

GENERAL DEMOLITION NOTES

1. REMOVE ALL MECHANICAL AND ELECTRICAL INSTALLATION FROM PROJECT AREA, UNLESS REQUIRED FOR NEW WORK OR EXISTING INSTALLATION NOT AFFECTED BY REMODEL. COORDINATE WITH OWNER AND G.C.
2. SERVICES TO ITEMS NOT REMOVED AS PART OF THIS WORK SHALL BE RESTORED UPON COMPLETION OF THIS WORK TO FULLY OPERATIONAL CONDITION.
3. NOT ALL ITEMS REQUIRED TO BE DEMOLISHED MAY BE INDICATED ON DRAWINGS. ALL DEMOLITION OF AFFECTED SPACE SHALL BE PERFORMED AS IF INDICATED.
4. DELIVER DEMOLISHED EQUIPMENT, WIRING, ETC. TO OWNER OR DISPOSE OF, AS DIRECTED BY OWNER.
5. FIELD VERIFY EXACT LOCATION OF ALL EXISTING MECHANICAL AND ELECTRICAL EQUIPMENT INDICATED ON DRAWINGS.
6. ALL ITEMS TO BE RE-USED OR RELOCATED SHALL BE CLEANED, REPAIRED, AND RESTORED TO LIKE NEW CONDITION PRIOR TO RE-USE.

GENERAL MECHANICAL DEMOLITION NOTES

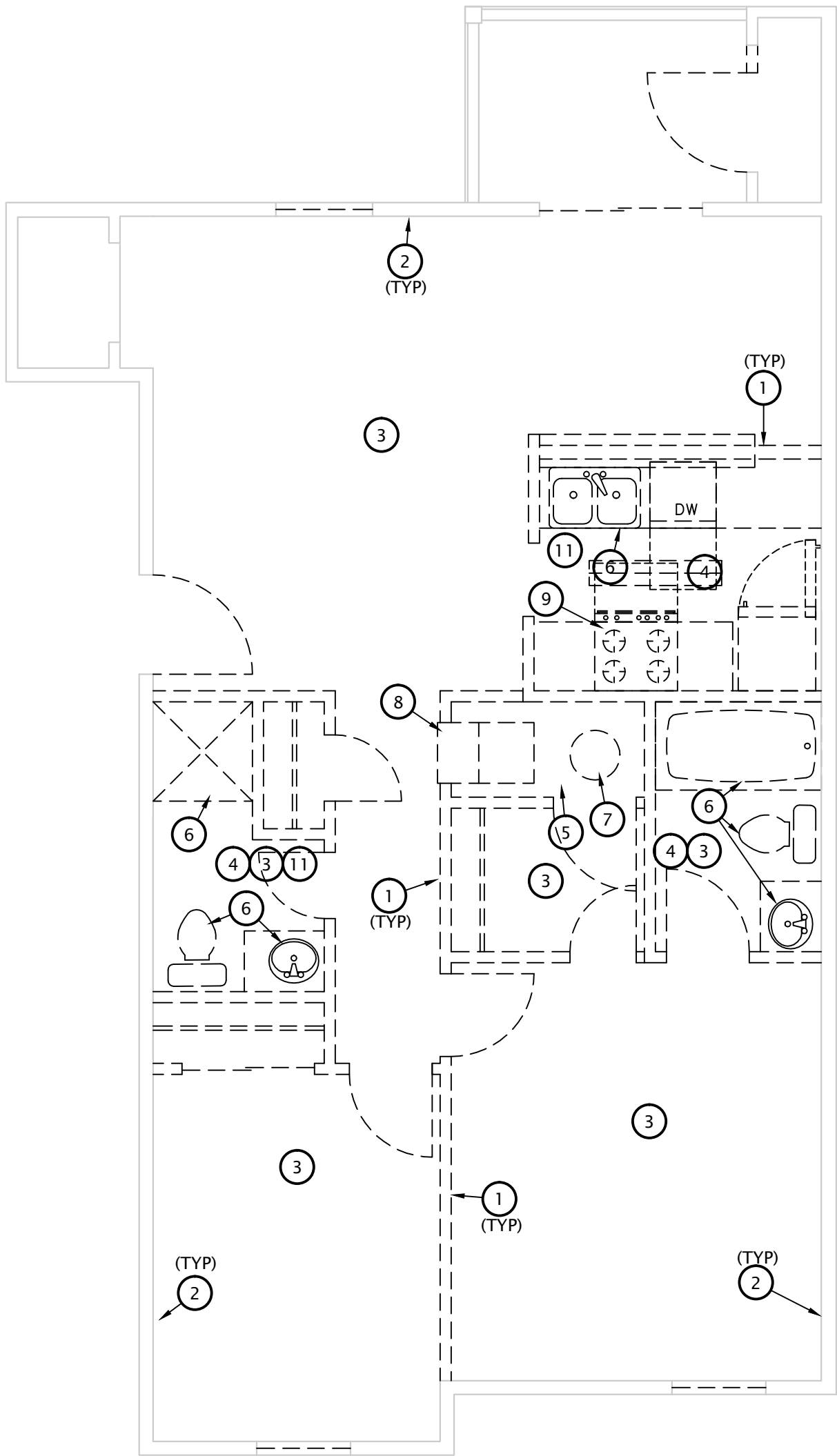
1. ALL PIPING TAKEN OUT OF SERVICE SHALL BE REMOVED. WHERE PIPING TO BE REMOVED IS CONNECTED TO EXISTING PIPING TO REMAIN, PIPING SHALL BE REMOVED BACK TO MAIN AND CAPPED, UNLESS INDICATED OTHERWISE.
2. WHERE PIPING TAKEN OUT OF SERVICE IS LOCATED BELOW SLAB AND IS UNABLE TO BE REMOVED, CAP BELOW SLAB.
3. ALL DUCTWORK TAKEN OUT OF SERVICE SHALL BE REMOVED.
4. COORDINATE CUTTING, PATCHING OF EXISTING WALLS, CEILINGS, ROOF AND FLOORS AFFECTED BY MECHANICAL DEMOLITION WITH G.C.

GENERAL ELECTRICAL DEMOLITION NOTES

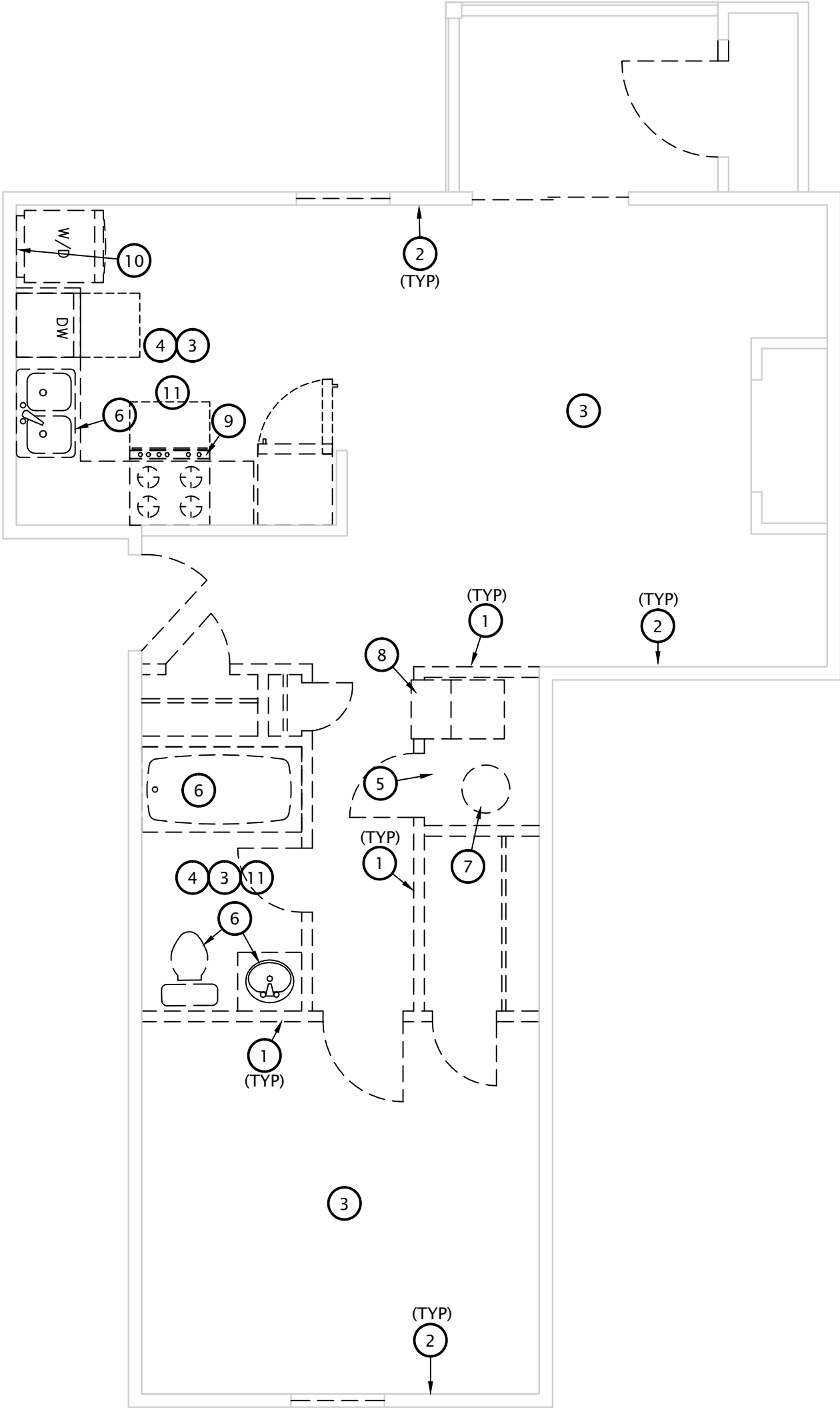
1. REMOVE ALL NM, BX, MC, AC AND OTHER CABLE SYSTEMS AND WIRING FOR ALL ABANDONED CIRCUITS.
2. REMOVE ALL ABANDONED CONDUITS ABOVE LAY-IN CEILINGS, EXPOSED CONDUITS, FLEXIBLE CONDUITS, SURFACE RACEWAY, SURFACE MOUNTED OUTLET/JUNCTION BOXES AND EQUIPMENT UNLESS NOTED OTHERWISE.
3. WHERE ABANDONED FEEDERS AND BRANCH CIRCUITS ARE CONCEALED WITHIN WALLS, FLOORS AND HARD CEILINGS THAT ARE TO REMAIN, REMOVE ALL WIRING AND CAP CONDUITS AT BOTH ENDS.
4. WHERE ABANDONED OUTLET AND JUNCTION BOXES ARE RECESSED FLUSH IN WALLS, FLOORS AND HARD CEILINGS THAT ARE TO REMAIN, REMOVE ALL WIRING AND WIRING DEVICES AND PROVIDE BLANK STAINLESS STEEL COVERPLATES FOR BOXES 6"x6" AND SMALLER. REMOVE BOXES LARGER THAN 6"x6" AND PATCH SURFACE TO MATCH EXISTING. COORDINATE WITH ARCHITECT FOR FINAL DIRECTION.
5. ALL EQUIPMENT, FIXTURES, RACEWAY, WIRING AND DEVICES WHICH ARE REMOVED SHALL BE REMOVED FROM THE JOB SITE BY THIS CONTRACTOR, UNLESS DIRECTED OTHERWISE BY THE ARCHITECT OR OWNER'S REPRESENTATIVE. CONFORM TO ALL LAWS AND ORDINANCES IN EFFECT CONCERNING THE PROPER DISPOSAL OF LUMINAIRES AND LAMPS.
6. COORDINATE THE REMOVAL OF MECHANICAL AND PLUMBING EQUIPMENT WITH THE MECHANICAL AND PLUMBING CONTRACTORS. DISCONNECT AND REMOVE ELECTRICAL POWER AND CONTROL CIRCUITS FOR EQUIPMENT BEING REMOVED. REMOVE ALL ELECTRICAL EQUIPMENT ASSOCIATED WITH DEMOLISHED MECHANICAL AND PLUMBING EQUIPMENT (DISCONNECT SWITCHES, MOTOR STARTERS, RELAYS, ETC).

DEMO NOTES BY SYMBOL

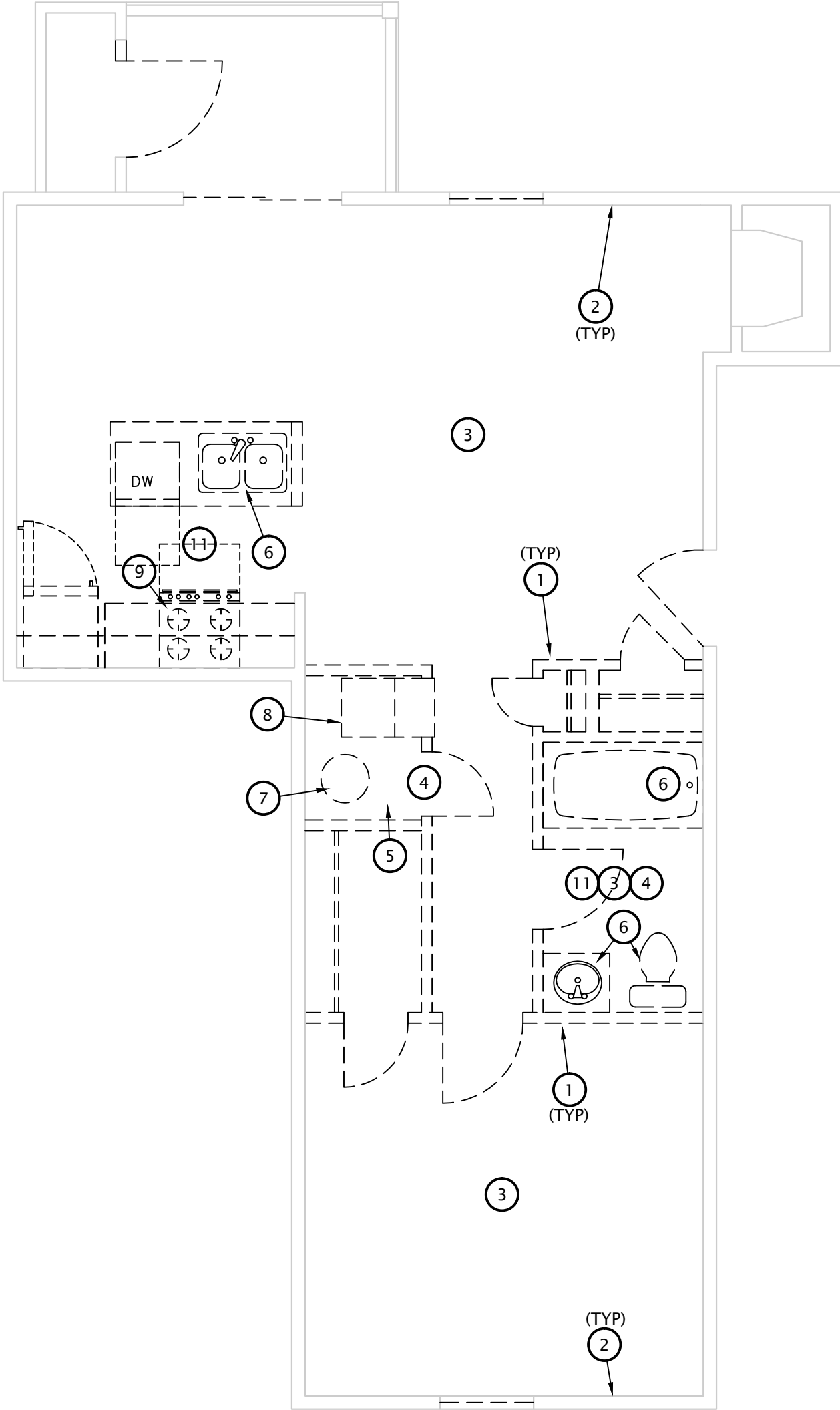
1. REMOVE ALL ELECTRICAL DEVICES AND ASSOCIATED CIRCUITRY IN WALLS TO BE DEMOLISHED. FIELD VERIFY EXACT LOCATION OF EXISTING.
2. ELECTRICAL DEVICES IN WALLS NOT DEMOLISHED TO BE REUSED WHERE PLACEMENT MEETS NEC SPACING REQUIREMENTS. SEE NEW WORK PLANS FOR MORE INFORMATION.
3. REMOVE ALL EXISTING LIGHT FIXTURES, CEILING FANS, SWITCHES AND ASSOCIATED CIRCUITRY.
4. REMOVE ALL ABOVE GRADE DOMESTIC WATER PIPING BACK TO SERVICE ENTRANCE INTO APARTMENT.
5. EXISTING WATER SERVICE TO BE RE-ROUTED TO NEW MECHANICAL CLOSET. FIELD VERIFY EXISTING WATER SERVICE SIZE AND LOCATION. COORDINATE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH G.C.
6. REMOVE PLUMBING FIXTURE AND ASSOCIATED INSTALLATION.
7. REMOVE WATER HEATER AND ALL ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION.
8. REMOVE BLOWER COIL AND ALL ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION.
9. REMOVE RANGE, RANGE HOOD AND ALL ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION.
10. REMOVE EXISTING WASHER AND DRYER AND ALL ASSOCIATED MECHANICAL AND ELECTRICAL INSTALLATION.
11. FOR STANDARD NON-ADA UNITS COORDINATE REQUIRED PLUMBING AND ELECTRICAL DEMO WITH ARCHITECT AND G.C. PROVIDE NEW SERVICES OR MODIFY EXISTING AS REQUIRED FOR NEW APPLIANCES AND PLUMBING FIXTURES. COORDINATE EXACT REQUIREMENTS WITH EXISTING CONDITIONS, ARCHITECT AND G.C.



