODS AND ANCHOR BOITS SHALL RE HELD IN DLACEN				
	К.	HORIZONTAL JOINTS BEYOND THOSE SHOWN IN THE CONTRAC CONSTRUCTED WITHOUT THE APPROVAL OF THE ARCHITECT A	T DOCUMENTS SHALL NOT BE ND ENGINEER.			
10.	REINF A.	ORCING STEEL ALL REINFORCING SHALL BE ASTM A615 GRADE 60. EXCEPT WE	LDED REINFORCING WHICH			
	B.	SHALL BE ASTM A706 GRADE 60. ALL WELDED WIRE FABRIC SHALL BE ASTM A82 COLD DRAWN \	VIRE.			
	C.	ALL ACCESSORIES FOR SUPPORTING REINFORCING SHALL BE G COATED FEET.	ALVANIZED OR HAVE PLASTIC-			
	D.	PROVIDE CORNER BARS AT THE EXTERIOR FACE OF ALL WALL / TO HORIZONTAL BARS.				
	с. F	WITH ACI 315, LATEST APPLICABLE EDITION. STANDARD COVERAGE OF REINFORCING SHALL BE AS FOLLOW:	S UNLESS NOTED OTHERWISE			
		1. PERMANENTLY EXPOSED TO WEATHER A. CAST AGAINST EARTH	3"			
		B. IN CONTACT WITH WATERC. FORMED	3" 2"			
		2. NOT EXPOSED TO EARTH OR WEATHER A. SLABS AND WALLS	3/4"			
	G.	B. BEAMS AND COLUMNS SPLICE LENGTH 1. 3000 PSI CONCRETE	1 1/2			
		A. NON-COATED B. EPOXY COATED	55 db (BAR DIAMETER) 83 db			
		2. 4000 PSI CONCRETE A. NON-COATED	48 db			
		B. EPOXY COATED 3. 5000 PSI CONCRETE	72 db			
	Ы	A. NON-COATED B. EPOXY COATED REINFORCEMENT RADITALLY EMPERATED IN CONCEPTER OF	43 db 64 db			
	н.	REINFORCEMENT PARTIALLY EMBEDDED IN CONCRETE SHALL N SHOWN AND NOTED ON THE CONTRACT DRAWINGS OR PERMIT RECORD	TED BY THE ENGINEER OF			
	I.	ALL REINFORCEMENT AND EMBEDDED ITEMS INCLUDING PLATE ACCURATELY PLACED, ADEQUATELY SUPPORTED. AND SECURE	ES AND ANCHOR RODS SHALL BE AGAINST DISPLACEMENT			
		BEFORE CONCRETE IS PLACED. NEITHER REINFORCEMENT NOR PLACED INTO FRESHLY PLACED CONCRETE UNLESS APPROVED	EMBEDDED ITEMS SHALL BE BY THE ENGINEER OF RECORD.			

IS OF

OF

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	PLAN SYMBOL KEY
F?	= FOOTING TYPE (REFER TO FOOTING SCHEDULE)
(?)	= 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)
۲	= SHEAR WALL HOLDOWN
	= MOMENT FRAME CONNECTION

= BEAM SPLICE CONNECTION





STANDA	RD ABBREVIATIONS
ALT.	ALTERNATE
A.B.	ANCHOR BOI T
ARCH.	ARCHITECT
@	AT
BM.	BEAM
BOT	BOTTOM
B O	BOTTOM OF
BLDG	BUILDING
CLR	CLEAR
	CONCRETE
CONN	CONNECTION
CONT	CONTINUOUS
C 1	CONTROL JOINT
DFT.	DFTAIL
DIA.	DIAMETER
DIM.	DIMENSION
DWG(S)	DRAWING(S)
FA.	FACH
EJ FI EV.	FLEVATION
FL.	FLEVATION
EO.	FOUAL
FOUIP.	
EXIST.	FXISTING
EXT.	FXTERIOR
E.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.	SIEEL
I&B	
1.U.	
TRANS.	IRANSVERSE
IYP.	
U.N.U.	UNLESS NOTED OTHERWISE
VERI.	
VV/	
W/U	





V/ //

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GRONBERG ARCHITECTS, P.C.

DATE: 06/15/2022 PROJECT# 22009 REV# DATE DESCRIPTION



S001





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.
- REFER TO ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE DRAWINGS.
 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

CALLOUT	PLATES	STUDS	SPACING	G INT. F	INISH	EXT. FINISH							
W1	2X6	2X6	16"	1/2"	GYP.	1/2" GYP.							
	FOOTING SCHEDULE												
CALLOUT	COUNT	LENGTH	WIDTH	THICKNESS		REINFO	DRCING						
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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 PROJECT# 22009

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 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
- REFER TO ARCHITECTURAL FOR ALL DIMENSIONS NOT SHOWN ON THESE PLANS.
 REFER TO SHEET S200 FOR SHEAR WALL INFORMATION AND TYPICAL DETAILS
- REFER TO SHEET S200 FOR SHEAR WALL INFORMATION AND TYPICAL DETAILS
 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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1. GENERAL PROVISIONS

- 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
- 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:
- 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: LIMITING COMPETITION. ARTICLES, FIXTURES, ETC. OF EQUAL QUALITY BY MANUFACTURERS SHALL 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
- EQUIPMENT AND AUTOMATIC CONTROLS. AND BALANCING REPORT BEARING THE SIGNATURE OF THE TEST AND BALANCE ENGINEER. THE
- 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 VACCUM 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. MS5 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-G", "NSF-61-G" 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. INGREASE 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.
-) TO BE INSTALLED ON THE WATER SUPPLY SIDE TO EACH APPLIANCE OR MECHANICAL EQUIPMENT.) TYPES 1. GATE VALVE: JOMAR T/S-301G OR EQUAL. LEAD-FREE NSF 61, ANSI B1.20.1. 2. GLOBE VALVE: JOMAR TGG OR EQUAL
- 3. BALL VALVE: JOMAR JP100PXP OR EQUAL COMPACT LEAD FREE BRASS BALL VALVE. UL842, CSA 3371-12 & 3371-92, FM, CALIFORNIA CODE AB1953, NSF61 ANNEX & APPROVED. 4. BALL VALVE: JOMAR T-100NE OR EQUAL. UL842, FM, CSA, NSF 61-8, 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. 2) PEX, HIGH-DENSITY CROSS-LINKED POLYETHYLENE TUBING SHALL BE MANUFACTURED TO THE REQUIREMENTS OF ASTM F816 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-G", "NSF-61-G" 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" AWWA C901 4710 DR9 PC250 IPS SIZES 2"-3", AWWA 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" AWWA C901 4710 DR9 PC250 IPS SIZES 2"-3", AWWA 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. ABS SOCKET FITTINGS: ASTM D 2661, MADE TO ASTM D 3311, DRAIN, WASTE, AND
- VENT PATTERNS. SOLVENT CEMENT: ASTM D 2235.

