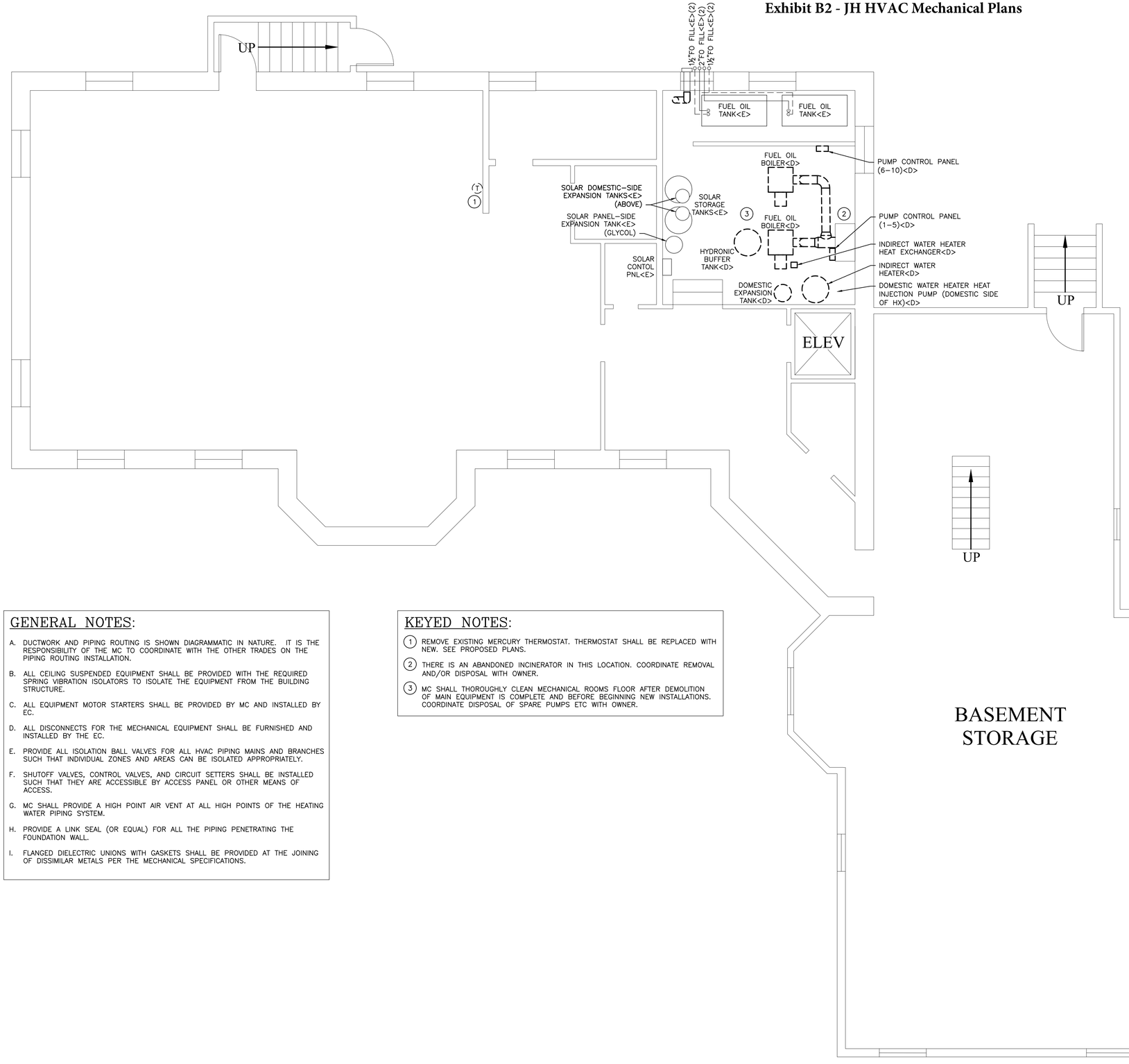

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

C. ALL EQUIPMENT MOTOR STARTERS SHALL BE PROVIDED BY MC AND INSTALLED BY EC.

D. ALL DISCONNECTS FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE EC.

E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

KEYED NOTES:

1. REMOVE EXISTING MERCURY THERMOSTAT. THERMOSTAT SHALL BE REPLACED WITH NEW. SEE PROPOSED PLANS.
2. THERE IS AN ABANDONED INCINERATOR IN THIS LOCATION. COORDINATE REMOVAL AND/OR DISPOSAL WITH OWNER.
3. MC SHALL THOROUGHLY CLEAN MECHANICAL ROOMS FLOOR AFTER DEMOLITION OF MAIN EQUIPMENT IS COMPLETE AND BEFORE BEGINNING NEW INSTALLATIONS. COORDINATE DISPOSAL OF SPARE PUMPS ETC WITH OWNER.

BASEMENT LEVEL MECHANICAL DEMOLITION PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

ISSUED FOR CONSTRUCTION 7/10/18

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TEL (802) 253-9407
www.pearsonandassociates.com

STATE OF VERMONT
ROBERT L. MARSHALL
Mechanical
LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: BASEMENT MECHANICAL DEMO PLAN

P:\Dropbox\Joslyn House\Drawings\~Mech\Joslyn House Mechanical Plans.dwg

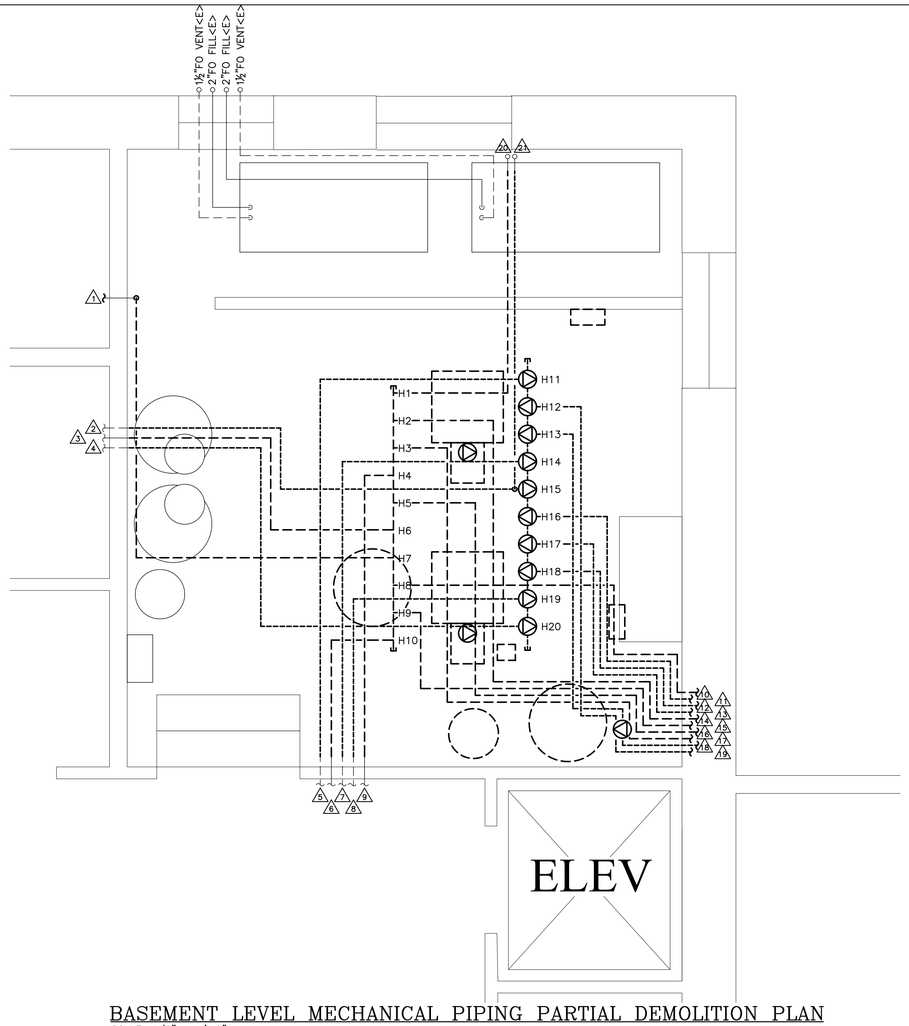
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M1.1

SHEET 1 OF 14

Jul 10, 2018



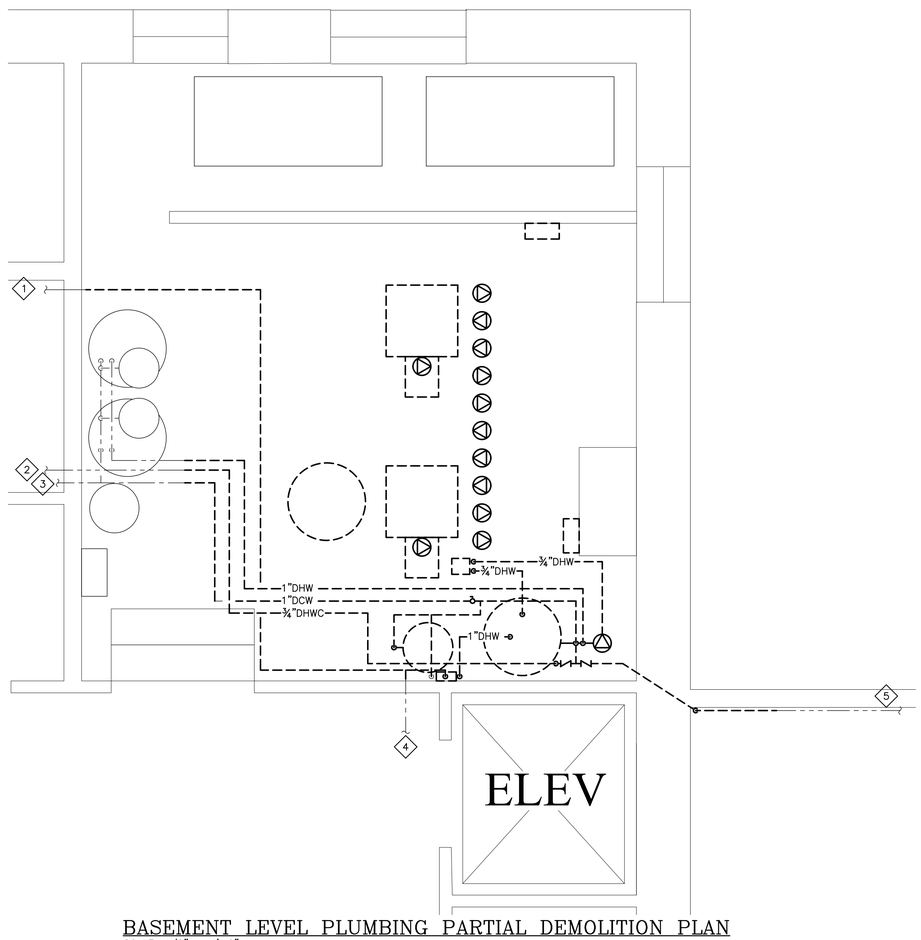
BASEMENT LEVEL MECHANICAL PIPING PARTIAL DEMOLITION PLAN

