

- ROOF DRAIN NOTES:**
1. PROVIDE NEW ROOF DRAIN C/W CLAMP, MEMBRANE CLAMP, WATER PROOFING FLANGE, DOME AND STRAINER. HEAT TRACED (BY ELECTRICAL) RAIN WATER LEADER TO EXISTING STORM DRAINAGE SYSTEM AS SHOWN ON GROUND FLOOR. SIZE AS INDICATED.
 2. RD4, RD7, RD8, RD9 AND RD10 TO BE FLOW CONTROL ROOF DRAINS.
 3. RD1, RD2 AND RD3 TO BE INSTALLED IN GUTTER (BY OTHERS).
 4. WATER FEATURE - PROVIDE 3/4" DCW CONNECTION C/W BACKFLOW PREVENTER, ISOLATING VALVES. PROVIDE DRAIN C/W SHUT OFF VALVE, CONNECT TO STORM. CONFIRM SIZES WITH LANDSCAPING DRAWING.

1 GROUND FLOOR PLAN
M205
1/16" = 1'-0"

1. REMOVE AND DISPOSE OF ALL REDUNDANT PLUMBING FIXTURES AND PIPING. CAP AND MAKE GOOD ALL EXISTING PLUMBING CONNECTIONS IN WALLS, FLOORS AND CEILINGS. AVOID DEAD RUNS ON DCW/DHW, IE CAP AT RISERS OR HEADERS.
2. ALL NEW PLUMBING FIXTURES TO BE INSTALLED C/W TRIM, 1/2 TURN ISOLATING VALVES ON COLD AND HOT WATER SUPPLIES, AND ALL REQUIRED PLUMBING CONNECTIONS.
3. VRF UNITS SHALL HAVE NEW CONDENSATE RISERS OR CONDENSATE TRAPPED CONNECTIONS TO THE NEAREST SANITARY DRAINS.
4. EXPOSED PLUMBING BRASS AND/OR PEX TO BE CHROME PLATED OR COVERED WITH CHROME SLEEVES.
5. NUMBER AND LOCATIONS OF (NEW) PLUMBING FIXTURES: ARCHITECTURAL DRAWINGS TO GOVERN.
6. FIXTURES IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE. PLUMBING FIXTURE SELECTION BY OWNER.
7. TRIM IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE:
-E: EXISTING
-N: NEW
-R: RELOCATED
-H: BARRIER FREE
WC: WATER CLOSET.
LAV: LAVATORY.
SH: SHOWER
KS: KITCHEN SINK
DW: UNDER COUNTER DISHWASHER.
W: RESIDENTIAL STYLE WASHING MACHINE.
8. FD-01: GENERAL DUTY; CAST IRON BODY ROUND, ADJUSTABLE HEAD, SEDIMENT BASKET, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION. ANCON FD-200, 3 NPS OR AS INDICATED.
9. HINGED EPOXY COATED CAST IRON GRATE, INTEGRAL SEEPAGE PAN AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION, SEDIMENT BUCKET. ANCON FD-460-AF, 4 NPS OR AS INDICATED.
10. AD-01: WATTS DRAINAGE FD-870-TG, ROUND/SQUARE STAINLESS STEEL GRATE, WITH CHAIN, SEDIMENT BUCKET, WEEPHOLES, BALLAST GUARD, RISER SECTIONS, DECK CLAMP, PERFORATED STANDPIPE 4" (100MM) DIA. USE ROUND STRAINER IN PLANTING AREAS. USE SQUARE STRAINER IN PAVED AREAS. PROVIDE FLOW RESTRICTING DEVICE AS INDICATED. STANDPIPE HEIGHT TO BE DETERMINED ON SITE.
11. FFD: FUNNEL FLOOR DRAIN, SIMILAR TO FD-01, C/W FUNNEL.
12. RD#: CONTROLLED FLOW, WATTS DRAINAGE RD-200, EPOXY COATED CAST IRON BODY, UNDER DECK CLAMP AND SUMP RECEIVER TO SUIT ROOF CONSTRUCTION, FLASHING CLAMP RING WITH INTEGRAL GRAVEL STOP, BEARING PAN, FLOW CONTROL WEIR ASSEMBLY, METAL DOME, 8" DIAMETER.
13. NFWH: NON FREEZE WALL HYDRANT, RECESSED WITH INTEGRAL VACUUM BREAKER, 3/4 NPS HOSE OUTLET, REMOVABLE OPERATING KEY, COVER. CHROME PLATED FINISH.
14. HB: HOSE BIBB, BRONZE, COMPLETE WITH INTEGRAL BACK FLOW PREVENTER, HOSE THREAD SPOUT, REPLACEABLE COMPOSITION DISC, AND CHROME PLATED. INSTALL IN HEATED AREAS ONLY.
15. EXPOSED INSULATED PIPING TO HAVE PVC JACKET.
16. PROVIDE A SEPARATE PRICE FOR AN UNDER THE COUNTER SUMP PIT AND PUMP, LIBERTY MODEL 404, 1/2 HP PUMP 4.3 GAL. TANK, VENT THE SUMP PIT TO THE BUILDING VENTING SYSTEM AS REQUIRED. CONNECT FORCE MAIN TO THE NEAREST SANITARY DRAIN AS REQUIRED.
17. THE STRUCTURAL AND CIVIL ENGINEERS SHALL COORDINATE THE ELEVATION OF THE STORM PIPING WITH THE GRADE BEAMS AND FOOTINGS.

MECHANICAL LEGEND

PLUMBING		VENTILATION & AIR CONDITIONING	
— SAN —	SANITARY ABOVE GRADE/FLOOR	[Symbol]	RECTANGULAR SUPPLY AIR DUCT UP
- - - SAN - - -	SANITARY BELOW GRADE/FLOOR	[Symbol]	RECTANGULAR SUPPLY DUCT DOWN
— ST —	STORM ABOVE GRADE/FLOOR	[Symbol]	RECTANGULAR RETURN DUCT DOWN
- - - ST - - -	STORM BELOW GRADE/FLOOR	[Symbol]	RECTANGULAR RETURN DUCT UP
[Symbol]	SUB SLAB DRAINAGE	[Symbol]	NEW SUPPLY DUCTWORK
[Symbol]	WEEPING TILE DRAINAGE	[Symbol]	EXISTING DUCTWORK TO REMAIN
[Symbol]	SANITARY VENT	[Symbol]	EXISTING DUCTWORK TO BE REMOVED
[Symbol]	TEMPERED WATER	[Symbol]	EXHAUST OR RETURN AIR DUCT
[Symbol]	DOMESTIC H.W. RECIRC. PIPING	[Symbol]	INTERNAL ACOUSTIC DUCT LINING
[Symbol]	DOMESTIC COLD WATER (DCW)	[Symbol]	DUCT C/W THERMAL INSULATION
[Symbol]	DOMESTIC HOT WATER (DHW)	[Symbol]	FIRE DAMPER, ACCESS DOOR
[Symbol]	NATURAL GAS	[Symbol]	SPRIN IN DUCT CONNECTION WITH BALANCING DAMPER
[Symbol]	CONDENSATE DRAINAGE PIPING	[Symbol]	MOTORIZED DAMPER
[Symbol]		[Symbol]	SPLITTER DAMPER
[Symbol]		[Symbol]	FLEXIBLE DUCT TO SUPPLY AIR DIFFUSER
[Symbol]		[Symbol]	FLEXIBLE CONNECTION
[Symbol]		[Symbol]	SQUARE TO ROUND TRANSITION
[Symbol]		[Symbol]	TURNING VANES
[Symbol]		[Symbol]	SINGLE DOUBLE AND TRIPLE WALLBOX C/W ALUMINUM GRILLE
[Symbol]		[Symbol]	CEILING REGISTER
[Symbol]		[Symbol]	BATHROOM EXHAUST FAN (BEF) OR OTHER EXHAUST FAN (OEF)
[Symbol]		[Symbol]	DETAIL 1 ON DRAWING M-1.

VALVES AND FITTINGS

[Symbol]	FLOOR DRAIN
[Symbol]	HUB DRAIN
[Symbol]	FLOOR DRAIN
[Symbol]	ROOF DRAIN
[Symbol]	STRAINER
[Symbol]	HOSE BIBB; NON-FREEZE HOSE BIBB
[Symbol]	GLOBE VALVE
[Symbol]	GATE VALVE
[Symbol]	BALL VALVE
[Symbol]	PRESSURE REDUCING VALVE
[Symbol]	CIRCUIT BALANCING VALVE
[Symbol]	PLUG VALVE
[Symbol]	CHECK VALVE
[Symbol]	DRAIN CHECK VALVE
[Symbol]	PRESSURE RELIEF VALVE

VALVES AND FITTINGS

[Symbol]	STRAINER
[Symbol]	SUPERVISED VALVE
[Symbol]	ELBOW UP OR DOWN
[Symbol]	TYPE C FLEX CONNECTION
[Symbol]	WATER METER
[Symbol]	GAS METER
[Symbol]	HYDRONIC EXPANSION JOINT
[Symbol]	BACK FLOW PREVENTER
[Symbol]	PUMP CONTROL PANEL
[Symbol]	BACK WATER VALVE INSTALLED IN ACCESSIBLE PIT C/W COVER

FIRE PROTECTION

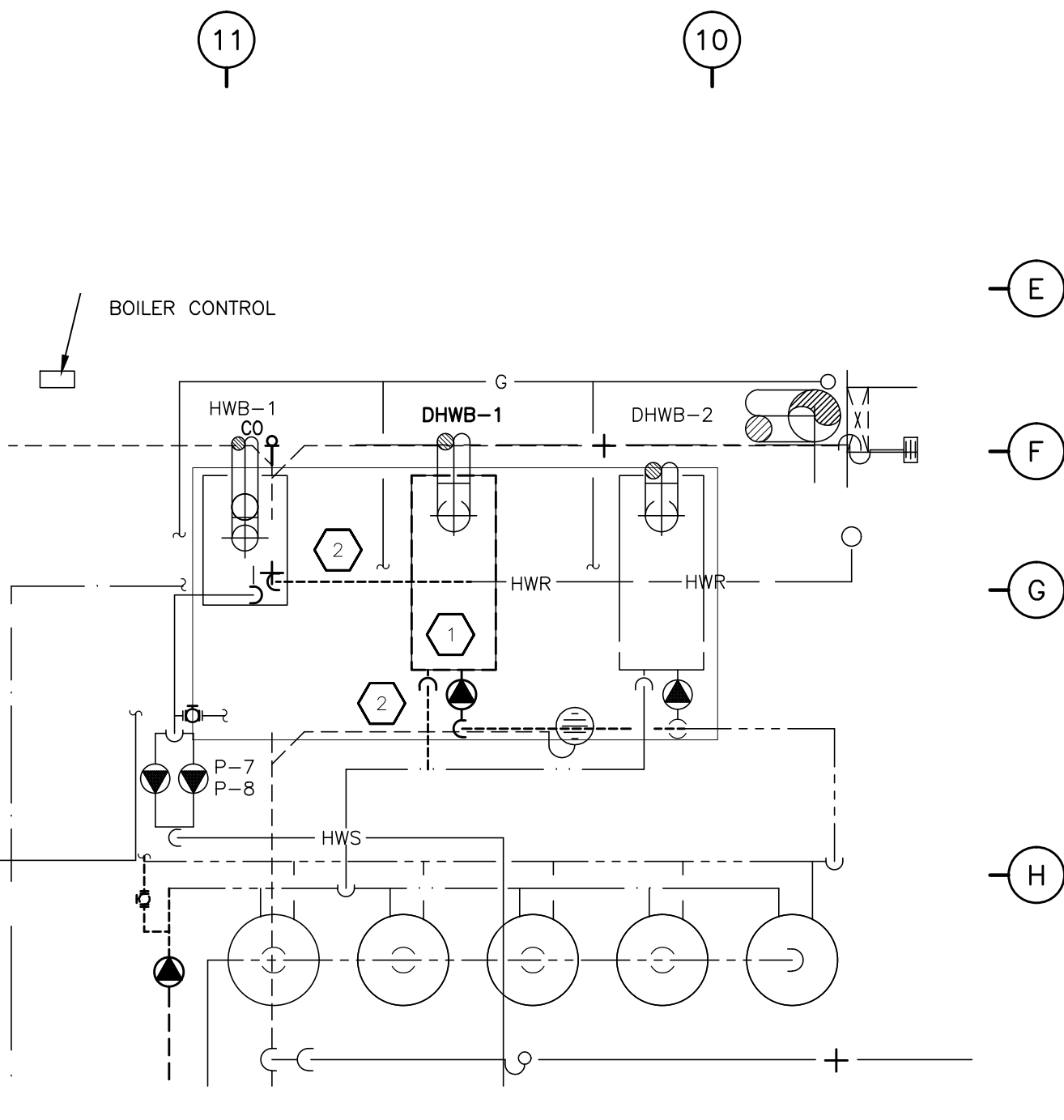
[Symbol]	NEW SIDE WALL SPRINKLER HEAD
[Symbol]	NEW PENDANT SPRINKLER HEAD
[Symbol]	NEW UP RIGHT SPRINKLER HEAD
[Symbol]	NEW CONCEALED SPRINKLER HEAD
[Symbol]	NEW SEMI RECESSED SPRINKLER HEAD
[Symbol]	FIRE EXTINGUISHER
[Symbol]	SIAMESE CONNECTION
[Symbol]	FIRE HOSE CABINET
[Symbol]	FIRE SWITCH
[Symbol]	FIRE STANDPIPE PIPING
[Symbol]	SPRINKLER PIPING

CONTROLS

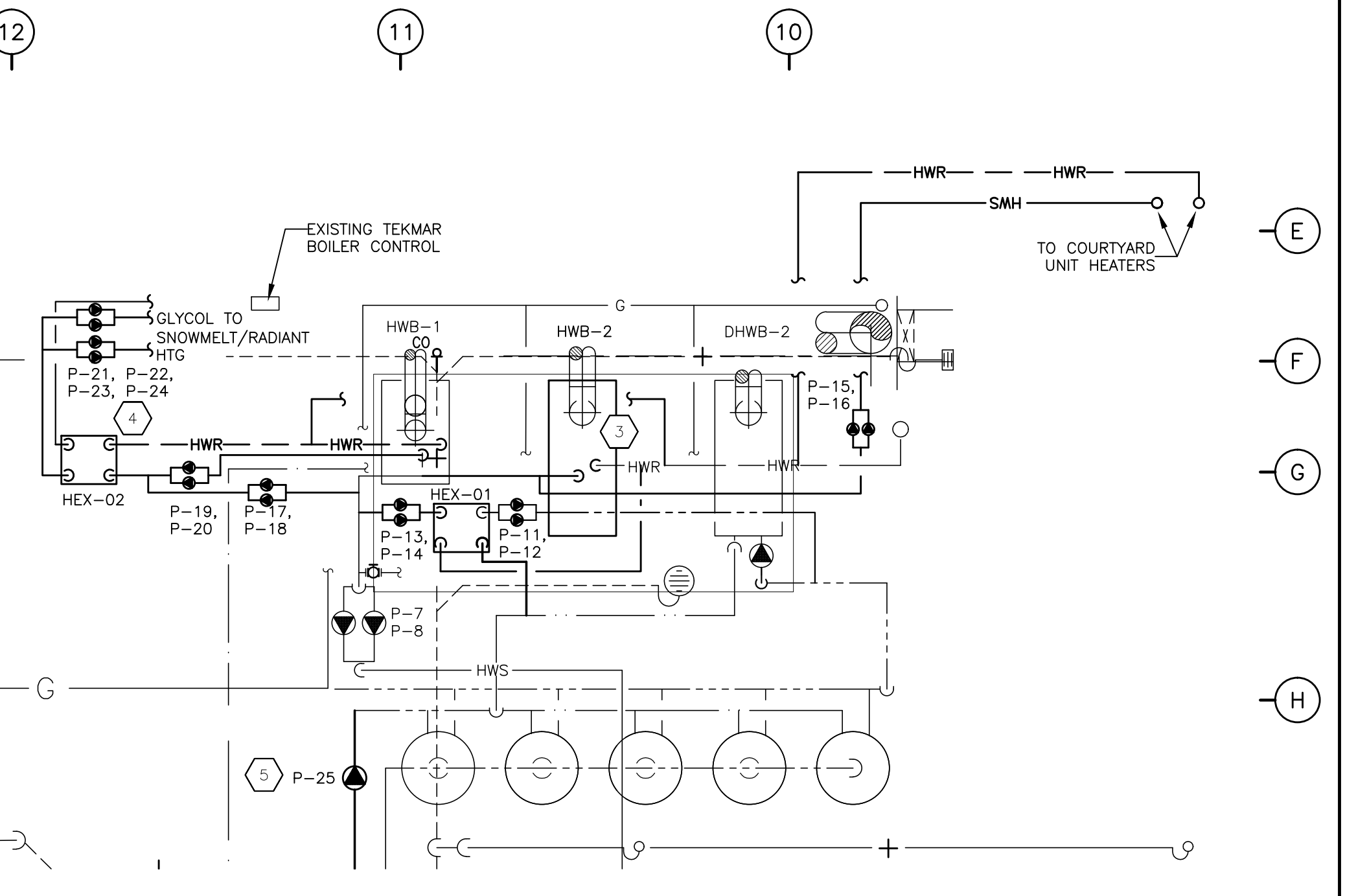
[Symbol]	THERMOSTAT
[Symbol]	HUMIDISTAT
[Symbol]	SENSOR
[Symbol]	HUMIDISTAT SENSOR
[Symbol]	TRANSFORMER

#2/M205, 3/M205 DRAWING NOTES:

1. REMOVE EXISTING BOILER DHWB-1. CLEAN AND STORE AS SPARE.
2. REMOVE EXISTING PLUMBING AS INDICATED.
 - 2.1. HWB-1 TO BE RE-PURPOSED FOR SNOW-MELT EQUIPMENT.
 - 2.2. EXISTING DHWB-1 TO BE REPLACED WITH NEW HWB-2.
 - 2.3. SYSTEM PLUMBING TO BE RE-CONFIGURED AS PER SCHEMATIC DRAWING M300.
3. SUPPLY AND INSTALL NEW HYDRONIC HEATING BOILER HWB-2, 1250MBH INPUT, ATMOSPHERIC TYPE. CONNECT TO EXISTING B-VENTING FROM REMOVED DHWB-1. RE-USE EXISTING NATURAL GAS SUPPLY.
4. EQUIPMENT BY SNOW-MELT SUPPLIER. TO BE CONNECTED TO HWB-1. AS PER SCHEMATIC ON DRAWING M300.
5. NEW DOMESTIC HOT WATER RECIRCULATION PUMP P-25 AND DUAL MIXING VALVES. AS PER SCHEMATIC ON DRAWING M300.



2 PARTIAL BASEMENT FLOOR PLAN - DEMOLITION
M205
1/4" = 1'-0"



3 PARTIAL BASEMENT FLOOR PLAN - NEW WORK
M205
1/4" = 1'-0"

Project Key Plan

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No.	DATE	REVISION
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04	JUNE 8/15	ISSUED FOR PERMIT
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03	JUNE 3/15	ISSUED FOR REVIEW
02	APRIL 15/15	RE-ISSUED FOR PERMIT
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DATE	DESIGNED BY	DESIGNED BY
MAR '14	ES	ES

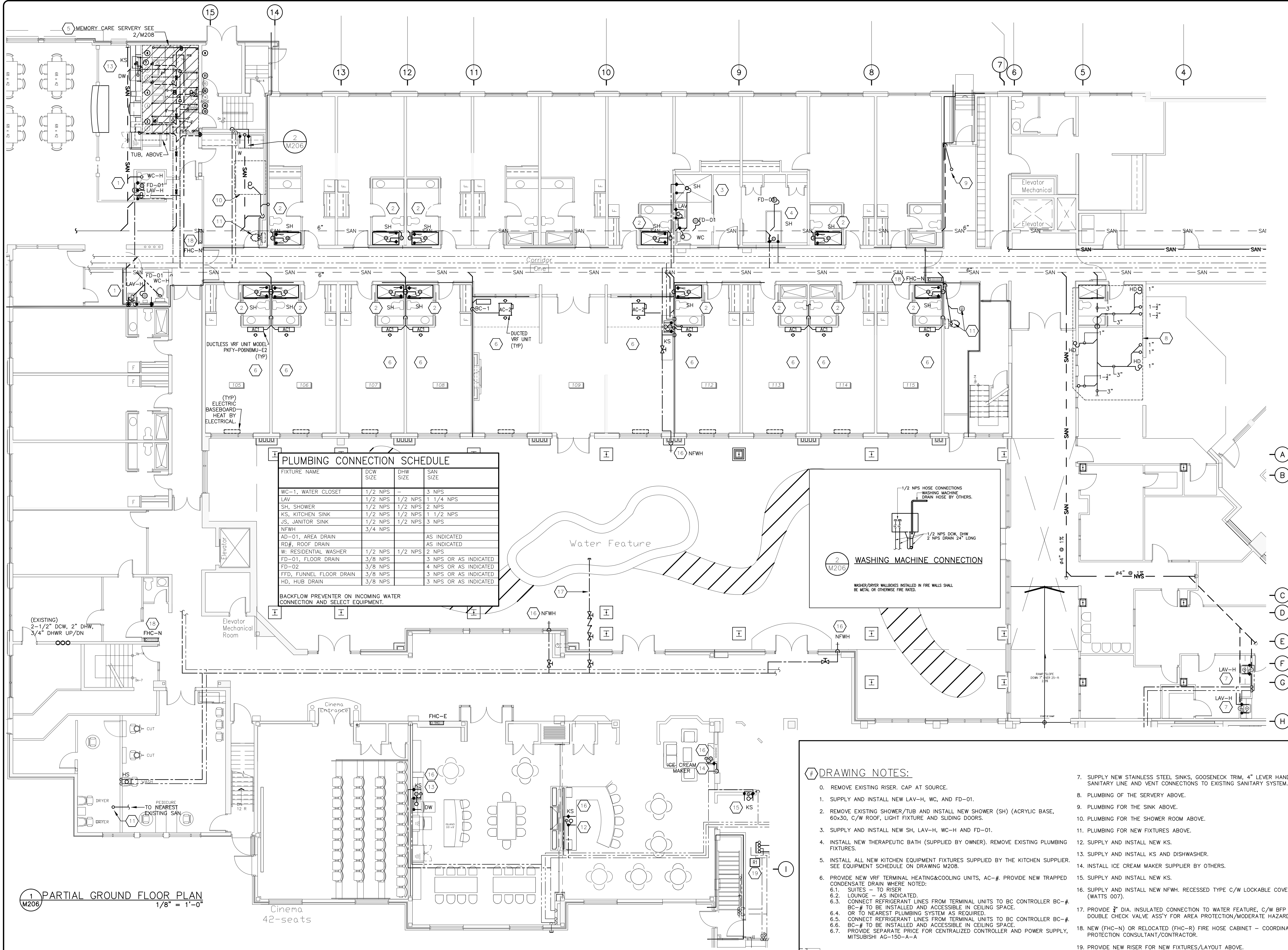
SCALE: AS INDICATED PLOT DATE: MARCH 18, 2014

PROJECT: **SOUTHWAY INN RETRO-FIT RETIREMENT HOME**

JOB NO.: CBL14-021

MECHANICAL BASEMENT PLUMBING, GROUND FLOOR STORM DRAINAGE

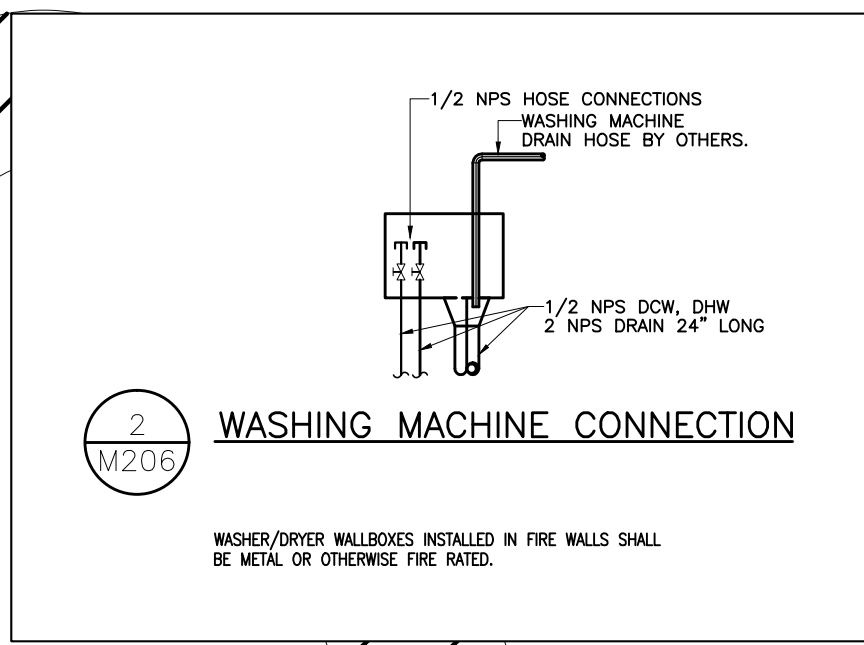
1 M205



PLUMBING CONNECTION SCHEDULE

FIXTURE NAME	DCW SIZE	DHW SIZE	SAN SIZE
WC-1, WATER CLOSET	1/2 NPS	-	3 NPS
LAV	1/2 NPS	1/2 NPS	1 1/4 NPS
SH, SHOWER	1/2 NPS	1/2 NPS	2 NPS
KS, KITCHEN SINK	1/2 NPS	1/2 NPS	1 1/2 NPS
JS, JANITOR SINK	1/2 NPS	1/2 NPS	3 NPS
NFWH	3/4 NPS	-	-
AD-01, AREA DRAIN	-	-	AS INDICATED
RD#, ROOF DRAIN	-	-	AS INDICATED
W, RESIDENTIAL WASHER	1/2 NPS	1/2 NPS	2 NPS
FD-01, FLOOR DRAIN	3/8 NPS	-	3 NPS OR AS INDICATED
FD-02	3/8 NPS	-	4 NPS OR AS INDICATED
FFD, FUNNEL FLOOR DRAIN	3/8 NPS	-	3 NPS OR AS INDICATED
HD, HUB DRAIN	3/8 NPS	-	3 NPS OR AS INDICATED

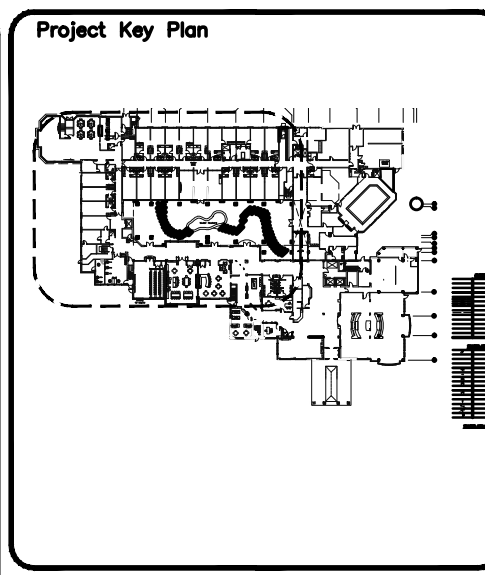
BACKFLOW PREVENTER ON INCOMING WATER CONNECTION AND SELECT EQUIPMENT.