3 UNIT TYPE 'C' M/E DEMO PLAN
1/4" = 1'-0"



2 UNIT TYPE 'B' M/E DEMO PLAN
1/4" = 1'-0"

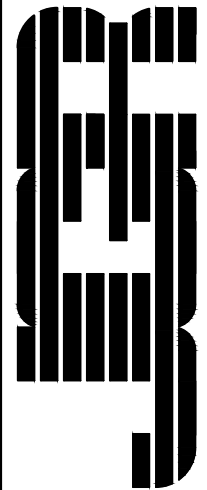


1 UNIT TYPE 'A' M/E DEMO PLAN
1/4" = 1'-0"

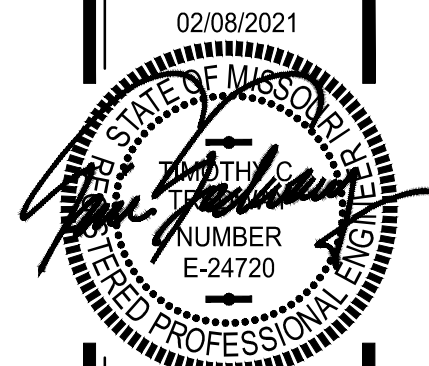


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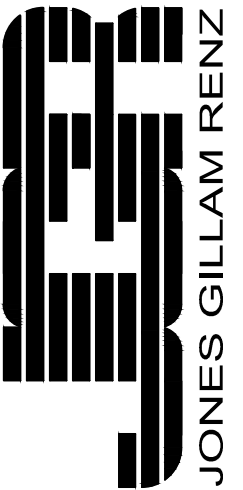
BRIDGEPORT APARTMENTS
REMODEL, REHABILITATION APARTMENTS
KANSAS CITY,
MISSOURI



DATE: 02-08-2021
JOB: 21-3157
SHEET:

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ME1.1



JONES GILLAM RENZ

BRIDGEPORT APARTMENTS

REMODEL, REHABILITATION APARTMENTS

KANSAS CITY, MISSOURI



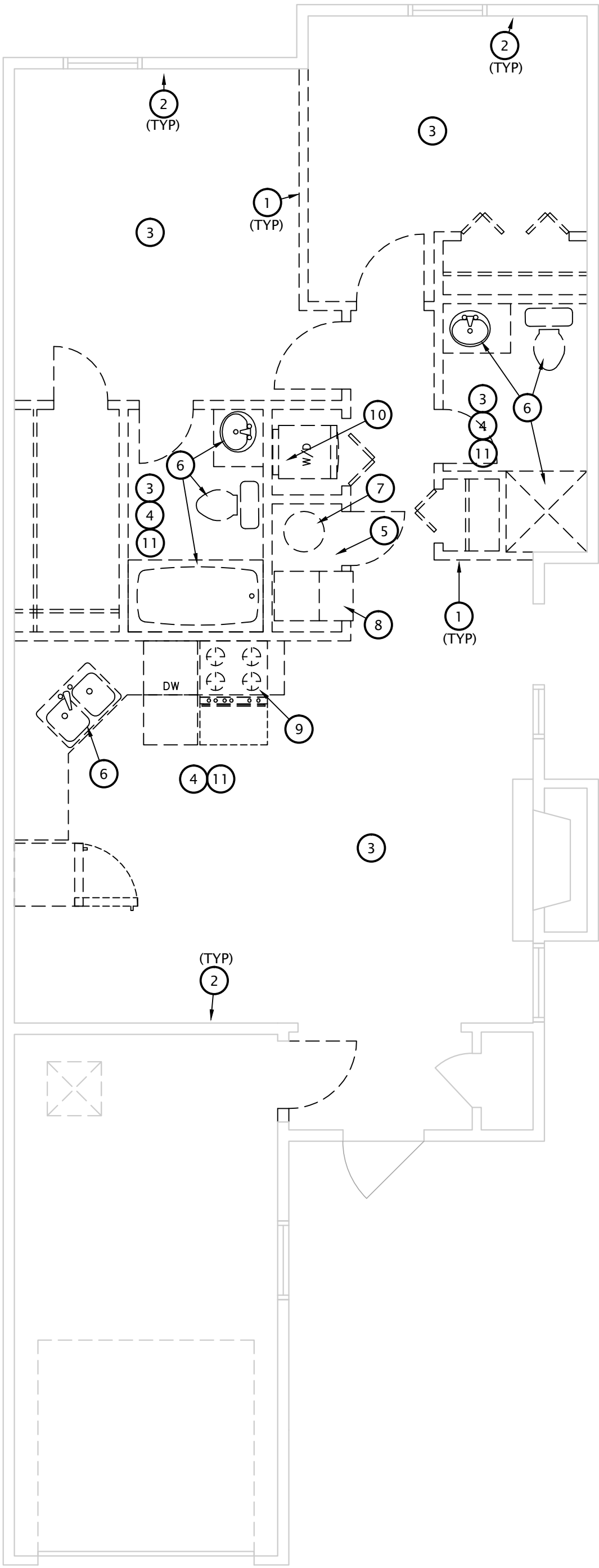
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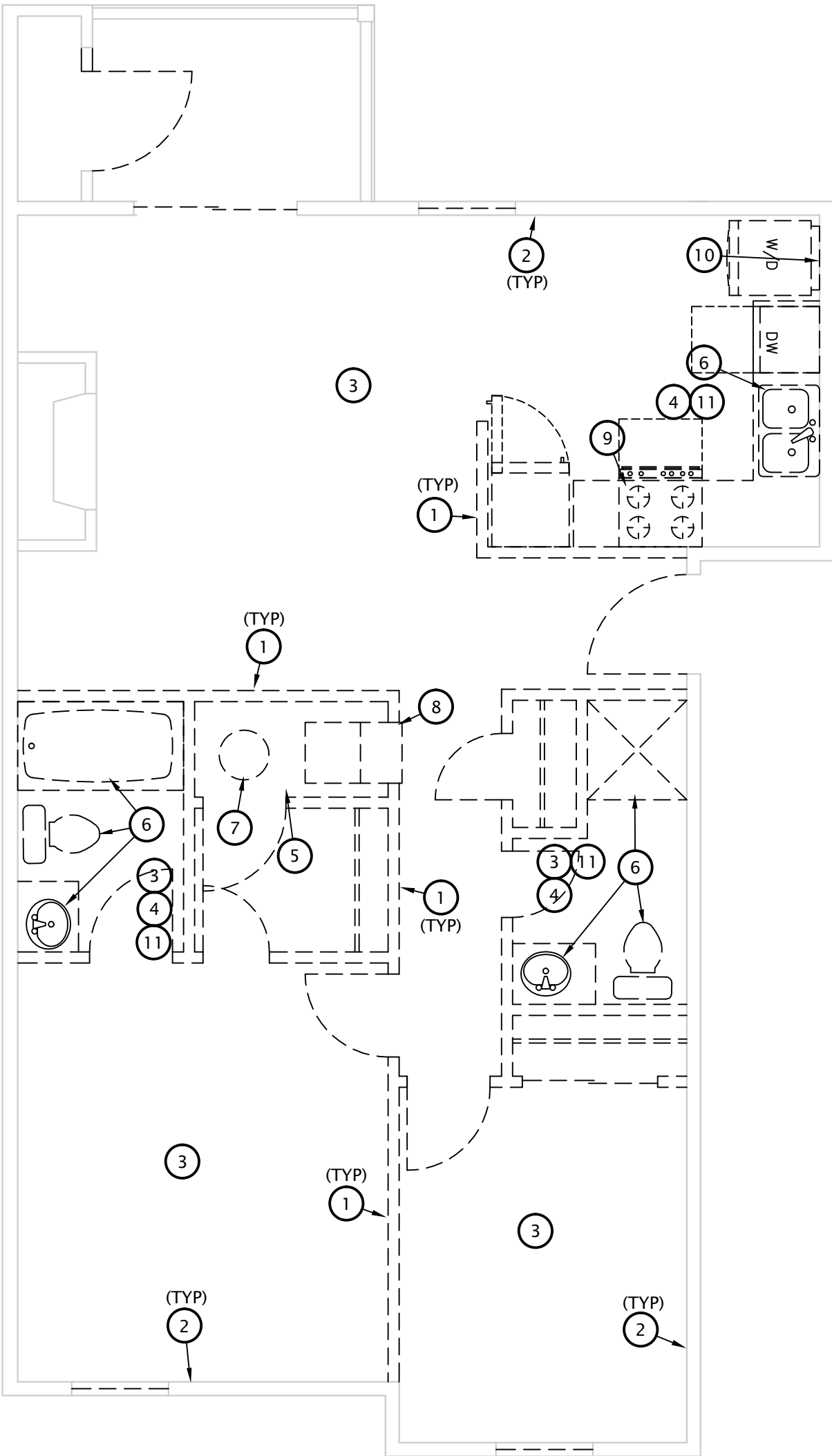
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② UNIT TYPE 'E' M/E DEMO PLAN
1/4" = 1'-0"



① UNIT TYPE 'D' M/E DEMO PLAN
1/4" = 1'-0"

CLUBHOUSE PLUMBING FIXTURE SCHEDULE

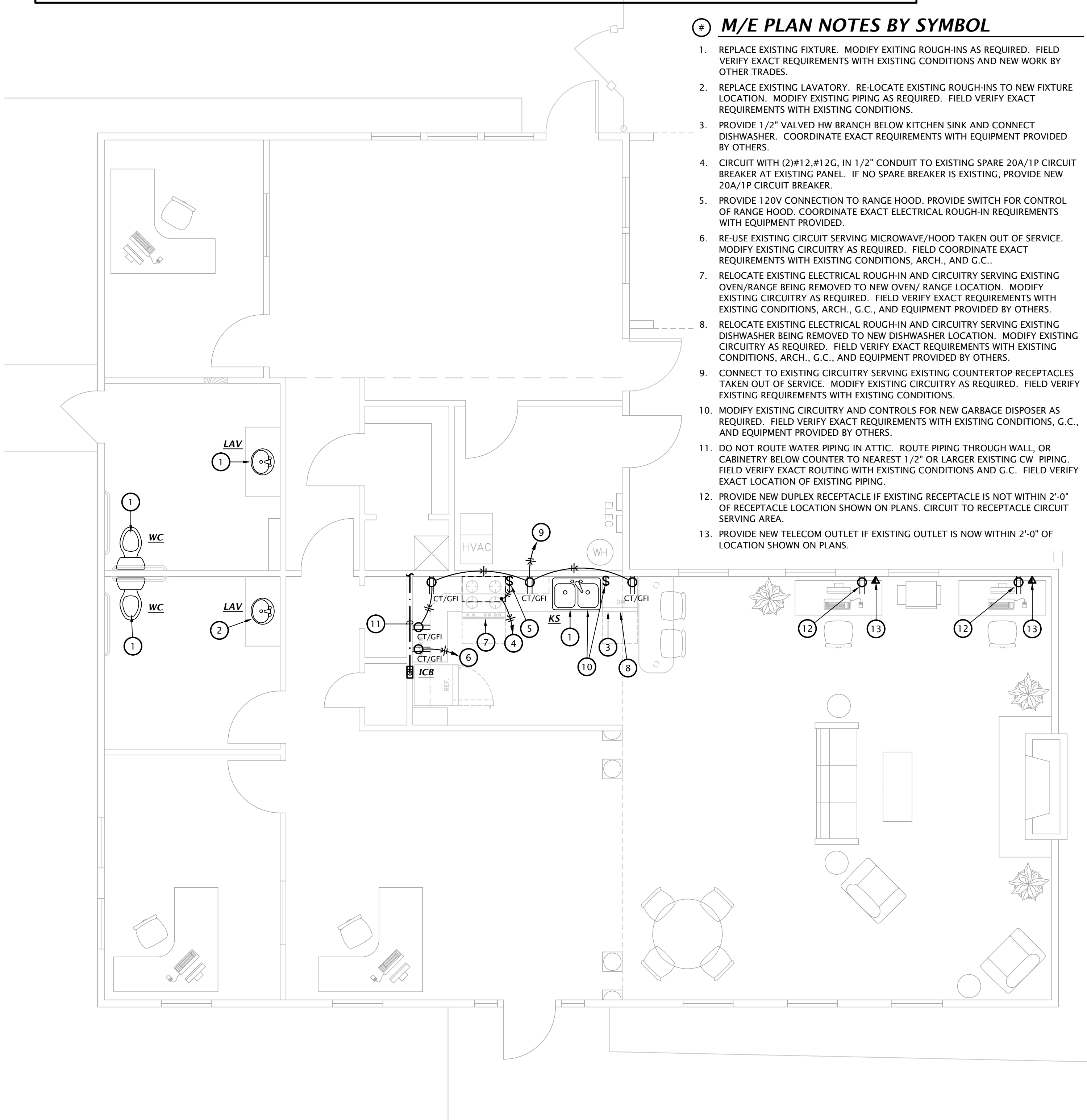
MARK	MANUFACTURER	DESCRIPTION	TRIM		ROUGH-IN SIZES				NOTES
			MANUFACTURER	DESCRIPTION	WASTE	VENT	CW	HW	
WC	KOHLER	Model #K-3658-(RA)-0 "Highline Classic" ADA compliant flush tank water closet, white vitreous china, two piece, 12" rough-in, elongated 16-1/2" high bowl, siphon jet flushing action, 1.28 GPF, polished chrome actuator. Coordinate location of trip lever with installation.	KOHLER	#K-4636-0 white, closed front plastic seat with slow closing lid.	4"	2"	1/2"	---	1
LAV	KOHLER	Model 2196-4-0 self-rimming lavatory, white vitreous china, 20"W x 17", faucet holes on 4" centers.	KOHLER	Model 15199-F-CP single handle faucet. Provide grid drain. Provide point of use tempering valve.	2"	1-1/2"	1/2"	1/2"	1,2,4
KS	JUST	Model DL-ADA-2133-A-GR two compartment 18 GA stainless steel sink, self rimming, 14"x16"x6"D inside, fully undercoated, faucet holes as req., with center rear drain hole.	KOHLER	Model K-10412, 1.5 GPM, single handle kitchen sink faucet with hose spray attachment. Chrome finish. Provide basket strainer.	2"	1-1/2"	1/2"	1/2"	1,2,3,4
ICB	OATEY	Model 3848X fire rated ice maker connection box with 1/4 turn ball valve.	IN-SINK-ERATOR	Badger 5, 1/2 HP garbage disposal with dishwasher waste connection.	---	---	1/2"	---	

GENERAL:

- Provide fixtures with all trim necessary for complete installation

NOTES:

- Fixture and installation to meet requirements of Americans with Disabilities Act.
- Provide Dearborn supplies with stops and escutcheon plate, 1-1/4" cast brass p-trap.
- Insulate water and waste piping below lavatory. Utilize insulation kit equivalent to LavGuard by Truebro.
- Trim shall be provided with polished chrome finish.



2 CLUBHOUSE M/E PLAN
1/4" = 1'-0"

GENERAL DEMOLITION NOTES

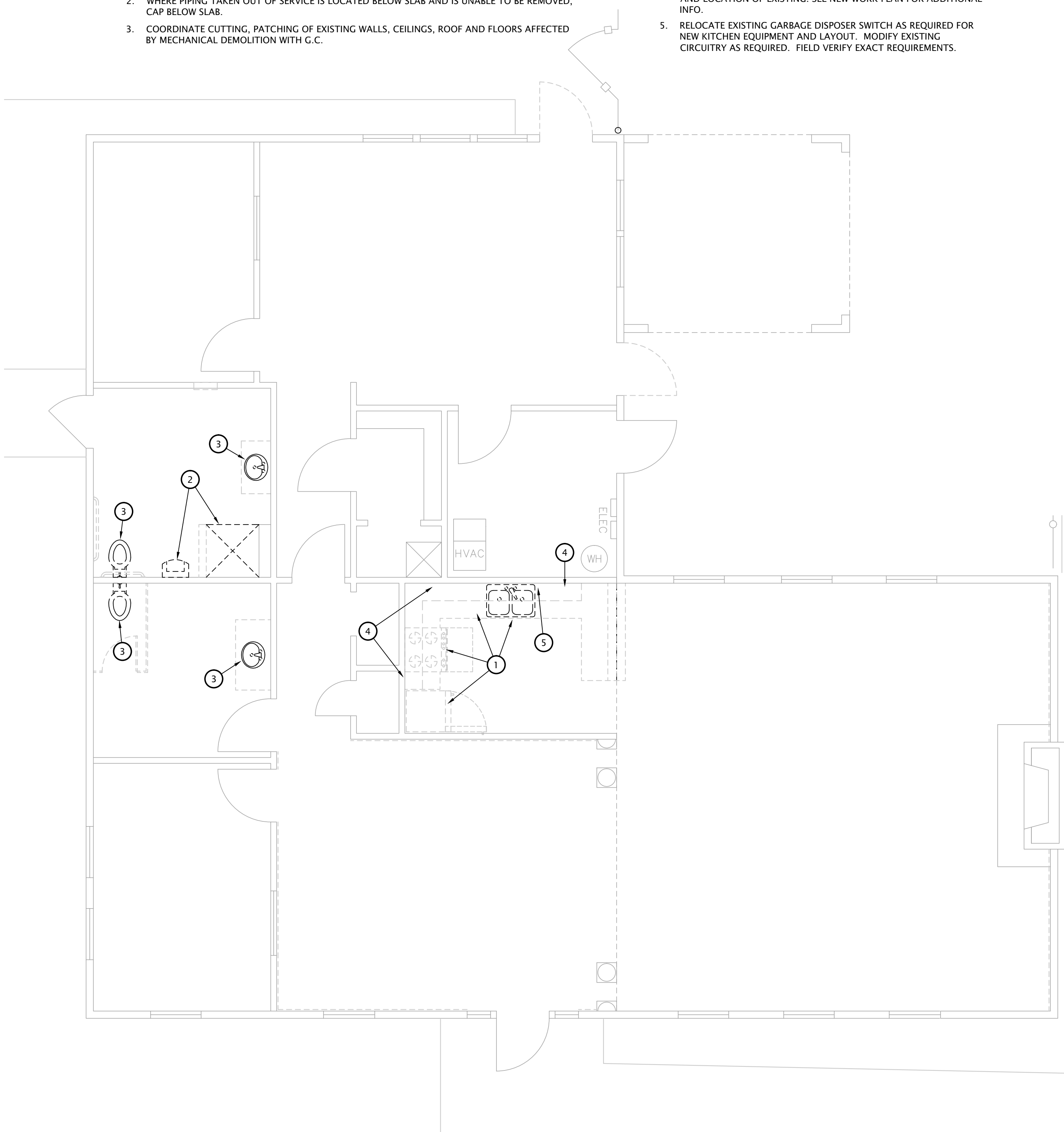
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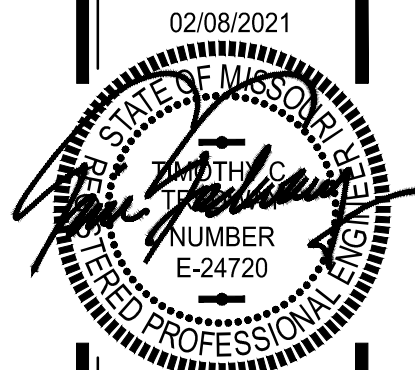


