

1240 MAIN ST, LOUISVILLE, CO 80027

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2 LOCATION MAP G-001

ARCHITECT/LANDSCAPE

D2C ARCHITECT, INC

Contact: Andrew Martin Project Manager

1212 S. Broadway Suite 250 Denver, Colorado 80211

p: 303.952.4802 e: bduggan@d2carchitects.com



PKMR ENGINEERS

Contact: Chris Ahern, PE, LEED AP BD+C Principal

1550 Wewatta St, Suite 200 Denver, CO 80202

p: 720.739.4500 e: chris.ahern@pkmreng.com

ELECTRICAL ENGINEER

PKMR ENGINEERS

Contact: Chris Ahern, PE, LEED AP BD+C Principal

1550 Wewatta St, Suite 200 Denver, CO 80202

p: 720.739.4500 e: chris.ahern@pkmreng.com



PKMR ENGINEERS

Contact: Chris Ahern, PE, LEED AP BD+C Principal

1550 Wewatta St, Suite 200 Denver, CO 80202

p: 720.739.4500 e: chris.ahern@pkmreng.com

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| | SHEET INDEX | DATE |
| SHEET NUMBER | | |
| GENERAL G-001 | VICINITY MAP AND DESIGN TEAM DIRECTORY | |
| G-002 | PROJECT GENERAL NOTES | |
| GI101 GI102 | CODE ANALYSIS CODE ANALYSIS PLANS | |
| ARCHITECT | ΓURAL | DESCRIPTION |
| -001 -011 | ARCHITECTURAL ABBREVIATIONS, SYMBOLS AND MATERIALS PARTITION TYPES AND DETAILS | |
| D101 D102 | OVERALL DEMO PLAN - FIRST FLOOR OVERALL DEMO PLAN - SECOND FLOOR | |
| D111 | ENLARGED DEMO PLANS - FIRST FLOOR | |
| D112 -101 | ENLARGED DEMO PLANS - SECOND FLOOR OVERALL FLOOR PLAN - FIRST FLOOR | |
| -102 | OVERALL FLOOR PLAN - SECOND FLOOR | |
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| -601 | INTERIOR ELEVATIONS | |
| -701 | SCHEDULES | ISSUE DATE: MONTH DD, YYYY CONSULTANTS PROJECT SOLICITATION NO.: CONTRACT NO.: FILE NUMBER: |
| IECHANIC IEP-001 | AL MEP COVER SHEET | ISSUE DATE: MONTH DD, CONSULTANT SOLICITATION CONTRACT NC |
| 1EP-001 1EP-002 | MEP SPECIFICATIONS | |
| 1EP-003 1EP-101 | MEP SPECIFICATIONS MEP DEMOLITION PLAN - FIRST FLOOR | r r CKD BY: Checker PLOT DATE 3/14/2024 3:16:54 PM .E NAME: |
| IEP-101 | MEP DEMOLITION PLAN - PIRST FLOOR MEP DEMOLITION PLAN - SECOND FLOOR | |
| 1-101 1-102 | HVAC PLAN - FIRST FLOOR HVAC PLAN - SECOND FLOOR | DESIGN BY: Designer D2C PROJECT Project Number Project Number Author Author SBMT BY: Approver 12" = 1'-0" 12" = 1'-0" SIZE: SIZE: SIZE: SIZE: SIZE: SIZE: D1-1-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0-0 |
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SHEET

IDENTIFICATION

G-001

| | | <u>GENERAL REQUIREMENTS</u> | |
|---|----|---|---|
| D | | ATTENTION ALL USERS OF THESE DRAWINGS, GENERAL CONTRACTORS, SUB CONTRACTORS, MANUFACTURERS, SUPPLIERS: CAREFULLY AND THOROUGHLY REVIEW THESE GENERAL NOTES. IT IS YOUR RESPONSIBILITY TO KNOW AND ADHERE TO THESE REQUIREMENTS. DO NOT PRESUME THAT YOUR SCOPE OF | 14. PRIOR TO BEGINNING ANY WORK, THE CONTRACTOR SHALL CONDUCT A WALK THROUG INSPECTION WITH THE OWNER AND A&E DETERMINE IN WRITING THE CONDITION OF THE WORK ALREADY IN PLACE. THE CONTRACTOR IS RESPONSIBLE FOR REPAIRING OR REPLACING EQUIPMENT PRESENTLY IN PLACE THAT IS DAMAGED DURING CONSTRUCTION. |
| U | | WORK IS SINGULARLY DEFINED. YOUR SCOPE OF OF WORK IS DEFINED THROUGHOUT THE ENTIRE SET OF DRAWINGS AND SPECIFICATIONS AND IS NOT CONTAINED IN JUST ONE SERIES OF DRAWINGS OR DIVISION OF SPECIFICATIONS. YOU MUST REVIEW THE ENTIRE SET OF CONTRACT DOCUMENTS TO DETERMINE YOUR SCOPE OF WORK. | 15. THE GENERAL CONTRACTOR SHALL FIELD VERIFICALL PATCH AND REPAIR REQUIREMENTS OF EXISTING SURFACES TO RECEIVE NEW FINISHES THE COST FOR ALL SUCH WORK IS TO BE COVER BY THE BID. 16. IT IS THE GENERAL CONTRACTOR AND THEIR SUBCONTRACTOR'S RESPONSIBILITY TO PROVIDE |
| | 3. | EVERY EFFORT HAS BEEN MADE TO MAKE THESE DOCUMENTS CONCISE AND COORDINATED, TO DEFINE WORK IN THE MOST LOGICAL PLACE AND TO ELIMINATE REDUNDANCY. KEEP IN MIND HOWEVER THAT YOUR SCOPE OF WORK CAN BE CONTAINED IN VARIOUS PLACES, WITH VARYING DESCRIPTIONS. DO NOT CONSIDER THAT THERE IS ONE CUSTOMARY PLACE TO LOCATE YOUR WORK. THERE IS A DANGER OF OMITTING WORK FROM YOUR SCOPE BECAUSE THE ENTIRE SET OF DOCUMENTS WAS NOT REVIEWED. | COMPLETE, FUNCTIONING AND FULLY OPERATIONAL SOLUTION SURROUNDING ANY AN ALL ASPECTS OF THIS PROJECT. SHOULD ASPEC AND/OR ELEMENTS BE MISSING FROM THE DOCUMENTS THAT PREVENT SUCH, CONTRACTO SHALL INCLUDE IN THEIR ORIGINAL BID, FEE TO PROVIDE SOLUTIONS TO MEET SUCH REQUIREMENTS. IT IS THE CONTRACTOR'S RESPONSIBILITY TO OBTAIN CLARIFICATION ON A AND ALL ITEMS THAT ARE UNCLEAR WITHIN THE DOCUMENTS, PRIOR TO BID, SO THAT THE CONTRACTOR'S BID ACCOUNTS FOR ALL ASPEC AND ELEMENTS OF THIS PROJECT. |
| С | 4. | MECHANICAL AND ELECTRICAL DRAWINGS SHOW INFORMATION IN A DIAGRAMMATIC FASHION WITHOUT DIMENSIONING. THE GENERAL CONTRACTOR IS TO COORDINATE THE LOCATIONS OF ALL MECHANICAL AND ELECTRICAL EQUIPMENT WITH RESPECT TO THE ARCHITECTURAL AND STRUCTURAL DETAILING OF SHAFTS, CHASES, AND SUCH. | 17. SHOULD CONTRACTOR NEED ADDITIONAL CLARIFICATION OR SUPPLEMENTAL INFORMATIC ON ANY ASPECT OF THE DOCUMENTS, IT IS THE CONTRACTOR'S RESPONSIBILITY TO REQUEST WRITTEN INFORMATION THROUGH AN INDUSTRY STANDARD REQUEST FOR INFORMATION (RFI) OF SEEK SUPPLEMENTAL INFORMATION THROUGH INDUSTRY STANDARD ARCHITECT SUPPLEMENT INFORMATION (ASI). SHOULD THE CONTRACTOR FAIL TO REQUEST SUCH CLARIFICATION |
| | 5. | THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH SITE CONDITIONS AS THEY MAY AFFECT CARRYING OUT THE WORK AS DESCRIBED IN THESE CONTRACT DOCUMENTS. THE CONTRACTOR SHALL INVESTIGATE, VERIFY, AND BE RESPONSIBLE FOR ALL CONDITIONS OF THE PROJECT, AND NOTIFY THE ARCHITECT OF ANY CONDITIONS THAT REQUIRE MODIFICATION BEFORE PROCEEDING WITH THE WORK. | INFORMATION IN A TIMELY MANNER THAT RESUL IN A NEGATIVE EFFECT ON THE PROJECT'S SCHEDULE OR BUDGET, THE CONTRACTOR ASSUMES ANY AND ALL LIABILITY ASSOCIATED WITH THE PROJECT SCHEDULE AND MONETARY ASPECTS SURROUNDING RESOLUTION. 18. NOT ALL FIRE RATED ASSEMBLIES AND/OR UL LISTED ASSEMBLIES FOR ALL INSTANCES ARE PROVIDED, OR DETAILED FOR THIS PROJECT. IT THE CONTRACTORS' RESPONSIBILITY TO INQUIR |
| P | | THE CONTRACTOR SHALL PROVIDE ALL MATERIALS, EQUIPMENT, LABOR, AND SERVICES NECESSARY TO COMPLETE THE WORK. ALL PERSONS DIRECTLY OR INDIRECTLY ASSOCIATED WITH THE PROJECT SHALL BE FAMILIAR WITH THE RULES AND REGULATIONS | WITH THE ARCHITECT, BUILDING DEPARTMENT, FIRE DEPARTMENT, CODE OFFICIAL, CODE INSPECTOR AND OTHER AUTHORITIES HAVING JURISDICTION APPLICABLE FOR CLARIFICATION SPECIFIC DETAILS AS NECESSARY TO ENSURE A COMPLIANT APPLICATION WILL BE USED/ HAS BE INSTALLED AND MEETS ALL REQUIRED CODES. |
| В | 8. | OF THE OCCUPATIONAL SAFETY AND HEALTH ACT, AND IMPLEMENT THOSE RULES AS THEY APPLY TO THIS PROJECT. ALL WORK PERFORMED SHALL BE IN ACCORDANCE WITH THE BUILDING CODES AS NOTED ON CODE SHEETS AND/OR DIRECTED BY THE BUILDING DEPARTMENT OR BUILDING OFFICIAL. | 19. SEQUENCE OF CONSTRUCTION IS A "MEANS AND METHODS" AND THEREFORE THE RESPONSIBILIT OF THE CONTRACTORS. IMPACTS TO THE SCHEDULE AND/OR DELAYS DUE TO SEQUENCIN ARE THE CONTRACTORS' RESPONSIBILITY. AS SUCH, CONTRACTOR ASSUMES ANY AND ALL LIABILITY ASSOCIATED WITH SUCH, INCLUDING MONETARY ASPECTS SURROUNDING RESOLUTION |
| | 9. | CONTRACTOR SHALL SUBMIT CONFIRMATION OF ORDERED MATERIALS OR ITEMS NECESSARY TO COMPLETE THE PROJECT WITH PROJECTED DELIVERY DATE GREATER THAN FOUR WEEKS. | 20. THE SPECIFICATIONS AND DRAWINGS (CONTRAC DOCUMENTS) MAY NOT BE COMPLETE IN EVERY DETAIL. CONTRACTOR AND THEIR SUBCONTRACTORS SHALL COMPLY WITH THE INTENT OF THE CONTRACT DOCUMENTS AND GENERAL PURPOSE, TAKEN AS A WHOLE, AND SHALL NOT MAKE USE OF CLAIM ON ANY ERROR |
| | | ALL SUBCONTRACTORS SHALL SUBMIT SHOP DRAWINGS AS REQUIRED FOR ARCHITECTS APPROVAL PRIOR TO COMMENCING ANY WORK. FIELD VERIFY ALL DIMENSIONS PRIOR TO | OR OMISSIONS THEREIN TO THE DETRIMENT OF THE DESIGN TEAM OR WORK. SHOULD ANY CONFLICT, PRESUMED ERROR OR OMISSION, OF DISCREPANCY APPEAR IN THE DRAWINGS, SPECIFICATIONS OR INSTRUCTIONS IN WORK DO BY OTHERS OR IN SITE CONDITIONS, CONTRACT |
| A | | CASEWORK FABRICATION. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE COORDINATION OF ALL TRADES AND THE PREVENTION OF CONFLICT BETWEEN ALL TRADES. | SHALL NOTIFY THE ARCHITECT IN WRITING AT ONCE. FAILURE TO NOTIFY THE ARCHITECT IMMEDIATELY, ALLEVIATES ALL LIABILITY FROM ARCHITECT, DESIGN TEAM AND OWNER AND PLACES ALL LIABILITY WITH THE CONTRACTOR. I CONTRACTOR PROCEEDS WITH ANY OF THE WO IN QUESTION PRIOR TO DIRECTION FROM OWNE |
| | 13 | 5. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR LOCATING AND PROTECTING ALL UTILITY LINES. LOCATIONS SHOWN ARE APPROXIMATE. REPAIR ALL DAMAGE TO UTILITY LINES CAUSED BY CONSTRUCTION OPERATIONS AT NO COST TO THE OWNER. | AND/ OR ARCHITECT, THEN REQUIRED CORRECTIONS SHALL BE AT THE CONTRACTOR'S EXPENSE AND SHALL NOT BE REIMBURSABLE. 21. ALL CODE MANDATED SIGNAGE SHALL BE PROVIDED BY GENERAL CONTRACT, INCLUDED WITHIN BID, UNLESS OTHERWISE NOTED. |
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DRAWINGS AND DIMENSIONS

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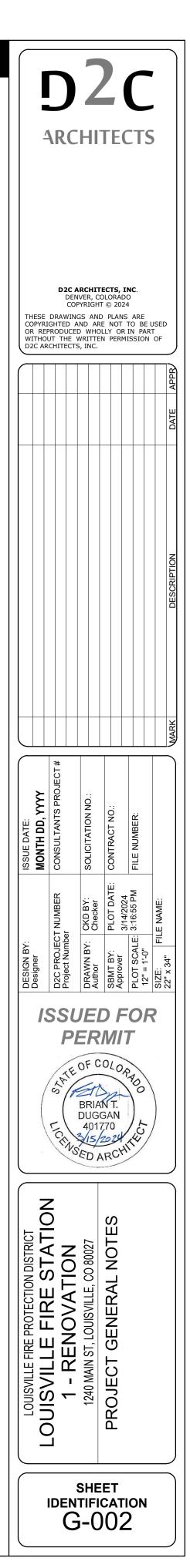
- 1. THE CONTRACT DOCUMENT DRAWINGS HAVE BEEN PREPARED USING REVIT SOFTWARE IN A MICROSOFT WINDOWS ENVIRONMENT. A **BUILDING INFORMATION MODEL (BIM) WAS** DEVELOPED SOLELY TO COMMUNICATE THE DESIGN INTENT TO THE OWNER AND IS NOT SUITABLE FOR ANY OTHER PURPOSE. FOR EXAMPLE THE REVIT MODEL IS NOT SUITABLE FOR COST ESTIMATING, SYSTEMS PERFORMANCE, COORDINATION, SCHEDULING, OR FACILITIES MANAGEMENT.
- 2. THESE DOCUMENTS WERE PRODUCED USING THE CONSTRUCTION SPECIFICATIONS INSTITUTE'S UNIFORM DRAWING SYSTEM AND THE NATIONAL CAD STANDARD AS GUIDES.
- 3. ANY INDICATION OF PROJECT LIMITS OR LINES OF DEMARCATION ARE SHOWN FOR THE CONVENIENCE OF THE CONTRACTOR, AND ARE NOT TO BE TAKEN LITERALLY. ACTUAL CONTRACT LIMITS ARE TO BE DETERMINED BY THE CONTRACTOR AND APPROVED BY THE OWNER BEFORE ACTUAL CONSTRUCTION WORK BEGINS.
- 4. DRAWINGS ARE PREPARED USING DIMENSIONS AND PRODUCT CONFIGURATIONS OR DETAILS OF SPECIFIC MANUFACTURERS. DIMENSIONS AND DETAILS FOR SPECIFIC PRODUCTS MAY CHANGE BEFORE THEY ARE ACTUALLY INCORPORATED INTO THE WORK, AND PRODUCTS BY OTHER MANUFACTURERS MAY ALSO BE ACCEPTABLE. THEREFORE, ACTUAL INSTALLATION DETAILS AND DIMENSIONS MAY DIFFER FROM THOSE SHOWN. CONTRACTOR SHALL VERIFY INSTALLATION REQUIREMENTS FOR ALL PRODUCTS TO BE INCORPORATED IN THE WORK (INCLUDING PARTITION THICKNESS FOR RECESSED OR SEMI-RECESSED PRODUCTS), AND IS RESPONSIBLE FOR ACCOMMODATING AND COORDINATING CHANGES TO OTHER MATERIALS OR PRODUCTS THAT ARE NECESSARY BECAUSE OF THESE DIFFERENCES.
- 5. THE DRAWINGS AND SPECIFICATIONS ARE SEPARATED INTO DISCIPLINES FOR THE CONVENIENCE OF THE ARCHITECT AND THE CONTRACTOR. THE SEPARATIONS USED HEREIN ARE USED ONLY FOR THE PURPOSES OF CONVENIENCE AND REFERENCE AND IN NO WAY DO THEY DEFINE OR LIMIT THE SCOPE OR INTENT OF ANY PART OF THE DRAWINGS, OR OF THE DRAWINGS AND SPECIFICATIONS AS A WHOLE. THE FACT THAT THE DRAWINGS ARE SEPARATED IN NO WAY SUGGESTS THAT THE WORK IS NOT TO BE CONSTRUCTED AS A COMPLETE, INTEGRATED AND UNIFIED WHOLE.
- 6. THE DRAWINGS AND SPECIFICATIONS, INCLUDING DRAWINGS PREPARED BY SPECIFIC ENGINEERING DISCIPLINES (SUCH AS CIVIL, STRUCTURAL, MECHANICAL, ELECTRICAL, ETC.) ARE COMPLEMENTARY; ITEMS SHOWN IN ANY ONE LOCATION IN THE DRAWINGS SHALL BE CONSIDERED TO BE REQUIREMENTS OF THE CONTRACT FOR CONSTRUCTION. IN THE EVENT OF AN INCONSISTENCY BETWEEN THE DRAWINGS AND SPECIFICATIONS, OR WITHIN EITHER DOCUMENT, THE CONTRACTOR SHALL SEEK CLARIFICATION OR INTERPRETATION FROM THE ARCHITECT PRIOR TO BIDDING. WHERE INCONSISTENCIES ARE NOT CLARIFIED PRIOR TO BIDDING, AND WHERE THE ACTUAL SOLUTION OR INTENT CANNOT BE REASONABLY INFERRED, THE CONTRACTOR SHALL PROVIDE THE BETTER QUALITY OR GREATER QUANTITY OF WORK.
- 7. USE OF THE WORD "VERIFY" POINTS OUT A SITUATION WHICH MUST BE CONFIRMED PRIOR TO PROCEEDING WITH THE WORK FABRICATION OF EQUIPMENT, OR ORDERING MATERIAL. NOTIFY THE ARCHITECT OF ANY DISCREPANCY

- 8. THE FIRE SPRINKLER SYSTEM WILL BE DESIGNED BY THE INSTALLING SUB CONTRACTOR. THE GENERAL CONTRACTOR SHALL COORDINATE LAYOUT. CLEARANCES. AND LOCATION OF HEAD HEIGHTS WITH THE STRUCTURE, MECHANICAL DUCTWORK, ELECTRICAL LIGHTING, DRAINAGE PIPING, AND THE ARCHITECTURAL REFLECTED CEILING PLANS. THE SPRINKLER DESIGN MUST BE COORDINATED WITH THE PROVISIONS OF ALL ENGINEERING AND ARCHITECTURAL DOCUMENTS SHOULD NOT RELY SOLELY ON ONE SERIES OF DRAWINGS OR ONE DISCIPLINE. SPRINKLER SYSTEMS LOCATED IN UNHEATED SPACES SHALL BE A DRY PIPE SYSTEM UNLESS NOTED OTHERWISE.
- ARCHITECTURAL, MECHANICAL, AND ELECTRICAL DRAWINGS SHOW WHERE EXPOSED DUCTWORK IS TO BE INSTALLED AT A SPECIFIC ELEVATION IN A CONTROLLED PATTERN. THE CONTRACTOR MUST RELY ON ALL OF THESE DISCIPLINES TO COMPLETE THE WORK AND SHOULD NOTIFY THE ARCHITECT OF ANY DISCREPANCIES.
- 10. THE GENERAL CONTRACTOR SHALL COORDINATE THE WORK OF ALL TRADES INSTALLING THEIR RESPECTIVE EQUIPMENT IN THE CEILING PLENUMS. MECHANICAL, ELECTRICAL, STRUCTURAL, AND FIRE SPRINKLER SYSTEMS ALL SHARE THIS SAME SPACE. EACH SUB CONTRACTOR IS TO REVIEW THE REQUIREMENTS OF THEIR WORK WITH THE AWARENESS OF THE OTHER TRADES THAT NEED TO SHARE THESE SPACES MUST NOT ASSUME THAT THEIR INSTALLATION HAS BEEN CONSIDERED IN THE DESIGN AND SHOP DRAWINGS OF THE OTHER TRADES.
- 11. THE GENERAL CONTRACTOR SHALL BE RESPONSIBLE FOR NOTIFYING THE ARCHITECT IMMEDIATELY SHOULD ANY DISCREPANCIES BE FOUND IN THE DRAWINGS AND SPECIFICATIONS.
- 12. THE GENERAL CONTRACTOR IS RESPONSIBLE FOR CHECKING ALL FIELD CONDITIONS AND DIMENSIONS AS THEY RELATE TO THIS PROJECT. SHOULD DISCREPANCIES EXIST BETWEEN THE WORK INDICATED AND ACTUAL FIELD CONDITIONS NOTIFY THE ARCHITECT PRIOR TO PROCEEDING WITH THE WORK.
- 13. DO NOT SCALE THE DRAWINGS. DRAWING SCALES AS INDICATED ARE FOR REFERENCE ONLY AND ARE NOT INTENDED TO ACCURATELY DEPICT ACTUAL OR DESIGNATED CONDITIONS. WRITTEN DIMENSIONS SHALL GOVERN.
- 14. ALL DIMENSIONS INDICATED ARE TO FACES OF CMU/STUD/STRUCTURAL MATERIALS OR COLUMN GRID LINES UNLESS NOTED OTHERWISE. MASONRY DIMENSIONS ARE MODULAR IN THAT THEY INCLUDE THE GROUT JOINT. ROUGH OPENINGS ALLOW FOR SHIM SPACE.
- 15. REFER TO THE ARCHITECTURAL REFLECTED CEILING PLAN FOR EXACT LOCATIONS OF ALL CEILING FIXTURES. REFER TO MECHANICAL AND ELECTRICAL DRAWINGS FOR COMPLETE CONSTRUCTION REQUIREMENTS.
- 16. THE TERM "ALIGN" REFERS TO LOCATING DIFFERENT COMPONENTS OF CONSTRUCTION TO PROVIDE A FLUSH FINISH SURFACE.
- 17. CONTRACTOR SHALL LAY OUT ALL PARTITIONS PER THE DIMENSIONS SHOWN ON THE PLAN. VERIFY PARTITION LAYOUT WITH EXISTING WINDOWS, COLUMNS, DOORS, EQUIPMENT AND CEILING SYSTEMS. NOTIFY THE ARCHITECT OF ANY DISCREPANCIES PRIOR TO STARTING CONSTRUCTION.

CONSTRUCTION NOTES

- 1. TOP OF CONCRETE FIRST FLOOR SLAB IS ASSUMED AT EL. 100'-0 (ELEVATION 100'-0 EQUATES TO USGS DATUM ELEVATION OF XXXX.XX').
- 2. METAL STUD PARTITIONS SHALL BE OF SUFFICIENT WIDTH TO ADEQUATELY ENCLOSE PIPING, CONDUITS, AND RECESSED EQUIPMENT.
- PROVIDE PLUMBING CLEANOUTS IN PARTITIONS AS NECESSARY. COORDINATE ALL WALL LOCATIONS AND PLACEMENT OF COVER PLATES WITH ARCHITECT IN FIELD OR VIA SHOP DRAWINGS.
- 4. PROVIDE BLOCKING WITHIN PARTITIONS AT ALL LOCATIONS WHERE ITEMS WILL BE MOUNTED ON PARTITIONS.
- 5. PROVIDE GYPSUM BOARD CONTROL JOINTS IN PARTITIONS AND CEILINGS AT 30'-0" MAX. SPACING. COORDINATE TO MEET FIRE RESISTIVE RATINGS OF THE ASSEMBLY, FIRESTOP JOINTS AT RATED PARTITIONS.
- 6. WALL, CEILING, BASE, AND FLOOR FINISHES ARE TO BE PROVIDED IN EVERY ROOM UNLESS THE DRAWINGS SPECIFICALLY INDICATE THAT A ROOM OR PORTION THEREOF IS TO REMAIN "UNFINISHED." IF ROOM FINISHES ARE NOT SPECIFICALLY INDICATED, PROVIDE THE SAME FINISHES AS ARE PROVIDED IN THE ROOM ADJACENT TO THE ROOM IN QUESTION, OR OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO BIDDING.
- 7. WHERE MECHANICAL WORK PENETRATES ANY COMPONENT OF THE FIRE-RATED ASSEMBLY, PROVIDE THE APPROPRIATE FIRE AND/OR SMOKE DAMPERS. IF IT IS NOT CLEAR WHETHER DUCTWORK PENETRATES A PORTION OF THE RATED ASSEMBLY, OBTAIN CLARIFICATION FROM THE ARCHITECT PRIOR TO BIDDING.

- 8. PROVIDE SEALANT AT ALL JOINTS OR CRACKS WHICH OCCUR WHERE DISSIMILAR MATERIALS INTERSECT PERPENDICULAR TO EACH OTHER. AND THE INTERSECTION IS EXPOSED TO VIEW. UNLESS INDICATED OTHERWISE ON THE DRAWINGS.
- 9. PAINT ALL EXPOSED STEEL UNLESS NOTED OTHERWISE.
- 10. ALL MATERIAL COLORS TO BE SUGGESTED BY ARCHITECT, UNLESS NOTED OTHERWISE.
- 11. PROVIDE FIRE-RETARDANT WOOD WHEREVER WOOD BLOCKING IS SHOWN ON THE DRAWINGS.
- **12. PROVIDE SLIP JOINT CONNECTIONS AT ALL** PARTITIONS THAT EXTEND TO STRUCTURE ABOVE. ALL PARTITIONS TO SUPPORT LATERAL LOADS OF NOT LESS THAN 5#/SF. PROVIDE BRACING ABOVE AS REQUIRED.
- 13. WHERE DOORS IN PARTITIONS ARE NOT DIMENSIONALLY LOCATED ON THE PLANS PROVIDE A MINIMUM HINGE SIDE JAMB DIMENSION OF 6" FROM DOOR OPENING TO ADJACENT PERPENDICULAR WALL.
- 14. PROPOSED CONSTRUCTION SHALL LINE UP WITH AND MATCH EXISTING WORK EXCEPT WHERE OTHERWISE DETAILED OR DIMENSIONED.
- 15. SEAL AROUND ALL PENETRATIONS THROUGH EXISTING AND PROPOSED FIRE RATED PARTITIONS. PROVIDE UL APPROVED FIRESTOP SYSTEM TO MEET REQUIRED RATING.



Minimum Egress Width

CODE ANALYSIS Louisville Fire Department Station 1

Louisville, Colorado

APPLICABLE CODES AND DESIGN CRITERIA:

2023 National Electrical Code (NEC) 2021 International Energy Conservation Code (IECC) 2018 International Building Code (IBC) 2018 International Plumbing Code (IPC) 2018 International Mechanical Code (IMC)

1

PROJECT DESCRIPTION:

Interior renovation of the Louisville Fire Department Station 1. The Louisville Fire Department Station 1 is a two-story, 13,512 GSF building. The building consists of "B", "A-3", "S-1", and "R-2" occupancy. The building construction type is Type II-B, non-separated.

| TOPIC | IBC REFERENCE | REQUIREMENT | accordance and an em | ergency voice/ala | nstalled in 3.3.1.1 or 903.3.1 arm communicatic Section 907.5.2.2. |
|--|-------------------|--|--|--------------------------|---|
| BUILDING: Currently designed a | | | | | Section 907.5.2.2. |
| Occupancy Classification | Section 302.1 | Group B, A-3, S-1, R-2 | | Occupant Load | |
| Occupancy Separations | Table 508.3.1.3 | None | Occupancy Load | | |
| Construction Type | Table 503 | Туре IIB | "B" 21 | | |
| Allowable Height and Building Areas | Table 503 | Base on A-3, most restrictive 2 Stories Maximum 9,500 SF (per Story) | Total 21 Plumbing Fixtures Table 2902.1 | | |
| GENERAL INFORMATION: | | | WC Count | | |
| Incidental Use Areas | Table 509.1 | Storage rooms over 100 square feet do not need to be | | Total <u>Required</u> | Total <u>Provided</u> |
| | | provided with a 1-hour separation if an automatic fire- extinguishing system is provided. They shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. | "B" 21 Male 11 (1 per 25 first 50) + 1 per 50 remaining Female 10 (1 per 25 first 50) + 1 per 50 remaining | | 2 2 |
| | | | Lavatory Count | | |
| | | Furnace Rooms where any piece of equipment is over 400,000 Btu per hour input. Provide 1 hour separation or automatic sprinkler system (provided). | "B" 21 Male 11 (1 per 40 first 80) + 1 per 80 remaining Female 10 (1 per 40 first 80) + 1 per 80 remaining | | 2 2 |
| Allowable Areas of Exterior Wall Openings Based on Fire Speration Distance and Degree of | Table 705.8 n | 0' < 3' Unprotected, Sprinklered, Not Permitted 3' < 5' Unprotected, Sprinklered, 15% 5' < 10' Unprotected, Sprinklered, 25% | <u>Unisex Toilet</u> <u>Drinking Fountains</u> | 0 | 3 |
| Opening Protection | | | "B" 21 1 (1 per 100) = | 1 | 1 |
| Fire Resistant Rating Glazing | Section 716.1.2.3 | Fire-resistance-rated glazing tested as part of a fire resistance-rate wall or floor ceiling assembly in | Service Sinks | | |
| | | accordance with ASTM E119 or UL 263 and labeled in accordance with Section 703.6 shall not otherwise be required to comply with this section where used as part of a wall or floor/ceiling assembly. Fire-resistance-rated | "B" 21 1 (1 Service sink) = | 1 | 1 |
| | | glazing shall be permitted in fire door and fire window assemblies where tested and installed in accordance with their listings and where in compliance with the requirements of this section | Notes: 1. Individual room occupancy calculations figured per Table 1 Allowances Per Occupant" for individual spaces. Spaces listed is the general use occupancy for plumbing fixtures c | are then groups f | or occupancy |
| Marking Fire-Rated Glazing | Table 716.1(1) | W, Meets Wall Assembly Criteria | "Minimum Number of Required Plumbing Fixtures. 2. Urinal substitution does not exceed 67% of the water closed | t requirement (IP | C Section 419.2) |
| Fire Alarm and Detection Systems | s Section 907.2.2 | Manual Fire Alarm boxes are not required where an automatic sprinkler system and notification appliances are installed throughout. | | | |
| Minimum Clear Height | Section 1003.2 | The means of egress shall have a ceiling height of no less than 7'-6" (90") above finish floor | | | |
| Headroom | Section 1003.3.1 | Protruding objects are permitted to extend below min ceiling height with a minimum headroom of 80" vertical. | | | |
| Maximum Common Path of Trave for Single Exits | I Table 1006.2.1 | Spaces with One Exit Access Group B: 100 FT | | | |
| Minimum Number of Exits | Table 1006.3.3 | 2 Exits Required First Story (Occupant load 1-499 (persons per story)) | | | |
| Exit Doorway Arrangement | Section 1007.1.1 | Where a building is equipped with an automatic sprinkler, the seperation distance shall be not less than one-third the length of maximum overall diagonal dimension of the area served. See GI101. | | | |
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The capacity, in inches, of means of egress

components other than stairways shall be

calculated by multiplying the occupant load

served by such component by a means of

egress capacity factor of 0.2 in per occupant.

