

Estimate of Materials and Cost of Construction

Date: 1/4/2002

Replace Heating system and Window Inmate housing Building #

Project: 21-2

Project Location: Fishkill Correctional Facility 18 Strack Drive Beacon, NY 12508

TOTAL

OVERHEAD AND PROFIT

TOTAL BASE BID

20%

Amount

§ -

§ -

§ -

Summary

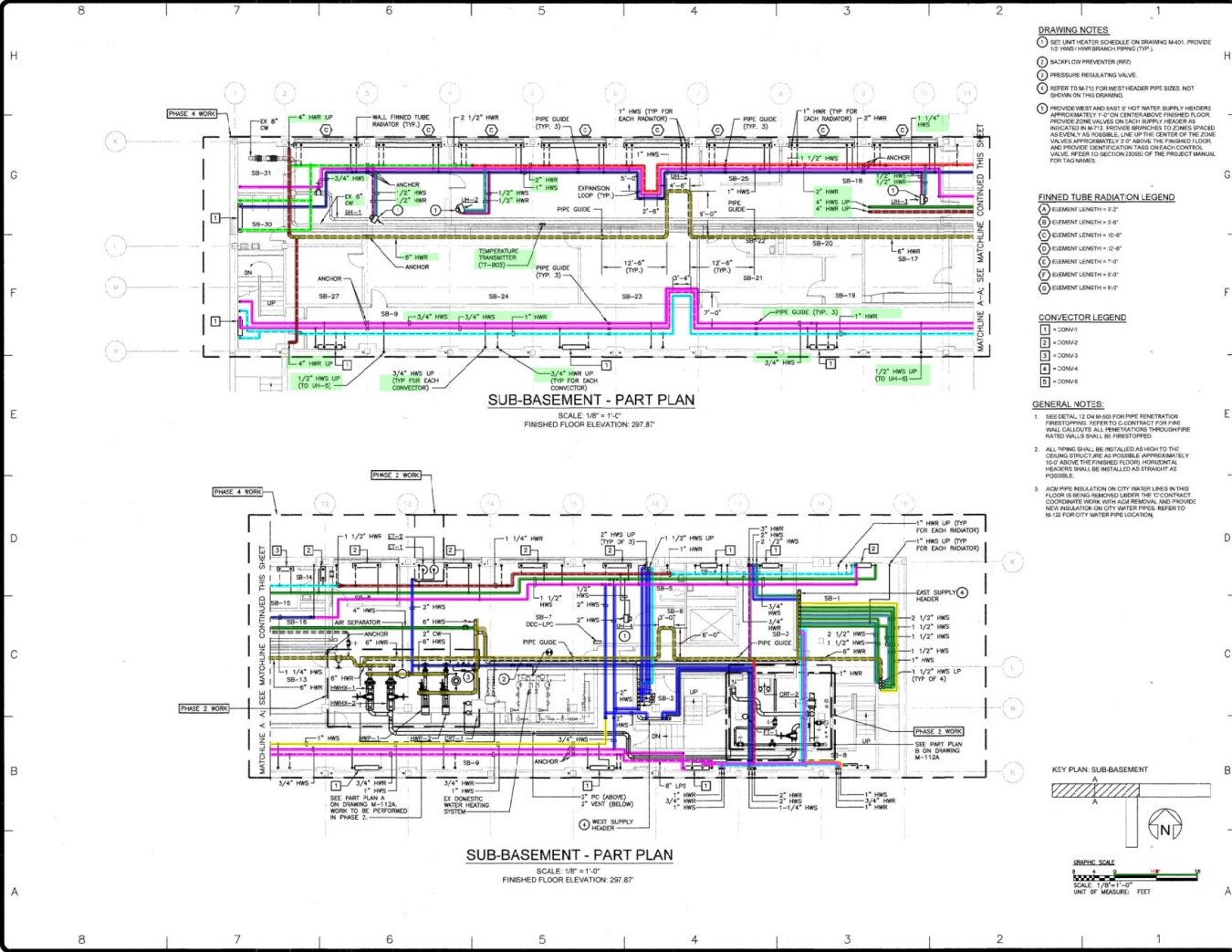
TRADE COST									
			DIV-01	GENERAL					\$ -
			DIV-02	SELECTIVE REMOVALS AND DEMOLITIONS					
			DIV-03	CONCRETE					
			DIV-04	UNIT MASONRY					
			DIV-05	METALS					
			DIV-06	WOOD, PLASTICS & COMPOSITES					
			DIV-07	THERMAL AND MOISTURE PROTECTION					
			DIV-08	OPENINGS					
			DIV-09	FINISHES					
			DIV-10	SPECIALTIES					
			DIV-11	EQUIPMENTS					
			DIV-12	FURNISHINGS					
			DIV-13	FURNISHINGS					
			DIV-14	CONVEYING EQUIPMENT					
			DIV-21	FIRE SUPPRESSION					
			DIV-22	PLUMBING					
			DIV-23	(HVAC) HEATING VENTILATING & AIR CONDITIONING				\$ -	
			DIV-26	ELECTRICAL					
			DIV-31	EARTHWORK					
			DIV-32	EXTERIOR IMPROVEMENTS					
									\$ -
INSURANCE								0%	\$ -
OVERHEAD AND PROFIT								20%	\$ -
TOTAL BASE BID									\$ -

Detailed Estimate

ITEM #	REF. SHEET	DETAIL	CSI SECT	DESCRIPTION	QTY.	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT ITEM COST	TOTAL ITEM COST	TRADE COST
			DIV-01	GENERAL							\$ -
1				Permit	1	0%	1	LS	\$ -		
2				Supervision	1	0%	1	LS	\$ -		
3				Final Cleanup	1	0%	1	LS	\$ -		
4				Mobilization Cost	1	0%	1	LS	\$ -		
5				Project Overheads	1	0%	1	LS	\$ -		
6				Bonds	1	0%	1	LS	\$ -		
7				Fees (Architect & Engineer)	1	0%	1	LS	\$ -		
8				Temporary Control & Facilities	1	0%	1	LS	\$ -		
			DIV-23	(HVAC) HEATING VENTILATING & AIR CONDITIONING							\$ -
				Mechanical Piping Insulation							
9				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 6" Length of pipe: 548 LF	860	10%	946	SF	\$ -		
10				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 4" Length of pipe: 114 LF	119	10%	131	SF	\$ -		
11				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 3" Length of pipe: 67 LF	53	10%	58	SF	\$ -		
12				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 2-1/2" Length of pipe: 209 LF	137	10%	150	SF	\$ -		
13				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 2" Length of pipe: 715 LF	374	10%	412	SF	\$ -		
14				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1-1/2" Length of pipe: 1516 LF	595	10%	655	SF	\$ -		
15				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1-1/4" Length of pipe: 1077 LF	352	10%	387	SF	\$ -		
16				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1" Length of pipe: 2133 LF	558	10%	614	SF	\$ -		
17				Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 3/4" Length of pipe: 196 LF	38	10%	42	SF	\$ -		
18	M-112 M-113 M-113A M-114 M-114A M-115	See Specification		Hot water return pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1/2" Length of pipe: 56 LF	7	10%	8	SF	\$ -		

ITEM #	REF. SHEET	DETAIL	CSI SECT	DESCRIPTION	QTY.	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT ITEM COST	TOTAL ITEM COST	TRADE COST
19	M-115 M-115A M-116 M-116A M-118 M-119	Sections		Cold water pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 2" Length of pipe: 57 LF	30	10%	33	SF		\$ -	
20				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 6" Length of pipe: 50 LF	79	10%	86	SF		\$ -	

ITEM #	REF. SHEET	DETAIL	CSI SECT	DESCRIPTION	QTY.	WASTAGE	QTY WITH WASTAGE	UNIT	UNIT ITEM COST	TOTAL ITEM COST	TRADE COST
21				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 4" Length of pipe: 75 LF	79	10%	86	SF		\$ -	
22				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 2-1/2" Length of pipe: 365 LF	239	10%	263	SF		\$ -	
23				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 2" Dia of pipe: 2" Length of pipe: 762 LF	399	10%	439	SF		\$ -	
24				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1-1/2" Length of pipe: 1349 LF	529	10%	582	SF		\$ -	
25				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1-1/4" Length of pipe: 1167 LF	382	10%	420	SF		\$ -	
26				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1" Length of pipe: 2865 LF	750	10%	825	SF		\$ -	
27				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 3/4" Length of pipe: 880 LF	173	10%	190	SF		\$ -	
28				Hot water supply pipes insulation Material: Mineral-fiber, preformed pipe insulation Thickness of material: 1" Dia of pipe: 1/2" Length of pipe: 65 LF	9	10%	9	SF		\$ -	
				Note: Insulation is assumed on all pipes							
SUB TOTAL										\$ -	\$ -
INSURANCE										0%	\$ -
OVERHEAD AND PROFIT										20%	\$ -
TOTAL BASE BID										\$ -	\$ -



