

BUILDING SP-132

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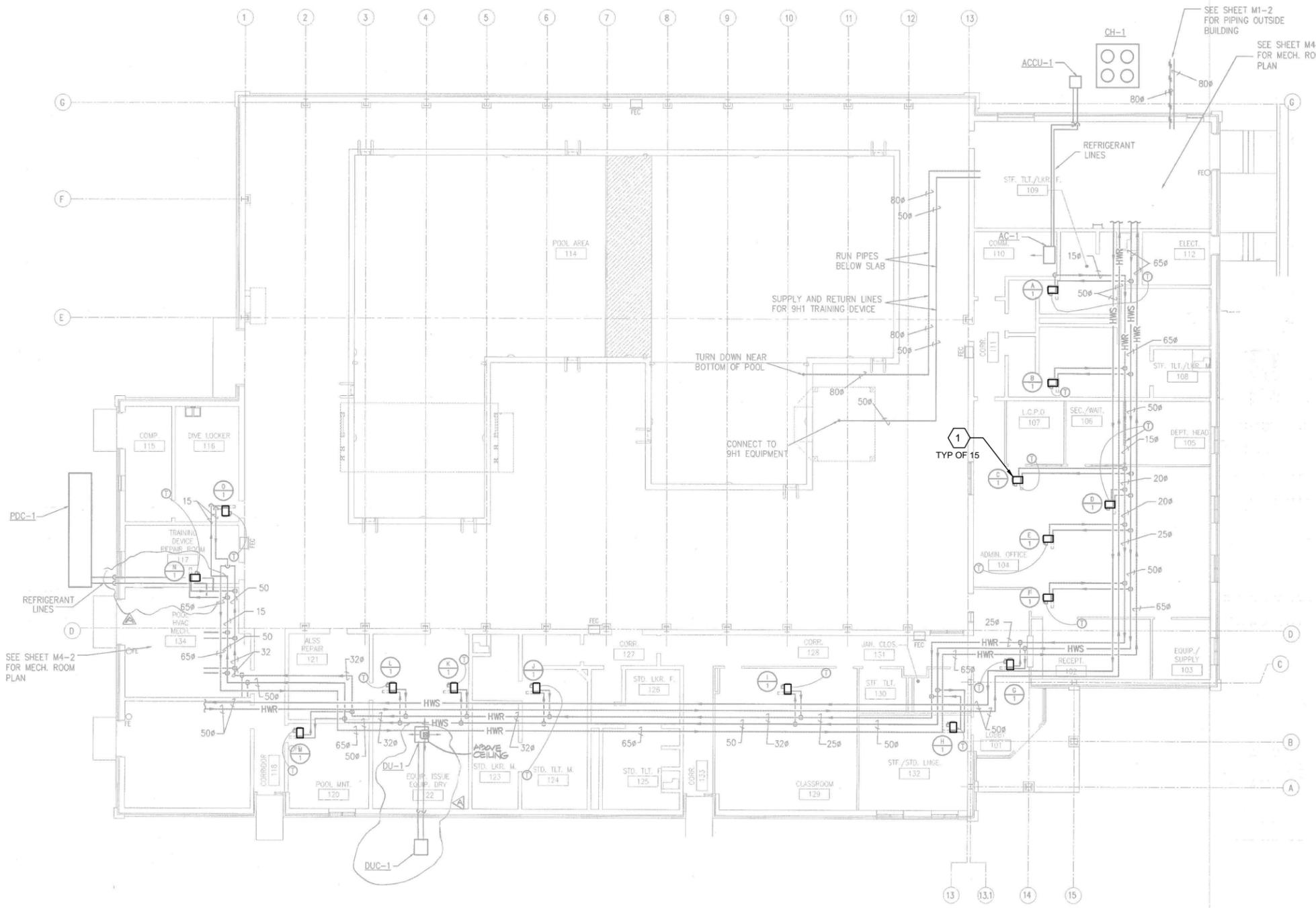
5

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HVAC PIPING FLOOR PLAN
3/32"=1'-0"



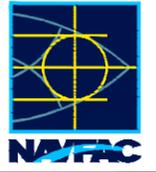
GENERAL NOTES

1. THIS PROJECT INCLUDES IMPLEMENTATION OF ECM(S) WITHIN THE FACILITY. PROVIDE EQUIPMENT AND CONTROL COMPONENTS FOR A COMPLETE AND FUNCTIONAL SYSTEM.
2. APPROXIMATE LOCATIONS OF EQUIPMENT ARE INDICATED ON CONCEPT DRAWINGS. APPLICABLE NOTES ARE IDENTIFIED BY HEXAGONAL FLAGS.
3. EXACT LOCATIONS FOR EXISTING EQUIPMENT AND SUPPORT INFRASTRUCTURE ARE NOT KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND MODIFY THE BUILDING SYSTEMS TO SUPPORT ECM IMPLEMENTATION.
4. PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, AND PIPING.

SHEET KEYNOTES

1. REPLACE EXISTING THREE WAY CONTROL VALVES TO TWO WAY VALVES AT ALL VAV (VARIABLE AIR VOLUME) TERMINALS. ESTIMATED 15 VAV TERMINALS. THE DESIGN SHALL LEAVE CERTAIN VALVES AS THREE WAY AT THE END OF THE RUN TO MAINTAIN MINIMUM HOT WATER FLOW.

REV	DESCRIPTION	DATE	APPR



ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

APPROVED
FOR COMMANDER NWFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<XXX>

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA
DFSP
HVAC AND DDC FACILITY OPTIMIZATION
BUILDING SP-132
HVAC PIPING FLOOR PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAFAC DRAWING NO.	12724430
SHEET	62 OF 119

M-101

DRAWING REVISION: 10 MAY 2014

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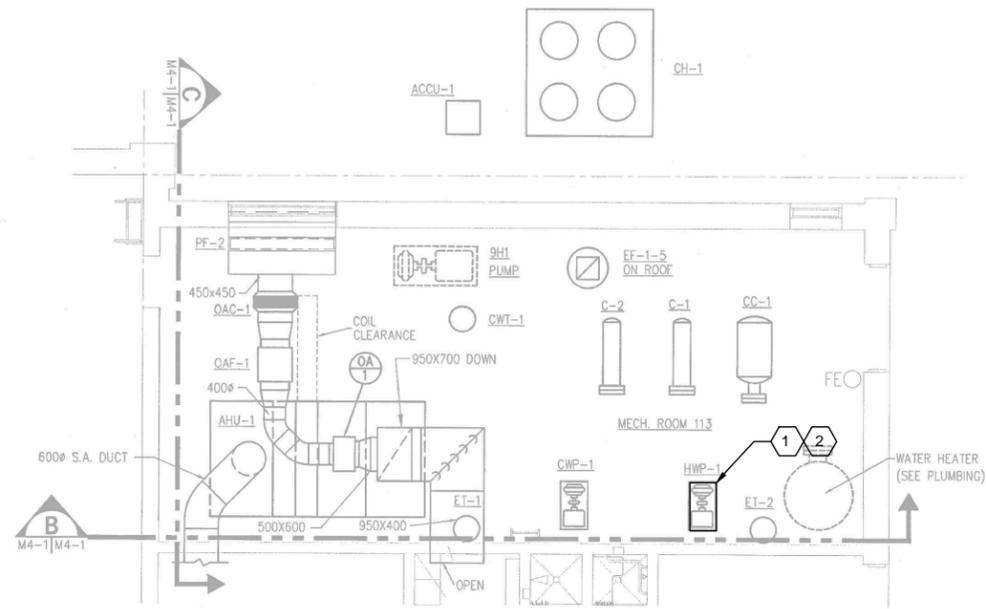
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D