SCALE: 1/2" = 1'-0"

HORIZONTAL SCALE IN FEET

2 1 0 2 4 6 8

HYDRONIC PIPING IDENTIFICATION				
TAG	DESCRIPTION	SIZE	SERVES	ASSOCIATED ISOLATION VALVE
1	HYDRONIC SUPPLY	1"	BASEMENT FEEDS TO 001–004	H7
2	HYDRONIC RETURN	¾"	2ND FLOOR N. SIDE FROM ROOMS 201–208	H15
3	HYDRONIC SUPPLY	1"	2ND FLOOR N. SIDE TO ROOMS 201–208	H6
4	HYDRONIC RETURN	1"	1ST FLOOR FROM N. SIDE ROOMS 101–108	H20
5	HYDRONIC RETURN	1"	BASEMENT FROM ROOMS 001–004	H11
6	HYDRONIC SUPPLY	1"	1ST FLOOR TO S. SIDE 111–115	H10
7	HYDRONIC RETURN	1"	2ND FLOOR FROM SOUTH SIDE	H14
8	HYDRONIC RETURN	1"	1ST FLOOR FROM SOUTH SIDE ROOMS 110–113	H19
9	HYDRONIC SUPPLY		2ND FLOOR TO SOUTH SIDE ROOMS 210–215	H4
10	HYDRONIC SUPPLY	¾"	1ST FLOOR TO KITCHEN AND ROOM 116	H8
11	HYDRONIC RETURN	¾"	1ST FLOOR FROM PORCH PANEL RADIATOR	
12	HYDRONIC RETURN		1ST FLOOR FROM KITCHEN AND ROOM 116	H18
13	HYDRONIC RETURN	1"	1ST FLOOR FROM ROOMS 119–123 & DINING ROOM	H17
14	HYDRONIC SUPPLY	1¼"	3RD FLOOR TO ROOMS 303–307	H2
15	HYDRONIC SUPPLY	1"	1ST FLOOR TO ROOMS 119–123 & DINING ROOM	H9
16	HYDRONIC SUPPLY	¾"	1ST FLOOR SUPPLY TO PORCH MIXING VALVE	
17	HYDRONIC SUPPLY	1¼"	NO TAG	H3
18	HYDRONIC RETURN	1¼"	FROM LIBRARY FRONT HALL	H13
19	HYDRONIC RETURN	1¼"	3RD FLOOR FROM ROOMS 303–307	H12
20	HYDRONIC SUPPLY	1"	NORTH SIDE FEEDS TO ROOMS 101,102,103,104,105,106,108	H1
21	HYDRONIC RETURN	¾"	2ND FLOOR N. SIDE FROM ROOMS 201–208	H15



BASEMENT LEVEL PLUMBING PARTIAL DEMOLITION PLAN

SCALE: 1/2" = 1'-0"

HORIZONTAL SCALE IN FEET

2 1 0 2 4 6 8

DOMESTIC WATER PIPING IDENTIFICATION			
TAG	DESCRIPTION	SIZE	SERVES
1	DOMESTIC HOT WATER	1"	WEST WING
2	DOMESTIC HOT WATER RECIRC	¾"	WEST WING
3	DOMESTIC COLD WATER	1"	IN FROM MAIN WATER ENTRANCE
4	DOMESTIC HOT WATER	1"	TO EAST WING
5	DOMESTIC HOT WATER RECIRC	¾"	EAST WING

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Jul 10, 2018

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STATE OF VERMONT
GARY L. MARSHALL
Mechanical
LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: BASEMENT ENLARGED DEMO PLANS

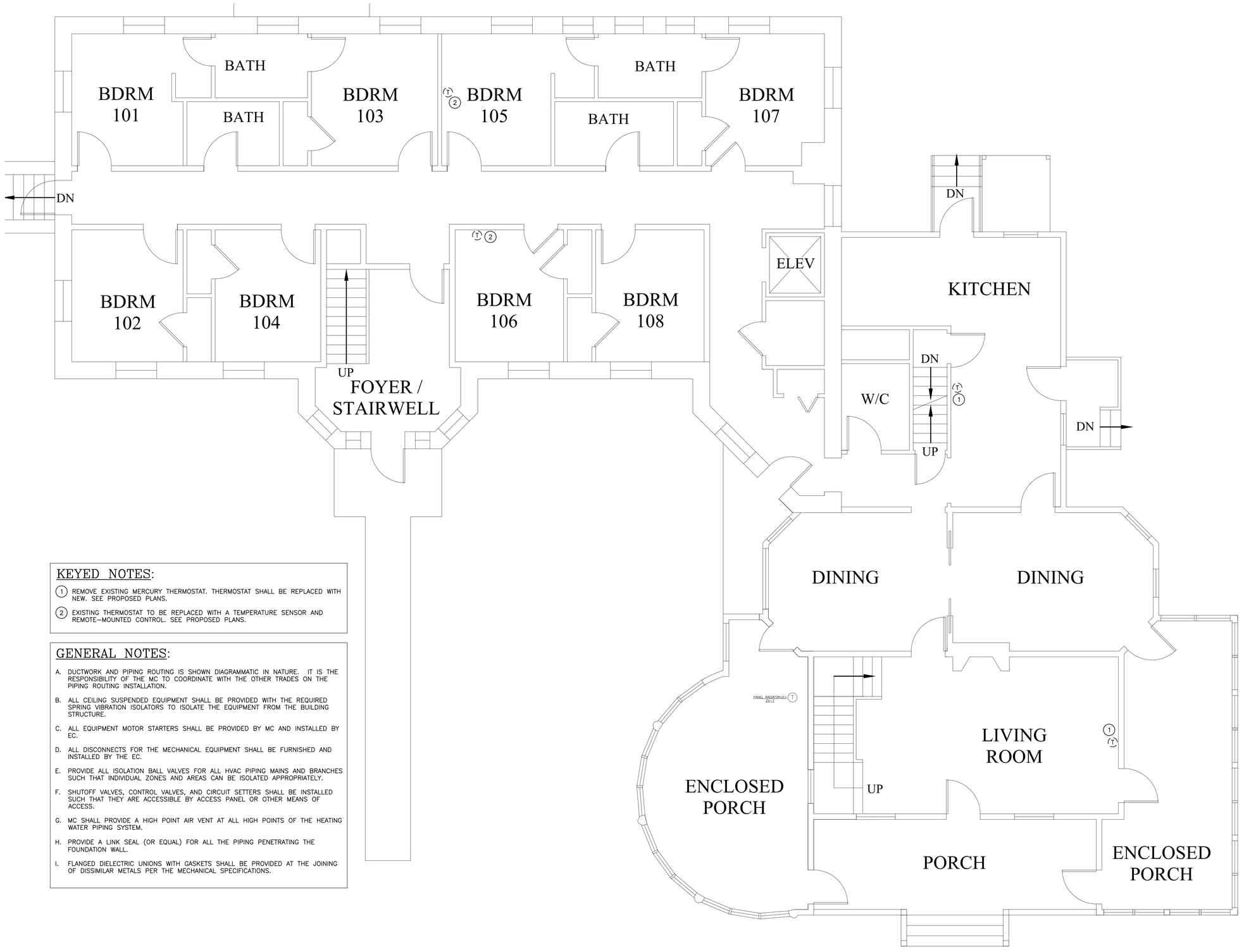
P:\Dropbox\Joslyn House\Drawings\~Mech\Joslyn House Mechanical Plans.dwg

DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M1.2

SHEET 2 OF 14



KEYED NOTES:

1. REMOVE EXISTING MERCURY THERMOSTAT. THERMOSTAT SHALL BE REPLACED WITH NEW. SEE PROPOSED PLANS.
2. EXISTING THERMOSTAT TO BE REPLACED WITH A TEMPERATURE SENSOR AND REMOTE-MOUNTED CONTROL. SEE PROPOSED PLANS.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

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E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

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FIRST FLOOR MECHANICAL DEMOLITION PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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STATE OF VERMONT — ROBERT L. MARSHALL — Mechanical — LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: FIRST FLOOR MECHANICAL DEMO PLAN