- DRAWING NOTES**
1. SET UNIT HEATER SCHEDULE ON DRAWING M-112. PROVIDE 1/2" HWS (HORIZONTAL) PIPING (TYP.)
 2. BACKFLOW PREVENTER (BFP)
 3. PRESSURE REGULATING VALVE
 4. REFER TO M-112 FOR MEET/HEADER PIPE SIZES. NOT SHOWN ON THIS DRAWING
 5. PROVIDE WEST AND EAST 8" HOT WATER SUPPLY HEADERS APPROXIMATELY 1'-0" ON CENTER ABOVE FINISHED FLOOR. PROVIDE ZONE VALVES ON EACH SUPPLY HEADER AS INDICATED IN M-112. PROVIDE BRANCHES TO ZONES SPACED AS NEARLY AS POSSIBLE. LINE UP THE CENTER OF THE ZONE VALVES APPROXIMATELY 2'-0" ABOVE THE FINISHED FLOOR AND PROVIDE IDENTIFICATION TAGS OVER/CONTROL VALVES. REFER TO SECTION 2305 OF THE PROJECT MANUAL FOR TAG NAMES.
- FINNED TUBE RADIATOR LEGEND**
- A. ELEMENT LENGTH = 3'-0"
 - B. ELEMENT LENGTH = 4'-0"
 - C. ELEMENT LENGTH = 5'-0"
 - D. ELEMENT LENGTH = 6'-0"
 - E. ELEMENT LENGTH = 7'-0"
 - F. ELEMENT LENGTH = 8'-0"
 - G. ELEMENT LENGTH = 9'-0"
- CONVECTOR LEGEND**
- A. CONVECTOR
 - B. CONVECTOR
 - C. CONVECTOR
 - D. CONVECTOR
 - E. CONVECTOR
- GENERAL NOTES**
1. SEE DETAIL 12 ON M-112 FOR PIPE PENETRATION FIRESTOPPING. REFER TO C-CONTRACT FOR FIRE WALL CALCULATIONS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED.
 2. ALL PIPING SHALL BE RETAINED AS HIGH TO THE CEILING STRUCTURE AS POSSIBLE. APPROXIMATELY 1'-0" ABOVE THE FINISHED FLOOR. HORIZONTAL HEADERS SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE.
 3. ACM PIPE INSULATION ON CITY WATER LINES IN THIS FLOOR IS BEING REMOVED UNDER THE C-CONTRACT. COORDINATE WORK WITH ACM REMOVAL AND PROVIDE NEW INSULATION ON CITY WATER PIPES. REFER TO M-112 FOR CITY WATER PIPE LOCATIONS.

Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

rmf

RMF ENGINEERING, P.C.
14 PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
THE ALTERATION OF THIS MATERIAL IN ANY WAY WITHOUT THE WRITTEN CONSENT OF A REGISTERED PROFESSIONAL ENGINEER OR ARCHITECT IS A VIOLATION OF THE NEW YORK STATE ENGINEERING AND ARCHITECTURE ACTS. ANY VIOLATION OF THE NEW YORK STATE ENGINEERING AND ARCHITECTURE ACTS IS A VIOLATION OF THE NEW YORK STATE ENGINEERING AND ARCHITECTURE ACTS.

NYS ENERGY CODE STATEMENT:

1. THE UNDERSIGNED, IN HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, THE INFORMATION SHOWN ON THESE DRAWINGS AND SPECIFICATIONS IS A TRUE AND CORRECT REPRESENTATION OF THE DESIGN AND CONSTRUCTION OF THE PROJECT.

CONTRACT

HVAC

TITLE REPLACE HEATING SYSTEM AND WINDOWS (NATE HOUSING BUILDING NO. 21-2)