Exception 1: For other than Group H and I-2 occupancies, the capacity, in inches, of means

of egress components other than stairways shall

egress capacity factor of 0.15 inch per occupant

in buildings equipped throughout with an

automatic sprinkler system installed in

be calculated by multiplying the occupant load served by such component by a means of

<u>ROOM OCCUPA</u> ROOM NO. NET AREA OCCUPANCY **ROOM NAME** FIRST FLOOR 120 VESTIBULE 236 SF BUSINESS A В 236 SF SECOND FLOOR - TRAINING 220 FITNESS 840 SF EXERCISE R В 840 SF SECOND FLOOR 219 ADMIN 238 SF BUSINESS A В 238 SF 1315 SF Grand total

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NOTE: THIS TABLE REFLECTS ONLY THE ROOMS THAT HAVE CHANGED IN OCCUPA

Section 1005.3.2

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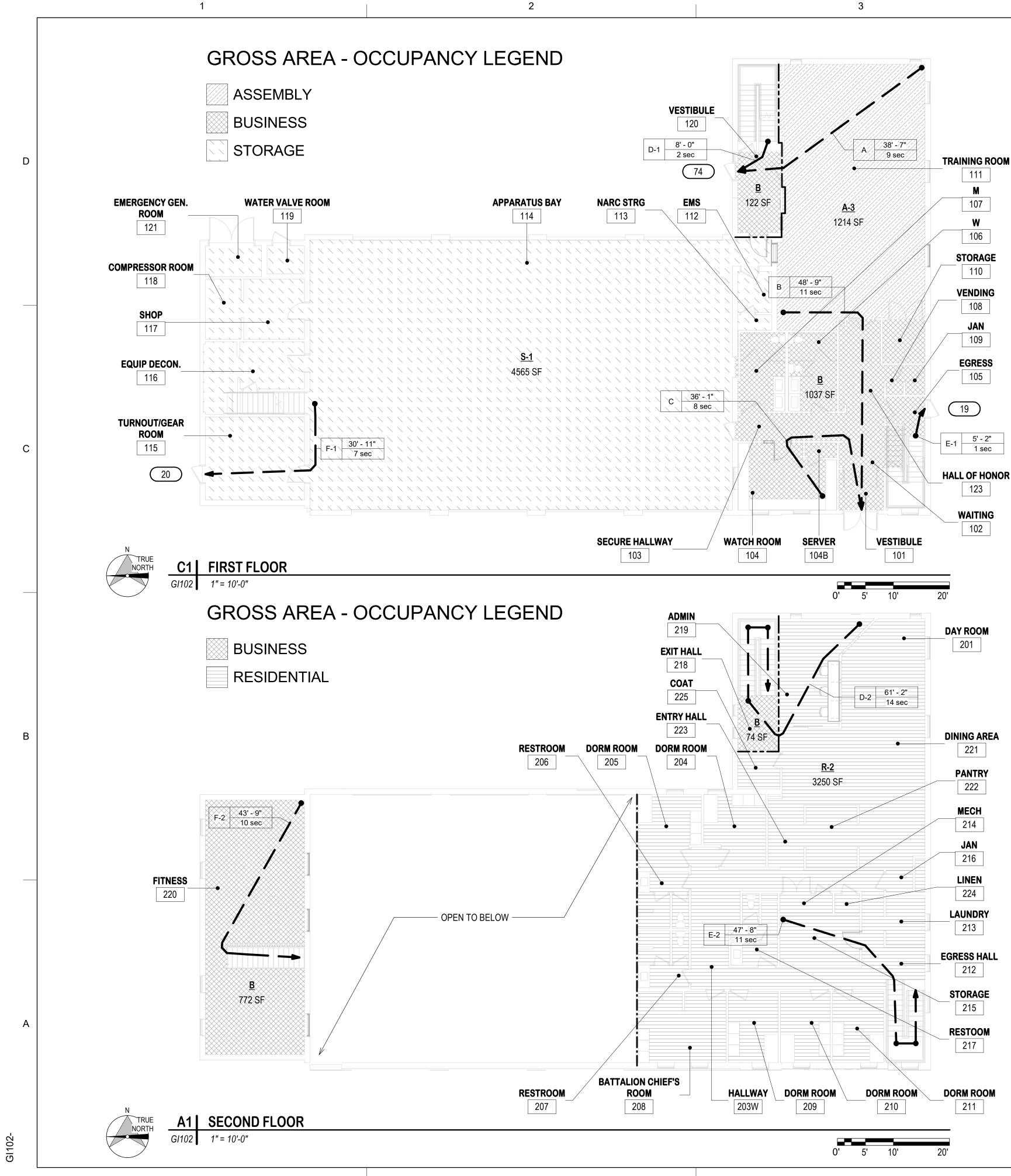
LOUISVILLE FIRE PROTECTION DISTRICT LOUISVILLE FIRE STATION 1 - RENOVATION 1240 MAIN ST, LOUISVILLE, CO 80027 CODE ANALYSIS

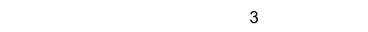
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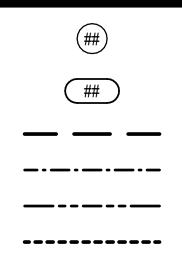






D4 TRAINING ROOM 111

<u>CODE ANALYSIS LEGEND</u>



OCCUPANCY LOAD

EGRESS LOAD

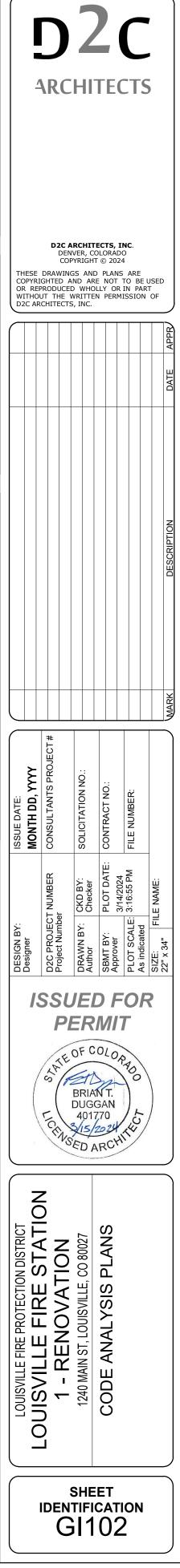
EGRESS PATH

1 HR FIRE RATED PARTITION

2 HR FIRE RATED PARTITION SMOKE RESISTIVE PARTITION PER INCIDENTAL USE REQ.

| PATH OF TRAVEL | | | | | |
|----------------|---|--|--|--|--|
| LENGTH | LEVEL | | | | |
| 38'-7" | FIRST FLOOR | | | | |
| 48'-9" | FIRST FLOOR | | | | |
| 36'-1" | FIRST FLOOR | | | | |
| 8'-0" | FIRST FLOOR | | | | |
| 61'-2" | SECOND FLOOR | | | | |
| 5'-2" | FIRST FLOOR | | | | |
| 47'-8" | SECOND FLOOR | | | | |
| 30'-11" | FIRST FLOOR | | | | |
| 43'-9" | SECOND FLOOR | | | | |
| | 38'-7" 48'-9" 36'-1" 8'-0" 61'-2" 5'-2" 47'-8" 30'-11" | | | | |

| <u>Area Schedi</u> | ile (Building Code Analysis) |
|---------------------------|------------------------------|
| IBC Occupancy Function | Area |
| ASSEMBLY | 1214 SF |
| | 1214 SF |
| BUSINESS | 772 SF |
| BUSINESS | 74 SF |
| BUSINESS | 1037 SF |
| BUSINESS | 122 SF |
| | 2004 SF |
| RESIDENTIAL | 3250 SF |
| | 3250 SF |
| STORAGE | 4565 SF |
| | 4565 SF |
| Grand total | 11032 SF |



| | | 1 | | | 2 |
|--------|----------|--------------|---|----------------|---|
| | | ARCH | ITECTURAL ABBREVIA | TIONS | |
| | | | | | |
| | | A/C ACOUS | AIR CONDITIONING ACOUSTICAL | FA FAAP | FIRE ALARM FIRE ALARM ANNUNCIATOR PANEL |
| | | ACT | ACOUSTICAL CEILING TILE | FACP | FIRE ALARM CONTROL PANEL |
| | | AD ADA | AREA DRAIN AMERICANS WITH | FCU FD | FAN COIL UNIT FLOOR DRAIN |
| | | ADA | DISABILITIES ACT | FD | FOUNDATION |
| | | A&E | ARCHITECT AND ENGINEERS | FE | FIRE EXTINGUISHER |
| | | AFF AFG | ABOVE FINISH FLOOR ABOVE FINISHED GRADE | FEC FF | FIRE EXTINGUISHER CABINET FINISH FLOOR |
| D | | AHJ | AUTHORITIES HAVING | FF & E | FURNITURE FIXTURES & EQUIPMENT |
| D | | A 1 11 1 | | FIN | FINISH |
| | | AHU ALT | AIR HANDLING UNIT ALTERNATIVE | FIXT FL | FIXTURE FLOW LINE |
| | | ALT TRAN | | FLR | FLOOR |
| | | ALUM ANOD | ALUMINUM ANODIZED | FLUOR FO | FLUORESCENT FINISH OPENING |
| | | | APPROXIMATE | FOS | FACE OF STUD |
| | | ARCH AVG | ARCHITECTURAL AVERAGE | FR FSP | FIRE RATED FIRE STANDPIPE |
| | | AVG | AVERAGE | FT | FOOT / FEET |
| | | BB | BULLETIN BOARD | FTG | FOOTING |
| | | BD BG | BOARD BUMPER GUARD | FURR FV | FURRING FIELD VERIFY |
| | | BLDG | BUILDING | FVC | FIRE VALVE CABINET |
| | | BLKG BM | BLOCKING BEAM | FWC | FABRIC WALLCOVERING |
| | | BO | BOTTOM OF | GA | GAUGE |
| | | BRG | BEARING | GALV | GALVANIZED |
| | | СВ | CATCH BASIN | GB GC | GRAB BAR GENERAL CONTRACTOR |
| | | CBB | CEMENTITIOUS BACKER | GD | GARBAGE DISPOSAL |
| | | CER | BOARD CERAMIC | GF CMU GFCI | GROUND FACE CMU GROUND FAULT CIRCUIT |
| | | CF | CUBIC FEET | GIGI | INTERRUPTER |
| 0 | | CFCI | CONTRACTOR FURNISH | GI | GALVANIZED IRON |
| С | | CFM | CONTRACTOR INSTALL CUBIC FEET PER MINUTE | GL GL BLK | GLASS GLASS BLOCK |
| | | CG | CORNER GUARD, CEILING | GLU LAM | GLUE LAMINATED WOOD |
| | | C & G | GRILLE CURB & GUTTER | GND GT | GROUND GROUT |
| | | Cl | CAST IRON | | GYPSUM BOARD |
| | | CIP | | | |
| | | CJ CL | CONTROL JOINT CENTERLINE | HAZ MAT HB | HAZARDOUS MATERIALS HOSE BIB |
| | | CLG | CEILING | HC | HOLLOW CORE |
| | | CMP CMU | CORRUGATED METAL PIPE CONCRETE MASONRY UNITS | HCP HDR | HANDICAPPED HEADER |
| | | CO | CLEANOUT(S) | HDW | HARDWARE |
| | | COL | COLUMN | HDWD | HARDWOOD |
| | | CONC CONT | CONCRETE CONTINUOUS | HGT HM | HEIGHT HOLLOW METAL |
| | | COORD | COORDINATE | HORIZ | HORIZONTAL |
| | | CP CPT | CONCRETE PIPE CARPET | HR HT | HOUR, HANDRAIL HEIGHT |
| | | CRS | COLD ROLLED STEEL | HVAC | HEATING, VENTILATING & AIR |
| | | CS | CAST STONE CONCRETE SPLASH BLOCK | | CONDITIONING |
| | | CSB CSI | CONSTRUCTION | IBC | INTERNATIONAL BUILDING CODE |
| | | 0T | SPECIFICATIONS INSTITUTE | ID | |
| _ | | CT CTR | CERAMIC TILE CENTER | IG IN | INSULATING GLASS |
| В | | CU FT | CUBIC FEET | INCAN | INCANDESCENT |
| | | CUH CY | CABINET UNIT HEATER CUBIC YARD | INFO INSUL | INFORMATION INSULATION |
| | | | | INT | INTERIOR |
| | | D DEG | DRYER DEGREE | INV ITG | INVERT INSULATED TEMPERED GLASS |
| | | DEMO | DEMOLITION | 110 | INSULATED TEMPERED GLASS |
| | | DEPT DET | | | |
| | | DET DF | DETAIL DRINKING FOUNTAIN | J-BOX JT | JUNCTION BOX JOINT |
| | | DIA | DIAMETER | | |
| | | DIAG DISP | DIAGONAL DISPENSER | L LAV | LONG LAVATORY |
| | | DIV | DIVISION | LB(S) # | POUND(S) |
| | | DN DR | DOWN DOOR | LF LLV | LINEAL FEET LONG LEG VERTICAL |
| | | DS | DOWNSPOUT | LT | LIGHT |
| | | DW | DISHWASHER | LVR | LOUVER |
| | | DWG | DRAWING | M & BH | MOP AND BROOM HOLDER |
| | | E | EAST | MAINT | MAINTENANCE |
| | | (E) EA | EXISTING EACH | MATL MAX | MATERIAL MAXIMUM |
| | | EF | EXHAUST FAN | MB | MARKER BOARD |
| ^ | | EIFS | EXTERIOR INSULATION AND FINISH SYSTEM | MECH MEPF | MECHANICAL MECHANICAL, ELECTRICAL, PLUMBING, |
| A | | EJ | EXPANSION JOINT | IVILI I | FIRE PROTECTION (CONDUIT) |
| | | EL | ELEVATION | MFR | MANUFACTURER |
| | | ELEC ELEV | ELECTRICAL ELEVATOR | MH MIN | MANHOLE MINIMUM |
| | | EQ | EQUAL | MIRR | MIRROR |
| | | EQUIP EST | EQUIPMENT ESTIMATED | MISC MO | MISCELLANEOUS MASONRY OPENING |
| | | ETS | EXPOSED TO STRUCTURE | MSB | MOP SERVICE BASIN |
| | | EWC EXH | ELECTRIC WATER COOLER EXHAUST | MTD MTL | MOUNTED METAL |
| | | EXH | EXISTING | IVI I L | |
| Í K | | EXP | EXPANSION | | |
| ľ | _ | EXT | EXTERIOR | | |

8

| N I | |
|--|---|
| N NA | NORTH NOT APPLICABLE |
| NECY | NECESSARY NOT IN CONTRACT |
| NO NOM | NUMBER NOMINAL |
| NTS | NOT TO SCALE |
| OC OD | ON CENTER OUTSIDE DIAMETER, |
| OFCI | OVERFLOW DRAIN OWNER FURNISHED CONTRACTOR INSTALLED |
| OFOI | OWNER FURNISHED OWNER INSTALLED |
| OH OPN | OPPOSITE HAND OPENING |
| OPP ORD | OPPOSITE OVERFLOW ROOF DRAIN |
| P | PLASTIC |
| PARTN PBD | PARTITION PARTICLE BOARD |
| PCC PL | PRECAST CONCRETE PLATE |
| PLAM PLAS | PLASTIC LAMINATE PLASTER |
| PLYWD PR | PLYWOOD PAIR |
| | PRECAST PREFABRICATED |
| PROP | PROPERTY POUNDS PER SQUARE FOOT |
| | POUNDS PER SQUARE INCH PAINT |
| | POST-TENSIONED CONCRETE PAPER TOWEL DISPENSER |
| | PAPER TOWEL DISPENSER PORCELAIN TILE POLYVINYL CHLORIDE |
| QA QT | QUALITY ASSURANCE QUARRY TILE |
| R | R-VALUE (INSULATION), |
| | RADIUS, RISER RESILIENT BASE |
| RD | REFLECTED CEILING PLAN ROOF DRAIN |
| RE . | |
| REBAR | REFERENCE REINFORCING BAR |
| REBAR REC RECPT | REFERENCE REINFORCING BAR RECESSED RECEPTACLE |
| REBAR REC RECPT REF REG | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER |
| REBAR REC RECPT REF REG REINF REQD | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED |
| REBAR REC RECPT REF REG REINF REQD RESIL REV | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH |
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| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAT SB | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL TILE SPLASHBLOCK |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAF SAF SAF SAT SB SC SCHED | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAP SAT SB SC SCHED SCP SD | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAF SAF SAF SAF SAF SAF S | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SEALER SECTION SQUARE FOOT |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S S SAF SAF SAF SAF SAF SAF SAF SAF SAF | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SECTION SQUARE FOOT SPLIT-FACE CMU |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAF SAF SAF SAF SAF SAF S | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SECTION SQUARE FOOT SPLIT-FACE CMU SHOWER SHEET |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAP SAF SAP SAT SB SC SCHED SCP SD SEAL SECT SF CMU SHWR SHT SHTG SIM | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SECTION SQUARE FOOT SPLIT-FACE CMU SHOWER SHEET SHEATHING SIMILAR |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAF SAF SAF SAF SAF SAF S | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SECTION SQUARE FOOT SPLIT-FACE CMU SHOWER SHEET SHEATHING SIMILAR SHORT LEG VERTICAL SANITARY NAPKIN DISPOSER |
| REBAR REC RECPT REF REG REINF REQD RESIL REV RH RM RO RT S SAF SAF SAF SAF SAF SAF SAF SAF SAF S | REFERENCE REINFORCING BAR RECESSED RECEPTACLE REFRIGERATOR REGISTER REINFORCE REQUIRED RESILIENT REVISION ROOF HATCH ROOM ROUGH OPENING RUBBER STAIR TREAD SOUTH SEAMLESS ACRYLIC FLOORING SUSPENDED ACOUSTICAL PANELS SUSPENDED ACOUSTICAL TILE SPLASHBLOCK SEALED CONCRETE, SOLID CORE SCHEDULE SCUPPER SOAP DISPENSER SEALER SEALER SECTION SQUARE FOOT SPLIT-FACE CMU SHOWER SHEET SHEATHING SIMILAR SHORT LEG VERTICAL SANITARY NAPKIN DISPOSER SANITARY NAPKIN VENDOR SPECIFICATIONS |

STL

STOR

SUSP

SYM

SYS

SV

STRUC

STEEL

STORAGE

STRUCTURAL

SUSPENDED

SHEET VINYL

SYSTEM

SYMMETRICAL

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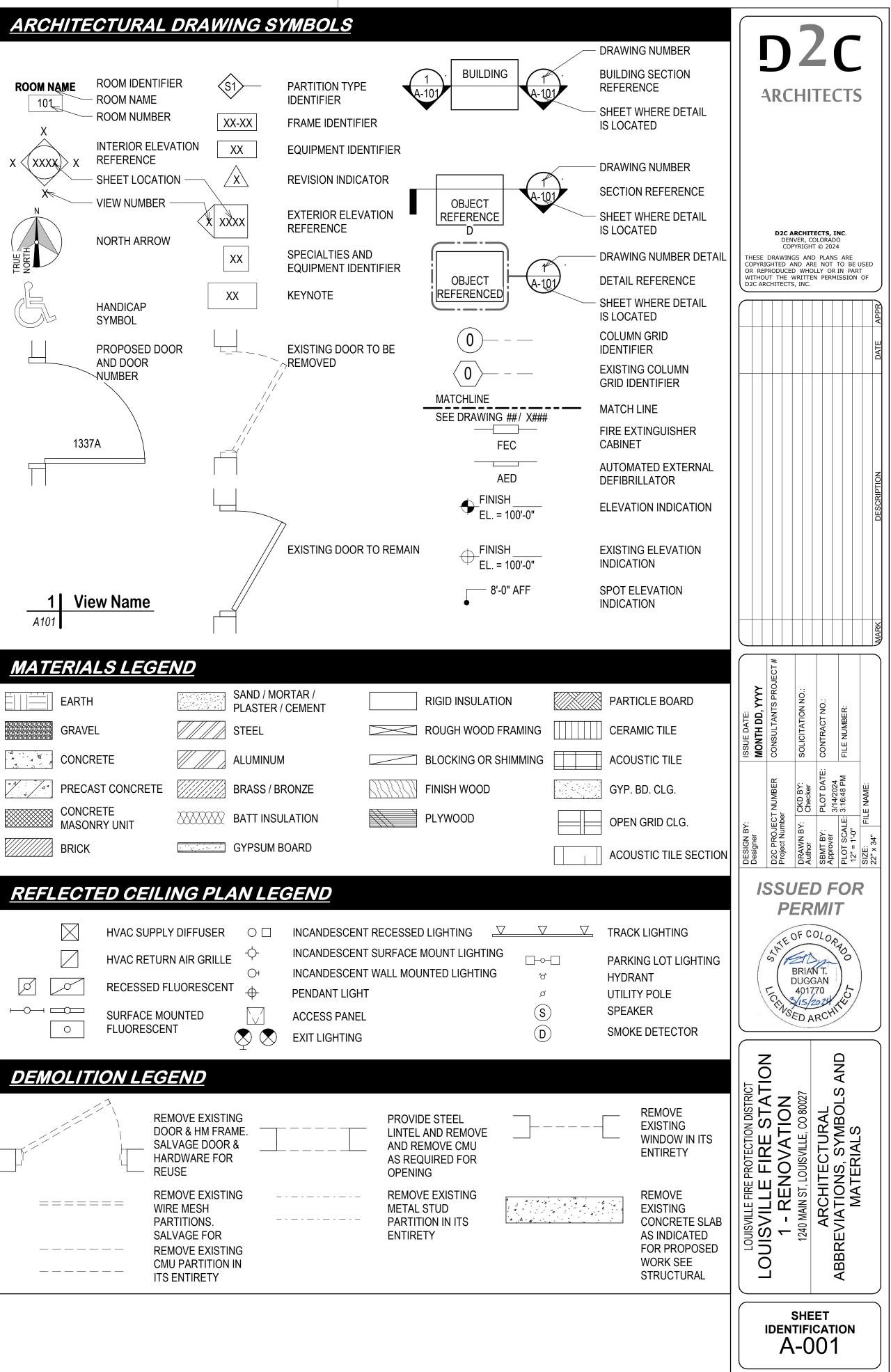
T&B TOP AND BOTTOM T&G TONGUE AND GROOVE TBD TO BE DETERMINED TD TUBULAR DAYLIGHTING DEVICE TEL TELEPHONE TEMP TEMPERATURE ΤG TEMPERED GLASS, **TONGUE & GROOVE** TRANSFER GRILLE THRU THROUGH ΤO TOP OF TOC TOP OF CONCRETE TOM TOP OF MASONRY TOS TOP OF STEEL TOW TOP OF WALL TTD TOILET TISSUE DISPENSER ΤV TELEVISION TYP TYPICAL UGND UNDERGROUND UNDERWRITERS LABORATORY UL UNFIN UNFINISHED UNO UNLESS NOTED OTHERWISE URN URINAL VB VINYL WALL BASE VCT VINYL COMPOSITION TILE VERT VERTICAL VIF VERIFY IN FIELD VTR VENT THROUGH ROOF VWC VINYL WALL COVERING WEST W/ WITH W/O WITHOUT WC WATER CLOSET WD WOOD WDP WOOD PANELING WDW WINDOW WF WIDE FLANGE WGL WIRED GLASS WH WATER HEATER WR WASTE RECEPTACLE, WATER RESISTANT WATER STOP WS WSCT WAINSCOT WT WEIGHT WWF WELDED WIRE FABRIC

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ΤB

TREAD, TEMPERED

TACKBOARD





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|--------------|------------------|--------------|---|---|--|--|
| PA | <u>RTITION T</u> | YPES | | PARTITION TYPE SUFFIX | | |
| TYPE | GRAPHIC SYMBOL | CONSTRUCTION | DESCRIPTION | A. 1 1/2" SOUND ATTENUATION BLANKET FLOOR TO CEILING. WHERE PARTITION MEETS CEILING SYSTEM PROVIDE 1 1/2" SOUND | | |
| (S1) | | <u> </u> | 3 5/8" Metal Studs @ 16" O.C. 5/8" Gypsum Wallboard | ATTENUATION BLANKET ABOVE CEILING 2'-0" EACH SIDE OF PARTITION. SEE ACOUSTICAL PARTITION HEAD. B. PROVIDE 3 1/2" BATT INSULATION FLOOR TO CEILING/STRUCTURE. | | |
| S2 | | | 5/8" Gypsum Wallboard 3 5/8" Metal Studs @ 16" O.C. 5/8" Gypsum Wallboard | C. PROVIDE 20 GA. METAL STUDS @ 16" O.C. D. PROVIDE 5/8" CEMENT BACKER BOARD AT CERAMIC TILE WITH 5/8" WATER RESISTANT GYPSUM BOARD ABOVE. E. PROVIDE 6" 25 GA. METAL STUDS AT 16" O.C. | | |
| <u>(\$3)</u> | | | 5/8" Type X Gypsum Wallboard 5/8" Type X Gypsum Wallboard 3 5/8" Metal Studs @ 16" O.C. 5/8" Type X Gypsum Wallboard 5/8" Type X Gypsum Wallboard | F. PROVIDE 6" CONCRETE MASONRY UNITS. | | |

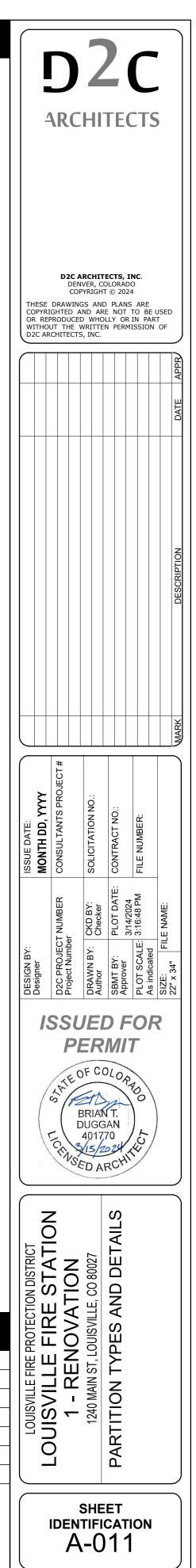
PARTITION TYPE NOTES

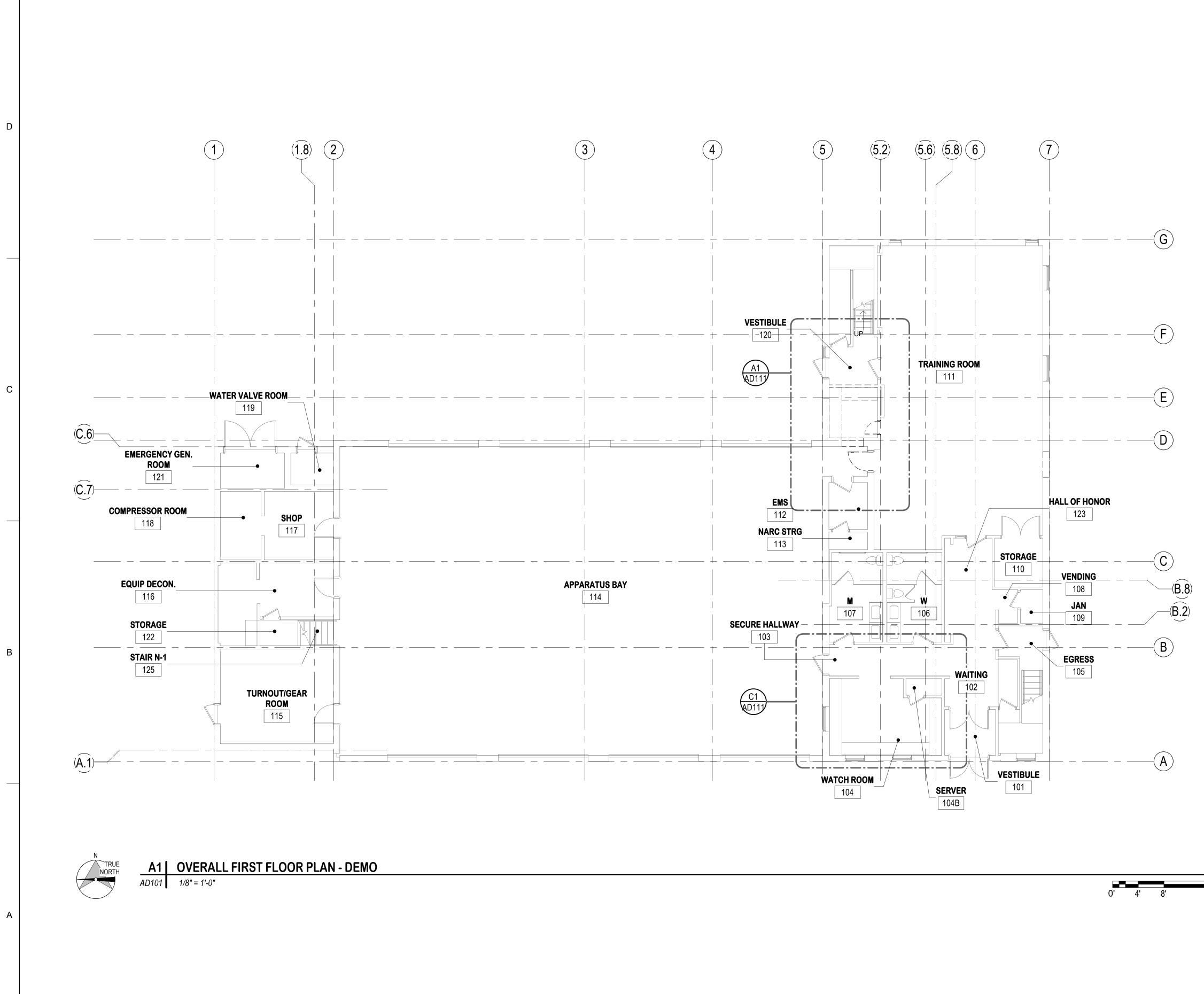
- DIMENSIONS SHOWN ON PLANS ARE FROM FINISH SURFACE TO FINISH SURFACE, MASONRY DIMENSIONS GIVEN ARE NOMINAL, "MO" (MASONRY OPENING) REFERS TO NOMINAL OPENINGS IN MASONRY UNIT CONSTRUCTION. "RO" (ROUGH OPENING) REFERS TO ACTUAL OPENINGS BETWEEN METAL STUDS IN METAL STUD CONSTRUCTION.
- 2. PARTITION TYPES ARE INDICATED ON THE FLOOR PLANS. NUMBERS REFER TO THE PARTITION TYPE. LETTERS INDICATE VARIATIONS TO THE BASE CONDITION DRAWN. UNMARKED PARTITIONS SHALL MATCH ADJACENT PARTITION TYPE.
- 3. ALL PARTITIONS SHALL EXTEND STRUCTURE TO STRUCTURE UNLESS OTHERWISE NOTED. REFER TO PARTITION HEAD DETAILS.
- 4. FIRE-RATED PARTITIONS AND SOUND ISOLATION PARTITIONS ARE INDICATED ON REFLECTED CEILING PLANS.
- 5. CONSTRUCTION OF FIRE-RATED PARTITIONS, INCLUDING TAPING AND FINISHING OF GYPSUM BOARD FOR FULL HEIGHT TO STRUCTURE ABOVE, SHALL BE IN ACCORDANCE WITH MANUFACTURERS DIRECTIONS TO ACHIEVE THE RATING INDICATED.
- 6. SOUND ISOLATION PARTITIONS SHALL BE SEALED AIRTIGHT FOR FULL HEIGHT TO PREVENT PASSAGE OF AIRBORNE SOUND. TAPE AND FINISH ALL GYPSUM BOARD JOINTS AND FASTENERS. PROVIDE SEALANT AT PERIMETER AND AT ALL PENETRATIONS.
- WHEREVER LENGTH OF MASONRY PARTITION EXCEEDS 8'-0" BETWEEN LATERAL SUPPORTS, INSTALL 3" x 3" x 0'-6" x 12 GAUGE FORMED STEEL ANGLES EACH SIDE AT 4'-0" O.C. MAX. ANCHOR EACH ANGLE TO STRUCTURE WITH TWO 1/8" X 15/16" DRIVE PINS. MASONRY SHALL STOP 1" FROM STRUCTURE, AND 1" SPACE SHALL BE FILLED WITH INCOMBUSTIBLE COMPRESSIBLE FILLER.
- 8. HOLLOW METAL FRAMES IN METAL STUD PARTITIONS SHALL HAVE 4 STUD ANCHORS PER JAMB MINIMUM FOR FRAME HEIGHT OF 7'-2" OR LESS, AND ONE ADDITIONAL ANCHOR PER JAMB FOR EACH ADDITIONAL 2'-0" OR FRACTION. HOLLOW METAL FRAMES IN MASONRY SHALL HAVE 3 MASONRY ANCHORS PER JAMB MINIMUM FOR FRAME HEIGHT OF 7'-4" OR LESS, AND ONE ADDITIONAL ANCHOR PER JAMB FOR EACH ADDITIONAL 2'-0" OR FRACTION. ALL HOLLOW METAL FRAMES SHALL HAVE ONE FLOOR CLIP PER JAMB, WITH TWO ANCHORS INTO FLOOR AT EACH FLOOR CLIP.
- 9. PROVIDE JOINT REINFORCEMENT IN ALL MASONRY PARTITIONS, CONTINUOUS HORIZONTALLY AND SPACED NOT OVER 16" ON CENTER VERTICALLY, BEGINNING WITH THE JOINT 8" ABOVE THE FLOOR AND IN THE FIRST AND SECOND JOINTS ABOVE AND BELOW OPENINGS EXTENDING NOT LESS THAN 24" BEYOND EACH SIDE OF THE OPENING.
- 10. PROVIDE FIRE-RETARDANT TREATED WOOD OR SHEET STEEL BLOCKING FOR PARTITION MOUNTED EQUIPMENT AND CASEWORK.
- 11. PARTITION TYPES DESCRIBE THE PRIMARY MEMBER AND SHEATHING. REFER TO FINISH SCHEDULE FOR ALL PARTITION FINISH DESIGNATIONS.
- 12. PROVIDE TYPE WR WATER RESISTANT GYPSUM BOARD IN ALL WET AREAS SUCH AS TOILET ROOMS, SHOWER ROOMS, KITCHENS AND AT EWC'S.
- 13. PROVIDE 5/8" CONCRETE BACKER BOARD AT ALL CERAMIC TILE FINISHES TO ALIGN WITH 5/8" TYPE WR GYPSUM BOARD ABOVE.
- 14. PROVIDE SLIP JOINT CONNECTIONS AT THE TOPS OF ALL PARTITIONS WHICH INTERSECT THE STRUCTURE ABOVE. PROVIDE FIRE SAFING AT ALL SLIP JOINT CONNECTIONS IN FIRE RATED PARTITIONS.
- 15. WHERE NOTED TO PROVIDE SOUND ISOLATION MATERIAL IN WALLS, PROVIDE A STRIP OF ISOLATION BLANKET ABOVE THE CONJOINING WALLS.
- 16. PROVIDE 16 GA. SHEET METAL BLOCKING WALL SHEATHING AT ALL WALL MOUNTED ITEMS AT STUD WALLS AND PARTITIONS. ITEMS SUCH AS SHOWER SEATS AND GRAB BARS ARE TO BE ABLE TO WITHSTAND A VERTICAL FORCE OF 250 LBS.

INTERIOR STUD SIZING GUIDE

| HEIGHT | 3 5/8" STUD | 6" STUD |
|----------|------------------|------------------|
| 12' WALL | 362S125-30 @ 16" | 600S125-30 @ 16" |
| 16' WALL | 362S162-43 @ 16" | 600S125-30 @ 16" |
| 20' WALL | 362S162-68 @ 12" | 600S125-33 @ 16" |
| 24' WALL | NA | 600S162-43 @ 16" |
| 28' WALL | NA | 600S162-54 @ 12" |
| | | |

NOTE: THESE STUD SIZES ARE FOR REFERENCE ONLY. PROVIDE SHOP DRAWINGS FOR PROPOSED WALLS REQUIRING ADDITIONAL STUD ENGINEERING DUE TO STUD HEIGHT. INCLUDE STUD SPACING, GAUGE AND HEIGHT INFORMATION. PROVIDE MANUFACTURERS INFORMATION FOR SELECTED PRODUCTS.





