OS. Conklina Ketail Apartments



Occupancy type: MIXED M/R2

Existing Interior Floor Area: 4,044.00 sf Existing Stair to Basement: 160.00 sf. Proposed Third Floor Area:

Construction Type: IIIA

A single stair is provided for egress per IBC 1006.3.3.

A new automatic sprinkler system is being installed per the sprinkler drawings and IBC 903.3.1.1/2 Emergency escape and rescue openings are provided per IBC 1030

The existing building is not accessible and a waiver has been filed with the appropriate authority.

IgCC compliance information has been provided per Baltimore City requirements. No green certification is being sought for this project.

Please see sheet A2 for

General Notes

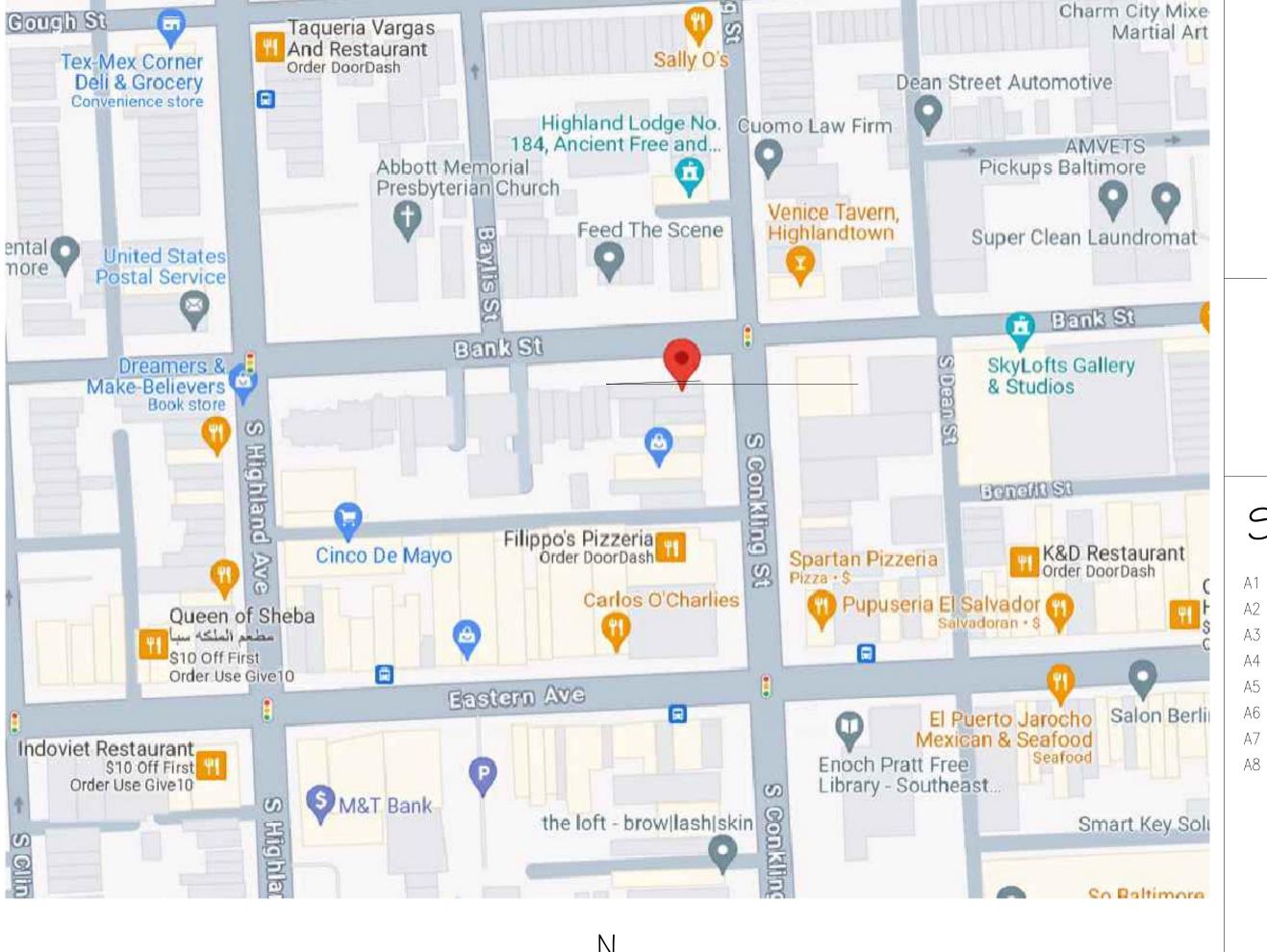
Applicable Building Codes:

Maryland Building Performance Standards / March 2019 International Building Code / 2018 National Electrical Code / 2017 International Fuel Gas Code / 2018 International Mechanical Code / 2018

International Plumbing Code / 2018

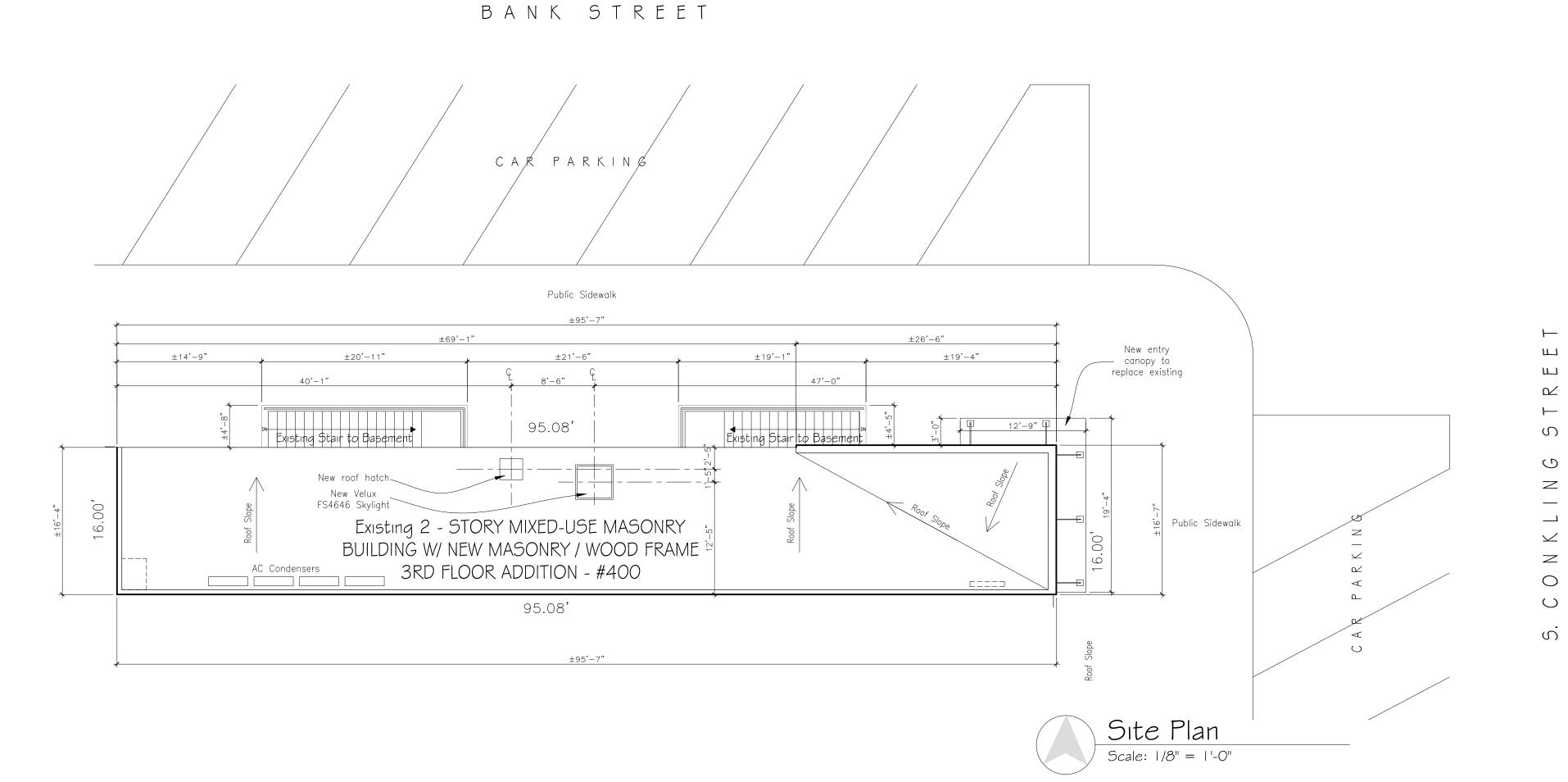
International Property Maintenance Code / 2018 International Fire Code / 2018

International Energy Conservation Code / 2018 International Green Construction Code / 2018





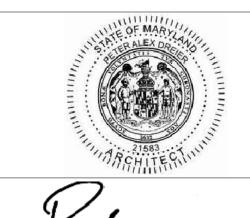






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	Issue for Permit	10/16/23
	Issue for Client Review	10/13/23
No.	Issue	Date

400 South Conkling Street Baltimore, Maryland 21224

Site Plan, Vicinity Map

FPR Checked by: PAD 09/06/23 Project#: 230st



General Architectural Notes

DEMOLITION

LOCATE EXISTING UTILITIES IN THE AREA AND ON THE PROJECT SITE PRIOR TO STARTING EARTH WORK OPERATIONS. NOTIFY ARCHITECT IN WRITING IMMEDIATELY SHOULD UNCHARTED UTILITIES BE ENCOUNTERED. OBTAIN WRITTEN DIRECTION AS TO PROCEDURE.

HAUL FROM THE SITE & LEGALLY DISPOSE OF DEMOLISHED SITE & BUILDING COMPONENTS & ELEMENTS, WHICH ARE NOT INDICATED 10 BE SALVAGED.

TAKE THE PRECAUTIONS NECESSARY TO PREVENT DAMAGE TO ANY PRE-EXISTING BUILDING ELEMENTS NOT SCHEDULED FOR DEMOLITION,

ADEQUATELY SHORE, BRACE, PIN & UNDERPIN THE SURROUNDING BUILDINGS & SURROUNDING PUBLIC WAYS AS REQUIRED PER

THERMAL & MOISTURE PROTECTION

FURNISH A VAPOR BARRIER WHERE INSULATION IS INDICATED AND UNDER ALL CONCRETE FLOOR SLABS.

BATT INSULATION TO BE MINERAL FIBERGRASS RIGID INSULATION TO BE POLYISOCYANURATE

AT ROOF VALLEYS & ROOF-WALL JUNCTURES.

AND COMPLY WITH UL 790.

ALL EXTERIOR WALLS SURROUNDING CONDITIONED SPACES TO BE R-18 MINIMUM ALL ROOFS OVER CONDITIONED SPACES TO BE R-38 MINIMUM

ALL FOUNDATION WALLS IN CONDITIONED SPACES TO BE R-10 MINIMUM

PROVIDE 20 GAUGE ALUMINUM FLASHING AT DOOR & WINDOW HEADS, STOOLS & THRESHOLDS.

ALL ROOFING MATERIALS SHALL BE ICC APPROVED, HAVE CLASS "A" FIRE RATING

WALL AND FLOOR FLASHING: ALL FLASHING AT WALL, FLOORS AND ROOF JUNCTURES 70 VERTICAL SURFACES SHALL BE 26 GA. G.I, UNLESS NOTED OTHERWISE ON PLANS. FORM FABRICATE AND INSTALL FLASHINGS AS SHOWN ON DETAILS. SET ALL FLASHINGS IN PLASTIC CEMENT AND SET JOINTS IN BUTYL MASTIC. FLASHING SECTION SHALL HAVE AN END LAP OF 4"MIN. SHEET METAL PER SMACNA STANDARDS & RECOMMENDATIONS.

PROVIDE FLASHING & COUNTERFLASHING AT ROOF PENETRATIONS PER INSTRUCTIONS & RECOMMENDATIONS OF EXIST'G ROOF'G MANUFACTURER TO MAINTAIN WARRANTY, SUBMIT WRITTEN WARRANTY AT COMPLETION.

<u>WEATHER BARRIER:</u> ALL WEATHER EXPOSED WALL SURFACES SHALL BE PROTECTED WITH AN UNDERLAYMENT OF (2) LAYERS GRADE "D" BUILDING PAPER OVER PLYWOOD WALL SHEATHING. UNDERLAYMENT SHALL BE APPLIED SHINGLE FASHION WITH MIN. 2"LAP AT HORIZONTAL JOINTS AND MIN. 6"VERTICAL LAP, UNDERLAYMENT SHALL BE FREE OF HOLES AND BREAKS OTHER THAN THOSE FROM NAILING TO PLYWOOD SHEATHING OR WALL STUDS.

CAULKING: ALL JOINTS AND PENETRATIONS AT EXTERIOR WALLS, CEILINGS, AND FLOOR ASSEMBLIES SHALL BE FULLY CAULKED AND SEALED.

INSULATION: FIBERGLASS BATT INSULATION SHALL BE IN (N) THROUGHOUT THE BUILDING ENVELOPE ACCORDING 10 THE "INSULATION PLACEMENT DIAGRAM" IN THE 1-24 CALCS AND ACCORDING TO THE FOLLOWING: - FLAT CEILINGS OVER HEATED SPACES R-38 - SLOPED CEILINGS OVER HEATED SPACES R-19 - 2X4 STUD EXT, WALLS AT HEATED SPACES R-13

- 2X6 STUD EXT. WALLS AT HEATED SPACES R-21 - FLOORS OVER HEATED SPACES R-19 HVAC DUCTS (WRAPPED) R - 4.2

DOORS, WINDOWS, GLAZING

ALL EXTERIOR DOORS ARE TO BE FULLY WEATHER-STRIPPED, CERTIFIED AND LABELED FOR COMPLIANCE TO ENERGY CONSERVATION REGULATIONS. ALL STOREFRONT DOORS SHALL BE ALUMINUM WITH TEMPERED, DOUBLE PANED ALL GLAZING ON EXTERIOR DOORS TO HAVE A MAXIMUM U VALUE OF .35

ALL EXTERIOR/ EGRESS DOORS ARE TO HAVE A MIN. 36" DEEP LANDING WITH SLOPE NOT TO EXCEED 2% AT THE EXTERIOR SIDE, WITH A MAXIMUM RISE OF 7.75" 10 THE TOP OF THE THRESHOLD AND A MAXIMUM STEP OF 1.5" TO THE TOP OF THE THRESHOLD AT THE AT THE SWING SIDE OF THE DOOR.

ALL GLAZING SHALL CONFORM TO FEDERAL GLAZING REGULATIONS AND CHAPTER 24 OF THE UNIFORM BUILDING CODE. GLAZING IN HAZARDOUS LOCATIONS SHALL BE FULLY TEMPERED GLASS OR APPROVED PLASTIC AND IS

PERMANENTLY IDENTIFIED BY THE MANUFACTURER OR INSTALLER. SOME OF THE LOCATIONS

SAFETY GLAZING ARE AS FOLLOWS:

1. DOORS AND PANELS OF SHOWER AND BATHTUB ENCLOSURES. 2. WINDOWS ADJACENT TO AND WITHIN 24" OF EITHER EDGE OF A DOOR. 3. ALL SKYLIGHTS TO HAVE TEMPERED SAFETY GLAZING.

ALL WINDOWS SHALL BE FULLY WEATHER-STRIPPED, CERTIFIED AND LABELED

COMPLIANCE TO ENERGY CONSERVATION REGULATIONS. ALL WINDOWS TO MEET OR EXCEED ENERGY CONSERVATION CODE REQUIREMENTS.

EMERGENCY ESCAPE AND RESCUE WINDOWS: BASEMENTS OF DWELLING UNITS 'AND EVERY BEDROOM BELOW THE 4TH STORY SHALL HAVE AT LEAST ONE OPERABLE WINDOW OR DOOR APPROVED FOR EMERGENCY ESCAPE AND RESCUE DIRECTLY 70 EXTERIOR. THE UNITS SHALL BE OPERABLE 70 PROVIDE FULL CLEAR OPENING WITHOUT THE USE OF SEPARATE TOOLS AND: -THE NET CLEAR OPENING SHALL BE NO LESS THAN 5.7 SQUARE FEET -THE NET CLEAR OPENING HEIGHT SHALL BE A MIN. 24"

-THE NET CLEAR OPENING WIDTH SHALL BE A MIN. 20" -44" FROM THE FINISH FLOOR TO THE BOTTOM OF THE WINDOW OPENING

ACCESS DOORS ON THE MECHANICAL ROOM SHALL BE SOLID CORE WITH MIN. SQ.IN. LOUVERED VENT AT TOP OF DOORS AND MIN. 100 SQ.IN. LOUVERED

AT BOTTOM OF DOORS. SKYLIGHTS:

PROVIDE ICC APPROVED VELUX SKYLIGHTS AND ROOF WINDOWS AS SHOWN.

SKYLITES AND ROOF WINDOWS TO HAVE A U VALUE OF .35 OR LESS ALL UNITS TO HAVE TEMPERED SAFETY GLAZING

ALL UNIT SKYLIGHTS AND TUBULAR DAY LIGHTING DEVICES SHALL BE TESTED BY AN APPROVED INDEPENDENT LABORATORY, AND BEAR A LABEL IDENTIFYING MANUFACTURER, PERFORMANCE GRADE RATING AND APPROVED INSPECTION

TO INDICATE COMPLIANCE WITH THE REQUIREMENTS OF AAMA/WDMA/CSA 101/1.S.2/A440

INTERIOR FINISHES

POLYURETHANE

GYPSUM WALL BOARD: ALL INTERIOR WALL AND CEILING FACES ARE TO BE SHEATHED WITH 1/2"GYPSUM WALLBOARD EXCEPT WHERE NOTED OTHERWISE, USE 5/8"TYPE "X" WALLBOARD. TAPE, TEXTURE, AND PAINT ACCORDING TO FINISH SCHEDULE. USE WATER RESISTANT GYPSUM BACKING BOARD AT WALLS

RECEIVE CERAMIC TILE COVERING. ALL GAPS AND PENETRATIONS AT 5/8"TYPE "X" WALLBOARD SHALL BE FILLED WITH TAPING CEMENT. NAIL ALL GYPSUM BOARD TO WALL STUDS, PLATES, BLOCKING, ETC. AS FOLLOWS: 1/2" WALL BOARD 4d CEMENT COATED BOX NAIL OR 1-3/8"x14 GA.

ACID-ETCHED, PHOSPHATE COATED NAIL OR 4d "DRYVITE" NAIL AT 7" O.C." 5/8"TYPE "X" WALLBOARD 6d "COOLER" NAILS AT 7"O.C..

ALL INTERIOR WALL AND CEILING FINISHES SHALL COMPLY WITH IBC - CLASS 1 FLAME SPREAD.

INTERIOR GYP BOARD: PRIMER + 2 COATS EGGSHELL LATEX, 2 COLORS. WOODWORK: PAINT GRADE: PRIMER W/ 2 COATS SEMI-GLOSS LATEX FINISH GRADE: STAIN (IF APPLICABLE) & 2 COATS SATIN

EXTERIOR STEEL: 3 COATS EPOXY OR POLYURETHANE PAINT

WALLS AT BATH TUB AND SHOWER LOCATIONS SHALL BE SHEATHED WITH 1/2" WATER-RESISTANT GYPSUM BACKING BOARD. SHOWER WALLS SHALL BE FINISHED WITH CERAMIC TILE OR OTHER SMOOTH, HARD NON-ABSORBENT COVERING TO. MINIMUM HEIGHT OF 80" ABOVE FLOOR. ALL TUB AND SHOWER DOORS AND ENCLOSURES SHALL BE MADE OF SHATTER-RESISTANT GLASS. DOORS SHALL OPEN OUTWARD OR SLIDE. USE MARBLE TILE AT WALLS WHERE NOTED ON PLANS AND INTERIOR ELEVATIONS.

GUARDRAILS, HANDRAILS & STAIRS

<u>GUARDRAILS:</u> ALL INTERIOR GUARDRAILS AND GUARDRAIL WALLS SHALL BE A 42" ABOVE FINISH FLOOR AND SHALL BE CONSTRUCTED TO WITHSTAND A LOAD OF 20# PER LINEAL FOOT APPLIED HORZ. AT THE TOP OF THE GUARORAL. OPEN GUARDRAIL AND STAIR RAILINGS SHALL HAVE INTERMEDIATED RAILS, BLUSTERS, PICKETS, ETC. ARRANGED SUCH THAT A 4" SPHERE CANNOT PASS THROUGH THE OPENINGS.

STAIR HANDRAILS: EVERY STAIRWAY SHALL HAVE AT LEAST ONE HANDRAIL AND EVERY OPEN SIDE OF A STAIRWAY SHALL HAVE A GUARDRAIL. HANDRAILS MOUNTED ON A WALL SHALL HAVE A MIN. 1.5" SPACE BETWEEN THE WALL AND THE HANDRAIL. THE HANDGRIP PORTION OF HANDRAILS SHALL BE BETWEEN 1.25" AND 2" CROSS SECTION DIMENSION AND SHALL HAVE A SMOOTH SURFACE WITH NO SHARP CORNERS. ALL HANDRAILS ARE 70 BE PLACED 34" AND 38" ABOVE TREAD NOSING AND SHALL BE CONTINUOUS THE FULL LENGTH OF THE

GUARORAILS C.B.C. SECTION 1013. GUARDRALS SHALL BE NOT LESS THAN 42" HIGH MEASURED VERTICALLY ABOVE THE LEADING EDGE OF THE TREAD, WALKING SURFACE OR ADJACENT SEATBOARD.

HANDRAILS AND GUARDS C.B.C. SECTION 1607.7 HANDRAIL ASSEMBLIES AND GUARDS SHALL BE ABLE TO RESIST A SINGLE CONCENTRATED LOAD OF 200LBS. APPLIED IN ANY DIRECTION AT ANY POINT ALONG THE TOP AND HAVE A. ATTACHMENT DEVICES AND SUPPORTING STRUCTURE 70 TRANSFER THIS LOADING TO THE APPROPRIATE STRUCTURAL ELEMENTS OF THE BUILDING. INTERMEDIATE RAILS (ALL THOSE EXCEPT THE HANDRAILS) BALUSTERS AND

FILLERS SHALL BE DESIGNED TO WITHSTAND A HORZ. APPLIED NORMAL LOAD SOLBS ON AN AREA EQUAL TO ONE SQ.FT., INCLUDING OPENING AND SPACE

BETWEEN RAILS. ALL STAIRS TO HAV A MAX STEP RISER HT. OF 7.75" AND THE MAX DIFFERENCE BETWEEN THE TALLEST AND THE SHORTEST RISER

ALL STAIRS WITH 4 OR MORE RISERS ARE TO HAVE A CONTINUOUS, GRASPABLE HANDRAIL INSTALLED ON AT LEAST ONE SIDE OF THE STAIRWAY.

DOORS (SEE DOOR SCHEDULE FOR FURTHER DETAILS)

ALL GLAZING ON EXTERIOR DOORS TO HAVE A MAXIMUM U VALUE OF .32 ALL DOORS ON RESIDENTIAL THIRD STORIES TO BE SOLID CORE DOORS WITH RABBETED JAMBS.

WINDOWS (SEE WINDOW SCHEDULE FOR FURTHER DETAILS)

ALL WINDOWS TO MEET OR EXCEED INTERNATIONAL ENERGY CONSERVATION CODE REQUIREMENTS AND TO HAVE A MAXIMUM U VALUE OF .32

MISC. GLAZING

ALL FULL HEIGHT GLAZING, INCLUDING, BUT NOT LIMITED TO FRAMELESS SHOWER DOORS, TO BE TEMPERED SAFETY GLAZING.

ALL SKYLITES TO HAVE TEMPERED SAFETY GLAZING. SEE SITE PLAN FOR SKYLITE SIZES AND LOCATIONS.

EXTERIOR PLASTER LATH

IS NOT TO BE GREATER THAN 3/8"

EXTERIOR PLASTER LATH SHALL BE OF AN APPROVED, PAPER-BACKED, CORROSION RESISTANT METAL OR WIRE FABRIC AND SHALL BE SELF FURRING. 1/4" MIN. APPLY LATH OVER WALL UNDERLAYMENT WITH THE LONG DIM. HORZ. AND LAP A MIN. 1/2"AT THE SIDES AND MIN. 1" AT THE ENDS. WHERE END LAPS OF SHEETS DO NOT OCCUR OVER SUPPORTS, THEY SHALL BE SECURELY TIED TOGETHER WITH A MIN. 18gg. WIRE. REINFORCEMENT SHALL BE USED AT ALL CORNERS OR THE LATH SHALL BE CARRIED AROUND CORNERES AT LEAST ONE SUPPORT. A WEEP SCREED SHALL BE PROVIDED AT OR BELOW THE FOUNDATION LINE ON ALL EXTERIOR STUD WALLS A MIN. OF 4"ABOVE HIGHEST ADJACENT GRADE. THE SCREED SHALL ALLOW TRAPPED WATER TO DRAIN TO

OUTSIDE. BOTH THE METAL LATH AND PAPER UNDERLAYMENT SHALL TERMINATED ON THE ATTACHMENT FLANGE OF THE SCREED. NAILING OF METAL LATH SHALL BE AT MAX. OF 6"O.C. EACH WAY USING EITHER 11gO.x1.5" LONGx7/16" HEAD NAILS OR 16ga STAPLES WITH 7/8" LEGS.

EXTERIOR PLASTER

EXTERIOR PLASTER SHALL BE PORTLAND CEMENT APPLIED IN THREE COATS TO A MIN. THICKNESS OF 7/8". SEE EXTERIOR ELEVATIONS FOR TEXTURE VARIATIONS.

EQUIPMENT AND APPLIANCES

ALL EQUIPMENT AND APPLIANCES, INCLUDING THE AIR CONDITIONER, WATER HEATER AND FURNACES, SHALL BE INSTALLED IN ACCORDANCE WITH THEIR LISTINGS AND THE MANUFACTURER'S INSTALLATION INSTRUCTIONS. A COPY OF THE MANUFACTURER'S INSTALLATION INSTRUCTIONS MUST BE PROVIDED ON SITE AT THE TIME OF INSPECTION,

PROVIDE COMBUSTION AIR FOR ALL FUEL GAS APPLIANCES INCLUDING DRYERS, FURNACES, WATER HEATERS, BOILERS, ETC.

GAS APPLIANCES AND EQUIPMENT SHALL HAVE INTERMITTENT IGNITION DEVICES WITH NO CONTINUOUS BURNING PILOTS. VENTING OF APPLIANCES SHALL COMPLY WITH THE 2018 WASHINGTON STATE MECHANICAL CODE.

PRE-FABRICATED METAL FIREPLACES SHALL BE COMPLIANT WITH UL 127 AND INSTALLED WITH INSULATED CHIMNEY FLUE, SPARK ARRESTOR AND ACCESSORIES ACCORDING TO MANUFACTURERS SPECS. FIREPLACE OPENING SHALL BE EQUIPPED WITH A TIGHT FITTING, CLOSEABLE METAL OR GLASS DOOR. FIREPLACE SHALL HAVE A FLUE DAMPER AND AN OUTSIDE AIR INTAKE WITH DAMPER. PROVIDE GAS SHUT-OFF IN THE SAME ROOM AS FIREPLACE. MAINTAIN MINIMUM 2"CLEARANCE BETWEEN FIREBOX AND CHIMNEY AND ANY COMBUSTIBLE CONSTRUCTION. ALL HEARTHS TO HAVE A MINIMUM DEPTH OF 1'-8" AND EXTEND SIDEWAYS A MINIMUM OF 1-0" BEYOND FIREBOX OPENING.

General Structural Notes

CONCRETE

COMPRESSIVE STRENGTH: fc'= 3000 psi at 28 DAYS. CONFORM TO STANDARDS & RECOMMENDATIONS OF ACI & CRSI.

ALL PORCHES AND STEPS SHALL BE A MIN. 3500 PSI AND A MIN. 5%/MAX 7% AIR ENTRAINED.

REINFORCING STEEL PER ASTM A615, GRADE 60. FIBER REINFORCING PER ASTM STANDARDS.

PROVIDE 1/2" THICK COMPRESSIBLE JOINT FILLER AT PERIMETER OF CONC SLABS.

POUR FOUNDATION AS DIMENSIONED & SHOWN ON FOUNDATION PLAN. SOIL BEARING VALUE TO BE FIELD VERIFIED BY A QUALIFIED TESTING AGENCY.

PROVIDE 8"GAS CURB AT CONNECTIONS BETWEEN HOUSE @ GARAGE IF APPLICABLE.

WOOD AND LUMBER

DIMENSIONS INDICATE ACTUAL SIZE WHERE INCH MARKS ARE SHOWN [11/2" x 31/2"] AND NOMINAL SIZE [2 X 4] WHERE THEY ARE NOT.

CONFORM TO STANDARDS & RECOMMENDATIONS OF AITC & NEPA.

MILLWORK QUALITY TO MEET AW! ECONOMYGRADE.

MOULDINGS: TO BE SELECTED BY OWNER MATCH EXISTING FOR ALL ADDITIONS

STANDARD STRUCTURAL LUMBER SHALL MEET THE FOLLOWING: BOARDS: HEM-FIR (NORTH) #2 OR BETTER, PER WHPA XTREME FIBER IN BENDING: fb = 850psi MODULUS OF ELASTICITY: 1,300,000psi

ALL JOISTS & RAFTERS TO BE TRUSJOIST SILENT FLOOR. TJ 230 SERIES WOOD I-BEAMS & ALL LVL BEAMS & HEADERS TO BE TRUSJOIST 1.9E MICROLLAM LVL UNLESS NUTED UTHERWISE.

ALL LVL BEAMS TO HAVE MINIMUM 3" BEARING UNLESS NOTED OTHERWISE

ALL FLOOR JOISTS, CEILING JOISTS, AND ROOF RAFTER SPANS COMPLY WITH SECTION R502.3, R802.4 & R802.5 OR THE INTERNATIONAL RESIDENTIAL CODE

DESIGN LIVE LOAD: - 40PSF LIVE) FLOOR LIVING AREAS. 15PSF(DEAD) UNLESS NOTED OTHERWISE - 45PSF ROOF AREAS - TOP CHORD 60PSF LIVE TERRACE LOAD

- 75PSF SNOW LOAD

X 11 1/4" LVL U.N.O.

TO RAFTERS.

- 100MPH WIND LOAD - 35PSF GREEN ROOF WEIGHT MAX - CONTRACTOR TO CONFIRM

WIND RESISTANCE TO BE 25 PSF TYPICAL, 30 PSF CORNERS, AND 40 PSF PARAPETS FOR COMPONENTS AND CLADDING

FURRING DECK FLOORS AND JOISTS TO BE THOMPSONIZED LUMBER OR BETTER FRAMING SHALL NOT BE NOTCHED OR BORED FOR PASSAGE OF PIPES OR

CONDUITS WITHOUT CONCURRENCE OF ARCHITECT. REINFORCE FRAMING

USE PRESSURE TREATED LUMBER FOR ROOF PENETRATIONS AND BASEMENT

MEMBERS WHERE UNDERMINED BY CUTTING. STAIR CONSTRUCTION TO BE 2x12 STRINGERS WITH TREADS W/ 1" NOSING. ALL HEADERS @ EXTERIOR WALLS AND INTERIOR BEARING WALLS TO BE 3 1/2"

PROVIDE DOUBLE STUD TRIMMERS UNDER HEADERS AT OPENINGS GREATER THAN 6'-0" WIDE UNLESS OTHER TRIMMER SIZES ARE SHOWN ON PLANS.

EXTERIOR OR LOAD BEARING WALLS WITH PLATES CUT, DRILLED OR NOTCHED MORE THAN 50% OF THE WIDTH OF THE STUD SHALL HAVE A GALVANIZED METAL TIE 16 GAGE AND 1.5" WIDE FASTENED TO EACH PLATE.

EXTERIOR OR LOAD BEARING WALLS WITH STUDS DRILLED WITHIN 5/8" OF THE FACE OF THE STUD SHALL BE REINFORCED WITH A STRUCTURAL STUD SHOE

ROOF SHEATHING SHALL BE 1/2" CDX OR STRUCTURAL 1 OR 2 GRADE EXTERIOR PLYWOOD WITH A PANEL |.D. INDEX OF 24/0. NAIL PLYWOOD CONTINUOUS OVER (2) OR MORE SPANS OF FACE GRAIN PERPENDICULAR TO RAFTERS WITH 10d NAILS AT 6"O.C. AT EDGES AND 12" O.C. FIELD U.N.O. THE ENDS OF THE PLYWOOD SHALL BE STAGGERED. MIN. AREA OF ANY SHEET SHALL BE 16 SF. BLOCKING IS NOT REQUIRED AT ALL PLYWOOD EDGES EXCEPT WHERE NOTED OTHERWISE.

ROOF FRAMING: SOME ROOF AREAS MAY BE "CALIFORNIA FRAMED" OVER OTHER ROOF ARES. PROVIDE A CONTINUOUS 2X10 PLATE OR MIN 1"BUILT-UP PLYWOOD PLATE WITH 2X6 SOLID BLOCKING BETWEEN LOWER RAFTERS ALONG THE VALLEY LINE OF THESES ROOFS.

SUBFLOORS SHALL BE 3/4" TONGUE AND GROOVE CDX PLYWOOD GLUED AND

NAILED CONTINUOUS OVER (2) OR MORE SPANS WITH FACE GRAIN PERPENDICULAR TO FLOOR JOISTS WITH 10d NAILS AT 6" O.C. AT EDGES AND 10°O.C. FIELD U.N.O.

RAFTERS TIES SHALL BE NAILED TO ADJACENT CEILING JOISTS TO FORM A

CONTINUOUS TIE BETWEEN EXTERIOR WALLS WHEN SUCH JOISTS ARE PARALLEL

CEILING JOISTS SHALL BE 2X6 DOUGLASS FIR NO. 2 AT 16" O.C. UNLESS

NOTED OTHERWISE. SEE BUILDING SECTIONS AND FRAMING PLANS.

LAG SCREWS SHALL BE PRE-DRILLED WITH HOLES THE SAME DIAMETER AS THE ROOT THREAD. ENLARG TO SHANK DIAMETER FOR LENGTH OF SHANK.

METAL FRAMING DEVICES SHALL BE SIMPSON STRONG TIE BRAND OR APPROVED EQUAL. INSTALL PER MANUFACTURERS INSTRUCTION.

EXTERIOR WALL SHEATHING SHALL BE 1/2" CDX OR STRUCTURAL 1 OR 2 GRADE EXTERIOR PLYWOOD SHEATHING OR EQUIVALENT OSB PANELS

FIRE STOPS SHALL BE 2—BY MEMBERS AND SHOULD BE INSTALLED AS FOLLOWS:

a. AT ALL CEILING, ROOF AND FLOOR LEVELS. b. AT CONCEALED WALL AND FURRED SPACES SUCH THAT THE MAX. DIMENSION OF ANY CONCEALED SPACE IS

LESS THAN 10'-0" c. BETWEEN STUDS ALONG ADJOINING STAIR STRINGERS AND ALSO BETWEEN STAIR STRINGERS AT TOP AND BOTTOM

d. AROUND THE TOP, BOTTOM, SIDES, AND ENDS OF SLIDING DOOR POCKETS. STUD NOTCHING: THE MAX. STUD NOTCHING AT WALLS SHALL BE 25% OF STUD

WIDTH FOR EXTERIOR AND BEARING WALLS AND 40% OF STUD WIDTH FOR

MASONRY

NONBEARING WALLS.

CONFORM TO STANDARDS & RECOMMENDATIONS OF THE BRICK INSTITUTE OF AMERICA, THE NATIONAL CONCRETE MASONRY ASSOCIATION, & THE INDIANA UMESTONE INSTITUTE.

BRICK AND CONCRETE BLOCK TO BE AS NOTED ON WALL SECTIONS

PROVIDE 2-1/4" LIMESTONE SILLS AT ALL OPENINGS UNLESS NOTED PROVIDE WEEP VENTS OR WICKS AT 24" O.C. MIN. AT ALL LINTELS, SILLS, AND

FOUNDATIONS JOIST FRAMING FROM OPPOSITE SIDES OF A BEAM, GIRDER OR PARTITION

SHALL BE LAPPED AT LEAST 4". JOISTS FRAMING INTO THE SIDE OF A WOOD

EACH OTHER AT THE RIDGE. THERE SHALL BE A CONTINUOUS BOARD AT ALL

RIDGES, VALLEYS AND HIPS AT LEAST 2—BY NOMINAL THICKNESS NOT LESS IN

GIRDER, BEAM OR LEDGER SHALL BE SUPPORTED BY FRAMING ANCHORS OR ON LEDGER STRIPS NO LESS THAN 2—BY WIDE BY A HEIGHT NO LESS THAN THE HEIGHT OF THE JOIST. RIDGES, VALLEYS AND HIPS: RAFTERS SHALL BE FRAMED DIRECTLY OPPOSITE

DEPTH THAN THE CUT ENDS OF THE RAFTERS. JOIST NOTCHING ON THE END OF JOISTS SHALL NOT EXCEED 1/4 OF THE JOIST DEPTH. HOLES BORED IN JOISTS SHALL NOT BE WITHIN 2" OF THE TOP OR BOTTOM OF THE JOIST, AND THE. DIAMETER OF ANY SUCH HOLE SHALL NOT EXCEED 1/3 THE DEPTH OF THE JOIST. NOTCHES IN THE TOP OR BOTTOM OF

SILL PLATES ON CONCRETE SHALL BE 3X6 NOMINAL REDWOOD OR PRESSURE TREATED DOUGLASS FIR. THEY SHALL BE BOLTED TO THE CONCRETE WITH 5/8" DIAM.x10" LONG ANCHOR BOLTS AT 48"O.C. UNLESS NOTED OTHERWISE. ANCHORS TO HAVE MIN 7" EMBEDMENT. THERE SHALL BE AT LEAST (2) BOLTS PER SILL PLATE PIECE AND BOLTS SHALL BE PLACED NOT MORE THAN 12" FORM THE ENDS OF EACH PIECE.

JOISTS SHALL NOT EXCEED 1/6 OF THE JOIST DEPTH AND SHALL NOT BE

LOCATED IN THE MIDDLE 1/3 OF THE SPAN.

CRIPPLE STUD WALLS AT FOUNDATIONS OR OTHER LOCATIONS SHALL BE FRAMED OF STUDS NOT LESS IN SIZE THAN THE SIZE OF THE STUDDING ABOVE WITH A MINIMUM CRIPPLE STUD LENGTH OF 14" CRIPPLE STUD WALLS WITH STUDS LESS THAN 14" IN LENGTH SHALL USE SOLID BLOCKING INSTEAD OF STUDS.

FRAMING SHALL BE NAILED WITH COMMON NAILS EXCEPT AS NOTED ON PLANS. NAILS SHALL BE DRIVEN CLOSER TOGETHER THAN HALF THE LENGTH, NOT CLOSER TO THE EDGE OF A MEMBER THAN 1/4" THEIR LENGTH EXCEPT SHEATHING. MIN. PENETRATION SHALL BE 1/2" THEIR LENGTH.