MECHANICAL SPECIFICATIONS

A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT, NECESSARY FOR THE COMPLETE INSTALLATION OF THE

- A. DURING THE COURSE OF CONSTRUCTION, COLLECT AND COMPILE OPERATING INSTRUCTIONS, WIRING
- 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
- BE ACCEPTABLE, SUBJECT TO STRUCTURAL AND ELECTRICAL CONSTRAINTS OF THE PROJECT DESIGN,
- TO PROVIDE DESIGN QUANTITIES INDICATED AND VERIFICATION OF PERFORMANCE OF ALL 2) WITH IN 30 DAYS OF THE COMPLETION OF THE TESTING AND BALANCING WORK, SUBMIT THE TEST
- 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

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 OMPONENTS 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 ACCOMMODATE PIPE INSULATION.
- 2) INTERIOR PARTITIONS: 16 GAGE GALVANIZED STEEL, PACK BETWEEN PIPE AND SLEEVE WITH FIRE SAFING AND CAULK AT EACH END WITH FIRE RESISTANT SEALAN
- 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 SHAL 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 SHAL TERMINATE A MINIMUM OF 12" ABOVE ROOF OR EQUAL TO HEIGHT OF PARAPET, WHICHEVER IS GREATER. . PROVIDE CHROME PLATED ESCUTCHEONS ON ALL PIPE ENTERING FINISHED AREAS.
- 8. WATER HEATERS
- A. DOMESTIC-WATER EXPANSION TANKS:
- 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 312 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 SURE AND VAPOR SEALING, EQUAL TO ARMSTRONG A
- ARMAFLEX OR ARMAFLEX 2000. 4) FOR NON CIRCULATING SYSTEMS, THE FIRST & 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
- b) DOMESTIC HOT WATER 1" FOR PIPING UP TO 1-1/4"\$\$\Phi\$, \$\$ 1-1/2" FOR PIPING 1-1/2"\$\$\$ AND LARGER .) HOT WATER RECIRCULATING 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) RECTANGULAR SUPPLY DUCT (3) RETURN AIR DUCT
- (4) OUTDOOR AIR
- 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, 8"D AND UP. MEETS ASTM E 84 25/50 FLAME AND SMOKE, ASHRAE 62, MEA#237-86-M, SMACNA APPLICATION STANDARDS FOR DUCT LINERS, NAIMA FIBERBLASS 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 PITTING, SEAM MARKS, ROLLER MARKS, STAINS AND DISCOLORATIONS, AND OTHER IMPERFECTIONS, INCLUDING THOSE WHICH WOULD IMPAIR
- 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

ARE INDICATED PROVIDE CONICAL TYPE TEES.

STANDING SEAM CIRCUMFERENTIAL JOINT.

WELDED AND BONDED TO DUCT FITTING BODY

FABRICATED DUCT AND FITTINGS

INDICATED.

MADE WHERE APPLICABLE.

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.

DEGREE CHANGE OF DIRECTION PER SECTION. UNLESS SPECIFICALLY DETAILED OTHERWISE, USE 45 DEGREE LATERALS FOR BRANCH TAKEOFF CONNECTIONS. WHERE 90 DEGREE BRANCHES

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

b) SLOPES FOR TRANSITIONS OR OTHER CHANGES IN DIMENSIONS SHALL BE MINIMUM 1 TO 3.

(2) DIVIDED FLOW FITTINGS: 90 DEGREE TEES, CONSTRUCTED WITH SADDLE TAP SPOT

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

D. DUCT SIZES SHOWN ON THE DRAWINGS ARE SHEETMETAL SIZES, ALLOWANCE FOR DUCT LINER HAS BEEN

(1) ELBOWS: ONE PIECE CONSTRUCTION FOR 90 DEGREES AND 45 DEGREE ELBOW 14" AND SMALLER. PROVIDE MULTIPLE GORE CONSTRUCTION FOR LARGER DIAMETERS WITH

c) AS AN OPTION, PROVIDE FACTORY-FABRICATED DUCT AND FITTINGS, IN LIEU OF SHOP-

MECHANICAL SPECIFICATIONS (CONTINUED)

