

BUILDING CEP-162

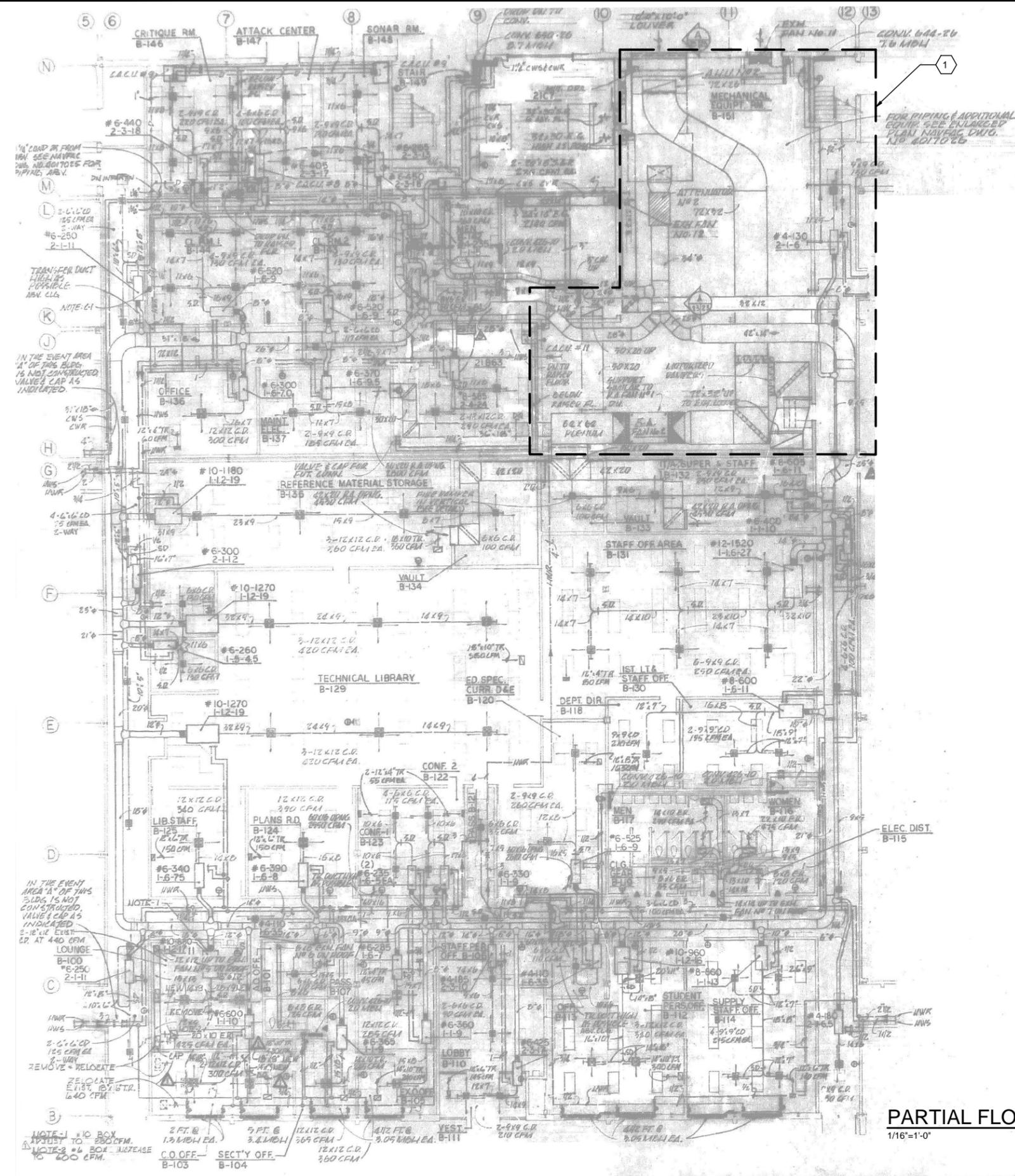
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PARTIAL FLOOR PLAN - AREA B

1/16"=1'-0"