General MEP Notes

MECHANICAL & PLUMBING

ALL EXHAUST FANS SHALL VENT DIRECTLY TO THE EXTERIOR

THE DUCT SYSTEM JOINTS AND SEAMS SHALL BE MADE SUBSTANTIALLY AIR TIGHT BY MEANS OF TAPE OR OTHER APPROVED METHODS AND SHALL BE SUPPORTED A MAX. OF 10' INTERVALS.

THE HVAC SYSTEM SHALL BE CONTROLLED BY A PROGRAMMABLE THERMOSTAT.

WHEN A PORTION OF THE HVAC SYSTEM IS LOCATED OUTSIDE THE BUILDING THERMAL ENVELOPE, ALL DUCTS, AIR HANDLERS, FILTER BOXES AND BUILDING CAVITITES USED AS DUCTS SHALL BE SEALED. DUCT TIGHTNESS SHALL BE VERIFIED BY A 3RD PARTY BY EITHER:

a. POST CONSTRUCTION LEAK TEST PROVING THAT LEAKAGE TO OUTDOORS SHALL BE LESS THAN OR EQUAL TO 8CFM PER 100 SF OF CONDITIONED FLOOR AREA OR TOTAL LEAKAGE OF LESS THAN 12 CFM PER 100 SF OF CONDITIONED FLOOR ARE WHEN TESTED AT .1" WATER GRADIENT. b. ROUGH-IN LEAK TEST PROVING THAT LEAKAGE SHALL BE LESS THAN 6CFM PER 100 SF OF CONDITIONED FLOOR AREA INCLUDING THE AIR HANDLER OR 4 CFM PER 100 SF OF CONDITIONED FLOOR AREA WHEN TESTED AT .1" WATER GRADIENT.

KITCHEN EXHAUST HOODS WITH A CAPACITY OF 400CFM OR GREATER MUST BE PROVIDED WITH MAKEUP AIR APPROXIMATELY EQUAL TO THE EXHAUST AIR RATE

ELECTRICAL

ALL RECEPTACLE HEIGHTS TO BE 12" AFF, SWITCH HEIGHTS TO BE 48" AFF, WALL FIXTURE HEIGHTS TO BE 84" UNLESS NOTED OTHERWISE.

ALL OUTLETS TO BE PROPERLY GROUNDED, AND ALL CIRCUIT BREAKERS SERVING BEDROOM OUTLETS TO BE ARC FAULT PROTECTED.

ALL OUTSIDE LIGHTS SHALL BE UL APPROVED FOR WET OR DAMP LOCATION USE. ALL CLOSET LIGHTS TO BE COVERED FIXTURES

ALL CEILING BOXES TO BE FAN RATED

SEE ELECTRICAL DRAWINGS FOR MORE INFORMATION

CLOTHES CLOSET SURFACE MOUNTED INCANDESCENT FIXTURES MUST BE MOUTED A MIN. OF 12" AWAY FROM THE NEAREST POINT OF STORAGE. RECESSED INCANDESCENT AND FLUORESENT AND SURFACE MOUNTED FIXTURES MUST BE MOUNTED A MINIMUM OF 6" AWAY FROM THE NEAREST POINT OF STORAGE. LIGHT FIXTURES IN CLOSETS MUST HAVE A COMPLETELY ENCLOSED

ALL RECEPTACLES IN LOCATED WITHIN 6' OF ANY SINK OR TUB ARE TO BE GFCI PROTECTED

PROVIDE MIN. (1) GFCI RECEPTACLE WITHIN 3' OF EACH BATHROOM SINK

ALL RECEPTACLES LOCATED IN BASEMENTS AND GARAGES ARE TO BE GFCI

ALL RECEPTACLES IN ALL BEDROOMS, FAMILY ROOM, DINING ROOM, KITCHENS, LIVING ROOM, PARLOR, LIBRARY, DEN, SUNROOM, REC ROOM, CLOSET, HALLWAY OR SIMILAR AREAS ARE TO BE ARC-FAULT PROTECTED.

AT LEAST 75% OF THE LAMPS IN THE PERMANENTLY INSTALLED LIGHT FIXTURES MUST BE HIGH EFFICIENCY BULBS. ALL NEW 125V, 15&20A RECEPTACLES SHALL BE LISTED TAMPER RESISTANT

ALL RECEPTACLES INSTALLED IN THE KITCHEN TO SERVE THE COUNTERTOPS SHALL BE SUPPLIED WITH NO FEWER THAN 2 SMALL APPLIANCE BRANCH

FIREPLACES

RECEPTACLES

ALL WOOD BURNING FIREPLACES TO HAVE IBC APPROVED NON COMBUSTIBLE SPARK ARRESTOR, NON COMBUSTIBLE HEARTH, IBC APPROVED DAMPER.

FOR ALL STEEL PREFAB UNITS: PROVIDE COMBUSTION AIR AS REQUIRED. CONSULT OWNER FOR MODEL SELECTION. INSTALL PER MFRS INSTRUCTIONS. FACTORY-BUILT FIREPLACES SHALL BE PROVIDED WITH EXTERIOR AIR SUPPLY IN

ACCORDANCE WITH SECTION R1005.1 PROVIDE GAS SHUT-OFF IN THE SAME ROOM AS FIREPLACE.

WOOD BURNING FIREPLACES SHALL BE EQUIPPED WITH GASKETED DOORS.

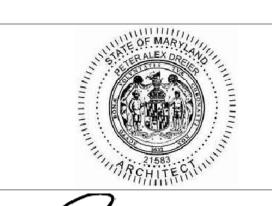
MAINTAIN MINIMUM 2" CLEARANCE BETWEEN FIREBOX AND CHIMNEY AND ANY COMBUSTIBLE CONSTRUCTION. ALL HEARTHS TO HAVE A MINIMUM DEPTH OF 1'-8" AND EXTEND SIDEWAYS A MINIMUM OF 1'-0" BEYOND FIREBOX OPENING.

SMOKE AND FIRE PROTECTION

ALL DEVICES TO BE HARD WIRED AND INTERCONNECTED. PLEASE REFER TO ELECTRICAL PLANS FOR LOCATIONS OF SMOKE AND CARBON MONOXIDE DETECTORS.

PER SECTION 1006.3.3 OF THE IBC A SINGLE EXIT IS ALLOWED AS THE BUILDING IS PLANNED TO BE EQUIPPED THROUGHOUT WITH AN AUTOMATIC SPRINKLER SYSTEM.





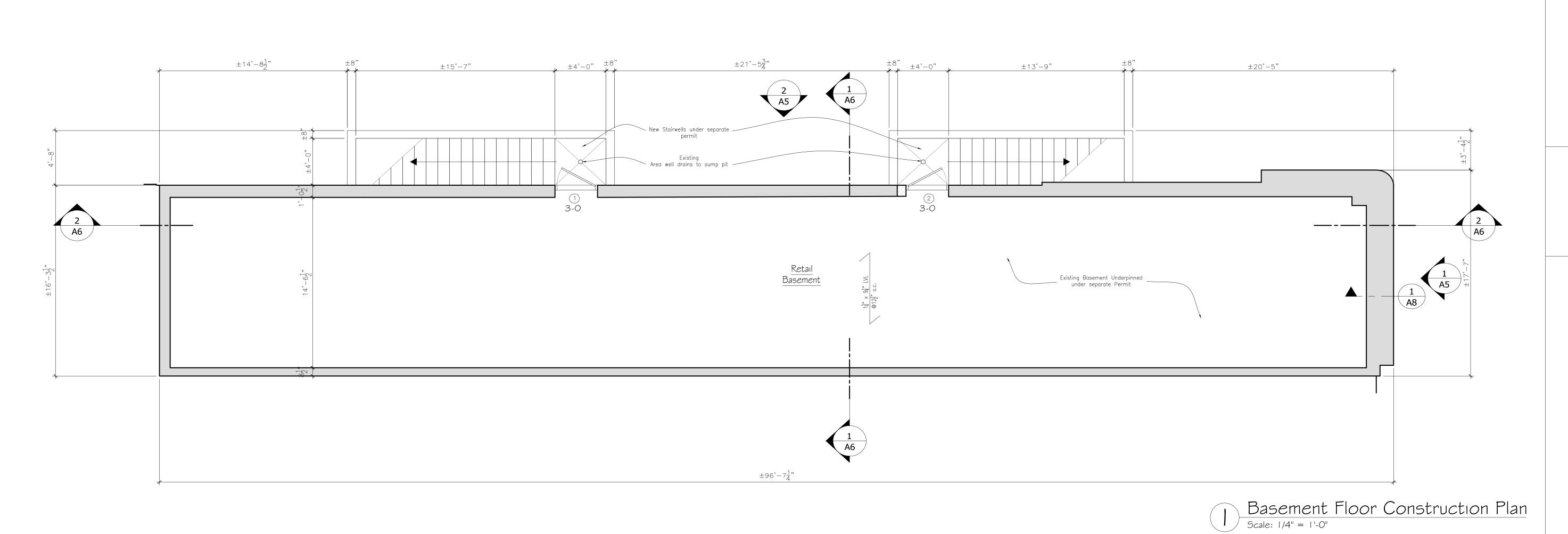
Issue for Permit 10/16/23 Issue for Client Review 10/13/23 Date

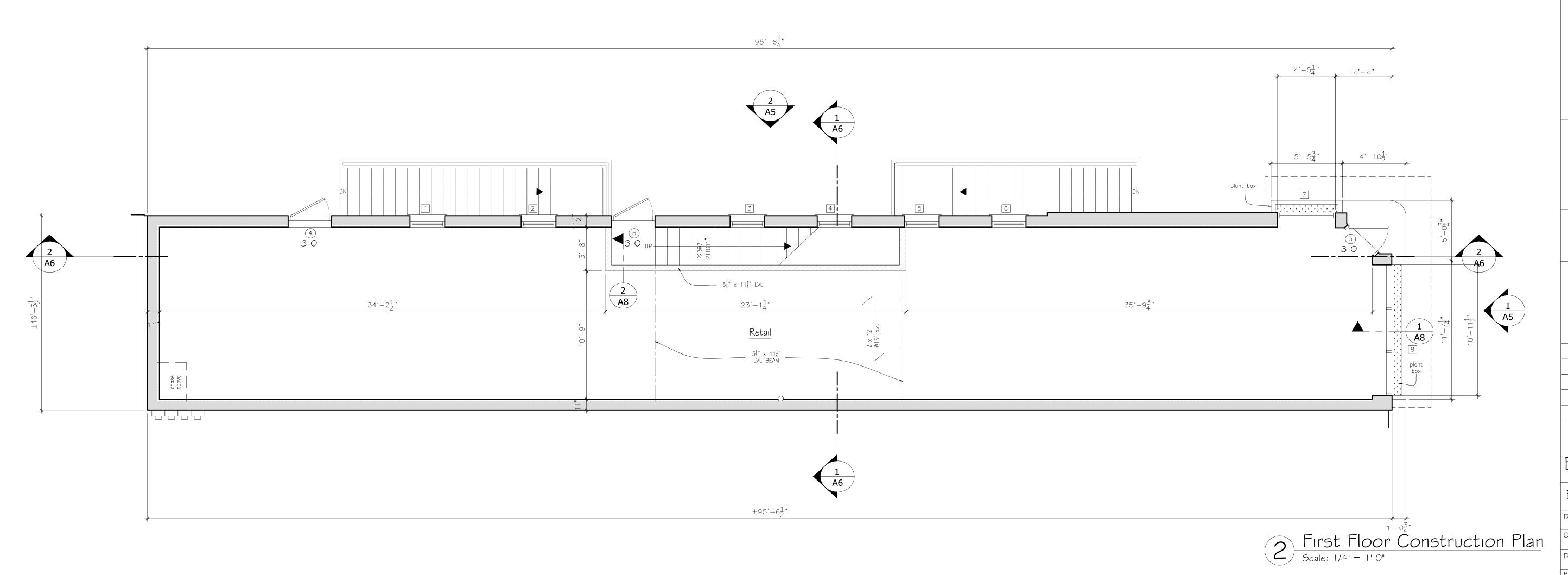
400 South Conkling Street Baltimore, Maryland 21224

Drawn by: FPR Checked by: PAD 09/06/23 Project#:

General Notes

230st







Wall Symbol Key

Existing exterior masonry wall, with stud wall on inside —see 1/A8

New exterior masonry wall, with stud wall on inside —see 4/A8

New exterior wall —see 5/A8

New interior bearing wall — see 2/A8

—— New interior partition wall — see 3/A8

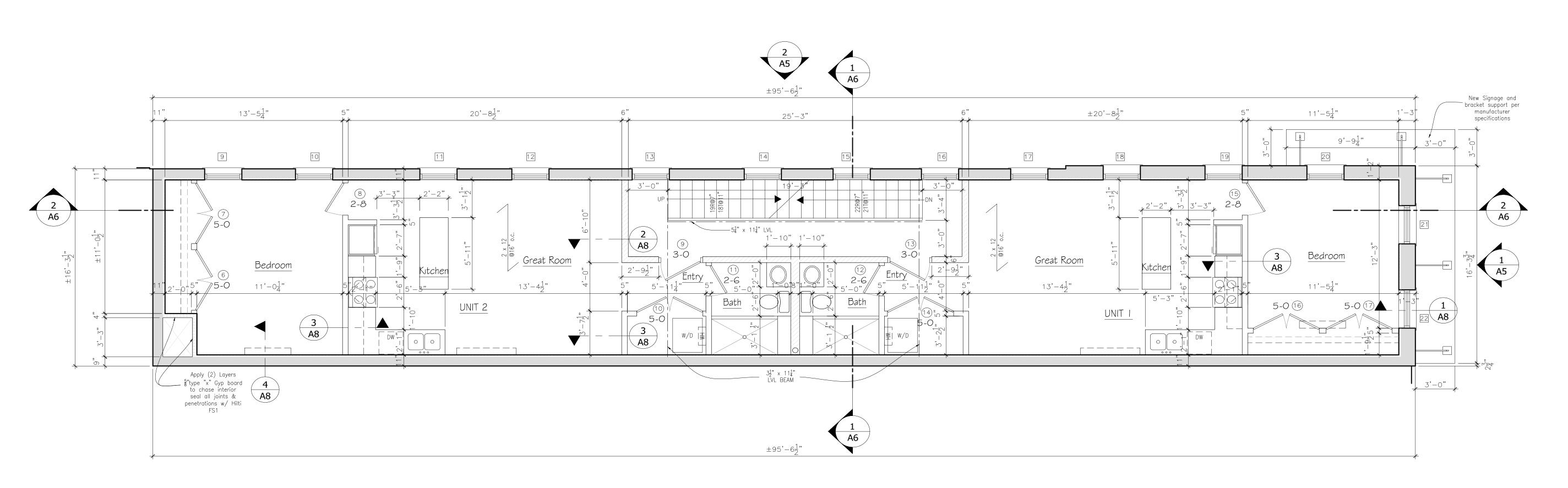


	Issue for Permit	10/16/23
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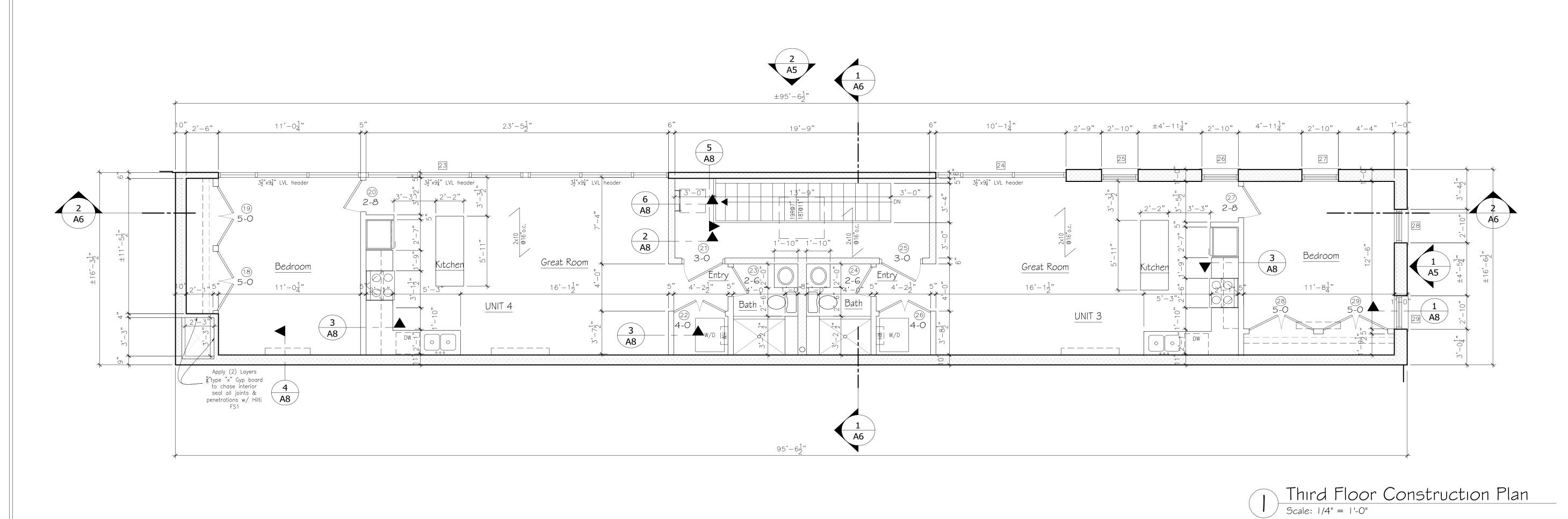
Basement & First Floor Construction Plan

FPR
PAD
09/06/23
230st



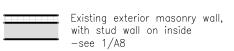
Second Floor Construction Plan

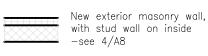
Scale: 1/4" = 1'-0"













New interior bearing wall — see 2/A8

New interior partition wall — see 3/A8





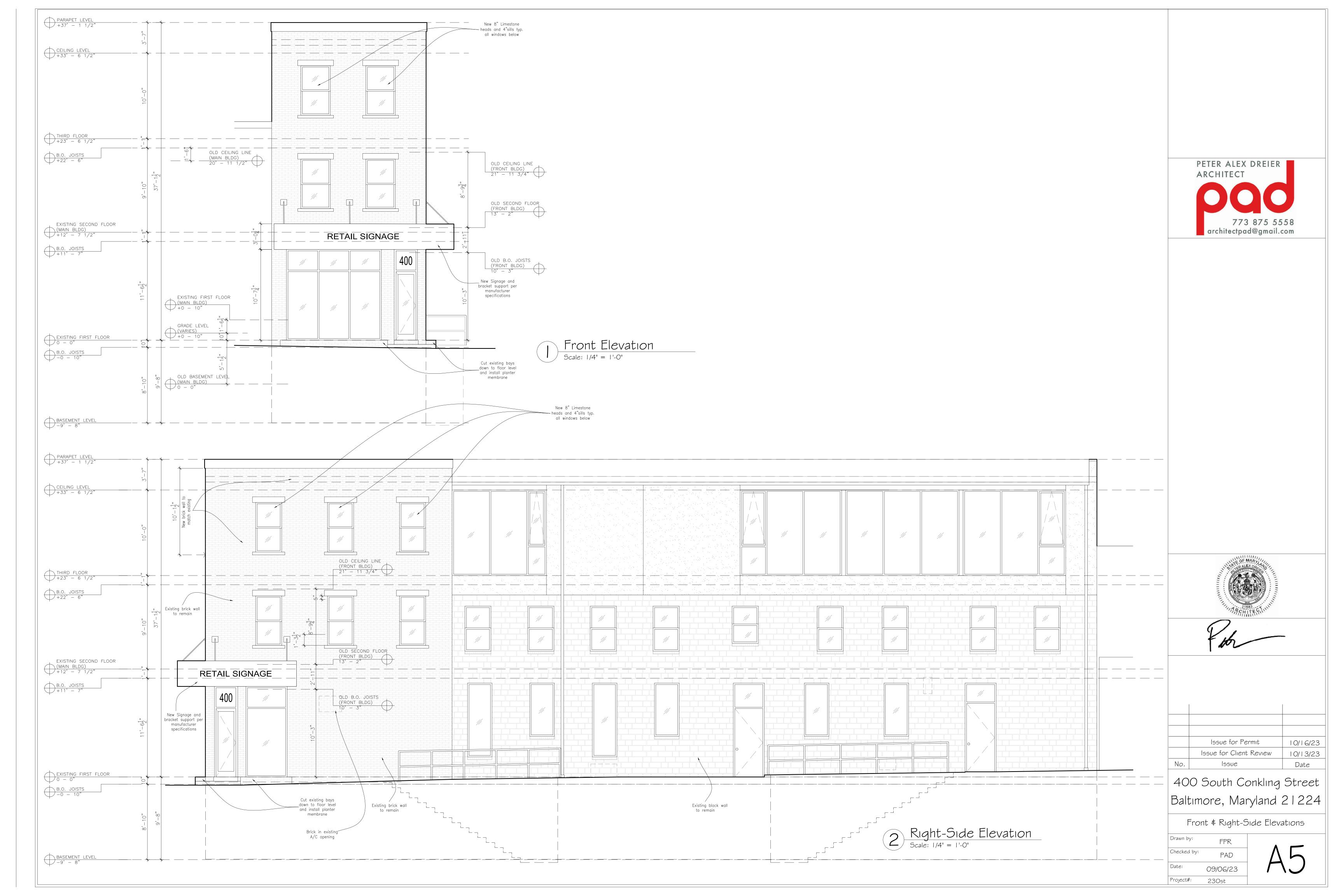
	Issue for Permit	10/16/23
	Issue for Client Review	10/13/23
No.	Issue	Date

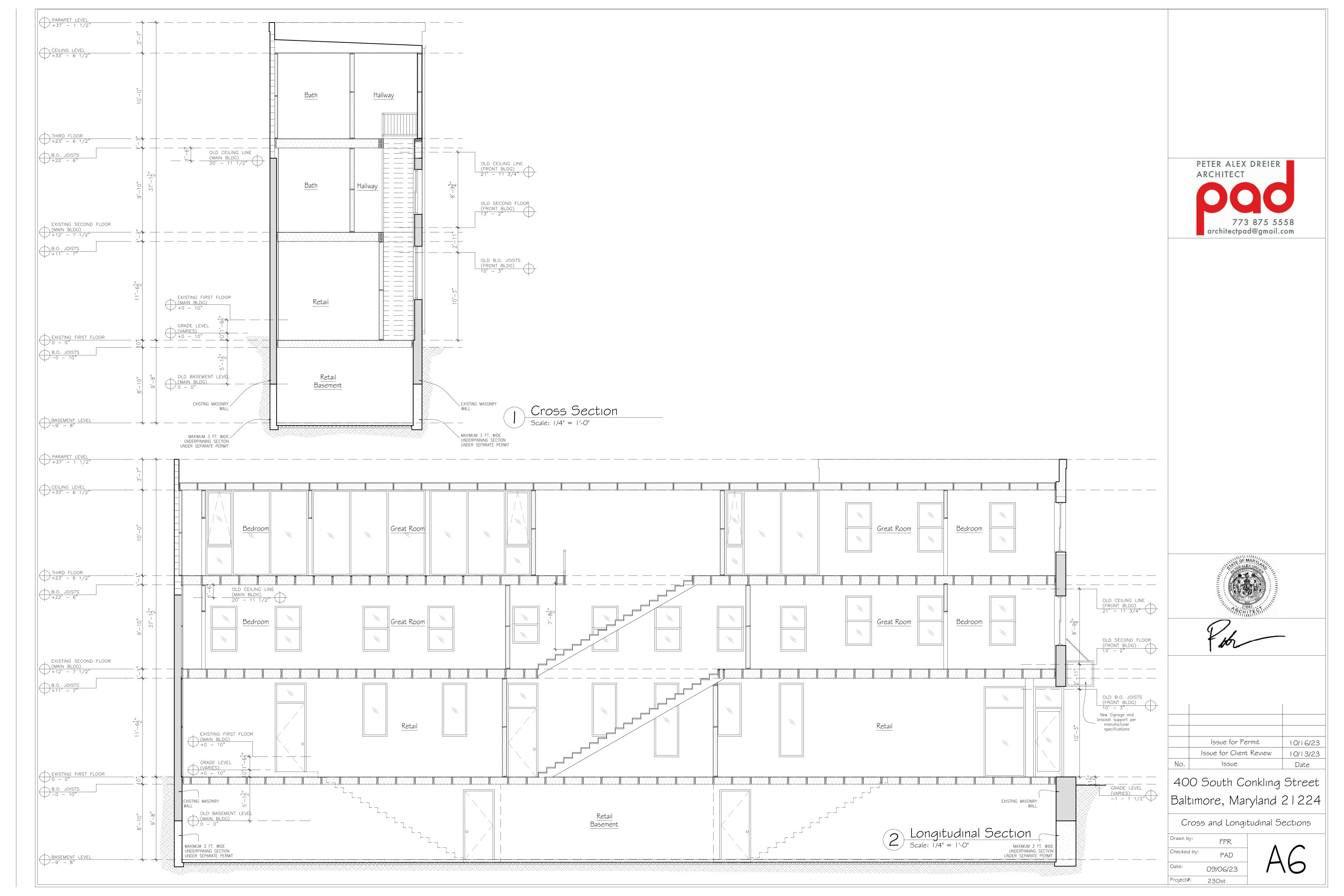
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Second & Third Floor Construction Plan

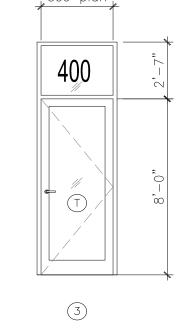
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Date:	09/06/23
Project#:	230st



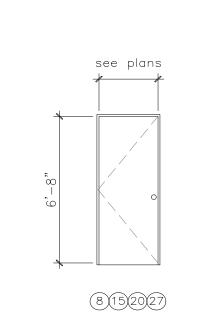




Door Schedule NOTE: Finishes to be selected by owner. All exit doors to be operable from the inside without a key or special knowledge. All glazed areas to have a maximum U value of .35. T = tempered safety glazing. CONTRACTOR MUST VERIFY ALL EXISTING MASONRY OPENINGS.

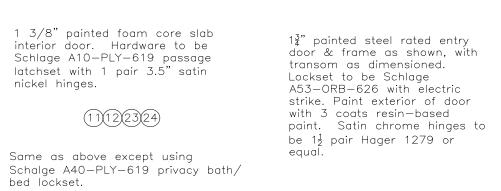


Aluminum door w/ transom as dimensioned. — see plan for widths and swing.

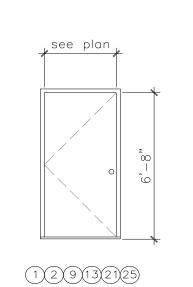


1 3/8" painted foam core slab interior door. Hardware to be Schlage A10-PLY-619 passage latchset with 1 pair 3.5" satin nickel hinges.

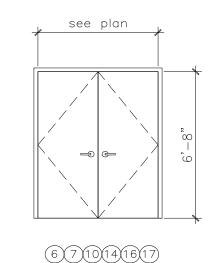
Same as above except using



45



 $1\frac{3}{4}$ " painted slab solid core 20 minute rated entry door & frame as shown. Lockset to be Schlage A53—ORB—626 with matching B660—P deadbolt. Satin chrome hinges to be $1\frac{1}{2}$ pair Hager 1279 or equal.



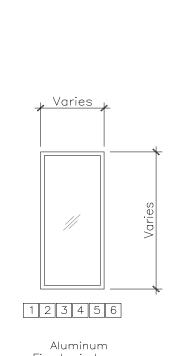
1g painted foam core slab door with Ball catches at door heads and Schlage A80-Ply-619 dummy trim both leaves.



Window Schedule

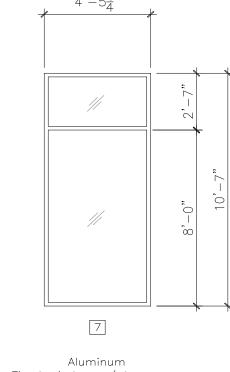
All new window openings to have a head height that matches the head height of the existing, adjoining windows, unless noted otherwise. All regular unit sill heights to be at least 2'-0" AFF, and any units shown to be installed below 2'-0" AFF are to be non-operable and glazed with tempered safety glazing.

EXISTING FRAME OPENINGS MAY REQUIRE ALTERATION. CONTRACTOR MUST VERIFY ALL EXISTING MASONRY OPENINGS.



Aluminum Fixed window. Tempered glass

10'-101"



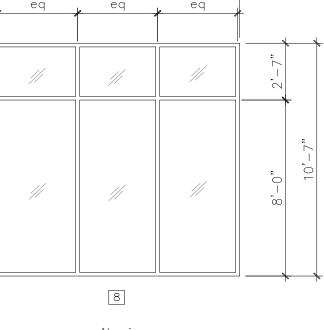
Fixed window w/ transom Tempered glass

34'-103"

12'-2"

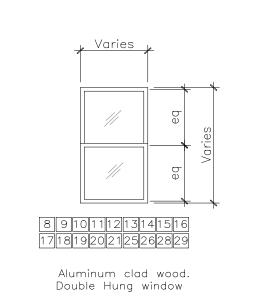
Aluminum Fixed & operable window

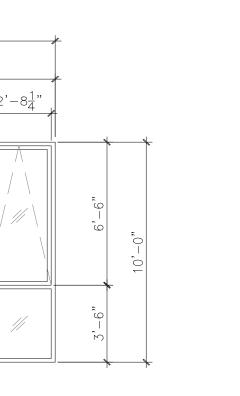
as shown Tempered glass



 $11' - 0\frac{1}{4}$ "

Aluminum Fixed window w/ transom Tempered glass





 $10' - 1\frac{1}{4}$ " $1' - 9\frac{1}{4}"$

> 24 Aluminum Fixed & operable window as shown Tempered glass







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	Issue for Client Review

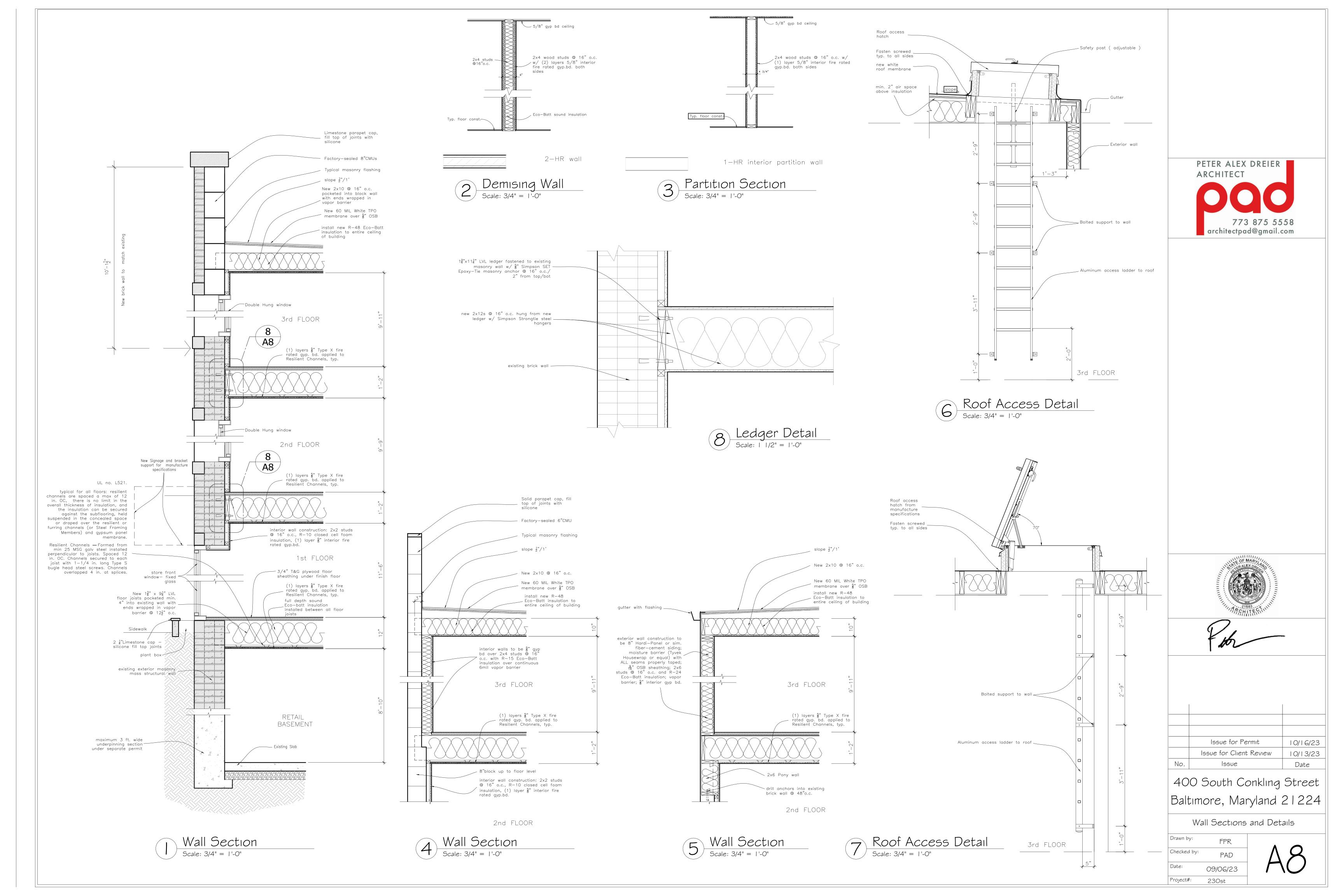
400 South Conkling Street Baltimore, Maryland 21224

Doors and Windows Schedule

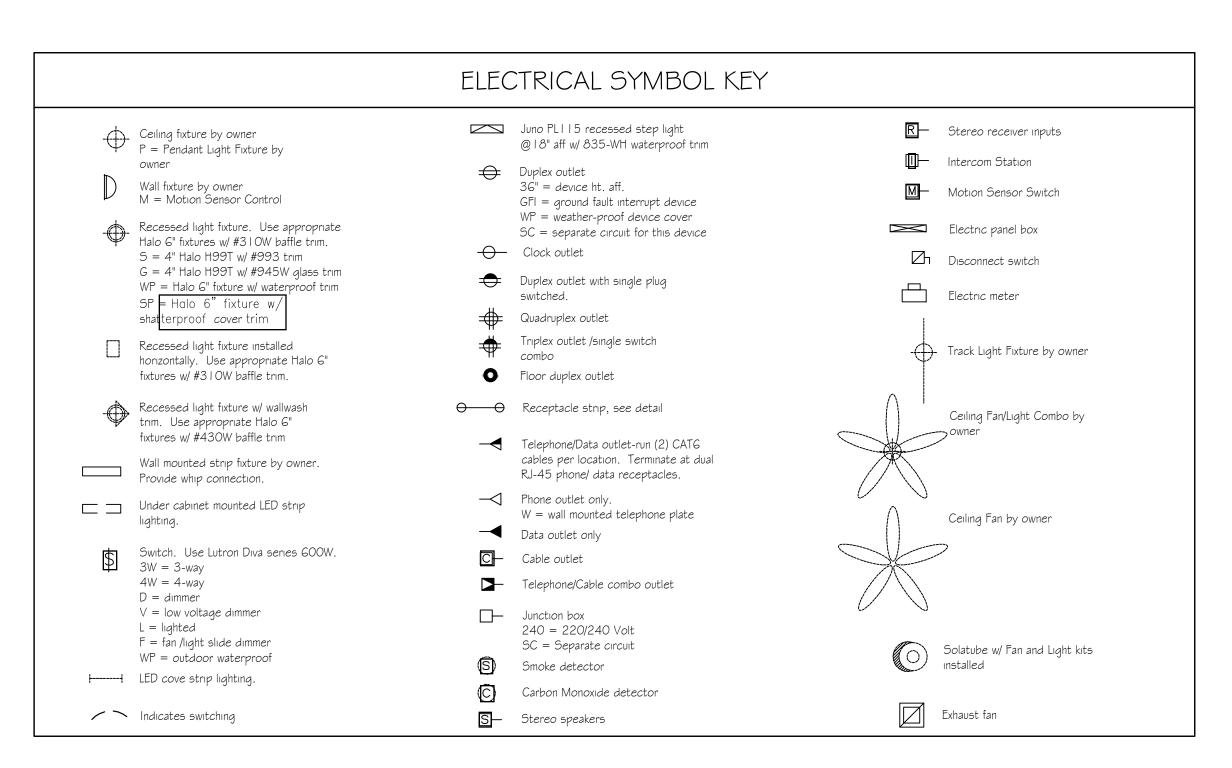
Drawn by:	FPR
Checked by:	PAD
Date:	09/06/23

230st

Project#:



ELECTRICAL ABBREVIATIONS ACCU AIR COOLED CONDENSING UNIT DC DIRECT CURRENT GC GENERAL CONTRACTOR PHASE (ELECTRIC) AIR CONDITIONING DEPT DEPARTMENT GND GROUND POC POINT OF CONNECTION AIR CONDITIONING UNIT DIA DIAMETER QTY QUANTITY ACU HOA HAND, OFF, AUTO STATION DIP ALTERNATING CURRENT DUCTILE IRON PIPE HORIZ HORIZONTAL RM ROOM ACCESS DOOR HORSEPOWER RTU ROOF TOP UNIT DWG DRAWING EXISTING SECT ADA AMERICAN DISABILITIES ACT HOUR SECTION EBB ELECTRIC BASE BOARD SHT ADJUSTABLE HEATING, VENTILATING, AND AIR CONDITIONING SHEET ELECTRICAL CONTRACTOR ABOVE FINISHED FLOOR FREQUENCY TYP TYPICAL INTERIOR AIR HANDLING UNIT EDH ELECTRIC DUCT HEATER UNO UNLESS NOTED OTHERWISE AHU INT AMP AMPERE (AMP, AMPS) EXH FN EXHAUST FAN KW KILOWATT VA VOLT AMPERE ELEC ANSI AMERICAN NATIONAL STANDARDS INSTITUTE ELECTRIC KWH KILOWATT HOUR VAR VARIABLE **ELEVATOR** VERT ELEV VERTICAL ACCESS PANEL MAX MAXIMUM APPROX APPROXIMAT(E), (ELY) **EMER** EMERGENCY MECHANICAL CONTRACTOR WIRE OR WATT ENCL ENCLOSURE WITH ARCH ARCHITECT MCB MAIN CIRCUIT BREAKER W/ AWG EQUIP EQUIPMENT MECH W/O WITHOUT AMERICAN WIRE GAUGE MECHANICAL ВВ BASEBOARD EUH ELECTRIC UNIT HEATER MIN MINIMUM WP WEATHERPROOF BLDG BUILDING EWC ELECTRIC WATER COOLER MISC MISCELLANEOUS BOT BOTTOM EXIST EXISTING MLO MAIN LUG ONLY CIRCUIT BREAKER EXT EXTERIOR MTL METAL CIRCUIT FIXT FIXTURE NEW FLEXIBLE CLG CEILING FLEX NOT APPLICABLE FLOOR CONC CONCRETE FLR NOT IN CONTRACT FIRE PROTECTION CONST CONSTRUCTION NO. NUMBER CONT CONTINUOU(S), (E) FURN FURNISH NTS NOT TO SCALE DB DECIBEL(S) GALV GALVANIZED PRESSURE DROP/DIFFERENCE



ELECTRICAL SPECIFICATIONS

- I . ALL WORK SHALL COMPLY WITH ALL THE APPLICABLE LOCAL, MUNICIPAL AND FIRE CODES. THE WORK SHALL BE IN TOTAL COMPLIANCE WITH THE RULES AND REGULATIONS OF THE AUTHORITIES HAVING JURISDICTION.
- 2. CONTRACTOR SHALL OBTAIN AND PAY FOR ALL PERMITS AND INSPECTION FEES AS REQUIRED FOR HIS PORTION OF THE WORK.
- 3. CONTRACTOR SHALL SUBMIT UTILITY COMPANY SERVICE APPLICATIONS
- 4. CONTRACTOR SHALL GUARANTEE ALL WORK FOR A PERIOD OF ONE YEAR FROM DATE OF FINAL COMPLETION.
- 5. CONTRACTOR SHALL COORDINATE ALL WORK WITH THE RESPECTIVE TRADES AND VERIFY LOCATIONS FROM THE ARCHITECTURAL DRAWINGS, FIELD MEASUREMENTS AND SUPPLIER SHOP DRAWINGS.
- 6. WORK REQUIRED OF ANY TRADE MAY BE SHOWN ANYWHERE ON ANY DRAWING OR IN ANY PART OF THE SPECIFICATIONS.
- 7. CONTRACTOR SHALL COMPLY WITH ALL IDENTIFICATION REQUIREMENTS OF THE
- 8. CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS AND SHALL INCLUDE ANY ELECTRICAL WORK INDICATED OR REQUIRED BY ANY TRADE.
- 9. CONTRACTOR SHALL REVIEW ALL OF THE CONTRACT DOCUMENTS AND VISIT THE SITE TO DETERMINE THE FULL EXTENT OF THE WORK. ALL DIMENSIONS TO BE VERIFIED IN THE FIELD.
- 10. REVIEW ADOPTED CODES AND CODE AMENDMENTS WITH THE LOCAL GOVERNING AUTHORITIES AND BECOME FAMILIAR WITH THE LOCAL REGULATIONS RELATING TO THE WORK.
- II. LAYOUT OF EQUIPMENT, ACCESSORIES AND WIRING ARE DIAGRAMMATIC AND DO NOT INDICATE EVERY BOX, CONDUIT, WIRING OR SIMILAR ITEMS FOR A
- I 2. CUTTING OF ANY STRUCTURAL MEMBER SHALL BE APPROVED BY THE ARCHITECT IN WRITING PRIOR TO WORK BEING DONE.