E. INSTALLATION OF METAL DUCTWORK:

I) 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
- 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 CLASS B CLASS B CLASS C
- SUPPLY < 2" W.C. SUPPLY > 2" W.C. EXHAUST RETURN 11. FLEXIBLE DUCT: A. ATCO #086 (R-6), OR EQUAL.
- B. FACTORY APPLIED INSULATION AND VAPOR BARRIER, 1-1/2" THICK.
- C. MAXIMUM LENGTH OF 5'-O".
- 12. EXHAUST & TRANSFER FANS
- A. CENTRIFUGAL CEILING EXHAUSTERS SHALL BE ELECTRICALLY POWERED CENTRIFUGAL TYPE FAN SUITABLE FOR MOUNTING IN THE CEILING WITH A PERFORATED OFF-WHITE METAL GRILLE WITH A THUMBSCREW ATTACHMENT FOR EASY ACCESS TO FAN HOUSING. UNIT SHALL CONSIST OF A GALVANIZED STEEL HOUSING LINED WITH ACOUSTICAL INSULATION AND SHALL INCLUDE AN INTEGRAL BACKDRAFT DAMPER ON FAN DISCHARGE. MOTOR SHALL BE A PERMANENT SPLIT-CAPACITOR TYPE MOTOR, PERMANENTLY LUBRICATED, WITH THERMAL OVERLOAD PROTECTION. PROVIDE DISCONNECT SWITCH OR OTHER MEANS OF DISCONNECT AT MOTOR IN FAN HOUSING. 13. CONTROL WIRING:
- A. ELECTRICAL WIRING AND WIRING CONNECTIONS REQUIRED FOR THE INSTALLATION OF THE TEMPERATURE CONTROL SYSTEM, SHALL BE PROVIDED BY THIS CONTRACTOR, UNLESS SPECIFICALLY SHOWN ON THE ELECTRICAL DRAWINGS OR SPECIFICATIONS.
- B. INSTALL CONTROL WIRING, WITHOUT SPLICES BETWEEN TERMINAL POINTS, COLOR CODED. INSTALL IN T WORKMANLIKE MANNER, SECURELY FASTENED. INSTALL IN ACCORDANCE WITH NATIONAL ELECTRICAL CODE AND THE ELECTRICAL SPECIFICATIONS.
- 1) INSTALL CIRCUITS OVER 25 VOLT WITH COLOR CODED NUMBER 12 WIRE. 2) INSTALL CIRCUITS UNDER 25 VOLT WITH COLOR CODED NUMBER 18 WIRE WITH 0.031 INCH HIGH
- TEMPERATURE 105 DEGREES F PLASTIC INSULATION ON EACH CONDUCTOR AND PLASTIC SHEATH OVER
- 3) INSTALL ELECTRONIC CIRCUITS WITH COLOR CODED NUMBER 22 WIRE WITH 0.023 INCH POLYETHYLENE INSULATION ON EACH CONDUCTOR WITH PLASTIC JACKETED COPPER SHIELD OVER
- 4) INSTALL LOW VOLTAGE CIRCUITS, LOCATED IN CONCRETE SLABS AND MASONRY WALLS, OR EXPOSED IN OCCUPIED AREAS, IN ELECTRIC CONDUI 5) ALL WIRING IN AREAS USED AS AIR PLENUMS SHALL BE IN ELECTRIC CONDUIT EXCEPT THAT LOW VOLTAGE WIRING MAY BE TEFLON COATED, ALUMINUM SHEATHED CABLE OR OTHER WIRE
- SPECIFICALLY APPROVED FOR INSTALLATION IN AIR PLENUMS, WHERE ACCEPTABLE BY LOCAL 6) ALL WIRING IN AREAS NOT USED FOR AIR MOVEMENT SHALL BE IN ELECTRIC METALLIC TUBING EXCEPT LOW VOLTAGE WIRING MAY BE IN APPROVED SIGNAL CABLE WHERE ACCEPTED BY LOCAL
- C. THERMOSTATIC CONTROLS TO HAVE A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS 1) TEMPERATURE CONTROLS SETBACK TO BE 55°F (HEAT) AND 85° (COOL), 2-HOUR OCCUPANT OVERRIDE,
- 10-HOUR BACKUP. D. THERMOSTATIC CONTROLS TO HAVE A 5°F DEADBAND AND SETPOINT OVERLAP RESTRICTIONS.
- 14. REMODELING WORK: A. DEMOLITION: DISCONNECT, DEMOLISH, AND REMOVE ABANDONED MECHANICAL MATERIALS AND EQUIPMENT INDICATED TO BE REMOVED AND NOT INDICATED TO BE SALVAGED OR REMAIN.
- B. EQUIPMENT TO BE SALVAGED: I) DISCONNECT AND REMOVE, EXISTING MECHANICAL EQUIPMENT INDICATED TO BE REMOVED AND SALVAGED. DELIVER EQUIPMENT TO THE LOCATION DESIGNATED BY THE OWNER FOR STORAGE. 2) ALL MATERIALS AND EQUIPMENT DESIGNATED TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMOVED, AND STORED UNTIL NEEDED FOR REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO "LIKE NEW" CONDITION WITH RUST OR CORROSION REMOVED, SURFACE PAINT TOUCHED UP OR REPAINTED AS REQUIRED TO MATCH NEW CONSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. ANY ITEMS WHICH BECOME DAMAGED BEYOND REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION
- ACTIVITY SHALL BE REPLACED WITH NEW MATERIAL EQUIVALENT IN EVERY RESPECT. C. DISPOSAL AND CLEANUP: REMOVE FROM THE SITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND EQUIPMENT NOT INDICATED TO BE SALVAGED. D. PROTECT ADJACENT MATERIALS INDICATED TO REMAIN. INSTALL AND MAINTAIN DUST AND NOISE BARRIERS TO KEEP DIRT, DUST, AND NOISE FROM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE
- PROTECTION AND BARRIERS AFTER REMODELING OPERATIONS ARE COMPLETE. E. LOCATE, IDENTIFY, AND PROTECT MECHANICAL SERVICES PASSING THROUGH REMODELING AREA AND BERVING OTHER AREAS OUTSIDE THE REMODELING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE REMODELING LIMITS. WHERE MECHANICAL SERVICES ARE LOCATED IN A WALL, ETC. TO BE DEMOLISHED, REROUTE PIPING TO NEW OR EXISTING CONSTRUCTION TO MAINTAIN CONTINUITY OF THE SYSTEM. WHEN SERVICES MUST BE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR AFFECTED AREAS.
- F. REMOVE ALL PIPING TO BE DEMOLISHED BACK TO PIPE MAIN OR EDGE OF PROJECT AREA, AND CAP G. PIPING AND DUCTS EMBEDDED IN FLOORS, WALLS, AND CEILINGS MAY REMAIN IF SUCH MATERIALS DO NOT INTERFERE WITH NEW INSTALLATIONS. PIPING AND DUCTS TO REMAIN SHALL BE APPROVED BY THE
- ARCHITECT. REMOVE MATERIALS ABOVE ACCESSIBLE CEILINGS. DRAIN AND CAP PIPING AND DUCTS ALLOWED TO REMAIN ABOVE CEILING OR BELOW FLOOR, CONCEALED FROM VIEW, EXCEPT AS OTHERWISE NOTED. PATCH FLOOR TO MATCH EXISTING
- H. PIPE AND DUCT SHALL BE CONCEALED WITH NEW OR EXISTING CONSTRUCTION WHENEVER POSSIBLE, UNLESS INDICATED OTHERWISE.







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

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



BC PROJECT #: 22358

MISSOURI PE COA #2009003629

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MECHANICAL PLAN NOTES:

- $\left(1\right)$ 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.
- PROVIDE ROUND DUCT MOUNTED EXPOSED SUPPLY DIFFUSERS AS 5 DETAILED.
- 6 PROVIDE DUCTED RETURN TRANSFER GRILLES.
- PROVIDE HIGH LOW RETURN TRANSFER GRILLE. ENCLOSED ROOM (7)SIDE GRILLE SHALL BE MOUNTED AT 12" AFF AND OPEN AREA GRILLE SHALL BE MOUNTED AT 7'-O" 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.
- EXISTING SPLIT SYSTEM GAS FIRED UNIT TO REMAIN. PROVIDE (11) PREVENTIVE MAINTENANCE AS SCHEDULED.
- PROVIDE 7 DAY PROGRAMMABLE THERMOSTAT WITH CONTROL FOR (12) 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.
- PROVIDE OUTDOOR AIR INTAKE WALL CAP WITH BIRD SCREEN. ALL (14) OUTDOOR AIR INTAKE SHALL BE LOCATED MIN. OF 10 FEET FROM EXHAUST, FLUE AND VENTS.

MECHANICAL PLAN NOTES CONTINUED:

- (15) CONNECT 4" ϕ 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'-O" CLEARANCE FROM ALL OUTDOOR AIR INTAKES.
- PROVIDE CEILING MOUNTED FAN WITH INTEGRAL BACKDRAFT (16) DAMPER. SUPPORT UNIT FROM STRUCTURE AS REQUIRED BY THE MANUFACTURER.
- ROUTE EXHAUST DUCT UP TO WEATHER HEAD. ENSURE MIN. 10'-0" (17)
- (18)
- (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
- (20) COORDINATE WITH GC TO PROVIDE LOUVERED DOOR.

CLEARANCE FROM ALL OUTDOOR AIR INTAKES.

TRANSFER AIR FAN TO CONNECT INTO RETURN AIR DUCT.

CONTRACTOR WITH BUILDING OWNER PRIOR TO PERFORMING WORK.

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

NORTH

MECHANICAL GENERAL NOTES:

- INTERFERENCES. MECHANICAL SYSTEMS.
- LOCATIONS OF DIFFUSERS.

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

2. THIS CONTRACTOR SHALL PERFORM ALL WORK INDICATED AND/OR AS REQUIRED FOR THE PROPER INSTALLATION AND OPERATION OF THE

3. REFER TO ARCHITECTURAL REFLECTED CEILING PLANS FOR EXACT

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.