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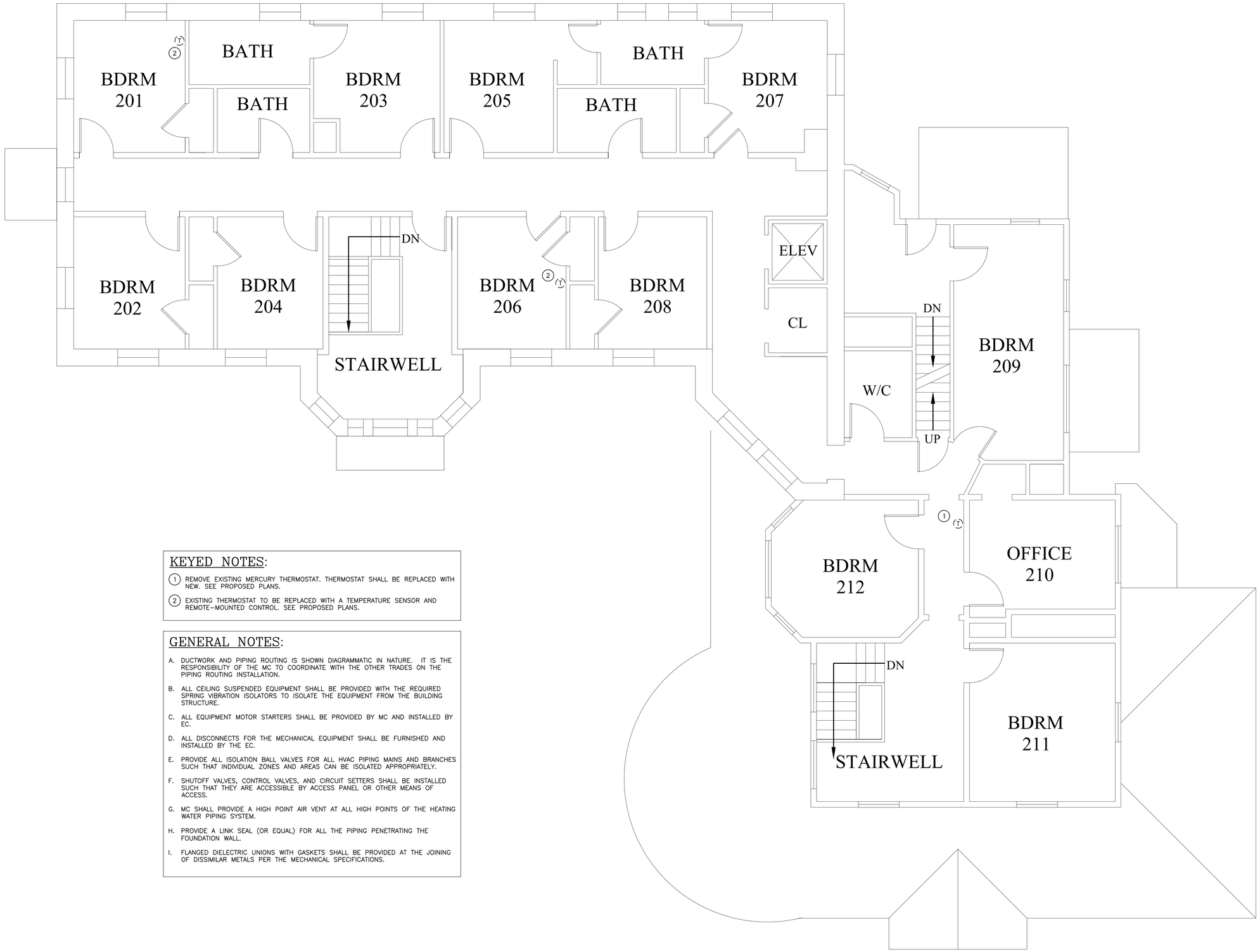
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M1.3

SHEET 3 OF 14

Jul 10, 2018



KEYED NOTES:

1. REMOVE EXISTING MERCURY THERMOSTAT. THERMOSTAT SHALL BE REPLACED WITH NEW. SEE PROPOSED PLANS.
2. EXISTING THERMOSTAT TO BE REPLACED WITH A TEMPERATURE SENSOR AND REMOTE-MOUNTED CONTROL. SEE PROPOSED PLANS.

GENERAL NOTES:

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G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

SECOND FLOOR MECHANICAL DEMOLITION PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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STATE OF VERMONT — ROBERT L. MARSHALL — Mechanical — LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: SECOND FLOOR MECHANICAL DEMO PLAN

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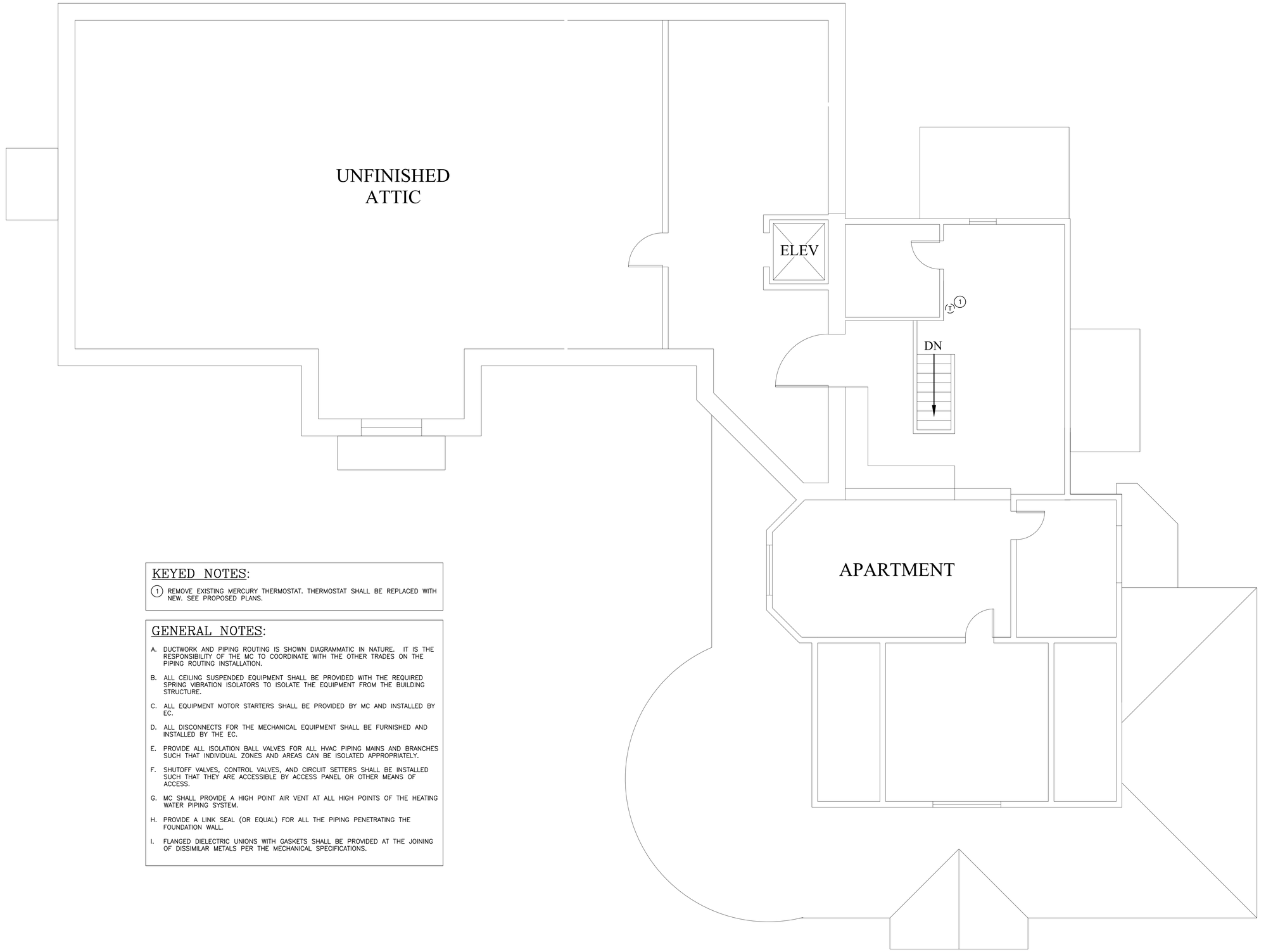
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M1.4

SHEET 4 OF 14

Jul 10, 2018



KEYED NOTES:

(1) REMOVE EXISTING MERCURY THERMOSTAT. THERMOSTAT SHALL BE REPLACED WITH NEW. SEE PROPOSED PLANS.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

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G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

THIRD FLOOR MECHANICAL DEMOLITION PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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Mechanical
LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME:
JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE:
THIRD FLOOR MECHANICAL DEMO PLAN

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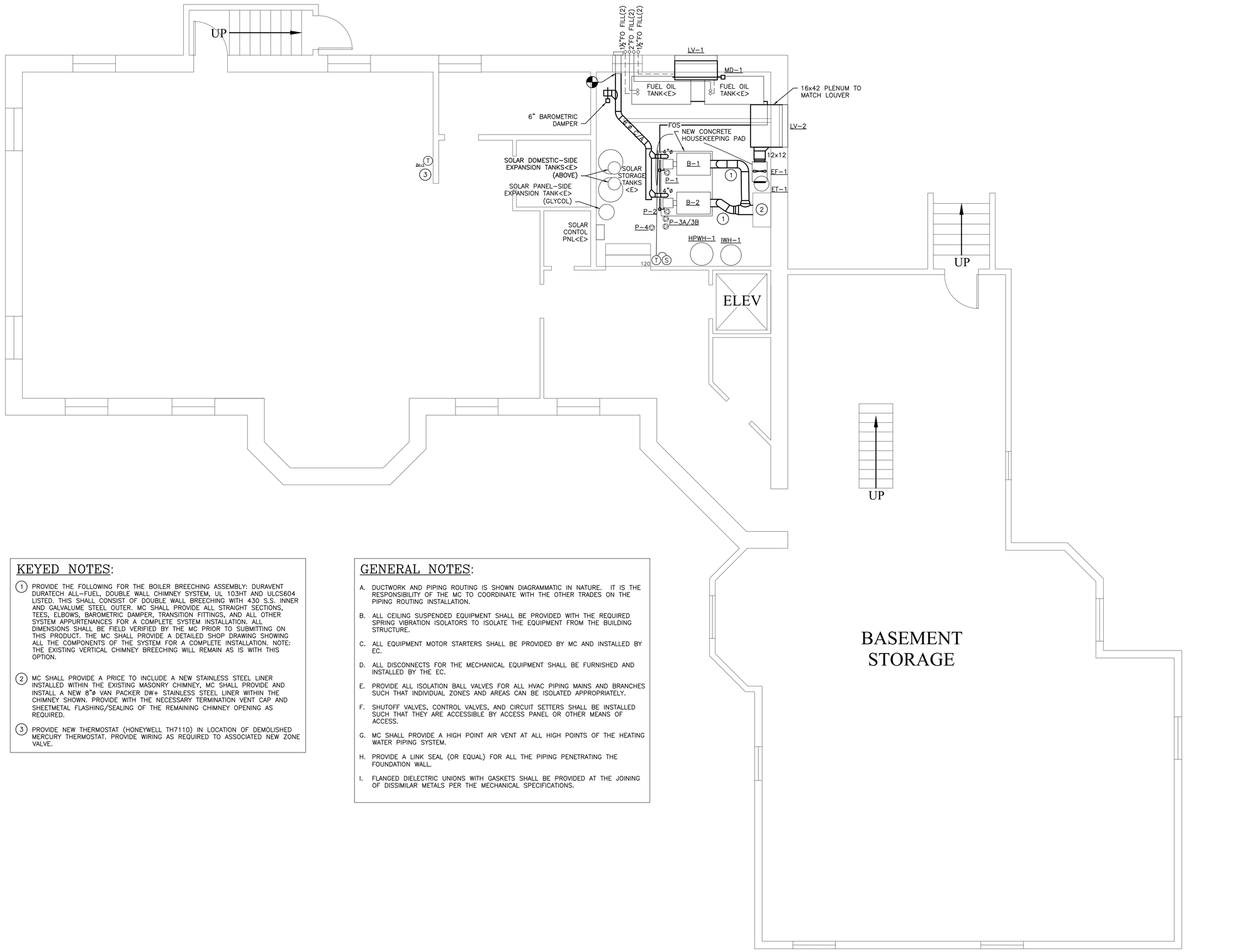
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M1.5