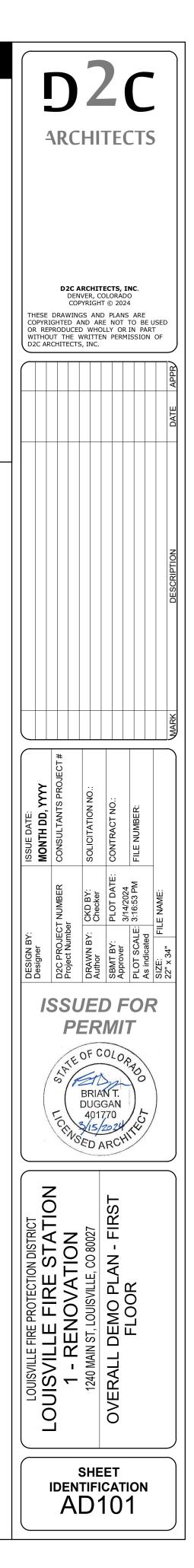
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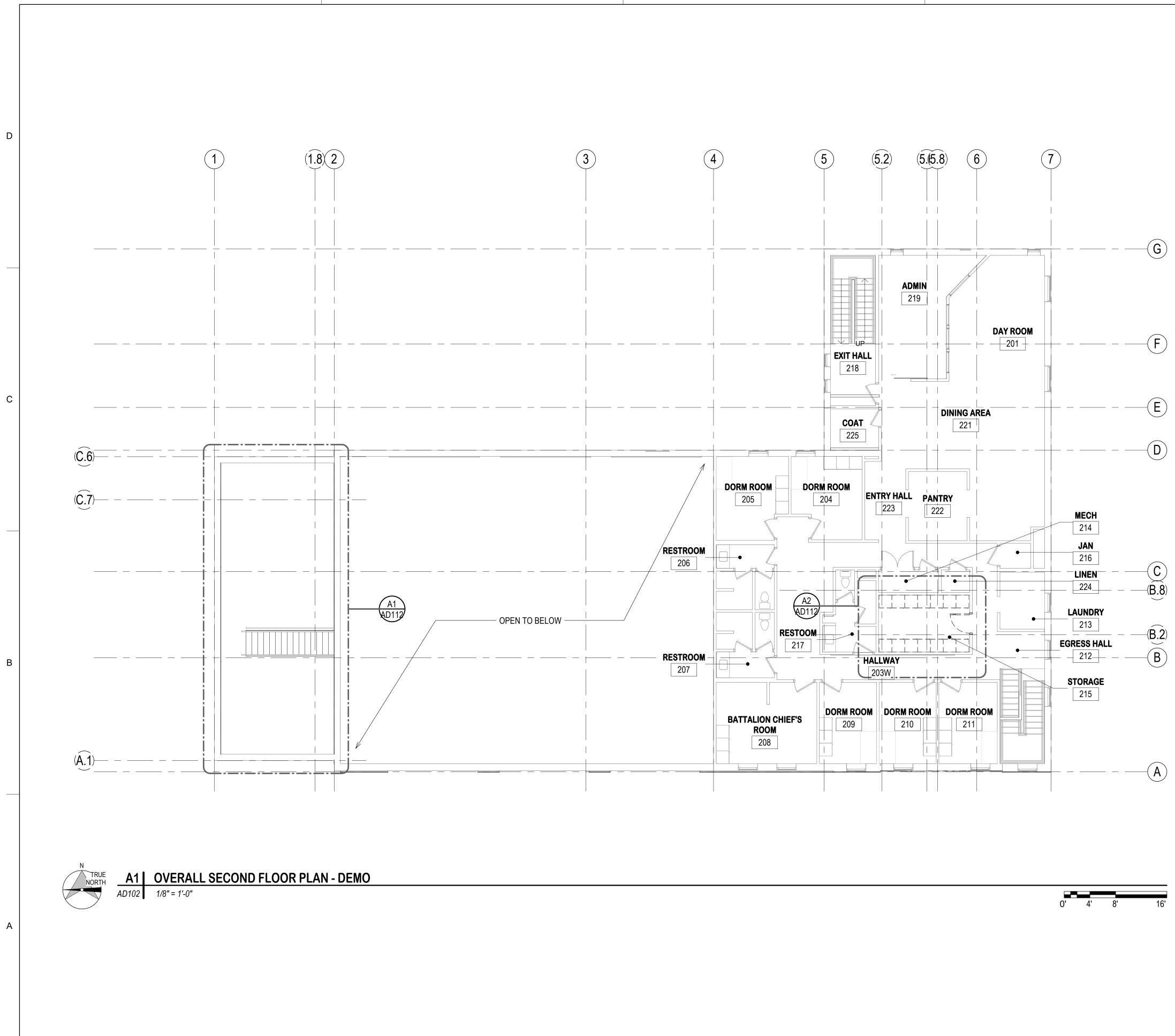
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DEMOLITION FLOOR PLAN NOTES

- VERIFICATION OF EXISTING CONDITIONS: IN AS MUCH AS THE REMODELING AND/OR REHABILITATION OF AN EXISTING BUILDING REQUIRES THAT CERTAIN ASSUMPTIONS BE MADE REGARDING EXISTING CONDITIONS, AND BECAUSE SOME OF THESE ASSUMPTIONS MAY NOT BE VERIFIABLE WITHOUT EXPENDING ADDITIONAL SUMS OF MONEY, OR DESTROYING OTHERWISE ADEQUATE OR SERVICEABLE PORTIONS OF THE BUILDING, THE ARCHITECT IS NOT RESPONSIBLE FOR CONDITIONS DISCOVERED DURING CONSTRUCTION WHICH DIFFER FROM THOSE INDICATED ON THESE DRAWINGS. THE CONTRACTOR, UPON MAKING SUCH A DISCOVERY, SHALL NOTIFY THE ARCHITECT IMMEDIATELY FOR GUIDANCE ON HOW TO PROCEED.
- 2. WHEN REMOVING CMU FROM A BEARING WALL, PROTECT THE FOOTING BELOW TO REMAIN.
- 3. REFER TO MECHANICAL, ELECTRICAL, PLUMBING AND STRUCTURAL FOR ALL CUT AND PATCH OF EXISTING CONCRETE SLAB.
- 4. REFER TO MECHANICAL, ELECTRICAL AND PLUMBING FOR CUT OF OPENINGS IN EXISTING CMU WALLS. SEE STRUCTURAL FOR STEEL LINTELS REQUIRED.
- 5. WHEN REMOVING CONCRETE SLABS AGAINST EXISTING WALLS, USE FLUSH CUT SAW AND CUT A MAXIMUM OF 1/4" OUT FROM WALL.





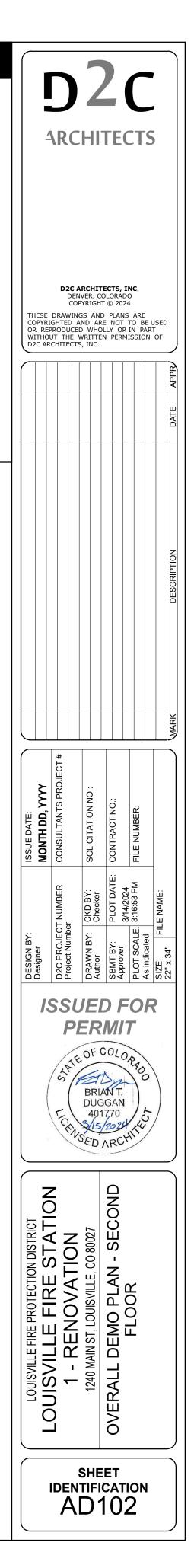
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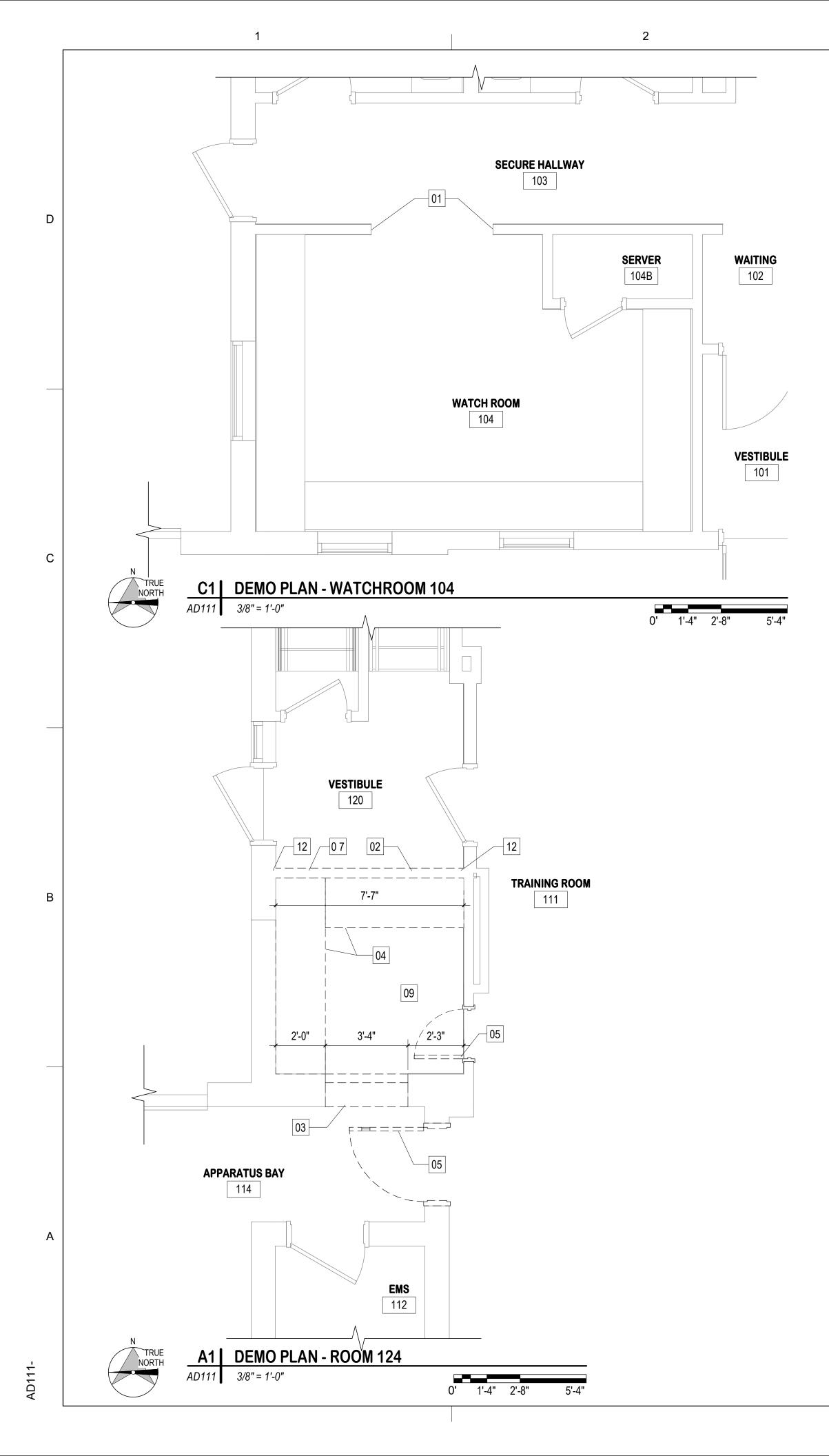
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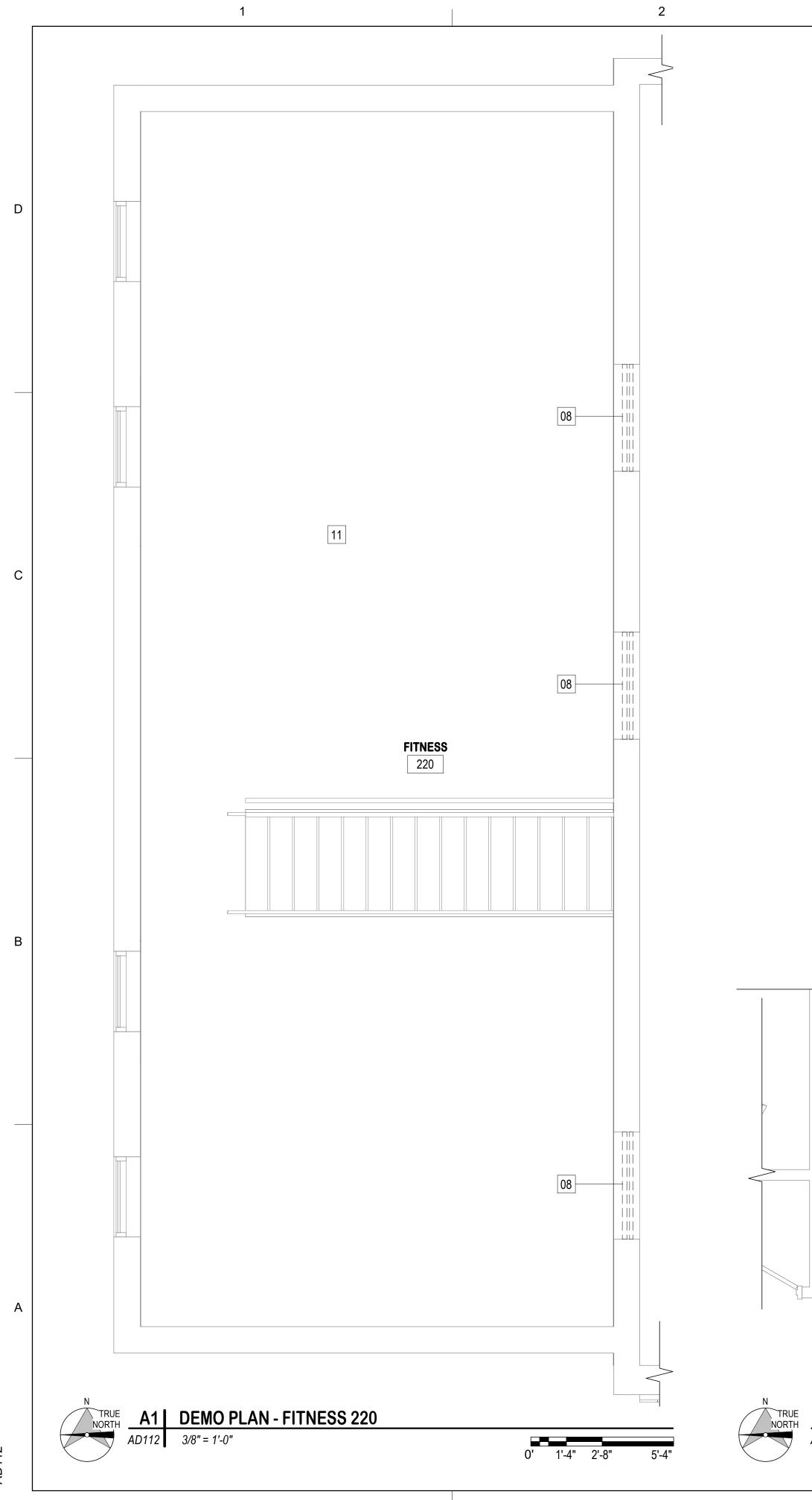


| | 3 | 4 |
|--------|--|--|
| | DEMOLITION KEY NOTES | DEMOLITION GENERAL NOTES |
| KEY NO | . DESCRIPTION | |
| 01 | CAREFULLY REMOVE AND DISPOSE OF EXISTING TRIM. PATCH AND REPAIR AS REQUIRED. | DEMOLITION REQUIRES THE SELECTIVE REMOVAL AND SUBSEQUENT REUSE, RECYCLE OR DISPOSAL OF THE EXISTING BUILDING AS INDICATED ON THE DRAWINGS. |
| 02 | CAREFULLY REMOVE AND DISPOSE OF PARTITION IN ITS ENTIRETY. | |
| 03 | CAREFULLY REMOVE AND DISPOSE OF PORTION OF EXISTING INFILL AS REQUIRED FOR INSTALLATION OF DOOR. DEMO TO BOTTOM OF EXISTING LINTEL. | 2. DIMENSIONS SHOWN ON DEMOLITION DRAWINGS ARE APPROXIMATE. VERIFY REQUIREMENTS OF PROPOSED CONSTRUCTION PRIOR TO COMMENCING DEMOLITION WORK. |
| 04 | CAREFULLY REMOVE AND DISPOSE OF EXISTING WORK SURFACE. PATCH AND REPAIR ADJACENT SURFACES AS NECESSARY TO PREPARE FOR SCHEDULED FINISHES. | 4. PROVIDE LINTELS IN PROPOSED OPENINGS IN EXISTING MASONRY WALLS. REFER TO STRUCTURAL LOOSE LINTEL |
| 05 | CAREFULLY REMOVE AND RETURN DOOR TO OWNER STOCK. DEMO EXISTING FRAME. | SCHEDULE FOR SIZES AND SUPPORT AT OPENINGS AS WELL AS STRUCTURAL DETAILS. |
| 06 | CAREFULLY REMOVE AND SALVAGE DOOR FOR RELOCATION. PREPARE FRAME AS NECESSARY FOR INSTALLATION OF DOOR. | 5. THE GENERAL CONTRACTOR SHALL COORDINATE ALL CUTTING AND PATCHING WITH THEIR SUBCONTRACTORS DURING BIDDING |
| 07 | REMOVE AND RELOCATE WALL HEATER; RE: MECH | AND DURING CONSTRUCTION. IT IS NOT THE INTENTION OF THESE |
| 08 | CAREFULLY REMOVE AND DISPOSE OF EXISTING GUARD RAIL AND | DOCUMENTS TO ASSIGN TASKS. |
| | WALL ANCHORING. PATCH AND REPAIR CMU AS REQUIRED FOR INSTALLATION OF WINDOWS. | 6. ALL CONTRACTORS SHALL VISIT THE JOB SITE AND COMPLETELY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS PRIOR TO |
| 09 | CAREFULLY REMOVE AND DISPOSE OF EXISTING FLOOR AND BASE FINISH. PATCH AND REPAIR ADJACENT SURFACES AS NECESSARY TO PREPARE FOR SCHEDULED FINISHES. | BID. |
| 10 | CAREFULLY REMOVE AND SALVAGE EXISTING LOCKERS. RETURN LOCKERS TO OWNER STOCK. | 7. ALL DIMENSIONS ARE FROM FINISH SURFACE TO FINISH SURFACE. |
| 11 | PROTECT EXISTING FLOOR FINISH AND WALL BASE DURING RENOVATION. | 8. SAWCUT AND REMOVE THE EXISTING CONCRETE SLAB AS REQUIRED FOR INSTALLATION OF MECHANICAL AND ELECTRICAL. |
| 12 | PATCH AND REPAIR ADJACENT SURFACES FROM PARTITION REMOVAL. | PROVIDE CONCRETE PATCH TO MATCH EXISTING. 9. SAWCUT AND CORE DRILL TO ACCOMMODATE PROPOSED |
| | | MECHANICAL AND ELECTRICAL PENETRATIONS. COORDINATE QUANTITIES AND LOCATIONS WITH MECHANICAL AND ELECTRICAL DOCUMENTS. PROVIDE FIRESTOPPING AT PENETRATIONS. |
| | | 10. PERFORM DEMOLITION IN AN ORDERLY AND CAREFUL MANNER IN WHICH TO ACCOMMODATE THE PROPOSED CONSTRUCTION. |
| | | 11. PROMPTLY REPAIR DAMAGES CAUSED TO ADJACENT FACILITIES BY DEMOLITION PERFORMED IN EXCESS OF THAT REQUIRED AT NO COST TO THE OWNER. RETURN STRUCTURES AND SURFACES TO THE CONDITION EXISTING PRIOR TO THE COMMENCEMENT OF DEMOLITION WORK. |
| | | 12. RELOCATION OF PIPES, CONDUITS, DUCTS, AND OTHER MECHANICAL OR ELECTRICAL WORK IS SPECIFIED BY RESPECTIVE TRADES. REFER TO MECHANICAL OR ELECTRICAL DEMOLITION REQUIREMENTS. PATCH AREAS AT MECHANICAL OR ELECTRICAL DEMOLITION AREAS TO MATCH ADJACENT SURFACES. |
| | | 13. CUTTING AND PATCHING INCLUDES CUTTING INTO EXISTING CONSTRUCTION TO PROVIDE FOR THE INSTALLATION OR PERFORMANCE OF OTHER WORK AND SUBSEQUENT FITTING AND PATCHING REQUIRED TO RESTORE SURFACES TO THEIR ORIGINAL CONDITION. |
| | | 14. DO NOT CUT AND PATCH WORK IN A MANNER THAT WOULD RESULT IN SUBSTANTIAL VISUAL EVIDENCE OF CUT AND PATCH WORK. REMOVE AND REPLACE WORK JUDGED BY THE ARCHITECT TO HAVE BEEN CUT AND PATCHED IN A VISUALLY UNSATISFACTORY MANNER. |
| | | 15. REMOVE HVAC, PLUMBING, ELECTRICAL, AND ARCHITECTURAL ELEMENTS INDICATED FOR DEMOLITION IN THEIR ENTIRETY. DO NOT ABANDON IN PLACE UNLESS NOTED OTHERWISE. |
| | | 16. PATCH AND PREP EXISTING FLOORS, WALLS, AND CEILINGS REMAINING TO AN ACCEPTABLE SUBSTRATE CONDITION FOR PROPOSED FINISHES. |
| | | 17. PROTECT EXISTING FINISH WORK, EQUIPMENT, AND FIXTURES |

17. PROTECT EXISTING FINISH WORK, EQUIPMENT, AND FIXTURES FROM DAMAGE DUE TO DEMOLITION AND SUBSEQUENT CONSTRUCTION. PROVIDE FLOOR COVERING TO PROTECT EXISTING FLOOR FINISH TO REMAIN.

D2C DEMOLITION DEBRIS AT THE END OF EACH WORKING DAY. UPON COMPLETION OF DEMOLITION WORK, REMOVE TOOLS, EQUIPMENT, AND DEMOLITION DEBRIS FROM SITE. REMOVE PROTECTIVE COVERINGS AND LEAVE INTERIOR AREAS BROOM CLEAN. ARCHITECTS 19. FILL ABANDONED UNDERGROUND WASTE LINES WITH CONCRETE FROM TERMINUS TO WHERE IT CONNECTS TO THE MAIN SEWER LINE. 20. REMOVE ALL CARPET, VCT, CERAMIC TILE AND ADHESIVES TO PROVIDE ACCEPTABLE CONCRETE SUBSTRATE FOR FINISH WORK. 21. ALL WALLS TO BE REMOVED ARE CMU OR GYPSUM BOARD ON METAL STUD AS INDICATED. SLAB TO BE GROUND AND REPAIRED SMOOTH AT ALL AREAS. D2C ARCHITECTS, INC. 22. HALL FLOOR IS TO REMAIN AS IS. PROTECT FLOOR AS NEEDED DENVER, COLORADO COPYRIGHT © 2024 DURING CONSTRUCTION SO AS NOT TO DAMAGE THE FINISH SURFACE. THESE DRAWINGS AND PLANS ARE COPYRIGHTED AND ARE NOT TO BE USED OR REPRODUCED WHOLLY OR IN PART WITHOUT THE WRITTEN PERMISSION OF D2C ARCHITECTS, INC. 24. REMOVE EXISTING GYP BD CEILING IN ITS AS NOTED. 25. PROTECT EXISTING UNDERGROUND UTILITIES TO REMAIN. LOCATE ALL UTILITIES PRIOR TO ANY EXCAVATION. 26. GRIND SLAB AT ALL AREAS TO RECEIVE DYED CONCRETE TO EXPOSED AGGREGATE. 27. CONTRACTOR AND OWNER SHALL PERFORM AN INSPECTION OF ALL OWNER SALVAGE ITEMS. PRODUCE WRITTEN DOCUMENTATION OF THE CONDITION OF EACH ITEM PRIOR TO REMOVAL. 28. PROVIDE CARE IN THE REMOVAL OF ALL ITEMS LISTED AS OWNER SALVAGE. COORDINATE TEMPORARY STORAGE WITH OWNER. INSTALL TO FULLY FUNCTIONAL CONDITION AT LOCATION INDICATED ON DRAWINGS. REFINISH AS SCHEDULED. 29. IN AREAS SCHEDULED TO RECEIVE A CHANGE IN ROOM FINISHES: A. REMOVE EXISTING FLOOR FINISHES, ADHESIVES OR SETTING BED, TO CONCRETE SUBSTRATE. PATCH & REPAIR TO PROVIDE ACCEPTABLE SUBSTRATE TO RECEIVE FLOOR FINISH SCHEDULED. B. REMOVE EXISTING RESILIENT BASE AND ADHESIVE. PATCH & REPAIR GYPSUM BOARD & CMU TO PROVIDE AN ACCEPTABLE SURFACE FOR SCHEDULED BASE. C. REMOVE EXISTING WALL FINISHES, ADHESIVE OR SETTING BED. REFINISH WALL TO PROVIDE AN ACCEPTABLE SURFACE FOR SCHEDULED WALL FINISH. 30. THE OWNER IS TO VACATE DEMO SPACES PRIOR TO G.C. TAKING THE SPACE. G.C. TO COORDINATE WITH OWNER PRIOR TO DEMOLITION. 31. THE ORDER OF DEMOLISHED ITEMS: MONTH DD, 1) OWNER REUSE 2) G.C. TO RECYCLE THE ITEMS AS MUCH AS POSSIBLE 3) ITEMS GO TO TRASH 32. ITEMS TO BE REUSED ARE TO BE STOCKPILED AND PROTECTED BY: ker DATF 2024 54 PM UNTIL PUT BACK IN SERVICE. CKD Chec PLO⁷ 3/14/ 3:16: 34. REMOVE ALL EXISTING SIGNAGE, DISPLAY BOARDS AND OTHER ITEMS ATTACHED TO WALLS. RETAIN FOR OWNER REUSE. **ISSUED FOR** PERMIT TEOF COLO. (ASD) BRIAN T. DUGGAN 401770 LOUISVILLE FIRE PROTECTION DISTRICT LOUISVILLE FIRE STATION 1 - RENOVATION 1240 MAIN ST, LOUISVILLE, CO 80027 ENLARGED DEMO PLANS - FIRST FLOOR Ш SHEET IDENTIFICATION AD111

18. REMOVE AND RECYCLE/DISPOSE ALL MATERIALS, EQUIPMENT, AND



AD112-

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|----------------------|---|--|
| | DEMOLITION KEY NOTES | DEMOLITION GENERAL NOTES |
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| 09 | INSTALLATION OF WINDOWS. CAREFULLY REMOVE AND DISPOSE OF EXISTING FLOOR AND BASE FINISH. PATCH AND REPAIR ADJACENT SURFACES AS NECESSARY | 6. ALL CONTRACTORS SHALL VISIT THE JOB SITE AND COMPLETELY FAMILIARIZE THEMSELVES WITH EXISTING CONDITIONS PRIOR TO BID. |
| 10 | TO PREPARE FOR SCHEDULED FINISHES. CAREFULLY REMOVE AND SALVAGE EXISTING LOCKERS. RETURN LOCKERS TO OWNER STOCK. | 7. ALL DIMENSIONS ARE FROM FINISH SURFACE TO FINISH SURFACE. |
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DEMO PLAN - STORAGE 215 3/8" = 1'-0" **A2** AD112

STORAGE 215

09

HALLWAY 203W

10

0' 1'-4" 2'-8"

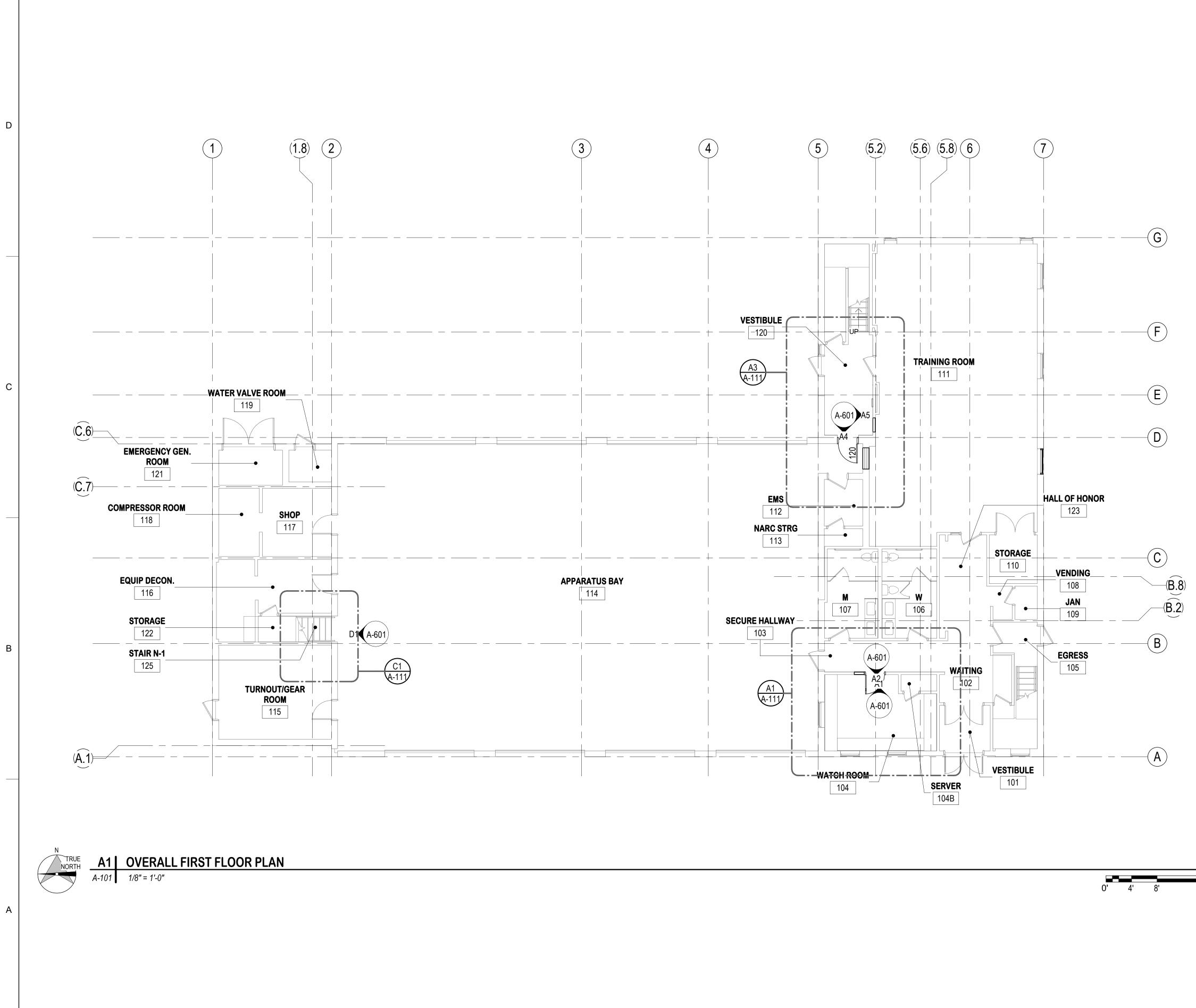
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5'-4"

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18. REMOVE AND RECYCLE/DISPOSE ALL MATERIALS, EQUIPMENT, AND

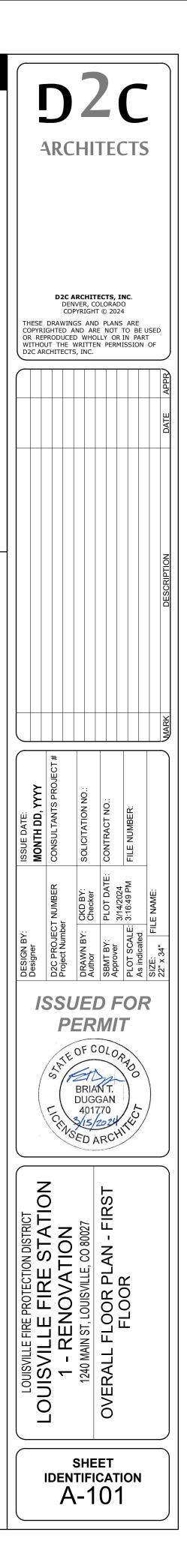


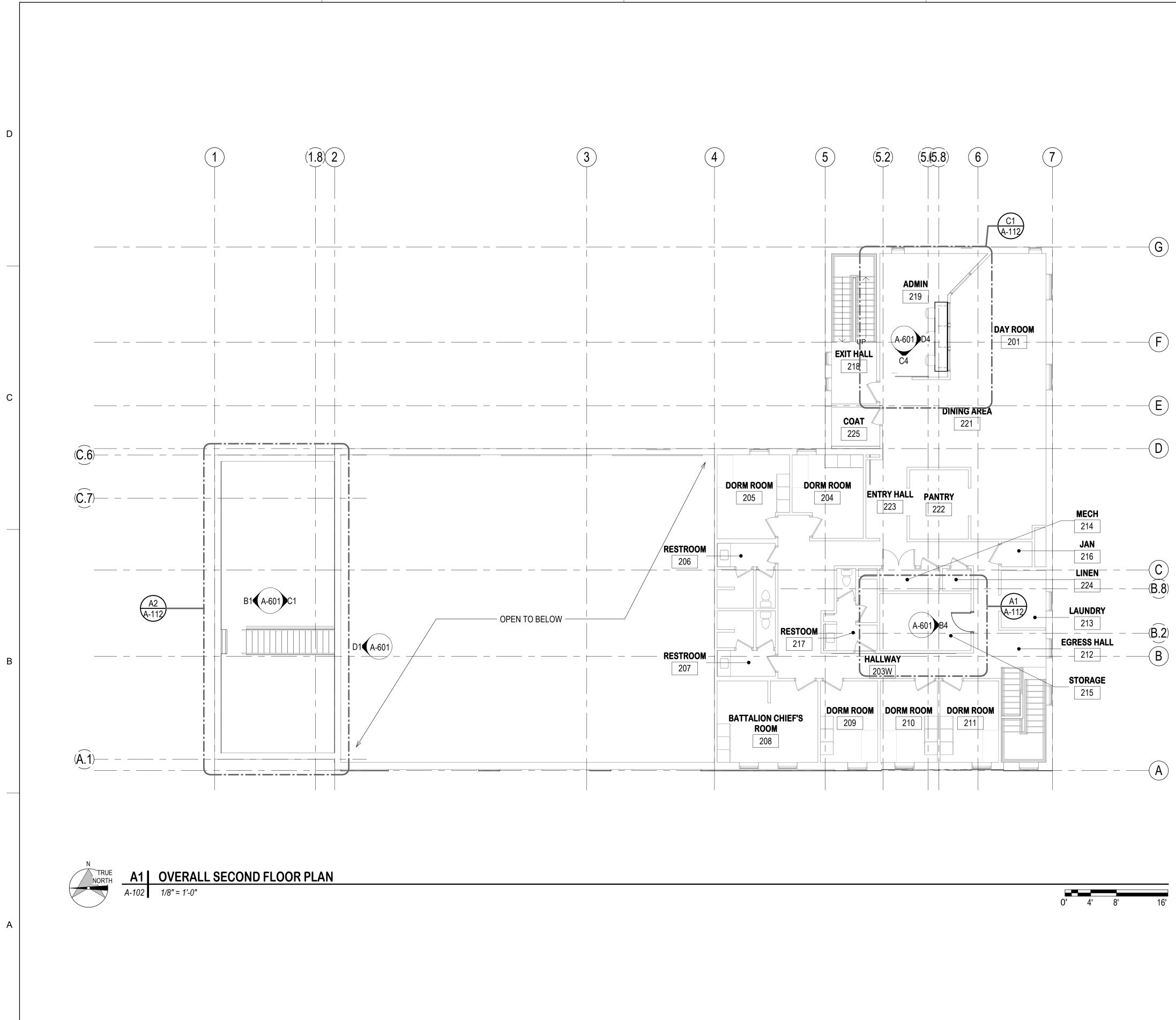
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FLOOR PLAN NOTES

- DIMENSIONS INDICATED ARE TO FACES OF CMU/STUD/STRUCTURE MATERIALS AND GRID LINES (TYPICAL), UNLESS NOTED OTHERWISE.
- 2. WHERE DOORS IN METAL STUD/GYPSUM BOARD PARTITIONS ARE NOT SPECIFICALLY LOCATED ON THE PLANS WITH DIMENSION STRINGS, PROVIDE A MINIMUM HINGE-SIDE JAMB DIMENSION OF 6" FROM DOOR OPENING TO ADJACENT PERPENDICULAR WALLS. WHERE DOORS APPEAR TO BE CENTERED WITHIN CORRIDORS, LOCATE THE DOORS IN THE CENTER OF THE CORRIDOR.
- 3. AT ALL FORMER ELECTRICAL OUTLET & SWITCH LOCATIONS IN CMU WALL GROUT J-BOX FULL.
- 4. AFTER REMOVAL OF EXISTING CMU PARTITION GRIND CONCRETE SLAB SMOOTH TO PROVIDE ACCEPTABLE SUBSTRATE FOR FINISH, PER A&E.
- 5. AFTER REMOVAL OF EXISTING CMU PARTITION, PATCH REMAINING ADJACENT CMU PARTITION TO PROVIDE ACCEPTABLE SUBSTRATE FOR FINISH.
- 6. PROVIDE SHEET STEEL BLOCKING AT ALL AREAS FOR OWNER OR CONTRACTOR FURNISHED EQUIPMENT.
- 7. PROVIDE SEALANT AT ALL CONCRETE SLAB TO WALL INTERSECTIONS.
- 8. WHERE A WALL IS TO BE INFILLED, INFILL IS TO MATCH EXISTING FIRE RATING. CONTRACTOR TO VERIFY FIRE RATING OF EXISTING WALLS.