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

ERIK B. KNUDSEN NUMBER PE-2004026504 MECHANICAL FLOOR PLAN M^{-1}

6/16/2022

BC PROJECT #: 22358

MISSOURI PE COA #2009003629

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

BRANCH DUCT TAKEOFF DETAIL SCALE: NONE

DIFFUSER DETAIL SCALE: NONE

SCALE: NONE

MEC	HANICAL SYMBOLS							
\bowtie	NEW SUPPLY DIFFUSER							
	NEW RETURN AIR GRILLE							
	EXHAUST GRILLE/FAN							
\bigcirc	THERMOSTAT, MOUNTED AT 48" AFF							
M	MOTORIZED DAMPER/LOUVER							
<u> </u>	NEW DUCTWORK							
32"x14"	SIZE OF RECTANGULAR DUCT							
6"Ф	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							
	MANUAL VOLUME DAMPER							
	MOTORIZED CONTROL DAMPER							
\sum	SUPPLY AIR DUCT UP/DOWN							
	RETURN AIR DUCT UP/DOWN							
$\overline{}$	EXHAUST AIR DUCT UP/DOWN							
	CHANGE IN ELEVATION UP (UP) DOWN (DN) IN DIRECTION OF FLOW							
RTU-1	SCHEDULED MECHANICAL EQUIPMENT							
	EXIST'G DUCT TO REMAIN							

	EXHAUST & TRANSFER FAN SCHEDULE																				
	MFGR		R MODEL				EXTERNAL				ELE	ELECTRICAL									
MARK					CFM		STATIC P. IN. MG.			VOLT/	′Φ∕HZ	ZPWR		FAN TYPE		CONTROLS		NOTES			
EF-1	60	OK	GC-	-148	75	5	0	.3	1,0	75	120/	1/60	32	Σ	CEILING E	EXHAUST	LIG	ΉT	1		
EF-2																			1		
EF-3																			1		
TF-1		1		ł						I						1	THERM	OSTAT	2,3		
<u>NOTES:</u> 1.	OTES: 1. PROVIDE CEILING GRILLE, INTEGRAL BACK DRAFT DAMPER, VARI-SPEED CONTROLLER (NEAR FAN AND ABOVE CEILING), AND WEATHER HEAD.																				
2.	PROV	DE CEIL	ING GR	ILLE, IN	ITEGR	AL E	BACK E	PRAFT	DAN	MPE	R & VA	RI-SPI	EED	00	NTROLLER	(NEAR FAN	N AND AI	BOVE CE	ILING).		
З.	PROVI	DE LINE	VOLTA	GE CO	OLING	, ON	_Y THE	RMOS	STAT	FO	R CON	TROL	OF	FAN,	SET TO BO	O°F.					

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)
	538	Lobby 100	10	5	0.06		59	0.8	74
EX. F-1	190	Hall 102	0	0	0.06		11	0.8	14
	92	Business Manager 105	5	Б	0.06		8	0.8	10
								Total	98
	180	Treatment 110	10	25	0.06		56	0.8	70
EX. F-2	212	Treatment 113	10	25	0.06		66	0.8	82
	198	Treatment 117	10	25	0.06		61	0.8	דד
								Total	229
	60	Office 104	5	5	0.06		5	0.8	6
EX.	65	Supply 108	0	0	0.12		8	0.8	10
F-3	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
	214	Injection Room 115	10 25		0.06		66	0.8	83
EX.	214	Injection Room 218	10 25		0.06		66	0.8	83
F-4	214	Injection Room 221	10	25	0.06		66	0.8	83
	65	Storage 124	0 0 0.06					0.8	5
								Total	254
	384	Hall 116	0	0	0.06		23	0.8	29
EX. F-5	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	NECK SIZE		SIZE	FINISH		NOTES		
SD-1	TITUS		OMNI/1		6"4	6"Ф		<12"		HITE	1	
SD-2					•		20"X20"				1	
SD-3					8"4	Þ					1	
SD-4					10"0	Φ					1	
SD-5			OM	NI/3			24">	<24"			-	
SD-6			TM	I R	•			⁄4"Φ			-	
RG-1			PAR	र⁄1	8"⊄	8"Ф		<20"			1	
RG-2					10"0	Φ					1	
RG-3					12"0	₽					1	
RG-4			PAR	2/3	10"0	Φ	24">	<24"			-	
RG-5			350	RL	6"X8	6"	-	-			-	
RG-6					12"X	8"	-	-			-	
RG-7					14"X1	14"	-	-			-	
RG-8	1	V			16"X1	14"	-	-		Y	-	
NOTES:	1. PRO	VIDE MITH	OPPOS	SED BL	ADE DAM	1PER.						

EXPOSED ROUND SUPPLY DIFFUSER

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. CLEAN ALL EVAPORATOR AND CONDENSER COILS WITH A NON-ACID CLEANER.
 CHECK FOR REFRIGERANT LEAKS AND REPAIR AS NECESSARY (RECHARGE SYSTEM AS NEEDED.)
- 5. CHANGE ALL BELTS.
- 6. GREASE ALL MOVING PARTS AND BEARING.
- 1. 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.

OUTDOOR AIR CALCULATIONS

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

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

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WASTE & VENT PLAN SCALE: 1/4" = 1'-0"

	PLUMBING FIXTURE BRANCH PIPING SCHEDULE										
	FIXTURE	WASTE	VENT	CM	ΗМ						
	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"								
\wedge	WASHER BOX	2"	1-1/2"	1/2"	1/2"						
$\angle 1$	MOP BASIN	2"	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 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:

- 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.
- LOCATION OF 4" VTR. VERIFY MINIMUM 10' FT. CLEARANCE FROM ANY FRESH IN Э TAKE.
- CONNECT VENT PIPE TO EXISTING VENT PIPE. PLUMBING CONTRACTOR SHALL 4 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.

DATE: 6-16-2022 Permit Set PROJECT# 22009 REV# DATE DESCRIPTION 6-29-22 CITY COMMENT

ADVANCED AESTHETIC CENTER

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

BC PROJECT #: 22358

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WASTE & VENT PLAN

P

		PL	JMBING	FIXTURE /	NATER CO	OUNT	
	FIXTURE	QUANTITY	CM FU	CM TOTAL FU	HM FU	HM TOTAL FU	COMBINED F
	WATER CLOSET EX. WATER CLOSET	2 1	55	10 5	0	0 0	5 5
	LAVATORY EX. LAVATORY	2 1	1.5 1.5	3 1.5	1.5 1.5	3 1.5	2 2
	SINK (MEDICAL) SINK (BREAK R <i>OO</i> M)	1 <i>0</i> 1	1.5 2.25	15 2.25	1.5 2.25	15 2.25	2 3
\uparrow	DISHWASHER	~ 1	0 2.25	0 2.25	1.4 2.25	1.4 	~ 3
Ĺ				41 FU		 27.4 FU	-
			COL HOT	NATER MA WATER MAIN	– 1" – 1"	\sim	

PLUMBING SYMBOLS

— ——
V
D
——+Э
+0
, <u>+</u> ,
FD⊘
FCO O
600
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501L AND WASTE PIPING BELOW FLOOR/GRADE
501L AND WASTE PIPING ABOVE FLOOR/GRADE
BANITARY VENT PIPING ABOVE GRADE
BANITARY VENT PIPING BELOW GRADE
DOMESTIC COLD WATER PIPING
DOMESTIC HOT WATER PIPING
DOMESTIC HOT WATER RECIRCULATION PIPING
PIPING TURNING DOWN
PIPING TURNING UP
TEE TOP CONNECTION
JNION
BACKFLOW PREVENTER
FLOOR DRAIN
FLOOR CLEAN OUT
NALL CLEAN OUT
SRADE CLEAN OUT
VALVE
BALANCING VALVE
BOLENOID VALVE
PRESSURE REGULATOR
CHECK VALVE
CONNECT TO EXISTING
NVERT ELEVATION OF PIPE
MATCH MARKS ON PLUMBING RISER DIAGRAM
CHECK VALVE
THERMOMETER
PRESSURE GUAGE