LOCATION FISHKILL CORRECTIONAL FACILITY 18 STRACK DRIVE BEACON, NY 12508

CLIENT DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

PROJECT NUMBER 44701-H

OWNER BY DM

DESIGN BY RMF

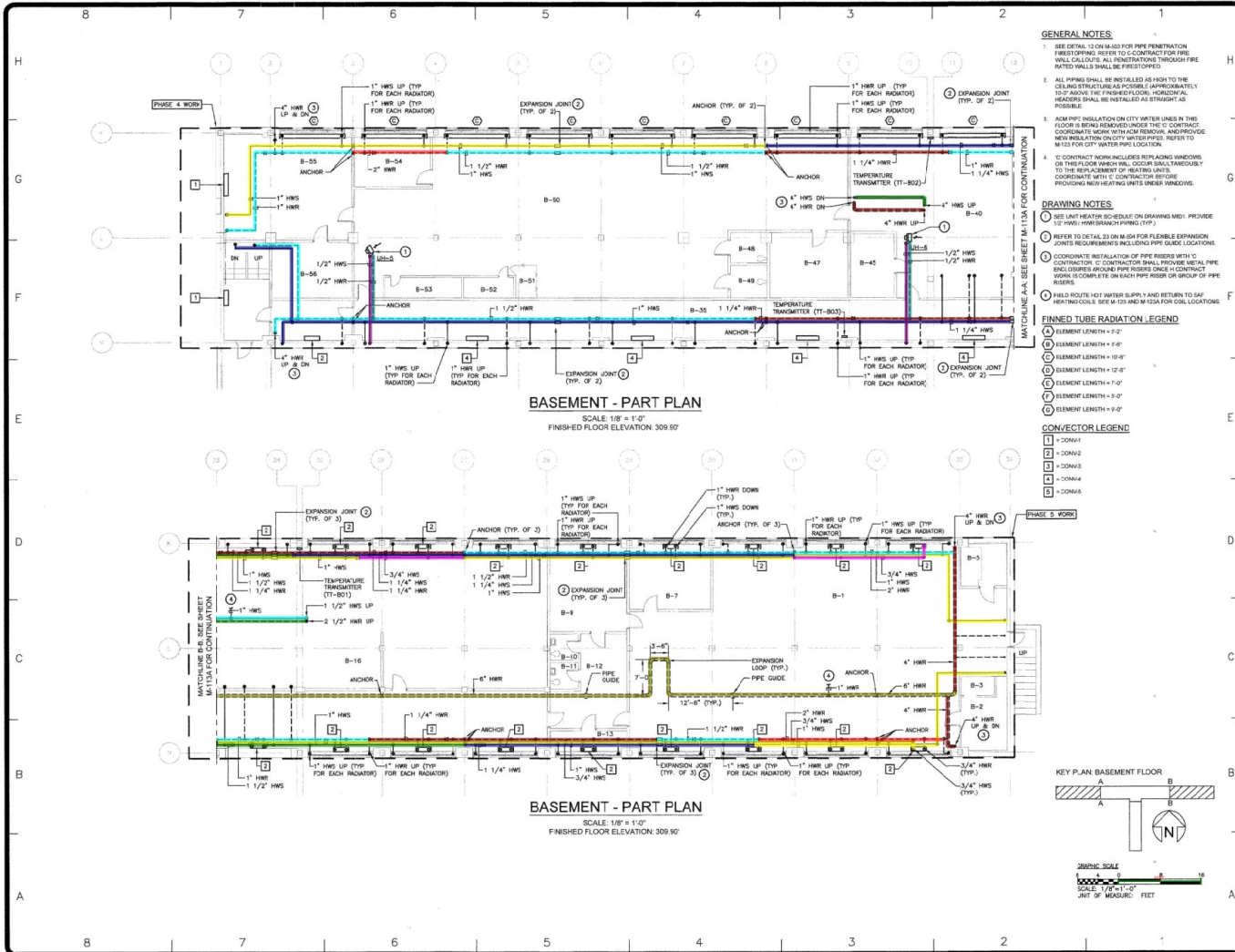
FIELD CHECK

APPROVED

SHEET TITLE SUB-BASEMENT - PART PLAN - EL. 297.87

DRAWING NUMBER M-112

SHEET 17 OF 125



- GENERAL NOTES:**
- SEE DETAIL 12 ON M-103 FOR PIPE PENETRATION THROUGH FLOOR. REFER TO CONTRACTOR FOR FIRE WALL CALCULATIONS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED.
 - ALL PIPES SHALL BE INSTALLED AS HIGH TO THE CEILING STRUCTURE AS POSSIBLE. APPROXIMATELY 10'-0" ABOVE THE FINISHED FLOOR. HORIZONTAL HEADERS SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE.
 - ALL PIPES SHALL BE INSTALLED AS HIGH TO THE CEILING STRUCTURE AS POSSIBLE. APPROXIMATELY 10'-0" ABOVE THE FINISHED FLOOR. HORIZONTAL HEADERS SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE.
 - ALL PIPES SHALL BE INSTALLED AS HIGH TO THE CEILING STRUCTURE AS POSSIBLE. APPROXIMATELY 10'-0" ABOVE THE FINISHED FLOOR. HORIZONTAL HEADERS SHALL BE INSTALLED AS STRAIGHT AS POSSIBLE.
- DRAWING NOTES:**
- SEE UNIT HEATER SCHEDULE ON DRAWING M-103. PROVIDE 1/2" HWS HWS BRANCH PIPING (TYP.).
 - REFER TO DETAIL 23 ON M-104 FOR FLEXIBLE EXPANSION JOINTS. REQUIREMENTS INCLUDING PIPE GUIDE LOCATIONS.
 - COORDINATE INSTALLATION OF PIPE RISERS WITH 'C' CONTRACTOR. 'C' CONTRACTOR SHALL PROVIDE METAL PIPE ENCL. DISBURS. AROUND PIPE RISERS ONCE 'C' CONTRACTOR WORK IS COMPLETE ON EACH PIPE RISER OR GROUP OF PIPE RISERS.
 - FIELD ROUTE HOT WATER SUPPLY AND RETURN TO SAV. HEATING COILS. SEE M-103 AND M-104 FOR COIL LOCATIONS.
- FINNED TUBE RADIATOR LEGEND**
- ELEMENT LENGTH = 2'-0"
 - ELEMENT LENGTH = 2'-0"
 - ELEMENT LENGTH = 10'-0"
 - ELEMENT LENGTH = 12'-0"
 - ELEMENT LENGTH = 12'-0"
 - ELEMENT LENGTH = 12'-0"
 - ELEMENT LENGTH = 12'-0"
 - ELEMENT LENGTH = 12'-0"
- CONVECTOR LEGEND**
- CONV-1
 - CONV-2
 - CONV-3
 - CONV-4
 - CONV-5

Office of General Services

DESIGN & CONSTRUCTION

rmf

RMF ENGINEERING, P.C.
10 PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
THE ATTENTION OF THE MATERIALS AND METHOD OF CONSTRUCTION SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE PROTECTION OF ALL EXISTING UTILITIES AND STRUCTURES.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, THE INFORMATION SHOWN ON THIS DRAWING AND SPECIFICATIONS HEREON, MY SEAL, SIGNED WITH THE PROPER REQUIREMENTS OF THE NEW YORK STATE ENERGY CONSERVATION CODE.

CONTRACT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY 19 STRACK DRIVE BEACON, NY 12508

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

PROJECT NUMBER: 44701-H

DESIGNER: RMF

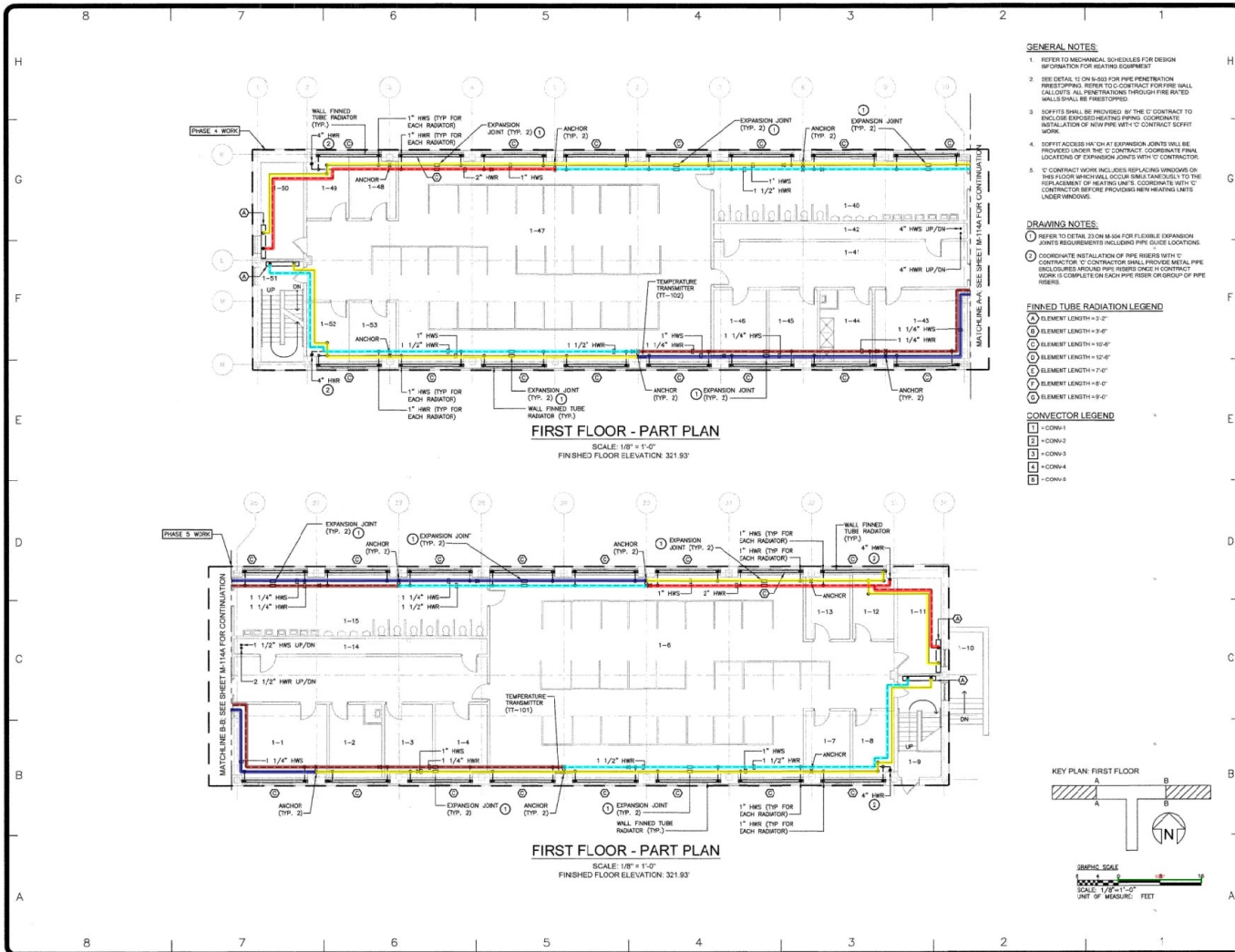
FIELD CHECK:

APPROVED:

PROJECT TITLE: BASEMENT - PART PLAN - EL. 309.90'

DRAWING NUMBER: M-113

SHEET 79 OF 138



GENERAL NOTES

1. REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
2. SEE DETAIL 11 ON M-503 FOR PIPE PENETRATION THROUGH WALL. REFER TO CONTRACT FOR FIRE RATED WALLS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED.
3. SOFFITS SHALL BE PROVIDED BY THE 'C' CONTRACT TO ENCLOSE EXPOSED HEATING PIPING COMPONENTS. INSTALLATION OF NEW PIPE WITH 'C' CONTRACT SOFFIT WORK.
4. SOFFIT ACCESS HATCH AT EXPANSION JOINTS WILL BE PROVIDED UNDER THE 'C' CONTRACT. COORDINATE FINAL LOCATION OF EXPANSION JOINTS WITH 'C' CONTRACTOR.
5. 'C' CONTRACT WORK INCLUDES REPLACING WINDOWS ON THE FLOOR WHERE WALLS OCCUR. COORDINATE WITH 'C' CONTRACTOR BEFORE PROVIDING NEW HEATING UNITS UNDER WINDOWS.