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M/E DEMO NOTES BY SYMBOL

- MODIFY EXISTING ELECTRICAL ROUGH-INS AND CIRCUITRY AS REQUIRED FOR REPLACEMENT OF EXISTING APPLIANCES AND CABINETY. COORDINATE EXACT REQUIREMENTS WITH ARCH., G.C., AND EQUIPMENT PROVIDED BY OTHERS. SEE NEW WORK PLAN FOR ADDITIONAL INFO.
- REMOVE EXISTING PLUMBING FIXTURE AND ALL ASSOCIATED INSTALLATION. IF DOMESTIC WATER PIPING IS ROUTED BELOW GRADE, DISCONNECT PIPE AT MAIN AND REMOVE ALL PIPE ABOVE SLAB. CAP ABANDONED PIPING BELOW SLAB AND COORDINATE PATCHING WITH G.C.
- EXISTING PLUMBING FIXTURE TO BE REPLACED. MODIFY EXISTING ROUGH-INS AS REQUIRED FOR NEW FIXTURE. FIELD COORDINATE EXACT REQUIREMENTS WITH EXISTING CONDITIONS.
- REMOVE EXISTING COUNTER TOP RECEPTACLES. RE-USE EXISTING CIRCUITRY FOR NEW RECEPTACLES. FIELD VERIFY EXACT QUANTITY AND LOCATION OF EXISTING. SEE NEW WORK PLAN FOR ADDITIONAL INFO.
- RELOCATE EXISTING GARBAGE DISPOSER SWITCH AS REQUIRED FOR NEW KITCHEN EQUIPMENT AND LAYOUT. MODIFY EXISTING CIRCUITRY AS REQUIRED. FIELD VERIFY EXACT REQUIREMENTS.



DATE: 02-08-2021
JOB: 21-3157
SHEET:

DIVISION 15 - MECHANICAL SPECIFICATIONS

SECTION 15050 - BASIC MECHANICAL MATERIALS AND METHODS

15050.01 The drawings and general provisions of the Contract, including General Conditions, Supplementary General Conditions, and General Requirements apply to the work specified in DIVISION 15 - MECHANICAL.

15050.02 The Mechanical Contract includes all labor, materials and equipment required for the complete mechanical systems as shown and herein specified.

15050.03 This contractor is responsible for reviewing ALL drawings to determine extent of coordination required with other trades. Additional offsets, bends, material will not be accepted as a result of un-coordinated work.

15050.04 This contractor is required to perform work in a professional and quality workman like manner. This includes, but is not limited to:

- a. Make vertical elements plumb and horizontal elements level unless noted otherwise.
- b. Install equipment and fittings plumb and level, neatly aligned with adjacent vertical and horizontal lines, unless noted otherwise.
- c. Protect work from damage and water during construction. Replace all equipment/material damaged or exposed to water during construction.
- d. Clean equipment, interior and exterior, at completion of construction and remove all temporary labels, stains and foreign substances
- e. Protect HVAC ductwork from accumulating dirt and debris during construction and replace all HVAC filters at completion of construction

15050.05 Each major component of equipment shall have the manufacturer's name; address, model number and rating on a nameplate securely affixed.

15050.06 All equipment of one type (such as furnaces, condensing units, etc.) shall be the products of one manufacturer, unless otherwise specified.

15050.07 The quantity or quality level shown or specified shall be the minimum provided or performed. The actual installation may comply exactly with the minimum quantity or quality specified, or it may exceed the minimum within reasonable limits. To comply with these requirements, indicated numeric values are minimum or maximum, as appropriate, for the context of requirements. Refer uncertainties to Architect for a decision before proceeding. Where the quality of required material is not specified, the Contractor shall furnish a first class standard item as approved by the Architect/Engineer.

15050.08 Manufacturer's names are intended to establish type and quality of items to be provided via the contract.The materials, products, and equipment described in the specifications or on the drawings establish a standard of required function, dimension, appearance, and quality to be met by any proposed substitution. Listing of these manufacturers shall in no way be construed as a device intended to limit the bidders to those specifically listed.

15050.09 Electrical Characteristics for Mechanical Equipment: Equipment of higher electrical characteristics may be furnished provided such proposed equipment is approved in writing and connecting electrical services, circuit breakers, and conduit sizes are appropriately modified. If minimum energy ratings or efficiencies are specified, equipment shall comply with requirements.

15050.10 The Drawings are schematic only and are not intended to show the exact routing of piping, ductwork, etc. Final determination of routing shall be made at the jobsite, in coordination with other trades.

15050.11 Install all equipment in strict accordance with the manufacturer's recommendations.

15050.12 All work under this contract shall conform to the requirements of all applicable local, state, and federal code requirements. If compliance with two or more standards is specified and the standards establish different or conflicting requirements for minimum quantities or quality levels, comply with the most stringent requirement. Refer uncertainties and requirements that are different, but apparently equal, to Architect for a decision before proceeding.

15050.13 All components, accessories, and installation required for a complete mechanical installation shall be provided. Where materials or labor are required for completion of a system, such material or labor shall be included as if fully specified herein.

15050.14 Periodically during construction and prior to Owner acceptance of the building, Contractor shall remove from the premises and dispose of all packing material and debris related to work performed under this Division.

15050.15 Before submitting his bid, the Contractor shall visit the actual location of the job and shall fully understand the scope of the work to be done and the conditions under which it is to be performed.

15050.16 The Mechanical Contractor shall be responsible for locating and setting his own pipe sleeves, and be well aware of the job progress to avoid unnecessary delay for setting of same.

15050.17 The Mechanical Contractor shall do all excavating and backfilling necessary to complete work under this contract. Lines shall be used to lay out the trenches for underground work. Trenches shall be of sufficient width and shall be cribbed or braced to prevent cave in or settlement. Trenches close to walls and columns of the building shall not be excavated without the Architect's prior consent. The bottoms of trenches shall be tamped hard and graded to secure the required fall before laying pipe. Bell holes shall be excavated so the pipe will rest on solid ground for its entire length. Hand backfill and tamp backfill into place at sides of pipes, leaving tops and joints exposed until pipe runs have been tested and approved.

15050.18 Notify the Engineer of errors, discrepancies, or omissions in the drawings and specifications before construction or fabrication of affected work, or failing such notice, be responsible for correction of such work without cost to the Owner, Architect, or Engineer.

SECTION 15055 SERVICES

15055.01 Provide the services as shown on plans and specified.

15055.02 Locate and mark all known utilities prior to proceeding with work.

15055.03 Should any existing utilities be damaged or disrupted, immediately notify Owner and repair to existing condition.

15055.04 Contractor shall pay any and all required utility service fees associated with this project.

15055.05 Contractor shall verify all utility requirements with the appropriate utility provider. Any work required by utility providers but not indicated on the drawings shall be provided as though fully specified.

15055.09 Water and sewer utilities are indicated on the drawings. Coordinate with Civil drawings.

SECTION 15060 PIPE AND FITTINGS

15060.01 Above Grade Piping and Fittings:

- A. Type L hard copper pipe with sweat type fittings and 50/50 solder shall be used for all discharge pipe from relief valves, condensate drain, and non-potable domestic water piping.
- B. Domestic water piping:
 - 1. Type L hard copper pipe with sweat type fitting and 95/5 lead free solder.

2. If approved by owner, cross-linked polyethylene (PEX) with brass barbed fittings. All components shall be from same manufacturer, and installed in strict accordance with Manufacturer's instructions. System used must have been in production for a minimum of five years.

All piping installed where subject to damage shall be copper.

C. Service weight centrifugally cast iron soil pipe, bearing the mark of the Cast Iron Institute, with "NO HUB" joints shall be used for soil, waste and vent lines. All changes in direction shall be made by the use of 45 wyes, half wyes, long sweep 1/4 bends, 1/6, 1/8, or 1/16 bends. Sanitary tees may be used where the changes in direction of flow is from horizontal to vertical. Where space conditions necessitate the use of short radius fitting, approval shall be obtained before installation.

NOTE: WHERE PERMITTED BY LOCAL BUILDING CODES, ABOVE GROUND SANITARY WASTE AND VENT PIPING MAY BE SCHEDULE 40 PVC WITH SOLVENT WELDED JOINTS. ALL FITTINGS SHALL BE DRAINAGE PATTERN FITTINGS, AND NO PVC PIPING SHALL BE USED IN RETURN AIR PLENUMS.

15060.02 Below Grade Pipe and Fittings

A. Schedule 40 PVC drain waste and vent piping with solvent welded joints shall be used for all soil, waste and vent lines. All changes in directions shall be made by the use of 45 wyes, half wyes, long sweep 1/4 bends, 1/6, 1/8, or 1/16 bends. Sanitary tees may be used where the changes in direction of flow are from horizontal to vertical. Where space conditions necessitate the use of short radius fitting, approval shall be obtained before installation.

B. Water Piping:

- 1. Copper Pipe: ASME B16.18, cast copper alloy or ASME B16.22 wrought copper and bronze with ASTM B 32, alloy Sn95 solder joints.
- 2. PE Pipe: ASTM D2239, or ASTM D2447 Schedule 40, with ASTM D2609 PE fittings and mechanical joints with stainless steel clamp.

15060.03 Soil, Waste and Vent Piping

A. The arrangement of the systems must be as direct as possible avoiding all unnecessary offsets. All pipe shall run as indicated on the drawings, unless some condition should arise which would make it necessary or seem advisable to alter same; in which case, the Architect or his representative must be consulted before making any change. Horizontal lines shall be graded at 1/8" per foot, unless noted otherwise. Where necessary, lines may pitch at 1/10" per foot when approved or noted.

B. Every vent for traps shall be connected to the waste line by as short a connection as possible, but in no case shall such connections have a length greater than 2' in length, measuring horizontally from the center of the fixture to the vent. Horizontal vents shall connect into the main stack at least 18" above the highest fixture.

C. Each fixture and piece of equipment requiring connection to the sanitary drainage system shall be equipped with a trap. Each trap shall be placed as near the fixture as possible and no fixture shall be double trapped. Combination drain/vent piping is acceptable where indicated and allowed by building codes.

D. All under slab plastic piping shall be installed in strict compliance with building codes as well as all manufacturers' recommendations.

15060.04 Domestic Water Piping

A. All runs of pipe shall be installed as shown on drawings, unless some condition should arise which would make it necessary or seem advisable to alter same; in which case, the Architect or his representative must be consulted before making any change.

15060.05 Refrigeration Piping

A. All refrigerant piping shall be Type L ACR hard copper with silfos joints. All elbow fittings, except suction line oil traps, shall be long radius type. Suction line oil traps shall be comprised of short radius elbows to minimize the quantity of oil retained.

B. All refrigerant lines shall be charged with nitrogen during all sweating and heating operations, and shall be evacuated with a vacuum pump prior to charging.

SECTION 15080 MECHANICAL INSULATION

15080.06 Insulate refrigerant suction lines with 3/4" foam pipe insulation, "Armacell Armaflex" or equivalent. Paint exterior insulation with two coats of "Armacell Armaflex" finish.

15080.07 Condensate drains from cooling coils shall be insulated with 1/2" thick preformed fiberglass pipe insulation.

15080.08 Insulate ductwork as scheduled. Duct dimensions indicated on the plans are free area.

Indoor Concealed Supply Duct: Insulate all rectangular and round sheet metal duct with 1-1/2" fiberglass Duct wrap with foil exterior vapor barrier

Indoor Concealed Return Duct: 1-1/2" fiberglass duct wrap with foil exterior vapor barrier

General Building Exhaust Duct: None Required

Outdoor Air Intake Ductwork: 1-1/2" fiberglass duct wrap with foil exterior vapor barrier.

SECTION 15120 PIPING SPECIALTIES AND VALVES

15120.01 Valves shall be installed at locations shown and specified; the locations shall be accessible. All valves shall be installed with their stems or spindles horizontal or above.

15120.02 Provide unions where shown at all equipment connections and at other points where disconnection of piping will be required.

15120.03 Apollo bronze body ball valves, Series 70 or approved equal, with threaded or soldered end, shall be used in 3" and smaller copper and steel lines for domestic water duties. Provide with extended stem when used in insulated lines.

15120.04 Screwed or solder type ground joint unions shall be used on piping 2" and smaller.

15120.05 Unions shall not be installed in walls or partitions or above non accessible ceilings.

15120.06 Dielectric unions shall be used where copper lines connect to other types of materials.

15120.07 Provide chrome plated escutcheons on exposed pipes where they pass through walls and ceilings.

SECTION 15140 PIPING SUPPORTS, ANCHORS AND SEALS

15140.01 Provide pipe sleeves, hangers and supports.

15140.02 Pipe shall be securely supported from structure. Hangers shall be provided where required. No plastic hangers or straps shall be used.

15140.03 Pipe sleeves will be required in all pipe penetrations through exterior walls and floors. Sleeves shall be Schedule 5 steel pipe, field fabricated from minimum 16 gauge steel with 2" overlap at the seam.

15140.04 Space between sleeves and pipes in outside walls shall be filled or tightly caulked with oakum, butyl rubber, link seals or other approved equally effective material to resist the penetration of water. Pipe sleeve shall be sufficient diameter to provide approximately 1/2" clearance around pipe, and in the case of insulated pipe, approximately 1/2" around insulation.

15140.05 Sleeves shall be set no closer than three pipe diameters center to center, be set 3/4" past all wall surfaces, and securely anchored to the wall.

15140.06 Hanger and support spacing for horizontal steel and copper piping shall not exceed the following:			
PIPE SIZE	STEEL PIPE	COPPER PIPE	
1/2" - 1-1/4"	7'	5'	
1-1/2" - 2"	9'	6'	
2-1/2" - 3"	11'	10'	

15140.07 Soil, waste, and drain pipe shall have a minimum of one hanger per pipe section at the joints and at changes in direction and branch connections.

15140.08 Spacing of supports and braces for exposed vertical piping shall not exceed the hanger spacing specified for horizontal pipe, unless otherwise indicated.

SECTION 15430 PLUMBING SPECIALTIES

15430.01 Provide Zurn, Smith, Wade, Josam, or approved equal cleanouts where shown. Cleanouts shall be the same size pipe for pipe 4" and smaller, and 4" for lines 4" and larger.

15430.02 Floor and exterior cleanouts shall be Zurn ZN-1400. Set in 12" x 12" x 4" concrete pad for exterior use.

15430.03 Wall cleanouts shall be "NO-HUB" caps behind Zurn Z1446 round stainless steel cover.

SECTION 15440 PLUMBING FIXTURES AND TRIM

15440.01 Provide complete, all fixtures indicated. All fixtures shall be set firm and true, connected to all pipe and ready for use. All fixtures shall be of one manufacturer throughout the entire installation, unless otherwise specified. Stop valves shall be provided on the water connections to all fixtures.

15440.02 Refer to plumbing fixture schedule on drawings. Fixtures from Eljer, American Standard, Crane, and Kohler are equally accepted provided comparable units are provided.

15440.03 Refer to elevations on the Architect's drawings for installation height of wall mounted fixtures.

15440.04 Plumbing trim utilized shall be provided with renewable seats and replaceable internal working components.

15440.05 All fixtures shall be substantially supported in an approved manner. Furnish and install adjustable carriers as required for all wall hung fixtures.

15440.06 All spaces between fixtures and finished surfaces shall be caulked and pointed square with an approved white silicone sealant resulting in a neat and smooth appearance.

15440.07 The contractor shall be responsible for the protection and cleanliness of all fixtures, equipment and accessories.

SECTION 15670 - A/C SYSTEMS

15670.01 Provide Trane, Lennox, York, or Carrier split system combinations as scheduled on the drawings.

15670.02 Blower coils shall be provided with helix-wound, nickel chrome electric resistance heat elements. Fans shall be multispeed with internal thermal protection and permanent lubrication. Units shall be furnished for single point electric connection with integral overcurrent protection.

15670.03 All system components shall be of same Manufacturer.

15670.04 Refrigerant coils shall be copper tube with mechanically bonded aluminum fins, complying with ARI 210/240. Provide reversing valve for heat pump operation.

15670.05 Filters shall be 1" thick throwaway type.

15670.06 Exterior units shall have steel housing with removable panels to access controls. Service valves, fittings and gage ports shall be on exterior of unit. Housing shall be finished with baked enamel.