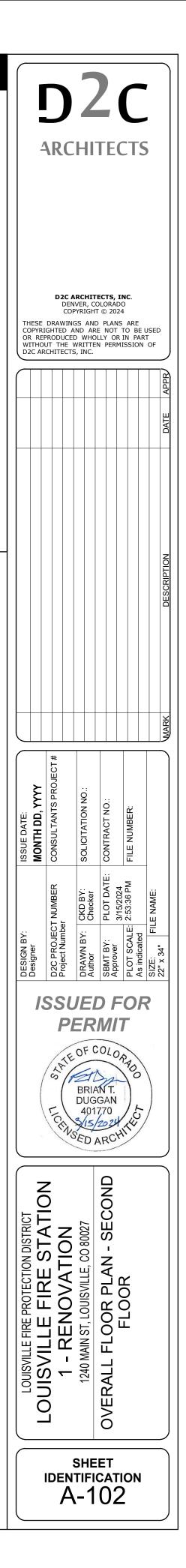
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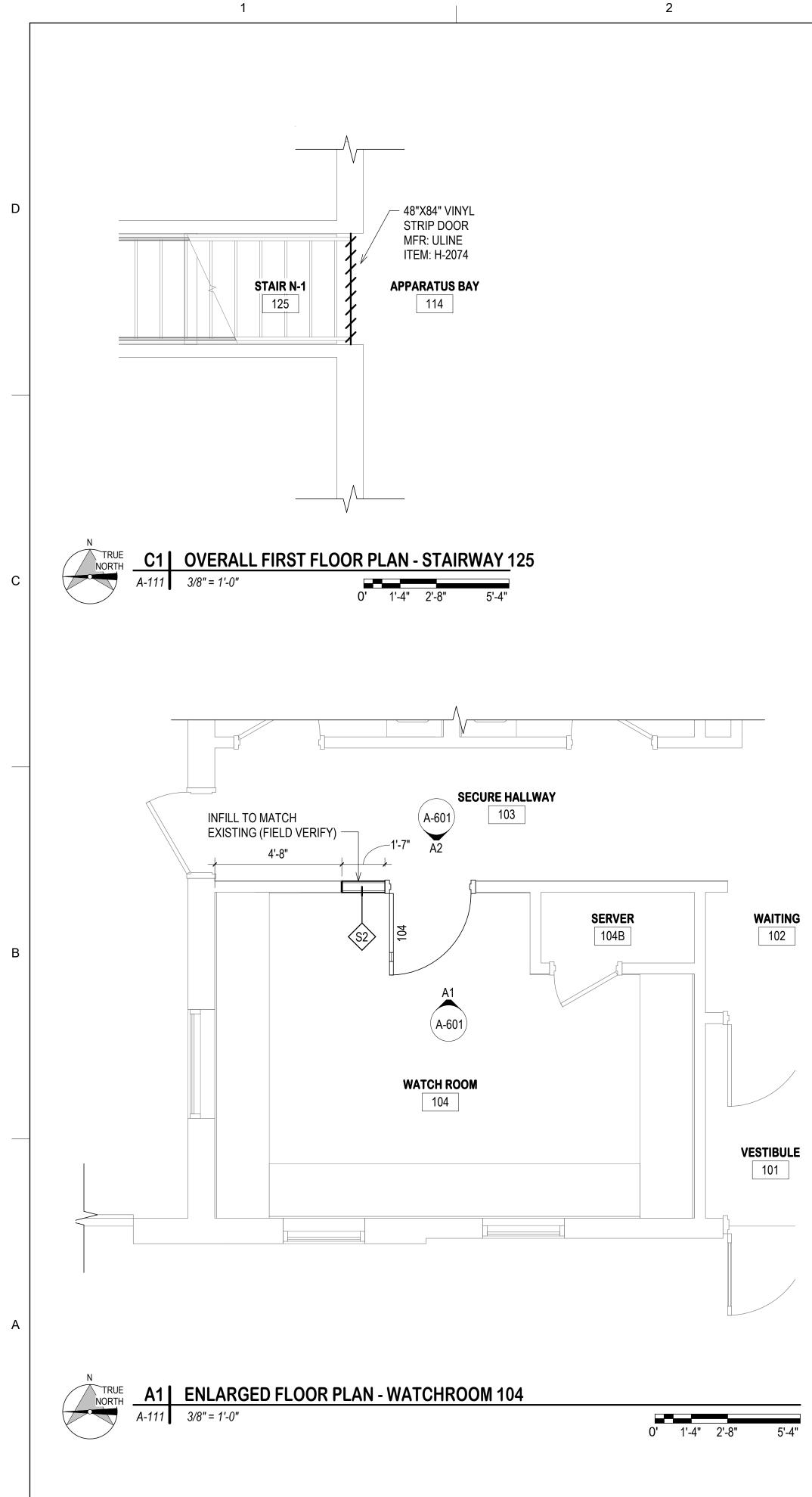
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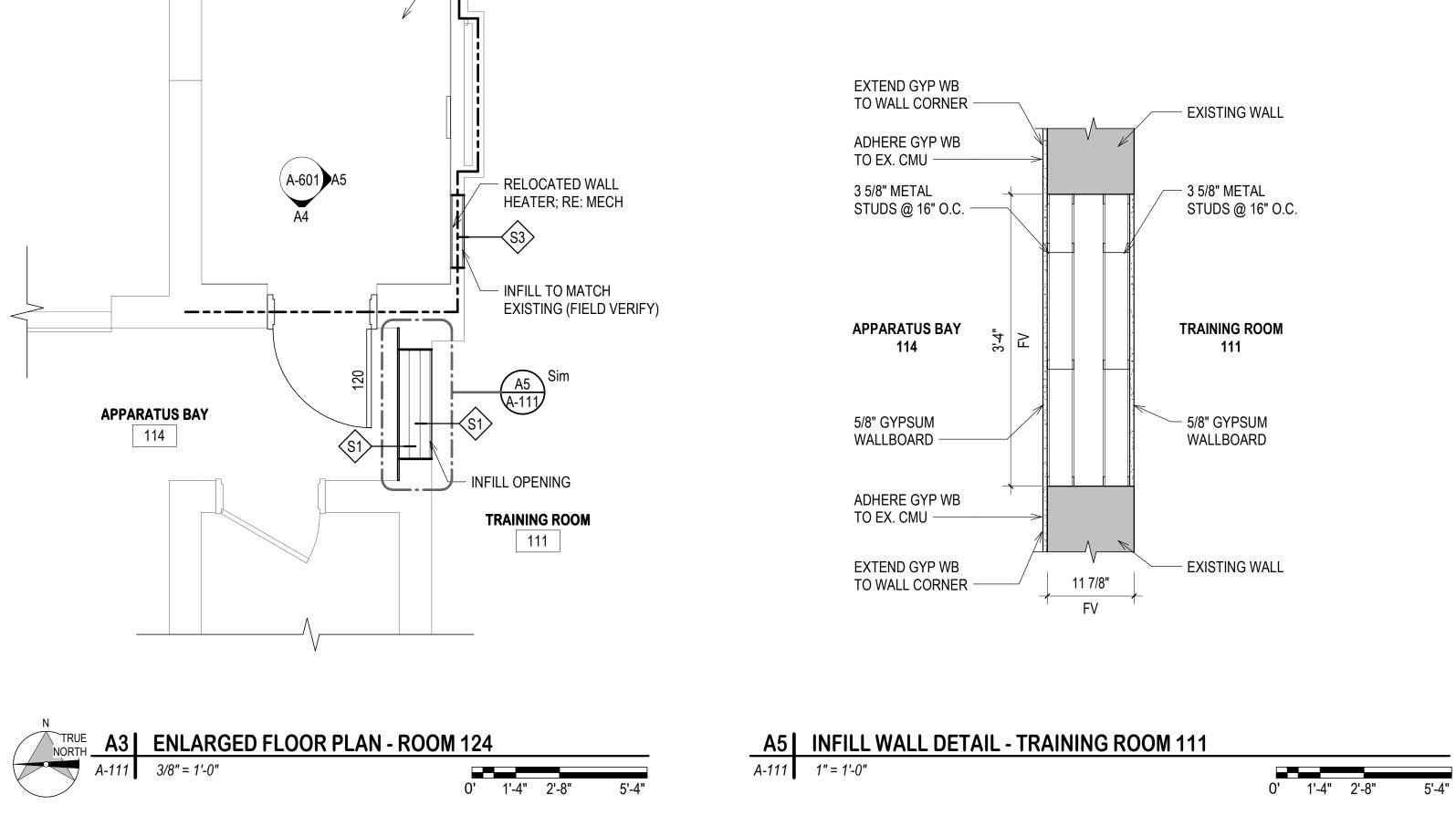
FLOOR PLAN NOTES

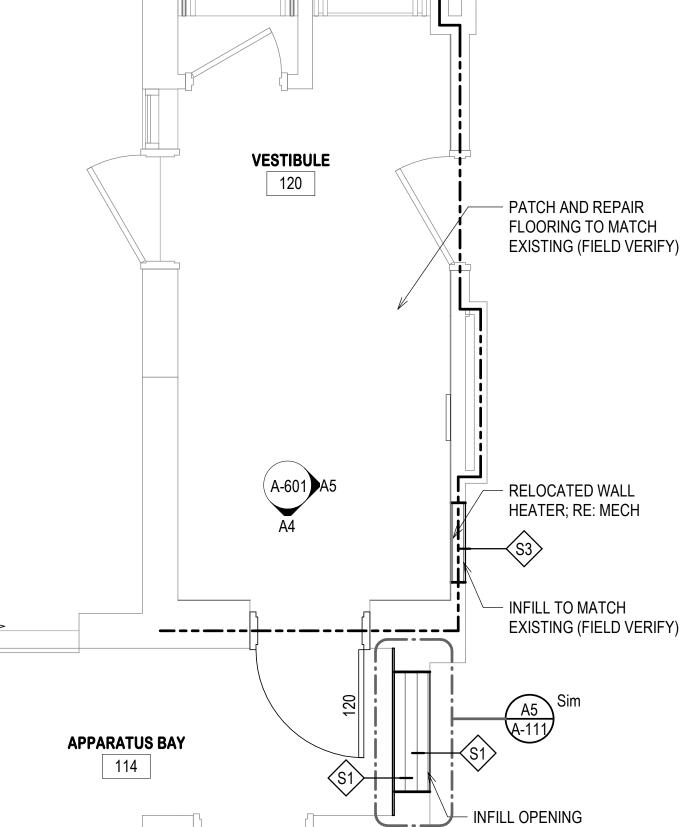
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- 8. WHERE A WALL IS TO BE INFILLED, INFILL IS TO MATCH EXISTING FIRE RATING. CONTRACTOR TO VERIFY FIRE RATING OF EXISTING WALLS.





A-111-

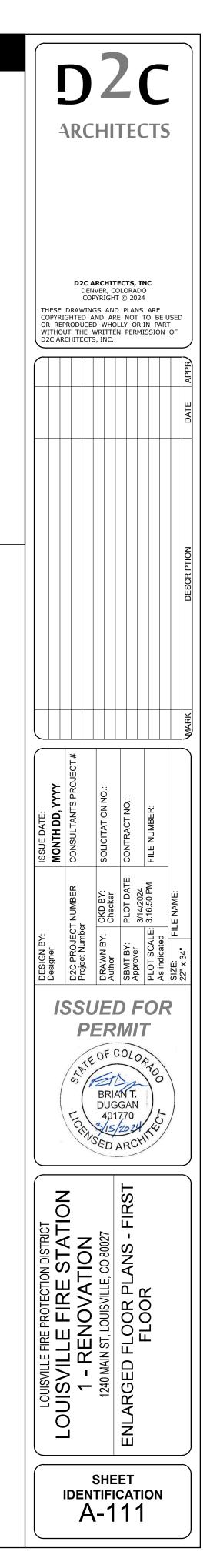




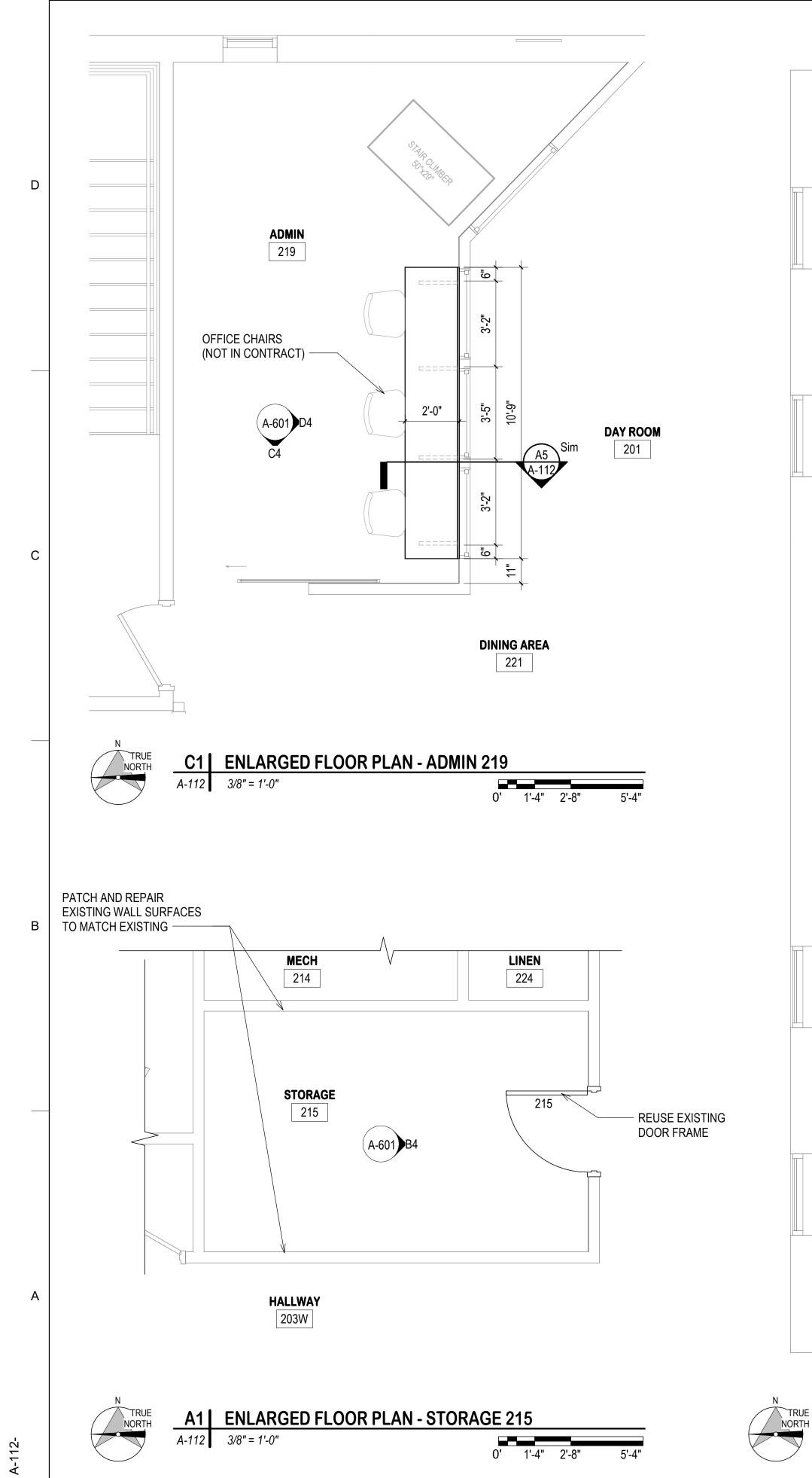
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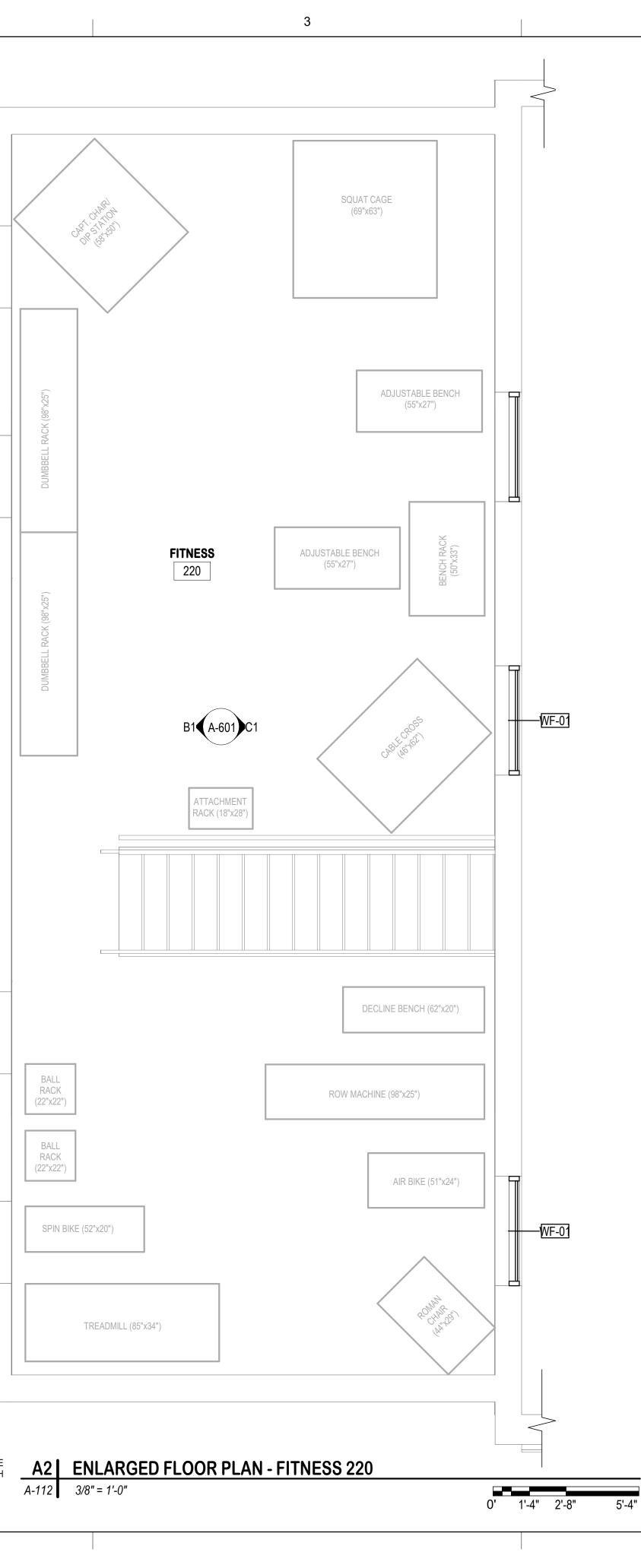
<u>FLOOR PLAN NOTES</u>

- DIMENSIONS INDICATED ARE TO FACES OF CMU/STUD/STRUCTURE MATERIALS AND GRID LINES (TYPICAL), UNLESS NOTED OTHERWISE.
- 2. WHERE DOORS IN METAL STUD/GYPSUM BOARD PARTITIONS ARE NOT SPECIFICALLY LOCATED ON THE PLANS WITH DIMENSION STRINGS, PROVIDE A MINIMUM HINGE-SIDE JAMB DIMENSION OF 6" FROM DOOR OPENING TO ADJACENT PERPENDICULAR WALLS. WHERE DOORS APPEAR TO BE CENTERED WITHIN CORRIDORS, LOCATE THE DOORS IN THE CENTER OF THE CORRIDOR.
- 3. AT ALL FORMER ELECTRICAL OUTLET & SWITCH LOCATIONS IN CMU WALL GROUT J-BOX FULL.
- 4. AFTER REMOVAL OF EXISTING CMU PARTITION GRIND CONCRETE SLAB SMOOTH TO PROVIDE ACCEPTABLE SUBSTRATE FOR FINISH, PER A&E.
- 5. AFTER REMOVAL OF EXISTING CMU PARTITION, PATCH REMAINING ADJACENT CMU PARTITION TO PROVIDE ACCEPTABLE SUBSTRATE FOR FINISH.
- 6. PROVIDE SHEET STEEL BLOCKING AT ALL AREAS FOR OWNER OR CONTRACTOR FURNISHED EQUIPMENT.
- 7. PROVIDE SEALANT AT ALL CONCRETE SLAB TO WALL INTERSECTIONS.
- 8. WHERE A WALL IS TO BE INFILLED, INFILL IS TO MATCH EXISTING FIRE RATING. CONTRACTOR TO VERIFY FIRE RATING OF EXISTING WALLS.









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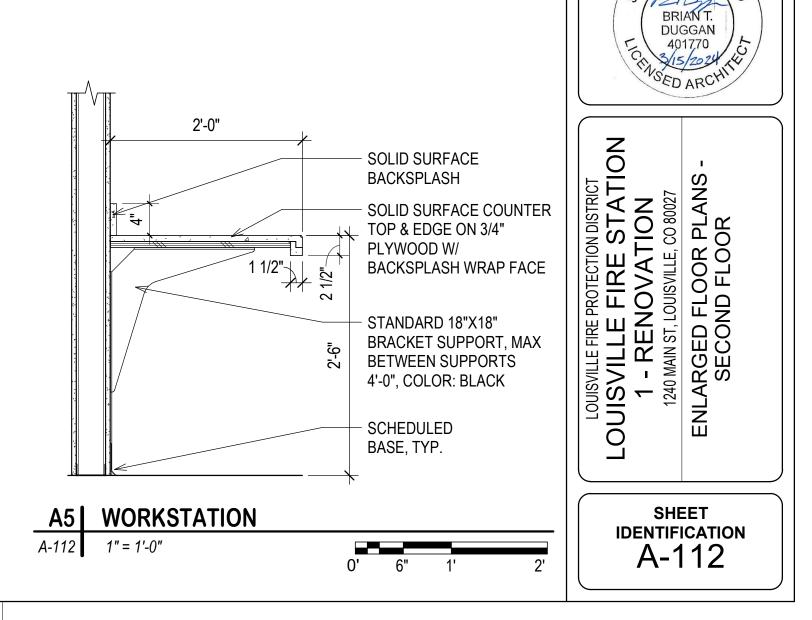
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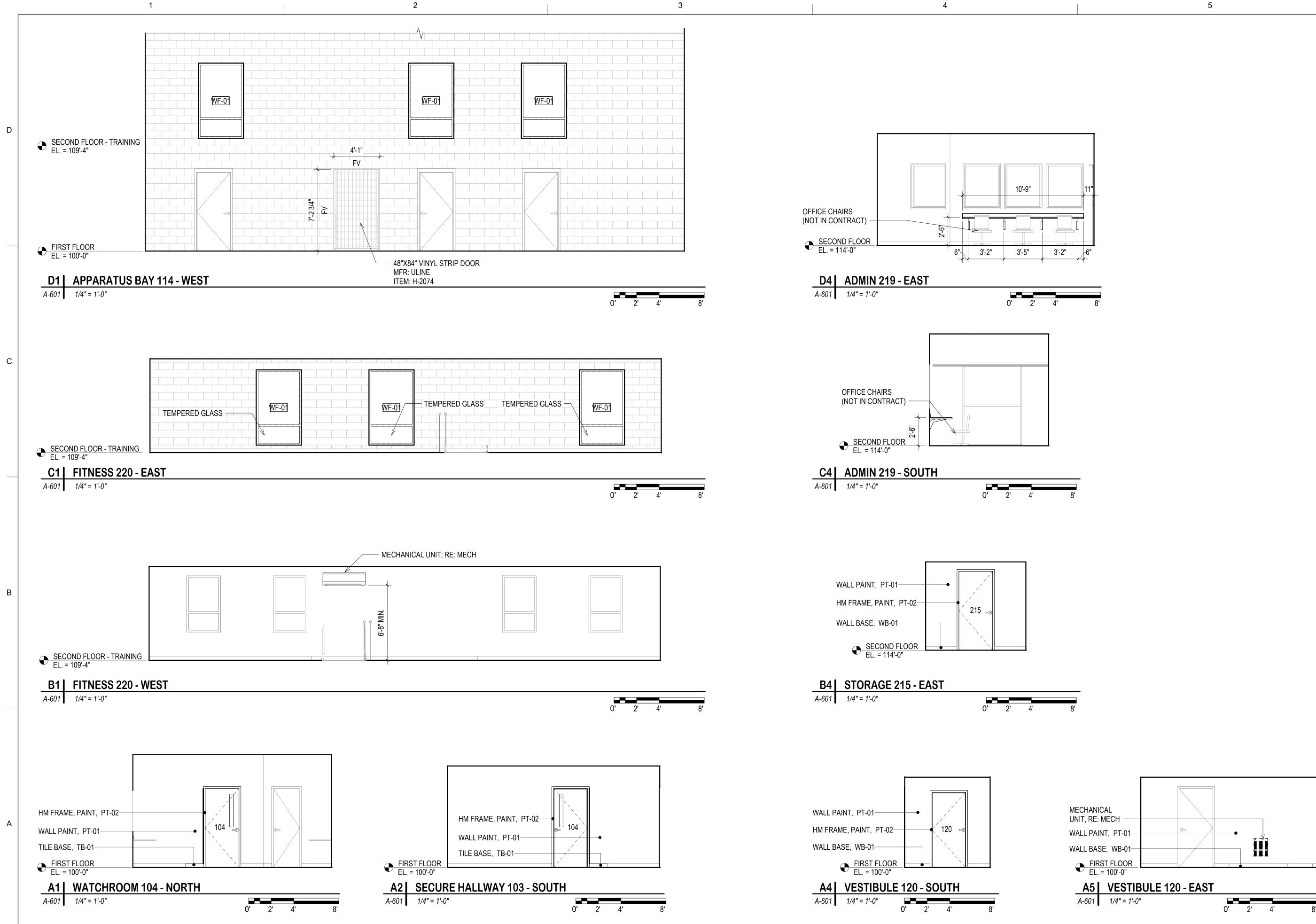
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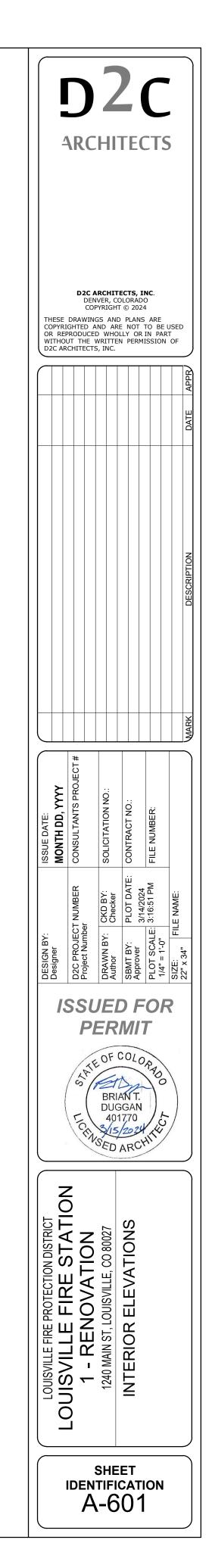
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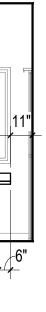
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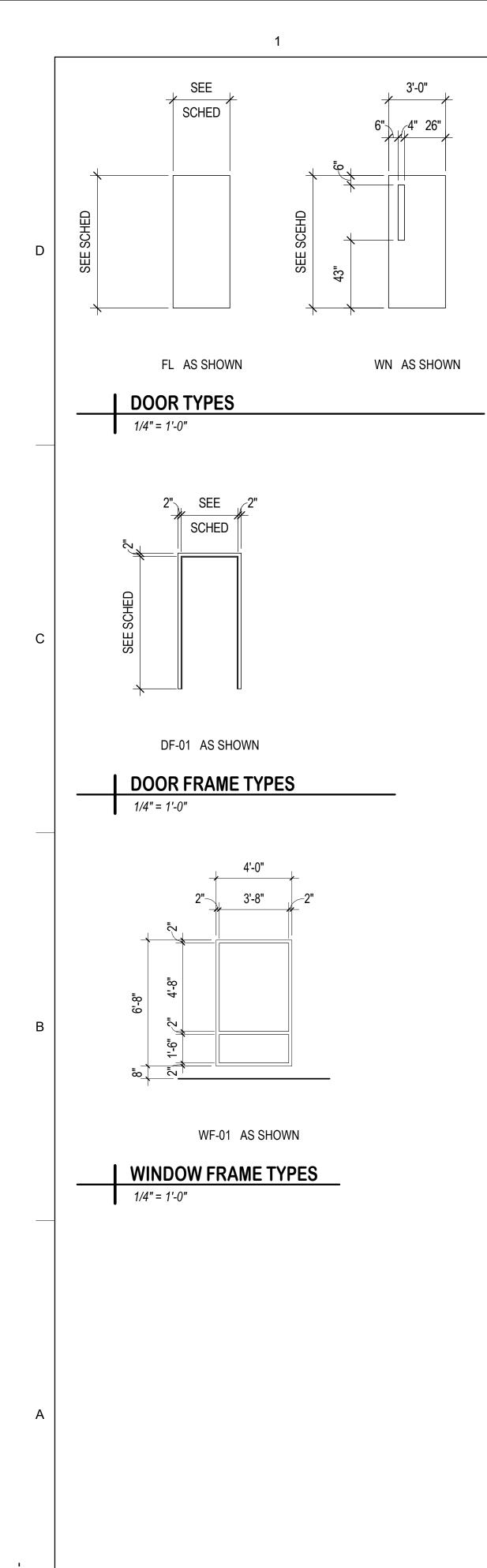