SHEET 5 OF 14

Jul 10, 2018



KEYED NOTES:

1. PROVIDE THE FOLLOWING FOR THE BOILER BREECHING ASSEMBLY: DURAVENT DURATECH ALL-FUEL, DOUBLE WALL CHIMNEY SYSTEM, UL 103HT AND ULCS604 LISTED. THIS SHALL CONSIST OF DOUBLE WALL BREECHING WITH 430 S.S. INNER AND GALVALUME STEEL OUTER. MC SHALL PROVIDE ALL STRAIGHT SECTIONS, TEES, ELBOWS, BAROMETRIC DAMPER, TRANSITION FITTINGS, AND ALL OTHER SYSTEM APPURTENANCES FOR A COMPLETE SYSTEM INSTALLATION. ALL DIMENSIONS SHALL BE FIELD VERIFIED BY THE MC PRIOR TO SUBMITTING ON THIS PRODUCT. THE MC SHALL PROVIDE A DETAILED SHOP DRAWING SHOWING ALL THE COMPONENTS OF THE SYSTEM FOR A COMPLETE INSTALLATION. NOTE: THE EXISTING VERTICAL CHIMNEY BREECHING WILL REMAIN AS IS WITH THIS OPTION.
2. MC SHALL PROVIDE A PRICE TO INCLUDE A NEW STAINLESS STEEL LINER INSTALLED WITHIN THE EXISTING MASONRY CHIMNEY, MC SHALL PROVIDE AND INSTALL A NEW 8"ø VAN PACKER DW+ STAINLESS STEEL LINER WITHIN THE CHIMNEY SHOWN. PROVIDE WITH THE NECESSARY TERMINATION VENT CAP AND SHEETMETAL FLASHING/SEALING OF THE REMAINING CHIMNEY OPENING AS REQUIRED.
3. PROVIDE NEW THERMOSTAT (HONEYWELL TH7110) IN LOCATION OF DEMOLISHED MERCURY THERMOSTAT. PROVIDE WIRING AS REQUIRED TO ASSOCIATED NEW ZONE VALVE.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

C. ALL EQUIPMENT MOTOR STARTERS SHALL BE PROVIDED BY MC AND INSTALLED BY EC.

D. ALL DISCONNECTS FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE EC.

E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

BASEMENT LEVEL MECHANICAL PROPOSED PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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STATE OF VERMONT JOEL L. MARSHALL Mechanical LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: BASEMENT MECHANICAL PROPOSED PLAN

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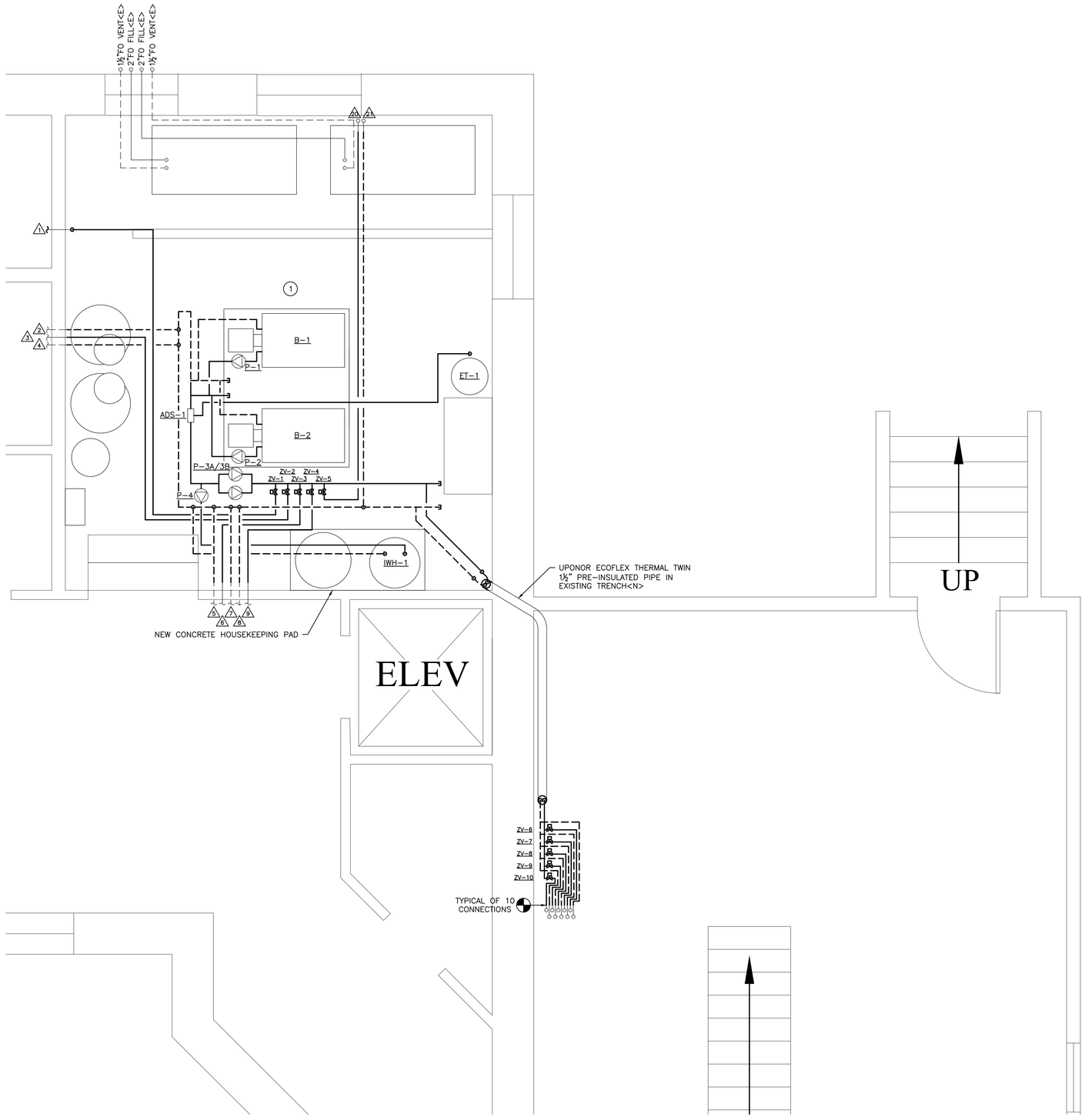
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

M2.1

SHEET 6 OF 14

Jul 10, 2018



BASEMENT LEVEL MECHANICAL PIPING PARTIAL PROPOSED PLAN

SCALE: 1/2" = 1'-0"

HORIZONTAL SCALE IN FEET

2 1 0 2 4 6 8

HYDRONIC PIPING IDENTIFICATION

TAG	DESCRIPTION	SIZE	SERVES
1	HYDRONIC SUPPLY	1"	BASEMENT FEEDS TO 001-004
2	HYDRONIC RETURN	¾"	2ND FLOOR N. SIDE FROM ROOMS 201-208
3	HYDRONIC SUPPLY	1"	2ND FLOOR N. SIDE TO ROOMS 201-208
4	HYDRONIC RETURN	1"	1ST FLOOR FROM N. SIDE ROOMS 101-108
5	HYDRONIC RETURN	1"	BASEMENT FROM ROOMS 001-004
6	HYDRONIC SUPPLY	1"	1ST FLOOR TO S. SIDE 111-115
7	HYDRONIC RETURN	1"	2ND FLOOR FROM SOUTH SIDE
8	HYDRONIC RETURN	1"	1ST FLOOR FROM SOUTH SIDE ROOMS 110-113
9	HYDRONIC SUPPLY		2ND FLOOR TO SOUTH SIDE ROOMS 210-215
10	HYDRONIC SUPPLY	¾"	1ST FLOOR TO KITCHEN AND ROOM 116
20	HYDRONIC SUPPLY	1"	NORTH SIDE FEEDS TO ROOMS 101,102,103,104,105,106,108
21	HYDRONIC RETURN	¾"	2ND FLOOR N. SIDE FROM ROOMS 201-208

KEYED NOTES:

(1) SEE SHEET M3.1 FOR DETAIL OF WORK AND PIPE SIZING IN THIS AREA.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

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STATE OF VERMONT GABE L. MARSHALL Mechanical LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: BASEMENT ENLARGED MECHANICAL PLAN