DRAWING NOTES

1. REFER TO DETAIL 23 ON M-504 FOR FLEXIBLE EXPANSION JOINT REQUIREMENTS INCLUDING PIPE JOINT LOCATIONS.
2. COORDINATE INSTALLATION OF PIPE RISERS WITH 'C' CONTRACTOR. 'C' CONTRACTOR SHALL PROVIDE METAL PIPE ENCLOSURES AROUND PIPE RISERS ONCE 'C' CONTRACT WORK IS COMPLETE ON EACH FIVE RISER GROUP OF PIPE RISERS.

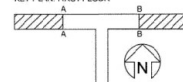
FINNED TUBE RADIATION LEGEND

- A. ELEMENT LENGTH = 3'-0"
- B. ELEMENT LENGTH = 3'-6"
- C. ELEMENT LENGTH = 4'-0"
- D. ELEMENT LENGTH = 4'-6"
- E. ELEMENT LENGTH = 5'-0"
- F. ELEMENT LENGTH = 5'-6"
- G. ELEMENT LENGTH = 6'-0"
- H. ELEMENT LENGTH = 6'-6"

CONVECTOR LEGEND

- I. CONV-1
- II. CONV-2
- III. CONV-3
- IV. CONV-4
- V. CONV-5

KEY PLAN: FIRST FLOOR



GRAPHIC SCALE
SCALE: 1/8" = 1'-0"
UNIT: 50' MEASURE: FEET

Office of General Services
DESIGN & CONSTRUCTION

CONSULTANT

rmf
RMF ENGINEERING, P.C.
14 PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
NO ALTERATION OF THIS DESIGN OR ANY PART HEREOF SHALL BE MADE WITHOUT THE WRITTEN CONSENT OF THE DESIGNER. ANY SUCH ALTERATION SHALL BE AT THE USER'S SOLE RISK AND WITHOUT LIABILITY TO THE DESIGNER.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, THE INFORMATION CONTAINED HEREIN IS ACCURATE AND COMPLETE FOR THE PURPOSES OF THE NYS ENERGY CODE. I AM A LICENSED PROFESSIONAL ENGINEER AND I AM A CLASS 'A' MECHANICAL.

PROJECT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY 18 STRACK DRIVE BEACON, NY 12508

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

DATE	BY	DESCRIPTION
5/25/19	RMF	ISSUED FOR CONSTRUCTION

PROJECT NUMBER: 44701-H

DESIGNED BY: RMF

DRAWN BY: RMF

FIELD CHECK: RMF

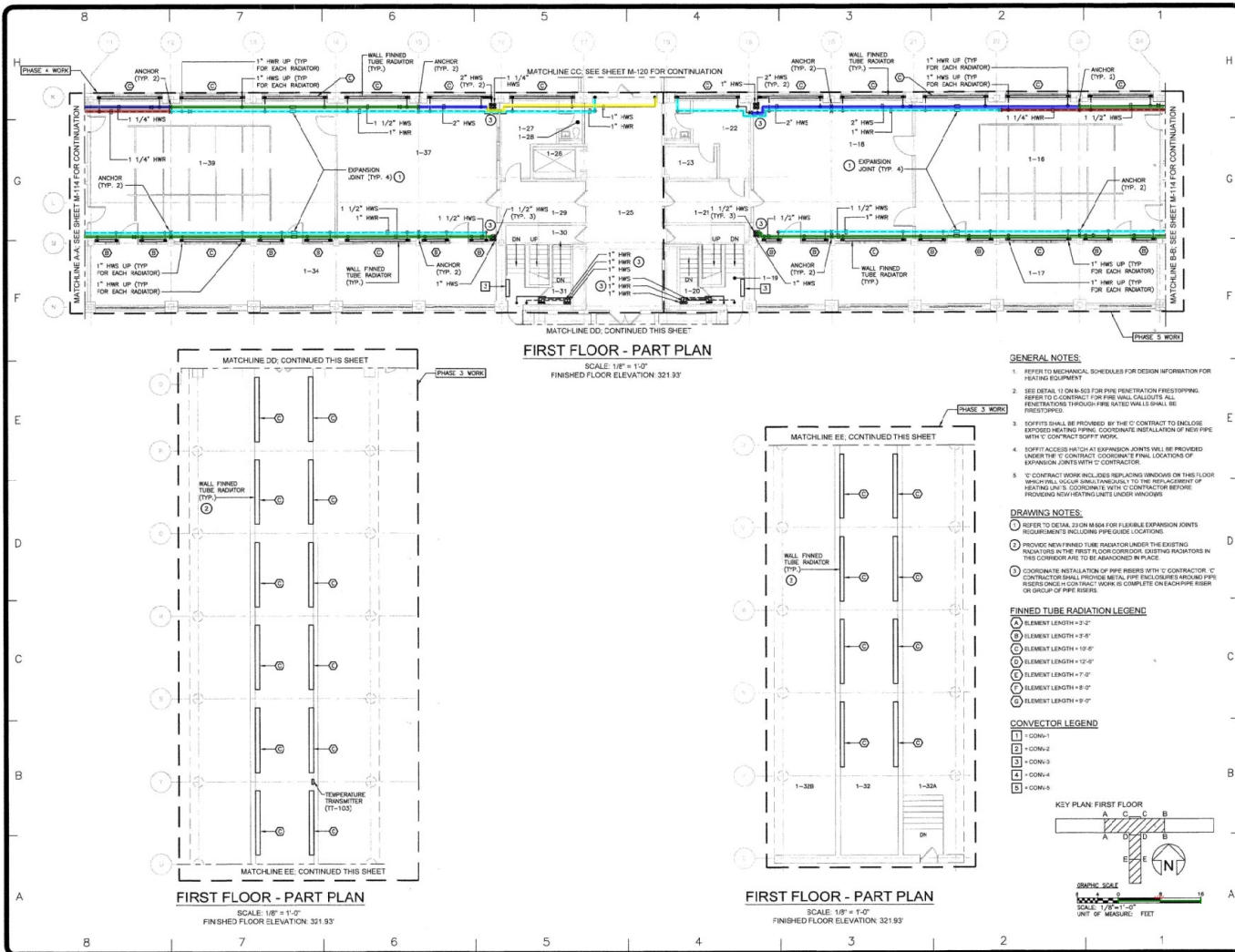
APPROVED: RMF

SHEET TITLE:

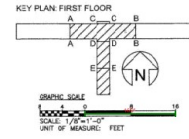
FIRST FLOOR - PART PLAN - EL. 321.93

DRAWING NUMBER: M-114

SHEET #1 OF 12



- GENERAL NOTES:**
1. REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
 2. SEE DETAIL 11 ON N-503 FOR PIPE PENETRATION FIRESTOPPING. REFER TO 'C' CONTRACT FOR PIPE WALL CALCULATIONS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED.
 3. EXPANSION JOINTS SHALL BE PROVIDED BY THE 'C' CONTRACT TO INCLUDE EXPOSED HEATING PIPING. COORDINATE INSTALLATION OF NEW PIPE WITH 'C' CONTRACTOR'S WORK.
 4. VERIFY ACCESS HATCH AT EXPANSION JOINTS WILL BE PROVIDED UNDER THE 'C' CONTRACT. COORDINATE FINAL LOCATIONS OF EXPANSION JOINTS WITH 'C' CONTRACTOR.
 5. 'C' CONTRACT WORK INCLUDES REPLACING WINDOWS ON THIS FLOOR WHICH ARE DAMAGED OR INOPERABLE TO THE REPLACEMENT OF HEATING UNITS. COORDINATE WITH 'C' CONTRACTOR BEFORE REMOVING NEW HEATING UNITS UNDER WINDOWS.
- DRAWING NOTES:**
1. REFER TO DETAIL 22 ON N-503 FOR FLEXIBLE EXPANSION JOINTS. REQUIREMENTS INCLUDING PIPE GUIDE LOCATIONS.
 2. PROVIDE NEW FINISHED FLOOR UNDER THE EXISTING RADIATORS IN THE FIRST FLOOR CORRIDOR. EXISTING RADIATORS IN THIS CORRIDOR ARE TO BE ABANDONED IN PLACE.
 3. COORDINATE INSTALLATION OF PIPE RISERS WITH 'C' CONTRACTOR. 'C' CONTRACTOR SHALL PROVIDE ALL PIPE ENDS OUTSIDE OF THE RISER. UNDER NO CIRCUMSTANCES SHALL PIPE ENDS BE LEFT OUTSIDE OF THE RISER OR GROUP OF PIPE RISERS.
- FINISHED TUBE RADIATION LEGEND:**
- 1 ELEMENT LENGTH = 2'-0"
 - 2 ELEMENT LENGTH = 3'-0"
 - 3 ELEMENT LENGTH = 4'-0"
 - 4 ELEMENT LENGTH = 5'-0"
 - 5 ELEMENT LENGTH = 6'-0"
 - 6 ELEMENT LENGTH = 7'-0"
 - 7 ELEMENT LENGTH = 8'-0"
 - 8 ELEMENT LENGTH = 9'-0"
- CONVECTOR LEGEND:**
- 1 CON-1
 - 2 CON-2
 - 3 CON-3
 - 4 CON-4
 - 5 CON-5