15670.07 Compressors shall be hermetically sealed scroll type mounted on vibration isolators. Provide with crankcase heater. Motor shall be permanently lubricated and have thermal and current sensitive overload protection, start capacitor, relay, and contactor.

15670.08 Provide with programmable thermostats and all required control wiring.

SECTION 15890 SHEET METAL WORK

15890.01 Provide all sheet metal work for supply, return, and exhaust air systems. Provide all grilles, louvers, hand dampers, and all work required to make the job complete as shown on the drawings.

15890.02 All duct construction, gauges, methods of construction, and methods for hanging and supporting shall conform to SMACNA Standards applicable sections of the Mechanical Code.

15890.03 All ductwork shall be constructed of galvanized sheet steel to 2" SMACNA pressure class and Class "C" sealing.

15890.04 Make joints in rectangular ductwork airtight and patch or solder open corners.

15890.05 All round ductwork shall be 26 gauge galvanized "Snap Lock" pipe with all changes in direction made via adjustable elbows. All seams and connections shall be sealed with foil faced pressure sensitive tape. Silver-coated polyethylene cloth tape is not acceptable. All rectangular duct shall be 24 gauge galvanized sheetmetal. Duct sizes shown on drawings are air stream size.

15890.06 Provide Ventfabrics, Inc., "Metaledge Ventglass" canvas connections for all duct systems at connections to motorized equipment.

15890.07 Coordinate ductwork installation with other trades and verify the location of all light fixtures, pipes, beams, and other possible obstructions, and adjust routing of ductwork as required to accommodate same.

SECTION 15950 TESTING, ADJUSTING, AND BALANCING

15950.01 All testing and balancing work shall be performed in accordance with NEBB National Standards for Testing, Adjusting, and Balancing of Environmental Systems.

15950.02 Adjust all fans and air outlets to within 10% of specified airflow.

END OF DIVISION 15



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Project 21041

Feb. 2022

HVAC SYMBOLS

RECTANGULAR SUPPLY DUCT UP

RECTANGULAR SUPPLY DUCT DOWN

ROUND DUCT UP

ROUND DUCT DOWN

RECTANGULAR RETURN DUCT UP

RECTANGULAR RETURN DUCT DOWN

SQUARE SUPPLY DIFFUSER

FLEXIBLE DUCTWORK - MAX 5'

RIGID DUCTWORK

WALL GRILLE (SUPPLY OR RETURN)

THERMOSTAT

90° ELBOW WITH TURNING VANES

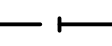
GRILLE/DIFFUSER TAG

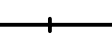
TOP: DEVICE TAG (SEE SCHEDULE)

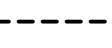
MIDDLE: NECK SIZE

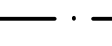
BOTTOM: AIRFLOW

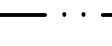
PLUMBING SYMBOLS

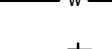
SANITARY DRAIN BELOW GRADE

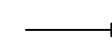
SANITARY DRAIN ABOVE GRADE

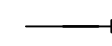
SANITARY VENT

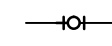
DOMESTIC COLD WATER

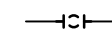
DOMESTIC HOT WATER

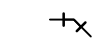
WATER SERVICE

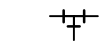
SHORT RADIUS 90° ELBOW

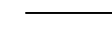
PIPE TURNED UP

PIPE TURNED DOWN

TEE UP

TEE DOWN

TEE SHORT RADIUS 45° ELBOW

CLEANOUT

BALL VALVE

FLOOR DRAIN

GENERAL SYMBOLS

DETAIL REFERENCE

DETAIL NUMBER

SHEET NUMBER

ELEVATION REFERENCE

DETAIL NUMBER

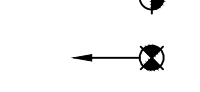
SHEET NUMBER

SECTION CUT

DETAIL NUMBER

SHEET NUMBER

KEYED PLAN NOTE



REVISION NOTE



ELEVATION



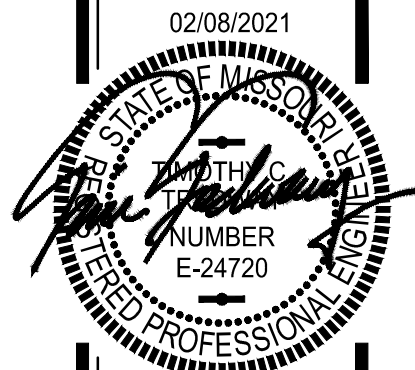
CONNECT TO EXISTING. FIELD VERIFY LOCATION & MATERIAL OF EXISTING



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Salina, KS 67402
jgr@jgrarchitects.com

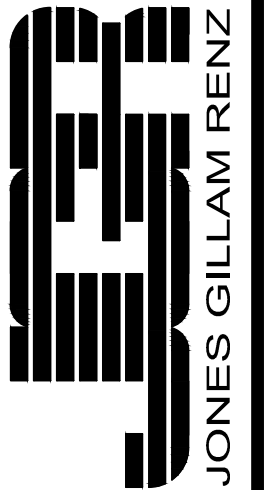


BRIDGEPORT APARTMENTS
REMODEL, REHABILITATION APARTMENTS
MISSOURI
KANSAS CITY,
02/08/2021



DATE:
02-08-2021
JOB:
21-3157
SHEET:

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M0.1



BRIDGEPORT APARTMENTS

REMODEL, REHABILITATION APARTMENTS

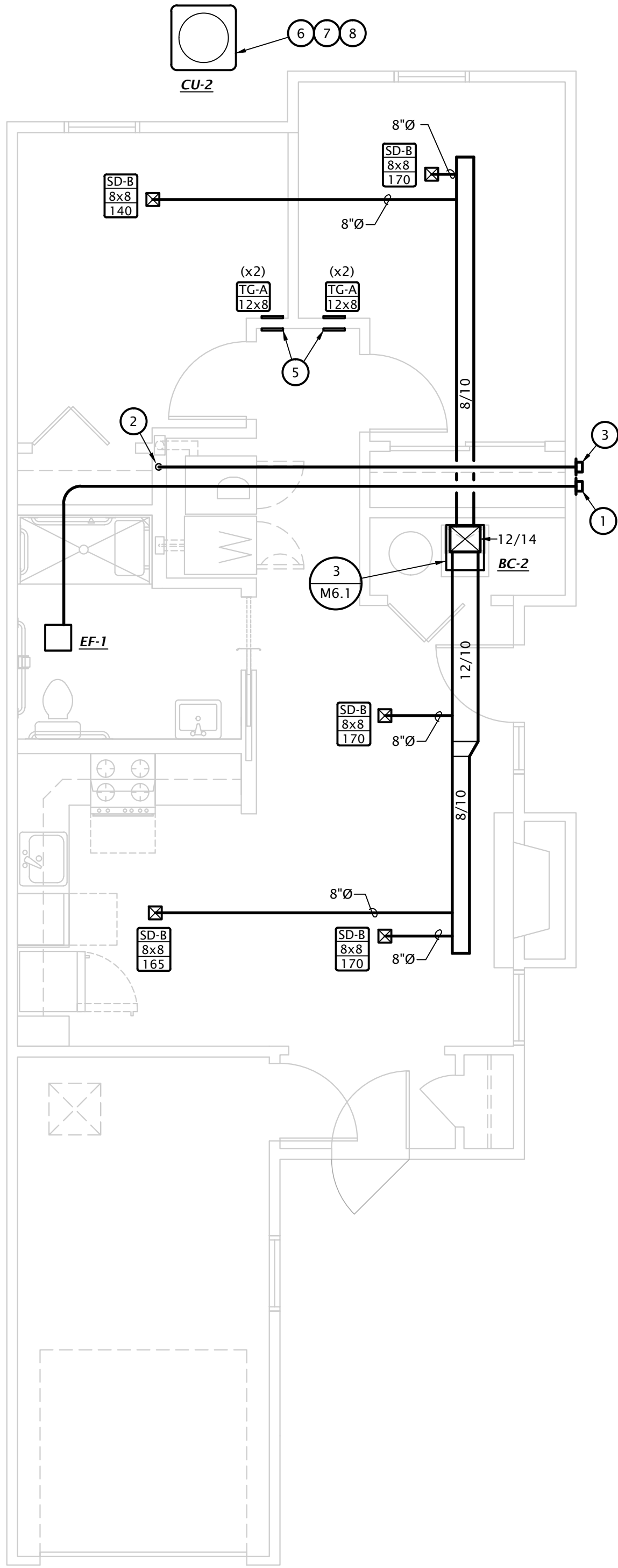
KANSAS CITY, MISSOURI



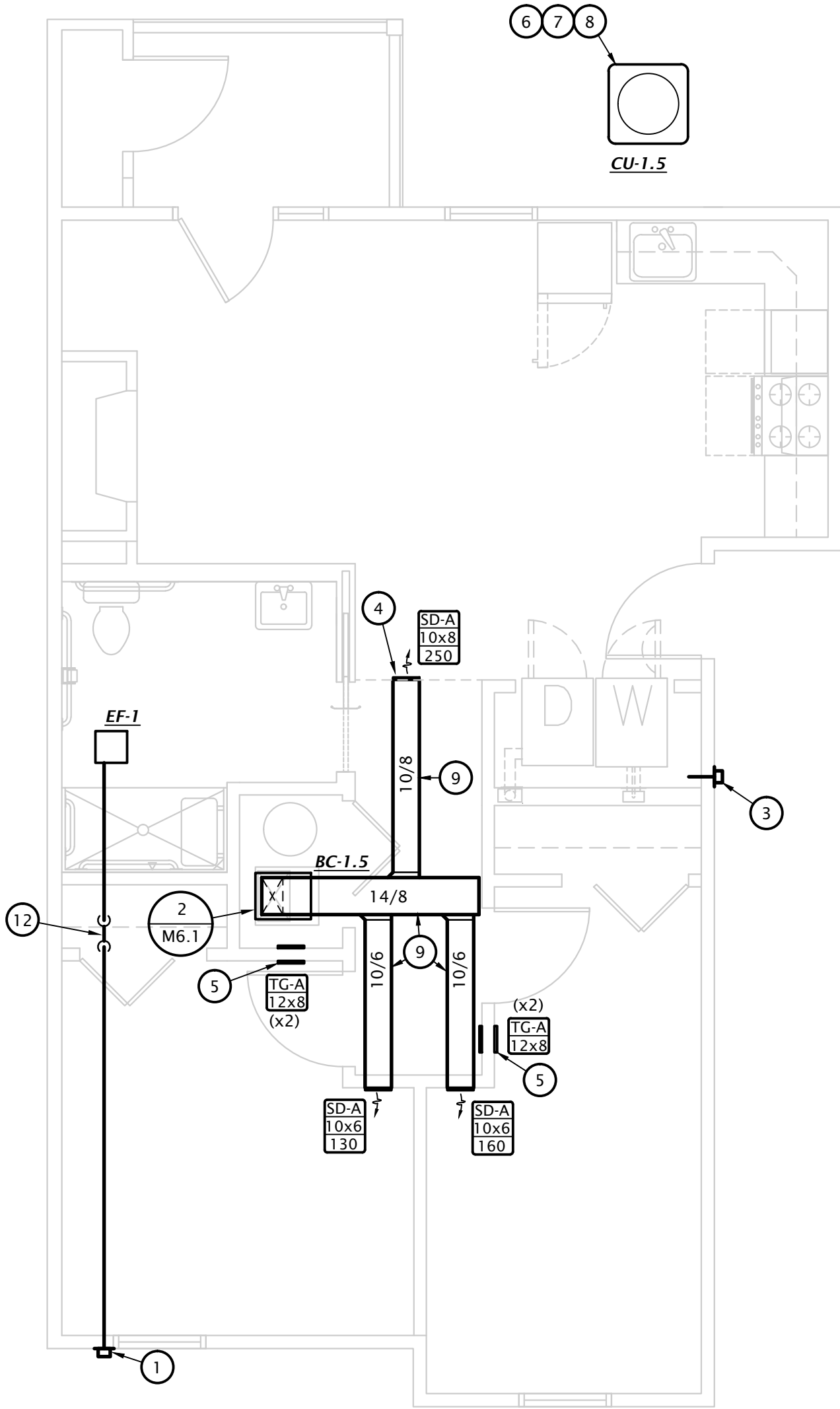
DATE: 02-08-2021

JOB: 21-3157

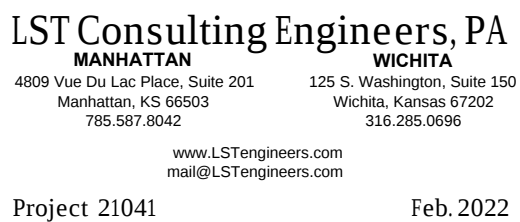
SHEET:



2 UNIT TYPE 'E' HVAC PLAN
1/4" = 1'-0"



1 UNIT TYPE 'D' HVAC PLAN
1/4" = 1'-0"



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Project 21041 **Feb. 2022**

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MISSOURI

REMODEL, REHABILITATION APARTMENTS

KANSAS CITY,

02/08/2021



DATE: 02-08-2021

JOB: 21-3157

SHEET:

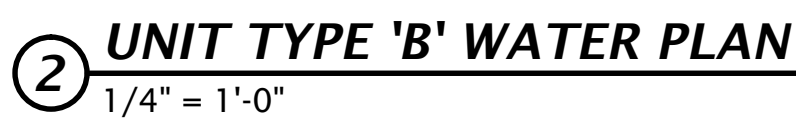
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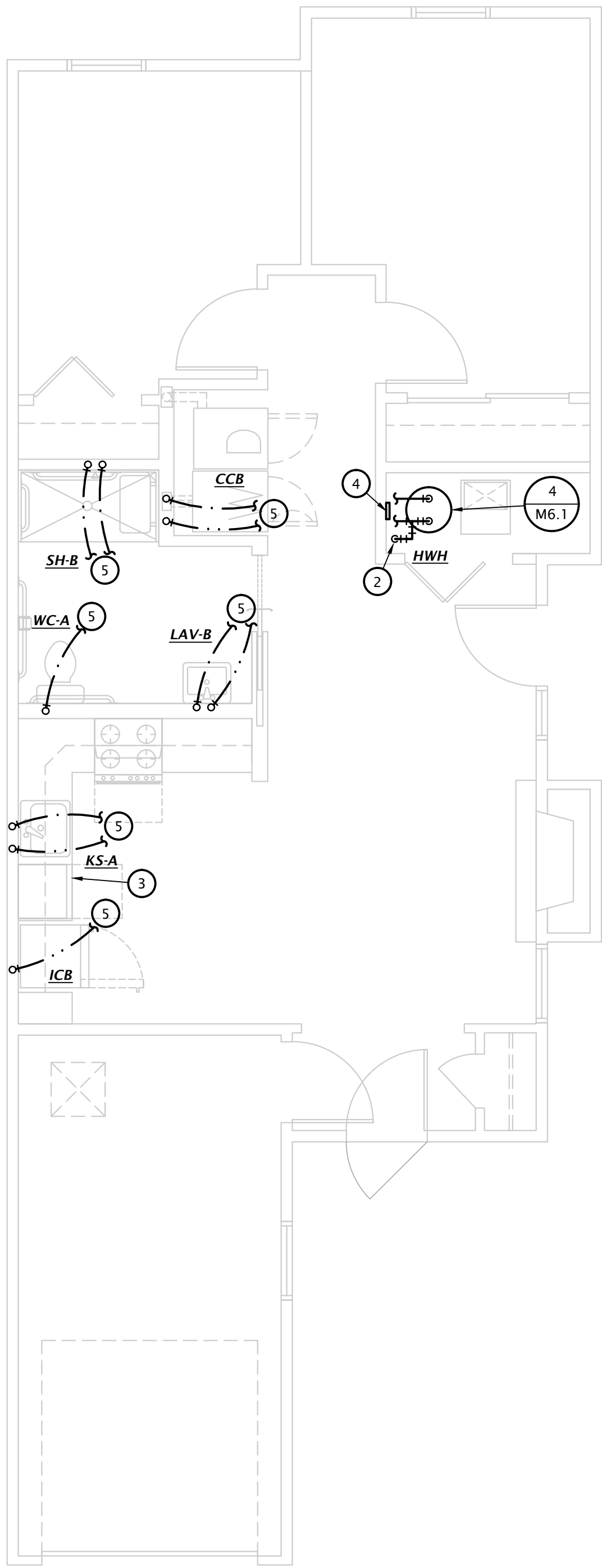
M1.3

NOTE:
SEE PLUMBING ROUGH-IN SCHEDULE ON SHEET
M6.1 FOR INDIVIDUAL FIXTURE CONNECTION
SIZES AND ADDITIONAL INFORMATION.