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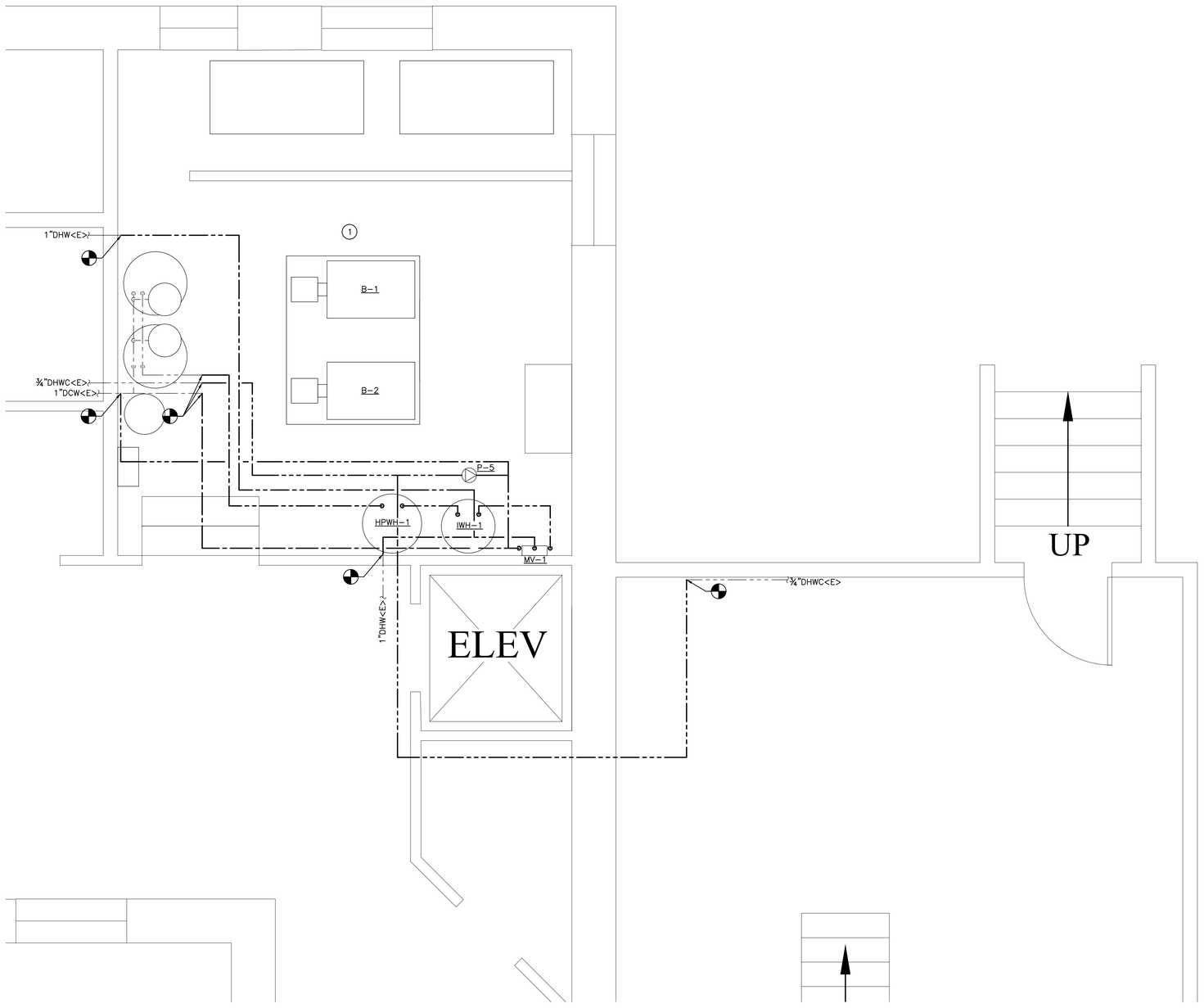
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO. M2.2

SHEET 7 OF 14

Jul 10, 2018



KEYED NOTES:

(1) SEE SHEET M4.1 FOR DETAIL OF WORK AND PIPE SIZING IN THIS AREA.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

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G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

BASEMENT LEVEL PLUMBING PARTIAL PROPOSED PLAN

SCALE: 1/2" = 1'-0"

HORIZONTAL SCALE IN FEET

2 1 0 2 4 6 8

ISSUED FOR CONSTRUCTION 7/10/18

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STATE OF VERMONT
GABE L. MARSHALL
Mechanical
LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: BASEMENT ENLARGED PLUMBING PLAN

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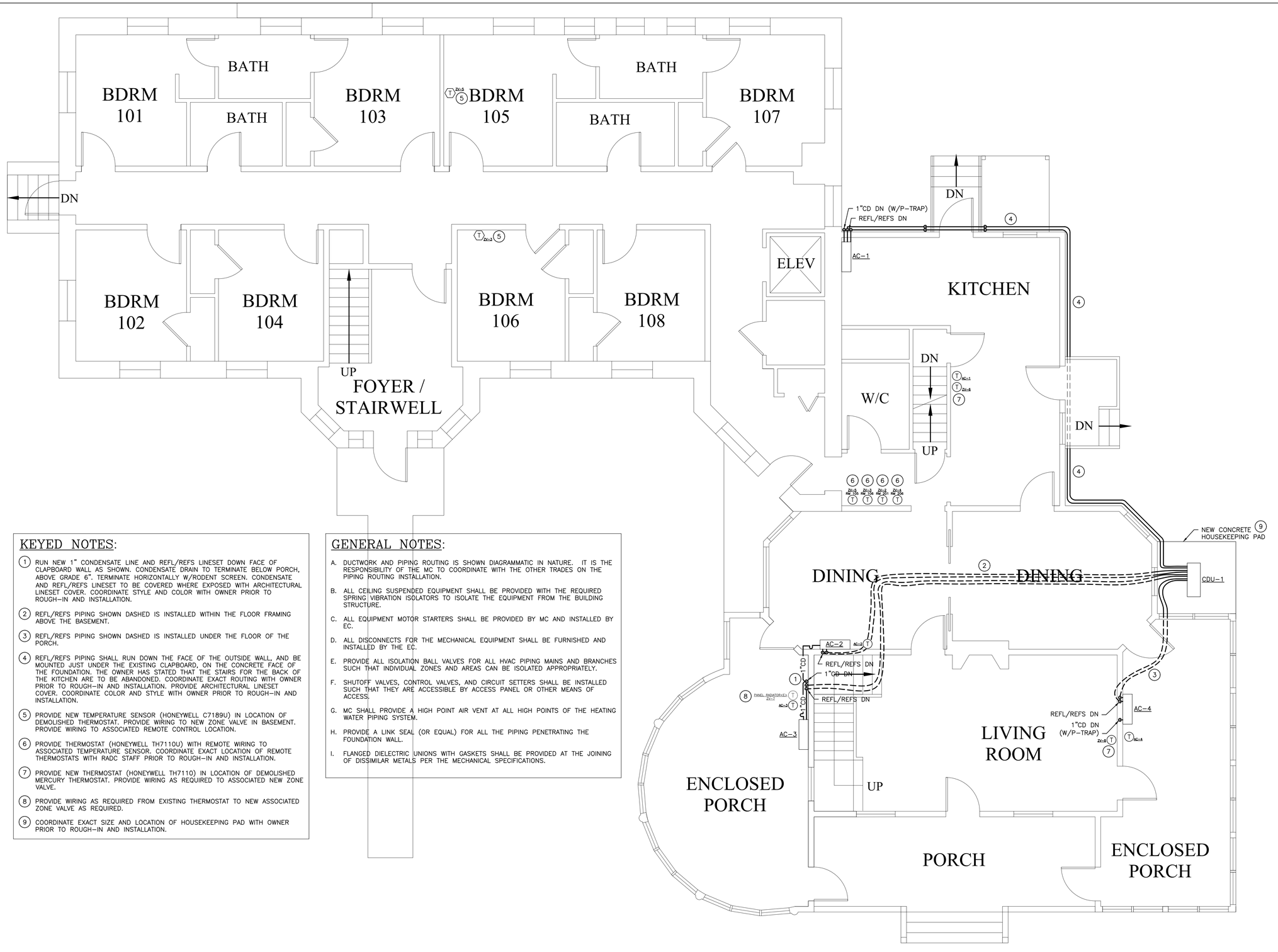
DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO. M2.3

SHEET 8 OF 14

Jul 10, 2018



KEYED NOTES:

1. RUN NEW 1" CONDENSATE LINE AND REFL/REFS LINESET DOWN FACE OF CLAPBOARD WALL AS SHOWN. CONDENSATE DRAIN TO TERMINATE BELOW PORCH, ABOVE GRADE 6". TERMINATE HORIZONTALLY W/RODENT SCREEN. CONDENSATE AND REFL/REFS LINESET TO BE COVERED WHERE EXPOSED WITH ARCHITECTURAL LINESET COVER. COORDINATE STYLE AND COLOR WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION.
2. REFL/REFS PIPING SHOWN DASHED IS INSTALLED WITHIN THE FLOOR FRAMING ABOVE THE BASEMENT.
3. REFL/REFS PIPING SHOWN DASHED IS INSTALLED UNDER THE FLOOR OF THE PORCH.
4. REFL/REFS PIPING SHALL RUN DOWN THE FACE OF THE OUTSIDE WALL, AND BE MOUNTED JUST UNDER THE EXISTING CLAPBOARD, ON THE CONCRETE FACE OF THE FOUNDATION. THE OWNER HAS STATED THAT THE STAIRS FOR THE BACK OF THE KITCHEN ARE TO BE ABANDONED. COORDINATE EXACT ROUTING WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION. PROVIDE ARCHITECTURAL LINESET COVER. COORDINATE COLOR AND STYLE WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION.
5. PROVIDE NEW TEMPERATURE SENSOR (HONEYWELL C7189U) IN LOCATION OF DEMOLISHED THERMOSTAT. PROVIDE WIRING TO NEW ZONE VALVE IN BASEMENT. PROVIDE WIRING TO ASSOCIATED REMOTE CONTROL LOCATION.
6. PROVIDE THERMOSTAT (HONEYWELL TH7110U) WITH REMOTE WIRING TO ASSOCIATED TEMPERATURE SENSOR. COORDINATE EXACT LOCATION OF REMOTE THERMOSTATS WITH RADC STAFF PRIOR TO ROUGH-IN AND INSTALLATION.
7. PROVIDE NEW THERMOSTAT (HONEYWELL TH7110) IN LOCATION OF DEMOLISHED MERCURY THERMOSTAT. PROVIDE WIRING AS REQUIRED TO ASSOCIATED NEW ZONE VALVE.
8. PROVIDE WIRING AS REQUIRED FROM EXISTING THERMOSTAT TO NEW ASSOCIATED ZONE VALVE AS REQUIRED.
9. COORDINATE EXACT SIZE AND LOCATION OF HOUSEKEEPING PAD WITH OWNER PRIOR TO ROUGH-IN AND INSTALLATION.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