COMPLETE INSTALLATION.

EQUIPMENT, AND DEVICES.

- 13. CONTRACTOR SHALL PROVIDE AND INSTALL OVER CURRENT DEVICES AS REQUIRED FOR NEW CIRCUITRY.
- 14. THE CONTRACTOR SHALL MAINTAIN THE ELECTRICAL CONTINUITY OF ELECTRICAL CIRCUITS, EQUIPMENT, AND DEVICES TO REMAIN. REWORK AND RECIRCUIT AS NECESSARY TO INSURE THE PROPER FUNCTIONING OF REMAINING CIRCUITS,
- 15. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH THAT OF THE OTHER CONTRACTORS AND WITH THE EXISTING JOB SITE CONDITIONS. HE SHALL RELOCATE EQUIPMENT AS REQUIRED TO AVOID CONFLICT WITH OTHER TRADES. ALL DEVIATIONS SHALL BE APPROVED IN WRITING BY THE ARCHITECT PRIOR TO THE EXECUTION OF THE WORK.
- 16. RACEWAYS SHALL BE A MINIMUM " EMT FOR LIGHTING AND APPLIANCE BRANCH CIRCUITRY AND MINIMUM I" EMT FOR TELEPHONE \$ DATA. ONE-HALF INCH EMT ALLOWED FOR SINGLE OUTLET AND SWITCH LOCATIONS.
- 17. ALL LINE VOLTAGE CONDUCTORS SHALL BE COPPER, MINIUM #12 GAGE, 98% CONDUCTIVITY WITH 600 VOLT INSULATION, SUITABLE FOR 60 DEGREE C OPERATING TEMPERATURE, APPROPRIATE FOR DRY OR WET LOCATIONS, THW, THWN OR THHN FOR BRANCH CIRCUITS, SIZES #10 AND LARGER TO BE STRANDED. FEEDERS AND MOTOR POWER CIRCUITS SHALL BE THW OR THHN, COPPER WITH 600 VOLT INSULATION, SUITABLE FOR 75 DEGREE C OPERATING TEMPERATURE AND APPROPRIATE FOR DRY OR WET LOCATIONS. LOW VOLTAGE CONDUCTORS SHALL BE MINIMUM #14 GAGE.
- 18. RACEWAY FITTINGS SHALL BE GALVANIZED STEEL. EXTERIOR MOUNTED PROTECTED WITH GALVANIZED COATING. EXTERIOR MOUNTED DEVICES SHALL BE INSTALLED IN WEATHERPROOF ENCLOSURES.
- 19. INSTALL FITTINGS TO ACCOMMODATE EXPANSION AND DEFLECTION WHERE RACEWAY CROSSES CONTROL AND EXPANSION JOINTS
- 20. PROVIDE PULL WIRE IN ALL EMPTY CONDUITS

- 21. ALL BRANCH CIRCUITS SHALL BE GROUPED INTO PHASE BALANCED MULTIPLE CIRCUIT HOMERUNS. A MAXIMUM OF 4 CIRCUITS PER SINGLE HOMERUN.
- 22. THE CONTRACTOR SHALL PROVIDE A COMPLETE CONDUCTOR AND RACEWAY SYSTEM FOR ALL CIRCUIT DEVICES INDICATED ON THE PLANS EVEN THOUGH NOT DELINEATED.
- 23. WIRES FOR 120 VOLT BRANCH CIRCUITS THAT EXCEED 75 FEET IN LENGTH FROM PANEL TO CENTER OF LOAD SHALL NOT BE SMALLER THAN #10 AWG.
- 24. INSTALLATION OF ALL LIGHTING FIXTURES SHALL INCLUDE ALL NECESSARY CONDUIT (SOLID OR FLEXIBLE), WIRING, JUNCTION BOXES, ETC., FOR CIRCUIT
- 25. VERIFY ALL CEILING SYSTEM TYPES WITH ARCHITECTURAL PLANS PRIOR TO ORDERING LIGHTING FIXTURES AND PROVIDE REQUIRED HARDWARE AND FRAMES REQUIRED FOR CEILING TYPE.
- 26. PROVIDE FIRE RATED ENCLOSURES FOR ALL RECESSED LIGHT FIXTURES, SPEAKERS, RECEPTACLES, ETC. INSTALLED IN FIRE RATED CEILINGS OR WALLS. ENCLOSURE FIRE RATINGS SHALL EQUAL THE CEILING OR WALL RATING. COORDINATE WITH ARCHITECTURAL PLANS FOR FIRE RATED CEILING AND WALL LOCATIONS.
- 27. EACH BALLASTED FIXTURE TO BE FURNISHED WITH A BUILT-IN U.L. RATED INTERNAL LINEAR DISCONNECTING DEVICE THAT WILL SIMULTANEOUSLY DISCONNECT ALL CONDUCTORS, INCLUDING THE GROUND CONDUCTOR THAT ARE FEEDING THE BALLAST.
- 28. SUPPORT ALL LAY-IN LIGHT FIXTURES WITH TWO NO. 12 GUAGE WIRES SECURED FROM LIGHT FIXTURE AT OPPOSING CORNERS ALONG THE FIXTURE'S DIAGONAL.
- 29. ALL RECESSED LUMINAIRES INSTALLED IN THE BUILDING THERMAL ENVELOPE SHALL BE IC-RATED AND LABELED AS HAVING AN AIR LEAKAGE RATE OF NOT MORE THAN 2.0 CFM WHEN TESTED IN ACCORDANCE WITH ASTM E 283 AT A 1.57 PSF PRESSURE DIFFERENTIAL. ALL RECESSED LUMINAIRES SHALL BE SEALED WITH A GASKET OR CAULK BETWEEN THE HOUSING AND INTERIOR WALL OR CEILING COVERING
- 30. ALL ELECTRICAL EQUIPMENT AND INSTALLATION ABOVE THE CEILING SHALL BE APPROVED FOR PLENUM CONDITIONS. PROVIDE CONDUIT THROUGH PLENUMS FROM ALL DATA AND PHONE RECEPTACLES TO SERVER ROOM(S) AND TELEPHONE EQUIPMENT LOCATIONS (OR LOCATIONS AS DIRECTED BY TENANT).
- 31. ALL CIRCUITRY TO BE RUN CONCEALED UNLESS OTHERWISE INDICATED.
- 32. MATERIALS AND EQUIPMENT SHALL BE LISTED AND/OR LABELED BY U.L., ETL, CSA OR ANOTHER RECOGNIZED TESTING LAB.
- 33. ALL MATERIALS AND EQUIPMENT SHALL BE NEW AND INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S DIRECTIONS AND RECOMMENDATIONS.
- 34. WIRING DEVICES:
- a. RECEPTACLES SHALL BE PROVIDED WHERE SHOWN AND BE NEMA 5-20R, COMMERCIAL GRADE AS MANUFACTURED BY LEVITON, HUBBEL OR APPROVED EQUAL.
- b. SWITCHES SHALL BE PROVIDED WHERE SHOWN AND BE COMMERCIAL GRADE, MANUFACTURED BY LEVITON, HUBBEL OR APPROVED EQUAL. c. RECEPTACLES LOCATED WITHIN TOILETS AND MOUNTED ON THE EXTERIOR
- SHALL BE GFCI COMMERCIAL GRADE. d. ALL WALL SWITCHES IN ROOMS WITH CEILING MOUTNED VACANCY SENSORS SHALL BE LOW VOLTAGE MOMENTARY TOGGLE SWITCH TYPE.
- 35. RECEPTACLES ON OPPOSITE SIDES OF A FIRE RATED WALL ASSEMBLY SHALL BE HORIZONTALLY SEPARATED BY NOT LESS THAN 24 INCHES OR SHALL BE PROTECTED WITH INTUMESCENT PUTTY PADS.
- 36. COORDINATE WITH OTHER TRADES FOR EXACT LOCATIONS OF MOTORS AND OTHER EQUIPMENT REQUIRING POWER.

- a. FINAL CONNECTIONS TO EQUIPMENT SHALL BE MADE WITH "LIQUID TIGHT" FLEXIBLE STEEL CONDUIT,
- b. PROVIDE LOCAL DISCONNECT FOR ALL MOTORS. VERIFY MANUFACUTURE'S RECOMMENDED DISCONNECT SIZE PRIOR TO ORDERING AND INSTALLATION. c. PROVIDE STARTERS FOR ALL MECHANICAL EQUIPMENT WHICH REQUIRES INTERLOCKING. COORDINATE SIZE AND LOCATION OF STARTERS WITH MECHANICAL CONTRACTOR.
- d. FOR ALL AC MOTORS NOT PROVIDED WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE MANUAL MOTOR STARTERS WITH OVERLOAD HEATER ELEMENTS SIZED TO THE NAMEPLATE CURRENT RATING OF THE MOTOR. SMALL AC MOTORS WITH BUILT-IN THERMAL OVERLOAD PROTECTION, PROVIDE HORSE POWER RATED TOGGLE TYPE DISCONNECT SWITCH.
- 37. ALL ELECTRIC DISTRIBUTION EQUIPMENT SHALL BE FULLY-RATED. VERIFY RATING OF EXISTING SERVICE EQUIPMENT IN FIELD AND MATCH.
- 38. ELECTRICAL PANELS SHALL HAVE BOLT-ON TYPE CIRCUIT BREAKERS WITH SHORT CIRCUIT INTERRUPTING RATINGS TO EXCEED THE AVAILABLE SHORT CIRCUIT CURRENT.
- 39. ALL I 20 VOLT CIRCUITS SHALL HAVE A DEDICATED NEUTRAL
- 40. THE CONTRACTOR SHALL PROTECT THE EXISTING FACILITY AND SHALL EXERCISE CARE NOT TO DAMAGE ANY EXISTING CONSTRUCTION TO REMAIN. ALL WORK DAMAGED BY THE CONTRACTOR MUST BE RESTORED SO AS TO MATCH EXISTING AND AS APPROVED BY THE ARCHITECT. ANY SUCH CORRECTIVE WORK MUST BE PERFORMED AT NO ADDITIONAL COST TO THE OWNER.
- 41. LIGHTING SYSTEM FUNCTIONAL TESTING:
- a. FUNCTIONAL TESTING SHALL BE PERFORMED IN COMPLIANCE WITH C408.3 OF THE IECC 2012 BY THE GENERAL CONTRACTOR TO ENSURE THAT THE HARDWARE IS CALIBRATED, ADJUSTED, PROGRAMMED AND IN PROPER WORKING CONDITION IN ACCORDANCE WITH THE CONSTRUCTION DOCUMENTS
- AND MANUFACTURER'S INSTALLATION INSTRUCTIONS. b. TESTING SHALL CONFIRM THAT THE PLACEMENT, SENSITIVITY AND TIME-OUT ADJUSTMENTS FOR OCCUPANT SENSORS YIELD ACCEPTABLE PERFORMANCE. c. CONFIRM THAT THE TIME SWITCHES AND PROGRAMMABLE SCHEDULE CONTROLS ARE PROGRAMMED TO TURN THE LIGHTS OFF.
- d. CONFIRM THAT THE PLACEMENT AND SENSITIVITY ADJUSTMENTS FOR PHOTOSENSOR CONTROLS REDUCE ELECTRIC LIGHT BASED ON THE AMOUNT OF USABLE DAYLIGHT IN THE SPACE AS SPECIFIED.
- 42. MANUALS: DOCUMENTS DESCRIBED BELOW SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE DATE (U.N.O.) OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY:
- a. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE b. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT
- MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED. c. NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY

NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE

- d. A NARATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMMENDED SETPOINTS e. AS-BUILT DRAWING(S) OF ELECTRICAL POWER SYSTEMS WITHIN 30 DAYS
- 43. LIGHT FIXTURES SHALL BE SELECTED BY THE OWNER/ARCHITECT AND SHALL COMPLY WITH THE ENERGY REQUIREMENTS OF THE CITY OF CHICAGO.

OF SYSTEM ACCEPTANCE

PETER ALEX DREIER ARCHITECT architectpad@gmail.com



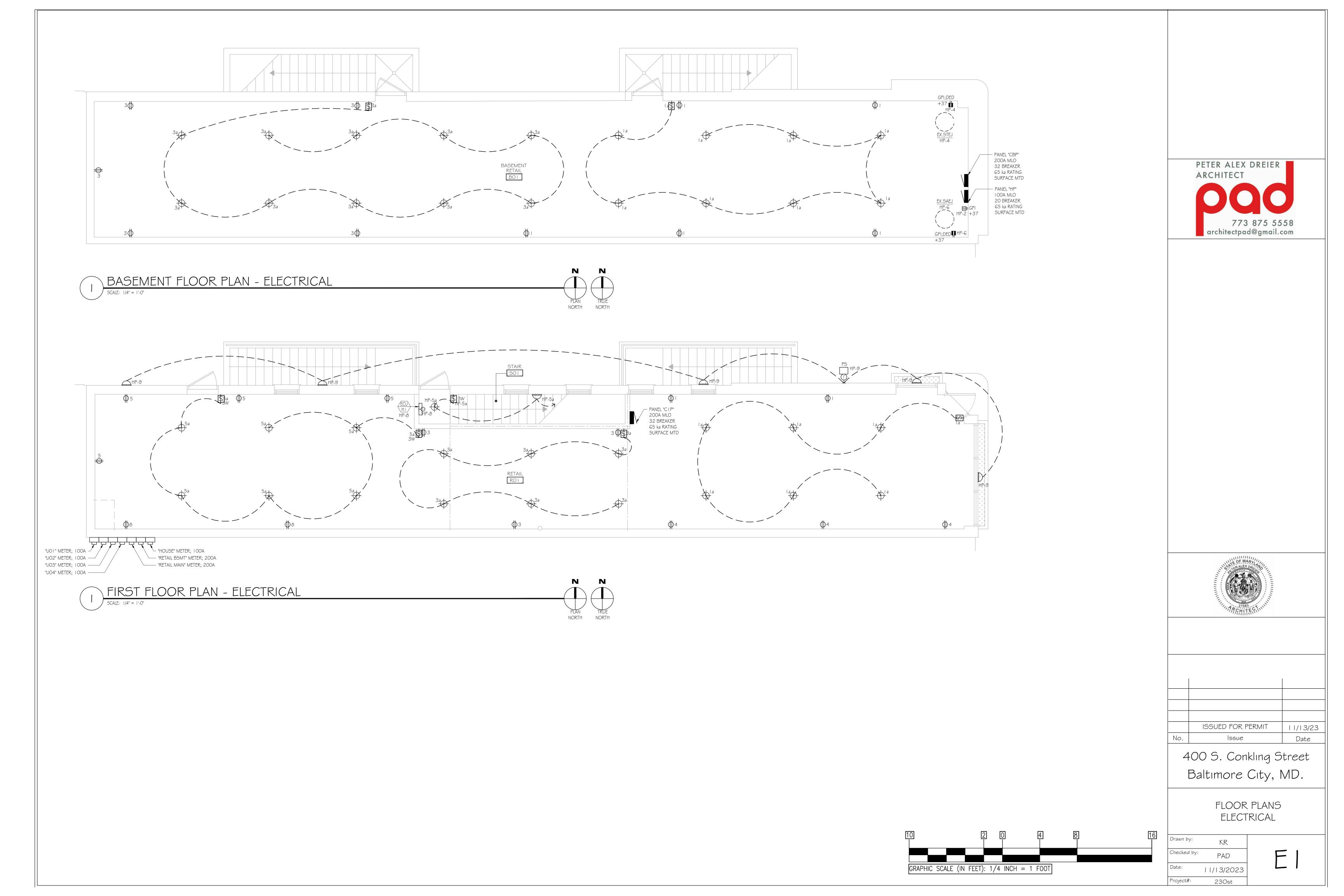
ISSUED FOR PERMIT 11/13/23 Date

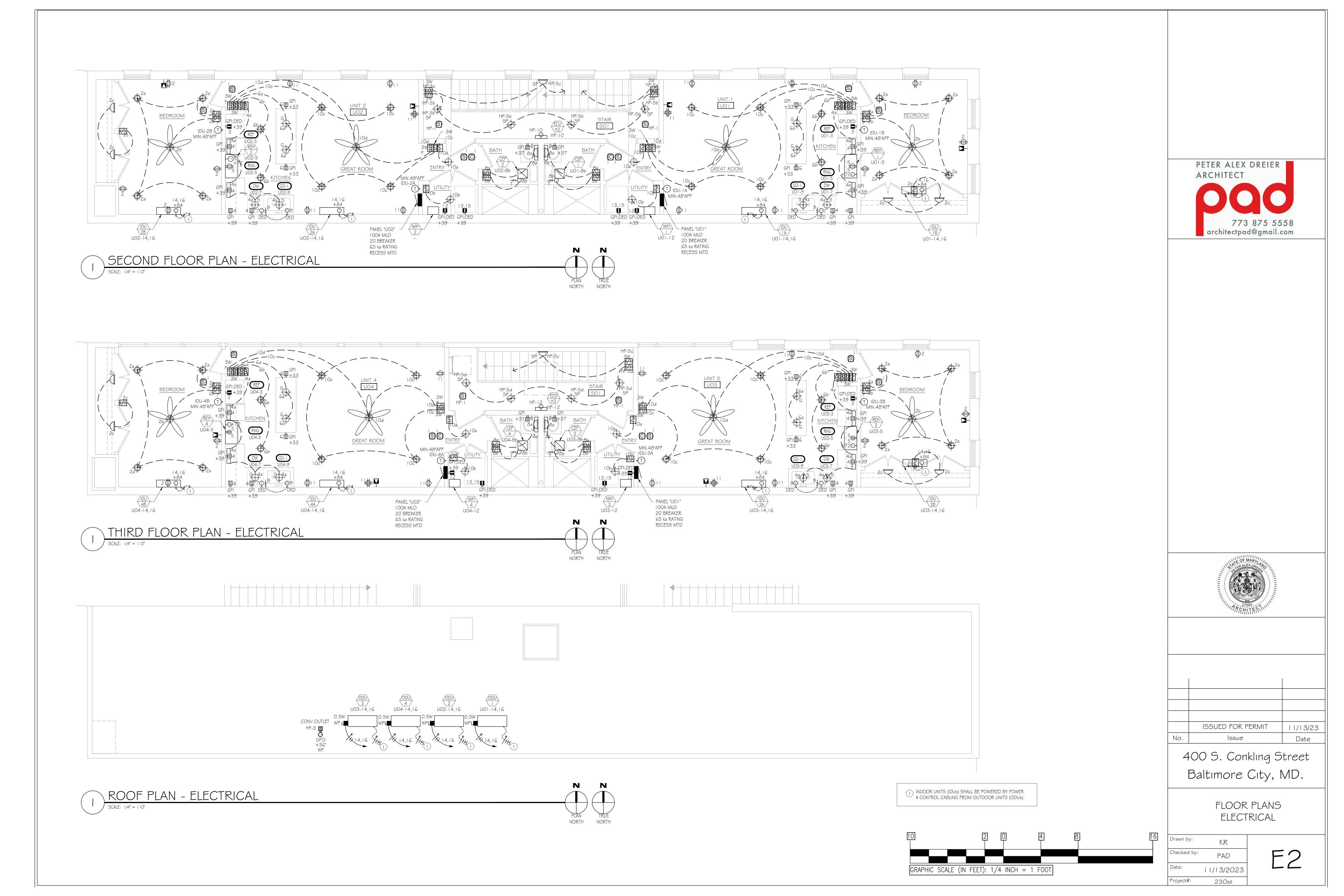
400 S. Conkling Street Baltimore City, MD.

> NOTES, SYMBOLS \$ ABBREVIATIONS ELECTRICAL

Drawn by: KR Checked by: PAD 11/13/2023 Project#: 230st







	MECHANICAL EQUIPMENT SCHEDULE (UNIT UO PANEL)												
EQUIPMENT	DECCURITION					DISCON							
TAG	DESCRIPTION	VOLT5	PHASE	WATTS	HP	AMPS	PANEL	CIRCUIT	FEEDER	SIZE	NEMA RATING	NOTES	
REF	REFRIGERATOR	120	ı	500	-	4.17	NOI	3	# 2, # 2 GND	20	-	BRKR D.SW; DEI OUTLET, GFI	
RNG	RANGE	120	ı	500	-	4.17	UOI	5	# 2, # 2 GND	20	-	BRKR D.SW	
REH-I	RANGE EXHAUST HOOD	120	ı	78	-	0.65	NOI	5	1#12, 1#12 GND	20	-	BRKR D.SW	
GD-1	GARBAGE DISPOSAL	120	ı	1000	-	8.33	NOI	9	# 2, # 2 GND	20	-	BRKR D.SW; DEC JB	
DW	DISHWASHER	120	ı	1200	-	10.00	UOI	7	# 2, # 2 GND	20	-	BRKR D.SW; DEC JB	
W	CLOTHES WASHER	120	ı	1000	-	8.33	UOI	12	# 2, # 2 GND	20	-	BRKR D.SW	
D	CLOTHES DRYER	120	ı	1000	-	8.33	UOI	12	1#12, 1#12 GND	20	-	BRKR D.SW	
IWH- I	INSTANTANEOUS WATER HEATER	120	I	200	-	1.67	NOI	10	1#10, 1#12 GND	15	-	BRKR D.SW	
IDU- I A	INDOOR WALL UNIT A	240	ı	_	_	-	NOI	14,16	-	-	-	POWER FED FROM	
IDU- I B	INDOOR WALL UNIT B	240	ı	-	-	-	UOI	14,16	-	-	-	POWER FED FROI	
ODU- I	OUTDOOR HEAT PUMP UNIT	240	ı	7560	-	31.50	NOI	14,16	2#8, I#8 GND	40	3R	CNTRL/PWR TO IDU BY M.C.	

	ME	CHAN	NICAL	EQU	IPME	NT S	CHEC	ULE (UNIT UO3 PAI	VEL)		
EQUIPMENT					DISCONNECT SWITCH							
TAG	DESCRIPTION	VOLT5	PHASE	WATT5	HP	AMPS	PANEL	CIRCUIT	FEEDER	SIZE	NEMA RATING	NOTES
REF	REFRIGERATOR	120	ı	500	-	4.17	U03	3	1#12, 1#12 GND	20	-	BRKR D.SW; DED OUTLET, GFI
RNG	RANGE	120	l	500	-	4.17	U03	5	# 2, # 2 GND	20	-	BRKR D.SW
REH-I	RANGE EXHAUST HOOD	120	ı	78	-	0.65	UO3	5	1#12, 1#12 GND	20	-	BRKR D.SW
GD-1	GARBAGE DISPOSAL	120	1	1000	-	8.33	UO3	9	1#12, 1#12 GND	20	-	BRKR D.SW; DED JB
DW	DISHWASHER	120	ı	1200	-	10.00	U03	7	1#12, 1#12 GND	20	-	BRKR D.SW; DED JB
W	CLOTHES WASHER	120	ı	1000	-	8.33	U03	12	# 2, # 2 GND	20	-	BRKR D.SW
D	CLOTHES DRYER	120	ı	1000	-	8.33	U03	12	1#12, 1#12 GND	20	-	BRKR D.SW
IWH- I	INSTANTANEOUS WATER HEATER	120	1	200	-	1.67	U03	10	1#10, 1#12 GND	15	-	BRKR D.SW
IDU- I A	INDOOR WALL UNIT A	240	1	-	-	-	U03	14,16	-	-	-	POWER FED FROM ODU
IDU- I B	INDOOR WALL UNIT B	240	ı	-	-	-	U03	14,16	-	-	-	POWER FED FROM ODU
ODU- I	OUTDOOR HEAT PUMP UNIT	240	I	7560	-	31.50	UO3	14,16	2#8, I#8 GND	40	3R	CNTRL/PWR TO IDU BY M.C.

	ME	CHAN	NICAL	EQU	IPME	NT S	CHED	DULE (UNIT UO2 PAI	VEL)		
EQUIPMENT	DESCRIPTION				DISCONNECT SWITCH		NOTEC					
TAG		VOLTS	PHASE	WATTS	HP	AMPS	PANEL	CIRCUIT	FEEDER	SIZE	NEMA RATING	NOTES
REF	REFRIGERATOR	120	ı	500	-	4.17	UO2	3	# 2, # 2 GND	20	-	BRKR D.SW; DED OUTLET, GFI
RNG	RANGE	120	I	500	-	4.17	UO2	5	# 2, # 2 GND	20	-	BRKR D.SW
REH-I	RANGE EXHAUST HOOD	120	ı	78	-	0.65	UO2	5	# 2, # 2 GND	20	-	BRKR D.SW
GD-1	GARBAGE DISPOSAL	120	ı	1000	-	8.33	UO2	9	1#12, 1#12 GND	20	-	BRKR D.SW; DED JB
DW	DISHWASHER	120	I	1200	-	10.00	UO2	7	# 2, # 2 GND	20	-	BRKR D.SW; DED JB
W	CLOTHES WASHER	120	I	1000	-	8.33	UO2	12	# 2, # 2 GND	20	-	BRKR D.SW
D	CLOTHES DRYER	120	ı	1000	-	8.33	UO2	12	# 2, # 2 GND	20	-	BRKR D.SW
IWH- I	INSTANTANEOUS WATER HEATER	120	ı	200	-	1.67	UO2	10	1#10, 1#12 GND	15	-	BRKR D.SW
IDU- I A	INDOOR WALL UNIT A	240	ı	-	-	-	UO2	14,16	-	-	-	POWER FED FROM ODU
IDU-1B	INDOOR WALL UNIT B	240	ı	-	-	-	UO2	14,16	-	-	-	POWER FED FROM ODU
ODU-I	OUTDOOR HEAT PUMP UNIT	240	1	7560	-	31.50	UO2	14,16	2#8, I#8 GND	40	3R	CNTRL/PWR TO IDU BY M.C.

	ME	CHAN	NICAL	EQU	IPME	NT S	CHEC	ULE (UNIT UO4 PA	NEL)		
EQUIPMENT	D.C. O.D.ITTION				DISCON							
TAG	DESCRIPTION	VOLTS	PHASE	WATTS	HP	AMPS	PANEL	CIRCUIT	FEEDER	SIZE	NEMA RATING	NOTES
REF	REFRIGERATOR	120	ı	500	-	4.17	UO4	3	# 2, # 2 GND	20	-	BRKR D.SW; DED OUTLET, GFI
RNG	RANGE	120	ı	500	-	4.17	UO4	5	1#12, 1#12 GND	20	-	BRKR D.SW
REH-I	RANGE EXHAUST HOOD	120	ı	78	-	0.65	UO4	5	1#12, 1#12 GND	20	-	BRKR D.SW
GD-1	GARBAGE DISPOSAL	120	ı	1000	-	8.33	UO4	9	# 2, # 2 GND	20	-	BRKR D.SW; DEC
DW	DISHWASHER	120	ı	1200	-	10.00	UO4	7	# 2, # 2 GND	20	-	BRKR D.SW; DEC
W	CLOTHES WASHER	120	ı	1000	-	8.33	UO4	12	# 2, # 2 GND	20	-	BRKR D.SW
D	CLOTHES DRYER	120	ı	1000	-	8.33	UO4	12	# 2, # 2 GND	20	-	BRKR D.SW
IWH- I	INSTANTANEOUS WATER HEATER	120	ı	200	-	1.67	UO4	10	1#10, 1#12 GND	15	-	BRKR D.SW
IDU- I A	INDOOR WALL UNIT A	240	I	-	-	-	UO4	14,16	-	-	-	POWER FED FROI
IDU- I B	INDOOR WALL UNIT B	240	ı	-	-	-	UO4	14,16	-	-	-	POWER FED FROI
ODU- I	OUTDOOR HEAT PUMP UNIT	240	ı	7560	-	31.50	UO4	14,16	2#8, I#8 GND	40	3R	CNTRL/PWR TO

	MECHANICAL EQUIPMENT SCHEDULE (HOUSE PANEL)													
EQUIPMENT TAG	DECORPTION				DISCONNECT SWITCH									
	DESCRIPTION	VOLT5	PHASE	WATTS	НР	AMP5	PANEL	CIRCUIT	FEEDER	SIZE	NEMA RATING	NOTES		
ECU-H I	ELECTRIC CABINET UNIT HEATER	120	I	1500	-	12.50	HP	8	1#10, 1#12 GND	15	ı	-		
ECU-H2	ELECTRIC CABINET UNIT HEATER	120	ı	1500	-	12.50	HP	10	1#10, 1#12 GND	15	ı	-		
ECU-H3	ELECTRIC CABINET UNIT HEATER	120	I	1500	-	12.50	HP	12	1#10, 1#12 GND	15	I	-		
EX.SAEJ	EXISTING SANITARY EJECTOR PUMP	120	ı	1200	-	10.00	HP	6	1#12, 1#12 GND	20	4X	DEDICATED CIRCUIT; GFCI		
EX.STEJ	EXISTING SANITARY EJECTOR PUMP	120	ı	1200	-	10.00	HP	4	# 2, # 2 GND	20	4X	DEDICATED CIRCUIT; GFCI		





	ISSUED FOR PERMIT	11/13/23
No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

MECHANICAL EQUIPMENT SCHEDULES ELECTRICAL

Drawn by:	KR
Checked by:	PAD
Date:	11/13/2023
Project#:	230st

E3

PANEL <u>"CBP"</u>		240	/ 120 /OLTAGE	I PH A S E S		3 IRES	MOUNTING: SURFACE NEMA-I			
LOCATION: BASEMENT		MAIN RATING:	200 AM P	MAIN TYPE:		MLO		INTERUPT RATING AC: 65 Ka		
CIRCUIT DESCRIPTION	CKT	RATING	BUS A (VA)	BUS E	(VA)	RATING	CKT	CIRCUIT DESCRIPTION		
RECEPT/LIGHTING - BASEMENT EAST	I	20	1300			-	2	BLANK		
RECEPT/LIGHTING - BASEMENT WEST	3	20		1400		-	4	BLANK		
BLANK	5	-				-	6	BLANK		
BLANK	7	-				-	8	BLANK		
BLANK	9	-				-	10	BLANK		
BLANK	11	-				-	12	BLANK		
BLANK	13	-				-	14	BLANK		
BLANK	15	-				-	16	BLANK		
BLANK	17	-				-	18	BLANK		
BLANK	19	-				-	20	BLANK		
BLANK	21	-				-	22	BLANK		
BLANK	23	-				-	24	BLANK		
BLANK	25	-				-	26	BLANK		
BLANK	27	-				-	28	BLANK		
BLANK	29	-				-	30	BLANK		
BLANK	31	-				-	32	BLANK		
	TOT	AL LOAD:	1300 VA	1400	VA					
	TOT	AL AMPS:	10.8 A	11.7	Α	•				
NOTES:			-					PANEL TOTALS		
ABB MODEL# TLM3220CCU										
Load Center, Convertible Main Lug, 200 Amp, I- Phase, I20/240 Volt AC, 65 kAIC, 32 Space, 40 Circuits, NEMA I, Combo					TOTAL CONNECTED: 2700 VA TOTAL EST. DEMAND: 2430 VA					
						OTAL CONN TAL EST. D				

PANEL <u>"CIP"</u>			/ VOLTAGE	120	I PH A SES	W	3 IRES		MOUNTING: SURFACE NEMA-I	
OCATION: 1ST FLOOR		MAIN RATING:	200 AMP		MAIN TYPE:		MLO		INTERUPT RATING AC: 65 Ka	
CIRCUIT DESCRIPTION	CKT	RATING	BUS /	4 (VA)	BUS I	3 (VA)	RATING	CKT	CIRCUIT DESCRIPTION	
RECEPT/LIGHTING - RETAIL NE + EAST LTG	J	20	660	0			20	2	SPARE	
RECEPT/LIGHTING - RETAIL CENTRAL	3	20			840	540	20	4	RECEPT - RETAIL SE	
RECEPT LIGHTING - RETAIL NW + WEST LTG	5	20	1020	0			20	6	SPARE	
SPARE	7	20			0	360	20	8	RECEPT - RETAIL SW	
BLANK	9	-					-	10	BLANK	
BLANK	1.1	-					-	12	BLANK	
BLANK	13	-					-	14	BLANK	
BLANK	15	-					-	16	BLANK	
BLANK	17	-					-	18	BLANK	
BLANK	19	-					-	20	BLANK	
BLANK	21	-					-	22	BLANK	
BLANK	23	-					-	24	BLANK	
BLANK	25	-					-	26	BLANK	
BLANK	27	-					-	28	BLANK	
BLANK	29	-					-	30	BLANK	
BLANK	31	-					-	32	BLANK	
	TOT	AL LOAD:	1680	VA	1740	VA				
	TOT	AL AMPS:	14.0	Α	14.5	Α				
NOTES:					PANEL TOTALS					
ABB MODEL# TLM3220CCU										
Load Center, Convertible Main Lug, 200 Amp, I- Phase, I20/240 Volt AC, 65 kAIC, 32 Space, 40 Circuits, NEMA I, Combo						TC T	OTAL CONN OTAL EST. D OTAL CONN OTAL EST. D	EMAND: IECTED:	3078 VA 14.3 A	

PANEL <u>"HP"</u>		240	/ /OLTAGE	120	I PH A SES	W	3 IRES	MOUNTING: SURFACE NEMA-I		
LOCATION: BASEMENT		MAIN RATING:	100	AMP	MAIN TYPE:			INTERUPT RATING AC: 65 Ka		
CIRCUIT DESCRIPTION	CKT	RATING	BUS	A (VA)	BUS I	3 (VA)	RATING	CKT	CIRCUIT DESCRIPTION	
CONT - SMOKE/CO2	1	15	200	180			20	2	RECEPT - CONV. OUTLET BASEMENT	
recept - roof conv outlet	3	20			180	1200	20	4	RECEPT - EX.STEJ	
LIGHTING - STAIR SO I	5	20	600	1200			20	6	RECEPT - EX.SAEJ	
SPARE	7	20			0	1500	15	8	HVAC - ECU-H I	
LIGHTING - EXTERIOR LIGHTING	9	20	500	1500			15	10	HVAC - ECU-H2	
SPARE	11	20			0	1500	15	12	HVAC - ECU-H3	
SPARE	13	20	0	0			00	14	CDADE	
SPARE	15	20			0	0	20	16	- SPARE	
BLANK	17	-					-	18	BLANK	
BLANK	19	-					-	20	BLANK	
	TOT	AL LOAD:	4180 VA		4380 VA			•		
	TOT	AL AMPS:	34.8	Α	36.5	Α	-			
NOTES:									PANEL TOTALS	
ABB MODEL# TLM2020CCU Load Center, Convertible Main Lug, 200 Amp, I- Phase, I 20/240 Volt AC, 65 kAIC, 20 Space, 40						Т	OTAL CONN	IECTED:	: 8560 VA	
Circuits, NEMA I, Combo						ТО	TAL EST. DI	EMAND:	: 7704 VA	
						Т	OTAL CONN	IECTED:	: 35.7 A	
					TOTAL EST. D			EMAND:	32.1 A	





ISSUED FOR PERMIT 11/13/23
No. Issue Date

400 S. Conkling Street Baltimore City, MD.

> PANEL SCHEDULES ELECTRICAL

	Drawn by:	KR						
	Checked by:	PAD						
	Date:	11/13/202						
	Project#:	230st						