TEMPERATURE AND PRESSURE RELIEF VALVE

ROOF

FLOOR

DOMESTIC WATER RISER

CLOSET 126

PLUMBING FIXTURE SCHEDULE (OR EQUAL):

- HWC 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, #SC534 OPEN FRONT SEAT WITH CHECK HINGE AND LESS COVER, CHROME PLATED ANGLE STOP AND RISER. HANDLE ON WIDE SIDE OF FIXTURE.
- HANDICAP LAVATORY, UNDERMOUNT: TOTO, #LT569#01, VITREOUS CHINA, 17"X 14" <u>L1</u> 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 PROWRAP SEAMLESS MOLDED CLOSED CELL VINYL INSULATION.
- SINK: ELKAY CROSSTOWN #ECTSR25229TBG SINGLE BOWL STAINLESS STEEL SINK, 51 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.
- BREAK ROOM SINK: ELKAY CROSSTOWN CROSSTOWN #ECTSR33229TBG DOUBLE <u>52</u> 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.
- FLOOR DRAIN: SIOUX CHIEF, #842, PVC FLOOR DRAIN WITH ADJUSTABLE TOP AND FD CAST BRASS STRAINER. PROVIDE WITH #2692 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.
- <u>ΕΤ</u> 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, $\frac{1}{2}$ " Φ PIPE.
- MB MASHER BOX : SIOUX CHIEFS "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.
- <u>RPZ</u> REDUCED ZONE PRESSURE BACKFLOW PREVENTOR: WATTS #LFOO9, 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".
- DISHWASHER: OWNER FURNISHED, CONTRACTOR INSTALLED, CONNECT TO HW AND DW DRAIN PIPING UNDER SINK AS REQUIRED. PROVIDE HOSE, PIPING AND SHUT-OFF VALVES AS REQUIRED TO MAKE CONNECTIONS.

MOP BASIN: FIAT, #MSB-2424, MOLDED STONE MOP BASIN, 2" DRAIN, 24"X 24" BASIN, VINYL BUMPER GUARD, STERN WILLIAMS #T-10-VB FAUCET, SPRING CHECKS, VACUUM BREAKER, INTEGRAL STOPS, WALL BRACE & PAIL HOOK, WALL BRACKET WITH 30" HOSE. $\overline{\}$

VINYL TILE FLOOR: JR SMITH #4140, OR EQUAL. FC0/ QUARRY TILE FLOOR: JR SMITH #4200, OR EQUAL. MCO 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.

MB

ELECTRICAL SPECIFICATIONS

1. GENERAL PROVISIONS

ACCEPTANCE.

- 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
- 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 78 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'-O".
- 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. & 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 (MET 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 (ALICU 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 (#6 ANG AND LARGER MAY BE STRANDED) COPPER CONDUCTORS RATED 90°C FOR DRY LOGATIONS, 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.
- 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 #GF2O-XL. DEVICE COVER
- PLATES SHALL BE AS HEREINBEFORE SPECIFIED. D. ISOLATED GROUND RECEPTACLES (IG) SHALL BE HUBBELL #CR5352IG, ORANGE COLOR. DEVICE
- OVER 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 #WP1010MXD OR #WP1010HMXD 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 SHALL BE LISTED BY UL AND SO LABELED, AND S CAPACITY INDICATED ON THE PANEL SCHEDULE. POWER MARK SERIES WITH PLUG IN TYPE BREAK
- B. CIRCUIT BREAKERS SHALL MEET APPLICABLE PO BREAKERS SHALL BE PLUG-IN TYPE, WITH COMM RATING CONTINUOUSLY IN FREE AIR AT 25 DEGR AND FULLY INTERCHANGEABLE WITHOUT DISTURB RATED 75 DEGREES C.
- 1) BREAKERS SHALL MEET APPLICABLE NEMA AN 2) ALL BREAKERS SHALL BE "HACR" RATED.
- C. PANELBOARD BOXES SHALL BE GALVANIZED S ACCORDANCE WITH NEC. FRONTS SHALL BE OF RUST INHIBITOR PRIMER PANELBOARDS SHALL HINGES, DOOR LATCH, AND DIRECTORY CARD-H
- D. PANELBOARD INTERIORS SHALL CONSIST OF RE ALUMINUM BUS BARS AND CIRCUIT BREAKERS, PR BREAKAGE IN HANDLING. BUS BARS SHALL BE S SIZED SOLID ALUMINUM NEUTRAL AND GROUND E
- E. BUS BAR BRACING SHALL BE UL LISTED AT 10,00 BRACING SHALL BE PROVIDED AS REQUIRED TO CURRENTS
- F. DIRECTORY CARDS SHALL BE COMPLETELY FILL LOAD SERVED. CIRCUIT BREAKERS SHALL BE ID HEREINBEFORE SPECIFIED.
- G. LOAD CENTERS INSTALLED IN ACCESSIBLE DWEL A117.1. OPENING LATCH AND ALL BREAKERS SHA SHALL VERIFY WITH ARCHITECT IF UNIT IS ACCESS

A. DISCONNECTS SHALL BE EXTERNALLY OPERATE FOR PAD LOCKING. FUSED AND NON-FUSED DIS

B. INDOOR SWITCHES SHALL BE NEMA I AND OUTDO OTHERWISE.

11. DISCONNECTS

12. FUSES:

- A. FUSES PROTECTING CIRCUIT BREAKER PANELS S WITH 200,000 AMPERES RMS SYM INTERRUPTING RATINGS ABOVE 60 AMPERES.
- B. ALL OTHER FUSES SHALL BE U.L. CLASS RK-5, D SECONDS AT 500% RATING. FUSES SHALL HAVE AMPERES RMS SYM INTERRUPTING CAPACITY. FL 13. LIGHT FIXTURES

A. WHERE LIGHT FIXTURES ARE MOUNTED IN A LAY-ATTACHED DIRECTLY BETWEEN EACH LIGHT FIXT

SHALL BE A MINIMUM OF 12 GAUGE GALVANIZED B. FIXTURES ARE REQUIRED AT ALL LIGHTING OUTL FIXTURE WIRE IS REQUIRED IN ALL FIXTURES AND REQUIRED FOR EXTERIOR FIXTURES. ALL PARTS

WITH NEC REQUIREMENTS. C. ALL FIXTURES SHALL CARRY UL AND ETL LABELS

- 14. SLEEVES:
- A. PROVIDE, SET, AND PROPERLY LOCATE PIPE SL B. INTERIOR PARTITIONS: 16 GAGE GALVANIZED ST
- SAFING AND CAULK AT EACH END WITH FIRE RESI
- C. ROOF: PROSET OR EQUAL, MANUFACTURED PVO COORDINATE WITH ROOFING CONTRACTOR AND

15. GROUNDING

- A. GROUND ALL ELECTRICAL APPARATUS IN ACCOR AND ANY LOCAL REQUIREMENTS. INSURE CONTIN PROVIDE BONDING JUMPER INSIDE ALL FLEXIBLE B. BOND METAL PIPING SYSTEMS IN COMPLIANCE
- 16. REMODELING WORK: INDICATED TO BE REMOVED AND NOT INDICATE!
- B. EQUIPMENT TO BE SALVAGED:
- 1) DISCONNECT AND REMOVE EXISTING ELECTR SALVAGED. DELIVER EQUIPMENT TO THE LOC
- 2) ALL MATERIALS AND EQUIPMENT DESIGNATED REMOVED, AND STORED UNTIL NEEDED FOR "LIKE NEW" CONDITION WITH RUST OR CORROS REPAINTED AS REQUIRED TO MATCH NEW CON ANY ITEMS WHICH BECOME DAMAGED BEYONI ACTIVITY SHALL BE REPLACED WITH NEW MAT