DRAWING NOTES:

- REMOVE EXISTING RISER, CAP AT SOURCE.
- SUPPLY AND INSTALL NEW LAV-H, WC, AND FD-01.
- REMOVE EXISTING SHOWER/TUB AND INSTALL NEW SHOWER (SH) (ACRYLIC BASE, 60x30, C/W ROOF, LIGHT FIXTURE AND SLIDING DOORS).
- SUPPLY AND INSTALL NEW SH, LAV-H, WC-H AND FD-01.
- INSTALL NEW THERAPEUTIC BATH (SUPPLIED BY OWNER). REMOVE EXISTING PLUMBING FIXTURES.
- INSTALL ALL NEW KITCHEN EQUIPMENT FIXTURES SUPPLIED BY THE KITCHEN SUPPLIER. SEE EQUIPMENT SCHEDULE ON DRAWING M208.
- PROVIDE NEW VRF TERMINAL HEATING&COOLING UNITS, AC-#. PROVIDE NEW TRAPPED CONDENSATE DRAIN WHERE NOTED:
 - SUITES - TO RISER
 - LOUNGE - AS INDICATED
 - CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#. BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
 - OR TO NEAREST PLUMBING SYSTEM AS REQUIRED.
 - CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#. BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
 - PROVIDE SEPARATE PRICE FOR CENTRALIZED CONTROLLER AND POWER SUPPLY, MITSUBISHI AG-150-A-A
- SUPPLY NEW STAINLESS STEEL SINKS, GOOSENECK TRIM, 4\"/>
- PLUMBING OF THE SERVERY ABOVE.
- PLUMBING FOR THE SINK ABOVE.
- PLUMBING FOR NEW FIXTURES ABOVE.
- SUPPLY AND INSTALL NEW KS.
- SUPPLY AND INSTALL KS AND DISHWASHER.
- INSTALL ICE CREAM MAKER SUPPLIER BY OTHERS.
- SUPPLY AND INSTALL NEW KS.
- SUPPLY AND INSTALL NEW NFWH. RECESSED TYPE C/W LOCKABLE COVER AND BFP (WATTS 007).
- PROVIDE 3/4\"/>
- NEW (FHC-N) OR RELOCATED (FHC-R) FIRE HOSE CABINET - COORDINATE WITH FIRE PROTECTION CONSULTANT/CONTRACTOR.
- PROVIDE NEW RISER FOR NEW FIXTURES/LAYOUT ABOVE.

1 PARTIAL GROUND FLOOR PLAN
M206 1/8" = 1'-0"



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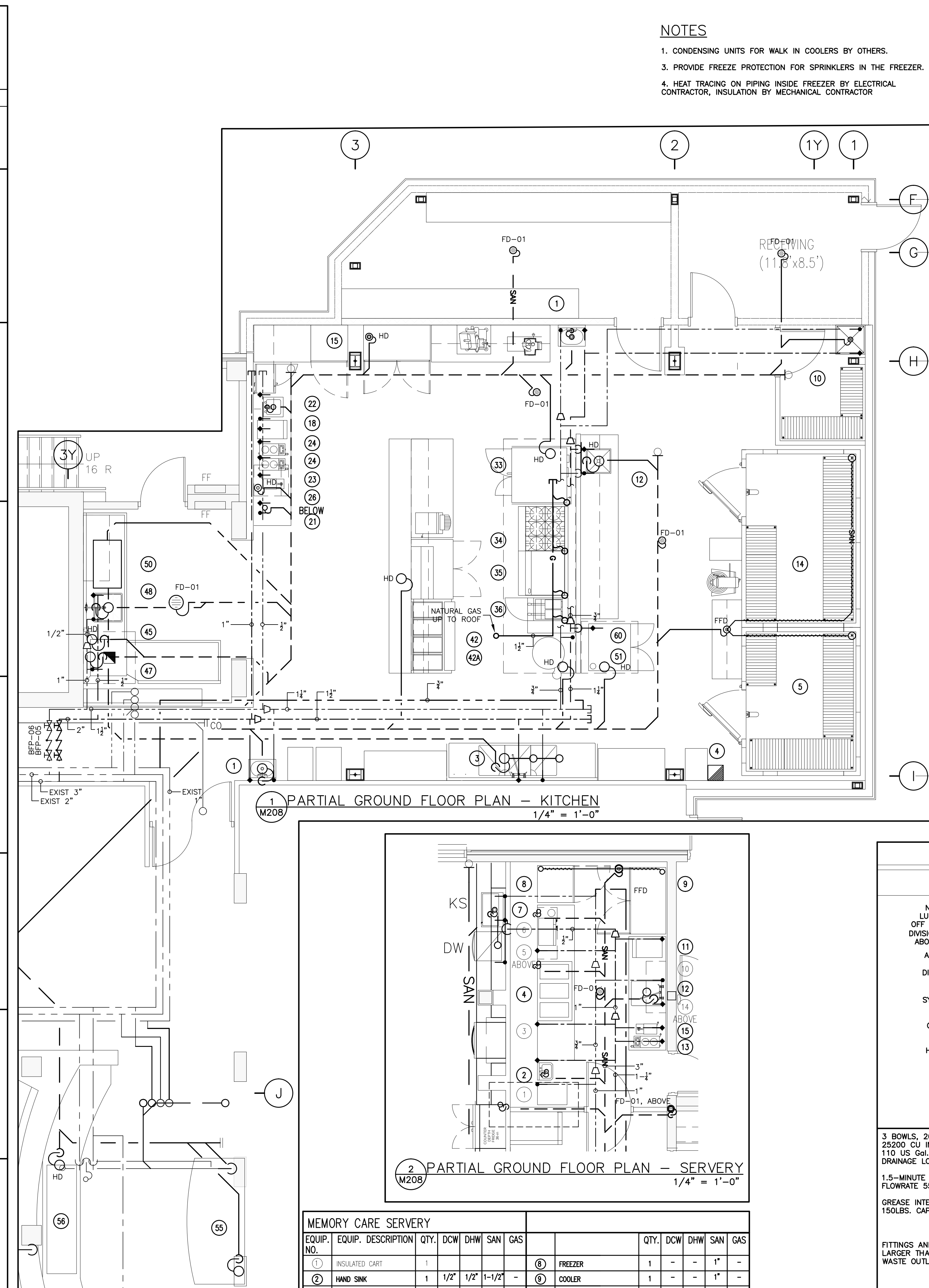
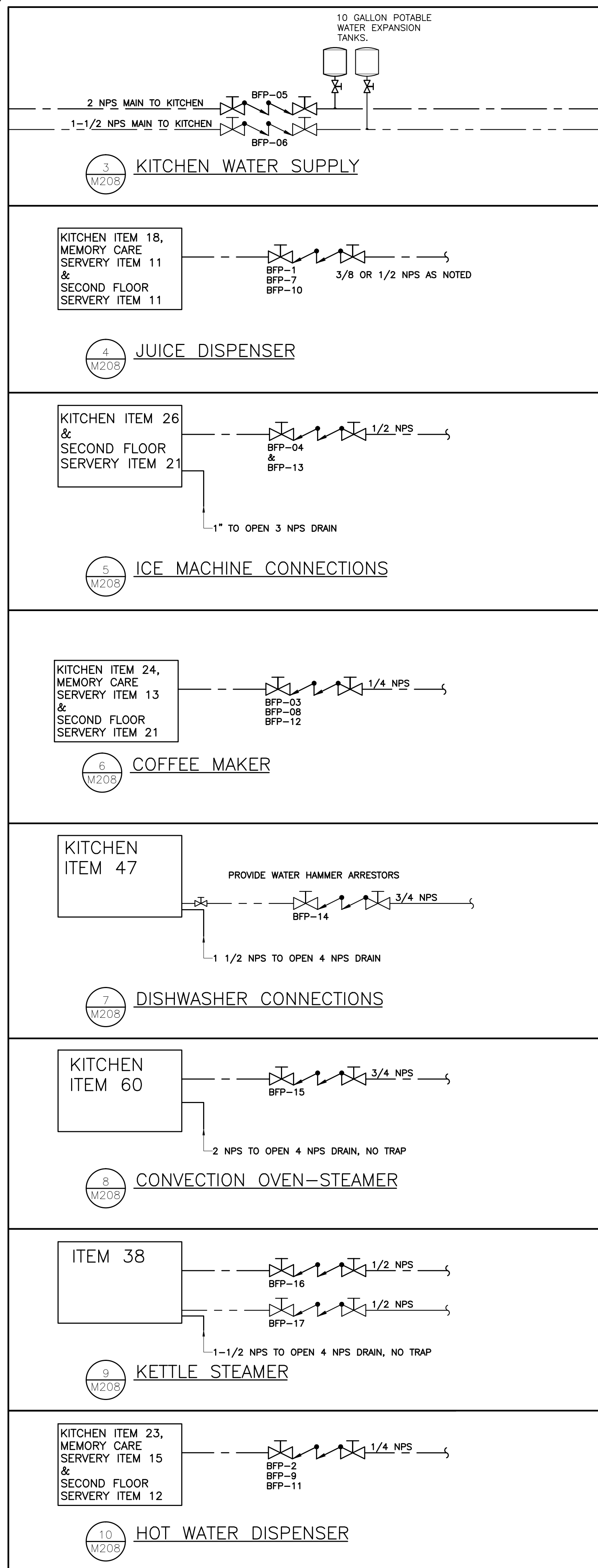
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DATE	BY	REVISION
MAR '14	ES	AS INDICATED

SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME

JOB NO.: QEL14-021

MECHANICAL
PARTIAL GROUND
FLOOR PLAN
PLUMBING



NOTES

- CONDENSING UNITS FOR WALK IN COOLERS BY OTHERS.
- PROVIDE FREEZE PROTECTION FOR SPRINKLERS IN THE FREEZER.
- HEAT TRACING ON PIPING INSIDE FREEZER BY ELECTRICAL CONTRACTOR, INSULATION BY MECHANICAL CONTRACTOR

FIRST FLOOR KITCHEN EQUIPMENT SCHEDULE

EQUIP. NO.	EQUIP. DESC.	QTY.	DCW	DHW	SAN	GAS (Mbh)	EQUIP. NO.	EQUIP. DESC.	QTY.	DCW	DHW	SAN	GAS (Mbh)
1	HAND SINK	2	1/2"	1/2"	1-1/2"	-	33	EXHAUST CANOPY	1	-	-	-	-
2	SHELVING	1	-	-	-	-	34	STACKED COMBI OVENS	1	-	-	2"	82
3	POT SINK	1	1/2"	1/2"	1-1/2"	-	35	6 BURNER RANGE	1	-	-	-	236
4	FIRE SUPPRESSION	1	-	-	-	-	36	36" GRIDDLE	1	-	-	-	54
5	WALK-IN FREEZER	1	-	-	1" 1/2"	-	37	FRYER	1	-	-	-	110
6	SHELVING (FREEZER)	LOT	-	-	-	-	38	SPREADER TABLE	1	-	-	-	-
7	WORK TABLE	1	-	-	-	-	39	KETTLE	1	1/2"	1/2"	1-1/2"	-
8	SHELVING (COOLER)	LOT	-	-	-	-	40	WORK TABLE	1	-	-	-	-
9	SHELVING (CHEMICAL)	1	-	-	-	-	41	SANDWICH TABLE	1	-	-	-	-
10	JANITOR SINK	1	1/2"	1/2"	3-1/2"	-	42	CONVEYOR TOASTER	1	-	-	-	-
11	JANITOR CLOSET	1	-	-	-	-	43	HOT FOOD TABLE	1	-	-	1"	-
12	PREPARATION TABLE	1	1/2"	1/2"	1-1/2"	-	44	HOT FOOD TABLE	1	-	1/2"	1"	-
13	WALL SHELF	1	-	-	-	-	45	OVER SHELF	1	-	-	-	-
14	WALK-IN COOLER	1	-	-	1" 1/2"	-	46	PLATE CABINET	1	-	-	-	-
15	GLASS DOOR COOLER	1	-	-	1" 1/2"	-	47	STEAM CANOPY	1	-	-	1/2"	-
16	UNDER COUNTER FREEZER	1	-	-	-	-	48	CLEAN DISH TABLE	1	-	-	-	-
17	WORK TABLE	1	-	-	-	-	49	DISH WASHER	1	-	3/4"	1-1/2"	-
18	JUICE DISPENSER	1	3/8"	-	-	-	50	SOIL DISH TABLE	1	1/2"	1/2"	1-1/2"	-
19	MICROWAVE	1	-	-	-	-	51	OVERSHELF	1	-	-	-	-
20	WALL SHELF	1	-	-	-	-	52	GREASE INTERCEPTOR	1	-	-	4"	-
21	WORK TABLE	1	1/2"	1/2"	1-1/2"	-	53	EXHAUST CANOPY	-	-	-	-	-
22	SINK	1	1/2"	1/2"	1-1/2"	-	54	SPARE	-	-	-	-	-
23	HOT WATER DISPENSER	1	1/4"	-	-	-	55	DRY STORAGE SHELVING	LOT	-	-	-	-
24	COFFEE MAKER	2	1/4"	-	-	-	56	SPARE	-	-	-	-	-
25	MIXER	1	-	-	-	-	57	COLD HOLDING DROP-IN	1	-	-	1"	-
26	ICE MACHINE	1	1/2"	-	1" 1/2"	-	58	HEATED WELL	1	1/4"	-	1"	-
27	WORK TABLE	1	-	-	-	-	59	LINEN CABINET 96" x 14"	1	-	-	-	-
28	WALL SHELF	1	-	-	-	-	60	CAMBRO CART	2	-	-	-	-
29	FOOD PROCESSOR	1	-	-	-	-	61	STRIP HEATER 60"	1	-	-	-	-
30	SLICER	1	-	-	-	-	62	EXISTING CONNECTION OVEN	1	3/4"	-	2"	-
31	UNIVERSAL RACK	2	-	-	-	-	63	SPARE	-	-	-	-	-
							64	SPARE	-	-	-	-	-

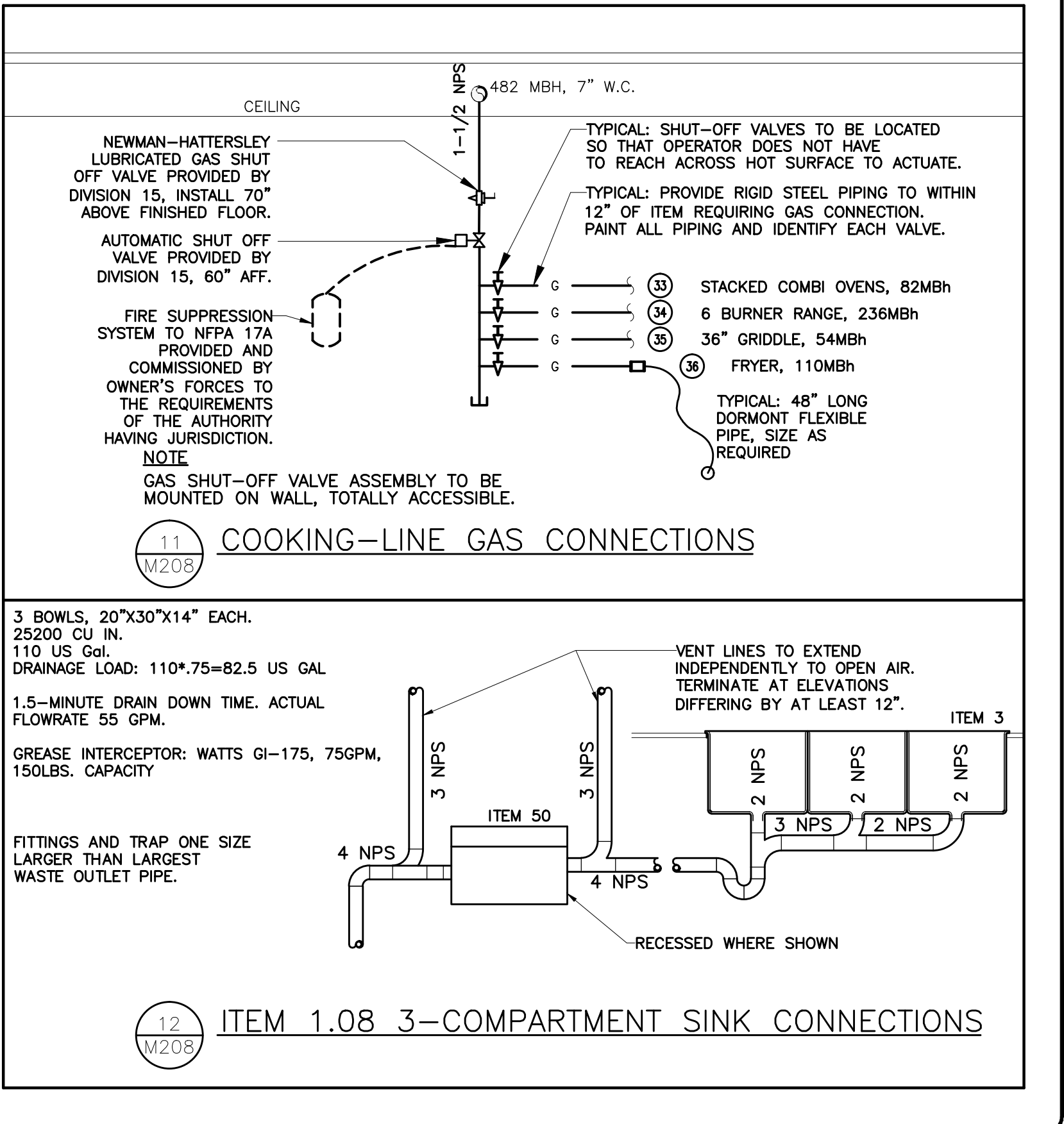
BACKFLOW PREVENTER SCHEDULE

REF	LOCATION	FLOW	MODEL	SERVICE	HAZARD	PROTECTION CATEGORY
BFP-01	KITCHEN ITEM 18	< 1 GPM	WATTS 7	JUICE DISPENSER, NON CO2	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-02	KITCHEN ITEM 23	< 1 GPM	WATTS 7	HOT WATER DISPENSER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-03	KITCHEN ITEM 23	< 1 GPM	WATTS 7	COFFEE MAKER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-04	KITCHEN ITEM 26	1 GPM	WATTS 009	ICE MACHINE	SEVERE	INDIVIDUAL ATMOSPHERIC
BFP-05	KITCHEN	~20 GPM	WATTS 007	DCW MAIN TO KITCHEN	MODERATE AREA	PRESSURE
BFP-06	KITCHEN	~15 GPM	WATTS 007	DHW MAIN TO KITCHEN	MODERATE AREA	PRESSURE
BFP-07	MEM. CARE SERVERY ITEM 11	< 1 GPM	WATTS 7	JUICE DISPENSER, NON CO2	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-08	MEM. CARE SERVERY ITEM 13	< 1 GPM	WATTS 7	COFFEE MAKER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-09	MEM. CARE SERVERY ITEM 15	< 1 GPM	WATTS 7	HOT WATER DISPENSER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-10	2ND FLR SERVERY ITEM 11	< 1 GPM	WATTS 7	JUICE DISPENSER, NON CO2	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-11	2ND FLR SERVERY ITEM 12	< 1 GPM	WATTS 7	HOT WATER DISPENSER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-12	2ND FLR SERVERY ITEM 13	< 1 GPM	WATTS 7	COFFEE MAKER	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-13	2ND FLR SERVERY ITEM 21	1 GPM	WATTS 009	ICE MACHINE	SEVERE	INDIVIDUAL ATMOSPHERIC
BFP-14	KITCHEN ITEM 47	2 GPM	WATTS 007	DISHWASHER DHW	MODERATE	INDIVIDUAL PRESSURE
BFP-15	KITCHEN ITEM 60	1 GPM	WATTS 7	OVEN STEAMER	MODERATE	INDIVIDUAL ATMOSPHERIC
BFP-16	KITCHEN ITEM 38	1 GPM	WATTS 7	KETTLE STEAMER DCW	MINOR	INDIVIDUAL ATMOSPHERIC
BFP-17	KITCHEN ITEM 38	1 GPM	WATTS 7	KETTLE STEAMER DHW	MINOR	INDIVIDUAL ATMOSPHERIC

ALL BACKFLOW PREVENTERS ARE DOUBLE CHECK VALVE ASSEMBLY TYPE. CONTRACTOR TO SIZE VALVES FOR FLOW RATE, NOT NECESSARILY LINE SIZE.