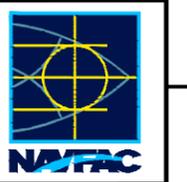
GENERAL NOTES

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.
5. RETROCOMMISSIONING THE BUILDING HVAC SYSTEM IS INCLUDED AS AN ECM. EXTEND RETROCOMMISSIONING EFFORT TO INCLUDE SMOKE DAMPER VERIFICATION, TEST AND BALANCE ALL BUILDING HVAC SYSTEMS AS PART OF RETRO COMMISSIONING.
6. CENTRAL MECHANICAL EQUIPMENT IS LOCATED IN THE FIRST FLOOR. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, AND PIPING.

SHEET KEYNOTES

1. REFER TO ENLARGED MECHANICAL ROOM PLAN ON DRAWING M-401 FOR EQUIPMENT LOCATION.

DATE	DESCRIPTION	BY	APPR



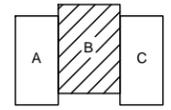
ch2m.
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

APPROVED	DATE
	06/02/2016
FOR COMMANDER NATAC	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
 MIA-ATLANTIC
 DTSP

**HVAC AND DDC
 FACILITY OPTIMIZATION**
 BUILDING CEP-162
 PARTIAL FLOOR PLAN - AREA B

SCALE: AS NOTED
 EPROJECT NO.: 1333285
 CONSTR. CONTR. NO. N62583-11-D-0533
 NAVFAC DRAWING NO. 12724381
 SHEET 13 OF 119
M-101
 DRAWING REVISION: 10 MAY 2014



KEY PLAN



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BUILDING CEP-198

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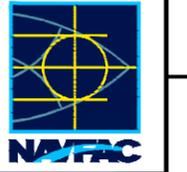
GENERAL NOTES

- 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 INCLUDED IN PART 6 OF THIS RFP.
- PROVIDE EQUIPMENT AND CONTROL COMPONENTS FOR A COMPLETE AND FUNCTIONAL SYSTEM.
- RECORD DRAWINGS OF THE MECHANICAL SYSTEMS, CURRENT POINTS LIST AND SEQUENCES, AND DDC CONNECTED COMPONENTS IN THE CONTROLLED AREA (ENCLOSED STORAGE 101, LIQUID PROCESSING 102, AND HIGH BAY 103) AND TWO STORY SECTION ARE INCLUDED FOR REFERENCE ONLY. REFER TO RECORD DRAWINGS M-1 THRU M-13.
- 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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

- ALL SPACES WITHIN ARE CONSIDERED CONTROLLED AREA. DDC SYSTEM CONTROLS PROCESS RELATED EQUIPMENT.
- TWO STORY PORTION OF FACILITY INCLUDES EXISTING HVAC CONTROLS ON SAME DDC SYSTEM AS THE CONTROLLED AREA.