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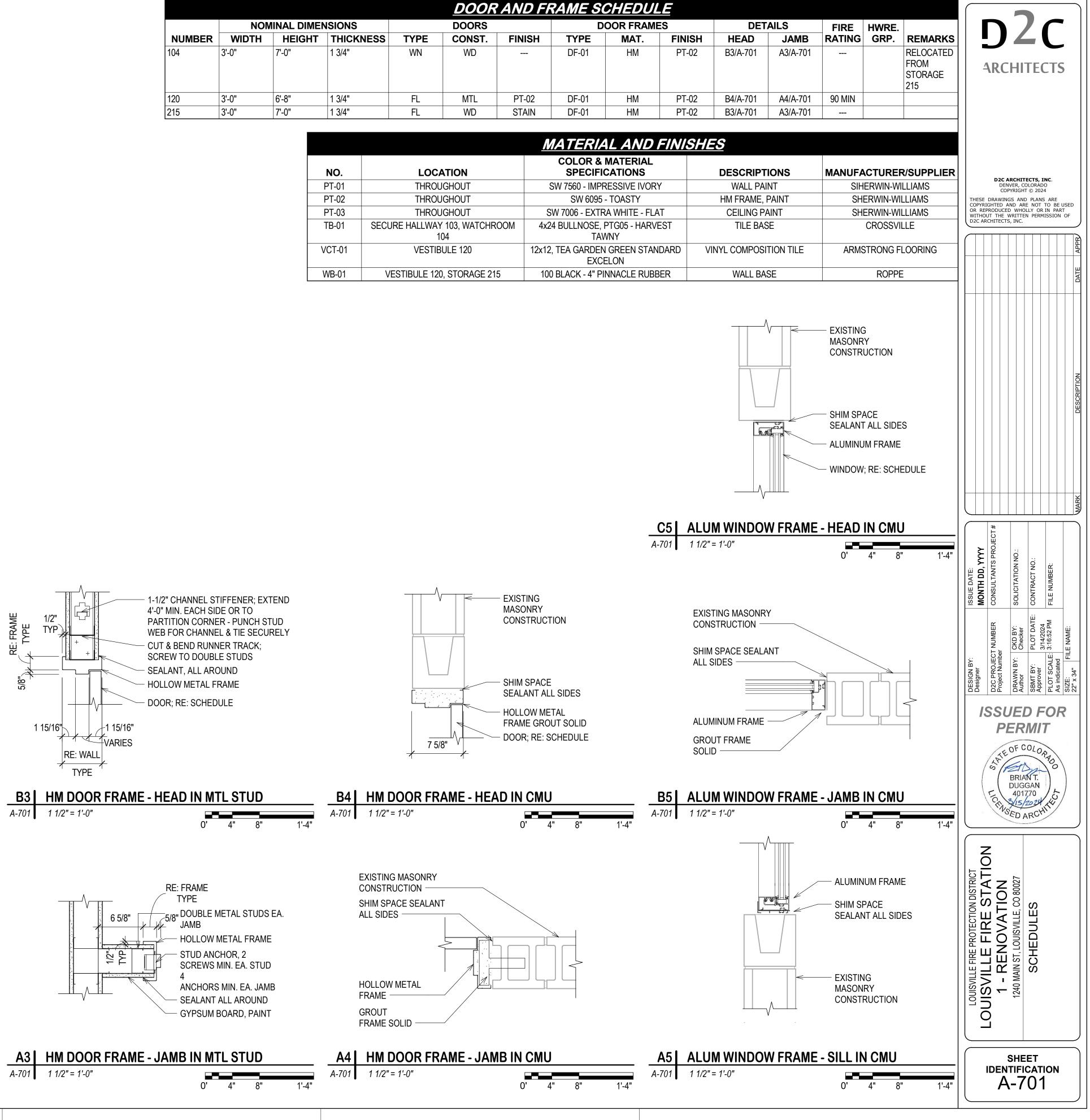






| | | | | | 4 | | | |
|--------|-------|------------|-----------|------|--------|--------|---------|----------|
| | | | | | DOOR | AND FR | RAME SO | CHEDU |
| | NON | INAL DIMEN | NSIONS | | DOORS | | D | OOR FRAM |
| NUMBER | WIDTH | HEIGHT | THICKNESS | TYPE | CONST. | FINISH | TYPE | MAT. |
| 104 | 3'-0" | 7'-0" | 1 3/4" | WN | WD | | DF-01 | HM |
| 120 | 3'-0" | 6'-8" | 1 3/4" | FL | MTL | PT-02 | DF-01 | HM |
| 215 | 3'-0" | 7'-0" | 1 3/4" | FL | WD | STAIN | DF-01 | HM |

| | | <u>MATERIAL AN</u> |
|--------|--------------------------------------|--------------------------------------|
| NO. | LOCATION | COLOR & MATER |
| PT-01 | THROUGHOUT | SW 7560 - IMPRESSIVE I |
| PT-02 | THROUGHOUT | SW 6095 - TOASTY |
| PT-03 | THROUGHOUT | SW 7006 - EXTRA WHITE |
| TB-01 | SECURE HALLWAY 103, WATCHROOM 104 | 4x24 BULLNOSE, PTG05 - H TAWNY |
| VCT-01 | VESTIBULE 120 | 12x12, TEA GARDEN GREEN S EXCELON |
| WB-01 | VESTIBULE 120, STORAGE 215 | 100 BLACK - 4" PINNACLE I |



| CIRCUITING | | POWER DEVICE | <u>s</u> | FIRE ALARM | |
|--------------------------------|--|------------------------|---|-------------------------------|--|
| | HOME RUN (2#12 1#12G UNO) | ¢ | DUPLEX RECEPTACLE. | - <u>F</u> | MANUAL PULL STATION |
| \longrightarrow | INDICATES 2 PHASE, 1 N, & 1 GRD CONDUCTOR | \$ | LINE THRU DEVICE INDICATES ABOVE COUNTER | \bigcirc | CEILING SMOKE DETECTOR |
| | HOME RUN: INDICATES SHARED CIRCUIT | | SPECIAL DUPLEX RECEPTACLE | $\langle D \rangle$ | DUCT SMOKE DETECTOR |
| | HOME RUN: INDICATES #10 CONDUCTORS ENTIRELY | | (GFCI, ISOLATED GROUND, ETC.) | $\langle H \rangle$ | HEAT DETECTOR |
| | | | QUADPLEX RECEPTACLE | ■ WF | WATERFLOW SWITCH |
| ITILITIES UGE | UNDERGROUND ELECTRICAL | \ominus_{5-50R} | SIMPLEX RECEPTACLE W/NEMA CONFIG AS NOTED | ■ TS | TAMPER SWITCH |
| — ОНЕ —— | OVERHEAD ELECTRICAL | € 5-50R | MULTI-POLE RECEPTACLE W/NEMA CONFIG AS NOTED | 75 | WALL-MOUNTED FA STROBE WITH CANDELA R 15cd RATING UNLESS OTHERWISE NOTED O |
| | TELECOMMUNICATIONS CONDUIT | | CEILING MOUNTED RECEPTACLE | — 4 | |
| UGI | UNDERGROUND TELECOMMUNICATIONS CONDUIT | | RECEPTACLE/DEVICE MOUNTED IN "TOMBSTONE" | | WALL-MOUNTED FA HORN |
| IGHTING | | \bigcirc | POKE-THRU WITH POWER | | WALL-MOUNTED FA SPEAKER WALL-MOUNTED FA HORN/STROBE WITH CAN |
| • | GRID-MOUNTED TROFFER LIGHT FIXTURE | | POKE-THRU WITH TELECOMMUNICATIONS | ⊠∖ 30 | RATING. 15cd UNLESS OTHERWISE NOTED C |
| 0 | STRIP LIGHT FIXTURE | FB | POKE-THRU W/POWER AND TELECOM FLOOR BOX | 30 | WALL-MOUNTED FA SPEAKER/STROBE WITH C RATING. 15cd UNLESS OTHERWISE NOTED C |
| • | SURFACE/RECESSED LIGHT FIXTURE | | DIVIDED POWER POLE | 75 | CEILING-MOUNTED FA STROBE WITH CANDELA RATING. MINIMUM OF 15cd RATING. |
| ⊟Ю | WALL-MOUNTED LIGHT FIXTURE | (C) | CLOCK RECEPTACLE | | CEILING-MOUNTED FA SPEAKER. |
| ᆔ | POLE-MOUNTED LIGHT FIXTURE | 0 | PLUG MOLD / WIRE MOLD AS SPECIFIED | | CEILING-MOUNTED FA HORN/STROBE WITH C |
| \bowtie | EXIT LIGHT | _ | | 30 | RATING. MINIMUM OF 15cd RATING. |
| € | BATTERY-OPERATED EMERGENCY LIGHT (WALL MTD) | | JUNCTION BOX PUSH BUTTON | 30 | CEILING-MOUNTED FA SPEAKER/STROBE WITH RATING. MINIMUM OF 15cd RATING. |
| | BATTERY-OPERATED EMERGENCY LIGHT (CEILING MTD) | | | R | RELAY |
| | WALL-MOUNTED COMBINATION EXIT LIGHT/ BATTERY-OPERATED EMERGENCY LIGHT | \sim | MOTOR | FACP | FIRE ALARM CONTROL PANEL |
| \$ | LIGHT SWITCH - SINGLE POLE | TELEPHONE/DA | | FAAP | FIRE ALARM ANNUNCIATOR PANEL |
| \$3 | LIGHT SWITCH - 3-WAY | \triangleleft | TELEPHONE OUTLET (SINGLE—GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING) | FARA | REMOTE ANNUNCIATOR PANEL |
| \$∡ | LIGHT SWITCH - 4-WAY | \triangleleft | LINE THRU DEVICE INDICATES ABOVE COUNTER | FAEC | FIRE ALARM EXTENDER CABINET |
| \$ _K | LIGHT SWITCH - KEY | ۲ | DATA OUTLET (DOUBLE-GANG BOX WITH (2) 3/4" | [FAEC] | DOOR HOLDER |
| \$ _D | LIGHT SWITCH – DIMMER | • | CONDUITS TO ABOVE ACCESSIBLE CEILING) | | |
| \$ _{PL} | LIGHT SWITCH - PILOT LIGHT | ◄ | TELEPHONE/DATA OUTLET (DOUBLE–GANG BOX WITH (2) 3/4" CONDUITS TO ABOVE ACCESSIBLE CLG.) | (D) _{120V} | SINGLE / MULTI-STATION 120V SMOKE ALAR |
| \$ _{2P} | LIGHT SWITCH - 2 POLE | ↓ 1V | PHONE OUTLET WITH NUMBER OF PHONE JACKS AS | ZAM | ZONE ADDRESSABLE MODULE |
| \$ ^D / ₃ | LIGHT SWITCH – 3-WAY DIMMER | | INDICATED – SEE DETAILS FOR ADD'L INFO. DATA OUTLET WITH NUMBER OF PHONE JACKS AS | IAM | INDIVIDUAL ADDRESSABLE MODULE |
| \$ _M | WALL-MOUNTED MOTION SWITCH | ◀ 1D | INDICATED - SEE DETAILS FOR ADD'L INFO. | HFSS | KITCHEN HOOD FIRE SUPPRESSION SYSTEM F |
| <u>M</u> | CEILING-MOUNTED MOTION SWITCH | ◀ 1D/1V | PHONE/DATA OUTLET WITH NUMBER OF PHONE/DATA JACKS AS INDICATED – SEE DETAILS FOR ADD'L INFO. | H | KITCHEN HOOD REMOTE PULL STATION |
| SB | SWITCHBANK – REFER TO DETAILS | ΗŴ | WALL-MOUNTED WIRELESS INTERNET TRANSMITTER | ARA | AREA OF RESCUE ASSISTANCE STATION |
| FD1 | DIMMER BOARD | $\langle W \rangle$ | CEILING-MOUNTED WIRELESS INTERNET TRANSMITTER | ARAM | AREA OF RESCUE ASSISTANCE MASTER STATION |
| RCS-1 | REMOTE CONTROL SWITCH AS SCHEDULED | <u>\</u> "/ | CELEING-MOUNTED WITCHESS INTERNET TRANSMITTER | NURSE CALL | |
| TC | TIMECLOCK – REFER TO PLANS / DETAILS | AUDIO/VISUAL | | | NURSE CALL STATION |
| | | \mathbb{N} | TELEVISION OUTLET (SINGLE GANG BOX WITH (1) 3/4" CONDUIT TO ABOVE ACCESSIBLE CEILING) | ⊢∾ ⊢© | NURSE CALL EMERGENCY PULL CORD |
| | | (TR) | REVERSE TELEVISION OUTLET - CABLE TO HEAD END | ⊢œ | CODE BLUE STATION |
| C | DISCONNECT SWITCH. RE: PLANS FOR INFORMATION. | õ | RECESSED COMBINATION AV AND POWER OUTLET | ⊢os ⊢os | NURSE CALL STAFF STATION |
| | MAGNETIC MOTOR STARTER | IAV)I | COORD LOCATION OF DEVICE WITH TV MOUNT | ⊢⊛ ⊢® | NURSE CALL STAFF STATION |
| R | COMBINATION DISCONNECT SWITCH / MOTOR STARTER | TDC | TEACHER'S DESK CONNECTIONS – RE: DETAILS | | (CODE BLUE / STAFF ASSIST) |
| \$ | TOGGLE-TYPE DISCONNECT. FURNISH WITH THERMAL MOTOR PROTECTION WHERE SERVING FANS/PUMPS. | HS | WALL SPEAKER | HPM | PATIENT MONITOR STATION |
| | , SURFACE PANELBOARD | (S) | CEILING SPEAKER | ⊢øs | NURSE CALL DUTY STATION |
| | RECESSED PANELBOARD | (S) _{SUB} | CEILING SPEAKER – SUBWOOFER | ۵. | NURSE CALL DOME LIGHT |
| | DISTRIBUTION PANELBOARD | s ss | CEILING SPEAKER – SOUND SYSTEM | <u> </u> | NURSE CALL ZONE LIGHT |
| | SWITCHBOARD. FEEDER/MAIN CIRCUIT BREAKER | ΗŴ | VOLUME CONTROL | NCM | NURSE CALL MASTER STATION |
| | SECTION AND DISTRIBUTION SECTION. | | SOUND SYSTEM AUDIO JACK | RCM | RESIDENT CALL MASTER STATION |
| GENERAL SYMB | <u>OLS</u> | RM | REMOTE MICROPHONE CONTROL | HPC | RESIDENT CALL EMERGENCY PULL CORD |
| | INDICATES CONNECT TO EXISTING | COMMUNICATIC | NS SYMBOLS | SECURITY | |
| \oplus | INDICATES ELEVATION | | INTERCOM CALL STATION | | FIXED CAMERA |
| Ψ | EQUIPMENT TAG. REFER TO CONNECTIONS SCHEDULE | | INTERCOM HANDSET | | |
| XXX | FOR ELECTRICAL CONNECTIONS AND LOAD INFO FOR KITCHEN, SHOP, ETC. EQUIPMENT | PAS | PUBLIC ADDRESS SYSTEM AMPLIFIER | PTZ | PAN/TILT/ZOOM CAMERA |
| | I ON INTOTER, SHOL, LIV. LQUIFMENT | IMS | INTERCOM MASTER STATION | PROX | PROXIMITY TYPE CARD READER |
| | | _ <u>m</u> s_ ⊢(s)⊲ | WALL SPEAKER - HORN TYPE | CARD | SWIPE CARD READER |
| | | <u>r</u> s⊼ (S∕] | WALL SPEAKER - HORN TYPE | ES | ELECTRIC STRIKE |
| | | ECS | CEILING SPEAKER - HORN TYPE ELEVATOR 2-WAY COMMUNICATION STATION | KP | KEYPAD / MAG LOCK |
| | | ECS ECM | ELEVATOR 2-WAY COMMUNICATION STATION | В | BUTTON / MAG LOCK |
| | | ECSP | ELEVATOR 2-WAY COMMUNICATION MASTER STATION | | |
| | | LUJF | LEATON 2 MAI COMMONICATION FUMER SUFFLI | | |
| | | | | | |
| BBREV | IATIONS | | | FIRE SE | EALING NOTES |
| ARCHITECT / | | МН | MANHOLE | | CONSTRUCTION OF OPENINGS AND PENETRATII |
| ABOVE FINISI | , | | MAIN LUGS ONLY NET FREE AREA | INSTALLED A | THAT THROUGH—PENETRATION FIRESTOP SYSTI CCORDING TO SPECIFIED AND APPLICAE |
| ABOVE GRAD | E EX EXISTING ITEM | NL | NIGHT LIGHT | REQUIREMENTS | |
| i authority h J air handlin | IAVING JURISDICTION FFA FROM FLOOR ABOVE G UNIT FFB FROM FLOOR BELOW | OA ORD | OUTSIDE AIR OVERFLOW ROOF DRAIN | OR CUT OF | NZING OF SLEEVES, OPENINGS, CORE-DRILLEL EENINGS TO ACCOMMODATE THROUGH-PEN |
| CH ARCHITECT | FFCO FINISHED FLOOR CLEAN | OUT P/C | PLUMBING CONTRACTOR | FIRESTOP SYST 3. DO NOT CO | 'EMS. VER UP THROUGH-PENETRATION FIRESTOP |
| P BACKFLOW P BELOW GRAD | | IT PSI PVC | POUNDS PER SQUARE INCH POLYVINYLCHLORIDE | INSTALLATIONS | UNTIL EXAMINED BY INSPECTOR, IF REQU |
| G BUILDING | FLR FLOOR | RA | RETURN AIR | 4. COMPATIBILITY: | AVING JURISDICTION. PROVIDE THROUGH-PENETRATION FIRESTOP |
| 5 BUILDING MA CONDUIT | NAGEMENT SYSTEM FP FIRE PROTECTION FPM FEET PER MINUTE | RE/RE RF | F REFER / REFERENCE RELIEF FAN | THAT ARE CO | MPATIBLE WITH ONE ANOTHER; WITH THE SU NINGS; AND WITH THE ITEMS, IF ANY, PEN |
| CANDELA | FWCO FLUSH WALL CLEAN OUT | RL | RELOCATED ITEM | THROUGH-PEN | ETRATION FIRESTOP SYSTEMS, UNDER CONDITI |
| COLD DECK COOLING | G GROUND / GANG G/C GENERAL CONTRACTOR | RPZ RR | REDUCED PRESSURE ZONE RESTROOM | THROUGH-PEN | ND APPLICATION, AS DEMONSTRATEL ETRATION FIRESTOP SYSTEM MANUFACTURER B/ |
| | | | | TESTING AND F | TIELD EXPERIENCE. |
| COORDINATE CLEAN OUT | MOUNTING HEIGHT GFI GROUND FAULT CIRCUIT | INTERUPTER SA | SUPPLY AIR SURGE PROTECTIVE DEVICE | | PONENTS FOR EACH THROUGH-PENETRATION F |

TFB TO FLOOR BELOW

TYP TYPICAL

TRANSFER AIR

TO FLOOR ABOVE

TAMPERPROOF

VTR VENT THROUGH ROOF

WEATHERPROOF

WCO WALL CLEANOUT

WG WIRE GUARD

UNO UNLESS NOTED OTHERWISE

VARIABLE REFRIGERANT FLOW

TFA

TP

VRF

WP

ISOLATED GROUND

JUNCTION BOX

LED LIGHT EMITTING DIODE

MAU MAKE UP AIR UNIT

MCB MAIN CIRCUIT BREAKER

LWT LEAVING WATER TEMPERATURE

M/C MECHANICAL CONTRACTOR

HD HOT DECK

HFATING

MA MIXED AIR

MECH MECHANICAL

HTG

IG

JB

1

DCW DOMESTIC COLD WATER

DF DRINKING FOUNTAIN

DIA DIAMETER

EA EXHAUST AIR

DN DOWN

DHW DOMESTIC HOT WATER

E/C ELECTRICAL CONTRACTOR

EDF ELECTRIC DRINKING FOUNTAIN

DDC DIRECT DIGITAL CONTROLS

DCVA DOUBLE CHECK VALVE ASSEMBLY

DHWR DOMESTIC HOT WATER RETURN

SYSTEM THAT ARE NEEDED TO INSTALL FILL MATERIALS. USE ONLY COMPONENTS SPECIFIED BY THROUGH-PENETRATION FIRESTOP SYSTEM MANUFACTURER AND APPROVED BY QUALIFIED TESTING AND INSPECTING AGENCY FOR FIRESTOP SYSTEMS INDICATED. 6. PROVIDE SLEEVES THROUGH ALL FIRE-RATED WALLS AND FILL VOIDS

2

- SURROUNDING SLEEVES AND INTERIOR TO SLEEVES AROUND PIPING WITH FIRE STOP PUTTY WITH U.L. LISTED 3 HOUR RATING INSTALLED AS PER MANUFACTURERS RECOMMENDATIONS. 7. FIRE SEAL ALL PIPING, CONDUIT, CABLE, ETC PENETRATIONS ROUTED
- THROUGH FIRE RATED WALLS.
- 8. PROVIDE FIRE RATED ENCLOSURES OR WRAPS ON LIGHT FIXTURES AND OTHER ITEMS PENETRATING FIRE RATED CEILINGS, FLOOR/CEILING/ CEILING/ROOF ASSEMBLIES TO MAINTAIN UL LISTING FOR CONSTRUCTION.

| IANICAL | AND P | LUMBING | SYMBOL | LEGEI |
|---------|-------|---------|--------|-------|

| SHEET METAL | | MECHANICAL PIP | ING | PIPING SYMBOLS | 8 |
|----------------|--|---|---|------------------------|--|
| | HIGH EFFICIENCY ROUND DUCT TAKEOFF | | REFRIGERANT LIQUID | | |
| LP LP | (WITH & WITHOUT MANUAL DAMPER) | | REFRIGERANT SUCTION | —+ > | SHUTOFF VALVE IN RISER |
| | SPIN-IN ROUND DUCT TAKEOFF | D | DRAIN (CONDENSATE) | | BALANCING VALVE |
| ₽ LP | (WITH & WITHOUT MANUAL DAMPER) | —— СА ——— | | | PLUG VALVE |
| ᡗ᠋᠋ᡯ | CONTRAL RELINGUEL ROUND THEORE | CWS | CHILLED WATER SUPPLY | — i oi | AUTO FLOW CONTROL VALVE |
| | CONICAL BELLMOUTH ROUND TAKEOFF | —— CWR —— | CHILLED WATER RETURN | —ю | PIPING ELBOW UP |
| | ROUND DUCT RUNOUT WITH FLEX DUCT | —— с/нws —— | CHILLED/HOT WATER SUPPLY | +> | PIPING ELBOW DOWN |
| | ROUND DUCT RUNDUT WITH FLEX DUCT | —— C/HWR —— | CHILLED/HOT WATER RETURN | | PIPING TEE |
| | DUCTWORK ELBOW (WITH & WITHOUT TURNING VANES) | —— HWS —— | HOT WATER SUPPLY | + | PIPING ELBOW |
| ᡨ╵᠊ᡏᡨ | DUCINONN ELDON (MITT & MITTOOT TONNING VANES) | —— HWR —— | HOT WATER RETURN | <u>—ю</u> — | PIPING TEE UP |
| | FD:FIRE DAMPER FS:FIRE/SMOKE DAMPER | | COOLING TOWER SUPPLY | | PIPING TEE DOWN |
| | SD:SMOKE DAMPER BD:BACKDRAFT DAMPER (GRAVITY) | | COOLING TOWER RETURN | —₽ | INCREASER / REDUCER |
| | AUTOMATIC MOTORIZED DAMPER | | STEAM (ANY #'S DENOTE PRESSURE) | | UNION |
| | | | CONDENSATE RETURN (#'S DENOTE PRESSURE) |] | CAP |
| <u>8"ø 225</u> | SUPPLY DIFFUSER AND DIFFUSER CALLOUT | | REFRIGERANT VENT | | PIPE FLEX |
| | (NECK SIZE, TYPE AND CFM) | —— RD —— | RUPTURE DISK | — ,, | STRAINER |
| | LINEAR/SLOT DIFFUSER | | _ | | CHECK VALVE |
| \square | RETURN GRILLE OR EXHAUST REGISTER | PLUMBING PIPING | — | -+ <u>Ū</u> +- | INLINE STRAINER |
| ◄ | SUPPLY AIR FLOW INDICATOR | | DOMESTIC COLD WATER | | TEST PLUG |
| ~► | RETURN AND EXHAUST AIR FLOW INDICATOR | | DOMESTIC HOT WATER | | GUIDE |
| \oplus | THERMOSTAT | | RECIRCULATING DOMESTIC HOT WATER | — <u>×</u> | ANCHOR |
| Ð | TEMPERATURE SENSOR | | WASTE ABOVE GRADE OR FLOOR WASTE BELOW GRADE OR FLOOR | - <u></u> | TRIPLE DUTY VALVE |
| нÐ | HUMIDISTAT | | STORM ABOVE GRADE OR FLOOR | | AUTOMATIC 2-WAY CONTROL VALVE |
| \ | CONTROL WIRING | | STORM ABOVE GRADE OR FLOOR | | AUTOMATIC 3-WAY CONTROL VALVE |
| | | | STORM DELOW GRADE OR FLOOR STORM OVERFLOW ABOVE GRADE OR FLOOR | " " " | |
| DICAL GAS | | , | STORM OVERFLOW BELOW GRADE OR FLOOR | X | SOLENOID VALVE |
| — MV — | MEDICAL VACUUM PIPING | , | PLUMBING VENT | | |
| — o — | OXYGEN PIPING | | WATER SERVICE | PIPING SPECIAL | <u>FIES</u> |
| — NO — | NITROUS OXIDE PIPING | | GAS (NATURAL) | ₽ ₽ | PRESS/ TEMP GAUGE WITH COCK |
| — SA — | MEDICAL COMPRESSED AIR PIPING | | FROM SUMP PUMP DISCHARGE | | ······································ |
| — N — | NITROGEN PIPING | | COMPRESSED AIR | Щ | THERMOMETER. |
| — <i>co</i> — | CARBON DIOXIDE PIPING | <i>LP</i> | | | |
| — V V— | VACUUM VENT PIPING | SCW | SOFT DOMESTIC COLD WATER | | PRESSURE REDUCING VALVE |
| — WAGD — | WASTE ANESTHETIC GAS DISPOSAL PIPING | —— SHW —— | SOFT DOMESTIC HOT WATER | \cup | |
| — GV — | MEDICAL GAS VENT PIPING | SRW | SOFT RECIRCULATING HOT WATER | 一交 | RELIEF VALVE |
| ŀγ | MEDICAL GAS OUTLET W/ DESIGNATION (RE: BELOW) | —— ACID —— | ACID WASTE | n N | |
| | O OXYGEN | VACID | ACID WASTE VENT | ¥ | WATER HAMMER ARRESTER |
| | N NITROGEN | NP | NON-POTABLE | | |
| | NO NITROUS OXIDE WAGD WASTE ANESTHETIC GAS DISPOSAL | ——— DI ——— | DEIONIZED WATER | | |
| | CO CARBON DIOXIDE | ——— RO ——— | REVERSE OSMOSIS WATER | PLUMBING FIXTU | |
| | MV MEDICAL VACUUM | W&V | | | HOSE BIBB |
| | SA SURGICAL AIR | $\left(\begin{array}{c} 1 \\ xx \end{array} \right)$ | PLUMBING RISER CALLOUT (REFERS TO RISER DIAGRAM) | ─₽₩H | WALL HYDRANT |
| | S MEDICAL SLIDE | | | | CLEAN OUT |
| | | | | RPZ DCBP | REDUCED PRESSURE BACKFLOW PRE |
| NERAL SYMBO | DLS | | | | DOUBLE CHECK BACKFLOW PREVENTE |
| - | | | FIRE PROTECTION PIPING | | PLUMBING FIXTURE AND CALLOUT |
| | INDICATES CONNECT TO EXISTING | | SPRINKLER HEAD | $\frac{WC-1}{S-1}$ | FD: FLOOR DRAIN, AD: AREA DRAIN, |
| | | | SIDEWALL SPRINKLER HEAD | ⊖ <u>∃</u> <u>FD-1</u> | |
| \oplus | INDICATES ELEVATION | Ŷ | FIRE PROTECTION SIAMESE CONNECTION | \circ \Box $=$ | FS: FLOOR SINK |

FOR MECHANICAL CONNECTIONS AND LOAD INFO (XXX)FOR KITCHEN, SHOP, ETC. EQUIPMENT

GENERAL ELECTRICAL NOTES

- 1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE NATIONAL ELECTRICAL CODE,
- LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ. 2. COORDINATE LOCATIONS OF RECEPTACLES, SWITCHES, ETC. WITH
- ARCHITECTURAL CASEWORK AND ELEVATIONS.
- 3. REFER TO MOUNTING HEIGHTS DETAIL FOR MOUNTING HEIGHTS OF ALL DEVICES NOT INDICATED OTHERWISE.
- 4. PROVIDE ALL EMPTY CONDUITS WITH PULL STRINGS AND BUSHED 5. CONTRACTOR SHALL CONCEAL ALL CONDUIT, FITTINGS, AND DEVICES
- FROM VIEW WHERE REASONABLY POSSIBLE 5.2. REFER TO SPECIFICATIONS FOR ALLOWABLE WIRING METHODS THROUGHOUT PROJECT
- 5.3. ALL EXPOSED WIRING SHALL BE IN EMT OR METALLIC CONDUIT. EXCEPT AS PERMITTED BY SPECIFICATIONS FOR WHIPS TO EQUIPMENT.
- 6. ALL CONDUCTOR SIZES INDICATED ON DRAWINGS ARE FOR COPPER CONDUCTORS UNLESS SPECIFICALLY NOTED OTHERWISE. ALUMINUM CONDUCTORS MAY BE USED ONLY UNDER THE FOLLOWING CONDITIONS
- 6.1. CONTRACTOR SHALL INCLUDE A DEDUCT ALTERNATE FOR USE OF SAME WITH BIDS, FOR OWNER ACCEPTANCE.
- 6.2. AL CONDUCTORS MAY ONLY BE USED ON FEEDERS 100A OR
- GREATER NO EXCEPTIONS. 6.3. ALUMINUM CABLING SHALL BE COMPACTED ALUMINUM
- (STARII OY)
- 6.4. PROVIDE COMPRESSION-TYPE ONE-HOLE OR TWO-HOLE LUG TERMINATIONS.
- 6.5. PROVIDE ANTI-OXIDANT COMPOUND AT TERMINATIONS.
- 6.6. CABLE TERMINATIONS SHALL BE MARKED "AL/CU".
- 6.7. FINAL SIZES OF CONDUCTORS TO BE CONFIRMED BY ENGINEER. 6.8. ALUMINUM SERVICE CONDUCTORS MUST HAVE "AA-8000" SERIES LABELING ON CABLE JACKETS PER EVERGY REQUIREMENTS -

NO EXCEPTIONS. ENGINEER RESERVES FINAL RIGHT TO ACCEPT/DENY USE OF ALUMINUM CONDUCTORS FOR PART OR ALL OF PROJECT.

LOW VOLTAGE SCOPE OF WORK

ELECTRICAL CONTRACTOR'S SCOPE OF WORK FOR THE LOW VOLTAGE SYSTEMS SHOWN ON THESE DRAWINGS SHALL BE AS FOLLOWS:

- FURNISH AND INSTALL SYSTEM COMPLETE AND OPERATIONAL:
- 1) FIRE ALARM (DIGITAL ADDRESSABLE TYPE) (FIRE ALARM DEVICES ARE SHOWN ON THESE DRAWINGS FOR REFERENCE/ AND/OR BIDDING PURPOSES ONLY, REFER TO FIRE ALARM SHOP DRAWINGS FOR INSTALLATION AND ADDITIONAL WORK/REQUIREMENTS)
- <u>PROVIDE ROUGH-IN (INCLUDING PATHWAYS) ONLY*:</u>
- 1) TELEPHONE/DATA SYSTEMS. LOCATIONS AND WORK SHOWN ON THESE DRAWINGS ARE CONCEPTUAL IN NATURE AND SHOWN FOR COORDINATION PURPOSES AND ROUGH-IN REQUIREMENTS ONLY.
- 2) HVAC CONTROLS (AS REQUIRED COORDINATE WITH MECH. CONTRACTOR)
- * GENERAL REMARKS REGARDING ROUGH-IN:
- 1. NO DETERMINATION OF CABLING TYPES AND/OR REQUIREMENTS (I.E., PHONE, DATA, ETC.) SHALL BE BASED SOLELY OFF THE SYMBOL TYPES SHOWN ON THESE DRAWINGS.
- 2. ALL DEVICE LOCATIONS AND TYPES SHALL BE COORDINATED WITH THE OWNER.

COORDINATION NOTES

- . COORDINATE REQUIREMENTS FOR INSTALLATION OF SYSTEMS AND EQUIPMENT WITH ALL OTHER TRADES. 2. THE CONTRACTOR SHALL COORDINATE THE ROUTING AND PATH OF ALL SYSTEMS. CONDUITS. PIPES. DUCTS. ETC WITH THE POSITION AND LAYOUT OF THE STRUCTURE. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING NECESSARY OFFSETS, TURNS, RISES AND DROPS
- FOR SYSTEMS AND COMPONENTS AS NEEDED TO INSTALL THE MEP SYSTEMS TO CLEAR STRUCTURE, CEILINGS, ETC AND OTHER SYSTEMS IN POTENTIAL CONFLICT WITH ROUTING. 3. COORDINATE WORK WITH OTHER TRADES TO INSTALL SYSTEMS ABOVE
- CEILING HEIGHTS INDICATED ON ARCHITECTURAL PLANS. 4. CHECK SPACE REQUIREMENTS WITH OTHER TRADES AND
- STRUCTURE/CONSTRUCTION TO ENSURE THAT ALL MATERIALS AND EQUIPMENT CAN BE INSTALLED IN THE SPACE ALLOTTED INCLUDING FINISHED SUSPENDED CEILINGS AND OTHER SPACES. CHASES. ETC WITHIN THE BUILDING. MAKE MODIFICATIONS THERETO AS REQUIRED AND APPROVED.
- 5. TRANSMIT TO OTHER TRADES ALL INFORMATION REQUIRED FOR WORK TO BE PROVIDED UNDER THEIR RESPECTIVE SECTIONS IN AMPLE TIME FOR INSTALLATION.
- 6. WHEREVER WORK INTERCONNECTS WITH WORK OF OTHER TRADES. COORDINATE WITH THOSE TRADES TO ENSURE THAT ALL SUBCONTRACTORS HAVE THE INFORMATION NECESSARY SO THAT THEY MAY PROPERLY INSTALL ALL CONNECTIONS AND EQUIPMENT. IDENTIFY ALL ITEMS OF WORK THAT REQUIRE ACCESS SO THAT THE CEILING TRADE WILL KNOW WHERE TO INSTALL ACCESS DOORS AND PANELS.
- 7. COORDINATE, PROJECT AND SCHEDULE WORK WITH OTHER TRADES IN ACCORDANCE WITH THE CONSTRUCTION SEQUENCE.
- 8. DRAWINGS SHOW THE GENERAL RUNS OF CONDUITS, PIPING AND DUCTWORK AND APPROXIMATE LOCATION OF OUTLETS. ANY SIGNIFICANT CHANGES IN LOCATION OF ITEMS NECESSARY IN ORDER TO MEET FIELD CONDITIONS SHALL BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE ARCHITECT/ENGINEER AND RECEIVE HIS APPROVAL BEFORE SUCH ALTERATIONS ARE MADE. ALL SUCH MODIFICATIONS SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER.
- 9. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION AND REPAIR OF SURFACES, AREAS AND PROPERTY THAT MAY BE DAMAGED AS A RESULT OF CONSTRUCTION ACTIVITIES.
- 10. ADJUST LOCATION OF PIPING, DUCTWORK, ETC. TO PREVENT INTERFERENCES, BOTH ANTICIPATED AND ENCOUNTERED. DETERMINE THE EXACT ROUTE AND LOCATION OF EACH ITEM PRIOR TO FABRICATION. MAKE OFFSETS, TRANSITIONS AND CHANGES IN DIRECTION IN SYSTEMS AS REQUIRED TO MAINTAIN ADEQUATE
- CLEARANCES AND HEADROOM. 11. WHEREVER THE WORK IS OF SUFFICIENT COMPLEXITY, PREPARE ADDITIONAL COORDINATION DRAWINGS AND ORGANIZE ON-SITE MEETINGS WITH ALL RELATED SUBCONTRACTORS TO COORDINATE THE WORK BETWEEN TRADES . DRAWINGS SHALL CLEARLY SHOW THE WORK AND ITS RELATION TO THE WORK OF OTHER TRADES. AND BE SUBMITTED FOR REVIEW PRIOR TO COMMENCING SHOP FABRICATION OR ERECTION IN THE FIELD.
- 12. COORDINATE WITH LOCAL UTILITY PROVIDERS FOR THEIR REQUIREMENTS FOR SERVICE CONNECTIONS AND PROVIDE ALL NECESSARY PAYMENTS, MATERIALS, LABOR AND TESTING TO ACCOMPLISH THE WORK.
- 13. COORDINATE THE MOUNTING OF SUSPENDED LIGHT FIXTURES UTILIZING INDIRECT LIGHT SO THAT CONDUIT. DUCTWORK. STRUCTURAL MEMBERS, ETC. ARE NOT LOCATED DIRECTLY ABOVE THE LIGHT FIXTURE. MAINTAIN A MINIMUM OF 24" CLEARANCE FROM THESE ITEMS WHENEVER POSSIBLE.