MEMORY CARE SERVERY

EQUIP. NO.	EQUIP. DESCRIPTION	QTY.	DCW	DHW	SAN	GAS	EQUIP. NO.	EQUIP. DESCRIPTION	QTY.	DCW	DHW	SAN	GAS
1	INSULATED CART	1	-	-	-	-	8	FREEZER	1	-	-	1"	-
2	HAND SINK	1	1/2"	1/2"	1-1/2"	-	9	COOLER	1	-	-	1"	-
3	WORK COUNTER	1	-	-	-	-	10	COUNTER	1	-	-	-	-
4	HOT FOOD WELLS	1	-	-	1"	-	11	JUICE DISPENSER	1	1/2"	-	-	-
5	WALL SHELF	1	-	-	-	-	12	UTILITY SINK	1	1/2"	1/2"	1-1/2"	-
6	MICROWAVE	1	-	-	-	-	13	COFFEE MAKER	1	1/4"	-	-	-
7	DISHER WELL	1	1/2"	-	1"	-	14	OVER SHELF	1	-	-	-	-
							15	HOT WATER	1	1/4"	-	-	-



Project Key Plan

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No.	DATE	REVISION
06	JULY 23/15	GENERAL REVISIONS
04	JUNE 8/15	ISSUED FOR PERMIT
04	JUNE 8/15	PROGRESS ISSUE
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02	APRIL 15/15	RE-ISSUED FOR PERMIT
01	DEC. 24/14	ISSUED FOR PERMIT

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DESIGNED BY: KV/SW
DATE: MAR '14
SCALE: AS INDICATED
PROJECT: SOUTHWAY INN RETRO-FIT RETIREMENT HOME

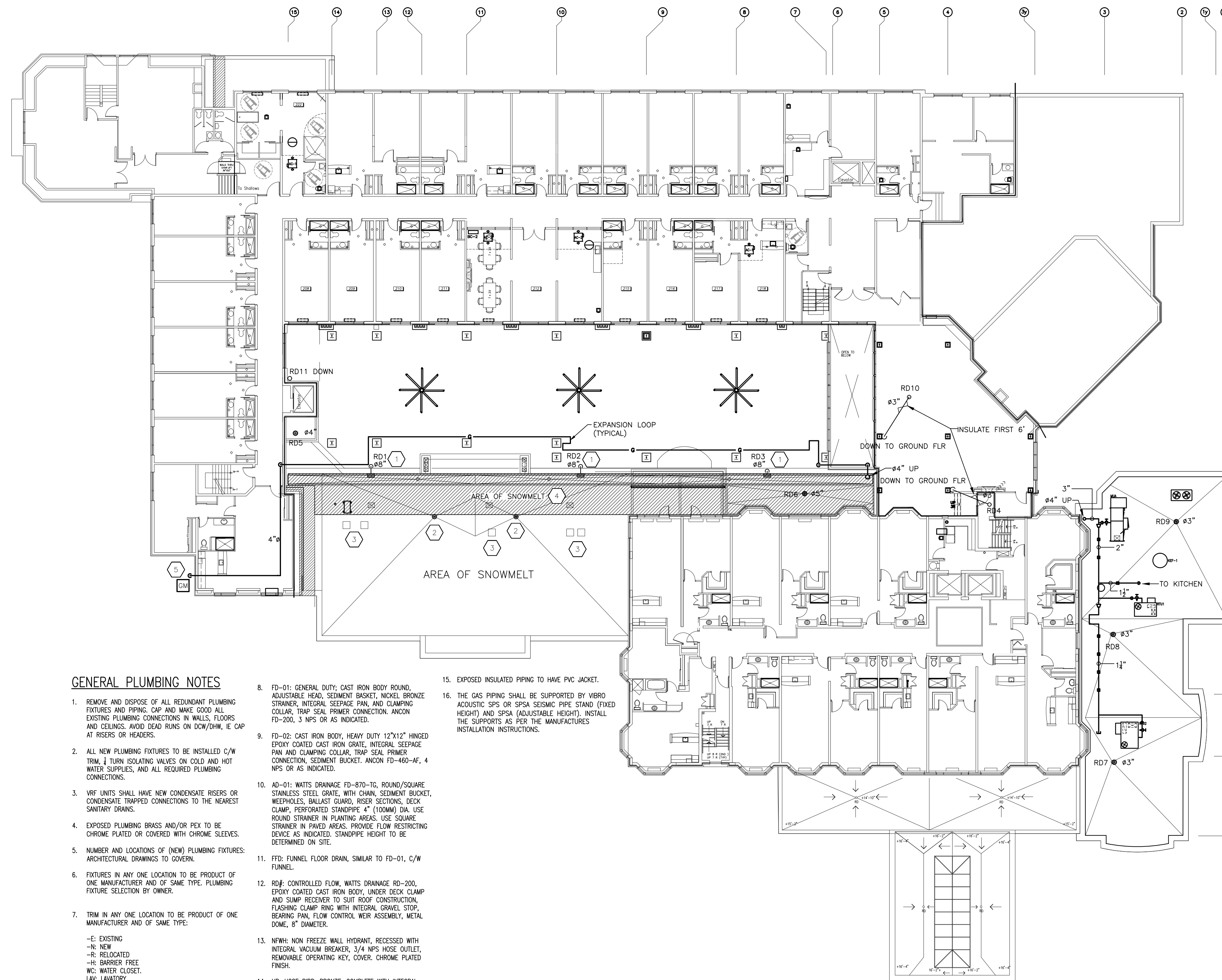
DESIGNED BY: ES
DATE: MAR '14
SCALE: AS INDICATED
PROJECT: SOUTHWAY INN RETRO-FIT RETIREMENT HOME

DATE: MARCH 18, 2014

MECHANICAL PARTIAL GROUND FLOOR PLAN KITCHEN AND SERVERY

NO. 1 SHEET OF 1

DATE: M208

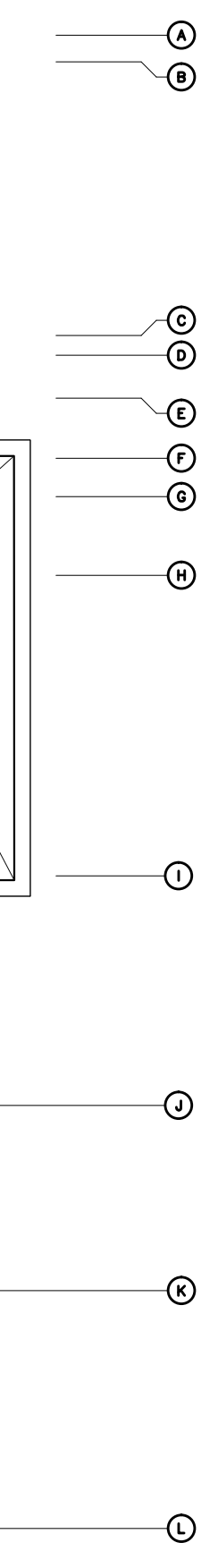


DRAWING NOTES:

- SUPPLY AND INSTALL 8" DIA. SCUPPER DRAINS AND 8" DIA. INSULATED RAIN WATER LEADERS C/W PVC JACKETING. SEE DETAIL ON DRAWING M510.
- RE-INSTALL EXISTING ROOF DRAINS AND RE-CONNECT TO EXISTING RAIN WATER LEADERS.
- EXISTING CONDENSERS TO REMAIN.
- THIS AREA OF ROOF WILL BE REMOVED. ROOFING/INSULATION SLOPED TO THE SCUPPER DRAINS AND GLYCOL SNOWMELTING PROVIDED.
- PROVIDE NEW 4" DIA. (7" WC) GAS SUPPLY TO THE NEW ROOF TOP UNITS. MAKE UP AIR UNIT, KITCHEN EQUIPMENT, GAS DRYERS, ETC. PROVIDE SEISMIC RESTRAINT SUPPORT.

GENERAL NOTES:

- PROVIDE NEW ROOF DRAIN C/W CLAMP, MEMBRANE CLAMP, WATER PROOFING FLANGE, DOME AND STRAINER. HEAT TRACED (BY ELECTRICAL) RAIN WATER LEADER TO EXISTING STORM DRAINAGE SYSTEM AS SHOWN ON GROUND FLOOR. SIZE AS INDICATED.
- RD4, RD7, RD8, RD9 AND RD10 TO BE FLOW CONTROL ROOF DRAINS.



GENERAL PLUMBING NOTES

- REMOVE AND DISPOSE OF ALL REDUNDANT PLUMBING FIXTURES AND PIPING. CAP AND MAKE GOOD ALL EXISTING PLUMBING CONNECTIONS IN WALLS, FLOORS AND CEILINGS. AVOID DEAD RUNS ON DOW/DHW, IE CAP AT RISERS OR HEADERS.
- ALL NEW PLUMBING FIXTURES TO BE INSTALLED C/W TRIM. TURN ISOLATING VALVES ON COLD AND HOT WATER SUPPLIES, AND ALL REQUIRED PLUMBING CONNECTIONS.
- VRF UNITS SHALL HAVE NEW CONDENSATE RISERS OR CONDENSATE TRAPPED CONNECTIONS TO THE NEAREST SANITARY DRAINS.
- EXPOSED PLUMBING BRASS AND/OR PEX TO BE CHROME PLATED OR COVERED WITH CHROME SLEEVES.
- NUMBER AND LOCATIONS OF (NEW) PLUMBING FIXTURES: ARCHITECTURAL DRAWINGS TO GOVERN.
- FIXTURES IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE. PLUMBING FIXTURE SELECTION BY OWNER.
- TRIM IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE:
-E: EXISTING
-N: NEW
-R: RELOCATED
-H: BARRIER FREE
WC: WATER CLOSET.
LAV: LAVATORY.
SH: SHOWER.
KS: KITCHEN SINK.
DW: UNDER COUNTER DISHWASHER.
W: RESIDENTIAL STYLE WASHING MACHINE.
- FD-01: GENERAL DUTY, CAST IRON BODY ROUND, ADJUSTABLE HEAD, SEDIMENT BASKET, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION. ANCON FD-200, 3 NPS OR AS INDICATED.
- FD-02: CAST IRON BODY, HEAVY DUTY 12"x12" HINGED EPOXY COATED CAST IRON GRATE, INTEGRAL SEEPAGE PAN AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION, SEDIMENT BUCKET. ANCON FD-460-4F, 4 NPS OR AS INDICATED.
- AD-01: WATTS DRAINAGE FD-970-T0, ROUND/SQUARE STAINLESS STEEL GRATE, WITH CHAIN, SEDIMENT BUCKET, WEEPHOLES, BALLAST GUARD, RISER SECTIONS, DECK CLAMP, PERFORATED STANDPIPE 4" (100MM) DIA. USE ROUND STRAINER IN PLANTING AREAS. USE SQUARE STRAINER IN PAVED AREAS. PROVIDE FLOW RESTRICTING DEVICE AS INDICATED. STANDPIPE HEIGHT TO BE DETERMINED ON SITE.
- FFD: FUNNEL FLOOR DRAIN, SIMILAR TO FD-01, C/W FUNNEL.
- RD-F: CONTROLLED FLOW, WATTS DRAINAGE RD-200, EPOXY COATED CAST IRON BODY, UNDER DECK CLAMP AND SUMP RECEIVER TO SUIT ROOF CONSTRUCTION, FLASHING CLAMP RING WITH INTEGRAL GRAVEL STOP, BEARING PAN, FLOW CONTROL WEIR ASSEMBLY, METAL DOME, 8" DIAMETER.
- NFWH: NON FREEZE WALL HYDRANT, RECESSED WITH INTEGRAL VACUUM BREAKER, 3/4 NPS HOSE OUTLET, REMOVABLE OPERATING KEY, COVER, CHROME PLATED FINISH.
- HB: HOSE BIBB, BRONZE, COMPLETE WITH INTEGRAL BACK FLOW PREVENTER, HOSE THREAD SPOUT, REPLACEABLE COMPOSITION DISC, AND CHROME PLATED. INSTALL IN HEATED AREAS ONLY.
- EXPOSED INSULATED PIPING TO HAVE PVC JACKET.
- THE GAS PIPING SHALL BE SUPPORTED BY VIBRO ACOUSTIC SPS OR SPSA SEISMIC PIPE STAND (FIXED HEIGHT) AND SPSA (ADJUSTABLE HEIGHT). INSTALL THE SUPPORTS AS PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

1 SECOND FLOOR PLAN
M210 1/16" = 1'-0"

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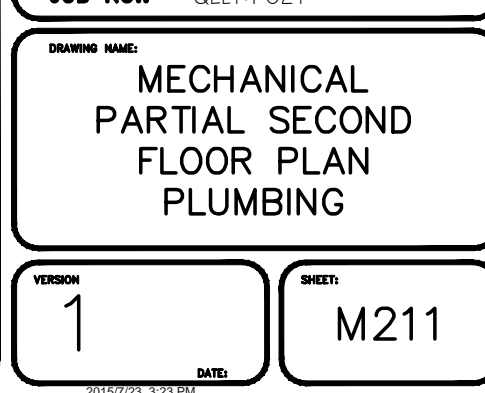
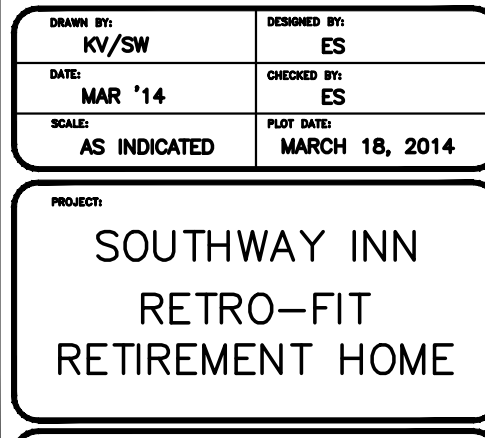
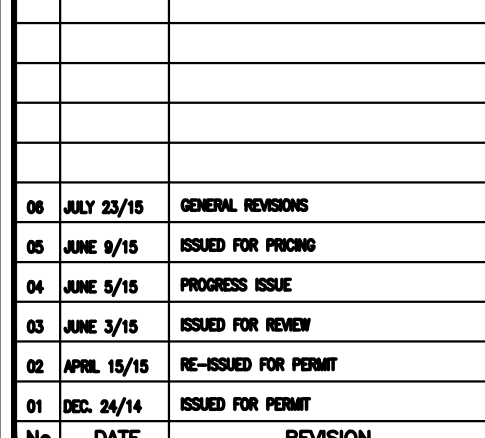
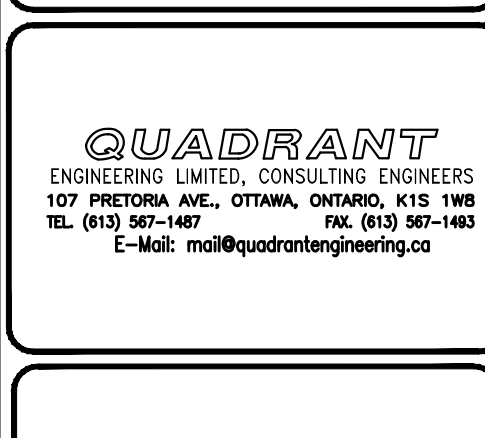
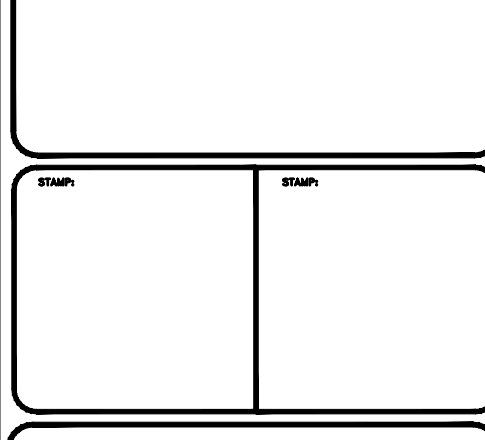
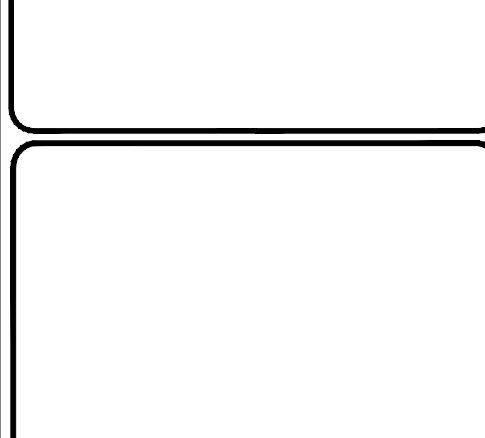
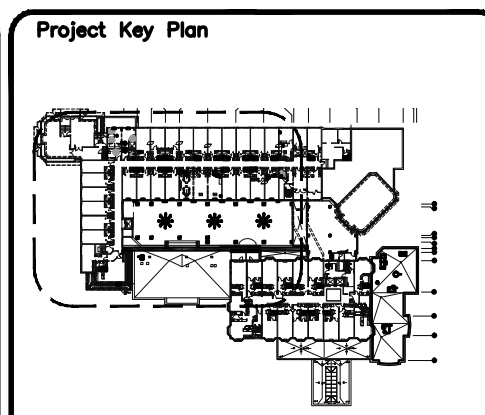
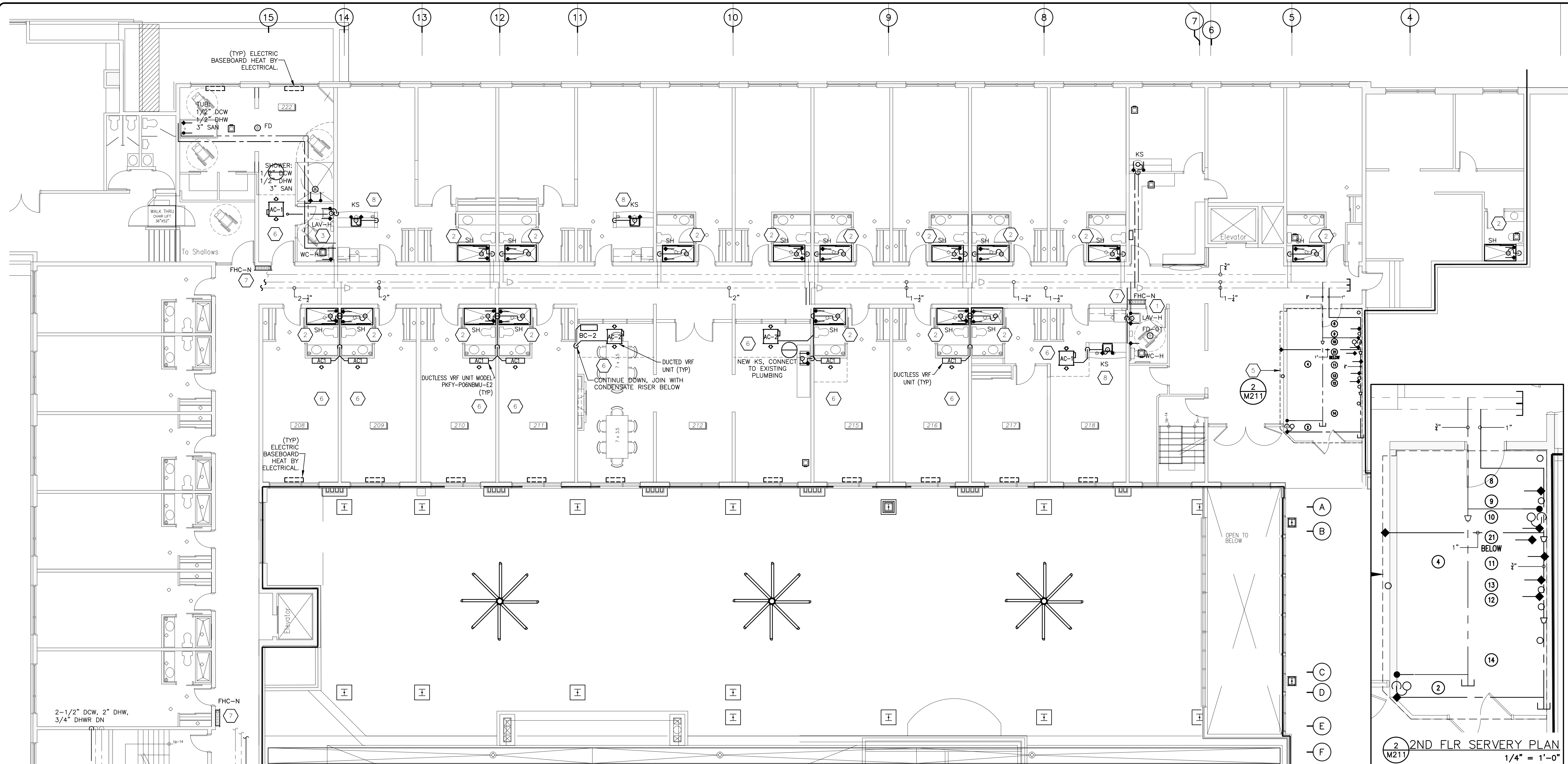
SCALE: AS INDICATED PLOT DATE: MARCH 18, 2014

PROJECT: SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME

JOB NO.: CQL14-021

MECHANICAL
SECOND FLOOR PLAN
STORM DRAINAGE AND
NATURAL GAS PIPING

1 M210



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DATE	BY	DATE	BY
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AS INDICATED		MARCH 18, 2014	

PROJECT: **SOUTHWAY INN RETRO-FIT RETIREMENT HOME**

JOB NO.: CGL14-021

MECHANICAL PARTIAL SECOND FLOOR PLAN PLUMBING

NO.	DATE	REVISION
1		

M211

DRAWING NOTES:

- SUPPLY AND INSTALL NEW LAV-H, WC, AND FD-01.
- REMOVE EXISTING SHOWER/TUB AND INSTALL NEW SHOWER (SH) (ACRYLIC BASE, 60x30, C/W ROOF, LIGHT FIXTURE AND SLIDING DOORS).
- INSTALL NEW THERAPEUTIC BATH (SUPPLIED BY OWNER), SHOWER TRIM, LAV-H, WC-H AND TWO FLOOR DRAINS.
- SUPPLY AND INSTALL NEW SH, WC, LAV AND KS.
- INSTALL ALL NEW KITCHEN EQUIPMENT FIXTURES SUPPLIED BY THE KITCHEN SUPPLIER. SEE EQUIPMENT SCHEDULE ON DRAWING M203.
- PROVIDE NEW VRF TERMINAL HEATING/COOLING UNITS, AC-#. PROVIDE NEW TRAPPED CONDENSATE DRAIN WHERE NOTED:
 - SUITES - TO RISER.
 - LOUNGE - AS INDICATED.
- CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#. BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
- CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#. BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
- NEW (FHC-N) OR RELOCATED (FHC-R) FIRE HOSE CABINET - COORDINATE WITH FIRE PROTECTION CONSULTANT/CONTRACTOR.
- SUPPLY AND INSTALL NEW KS AND TRIM. REMOVE AND DISPOSE OF ALL REDUNDANT EXISTING PLUMBING FIXTURES IN THIS AREA.