C

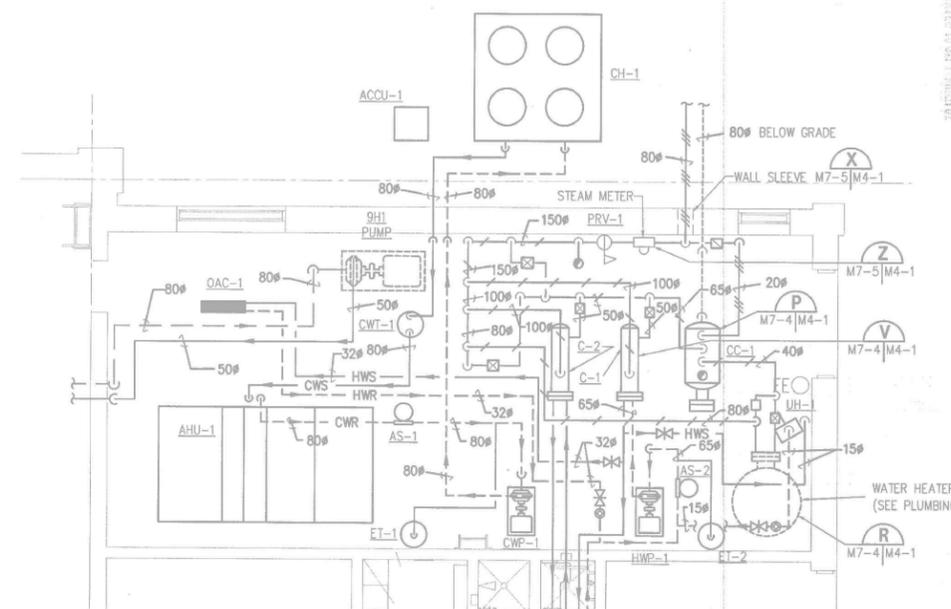
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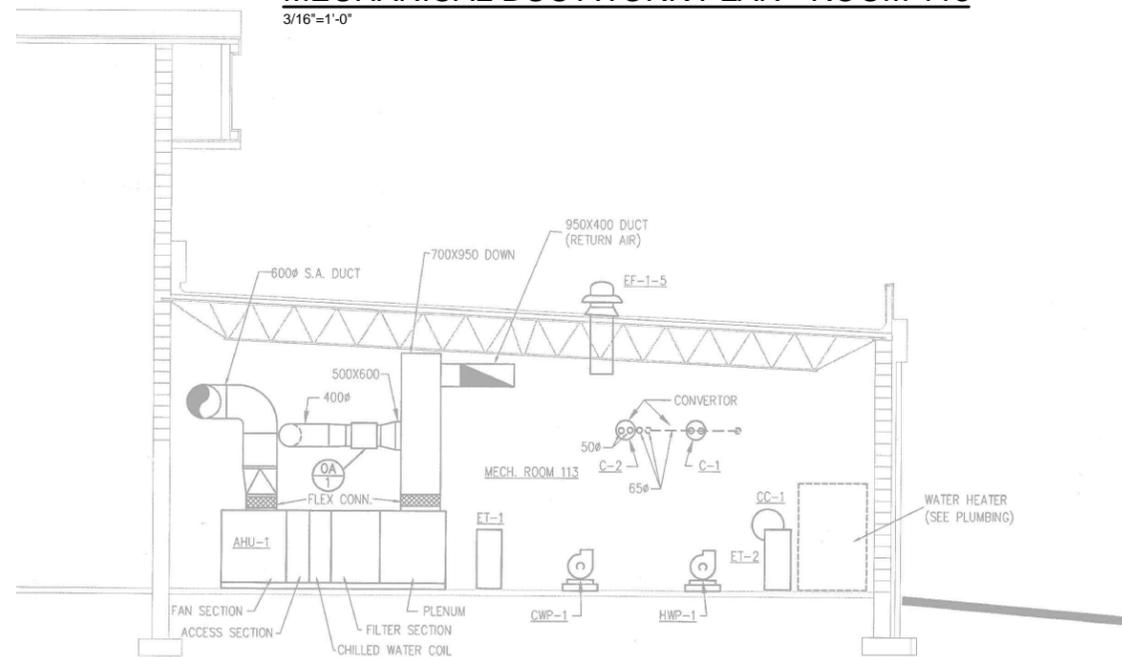
MECHANICAL DUCTWORK PLAN - ROOM 113

3/16"=1'-0"



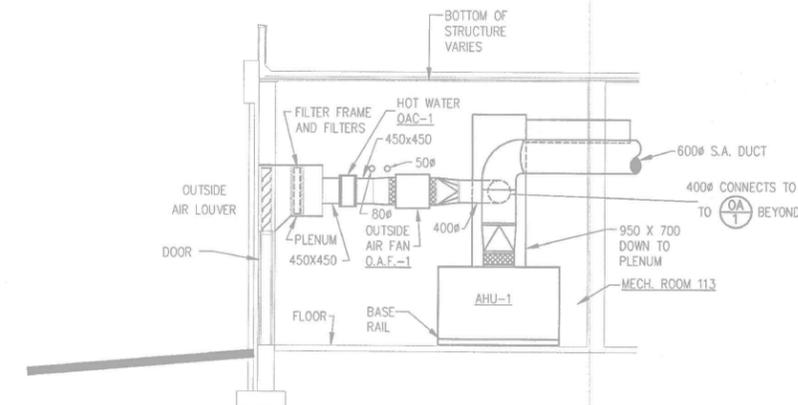
MECHANICAL PIPING PLAN - ROOM 113

3/16"=1'-0"



B SECTION

3/16" = 1'-0"



C SECTION

3/16" = 1'-0"

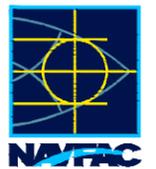
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SHEET KEYNOTES

1. HOT WATER PUMP WILL FOLLOW ITS PUMP CURVE AFTER INSTALLATION OF 2-WAY VALVES AT VAV BOXES IN THE SPACE.
2. LOCATE A DIFFERENTIAL PRESSURE SENSOR ON THE HOT WATER SYSTEM AT 2/3 DISTANCE ON THE DOWNSTREAM SIDE OF THE PUMP TO REGULATE PUMP SPEED AND INTEGRATE WITH THE DDC SYSTEM.

DATE	DESCRIPTION	BY	APPR.



ch2m.
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<<XXX>>

NAVFAC
 MID-ATLANTIC
 DFSP
 NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 HVAC AND DDC
 FACILITY OPTIMIZATION
 BUILDING SP-132
 ENLARGED PLANS AND SECTIONS

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724431
SHEET 63 OF 119	

M-401

1

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BUILDING SP-256

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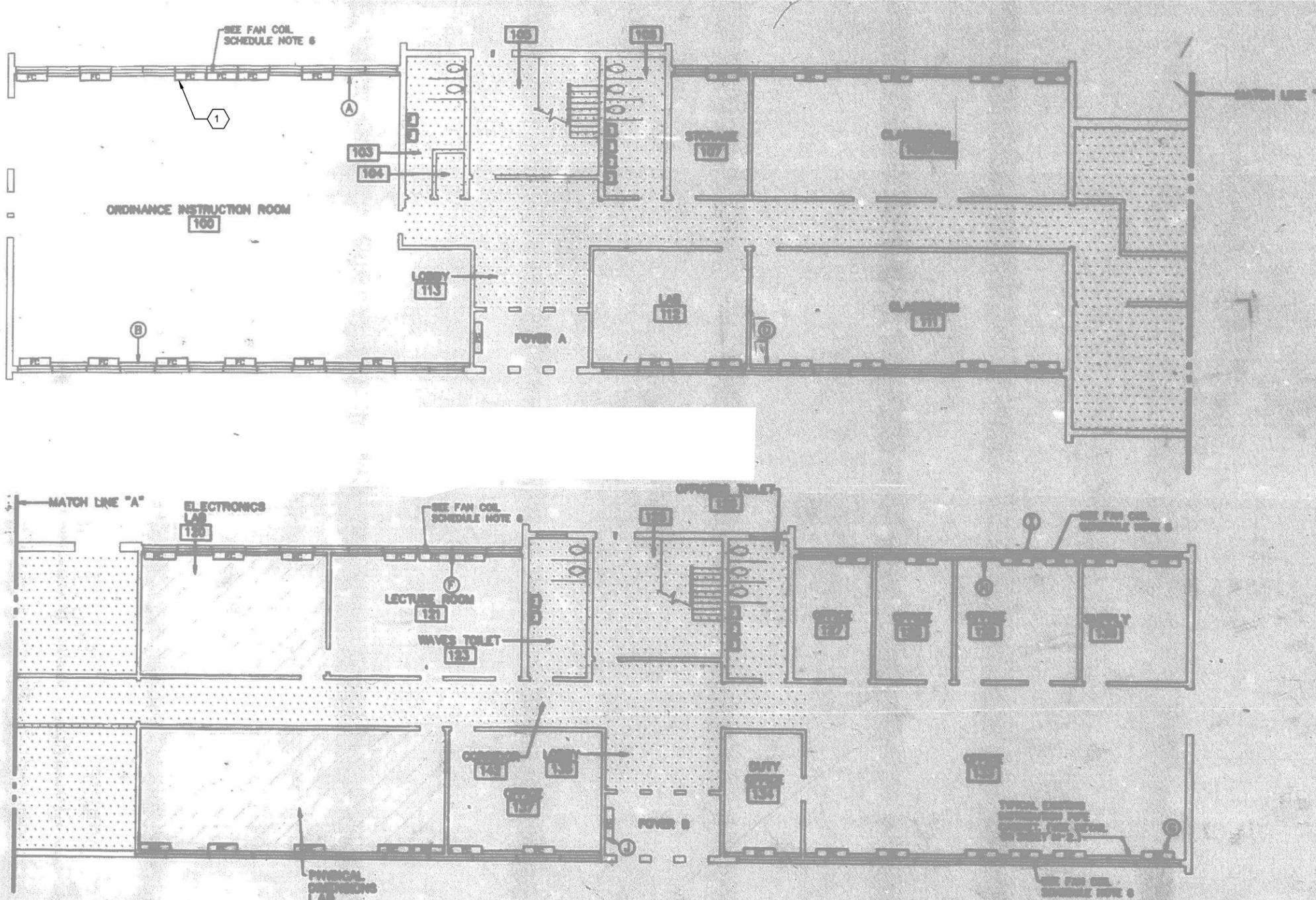
5

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

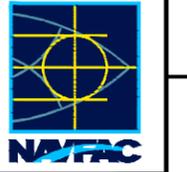
GENERAL NOTES

1. THIS PROJECT INCLUDES EXPANSION OF THE EXISTING DDC CONTROL SYSTEM TO INCLUDE POINTS TABULATED IN THE POINTS LIST IN PART 6 OF THIS RFP.
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 **SHEET KEYNOTES**

- 1 TYPICAL DUAL TEMPERATURE CABINET FAN-COIL UNIT.