GENERAL NOTES

- 1. SOME ROOM NAMES MAY NOT BE SHOWN FOR PURPOSE OF CLARIFYING PLAN. REFER TO ARCHITECTURAL PLANS FOR REFERENCE TO ROOM NAMES NOT SHOWN.
- KEEP AT THE JOB SITE, AN UP TO DATE SET OF "RECORD DRAWINGS" SHOWING ALL CHANGES FROM THE ORIGINAL PLANS. THE CONTRACTOR SHALL DELIVER THE "RECORD DRAWINGS" TO THE ENGINEER AT THE CONCLUSION OF THE PROJECT ELECTRONICALLY.
- 3. THESE DRAWINGS ARE DIAGRAMMATIC. THE CONTRACTOR SHALL VERIFY ALL CONDITIONS (NEW AND EXISTING), DIMENSIONS, AND CLEARANCES PRIOR TO THE COMMENCEMENT OF WORK AND SHALL INCLUDE ALL COSTS, EQUIPMENT, MATERIAL, ACCESSORIES, ETC. REQUIRED FOR A FULLY COMPLETE, FUNCTIONAL AND CODE COMPLIANT INSTALLATION.
- 4. FINAL LOCATIONS OF ALL DEVICES, LIGHT FIXTURES, EQUIPMENT ETC SHALL BE INDICATED ON THE ARCHITECTURAL DRAWINGS. ALL DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM ARCHITECTURAL PLANS. NO DIMENSIONAL INFORMATION SHALL BE OBTAINED FROM MEP DRAWINGS.
- 5. THE CONTRACTOR SHALL OBTAIN ALL REQUIRED PERMITS. APPROVALS, LICENSES, ETC. AS NEEDED FOR THE COMPLETE INSTALLATION AND PROJECT. THE CONTRACTOR SHALL COORDINATE WITH THE OWNER FOR ALL FEES AND DATA NEEDED FOR THIS.

GEN. MECHANICAL NOTES

- 1. COMPLETE INSTALLATION SHALL BE IN ACCORDANCE WITH THE LATEST ADOPTED VERSION OF THE INTERNATIONAL MECHANICAL CODE, LOCAL AND STATE CODES, AND REQUIREMENTS OF THE AHJ.
- 2. ANY POWER FOR CONTROL SYSTEMS TO BE PROVIDED BY E/C IS INDICATED ON ELECTRICAL PLANS. ANY ADDITIONAL LINE VOLTAGE OR LOW VOLTAGE POWER REQUIRED BY THE M/C OR SUBCONTRACTORS TO HAVE A FULLY FUNCTIONING SYSTEM SHALL BE PROVIDED BY THE M/C CONTRACTOR OR SUBS.
- 3. ALL EQUIPMENT SHALL BE ADEQUATELY AND PROPERLY SUPPORTED AND FASTENED FROM STRUCTURE. 4. ALL EQUIPMENT AND ACCESSORIES INSTALLED IN CONCEALED SPACES
- REQUIRING ACCESS SHALL BE PROVIDED WITH ACCESS DOORS MEETING ANY FIRE REQUIREMENTS OF THE WALL/CEILING THEY ARE INSTALLED. 5. EACH AIR HANDLING UNIT OVER 2000CFM SHALL BE PROVIDED WITH
- A SMOKE DETECTOR TO SHUT DOWN THE UNIT PER IMC 606 AS REQUIRED BY AHJ. COORDINATE WITH OTHER TRADES. 6. START UP AND ADJUST ALL EQUIPMENT AND VERIFY ALL MECHANICAL
- SYSTEMS IN OPERATE IN ACCORDANCE WITH THEIR INTENDED PURPOSES. SUBMIT BALANCE AND START UP REPORTS TO THE A/E. REFER TO SPECIFICATIONS FOR ANY ADDITIONAL REQUIREMENTS.

MEP-003 M-101 M-102 E-101 E-102

MEP-002 MEP SPECIFICATIONS MEP SPECIFICATIONS MEP-101 MEP DEMOLITION PLAN - FIRST FLOOR

MEP-102 MEP DEMOLITION PLAN - SECOND FLOOR HVAC PLAN - FIRST FLOOR HVAC PLAN - SECOND FLOOR POWER PLAN - FIRST FLOOR POWER PLAN - SECOND FLOOR

PREVENTER NTER

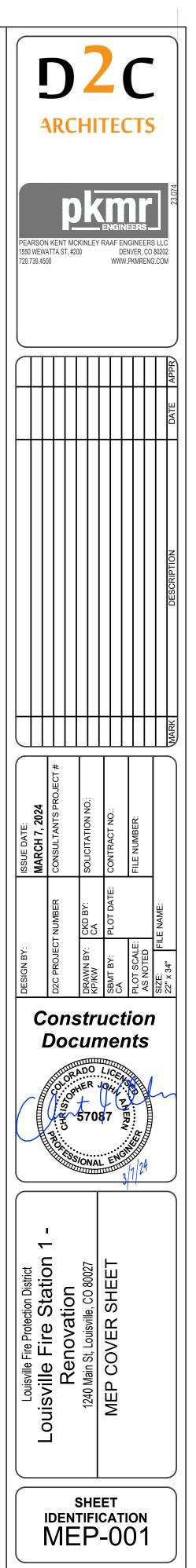
2. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO MAINTAIN AND

CODES AND DESIGN CRITERIA

JURISDICTION: LOUISVILLE, CO BUILDING CODE: 2018 IBC ENERGY CODE: 2021 IECC (IECC PRESCRIPTIVE PATH) ELECTRICAL CODE: 2023 NEC MECHANICAL CODE: 2018 IMC PLUMBING CODE: 2018 IPC

DEMOLITION NOTES

- 1. ALL WORK SHOWN DARK AND DASHED IS TO BE DEMOLISHED. WORK SHOWN LIGHT IS EXISTING TO REMAIN. 2. REFER TO ARCHITECTURAL PLANS FOR FURTHER EXTENT OF
- DEMOLITION REQUIREMENTS. 3. ALL EXISTING PIPING SCHEDULED FOR DEMOLITION THAT ROUTES BELOW SLAB SHALL BE GROUND FLUSH WITH FLOOR, PLUGGED AND THE FLOOR PATCHED TO MATCH SURROUNDING FLOOR.
- 4. COORDINATE ALL DEMOLITION WORK WITH OWNER.
- 5. CONTACT UTILITY LOCATING SERVICE TO LOCATE EXACT LOCATION OF UTILITIES BELOW GRADE.
- 6. MAINTAIN ALL EXISTING DEVICES, EQUIPMENT, ASSOCIATED CIRCUITS ETC. SHOWN AS EXISTING TO REMAIN OR OTHERWISE UNRELATED TO THE SCOPE OF THE PROJECT IN WORKING ORDER.
- 7. CONTRACTOR SHALL REMOVE LAY-IN CEILINGS. LIGHT FIXTURES. ETC. AS REQUIRED FOR CONSTRUCTION WHERE NEEDED PRIOR TO DEMOLITION AND REPLACE SAME AFTER CONSTRUCTION. EXISTING CONDUITS ABOVE CEILINGS SHALL BE RELOCATED AND/OR TEMPORARILY REMOVED TO FACILITATE THE INSTALLATION OF NEW FOUIPMENT
- 8. THE OWNER SHALL REMOVE ALL ITEMS THEY DESIRED TO SALVAGE PRIOR TO CONSTRUCTION BEGINNING. 9. NOTES AND DRAWINGS ARE BASED UPON A FIELD EXAMINATION OF
- THE SITE AND MAY NOT INDICATE ALL ITEMS. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE SITE AND THE SCOPE OF WORK FOR THE CONTRACT PRIOR TO BID. ANY EXISTING CONDITION WHICH IS APPARENT OR COULD BE REASONABLY INFERRED FROM A VISIT TO THE SITE SHALL NOT BE THE BASIS FOR A CHANGE IN THE CONTRACT AMOUNT.
- 10. REFER TO NEW WORK PLANS FOR ANY ITEMS THAT MAY REQUIRE RELOCATION AFTER DEMOLITION. 11. PROPERLY DISPOSE OF ALL DEMOLISHED ITEMS OFF SITE.
- 12. REMOVE ALL MISCELLANEOUS CONDUITS, PIPES, ETC, THOUGH NOT SPECIFICALLY SHOWN ON PLAN, THAT ARE EITHER UNUSED OR WILL BECOME UNUSED DUE DEMOLITION ACTIVITIES, IN ORDER TO PROVIDE A "CLEAN" SPACE FOR THE OWNER.
- 13. PROTECT ALL EXISTING SURFACES AND EQUIPMENT DURING CONSTRUCTION. EXISTING ITEMS TO REMAIN SHALL BE ADEQUATELY PROTECTED FROM DEMOLITION AND NEW CONSTRUCTION WORK, AS REQUIRED. ANY ITEMS DAMAGED OR MARRED SHALL BE ADEQUATELY CLEANED OR REPLACED TO THE OWNERS SATISFACTION TO ORIGINAL CONDITION BEFORE CONSTRUCTION.
- 14. PATCH ANY HOLES IN STRUCTURE CREATED BY REMOVAL OF DUCTWORK, CONDUITS, PIPES, ETC. 15. REMOVE ALL ITEMS SHOWN IN WALLS TO BE DEMOLISHED. ALL
- ELECTRICAL CONDUIT AND WIRING SHALL BE REMOVED BACK TO PANELBOARDS AND PROPERLY TERMINATED. 16. SAW CUT FLOOR FOR THE INSTALLATION OF NEW SANITARY PIPING.
- REFER TO PLUMBING PLANS SHOWING NEW WORK. 17. SAVE, CLEAN, AND RE-LAMP ALL LIGHT FIXTURES NOTED AS BEING
- RELOCATED. REFER TO NEW WORK PLANS AND LIGHT FIXTURE SCHEDULE FOR DESCRIPTIONS, QUANTITIES, AND LOCATIONS OF FIXTURES TO BE RE-USED.



GENERAL MECHANICAL/ELECTRICAL SPECIFICATIONS

1. APPLICABILITY A. These general requirements apply to all divisions (23, 26). Refer to individual divisions as included for specific information regarding each trade or scope of

2. GENERAL REQUIREMENTS shown on plans.

required.

by drawings & specifications.

involved. 3. EXTENT OF CONTRACT WORK

base bid proposal.

or Architect Engineer.

operation

contract. 4. DEFINITIONS

indicated meanings:

operations.

"Architect"

manufacturer specified".

5. PREBID SITE VISIT

contract price.

6. MATERIAL & WORKMANSHIP

acceptable.

at completion

7. COORDINATION

D

GENERAL MECHANICAL, ELECTRICAL AND PLUMBING REQUIREMENTS

- A.Furnish & install all labor & materials required for complete, functioning, mechanical & plumbing systems w/ all associated equipment & apparatus as
- B. Obtain & pay for all permits required for execution of this work & shall make arrangements for modifications to water, gas & sewer connections to building as
- C. All materials shall be new & shall bare UL label where applicable.
- D. Visit site & observe conditions under which work will be done. Any discrepancies shall be called to architect's attention. No subsequent allowance will be made in contract for any error or negligence on contractor's part
- E. Final acceptance of work shall be subject to condition that all systems, equipment, apparatus & appliances operate satisfactorily as designed & intended. Work shall include required adjustment of systems & control equipment installed under these specifications.
- F. Warrant to owner quality of materials, equipment, workmanship & operation of equipment provided under these specifications for one year from & after completion of building & acceptance of mechanical systems by owner. G.All materials installed in plenums shall be noncombustible or have flame/smoke
- index of no more than 25/50 in accordance w/ ASTM e 84.
- H. Requirements under Division one & general & supplementary conditions of these specifications shall be part of this section. Contractor shall become thoroughly acquainted w/ its contents as to requirements that affect this Division of work required under this section includes material. Equipment, appliances Transportation. Services. & labor required to complete entire system as required
- I. The specifications & drawings for project are complementary, & portions of work described in one, shall be provided as if described in both. In event of
- discrepancies, notify engineer & request clarification prior to proceeding w/ work
- A.Provide MEP systems indicated on drawings, specified or reasonably implied. In addition to specific equipment called out in plans and specifications, provide every device, component, programming, interlocking and accessory necessary for proper operation and completion of totally functional MEP systems.
- B. In case of an inconsistency between the Drawings and Specifications or within either document, the better quality or the greater quantity of work shall be provided in accordance with the Architect or Engineer's interpretation. C.In no case will claims for "Extra Work" be allowed for work about which
- Contractor could have been informed before bids were taken
- D. Contractor shall become familiar with equipment provided by other contractors that require plumbing connections and controls. E. Electrical work required to install and control plumbing equipment, which is not
- shown on plans or specified under Division 26, shall be included in Contractor's
- F. All automatic temperature control devices shall be mounted as indicated in automatic temperature control section of specifications.
- G. The cost of larger wiring, conduit, control and protective devices resulting from installation of equipment which was not used for basis of design as outlined in specifications shall be paid for by the supplying Contractor at no cost to Owner
- H. Contractor shall be responsible for providing supervision to other trade Contractors to insure that required connections, interlocking and interconnection of MEP equipment is made to attain intended control sequences and system
- I. Contractor shall obtain complete MEP data on shop drawings and shall list this data on an approved form that shall be presented on request, to other trade Contractors. Data shall be complete with wiring diagrams received to date and shall contain necessary data on electrical components of plumbing equipment such as HP, voltage, amperes, watts, locked rotor current to allow other trade Contractors to order support or other equipment coordinated as required in his
- A. Whenever used in these specifications or drawings, following terms shall have
- B. Furnish: term "Furnish" is used to mean "supply & deliver to project site. Ready or unioading, unpacking, assembly. Installation & similar ope
- C.Install: term "Install" is used to describe operations at project site including actual "unloading, unpacking. Assembly. Erection. Placing. Anchoring. Applying, working to dimension. Finishing, curing, protecting, cleaning. & similar
- D.Provide: term "Provide" means "to Furnish & Install. Complete & ready for intended use." furnished by owner or furnished by others: item will be furnished by owner or others. It is to be installed & connected under requirements of this Division, complete & ready for operation, including items incidental to work, including services necessary for proper installation & operation. Installation shall be included under guarantee required by this Division.
- E. Engineer: where referenced in this Division, "Engineer" is engineer of record & design professional for work under this Division, & is consultant to, & an authorized representative of, architect. As defined in general &/or supplementary conditions. When used in this Division. It means increased involvement by. & obligations to, engineer, in addition to involvement by. & obligations to,
- F. AHJ: local code &/or inspection agency (authority) having jurisdiction over work. G. The terms "Approved equal", "Equivalent". Or "Equal" are used synonymously & shall mean "accepted by or acceptable to engineer as equivalent to item or
- H. The term "approved" shall mean labeled, listed. Or both. By nationally recognized testing laboratory (e.g. UL. ETL. CSA). & acceptable to AHJ over this project.
- A.Prior to submitting bid. Visit site of proposed work & become fully informed as to conditions under which work is to be done. Failure to do so will not be considered sufficient justification to request or obtain extra compensation over & above
- A. Provide new material, equipment. & apparatus under this contract unless otherwise stated herein. Of best quality normally used for purpose in good commercial practice & free from defects. Model numbers listed in specifications or shown on drawings are not necessarily intended to designate required trim, written descriptions of trim govern model numbers.
- B. Pipe, fittings, specialties & valves shall be manufactured in USA. Work performed under this contract shall provide neat & "workmanlike" appearance when completed to satisfaction of architect & engineer. Workmanship shall be finest possible by experienced mechanics. Installations shall comply w/ applicable codes & laws. Complete installation shall function as designed & intended w/ respect to efficiency, capacity, noise level. etc. Abnormal noise caused by rattling equipment, piping, ducts, air devices & squeaks in rotating components will not be acceptable. In general materials & equipment shall be of commercial specification grade in quality. Light duty & residential equipment is not
- C.Remove from premises waste material present from work, including cartons, crating, paper, stickers, &/or excavation material not used. D. Clean equipment installed under this contract to present neat & clean installation
- E. Repair or replace public & private property damaged as result of work performed under this contract to satisfaction of authorities & regulations having jurisdiction.
- A.Coordinate work w/ other trades so various components of systems will be installed at proper time will fit available space & will allow proper service access for maintenance. Components which are installed without regard to above shall be relocated at no additional cost to owner.
- B. Obtain equipment submittal information for all pieces of equipment to be

- connected to from other trades that clearly indicates all connection requirements, locations, sizes, and similar requirements. Obtain this information in ample time to coordinate other trade submittals and equipment coordination. Where requirements differ from that on plans or differs from provisions made in the work, immediately notify the architect/engineer. Do not proceed with work that is incompatible with equipment provided
- C.Unless otherwise indicated, general contractor will provide chases & openings in building construction required for installation of systems specified herein Contractor shall furnish general contractor w/ information where chases & openings are required.
- D.Keep informed as to work of other trades engaged in construction of project & execute work in manner as to not interfere w/ or delay work of other trades. Figured dimensions shall be taken in preference to scale dimensions.
- E. Contractor shall take his own measurements at building, as variations may occur. Contractor will be held responsible for errors that could have been avoided by proper checking & inspection.
- F. Provide materials w/ trim that will properly fit types of ceiling, wall. Or floor finishes actually installed. Model numbers listed in specifications or shown on drawings are not intended to designate required trim.
- G.Coordinate construction operations included in different sections of the specifications to ensure efficient and orderly installation of each part of the work Coordinate construction operations, included in different sections, that depend on each other for proper installation, connection, and operation
- H. Each contractor shall coordinate its construction operations with those of other contractors and entities to ensure efficient and orderly installation of each part of the work. Each contractor shall coordinate its operations with operations. included in different sections, that depend on each other for proper installation, connection, and operation.
- 1 Schedule construction operations in sequence required to obtain the best results. where installation of one part of the work depends on installation of other components, before or after its own installation.
- J. Coordinate installation of different components with other contractors to ensure maximum accessibility for required maintenance, service, and repair.
- K. Make adequate provisions to accommodate items scheduled for later installation. L. Where availability of space is limited, coordinate installation of different components to ensure maximum performance and accessibility for required maintenance, service, and repair of all components, including mechanical and
- electrical. M.Prepare coordination drawings if limited space availability necessitates maximum utilization of space for efficient installation of different components or if coordination is required for installation of products and materials fabricated by separate entities. Content: project-specific information, drawn accurately to scale. Do not base coordination drawings on reproductions of the contract documents or standard printed data. Include the following information, as applicable:
- 1) Indicate functional and spatial relationships of components of architectural, structural, civil, mechanical, and electrical systems.
- 2) Indicate required installation sequences
- 3) Indicate dimensions shown on the contract drawings and make specific note of dimensions that appear to be in conflict with submitted equipment and minimum clearance requirements. Provide alternate sketches to architect for resolution of such conflicts. Minor dimension changes and difficult installations will not be considered changes to the contract.
- N.Meetings: conduct project coordination meetings at regular intervals. Project coordination meetings are in addition to specific meetings held for other purposes, such as progress meetings and preinstallation conferences.
- 1) Attendees: each contractor, subcontractor, supplier, and other entity concerned with current progress or involved in planning, coordination, or performance of future activities shall be represented at these meetings. All participants at the conference shall be familiar with project and authorized to conclude matters relating to the work. Notify architect of meeting.
- 2) Agenda: review and correct or approve minutes of the previous coordination meeting. Review other items of significance that could affect progress.
- 3) Combined contractor's construction schedule: review progress since the last coordination meeting. Determine whether each contractor is on time, ahead or behind schedule, in relation to construction schedule. Discuss whether schedule revisions are required to ensure that current and subsequent activities will be completed within the contract time. Discuss impact of various contractor schedules upon other contractors and how to remedy impacts.
- 4) Review present and future needs of each contractor present
- O. After shop drawings have been reviewed and approved by all parties, transmit a set of submittals to each other trade (eg Plumbing, Mechanical, Electrical Controls, etc) that will interface with installation. Each other contractor shall review the submittal for coordination and return a stamped submittal indicating they have reviewed the submittal for coordination purposes.
- 8. ARCHITECTURAL VERIFICATION AND RELATED DOCUMENTS A. Contractor shall consult all Architectural Drawings and specifications in their entirety incorporating and certifying all millwork, furniture, and equipment rough-in including utility characteristics such as voltage, phase, amperage, pipe sizes, duct sizes, including height, location and orientation. Shop drawings incorporating these requirements should be submitted to the Architect for approval prior to installation or rough in.
- 9. ORDINANCES & CODES
- A. Work performed under this contract shall. At minimum, be in conformance w/ applicable national, state & local codes having jurisdiction
- B. Installation work performed under this contract shall be in strict compliance w/ current applicable codes adopted by local AHJ including any amendments & standards as set forth by National Fire Protection Association (NFPA). Underwriters Laboratories (UL), Occupational Safety & Health Administration (OSHA). American Society of Mechanical Engineers (ASME), American Society of Heating, Refrigeration, & Air Conditioning Engineers (ASHRAE). American national standards institute (ANSI), American Society of Testing Materials (ASTM) & other national standards & codes where applicable.
- C. Where contract documents exceed requirements of referenced codes.
- Standards, etc., contract documents shall take precedence.
- D.Procure & pay for permits & licenses required for accomplishment of work herein described. Where required, obtain, Pay for & furnish certificates of inspection to owner. Contractor will be held responsible for violations of law. 10. STANDARDS
- A.Drawings and specifications indicate minimum construction standard. Should any work indicated be sub standard to any ordinances, laws, codes, rules or regulations bearing on work, Contractor shall promptly notify Architect Engineer in writing before proceeding with work so that necessary changes can be made. However, if the Contractor proceeds with work knowing it to be contrary to any ordinances, laws, rules, and regulations, Contractor shall thereby have assumed full responsibility for and shall bear all costs required to correct non complying
- 11. PROTECTION OF EQUIPMENT & MATERIALS
- A. Store & protect from damage equipment & materials delivered to job site. Cover as required to protect from dirt & damage. Plug or cap open ends of ductwork & piping systems while stored & installed during construction when not in use to prevent entrance of debris into systems. Equipment & material that has been damaged by construction activities will be rejected, & contractor is obligated to furnish new equipment & material of like kind. Keep premises broom clean from foreign material created during work performed under this contract. Piping, equipment, etc. Shall have neat & clean appearance at completion. 12. SUBSTITUTIONS
- A. The base bid shall include only products from manufacturers specifically named in drawings & specifications. No substitution will be considered prior to receipt of bids unless written request for approval to bid has been received by engineer at least ten calendar days prior to date for receipt of bids. Request shall include name of material or equipment for substitution & complete description of proposed substitute including drawings, cuts, performance & test data & other information for evaluation. Statement setting forth changes in other materials. equipment or other work that incorporation of substitute would require shall be included
- B. The intent of these specifications is to allow ample opportunity for Contractor to

use his indenuity and abilities to perform the work to his and the Owner's best advantage, and to permit maximum competition in bidding on standards of materials and equipment required

- C.Material and equipment installed under this contract shall be first class quality, new, unused and without damage
- D. In general, these specifications identify required materials and equipment by naming one or more manufacturer's brand, model, catalog number and/or other identification. The first named manufacturer or product is used as the basis for design: other manufacturers named must furnish products consistent with specifications of first named product as determined by Engineer. Base bid proposal shall be based only on materials and equipment by manufacturers named, except as hereinafter provided
- E. Where materials or equipment are described but not named, provide required items of first quality, adequate in every respect for intended use. Such items shall be submitted to Architect Engineer for review prior to procurement.
- F. Materials and equipment proposed for substitutions shall be equal to or superior to that specified in construction, efficiency, utility, aesthetic design, and color as determined by Architect Engineer whose decision shall be final and without further recourse. Physical size of substitute brand shall be no larger than space provided including allowances for access for installation and maintenance. Requests must be accompanied by complete descriptive and technical data including manufacturer's name, model and catalog number, photographs or cuts, physical dimensions, operating characteristics and any other information needed for comparison.
- G. The burden of proof of merit of proposed substitute is upon proposer. Engineer's decision of approval or disapproval to bid of proposed substitution shall be final. Terms approved". "approved equal", & "equal" refer to approval by engineer as an acceptable alternate bid. No substitutions will be considered that are not bid as an alternate.
- H.No material substitutions shall be considered for approval after to award of contract. Coordinate & verify w/ other trades whether or not substituted equipment can be installed as shown on construction drawings without modification to associated systems or architectural or engineering design. Include additional costs for architectural & engineering design fees in bid if drawing modifications are required because of substituted equipment. 13. SHOP DRAWINGS
- A. Equipment to be furnished under this contract, items requiring coordination between contractors & sheet metal ductwork fabrication drawings. Before submitting shop drawings verify equipment submitted is mutually compatible & suitable for intended use & will fit available space & allow ample room for maintenance. Engineer's checking & subsequent approval of such shop drawings will not relieve contractor from responsibility for errors in dimensions, details, size of members, quantities, omissions of components or fittings; coordination of electrical requirements; or for coordinating items w/ actual building conditions. Proceed w/ procurement & installation of equipment only after receiving approved shop drawings relative to each item.
- B. Submittal data shall be neatly organized, identified & indexed. Each item or model number shall be clearly marked & accessories indicated. Label catalog data w/ equipment identification acronym or number as used on drawings & include performance curves, capacities, sizes, materials, finishes, wiring diagrams & deviations from specified equipment or materials. Mark out inapplicable items. Shop drawings will be returned without review if above mentioned requirements are not met.
- C.Requirements shall be met electronically & submitted as pdf in files less than
- D. Contractor's stamp, which shall certify that stamped drawings have been checked by contractor, comply w/ drawings & specifications, & have been coordinated w/ other trades
- E. Transmit submittals as early as required to support project schedule. Allow for two weeks a/e review time, plus duplication of this time for resubmittals, if required. Transmit submittals as soon as possible after notice to proceed & before construction starts. Engineer's submittal reviews will not relieve contractor from responsibility for errors in dimensions, details, size of members, or quantities; or for omitting components or fittings; or for not coordinating items w/ actual building conditions.
- F. Final copies shall be furnished to owner as part of O&M documents in hard & electronic formats.
- 4. OPERATION & MAINTENANCE INSTRUCTIONS
- A. Collect & compile complete brochure of equipment furnished & installed on this project. Include operational & maintenance instructions, manufacturer's catalog sheets, wiring diagrams, parts lists, approved shop drawings, test & balance reports, & descriptive literature as furnished by equipment manufacturer. Include an inside cover sheet that lists project name, date, owner, architect, consulting engineer, general contractor, sub-contractor, & an index of contents. Submit three copies of literature bound in 3-ring binders w/ index & tabs separating equipment types to architect at termination of work. Final approval of plumbing systems will be withheld until manual is received & deemed complete by architect & engineer. Provide "as-built" drawings (see Division 1 & general conditions)
- B. These requirements may shall also be provided to the owner in a well organized pdf electronic submission & delivered on a DVD or USB thumbdrive. 15. TRAINING
- A. Provide factory trained & authorized representative to train owner's designated personnel on operation & maintenance of equipment provided for this project. Provide training to include but not be limited to an overview of system &/or equipment as it relates to facility as whole; operation & maintenance procedures & schedules related to startup & shutdown, troubleshooting, servicing, preventive maintenance & appropriate operator intervention; & review of data included in operation & maintenance manuals. Submit certification letter to architect stating that owner's designated representative has been trained as specified herein. Letter shall include date, time, attendees & subject of training. Contractor & owner's representative shall sign certification letter indicating agreement that training has been provided. Schedule owner training w/ at least 7 days' advance notice.
- 16. <u>SPARE PARTS</u>
- A.Furnish to owner, w/ receipt one set of spare filters of each type required for each unit. In addition to spare set of filters, install new filters prior to testing, adjusting,
- & balancing work & before turning system over to owner. B. Furnish one complete set of belts for each fan.
- 17. EQUIPMENT LABELS:
- A.Material and thickness: multilayer, multicolor, plastic labels for mechanical engraving, 1/16 inch thick, and having predrilled holes for attachment hardware. Black letters on white background
- B. Minimum label size: length and width vary for required label content, but not less than 2-1/2 by 3/4 inch.
- C.Minimum letter size: 1/4" for name of units if viewing distance is less than 24 inches, 1/2" for viewing distances up to 72" & proportionately larger lettering for greater viewing distances. Include secondary lettering two-thirds to three-fourths the size of principal lettering.

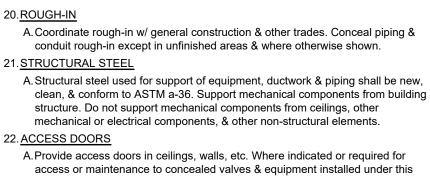
18. WARRANTIES

- A. Warrant each system & each element thereof against all defects due to faulty workmanship design or material for period of 12 months from date of substantial completion unless specific items are noted to carry longer warranty in construction documents or manufacturer's standard warranty exceeds 12 months. Remedy all defects, occurring within warranty period(s) stated in general conditions & Division 1. Warranties shall include labor & material. Make repairs or replacements without any additional costs to owner. Perform remedial work
- promptly, upon written notice from engineer or owner. B. At time of substantial completion, deliver to owner all warranties in writing & properly executed including term limits for warranties extending beyond one year period. Each warranty instrument being addressed to owner & stating commencement date & term.
- 19. CUTTING & PATCHING

satisfactory to architect.

A.Perform cutting of walls, floors, ceilings, etc. As required to install work under this section. Obtain permission from architect prior to cutting. Do not cut or disturb structural members without prior approval from architect. Cut holes as small as possible. General contractor shall patch walls, floors, etc. As required by work under this section. Patching shall match original material & construction. Repair & refinish areas disturbed by work to condition of adjoining surfaces in manner

manufacturers instructions.



access or maintenance to concealed valves & equipment installed under this section. Provide concealed hinges, screwdriver-type lock, anchor straps; manufactured by Milcor, Zurn, Titus, or equal. Obtain architect's approval of type, size. Location & color before ordering.

23. PENETRATIONS

A.Seal mechanical floor, exterior wall & roof penetrations watertight & weathertight. Seal around mechanical penetrations w/ 3M CP-25 fire barrier caulk (thickness as required & recommended by manufacturer) to maintain resistance rating of fire-rated assemblies. Provide prefabricated roof curbs manufactured by Custom Curb. Pate. Thycurb or approved equal. Provide roof curb w/ factory installed wood nailer; welded, 18 gauge galvanized steel shell, base plate & flashing; 1-1/2" thick, 3 pound rigid insulation; fully mitered 3-inch raised cant; cover of weather-resistant, weather-proof material & pipe collar of weather-resistant material w/ stainless steel pipe clamps. Make roof penetrations by authorized roofing contractor when required.

24.MOTORS & STARTERS

A. Provide motors & starting equipment where not furnished w/ equipment package. Motors shall have copper windings, class b insulation. & standard squirrel cage w/ starting torque characteristics suitable for equipment served. Motors for air handling equipment shall be selected for quiet operation. Each motor shall be checked for proper rotation after electrical connection has been completed. Provide dripproof enclosure for locations protected from weather & not in air stream of fan; & totally enclosed fan cooled enclosure for motors exposed to weather. Motors shall be manufactured by Century, GE, Westinghouse, or approved equal. Provide every motor, except fractional horsepower single phase motors w/ an approved type of "built-in" thermal overload protection, w/ motor starter. Each starter shall be provided w/ overload heaters sized to motor rating. & every three phase motor starter shall have overload heaters in each phase. Ambient compensated heaters shall be installed wherever necessary. Unless noted otherwise, motor starters shall be furnished by Division 22/23 contractor for installation & connection by Division 26 contractor. Starters shall be Allen-Bradley, Clark, Furnas, Square D, or approved equal.

25. ELECTRICAL WIRING

- A.Line voltage wiring shall be provided by Division 26. Line voltage control & interlock wiring for mechanical systems shall also be provided by Division 26 contractor. Low voltage control wiring shall be provided by Division 22/23 contractor. Furnish wiring diagrams to Division 26 contractor as required for proper equipment hookup. Coordinate w/ Division 26 contractor actual wire sizing amps for submitted mechanical equipment to ensure proper installation
- 26. DISCONNECT SWITCHES
- A. Provide heavy-duty horsepower rated safety switches rated in accordance with NEMA enclosed switch standard KS 1_1969 and I98 standard. B. Each piece of electrical equipment shall be provided with a disconnecting means.
- C.Equivalents by: GE, Eaton, Siemens, Square D.

27.REFRIGERANT & OIL

A. Provide full refrigerant & oil charge in refrigeration systems. Maintain for full term of warranty

28. EQUIPMENT FURNISHED BY OTHERS

A. Provide necessary equipment & accessories that are not provided by equipment supplier or owner to complete installation of cooking equipment, washing equipment, etc., furnished by others, in locations as indicated on drawings &/or described in general notes to this contractor. Equipment & accessories not provided by equipment supplier may include flues, vents, intakes, associated roof jacks & caps to outdoors, dampers, In-line fans, roof fans, control interlocks. etc. As required for proper operation of complete system in accordance w/ manufacturer's instructions. Contractor shall be responsible for correct rough-in dimensions, & shall verify same w/ architect &/or equipment supplier prior to service installations.