C. ALL EQUIPMENT MOTOR STARTERS SHALL BE PROVIDED BY MC AND INSTALLED BY EC.

D. ALL DISCONNECTS FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE EC.

E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

FIRST FLOOR MECHANICAL PROPOSED PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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ROBERT L. MARSHALL — STATE OF VERMONT — Mechanical — LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: FIRST FLOOR MECHANICAL PROPOSED PLAN

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DATE:	7/10/18
SCALE:	AS NOTED
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DRAWN BY:	DPC
APPROVED BY:	JLM

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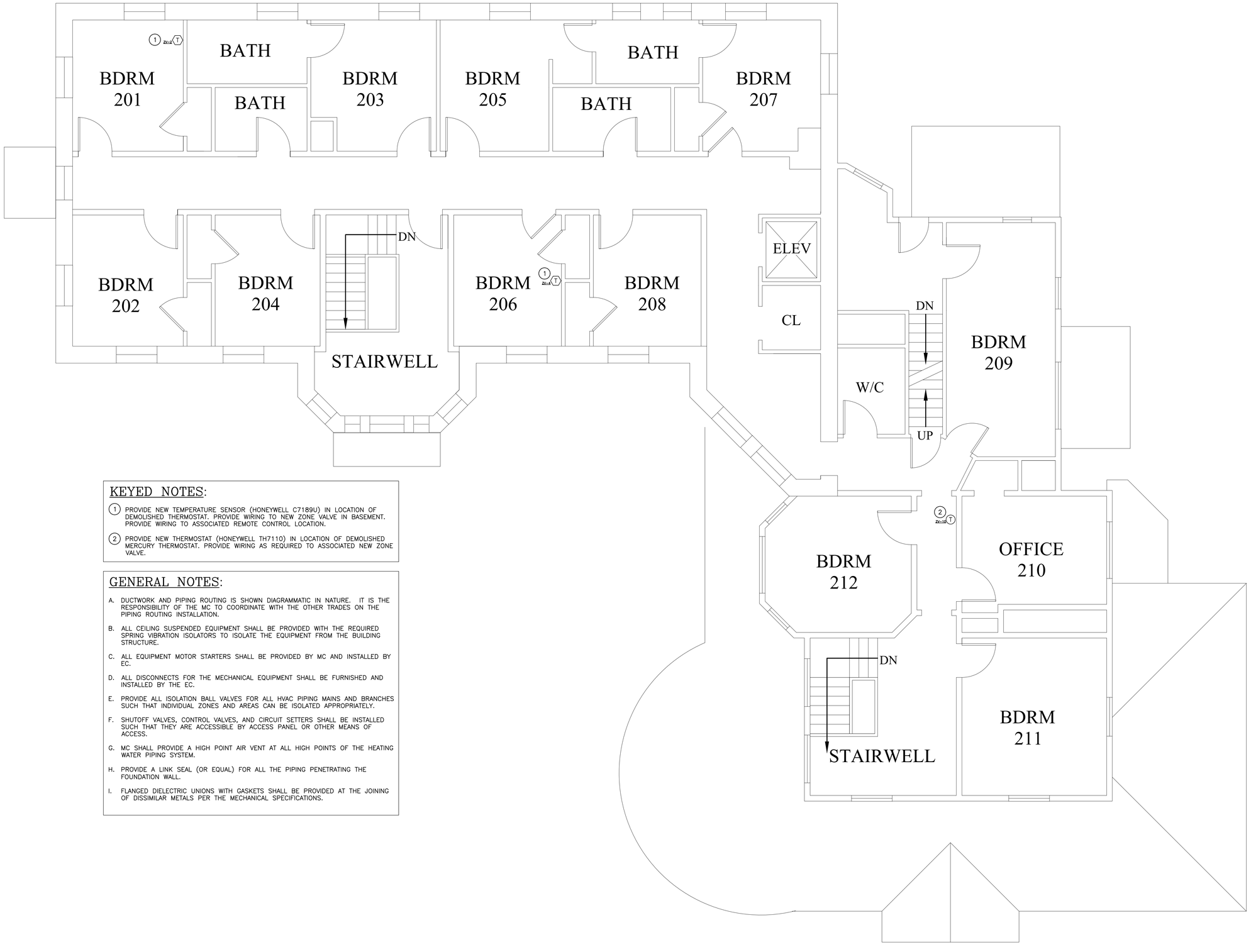
SHEET 9 OF 14

Jul 10, 2018



KEYED NOTES:

1. PROVIDE NEW TEMPERATURE SENSOR (HONEYWELL C7189U) IN LOCATION OF DEMOLISHED THERMOSTAT. PROVIDE WIRING TO NEW ZONE VALVE IN BASEMENT. PROVIDE WIRING TO ASSOCIATED REMOTE CONTROL LOCATION.
2. PROVIDE NEW THERMOSTAT (HONEYWELL TH7110) IN LOCATION OF DEMOLISHED MERCURY THERMOSTAT. PROVIDE WIRING AS REQUIRED TO ASSOCIATED NEW ZONE VALVE.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

C. ALL EQUIPMENT MOTOR STARTERS SHALL BE PROVIDED BY MC AND INSTALLED BY EC.

D. ALL DISCONNECTS FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE EC.

E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

SECOND FLOOR MECHANICAL PROPOSED PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: SECOND FLOOR MECHANICAL PROPOSED PLAN

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DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.

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SHEET 10 OF 14

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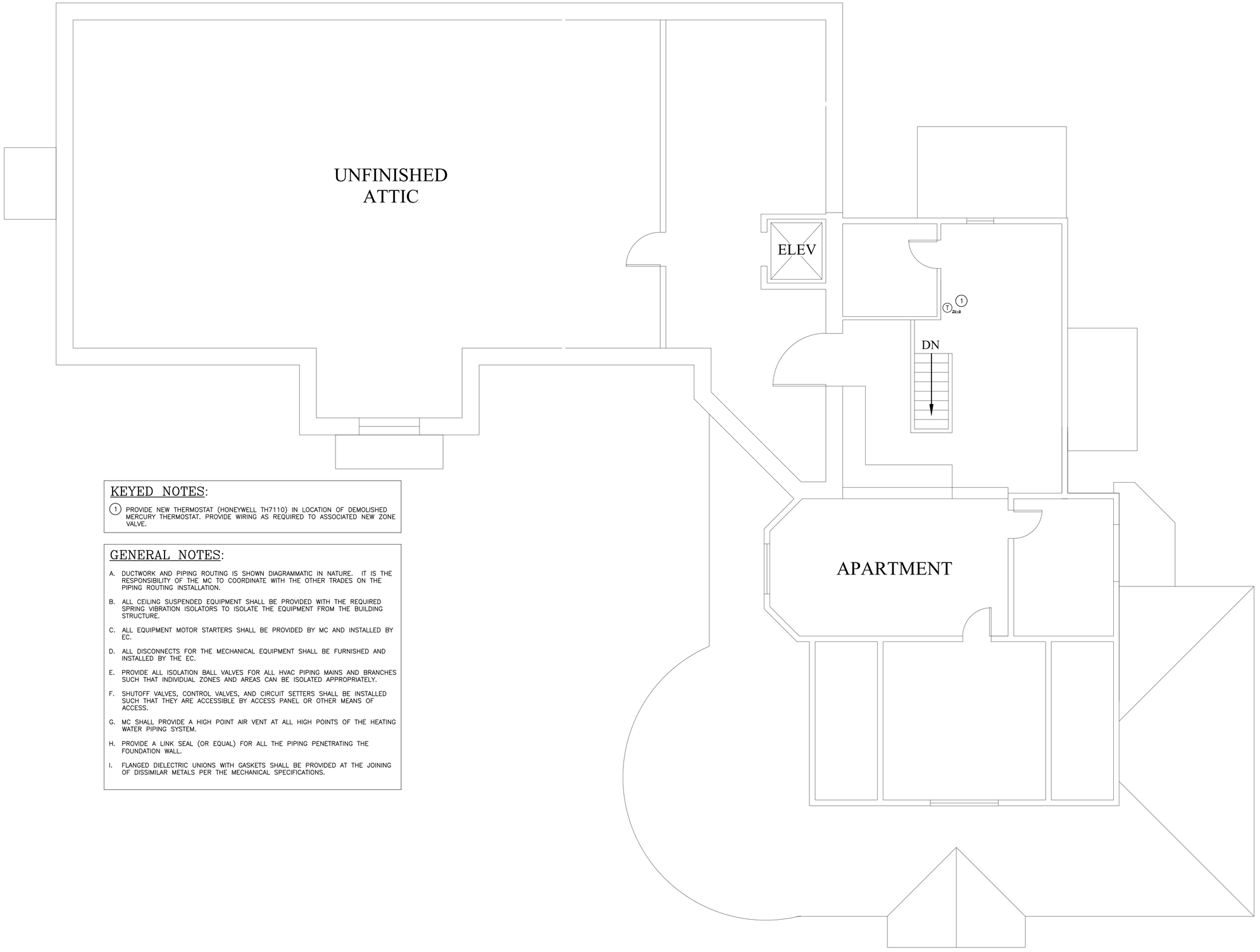

KEYED NOTES:

(1) PROVIDE NEW THERMOSTAT (HONEYWELL TH7110) IN LOCATION OF DEMOLISHED MERCURY THERMOSTAT. PROVIDE WIRING AS REQUIRED TO ASSOCIATED NEW ZONE VALVE.

GENERAL NOTES:

A. DUCTWORK AND PIPING ROUTING IS SHOWN DIAGRAMMATIC IN NATURE. IT IS THE RESPONSIBILITY OF THE MC TO COORDINATE WITH THE OTHER TRADES ON THE PIPING ROUTING INSTALLATION.

B. ALL CEILING SUSPENDED EQUIPMENT SHALL BE PROVIDED WITH THE REQUIRED SPRING VIBRATION ISOLATORS TO ISOLATE THE EQUIPMENT FROM THE BUILDING STRUCTURE.