NO.	DATE	DESCRIPTION

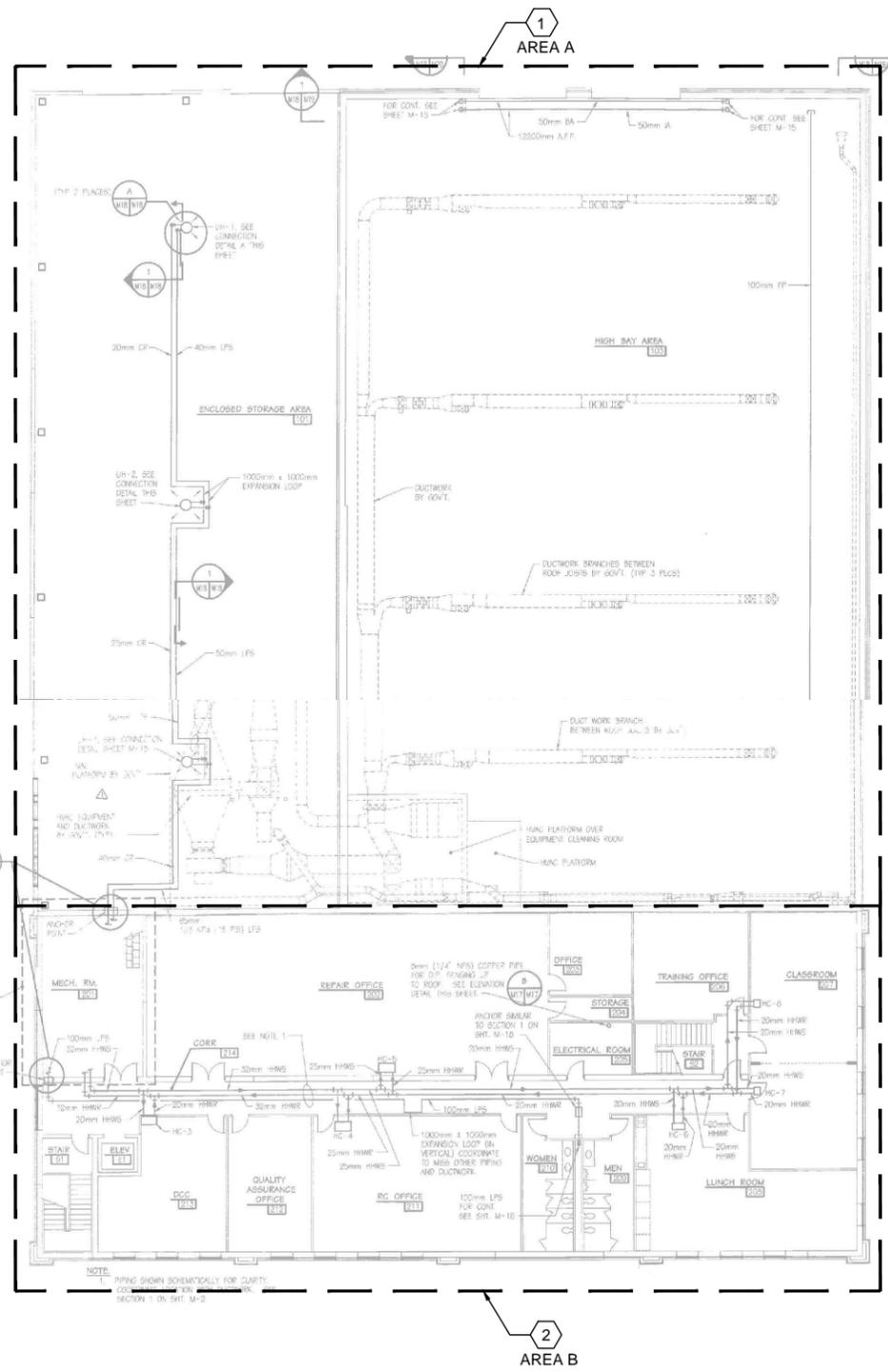