29. SETTING, ADJUSTMENT AND EQUIPMENT SUPPORTS

- A. Work shall include mounting, alignment and adjustment of systems and equipment. Set equipment level on adequate foundation and provide proper anchor bolts and isolation as shown, specified or required by manufacturers in installation instructions. Level, shim and grout equipment bases as recommended by manufacturer. Mount motors, align and adjust drive shafts and belts according to manufacturer's instructions.
- B. Equipment failures resulting from improper installation or field alignment shall be repaired or replaced by Contractor at no cost to Owner.
- C.Floor or pad mounted equipment shall not be held in place solely by its own dead weight. Include anchor fastening in all cases.
- D. Provide floor or slab mounted equipment with 3_1/2" high concrete bases unless specified otherwise. Individual concrete pad shall be no less than 4" wider and 4" longer than equipment, and shall extend no less than 2" from each side of equipment.
- E. Provide each piece of equipment or apparatus suspended from ceiling or mounted above floor level with suitable structural support, platform or carrier in accordance with best-recognized practice. Verify that structural members of buildings are adequate to support equipment and unless otherwise indicated on plans or specified, arrange for their inclusion and attachment to building structure. Provide hangers with vibration isolators.
- F. Submit details of hangers, platforms and supports together with total weights of mounted equipment to Architect_Engineer for review before proceeding with fabrication or installation

30. MISCELLANEOUS REMODELING WORK

A.Remove all unused equipment, ductwork, piping & associated supports. Cap ductwork & piping at mains & seal air & water tight. Provide items of HVAC systems modification required because of building remodeling, as noted on drawings or necessary for proper operation. Match existing materials & construction techniques when modifying existing systems unless specified otherwise. Coordinate additional requirements w/ general contractor & architect. Seal airtight existing ductwork required to be abandoned in place or not in use at termination of work. Cap & seal weathertight existing roof curbs & roof openings to be abandoned in place as result of equipment removal. Clean & rebalance existing ductwork, diffusers, registers, & grilles intended for reuse as required or as indicated on drawings. Clean & refurbish existing HVAC equipment intended for reuse as required for proper operation including replacement of filters, belts, motors, remote controls, & safety interlocks.

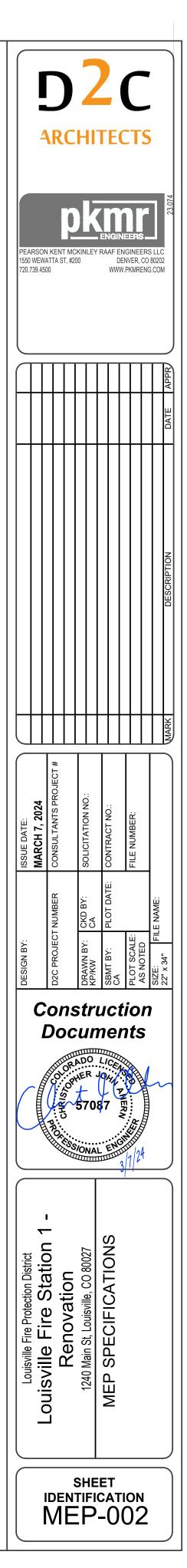
31.BUILDING OPERATION

- A. Comply w/ schedule of operations as outlined in architectural portions of this specification. Building shall be in continuous operation. Accomplish work requiring interruption of building operation at time when building is not in operation, & only w/ written approval of building owner &/or tenant. Coordinate interruption of building operation w/ owner &/or tenant minimum of seven days in advance of work.
- B. The following Work shall be performed at night or weekend other than holiday weekends as directed and coordinated with the Owner: All tie-in, cut-over and modifications to the existing electrical system and other existing system requiring tie-ins or modifications shall be arranged and scheduled with the Owner to be done at a time as to maintain continuity of the service and not interfere with normal building operations.

32. VIBRATION ISOLATION

A. Provide vibration isolation equipment & materials by single manufacturer. Amber booth, kinetics noise control, mason industries, inc., vibration eliminator co., inc. & vibration mounting & controls. General requirements: select vibration isolators by weight distribution to produce uniform deflection. Isolators shall operate in linear portion of their load versus deflection curves. Spring isolators shall have 50 percent excess capacity without becoming coil bound. Coat vibration isolators w/ factory-applied paint. Coat vibration isolators exposed to weather & corrosion w/ factory-applied protection. Install & adjust isolators in accordance w/

END OF GENERAL MEP REQUIREMENTS



MECHANICAL SPECIFICATIONS

DIVISION 230000 - MECHANICAL

- 1. MECHANICAL GENERAL REQUIREMENTS A.Refer to GENERAL MECHANICAL, ELECTRICAL & PLUMBING requirements 2. <u>PIPING</u>
- A. Refrigerant piping copper tube type acr, hard temper nitrogenized refrigerant tube, ASTM b-88. Type L or K. Brazed joints. Insulate w/ Armaflex in thickness per ASHRAE 90.1. Provide UV stabilized exterior rated or coated Armaflex
- B. Cooling Coil Condensate piping copper ASTM b-88. Type L or K. Brazed joints. Insulate w/ Armaflex in thickness per ASHRAE 90.1.

3. MINI-SPLIT SYSTEMS

- A.AHU's, evaporators, & condensing units as scheduled. Factory assembled including coil, condensate pan, fan motor(s), filters & controls in insulated casing w/TXV. ARI rated, UL listed & labeled for indoor.
- B. Approved equivalent manufacturers: Daikin, Mitsibushi, LG.
- C.Suspended units: suspend from structure using threaded rods, spring hangers, & building attachments. Secure rods to unit hanger attachments. Adjust hangers so unit is level & plumb
- D.Controls: Install thermostats & humidistats at mounting height of 60 inches above floor. Manufacturer to final size all refrigerant lines. Provide all valves, fittings & any other components as required for refrigerant line lengths indicated by drawings. Provide all refrigerant & oil required for each refrigerant circuit.
- E. Units serving data closets or other spaces where constant cooling is required shall be provided with all necessary accessories & attachments for operation to
- 4. VARIABLE REFRIGERANT VOLUME (VRV) SYSTEM
- A. Terminal units & Heat Pump/Condensing units as scheduled. Factory assembled including coil, condensate pan, fan motor(s), filters & controls in insulated casing w/TXV_ARI rated_UI_listed & labeled for indoor.
- B. Approved equivalent manufacturers: Daikin, Mitsibushi, LG.
- C. Suspended units: suspend from structure using threaded rods, spring hangers, & building attachments. Secure rods to unit hanger attachments. Adjust hangers so unit is level & plumb
- D. Outdoor unit shall be factory assembled & pre-wired with all necessary electronic & refrigerant controls. The refrigeration circuit of the condensing unit shall consist of scroll compressors, motors, fans, condenser coil, electronic expansion valves, solenoid valves, 4-way valve, distribution headers, capillaries, filters, shut off valves, oil separators, service ports & refrigerant regulator. High/low pressure gas line, liquid & suction lines must be individually insulated between the outdoor & indoor units. The following safety devices shall be included on the condensing unit; high pressure switch, control circuit fuses, crankcase heaters, fusible plug, high pressure switch, overload relay, inverter overload protector, thermal protectors for compressor & fan motors, over current protection for the inverter & anti-recycling timers. The circuit shall be provided with a sub-cooling feature. Oil recovery cycle shall be automatic. Provide all controls necessary for heating operation to -10°F. The system shall continue to provide heat to the indoor units in heating operation while in the defrost mode.
- E. Controls: Install thermostat controllers at mounting height of 60 inches above
- F. Manufacturer to final size all refrigerant lines & provide a detailed piping diagram for refrigerant piping configuration & components. Provide all selector boxes, valves, fittings & any other components as required for refrigerant line lengths indicated by drawings. Coordinate location of all components with structure & access. Provide all refrigerant & oil required for each refrigerant circuit.
- G.Provide all necessary mounting accessories, wiring, controls & programming. H.Provide integral condensate pumps for units as required to lift condensate to
- I. Securely mount all exterior units on permanent equipment supports flashed into roofing system or mounting rails & concrete pads on grade as indicated on plans
- J. Units serving data closets or other spaces where constant cooling is required shall be provided with all necessary accessories & attachments for operation to -10F

5. MECHANICAL EXECUTION

- A. Coordinate w/ e/c to provide all wiring between equipment, dampers, thermostats & all other required controls & devices. M/C is responsible for all control & interlock wiring unless specifcally shown on electrical drawings. All electrical work shall comply w/ electrical specifications.
- B. All piping shall be properly supported with hangers & supports specifically intended for that purpose. Provide clevis hangers, unistrut brackets & pipe clamps & similar systems. Protect integrity of insulation & provide rigid insulation inserts or pipe saddles as necessary.
- C.All exterior control wiring shall be in conduit.
- D.Provide any required interfaces to fire alarm or similar systems.
- E. Provide ground-mounted units on 4", reinforced concrete base, 6" larger than unit on each side.
- F. Roof-mounted units on equipment supports or curbs, sloped as req'd. Anchor units to supports. Coordinate all requirements to maintain roof warranties.
- G.Provide factory-authorized service start up on equipment. Train owner's maintenance personnel on startup, shutdown, troubleshooting, servicing,
- preventive maintenance. H.Provide clean filters at time of project turnover. Provide
- 6. FINAL TESTING & ADJUSTMENTS
- A. Final system testing. Balancing & adjustments shall be performed by contractor certified by NEBB, AABC or other approved agency. Perform test readings on fans, units, coils, etc. & adjust equipment to deliver specified amounts of air or water. Prepare testing & balancing report log showing air supply quantities, air entering & leaving temperatures & pressures, fan & unit test readings, motor voltage & amp draws. etc., & submit PDF of final compilation of data to architect for evaluation & approval before final inspection of project. Balance air systems to within plus or minus 10 percent for terminal devices & branch lines & plus or minus 5 percent for main ducts & air handling equipment of amount of air shown on drawings. Further adjustments shall be made to obtain uniform temperature in spaces. Adjust equipment to operate as intended by specification. Align bearings & replace bearings that have dirt or foreign material in them w/ new bearings without additional cost to owner. Balance contractor shall include in report any improperly installed or missing balancing devices that would negatively impact system operation. Adjust thermostats & control devices to operate as intended. Adjust burners, pumps, fans, etc. For proper & efficient operation. Certify to architect that adjustments have been made & that system is operating satisfactorily. Further adjustments shall be made to obtain uniform temperature in spaces. Calibrate, set, & adjust automatic temperature controls. Check proper sequencing of interlock systems, & operation of safety controls. Verify clean filters are installed
- . STARTUP SERVICE
- A. Engage a factory-authorized service representative to perform startup service for all equipment & systems.
- B. Complete installation & startup checks according to manufacturer's written instructions. Maintain written records of all startup activities & also do the following:
- 1) Inspect for visible damage to any part, casing or component.
- Verify that labels are clearly visible. 3) Verify service clearances are provided.
- 4) Verify that controls are connected & operable.
- 5) Verify that filters are installed.
- 6) Clean all interior and exterior components of construction debris.
- Release and adjust vibration isolators.
- 8) Inspect all rotating components for direction and correct.
- 9) Start unit according to manufacturer's written instructions.
- 10)Inspect & record performance of interlocks & protective devices; verify sequences.

D

- 11)Calibrate thermostats, sensors and similar equipment.
- 12)Inspect controls for correct sequencing of heating, mixing dampers, refrigeration, & normal & emergency shutdown.
- 13)After startup & performance testing, change filters, vacuum heat exchanger & cooling & outside coils, lubricate bearings, adjust belt tension, & inspect operation of power vents.
- 14)Provide one spare set of clean filters & deliver to owner.
- C.Adjusting

1) Adjust initial temperature & humidity set points

2) Set field-adjustable switches & circuit-breaker trip ranges as indicated. 3) Occupancy adjustments: when requested within 12 months of date of substantial completion, provide on-site assistance in adjusting system to suit actual occupied conditions. Provide up to two visits to site outside normal occupancy hours for this purpose, without additional cost. D.Demonstratior

1) Engage a factory-authorized service representative to train owner's maintenance personnel to adjust, operate, & maintain all HVAC equipment

END OF DIVISION 230000

SECTION 260000 - ELECTRICAL

1. GENERAL ELECTRICAL REQUIREMENTS

- A.Refer to GENERAL MECHANICAL, ELECTRICAL & PLUMBING requirements. B. Wiring of Mechanical Equipment
- 1) Provide all raceways & power wiring for all division 23 equipment requiring electrical connections, including, but not limited to, pumps, water heaters, & HVAC equipment, & all line voltage control & interlock wiring not provided under division 23. Connect per manufacturers' wiring diagrams. Coordinate with division 23 for disconnects furnished w/ equipment, & provide all disconnect switches as required. After installing wiring, verify that each motor load has correct phase rotation
- 2) Verify actual "maximum overcurrent protection" (MOCP) device ratings & "minimum circuit ampacity" (MCA) conductor sizing for mechanical equipment from equipment nameplate. Base electrical installations on actual required amperages, which may vary somewhat from conductor & equipment sizes shown on drawings; however, in no case, reduce size of conductors indicated on drawings without authorization from engineer. Provide properly sized electrical wiring & equipment without extra cost to owner. Notify engineer of all changes required in electrical installation due to equipment variances so that effects on feeders, branch circuits, panelboards, fuses & circuit breakers can be checked prior to purchasing & installation. Be responsible for coordinating w/ division 23 to verify actual ampacities & correct sizes of all conductors & overcurrent protective devices for all equipment, & correct overload heaters for all motors, when starters are provided under division 26.

C. Wiring of Thermostats. Time, & Temperature Controls

1) Provide all raceways, power wiring, & line-voltage control and interlock wiring not provided under division 23. for all thermostats, temperature control devices, & controls, including, but not limited to, night-stats, water heater interlocks, time switches & override timers. See mechanical drawings for locations & temperature control diagrams. Low-voltage conductors for thermostats & temperature control system may be run exposed above finished accessible ceilings, if approved & listed for this purpose, but shall be installed in conduit within walls & where exposed in work areas

2. CONDUIT & CONDUCTORS

- A.Follow circuiting shown on plans. Use no conduit smaller than 3/4" & no conductors smaller than #12 ga. Unless noted otherwise.
- B. Conductors #10 and smaller shall be solid
- C.If no conductor size is indicated on drawings for branch circuit, provide conductors & conduit sized per NFPA 70 & based on indicated branch circuit overcurrent protective device (OCPD) rating & number of poles.
- D. Wire shall be in non-flexible metallic conduit (EMT, IMC or RMC) for:

1) All circuits & feeders greater than 30A.

2)Home runs.

- E.MC cable acceptable for branch convenience circuits & lighting circuits. Do not daisy chain light fixtures. Provide cable whips of sufficient lengths to allow for relocating each light fixture within 5-foot radius of its installed location, but not exceeding 6 feet in unsupported lengths.
- 1) Do not use MC cable for following: homeruns to panelboards, where exposed to view or damage, hazardous locations, in concrete, block walls or wet locations, & when disallowed by local AHJ or landlord.
- F. Lighting & receptacle circuit conductors shall be copper THHN-THWN-2 600 volt, 75 deg c, color coded as described under applicable codes. No romex, plastic flex tubing etc permitted. Light fixture wire insulation shall have temp rating not less than individual fixture manufacturers recommended rating.
- G.Circuits w/ no. 8 or larger conductors, motor circuits, power & feeder circuits & building service feeders shall be copper THHN-THWN-2 600 volt, 75 deg c.
- H. All materials used to terminate, splice or tap conductors: designed for, properly sized for, & UL listed for specific application & conductors involved, & installed in strict accordance w/ manufacturer's recommendations, using the manufacturer's recommended tools.
- I. Where wiring is indicated as installed, but connection is indicated "future" or "by other division trades or contracts" leave minimum 3-foot "pigtail" at box tape ends of conductors, & cover box.
- J. Number of conductors in specific raceway "home run" is indicated w/ cross lines (tick marks) on each "circuit run" on drawings. In general, direction of branch circuit "home run" routing is indicated on drawings, complete w/ circuit numbers & panelboard designation. Continue all such "home run" wiring to designated panelboard, as though "circuit runs" were indicated in their entirety.
- K. Wiring shall have insulation of proper color to match NEC color code. In larger sizes, where properly colored insulation is not available, use vinyl plastic electrical tape of appropriate color around each conductor at all termination points, junction & pull boxes.

3. GROUNDING

- A. Supplement grounded neutral of secondary distribution system w/ equipment grounding system, installed so that metallic structures, enclosures, raceways, junction boxes, outlet boxes, cabinets, machine frames, portable equipment & other conductive items operate continuously at ground potential & provide low impedance path for ground fault currents.
- B. System shall comply w/ national electrical code, drawings & as specified.
- C.Provide equipment ground bus in base of low voltage, switchgear brazed or otherwise adequately connected by an approved method to ground rods.
- D.Provide in conduit green insulated copper ground conductor to main metallic water service entrance & connect by means of adequate ground clamps.
- E. Equipment grounding conductors for branch circuit home runs shown on drawings shall indicate an individual & separate ground conductor for that branch circuit which shall be terminated at branch circuit panelboard, switchboard, or other distribution equipment.
- F. Provide low voltage distribution system w/ separate green insulated equipment grounding conductor for each single or three-phase feeder. Single phase 120 volt branch circuits for lighting & power shall consist of phase & neutral conductors & green ground conductor installed in common conduit which shall serve as grounding conductor
- G.Grounding conductors shall be as shown on plans or if not specifically shown shall be no smaller than that required by NEC.
- . RACEWAY INSTALLATION
- A Install all conductors & cable in raceways continuous without taps or splices Splice or tap only in approved boxes & enclosures w/ approved solderless connectors, or crimp connectors & terminal blocks for control wiring, & keep to minimum required. Insulate all splices, taps, & joints as required by codes.
- B. Install all circular raceways concealed above suspended ceilings or concealed in walls or floors wherever possible except where otherwise indicated 1) All conduit, junction boxes, etc. Above ceilings shall be supported from
- structure. Pipe sleeves, hangers & supports shall be furnished & set & contractor shall be responsible for proper & permanent locations. 2) Support all conductors & cables in vertical installations, as required by
- NFPA 70, by installing cable supports or plug-type conduit riser supports, or wire-mesh safety grips.
- C.Conduit installed below grade shall be PVC conduit meeting NEMA standards & UL listed for underground & exposed (UV-resistant) use.
- Schedule 40 PVC acceptable for most underground installations 2) Schedule 80 PVC shall be used where conduit is exposed above grade or otherwise susceptible to damage, or where otherwise required by code for mechanical protection
- 3) For underground runs of over 300' and/or more than (2) 90° elbows, provide GRS radius bends & risers as conduits rise above grade or above floor slab
- D.Metal raceway below grade or exposed to weather or other hazardous conditions shall be GRS. 1) Provide any GRS installed below grade w/ corrosion resistant
- bonded-plastic or approved mastic coating. This shall include 90-degree elbow below grade & entire vertical transition to above grade.

- would otherwise transmit motion, vibration, or noise. Use LFMC where exposed to liquids, vapors or sunlight
- 1) Provide all FMC & LFMC w/ an insulated bonding conductor.
- I. Install raceways to requirements of structure & to requirements of all other work on project. Install raceway to clear all openings, depressions, pipes, ducts, reinforcing steel, & other immovable obstacles. Install raceways set in forms for concrete structure in such manner that installation will not affect strength of structure.
- J. Install raceways continuous between connections to outlets, boxes & cabinets w/ minimum possible number of bends & not more than equivalent of four 90-degree bends between connections. Use manufactured elbows for all 45- & 90-degree bends, unless approved by engineer in advance. Make other bends smooth & even & without flattening raceway or flaking galvanizing or enamel. Radii of bends shall be as long as possible & never shorter than corresponding
- trade elbow. Use long radius elbows where necessary, indicated, or both. K. Securely fasten raceways in place w/ approved straps, hangers & steel supports as required. Attach raceway supports to building structure. Hang single raceways for feeders w/ malleable split ring hangers w/ rod & turnbuckle suspension from inserts spaced not over 10 feet apart in construction above
- L. Clamp groups of horizontal feeder raceways to steel channels that are suspended from inserts spaced not over 10 feet apart in construction above. Securely clamp vertical feeder raceways to structural steel members attached to structure. Install cable clamps for support of vertical feeders where required. Add raceway supports within 12 inches of all bends, on both sides of bends. Do not support raceways from suspended ceiling components.
- M.Ream raceway ends, thoroughly clean raceways before installation, & keep clean after installation. Plug or cover openings & boxes as required to keep raceways clean during construction & fish all raceways clear of obstructions before pulling conductors wires. Provide raceways of ample size for pulling of wire & not smaller than code requirements & not less than 3/4", unless indicated otherwise on drawings
- N.Protect all raceway installations against damage during construction. Repair all raceways damaged or moved out of line after roughing-in to meet engineer's approval without additional cost to owner
- O.Align & install true & plumb all raceway terminations at panelboards, switchboards, motor control equipment & junction boxes
- P. Install approved expansion/deflection fittings where raceways pass through (if embedded) or across (if exposed) expansion joints
- Q.Install pull wire in each empty raceway that is left for installation of conductors or cables under other divisions or contracts. Use polypropylene or monofilament plastic line. Leave min. 24" slack at each end.
- R.Make all joints & connections in manner that will ensure mechanical strength & electrical continuity.
- S. Effectively seal raceways, by installing conduit fitting at boundary of two spaces, & filling it w/ an approved pliable material, after conductors or cables have been installed & tested, whenever raceways pass from non-cooled to cooled spaces or transition from outside facility or enclosure to inside, whether buried or exposed.

BUSHINGS & LOCKNUTS

- A.Rigidly terminate conduits entering sheet metal enclosures to enclosure w/ bushing & locknut on inside & locknut or an approved hub on outside. Conduit shall enter enclosure squarely.
- B. Provide bushings & locknuts made of galvanized malleable iron w/ sharp, clean-cut threads. Where EMT enters box, provide approved EMT compression connectors.
- C.Use insulated, grounding, or combination, bushings wherever connection is subject to vibration or moisture when required by NFPA 70, or both. JUNCTION & OUTLET BOXES
- A. All boxes including light fixture, switch, receptacle, & similar outlet boxes: National Electrical, Appleton, Steel City, Raco, or approved equal, galvanized steel knockout boxes, suitable in design to purpose they serve & space they occupy. Size as required for specific function or as required by NFPA 70, whichever is larger.

1) Lighting fixture boxes in ceilings shall not be less than 4" octagonal knockout type.

- B. Set all outlet boxes in walls, columns, floors, or ceilings so they are flush w/ finished surface, accurately set, & rigidly secured in position. Provide plaster rings, extension rings &/or masonry rings as req'd for flush mounting. Provide approved cast outlet boxes. w/ hubs & weatherproof covers, in all areas subject to damp, wet, or harsh conditions.
- C.Coordinate locations of outlet boxes. Outlets are only approx located on small scale drawings. Use great care in actual location by consulting various large scale detailed drawings used by other division trades, & by securing definite locations from architect
- D. All outlets, shall be mounted w/ bottom at 18" AFF & switches w/ bottom at 44" AFF floor unless noted otherwise on plans. Refer to arch for other required elevations & cabinetry coordination.
- ELECTRICAL IDENTIFICATION
- A.Manufactured labels for each Panelboard & Transformer. Typewritten panel schedules mounted in panels. Where electrical equipment is installed as service entrance equipment, contractor shall furnish & install nameplate listing the following: Equip Short-Circuit Current Rating in Amps (RMS SYM), as indicated on the drawings, Whether or not equipment is fully or series-rated, Available Fault Current in Amps. Contractor shall perform available fault current calculation to obtain available fault at Service Equipment, Date fault current calculations were performed.
- B. Printed tape style label for each receptacle indicating Panel & Ckt #.
- C.Manufactured labels for all disconnect switches indicating equipment served. D.Branch circuits - identify each circuit w/ wire markers when enclosure label & wire colors do not provide enough information to identify each circuit without tracing. Feeders & branch circuit home runs w/ wire marker w/ Panel & Ckt #. Box covers above lay-in ceilings neatly marked w/ indelible marker. E. Fire alarm - nameplate on each fire alarm terminal cabinet. Label all wiring.

8. CIRCUIT BREAKERS IN EXISTING PANELBOARDS

- A.Provide new circuit breakers, for installation in existing panelboards, of same manufacturer, type & short circuit current interrupting ratings as existing panelboard circuit breakers.
- B. Circuit breakers shall provide AFCI and/or GFCI protection where required by

9. WIRING DEVICES

- A.Color of devices as directed by architect.
- B. Provide clear label with black text on each coverplate for associated circuit #. C.Convenience outlets
- 1) Spec grade 20 amp duplex w/ ground & SS wall plates. Other outlets shall be verified w/ equipment suppliers for proper NEMA configurations. Provide GFCI rated devices where indicated & as reg'd per code.
 - 2) Equivalent devices by Cooper/Eaton, Hubbell, Leviton, Pass & Sevmour/Legrand
- D Switches:
- 1) Light switches spec grade 20 amp toggle switches w/ SS wall plates. 2) Equivalent devices by Leviton, Bryant, Hubbell, Wattstopper, Lithonia. Sensor Switch
- E. Weatherproof cover plates:
- 1) Provide GFCI receptacles for weatherproof receptacles. 2)For wet locations: in-use NEMA 3R, UL-labeled plates die cast metal and
- 3) For damp locations: UL-listed for wet locations w/ cover(s) closed: die-cast aluminum or type 302 SS; single-cover for switches & vertically mounted receptacles; double-cover for horizontally mounted receptacles; self-closing covers.

E. Provide interlocking spacers for multiple runs of UG conduits in same trench.

- F. All other raceway may be EMT where approved by local code. Use compression
- type fittings for EMT, w/ all fittings UL listed for environment in which they are
- G.Use FMC for final connection to each motor & transformer, & to any device that

- H.Install raceways parallel & perpendicular to building lines.

10. DISCONNECT (SAFETY) SWITCHES A.Disconnect (safety) switches: Square D, Siemens, Eaton, or GE fused or

- non-fused (as indicated on drawings or required) NEMA KS1, heavy duty, externally operated, visible-blade safety switches; NEMA enclosure type indicated on drawings or suitable for environment in which installed. Based on fusible switch & fuse sizes indicated, include class R, J, or L fuse provisions as applicable.
- B. Where indicated, provide fusible switches permanently labeled as suitable for use as service entrance equipment. w/ integral & separate neutral & ground assemblies, suitable for sizes of conductors indicated. Do not double-lug any terminations not specifically listed as suitable for more than one conductor. C.Provide switches where not furnished w/ starting equipment, at all other points required by NFPA 70, & where indicated on drawings.
- D.Provide printed label for each disconnect as to load served.

11. ADJUSTING. ALIGNING & TESTING

A. Adjust, align, & test all electrical equipment on this project provided under this division & all electrical equipment furnished by others for installation or wiring under this division for proper operation. Test all systems & equipment according to requirements in NETA ATS (latest edition) & all additional requirements specified

B. In following sections. Maintain following on project premises at all times: true RMS reading voltmeter, true RMS reading ammeter, & megohmmeter insulation resistance tester. Provide test data readings as requested or as required by enginee

12. SYSTEM START UP

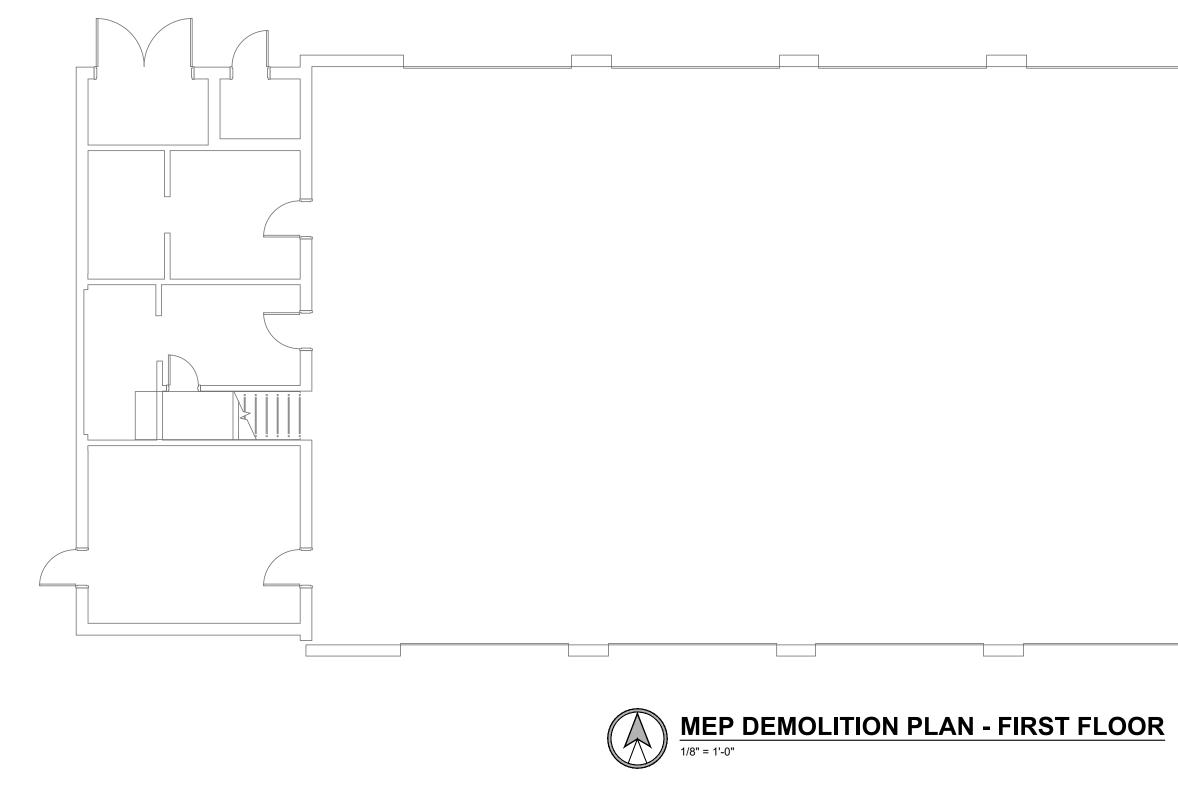
- A.Prior to starting up electrical systems: 1) Check all components & devices
- 2) Lubricate items accordingly.
- 3) Tighten screws & bolts for connectors & terminals according t manufacturer's published torque-tightening values. If manufacturer's torque values are not indicated, use those specified in UL 486a & UL 486b. 4) Check & record building's service entrance voltage, grounding conditions,
- grounding resistance, & proper phasing. B. Replace all burned-out lamps & lamps used for temporary construction lighting in permanent light fixtures.
- C. After all systems have been inspected & adjusted, confirm all operating features required by drawings & specifications & make final adjustments as necessary.

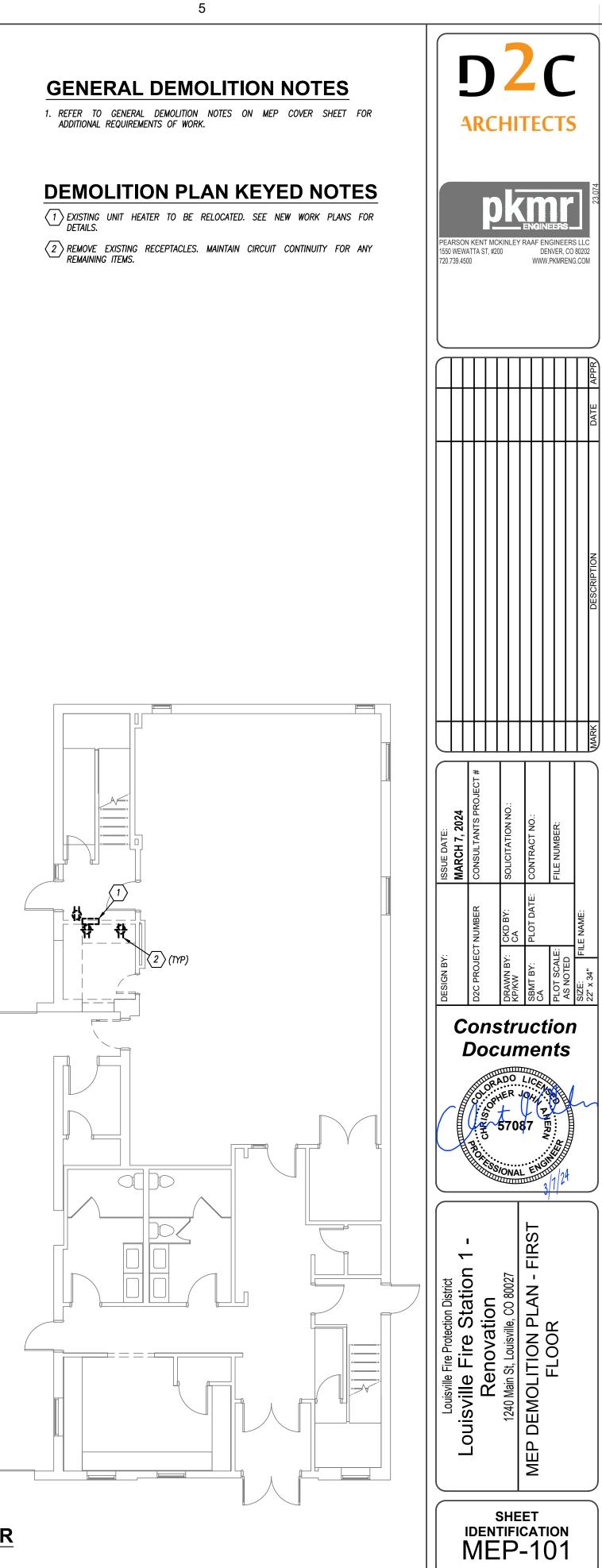
END OF DIVISION 26000

ARCHITECTS 50 WEWATTA ST. #200 DENVER CO 80202 20.739.4500 WWW.PKMRENG.COM Construction Documents $\overline{}$ AT rotection. re St watic FIC no' St, Lo ,≝LL He Ste Maii Maii S ₹ **C** S

SHEET **IDENTIFICATION /IEP-003**

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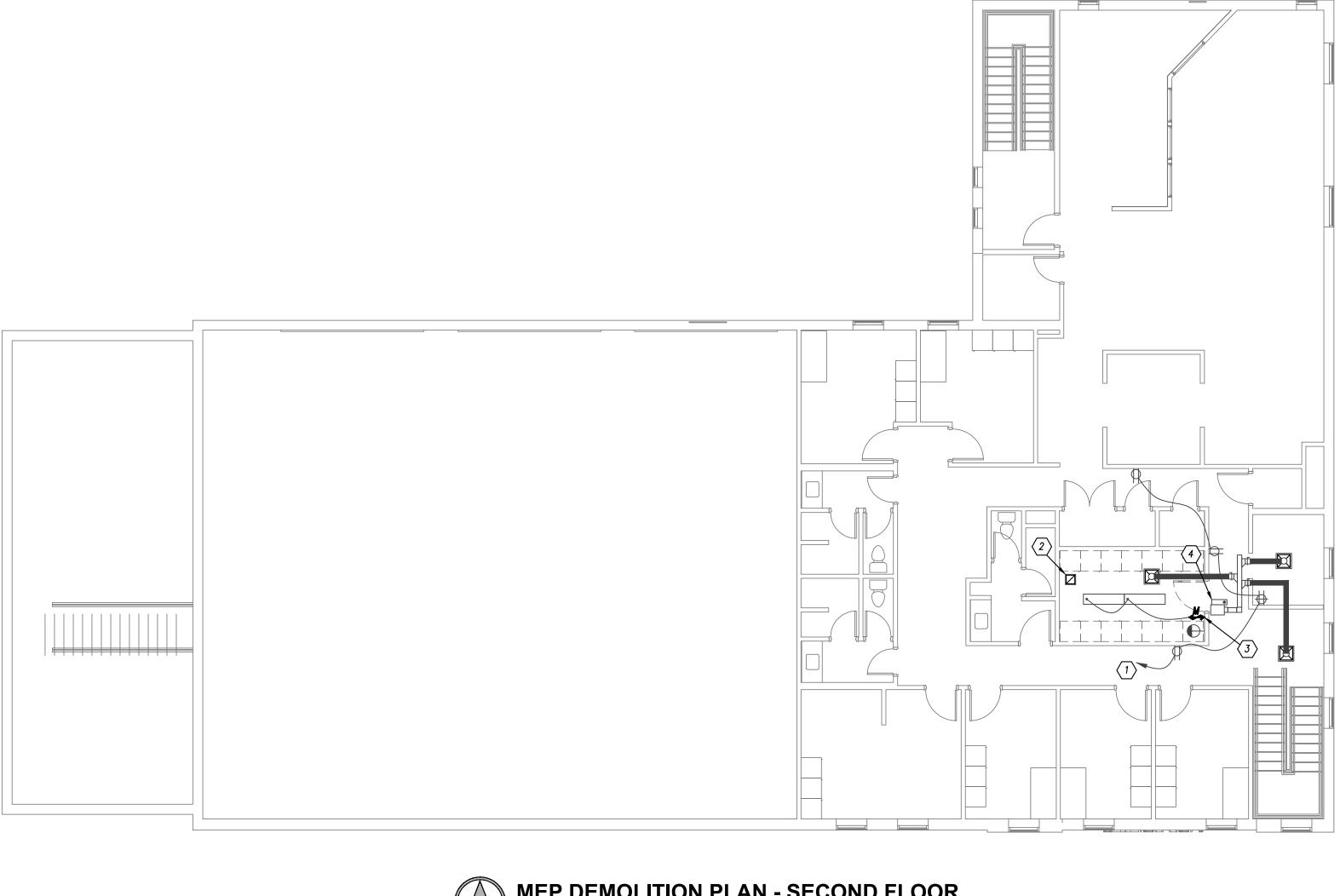




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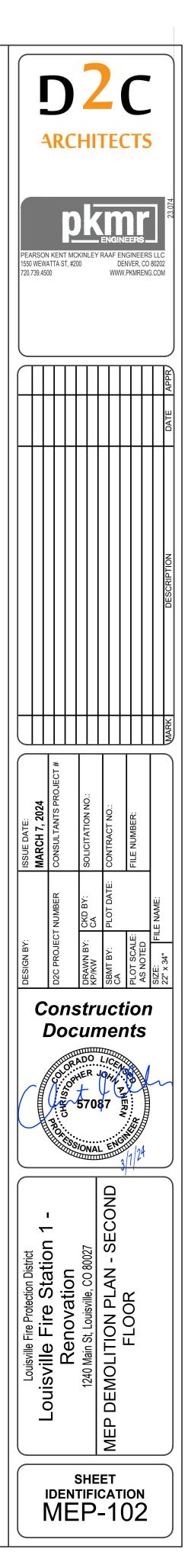
GENERAL DEMOLITION NOTES

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1. REFER TO GENERAL DEMOLITION NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.