C. ALL EQUIPMENT MOTOR STARTERS SHALL BE PROVIDED BY MC AND INSTALLED BY EC.

D. ALL DISCONNECTS FOR THE MECHANICAL EQUIPMENT SHALL BE FURNISHED AND INSTALLED BY THE EC.

E. PROVIDE ALL ISOLATION BALL VALVES FOR ALL HVAC PIPING MAINS AND BRANCHES SUCH THAT INDIVIDUAL ZONES AND AREAS CAN BE ISOLATED APPROPRIATELY.

F. SHUTOFF VALVES, CONTROL VALVES, AND CIRCUIT SETTERS SHALL BE INSTALLED SUCH THAT THEY ARE ACCESSIBLE BY ACCESS PANEL OR OTHER MEANS OF ACCESS.

G. MC SHALL PROVIDE A HIGH POINT AIR VENT AT ALL HIGH POINTS OF THE HEATING WATER PIPING SYSTEM.

H. PROVIDE A LINK SEAL (OR EQUAL) FOR ALL THE PIPING PENETRATING THE FOUNDATION WALL.

I. FLANGED DIELECTRIC UNIONS WITH GASKETS SHALL BE PROVIDED AT THE JOINING OF DISSIMILAR METALS PER THE MECHANICAL SPECIFICATIONS.

THIRD FLOOR MECHANICAL PROPOSED PLAN

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

HORIZONTAL SCALE IN FEET

4 2 0 4 8 12 16

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NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: THIRD FLOOR MECHANICAL PROPOSED PLAN

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DRAWN BY:	DPC
APPROVED BY:	JLM

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SHEET 11 OF 14

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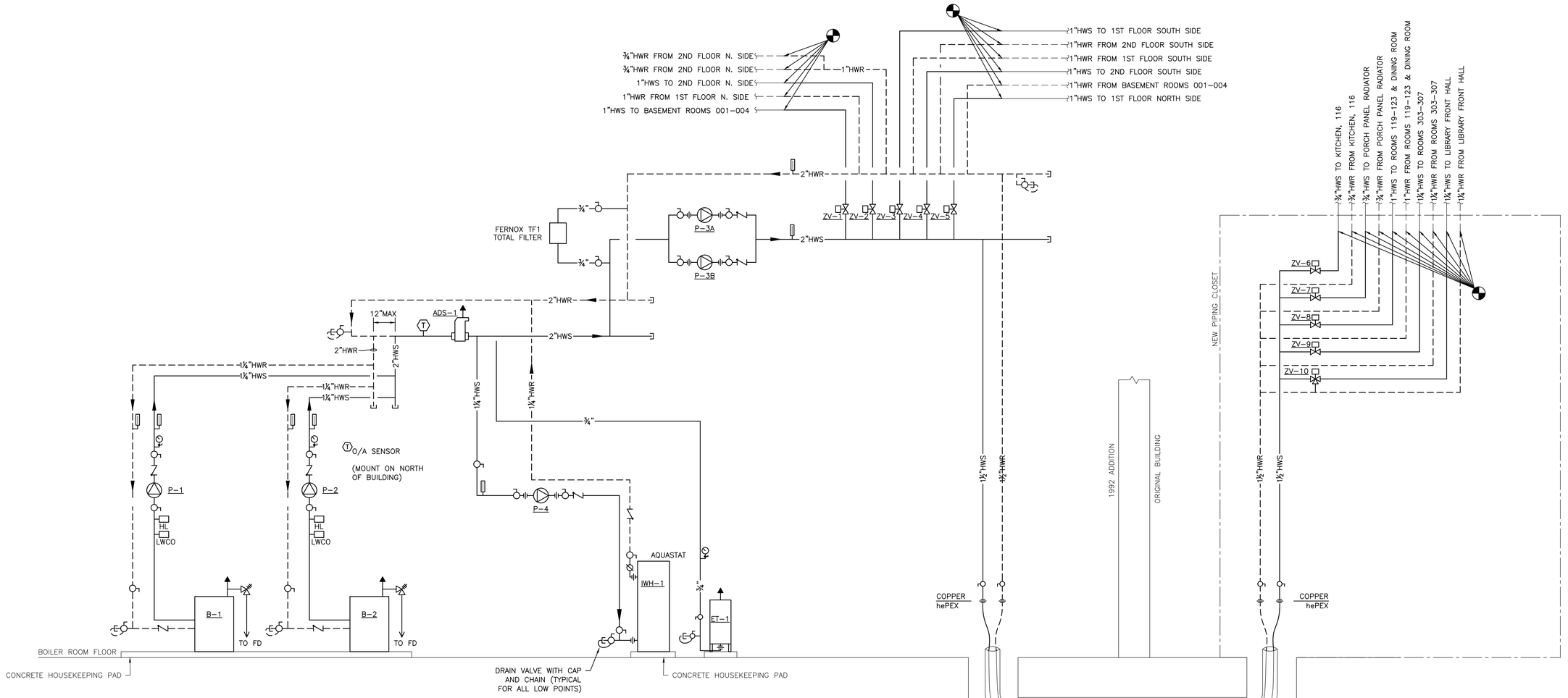

MECHANICAL PIPING SCHEMATIC

NOT TO SCALE

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NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: MECHANICAL PIPING SCHEMATIC

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DATE:	7/10/18
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JOB NO:	18087
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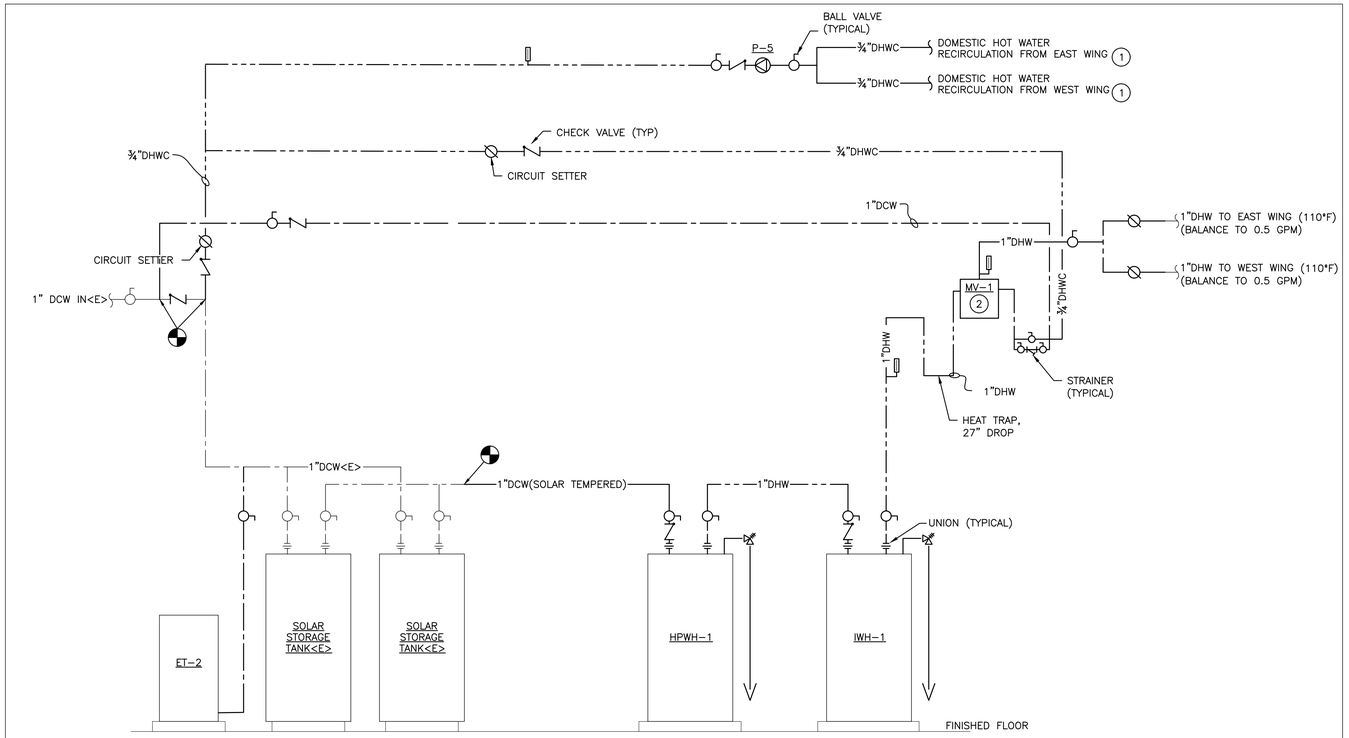
M3.1

SHEET 12 OF 14

Jul 10, 2018



KEYED NOTES:

1. INSULATE DOMESTIC HOT WATER RECIRCULATION PIPING WITH INSULATION AS REQUIRED BY THE CBES 2011.
2. MV-1 SHALL BE PIPED PER MANUFACTURER'S DETAILS AND REQUIREMENTS.

INDIRECT WATER HEATER DETAIL

NOT TO SCALE

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NUMBER	DATE	REVISION	BY

PROJECT NAME:
JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE:
PLUMBING SCHEMATIC

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DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
APPROVED BY:	JLM

DWG. NO.
M4.1

SHEET 13 OF 14

ISSUED FOR
CONSTRUCTION 7/10/18

Jul 10, 2018

BOILER SCHEDULE

TAG	LOCATION	BOILER MANUFACTURER & MODEL NO.	HEATING (MBH)		WATER			ELECTRICAL				REMARKS
			INPUT	OUTPUT	OUTLET	INLET	GPM	VOLTS	PH	HZ	HP	
B–1	MECHANICAL ROOM	BUDERUS G215/5	240	207	180	150	14	120	1	60	½	1,2,3,4,5,6
B–2	MECHANICAL ROOM	BUDERUS G215/5	240	207	180	150	14	120	1	60	½	1,2,3,4,5,6

REMARKS:
1. PROVIDE ALL ACCESSORIES AS REQUIRED FOR A COMPLETE INSTALLATION. PROVIDE WITH A MINIMUM 30 PSIG PRESSURE RELIEF VALVE.
2. PROVIDE A FACTORY AUTHORIZED STARTUP OF THE EQUIPMENT.
3. PROVIDE WITH A RIELLO BURNER F SERIES WITH A FIRING RATE MATCHING THE BOILER FIRING RATE. PROVIDE COMBUSTION AIR BOOT KIT. MC IS RESPONSIBLE FOR PROVIDING A RIELLO CERTIFIED START–UP BY THIRD PARTY AS REQUIRED. PROVIDE BURNER WITH THE REQUIRED COMBUSTION AIR BOOT CONNECTION. MC SHALL COORDINATE CONTROLLER START–UP AND COMMISSIONING WITH A MANUFACTURER AUTHORIZED START–UP TECHNICIAN.
4. MAINTAIN ALL REQUIRED CLEARANCES AROUND BOILER AND BURNER.
5. PROVIDE WITH A HEATRONIC 4000 CONTROLLER WITH UNIVERSAL SENSOR AND OUTDOOR SENSOR. THIS CONTROLLER SHALL ALLOW FOR CONTROL OF THE BOILERS, INJECTION PUMPS, HEATING LOOP PUMPS AND INDIRECT HOT WATER HEATER INJECTION PUMP.
6. PROVIDE BOILER BREACHING TO CONNECT TO EXISTING CHIMNEY SYSTEM PER NFPA AND MANUFACTURER'S REQUIREMENTS.