GENERAL PLUMBING NOTES

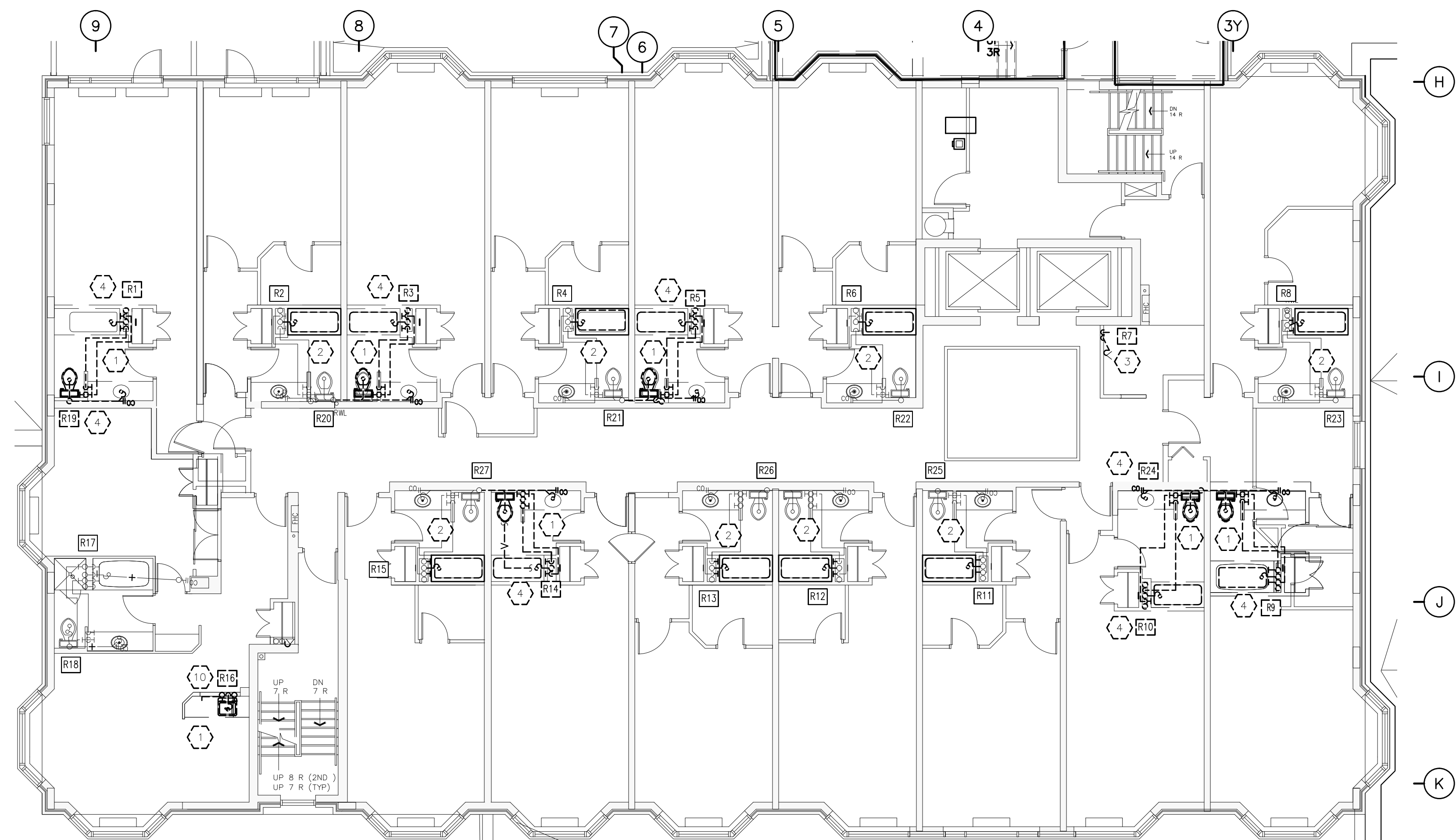
- REMOVE AND DISPOSE OF ALL REDUNDANT PLUMBING FIXTURES AND PIPING. CAP AND MAKE GOOD ALL EXISTING PLUMBING CONNECTIONS IN WALLS, FLOORS AND CEILINGS. AVOID DEAD RUNS ON DCW/DHW, IE CAP AT RISERS OR HEADERS.
- ALL NEW PLUMBING FIXTURES TO BE INSTALLED C/W TRIM, 1/2 TURN ISOLATING VALVES ON COLD AND HOT WATER SUPPLIES, AND ALL REQUIRED PLUMBING CONNECTIONS.
- VRF UNITS SHALL HAVE NEW CONDENSATE RISERS OR CONDENSATE TRAPPED CONNECTIONS TO THE NEAREST SANITARY DRAINS.
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 - H- BARRIER FREE
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 - LAV: LAVATORY
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 - W: RESIDENTIAL STYLE WASHING MACHINE.
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- FD-02: CAST IRON BODY, HEAVY DUTY 12"x12" HINGED EPOXY COATED CAST IRON GRATE, INTEGRAL SEEPAGE PAN AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION, SEDIMENT BUCKET. ANCON FD-460-AF, 4 NPS OR AS INDICATED.
- AD-01: WATTS DRAINAGE FD-870-TG, ROUND/SQUARE STAINLESS STEEL GRATE, WITH CHAIN, SEDIMENT BUCKET, WEEPHOLES, BALLAST GUARD, RISER SECTIONS, DECK CLAMP, PERFORATED STANDPIPE 4" (100MM) DIA. USE ROUND STRAINER IN PLANTING AREAS. USE SQUARE STRAINER IN PAVED AREAS. PROVIDE FLOW RESTRICTING DEVICE AS INDICATED. STANDPIPE HEIGHT TO BE DETERMINED ON SITE.
- FFD: FUNNEL FLOOR DRAIN, SIMILAR TO FD-01, C/W FUNNEL.
- RFJ: CONTROLLED FLOW, WATTS DRAINAGE RD-200, EPOXY COATED CAST IRON BODY, UNDER DECK CLAMP AND SLUMP RECEIVER TO SUIT ROOF CONSTRUCTION, FLASHING CLAMP RING WITH INTEGRAL GRAVEL STOP, BEARING PAN, FLOW CONTROL WEIR ASSEMBLY, METAL DOME, 8" DIAMETER.
- NFWH: NON FREEZE WALL HYDRANT, RECESSED WITH INTEGRAL VACUUM BREAKER, 3/4 NPS HOSE OUTLET, REMOVABLE OPERATING KEY, COVER, CHROME PLATED FINISH.
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- EXPOSED INSULATED PIPING TO HAVE PVC JACKET.

SECOND FLOOR SERVERY SCHEDULE

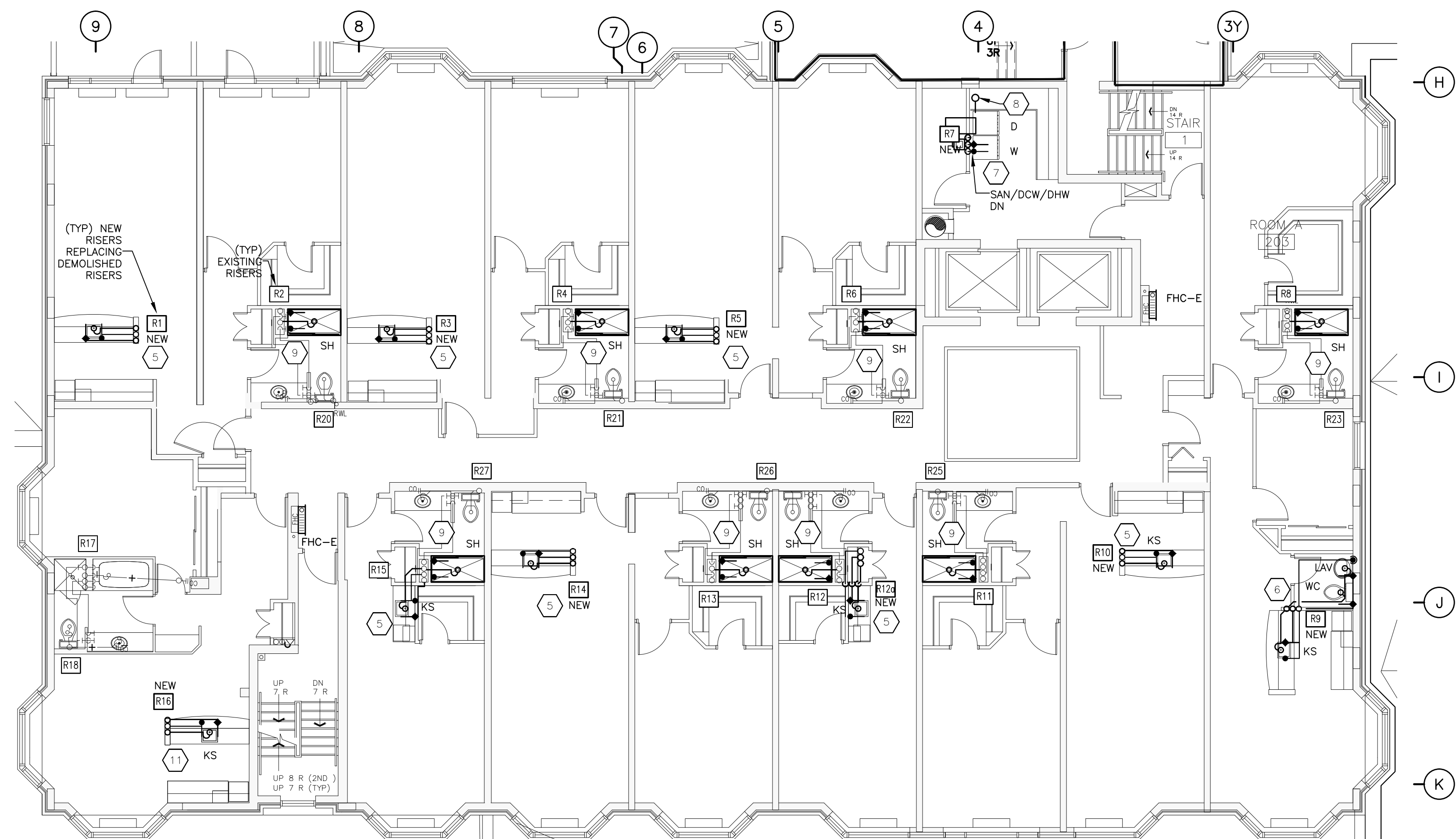
EQUIP. NO.	EQUIP. DESCRIPTION	QTY.	DCW	DHW	SAN	GAS
1	SERVERY SHELF	1				
2	HAND SINK	2	1/2"	1/2"	1-1/2"	
3	SERVERY COUNTER	1				
4	HOT FOOD WELLS	1		3/8"	1"	
5	TOASTER	1				
6	MICROWAVE	1				
7	WALL SHELF	1				
8	FREEZER	1				
9	DIPPER WELL	1	1/2"		1"	
10	SINK	1	1/2"	1/2"	1-1/2"	
11	JUICE DISPENSER	1	1/2"			
12	HOT WATER	1	1/4"			
13	COFFEE MAKER	1	1/4"			
14	COOLER	1				
15	SPARE					
16	SHELVING 24" x 60"	1				
17	SPARE					
18	SERVICE COUNTER	1				
19	INSULATED CART	1				
20	SPARE					
21	UNDER COUNTER ICE MACHINE	1	1/2"		1" 1/0"	

BACKFLOW PREVENTER ON INCOMING WATER CONNECTION AND SELECT EQUIPMENT.

1 PARTIAL SECOND FLOOR PLAN
M211
1/8" = 1'-0"



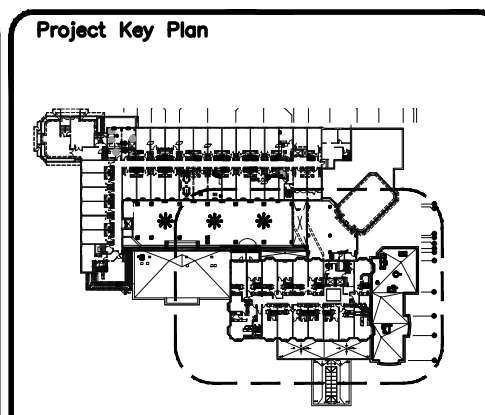
1 PARTIAL SECOND TO FIFTH FLOOR PLAN - DEMOLITION
 1/8" = 1'-0"



2 PARTIAL SECOND TO FIFTH FLOOR PLAN - NEW WORK
 1/8" = 1'-0"

DRAWING NOTES:

1. REMOVE AND DISPOSE OF EXISTING PLUMBING FIXTURES. CAP ALL PLUMBING SERVICES AT RISERS.
2. REMOVE EXISTING SHOWER/TUB. RETAIN AND MAKE NEW PLUMBING AND RISER.
3. REMOVE EXISTING PLUMBING RISER SERVING WASHERS ON SECOND TO SIXTH FLOOR. CAP AT GROUND FLOOR LEVEL CEILING.
4. REMOVE THE EXISTING PLUMBING CONNECTION (DRAINS, VENTS) ASSOCIATED WITH THE EXISTING BATHROOMS, CAP AS REQUIRED.
5. SUPPLY AND INSTALL KITCHEN SINK (KS). CONNECT NEW DRAIN, VENT, COLD AND HOT WATER SUPPLIES TO THE EXISTING RISER, PROVIDE ISOLATIONS VALVES ON THE DCW AND DHW SUPPLIES.
6. SUPPLY AND INSTALL NEW LAV, WC AND KS AND TRIM. PROVIDE ALL NEW CONNECTIONS TO THE SANITARY, VENT, COLD, HOT AND RECIRCULATION RISERS AS REQUIRED. PROVIDE NEW RISERS IF REQUIRED. SEE RISER DIAGRAMS. CONNECT TO THE SERVICES IN THE GROUND FLOOR CEILING (NEW RISER R9).
7. INSTALL NEW LAUNDRY RISERS FOR GAS FIRED DRYERS AND WASHERS. SEE RISER DIAGRAMS. CONNECT TO THE SERVICES IN THE GROUND FLOOR CEILING.
8. NEW NATURAL GAS RISER FROM SECOND TO SIXTH FLOOR. FIRE RATED ENCLOSURE BY OTHERS.
9. SUPPLY AND INSTALL NEW SHOWER, "SH" (ACRYLIC BASE, 60X30, C/W ROOF AND LIGHT FIXTURE). CONFIRM DIMENSION WITH ARCHITECTURAL.
10. REMOVE EXISTING RISER AS REQUIRED, CAP ALL PIPES WATER TIGHT AS REQUIRED.
11. SUPPLY AND INSTALL NEW KS AND NEW PLUMBING (SAN, VENT, COLD, HOT, AND RECIRC). PROVIDE NEW RISER IF INDICATED OR REQUIRED.



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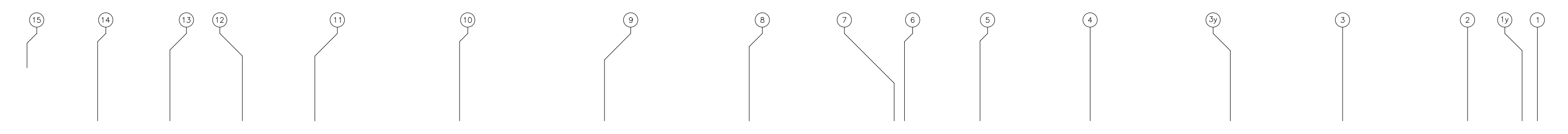
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PROJECT: SOUTHWAY INN
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JOB NO.: QEL14-021

MECHANICAL
 PARTIAL SECOND
 FLOOR PLAN
 PLUMBING

1 M212



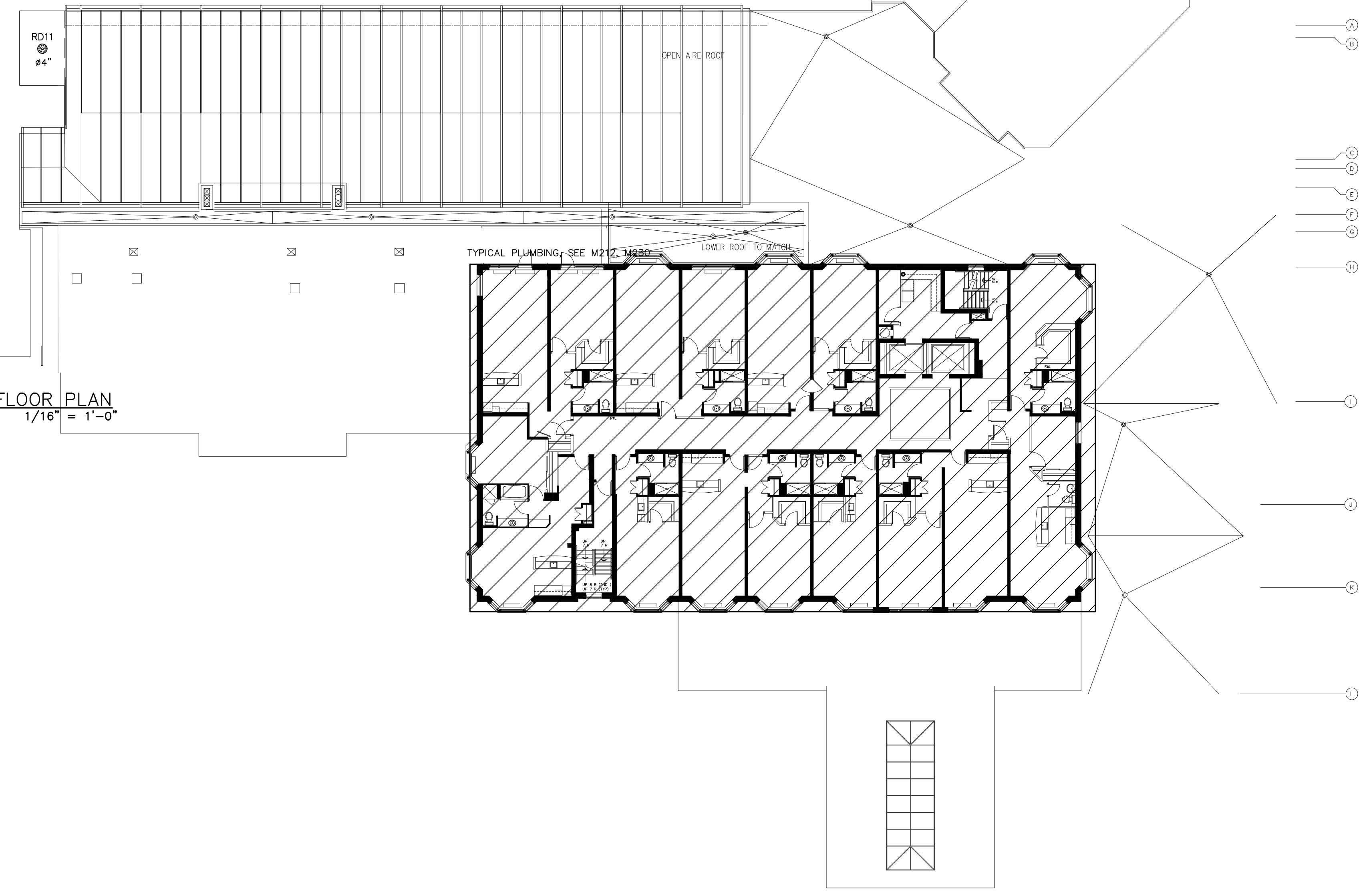
DRAWING NOTES:

 OU-1 OU-2 OU-3

PROVIDE NEW VRF OUTDOOR UNITS, OU-1, OU-2 AND OU-3. CONNECT REFRIGERANT LINES FROM OUTDOOR UNITS TO BC CONTROLLERS:
 OU-1 TO BC-1 ON GROUND FLOOR
 OU-2 TO BC-2 ON SECOND FLOOR
 OU-3 TO BC-3 ON THIRD FLOOR

1
 M215
FOURTH FLOOR PLAN
 1/16" = 1'-0"



VRF HEAT PUMP SYSTEM SPECIFICATION:

1. COMPLETE SYSTEM SPECIFICATION (MITSUBISHI CITYMULTI R410 VRF PURY-P-TKMU 208-230/3/60 Hz SERIES) AVAILABLE FROM MITSUBISHI SUPPLIER.

VRF HEAT PUMP SYSTEM SCOPE OF WORK:

- SUPPLY AND INSTALL CONDENSERS PURY AS SHOWN ON SCHEMATICS.
- SUPPLY AND INSTALL BC CONTROLLERS CMB AS SHOWN ON SCHEMATICS.
- SUPPLY AND INSTALL WALL TYPE INDOOR UNITS AS SHOWN ON SCHEMATICS.
- SUPPLY AND INSTALL A COMPLETE REFRIGERATION PIPING/TUBING SYSTEM AS INDICATED ON SCHEMATICS.
- OUTDOOR UNITS SHALL BE INSTALLED ON 'BIG FOOT' FRAMES, SHALL HAVE WIND GUARDS AND SNOW HOODS, FLEXIBLE REFRIGERANT TUBING CONNECTIONS.
- INDOOR UNITS SHALL HAVE FILTERS, NEOPRENE ISOLATORS AND CONDENSATE DRAINS, TRAPPED C/W TSP.
- ALL INDOOR UNITS SHALL HAVE A BUILT-IN TOGGLE SWITCH.
- REMOTE THERMOSTATS: MITSUBISHI PACYTS1CRB "SIMPLE REMOTE CONTROLLER", WALL MOUNTED LCD DISPLAY.
- SUPPLIER/CONTRACTOR SHALL SUBMIT DETAILED SHOP DRAWINGS FOR CONSULTANT'S REVIEW. THE ENTIRE DESIGN, SCHEMATICS AND SPECIFICATIONS SHALL BE VERIFIED BY THE SUPPLIER'S DESIGNERS.
- SUPPLIER/CONTRACTOR SHALL PROVIDE A COMPLETE START-UP AND COMMISSIONING OF THE ENTIRE SYSTEM INCLUDING THE CONTROL SYSTEM FOR BOTH SEASONS (HEATING/COOLING).
- SUPPLIER/CONTRACTOR SHALL PROVIDE A TRAINING FOR THE OWNER'S STAFF REGARDING THE REGULAR MAINTENANCE AND OPERATION OF THE CONTROL SYSTEM.
- THE ENTIRE SYSTEM SHALL BE INSTALLED AS PER MANUFACTURER'S INSTALLATION DETAILS AND PROCEDURES. ALL CONTROL WIRING SHALL BE INSTALLED AS PER MANUFACTURER'S WIRING DIAGRAMS AND WIRING MATERIAL SPECIFICATIONS BY MECHANICAL.

VRF PIPEWORK SPECIFICATION:

- SUPPLY, INSTALL, TEST AND COMMISSION ALL INTERCONNECTING REFRIGERATION PIPEWORK BETWEEN THE OUTDOOR AND INDOOR UNITS.
- ALL PIPEWORK TO BE CARRIED OUT IN REFRIGERANT QUALITY ACR COPPER TUBING AND COMPLETE WITH THE APPROPRIATE HEADERS AND JOINTS. ALL PIPEWORK MUST BE SUITABLE FOR R410A.
- LONGEST POSSIBLE LENGTHS OF COPPER PIPE SHOULD BE UTILISED TO MINIMISE JOINTS ON SITE.
- APPROPRIATE REFRIGERATION INSTALLATION TOOLS MUST BE UTILISED. DRY NITROGEN MUST BE UTILISED AT ALL TIMES IN THE SYSTEM DURING BRAZING.
- ALL PIPEWORK (SUCTION AND LIQUID LINES) TO BE INSULATED WITH SLIP ON CLOSE CELL ELASTOMERIC PIPE INSULATION (AS MANUFACTURED BY ARMAFLEX OR EQUAL AND APPROVED) HAVING A WALL THICKNESS OF NOT LESS THAN 1/2".
- AFTER INSTALLATION OF PIPEWORK, AND PRIOR TO SEALING OF INSULATION JOINTS AND STARTING OF EQUIPMENT, PIPEWORK SHOULD BE PRESSURE TESTED. 44 PSIG TEST FOR 3 MINUTES MINIMUM, THEN 217 PSIG FOR 3 MINIMUM, THEN 478 PSIG FOR 3 MINUTES MINIMUM, THEN STRENGTH TEST TO 600 PSIG CHECK THE SYSTEM FOR LEAKS AND DEFORMATION, THEN LOWER THE PRESSURE BACK TO 478 PSIG AND PRESSURE TEST FOR 24 HOURS AND CHECKED FOR LEAKS. VACUUMED/DEHYDRATED TO 300 MICRONS, AND HOLD AT THAT VACUUM FOR 12 HOURS (MINIMUM)
- REFRIGERANT (R410A) CHARGE WEIGHT MUST BE CALCULATED, TO THE ACTUAL INSTALLED LENGTH OF PIPE WORK IN ACCORDANCE TO MITSUBISHI RECOMMENDATIONS.
- THE CHARGING SHOULD BE CARRIED OUT WITH AN APPROPRIATE CHARGING STATION.
- PIPEWORK TO BE PROPERLY FIXED AND SUPPORTED AT A MINIMUM OF 1.5 METRES (5 FEET) CENTRES OR AS SPECIFIED BY LOCAL CODE AND WHERE REQUIRED SHOULD BE RUN ON GALVANISED TRAYS. ALL PIPEWORK TO BE LABELLED WITH ID NUMBER (CONDENSING UNITS REF.) AT 3 METRE (9 FEET) INTERVALS.
- JOINTS IN COPPER PIPE SHALL BE BRAZED USING 15% SILVER SOLDER. BRAZING SHALL BE CARRIED OUT TO THE REQUIREMENTS OF THE LOCAL CODE AND AS PER THE CANADIAN COPPER & BRASS DEVELOPMENT ASSOCIATION RECOMMENDATIONS. ALL COMPONENTS OF THE REFRIGERATION PIPING AND TUBING MUST BE RATED FOR A WORKING PRESSURE OF 800PSI. ONLY LICENSED REFRIGERATION CONTRACTORS/PERSONNEL/MECHANICS WILL BE ALLOWED TO WORK ON REFRIGERATION TUBING/SYSTEMS.
- BOTH REFRIGERANT LINES ARE TO BE INSULATED SEPARATELY. NO 'BULL-HEAD' TEES SHOULD BE INSTALLED IN THE REFRIGERANT PIPING. NO P-TRAPS SHOULD BE INSTALLED IN THE REFRIGERANT PIPING. NO DOUBLE-BISSERS SHOULD BE INSTALLED IN THE REFRIGERANT PIPING. COMMUNICATION WIRE BETWEEN OUTDOOR AND INDOOR UNITS IS A MINIMUM OF 16 GAUGE 2 CONDUCTOR SHIELDED WIRING ONLY. NO DEVIATION IN THE PIPING CONFIGURATION, SUBMITTED LINE LENGTHS AND/OR HEIGHT DIFFERENCES SHOULD BE PERFORMED ON-SITE WITH PRIOR WRITTEN APPROVAL FROM MANUFACTURER/SUPPLIER.