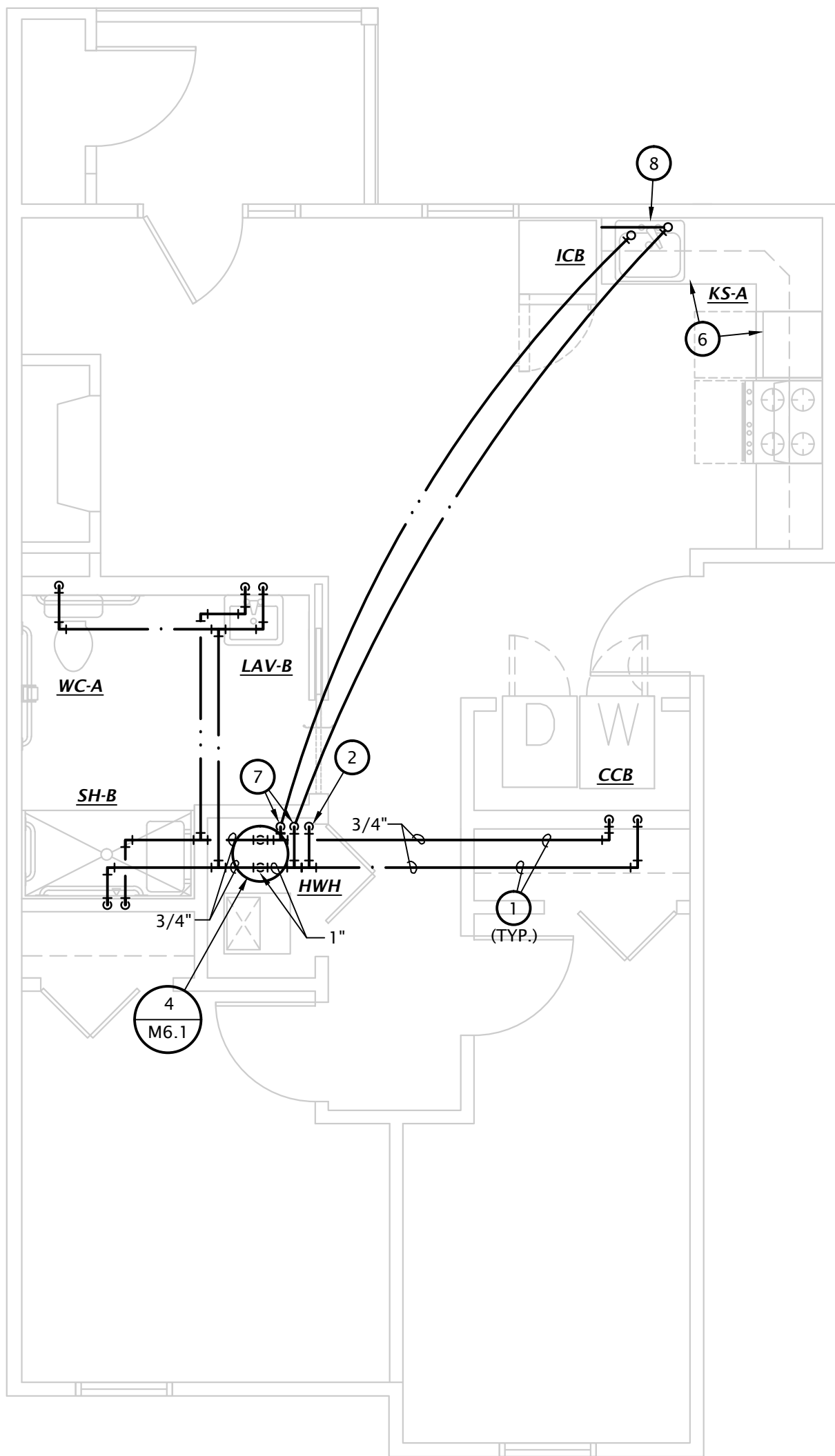
PLUMBING NOTES BY SYMBOL

1. DOMESTIC WATER PIPING OCCURS BETWEEN FIRST AND SECOND FLOOR.
2. RE-ROUTE EXISTING 1" WATER SERVICE TO LOCATION INDICATED IN NEW MECHANICAL CLOSET. MODIFY EXISTING WATER SERVICE PIPING AS REQUIRED. FIELD VERIFY EXISTING WATER SERVICE SIZE AND LOCATION. PROVIDE FULL-OPEN BALL VALVE FOR EACH APPLIANCE. COORDINATE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH G.C.
3. PROVIDE 1/2" VALVED HW BRANCH BELOW SINK AND CONNECT DISHWASHER. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDER.
4. PROVIDE 1" CONNECTION TO COLD WATER MANIFOLD AND HOT WATER MANIFOLD. ROUTE 1/2" PEX BRANCHES FROM DOMESTIC WATER MANIFOLDS TO EACH PLUMBING FIXTURES BELOW SLAB. DO NOT USE JOINTS BELOW GRADE. SEE DETAIL 1-16.
5. ROUTE FUTURE BRANCHES BELOW SLAB TO DOMESTIC WATER MANIFOLDS AT MECHANICAL CLOSET. DO NOT USE JOINTS BELOW SLAB. COORDINATE CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH ARCH. AND G.C.
6. PROVIDE 1/2" VALVED HW BRANCH BELOW SINK AND CONNECT DISHWASHER. ROUTE PIPING ALONG BACK OF CABINERY, COORDINATE EXACT ROUTING WITH G.C. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDER.
7. ROUTE 1/2" PEX FUTURE BRANCHES FROM MECHANICAL CLOSET BELOW SLAB TO SINK 'K-A'. DO NOT ROUTE WATER PIPING IN EXTERIOR WALL. DO NOT USE JOINTS BELOW SLAB. COORDINATE CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH ARCH. AND G.C.
8. PROVIDE 1/2" VALVED CW BRANCH BELOW SINK TO 'ICB'. ROUTE PIPING ALONG BACK OF CABINERY, COORDINATE EXACT ROUTING WITH G.C.





2 UNIT TYPE 'E' WATER PLAN
1/4" = 1'-0"



1 UNIT TYPE 'D' WATER PLAN
1/4" = 1'-0"

NOTE:
SEE PLUMBING ROUGH-IN SCHEDULE ON SHEET
M6.1 FOR INDIVIDUAL FIXTURE CONNECTION
SIZES AND ADDITIONAL INFORMATION.

PLUMBING NOTES BY SYMBOL

1. DOMESTIC WATER PIPING OCCURS BETWEEN FIRST AND SECOND FLOOR.
2. RE-ROUTE EXISTING 1" WATER SERVICE TO LOCATION INDICATED IN NEW MECHANICAL CLOSET. MODIFY EXISTING WATER SERVICE PIPING AS REQUIRED. FIELD VERIFY EXISTING WATER SERVICE SIZE AND LOCATION. PROVIDE FULL-OPEN SHUT-OFF VALVE FOR EACH APARTMENT. COORDINATE ALL REQUIRED CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH G.C.
3. PROVIDE 1/2" VALVED HW BRANCH BELOW SINK AND CONNECT DISHWASHER. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDED.
4. PROVIDE 1" CONNECTION TO COLD WATER MANIFOLD AND HOT WATER MANIFOLD. ROUTE 1/2" PEX BRANCHES FROM DOMESTIC WATER MANIFOLDS TO EACH PLUMBING FIXTURES BELOW SLAB. DO NOT USE JOINTS BELOW GRADE. SEE DETAIL 1.M6.1.
5. ROUTE FIXTURE BRANCHES BELOW SLAB TO DOMESTIC WATER MANIFOLDS AT MECHANICAL CLOSET. DO NOT USE JOINTS BELOW SLAB. COORDINATE CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH ARCH. AND G.C.
6. PROVIDE 1/2" VALVED HW BRANCH BELOW SINK AND CONNECT DISHWASHER. ROUTE PIPING ALONG BACK OF CABINETRY, COORDINATE EXACT ROUTING WITH G.C. COORDINATE EXACT REQUIREMENTS WITH DISHWASHER PROVIDED.
7. ROUTE 1/2" PEX FIXTURE BRANCHES FROM MECHANICAL CLOSET BELOW SLAB TO SINK 'KS-A'. DO NOT ROUTE WATER PIPING IN EXTERIOR WALL. DO NOT USE JOINTS BELOW SLAB. COORDINATE CUTTING AND PATCHING OF EXISTING CONSTRUCTION WITH ARCH. AND G.C.
8. PROVIDE 1/2" VALVED CW BRANCH BELOW SINK TO 'ICB'. ROUTE PIPING ALONG BACK OF CABINETRY, COORDINATE EXACT ROUTING WITH G.C.

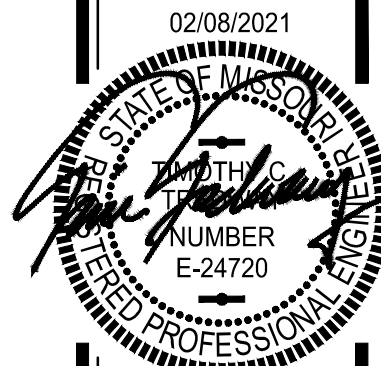


MISSOURI

BRIDGEPORT APARTMENTS

REMODEL, REHABILITATION APARTMENTS

KANSAS CITY,



DATE: 02-08-2021
JOB: 21-3157
SHEET:

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M1.4

EXHAUST FAN SCHEDULE

MARK	MANUFACTURER	MODEL	CFM	ESP (" wg)	POWER	VOLTS/ PHASE	NOTES
EF-1	BROAN	XB80	80	0.4"	6 W	120 / 1	1,2,3,4, 5,6,7
NOTES: 1. Fixture shall be Energy Star listed. 2. Fixture shall operate at <1 SONE 3. Provide integral disconnect. 4. Provide manufacturer's wall cap, see plans. 5. Provide integral backdraft damper. 6. Provide with manufacturer's ceiling radiation damper. 7. Fixture occurs in each tenant unit.							

FOR EACH STANDARD NON-ADA UNITS PROVIDE ALTERNATE PRICING TO REPLACE EXISTING CONDENSING UNIT AND BLOWER COIL AS FOLLOWS:
- AT EACH APARTMENT UNIT PROVIDE CU-1.5 & BC-1.5
- AT EACH DUPLEX UNIT PROVIDE CU-2 & BC-2
MODIFY EXISTING MECHANICAL AND ELECTRICAL INSTALLATION AS REQUIRED FOR UNIT REPLACEMENT. FIELD VERIFY EXACT REQUIREMENTS.

FOR STANDARD NON-ADA UNITS BID AS FOLLOWS:
BASE BID
1) REPLACE FOLLOWING PLUMBING FIXTURES AND ASSOCIATED ROUGH-IN:
• LAVATORY 'LAV-C'
• KITCHEN SINK 'KS-B'
• ICE MAKER CONNECTION BOX 'ICB'
2) REPLACE TRIM ONLY FOR EXISTING BATHTUB AND/OR SHOWER WITH TRIM SCHEDULED FOR 'BT-A' AND 'SH-C'.
3) EXISTING CLOTHES WASHER CONNECTIONS TO REMAIN.
ALTERNATE BID
- PROVIDE ALTERNATE PRICING TO REPLACE THE FOLLOWING FIXTURES FOR EACH STANDARD NON-ADA APARTMENT:
• WATER CLOSET 'WC-A'
• BATHTUB AND/OR SHOWER 'BT-A' AND 'SH-C'

CONDENSING UNIT SCHEDULE

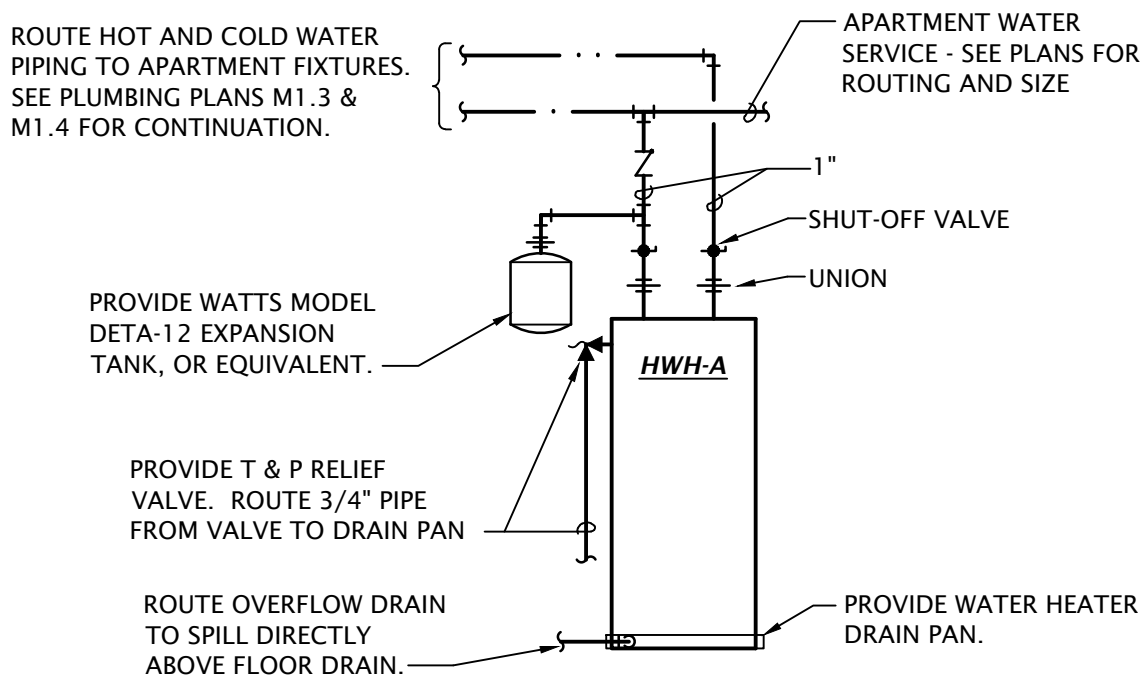
MARK	MANUF.	MODEL	NOMINAL TONS	SUPPLY CFM	COOLING CAPACITY					ELECTRICAL		
					OA DB	ENT AIR DB/WB	SENS MBH	TOT MBH	MIN SEER	MCA	MOCp	V/PH
CU-1.5	GOODMAN	GSZ-14-0181L	1.5	610	105	75/63	15.7	15.7	14	8.5	15	240/1
CU-2	GOODMAN	GSZ-14-0241L	2	800	105	75/63	16.77	20.7	14	10.6	15	240/1
Notes: 1. Refrigerant lines shall be field fabricated. Coordinate line sizing requirements with equipment manufacturer for length of run for each apartment. Provide suction accumulators, etc. as required. 2. Units shall be Energy Star Certified. 3. Provide with R140a refrigerant.												
ALTERNATE BID -PROVIDE ALTERNATE PRICING FOR HEAT PUMPS OF EQUAL CAPACITY IN PLACE OF CONDENSING UNITS. IF HEAT PUMPS ARE PROVIDED, ELECTRIC HEATING SHALL BE BACKUP HEAT ONLY.												

BLOWER COIL SCHEDULE

MARK	MANUF.	MODEL	FAN			HEATING KW	V/Ph	MOTOR FLA	MCA	MOCp
			CFM	ESP	SPEED					
BC-1.5	GOODMAN	ARUF25B14	540	0.4	LOW	4.5	240/1	1.75	27	30
BC-2	GOODMAN	ARUF25B14	815	0.4	LOW	8	240/1	1.75	44	45
Notes: 1. Single point connection required, coordinate the exact electrical requirements of equipment provided with E.C. 2. Provide with manufacturer's fan coil filter cabinet accessory at return air end with MERV 8 filter 3. Provide with 7-day programmable thermostat.										

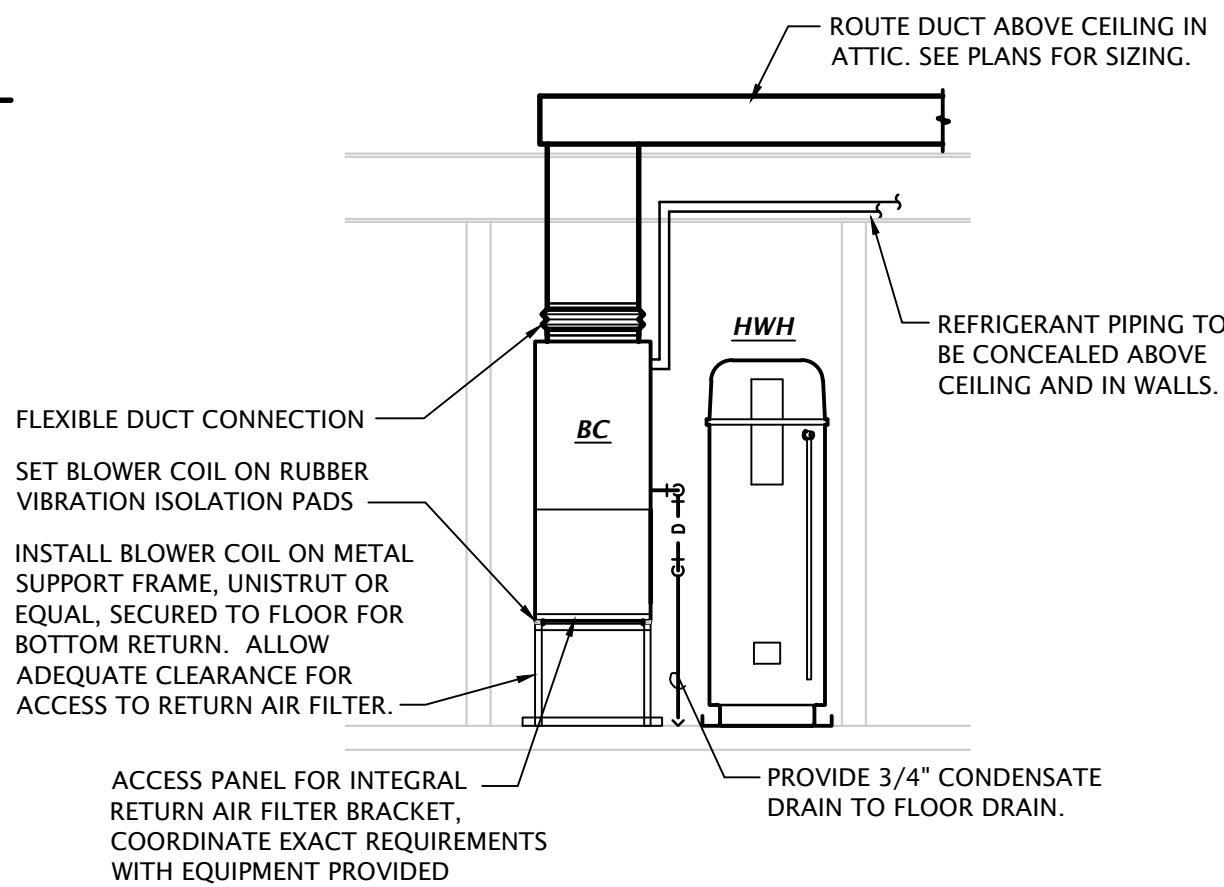
AIR DEVICE SCHEDULE

MARK	MANUFACTURER	MODEL	APPLICATION				FINISH	MOUNTING	DAMPER	DESCRIPTION	NOTES
			SUPPLY	RETURN	EXHAUST	TRANSFER					
SD-A	HART & COOLEY	A618	•				WHITE	SURFACE	YES	Aluminum, straight blade vertical fin register with opposed blade damper	1,2,3
SD-B	HART & COOLEY	684	•				WHITE	SURFACE	YES	Steel, 4-way register with damper	1,2,3,5
RG-A	HART & COOLEY	650		•			WHITE	SURFACE	NO	Single deflection, steel, louvered face return grille	1,2,3,4
TG-A	HART & COOLEY	650			•		WHITE	SURFACE	NO	Single deflection, steel, louvered face return grille	1,2,3,4
NOTES: 1. Provide mounting frame as required for ceiling type. 2. Maximum NC shall be 25. 3. Paint objects visible through grilles with flat black paint. 4. Neck size shall be same as face. 5. Provide round to square neck adapter as required for runoff size indicated on plans.											