NO.	DATE	DESCRIPTION	BY	CHK	APPR.



ch2m
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<<XXX>>

NAVFAC
 NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 DFSP
HVAC AND DDC FACILITY OPTIMIZATION
 BUILDING SP-256
 FIRST FLOOR PLAN

SCALE:	AS NOTED
PROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724432
SHEET	64 OF 119

M-101
DRAWING REVISION: 10 MAY 2014

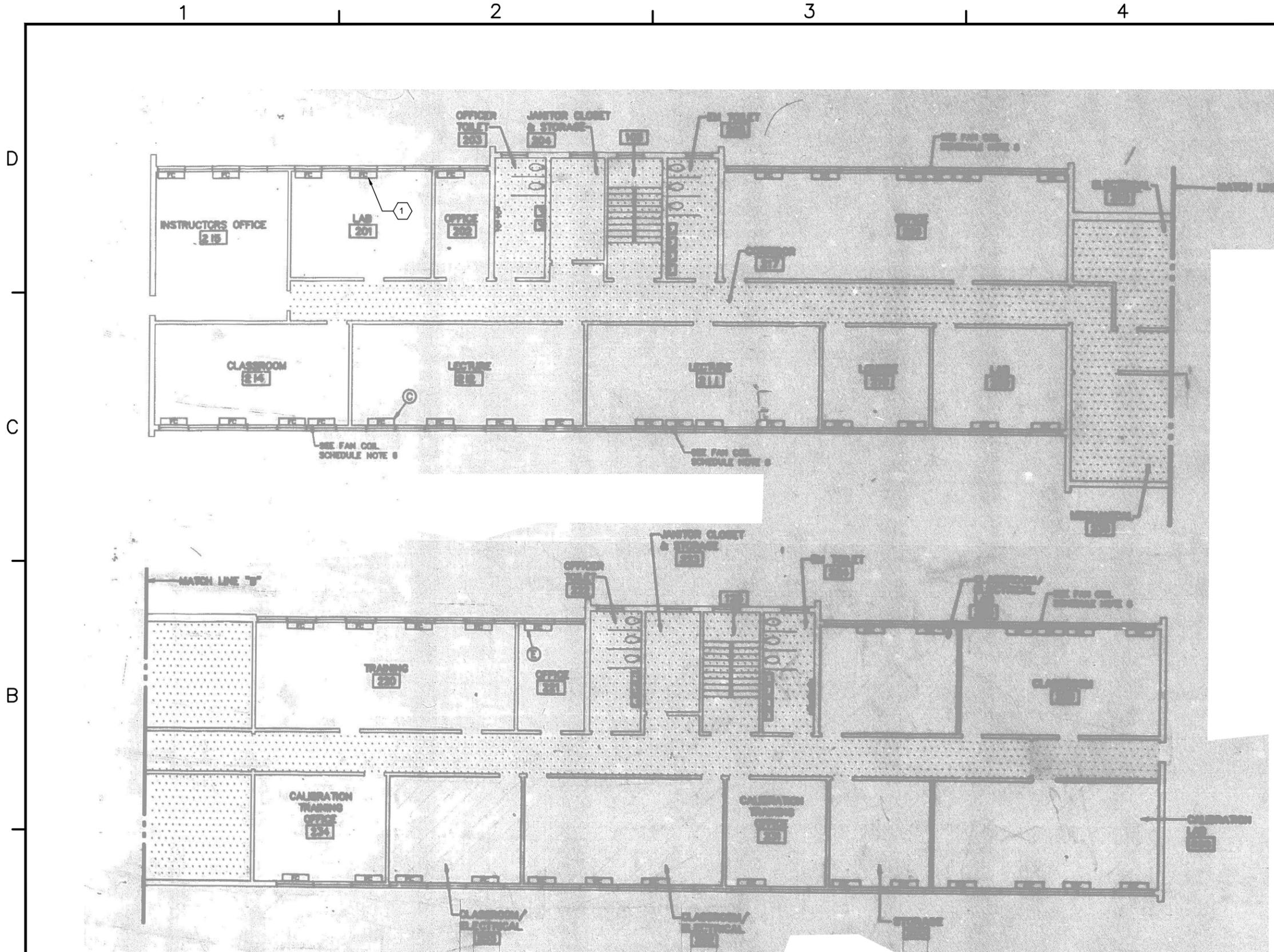
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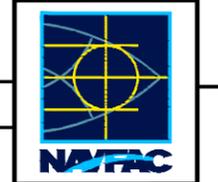
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SHEET KEYNOTES

- 1 TYPICAL DUAL TEMPERATURE CABINET FAN-COIL UNIT.

APPR.	DATE	DESCRIPTION	REV.



SEAL

ch2m
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE 06/02/2016

DES PTJ | DRW IHK | CHK BDC

<<PM/DM>> MHP

BRANCH MANAGER

CHIEF ENG/ARCH

<<XXX>>

NAVFAC
 MID-ATLANTIC
 DTFSP

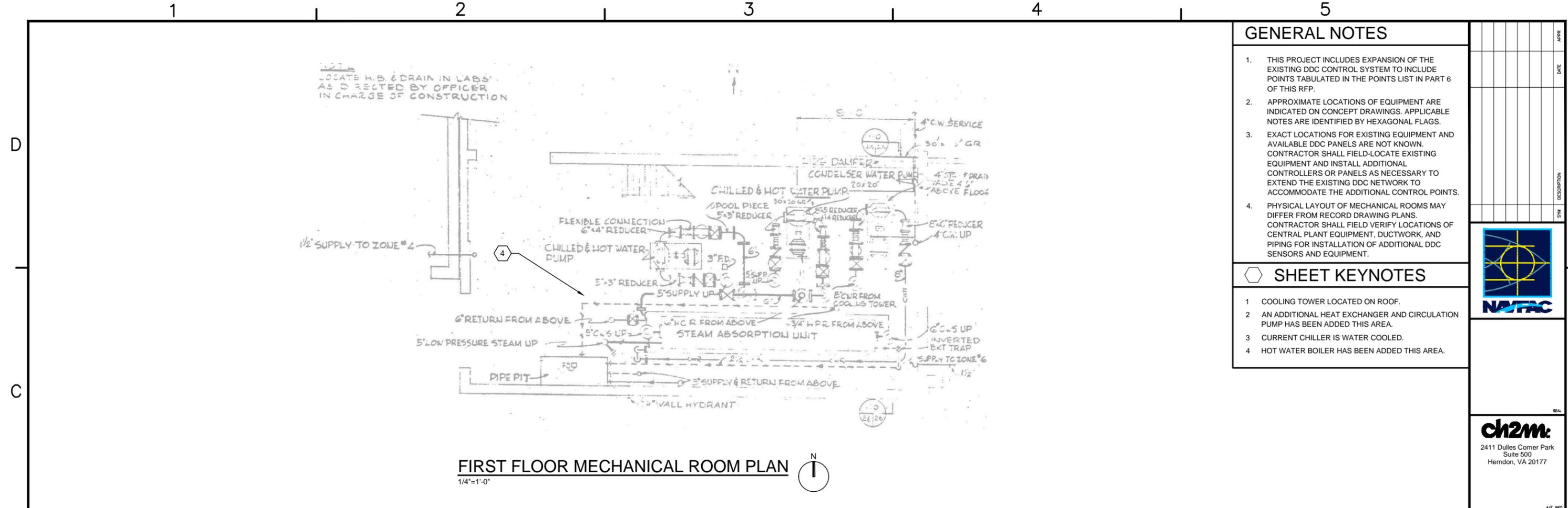
NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA

HVAC AND DDC
 FACILITY OPTIMIZATION
 BUILDING SP-256
 SECOND FLOOR PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724433
SHEET	65 OF 119

M-102
 DRAWING REVISION: 10 MAY 2014

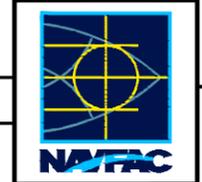
SECOND FLOOR PLAN
 1/8"=1'-0"