C. DISPOSAL AND CLEANUP: REMOVE FROM THE SI EQUIPMENT NOT INDICATED TO BE SALVAGED.

- D. PROTECT ADJACENT MATERIALS INDICATED TO BARRIERS TO KEEP DIRT, DUST, AND NOISE FRO PROTECTION AND BARRIERS AFTER REMODELIN
- E. PROVIDE ALL ALTERATIONS AND REWORK INDIC AND OPERATION OF ALL EXISTING ELECTRICAL LOCATE IDENTIFY AND PROTECT ELECTRICAL S SERVING OTHER AREAS OUTSIDE THE REMODELI REMODELING LIMITS. WHEN SERVICES MUST BE I AFFECTED AREAS.
- 1) ABANDONED CONDUIT SHALL HAVE WIRE REM WALLS OR PARTITIONS SHALL HAVE DEVICES
- 2) WHERE EXISTING CONDUITS TERMINATE AT AN TO BE REMOVED, DISCONNECT AND REMOVE CUT BACK AND CAPPED (BELOW THE FLOOR OBSTRUCTION. PATCH FLOOR TO MATCH EXIS
- 3) WHERE EXISTING CIRCUITS EXTEND BEYOND 1 FLOOR TO BE REMOVED, FURNISH AND INSTA CIRCUIT OR FEED THE REMAINING OUTLET(S) A MANNER AS NOT TO REVISE THE CIRCUIT. ARCHITECT
- 4) WHERE EXISTING OUTLETS IN A WALL, CEILING MAINTAIN OPERATION OF OTHER REMAINING (LOCATION. EXISTING WIRING DEVICES SHALL I
- 5) WHERE LIGHTING FIXTURES ARE INDICATED TO EXISTING CONDUIT (IF APPLICABLE) FOR THE N
- 6) WHERE A TELEPHONE CIRCUIT EXTENDS BEYO FLOOR TO BE REMOVED, PROVIDE NECESSA REQUEST THE OWNER TO ARRANGE WITH THE REMAIN.
- 7) WHERE EXISTING CONDUIT AND WIRE RUNS AR CEILING OR FLOOR TO BE REMOVED, THEY S CONSTRUCTION TO MAINTAIN CONTINUITY OF
- 8) CONDUIT SHALL BE CONCEALED WITHIN THE E POSSIBLE, EXCEPT WHERE OTHERWISE INDICATED.
- 9) EXISTING WIRE SHALL BE DISCONNECTED AND REMOVED WHEREVER EXISTING CIRCUITS ARE ABANDONED.

CENTERS AS SHOWN ON THE DRAWINGS. LOAD CENTERS SHALL BE FULLY RATED FOR THE VOLTAGE AND CURRENT LOAD CENTERS SHALL BE EQUAL TO GENERAL ELECTRIC ERS.
ORTIONS OF UL STANDARD 489 AND NEMA AB-L. CIRCUIT ON TRIP, UL RATED TO CARRY 100% OF NAMEPLATE EE C. CIRCUIT BREAKERS SHALL BE TRIP INDICATING BING ADJACENT UNITS. WIRE TERMINALS SHALL BE
ND/OR UL SPECIFICATIONS.
HEET STEEL WITH AMPLE WIRING GUTTER SPACE IN SHEET STEEL PAINTED LIGHT GREY OVER A SUITABLE BE EQUIPPED WITH ONE PIECE DOOR, SEMI-CONCEALED HOLDER.
EINFORCED GALVANIZED SHEET STEEL FRAMES WITH ROPERLY SUPPORTED TO PREVENT VIBRATIONS AND BEQUENCE PHASED. PANELBOARD SHALL HAVE A FULL BUS.
00 SYMMETRICAL AMPERES MINIMUM. ADDITIONAL D MEET OR EXCEED INDICATED AVAILABLE FAULT
LED IN BY TYPEWRITER, LISTING CIRCUIT NUMBERS AND DENTIFIED BY CIRCUIT NUMBER LABELS AS
LING UNITS SHALL MEET ALL REQUIREMENTS OF ANSI ILL BE MOUNTED BETWEEN 48" AND 15" AFF. CONTRACTOR SIBLE PRIOR TO ROUGH IN.
D, QUICK-MAKE, QUICK-BREAK, SAFETY, WITH PROVISIONS CONNECT SWITCHES SHALL BE PROVIDED AS INDICATED. OOR SWITCHES SHALL BE NEMA 3R, UNLESS INDICATED
SHALL BE CURRENT LIMITING U.L. CLASS RK-1 FUSES S CAPACITY. FUSING ELEMENTS SHALL BE SILVER FOR
DUAL-ELEMENT WITH A MINIMUM TIME-DELAY OF 10 E CURRENT-LIMITING SHORT-CIRCUIT LINKS AND 200,000 USING ELEMENTS SHALL BE COPPER.
IN CEILING, PROVIDE A MINIMUM OF 2 SUPPORT WIRES URE AND THE BUILDING STRUCTURE. SUPPORT WIRES STEEL WIRE, SOFT ANNEALED.
ETS SHOWN ON THE DRAWINGS. APPROVED LIGHTING FIXTURE RACEWAYS. WEATHERPROOF WIRING IS 5 OF FIXTURES AND WIRING SHALL BE IN ACCORDANCE
S.
LEEVES AS REQUIRED FOR THIS WORK. TEEL, PACK BETWEEN CONDUIT AND SLEEVE WITH FIRE
ISTANT SEALANT. C SCHEDULE 40 PIPE SLEEVE WITH WEATHERPROOF SEAL. FLASH AS REQUIRED TO MAINTAIN ROOF WARRANTY.
RDANCE WITH THE NATIONAL ELECTRIC CODE (NEC) 250,
NITH NEC 250.4(A)(4).
OVE ABANDONED ELECTRICAL MATERIALS AND EQUIPMENT
D TO BE SALVAGED OR REMAIN.
ICAL EQUIPMENT INDICATED TO BE REMOVED AND CATION DESIGNATED BY THE OWNER FOR STORAGE.
D TO BE REUSED OR RELOCATED SHALL BE CAREFULLY REMODELING WORK. ALL ITEMS SHALL BE RESTORED TO SION REMOVED, SURFACE PAINT TOUCHED UP OR NSTRUCTION, AND THOROUGHLY CLEANED AND INSPECTED. D REPAIR AS A RESULT OF CONSTRUCTION OR DEMOLITION TERIAL EQUIVALENT IN EVERY RESPECT
ITE AND LEGALLY DISPOSE OF DEMOLISHED MATERIALS AND
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE DM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE.
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE DM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. SERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. SERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN 9 AND WIRE REMOVED, AND SHALL BE COVERED.
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION BYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. BERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN AND WIRE REMOVED, AND SHALL BE COVERED. IN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE OR ABOVE THE CEILING) SO NOT TO CREATE AN ISTING.
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION BYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. SERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN AND WIRE REMOVED, AND SHALL BE COVERED. IN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR E DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE OR ABOVE THE CEILING) SO NOT TO CREATE AN ISTING. THE OUTLET IN THE EXISTING WALL, CEILING, OR ALL NEW CONDUIT AND WIRE TO EITHER REROUTE THE FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH ALL REROUTED CONDUIT SHALL BE APPROVED BY THE
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. SERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN AND WIRE REMOVED, AND SHALL BE COVERED. IN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR E DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE OR ABOVE THE CEILING) SO NOT TO CREATE AN ISTING. THE OUTLET IN THE EXISTING WALL, CEILING, OR NUL NEW CONDUIT AND WIRE TO EITHER REROUTE THE FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH AND THE REMOVED CONDUIT SHALL BE APPROVED BY THE P, OR FLOOR TO BE REMOVED ARE ESSENTIAL TO DUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT NOT BE REUSED, UNLESS OTHERWISE INDICATED.
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REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IG OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION SYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. DERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN AND WIRE REMOVED, AND SHALL BE COVERED. INTERRUPTED UNITE IN A WALL, CEILING, OR FLOOR E DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE OR ABOVE THE CEILING) SO NOT TO CREATE AN ISTING. THE OUTLET IN THE EXISTING WALL, CEILING, OR ALL NEW CONDUIT AND WIRE TO EITHER REROUTE THE FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH ALL REROUTED CONDUIT SHALL BE APPROVED BY THE SOURT AND THE REMOVED ARE ESSENTIAL TO DUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT NOT BE REUSED, UNLESS OTHERWISE INDICATED. O BE DEMOLISHED, REMOVE ALL WIRE AND MODIFY THE NEW LIGHTING. ALL UNUSED CONDUIT SHALL BE OND AN OUTLET IN AN EXISTING WALL, CEILING, OR RRY EMPTY CONDUIT AND NOTIFY THE OWNER WHO WILL TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT
REMAIN. INSTALL AND MAINTAIN DUST AND NOISE OM BEING TRANSMITTED TO ADJACENT AREAS. REMOVE IS OPERATIONS ARE COMPLETE. CATED AND/OR REQUIRED FOR THE PROPER INSTALLATION BYSTEMS, INTEGRATING THE NEW AND EXISTING AREAS. SERVICES PASSING THROUGH REMODELING AREA AND ING LIMITS. MAINTAIN SERVICES TO AREAS OUTSIDE INTERRUPTED, INSTALL TEMPORARY SERVICES FOR MOVED AND SHALL BE CAPPED. ABANDONED OUTLETS IN AND WIRE REMOVED, AND SHALL BE COVERED. IN EXISTING OUTLET IN A WALL, CEILING, OR FLOOR E DEVICE AND WIRE FROM CONDUIT. CONDUIT SHALL BE OR ABOVE THE CEILING) SO NOT TO CREATE AN ISTING. THE OUTLET IN THE EXISTING WALL, CEILING, OR ALL NEW CONDUIT AND WIRE TO EITHER REROUTE THE FROM ANOTHER ELECTRICAL SOURCE, BUT IN SUCH ALL REROUTED CONDUIT SHALL BE APPROVED BY THE ALL REROUTED CONDUIT SHALL BE APPROVED BY THE OUTLETS, RELOCATE THE OUTLET TO A NEW CONVENIENT NOT BE REUSED, UNLESS OTHERWISE INDICATED. D BE DEMOLISHED, REMOVED ALL WIRE AND MODIFY THE NEW LIGHTING. ALL UNUSED CONDUIT SHALL BE OND AN OUTLET IN AN EXISTING WALL, CEILING, OR RY EMPTY CONDUIT AND NOTIFY THE OWNER WHO WILL TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT WE LOCATED IN OR ATTACHED TO AN EXISTING WALL, ONLETS OTHERWISE INDICATED. TELEPHONE COMPANY FOR NEW WIRING TO OUTLETS THAT WE LOCATED IN OR ATTACHED TO AN EXISTING WALL, OHALL BE REROUTED IN EITHER NEW OR EXISTING CIRCUITS UNLESS OTHERWISE INDICATED.