E4

PANEL <u>"UO I "</u>		240	/ /OLTAGE	120	I PH A SES	W	3 IRES	MOUNTING: RECESSED NEMA-I	
OCATION: 2ND FLOOR - UNIT UOI		MAIN RATING:			MAIN TYPE:	MLO	INTERUPT RATING AC: 65 Ka		
CIRCUIT DESCRIPTION	CKT	RATING	BUS	A (VA)	BUS E	(VA)	RATING	CKT	CIRCUIT DESCRIPTION
CONT - SMOKE/CO2	1	15	200	1140			20	2	LIGHTING/RECEPT - BEDROOM
RECEPT - REFRIGERATOR	3	20			500	920	20	4	LIGHTING/RECEPT - UNDERCOUNTER/KITCHEN
RECEPT - RANGE/RANGE HOOD	5	20	578	560			20	6	LIGHTING/RECEPT - KITCHEN/ISLAND
RECEPT - DISHWASHER	7	20			1200	330	20	8	LIGHTING/RECEPT - BATH
RECEPT - GARBAGE DISPOSAL	9	20	1000	600			20	10	LIGHTING - ENTRY/GREAT ROOM/UTILITY
recept - greatroom	1.1	20			1080	200	20	12	RECEPT - INSTANTANEOUS (IWH-1)
RECEPT - WASHER (LEFT FEED ON DUPLEX)	13	20	1000	3780			40	14	HVAC - IDU(AB)/ODU
RECEPT - DRYER (RIGHT FEED ON DUPLEX)	15	20			1000	3780	40	16	TIVAC - IDU(AD)/ODU
BLANK	17	-					-	18	BLANK
BLANK	19	-					-	20	BLANK
	TOT		8858	VA	9010	VA			
	TOT	AL AMPS:	73.8	Α	7 5.1	Α	_		
NOTES:								1	PANEL TOTALS
ABB MODEL# TLM2020CCU									

TOTAL CONNECTED:

TOTAL EST. DEMAND:

TOTAL CONNECTED:

TOTAL EST. DEMAND:

17868 VA

16081.2 VA

74.5 A

67.0 A

Load Center, Convertible Main Lug, 200 Amp, I-

Circuits, NEMA I, Combo

Phase, 120/240 Volt AC, 65 kAIC, 20 Space, 40

PANEL <u>"UO2"</u>		240 \	/ /OLT A GE	120	l PH A SES		3 IRES	MOUNTING: RECESSED NEMA-I	
OCATION: 2ND FLOOR - UNIT UO2		MAIN RATING:	LOO AMP		MAIN TYPE:		MLO	INTERUPT RATING AC: G5 Ka	
CIRCUIT DESCRIPTION	CKT	RATING	BUS .	A (VA)	BUS E	3 (VA)	RATING	CKT	CIRCUIT DESCRIPTION
CONT - SMOKE/CO2	I	15	200	1310			20	2	LIGHTING/RECEPT - BEDROOM
RECEPT - REFRIGERATOR	3	20			500	920	20	4	LIGHTING/RECEPT - UNDERCOUNTER/KITCHEN
RECEPT - RANGE/RANGE HOOD	5	20	578	560			20	6	LIGHTING/RECEPT - KITCHEN/ISLAND
RECEPT - DISHWASHER	7	20			1 200	330	20	8	LIGHTING/RECEPT - BATH
RECEPT - GARBAGE DISPOSAL	9	20	1000	600			20	10	LIGHTING - ENTRY/GREAT ROOM/UTILITY
RECEPT - GREATROOM	1.1	20			1080	200	20	12	RECEPT - INSTANTANEOUS (IWH-1)
RECEPT - WASHER (LEFT FEED ON DUPLEX)	13	20	1000	3780			40	14	LIVAC I DIVATIVO DI I
RECEPT - DRYER (RIGHT FEED ON DUPLEX)	15	20			1000	3780	40	16	HVAC - IDU(AB)/ODU
BLANK	17	-					-	18	BLANK
BLANK	19	-					-	20	BLANK
	ТОТ	AL LOAD:	9028 VA		9010 VA			1	•
	TOT	AL AMPS:	75 <i>.</i> 2	Α	75. I	Α	1		

NOTES:	PANE	EL TOT A LS	
ABB MODEL# TLM2020CCU			
Load Center, Convertible Main Lug, 200 Amp, I- Phase, I 20/240 Volt AC, 65 kAIC, 20 Space, 40	TOTAL CONNECTED:	18038 VA	
Circuits, NEMA I, Combo	TOTAL EST. DEMAND:	16234.2 VA	
	TOTAL CONNECTED:	75.2 A	
	TOTAL EST. DEMAND:	67.6 A	

PANEL <u>"UO3"</u>		240	/ VOLTAGE	120	I PH A SES	W	3 IRES		MOUNTING: RECESSED NEMA-I	
LOCATION: 3RD FLOOR - UNIT UO3		MAIN RATING:			MAIN TYPE:			INTERUPT RATING AC: 65 Ka		
CIRCUIT DESCRIPTION	CKT	RATING	BUS ,	A (VA)	BUS E	3 (VA)	RATING	CKT	CIRCUIT DESCRIPTION	
CONT - SMOKE/CO2	I	15	200	1310			20	2	LIGHTING/RECEPT - BEDROOM	
recept - refrigerator	3	20			500	920	20	4	LIGHTING/RECEPT - UNDERCOUNTER/KITCHEN	
RECEPT - RANGE/RANGE HOOD	5	20	578	560			20	6	LIGHTING/RECEPT - KITCHEN/ISLAND	
RECEPT - DISHWASHER	7	20			1 200	330	20	8	LIGHTING/RECEPT - BATH	
RECEPT - GARBAGE DISPOSAL	9	20	1000	600			20	10	LIGHTING - ENTRY/GREAT ROOM/UTILITY	
RECEPT - GREATROOM	1.1	20			1080	200	20	12	RECEPT - INSTANTANEOUS (IWH-I)	
RECEPT - WASHER (LEFT FEED ON DUPLEX)	13	20	1000	3780			10	14	HIVAC IDLIVADVODIL	
RECEPT - DRYER (RIGHT FEED ON DUPLEX)	15	20			1000	3780	40	16	HVAC - IDU(AB)/ODU	
BLANK	17	-					-	18	BLANK	
BLANK	19	-					-	20	BLANK	
	TOT	AL LOAD:	9028 VA		9010 VA					
	TOT	AL AMPS:	75.2	Α	75.1	Α	_			
NOTES:								1	PANEL TOTALS	
ABB MODEL# TLM2020CCU										
Load Center, Convertible Main Lug, 200 Amp, I- Phase, I20/240 Volt AC, 65 kAIC, 20 Space, 40						Т	OTAL CONN	IECTED:	18038 VA	
Circuits, NEMA I, Combo						ТО	T A L EST. D	EMAND:	16234.2 VA	
						T	OTAL CONN	IECTED:	75.2 A	
					ТО	TAL EST. D	EMAND:	67.6 A		

PANEL <u>"UO4"</u>		240 \	/ /OLTAGE	120	I PH A SES	·			MOUNTING: RECESSED NEMA- I		
LOCATION: 3RD FLOOR - UNIT UO4	MAIN RATING:		MAIN TYPE:			INTERUPT RATING AC: 65 Ka					
CIRCUIT DESCRIPTION	CKT	RATING	BUS A	4 (VA)	BUS B	(VA)	RATING	CKT	CIRCUIT DESCRIPTION		
CONT - SMOKE/CO2	1	15	200	1130			20	2	LIGHTING/RECEPT - BEDROOM		
RECEPT - REFRIGERATOR	3	20			500	920	20	4	LIGHTING/RECEPT - UNDERCOUNTER/KITCHEN		
RECEPT - RANGE/RANGE HOOD	5	20	578	560			20	6	LIGHTING/RECEPT - KITCHEN/ISLAND		
RECEPT - DISHWASHER	7	20			1 200	330	20	8	LIGHTING/RECEPT - BATH		
RECEPT - GARBAGE DISPOSAL	9	20	1000	600			20	10	LIGHTING - ENTRY/GREAT ROOM/UTILITY		
RECEPT - GREATROOM	11	20			900	200	20	12	RECEPT - INSTANTANEOUS (IWH-1)		
RECEPT - WASHER (LEFT FEED ON DUPLEX)	13	20	1000	3780			40	14	LINAC IDINADVODI.		
RECEPT - DRYER (RIGHT FEED ON DUPLEX)	15	20			1000	3780	40	16	HVAC - IDU(AB)/ODU		
BLANK	17	-					-	18	BLANK		
BLANK	19	-					-	20	BLANK		
	TOT	AL LOAD:	8848	VA	8830	VA		•			
	TOT	AL AMPS:	73.7	Α	73.6	Α	•				
NOTES:									PANEL TOTALS		
ABB MODEL# TLM2020CCU											
Load Center, Convertible Main Lug, 200 Amp, I- Phase, I 20/240 Volt AC, 65 kAIC, 20 Space, 40 Circuits, NEMA I, Combo					TOTAL CONNECTED: 17678 VA TOTAL EST. DEMAND: 15910.2 VA						

TOTAL CONNECTED:

TOTAL EST. DEMAND:

73.7 A

66.3 A



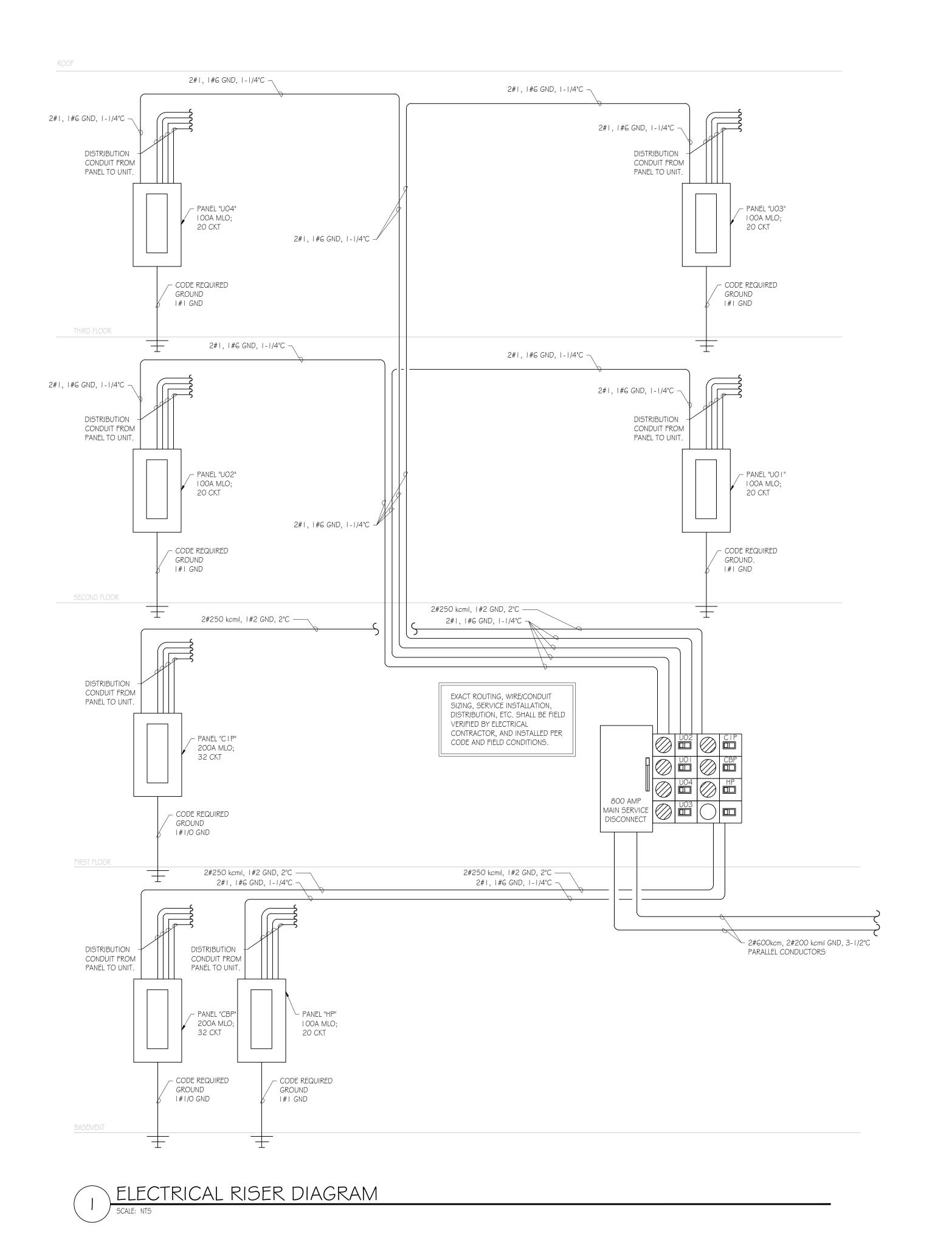


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No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

PANEL SCHEDULES ELECTRICAL

Drawn by:	KR
Checked by:	PAD
Date:	11/13/2023
Project#:	230st



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ARCHITECT

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No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

> RISER DIAGRAM ELECTRICAL

Drawn by:	KR
Checked by:	PAD
Date:	11/13/2023
Project#:	230st

E6

MECHANICAL ABBREVIATIONS

- Φ PHASE A - AMPERE
- AC ALTERNATING CURRENT A/C - AIR CONDITIONING
- AFF ABOVE FINISHED FLOOR AG - ABOVE GRADE
- AL ALUMINUM AMB - AMBIENT AMP - AMPERE BHP - BOILER
- • • • • • • • • HORSEPOWER BTU - BRITISH THERMAL UNIT BTUH - BRITISH THERMAL UNITS
- PER HOUR CEF - CEILING EXHAUST FAN CFH - CUBIC FEET PER HOUR
- CFM CUBIC FEET PER MINUTE CONN - CONNECT, CONNECTION CONT - CONTINUATION
- COP COEFFICIENT OF PERFORMANCE CU - CUBIC, CONDENSING UNIT
- CU FT. CUBIC FEET CU IN. - CUBIC INCHES DB - DRY BULB, DECIBELS
- DEG DEGREE DELTAT - TEMPERATURE DIFFERENCE DIA - DIAMETER
- DISC DISCONNECT DN - DOWN DWG - DRAWING EAT - ENTERING TEMPERATURE
- EC ELECTRICAL CONTRACTOR ECU - ELECTRIC CABINET UNIT HEATER EER - ENERGY EFFICIENT RATIO
- EF EXHAUST FAN EFF - EFFICIENCY ELEC - ELECTRICAL
- ESP EXTERNAL STATIC PRESSURE EXD - EXHAUST DUCT
- EXH EXHAUST EXL - EXHAUST LOUVER OF - DEGREES FAHRENHEIT
- F FAHRENHEIT, FURNACE FC - FLEXIBLE CONNECTION FD - FLOOR DRAIN FFB - FROM FLOOR BELOW
- FLA FULL LOAD AMPS FLR - FLOOR FPM - FEET PER MINUTE FRPM - FAN ROTATION PER
- MINUTE FT - FOOT, FEET G - GAS LINE
- GA GAUGE GALV - GALVANIZED GC - GENERAL CONTRACTOR

GND - GROUND

- HGT HEIGHT HORIZ - HORIZONTAL HP - HORSEPOWER. HEAT PUMP
- HSFP HEATING SEASONAL PERFORMANCE FACTOR HTR - HEATER
- HZ HERTZ IBC - INTERNATIONAL BUILDING
- IDU INDOOR UNIT IECC - INTERNATIONAL ENERGY CODE
- IEER INTEGRATED ENERGY EFFICIENCY RATIO
- IFGC INTERNATIONAL FUEL GAS IMC - INTERNATIONAL
- MECHANICAL CODE IN. - INCH
- IN.WC INCHES OF WATER COLUMN IN.WG - INCHES OF WATER GAUGE
- INSUL INSULATION INT - INTERNATIONAL IPC - INTERNATIONAL PLUMBING CODE
- KW KILOWATT L - LENGTH

LAT - LEAVING AIR TEMPERATURE

- LB. POUND LIQ - LIQUID
- MAT MIXED AIR TEMPERATURE MAX - MAXIMUM MBH - THOUSAND BRITISH

THERMAL UNITS PER HOUR

MC - MECHANICAL CONTRACTOR

MCA - MINIMUM CIRCUIT AMPS

M/E - MECHANICAL/ELECTRICAL

MERV - MINIMUM EFFICIENCY

OVERCURRENT PROTECTION

PROTECTION ASSOCIATION

REPORTING VALUES

MFR - MANUFACTURER

NC - NOISE CRITERIA

NFPA - NATIONAL FIRE

NIC - NOT IN CONTACT

OAD - OUTSIDE AIR DUCT

ODU - OUTDOOR UNIT

VALVE

CONDITIONING

RAD - RETURN AIR DUCT

RED - RETURN DUCT

REF - REFERENCE

REQD - REQUIRED

REV - REVISION

RM - ROOM

S - SWITCH

SA - SUPPLY AIR

SCH - SCHEDULE

SENS - SENSIBLE

SEP - SEPARATE

SEQ - SEQUENCE

SERV - SERVICE

SHT - SHEET

UNITS

REFR - REFRIGERANT

RL - REFRIGERANT LIQUID

RLA - RATED LOAD AMPERES

RS - REFRIGERANT SUCTION

SAT - SUPPLY AIR TEMPERATURE

SI - INTERNATIONAL SYSTEMS OF

SONES - UNIT OF LOUDNESS

• SP - STATIC PRESSURE

SPEC - SPECIFICATION

SQFT - SQUARE FEET

• SS - STAINLESS STEEL

TEMPERATURE

STD - STANDARD

SUCT - SUCTION

STL - STEEL

THK - THICK

COOLING

VEL - VELOCITY

VERT - VERTICAL

W - WATT, WIDTH

WB - WET BULB

WC - WATER COLUMN

WG - WATER GAUGE

V - VOLT

FLOW

W/ - WITH

SSC - SPLIT SYSTEM COOLING

• TD - TEMPERATURE DIFFERENCE

TDH - TOTAL DYNAMIC HEAD

TON - 12,000 BTU/HOUR OF

• TSP - TOTAL STATIC PRESSURE

VRF - VARIABLE REFRIGERANT

TEMP - TEMPERATURE

SST - SATURATED SUCTION

SQ - SQUARE

QTY - QUANTITY

RA - RETURN AIR

OAT - OUTSIDE TEMPERATURE

PC - PLUMBING CONTRACTOR

PSI - POUNDS PER SQUARE INCH

PSIG - POUND PER SQUARE INCH

PTAC - PACKAGED TERMINAL AIR

RAT - RETURN AIR TEMPERATURE

PRV - PRESSURE REDUCING

NTS - NOT TO SCALE

OA - OUTSIDE AIR

NEC - NATIONAL ELECTRICAL

MOCP - MAXIMUM

CODE

NEG - NEGATIVE

- - AND ORDINANCES GOVERNING THE CONSTRUCTION OF THE BUILDING. IN THE EVENT OF A CONFLICT BETWEEN THESE SPECIFICATIONS AND A LEGALLY VALID LAW, ORDINANCE OR CODE REQUIREMENT, THE ORDINANCE OR CODE
 - UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS AS BEING NOT IN CONTRACT (N.I.C.) OR EXISTING, ALL ITEMS, MATERIALS, AND INSTALLATION OF THE SAME ARE A PART OF THE CONTRACT DEFINED BY THE DOCUMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ACCESSORIES, COMPONENTS, AND ASSEMBLIES REQUIRED FOR THE WORK SHOWN, AND REQUIRED PER APPLICABLE CODE REQUIREMENTS ADOPTED BY THE BUILDING SITE LOCATION JURISDICTION.
 - THE CONTRACTOR ACKNOWLEDGES BY SUBMITTING HIS BID THAT HE HAS VISITED THE PROJECT SITE AND HAS REVIEWED THE CONSTRUCTION DOCUMENTS AND THAT THE INFORMATION SHOWN AND DESCRIBED IS SUFFICIENT TO ENABLE HIM TO PREPARE A COMPLETE AND ACCURATE BID FOR A DRAWING OR IN ANY PART OF THE SPECIFICATIONS. THE CONTRACTOR IS ADVISED TO INCLUDE ALL EQUIPMENT, MATERIALS, AND LABOR IN HIS BID. NO CLAIM FOR AN EXTRA WILL BE CONSIDERED FOR FAILURE TO DO SO.
 - 6. CONTRACTOR SHALL SUBMIT UTILITY COMPANY SERVICE APPLICATIONS.
 - THE CONTRACTOR SHALL INSPECT ALL OPERABLE EQUIPMENT TO REMAIN AND/OR BE RELOCATED PRIOR TO DEMOLITION AND RELOCATION. PROVIDE THE OWNER WITH AN ITEMIZED LIST AND COST OF ANY NECESSARY REPAIRS REQUIRED TO MAINTAIN FULLY FUNCTIONAL EQUIPMENT FOR APPROVAL PRIOR TO REPAIRING.
 - 8. DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING AND DUCTWORK AS SHOWN DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET, FITTING NOR EVERY ARCHITECTURAL CONSTRUCTION TYPE OR STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL PROVIDE CODE REQUIRED AND/OR BEST PRACTICE REQUIRED ELEMENTS AND/OR MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS, BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL COST TO THE OWNER OR DELAY IN COMPLETION DATE OF THE PROJECT.
 - IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THAT ELEMENTAL PROVISIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF PRESENTATION.
 - . THE CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT THE SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.
 - THE CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, NDUIT. RACEWAYS. EQUIPMENT. FRAMES. BOXES. SLEEVES AND OPENINGS ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.
 - WHERE THERE IS EVIDENCE THAT THE WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY THE EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIELD CONDITIONS. SHOP DRAWINGS, AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. THE CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF THE SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
 - 3. IN THE EVENT OF DISCREPANCIES BETWEEN ANY DRAWINGS. CODE REQUIREMENTS AND/OR SPECIFICATIONS. THE COSTLIER OR MORE RESTRICTIVE CONDITION SHALL BE DEEMED THE CONTRACT REQUIREMENT, UNLESS
 - 4. CONTRACTOR SHALL PROVIDE SLEEVES IN BEAMS, FLOORS, COLUMNS AND WALLS AS SHOWN ON THE DRAWINGS, AS REQUIRED BY JOB SITE CONDITIONS, AND/OR AS SPECIFIED, WHEN INSTALLING THEIR WORK. ALL BEAMS AND COLUMNS WHICH ARE REQUIRED TO BE SLEEVED SHALL BE CUT AND REINFORCED AS REQUIRED BY FIELD CONDITIONS AND LOCATIONS AND SIZES SHALL BE CHECKED AND APPROVED BY ARCHITECT BEFORE CONTRACTOR CUTS ANY STRUCTURAL BUILDING MEMBER.

MECHANICAL CONTRACTOR NOTES

- THE CONTRACT DOCUMENTS CONSIST OF THE DRAWINGS (INCLUDING ARCHITECTURAL, PLUMBING, AND ELECTRICAL), SPECIFICATIONS, OWNER-CONTRACTOR AGREEMENTS, AND ALL ADDENDA ISSUED PRIOR TO AND ALL PLAN CHANGES ISSUED AFTER EXECUTION OF THE CONTRACT. ANY CLARIFICATIONS, DISCREPANCIES OR UNUSUAL CONDITIONS ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION FOR RESOLUTION IN WRITING PRIOR TO SUBMITTING BID.
- WORK REQUIRED OF ANY TRADE MAY BE SHOWN ANYWHERE ON ANY DRAWING. THE PROJECT SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL LAWS
- REQUIREMENT SHALL GOVERN.

- OTHERWISE STATED IN WRITING FROM THE OWNER.

- 15. THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH THE CONSTRUCTION MANAGER AND OWNERS' STIPULATION AS CALLED FOR IN THE SPECIFICATIONS AND/OR AS DIRECTED.
- 16. CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE OTHER TRADES CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.
- 17. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION.
- 18. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, EQUIPMENT, ETC. ALL SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.
- 19. THE CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BE STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.
- 20. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN. THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.
- 21. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT THEY SUBMIT FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.
- 22. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT THEY SUBMIT FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.
- 23. THE CONTRACTOR SHALL BE RESPONSIBLE FOR SUBMITTING REQUESTS FOR INFORMATION (RFIS) IN THE CONSTRUCTION FOR THE RESOLUTION OF CONFLICTS THAT ARISE IN THE FIELD.
- 24. MAJOR EQUIPMENT SHOWN ON THE PLANS AND ELEVATIONS ILLUSTRATE THE GENERAL ARRANGEMENT AN SPACE ALLOCATIONS. THE CONTRACTOR SHALL VERIFY THE SPACE REQUIREMENTS FOR EACH SYSTEM COMPONENT USING MANUFACTURER CERTIFIED SHOP DRAWINGS AND MAKE THE NECESSARY ADJUSTMENTS IN EQUIPMENT PLACEMENT AND CONNECTION IN ORDER TO ACCOMODATE THE EXACT EQUIPMENT TO BE INSTALLED.
- 25. THE MECHANICAL CONTRACTOR TO PROVIDE 1/4 INCH SCALE PIPING AND DUCTWORK DRAWINGS FOR COORDINATION WITH OTHER TRADES. DRAWINGS TO INDICATE DIMENSIONS AND ELEVATIONS OF ALL PIPING AND DUCTWORK. DRAWINGS TO ALSO INCLUDE ALL WALL/FLOOR/ROOF OPENINGS.
- 26. MECHANICAL CONTRACTOR SHALL PROVIDE ON-SITE SCHOOLING OF OWNERS OPERATING PERSONNEL FOR ALL SYSTEMS AND EQUIPMENT INSTALLED UNDER THEIR CONTRACT.
- 27. BEFORE STARTING ANY SYSTEM INSTALLING CONTRACTOR SHALL CONTACT EQUIPMENT MANUFACTURER TO VERIFY THAT EACH PIECE OF EQUIPMENT OR SYSTEM HAS BEEN CHECKED FOR PROPER LUBRICATION, DRIVE ROTATION, BELT TENSION, CONTROL SEQUENCE OR OTHER CONDITIONS WHICH MAY CAUSE DAMAGE TO THE EQUIPMENT.

MECHANICAL NOTES FOR NEW WORK

- ALL DUCTWORK AND DUCT ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE SMACNA HVAC DUCT CONSTRUCTION STANDARDS AND LOCAL
- DUCT SIZING AND LAYOUT SHALL BE DESIGNED TO ENSURE PROPER AIRFLOW AND DISTRIBUTION TO MEET DESIGN REQUIREMENTS AND OCCUPANT COMFORT.
- DUCT MATERIALS SHALL BE SELECTED BASED ON SYSTEM REQUIREMENTS, INCLUDING GALVANIZED STEEL, STAINLESS STEEL, ALUMINUM, OR OTHER MATERIALS AS SPECIFIED IN THE PROJECT DOCUMENTS.
- F. DUCT INSULATION SHALL BE INSTALLED AS INDICATED ON THE PLANS AND IN COMPLIANCE WITH ASHRAE STANDARDS TO PREVENT CONDENSATION AND MAINTAIN THERMAL
- 5. DUCTWORK SHALL BE ADEQUATELY SUPPORTED USING APPROVED HANGERS AND SUPPORTS TO PREVENT SAGGING OR UNDUE STRESS ON THE SYSTEM.
- 6. FLEXIBLE DUCT CONNECTORS SHALL BE USED WHERE NECESSARY TO ISOLATE VIBRATIONS AND REDUCE NOISE TRANSMISSION BETWEEN EQUIPMENT AND DUCTWORK.
- ACCESS DOORS SHALL BE PROVIDED AT STRATEGIC LOCATIONS FOR PROPER MAINTENANCE AND INSPECTION OF DUCTWORK, IN COMPLIANCE WITH APPLICABLE CODES
- 8. TURNING VANES AND DIFFUSERS SHALL BE PROPERLY INSTALLED IN DUCTWORK TO ENSURE SMOOTH AIRFLOW AND MINIMIZE PRESSURE LOSSES.
- DUCT TRANSITIONS AND OFFSETS SHALL BE DESIGNED AND CONSTRUCTED TO MINIMIZE TURBULENCE AND PRESSURE DROP WITHIN THE SYSTEM.
- O. DUCT SEALING SHALL BE PERFORMED USING APPROVED METHODS TO PREVENT AIR LEAKAGE AND ENSURE SYSTEM EFFICIENCY. IN ACCORDANCE WITH SMACNA GUIDELINES.ALL DUCT PENETRATIONS THROUGH FIRE-RATED ASSEMBLIES SHALL BE PROPERLY FIRE SEALED USING APPROVED MATERIALS TO MAINTAIN THE INTEGRITY OF FIRE
- DUCTWORK SHALL BE LABELED WITH APPROPRIATE IDENTIFICATION TAGS INDICATING FLOW DIRECTION, ZONE SERVED, AND OTHER RELEVANT INFORMATION.
- 2. VIBRATION ISOLATION SHALL BE PROVIDED FOR EQUIPMENT AND DUCTWORK TO MINIMIZE TRANSMISSION OF VIBRATIONS AND NOISE TO THE BUILDING STRUCTURE.
- 13. DUCTWORK SHALL BE COORDINATED WITH OTHER TRADES TO AVOID CONFLICTS AND ENSURE PROPER CLEARANCES IN ACCORDANCE WITH ARCHITECTURAL AND STRUCTURAL REQUIREMENTS.
- 14. ALL WORK SHALL BE SUBJECT TO INSPECTION BY THE LOCAL BUILDING AUTHORITY AND SHALL MEET THEIR APPROVAL BEFORE OCCUPANCY.

- ALL HYDRONIC PIPING AND PIPE ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST APPLICABLE CODES AND REGULATIONS, INCLUDING BUT NOT LIMITED TO ASME B31.9, ASHRAE HANDBOOK, AND LOCAL PLUMBING CODES.
- PIPING MATERIALS SHALL BE SELECTED BASED ON SYSTEM REQUIREMENTS, FLUID COMPATIBILITY, AND OPERATIONAL CONDITIONS.
- PIPE SIZING SHALL BE BASED ON HYDRAULIC CALCULATIONS CONSIDERING FLOW RATES, PRESSURE DROPS, AND PIPE FRICTION. ADEQUATE PIPE DIAMETER AND ROUTING SHALL BE ENSURED TO PREVENT EXCESSIVE PRESSURE LOSSES.
- EXPANSION AND CONTRACTION CONSIDERATIONS SHALL BE ADDRESSED FOR ALL PIPING SYSTEMS. PROPER EXPANSION JOINTS, LOOPS, AND SUPPORTS SHALL BE INCORPORATED TO ACCOMMODATE THERMAL MOVEMENTS WITHOUT CAUSING STRESS OR DAMAGE.
- ALL PIPE JOINTS, FITTINGS, AND CONNECTIONS SHALL BE PROPERLY ASSEMBLED, SEALED, AND TESTED TO PREVENT LEAKS. FLANGE CONNECTIONS SHALL BE PROPERLY TORQUED ACCORDING TO MANUFACTURER SPECIFICATIONS.
- PIPE INSULATION SHALL BE PROVIDED FOR ALL HYDRONIC PIPING SYSTEMS TO PREVENT HEAT LOSS, CONDENSATION, AND ENERGY WASTE. INSULATION MATERIAL AND THICKNESS SHALL BE IN ACCORDANCE WITH PROJECT SPECIFICATIONS AND ENERGY CODES.
- STRAINERS, FILTERS, AND SEPARATORS SHALL BE INSTALLED AS REQUIRED TO PROTECT SYSTEM COMPONENTS FROM DEBRIS AND ENSURE EFFICIENT OPERATION.
- PRESSURE AND TEMPERATURE GAUGES SHALL BE INSTALLED AT STRATEGIC POINTS TO MONITOR SYSTEM CONDITIONS AND FACILITATE TROUBLESHOOTING. ALL HYDRONIC PIPING SHALL BE FLUSHED AND CLEANED PRIOR TO SYSTEM

COMMISSIONING TO REMOVE ANY DEBRIS, CONSTRUCTION RESIDUES, OR

- CONTAMINANTS. D. ALL PIPE HANGERS, SUPPORTS, AND ANCHORS SHALL BE INSTALLED IN ACCORDANCE WITH INDUSTRY STANDARDS AND GUIDELINES TO PREVENT SAGGING, MISALIGNMENT, OR
- EXCESSIVE STRESS ON THE PIPING SYSTEM. PIPING PENETRATION THROUGH WALLS, FLOORS, AND CEILINGS SHALL BE PROPERLY
- SEALED AND FIRE-STOPPED TO MAINTAIN THE INTEGRITY OF FIRE-RATED ASSEMBLIES. 2. A COMPREHENSIVE PRESSURE AND LEAKAGE TEST SHALL BE CONDUCTED ON ALL HYDRONIC PIPING SYSTEMS BEFORE SYSTEM STARTUP TO ENSURE THEIR PROPER FUNCTIONING AND INTEGRITY.
- 13. ADEQUATE CLEARANCE SHALL BE MAINTAINED AROUND ALL PIPING SYSTEMS TO FACILITATE MAINTENANCE, INSPECTION, AND REPAIRS.
- 4. FINAL DOCUMENTATION, INCLUDING AS-BUILT DRAWINGS, PIPE MATERIAL CERTIFICATES. TEST REPORTS, AND EQUIPMENT MANUALS, SHALL BE COMPILED AND PROVIDED TO THE OWNER FOR FUTURE REFERENCE.
- 5. IT IS THE RESPONSIBILITY OF THE INSTALLING CONTRACTOR TO COORDINATE WITH OTHER TRADES TO AVOID CONFLICTS WITH OTHER BUILDING SYSTEMS AND ENSURE PROPER INTEGRATION.

EQUIPMENT

- ALL HVAC EQUIPMENT AND ACCESSORIES SHALL BE INSTALLED IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS AND LOCAL BUILDING CODES.
- EQUIPMENT SPECIFICATIONS, CAPACITIES, AND LOCATIONS ARE SUBJECT TO APPROVAL BY THE DESIGN ENGINEER AND LOCAL AUTHORITIES.
- CONTRACTOR SHALL COORDINATE WITH OTHER TRADES TO ENSURE PROPER CLEARANCES AND ACCESS FOR MAINTENANCE AND INSTALLATION.
- ALL DUCTWORK, PIPING, AND EQUIPMENT SHALL BE PROPERLY SUPPORTED AND BRACED TO PREVENT SAGGING OR VIBRATION.

MECHANICAL SYMBOLS

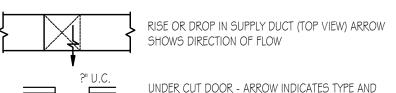
DUCT SIZE FREE AREA (IST NUMBER IS DUCT WIDTH ON PLAN VIEW, 2ND NUMBER IS DUCT DEPTH IN PLAN VIEW.)

MANUAL VOLUME DAMPER.











NO. = SIZE OF FACE OR NECK, BOTTOM NO. = AMOUNT OF AIR, LETTER INDICATES TYPE).

DIRECTION OF AIR FLOW UNDER DOOR.

T) R REVERSE ACTING THERMOSTAT/SENSOR

WALL MOUNTED THERMOSTAT/SENSOR

(T) G WALL MOUNTED THERMOSTAT/SENSOR WITH GUARD

→ ✓ DIRECTION OF AIR FLOW

NEW CONNECTION

MECHANICAL GENERAL WORK NOTES

- THE EXACT LOCATIONS OF ALL DIFFUSERS, REGISTERS AND GRILLES SHALL BE COORDINATED WITH THE ARCHITECTURAL REFLECTED CEILING PLANS AND LIGHTING PLANS. SLIGHT LOCATION CHANGES MAY BE NECESSARY TO AVOID POTENTIAL CONFLICTS WITH OTHER TRADES.
- ALL OVERHEAD DUCTWORK SHALL BE INSTALLED TIGHT TO STRUCTURE, ALLOWING SPACE FOR INSULATION AND SUPPORT HANGERS.
- RECTANGULAR DUCT SIZES INDICATED ON DRAWINGS ARE CLEAR INSIDE DIMENSIONS IN INCHES AND INCLUDE AN ALLOWANCE FOR ONE INCH THICK INTERNAL DUCT LINER INSULATION PER SPECIFICATIONS ALL ROUND DUCT SIZES INDICATE NET FREE INSIDE DIAMETER AND DO NOT ACCOUNT FOR ANY INSULATION. ROUND DUCTS ARE EXTERNALLY INSULATED PER SPECIFICATIONS.
- ALL THERMOSTATS SHALL BE MOUNTED AT 48" ABOVE FINISHED FLOOR UNLESS SPECIFICALLY INDICATED OTHERWISE. THERMOSTATS LOCATED IN PUBLIC SPACE SHALL INCLUDE A LOCKABLE COVER. ALL PUBLIC THERMOSTATS SHALLED KEYED ALIKE.

CONSTRUCTION NOTES

- APPLIANCES, MECHANICAL EQUIPMENT, ETC. SERVING DIFFERENT AREAS (OR TENANT SPACES) SHALL BE PERMANENTLY MARKED IN AN APPROVED MANNER THAT UNIQUELY IDENTIFIES THE APPLIANCE AND THE AREA/TENANT SPACE IT SERVES.
- MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL MECHANICAL APPLIANCES OR EQUIPMENT SHALL BE AVAILABLE TO BUILDING DEPARTMENT INSPECTORS AT THE TIMES OF INSPECTIONS. LISTING AND LABELING SHALL ALSO BE AVAILABLE.
- PRIOR TO INSTALLATION OF ALL EQUIPMENT, DUCTWORK, DIFFUSERS, PIPING, INSULATION, SUPPORTS, ETC. CONTRACTOR TO COORDINATE WITH ALL TRADES. CONTRACTOR IS REQUIRED TO PROVIDE ALL REQUIRED OFFSETS AND EQUIPMENT RELOCATION DUE TO FIELD CONDITIONS AT NO ADDITIONAL EXPENSE TO CONTRACT.
- 4. CONTRACTOR RESPONSIBLE FOR COORDINATION OF ALL AIR DEVICE FRAMES WITH ARCHITECTURAL CEILING TYPE REQUIREMENTS AND PROVIDE COMPATIBLE FRAMES AS REQUIRED. CONTRACTOR RESPONSIBLE FOR QUANTITIES, SIZES, TYPES, AND LOCATIONS OF ALL AIR DEVICES.
- MECHANICAL CONTRACTOR SHALL PROVIDE ALL CONTROL COMPONENTS, WIRING, INTERLOCKS, ELECTRICAL POWER AND ALL OTHER DEVICES REQUIRED TO MAKE ALL HVAC EQUIPMENT INSTALLED UNDER THIS PROJECT COMPLETE AND FULLY OPERATIONAL PER THE SEQUENCE OF OPERATION AND AS REQUIRED FOR SAFE AND ACCURATE CONTROL.
- . CONTRACTOR SHALL NOT INTERRUPT ANY DEVICES OR SYSTEMS OUTSIDE AREA OF SCOPE WITHOUT THE EXPRESS CONSENT OF THE OWNER.
- CONTRACTOR SHALL PROVIDE AND INSTALL ADHESIVE IDENTIFICATION MARKERS ON ALL PIPES AT 50'-0" INTERVALS AND AT ALL VALVES AND BRANCHES AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.
- CONTRACTOR SHALL PROVIDE AND INSTALL I" BLACK PLASTIC ID PLATES WITH WHITE ENGRAVED LETTERS ON ALL EQUIPMENT.