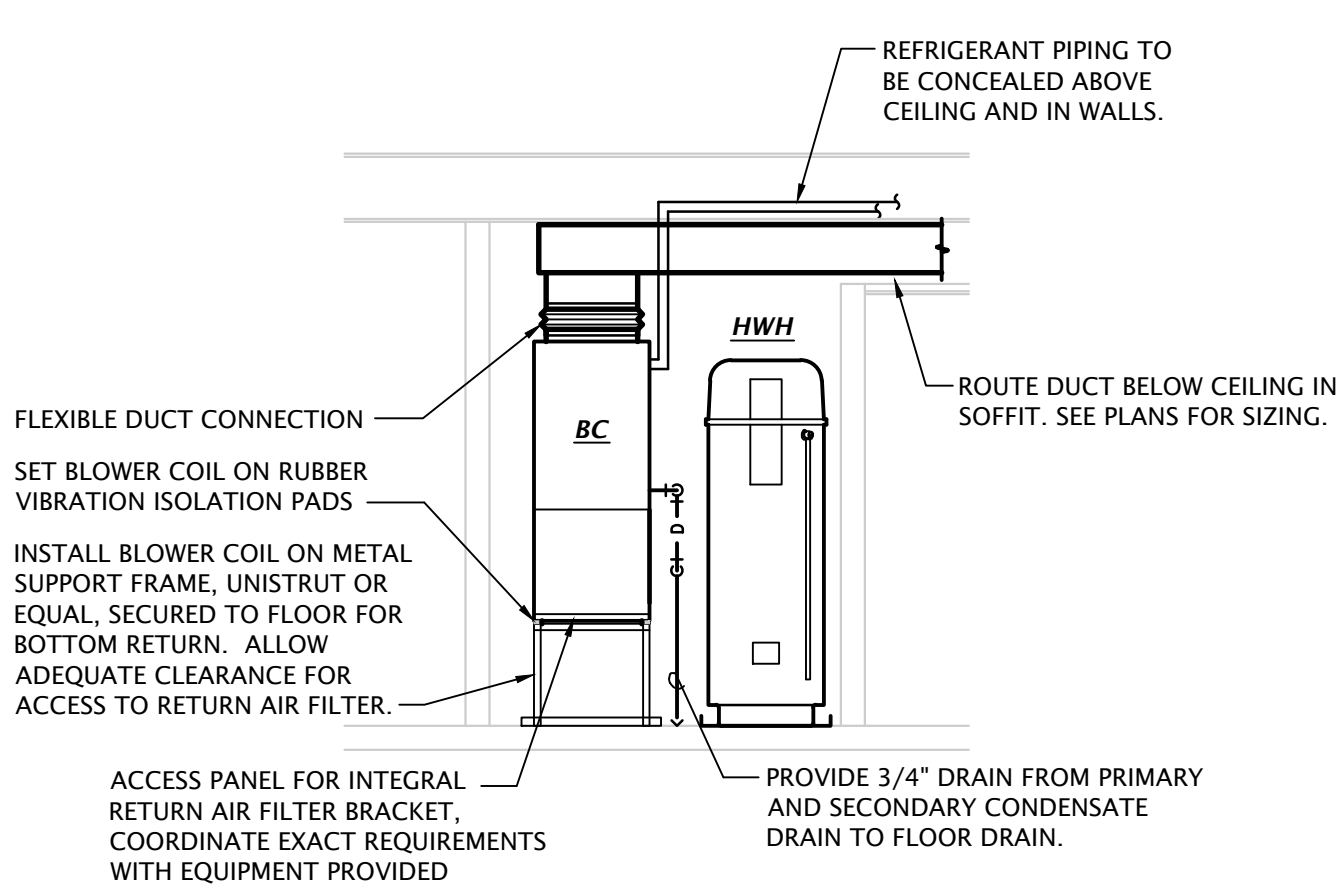
4 APARTMENT WATER HEATER PIPING DIAGRAM

NO SCALE



3 BLOWER COIL DETAIL - ATTIC ABOVE

Not to Scale



2 BLOWER COIL DETAIL - APARTMENT ABOVE

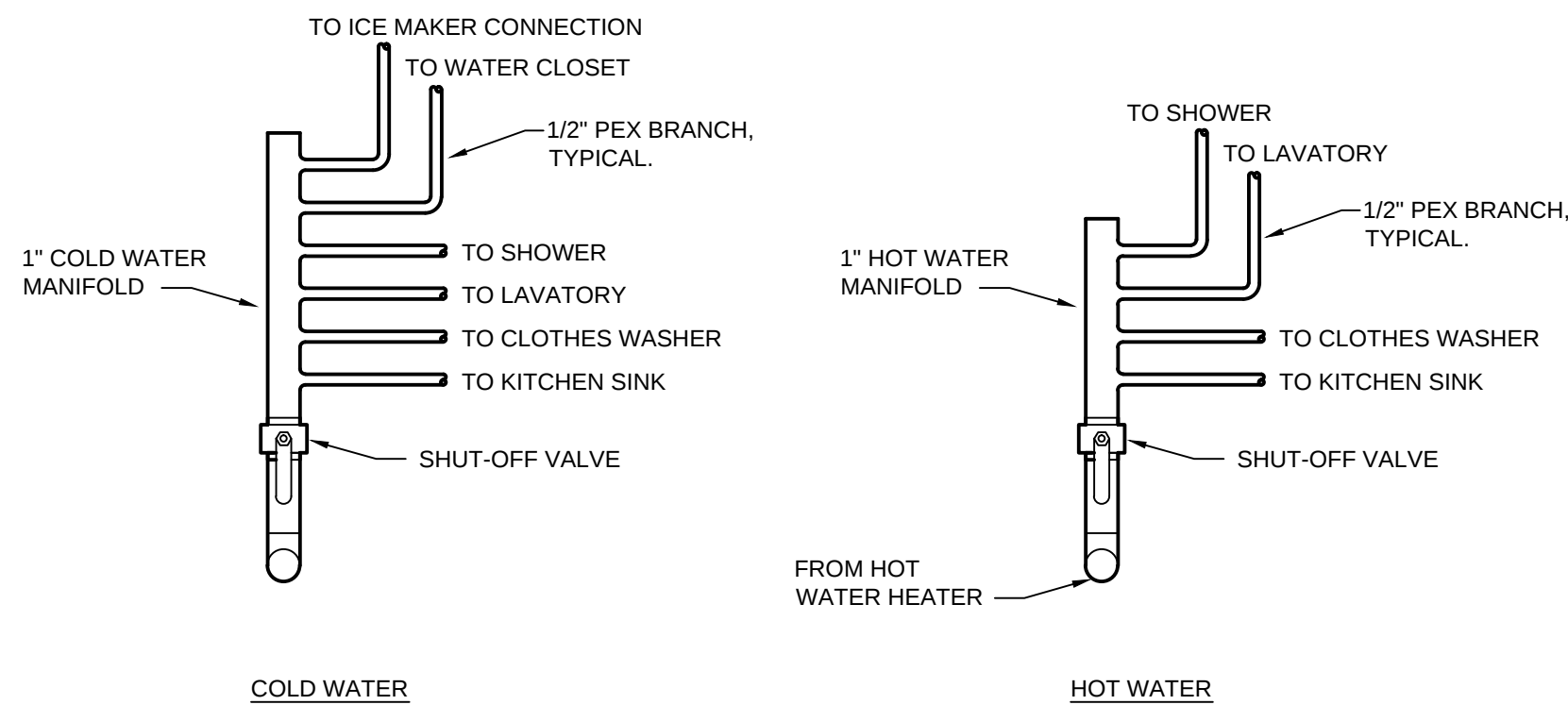
Not to Scale

APARTMENT PLUMBING FIXTURE SCHEDULE

MARK	MANUFACTURER	DESCRIPTION	TRIM		ROUGH-IN SIZES				NOTES
			MANUFACTURER	DESCRIPTION	WASTE	VENT	CW	HW	
WC-A	KOHLER	Model #K-3658-(RA)-0 "Highline Classic" ADA compliant flush tank water closet, white vitreous china, two piece, 12" rough-in, elongated 16-1/2" high bowl, siphon jet flushing action, 1.28 GPF, polished chrome actuator. Coordinate location of trip lever with installation.	KOHLER	#K-4636-0 white, closed front plastic seat with slow closing lid.	3"	2"	1/2"	---	1
LAV-A	KOHLER	Model 2196-4-0 self-rimming lavatory, white vitreous china, 20"W x 17", faucet holes on 4" centers.	KOHLER	#K-394-4-2 two handle faucet with pop-up drain and nickel finish.	2"	1-1/2"	1/2"	1/2"	1,2,3
LAV-B	KOHLER	Model 2005-0 wall hung lavatory, white vitreous china, 18-1/4"W x 17-1/4", faucet holes on 4" centers.	KOHLER	#K-394-4-2 two handle faucet with pop-up drain and nickel finish.	2"	1-1/2"	1/2"	1/2"	1,2,3
LAV-C	KOHLER	Model 2196-4-0 self-rimming lavatory, white vitreous china, 20"W x 17", faucet holes on 4" centers.	KOHLER	#K-394-4-2 two handle faucet with pop-up drain and nickel finish.	2"	1-1/2"	1/2"	1/2"	2
KS-A	JUST	Model SL-ADA-2225-A-GR single compartment 18 GA stainless steel sink, self rimming, 22"x16"x5"D inside, fully undercoated, faucet holes as required, and drain hole center rear.	KOHLER	#K-780 single handle pull down kitchen sink faucet with chrome finish, single hole installation. Provide basket strainer.	2"	1-1/2"	1/2"	1/2"	1,2,4,5
KS-B	JUST	Model SL-2225-A-GR single compartment 18 GA stainless steel sink, self rimming, 22"x16"x8"D inside, fully undercoated, faucet holes as required.	KOHLER	#K-780 single handle pull down kitchen sink faucet with chrome finish, single hole installation. Provide basket strainer.	2"	1-1/2"	1/2"	1/2"	2,4
BT-A	AQUARIUS	Model G 6063 TS reinforced fiberglass tub/shower, 60"W x35-3/4"D x76-1/2"H, with integral soap/toiletry shelves, right or left hand rough-in as required, white finish.	KOHLER	#K-304 pressure balancing valve with integral temperature limits and stops, #K-TS10582-4 bath and shower valve trim. Entire assembly shall have nickel finish. Max. 2 GPM.	2"	1-1/2"	1/2"	1/2"	2
SH-A	AQUARIUS	Model 'G-3682BF RFF' reinforced fiberglass ADA shower, 36"W x36"D x76-1/2"H, with integral soap/toiletry shelves and grab bars in accordance with ADA requirements, fold-up seat, right or left hand rough-in as required, white finish. Provide with collapsible dam.	KOHLER	#K-304 pressure balancing valve with integral temperature limits and stops, #K-TS10584-4 valve trim, #K-355 wall supply elbow, #K-9514 60" hose, #K-10549 hand shower, and #K-8524/K-349 slide bar. Entire assembly shall have nickel finish. Max. 2 GPM.	2"	1-1/2"	1/2"	1/2"	1
SH-B	AQUARIUS	Model G-6233 BF-.75 reinforced fiberglass ADA roll-in shower, 60"W x33"D x73-3/4"H, with integral soap/toiletry shelves and grab bars in accordance with ADA requirements, fold-up seat, right or left hand rough-in as required, white finish. Provide with collapsible dam.	KOHLER	#K-304 pressure balancing valve with integral temperature limits and stops, #K-TS10584-4 valve trim, #K-355 wall supply elbow, #K-9514 60" hose, #K-10549 hand shower, and #K-8524/K-349 slide bar. Entire assembly shall have nickel finish. Max. 2 GPM.	2"	1-1/2"	1/2"	1/2"	1
SH-C	AQUARIUS	Model G-3679-SH reinforced fiberglass shower, 36"W x36"D x77-3/4"H, with integral soap/toiletry shelves, white finish.	KOHLER	#K-304 pressure balancing valve with integral temperature limits and stops, #K-TS10583-4 shower valve trim. Entire assembly shall have nickel finish. Max. 2 GPM.	2"	1-1/2"	1/2"	1/2"	1
CCB	WATER-TITE	Model W4700 recessed washing machine box with 2"PVC/ABS drain coupling and knockout test cap. Two brass 1/4 turn adaptor ball valves with hammer arresters, sweat connection.			2"	2"	1/2"	1/2"	
ICB	OATEY	Model 3848X fire rated ice maker connection box with 1/4 turn ball valve.			---	---	1/2"	---	
FD	WADE	Model 1102STD5 floor drain with satin nickel bronze strainer. Provide trap protection device equal to ProSet Trapguard.			2"	1-1/2"	---	---	
HWH	A.O. SMITH	Model ENT-30, 30 gallon electric water heater, (2) non simultaneous 4500 watts, 240 volts heating elements, 21 GPH recovery @ 90°F temp rise. Supplied with temperature & pressure relief valve and brass drain valve.							

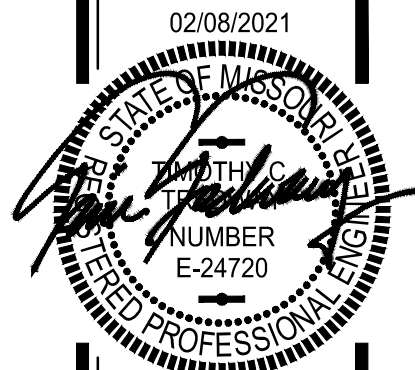
GENERAL:
• Provide fixtures with all trim necessary for complete installation.
• All toilets, lavatory faucets, showerheads, and kitchen faucets shall have EPA's WaterSense label.

NOTES:
1. In areas open to the public, fixture and installation to meet requirements of Americans with Disabilities Act. In apartments, fixture and installation to meet requirements of the Fair Housing Act.
2. Provide Dearborn supplies with stops and escutcheon plate, 1-1/4" cast brass p-trap.
3. Insulate water and waste piping below lavatory. Utilize insulation kit equivalent to LavGuard by Truebro.
4. Trim shall be provided with polished chrome finish.
5. Insulate water and waste piping below sink. Utilize insulation kit equivalent to LavGuard by Truebro. Provide Plumberex model #3071WD-N waste disposal cover.