Office of General Services

DESIGN & CONSTRUCTION

CONSULTANT

RMF ENGINEERING, P.C.
1A PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
THE AUTHOR OF THIS MATERIAL, IN ANY WAY, MAKES NO WARRANTY, REPRESENTATION OR GUARANTEE, AND ACCEPTS NO LIABILITY FOR ANY LOSS OR DAMAGE, INCLUDING REASONABLE ATTORNEY'S FEES, ARISING FROM THE USE OF THIS MATERIAL, WHETHER OR NOT SUCH LOSS OR DAMAGE COULD BE FORESEEN OR REASONABLY ANTICIPATED.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF AND PROFESSIONAL JUDGMENT, THE INFORMATION HEREON IS TRUE, CORRECT AND ACCURATE, AND THAT I AM A LICENSED PROFESSIONAL ENGINEER IN THE STATE OF NEW YORK.

CONTRACT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY 18 STRUCK DRIVE BEACON, NY, 12508

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

DATE	BY	DESCRIPTION
4/27/01	RMF	44701-H

PROJECT NUMBER: 44701-H

DESIGNED BY: RMF

DRAWN BY: RMF

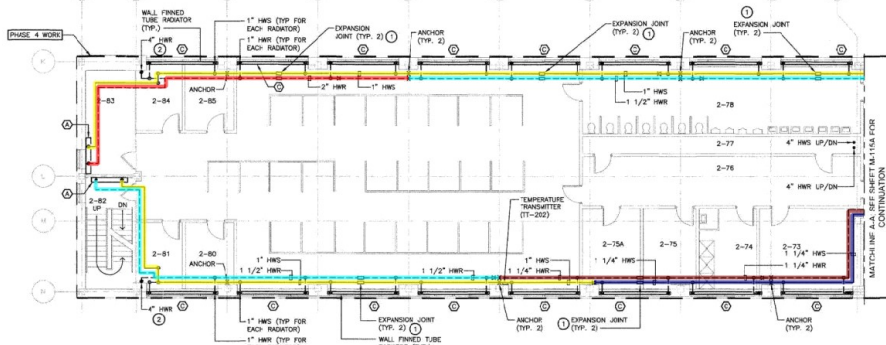
CHECKED BY: RMF

APPROVED BY: RMF

SHEET TITLE: FIRST FLOOR - PART PLAN - EL. 321.93'

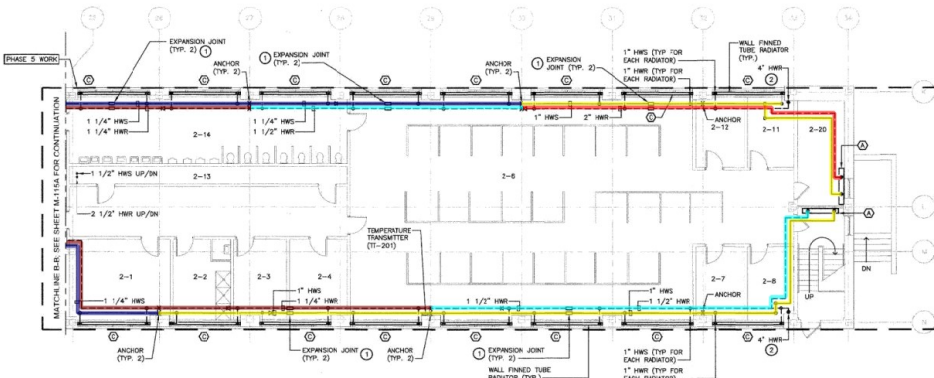
DRAWING NUMBER: M-114A

SHEET 03 OF 103



SECOND FLOOR - PART PLAN

SCALE: 1/8" = 1'-0"
FINISHED FLOOR ELEVATION: 333.96'



SECOND FLOOR - PART PLAN

SCALE: 1/8" = 1'-0"
FINISHED FLOOR ELEVATION: 333.96'

GENERAL NOTES:

1. REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
2. SEE DETAIL 12.04A-03 FOR PIPE PENETRATION PRESTRESSING. REFER TO CONTRACT FOR FIRE RATED WALLS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPING.
3. SOFFITS SHALL BE PROVIDED BY THE CONTRACTOR TO EXPOSE EXISTING HEATING PIPES COORDINATE INSTALLATION OF NEW PIPES WITH CONTRACT SOFFIT WORK.
4. SOFFIT ACCESS HATCH AT EXPANSION JOINTS WILL BE PROVIDED UNDER THE CONTRACT COORDINATE FINAL LOCATIONS OF EXPANSION JOINTS WITH CONTRACTOR.
5. CONTRACT WORK INCLUDES REPLACING WINDOWS ON THIS FLOOR WHICH WILL OCCUR SIMULTANEOUSLY TO THE REPLACEMENT OF HEATING UNITS. COORDINATE WITH CONTRACTOR BEFORE PROVIDING NEW HEATING UNITS UNDER WINDOWS.

DRAWING NOTES:

1. REFER TO DETAIL 12.04 FOR FLEXIBLE EXPANSION JOINTS REQUIREMENTS INCLUDING PIPE GUIDE LOCATIONS.
2. COORDINATE INSTALLATION OF PIPE RISERS WITH CONTRACTOR. CONTRACTOR SHALL PROVIDE METAL PIPE WALL GUARDS AROUND PIPE RISERS EACH ACCORDING TO WORK IS COMPLETED ON EACH PIPE RISER OR GROUP OF PIPE RISERS.