- ### GENERAL NOTES
- THIS PROJECT INCLUDES EXPANSION OF THE EXISTING DDC CONTROL SYSTEM TO INCLUDE POINTS TABULATED IN THE POINTS LIST IN PART 6 OF THIS RFP.
 - APPROXIMATE LOCATIONS OF EQUIPMENT ARE INDICATED ON CONCEPT DRAWINGS. APPLICABLE NOTES ARE IDENTIFIED BY HEXAGONAL FLAGS.
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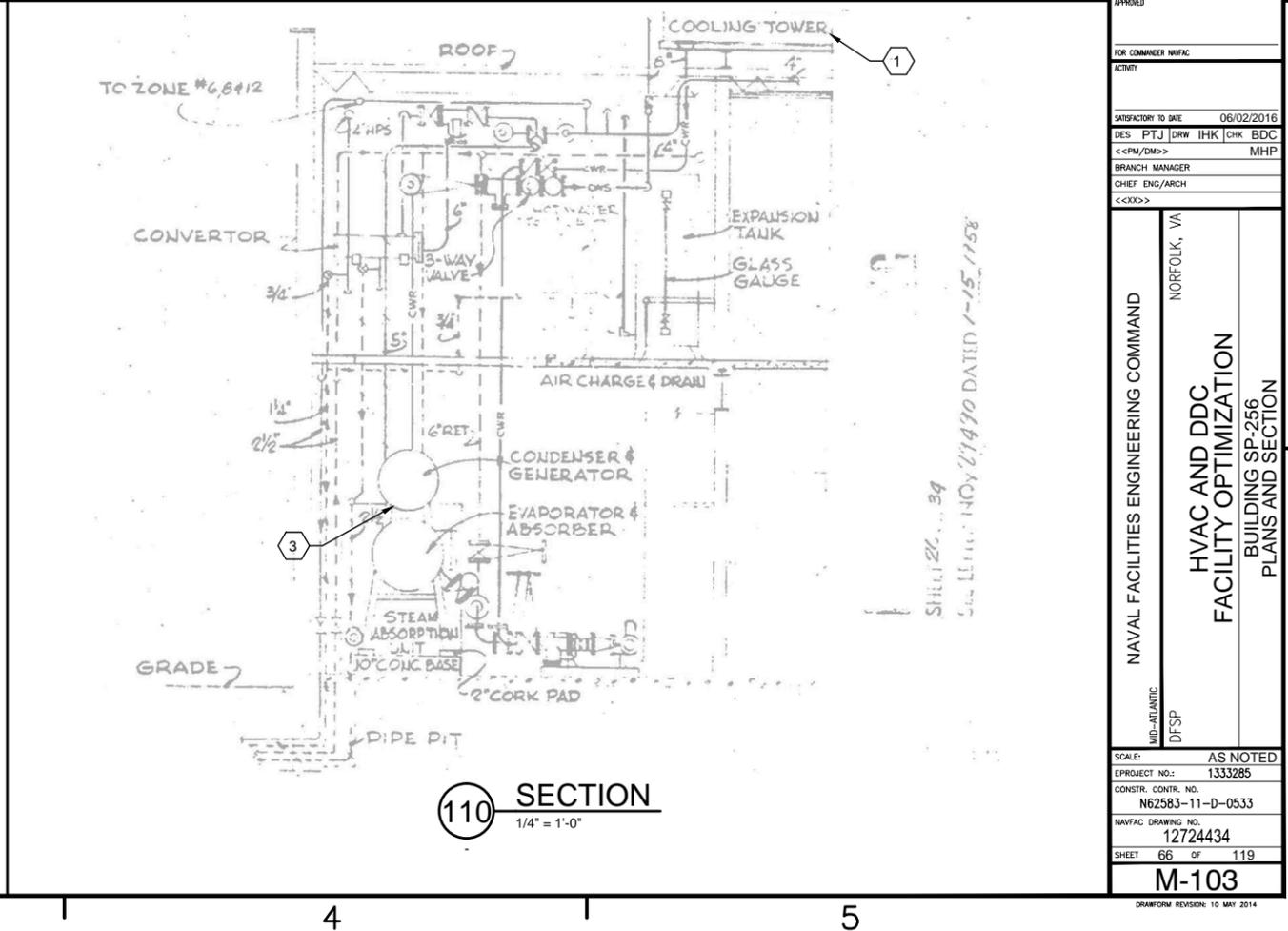
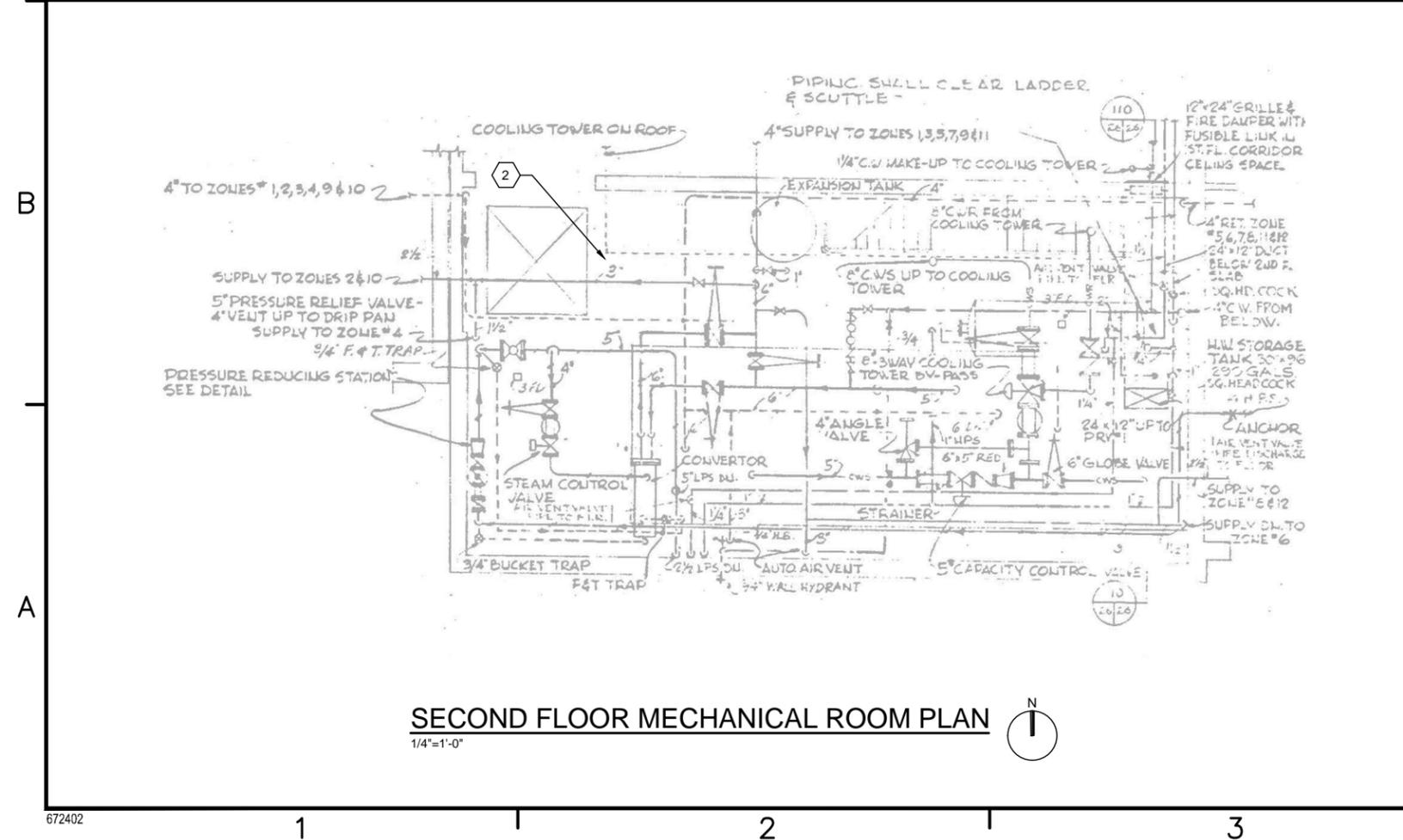
- ### SHEET KEYNOTES
- COOLING TOWER LOCATED ON ROOF.
 - AN ADDITIONAL HEAT EXCHANGER AND CIRCULATION PUMP HAS BEEN ADDED THIS AREA.
 - CURRENT CHILLER IS WATER COOLED.
 - HOT WATER BOILER HAS BEEN ADDED THIS AREA.

NO.	DATE	DESCRIPTION



ch2m

2411 Dulles Corner Park
Suite 500
Herndon, VA 20177



ch2m

2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

APPROVED
FOR COMMANDER NWFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<<XXX>>

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA

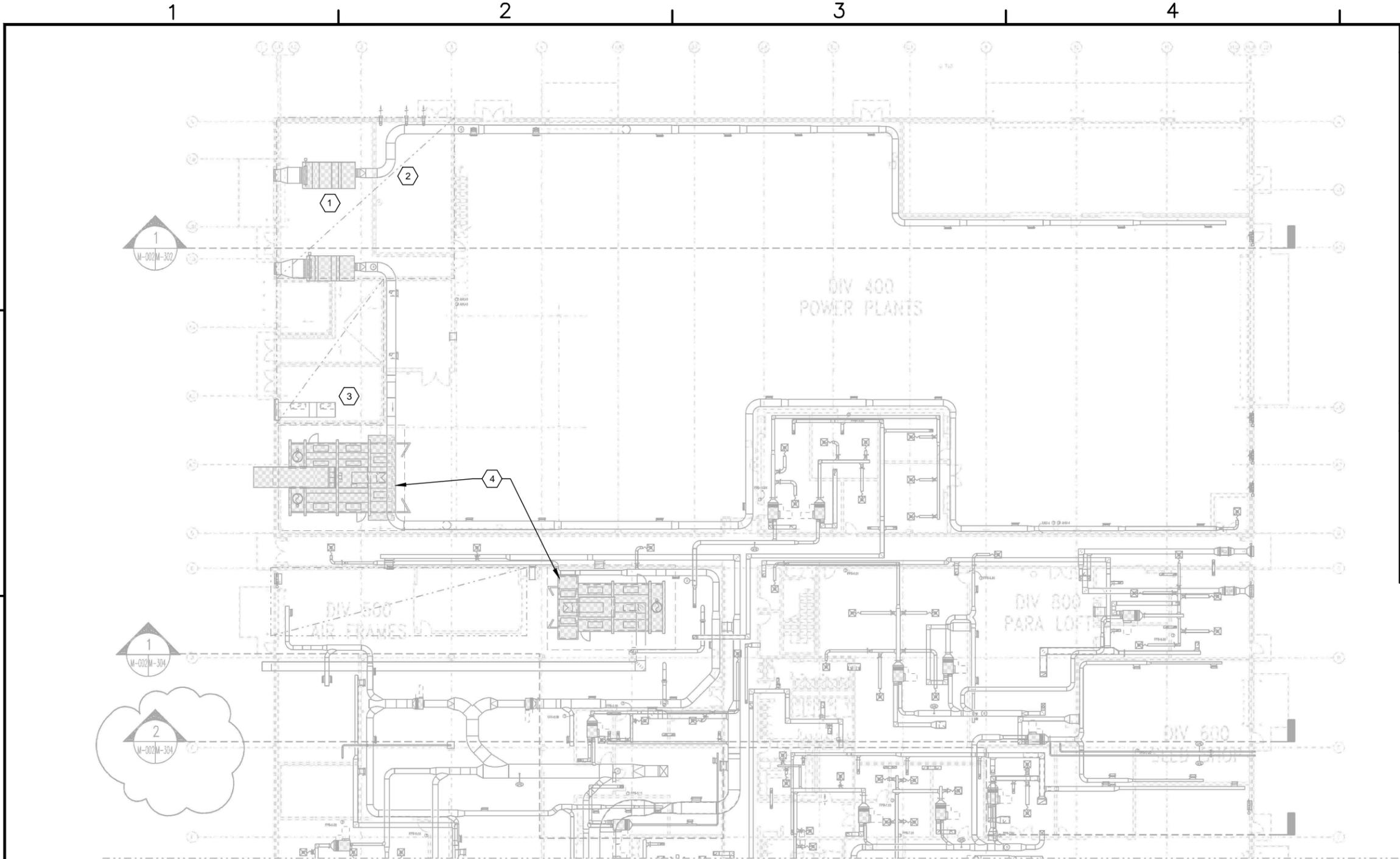
HVAC AND DDC
FACILITY OPTIMIZATION
BUILDING SP-256
PLANS AND SECTION

SCALE: AS NOTED
EPROJECT NO.: 1333285
CONSTR. CONTR. NO. N62583-11-D-0533
NAVFAC DRAWING NO. 12724434
SHEET 66 OF 119

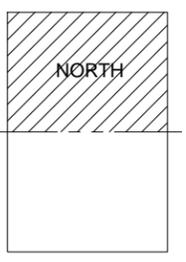
M-103

DATEFORM REVISION: 10 MAY 2014

BUILDING SP-300



PARTIAL FIRST FLOOR PLAN NORTH - HVAC
 1/16"=1'-0"