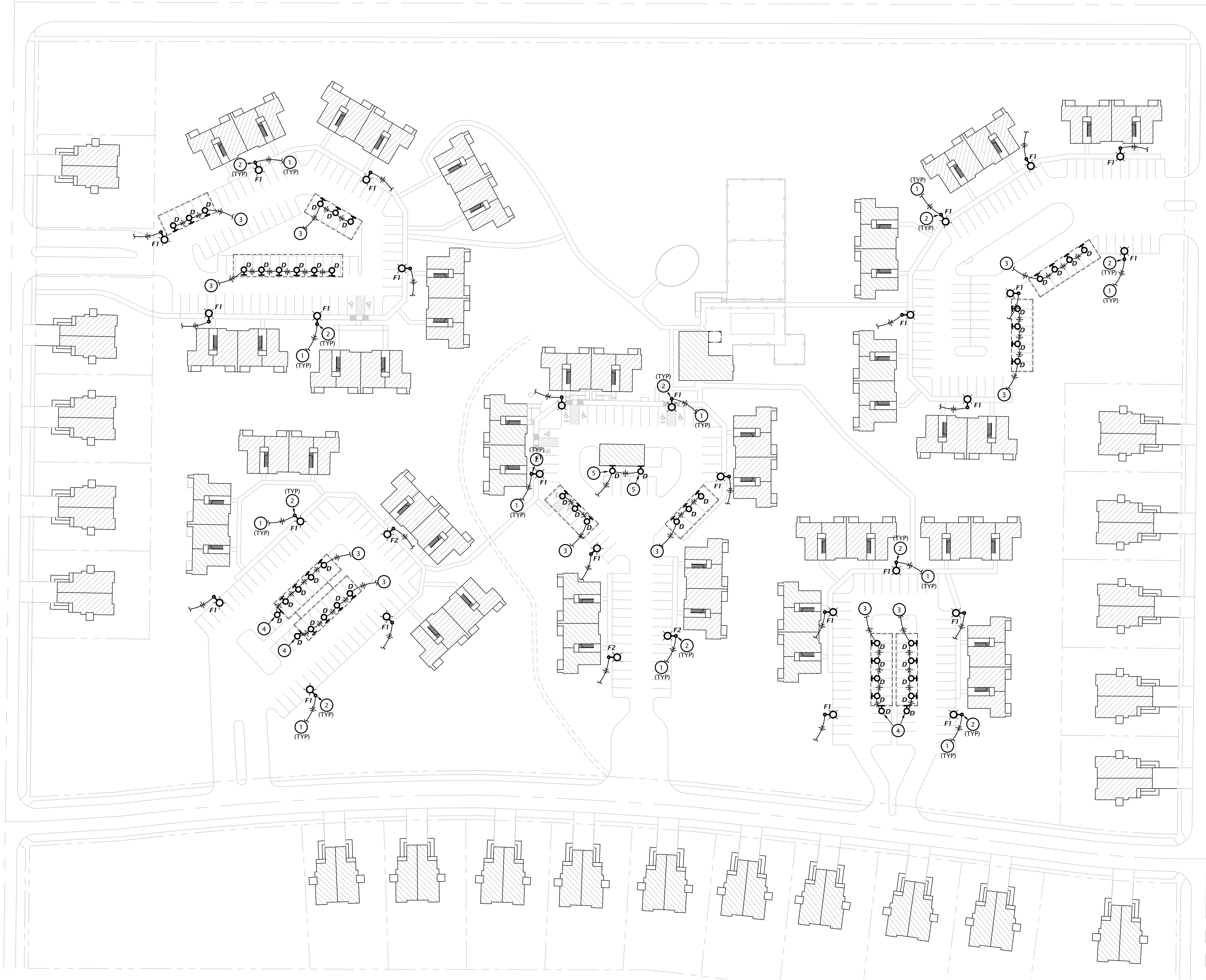
1 DOMESTIC WATER MANIFOLD DETAILS

NO SCALE

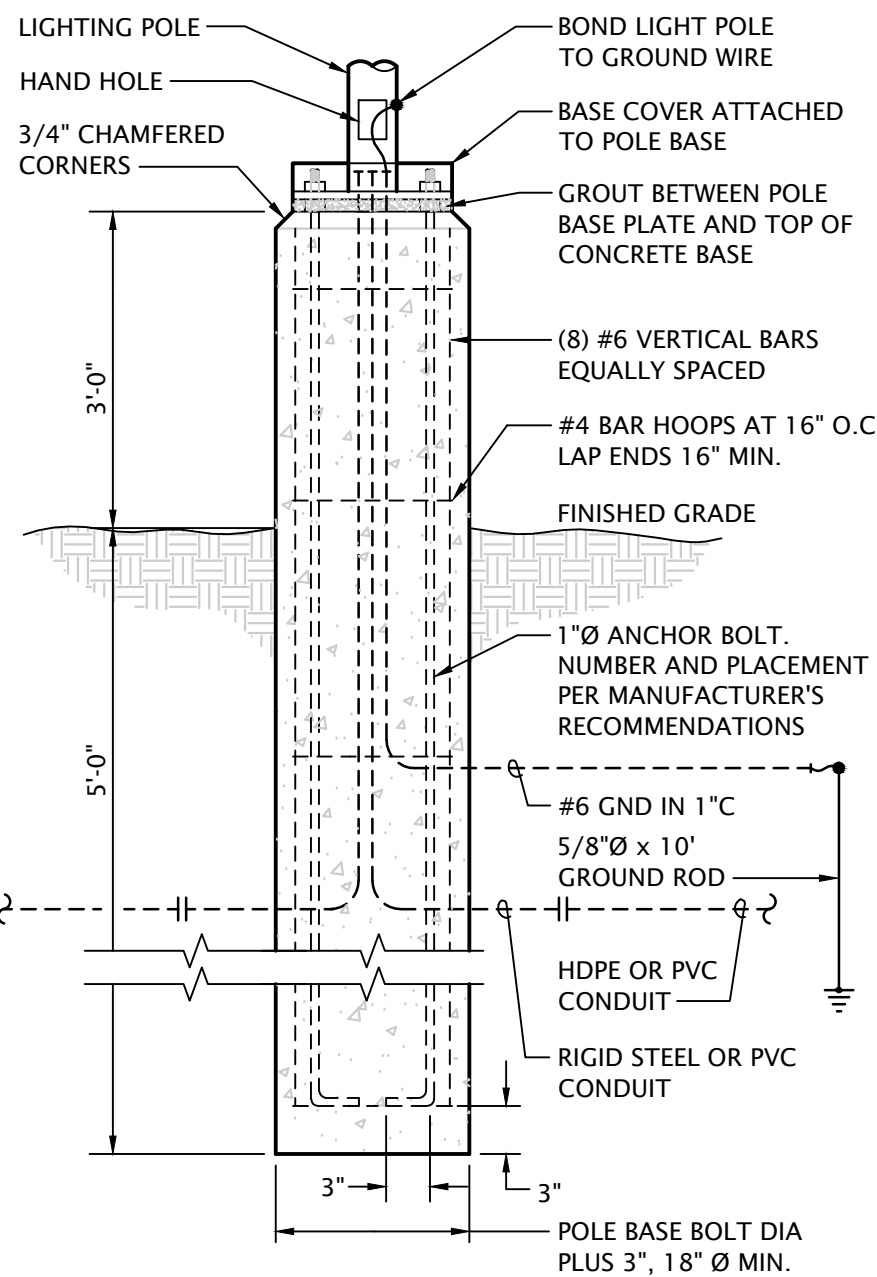


SITE PLAN NOTES BY SYMBOL

1. ROUTE TO NEAREST HOUSE PANEL. PROVIDE 2#12, #12G, 1/2" C. TO 20A/1P BREAKER AT HOUSE PANEL. MAXIMUM OF 6 LIGHT FIXTURES ON SINGLE CIRCUIT WITH A MAXIMUM TOTAL LENGTH OF 250 FEET FROM FARTHEST FIXTURE TO PANEL.
2. REFERENCE POLE BASE DETAIL THIS SHEET.
3. REPLACE EXISTING LIGHT FIXTURE. PROVIDE NEW 2#12, #12G, 1/2" C. TO NEAREST AVAILABLE CIRCUIT IN WEATHERPROOF JUNCTION BOX.
4. NEW LIGHT FIXTURE, MOUNT ON GABLE END OF CARPORT AT 10'-0".
5. NEW LIGHT FIXTURE, MOUNT 1'-0" BELOW SOFFIT. PROVIDE 2#12, #12G, 1/2" C. TO 20A/1P BREAKER TO NEAREST HOUSE PANEL.



1 SITE ELECTRICAL PLAN
1" = 50'-0"



2 CONCRETE POLE BASE DETAIL
No Scale

ELECTRICAL PLAN NOTES BY SYMBOL

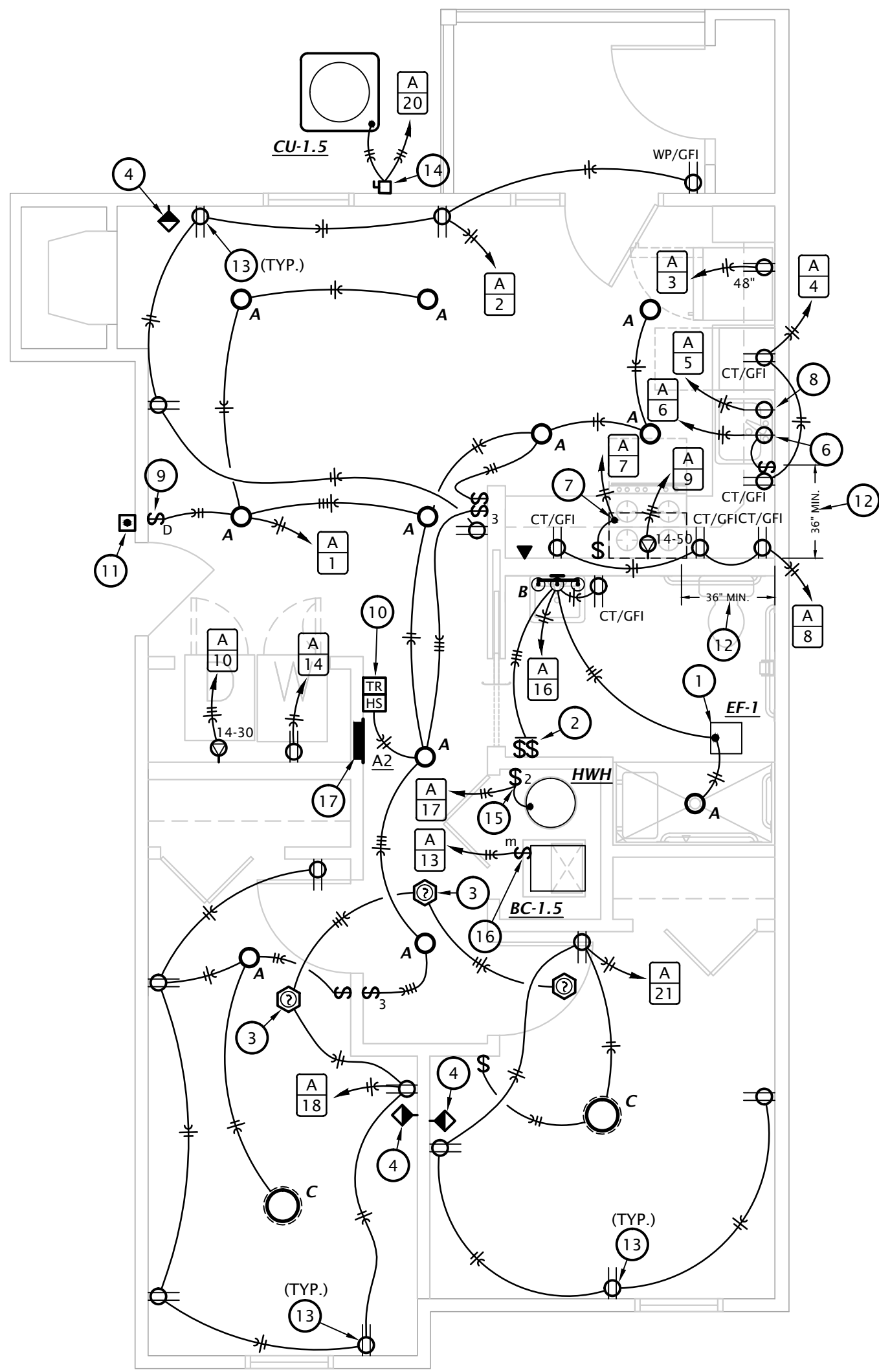
1. CONNECT EXHAUST FAN/LIGHT PROVIDED BY MECHANICAL CONTRACTOR.
2. SWITCH CLOSEST TO THE DOOR SHALL CONTROL ALL LIGHTS IN BATHROOM, AND THE OTHER SWITCH SHALL CONTROL THE EXHAUST FAN.
3. CEILING MOUNTED SMOKE ALARM IN APARTMENTS TO BE 120VAC WITH 9V BATTERY BACKUP, INTERCONNECTED TO OTHERS IN SAME APARTMENT. DEVICE SHALL HAVE CARBON MONOXIDE DETECTOR AND PHOTOELECTRIC TYPE SMOKE DETECTOR WITH SOUNDER HORN HAVING AN 85dB OUTPUT AT 10', SHALL HAVE A SINGLE BUTTON FOR TEST/SILENCE AND LED INDICATOR LIGHTS, AND SHALL BE UL 217 LISTED. BRK #SC70108 OR EQUAL.
4. COORDINATE EXACT CATV AND PHONE OUTLET REQUIREMENTS AND FINAL LOCATIONS WITH OWNER PRIOR TO ROUGH-IN.
5. PROVIDE 50A/2P MANUAL MOTOR CONTROLLER SWITCH AND MAKE FINAL CONNECTION TO BLOWER COIL.
6. SWITCHED RECEPTACLE BELOW COUNTER FOR GARBAGE DISPOSAL.
7. PROVIDE 120V CONNECTION TO RANGE HOOD. PROVIDE SWITCH FOR CONTROL OF RANGE HOOD. COORDINATE EXACT ELECTRICAL ROUGH-IN REQUIREMENTS WITH EQUIPMENT PROVIDED.
8. PROVIDE RECEPTACLE BELOW COUNTER FOR CORD AND PLUG CONNECTION OF DISHWASHER. PROVIDE CORD AND GROUNDING PLUG AS REQUIRED.
9. PROVIDE PRESET SLIDE DIMMER COMPATIBLE WITH ASSOCIATED LIGHT FIXTURES.
10. PROVIDE DOOR ANNUNCIATOR SYSTEM A/V HORN/STROBE DEVICE AND LOW VOLTAGE TRANSFORMER AT ALL ACCESSIBLE APARTMENTS AND ALSO AT APARTMENTS DESIGNATED FOR HEARING-IMPAIRED GUESTS. REFER TO ARCH DRAWINGS FOR APPLICABLE ROOMS. INSTALL HORN/STROBE APPLIANCE AT 80" AFF

- PER ADA. INSTALL TRANSFORMER IN DOUBLE GANG JUNCTION BOX ABOVE HORN/STROBE WITH BLANK COVER PLATE AND PROVIDE LOW VOLTAGE CONTROL WIRING. REFER TO DETAIL 1, SHEET E6.1. PROVIDE ENGRAVED SIGN AT THE HORN/STROBE DEVICE TO READ "DOOR".
11. PROVIDE PUSH BUTTON AT 48" AFF FOR ANNUNCIATOR SYSTEM AT ALL ACCESSIBLE APARTMENTS AND ALSO AT APARTMENTS DESIGNATED FOR HEARING-IMPAIRED. REFER TO ARCH DRAWINGS FOR APPLICABLE ROOMS. REFER TO DETAIL 1, SHEET E6.1.
 12. IN ACCESSIBLE UNITS, INSTALL COUNTERTOP RECEPTACLES A MINIMUM 36" AWAY FROM CORNER PER FAIR HOUSING ACT DESIGN MANUAL CHAPTER 5 'SIDE REACH OVER AN OBSTRUCTION' REQUIREMENTS. WHERE AN OBSTRUCTION PREVENTS 36" DISTANCE REQUIREMENT, INSTALL RECEPTACLE AS FAR FROM CORNER AS POSSIBLE. PROVIDE ADDITIONAL OUTLETS WITHIN 36" OF CORNER TO ENSURE COMPLIANCE WITH NEC SPACING REQUIREMENTS.
 13. EXISTING RECEPTACLES ON EXISTING WALLS MAY REMAIN. WHERE EXISTING RECEPTACLES DO NOT MEET NEC SPACING REQUIREMENTS, PROVIDE RECEPTACLES AS INDICATED.
 14. PROVIDE 30A/2P NON-FUSED DISCONNECT SWITCH IN NEMA 3R ENCLOSURE AND MAKE FINAL CONNECTION TO EQUIPMENT.
 15. PROVIDE 30A/2P SNAP SWITCH AND MAKE FINAL CONNECTION TO ELECTRIC WATER HEATER.
 16. PROVIDE 30A/2P MANUAL MOTOR CONTROLLER SWITCH AND MAKE FINAL CONNECTION TO BLOWER COIL.
 17. PROVIDE NEW PANEL, SEE SCHEDULE. PROVIDE (3)#1/0,#6 GROUND TO EXISTING METER/SERVICE DISCONNECT. EXISTING FEEDER MAY BE REUSED IF APPROPRIATELY SIZED AND OF SUFFICIENT LENGTH TO REROUTE WITHOUT SPLICING.

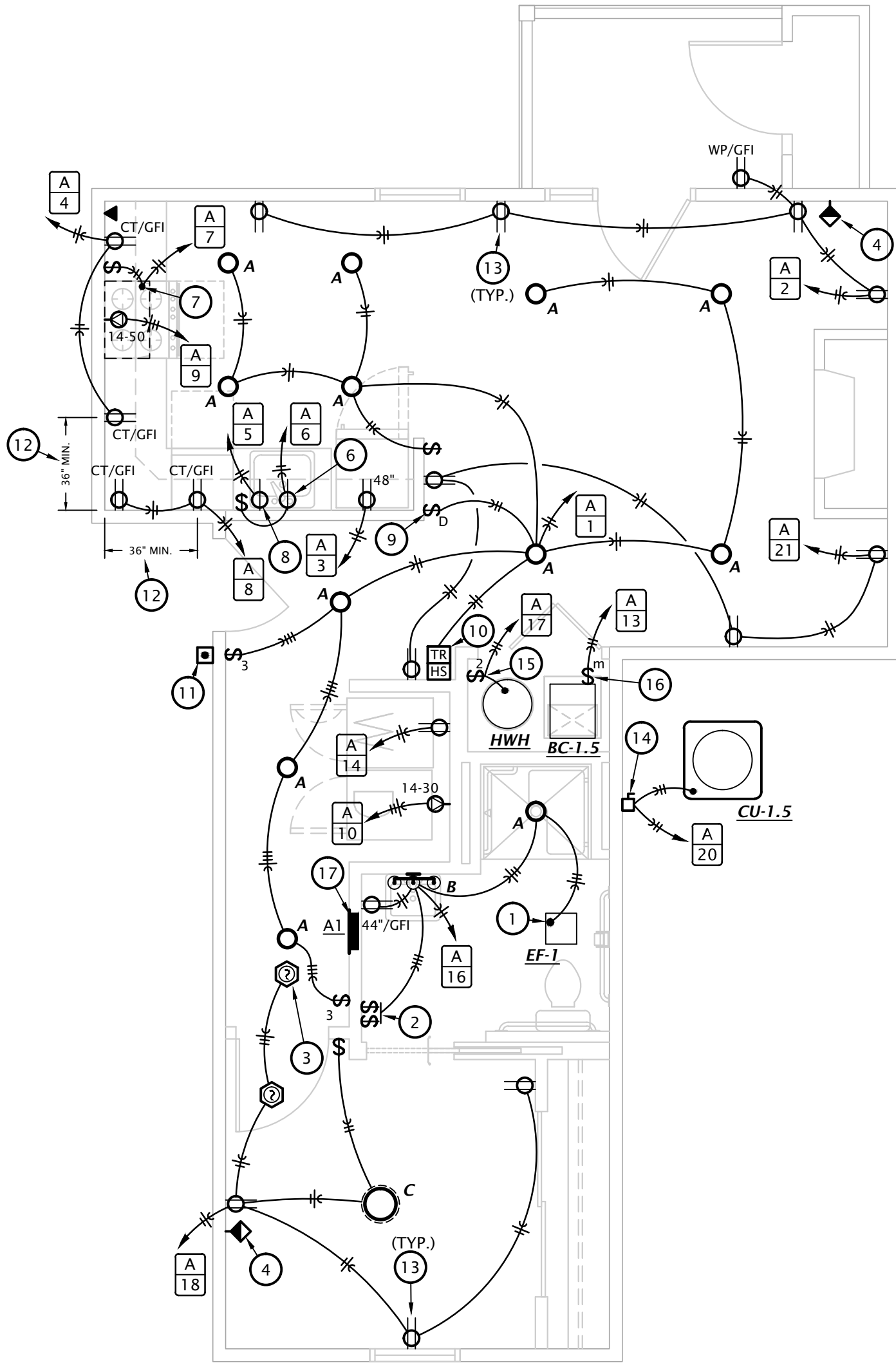
GENERAL NOTE:
• PROVIDE TAMPER PROOF RECEPTACLES IN DWELLING UNITS PER NEC REQUIREMENTS.