	ELECTRICAL GYNROLG LIGT
CIRCUITING	
+46"	OF DEVICE)
GFI	GROUND FAULT CIRCUIT INTERRUPTER DEVICE
MP	WEATHERPROOF ENCLOSURE ON DEVICE
MR	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
X	ELECTRICAL FLOOR PLAN NOTE WITH DESIGNATION
2	CONDUIT CONCEALED WHERE POSSIBLE OR AS NOTED, ARROWS
LP	INDICATE HOME RUN TO PANEL. CIRCUIT NUMBERS INDICATED
	#12 MIRE 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
1®1	EXIT LIGHT WITH DIRECTIONAL ARROWS INDICATED
	STRIP FIXTURE WITH TYPE DESIGNATION
A •	RECESSED OR SURFACE MOUNTED FIXTURE WITH TYPE DESIGNATION
	NIGHT LIGHT, CONNECT TO UNSWITCHED CIRCUIT
۸Ø	CEILING OR RECESSED FIXTURE WITH TYPE DESIGNATION
A QH	WALL MOUNTED FIXTURE WITH TYPE DESIGNATION
POWER DE	VICES
<u>ф</u>	DUPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS NOTED
н	FOURPLEX RECEPTACLE, BOTTOM OF BOX AT 16" AFF, UNLESS
₩ 	
₩ V 	HEAVY DUTY OUTLET - NEMA CONFIGURATION SIZE PER EQUIPMENT
	MANUFACTURER'S RECOMMENDATION
	PANEL BOARD, TOP OF BOX 6'-0" AFF
Q	JUNCTION BOX
C	NON-FUSED DISCONNECT SWITCH
D'	FUSED DISCONNECT SWITCH
$\mathbf{O}$	MOTOR WITH DESIGNATION
Θ	FLOOR BOX
CONTROLS	
5	SINGLE POLE WALL SWITCH, TOP OF BOX AT 48" AFF
S₃	THREE-WAY WALL SWITCH, TOP OF BOX AT 48" AFF
Ś.p	
	ATIONS
	DATA/TELEPHONE OUTLET WITH MINIMUM $\frac{3}{4}$ " CONDUIT STUBBED UP TO
V	ABOVE ACCESSIBLE CEILING, BOTTOM OF BOX AT 16", UNLESS NOTED OTHERWISE. PROVIDE WITH PULL STRING
	FLAT SCREEN TELEVISION - PROVIDE AND INSTALL ONE (1) HUBBELL #RR1510X RECESSED TAMPER-RESISTANT DUPLEX RECEPTACLE WITH
TV	COVERPLATE AND ONE(1) HUBBELL #HBL260 TWO GANG LARGE CAPACITY WALL BOX (UP TO 2" KNOCKOUT) W/ MUD RING AND
	ABOVE ACCESSIBLE CEILING FOR DATA CABLES. MOUNT BOX AT
	EOUS
	LINE VOLTAGE THERMOSTAT PROVIDED BY MECHANICAL
Ō	CONTRACTOR. ELECTRICAL CONTRACTOR TO PROVIDE AND INSTALL WIRING

![](_page_15_Picture_95.jpeg)

#### 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)

![](_page_15_Picture_114.jpeg)

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

![](_page_15_Figure_117.jpeg)

![](_page_15_Picture_118.jpeg)

BC PROJECT #: 22358

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MISSOURI PE COA #2009003629

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ELECTRICAL SPECIFICATIONS

![](_page_15_Picture_120.jpeg)

М  $\sim$ Σ

![](_page_16_Figure_1.jpeg)

![](_page_16_Picture_2.jpeg)

![](_page_16_Picture_3.jpeg)

![](_page_16_Figure_4.jpeg)

![](_page_16_Figure_5.jpeg)

![](_page_16_Picture_6.jpeg)

![](_page_16_Figure_7.jpeg)

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

E

ELECTRICAL

LIGHTING PLAN

![](_page_17_Figure_0.jpeg)

![](_page_17_Figure_1.jpeg)

![](_page_17_Picture_2.jpeg)

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.