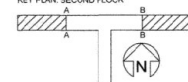
FINNED TUBE RADIATION LEGEND

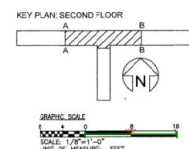
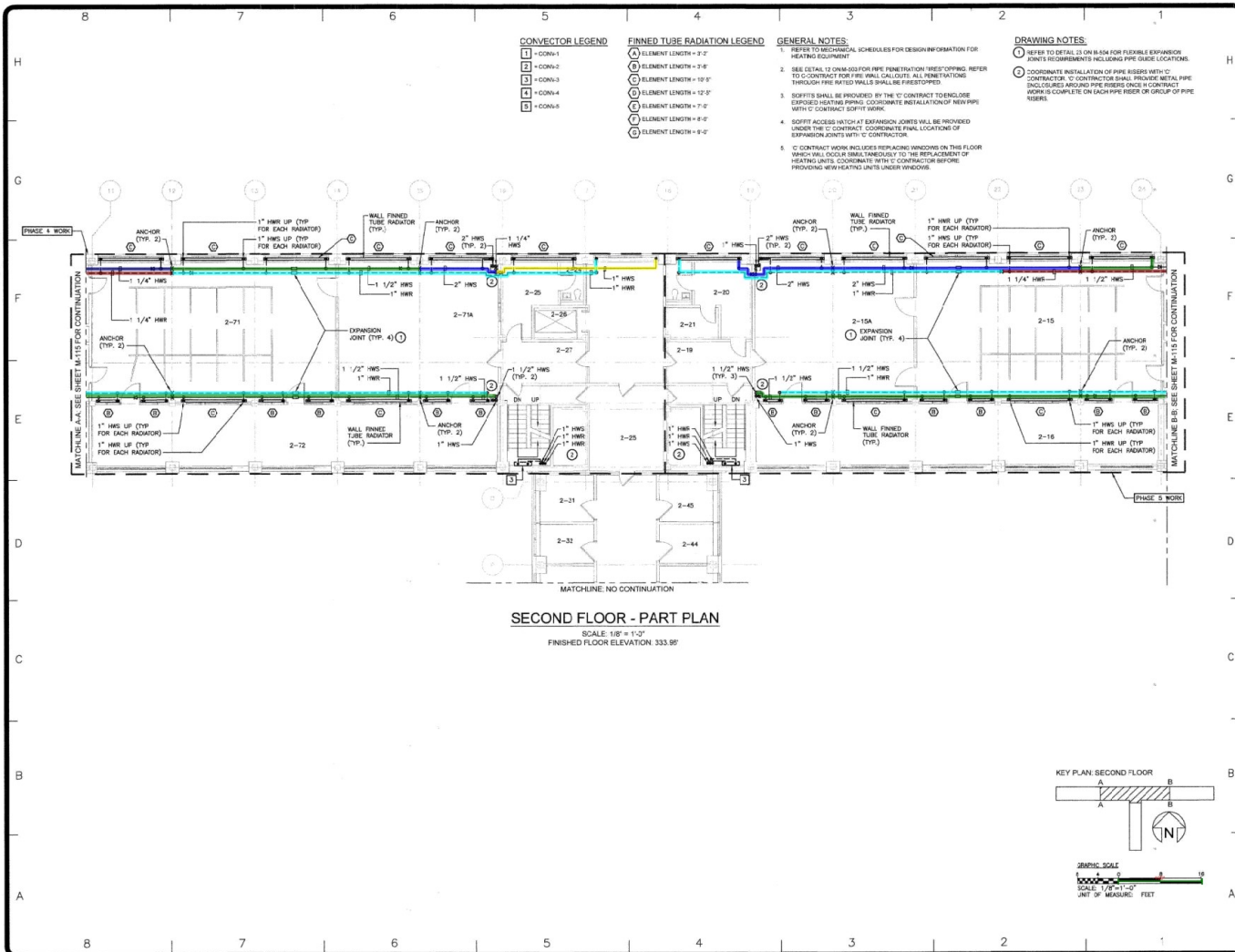
- 1. ELEMENT LENGTH = 3'-2"
- 2. ELEMENT LENGTH = 3'-4"
- 3. ELEMENT LENGTH = 10'-0"
- 4. ELEMENT LENGTH = 12'-0"
- 5. ELEMENT LENGTH = 7'-0"
- 6. ELEMENT LENGTH = 8'-0"
- 7. ELEMENT LENGTH = 9'-0"

CONVECTOR LEGEND

- 1. CON-1
- 2. CON-2
- 3. CON-3
- 4. CON-4
- 5. CON-5

KEY PLAN: SECOND FLOOR





Office of
General Services

DESIGN & CONSTRUCTION

CONSULTANT

rmf
 RMF ENGINEERING, P.C.
 1A PINE WEST PLAZA
 ALBANY, NY 12205

WARNING:
 THE ACTIVATION OF THE MATERIAL IN ANY WAY
 WITHOUT SOME OTHER THE OPERATION OF A COMPLIANT
 INTERFERING, IS PROHIBITED. IF AN INTERFERING
 FOR A LANDSCAPE PROJECT, IS A VIOLATION OF THE
 NEW YORK STATE ELECTION LAW AND/OR REGULATION
 AND IS A CLASS "C" VIOLATION.

NYS ENERGY CODE STATEMENT:
 I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST
 OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT,
 THE INFORMATION SHOWN ON THIS DRAWING AND
 SPECIFICATIONS BEARING MY SEAL, COMPLIED WITH THE
 APPLICABLE REQUIREMENTS OF THE NEW YORK STATE ENERGY
 CONSERVATION CODE.

CONTRACT: HVAC

TITLE: REPLACE HEATING SYSTEM
 AND WINDOWS INMATE HOUSING
 BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY
 18 STRACK DRIVE
 BEACON, NY, 12508

CLIENT: DEPARTMENT OF CORRECTIONS
 AND COMMUNITY SERVICE

DATE	BY	DESCRIPTION
8/26/19	RMF	ISSUED

PROJECT NUMBER: 44701-H

DESIGNED BY: RMF

DRAWN BY: RMF

CHECKED BY: RMF

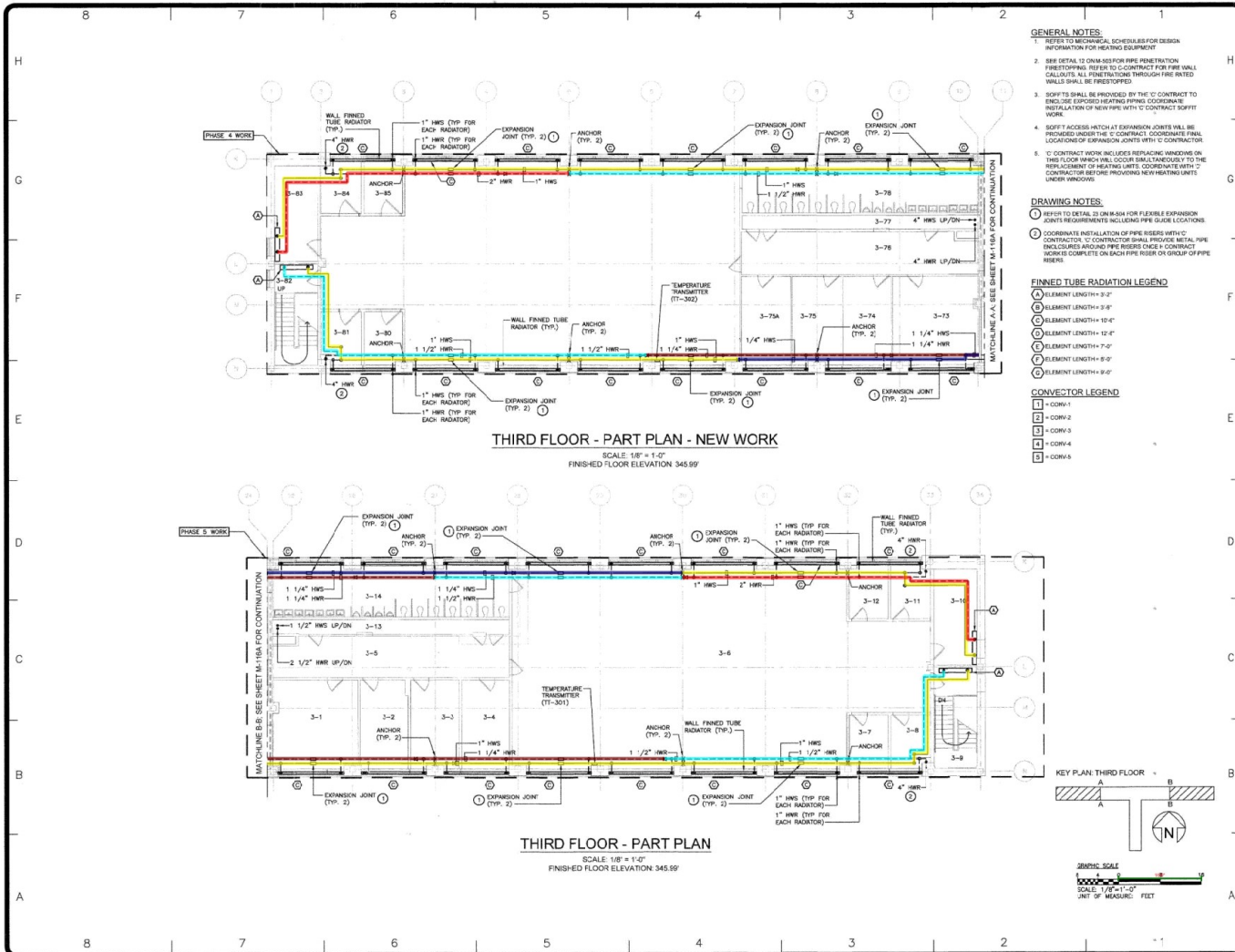
APPROVED BY: RMF

DATE: 8/26/19

PROJECT TITLE: SECOND FLOOR - PART PLAN - EL. 333.98'