ISSUED FOR PERMIT 11/13/23 No. Date

Baltimore City, MD. NOTES, SYMBOLS \$

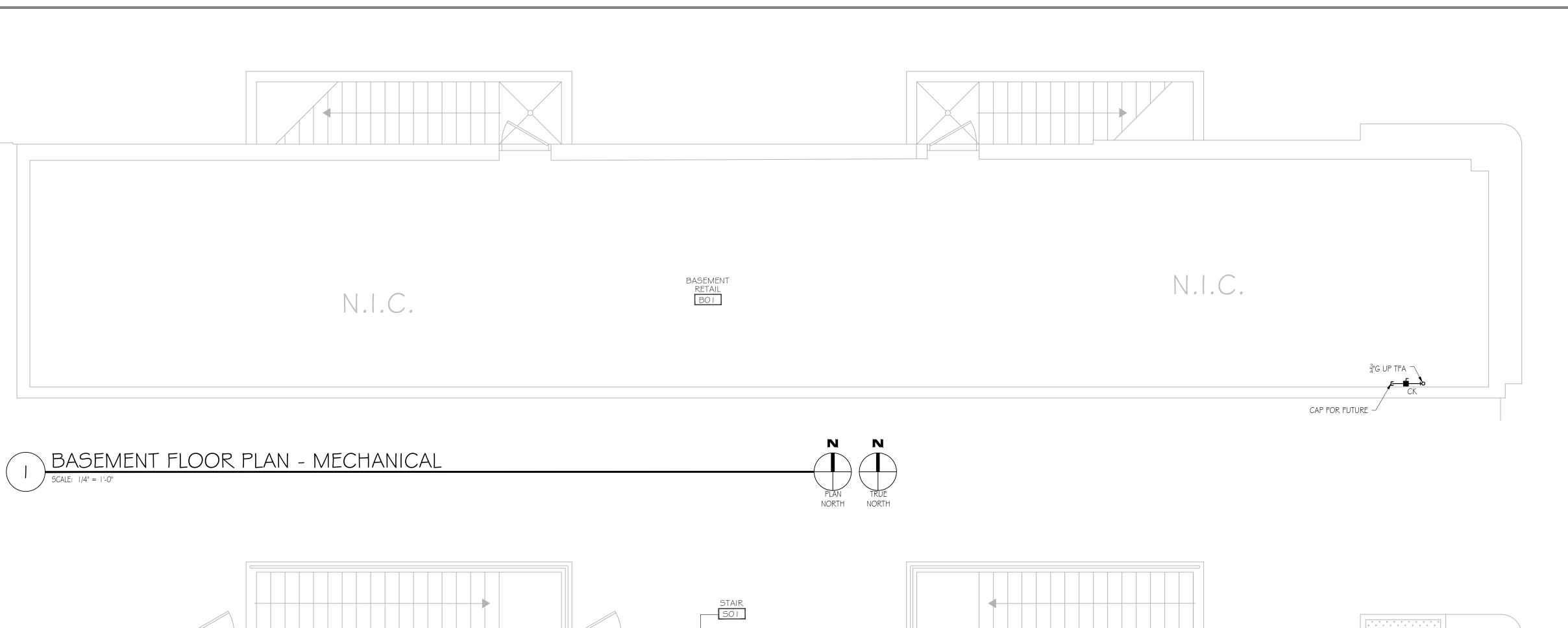
ABBREVIATIONS

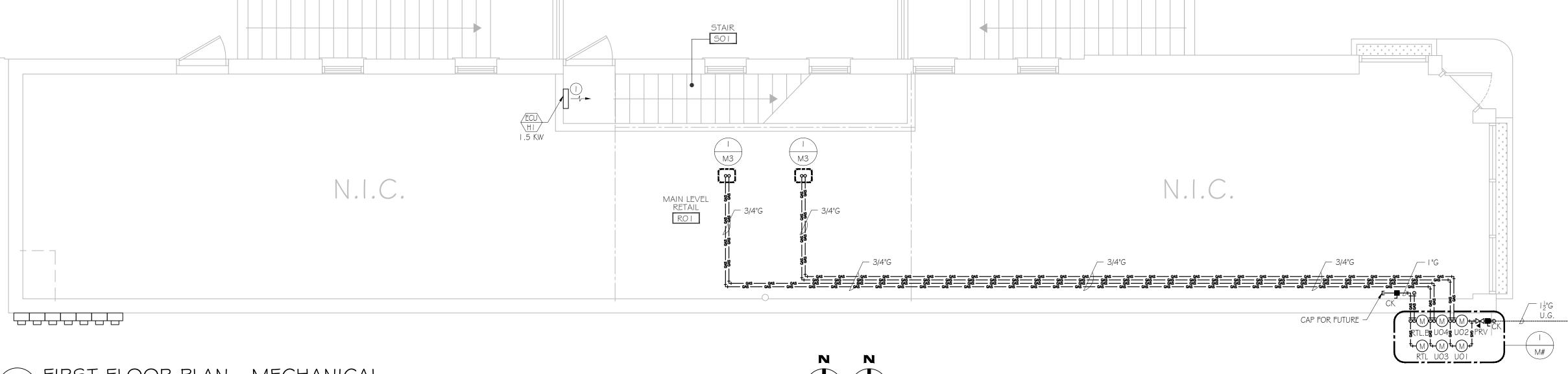
400 S. Conkling Street

MECHANICAL Drawn by: KR Checked by: PAD 11/13/2023

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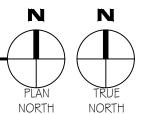
Project#:





FIRST FLOOR PLAN - MECHANICAL

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



VENTILATION KEYED NOTES

ELECTRICAL CABINET UNIT HEATER (ECU) SHALL BE SURFACE
ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

- LOCATIONS ABOVE ARE APPROXIMATE. CONTRACTOR SHALL INSTALL PIECES OF EQUIPMENT AS PER
 MANUFACTURER INSTALLATION MANUALS \$ HONOR ALL REQUIRED CLEARANCES FOR SAFETY, MAINTENANCE \$
 PROPER OPERATION (TYPICAL).
- CONTRACTOR RESPONSIBILITY TO PROVIDE ALL REQUIRED OFFSETS (GRADUAL ONLY) FOR RISER COORDINATION.
- WHERE A BALANCING DAMPER IS INACCESSIBLE, CONTRACTOR SHALL PROVIDE REMOTE CABLE OPERATED DAMPERS (TYPICAL THROUGHOUT).
- ALL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS WILL REQUIRE ACCESS PANELS. COORDINATE WITH GENERAL CONTRACTOR (TYPICAL).
- MECHANICAL CONTRACTOR SHALL RUN ALL DUCTWORK & PIPING AS HIGH AS POSSIBLE. COORDINATE ALL RUNS WITH STRUCTURAL BEAMS, LIGHTS & JOISTS.

GENERAL NOTES:

- A. SEE ARCHITECTURAL PLANS FOR REQUIRED DEMOLITION WORK.
 VERIFY SCOPE OF WORK IN FIELD PRIOR TO BID.
- B. PROVIDE 1/2" ACOUSTICAL DUCT LINER FOR ALL SUPPLY & RETURN DUCTWORK MAINS.
- C. COORDINATE ALL DUCTWORK RUNS WITH ARCHITECTURAL,
 STRUCTURAL DRAWINGS. LAYOUT SHOWN IS DIAGRAMMATIC IN
- D. PROVIDE BALANCING VOLUME DAMPERS AT THE FACE OF EVERY GRILLE/REGISTER/DIFFUSER (TYPICAL THROUGHOUT).

NATURE. UTILIZE JOIST SPACE THROUGHOUT.

- E. UNDERCUT DOORS 1/2" MINIMUM TO ALLOW FOR RETURN AIR BACK TO FANS, TERMINALS, AND VENTED EQUIPMENT (TYPICAL THROUGHOUT) UNLESS NOTED OTHERWISE. COORDINATE WITH GENERAL CONTRACTOR \$ ARCHITECT.
- F. CONTRACTOR TO VERIFY ACTUAL ARCHITECTURAL/ STRUCTURAL FIELD CONDITIONS AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING EQUIPMENT \$ MATERIALS. EXACT PLACEMENT AND ROUTING OF ALL PIPING, DUCTWORK, ETC. TO BE VERIFIED IN FIELD.



PETER ALEX DREIER

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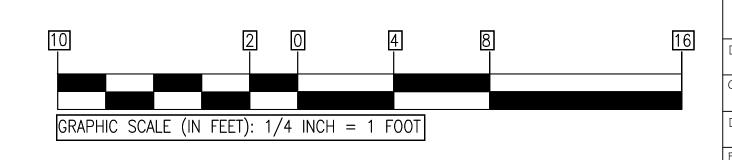
ARCHITECT

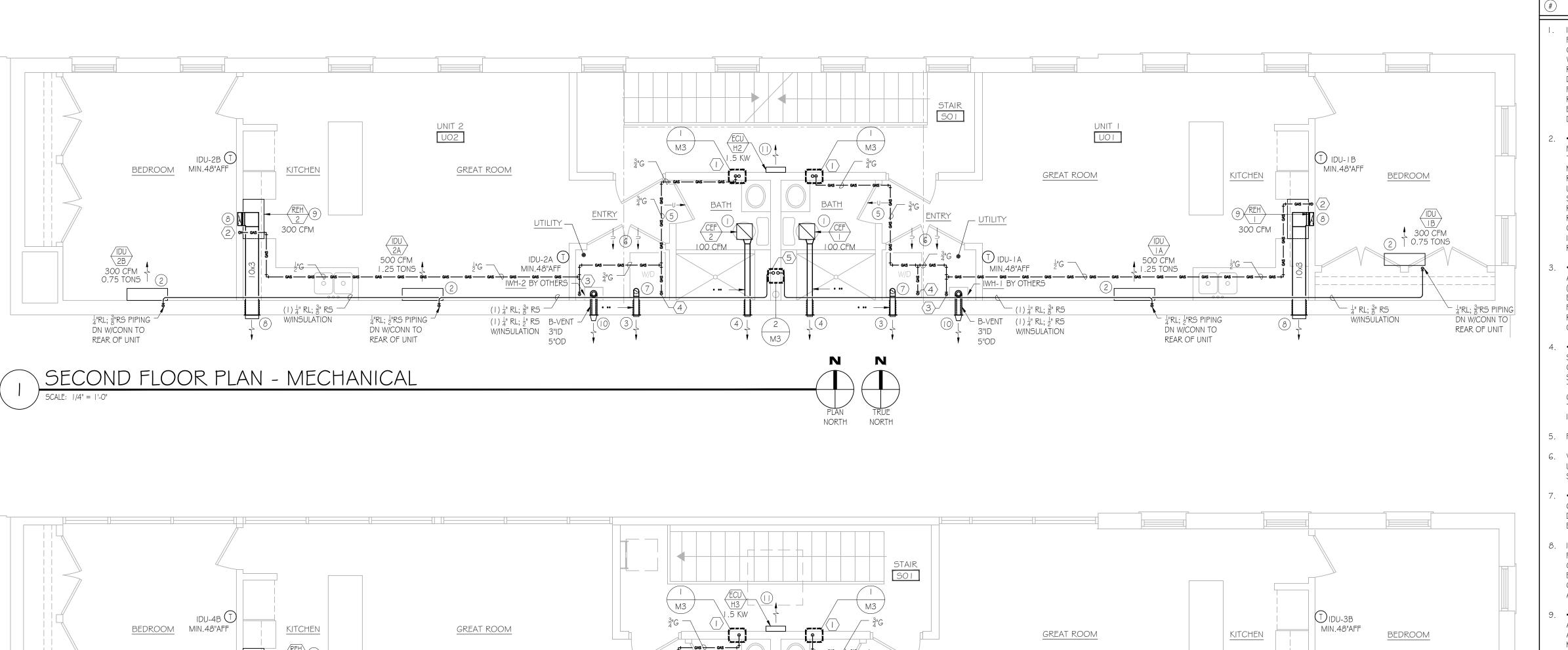
	ISSUED FOR PERMIT	11/13/23
No	Issue	Date

400 S. Conkling Street Baltimore City, MD.

> FLOOR PLANS MECHANICAL

Orawn by:	KR	
Checked by:	PAD	
Date:	11/13/2023	
Project#:	230st	





THIRD FLOOR PLAN - MECHANICAL

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

ROOF PLAN - MECHANICAL

(1) ½ RL; ¾ RS -

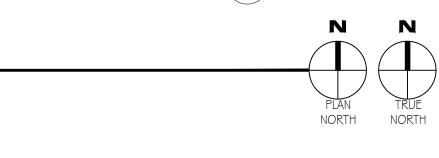
W/INSULATION

300 CFM 1 0.75 TONS 2

 $\frac{1}{4}$ "RL; $\frac{3}{8}$ "RS PIPING

DN W/CONN TO

REAR OF UNIT

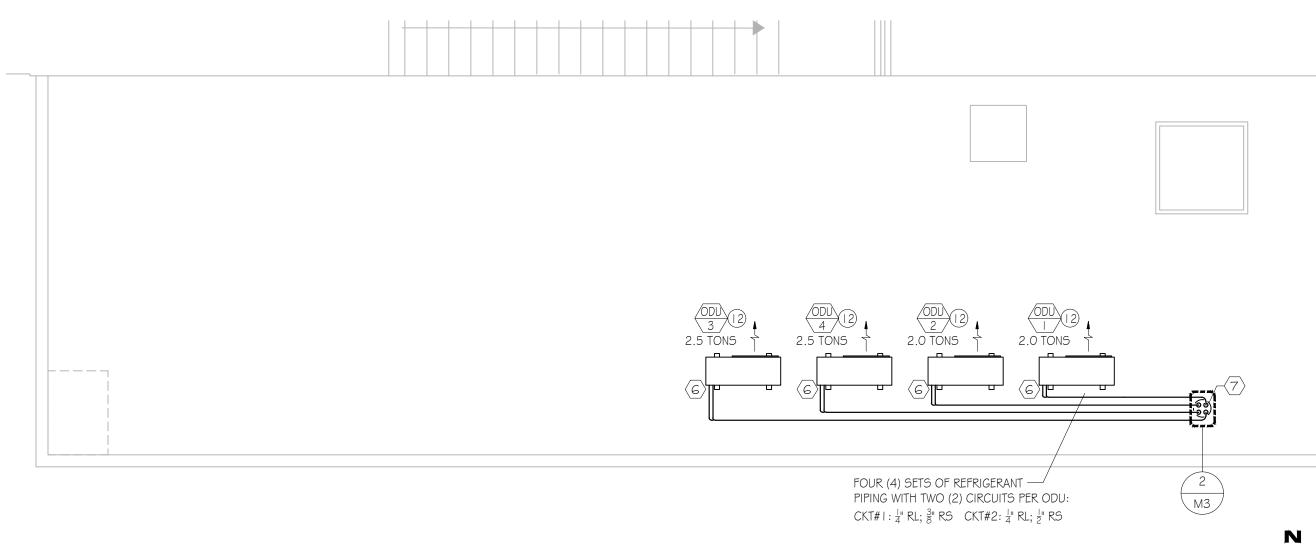


NORTH NORTH

IDU-4A IJU-4A MIN.48"AFF

B-VENT -

3"ID 5"OD



 $(1)\frac{1}{4}$ " RL; $\frac{1}{2}$ " RS

W/INSULATION

HRL; HRS PIPING

DN WICONN TO

REAR OF UNIT

LOCATIONS ABOVE ARE APPROXIMATE. CONTRACTOR SHALL INSTALL PIECES OF EQUIPMENT AS PER MANUFACTURER INSTALLATION MANUALS \$ HONOR ALL REQUIRED CLEARANCES FOR SAFETY, MAINTENANCE \$

Taller RL; Taller RS PIPING

DN W/CONN TO

REAR OF UNIT

PROPER OPERATION (TYPICAL). WHERE A BALANCING DAMPER IS INACCESSIBLE. CONTRACTOR SHALL PROVIDE REMOTE CABLE OPERATED

· (1) ¼" RL; ¾" RS

 $(1)\frac{1}{4}$ " RL; $\frac{1}{2}$ " RS

W/INSULATION

- CONTRACTOR RESPONSIBILITY TO PROVIDE ALL REQUIRED OFFSETS (GRADUAL ONLY) FOR RISER COORDINATION.
- DAMPERS (TYPICAL THROUGHOUT). ALL EQUIPMENT LOCATED ABOVE INACCESSIBLE CEILINGS WILL REQUIRE ACCESS PANELS. COORDINATE WITH
- GENERAL CONTRACTOR (TYPICAL). MECHANICAL CONTRACTOR SHALL RUN ALL DUCTWORK & PIPING AS HIGH AS POSSIBLE. COORDINATE ALL RUNS WITH STRUCTURAL BEAMS, LIGHTS \$ JOISTS.

4" RL; 3" RS W/INSULATION

4"RL; 3"RS PIPING

DN W/CONN TO

GRAPHIC SCALE (IN FEET): 1/4 INCH = 1 FOOT

REAR OF UNIT

VENTILATION KEYED NOTES

- INSTALL NEW CEILING EXHAUST FAN (CEF) WITH MANUFACTURER PROVIDED ISOLATORS TO UNDERSIDE OF STRUCTURE ABOVE. COORDINATE NEW CEILING ELEVATION AND ROUGH-IN LOCATION WITH GENERAL CONTRACTOR. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR. PROVIDE TOGGLE DISCONNECT SWITCH, SPEED CONTROLLER, AND 6 TO 4 REDUCER. PROVIDE FLEXIBLE DUCT CONNECTION TO CEF AND CONTINUE ROUTING ABOVE CEILING TO EXTERIOR WALL FOR TERMINATION. SEE EXHAUST FAN SCHEDULE FOR ADDITIONAL INFORMATION, DISCONNECT REQUIREMENTS, AND CONTROL CRITERIA.
- FINISHED FLOOR. CONTROL WIRING SHALL BE ROUTED TO LOCAL THERMOSTAT AND MULTI-ZONE CONTROL UNIT INTERLOCKS PER MANUFACTURER REQUIREMENTS. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR, AND ALL INDOOR UNIT(S) (IDU) + CONTROL INTERLOCKS WITH MANUFACTURER SPECIFICATIONS AND INSTALLATION REQUIREMENTS. PROVIDE REFRIGERANT PIPING LINE SETS SIZED PER MANUFACTURER'S RECOMMENDATIONS AND SHALL INCLUDE THE APPROPRIATE NUMBER OF HEADER PORTS FOR DISTRIBUTION TO IDUS. PROVIDE INSULATION FOR ALL REFRIGERANT PIPING AND VERIFY EXACT ROUTING BETWEEN ODUS \$ IDUS IN FIELD.
- • DRYER VENT DUCTING SHALL BE CONSTRUCTED PER SMACNA AND IN ACCORDANCE WITH 2018 BALTIMORE MECHANICAL CODE (IMC 2018 W/AMENDMENTS) CRITERIA. DRYER VENT DUCTS SHALL BE ROUTED ABOVE CEILING TO EXTERIOR WALL AND TERMINATE WITH FLAP LOUVERED BACKDRAFT WALL CAP. MAINTAIN MINIMUM CODE REQUIRED CLEARANCES BETWEEN ALL EXHAUST TERMINATIONS, AND OUTDOOR AIR INTAKES. VERIFY EXACT ROUTING IN FIELD.
- • CEILING EXHAUST FAN DUCTING SHALL BE CONSTRUCTED PER SMACNA AND IN ACCORDANCE WITH 2018 BALTIMORE MECHANICAL CODE (IMC 2018 W/AMENDMENTS) CRITERIA. EXHAUST DUCTWORK SHALL BE ROUTED ABOVE CEILING TO EXTERIOR WALL AND TERMINATE WITH WALL CAP AND BIRD SCREEN. MAINTAIN MINIMUM CODE REQUIRED CLEARANCES BETWEEN ALL EXHAUST TERMINATIONS, AND OUTDOOR AIR INTAKES. VERIFY EXACT ROUTING
- 5. PROVIDE MINIMUM 1/2" UNDERCUT TO DOOR FOR AIR TRANSFER.
- . VERIFY DOOR TYPE SELECTED BY ARCHITECT. PROVIDE MINIMUM 1/2 UNDERCUT TO DOORS, IF CONSTRUCTION OF THE DOORS ARE SOLID AND NOT LOUVERED.
- • DRYER VENT SHALL BE ROUTED FROM HORIZONTAL RUN ABOVE CEILING TO CONNECTION POINT. DRYER TO BE OWNER PROVIDED. DUCT CONSTRUCTION AND INSTALLATION SHALL BE PER 2018 BALTIMORE MECHANICAL CODE (IMC 2018 W/AMENDMENTS).
- I Ox3 RESIDENTIAL KITCHEN EXHAUST DUCTWORK SHALL BE PROVIDED WITH FIRE WRAP AS REQUIRED AND ROUTED ABOVE CEILING LINE TO TERMINATE AT WALL CAP W/BIRDSCREEN. COLOR TO BE DETERMINED BY ARCHITECT. MAINTAIN MINIMUM CODE REQUIRED CLEARANCES BETWEEN ALL EXHAUST TERMINATIONS, AND OUTDOOR AIR INTAKES. VERIFY EXACT ROUTING IN FIELD.
- ABOVE COOLING SURFACE AT THE UNDERSIDE OF CABINETRY ABOVE. CONTRACTOR SHALL CONVERT UNIT WITH HORIZONTAL 10x3 KNOCKOUT AND COLLAR TO EXHAUST TO OUTSIDE WITH 10x3 GREASE DUCTING. BACKDRAFT DAMPER TO BE PROVIDED BY MANUFACTURER. PROVIDE PROPER DUCTING CONNECTION AND ROUTE TO EXTERIOR. FIELD VERIFY EXACT ROUTING.
- INSTANTANEOUS WATER HEATER (IWH) WALL CAP SHALL BE PROVIDED BY EQUIPMENT MANUFACTURER AND INSTALLED BY CONTRACTOR.
- ELECTRICAL CABINET UNIT HEATER (ECU) SHALL BE SURFACE ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.
- INSTALL OUTDOOR UNIT (ODU) AT SUPPORT RAILS ON ROOF. CONTROL WIRING SHALL BE INTERLOCKED WITH INDOOR UNIT (IDU) PER MANUFACTURER REQUIREMENTS. COORDINATE ALL ELECTRICAL REQUIREMENTS WITH ELECTRICAL CONTRACTOR.

PIPING KEYED NOTES

- GAS PIPING SHALL BE ROUTED UP IN CHASE WALL. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION
- 1" GAS PIPING SHALL BE ROUTED DOWN IN WALL TO ASSOCIATED PROVIDE THREADED TAP FOR FLEXIBLE HOSE CONNECTION TO RANGE. COORDINATE EXACT ROUTING IN FIELD. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION. 60 CFH.
- 3 GAS PIPING SHALL BE ROUTED DOWN IN WALL TO ASSOCIATED AFF WITH GAS COCK AND DIRTLEG. PROVIDE THREADED TAP FOR FLEXIBLE HOSE CONNECTION TO IWH. COORDINATE EXACT ROUTING IN FIELD AND INSTALLATION REQUIREMENTS WITH PLUMBING CONTRACTOR, REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION. 160 CFH.
- . 🚽 GAS PIPING SHALL BE ROUTED DOWN IN WALL TO ASSOCIATED DIRTLEG. PROVIDE THREADED TAP FOR FLEXIBLE HOSE CONNECTION TO DRYER. COORDINATE EXACT ROUTING IN FIELD. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION. 35 CFH.
- REFRIGERANT PIPING SHALL BE ROUTED DOWN IN CHASE WALL FROM PIPE PORTAL PENETRATION AT ROOF. REFER TO RISER DIAGRAM FOR ADDITIONAL INFORMATION.
- REFRIGERANT PIPING SHALL BE CONNECTED TO INDIVIDUAL ZONED PORTS AT UNIT. PROVIDE INSULATION AND ROUTING IN FIELD TO PIPE PORTAL. REFER TO SUPPLEMENTAL MULTIZONE HEAT PUMP DATA FOR ADDITIONAL INFORMATION.
- REFRIGERANT PIPING SHALL PENETRATE PIPE PORTAL INTO CHASE WALL BELOW.



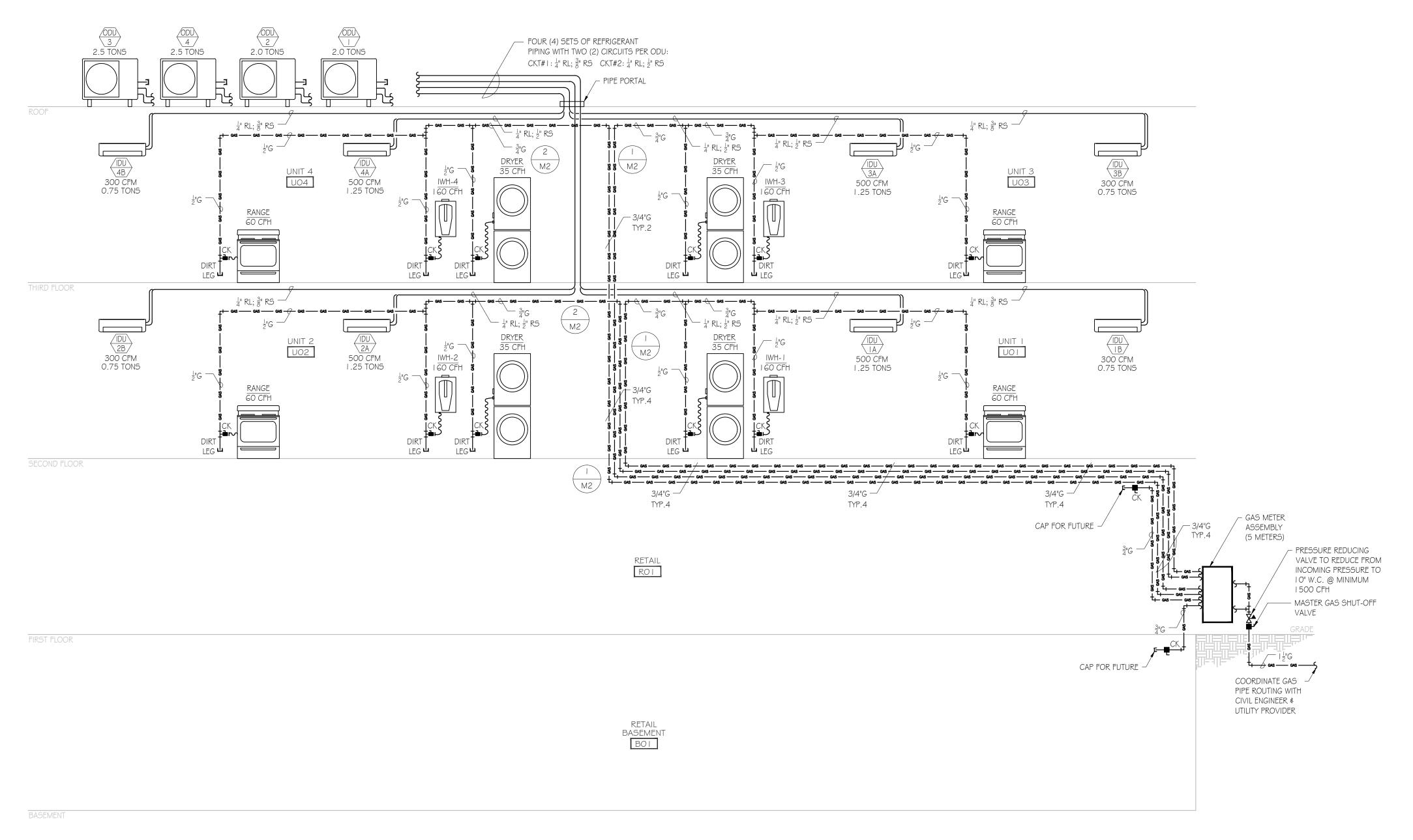


ISSUED FOR PERMIT 11/13/23 No. Date

400 S. Conkling Street Baltimore City, MD.

> FLOOR PLANS MECHANICAL

Drawn by:	KR
Checked by:	PAD
Date:	11/13/2023
Project#:	230st



RISER DIAGRAM - PIPING - MECHANICAL

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

EQUIPMENT TAG	INPUT (CFH)	OUTPUT (BTUH)	EFFIC.	GAS PRESS (IN.WC.)	MOUNTING AFF (IN.)	NOTE5
IWH-I	160	153600	96%	7"-14" W.C.	36	NEW METER UOI
RANGE	60	60000	100%	7"-14" W.C.	0	NEW METER UOI
DRYER	35	35000	100%	7"-14" W.C.	36	NEW METER UOI
	TOTAL			'		

TAG	(CFH)	OUTPUT (BT UH)	EFFIC.	GA5 PRE55 (IN. WC.)	MOUNTING AFF (IN.)	NOTE5
IWH-2	160	153600	96%	7"-14" W.C.	36	NEW METER UO2
RANGE	(GO	60000	100%	7"-14" W.C.	0	NEW METER UO2
DRYER	35	35 000	100%	7"-14" W.C.	36	NEW METER U02

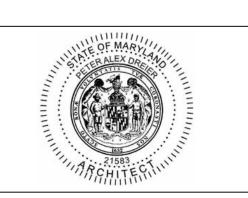
EQUIPMENT TAG	(CFH)	OUTPUT (BT UH)	EFFIC.	GA5 PRE55 (IN. WC.)	MOUNTING AFF (IN.)	NOT E5
IWH-3	160	153600	96%	7"-14" W.C.	36	NEW METER UOS
RANGE	60	60000	100%	7"-14" W.C.	0	NEW METER UOS
DRYER	35	35,000	100%	7"-14" W.C.	36	NEW METER U03

EQUIPMENT TAG	(CFH)	OUTPUT (BT UH)	EFFIC.	GA5 PRE55 (IN. WC.)	MOUNTING AFF (IN.)	NOTE5
IWH-4	160	153600	96%	7"-14" W.C.	36	NEW METER UO4
RANGE	60	60000	100%	7"-14" W.C.	0	NEW METER UO4
DRYER	35	35000	100%	7"-14" W.C.	36	NEW METER UO4

QUIPMENT TAG	INPUT (CFH)	OUTPUT (BTUH)	EFFIC.	GAS PRESS (IN.WC.)	MOUNTING AFF (IN.)	NOTE5
FUTURE	250	-	TBD	7"-1 4" W.C.	TBD	NEW METER RTL
	TOTAL ESTIM. METER (CFH)	250				

GA	GAS LOAD CALCULATION UNIT RTL.B									
EQUIPMENT TAG	INPUT (CFH)	ОИТРИТ (ВТИН)	EFFIC.	GAS PRESS (IN.WC.)	MOUNTING AFF (IN.)	NOTES				
FUTURE	250	-	TBD	7"-14" W.C.	TBD	NEW METER RTL				
	TOTAL ESTIM. METER (CFH)	250								





	ISSUED FOR PERMIT	11/13/23
No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

> RISER DIAGRAM MECHANICAL

Drawn by:	KR	
Checked by:	PAD	
Date:	11/13/2023	
Project#:	230st	



					CODE	CODE	OCCUPANCY	CODE			ORDINANCE		1	TUAL MINIMUM PR		SCHEDUI			.,,	7	_	EQUIPME	ENT SERVING
ROOM #	ROOM NAME		Pz OCCUPANCY (# of people)	Az AREA (SQ.FT.)	REQUIRED OA, Rp (CFM/PERSON) (e)	REQUIRED OA, Ra (CFM/SQFT) (a)	DENSITY #/1 OOOFT ^ 2 (a)	REQUIRED EXHAUST (CFM/SQFT) (a)	Ra OA REQUIRED (CFM/SF)	Rp OA REQUIRED (CFM / PERSON)	Vbz	EVHALIGE	SUPPLY CFM	OUTDOOR AIR CFM	EXHAUST/ RETURN CFM	Ez ZONE AIR DISTRIBUTION EFFECTIVENESS	Voz ZONE OUTDOOR AIRFLOW RATE	Vot SYSTEM OUTDOOR AIR INTAKE RATE	1	Z _P PRIMARY OUTDOOR AIR FRACTION	Ev SYSTEM VENTILATION EFFICIENCY	SUPPLY FAN	EXHAUST FA
COMMON AREA	Α			1									l			1			1				
501	STAIR I ST FLOOR	PRIVATE DWELLING: CORRIDOR	0	70	0.0	0.06	0	0.00	4	0	4	0	0	NV	0	1.0	4	4	0	0.00	1.0	-	_
501	STAIR 2ND FLOOR	PRIVATE DWELLING: CORRIDOR	0	160	0.0	0.06	0	0.00	10	0	10	0	0	NV	0	1.0	10	10	0	0.00	1.0	-	-
501	STAIR 3RD FLOOR	PRIVATE DWELLING: CORRIDOR	0	133	0.0	0.06	0	0.00	8	0	8	0	0	NV	0	1.0	8	8	0	0.00	1.0	-	-
,	TOTAL		0	363					22	0	22	0	0	0	0			•					
UNIT UO I				_	,								•						_				
-	ВАТН	PRIVATE DWELLING: TOILET # BATHROOM (g,h)	I	46	0.0	0.00	0	50.00	0	0	0	50	0	NV	100	1.0	0	0	0	0.00	1.0	-	CEF-I
-	BEDROOM	PRIVATE DWELLING: LIVING AREA (c)	I	165	15.0	0.00	4	0.00	0	10	10	0	300	NV	0	1.0	10	10	300	0.03	1.0	IDU-1B	-
-	GREAT ROOM	PRIVATE DWELLING: LIVING AREA (c)	I	325	15.0	0.00	4	0.00	0	20	20	0	500	NV	300	1.0	20	20	500	0.04	1.0	IDU-I A	REH-I
-	UTILITY	PRIVATE DWELLING: UTILITY	0	19	0.0	0.00	0	0.00	0	0	0	0	0	NV	0	1.0	0	0	0	0.00	1.0	-	-
	TOTAL		3	555					0	29	29	50	800	О	400								
JNIT UO2				T					_				T		T				1	T			
-	ВАТН	PRIVATE DWELLING: TOILET # BATHROOM (g,h)	I	46	0.0	0.00	0	50.00	0	0	0	50	0	NV	100	1.0	0	0	0	0.00	1.0	-	CEF-I
-	BEDROOM	PRIVATE DWELLING: LIVING AREA (c)	I	186	15.0	0.00	4	0.00	0	11	11	0	300	NV	0	1.0	11	11	300	0.04	1.0	IDU-1B	-
-	GREAT ROOM	PRIVATE DWELLING: LIVING AREA (c)	l	325	15.0	0.00	4	0.00	0	20	20	0	500	NV	300	1.0	20	20	500	0.04	1.0	IDU-IA	REH-I
-	UTILITY	PRIVATE DWELLING: UTILITY	0	19	0.0	0.00	0	0.00	0	0	0	0	0	NV	0	1.0	0	0	0	0.00	1.0	-	-
	TOTAL		3	576					0	31	31	50	800	О	400								
JNIT UO3		PRIVATE DWELLING: TOILET #		1									<u> </u>			1							
-	BATH	BATHROOM (g,h) PRIVATE DWELLING: LIVING	l	39	0.0	0.00	0	50.00	0	0	0	50	0	NV	100	1.0	0	0	0	0.00	1.0	-	CEF- I
-	BEDROOM	AREA (c) PRIVATE DWELLING: LIVING	l	171	15.0	0.00	4	0.00	0	10	10	0	300	NV	0	1.0	10	10	300	0.03	1.0	IDU-1B	-
-	GREAT ROOM	AREA (c)	I	367	15.0	0.00	4	0.00	0	22	22	0	500	NV	300	1.0	22	22	500	0.04	1.0	IDU- I A	REH-I
-	UTILITY	PRIVATE DWELLING: UTILITY	0	14	0.0	0.00	0	0.00	0	0	0	0	0	NV	0	1.0	0	0	0	0.00	1.0	-	-
	TOTAL		3	591					0	32	32	50	800	0	400								
INIT HOA																							
JNIT UO4	BATU	PRIVATE DWELLING: TOILET \$	1	30		0.00		E0.00	T ^					NB 7	100	1.0				0.00	1.0		OEE !
-	BATH	BATHROOM (g,h) PRIVATE DWELLING: LIVING		39	0.0	0.00	0	50.00	0	0	0	50	0	NV NV	100	1.0	0	0	0	0.00	1.0	-	CEF-I
-	BEDROOM CREAT BOOM	AREA (c) PRIVATE DWELLING: LIVING		186	15.0	0.00	4	0.00	0	11	11	0	300	NV NV	0	1.0	11	11	300	0.04	1.0	IDU-1B	- PEH I
-	GREAT ROOM	AREA (c)		371	15.0	0.00	4	0.00	0	22	22	0	500	NV NV	300	1.0	22	22	500	0.04	1.0	IDU- I A	REH-I
-	UTILITY	PRIVATE DWELLING: UTILITY	0	14	0.0	0.00	0	0.00	0	0		0	0	NV	0	1.0	0	0	0	0.00	1.0	-	-

b. Mechanical exhaust required and the recirculation of air from such spaces as permitted by Section 403.2.1 is prohibited (see Section 403.2.1 Items 3)

c. Spaces unheated or maintained below 50 degrees F are not covered by these requirements unless the occupancy is continuous.

d. Ventilation systems in enclosed parking garages shall comply with Section 404.

e. Rates are per water closet or urinal. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted only where the exhaust system is designed to operate continuously while occupied.

f. Rates are per room unless otherwise indicated. The higher rate shall be provided where the exhaust system is designed to operate intermittently. The lower rate shall be permitted where the exhaust system is designed to operate continuously while occupied.

g. Mechanical exhaust is required and recirculation from such spaces is prohibited except that recirculation shall be permitted where the resulting supply airstream consists of not more than 10 percent air recirculation of air that is contained completely within such spaces shall not be prohibited. (see Section 403.2.1, Items 2 and 4). h. For nail salons, each manicure and pedicure station shall be privided with a source capture system capable of exhausting not less than 50 cfm per station. Exhaust inlets shall be located in accordance with Section 502.20. Where one or more required source

capture systems operate continuously during occupancy, the exhaust rate from such systems shall be permitted to be applied to the exhaust flow rate required by Table 403.3.1.1 for the nail salon.