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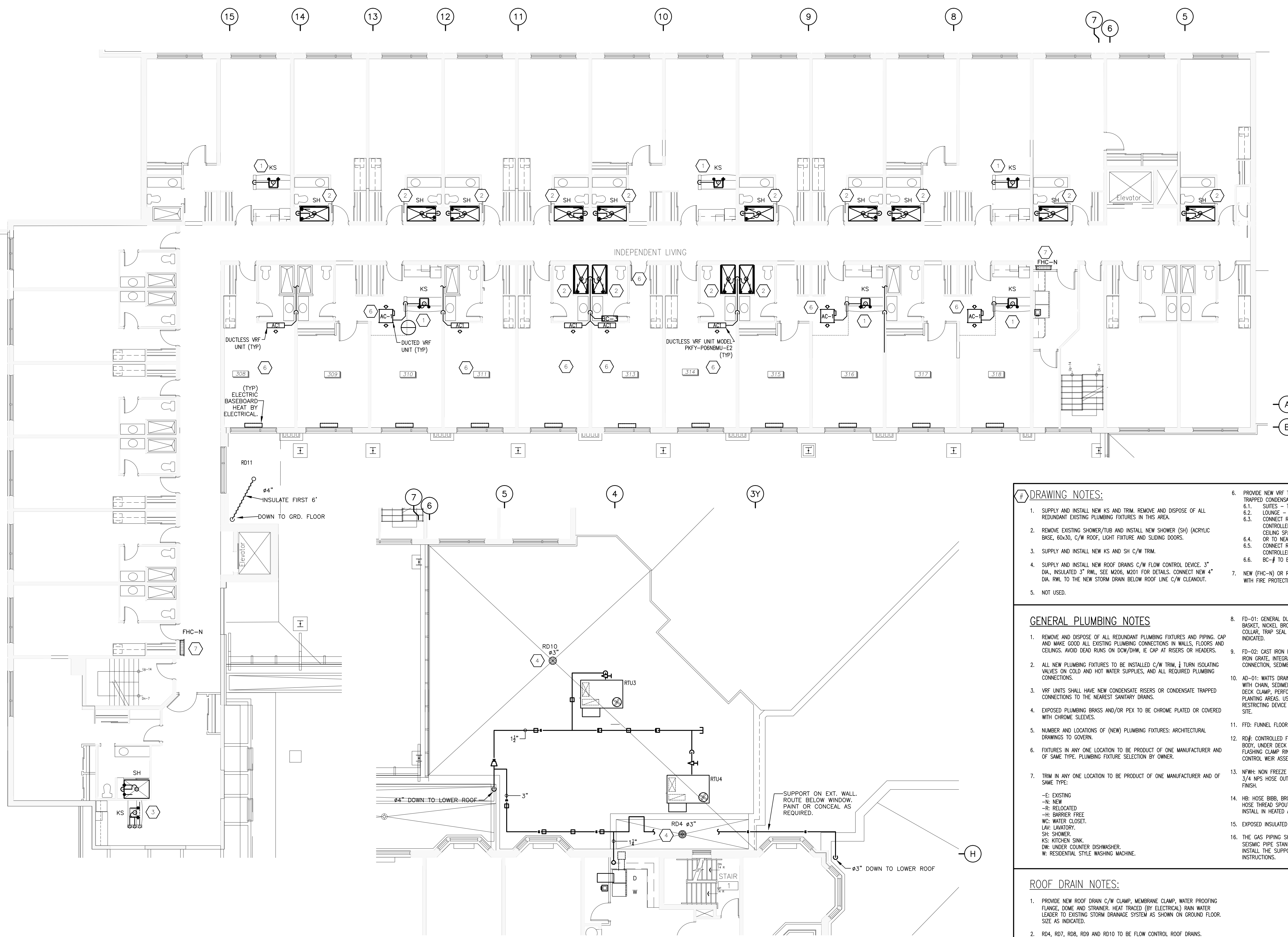
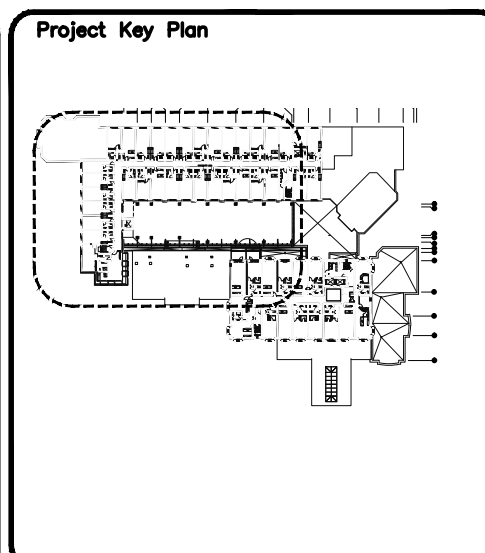
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SCALE: AS INDICATED	PLOT DATE: MARCH 18, 2014

PROJECT:
**SOUTHWAY INN
 RETRO-FIT
 RETIREMENT HOME**

JOB NO.: CGL14-021

DRAWING NO.:
**MECHANICAL
 FOURTH FLOOR PLAN
 VRF SYSTEM NOTES**

SHEET:
1 OF **M215**



- DRAWING NOTES:**
- SUPPLY AND INSTALL NEW KS AND TRIM. REMOVE AND DISPOSE OF ALL REDUNDANT EXISTING PLUMBING FIXTURES IN THIS AREA.
 - REMOVE EXISTING SHOWER/TUB AND INSTALL NEW SHOWER (SH) (ACRYLIC BASE, 60x30, C/W ROOF, LIGHT FIXTURE AND SLIDING DOORS).
 - SUPPLY AND INSTALL NEW KS AND SH C/W TRIM.
 - SUPPLY AND INSTALL NEW ROOF DRAINS C/W FLOW CONTROL DEVICE. 3" DIA., INSULATED 3" RWL, SEE M206, M201 FOR DETAILS. CONNECT NEW 4" DIA. RWL TO THE NEW STORM DRAIN BELOW ROOF LINE C/W CLEANOUT.
 - NOT USED.
 - PROVIDE NEW VRF TERMINAL HEATING/COOLING UNITS, AC-#. PROVIDE NEW TRAPPED CONDENSATE DRAIN WHERE NOTED:
 - SUITES - TO RISER
 - LOUNGE - AS INDICATED.
 - CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#. BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
 - OR TO NEAREST PLUMBING SYSTEM AS REQUIRED.
 - CONNECT REFRIGERANT LINES FROM TERMINAL UNITS TO BC CONTROLLER BC-#.
 - BC-# TO BE INSTALLED AND ACCESSIBLE IN CEILING SPACE.
 - NEW (FHC-N) OR RELOCATED (FHC-R) FIRE HOSE CABINET - COORDINATE WITH FIRE PROTECTION CONSULTANT/CONTRACTOR.

- GENERAL PLUMBING NOTES**
- REMOVE AND DISPOSE OF ALL REDUNDANT PLUMBING FIXTURES AND PIPING. CAP AND MAKE GOOD ALL EXISTING PLUMBING CONNECTIONS IN WALLS, FLOORS AND CEILINGS. AVOID DEAD RUNS ON DOW/DHW, IE CAP AT RISERS OR HEADERS.
 - ALL NEW PLUMBING FIXTURES TO BE INSTALLED C/W TRIM. TURN ISOLATING VALVES ON COLD AND HOT WATER SUPPLIES, AND ALL REQUIRED PLUMBING CONNECTIONS.
 - VRF UNITS SHALL HAVE NEW CONDENSATE RISERS OR CONDENSATE TRAPPED CONNECTIONS TO THE NEAREST SANITARY DRAINS.
 - EXPOSED PLUMBING BRASS AND/OR PEX TO BE CHROME PLATED OR COVERED WITH CHROME SLEEVES.
 - NUMBER AND LOCATIONS OF (NEW) PLUMBING FIXTURES: ARCHITECTURAL DRAWINGS TO GOVERN.
 - FIXTURES IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE. PLUMBING FIXTURE SELECTION BY OWNER.
 - TRIM IN ANY ONE LOCATION TO BE PRODUCT OF ONE MANUFACTURER AND OF SAME TYPE:
 - E: EXISTING
 - N: NEW
 - R: RELOCATED
 - H: BARRIER FREE
 - WC: WATER CLOSET
 - LAV: LAVATORY
 - SH: SHOWER
 - KS: KITCHEN SINK
 - DW: UNDER COUNTER DISHWASHER
 - W: RESIDENTIAL STYLE WASHING MACHINE.
 - FD-01: GENERAL DUTY; CAST IRON BODY ROUND, ADJUSTABLE HEAD, SEDIMENT BASKET, NICKEL BRONZE STRAINER, INTEGRAL SEEPAGE PAN, AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION. ANCON FD-200, 3 NPS OR AS INDICATED.
 - FD-02: CAST IRON BODY, HEAVY DUTY 12"x12" HINGED EPOXY COATED CAST IRON GRATE, INTEGRAL SEEPAGE PAN AND CLAMPING COLLAR, TRAP SEAL PRIMER CONNECTION, SEDIMENT BUCKET. ANCON FD-460-AF, 4 NPS OR AS INDICATED.
 - AD-01: WATTS DRAINAGE FD-870-TG, ROUND/SQUARE STAINLESS STEEL GRATE, WITH CHAIN, SEDIMENT BUCKET, WEEPHOLES, BALLAST GUARD, RISER SECTIONS, DECK CLAMP, PERFORATED STANDPIPE 4" (100MM) DIA. USE ROUND STRAINER IN PLANTING AREAS. USE SQUARE STRAINER IN PAVED AREAS. PROVIDE FLOW RESTRICTING DEVICE AS INDICATED. STANDPIPE HEIGHT TO BE DETERMINED ON SITE.
 - FFD: FUNNEL FLOOR DRAIN, SIMILAR TO FD-01, C/W FUNNEL.
 - RD#: CONTROLLED FLOW, WATTS DRAINAGE RD-200, EPOXY COATED CAST IRON BODY, UNDER DECK CLAMP AND SUMP RECEIVER TO SUIT ROOF CONSTRUCTION, FLASHING CLAMP RING WITH INTEGRAL GRAVEL STOP, BEARING PAN, FLOW CONTROL WEIR ASSEMBLY, METAL DOME, 8" DIAMETER.
 - NFWH: NON FREEZE WALL HYDRANT, RECESSED WITH INTEGRAL VACUUM BREAKER, 3/4 NPS HOSE OUTLET, REMOVABLE OPERATING KEY, COVER. CHROME PLATED FINISH.
 - HB: HOSE BIBB, BRONZE, COMPLETE WITH INTEGRAL BACK FLOW PREVENTER, HOSE THREAD SPOUT, REPLACEABLE COMPOSITION DISC, AND CHROME PLATED. INSTALL IN HEATED AREAS ONLY.
 - EXPOSED INSULATED PIPING TO HAVE PVC JACKET.
 - THE GAS PIPING SHALL BE SUPPORTED BY VIBRO ACOUSTIC SPS OR SPSA SEISMIC PIPE STAND (FIXED HEIGHT) AND SPSA (ADJUSTABLE HEIGHT). INSTALL THE SUPPORTS AS PER THE MANUFACTURERS INSTALLATION INSTRUCTIONS.

- ROOF DRAIN NOTES:**
- PROVIDE NEW ROOF DRAIN C/W CLAMP, MEMBRANE CLAMP, WATER PROOFING FLANGE, DOME AND STRAINER. HEAT TRACED (BY ELECTRICAL) RAIN WATER LEADER TO EXISTING STORM DRAINAGE SYSTEM AS SHOWN ON GROUND FLOOR. SIZE AS INDICATED.
 - RD4, RD7, RD8, RD9 AND RD10 TO BE FLOW CONTROL ROOF DRAINS.
 - RD1, RD2 AND RD3 TO BE INSTALLED IN GUTTER (BY OTHERS).

1 PARTIAL THIRD FLOOR PLAN
1/8" = 1'-0"

2 PARTIAL THIRD FLOOR PLAN
1/8" = 1'-0"

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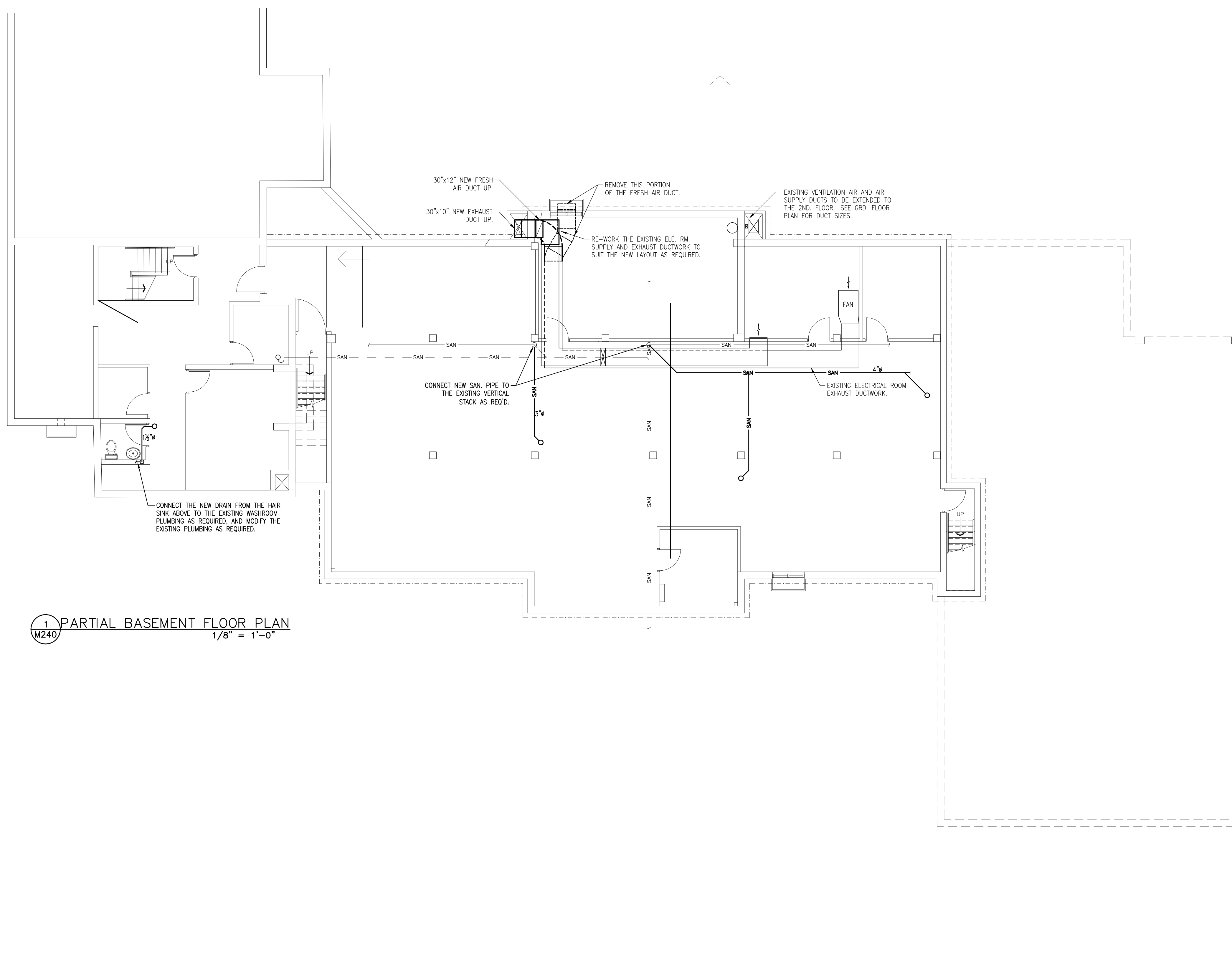
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DRAWN BY: MAR '14	DESIGNED BY: ES
SCALE: AS INDICATED	PLP DATE: MARCH 18, 2014

PROJECT:
**SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME**

JOB NO.: CGL14-021

ISSUED FOR:
**MECHANICAL
PARTIAL THIRD FLOOR
PLAN
PLUMBING**

NO. 1 SHEET OF 1
DATE: M216



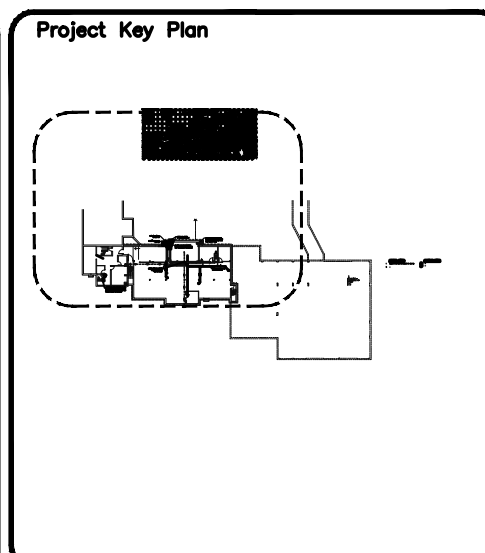
GENERAL NOTES

- 1 DRAWINGS NOTES ARE FOR DRAWINGS 251 AND 252.
- 2 -

DRAWINGS NOTES

- ① -
- ② -

1 PARTIAL BASEMENT FLOOR PLAN
M240 1/8" = 1'-0"



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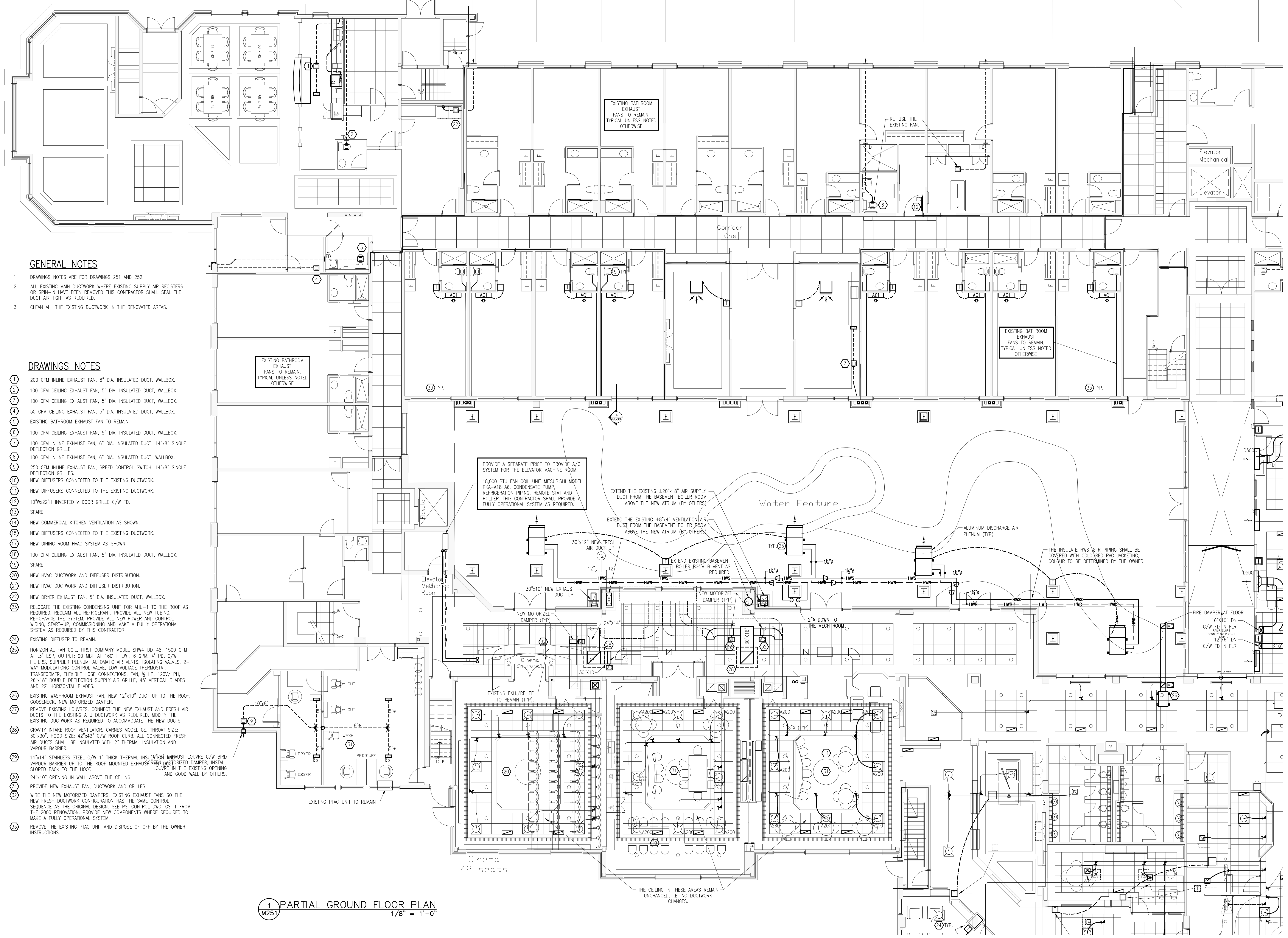
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PROJECT:
**SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME**

JOB NO.: CGL14-021

DRAWING NAME:
**MECHANICAL
PARTIAL BASEMENT
FLOOR PLAN
HVAC AND PLUMBING**

NO. 1 SHEET M240



GENERAL NOTES

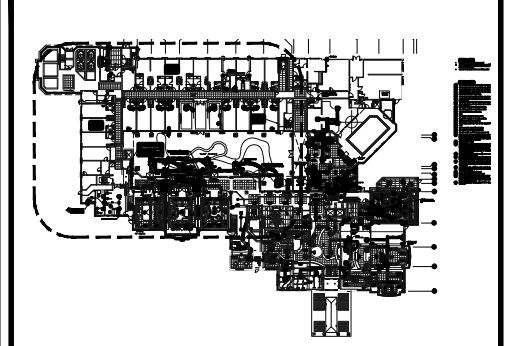
- 1 DRAWINGS NOTES ARE FOR DRAWINGS 251 AND 252.
- 2 ALL EXISTING MAIN DUCTWORK WHERE EXISTING SUPPLY AIR REGISTERS OR SPIN-IN HAVE BEEN REMOVED THIS CONTRACTOR SHALL SEAL THE DUCT AIR TIGHT AS REQUIRED.
- 3 CLEAN ALL THE EXISTING DUCTWORK IN THE RENOVATED AREAS.