DRAWING NUMBER: M-115A

SHEET 04 OF 10



- GENERAL NOTES:**
- REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
 - SEE DETAIL 12 ON M-116 FOR PIPE PENETRATION FINE TOPPING. REFER TO CONTRACT FOR FIRE WALL CALLOUTS. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FINE TOPPED.
 - SOFFITS SHALL BE PROVIDED BY THE 'C' CONTRACT TO ENCLOSE EXPOSED HEATING PIPES. COORDINATE INSTALLATION OF NEW PIPE WITH 'C' CONTRACT SOFFIT WORK.
 - SOFFIT ACCESS HATCH AT EXPANSION JOINTS WILL BE PROVIDED UNDER THE 'C' CONTRACT. COORDINATE FINAL LOCATION OF EXPANSION JOINTS WITH 'C' CONTRACTOR.
 - 'C' CONTRACT WORK INCLUDES REPLACING WINDOWS ON THIS FLOOR HANGING WALLS (BUT NOT INCLUDING THE REPLACEMENT OF HEATING UNITS. COORDINATE WITH 'C' CONTRACTOR BEFORE PROVIDING NEW HEATING UNITS UNDER WINDOWS.
- DRAWING NOTES:**
- REFER TO DETAIL 12 ON M-116 FOR FLEXIBLE EXPANSION JOINT REQUIREMENTS INCLUDING PIPE GUIDE LOCATIONS.
 - COORDINATE INSTALLATION OF PIPE RISERS WITH 'C' CONTRACTOR. 'C' CONTRACTOR SHALL PROVIDE METAL PIPE ENCLLOSURE AROUND PIPE RISERS ONCE 'C' CONTRACT WORK IS COMPLETE ON EACH PIPE RISER OR GROUP OF PIPE RISERS.
- FINNED TUBE RADIATION LEGEND:**
- ① ELEMENT LENGTH = 3'-2"
 - ② ELEMENT LENGTH = 2'-0"
 - ③ ELEMENT LENGTH = 10'-0"
 - ④ ELEMENT LENGTH = 12'-0"
 - ⑤ ELEMENT LENGTH = 7'-0"
 - ⑥ ELEMENT LENGTH = 8'-0"
 - ⑦ ELEMENT LENGTH = 9'-0"
- CONVECTOR LEGEND:**
- ① = CONV-1
 - ② = CONV-2
 - ③ = CONV-3
 - ④ = CONV-4
 - ⑤ = CONV-5

Office of General Services
DESIGN & CONSTRUCTION

CONSULTANT

rmf
RMF ENGINEERING, P.C.
24 PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
THE ATTENTION OF THE READER IS HEREBY ALERTED THAT THE DESIGN OF A COMPARABLE PROFESSIONAL IS REQUIRED FOR AN ADVERTISED PROJECT FOR A LARGER PROJECT. IS A VIOLATION OF THE NEW YORK STATE ENGINEERING AND SURVEYING LAW AND IS A CLASS 'A' VIOLATION.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, SKILL, AND PROFESSIONAL JUDGMENT, THE INFORMATION SHOWN ON THIS DRAWING AND SPECIFICATIONS ACCORDS WITH THE LATEST EDITION OF THE NYS ENERGY CODE, AND IS IN ACCORDANCE WITH THE NYS ENERGY CONSERVATION CODE.

PROJECT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY
18 STRUCK DRIVE
BEACON, NY, 12508

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

DATE	BY	DESCRIPTION
01/05/19	RMF	ISSUED

PROJECT NUMBER: 44701-H

DESIGN BY: RMF

FIELD CHECK:

APPROVED:

THIRD FLOOR - PART PLAN - EL. 345.99

DRAWING NUMBER: M-116

SHEET NO. 07 OF 128

CONVECTOR LEGEND

- 1 = CONV-1
- 2 = CONV-2
- 3 = CONV-3
- 4 = CONV-4
- 5 = CONV-5

FINNED TUBE RADIATION LEGEND

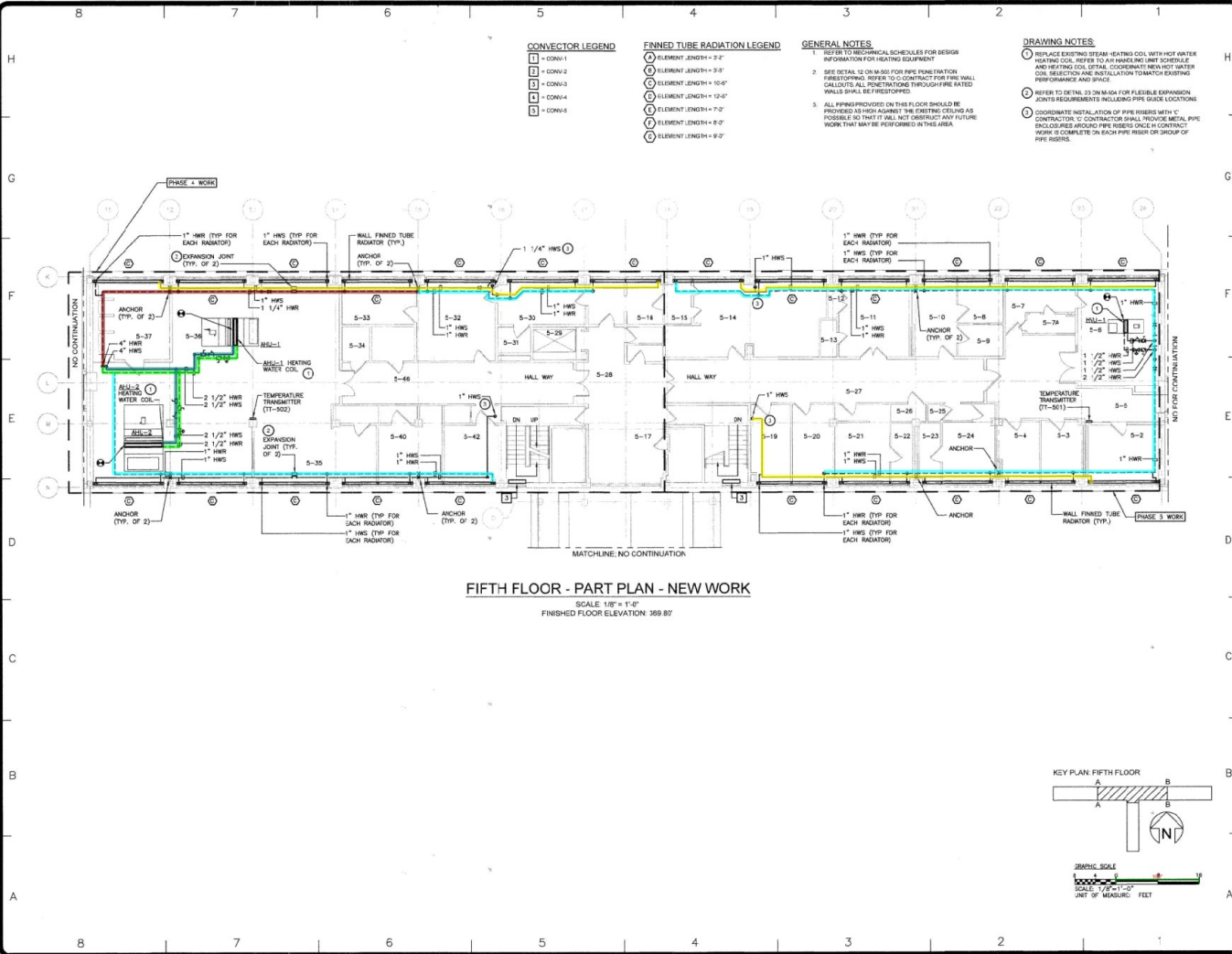
- 6 = ELEMENT LENGTH = 7'-2"
- 7 = ELEMENT LENGTH = 9'-0"
- 8 = ELEMENT LENGTH = 10'-0"
- 9 = ELEMENT LENGTH = 12'-0"
- 10 = ELEMENT LENGTH = 7'-0"
- 11 = ELEMENT LENGTH = 9'-0"
- 12 = ELEMENT LENGTH = 9'-0"

GENERAL NOTES

1. REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
2. SEE DETAIL 32 ON M-104 FOR PIPE PENETRATION THROUGH FLOOR. FOR FLOOR PENETRATION THROUGH FIRE RATED WALLS SHALL BE RESTORED.
3. ALL PIPING PROVIDED ON THIS FLOOR SHOULD BE PROVIDED AS HIGH AGAINST THE EXISTING CEILING AS POSSIBLE SO THAT IT WILL NOT OBSTRUCT ANY FUTURE WORK THAT MAY BE PERFORMED IN THIS AREA.