MECHANICAL EQUIPMENT SCHEDULE

TAG	DESCRIPTION	MANUFACTURER & MODEL	CHARACTERISTICS	ELECTRICAL
MV–1	THERMOSTAT MIXING VALVE	POWERS HYDROGUARD MODEL LFSH1432	INTEGRAL CHECK VALVES, ADJUSTABLE BETWEEN 80°–120°F, 125PSI MAX OPERATING PRESSURE	–
IWH–1	INDIRECT HOT WATER HEATER	TRIANGLE TUBE SMART 60	271 LBS. EMPTY WEIGHT, 56 GALLONS DOMESTIC STORAGE, 8 GALLONS OF BOILER WATER, 135°F TANK TEMPERATURE SETPOINT, 75 MBH BOILER LOAD. PROVIDE T&P VALVE SIZED FOR THE BOILER INPUT TO THE TANK.	–
ADS–1	AIR DIRT SEPARATOR	SPIROTHERM VDN–200	30 GPM	–
ET–1	DIAPHRAGM TYPE EXPANSION TANK	AMTROL EXTROL MODEL AX–60	33.6 GALLONG TANK VOLUME, 22.6 MAX ACCEPTANCE VOLUME, 16" DIAMETER, ¾" CONNECTION SIZE, ASME RATED, 21PSI FILL PRESSURE	–
ET–2	DIAPHRAGM TYPE EXPANSION TANK	AMTROL THERM–X–TROL ST–30V	14 GALLON TANK VOLUME, 11.3 MAX ACCEPTANCE VOLUME, 16" DIAMETER, 1" CONNECTION SIZE	–
HPWH–1	HEAT PUMP WATER HEATER	RHEEM PROPH80 T2 RH350 DCB	72 GALLON DOMESTIC WATER CAPACITY, 4200 COMPRESSOR BTU/HR, 49DBA, 89 GALLON FIRST HOUR GPH, 29 GPH RECOVERY @90°F RISE.	240V/1PH/60HZ 30AMP MOCP
MD–1	ULTRA LOW LEAKAGE MOTORIZED DAMPER	GREENHECK MODEL VCD–33	DAMPER SIZE TO MATCH THE LOUVER PLENUM SIZE IT IS CONNECTED TO. PROVIDE WITH THE REQUIRED ACTUATOR AND DRIVE ARRANGEMENT	120V/1P/60HZ

CIRCULATOR PUMP SCHEDULE

TAG	LOCATION	SERVES	MANUFACTURER & MODEL NO.	GPM	WPD (FT)	ELECTRICAL				REMARKS
						WATTS	VOLTS	PH	HZ	
P–1	MECHANICAL ROOM	B–1	GRUNDFOS MAGNA3 40–120	14	20	442	240	1	60	1
P–2	MECHANICAL ROOM	B–2	GRUNDFOS MAGNA3 40–120	14	20	442	240	1	60	1
P–3A	MECHANICAL ROOM	SPACE HEATING	GRUNDFOS MAGNA3 65–120	40.0	30	772	240	1	60	2
P–3B	MECHANICAL ROOM	SPACE HEATING	GRUNDFOS MAGNA3 65–120	40.0	30	772	240	1	60	2
P–4	MECHANICAL ROOM	IWH–1	GRUNDFOS MAGNA3 40–80	10.0	15	276	240	1	60	1
P–5	MECHANICAL ROOM	DOMESTIC HOT WATER RECIRCULATION–ORIGINAL BUILDING	GRUNDFOS ALPHA 15–55SF	1.0	15	45	120	1	60	3

REMARKS:
1. PUMP TO BE SET UP TO RUN AT CONSTANT PRESSURE
2. PUMP TO BE SET UP TO RUN AT PROPORTIONAL PRESSURE
3. PUMP SHALL BE SUITABLE FOR DOMESTIC WATER USAGE.

HEAT PUMP FAN COIL UNIT SCHEDULE (ADD ALTERNATE)

TAG	SERVES	MANUFACTURER & MODEL NO.	TYPE	FAN PERFORMANCE		COOLING PERFORMANCE					ELECTRICAL					REMARKS
				CFM (WET)	E.S.P. SETPOINT	REFRIG. TYPE	TOTAL MBH	EAT		LAT	MCA	MOCP	VOLTS	PH	HZ	
								db (°F)	wb (°F)	db (°F)						
AC–1	KITCHEN	DAIKIN MODEL FTXS12LVJU	WALL	403	–	R–410A	12	75	63	55	–	–	208	1	60	1,2
AC–2	DINING ROOM	DAIKIN MODEL FTXS12LVJU	WALL	403	–	R–410A	12	75	63	55	–	–	208	1	60	1,2
AC–3	WEST PORCH	DAIKIN MODEL FTXS12LVJU	WALL	403	–	R–410A	12	75	63	55	–	–	208	1	60	1,2
AC–4	EAST PORCH	DAIKIN MODEL FTXS12LVJU	WALL	403	–	R–410A	12	75	63	55	–	–	208	1	60	1,2

REMARKS:
1. PROVIDE A FACTORY AUTHORIZED START–UP OF THE EQUIPMENT.
2. PROVIDE WITH A DAIKIN WIRED THERMOSTAT AND ALL REQUIRED ACCESSORIES FOR OPERATION.

AIR–TO–AIR HEAT PUMP UNIT SCHEDULE (ADD ALTERNATE)

TAG	MATCHED UNIT TAG	LOCATION	MANUFACTURER & MODEL NO.	NOMICAL CAPACITY (TONS)	CONDENSER				COMPRESSOR					MCA	MOCP	REMARKS
					FANS	VOLTS	PH	HZ	STAGES	RLA	VOLTS	PH	HZ			
CDU–1	AC–1,2,3,4	PAD MOUNTED AT GRADE	DAIKIN MODEL 4MXS36RMVJU	3	1	240	1	60	VARIABLE	–	240	1	60	23.9	25	1,2

REMARKS:
1. INSTALL EQUIPMENT, REFRIGERANT PIPING, POWER AND CONTROLS PER MANUFACTURER'S INSTALLATION INSTRUCTIONS.
2. PROVIDE A FACTORY AUTHORIZED START–UP OF THE EQUIPMENT.

LOUVER SCHEDULE

TAG	MANUFACTURER	MODEL	SIZE	CFM	FLANGED	EXTENDED SILL	FINISH	COLOR	INSECT OR BIRD SCREEN	REMARKS
LV–1	GREENHECK	ESD–403	16x42	500	YES	NO	70% KYNAR	AS SELECTED BY OWNER	INSECT	1
LV–2	GREENHECK	ESD–403	16x42	500	YES	NO	70% KYNAR	AS SELECTED BY OWNER	INSECT	1

REMARKS:
1. COORDINATE COLOR WITH OWNER PRIOR TO ROUGH–IN AND INSTALLATION.

FAN SCHEDULE

TAG	LOCATION	MANUFACTURER & MODEL NO.	FAN TYPE	FLOW (CFM)	SP (IN)	RPM	MAX (dBA)	MOTOR				REMARKS
								HP	VOLTS	PH	HZ	
EF–1	MECHANICAL ROOM	GREENHECK MODEL SQ–90–VG	INLINE	500	0.35	1586	55	¼	120	1	60	1

REMARKS:
1. PROVIDE WITH THE FOLLOWING: 120V, COOLING–ONLY THERMOSTAT, VARI–GREEN ECM INPUT SIGNAL, VARI–GREEN REMOTE DIAL TO BE MOUNTED IN MECHANICAL ROOM ADJACENT TO THERMOSTAT, VARI–GREEN TRANSFORMER, WD–330–PB–12x12 GRAVITY DAMPER, MOTOR COVER, SPRING HANGING VIBRATION ISOLATORS, INLET GUARD.

ZONE VALVE SCHEDULE

VALVE NUMBER	LOCATION	FLOW RATE (GPM)	MAX PD (PSI)
ZV–1	BOILER ROOM	4.5	2
ZV–2	BOILER ROOM	4	2
ZV–3	BOILER ROOM	4	2
ZV–4	BOILER ROOM	4	2
ZV–5	BOILER ROOM	4	2
ZV–6	NEW HEADER IN EAST BASEMENT	2	2
ZV–7	NEW HEADER IN EAST BASEMENT	1.5	2
ZV–8	NEW HEADER IN EAST BASEMENT	4	2
ZV–9	NEW HEADER IN EAST BASEMENT	7	2
ZV–10	NEW HEADER IN EAST BASEMENT	5.5	2

REMARKS:
1. ALL CONTROL VALVES LISTED IN THIS SCHEDULE SHALL BE TWO–WAY, TWO–POSITION, NORMALLY OPEN VALVES.

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STATE OF VERMONT GABRIEL L. MARSHALL Mechanical LICENSED PROFESSIONAL ENGINEER

NUMBER	DATE	REVISION	BY

PROJECT NAME: JOSLYN HOUSE HVAC UPGRADES
RANDOLPH, VT

SHEET TITLE: MECHANICAL SCHEDULES

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DATE:	7/10/18
SCALE:	AS NOTED
JOB NO:	18087
DRAWN BY:	DPC
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SHEET 14 OF 14

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