KEY PLAN

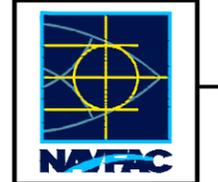
GENERAL NOTES

1. THIS PROJECT INCLUDES REPLACING THE EXISTING DDC SYSTEM THROUGHOUT THE FACILITY. UPGRADE CONSISTS OF REPLACING OR ADDING CONTROLS, VALVES AS NECESSARY, ACTUATORS, AND SENSORS FOR ALL EQUIPMENT PER THE DDC POINTS LIST IN PART 6 OF THIS RFP.
2. RECORD DRAWINGS OF THE MECHANICAL SYSTEMS, CURRENT POINTS LIST AND SEQUENCES, AND DDC CONNECTED COMPONENTS ARE INCLUDED FOR REFERENCE ONLY TO REPRESENT CURRENTLY INSTALLED CONTROL EQUIPMENT.
3. THESE CONCEPT DRAWINGS ARE INCLUDED TO DELINEATE THE EXTENT OF THE WORK AREA AND ARE NOT INTENDED TO CONVEY DESIGN DETAILS FOR THE DDC SYSTEM. DESIGN DETAILS ARE LOCATED THROUGHOUT THIS RFP.
4. EXACT LOCATIONS FOR CONTROLLED EQUIPMENT AND CURRENT DDC PANELS ARE NOT SHOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND AND CONTROL RELATED COMPONENTS FOR USE IN THE DESIGN OF THE REPLACEMENT DDC SYSTEM.
5. PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK AND PIPING.
6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

- 1 WATER CHILLING EQUIPMENT LOCATION AT LOWER LEVEL. INDICATED MECHANICAL EQUIPMENT IS LOCATED AT MEZZANINE LEVEL.
- 2 HEAT GENERATING EQUIPMENT LOCATION AT LOWER LEVEL. INDICATED MECHANICAL EQUIPMENT IS LOCATED AT MEZZANINE LEVEL.
- 3 COMPRESSED AIR EQUIPMENT LOCATION AT LOWER LEVEL. INDICATED MECHANICAL DUCTWORK IS LOCATED AT MEZZANINE LEVEL.
- 4 PAINT BOOTHS NOT CONNECTED TO DDC SYSTEM.

APPR.	DATE	REV.	DESCRIPTION



APPROVED FOR COMMANDER NAVFAC
 ACTIVITY
 SATISFACTORY TO DATE 06/02/2016
 DES PTJ | DRW IHK | CHK BDC
 <<PM/DM>> MHP
 BRANCH MANAGER
 CHIEF ENG/ARCH <XXX>

NAVFAC
 NAVFAC
 NAVFAC

NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 DFSP
HVAC AND DDC FACILITY OPTIMIZATION
 BUILDING SP-300
 PARTIAL FIRST FLOOR PLAN NORTH - HVAC

SCALE:	AS NOTED
PROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724435
SHEET	67 OF 119

M-101

DRAWING REVISION: 10 MAY 2014

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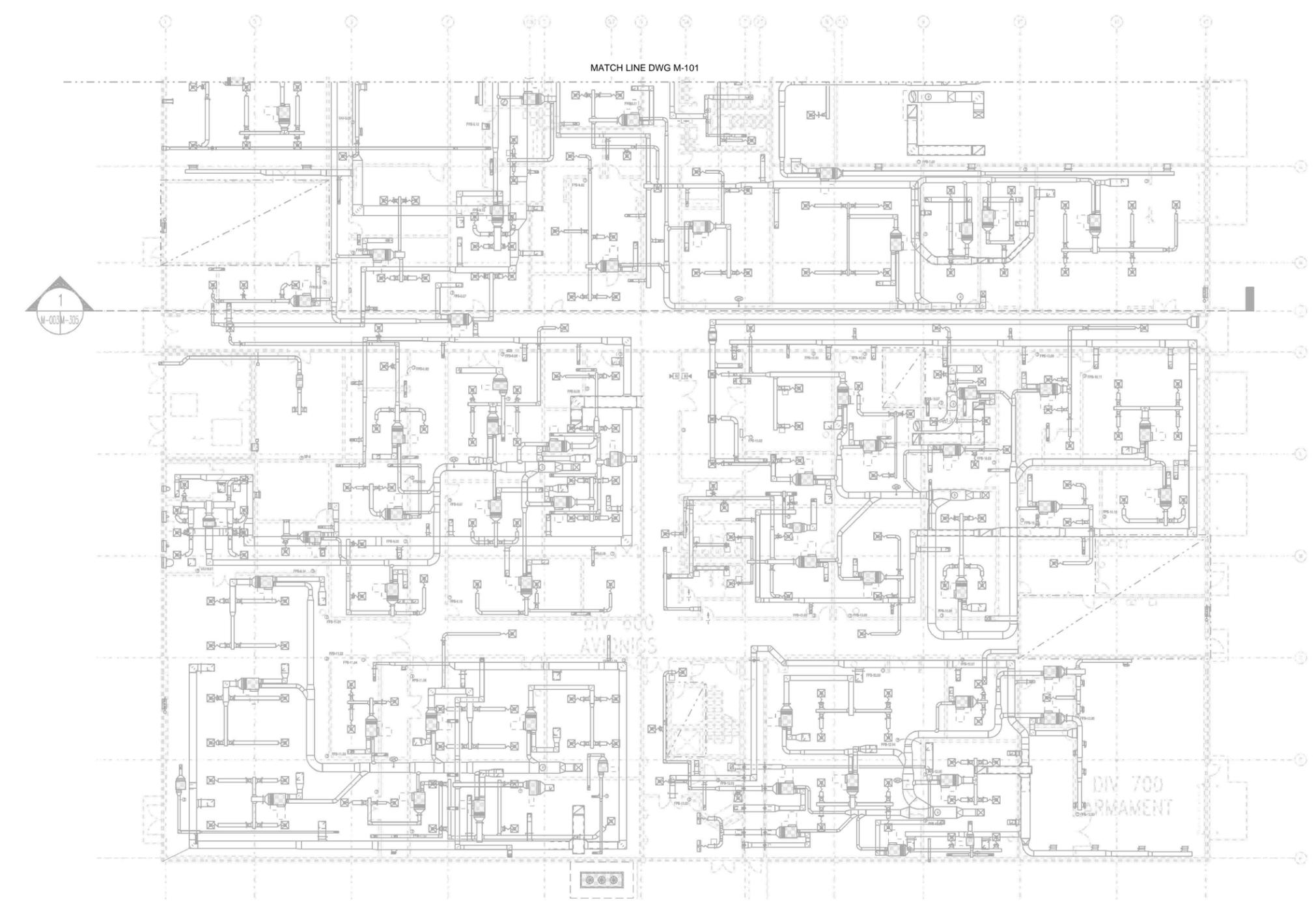
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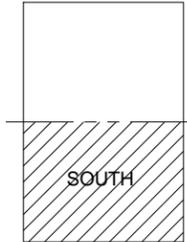
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PARTIAL FIRST FLOOR PLAN SOUTH - HVAC
1/16"=1'-0"

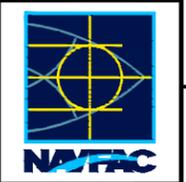


KEY PLAN

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REV	DESCRIPTION	DATE	APP'D



ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY

SATISFACTORY TO DATE	06/02/2016
DES	PTJ DRW
CHK	IHK CHK
BDC	<<PM/DM>>
BRANCH MANAGER	MHP
CHIEF ENG/ARCH	<<XXX>>

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA
HVIC AND DDC
FACILITY OPTIMIZATION
BUILDING SP-300
PARTIAL FIRST FLOOR PLAN SOUTH - HVAC