DRAWINGS NOTES

- 1 200 CFM INLINE EXHAUST FAN, 8" DIA. INSULATED DUCT, WALLBOX.
- 2 100 CFM CEILING EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX.
- 3 100 CFM CEILING EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX.
- 4 50 CFM CEILING EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX. EXISTING BATHROOM EXHAUST FAN TO REMAIN.
- 5 100 CFM CEILING EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX.
- 6 100 CFM INLINE EXHAUST FAN, 6" DIA. INSULATED DUCT, 14"x8" SINGLE DEFLECTION GRILLE.
- 7 100 CFM INLINE EXHAUST FAN, 6" DIA. INSULATED DUCT, WALLBOX.
- 8 250 CFM INLINE EXHAUST FAN, SPEED CONTROL SWITCH, 14"x8" SINGLE DEFLECTION GRILLES.
- 9 NEW DIFFUSERS CONNECTED TO THE EXISTING DUCTWORK.
- 10 NEW DIFFUSERS CONNECTED TO THE EXISTING DUCTWORK.
- 11 10"x22" INVERTED V DOOR GRILLE C/W FD.
- 12 SPARE
- 13 NEW COMMERCIAL KITCHEN VENTILATION AS SHOWN.
- 14 NEW DIFFUSERS CONNECTED TO THE EXISTING DUCTWORK.
- 15 NEW DINING ROOM HVAC SYSTEM AS SHOWN.
- 16 100 CFM CEILING EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX.
- 17 SPARE
- 18 NEW HVAC DUCTWORK AND DIFFUSER DISTRIBUTION.
- 19 NEW HVAC DUCTWORK AND DIFFUSER DISTRIBUTION.
- 20 NEW DRYER EXHAUST FAN, 5" DIA. INSULATED DUCT, WALLBOX.
- 21 RELOCATE THE EXISTING CONDENSING UNIT FOR AHU-1 TO THE ROOF AS REQUIRED. RECLAIM ALL REFRIGERANT, PROVIDE ALL NEW TUBING, RE-CHARGE THE SYSTEM, PROVIDE ALL NEW POWER AND CONTROL WIRING, START-UP, COMMISSIONING AND MAKE A FULLY OPERATIONAL SYSTEM AS REQUIRED BY THIS CONTRACTOR.
- 22 EXISTING DIFFUSER TO REMAIN.
- 23 HORIZONTAL FAN COIL, FIRST COMPANY MODEL SHK4-DD-48, 1500 CFM AT 3" ESP, OUTPUT: 90 MBH AT 160° F EWT, 6 GPM, 4" PD, C/W FILTERS, SUPPLIER PLENUM, AUTOMATIC AIR VENTS, ISOLATING VALVES, 2-WAY MODULATING CONTROL VALVE, LOW VOLTAGE THERMOSTAT, TRANSFORMER, FLEXIBLE HOSE CONNECTIONS, FAN, 1/2 HP, 120V/1PH, 26"x18" DOUBLE DEFLECTION SUPPLY AIR GRILLE, 45° VERTICAL BLADES AND 22° HORIZONTAL BLADES.
- 24 EXISTING WASHROOM EXHAUST FAN, NEW 12"x10" DUCT UP TO THE ROOF, GOOSENECK, NEW MOTORIZED DAMPER.
- 25 REMOVE EXISTING LOUVRES. CONNECT THE NEW EXHAUST AND FRESH AIR DUCTS TO THE EXISTING AHU DUCTWORK AS REQUIRED. MODIFY THE EXISTING DUCTWORK AS REQUIRED TO ACCOMMODATE THE NEW DUCTS.
- 26 GRAVITY INTAKE ROOF VENTILATOR, CARNES MODEL GE, THROAT SIZE: 30"x30", HOOD SIZE: 42"x42" C/W ROOF CURB. ALL CONNECTED FRESH AIR DUCTS SHALL BE INSULATED WITH 2" THERMAL INSULATION AND VAPOUR BARRIER.
- 27 14"x14" STAINLESS STEEL C/W 1" THICK THERMAL INSULATION EXHAUST LOUVER C/W BIRD VAPOUR BARRIER UP TO THE ROOF MOUNTED EXHAUST FAN. INSTALL LOUVER IN THE EXISTING OPENING AND GOOD WALL BY OTHERS.
- 28 24"x10" OPENING IN WALL ABOVE THE CEILING.
- 29 PROVIDE NEW EXHAUST FAN, DUCTWORK AND GRILLES.
- 30 WIRE THE NEW MOTORIZED DAMPERS, EXISTING EXHAUST FANS SO THE NEW FRESH DUCTWORK CONFIGURATION HAS THE SAME CONTROL SEQUENCE AS THE ORIGINAL DESIGN. SEE PSI CONTROL DWG. CS-1 FROM THE 2000 RENOVATION. PROVIDE NEW COMPONENTS WHERE REQUIRED TO MAKE A FULLY OPERATIONAL SYSTEM.
- 31 REMOVE THE EXISTING PTAC UNIT AND DISPOSE OF OFF BY THE OWNER INSTRUCTIONS.

1 PARTIAL GROUND FLOOR PLAN
M251
1/8" = 1'-0"

Project Key Plan



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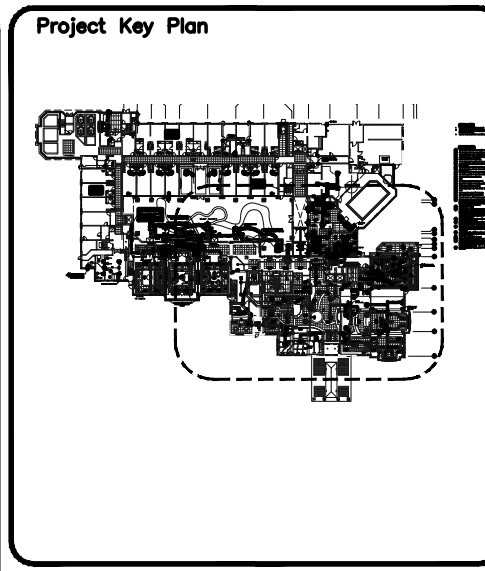
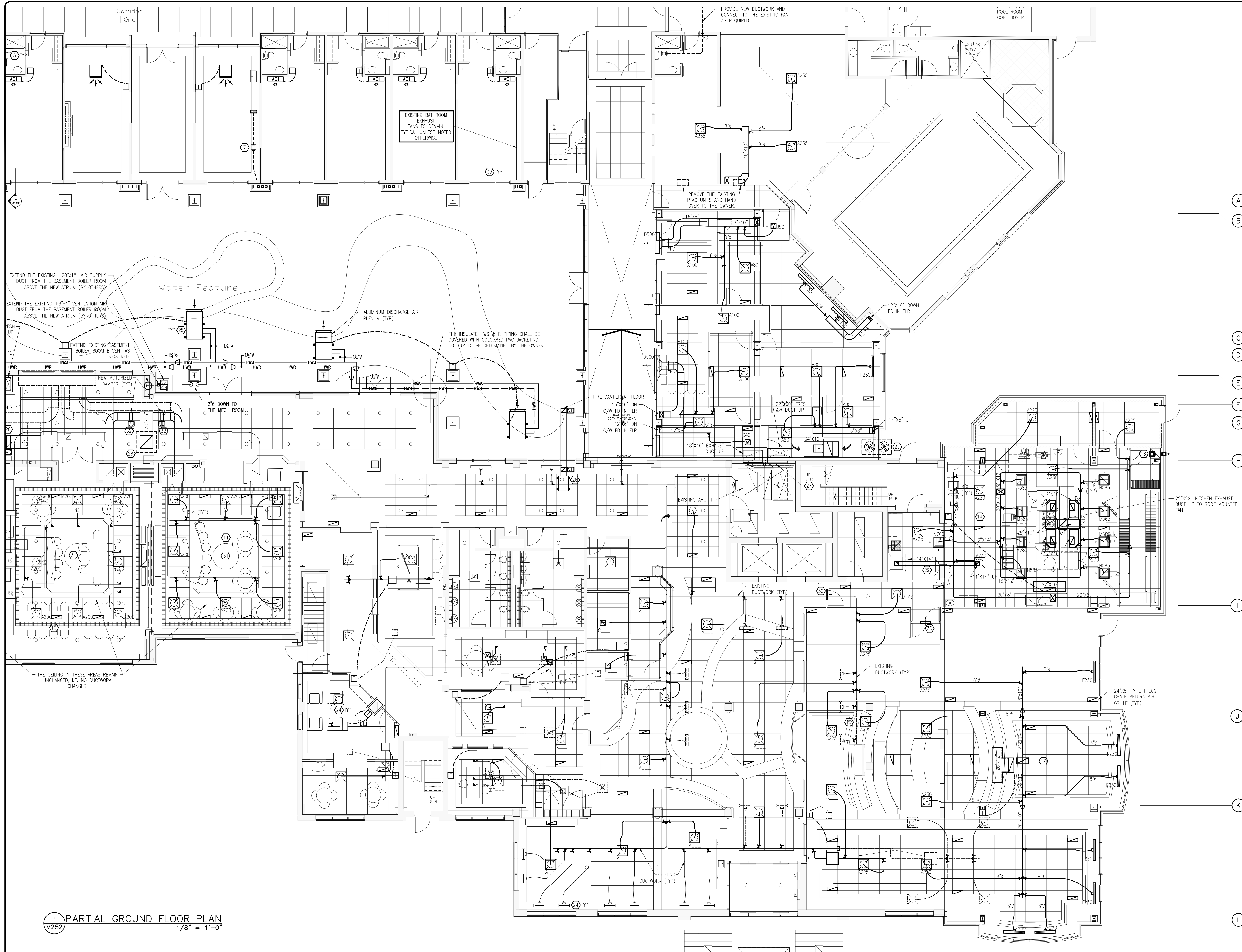
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PROJECT: **SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME**

JOB NO.: CGL14-021

DRAWING NAME: **MECHANICAL
PARTIAL GROUND
FLOOR PLAN
HVAC**

NO. 1 SHEET: M251



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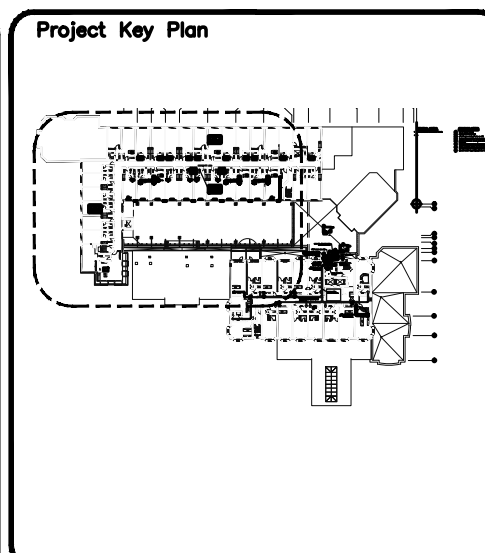
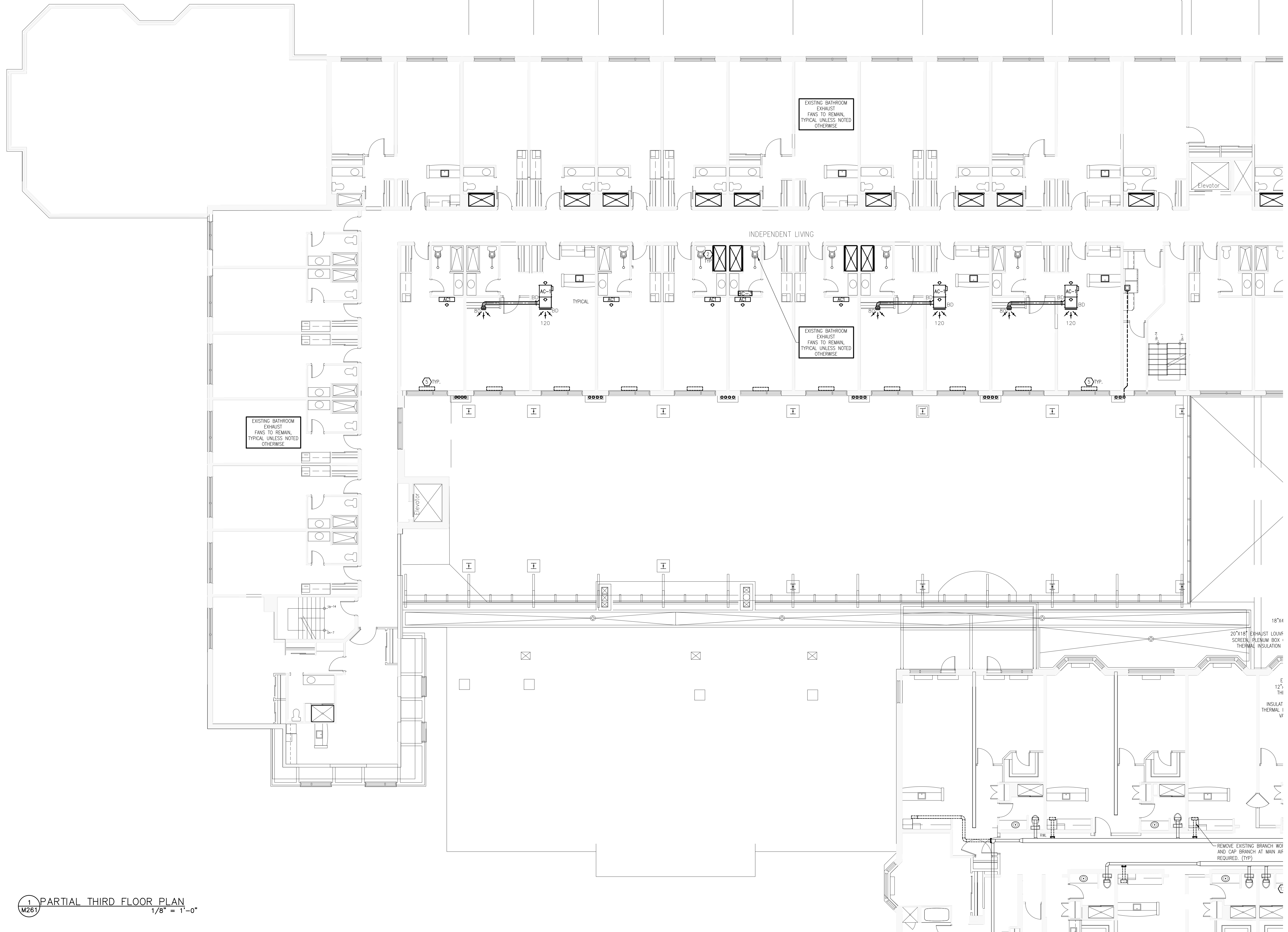
PROJECT: **SOUTHWAY INN RETRO-FIT RETIREMENT HOME**

JOB NO.: CEL14-021

ISSUED FOR: **MECHANICAL PARTIAL GROUND FLOOR PLAN HVAC**

NO. **1** SHEET **M252**

1 PARTIAL GROUND FLOOR PLAN
 1/8" = 1'-0"



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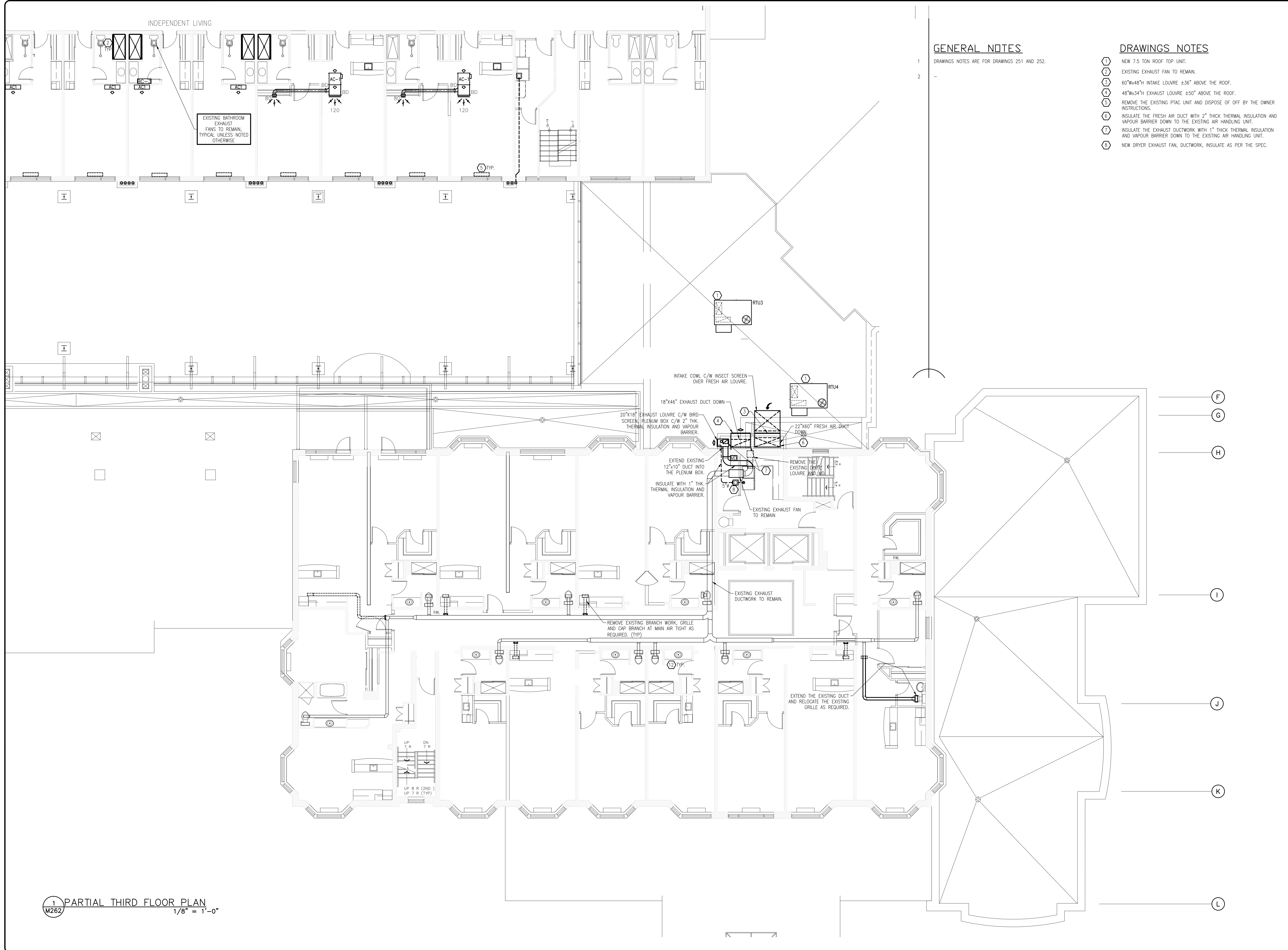
PROJECT:
SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME

JOB NO.: CGL14-021

DRAWING NAME:
MECHANICAL
PARTIAL THIRD FLOOR
PLAN
HVAC

NO. 1	REV. M261
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1 PARTIAL THIRD FLOOR PLAN
 M261 1/8" = 1'-0"



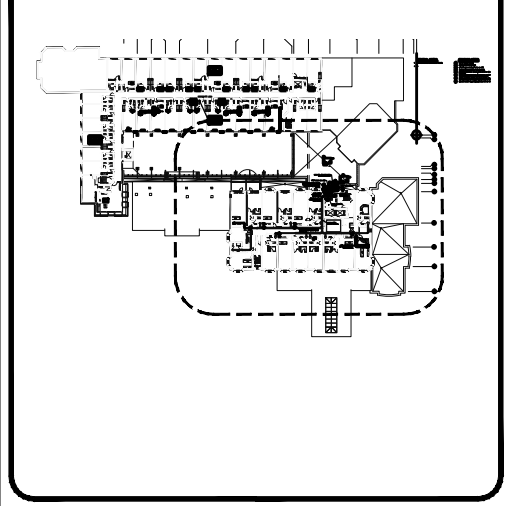
GENERAL NOTES

DRAWINGS NOTES ARE FOR DRAWINGS 251 AND 252.

DRAWINGS NOTES

- 1 NEW 7.5 TON ROOF TOP UNIT.
- 2 EXISTING EXHAUST FAN TO REMAIN.
- 3 60"Wx48"H INTAKE LOUVRE ±36" ABOVE THE ROOF.
- 4 48"Wx34"H EXHAUST LOUVRE ±50" ABOVE THE ROOF.
- 5 REMOVE THE EXISTING PTAC UNIT AND DISPOSE OF OFF BY THE OWNER INSTRUCTIONS.
- 6 INSULATE THE FRESH AIR DUCT WITH 2" THICK THERMAL INSULATION AND VAPOUR BARRIER DOWN TO THE EXISTING AIR HANDLING UNIT.
- 7 INSULATE THE EXHAUST DUCTWORK WITH 1" THICK THERMAL INSULATION AND VAPOUR BARRIER DOWN TO THE EXISTING AIR HANDLING UNIT.
- 8 NEW DRYER EXHAUST FAN, DUCTWORK, INSULATE AS PER THE SPEC.

Project Key Plan



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03	JUNE 3/15	ISSUED FOR REVIEW
02	APRIL 15/15	RE-ISSUED FOR PERMIT
01	DEC. 24/14	ISSUED FOR PERMIT

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DATE: MAR '14	DESIGNED BY: ES
SCALE: AS INDICATED	PLOT DATE: MARCH 18, 2014

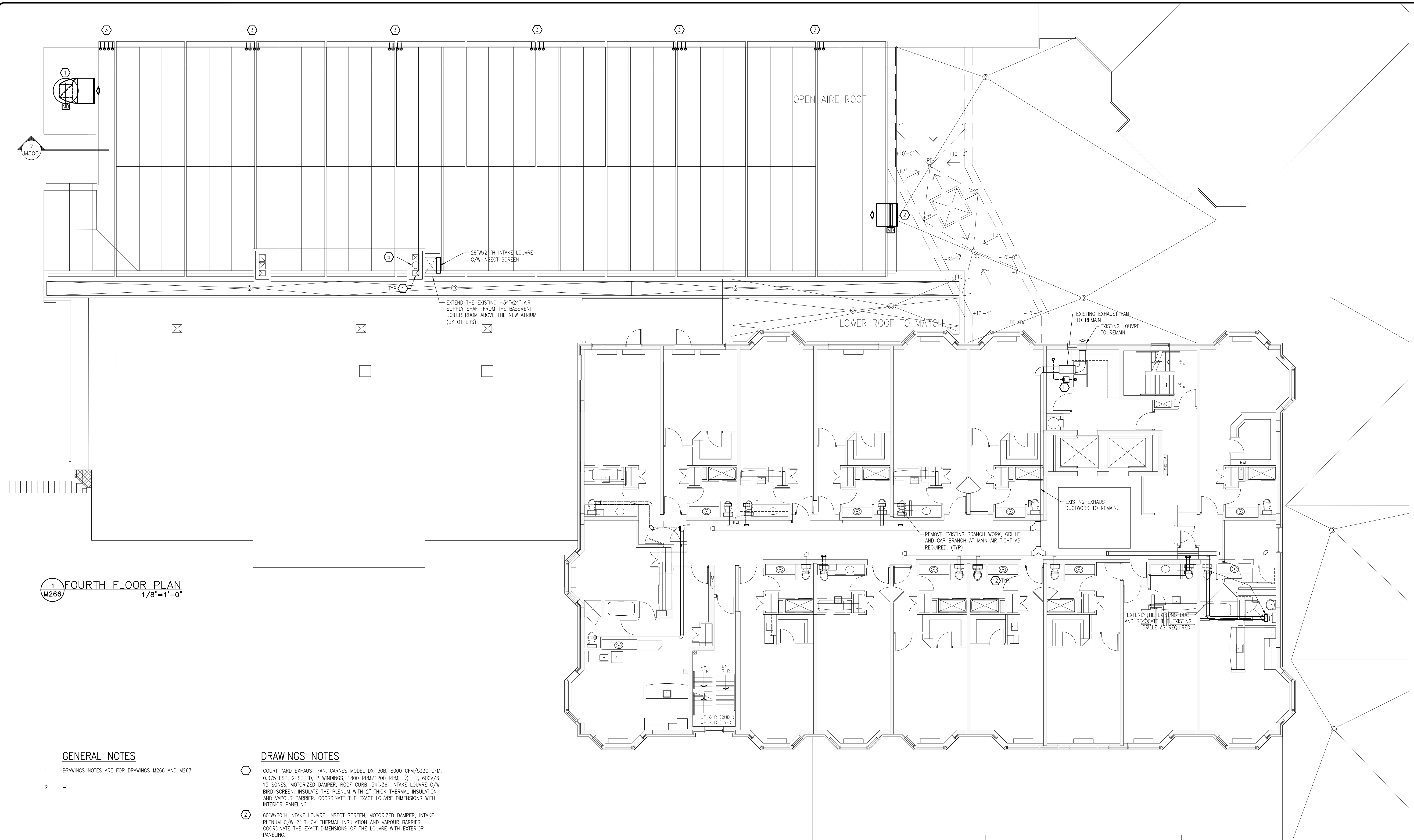
PROJECT:
**SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME**

JOB NO.: CGL14-021

DRAWING NAME:
**MECHANICAL
PARTIAL THIRD FLOOR
PLAN
HVAC**

NO. 1 SHEET
M262

1 PARTIAL THIRD FLOOR PLAN
M262 1/8" = 1'-0"



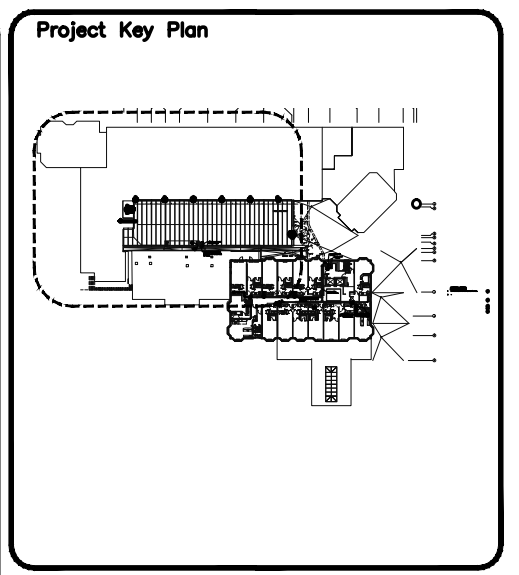
1 FOURTH FLOOR PLAN
1/8"=1'-0"

GENERAL NOTES

- 1 DRAWINGS NOTES ARE FOR DRAWINGS M266 AND M267.
- 2 -

DRAWINGS NOTES

- ① COURT YARD EXHAUST FAN, CARNES MODEL DX-30B, 8000 CFM/5330 CFM, 0.375 ESP, 2 SPEED, 2 WINDINGS, 1800 RPM/1200 RPM, 1/2 HP, 600V/3, 15 SONES, MOTORIZED DAMPER, ROOF CURB, 54"x36" INTAKE LOUVRE C/W BIRD SCREEN. INSULATE THE PLENUM WITH 2" THICK THERMAL INSULATION AND VAPOUR BARRIER. COORDINATE THE EXACT LOUVRE DIMENSIONS WITH INTERIOR PANELING.
- ② 60"Wx60"H INTAKE LOUVRE, INSECT SCREEN, MOTORIZED DAMPER, INTAKE PLENUM C/W 2" THICK THERMAL INSULATION AND VAPOUR BARRIER. COORDINATE THE EXACT DIMENSIONS OF THE LOUVRE WITH EXTERIOR PANELING.
- ③ SUITE WASHROOM EXHAUST FAN EXHAUST GRILLES.
- ④ RE-LOCATE EXISTING SUPPLY AND EXHAUST DUCTWORK TO NEW CHIMNEY SHAFT AS REQUIRED.
- ⑤ EXTEND THE EXISTING EXHAUST FLUE UP THE SHAFT AND TERMINATE WITH AN APPROVED RAIN CAP.