FOR APARTMENTS DESIGNATED FOR HEARING-IMPAIRED, REFER TO ARCH DRAWING FOR APPLICABLE ROOMS, PROVIDE THE FOLLOWING:

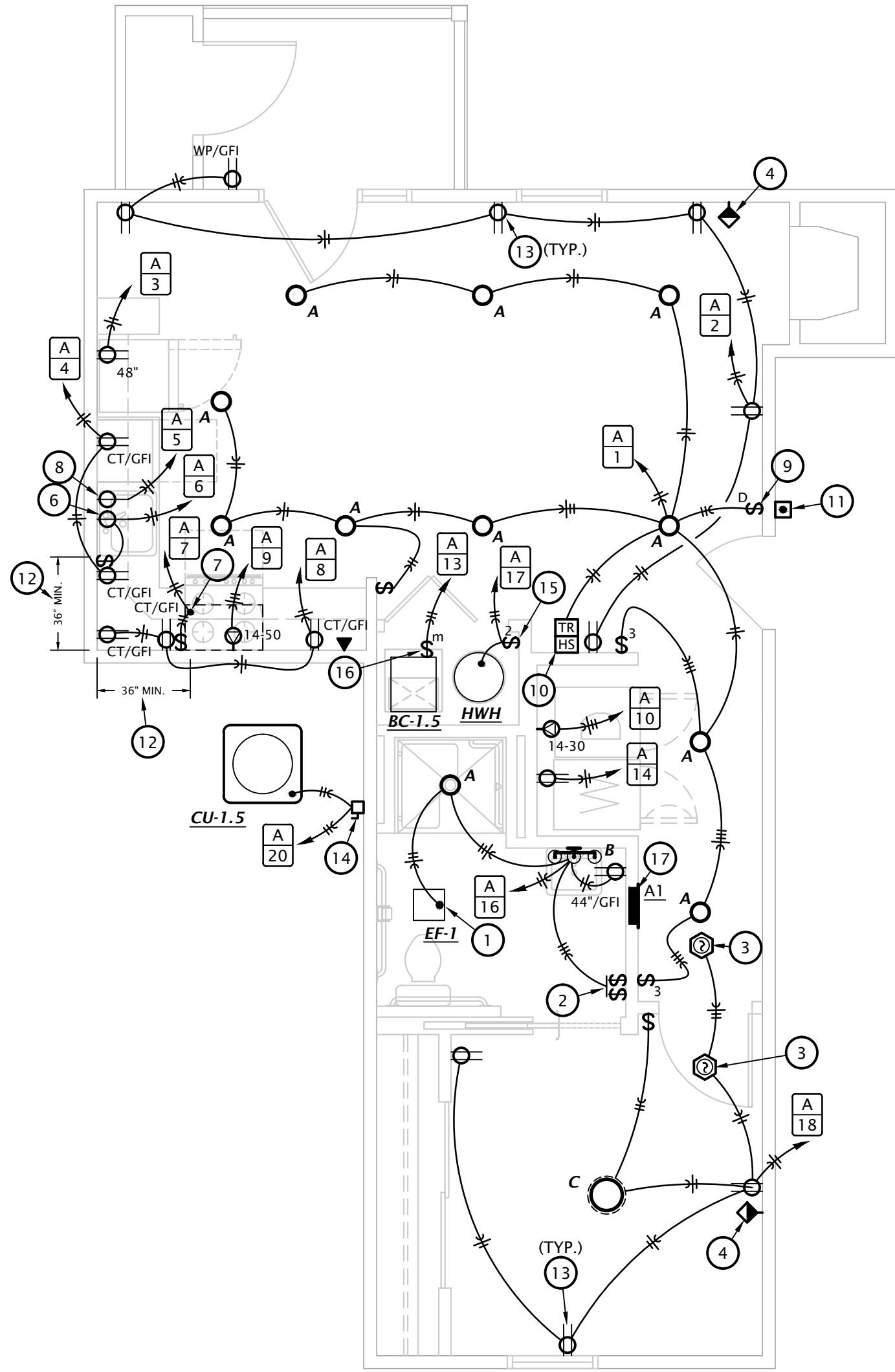
- CEILING MOUNTED SMOKE ALARMS IN ALL BEDROOMS AND OUTSIDE OF BEDROOMS. CEILING MOUNTED SMOKE ALARM IN APARTMENTS TO BE 120VAC WITH BATTERY BACKUP, INTERCONNECTED TO OTHERS IN SAME APARTMENT. DEVICE SHALL HAVE CARBON MONOXIDE DETECTOR AND PHOTOELECTRIC TYPE SMOKE DETECTOR WITH SOUNDER HORN HAVING AN 85dB OUTPUT AT 10' AND STROBE LIGHT WITH 177 CANDELA OUTPUT, SHALL HAVE A SINGLE BUTTON FOR TEST/SILENCE AND LED INDICATOR LIGHTS, AND SHALL BE UL 217 LISTED. BRK #70308SL OR EQUAL. CONNECT TO UNSWITCHED 120V CIRCUIT.
- PROVIDE DOOR ANNUNCIATOR SYSTEM A/V HORN/STROBE DEVICE AND LOW VOLTAGE TRANSFORMER AT ALL APARTMENTS. INSTALL HORN/STROBE APPLIANCE AT 80" AFF PER ADA. INSTALL TRANSFORMER IN DOUBLE GANG JUNCTION BOX ABOVE HORN/STROBE WITH BLANK COVER PLATE AND PROVIDE LOW VOLTAGE CONTROL WIRING. REFER TO DETAIL 1, SHEET E6.1. PROVIDE ENGRAVED SIGN AT THE HORN/STROBE DEVICE TO READ "DOOR". CONNECT TO UNSWITCHED 120V CIRCUIT.
- PROVIDE PUSH BUTTON AT 48" AFF FOR ANNUNCIATOR SYSTEM AT ALL APARTMENTS. REFER TO DETAIL 1, SHEET E6.1.



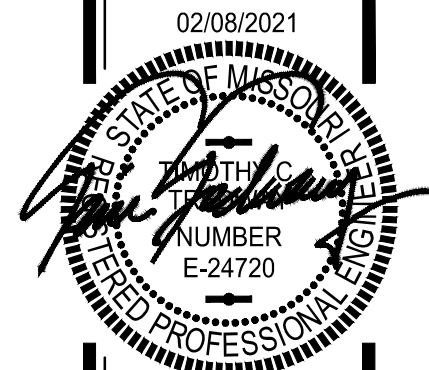
3 UNIT TYPE 'C' ELECTRICAL PLAN
1/4" = 1'-0"



2 UNIT TYPE 'B' ELECTRICAL PLAN
1/4" = 1'-0"



1 UNIT TYPE 'A' ELECTRICAL PLAN
1/4" = 1'-0"



PANEL SCHEDULE NOTES BY SYMBOL

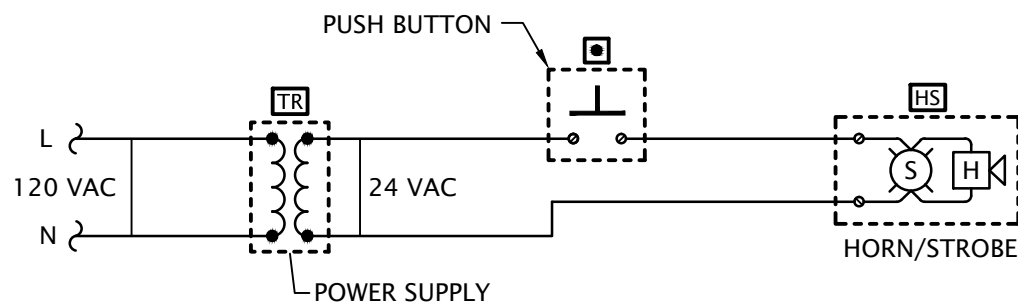
1. CIRCUIT SHALL BE PROTECTED BY AFCI TYPE BREAKER.
2. CIRCUIT SHALL BE PROTECTED BY COMBINATION AFCI/GFCI TYPE BREAKER.
3. CIRCUIT SHALL BE PROTECTED BY GFCI TYPE BREAKER.
4. CIRCUIT ONLY APPLICABLE FOR TYPE 'B' UNITS. FOR TYPE 'A' UNITS LEAVE CIRCUIT AS A BLANK SPACE.

Designation: A1Manufacturer: Square D 'NQ' Location: HallBus Amps: 125 Voltage: 240/120V-1Ph-3WMCB Amps: MLO Enclosure: NEMA 1AIC Rating: 10 kAIC Mounting: RecessedOther: Integral Surge Protection							
Circuit #	Load Description	Conductors	C/B Size	C/B Size	Conductors	Load Description	Circuit #
1	1LTG - LIVING ROOM/HALL		20 / 1	20 / 1		RCPT - LIVING ROOM	2
2	3RCPT - REFRIGERATOR		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	4
2	5RCPT - DISHWASHER		20 / 1	20 / 1		RCPT - GARBAGE DISPOSAL	6
2	7KITCHEN HOOD		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	8
9	STOVE		50 / 2	30 / 2		DRYER	10
11	'BC-1.5'		30 / 2	20 / 1		WASHING MACHINE	14
13				20 / 1		BATHROOM LIGHTS/RCPT	16
15	'HWH'		30 / 2	20 / 1		RECEPTS - BEDROOM	18
19	RCPT - LIVING ROOM/ENTRY		20 / 1	15 / 2		'CU-1.5'	20
21							22
23	SPACE ONLY	---	---	---	---	SPACE ONLY	24
PANEL IS TYPICAL FOR APARTMENTS TYPES: 'A' & 'B'							

Designation: A2Manufacturer: Square D 'NQ' Location: HallBus Amps: 125 Voltage: 240/120V-1Ph-3WMCB Amps: MLO Enclosure: NEMA 1AIC Rating: 10 kAIC Mounting: RecessedOther: Integral Surge Protection							
Circuit #	Load Description	Conductors	C/B Size	C/B Size	Conductors	Load Description	Circuit #
1	1LTG - LIVING ROOM/HALL		20 / 1	20 / 1		RCPT - LIVING ROOM	2
2	3RCPT - REFRIGERATOR		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	4
2	5RCPT - DISHWASHER		20 / 1	20 / 1		RCPT - GARBAGE DISPOSAL	6
2	7KITCHEN HOOD		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	8
9	STOVE		50 / 2	30 / 2		DRYER	10
11	'BC-1.5'		30 / 2	20 / 1		WASHING MACHINE	14
15				20 / 1		BATHROOM LIGHTS/RCPT	16
17	'HWH'		30 / 2	20 / 1		RECEPTS - BEDROOM1	18
19	RECEPTS - BEDROOM2		20 / 1	15 / 2		'CU-1.5'	20
21							22
23	SPACE ONLY	---	---	---	---	SPACE ONLY	24
PANEL IS TYPICAL FOR APARTMENTS TYPES: 'C' & 'D'							

Designation: A3Manufacturer: Square D 'NQ' Location: HallBus Amps: 125 Voltage: 240/120V-1Ph-3WMCB Amps: MLO Enclosure: NEMA 1AIC Rating: 10 kAIC Mounting: RecessedOther: Integral Surge Protection							
Circuit #	Load Description	Conductors	C/B Size	C/B Size	Conductors	Load Description	Circuit #
1	1LTG - LIVING ROOM/HALL		20 / 1	20 / 1		RCPT - LIVING ROOM	2
2	3RCPT - REFRIGERATOR		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	4
2	5RCPT - DISHWASHER		20 / 1	20 / 1		RCPT - GARBAGE DISPOSAL	6
2	7KITCHEN HOOD		20 / 1	20 / 1		RCPT - KITCHEN COUNTERTOP	8
9	STOVE		50 / 2	30 / 2		DRYER	10
11	'BC-2'		45 / 2	20 / 1		WASHING MACHINE	14
13				20 / 1		BATHROOM LIGHTS/RCPT	16
15	'HWH'		30 / 2	20 / 1		RECEPTS - BEDROOM1	18
19	RECEPTS - BEDROOM2		20 / 1	15 / 2		'CU-2'	20
21							22
23	SPACE ONLY	---	---	---	---	SPACE ONLY	24
PANEL IS TYPICAL FOR APARTMENTS TYPE 'E' NOTE: - PROVIDE PANEL SPACE FOR EXISTING TO REMAIN GARAGE CIRCUITS, FIELD VERIFY LOCATION AND QUANTITY. CONNECT TO NEW PANEL.							

LIGHT FIXTURE SCHEDULE								
MARK	MANUFACTURER	MODEL NUMBER	LAMP / LED DATA		BALLAST/DRIVER	MOUNTING	FINISH	DESCRIPTION
			WATT/LUMENS	COLOR				
A	HALO	SMD6R-6-930-WH	9-6W LED 750 LUMENS	3000°K	INTEGRAL DRIVER	SURFACE	BRONZE	6" ROUND SURFACE MOUNT DOWNLIGHT
B	SEAGULL	4423003EN3-710	(3) 9.5W LED	3000°K	INTEGRAL DRIVER	WALL AT 7'-0"	BURNT SIENNA	3-LAMP LED VANITY LIGHT
C	LITHONIA	FMML13830DDBT	28W LED 1900 LUMENS	3000°K	INTEGRAL DRIVER	SURFACE	BRONZE	13" ROUND FLUSH MOUNT DOWNLIGHT
D	LITHONIA	TWX1-LED-P1-40K-MVOLT-PE-DDVXD	11W LED 1600 LUMENS	4000°K	STANDARD	WALL	BRONZE	DIE-CAST ALUMINUM HOUSING LED WALL PACK WITH INTEGRAL PHOTOCELL
F1	LITHONIA	DSX0-LED-P2-40K-T4M-MVOLT-HS-DDBXD	49W LED 5880 LUMENS	4000°K	STANDARD	POLE	BRONZE	LED AREA LIGHT WITH IES TYPE IV DISTRIBUTION, HOUSE-SIDE SHIELD, AND INTEGRAL PHOTOCELL
F2	LITHONIA	DSX0-LED-P2-40K-T2M-MVOLT-HS-DDBXD	49W LED 6025 LUMENS	4000°K	STANDARD	POLE	BRONZE	LED AREA LIGHT WITH IES TYPE II DISTRIBUTION, HOUSE-SIDE SHIELD, AND INTEGRAL PHOTOCELL
GENERAL: - All interior LED fixtures shall be 3000°K corrected color temperature, min. 80 CRI. - All exterior LED fixtures shall be 4000°K corrected color temperature, min. 70 CRI., and shall be fully downcast. - All light fixtures shall be provided with universal drivers capable of operating at 120V or 208V UNO. - All LED fixtures shall adhere to LM79 and LM80 standards. - All apartment light fixtures shall be Energy Star certified.								



DOOR ALARM BUZZER SYSTEM NOTES

1. PROVIDE DOOR ANNUNCIATOR SYSTEM COMPLETE WITH PUSH BUTTON, HORN/STROBE(S), POWER SUPPLIES AND ALL WIRING REQUIRED. HORN/STROBE SHALL ACTIVATE WHEN PUSH BUTTON IS DEPRESSED.
2. HORN/STROBE SHALL OPERATE AT 24VAC, HAVE A CLEAR LENS WITH 50cd STROBE AND HORN WITH 82dB AT 10', UL 1638 LISTED, EDWARDS #6536-G5. FLUSH MOUNT IN WALL AT 6'-8" AFF.
3. PUSH BUTTON SHALL BE WHITE WITH CHROME RIM, NON-ILLUMINATED, WITH N.O. MOMENTARY CONTACTS, RATED FOR 0.67 AMPS AT 24VAC, EDWARDS #620. PROVIDE WITH STAINLESS STEEL COVER PLATE, EDWARDS #147-1.0. MOUNT AT 48" AFF.
4. POWER SUPPLY SHALL BE A LOW VOLTAGE CLASS 2 TRANSFORMER WITH 120VAC PRIMARY AND 24VAC SECONDARY, 20VA, EDWARDS #598. FLUSH MOUNT IN 2-GANG WALL BOX WITH BLANK COVER PLATE, DIRECTLY ABOVE HORN/STROBE.
5. LOW VOLTAGE CLASS 2 CABLING SHALL BE MINIMUM 18 AWG UNSHIELDED.