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724436
SHEET	68 OF 119

M-102

DRAWING REVISION: 10 MAY 2014

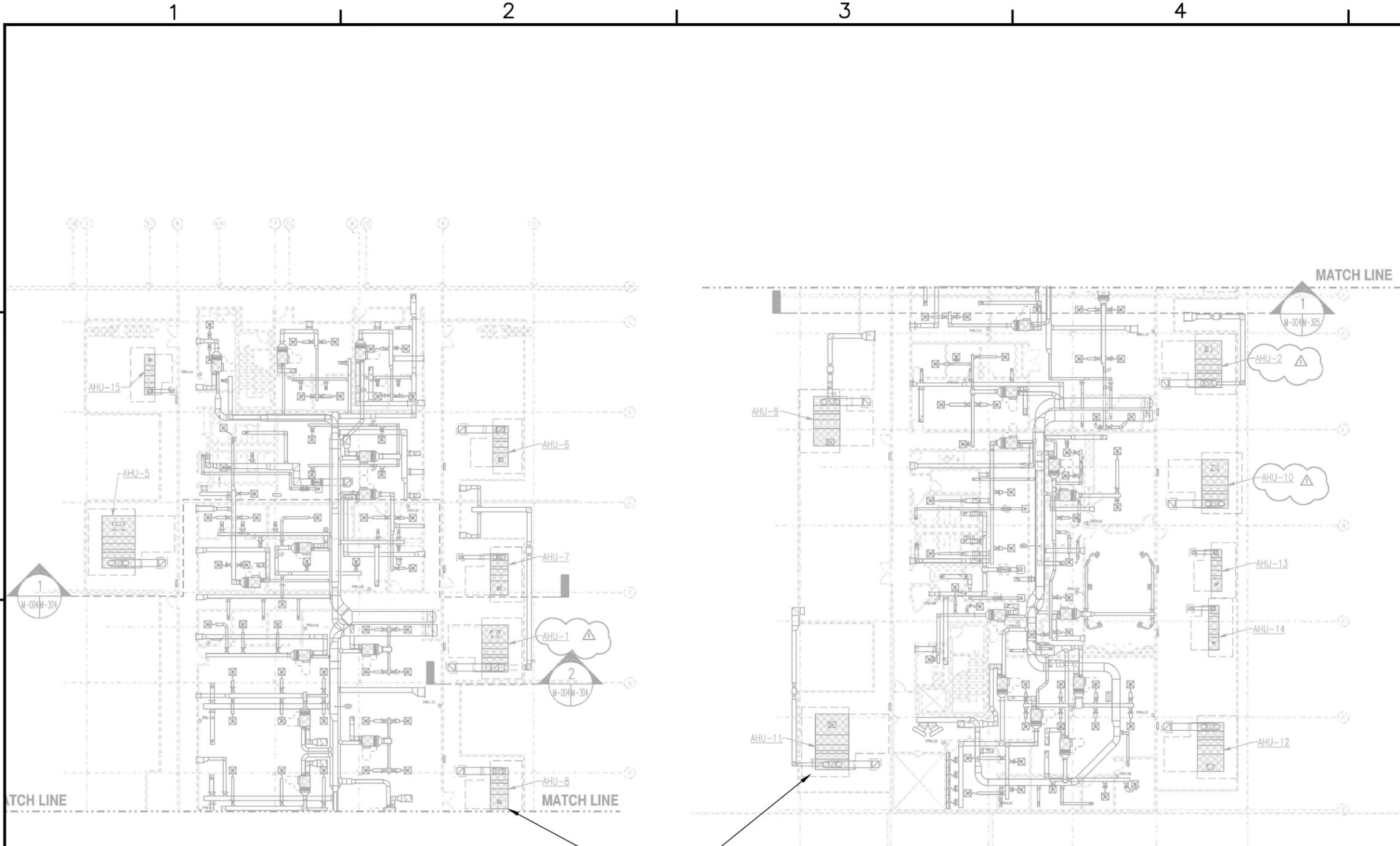
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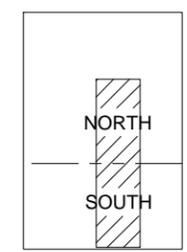
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PARTIAL SECOND FLOOR PLAN NORTH
1/16"=1'-0"

PARTIAL SECOND FLOOR PLAN SOUTH
1/16"=1'-0"



KEY PLAN

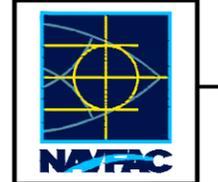
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SHEET KEYNOTES

1. CENTRAL AIR HANDLING EQUIPMENT SHOWN ON THIS SHEET IS LOCATED ON MEZZANINE ABOVE WORKING SPACES. REFER TO BUILDING SECTIONS ON M-301 AND M-302 FOR REPRESENTATIVE BUILDING SECTIONS.

REV	DESCRIPTION	DATE	APPR



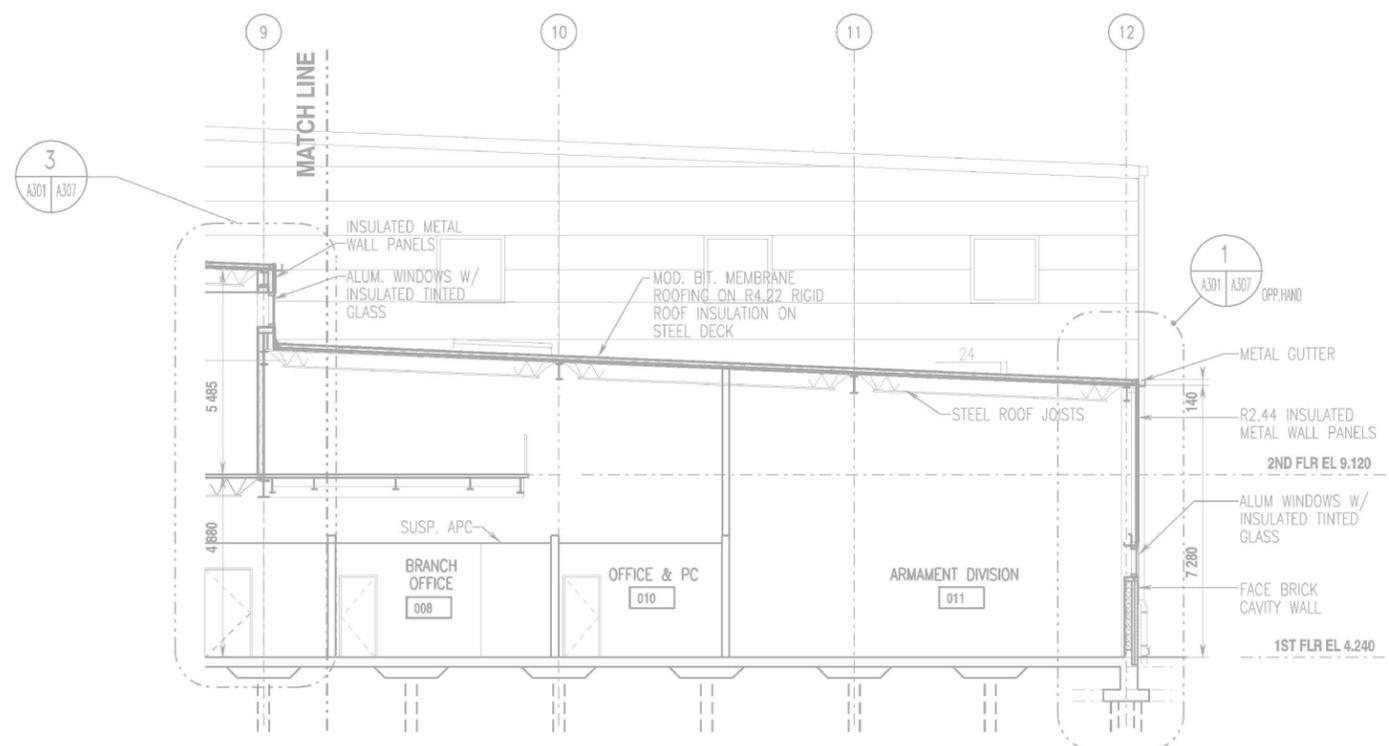
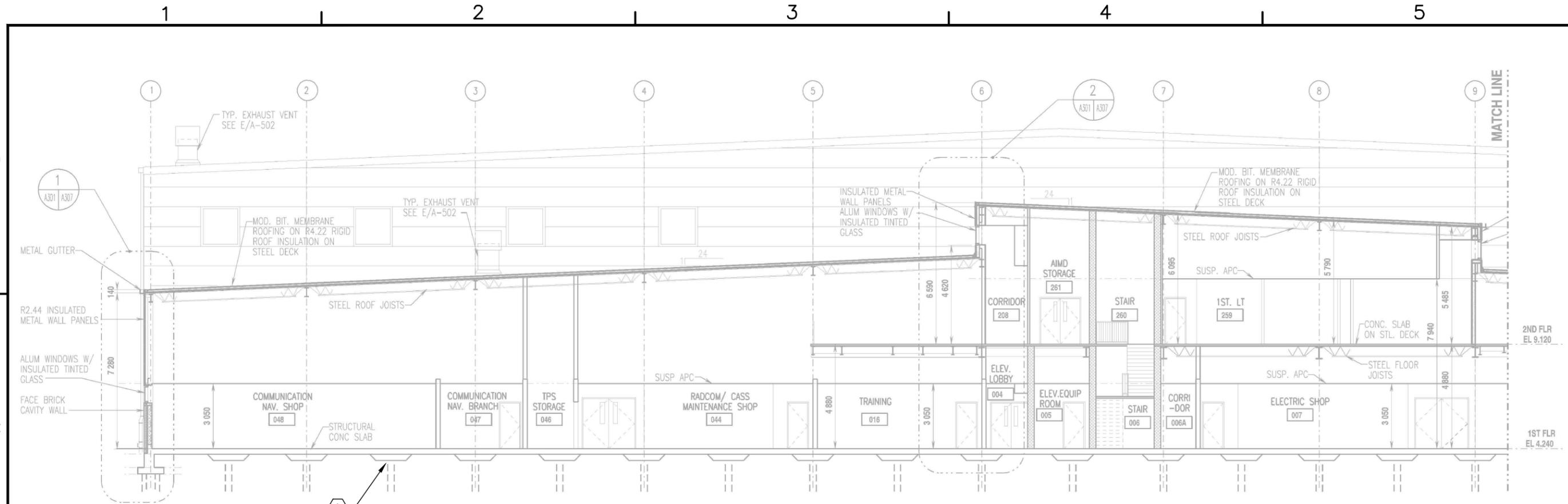
ch2m.
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