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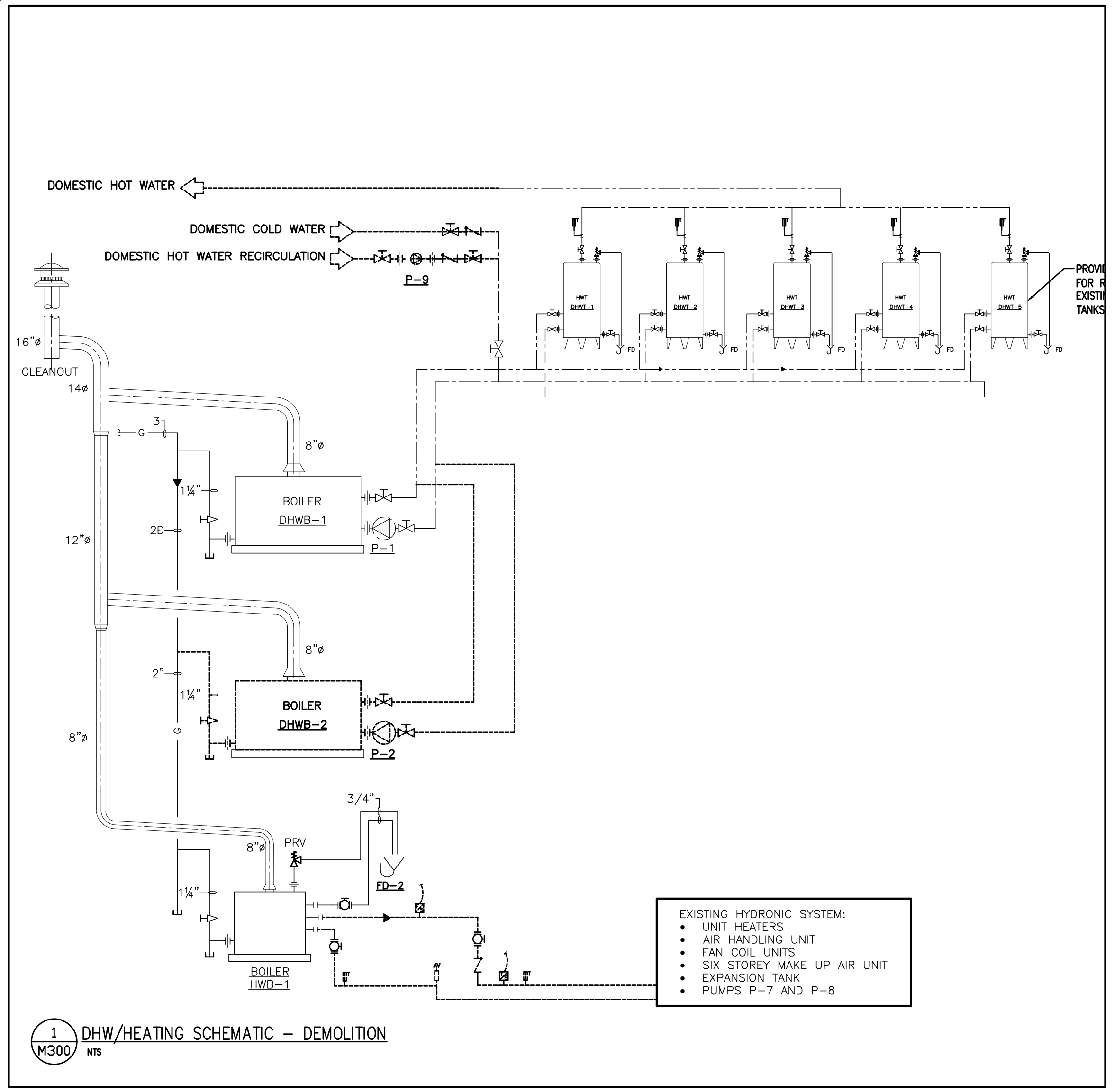
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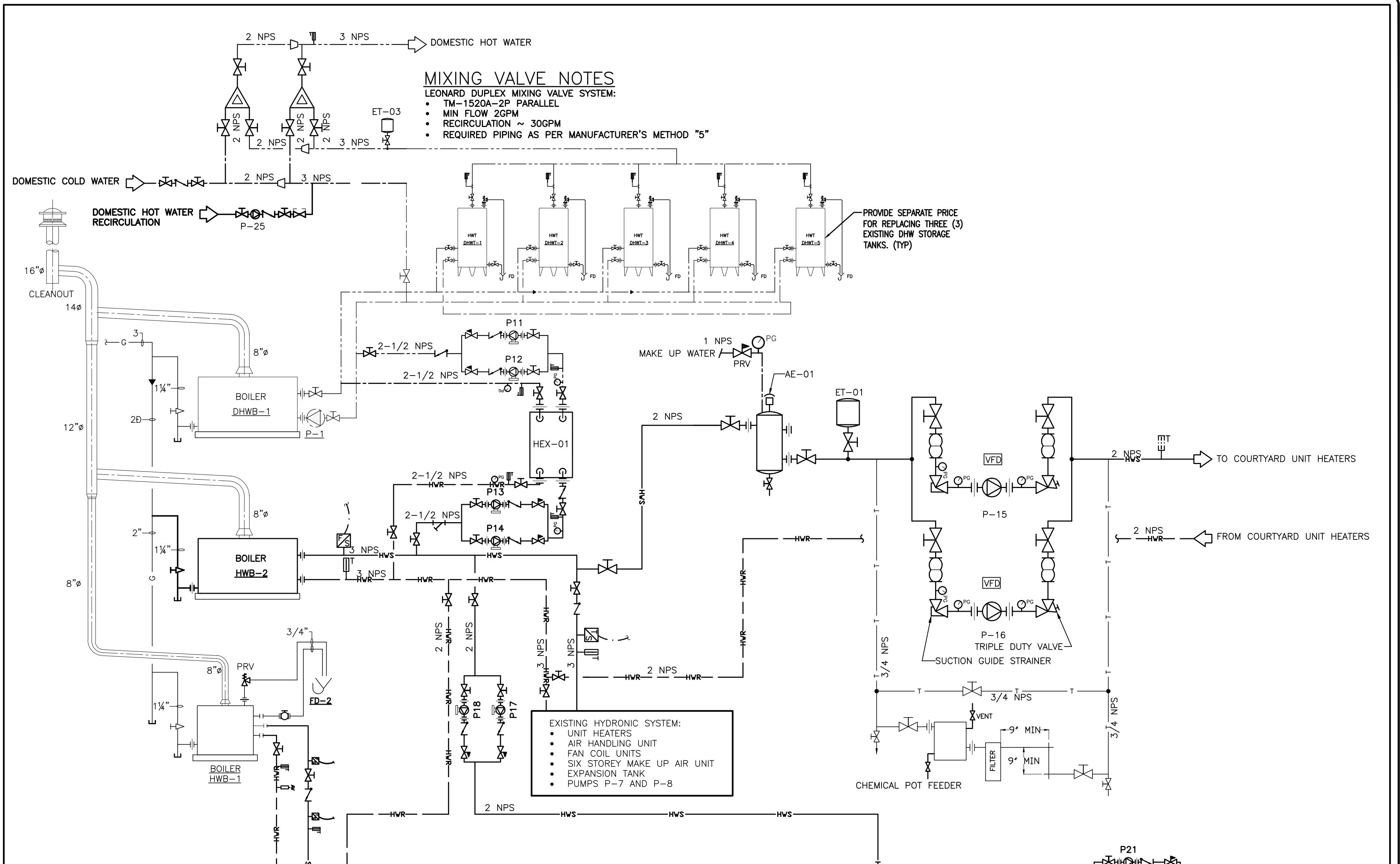
PROJECT:
**SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME**

JOB NO.: CGL14-021
DRAWING NO.:
**MECHANICAL
PARTIAL FOURTH
FLOOR PLAN
HVAC**

NO. 1	DATE	NO. M266
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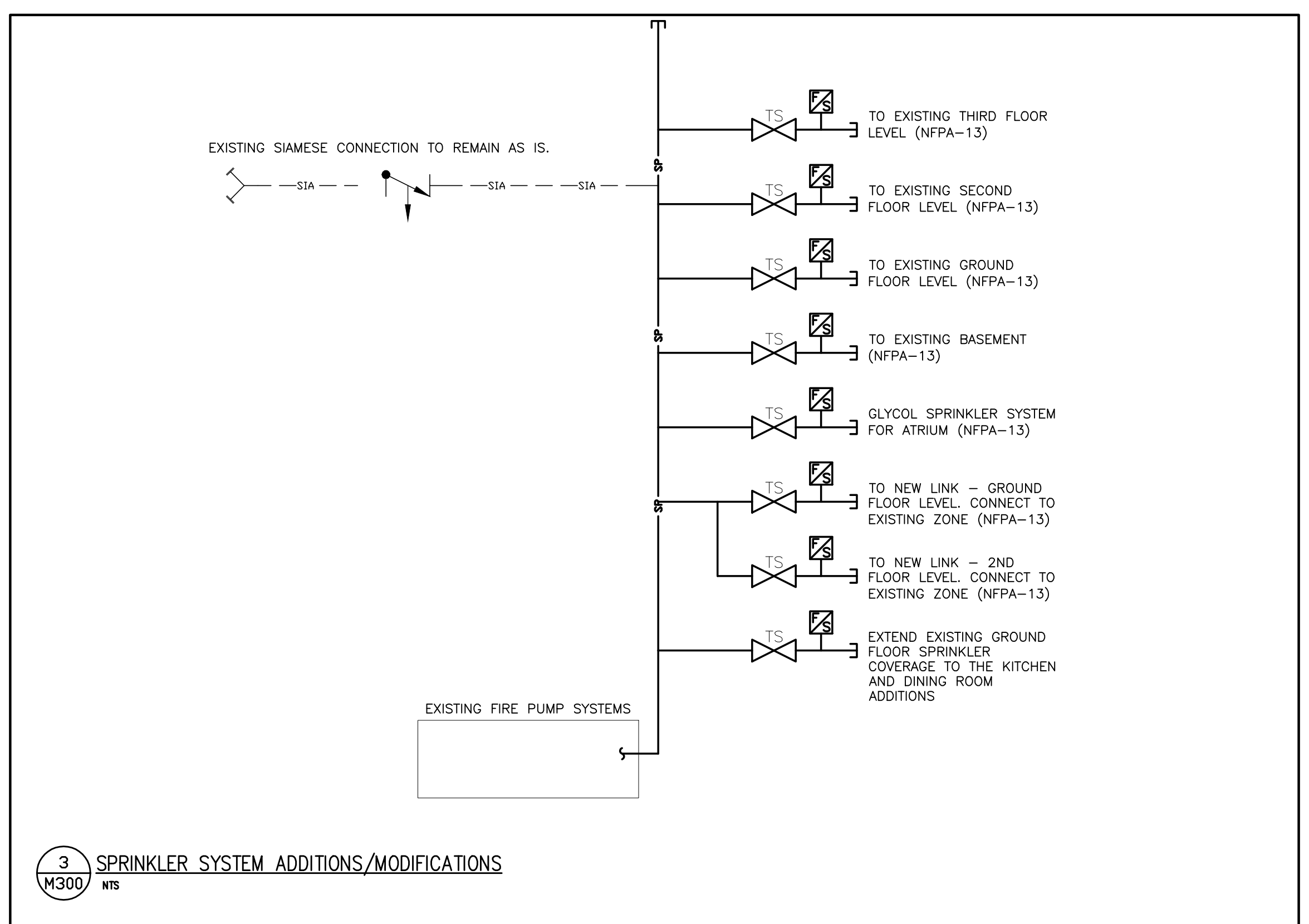
1 M300 DHW/HEATING SCHEMATIC - DEMOLITION
NTS



DHW/HYDRONIC ACCESSORIES NOTES

- ALL HEATING WATER PIPING SHALL BE COPPER OR VICTALUIC.
- ALL PUMPS TO BE SERVICEABLE FROM FLOOR LEVEL.
- AIR SEPARATORS: C/W 418 AIR VENT, THERMAL INSULATION AND JACKET SAME THICKNESS AS ASSOCIATED PIPING.
- EXPANSION TANK: THERMAL INSULATION AND JACKET SAME THICKNESS AS ASSOCIATED PIPING. EXACT SIZE MAY BE DETERMINED BY MANUFACTURER, AT A LATER DATE, FROM CONTRACTOR PIPE TAKE-OFF QUANTITIES.
- PIPE ALL BLOW-OFF CONNECTIONS TO FUNNEL FLOOR DRAINS OR HUB DRAINS.
- BALANCING VALVES TO BE ARMSTRONG CSB AND SIZED BY THE MANUFACTURER FOR THE FLOW IN THE PIPE.
- PROVIDE AUTOMATIC AIR VENTS, TACO 717, AT ALL HIGH POINTS OF RISERS AND AT OTHER LOCATIONS LIKELY TO BE AIRLOCKED.
- PUMP CONTROL PANELS TO BE SUPPLIED BY THE PUMP MANUFACTURER. LINE VOLTAGE WIRING BY ELECTRICAL.
- ALL THE BOILERS SHALL BE MONITORED BY THE SUB FIRE PANEL. THE SECURITY COMPANY SHALL MONITOR THE BOILER OPERATION AND THIS WORK SHALL BE COORDINATED BY SOUTHWAY.
- THE BOILER MANUFACTURE SHALL BE LOCHINAR.
- THE LAYOUT OF THE PUMPS IN THE BOILER ROOM TO BE PROVIDED BY THE CONTRACTOR.
- THIS CONTRACTOR SHALL PROVIDE ALL NEW CONTROLS TO MAKE A FULLY OPERATIONAL SYSTEM.

1 M300 DHW/HEATING SCHEMATIC - NEW WORK
NTS



3 M300 SPRINKLER SYSTEM ADDITIONS/MODIFICATIONS
NTS

HEAT EXCHANGER SCHEDULE

REF	MAKE AND MODEL
HEX-01	SEE M600
HEX-02	SEE M600

EXPANSION TANK SCHEDULE

REF	MAKE AND MODEL
ET-01	ARMSTRONG AX-V-80
ET-02	ARMSTRONG AX-60V

AIR SEPARATOR/ELIMINATOR SCHEDULE

REF	MAKE AND MODEL
AE-01	ARMSTRONG VAS-2-1/2
AE-02	ARMSTRONG VAS-2

SNOW MELT/RADIANT NOTES

- ENTIRE SYSTEM DOWNSTREAM OF HEX-02 SHALL BE C/W:
- ETHYLENE GLYCOL (50%) FILL
 - ALL CONTROLS
 - SUPPLY AND RETURN PIPING
 - VALVES
 - STRAINERS
 - EXPANSION TANKS
 - AIR ELIMINATORS AND ALL OTHER COMPONENTS REQUIRED

Project Key Plan

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SCALE: AS INDICATED PLOT DATE: MARCH 18, 2014

PROJECT: **SOUTHWAY INN RETRO-FIT RETIREMENT HOME**

JOB NO.: QEL14-021

MECHANICAL SCHEMATICS

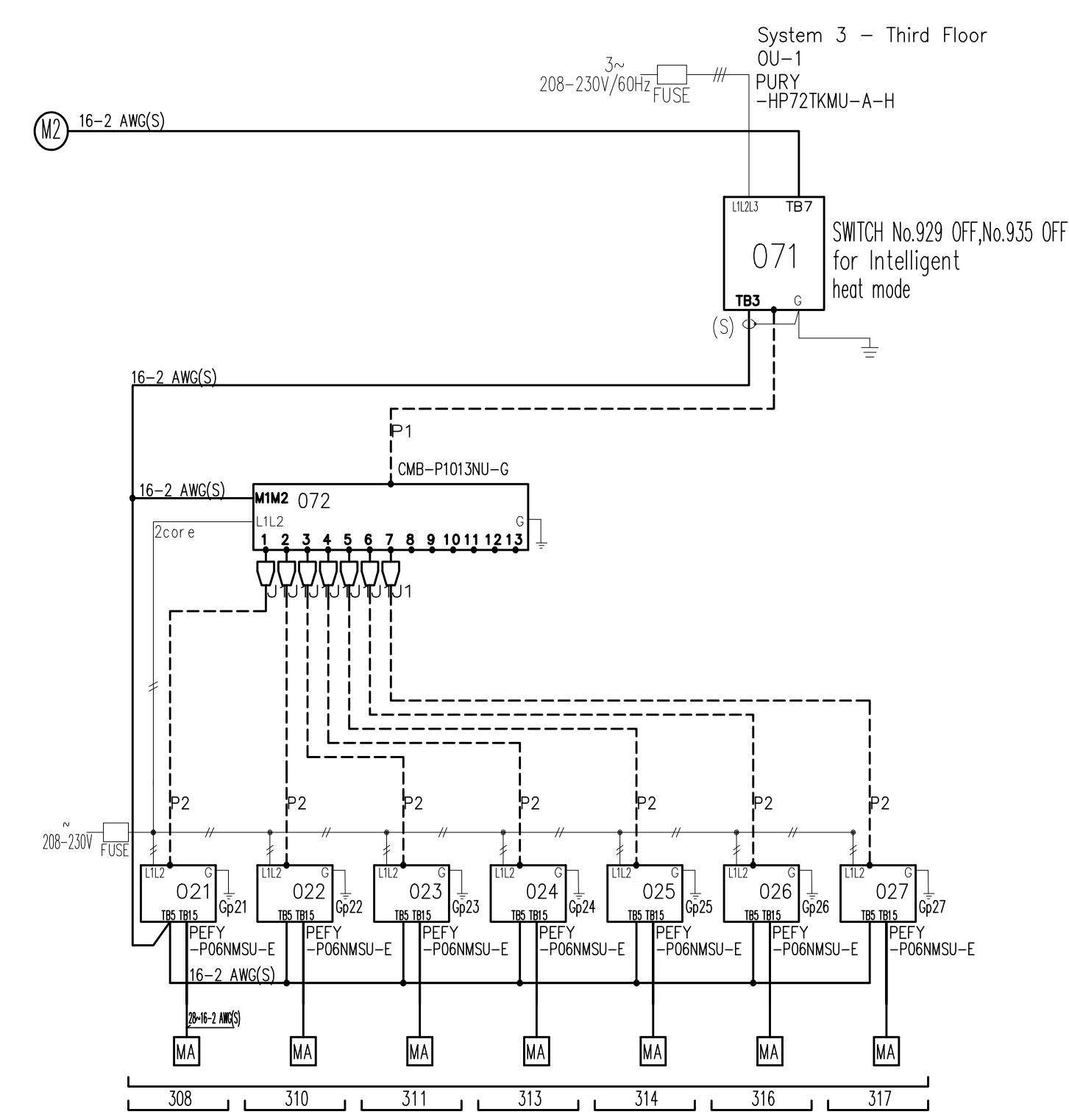
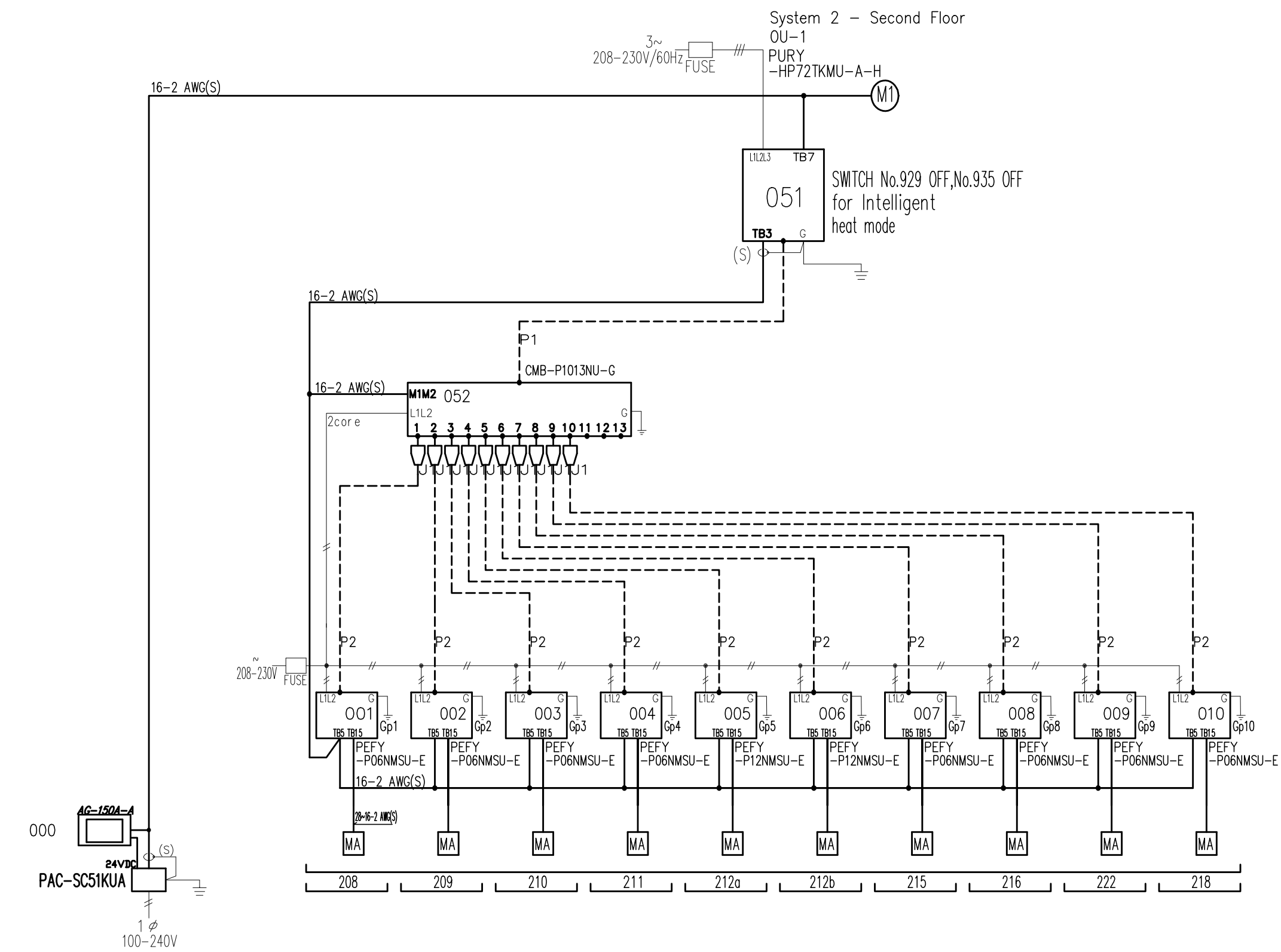
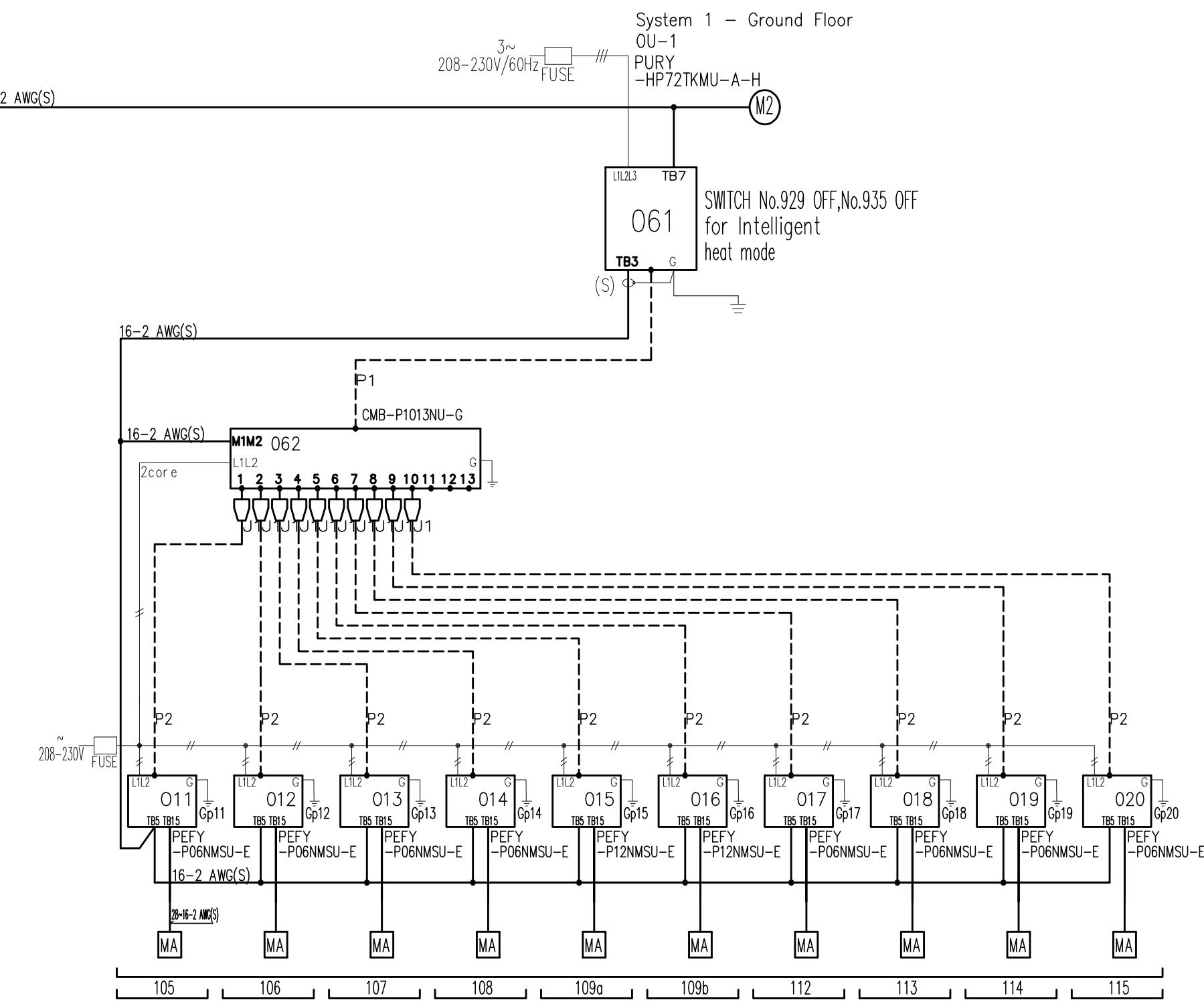
1 M300