DRAWING NOTES

1. REPLACE EXISTING HEAT-HEATING COIL WITH HOT WATER HEATING COIL. REFER TO AIR HANDLING UNIT SCHEDULE AND HEATING COIL DETAIL. COORDINATE WITH HOT WATER COIL SELECTION AND INSTALLATION TO MATCH EXISTING PERFORMANCE AND SPACE.
2. REFER TO DETAIL 32 ON M-104 FOR FLEXIBLE EXPANSION JOINTS REQUIREMENTS INCLUDING PIPE GUIDES LOCATIONS.
3. COORDINATE INSTALLATION OF PIPE RISERS WITH "C" CONTRACTOR. "C" CONTRACTOR SHALL PROVIDE METAL PIPE ENCLOSURE AROUND PIPE RISERS ONCE "C" CONTRACTOR WORK IS COMPLETE ON EACH PIPE RISER OR GROUP OF PIPE RISERS.



DESIGN & CONSTRUCTION

rmf

RMF ENGINEERING, P.C.
1A PINE WEST PLAZA
ALBANY, NY 12205

WARNING:
THE ACTIVATION OF THIS MATERIAL IN ANY WAY MAY BE DONE UNDER THE DIRECTION OF A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT. FOR A LICENSED PROFESSIONAL ENGINEER OR ARCHITECT, THIS MATERIAL IS A WARNING OF THE NEW YORK STATE EMISSIONS LAW AND THE EMISSIONS OF THE NEW YORK STATE EMISSIONS CODE.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, THE INFORMATION SHOWN ON THESE DRAWINGS AND THE SPECIFICATIONS SHOWN BY THIS DRAWING IS IN ACCORDANCE WITH THE REQUIREMENTS OF THE NEW YORK STATE ENERGY CONSERVATION CODE.

PROJECT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY 18 STRACK DRIVE BEACON, NY, 12508

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

DATE	NO. REVISION	DESCRIPTION
05/05/16	1	ISSUED FOR PERMIT

PROJECT NUMBER: 44701-H

DESIGNED BY: JMB

DRAWN BY: HMB

CHECKED BY: JMB

APPROVED BY: JMB

SHEET TITLE: FIFTH FLOOR - PART PLAN - EL. 369.80'

DRAWING NUMBER: M-118

SHEET NO. OF 125

CONVECTOR LEGEND

- 1 = CONVECT-1
- 2 = CONVECT-2
- 3 = CONVECT-3
- 4 = CONVECT-4
- 5 = CONVECT-5

FINNED TUBE RADIATION LEGEND

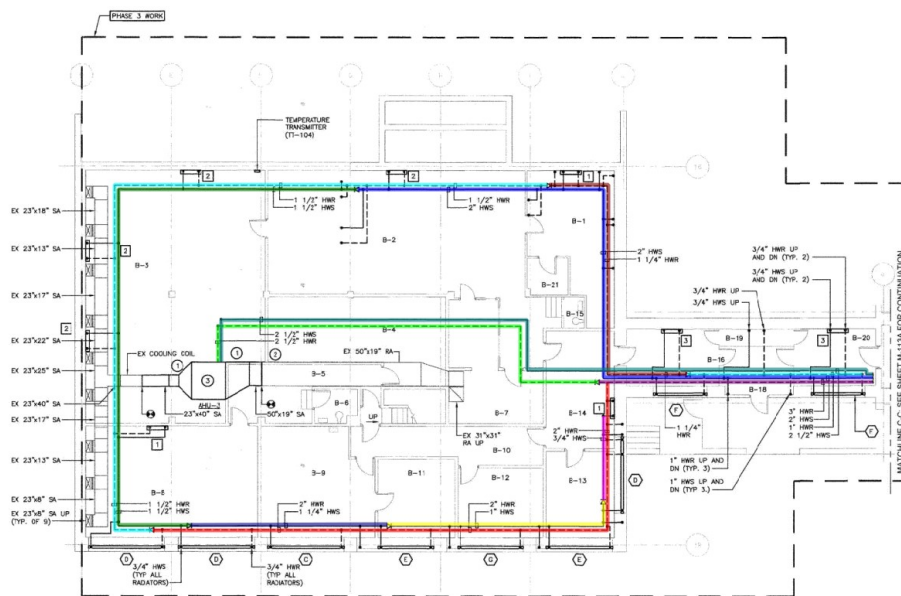
- 1 = ELEMENT LENGTH = 3'-0"
- 2 = ELEMENT LENGTH = 3'-6"
- 3 = ELEMENT LENGTH = 4'-0"
- 4 = ELEMENT LENGTH = 4'-6"
- 5 = ELEMENT LENGTH = 5'-0"
- 6 = ELEMENT LENGTH = 5'-6"
- 7 = ELEMENT LENGTH = 6'-0"
- 8 = ELEMENT LENGTH = 6'-6"
- 9 = ELEMENT LENGTH = 7'-0"

GENERAL NOTES

1. REFER TO MECHANICAL SCHEDULES FOR DESIGN INFORMATION FOR HEATING EQUIPMENT.
2. SEE DETAIL 12 ON M-109 FOR FINE PENETRATION. PRESTOPPING REFER TO CONTRACT FOR FIRE RALLS CALLED OUT. ALL PENETRATIONS THROUGH FIRE RATED WALLS SHALL BE FIRESTOPPED.
3. 'C' CONTRACT WORK INCLUDES REPLACING UNWORKING ON THIS FLOOR WHICH WILL OCCUR SIMULTANEOUSLY TO THE REPLACEMENT OF HEATING UNITS. COORDINATE WITH 'C' CONTRACTOR BEFORE PROVIDING NEW HEATING UNITS UNDER WINDOWS.

DRAWING NOTES

- 1. TRANSITION TO FULL SIZE UNIT OPENING.
- 2. MIN 1/4" GUTTERWORK BELOW STRUCTURE.
- 3. REFER TO M-109 FOR R/W DUTY.



BLDG 21A - BASEMENT - PART PLAN
SCALE: 1/8" = 1'-0"
FINISHED FLOOR ELEVATION: 309.90'

KEY PLAN: BASEMENT C-1, C

GRAPHIC SCALE
SCALE: 1/8" = 1'-0"
UNIT OF MEASURE: FEET

Office of
General Services

DESIGN & CONSTRUCTION

rmf

RMF ENGINEERING, P.C.
1A PINE WEST PLAZA
ALBANY, NY 12205

CONSULTANT

WARNING:
THE ALTERATION OF THE MATERIAL IN ANY WAY, UNLESS DONE UNDER THE DIRECTION OF A COMPETENT PROFESSIONAL, IS PROHIBITED FOR AN INDIVIDUAL. INDIVIDUALS FOR AN INDIVIDUAL IN UNDESIRABLE MANNER FOR A LANSKAP PROJECT. IS A VIOLATION OF THE AND IS A CLASS 'C' VIOLATION.

NYS ENERGY CODE STATEMENT:
I, THE UNDERSIGNED, DO HEREBY CERTIFY THAT TO THE BEST OF MY KNOWLEDGE, BELIEF, AND PROFESSIONAL JUDGMENT, THE INFORMATION SHOWN ON THESE DRAWINGS AND SPECIFICATIONS, INCLUDING ANY CALCULATIONS, MEETS THE APPLICABLE REQUIREMENTS OF THE NEW YORK STATE ENERGY CONSERVATION CODE.

PROJECT: HVAC

TITLE: REPLACE HEATING SYSTEM AND WINDOWS INMATE HOUSING BUILDING NO. 21-2

LOCATION: FISHKILL CORRECTIONAL FACILITY 18 STRACK DRIVE BEACON, NY, 12208

CLIENT: DEPARTMENT OF CORRECTIONS AND COMMUNITY SERVICE

DATE	BY	DESCRIPTION
8/15/19	MD	DOCUMENT

PROJECT NUMBER: 44701-H

DESIGNED BY: JRM

DRAWN BY: RMF

CHECKED BY:

APPROVED:

SHEET TITLE:

BLDG 21A - BASEMENT - PART PLAN - EL. 309.90

DRAWING NUMBER: M-119

SHEET NO.: 18 OF 128