APPROVED	
FOR COMMANDER NAVFAC	
ACTIVITY	
SATISFACTORY TO DATE	06/02/2016
DES	PTJ DRW
CHK	IHK CHK
BDC	<<PM/DM>>
BRANCH MANAGER	MHP
CHIEF ENG/ARCH	<<XXX>>

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA
HVFAC AND DDC
FACILITY OPTIMIZATION
BUILDING SP-300
PARTIAL SECOND FLOOR PLANS - HVAC

SCALE:	AS NOTED
PROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724437
SHEET	69 OF 119

M-103

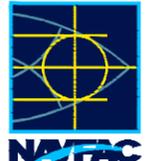


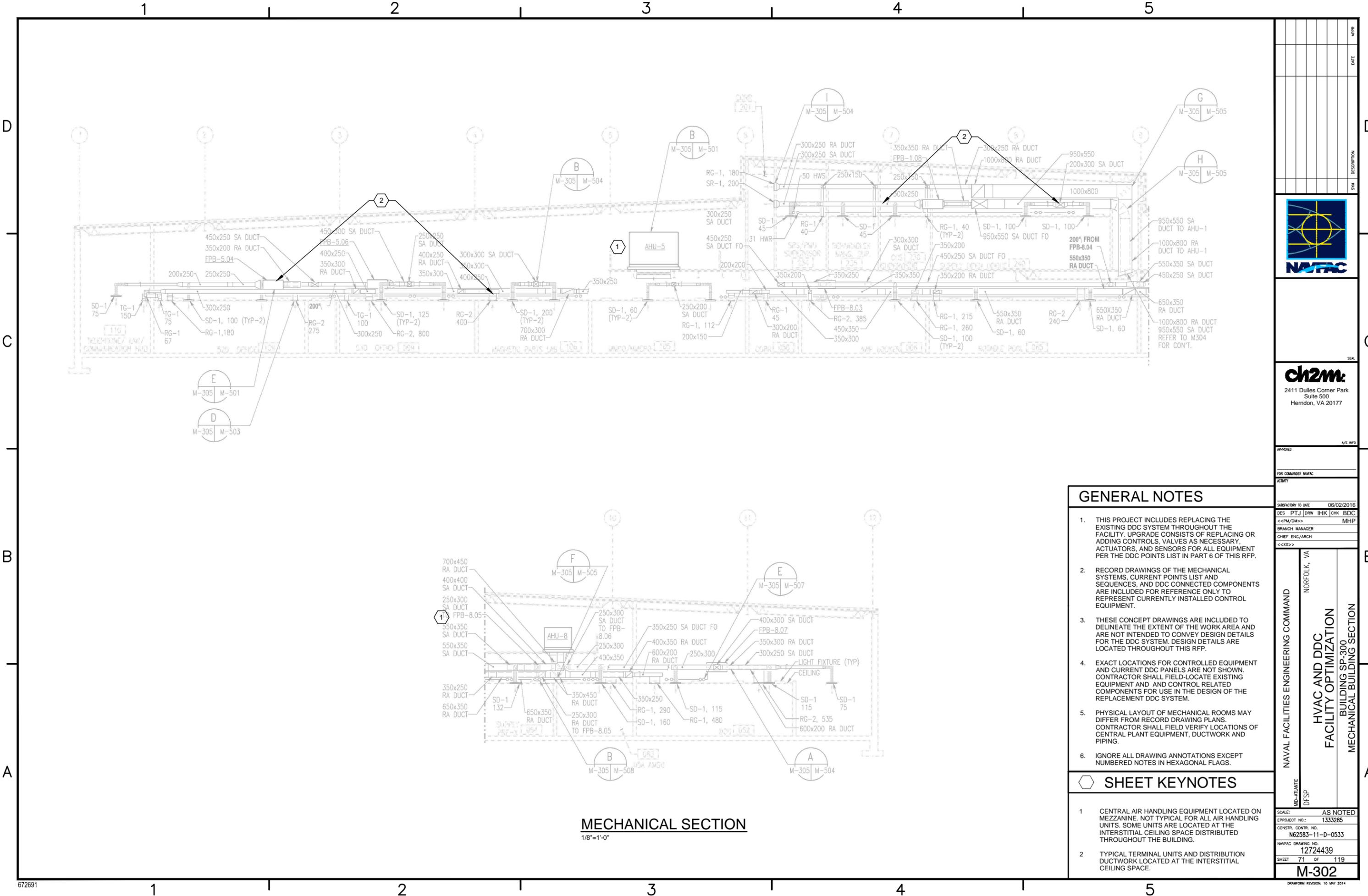
BUILDING CROSS SECTION
1/8"=1'-0"

- ### GENERAL NOTES
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 - RECORD DRAWINGS OF THE MECHANICAL SYSTEMS, CURRENT POINTS LIST AND SEQUENCES, AND DDC CONNECTED COMPONENTS ARE INCLUDED FOR REFERENCE ONLY TO REPRESENT CURRENTLY INSTALLED CONTROL EQUIPMENT.
 - THESE CONCEPT DRAWINGS ARE INCLUDED TO DELINEATE THE EXTENT OF THE WORK AREA AND ARE NOT INTENDED TO CONVEY DESIGN DETAILS FOR THE DDC SYSTEM. DESIGN DETAILS ARE LOCATED THROUGHOUT THIS RFP.
 - EXACT LOCATIONS FOR CONTROLLED EQUIPMENT AND CURRENT DDC PANELS ARE NOT SHOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND AND CONTROL RELATED COMPONENTS FOR USE IN THE DESIGN OF THE REPLACEMENT DDC SYSTEM.
 - PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK AND PIPING.
 - IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

- | | |
|---|---|
| 1 | REPRESENTATIVE BUILDING SECTION SHOWING MECHANICAL MEZZANINE LOCATIONS. |
|---|---|

 NATAC	 2411 Dulles Corner Park Suite 500 Herndon, VA 20177
APPROVED: _____ FOR COMMANDER NWFAC ACTIVITY: _____ SATISFACTORY TO DATE: 06/02/2016 DES: PTJ DRW: IHK CHK: BDC <<PM/DM>> BRANCH MANAGER: MHP CHIEF: ENG/ARCH <<XXX>>	SCALE: AS NOTED EPROJECT NO.: 1333285 CONSTR. CONTR. NO.: N62583-11-D-0533 NAVFAC DRAWING NO.: 12724438 SHEET 70 OF 119 M-301 <small>DRAWING REVISION: 10 MAY 2014</small>



MECHANICAL SECTION
1/8"=1'-0"

GENERAL NOTES

1. THIS PROJECT INCLUDES REPLACING THE EXISTING DDC SYSTEM THROUGHOUT THE FACILITY. UPGRADE CONSISTS OF REPLACING OR ADDING CONTROLS, VALVES AS NECESSARY, ACTUATORS, AND SENSORS FOR ALL EQUIPMENT PER THE DDC POINTS LIST IN PART 6 OF THIS RFP.
2. RECORD DRAWINGS OF THE MECHANICAL SYSTEMS, CURRENT POINTS LIST AND SEQUENCES, AND DDC CONNECTED COMPONENTS ARE INCLUDED FOR REFERENCE ONLY TO REPRESENT CURRENTLY INSTALLED CONTROL EQUIPMENT.
3. THESE CONCEPT DRAWINGS ARE INCLUDED TO DELINEATE THE EXTENT OF THE WORK AREA AND ARE NOT INTENDED TO CONVEY DESIGN DETAILS FOR THE DDC SYSTEM. DESIGN DETAILS ARE LOCATED THROUGHOUT THIS RFP.
4. EXACT LOCATIONS FOR CONTROLLED EQUIPMENT AND CURRENT DDC PANELS ARE NOT SHOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND AND CONTROL RELATED COMPONENTS FOR USE IN THE DESIGN OF THE REPLACEMENT DDC SYSTEM.
5. PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK AND PIPING.
6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

- 1 CENTRAL AIR HANDLING EQUIPMENT LOCATED ON MEZZANINE. NOT TYPICAL FOR ALL AIR HANDLING UNITS. SOME UNITS ARE LOCATED AT THE INTERSTITIAL CEILING SPACE DISTRIBUTED THROUGHOUT THE BUILDING.
- 2 TYPICAL TERMINAL UNITS AND DISTRIBUTION DUCTWORK LOCATED AT THE INTERSTITIAL CEILING SPACE.

DATE	APPR
DESCRIPTION	
2411 Dulles Corner Park Suite 500 Herndon, VA 20177	
APPROVED: _____ FOR COMMANDER NATFC ACTIVITY: _____	
SATISFACTORY TO DATE: 06/02/2016 DES: PTJ DRW: IHK CHK: BDC <<PM/DM>> MHP BRANCH MANAGER CHIEF: ENG/ARCH <<XXX>>	
NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VA	HVAC AND DDC FACILITY OPTIMIZATION BUILDING SP-300 MECHANICAL BUILDING SECTION
MIA-ATLANTIC DFSP	SCALE: AS NOTED EPROJECT NO.: 1333285 CONSTR. CONTR. NO.: N62583-11-D-0533 NAVFAC DRAWING NO.: 12724439 SHEET 71 OF 119 M-302 <small>DATEFORM REVISION: 10 MAY 2014</small>

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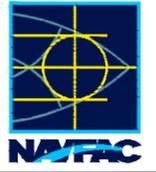
SHEET KEYNOTES

1 PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT AND PIPING FOR INSTALLATION OF ADDITIONAL DDC SENSORS AND EQUIPMENT.