REFER TO ARCHITECTURAL PLANS (LIGHT \$ VENT SCHEDULE) FOR WINDOW SIZES AND VENTILATION AREAS.

| cubic foot per minute = 0.00047|9m^3/s

I cubic foot per minute per square foot = 0.00508m $^3/(s*m^2)$

1 ton = 908 kg

Degree C = ((Degree F)-32)/1.8 | square foot = 0.0929 m^2

							EX	HAUS	ST FA	N S	CHE	DUI	E												
			GENE RAL	1								F	AN							ELEC	TRICAL				
EQUIPMENT	.12.12.27					WEIGHT		DAMPER	AIRFLOW		ESP.	FAN)	MOTOR			FLA	MCA	MOCP	VOLT5	PHASE	HERT	CONTROLS	NOTES
TAG	LOCATION	AREA SERVED	MANUFACTURER	MODEL	FAN TYPE	(LB5.)	SONES	SIZE (IN.)	(CFM)	DRIVE	(IN.WC)	(FRPM)	WATT5 (W)	BHP	HP	EFF. (%)	RPM	(A)	(A)	(A)	(V)	(Φ)	Z (HZ)		
CEF-I	2ND FLR UNIT UOI	BATH	GREENHECK	SP-LPO511	CEILING EXHAUST FAN	9	2.5	4"DIA	100	DIRECT	0.25	939	19	-	=0	71%	939	0.29	0.36	15	120	1	60	INTERLOCK W/LIGHT SWITCH	1,2,3,4,5,6,7,6,9,10
CEF-2	2ND FLR UNIT U02	BATH	GREENHECK	SP-LFO511	CEILING EXHAUST FAN	9	2.5	4"DIA	100	DIRECT	0.25	939	19	-	=0	71%	939	0.29	0.36	15	120	1	60	INTERLOCK W/LIGHT SWITCH	1,2,3,4,5,6,7,6,9,10
CEF-3	3RD FLR UNIT UO3	BATH	GREENHECK	5P-LF0511	CEILING EXHAUST FAN	9	2.5	4"DIA	100	DIRECT	0.25	939	19	=	3 1	71%	939	0.29	0. <mark>3</mark> 6	15	120	Ť	e0	INTERLOCK W/LIGHT SWITCH	1,2,3,4,5,6,7,5,9,10
CEF-4	3RD FLR UNIT UO4	BATH	GREENHECK	5P-LFO511	CEILING EXHAUST FAN	9	2.5	4"DIA	100	DIRECT	0.25	939	19	-		71%	939	0.29	0.36	15	120	1	60	INTERLOCK W/LIGHT SWITCH	1,2,3,4,5,6,7,6,9,10
NOTE5:	I. GRIL <mark>L</mark> E TYPE TO BE	SELECTED BY OWNER			_	7. PROVIDE	E HOODED W	ALL CAP																	3.1

5. MOTOR WITH THERMAL OVERLOAD G. MOTOR RATED FOR CONTINUOUS USE.

4. PROVIDE GRAVITY BACKDRAFT DAMPER

3. PROVIDE UNIT MOUNTED TOGGLE DISCONNECT SWITCH

2. EXHAUST TERMINATION SHALL BE AT LEAST 10-0" FROM ANY O.A.I. OPENING

7. PROVIDE HOODED WALL CAP 5. ROUND DUCT CONNECTION. 9. G" TO 4" ROUND REDUCER. IO. ISOLATION KIT.

					RANGE	EXH	AUS	T HO	OOD	SCH	EDU	LE								
			G	GENERAL							FA	AN			E	LECTRIC	CAL			
EQUIPMENT		AREA				DI	MENSION	15	DAMPER	AIRFLOW		50UND (50N		MCA	MOCP	VOLT5	PHASE	HERTZ	CONTROL5	NOTES
TAG	LOCATION	SERVED	MANUFACTURER	MODEL	FAN TYPE	LENGTH (IN)	WIDTH (IN)	HEIGHT (IN)	5IZE	(CFM)	DRIVE	NORMAL	HIGH	(A)	(A)	(V)	(ф)	(HZ)		
REH-I	2ND FLR UNIT UO I	KITCHEN	BROAN	BCSEKI 30WW	GLACIER UNDER- CABINET	30	20	G	I Ox3	300	DIRECT	1.50	5	0.65	15	120	1	80	INTEGRAL 3-5PD	1,2,3,4,5,G,7
REH-2	2ND FLR UNIT UO2	KITCHEN	BROAN	BCSEKI 30WW	GLACIER UNDER- CABINET	30	20	G	I Ox3	300	DIRECT	1.50	5	O.65	15	120	1	80	INTEGRAL 3-5PD	1,2,3,4,5,G,7
REH-3	3RD FLR UNIT UOS	KITCHEN	BROAN	BC5EKI 30WW	GLACIER UNDER- CABINET	30	20	G	1 Ox3	300	DIRECT	1.50	5	O.65	15	120	1	80	INTEGRAL 3-5PD	1,2,3,4,5,6,7
REH-4	SRD FLR UNIT UO4	KITCHEN	BROAN	BCSEKI 30WW	GLACIER UNDER- CABINET	30	20	G	1 Ox3	300	DIRECT	1.5	5.0	0.65	<u>15</u>	120	1	GO	INTEGRAL 3-5FD	1,2,3,4,5,G,7
NOTES:	I UNIT MOUNTED JUNCT	ION BOX AND	DISCONNECT TOGGLE S	MAZITCH	·				G I-IFVEL	ED LIGHTING	2									

NOTES: I. UNIT MOUNTED JUNCTION BOX AND DISCONNECT TOGGLE SWITCH 2. EXHAUST TERMINATION SHALL BE AT LEAST 10-0" FROM ANY O.A.I. OPENING

3. PROVIDE IOX3 RECTANGULAR

4. WHITE FINISH 5. OPEN MESH GREASE FILTERS

		DENNII LIC	Aug Low			,	Del Car	141001	VOLID	THEFT	TILINIZ		i
DTH IN)	HEIGHT (IN)	51ZE	(CFM)	DRIVE	NORMAL	HIGH	(A)	(A)	(V)	(ф)	(HZ)		
20	G	I Ox3	300	DIRECT	1.50	5	O.65	15	120	1	GO GO	INTEGRAL 3-5PD	1,2, 3 ,4, 5 , G ,7
20	G	1 Ox3	300	DIRECT	1.50	5	0.65	15	120	1	60	INTEGRAL 3-5PD	1,2,3,4,5,6,7
20	9	1 Ox3	300	DIRECT	1.50	5	0.65	15	120	1	60	INTEGRAL 3-5PD	1,2,3,4,5,6,7
20	G	1 Ox3	300	DIRECT	1.5	5.0	O.G5	1.5	120	T	' 6 0	INTEGRAL 3-5PD	1,2,3,4,5,6,7
		G. I-LEVEL 7. INSTALL	LED LIGHTING MINIMUM 18		COOKTOP			ı	4	<u> </u>			

400 S. Conkling Street Baltimore City, MD.

SCHEDULES MECHANICAL

ISSUED FOR PERMIT

PETER ALEX DREIER

773 875 5558 architectpad@gmail.com

ARCHITECT

Drawn by: KR Checked by: PAD 11/13/2023 Project#: 230st

11/13/23

Date

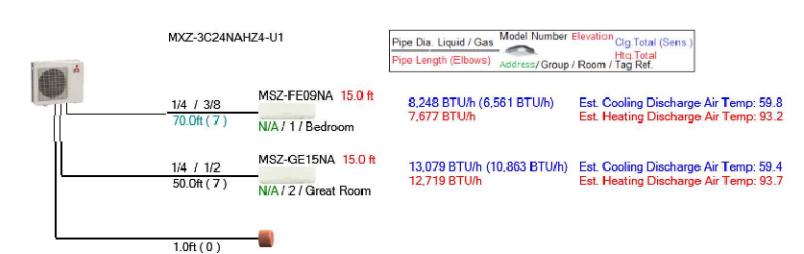
					ELE	CTRICA	AL CABI	NET U	NIT HEA	ATER SCH	EDULI	=								
					GENERAL							HEATING				ELEC	TRICAL			
EQUIPMENT	PMENT LOCATION MANUFACTURER MODEL AIRFLOW CAPACITY CAPACITY FLA MCA MOCP VOLTS PHASE HERTZ AG MOUNTING HEIGHT (CFM) (BTU/H) (KW) (A) (A) (A) (V) (PH) (HZ)							NOTES												
TAG	LOCATION	MANUFACTURER	MODEL	MATERIAL	LENGTH (IN.)	HEIGHT (IN.)	DEPTH (IN.)	INLET	DISCHARGE	MOUNTING HEIGHT (IN.)	(CFM)	(BTU/H)	(KW)	(A)	(A)	(A)	(∨)	(PH)	(HZ)	
ECU-H I	STAIR SOI - IST FLR	QMARK	AWH3150f	20 GA. STEEL	15.75	19.30	3.75	FRONT	FRONT	MINIMUM 8" AFF	100	5118	1.5	-	12.5	15	120	I	60	1,2,3,4,5
ECU-H2	STAIR SO I - 2ND FLR	QMARK	AWH3150F	20 GA. STEEL	15.75	19.30	3.75	FRONT	FRONT	MINIMUM 8" AFF	100	5118	1.5	-	12.5	15	120	I	60	1,2,3,4,5
ECU-H3	STAIR SO I - 3RD FLR	QMARK	AWH3 50f	20 GA. STEEL	15.75	19.30	3.75	FRONT	FRONT	MINIMUM 8" AFF	100	5118	1.5	-	12.5	15	120	ı	60	1,2,3,4,5
	I . COLOR AND FINISH TO 2. PROVIDE UNIT MOUNTE 3. PROVIDE INTERGRAL TH	ED DISCONNECT SWITCH		•	5. SURFACE MOL	JNT			•											

System Tag	Model Number	Nominal Cooling	Nominal Heating	Cooling Efficiency IEER/EER	Heating	Nom System Connected Capacity	Design Cooling Outdoor Temp	Design Heating Outdoor Temp	Max Pipe Length from BC or 1st		Corrected Cooling Total	Corrected Heating	Sound Pressure	Preliminary Added Field Charge (See		Electrical-Per			Notes / Options
		Capacity (BTU/h)	Capacity (BTU/h)	[SEER]	47°F	(% of NOM)	DB (°F)	WB (°F)	Joint (feet)	Pressure (inch) (See Note 4)	Capacity (BTU/h)	Capacity (BTU/h)	(dBA)	Note 5)	Voltage / Phase	MCA (A)	RF5	МОСР	
ODU- I	MXZ-3C24NAHZ4-U1	22,000	25,000	11.75 [17.25]	9.5	100.0%	94.0	5 .9	76.9	/	21,326.7	20,396.2	54/58	0.5	208/230V/ 1-phase	31.5	40	40	1, 2, 3, 4, 5, 6
ODU-2	MXZ-3C24NAHZ4-U1	22,000	25,000	11.75 [17.25]	9.5	100.0%	94.0	8.9	76.9	/	21,326.7	20,396.2	54/58	0.5	208/230V / 1 -phase	31.5	40	40	1, 2, 3, 4, 5, 6
ODU-3	MXZ-3C3ONAHZ4-U1	28,400	28,600	11.4[17]	10.4	90.0%	94.0	8.9	61.9	/	23,729.2	22,315.6	54/58	0.1	208/230V / 1-phase	31.5	40	40	1, 2, 3, 4, 5, 6
ODU-4	MXZ-3C3ONAHZ4-U1	28,400	28,600	11.4[17]	10.4	90.0%	94.0	8.9	61.9	/	23,729.2	22,315.6	54/58	0.1	208/230V/ 1-phase	31.5	40	40	1, 2, 3, 4, 5, 6
1 2 3 4	Notes \$ Options: Nominal cooling capacities an Nominal heating capacities an Efficiency values for EER, IEE For systems with multiple mo Added field charge listed is	e based on Indoor R, COP are based dules, refrigerant p	cal EAT of 70°F ([on AHRI 230 tes pipe dimensions ind	DB), outdoor of 43° st method for mixtur licate total system o	PF (WB) e of ducted s combined pipi	 non-ducted indoor units. ng downstream of module													

							6 1 5				Corrected Capacity	/							
System Tag	Room Name	ODU Reference	Model	Туре	Nominal Cooling Capacity (BTU/h)	Nominal Heating Capacity (DTU/h)	Cooling Design Entering Temp DB/WB (°F) / [Water in temp]	Heating Deaign Entering Temp DB/WB (°F) / [Water in temp]	Cooling Diversity Full/Partial (See Note 5, 6)	Cooling Total Capacity (BTU/h)	Cooling Sensible Capacity (BTU/h)	Heating Diversity Full/Partial (See Note 5, 6)	Hesting Capacity (BTU/h)	Refrig Pipe Dim Liquid/Suction (inch)	Fan Speed Setting	Peak Fan Airflow (cfm) / [Design gpm G(U5)/min]	Electrical MCA/MF5	Condensate Removal Rate (gaVhr)	Notes / Options
IDU-I A	Bedroom		M5Z-FE09NA	Wall -Mounted	8,500	8,300	50.0/G7.0	70	FULL DEMAND	8,247.7	G,560.7	FULL DEMAND	7,677.2	1/4 / 3/8	HIGH	307	Powered by Outdoor	1.05	1, 2, 3, 4
IDU-I B	Great Room	ODU-1	M5Z-GE15NA	Wall -Mounted	13,300	13,700	50.0/G7.0	70	FULL DEMAND	13,079.0	10,563.2	FULL DEMAND	12,719.1	1/4 / 1/2	HIGH	498	Powered by Outdoor	1.65	1, 2, 3, 4
IDU-2A	Bedroom	ODU 6	M5Z-FE09NA	Wall -Mounted	8,500	5,300	50.0/G7.0	70	FULL DEMAND	5,247.7	G,560.7	FULL DEMAND	7,677.2	1/4 / 3/5	HIGH	307	Powered by Outdoor	1.05	1, 2, 3, 4
IDU-2B	Great Room	ODU-2	MSZ-GE15NA	Wall -Mounted	13,300	13,700	50.0/G7.0	70	FULL DEMAND	13,079.0	10,563.2	FULL DEMAND	12,719.1	1/4 / 1/2	HIGH	498	Powered by Outdoor	1.65	1, 2, 3, 4
IDU-3A	Bedroom	0000	M5Z-FE09NA	Wall -Mounted	8,200	8,100	50.0/G7.0	70	FULL DEMAND	5,037.0	G,479.4	FULL DEMAND	7,513.1	1/4 / 3/5	HIGH	307	Powered by Outdoor	1.01	1, 2, 3, 4
IDU-3B	Great Room	ODU-3	M5Z-GE18NA	Wall -Mounted	15,500	15,900	50.0/G7.0	70	FULL DEMAND	15,692.2	11,G17.4	FULL DEMAND	14,502.G	1/4 / 1/2	HIGH	498	Powered by Outdoor	1.96	1, 2, 3, 4
IDU-4A	Dedroom	00014	M5Z-FE09NA	Wall -Mounted	5,200	8,100	80.0/G7.0	70	FULL DEMAND	5,037.0	G,479.4	FULL DEMAND	7,513.1	1/4 / 3/8	HIGH	307	Powered by Outdoor	1.01	1, 2, 3, 4
IDU-4B	Great Room	ODU-4	M5Z-GE18NA	Wall -Mounted	15,500	15,900	80.0/67.0	70	FULL DEMAND	15,692.2	11,617.4	FULL DEMAND	14,502.G	1/4 / 1/2	HIGH	498	Powered by Outdoor	1.96	1, 2, 3, 4
	Notes & Options:																		
2	Nominal cooling capac Nominal heating capac																		
					and other factors associated with corrected	d capacities													
					e controllers, system controllers, and integr														

Centralized System - 1 : VRF-U01

Piping Diagram Image (Design View)



4. PROVIDE ALL REQUIRED MOUNTING HARDWARE.

Centralized System - 1 : VRF-U02

Piping Diagram Image (Design View)



Centralized System - 1: VRF-U03

Piping Diagram Image (Design View)



Centralized System - 1 : VRF-U04

Piping Diagram Image (Design View)



		EQUIPMENT/MATERIALS LIS	Т
Qty	Model	Description	Тэд
5	stock controller	Wireless remote controller	
2	MXZ-3C2 4NAHZ 4-U I	R4 IOA MXZ Series Outdoor Unit	IDU-1A, IDU-1B, IDU-2A, IDU-2B
2	MXZ-3G3ONAHZ 4-U I	R4 I OA MXZ Series Outdoor Unit	IDU-SA, IDU-SB, IDU-4A, IDU-4B
4	M5Z-FEO9NA	Wall -Mounted Indoor Unit	
2	M5Z-GET 5NA	Wall -Mounted Indoor Unit	
2	M5Z-GE I 5NA	Wall -Mounted Indoor Unit	
4	MAC-A455JP-E	Port Adapter 1/2"x3/8"	IDU-1, IDU-2, IDU-3, IDU-4
4	MAC-A454JP-E	Port Adopter 3/6"x1/2"	IDU-1, IDU-2, IDU-3, IDU-4

	REFRIGERA	NT PIPING MATERIALS
Pipe Size (inch)	Total Length (feet)	Number of Bends
1//4	420	56
3/8	250	28
1/2	170	2.6





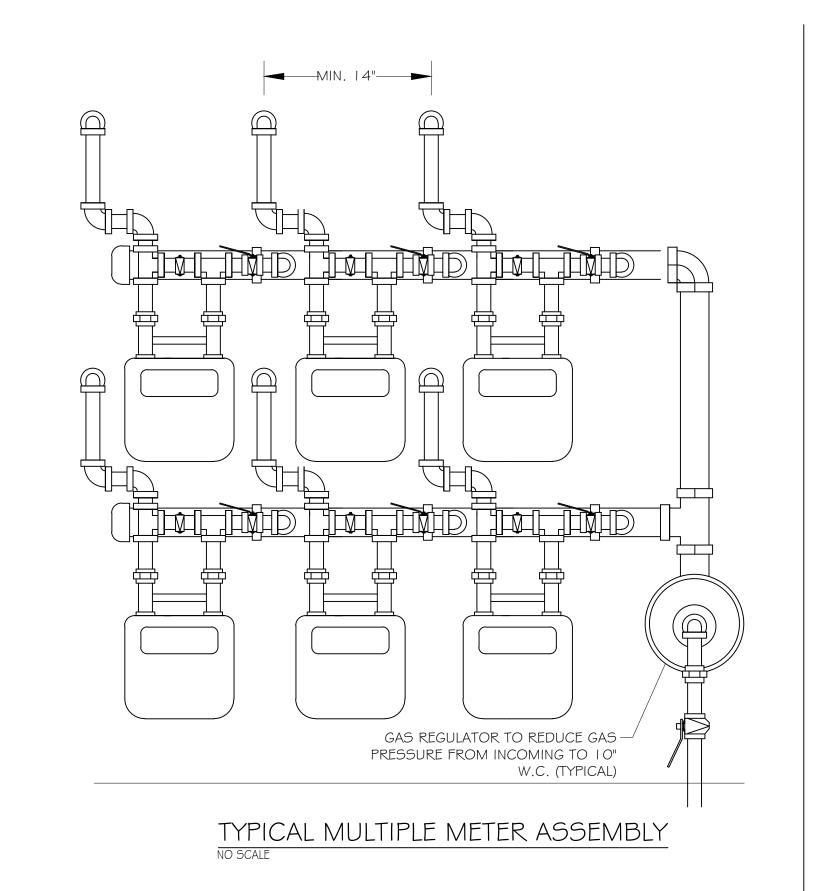
	ISSUED FOR PERMIT	11/13/23
No.	Issue	Date

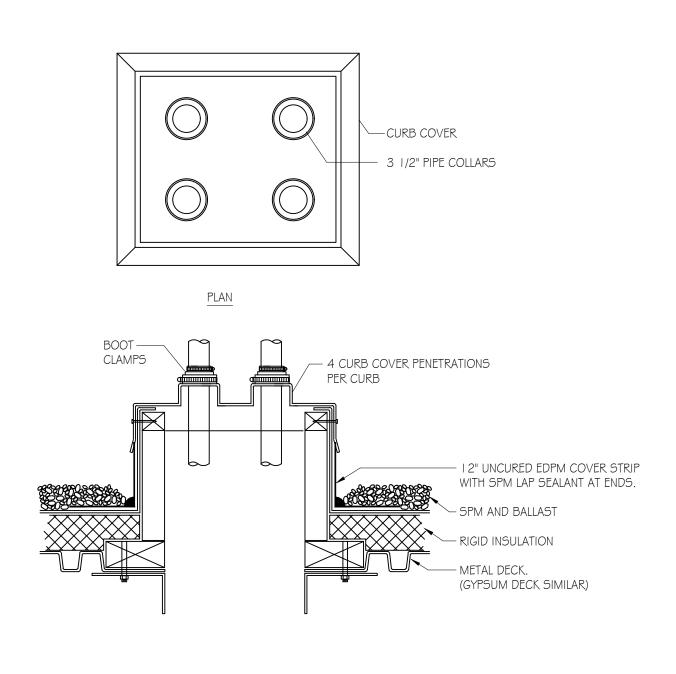
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> SCHEDULES MECHANICAL

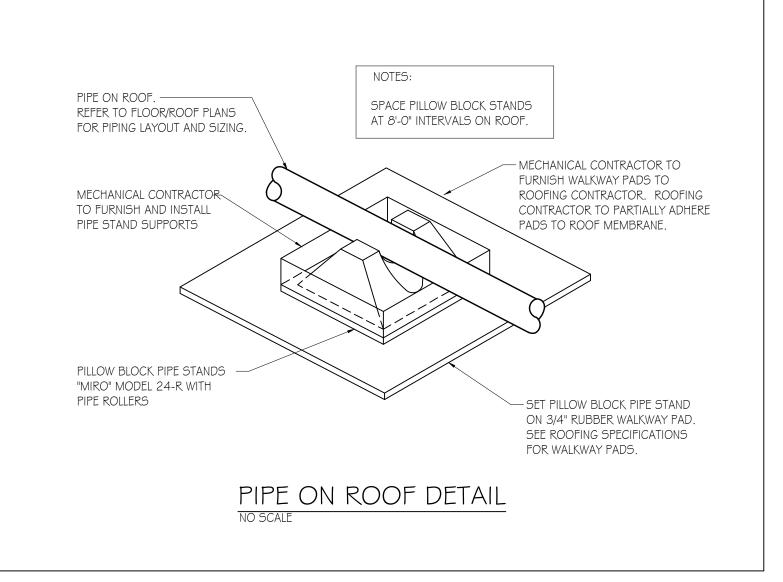
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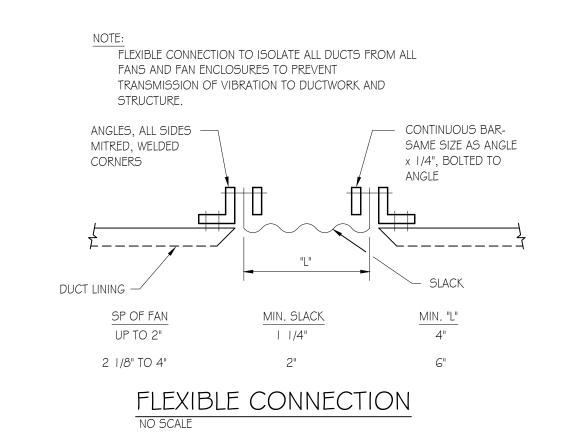


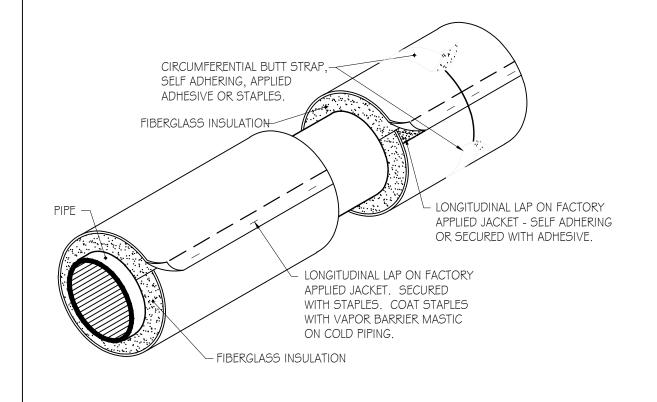




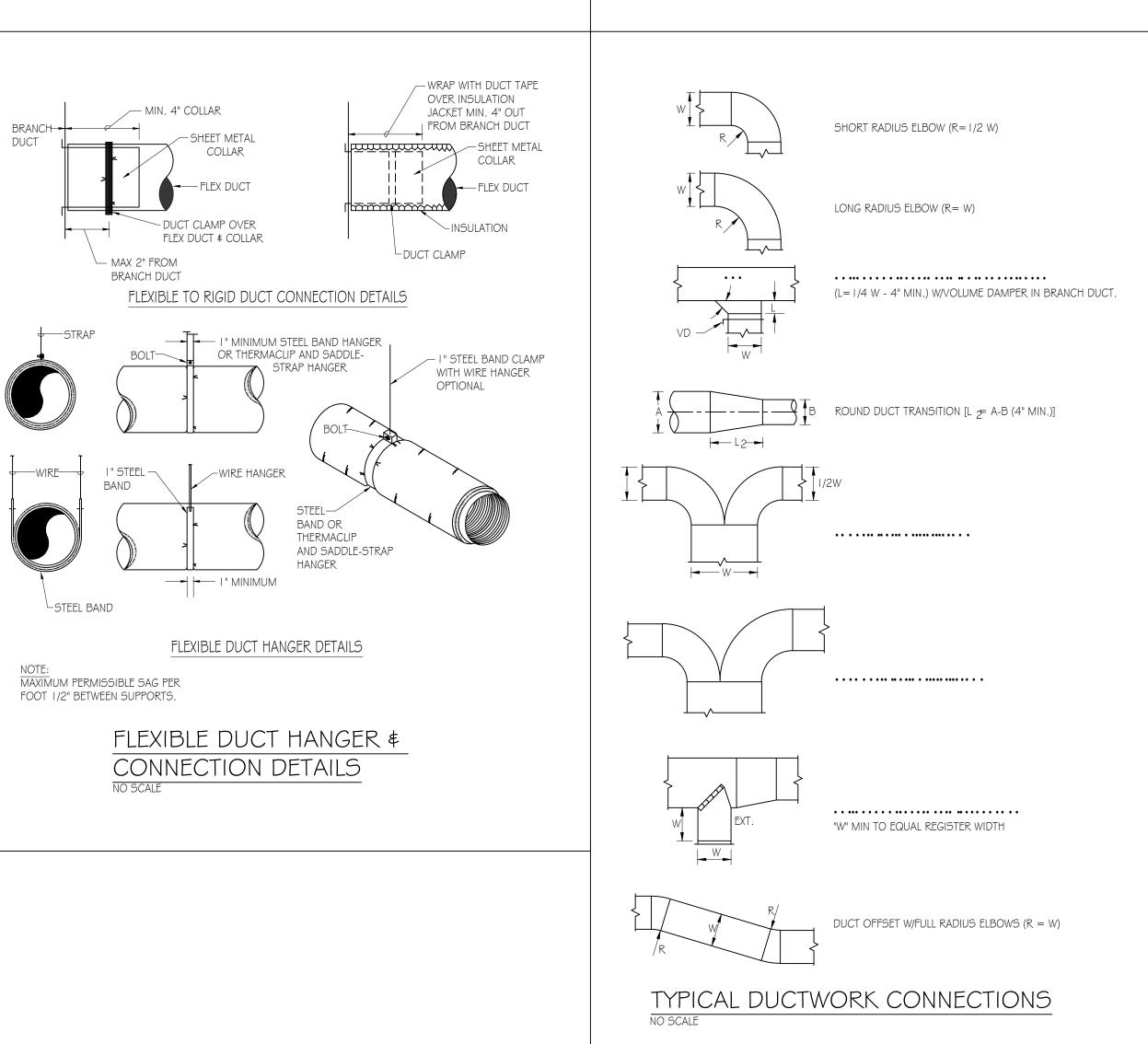
PIPE CURB ASSEMBLY DETAIL







FACTORY-APPLIED NON-METAL JACKETING







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M6

MECHANICAL SPECIFICATIONS

- I. ACCESSIBILITY
- a. INSTALL MECHANICAL WORK TO PERMIT REMOVAL (WITHOUT DAMAGE TO OTHER PARTS) OF COILS, HEAT EXCHANGERS, PUMPS, FAN SHAFTS AND WHEELS, BELT GUARDS, SHEAVES AND DRIVES, AND OTHER PARTS REQUIRING PERIODIC REPLACEMENT OR MAINTENANCE.
- b. ARRANGE PIPES, DUCTS AND EQUIPMENT TO PERMIT READY ACCESS TO VALVES, COCKS, TRAPS, STARTERS, MOTORS, DAMPERS, CONTROL COMPONENTS, AND TO CLEAR THE OPENINGS OF SWINGING AND OVERHEAD DOORS AND OF ACCESS PANELS.
- EQUIVALENT CROSS-SECTIONAL AREA.
 e. PROVIDE ACCESS PANELS IN WALLS, CEILINGS, AND DUCTS FOR ITEMS THAT REQUIRE INSPECTION AND
- f. ALL SERVICEABLE ROOF MOUNTED EQUIPMENT SHALL BE MINIMUM 10 FEET FROM EDGE OF ROOF UNLESS PROTECTED BY A BARRIER NOT LESS THAN 42 INCHES TALL.
- 2. INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 3. ALL DUCTWORK IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OR RUNS. THE CONTRACTOR SHALL INCLUDE IN BID ROUTING OF DUCTWORK TO AVOID OBSTRUCTIONS.
- 4. DELEGATED DUCT DESIGN: DUCT CONSTRUCTION, INCLUDING SHEET METAL THICKNESSES, SEAM AND JOINT CONSTRUCTION, REINFORCEMENTS, AND HANGERS AND SUPPORTS, SHALL COMPLY WITH SMACNA'S "HVAC DUCT CONSTRUCTION STANDARDS METAL AND FLEXIBLE."
- 5. PROVIDE GALVANIC PROTECTION BETWEEN DISSIMILAR MATERIALS.
- 6. NOTIFY STRUCTURAL ENGINEER OF ANY EQUIPMENT TO BE INSTALLED THAT EXCEEDS DESIGN LOADS INDICATED ON DRAWINGS.
- 7 FVHALIST DUCTA
- 7. EXHAUST DUCTWORK:
 a. DUCTWORK SHALL BE CONSTRUCTED OF GALVANIZED SHEET STEEL IN ACCORDANCE WITH SMACNA LOW
- PRESSURE DUCT CONSTRUCTION STANDARDS.

 b. ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS AND CONNECTIONS OF SUPPLY AND RETURN DUCTS SHALL BE SECURELY FASTENED AND SEALED WITH WELDS, GASKETS, MASTICS, OR MASTIC-PLUS-EMBEDDED-FABRIC SYSTEMS INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S
- 8. DRYER DUCTWORK SHALL BE CONSTRUCTED WITH OVERLAPPING SEAMS IN DIRECTION OF FLOW AND NO PROTRUDING SCREWS IN AIR STREAM.
- 9. GREASE EXHAUST DUCTS:
- A. INSTALLATION SHALL BE IN FULL COMPLIANCE WITH IMC 2018 W/AMENDMENTS AND LATEST EDITION OF NFPA.
 B. INSTALL KITCHEN HOOD EXHAUST DUCTS WITHOUT DIPS AND TRAPS. SLOPE MINIMUM OF 2 PERCENT TO DRAIN BACK TO HOOD.
- C. PROVIDE GASKET OR APPROVED SEALANT RATED NOT LESS THAN 1500 DEGREES F TO PROHIBIT THE PASSAGE OF GREASE.
- D. DUCT-TO-EXHAUST FAN CONNECTIONS SHALL BE FLANGED AND GASKETED.
- E. GREASE DUCT SHALL BE INSULATED WITH 3M FIRE BARRIER DUCT WRAP 615+. INSTALL PER MANUFACTURER'S INSTALLATION GUIDE.
- F. TEST GREASE DUCT PRIOR TO CONCEALMENT PER IMC.

INSTALLATION INSTRUCTIONS.

- 10. DUCTLESS MINI-SPLIT EQUIPMENT SHALL HAVE INLINE CHECK VALVE LOCATED IN DRAIN LINE OR TRAP.
- II. CONTRACTOR SHALL BE RESPONSIBLE FOR ANY CUTTING AND PATCHING REQUIRED FOR THE INSTALLATION OF EQUIPMENT.
- I 2. ALL LOW VOLTAGE AND ALL LINE VOLTAGE WIRING TO BE INSTALLED IN CONDUIT WHEN CONCEALED IN WALLS.
- 13. VERIFY VOLTAGE AND PHASE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING MECHANICAL EQUIPMENT.
- 14. ZONE THERMOSTATIC CONTROLS USED FOR BOTH HEATING AND COOLING SHALL PROVIDE A TEMPERATURE DEADBAND OF AT LEAST 5 DEGREES F. ALL THERMOSTATS SHALL BE PROVIDED WITH THERMOSTATIC SETBACK CONTROLS CAPABLE DOWN TO 55F OR UP TO 85F, 7-DAY CLOCK, 2-HOUR OCCUPANT OVERRIDE, AND 10-HOUR BACKUP. THERMOSTAT SHALL BE CAPABLE OF REPORTING FAULTS TO A FAULT MANAGEMENT APPLICATION ACCESSIBLE BY DAY-TO-DAY OPERATING PERSONNEL.

- 15. ALL LONGITUDINAL AND TRANSVERSE JOINTS, SEAMS, AND CONNECTION OF SUPPLY AND RETURN DUCTS

 SEALED WITH WELDS, GASKETS, MASTICS, OR MASTIC-PLUS-EMBEDDED-FABRIC SYSTEM INSTALLED IN

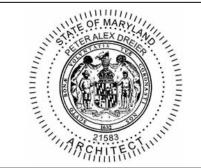
 ACCORDANCE WITH MANUFACTURER'S INSTALLATION INSTRUCTIONS. (EXCEPTION: CONTINUOUSLY WELDED AND LOCKING TYPE LONGITUDINAL JOINTS AND SEAMS.)
- I 6. NATURAL GAS PIPING AND APPURTENANCES:
- a. GAS PIPING SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE INTERNATIONAL FUEL
- b. PIPING AND FITTINGS ABOVE GROUND PIPING FURNISH SCHEDULE 40 BLACK STEEL, PIPE WITH STANDARD WEIGHT, BANDED, MALLEABLE IRON FITTINGS.
- WEIGHT, BANDED, MALLEABLE IRON FITTINGS.
 c. INSTALLATION
- I. GAS COCK LOCATIONS FURNISH GAS COCKS AT EACH FURNACE SUPPLY TAP, AND AS REQUIRED BY THE LOCAL GAS UTILITY. GAS FIRED HEAT EXCHANGER CONNECTIONS EACH EXCHANGER SUPPLY PIPE SHALL CONTAIN AN UNION CONNECTION AND DRIP LEG.
- II. PIPING PIPING SHALL BE REAMED TO FULL SIZE AFTER CUTTING TO REMOVE BURRS, AND RED LEAD PRIMER SHALL BE APPLIED TO ALL MALE THREAD JOINT ENDS. PIPE SHALL RUN TRUE TO LINE WITHOUT POCKETS AND WITH EVEN PITCH TO A SUITABLE POINT WHERE AN ACCEPTABLE DRAIN COCK SHALL BE PROVIDED. NO UNIONS SHALL BE USED IN CONCEALED PIPING. ALL OUTLETS NOT CONNECTED TO
- EQUIPMENT OR APPLIANCES SHALL BE CLOSED WITH MALLEABLE IRON CAPS.

 d. GAS PIPING SHALL BE MARKED WITH AN APPROVED PERMANENT IDENTIFICATION SO THAT THE PIPING SYSTEM SUPPLIED BY EACH METER IS READILY IDENTIFIABLE.
- e. PRESSURE REGULATORS SHALL BE VENTED DIRECTLY TO THE OUTDOORS EXCEPT REGULATORS EQUIPPED WITH AND LABELED FOR UTILIZATION WITH AN APPROVED VENT-LIMITING DEVICE INSTALLED IN
- ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.

 f. TESTING UPON COMPLETION OF THE INSTALLATION WORK, THE GAS PIPING INSTALLED SHALL BE TESTED IN COMPLIANCE WITH THE INTERNATIONAL FUEL CODE.
- DEEDLOED ANT DIDING
- 17. REFRIGERANT PIPING:a. REGULATORY REQUIREMENTS:
 - I. ANSI B3 I .5: ASME CODE FOR PRESSURE PIPING.
 - II. ANSI/ASHRAE STANDARD 15: SAFETY CODE FOR MECHANICAL REFRIGERATION.
 - b. TUBING AND FITTINGSi. TYPE "K" COPPER.
 - II. WROUGHT-COPPER FITTINGS: ANSI B I 6.22 STREAMLINE PATTERN.
- III. BRAZING FILLER METALS: AWS A5.8, CLASSIFICATION BAg-I (SILVER). c. INSULATE SUCTION AND LIQUID LINES.
- 18. SHOP DRAWINGS:
- a. SUBMIT COORDINATED SHOP DRAWINGS FOR ALL EQUIPMENT AND SHEET METAL CONSTRUCTION
- b. SUBMIT ALL SHOP DRAWINGS FOR REVIEW AND APPROVAL TO ARCHITECT'S OFFICE PRIOR TO PURCHASE,
- FABRICATION, AND INSTALLATION.
 c. CONTRACTOR SHALL HIGHLIGHT OR SUMMARIZE ANY DEVIATIONS IN THE SHOP DRAWING SUBMITTALS FROM THE CONTRACT DOCUMENTS.
- 19. MANUALS: DOCUMENTS DESCRIBED BELOW SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY:
- a. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT
- b. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED
- ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
 c. NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY.
- d. HVAC CONTROLS SYSTEM MAINTENANCE AND CALIBRATION INFORMATION, INCLUDING WIRING DIAGRAMS, SCHEMATICS, AND CONTROL SEQUENCE DESCRIPTIONS. DESIRED OR FIELD-DETERMINED SETPOINTS
- SHALL BE PERMANENTLY RECORDED ON CONTROL DRAWINGS AT CONTROL DEVICES OR, FOR DIGITAL CONTROL SYSTEMS, IN SYSTEM PROGRAMMING INSTRUCTIONS.
- e. A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED SETPOINTS. f. HVAC AS-BUILT DRAWING(S).
- 20. COMMISSIONING: THE GENERAL CONTRACTOR SHALL CONTRACT WITH AN APPROVED (BY AHJ) COMMISSIONING AGENCY. THE AGENCY SHALL PROVIDE:
- A. FUNCTIONAL PERFORMANCE TESTING PER IECC 2018.
- B. PRELIMINARY COMMISSIONING REPORT PER IECC 2018.
- C. FINAL COMMISSIONING REPORT PER IECC 2018 TO OWNER WITHIN 90 DAYS OF RECEIPT OF CERTIFICATE OF OCCUPANCY.