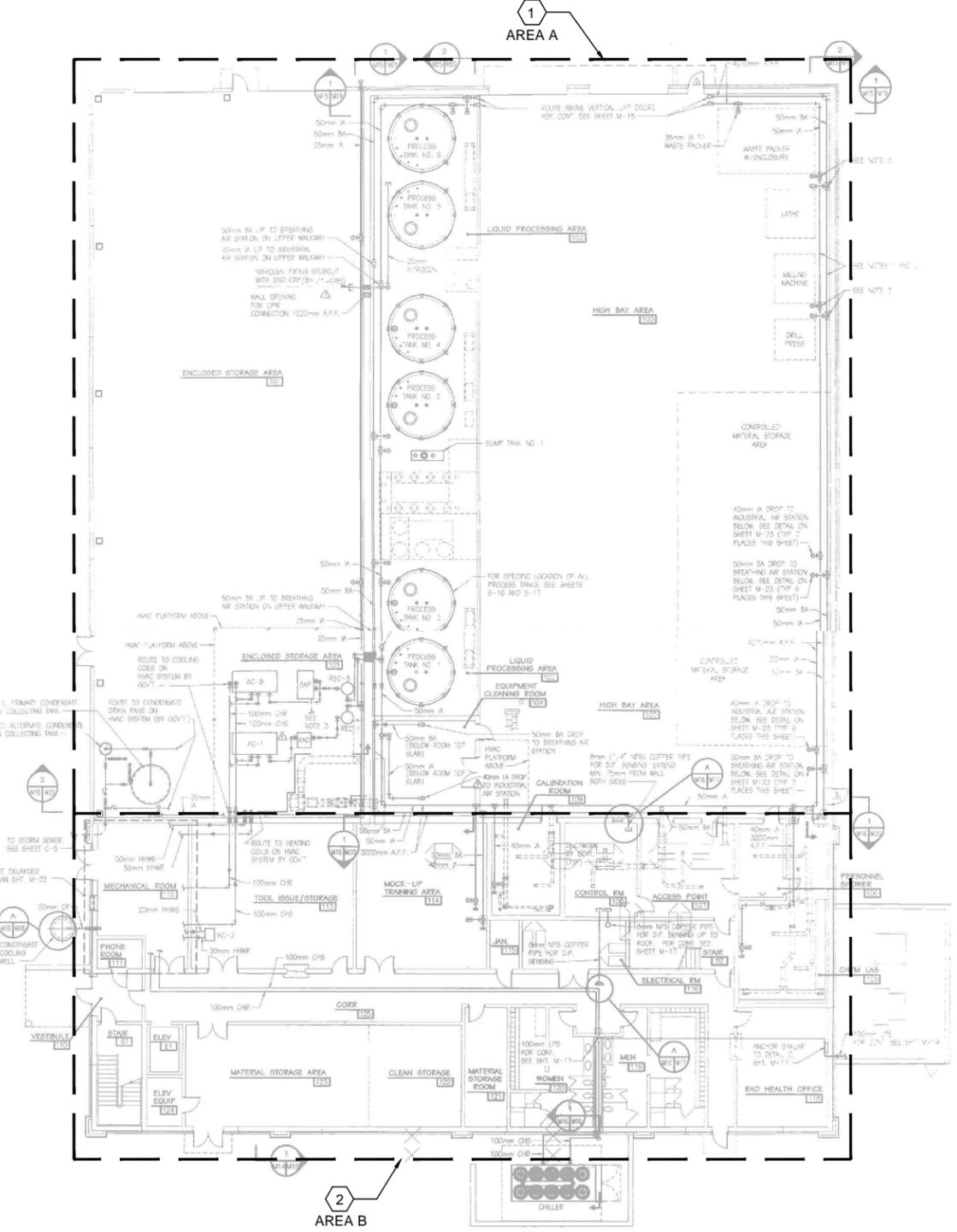