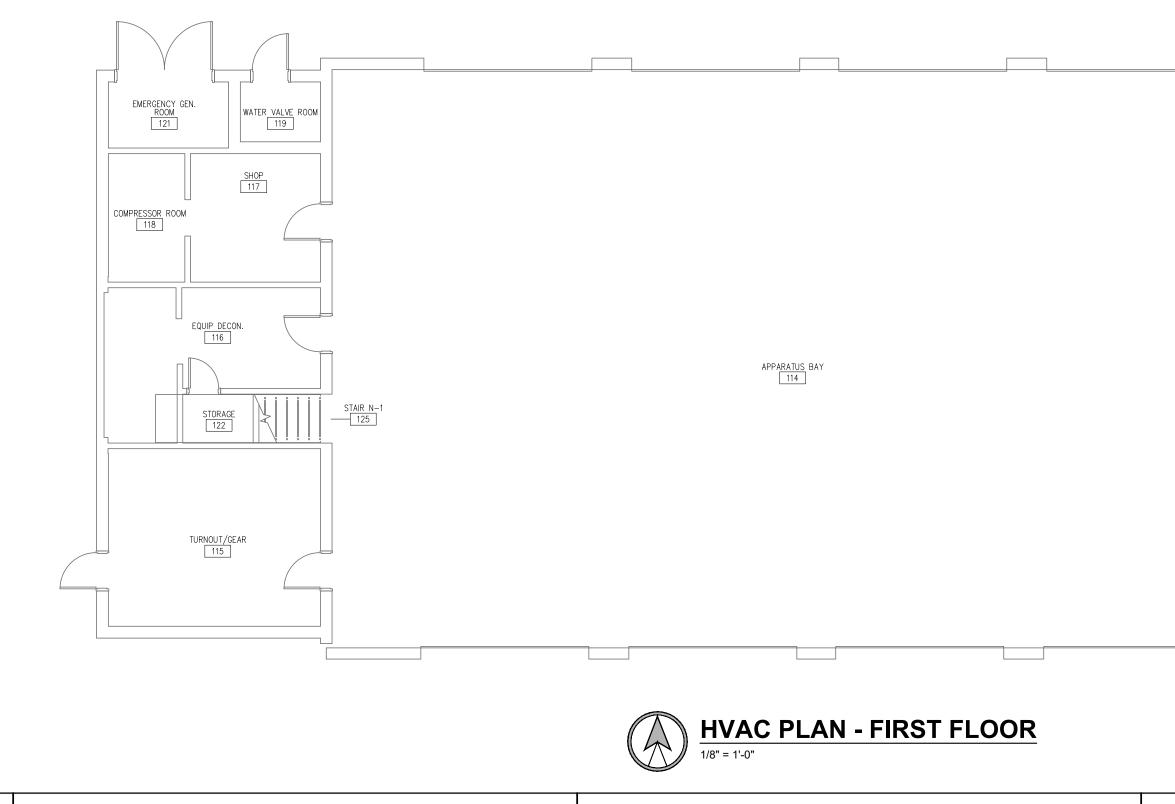
DEMOLITION PLAN KEYED NOTES

- $\langle 1 \rangle$ existing receptacle circuit. See new work plans for connection.
- $\langle 2 \rangle$ existing exhaust fan to remain.
- 3 REMOVE EXISTING MOTION SWITCH. SEE NEW WORK PLANS FOR REPLACEMENT DETAILS.
- EXISTING VAV BOX AND CONNECTED DIFFUSERS/TEMPERATURE SENSOR TO REMAIN. SEE NEW WORK PLANS FOR REBALANCING DETAILS.



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GENERAL HVAC NOTES

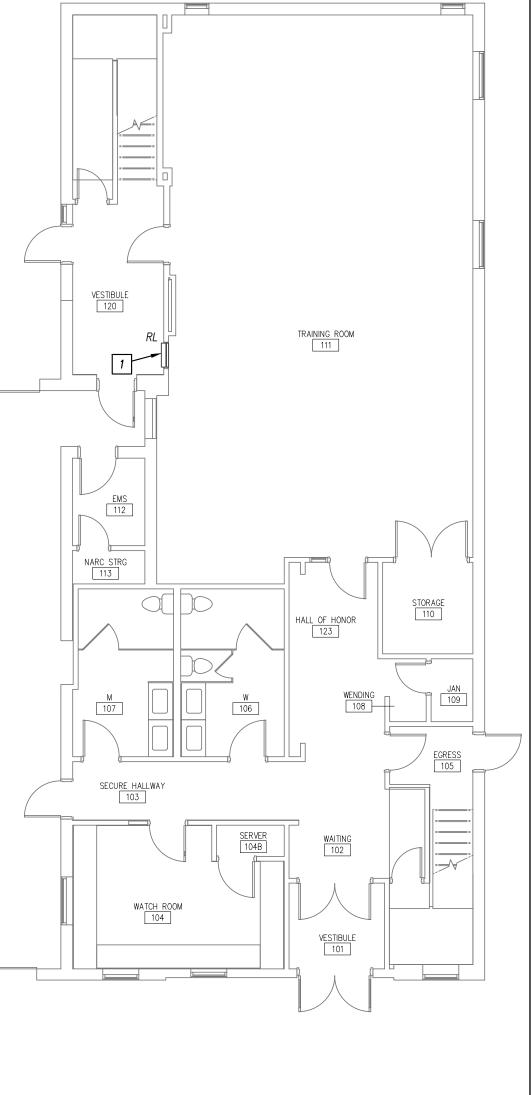
- 1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- 2. ROUND BRANCH DUCT RUNOUTS AND FLEXIBLE DUCT SHALL BE THE SAME SIZE AS THE DIFFUSER NECK UNLESS NOTED OTHERWISE. 3. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0".
- ALL RUNOUTS TO TERMINAL BOXES SHALL BE ONE SIZE LARGER THAN BOX INLETS UNLESS NOTED OTHERWISE.
- 5. ALL AIR DISTRIBUTION DEVICES SHALL HAVE LOCKABLE VOLUME CONTROL
- 6. ALL 90 DEGREE TURNING ELBOWS SHALL BE SMOOTH ROUND OR SQUARE WITH TURNING VANES.
- 7. DUCT SIZES SHOWN ON PLANS ARE INSIDE FREE AREA.

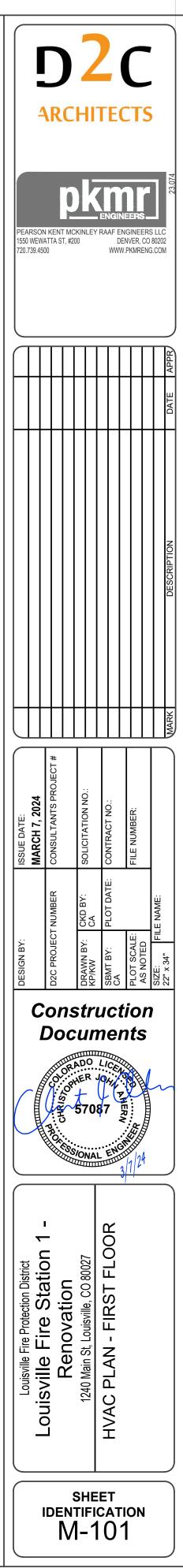
DEVICES.

- 8. PROVIDE ACCESS DOORS IN DUCTS AHEAD OF ALL AUTOMATIC, FIRE, AND SMOKE DAMPERS.
- 9. FOR BALANCING THE OUTSIDE AIRFLOW QUANTITIES, REFER TO HVAC SCHEDULES.

HVAC PLAN KEYED NOTES

1 NEW LOCATION FOR EXISTING UNIT HEATER.

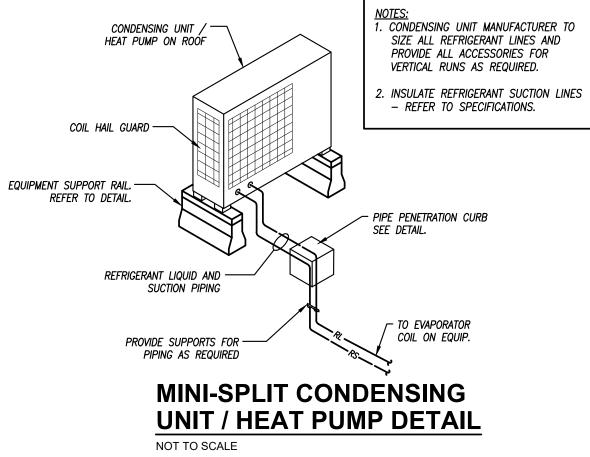






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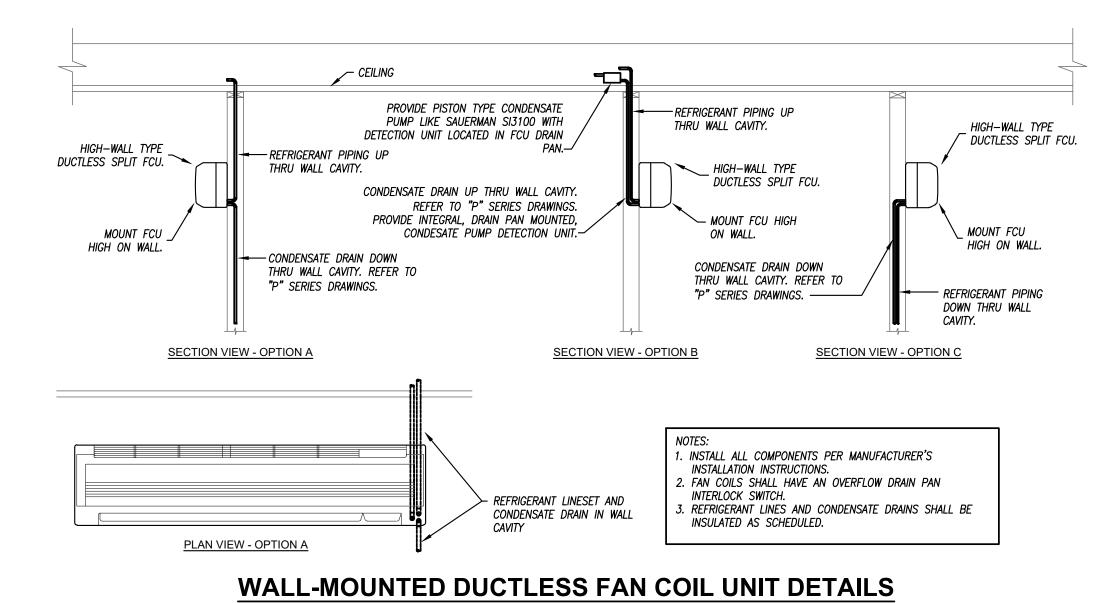


| MINI-SPLIT COLD CLIMATE HEAT PUMP SYSTEM | | | | | | | | | | | | | | | | | | | |
|--|------------------------------------|------------------------|----------|--------------|-----------|------------|------------|-----------|---------|------|------------------------|---------|-------------|-----------|--------|---------|---------|------------|---|
| PLAN AREA MANUEACTURED MODEL CTV/LE | | | | | NOM. TON. | SUPPLY FAN | | | | | OUTDOOR HEAT PUMP UNIT | | | | | | REMARKS | | |
| MARK | RK SERVED MANUFACTURER MODEL STYLE | STILE | | CFM | FLA | EAT/LAT | CAP. (MBH) | TYPE | VOLTAGE | MARK | MODEL | AMBIENT | REF. | MCA | MOCP | VOLTAGE | REMARKS | | |
| FC-1 | FITNESS | MITSUBISHI | РКА-АЗб | WALL MOUNTED | 3 | 810 | 0.76 | 75° / 55° | 36.0 | DX | 24V | HP-1 | PUZ-HA36NKA | 0°F /95°F | R-410A | 26.0 | 35 | 208V / 1PH | 1 |
| <u>REMARKS:</u> 1. PROVIDE | WITH WALL MO | UNTED THERMOSTAT / CON | TROLLER. | | | | | | | | | | | | | | | | |



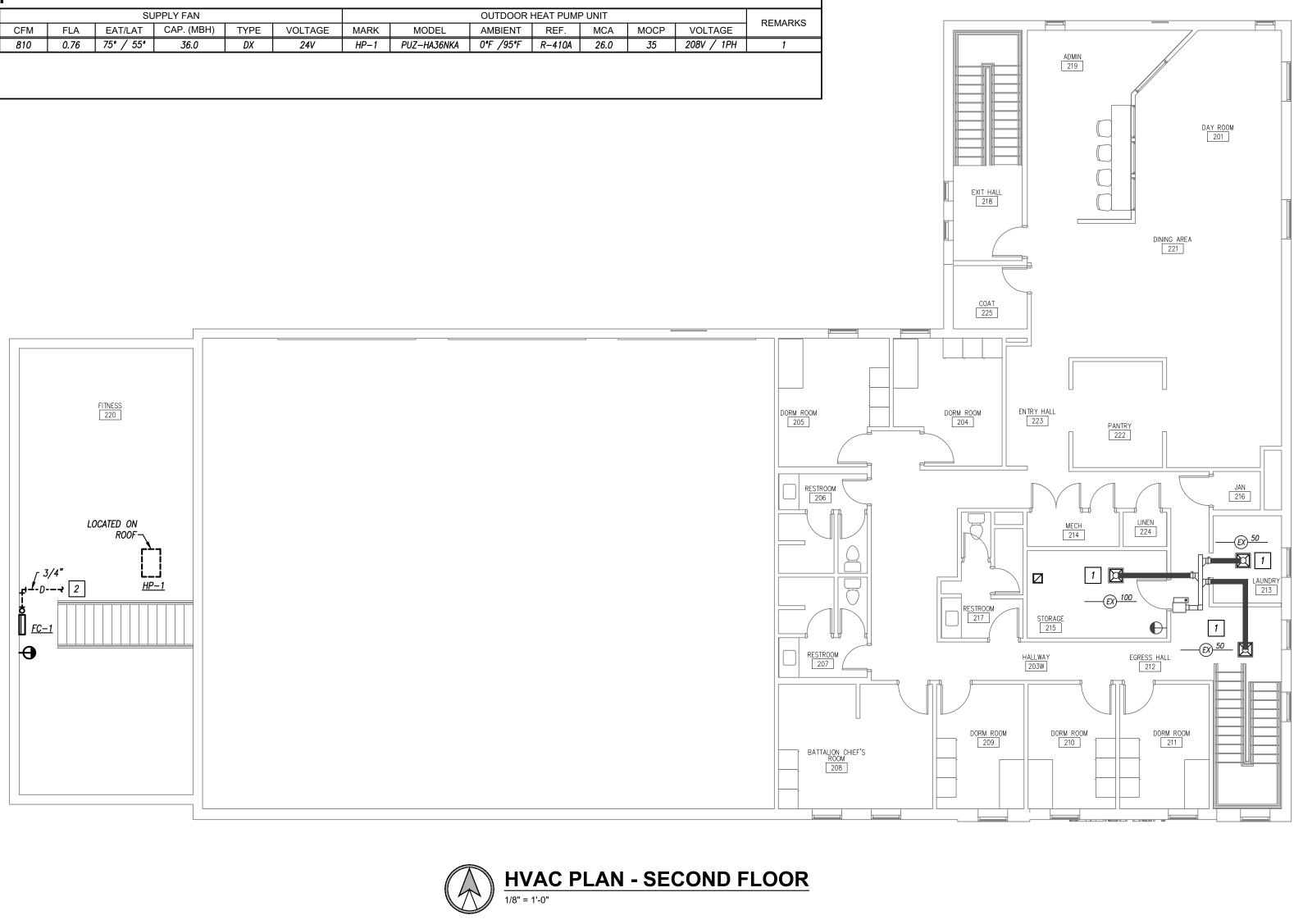














GENERAL HVAC NOTES

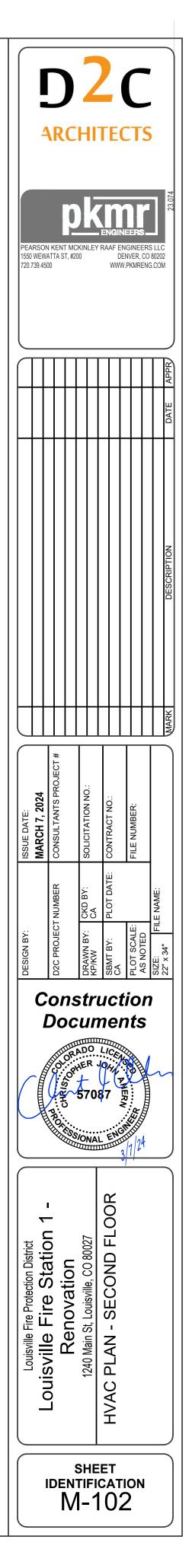
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- 3. MAXIMUM FLEXIBLE DUCT LENGTH SHALL BE 5'-0".
- INLETS UNLESS NOTED OTHERWISE. 5. ALL AIR DISTRIBUTION DEVICES SHALL HAVE LOCKABLE VOLUME CONTROL DEVICES.

4. ALL RUNOUTS TO TERMINAL BOXES SHALL BE ONE SIZE LARGER THAN BOX

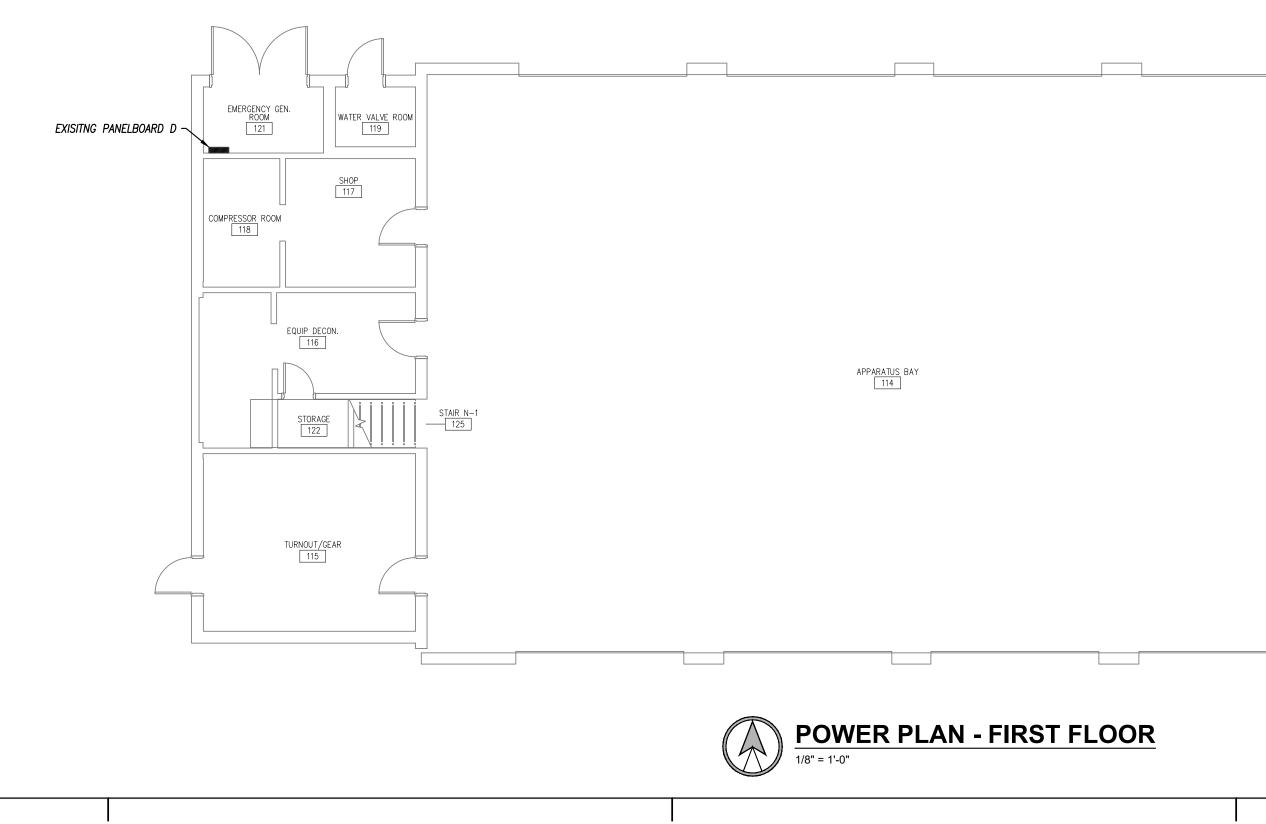
- 6. ALL 90 DEGREE TURNING ELBOWS SHALL BE SMOOTH ROUND OR SQUARE WITH TURNING VANES.
- 7. DUCT SIZES SHOWN ON PLANS ARE INSIDE FREE AREA.
- 8. PROVIDE ACCESS DOORS IN DUCTS AHEAD OF ALL AUTOMATIC, FIRE, AND SMOKE DAMPERS.
- 9. FOR BALANCING THE OUTSIDE AIRFLOW QUANTITIES, REFER TO HVAC SCHEDULES.

HVAC PLAN KEYED NOTES

- 1 REBALANCE GRILLES TO CFM'S SHOWN.
- 2 COORDINATE ROUTING OF CONDENSATE DRAIN DOWN INTO SINK OR WASHING MACHINE BOX IN ROOM BELOW. VERIFY EXACT DISCHARGE LOCATION WITH OWNER. COORDINATE ROUTING TO BE AS CONCEALED AS POSSIBLE.



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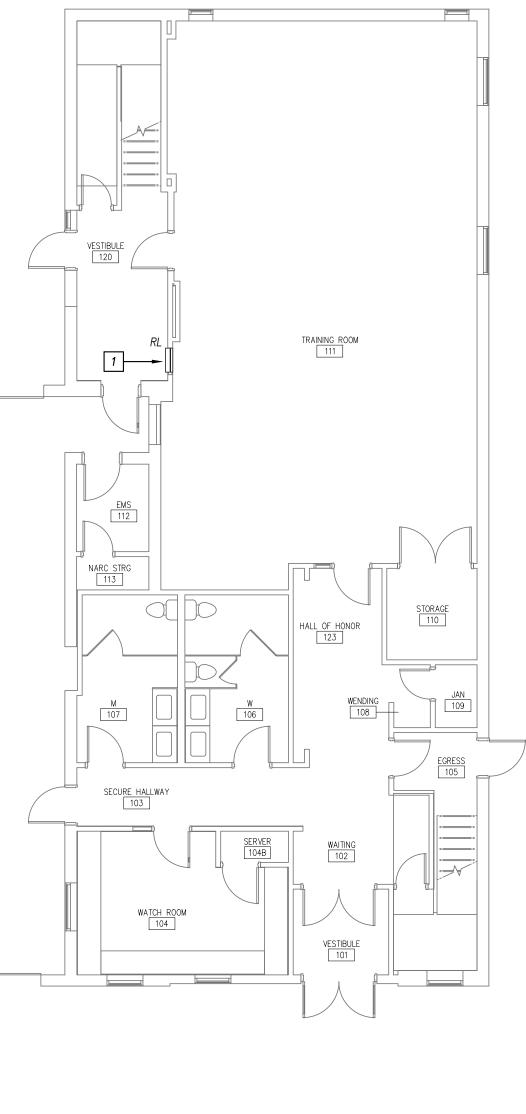
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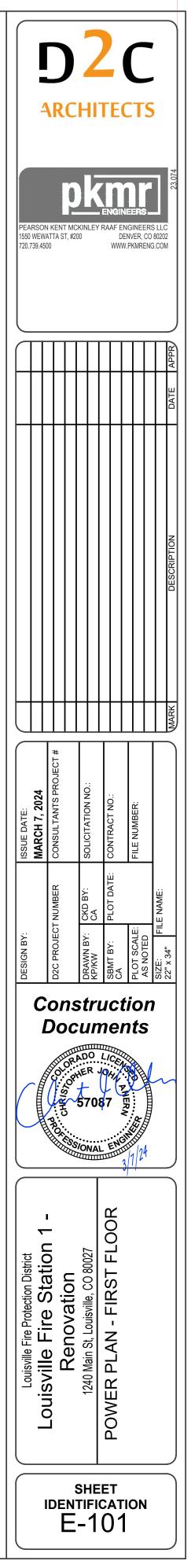
GENERAL POWER NOTES

- 1. REFER TO GENERAL NOTES ON MEP COVER SHEET FOR ADDITIONAL REQUIREMENTS OF WORK.
- 2. COORDINATE EXACT NEMA CONFIGURATIONS OF RECEPTACLES SERVING EQUIPMENT WITH EXACT EQUIPMENT BEING FURNISHED.
- REFER TO THE SPECIFICATIONS FOR ADDITIONAL LOCATIONS/REQUIREMENTS FOR RECEPTACLES, INCLUDING GFCI, WEATHER-RESISTANT, HOSPITAL-GRADE, AND TAMPER-RESISTANT RECEPTACLES.
- 4. EXACT MECHANICAL EQUIPMENT LOCATIONS MAY NOT BE SHOWN FOR CLARITY. COORDINATE EXACT LOCATIONS OF ALL MECHANICAL EQUIPMENT, DUCT DETECTORS, ETC. WITH MECHANICAL DRAWINGS AND CONTRACTOR.
- 5. COORDINATE EXACT LOCATIONS OF SMOKE DETECTORS WITH CEILING FANS, HVAC DIFFUSERS, SPRINKLER HEADS, ETC. PER NFPA REQUIREMENTS.

POWER PLAN KEYED NOTES

1 EXTEND EXISTING CIRCUIT TO NEW HEATER LOCATION. PROVIDE ALL WORK AND MATERIALS REQUIRED FOR RECONNECTION. MATCH EXISTING WIRE SIZE.



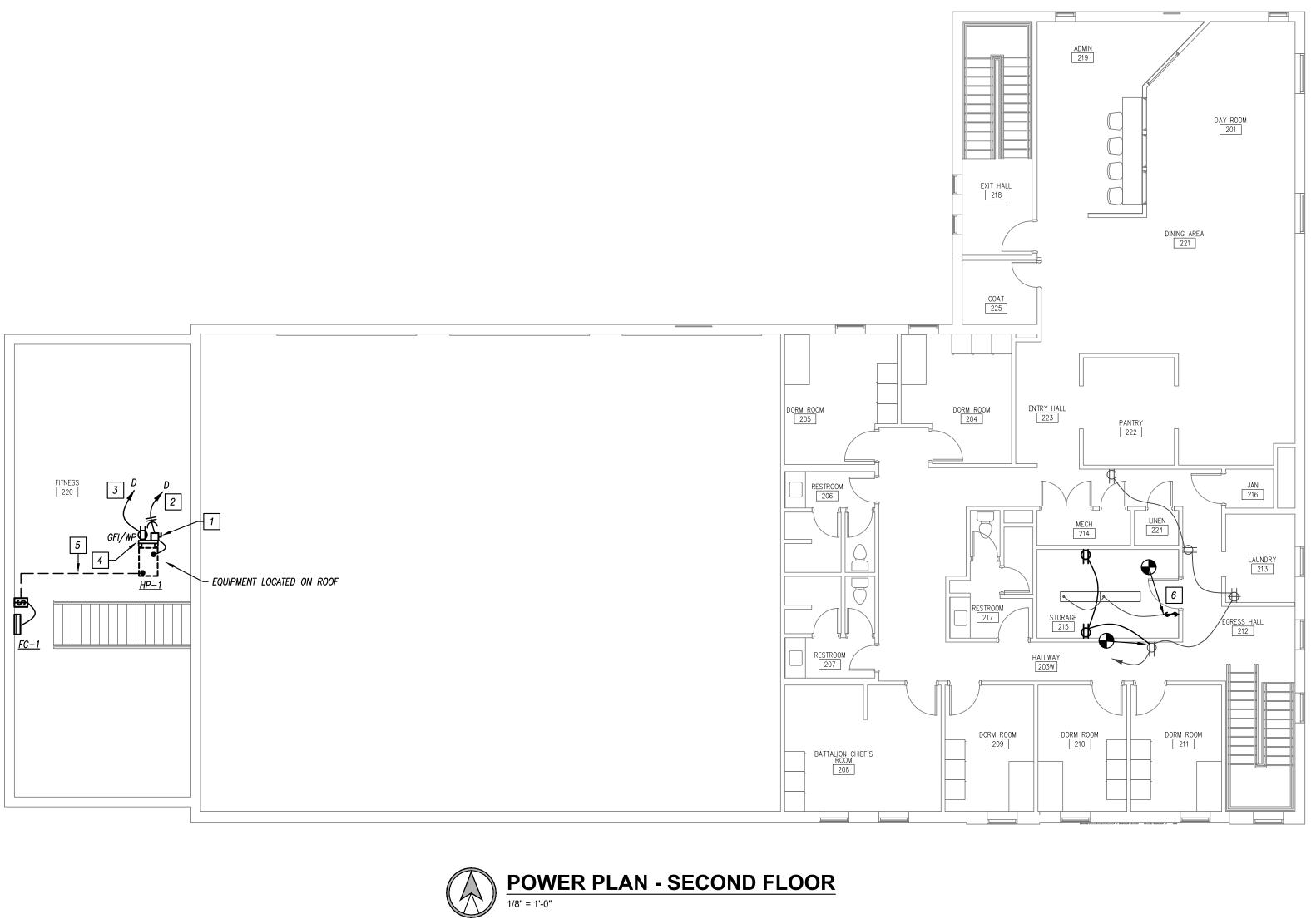


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GENERAL POWER NOTES

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- 3. REFER TO THE SPECIFICATIONS FOR ADDITIONAL LOCATIONS/REQUIREMENTS FOR RECEPTACLES, INCLUDING GFCI, WEATHER-RESISTANT, HOSPITAL-GRADE, AND TAMPER-RESISTANT RECEPTACLES.
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- 5. COORDINATE EXACT LOCATIONS OF SMOKE DETECTORS WITH CEILING FANS, HVAC DIFFUSERS, SPRINKLER HEADS, ETC. PER NFPA REQUIREMENTS.

POWER PLAN KEYED NOTES

- 1 208V/2P/60A NEMA-3R, HEAVY-DUTY DISCONNECT SWITCH
- 2 ROUTE TO NEW 40A/2P BREAKER IN DESIGNATED PANEL. (2)#8 AND (1)#10 GROUND IN 1/2" CONDUIT.
- 3 ROUTE TO NEW 20A/1P BREAKER IN DESIGNATED PANEL.
- 4 INSTALL DISCONNECT AND RECEPTACLE ON UNISTRUT ADJACENT TO EQUIPMENT.
- 5 INDOOR UNIT FED FROM OUTDOOR UNIT. COORDINATE CONNECTION WITH MANUFACTURER.
- 6 REPLACE MOTION SENSOR SWITCH WITH TRADITIONAL ON/OFF SWITCH FOR CONTROL.