PETER ALEX DREIER
ARCHITECT

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SPECIFICATIONS MECHANICAL

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PLUMBING SPECIFICATIONS

- THE CONTRACT DOCUMENTS CONSIST OF THE DRAWINGS, (ARCHITECTURAL, CIVIL, MECHANICAL, ELECTRICAL, PLUMBING) SPECIFICATIONS, OWNER CONTRACTOR AGREEMENTS, AND ALL ADDENDA ISSUED PRIOR TO AND ALL PLAN CHANGES ISSUED AFTER EXECUTION TO THE CONTRACT.
- THE PROJECT SHALL BE CONSTRUCTED IN FULL COMPLIANCE WITH ALL LAWS AND ORDINANCES INSTALLATION SHALL BE IN COMPLIANCE WITH THE ILLINOIS PLUMBING CODE AND ALL LOCAL AMENDMENTS OF CITY OF CHICAGO. IN THE EVENT OF A CONFLICT BETWEEN THESE SPECIFICATIONS AND A LEGALLY VALID LAW, ORDINANCE OR CODE REQUIREMENT, THE ORDINANCE OR CODE REQUIREMENT SHALL GOVERN.
- UNLESS OTHERWISE INDICATED IN THE CONSTRUCTION DOCUMENTS AS BEING NOT IN CONTRACT (N.I.C.) OR EXISTING, ALL ITEMS, MATERIALS AND INSTALLATION OF SAME ARE A PART OF THE CONTRACT DEFINED BY THE DOCUMENTS. THE CONTRACTOR SHALL PROVIDE AND INSTALL ALL ACCESSORIES, COMPONENTS AND ASSEMBLIES REQUIRED FOR THE WORK SHOWN.
- THE CONTRACTOR ACKNOWLEDGES BY SUBMITTING HIS BID THAT HE HAS REVIEWED THE DOCUMENTS AND THAT THE INFORMATION SHOWN AND DESCRIBED IS SUFFICIENT TO ENABLE HIM TO PREPARE A COMPLETE AND ACCURATE BID FOR A COMPLETE, FINISHED PROJECT READY FOR OCCUPANCY. ANY CLARIFICATIONS, DISCREPANCIES OR UNUSUAL CONDITIONS ARE TO BE BROUGHT TO THE ARCHITECT'S ATTENTION, FOR RESOLUTION IN WRITING, PRIOR TO SUBMITTING BIDS.
- WORK REQUIRED OF ANY TRADE MAY BE SHOWN ANYWHERE ON ANY DRAWING OR IN ANY PART OF THE SPECIFICATIONS. THE CONTRACTOR IS ADVISED TO INCLUDE ALL WORK IN HIS BID. NO CLAIM FOR AN EXTRA WILL BE CONSIDERED FOR FAILURE TO DO SO.
- 6. ALL COSTS FOR INSPECTIONS, TESTS, AND UTILITY CONNECTION FEES SHALL BE BORNE BY THE CONTRACTOR UNLESS OTHERWISE STATED. CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL REQUIRED INSPECTIONS AND APPROVALS FOR HIS WORK.
- IN THE EVENT OF DISCREPANCIES BETWEEN ANY DRAWINGS AND/OR SPECIFICATIONS, THE COSTLIER OR MORE RESTRICTIVE CONDITION SHALL BE DEEMED THE CONTRACT REQUIREMENT UNLESS OTHERWISE STATED IN WRITING FROM THE OWNER.
- 8. ALL PIPING IS SHOWN DIAGRAMMATICALLY AND DOES NOT SHOW ALL OFFSETS, DROPS AND RISES OR RUNS. THE CONTRACTOR SHALL ALLOW IN HIS BID FOR ROUTING OF PIPING TO AVOID OBSTRUCTIONS.
- 9. INSTALL ALL EQUIPMENT AND MATERIAL IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND RECOMMENDATIONS.
- 10. PROVIDE GALVANIC PROTECTION BETWEEN DISSIMILAR MATERIALS.
- II. KEEP ALL PIPING AS CLOSE TO WALL AND CEILINGS AS POSSIBLE
- 12. ALL LABOR AND MATERIALS FOR ROUGH-IN AND FINAL CONNECTIONS TO EQUIPMENT TO BE COMPLETED BY PLUMBING CONTRACTOR.
- 13. ALL PLUMBING WATER CONNECTIONS TO BE PROVIDED BY CONTRACTOR WITH SHUT-OFF VALVES. PLUMBING CONTRACTOR SHALL PROVIDE ANY ADDITIONAL CLEANOUTS, VENTS OR FLOOR DRAINS WHERE REQUIRED BY CODE, AND SHALL INCLUDE THEM IN HIS ORIGINAL QUOTATION.
- 14. ALL ROOMS CONTAINING PLUMBING FIXTURES SHALL HAVE INDEPENDENT WATER SHUT-OFF VALVES FOR ISOLATION OF RESPECTIVE ROOM. BACK-TO-BACK PLUMBING FIXTURES LOCATED IN ADJACENT ROOMS MAY SHARE SHUT-OFF VALVES.

- 15. ALL PLUMBING PIPING INSTALLED IN EXTERIOR WALLS MUST BE INSTALLED ON INTERIOR SIDE OF WALL
- I 6. ALL UNDERGROUND SANITARY PIPING ROUTED PARALLEL TO FOUNDATION WALLS MUST BE MINIMUM 3 FEET FROM FOUNDATION WALL.
- 17. DO NOT ROUTE PLUMBING PIPING ABOVE ELECTRICAL GEAR OR ELECTRICAL WORK CLEARANCE AREAS.
- 18. CLEANOUTS:
 - A. INSTALL SANITARY AND STORM PIPE CLEANOUTS WITHIN BUILDING NOT MORE THAN 50 FEET APART IN HORIZONTAL LINES OF 4 INCHES AND LESS AND NOT MORE THAN 100 FEET APART FOR LINES GREATER THAN 4 INCHES AND LESS THAN 10 INCHES.
 - B. PROVIDE COVER PLATES OR ACCESS DOORS FOR CONCEALED CLEANOUT
- C. PROVIDE FULL SIZE CLEANOUT WITHIN 5 FEET OF BUILDING FOUNDATION. D. PROVIDE CLEANOUTS NO GREATER THAN 48. ABOVE BASE OF EACH VERTICAL STACK.
- E. ALL CLEANOUTS TO HAVE 18 INCHES OF CLEARANCE. F. PROVIDE CLEANOUTS AT ALL CHANGE OF DIRECTION GREATER THAN 60
- 19. PLUMBING CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING ALL INVERT ELEVATIONS
- 20. INSTALL BACKWATER VALVE IN BUILDING DRAIN OR HORIZONTAL BRANCH SERVING FIXTURES INSTALLED BELOW NEXT UPSTREAM MANHOLE COVER IN THE PUBLIC SEWER.
- 21. SANITARY SYSTEM SHALL CONTAIN NO DEAD ENDS EXCEPT WHERE NECESSARY TO EXTEND THE SYSTEM TO INSTALL A CLEANOUT IN AN ACCESSIBLE LOCATION.
- 22. VERIFY REQUIRED EQUIPMENT VOLTAGE WITH ELECTRICAL CONTRACTOR PRIOR TO ORDERING ANY EQUIPMENT.
- 23. WATER HEATING EQUIPMENT NOT SUPPLIED WITH INTEGRAL HEAT TRAPS AND SERVING NONCIRCULATING SYSTEMS SHALL BE PROVIDED WITH HEAT TRAPS ON THE SUPPLY AND DISCHARGE PIPING ASSOCIATED
- 24. ALL NEW AND/OR REPLACED WATER HEATERS SHALL HAVE FLOOR DRAIN INSTALLED NEXT TO WATER HEATER FOR TANK DRAIN AND T&P DISCHARGE.
- 25. PROVIDE FIRESTOPPING AROUND ALL WALL AND FLOOR PENETRATIONS TO MAINTAIN RATINGS OF WALLS AND FLOORS. SEE ARCHITECTURAL PLANS FOR WALL AND FLOOR RATINGS. PENETRATIONS THROUGH FLOORS SHALL BE CAULKED AND SEALED AIR AND WATER TIGHT PREVENTING PASSAGE OF SMOKE AND
- 26. PROVIDE I 2" (MINIMUM) LONG AIR CHAMBERS ON ALL WATER SUPPLY LINES TO FIXTURES AND EQUIPMENT PROVIDE WATER HAMMER ARRESTORS AT ALL FIXTURES WITH QUICK-CLOSING VALVES/FAUCETS.
- 27. PROVIDE AIR GAPS FOR INDIRECT DRAINS WHERE REQUIRED BY CODE. AIR GAP SHALL BE TWO (2) TIMES THE DIAMETER OF THE INDIRECT DRAIN.
- 28. MAXIMUM DEVELOPED LENGTH OF ANY INDIRECT SANITARY WASTE SHALL NOT EXCEED 5 FEET. INDIRECT

- WASTE LINES SHALL BE SAME SIZE AS FIXTURE OUTLET AND AT LEAST 3/4 INCH. ALL INDIRECT WASTE PIPING EXCEEDING 30 INCHES IN DEVELOPED LENGTH MEASURED HORIZONTALLY OR 54 INCHES IN TOTAL DEVELOPED LENGTH SHALL BE TRAPPED.
- 29. PROVIDE VALVE STEM EXTENSIONS FOR ALL INSULATED WATER SUPPLY PIPING.
- 30. PROVIDE GROUTING/CAULKING WHERE FIXTURES MEET WALLS, FLOORS, COUNTERTOPS, ETC.
- 31. ALL PIPING EXPOSED TO VIEW IN FINISHED AREAS SHALL BE CHROME PLATED.

FIXTURE SCHEDULE.

- 32. PROVIDE LEAD ROOF FLASHING ON ALL VENT STACKS PENETRATING THROUGH THE ROOF (EXCEPT RUBBER ROOFS). PROVIDE INCREASER FITTINGS.
- 33. PLUMBING CONTRACTOR SHALL PROVIDE NECESSARY HANGERS AND SUPPORTS TO PROVIDE FOR PROPER PITCHES, EXPANSION, MOVEMENT, ETC. AS REQUIRED. CONTRACTOR SHALL PREVENT PASSAGE OF RODENTS, INSECTS, MOISTURE AND SOUND.
- 34. FURNISH AND INSTALL PLUMBING FIXTURES AS INDICATED ON DRAWINGS AND AS LISTED IN PLUMBING
- 35. THE DRAWINGS SHALL BE TAKEN IN A SENSE AS DIAGRAMMATIC. SIZES AND MEANS OF RUNNING PIPING ARE SHOWN, BUT IT IS NOT INTENDED TO SHOW EVERY FITTING AND OFFSET, NOR EVERY STRUCTURAL DIFFICULTY TO BE ENCOUNTERED DURING THE INSTALLATION OF THE WORK.
- 36. FLUSHING/DISINFECTION OF POTABLE WATER SYSTEM: NEW OR REPAIRED POTABLE WATER SYSTEMS SHALL BE DISINFECTED PER ILLINOIS PLUMBING CODE PRIOR TO USE OR AS OTHERWISE DIRECTED BY
- AUTHORITY HAVING JURISDICTION. 37. PERFORM TESTS PER THE INTERNATIONAL PLUMBING CODE OR AS OTHERWISE DIRECTED BY THE LOCAL
- 38. MANUALS: DOCUMENTS DESCRIBED BELOW SHALL BE PROVIDED TO THE BUILDING OWNER WITHIN 90 DAYS OF THE DATE OF RECEIPT OF THE CERTIFICATE OF OCCUPANCY:
 - A. SUBMITTAL DATA STATING EQUIPMENT SIZE AND SELECTED OPTIONS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE
 - B. MANUFACTURER'S OPERATION MANUALS AND MAINTENANCE MANUALS FOR EACH PIECE OF EQUIPMENT REQUIRING MAINTENANCE, EXCEPT EQUIPMENT NOT FURNISHED AS PART OF THE PROJECT. REQUIRED ROUTINE MAINTENANCE ACTIONS SHALL BE CLEARLY IDENTIFIED.
 - C. NAME AND ADDRESS OF AT LEAST ONE SERVICE AGENCY. D. A NARRATIVE OF HOW EACH SYSTEM IS INTENDED TO OPERATE, INCLUDING RECOMMENDED

PLUMBING ABBREVIATIONS

NOTE: NOT ALL ABBREVIATIONS SHOWN MAY

	BE REQUIRED FOR THIS PROJ	ECT.	
AC	ABOVE CEILING	INV.	INVERT ELEVATION
ARP	ACID RESISTANT PIPE	KC	KITCHEN CONTRACTOR
BV	BALL VALVE	LT	LAUNDRY TUB
ВВА	BETWEEN BEAMS ABOVE	MS	MOP SINK
ВЈА	BETWEEN JOISTS ABOVE	PRV	PRESSURE RELIEF VALVE
BFP	BACKFLOW PREVENTER	PS PS	PIPE SLEEVE
BF	BALANCING FITTING	RCP	RECIRCULATION PUMP
BWV	BACKWATER VALVE	SAN/SA	SANITARY
СВ	CATCH BASIN	SP	STORM SUMP PUMP
Cl	CAST IRON	SH	SHOWER
CK	CHECK VALVE	SK	SINK
СО	CLEANOUT	55	SERVICE SINK
CW	DOMESTIC COLD WATER	TD	TRENCH DRAIN
DF	DRINKING FOUNTAIN	TFA	TO FLOOR ABOVE
DN	DOWN	TFB	TO FLOOR BELOW
DS	DOWNSPOUT	TMV	THERMOSTATIC MIXING VALVE
DSC	DOWNSPOUT CONNECTOR	REF	REFRIGERATOR
DSO	DOWNSPOUT OUTLET	UR	URINAL
DT	DRAIN TILE	V	VENT
DW	DISHWASHER	VB	VACUUM BREAKER
EWC	ELECTRIC WATER COOLER	VTR	VENT THROUGH ROOF
EX	EXISTING	W	WASTE
FCO	FLOOR CLEANOUT	WB	WASHER WALL BOX
FD	FLOOR DRAIN	WC	WATER CLOSET
FFD	EDOM FLOOD RELOW	WCO	WALL CLEANOUT

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GENERAL NOTES - ALL CONTRACTORS

- DRAWINGS ARE GENERALLY DIAGRAMMATIC. ROUTING OF PIPING, DUCTWORK, CONDUITS RACEWAYS, ETC. AS SHOWN ON DRAWINGS, DOES NOT INTEND TO SHOW EVERY RISE, DROP, OFFSET. FITTING NOR EVERY STRUCTURAL ELEMENT THAT MAY BE ENCOUNTERED DURING THE INSTALLATION OF THIS WORK. EACH CONTRACTOR SHALL MAKE ANY REQUIRED CHANGES FROM THE GENERAL ROUTING SHOWN ON THESE DRAWINGS, SUCH AS OFFSETS BENDS OR CHANGES IN ELEVATION DUE TO COORDINATION WITH THE WORK OF OTHER TRADES AND BUILDING CONSTRUCTION. ALL CHANGES SHALL BE MADE WITHOUT ADDITIONAL
- IT IS INTENDED THAT EQUIPMENT SHALL BE LOCATED SYMMETRICALLY WITH THE ARCHITECTURAL ELEMENTS OF THE BUILDING, NOTWITHSTANDING THE FACT THA LOCATIONS INDICATED BY THESE DRAWINGS MAY BE DISTORTED FOR CLEARNESS OF
- CONTRACTOR SHALL CHECK DRAWINGS OF OTHER TRADES TO VERIFY THAT SPACES IN WHICH THEIR WORK WILL BE INSTALLED ARE CLEAR OF OBSTRUCTIONS. WORK SHALL BE INSTALLED TO MAINTAIN MAXIMUM HEADROOM AND SPACE CONDITION AT ALL POINTS IN THE BUILDING. WHERE HEADROOM OR SPACE CONDITIONS APPEAR INADEQUATE, CONTRACTOR SHALL NOTIFY ARCHITECT/ENGINEER BEFORE PROCEEDING WITH THE INSTALLATION OF THEIR WORK.
- CONTRACTOR SHALL FURNISH OTHER TRADES ADVANCE INFORMATION AND/OR SHOP DRAWINGS ON LOCATIONS AND SIZES OF PIPING, DUCTWORK, CONDUIT, RACEWAYS, EQUIPMENT, FRAMES, BOXES, SLEEVES AND OPENINGS, ETC. NEEDED FOR THEIR WORK TO PERMIT OTHER TRADES AFFECTED TO INSTALL THEIR WORK PROPERLY AND WITHOUT DELAY.
- WHERE THERE IS EVIDENCE THAT WORK OF ONE TRADE WILL INTERFERE WITH WORK OF OTHER TRADES, ALL TRADES SHALL MEET ON JOB SITE TO WORK OUT SPACE CONDITIONS AND MAKE SATISFACTORY ADJUSTMENTS TO INSTALLATION OF THE NEW WORK. CONTRACTORS SHALL VERIFY EXACT LOCATIONS OF ALL DEVICES AND EQUIPMENT WITH FIFID CONDITIONS. SHOP DRAWINGS. AND WORK OF OTHER TRADES PRIOR TO ROUGH-IN. EACH CONTRACTOR SHALL BE RESPONSIBLE, AT THEIR OWN EXPENSE, FOR THE REMOVAL AND REINSTALLATION OF ANY PART OF THEIR WORK IF SAME WAS INSTALLED WITHOUT CONSULTING WITH OTHER TRADES BEFORE INSTALLING THEIR WORK.
- THE SEQUENCE FOR THE INSTALLATION OF ALL WORK SHALL BE COORDINATED BETWEEN ALL CONTRACTORS ON THE PROJECT AND IN STRICT ACCORDANCE WITH ARCHITECT/ ENGINEER AND OWNERS STIPULATION AS CALLED FOR IN THE SPECIFICATION AND/OR
- CONTRACTOR SHALL REFER TO THE ARCHITECTURAL AND STRUCTURAL CONTRACT DRAWINGS (BEFORE SUBMITTING THEIR BIDS) TO FAMILIARIZE THEMSELVES WITH THE EXTENT OF THE GENERAL CONTRACTORS WORK, CEILING HEIGHTS AND CLEARANCE FOR INSTALLING THEIR WORK.

- 8. CONTRACTOR SHALL BE RESPONSIBLE FOR THEIR OWN CLEAN-UP DURING CONSTRUCTION. IF CONTRACTOR FAILS TO PROVIDE SUCH CLEAN-UP. THE ARCHITECT/ENGINEER WILL DIRECT ANOTHER CONTRACTOR TO PERFORM THE CLEAN-UP AND THE NEGLIGENT CONTRACTOR SHALL PAY THE ASSOCIATED BACK-CHARGES AS DEEMED APPROPRIATE BY THE ARCHITECT/
- 9. CONTRACTOR SHALL INSTALL ALL AUXILIARY SUPPORTING STEEL AS REQUIRED FOR THE SUPPORTING OF THEIR PIPING, DUCTWORK, CONDUIT, TANKS, EQUIPMENT, ETC SUPPORTING STEEL FOR ITEMS ABOVE A SUSPENDED CEILING SHALL BE FROM BUILDING STRUCTURAL MEMBERS ONLY.
- 10. CONTRACTOR SHALL STORE ALL MATERIALS AND EQUIPMENT SHIPPED TO THE SITE IN A PROTECTED AREA. IF MATERIAL IS STORED OUTSIDE OF THE BUILDING, IT MUST BE STORED OFF THE GROUND A MINIMUM OF SIX INCHES (6") SET ON 6 X 6 PLANKS AND/ OR WOOD PALLETS. ALL MATERIAL AND EQUIPMENT MUST BE COMPLETELY COVERED WITH WATERPROOF TARPS OR VISQUIN. ALL PIPING AND DUCTWORK WILL HAVE THE ENDS CLOSED TO KEEP OUT DIRT AND OTHER DEBRIS. NO EQUIPMENT WILL BE ALLOWED TO BF STORED ON THE SITE UNLESS IT IS SITTING ON WOOD PLANKS AND COMPLETELY PROTECTED WITH WEATHERPROOF COVERS.
- II. THE DRAWINGS, SCHEDULES AND SPECIFICATIONS HAVE BEEN PREPARED USING ONE MANUFACTURER FOR EACH PIECE OF EQUIPMENT AS THE BASIS FOR DIMENSIONAL DESIGN. IF THE CONTRACTOR PURCHASES EQUIPMENT LISTED AS A SPECIFIED ACCEPTABLE MANUFACTURER BUT IS NOT THE SCHEDULED MANUFACTURER USED FOR THE BASE DESIGN, THE CONTRACTOR SHALL BE RESPONSIBLE FOR CHECKING ALL THE DIMENSIONS OF THE EQUIPMENT TO VERIFY THAT IT WILL FIT IN THE SPACE SHOWN ON THE DRAWINGS. MINOR DEVIATIONS IN DIMENSIONS WILL BE PERMITTED, PROVIDED THE RATINGS MEET THOSE SHOWN ON THE DRAWINGS AND EQUIPMENT WILL PHYSICALLY FIT INTO THE SPACE ALLOCATED WITH SUITABLE ACCESS AROUND EQUIPMENT FOR OPERATION AND MAINTENANCE ON THE EQUIPMENT.
- 12. CONTRACTOR AND/OR MANUFACTURER SHALL VERIFY THAT THE CHARACTERISTICS OF THE EQUIPMENT HE SUBMITS FOR REVIEW MEETS THE CAPACITY AND DUTY SPECIFIED.
- 13. WHEN EQUIPMENT IS SUBMITTED FOR REVIEW AND DOES NOT MEET THE PHYSICAL SIZE OR ARRANGEMENT OF THAT SCHEDULED AND SPECIFIED, CONTRACTOR SHALL PAY FOR ALL ALTERATIONS REQUIRED TO ACCOMMODATE SUCH EQUIPMENT AT NO ADDITIONAL COST TO OWNER. CONTRACTOR WILL ALSO PAY ALL COSTS FOR ADDITIONAL WORK REQUIRED BY OTHER CONTRACTORS, OWNER, ARCHITECT OR ENGINEER TO MAKE CHANGES WHICH WOULD ALLOW THE EQUIPMENT TO FIT IN THE SPACE AND FUNCTION AS INTENDED.

GENERAL NOTES - PLUMBING

- ALL WATER SUPPLY PIPING SHALL BE INSULATED, INCLUDING ALL PIPING WITHIN CEILINGS, INSIDE EQUIPMENT, CABINETS, PIPE CHASES AND IN WALLS. SEE SPECIFICATIONS FOR TYPE AND THICKNESS OF INSULATION.
- PITCH ALL SUPPLY WATER LINES TO DRAIN COMPLETELY THROUGH LOWER EQUIPMENT FIXTURES, UNIONS, OR DRAIN VALVES. INSTALL A 1/2" DRAIN VALVE WITH 3/4" HOSE THREAD AND VACUUM BREAKER OUTLET IN ALL MAIN PIPING RUNS WHICH WOULD NOT
- ALL VENT AND WASTE PIPING SIZES ARE MINIMUM. ADDITIONAL VENTS SHALL BE ADDED AND/OR PIPE SIZE INCREASED AS REQUIRED BY APPLICABLE CODES, STATUTES AND REGULATIONS, ETC. WITHOUT ADDITIONAL COST TO THE OWNER.
- PROVIDE ACCESS PANELS AT ALL CLEANOUTS AND VALVES LOCATED IN WALLS OR CEILINGS WHICH ARE INACCESSIBLE. COORDINATE LOCATIONS AND TYPES WITH ARCHITECT.
- DOMESTIC WATER PIPING: ASTM B88 HARD DRAWN, TYPE-L, COPPER WITH SOLDER JOINT WROUGHT COPPER FITTINGS; OPTION TO USE CLASS 52 DUCTILE IRON FOR UNDERGROUND WATER SUPPLY MAIN. SANITARY AND SANITARY VENT PIPING: ASTM A74. SERVICE WEIGHT CAST IRON WITH HUB AND SPIGOT COMPRESSION JOINING; OPTION FOR NO-HUB MECHANICAL CLAMP JOINT SHALL BE AVAILABLE FOR ABOVE GROUND APPLICATIONS.

CONTRACTOR NOTES

- CONTRACTOR SHALL BE RESPONSIBLE FOR PROPER SIZE AND LOCATION OF ANCHORS, CHASES, OPENINGS, ETC. REQUIRED FOR INSTALLATION OF THEIR WORK. FIELD MEASURE ALL DIMENSIONS PRIOR TO PERFORMING WORK.
- ALL EQUIPMENT AND MATERIALS SHALL BE INSTALLED TO PROVIDE REQUIRED ACCESS FOR SERVICING AND MAINTENANCE.
- PROVIDE MANUFACTURER'S RECOMMENDED AND CODE REQUIRED CLEARANCE FOR ALL EQUIPMENT. PROVIDE AND INSTALL ALL PIPE SLEEVES. SLEEVES SHALL BE OF SIMILAR MATERIAL TO
- PIPING. ALL SLEEVES SHALL BE MINIMUM OF 1.5 TIMES THE SIZE OF PIPING. APPLIANCES, MECHANICAL EQUIPMENT, ETC. SERVING DIFFERENT AREAS (OR TENANT

SPACES) SHALL BE PERMANENTLY MARKED IN AN APPROVED MANNER THAT UNIQUELY

MANUFACTURER'S INSTALLATION INSTRUCTIONS FOR ALL APPLIANCES OR EQUIPMENT SHALL BE AVAILABLE TO BUILDING DEPARTMENT INSPECTORS AT THE TIMES OF INSPECTIONS. LISTING AND LABELING SHALL ALSO BE AVAILABLE.

IDENTIFIES THE APPLIANCE AND THE AREA/TENANT SPACE IT SERVES.

- PRIOR TO INSTALLATION OF ALL EQUIPMENT, PIPING, INSULATION, SUPPORTS, ETC. CONTRACTOR TO COORDINATE WITH ALL TRADES. CONTRACTOR IS REQUIRED TO PROVIDE ALL REQUIRED OFFSETS AND EQUIPMENT RELOCATION DUE TO FIELD
- 8. ALL PLUMBING EQUIPMENT AND PIPING SHALL BE LABELED PER LOCAL CODES.

CONDITIONS AT NO ADDITIONAL EXPENSE TO CONTRACT.

- 9. ALL P-TRAPS THAT ARE NOT INTEGRAL SHALL BE ACCESSIBLE FOR CLEANING. PROVIDE MINIMUM 12"x12" ACCESS PANEL IF REQUIRED.
- IO. CONTRACTOR SHALL NOT INTERRUPT ANY DEVICES OR SYSTEMS OUTSIDE AREA OF SCOPE WITHOUT THE EXPRESS CONSENT OF THE OWNER.
- CONTRACTOR SHALL PROVIDE AND INSTALL ADHESIVE IDENTIFICATION MARKERS ON ALL PIPES AT 50'-0" INTERVALS AND AT ALL VALVES AND BRANCHES AND ON BOTH SIDES OF WALLS WHERE PIPES PASS THROUGH SAME. ARROWS OF SAME COLOR AS IDENTIFICATION MARKERS SHALL BE PLACED ON PIPES POINTING AWAY FROM MARKER INDICATING DIRECTION OF FLOW.
- CONTRACTOR SHALL PROVIDE AND INSTALL I" BLACK PLASTIC ID PLATES WITH WHITE ENGRAVED LETTERS ON ALL EQUIPMENT.

PLUMBING DRAWING NOTES

FFB

FROM FLOOR BELOW

FLOOR SINK

GREASE TRAP

GV GATE VALVE

GW GREASE WASTE

- . ALL UNDERGROUND OR UNDER BASEMENT/CELLAR SANITARY AND STORM PIPING SHALL BE NO LESS THAN 4" IN DIAMETER.
- 2. CONTRACTOR SHALL PROVIDE AN ELEVATED VACUUM BREAKER FOR ALL PLUMBING FIXTURES WITH SUBMERGED INLET OR HOSE END.
- . CONTRACTOR SHALL PROVIDE CLEANOUTS IN SANITARY PIPING AT A MAXIMUM OF 50'-0" APART FOR ALL STRAIGHT PIPE RUNS, AT EVERY CHANGE OF DIRECTION, AT THE BEGINING OF THE SYSTEM, AND WITHIN 5'-O" OF EXITING THE BUILDING. THERE SHOULD BE NO LENGTH OF SANITARY PIPE MORE THAN 50'-0" WITHOUT A CLEANOUT.
- 4. USE THE FOLLOWING CLEANOUTS FOR THE APPLICATIONS DESCRIBED BELOW (OR
- FINISHED FLOORS ZURN MODEL ZN-1420-2

APPROVED EQUAL):

- MECHANICAL AREAS ZURN MODEL Z-1420-25
- WALLS ZURN MODEL ZN-1445-3 EXTERIOR - ZURN MODEL ZN-1460-15 W/Z-1450-8
- 5. ALL PIPING CONTAINING DOMESTIC SUPPLY. OR SANITARY WATER MUST BE WITHIN HEATED SPACE AND/OR WITHIN INSULATED WALLS/CEILINGS.
- 6. SEE PIPING DIAGRAM FOR WATER HEATER CONFIGURATION.
- 7. CONTRACTOR SHALL PROVIDE UNIT HW/CW SHUT-OFF FOR WATER HEATER.
- 8. CONTRACTOR SHALL LOCATE ALL FLOOR DRAINS IN MECHANICAL CLOSET SO NO FLOOR DRAIN IS DIRECTLY UNDER ANY MECHANICAL EQUIPMENT.
- 9. PROVIDE REDUCED BACKFLOW PREVENTER FOR ALL PLUMBING FIXTURES WHERE DOMESTIC WATER SUPPLY OPENING CAN BE EXPOSED TO WASTE, SOLIDS, OR CONTAMINANTS OF ANY KIND. COMPLY WITH ASSE STANDARD 1013.

PLUMBING SYMBOLS

NOTE: NOT ALL SYMBOLS SHOWN MAY BE REQUIRED FOR THIS PROJECT

WCO WALL CLEANOUT

YCO YARD CLEANOUT

YD.H YARD HYDRANT

WALL HYDRANT

WATER THERMOMETER

5A	UNDERGROUND SANITARY DRA
 GW 	UNDERGROUND GREASE WAST
V	SUSPENDED VENT PIPING
D	DRAIN LINE
	DIRECTION OF FLOW
PITCH	PITCH OF PIPE (DOWN)
—-—- -	PIPE ELBOW (TURNED UP)

PIPE ELBOW (TURNED DOWN)

 \square PLUMBING STACK No. - RISER DIAGRAM TAG RISER DIAGRAM DRAWING No.

NEW CONNECTION



ISSUED FOR PERMIT 11/13/23

400 S. Conkling Street Baltimore City, MD.

NOTES, SYMBOLS \$ ABBREVIATIONS PLUMBING

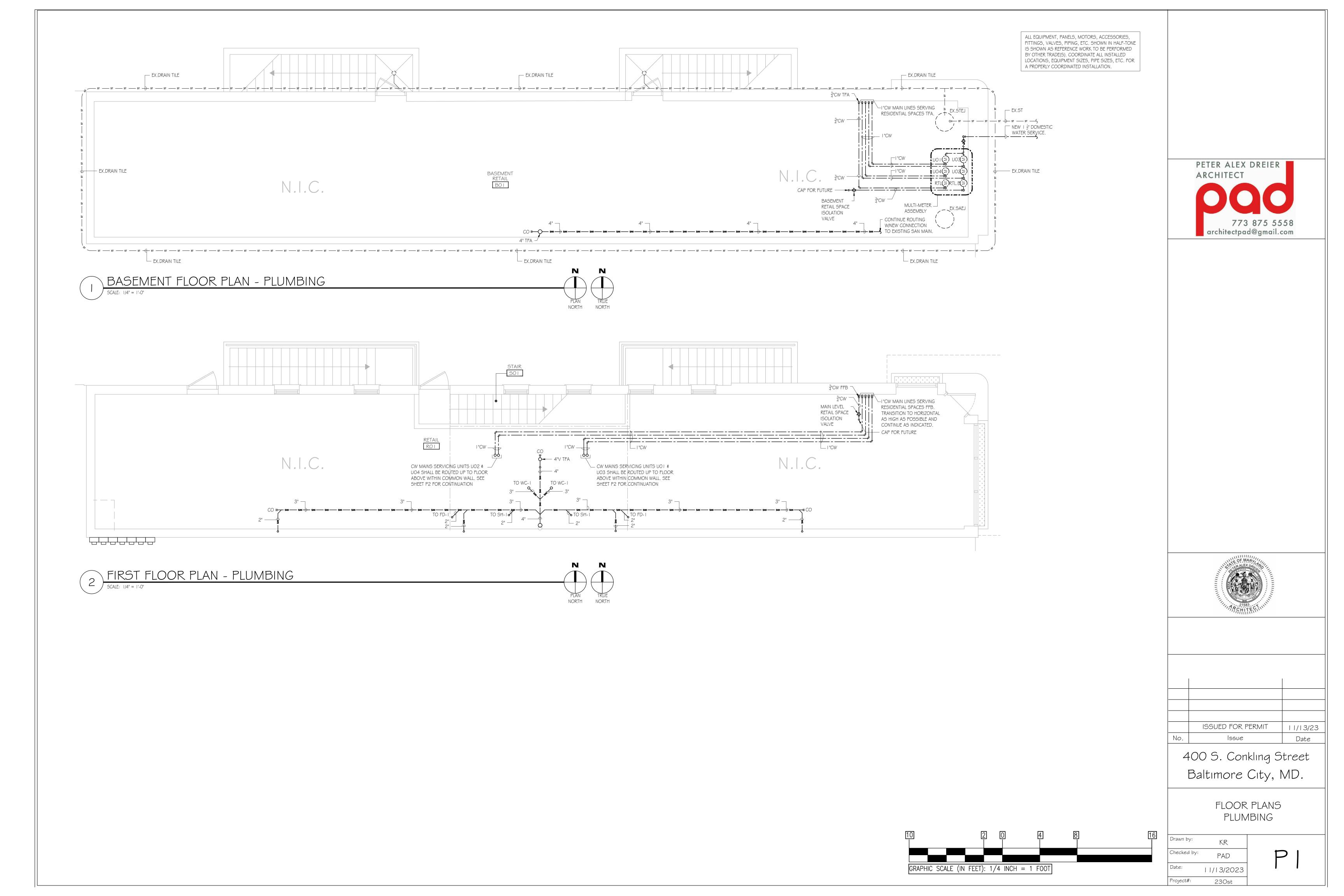
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Checked by:	PAD
Date:	11/13/2023
Project#:	230st

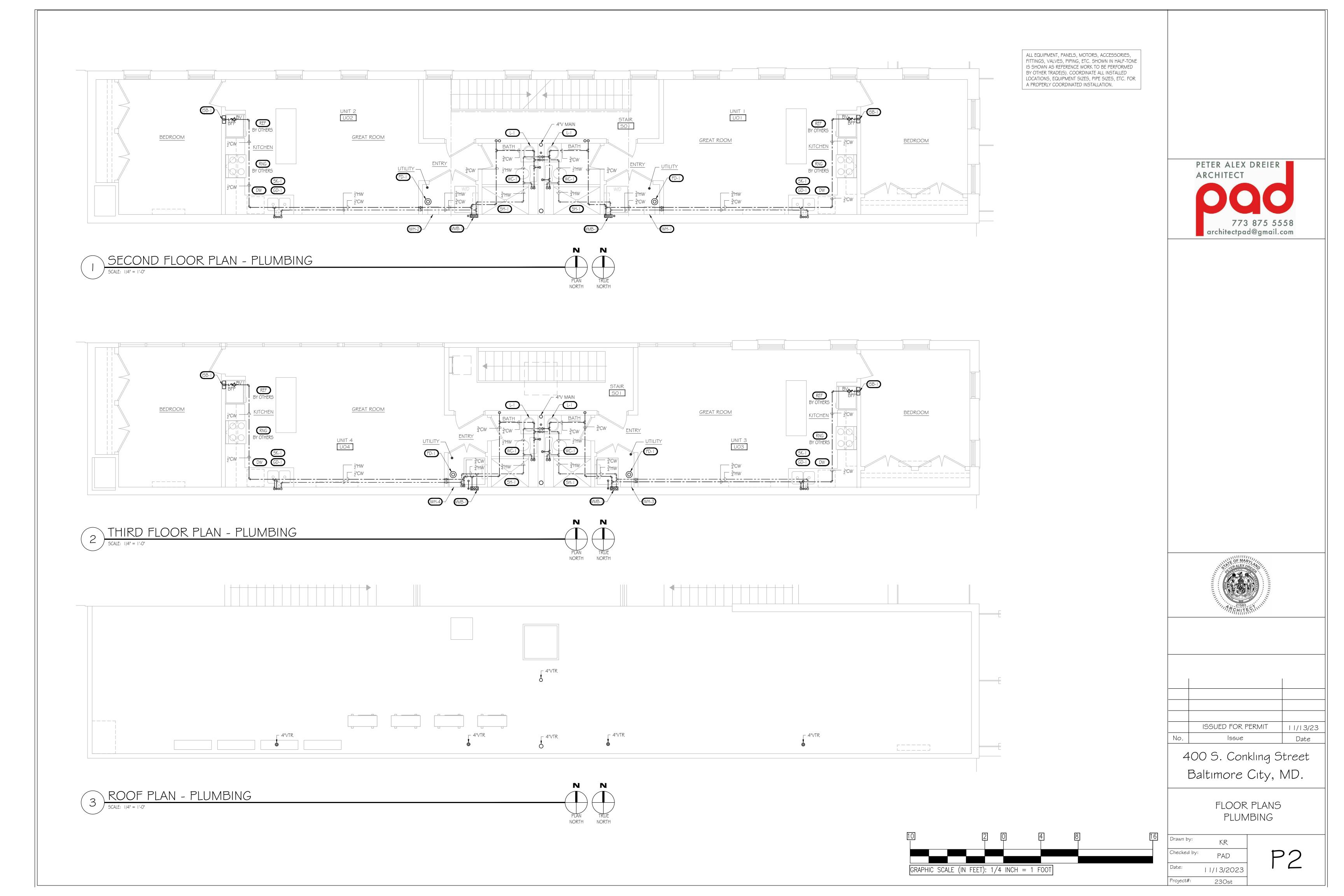
DRAIN	AGE AN	D VENT	PIPING/T	UBING MAT	TERIAL
MATERIAL	PERMITTED	NOT PERMITTED	STANDARDS	PIPE FITTING STANDARDS	REMARKS
DMV COPPER	-	NO	-	-	NO INDOOR USE. NO UNDERGROUND USE.
PVC PLASTIC PIPE	-	NO	-	-	NO UNDERGROUND USE
BRASS	YES	-	ASTMB43	-	INDOOR USE ONLY . NO UNDERGROUND USE.
COPPER	YES	-	ASTMB42; ASTMB302	ASMEB16.15; ASMEB16.18 ASMEB16.22; ASMEB16.23 ASMEB16.26; ASMEB16.29	INDOOR USE ONLY . NO UNDERGROUND USE.
COPPER TYPELORM	YES	-	ASTM75; ASTMB88; ASTMB251; ASTMB306	ASMEB16.15; ASMEB16.18 ASMEB16.22; ASMEB16.23 ASMEB16.26; ASMEB16.29	INDOOR USE ONLY . NO UNDERGROUND USE.
GALVANIZED STEEL	YES	-	ASTM A53	ASMEB16.19; ASMEB16.11; ASMEB16.28	INDOOR USE ONLY . NO UNDERGROUND USE.
COPPER TYPE K	YES	-	ASTMB75; ASTMB88; ASTMB251	ASMEB16.15; ASMEB16.18 ASMEB16.22; ASMEB16.23 ASMEB16.26; ASMEB16.29	INDOOR USE ONLY
CAST IRON FIPE HUBLESS	LEAD AND OAKUM JOINTS ONLY	-	ASTM A888 CISPI 301	ASTMA A888 CISPI 301	INDOOR USE ONLY . NO UNDERGROUND USE.