ch2m
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

FOR COMMANDER NAFAC
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
 MIDLANTIC
 DFSP
HVAC AND DDC FACILITY OPTIMIZATION
 BUILDING CEP-198
 FIRST AND SECOND FLOOR PARTIAL PLANS

SCALE:	1/16"=1'-0"
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAFAC DRAWING NO.:	12724383
SHEET	15 OF 119
M-101	
DRAWING REVISION: 10 MAY 2014	



1

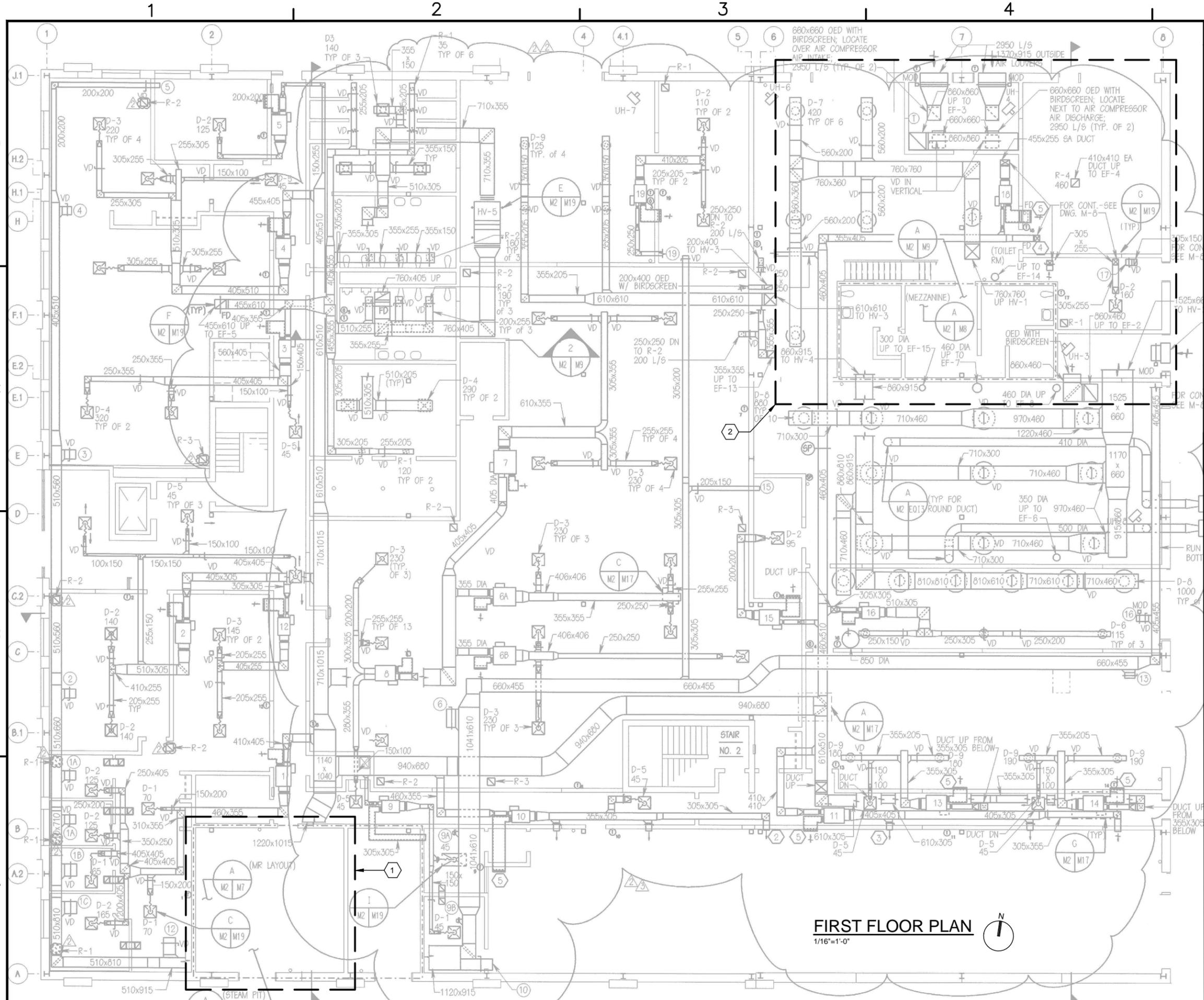
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BUILDING CEP-209



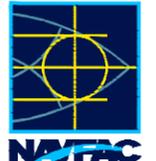
FIRST FLOOR PLAN
1/16"=1'-0"