![](_page_17_Picture_4.jpeg)

![](_page_17_Picture_5.jpeg)

LOAD	CENTER: P	VOLT	5: 120/	2407	PH:	1Φ	зM	LOCA	TION:	MECH	2M 107	MOUNTING:	SURFACE	
	BUS: 125A	MAIN:	100A	MLO	IC:		10,000		RMS S	YM AM	PS	FEEDER:	SEE RISER DIAGR	AM
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦΑ	ФВ	ΦΑ	ΦB	MIRE	POLE	AMPS	DESCRIPTION		CKT NO
1	INJECTION/OFFICE LTG	20	1	12	1,292		360		12	1	20	IT ROPT		2
3	TREATMENT/OFFICE LTG	20	1	12		1,162		360	12	1	20	PHONEE	BOARD RCPT	4
Б	SIGNAGE	20	1	12	1,200		1,080		12	1	20	MANAGER	SEATING ROPT	6
٦	TF-1	20	1	12		100		1,080	12	1	20	LOBBY RCPT		8
٩	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	4	PARE	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	E	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						
									-	N	EC DEN	IAND LOAD:	19,988	VA
	DEMAND AMP5 @ 240 VOLT / 10: 83.28 A													

LOAD	CENTER: P1	<b>VOLT5:</b> 120/240V		PH:	1Φ	зм	LOCA	TION:	TRTRN	11	MOUNTING: FLUSH			
	BUS: 125A	MAIN:	100A	MLO	IC:		10,000	1	RMS S	IS SYM AMPS FEEDER: SEE RISER DIAG		SEE RISER DIAGR	(AM	
CKT	DESCRIPTION	AMPS	POLE	MIRE	ΦΑ	ФВ	ΦΑ	ФВ	MIRE	POLE	AMPS	DES	CRIPTION	CKT NO
1	TREATMENT RM 1	20	1	12	1,080		1,260		12	1	20	INJEC	TION RM 1	2
з	TREATMENT RM 2	20	1	12		1,080		1,080	12	1	20	INJEC	TION RM 2	4
5	TREATMENT RM 3	20	1	12	1,260		1,080		12	1	20	INJEC	TION RM 3	6
٦	TREATMENT RM 4	20	1	12		1,080		1,260	12	1	20	INJECTION RM 4		8
٩	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 MA	TER HEATER	16
17	SPARE	20	1				2,250							18
19	EX F-3	15	1	12				1,200	12	1	15	E	EX F-4	20
21	EX CU-3	15	2	12	1,236		2,400		12	2	20	E	X CU-4	22
23						1,236		2,400						24
NOTES	):				4,116	3,756	7,350	8,190						
11,466 11,946 TOTAL CONNECTED LOAD:								23,412	VA					
									e.	Ν	EC DEN	MAND LOAD:	23,117	VA
	DEMAND AMP5 @ 240 VOLT / 10: 96.32 A													

LOAD	CENTER: P2	VOLT	5: 120/	⁄240∨	PH:	1Ф	зм	LOCA	TION:	REFRE	SH	MOUNTING:	FLUSH	
	BUS: 125A	MAIN:	100A	MLO	IC:		10,000		RMS S	MA MY	P9	FEEDER: SEE RISER DIAG		.AM
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦΑ	ФВ	ΦΑ	ФВ	MIRE	POLE	AMPS	DES	CRIPTION	CKT NO
1	PATIENT/HALLTG	20	1	12	1,702		1,080		12	1	20	PATIENT	REFRESH RCPT	2
ŋ	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
٦	TREATMENT RM 5	20	1	12		1,080		500	12	1	20	REFRESH DISPOSAL/DISH [GF]		8
٩	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	ICROWAVE [GF]	14
15	TREATMENT RM 4 CHAIR	20	1	12		360				1	20	:	OPARE	16
17	TREATMENT RM 5 CHAIR	20	1	12	360					1	20	5	OPARE	18
19	EX F-6	15	1	12		1,200		1,200	12	1	15	1	EX F-5	20
21	EX CU-6	15	2	12	1,236		1,236		12	2	15	E	X CU-5	22
23						1,236		1,236	1					24
NOTES	):				7,674	7,372	4,676	4,936						
[GF]-GFCI BRKR 5MA				12,350		12,5	12,308		TOTAL CONNECTED			24,658	VA	
		NEC DEMAND LOAD:								21,876	VA			

LOAD	CENTER: P3	VOLT	5: 120/	2401	PH:	1Φ	зM	LOCA	TION:	CLOSE	T	MOUNTING:	SURFACE	
	BUS: 125A	MAIN:	100A	MLO	IC:		10,000		RMS S	YM AM	PS	FEEDER: SEE RISER DIAGRAM		RAM
CKT	DESCRIPTION	AMPS	POLE	WIRE	ΦΑ	ФВ	ΦΑ	ФВ	MIRE	POLE	AMPS	DES	CRIPTION	CKT NO
1	LASER MACHINE	30	2	10	2,880					1	20	4	PARE	2
3						2,880				1	20	97	PARE	4
5	SPARE	20	1							1	20	4	PARE	6
Г	SPARE	20	1							1	20	4	PARE	8
٩	SPARE	20	1							1	20	4	PARE	10
11	SPARE	20	1							1	20	¢,	PARE	12
13	SPARE	20	1							1	20	SPARE		14
15	SPARE	20	1							1	20	0,	PARE	16
17	SPARE	20	1							1	20	4	PARE	18
19	SPARE	20	1							1	20	4	PARE	20
21	SPARE	20	1							1	20	4	PARE	22
23	SPARE	20	1							1	20	97	PARE	24
NOTES	r.				2,880	2,880	0	0						
2,880 2,880 TOTAL CONNECTED LOAD:								5,76	O VA					
									-	Ν	EC DEN	IAND LOAD:	5,76	O VA
DEMAND AMP5 @ 240 VOLT / 10:											24.0	A 00		

DEMAND AMPS @ 240 VOLT / 10: 91.15 A

	L	IGH	Γ FIXTL	JRE SCHEDULE	
MARK NO.	MANUFACTURER & CATALOG NUMBER	VOLTS WATTS	LAMPS	DESCRIPTION	EQUIVALENT MANUFACTURERS
A	LITHONIA LDN6 40/20 LO6 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 LO6 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
В	LITHONIA LDN6 40/20 LW6 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
С	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
8	LITHONIA ECBR 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		
	AL - ALL LAMPS SHALL BE 4000			CRI OF 82 UNI FSS SPECIFIED OTHERWISE	

![](_page_18_Figure_7.jpeg)

EXISTING GROUND

![](_page_18_Picture_10.jpeg)

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

#### ELECTRICAL RISER DIAGRAM SCALE: NONE