IOTE: CONTRACTOR RESPONSIBLE TO ASSURE THAT THE DESIGN CONFORMS TO ALL REQUIREMENTS OF IFGC 403.

HANGER SPACING								
PIPING MATERIAL	MAXIMUM HORIZONTAL SPACING	MAXIMUM VERTICAL SPACING						
BRASS PIPE	10'-0"	15'-0"						
CAST-IRON PIPE (LESS THAN 10'-0" SECTIONS)	5'-0"	15'-0"						
CAST-IRON RPE (10'-0" SECTIONS)	10'-0"	15'-0"						
COPPER AND COPPER ALLOY PIPE	12'-0"	10'-0"						
COFER AND COPFER ALLOY TUBING (1-1/4" AND SMALLER)	6'-0"	10'-0"						
PVCRPE	4'-0"	4'-0"						
ANY FIPING GREATER THAN 4" HANGERS SHALL BE PROVIDED AT								

ALL CHANGES IN DIRECTION.

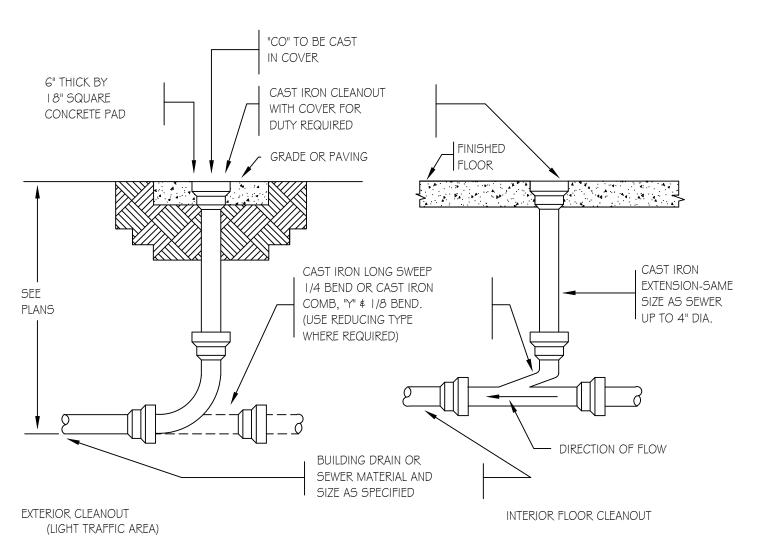


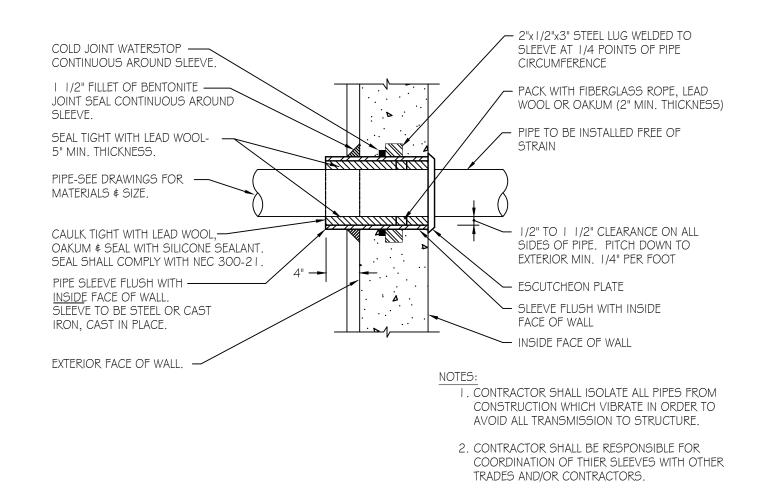


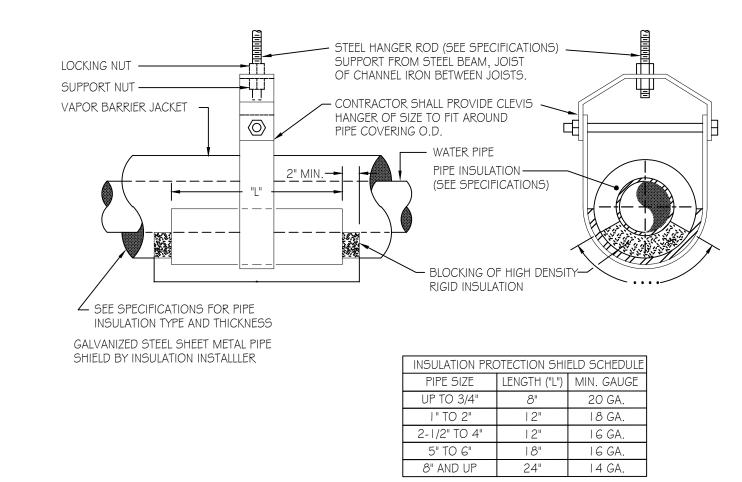
	PLUMBING FIXTURE SCHEDULE							
ITEM	ITEM DESCRIPTION MANUFACTURER WASTE VENT CW H		HW	SPECIFICATIONS AND REMARKS				
FD-I	FLOOR DRAIN	ZURN	2"	<u> </u>	-	-	#Z742, DURA-COATED CAST IRON BODY WITH INTEGRAL DOUBLE WALL TRAP AND SIDE OUTLET, WITH BALL FLOAT TYPE BACKWATER VALVE, INTERNAL BRONZE CLEANOUT AND LIGHT-DUTY LOOSE SLOTTED GRATE.	
GD-I	FOOD WASTE DISPOSERS	INSINKERATOR	12	-	-	-	••••••••••••••••••••••••••••••••••••••	
ISB-1	ICE MACHINE SUPPLY BOX	IPS CORP.	-	-	<u>l</u> 11 2	-	MODEL 88 33 ¼ TURN BALL VALVE, COPPER SWEAT, STANDARD PACK #38498, ADJUSTABLE METAL SUPPORT BRACKET, 2 PIECE.	
L-I	LAVATORY	AMERICAN STANDARD	 1	1 <u>1</u> "	<u>l</u> 2	<u>l</u> II 2	FAUCET: 4 INCH CENTERS, MODEL 7502.175 GOOSE NECK FAUCET 0.5 GPM WITH WRISTBLADE HANDLES AND GRID STRAINER ADA COMPLIANT, SUPPLY VALVES W/ LOOSE KEY HANDLE, ESCUTCHEONS, GRID STRAINER, P-TRAP, ALL EXPOSED TRIM BRIGHT CHROME PLATED, INSTALL WATTS	
SH-1	SHOWER	AMERICAN STANDARD	-	-	<u>І</u> л 2	<u>l</u> n 2	FIXTURE: *** CARTRIDGE; MODEL #TU722508 ESTATE BATH/SHOWER TRIM KIT WITH PRESSURE BALANCE CARTRIDGE LEVER HANDLE. WATER-SAVING SHOWERHEAD. LESS VALVE BODY; MODEL# RU I 0 I SS ROUGH VALVE BODY. UNIVERSAL* INLETS/OUTLETS WITH SCREWDRIVER STOPS; CERAMIC BALANCING SPOOL MAINTAINS CONSTANT OUTPUT TEMPERATURE IN RESPONSE TO CHANGES IN RELATIVE HOT AND COLD SUPPLY PRESSURE. WASHERLESS CERAMIC DISCS PROVIDE SMOOTH HANDLE MOVEMENT AND ARE UNAFFECTED BY HARSH WATER CONDITIONS; MEETS THE AMERICANS WITH DISABILITIES ACT GUIDELINES AND ICC ANSI A I I 7. I ACCESSIBLE AND USABLE BUILDINGS AND FACILITIES; DO NOT REMOVE WATERSENSE LABLE PRIOR TO PASSING FINAL INSPECTION AND HAVE FIXTURE CUT SHEET ONSITE FOR FINAL INSPECTION. BASIN: CUSTOM SIZED BASIN TO BE PROVIDED BY OTHERS.	
5K-1	TWO-COMPARTMENT SINK	AMERICAN STANDARD	¹ =	1 2 2	1 n 2	<u>l</u> n 2	FAUCET: *** *** *** *** *** *** *** *** *** *	
WC-1	WATER CLOSET	AMERICAN STANDARD	3"	2"	<u> </u> 1	-	CHINA, WHITE; HIGH EFFICIENCY TOILET (HET), ULTRA-LOW CONSUMPTION (4.8 LPF/I.28 GPF), UTILIZES 20% LESS WATER; MEETS MOLD, AND MILDEW ON THE SURFACE; 3" FLUSH VALVE; FULLY-GLAZED 2-1/8" TRAPWAY; 16-1/2" RIM HEIGHT FOR ACCESSIBLE APPLICATIONS; 12" (305MM) ROUGH-IN; CHROME FINISH TRIP LEVER IS SUPPLIED; 1,000G MAP SCORE** AT 1.28 GPF; MODEL# 4188A.154 TANK COMPLETE WITH AQUAGUARD LINE; ADA COMPLIANCE; DO NOT REMOVE WATERSENSE LABLE PRIOR TO PASSING FINAL INSPECTION AND HAVE FIXTURE CUT SHEET ONSITE FOR FINAL INSPECTION.	
WMB-1	WASHING MACHINE OUTLET BOX	IPS CORP.	1 <u>1</u> 1	<u> </u>	<u>1</u> ,,	<u>l</u> ıı 2	GUY GRAY B I 50 WITH CENTER DRAIN.	

	INSTANTANEOUS WATER HEATER SCHEDULE							
ITEM DESCRIPTION MANUFACTURER WASTE VENT CW HW SPECIFICATIONS AND REMARKS		SPECIFICATIONS AND REMARKS						
IWH- I IWH-2	-2 INSTANTANEOUS		RTG SERIES NON-CONDENSING TANKLESS GAS WATER HEATER MODEL# RTG-70DVLN-1; INDOOR, DIRECT VENT; MIN FLOW: 0.26 GPM; ACTIVATION FLOW = 0.40 GPM; 6.0GPM @ 60 DEG F RISE; 25-5/8"x13-7/8"x9-7/8"; 3 BY 5 CONCENTRIC VENT; VENT					
IWH-3 IWH-4	WATER HEATER	RHEEM	-	-	4	3 <u>3 </u> 4 4	I 20V/I PH/GOHZ, I 72 WATTS. ACCESSORIES: RTG20220 SERVICE VALVES; RTG2000GDW MAIN REMOTE CONTROL; RTG20210 HORIZ. ECONOMY VENT KIT.	

		Fixture	Fixture	Fixture	Total	Total	Total	Fixture	Total
Fixture	Quantity	Units	Units	Units	F.U.	F.U.	F.U.	Units	F.U.
		Cw	HW	CW#HW	Cw	Hw	C₩≢HW	Drainage	Drainag
Toilats FT (Privata)	4	3		5	12		20	4	16
Shower (Private)	4	1.5	1.5	2	G	G	5	2	5
Lavatory Sinks (Private)	4	0.75	0.75	1	3	3	4	1	4
Kitchen Sinks (Private)	4	1.5	1.5	2	G	G	5	2	5
Bathtub (Private)		1.5	1.5	2				2	
Mop Sınk		2.25	2.25	3				3	
Dishwashor	4	2.25	2.25	3	9	9	12	3	12
Clothes Washer (Private)	4	1.5	1.5	2	G	G	.5	3	12
Hose Bibb		1.5		2					
Floor drain 2"	4							3	12
Floor drain 4"								G	
Totals					42	30	GO		72
CW Supply Size (Flush Tank) 60 F.U. ~	70 F.U. = 35	5 GPM		Sanitary Si	e: 72 F.U.	– F.V.		
CW Service Size = 1-1/2"					Sanitary Sc	rvice Size =	= 4" Diamete	r Pipe	
HW Supply Size: N/A					Vent Stack	(Based on 4	4"5AN): 72 F	.U F.	ט.
response committee of the second seco					WEST TOTAL				orac 6

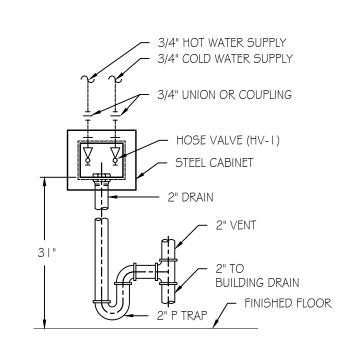




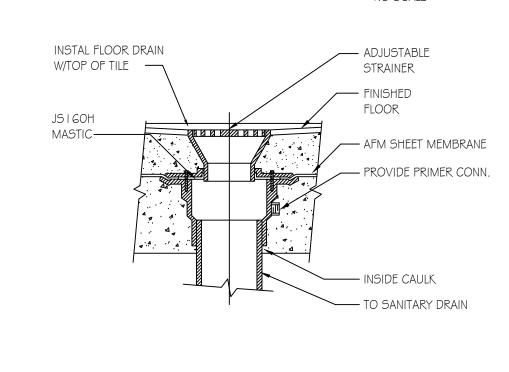


SANITARY CLEANOUT DETAIL NO SCALE

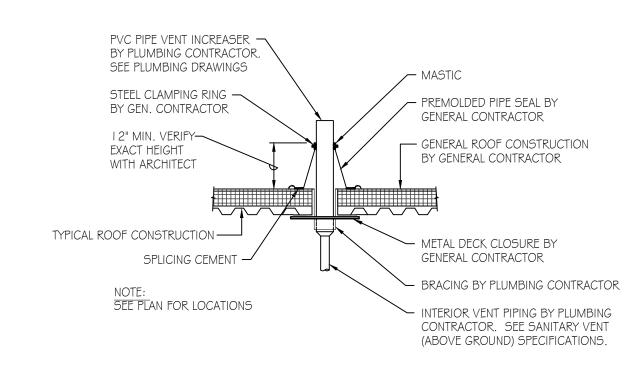
UNDERGROUND PIPE SLEEVE THRU FOUNDATION WALL NO SCALE



RECESSED WASHING MACHINE CONNECTION DETAIL

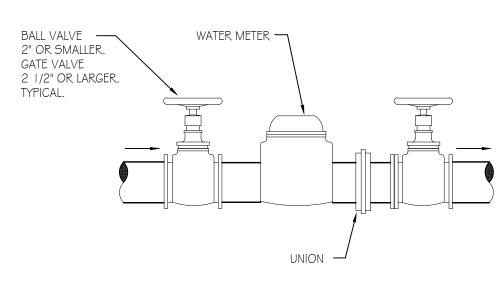


FLOOR DRAIN DETAIL NO SCALE



PLUMBING VENT THROUGH ROOF (VTR) DETAIL NO SCALE

PIPE COVERING PROTECTION SHIELDS AND CLEVIS HANGER DETAIL NO SCALE



DOMESTIC WATER SERVICE DETAIL NO SCALE

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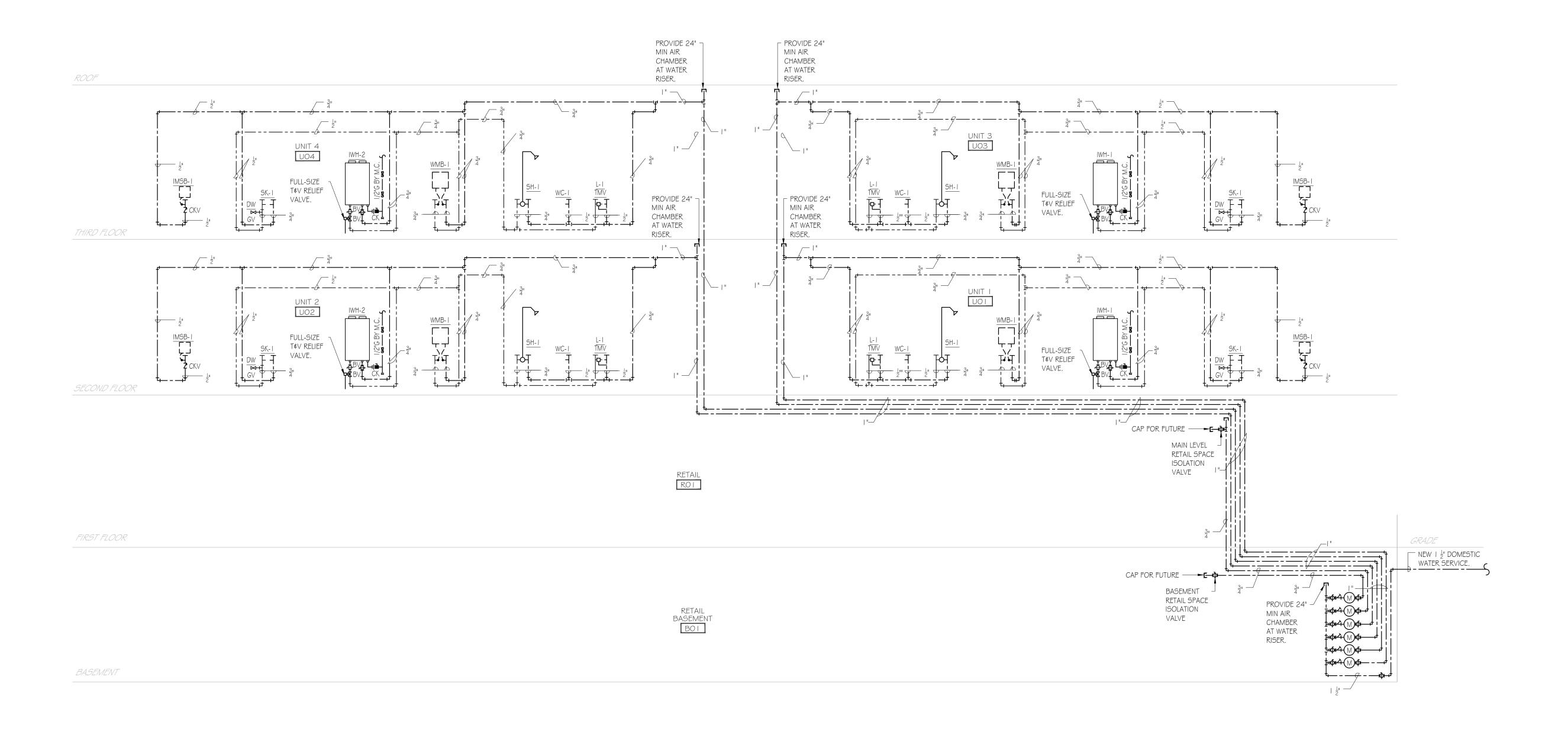


	ISSUED FOR PERMIT	11/13/23
No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

SCHEDULES & DETAILS PLUMBING

Drawn by:	KR
Checked by:	PAD
Date:	11/13/2023
Project#:	230st



DOMESTIC CW/HW RISER DIAGRAMS

SCALE: NTS





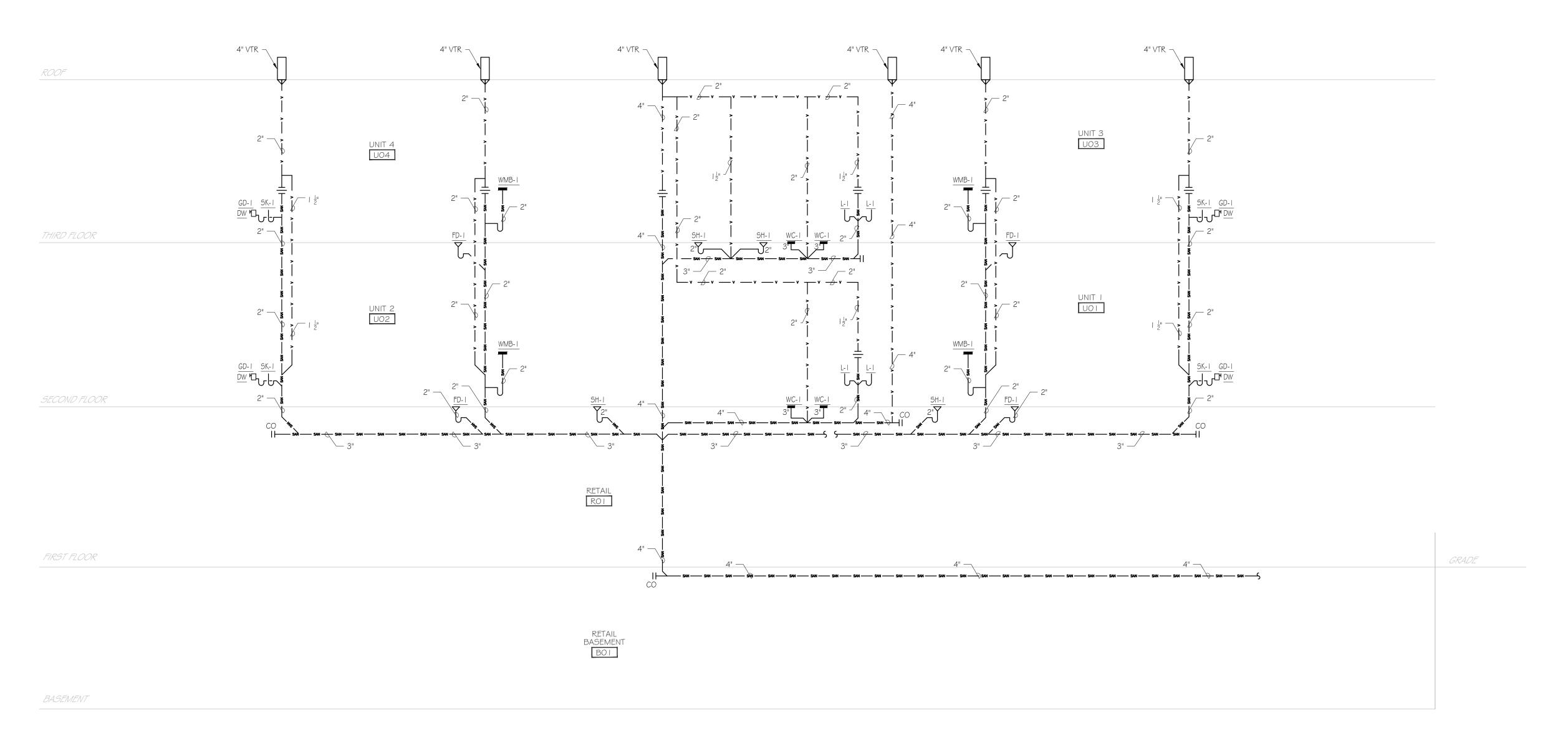
	ISSUED FOR PERMIT	11/13/23
No.	Issue	Date

400 S. Conkling Street Baltimore City, MD.

> RISER DIAGRAM PLUMBING

Drawn by:	KR	
Checked by:	PAD	
Date:	11/13/2023	
Project#:	230st	

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WASTE/VENT RISER DIAGRAMS

SCALE: NTS





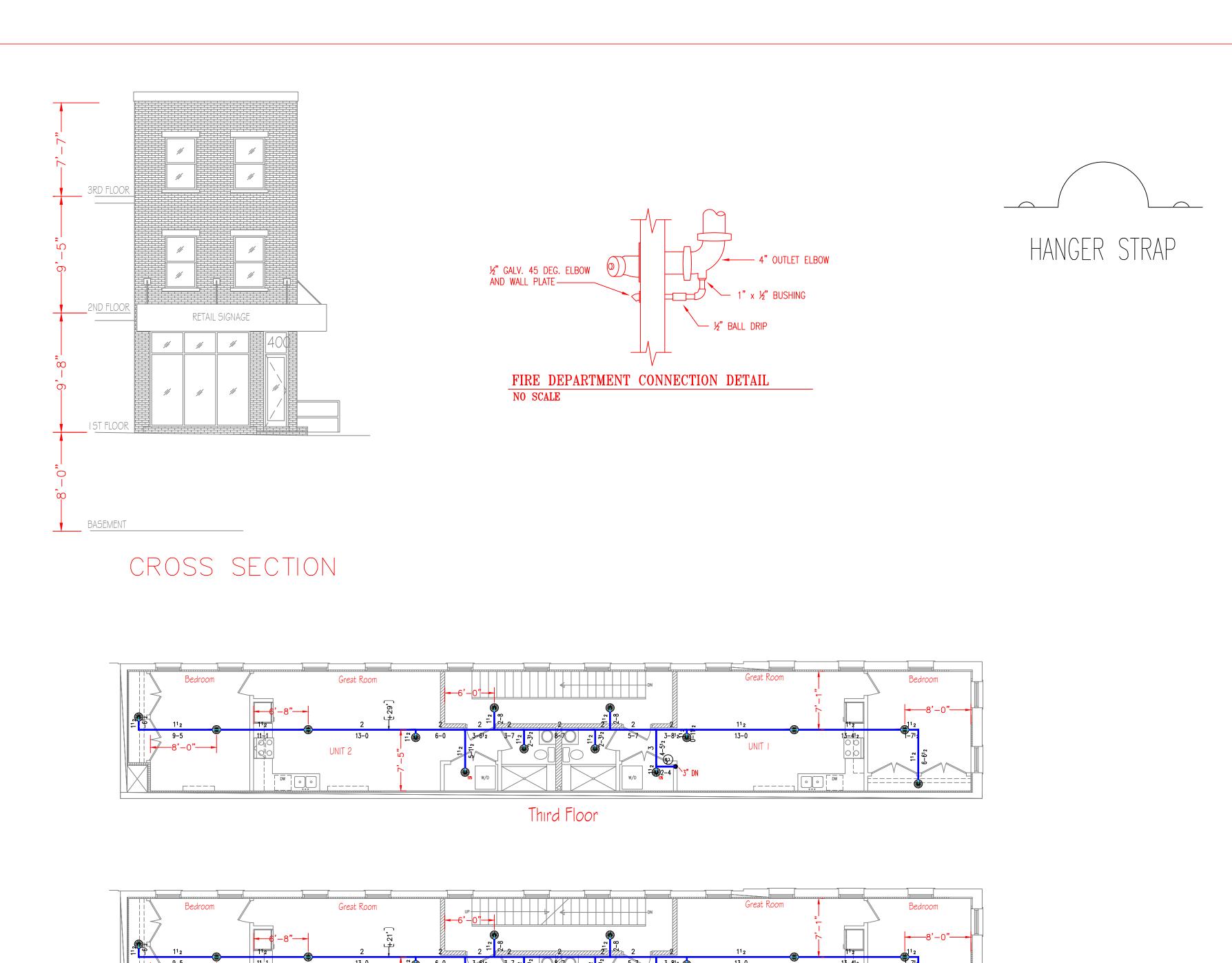
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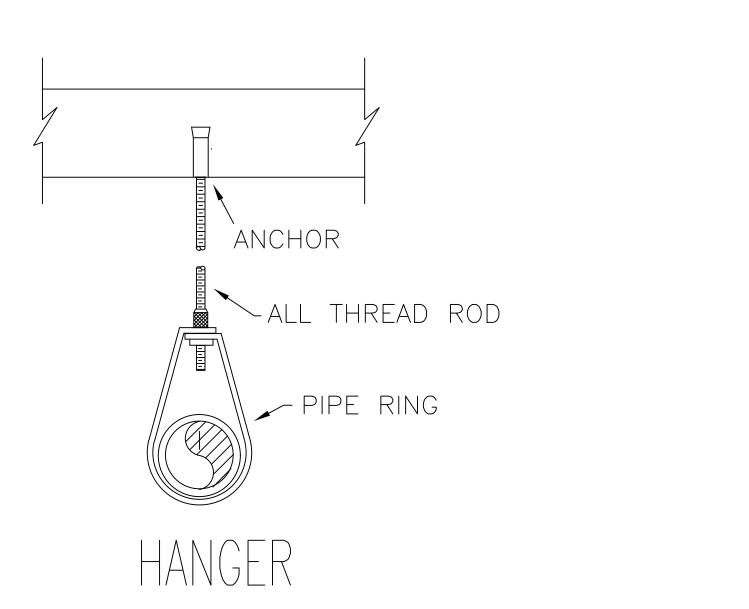
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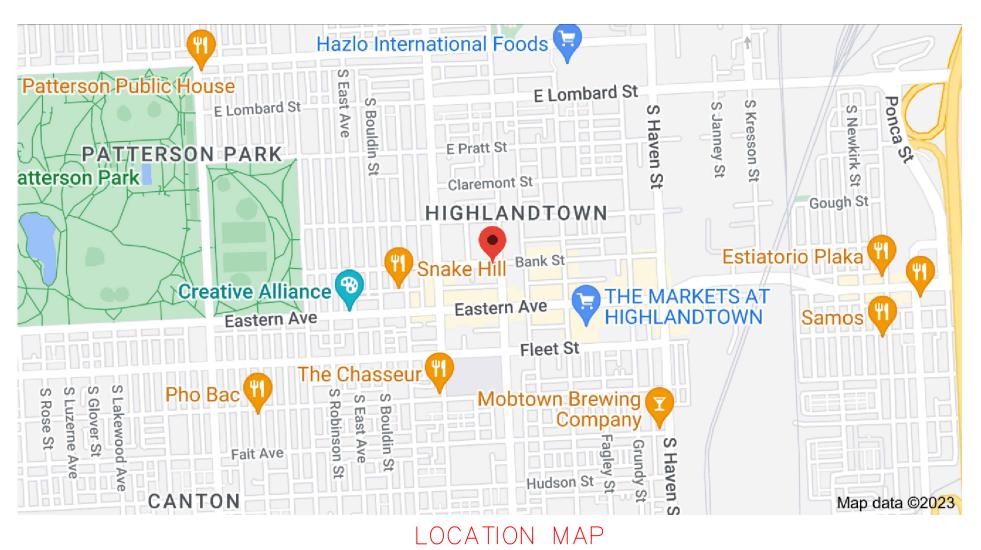
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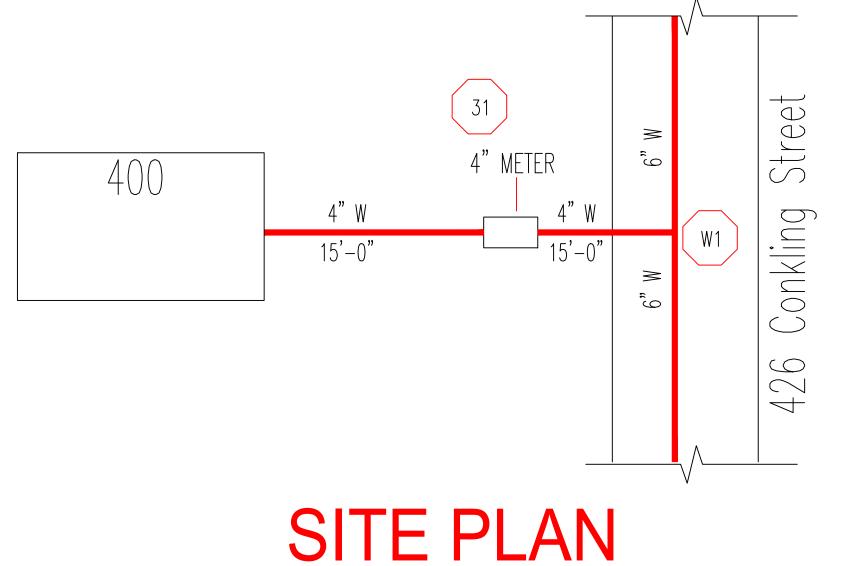
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Date:	11/13/2023
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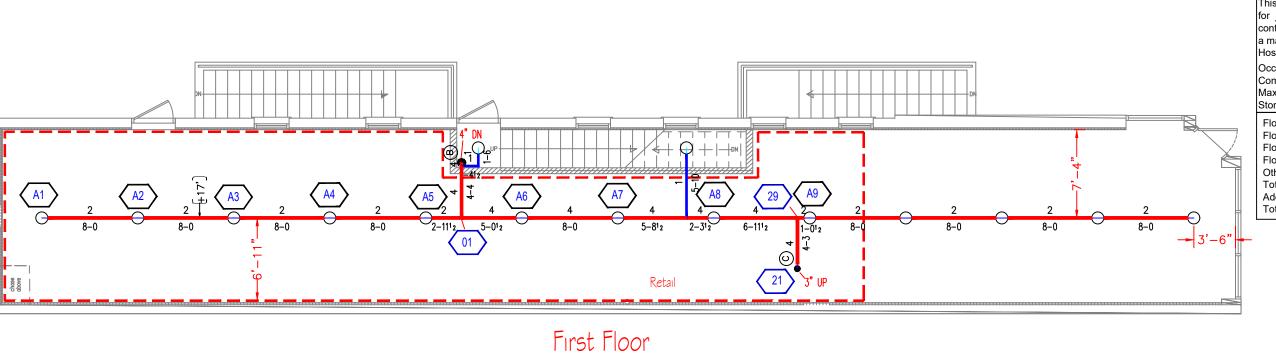




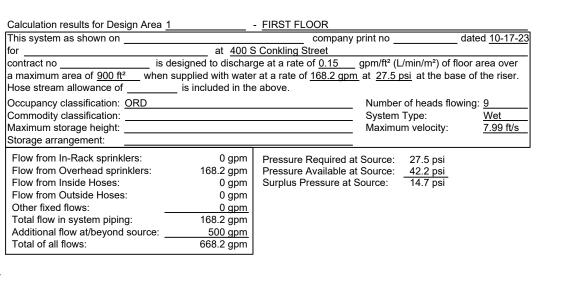
SCALE: NOT TO SCALE

PRESSURE GAUGE HYDRAULIC DATA PLATE 2" PIPE DRAIN ______
TO EXTERIOR ____ W/SPLASHBLOCK NEW 4" BACKFLOW SPRINKLER WORK-BEGINS AT THIS POINT FINISHED FLOOR

SPRINKLER VALVE DETIAL NOT TO SCALE



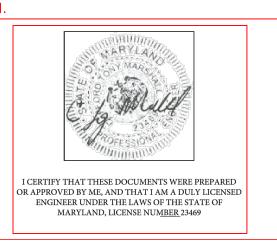
Basement



GENERAL NOTES

- 1. SYSTEM AS SHOWN REPRESENTS WET-PIPE SPRINKLER SYSTEM THROUGHOUT,
- DESIGNED TO MEET NFPA 13R 2016 AND IBC 2018 2. SPRINKLER SYSTEM PIPING TO BE 1" TO 1-1/2" SCH 40 2" TO 6" SCH-10 BASEMENT AND FIRST FLOOR CPVC SECOND FLOOR.
- 3. ALL MATERIAL USED IN HANGER COMPONENTS SHALL BE NEW AND IN COMPLIANCE WITH NFPA 13R STANDARDS.
- 4. THE MINIMUM DISTANCE BETWEEN SPRINKLERS SHALL BE 8'-0"
- 5. ALL NEW MATERIAL SHALL BE INSTALLED PER NFPA 13R AND MANUFACTURER'S RECOMMENDATIONS.
- 6. SYSTEM SHALL BE HYDROSTATICALLY TESTED AT 200psi FOR 2 HOURS PROIR TO TIME OF SCHEDULED INSPECTION IS TO BE WITNESSED BY AHJ. HYDROSTATIC TEST SHALL BE WITNESSED BY THE OFFICE OF FIRE MARSHALL BEFORE CONCEALING ANY SPRINKLER PIPING.
- 7. BUILDING TO BE USED AS RETIAL AND APARTMENTS.
- 8. SPRINKLER CONTRACTOR WILL PROVIDE SIGNAGE.
- 9. SPRINKLER SYSTEM WILL BE MONITORED BY A SPRINKLER MONITOR PANEL OR A FIRE ALARM CONTROL PANEL. THE FOLLOWING SIGNALS SHALL BE TRANSMITTED TO AN APPROVED SUPERVISING STATION: ALARM, SUPERVISORY AND TROUBLE.
- 10. SPRINKLER CONTRACTOR SHALL VERIFY THE UNDERGROUND PIPING IS FLUSHED PRIOR TO CONNECTION BEING MADE TO SPRINKLER PER NFPA
- THE OFFICE OF FIRE MARSHALL SHALL WITNESS THE UNDERGROUND PIPING IS FLUSHED & SYSTEM DEMAND IS OBTAINED PRIOR TO CONNECTION BEING MADE TO SPRINKLER PIPING.
- 11. SPRINKLER CONTRACTOR WILL PROVIDE A STOCK OF SPARE SPRINKLERS PER NFPA 13R.
- 12. MAX SPACING FOR PENDENT SPRINKLERS 16'x16'
- 13. FIRE ESCAPE IS NONCOMBUSTIBLE.
- 14. SPRINKLER HEADS ON APPROVED DRAWINGS WILL BE VERIFIED BY THE AHJ. 15. ALL EQUIPMENT AND DATA SHEETS REQUIRED FOR SYSTEM ACCEPTANCE TESTING SHALL BE ON SITE.
- 16. ANY FIELD CHANGES AS BUILT DRAWINGS WILL BE REQUIRED TO BE ON SITE PRIOR TO INSPECTIONS & MAY BE REQUIRED TO BE RE-SUBMITTED FOR APPROVAL UNDER SEPARATE PLAN #

										Conlr	acl		Symbols		Appı ova
			SPRINKLE	T LEGENU						Exclusions	System	Symbol	Description		
										WIRING	(WET X	()	Hydraulic Reference Points	Revision Notes Number Revisions:	Date:
MIN DIST.	K-FACTOR	SYMBOL	DESCRIPTION	MANUFACTURER & MC	ODEL SIZE	TEMP.	COLOR	ESCH.	TOTAL	PAINTING	(DRY	*	Elev. Below Top of Steel	TAUTIDE TEVISIONS.	Dutc.
8'-0"	1.0		RESIDENTIAL PENDENT	TYCO LFII (TY22))774) 1/2	155	WHITE	WHITE	24	PATCHING	PRE-ACT	+'	E ev. Above Finished Floor		
8 = 0	4.3		NESIDENTIAL I ENDENT	TICO LITE (TIZZ	2234) 1/2	133	VVI II I L	VVI II I L	Z 1	CUTTING	DELUGE	<i>¥'-</i> (#")	Ceiling Height		
8'-0"	4.9	175	RESIDENTIAL PENDENT	TYCO LFII (TY22	2234) 1/2	175	WHITE	WHITE	4	BF PREVENT	FOAM	0	Rise Up		
7'-6"	5.6	$\overline{}$	UPRIGHT	TYCO TY-FRB (TY3:	3131) 1/2	155	DDVCC	BRASS	29	DETECTORS	C02	o /	Drop Down		
7 - 6	5.0		OI MOITI	TICO TI-TIND (113	7131) 1/2	100	DIVASS	DIVASS		ACCESS PANELS >	(FM 200	0 0	Coupling		
							SHEET	T TOTAL	74		(EXPOSURE	\otimes	System Riser		



Heubeck Sprinkler Co 3801 Walnut Ave Baltimore 21206 Phone: (443) 324-2756 400 S Conkling Street Baltimore MD 21224

SPRINKLER	SYSTEM	SHOP DRAWING		
DRAWN BY: MLA	DATE:	10-17-23	FP_	$\overline{)}$
SCALE: 1/8"=1'-0"	Sheet	Sheet 1 of 1] ∠	/