GENERAL NOTES

- THIS PROJECT INCLUDES REPLACING THE EXISTING DDC SYSTEM THROUGHOUT THE FACILITY. UPGRADE CONSISTS OF REPLACING OR ADDING CONTROLS, VALVES AS NECESSARY, ACTUATORS, AND SENSORS FOR ALL EQUIPMENT PER THE DDC POINTS LIST IN PART 6 OF THIS RFP.
- RECORD DRAWINGS OF THE MECHANICAL SYSTEMS, CURRENT POINTS LIST AND SEQUENCES, AND DDC CONNECTED COMPONENTS ARE INCLUDED FOR REFERENCE ONLY TO REPRESENT CURRENTLY INSTALLED CONTROL EQUIPMENT.
- THESE CONCEPT DRAWINGS ARE INCLUDED TO DELINEATE THE EXTENT OF THE WORK AREA AND ARE NOT INTENDED TO CONVEY DESIGN DETAILS FOR THE DDC SYSTEM. DESIGN DETAILS ARE LOCATED THROUGHOUT THIS RFP.
- EXACT LOCATIONS FOR CONTROLLED EQUIPMENT AND CURRENT DDC PANELS ARE NOT SHOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND AND CONTROL RELATED COMPONENTS FOR USE IN THE DESIGN OF THE REPLACEMENT DDC SYSTEM.
- PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK AND PIPING.
- IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

REV	DESCRIPTION	DATE	APPR



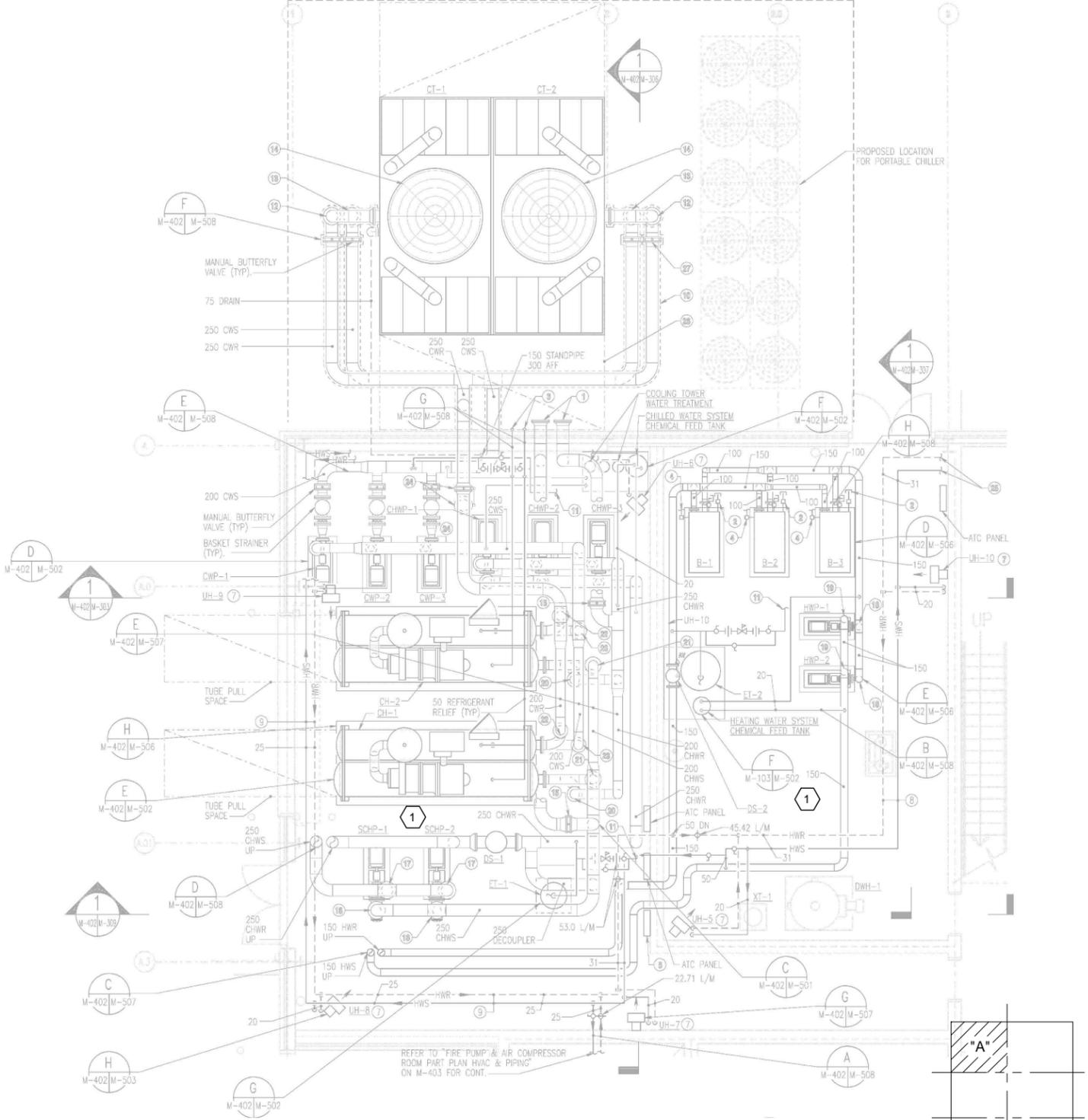
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 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

APPROVED: _____
 FOR COMMANDER NAVFAC
 ACTIVITY
 SATISFACTORY TO DATE: 06/02/2016
 DES: PTJ | DRW: IHK | CHK: BDC
 <<PM/DM>>
 BRANCH MANAGER: MHP
 CHIEF: ENG/ARCH
 <<XXX>>

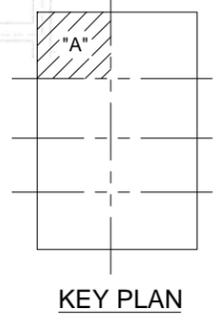
NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 DFSP
HVAC AND DDC FACILITY OPTIMIZATION
 BUILDING SP-300
 ENLARGED MECHANICAL PARTIAL PLANS

SCALE: AS NOTED
 EPROJECT NO.: 1333285
 CONSTR. CONTR. NO.: N62583-11-D-0533
 NAVFAC DRAWING NO.: 12724440
 SHEET 72 OF 119
M-401

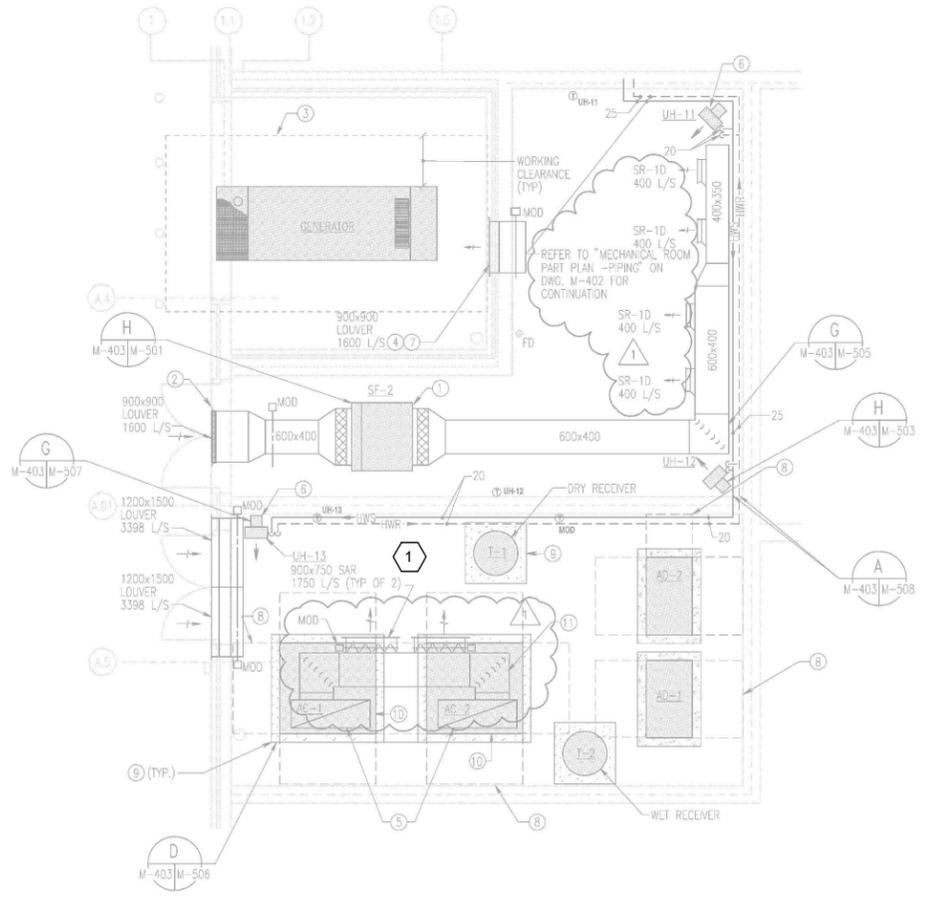
DRAWING REVISION: 10 MAY 2014



MECHANICAL ROOM PARTIAL PLAN - PIPING
 3/16"=1'-0"



KEY PLAN



**FIRE PUMP AND AIR COMPRESSOR ROOM
 PARTIAL PLANS - HVAC AND PIPING**
 3/16"=1'-0"



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