DIAGRAM SYMBOL	LEGEND
---	POW. & WIRE
---	CONTROL WIRE
---	REF. PIPE

PIPING LIST
SMBL 30MMH PFC W/DRN W/AV
1.1 Insulation
SMBL 1000 PFC W/AS PFC 50M
P.1 3/4" / 3/2"

CITY MULTI SYSTEM SCHEMATIC DWG.

Additional refrigerant charge is needed depending on the size and length of extended piping. Please refer the amount of pre-charge and the formula of calculation which is mentioned on the data book.
 1.25mm(1/8 AWG) : 1.25mm(1/8 AWG) or more 0.75mm(3/32 AWG) : between 0.5mm(3/64 AWG) and 0.75mm(3/32 AWG)



VRF NOTES

1. PROVIDE A SEPARATE PRICE FOR A CENTRAL VRF CONTROLLER, 6"X4" TOUCH SCREEN PAD, 120 VOLT POWER SUPPLY, PROVIDE A TWISTED PAIR OF WIRES TO THE FIRST CONDENSING UNIT AND DAISSY CHAIN THE REMAINING CONDENSING UNITS AND WIRE ALL THE VRF FAN COIL UNITS.

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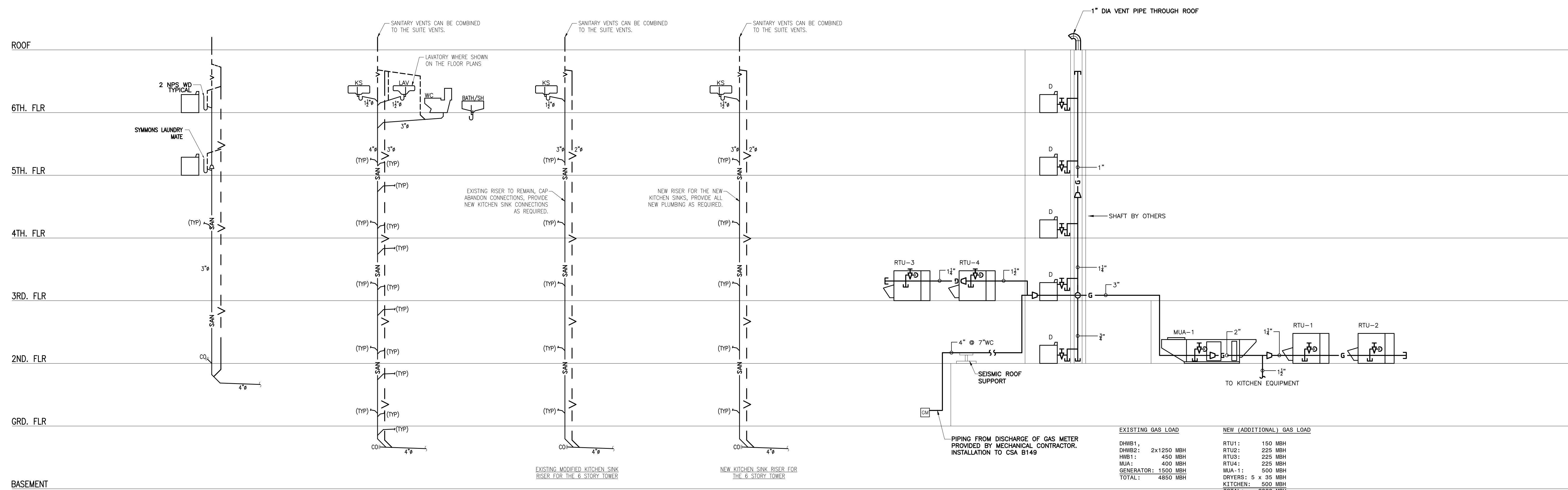
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PROJECT: SOUTHWAY INN RETRO-FIT RETIREMENT HOME

JOB NO.: QEL14-021

MECHANICAL VRF SYSTEM SCHEMATIC

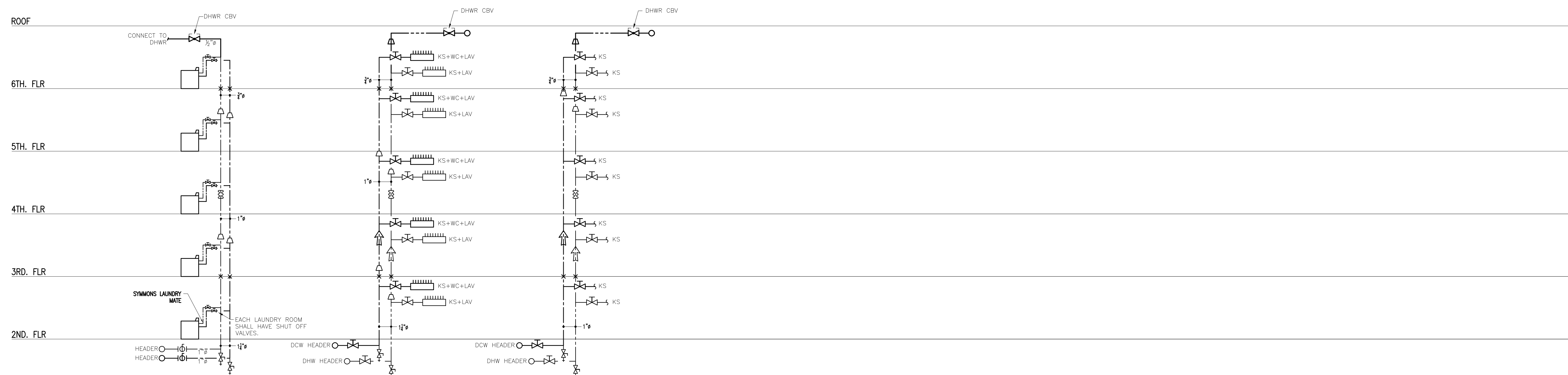
VERSION: 1	SHEET: M310
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1 M400 LAUNDRY SAN RISERS

2 M400 SUITE SAN RISERS

3 M400 NATURAL GAS RISER



4 M400 LAUNDRY DW RISERS

5 M400 SUITE DW RISERS

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PROJECT:
SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME

JOB NO.: CGL14-021

ISSUED FOR:
MECHANICAL
RISERS

ROOFTOP UNIT SCHEDULE

REF	TYPE	LOCATION	HEATING		COOLING	AIRFLOW		ELECTRICAL					VERSION	REMARKS	
			INPUT (MBH)	OUTPUT (MBH)		TOTAL MBH	CFM	ESP (IN. WG)	V	φ	HP	MCA			MOP
RTU1	PACKAGED	ROOF	115.0	92.0	50.5	1600	0.375	600	3	-	9.3	15	N	INTERAL	CARRIER MODEL 48TME005
RTU2, 3 & 4	PACKAGED	ROOF	180/ 224	144/ 179	91.5	3000	0.50	600	3	-	14.9	20	N	INTERAL	CARRIER MODEL 48TWF008

NOTES

RTU(S): ROOFTOP UNIT, DOUBLE STAGE GAS HEATING WITH DX COOLING, DOWN DISCHARGE, ECONOMIZER, PAINTED INSULATED CABINET, 14" HIGH SEISMIC ROOF CURB, TOOL-LESS FILTER LESS C/W ALL 2 FILTERS, PROVIDE 15% MINIMUM SETTING ON FRESH AIR DAMPERS OF THE ECONOMIZER, 115 VOLT FACTORY RECEPTACLE, DISCONNECT SWITCH AND JUNCTION BOX; VOLTAGE AS INDICATED, ROOF TOP UNIT SHALL BE ASHRAE 90.1 COMPLIANT.

CONTROLS: PROVIDE A FULLY PROGRAMMABLE THERMOSTAT C/W 100 FEET OF COIL PLENUM RATED STAT WIRING.

MAKE UP AIR UNIT SCHEDULE

REF	TYPE	LOCATION	HEATING		COOLING	AIRFLOW		ELECTRICAL					VERSION	CONTROLS			
			INPUT (MBH)	OUTPUT (MBH)		TOTAL MBH	CFM	ESP (IN. WG)	V	φ	HP	MCA		MOP	EMERG-ENCY	AUTO MANUAL	INTER-LOCK BY
MAU	PACKAGED	ROOF	530	-	N/A	5400	0.375	600	3	5	-	-	N	INTERAL	PANEL	ELEC.	MECH/WP

NOTES

MAU MAKE AND MODEL: ENGINEERED AIR MODEL ____ COMPLETE WITH:

- INDIRECT FIRED, DOWN DISCHARGE
- 90% HEATING EFFICIENCY
- 104 F TEMP RISE
- 15:1 TURNDOWN
- DISCHARGE TEMPERATURE CONTROL
- 12" SEISMIC ROOF CURB
- FILTERS IN UNIT
- MERV 13 FILTERS
- REMOTE PANEL C/W TIME CLOCK FOR 2 SPEED OPERATION (120V POWER BY ELECTRICAL)
- WEIGHT 1,500 LBS

BOILER SCHEDULE

REF	SERVICE	HEATING INPUT (MBH)	HEATING OUTPUT (MBH)	FLOW (USGPM)	CONTROLS		REMARKS
					V	A	
DHWB-1	DHW	1255	1016	TBD	120		EXISTING LOCHINVAR CBN1255
DHWB-2	DHW	1255	1016	TBD	120		EXISTING LOCHINVAR CBN1255. EXISTING TO BE REMOVED/SALVAGE FOR RE-USE
HWB-1	RADIANT/SM	495	400	TBD	120		EXISTING LOCHINVAR CBN0495 HEATING BOILER TO BE RE-PURPOSED FOR SNOWMELT/RADIANT
HWB-2	HEATING	1255	1016	TBD	120		NEW LOCHINVAR CBN1255 HEATING BOILER TO BE INSTALLED IN PLACE OF DHWB-2

NOTES

- VENTS AS PER ULC S636, CLASS IIB AS PER MANUFACTURER'S INSTALLATION REQUIREMENTS.
- ALL BOILERS C/W:
 - PUMPS
 - TEKMAR BOILER CONTROL TO BE MODIFIED TO MAKE SYSTEM WORK AS PER THESE DRAWINGS AND SPECIFICATIONS.
 - PROVIDE BOILER UNIT STAGING AND INDOOR/OUTDOOR RESET. BOILERS TO BE C/W THEIR OWN INTERNAL STAGING CONTROLS.
 - PUMP START ON FAILURE.
 - PUMP ALTERNATION AFTER 1000 HOURS AND AFTER RESTART.
 - PUMP SPEED CONTROL.

HEAT EXCHANGER SCHEDULE

REF	HOT SIDE (WATER)					COLD SIDE (WATER)					WEIGHT (LBS)	LENGTH (IN.)	WIDTH (IN.)	REMARKS
	MBH	LWT (°F)	EWI (°F)	FLOW (USGPM)	ΔP	LWT (°F)	EWI (°F)	FLOW (USGPM)	ΔP					
HEX-01	-	140	170	65	5'	140	110	65	5'	-	-	-	POTABLE WATER RATED	
HEX-02	-	160	180	50	5'	160	140	50	5'	-	-	-		

PUMP SCHEDULE

REF	SERVICE	LOCATION	CAPACITY		ELECTRICAL					REMARKS	
			FLOW (USGPM)	HEAD (FT.)	RPM	HP	V	φ			
P-11	DHW BACKUP	BASEMENT	65	35	-	1.0	208	1			ARMSTRONG H67, ALL BRONZE (OR EQUAL)
P-12	DHW BACKUP	BASEMENT	65	35	-	1.0	208	1			ARMSTRONG H67, ALL BRONZE (OR EQUAL)
P-13	DHW BACKUP	BASEMENT	65	35	-	1.0	208	1			ARMSTRONG H67, ALL BRONZE (OR EQUAL)
P-14	DHW BACKUP	BASEMENT	65	35	-	1.0	208	1			ARMSTRONG H67, ALL BRONZE (OR EQUAL)
P-15	COURTYARD HTG	BASEMENT	50	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED, VFD
P-16	COURTYARD HTG	BASEMENT	50	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED, VFD
P-17	RAD/SM BACKUP	BASEMENT	55	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED
P-18	RAD/SM BACKUP	BASEMENT	55	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED
P-19	RADIANT/SNOWMELT	BASEMENT	55	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED
P-20	RADIANT/SNOWMELT	BASEMENT	55	40	-	1.5	208	3			ARMSTRONG 1-1/2D SERIES 1060, BRONZE FITTED
P-21	COURTYARD RADIANT	BASEMENT					2	208	3		SIZED BY RADIANT / SNOWMELT SUPPLIER
P-22	COURTYARD RADIANT	BASEMENT					2	208	3		SIZED BY RADIANT / SNOWMELT SUPPLIER
P-23	SNOWMELT	BASEMENT					2	208	3		SIZED BY RADIANT / SNOWMELT SUPPLIER
P-24	SNOWMELT	BASEMENT					2	208	3		SIZED BY RADIANT / SNOWMELT SUPPLIER
P-25	DHW RECIRC	BASEMENT	30	25	-	0.75	208	1			ARMSTRONG H54, ALL BRONZE (OR EQUAL)
							0	0	0		

DIFFUSER/GRILLE SCHEDULE

REF	TYPE	CFM	SIZE	MAKE&MODEL	REMARKS
☒	SUPPLY AIR DIFFUSER	250+	24"x24", 10" DIA. NECK	EH PRICE SCDA OR EQUAL	-
		200	24"x24", 8" DIA. NECK		
		100-150	24"x24", 6" DIA. NECK		
☒	DOUBLE DEFLECTION SUPPLY AIR GRILLE	200	16"x8", 8" DIA. NECK	EH PRICE S20D OR EQUAL	SET BLADES TO 22.5DEG.
		170	14"x8", 8" DIA. NECK		
		150	12"x8", 6" DIA. NECK		
		120-130	10"x8", 6" DIA. NECK		
		90-100	10"x8", 6" DIA. NECK		
☒	RETURN AIR GRILLE	-	24"x12"		"EGG CRATE" STYLE RETURN AIR GRILLE, ALUMINUM. LAY-IN TO T-BAR OR FRAME FOR DRYWALL AS NECESSARY.

VRF INDOOR UNITS SCHEDULE

REF	TONS NOM-INHAL	COOLING		HEATING		CFM	ESP (IN.)	ELECTRICAL					COP	EER	REMARKS	
		MBH		MBH				RPM	kW	V	φ	MCA				MOP
AC-1	0.5	6		6.7		247	0.2	-	0.03	208	1	0.5	15	-	-	MITSUBISHI PEFY-P06NMSU-E
AC-2	1.00	12		13.5		370	0.2	-	0.05	208	1	0.68	15	-	-	MITSUBISHI PEFY-P12NMSU-E

VRF OUTDOOR UNITS SCHEDULE

REF	TONS NOM-INHAL	COOLING		HEATING		ELECTRICAL					COP	EER	REMARKS	
		MBH		MBH		RPM	kW	V	φ	MCA				MOP
OU-1, 2, 3	6	72		80		-	6.26	208	3	44	60	-	-	MITSUBISHI PURY-HP72TKMU-A-H

VRF BC CONTROLLER SCHEDULE

REF					REMARKS
	V	φ	MCA	MOP	
BC-1, 2, 3	208	1	1.08	15	MITSUBISHI CMB-P1013NU-G

NOTE: PROVIDE SEPARATE PRICES FOR OPTION 1: INDIVIDUAL CONTROLLERS AND OPTION 2: CENTRALIZED CONTROLLER AND POWER SUPPLY, MITSUBISHI AG-150-A-A

GRILLE AND DIFFUSER SCHEDULE

REF	FUNCTION	THROW	FRAME OR BORDER TYPE	DUCT/NECK SIZE	MODULE SIZE	COLOR	INTEGR. BALANCE DAMPER	INTEGR. FIRE DAMPER	REMARKS
A	SUPPLY	-	T-BAR	AS NOTED	24"x24"	BY ARCH.	NO	NO	E.H. PRICE, SCDA
B	SUPPLY	-	T-BAR	AS NOTED	12"x12"	BY ARCH.	NO	NO	E.H. PRICE, SCDA
C	SUPPLY	-	T-BAR	AS NOTED	12"x12"/24"x24"	BY ARCH.	NO	NO	E.H. PRICE, SCDA
D	SUPPLY	-	AS REQ'D	34"x6"	-	BY ARCH.	YES WHERE REQ'D	AS NOTED	E.H. PRICE, DOUBLE DEFLECTION LOUVED SUPPLY MODEL 520D
E	TO BE USED	-	AS REQ'D	AS NOTED	-	BY ARCH.	YES WHERE REQ'D	AS NOTED	E.H. PRICE, DOUBLE DEFLECTION LOUVED SUPPLY MODEL 520D
F	SUPPLY	-	T-BAR	7"	48" LG.	BY ARCH.	NO	NO	E.H. PRICE, LINEAR SLOT DIFFUSER C/W PLENUM, 3/4" SLOT, 2 SLOTS
G	SUPPLY	-	T-BAR	7"	48" LG.	BY ARCH.	NO	NO	E.H. PRICE, LINEAR SLOT DIFFUSER C/W PLENUM, 3/4" SLOT, 3 SLOTS
H	SUPPLY	-	T-BAR	7"	24" LG.	BY ARCH.	NO	NO	E.H. PRICE, LINEAR SLOT DIFFUSER C/W PLENUM, 3/4" SLOT, 3 SLOTS
I	SUPPLY	-	T-BAR	-	24" LG.	BY ARCH.	NO	NO	E.H. PRICE, LINEAR SLOT DIFFUSER, 3/4" SLOT, 3 SLOTS
J	SUPPLY	-	T-BAR	-	24" LG.	BY ARCH.	NO	NO	E.H. PRICE, ROUND DIFFUSER, MODEL RCDE
K	RETURN	-	AS REQ'D	AS NOTED	-	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE RETURN MODEL 530
L	SUPPLY	-	T-BAR	21"x21"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 1-WAY
M	SUPPLY	-	T-BAR	21"x21"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 2-WAY
N	SUPPLY	-	T-BAR	21"x21"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 3-WAY
O	SUPPLY	-	T-BAR	21"x21"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 4-WAY
P	SUPPLY	-	T-BAR	12"x12"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 3-WAY
Q	SUPPLY	-	T-BAR	12"x12"	24"x24"	BY ARCH.	NO	AS NOTED	E.H. PRICE, LOUVERED FACE MODEL SMD, 4-WAY
R	RETURN	-	AS NOTED	AS NOTED	AS NOTED	BY ARCH.	NO	NO	E.H. PRICE, SERIES 80
DC	RETURN	-	DOOR FRAME	AS NOTED	12"Wx20"H	BY ARCH.	NO	NO	E.H. PRICE, LOUVERED FACE RETURN MODEL 530

NOTES

- BALANCING DAMPER SHALL BE PROVIDED FOR ALL GRILLES AND REGISTERS WHERE REQUIRED.
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Project Key Plan

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QUADRANT
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TEL: (613) 967-1467 FAX: (613) 967-1462
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06 JUL 23/15	GENERAL REVISIONS
05 JUNE 8/15	ISSUED FOR PRICING
04 JUNE 5/15	PROGRESS ISSUE
03 JUNE 3/15	ISSUED FOR REVIEW
02 APRIL 15/15	RE-ISSUED FOR PERMIT
01 DEC 24/14	ISSUED FOR PERMIT
No.	DATE REVISION

SJL
S. J. LAWRENCE
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118 Sheppard Ave. East, Suite 200C, Overland, ON, M2H 3K7
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DESIGNED BY: KV/SW	CHECKED BY: ES
DATE: MAR '14	DESIGNED BY: ES
SCALE: AS INDICATED	PLOT DATE: MARCH 18, 2014

PROJECT: SOUTHWAY INN
RETRO-FIT
RETIREMENT HOME

JOB NO.: QEL14-021

ISSUED FOR: MECHANICAL SCHEDULES

NO. 1 SHEET M600