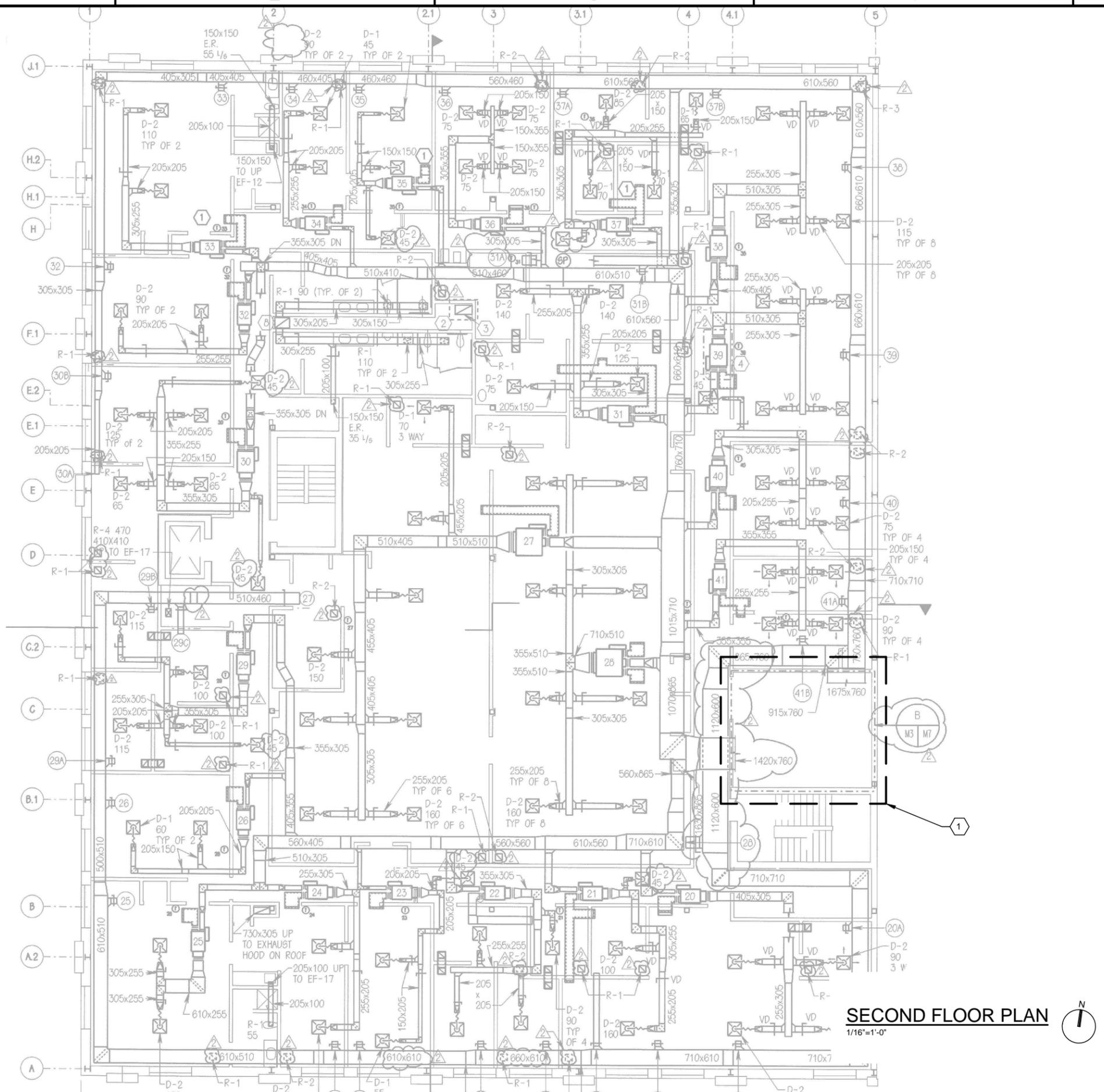
GENERAL NOTES

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 INCLUDED 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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. FIRST FLOOR MECHANICAL ROOM. REFER TO DRAWING M-103.
2. MEZZANINE EQUIPMENT LOCATED ABOVE. REFER TO DRAWING M-104.

DATE	APPR.
DESCRIPTION	REV.
	
	
2411 Dulles Corner Park Suite 500 Herndon, VA 20177	
APPROVED: _____ FOR COMMANDER NATAC 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 MDP-ATLANTIC DFSP	
HVAC AND DDC FACILITY OPTIMIZATION BUILDING CEP-209 FIRST FLOOR PLAN	
SCALE: AS NOTED EPROJECT NO.: 1333285 CONSTR. CONTR. NO.: N62583-11-D-0533 NAVFAC DRAWING NO.: 12724384 SHEET 16 OF 119	
M-101 <small>DRAWING REVISION: 10 MAY 2014</small>	



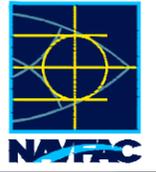
SECOND FLOOR PLAN
1/16"=1'-0"

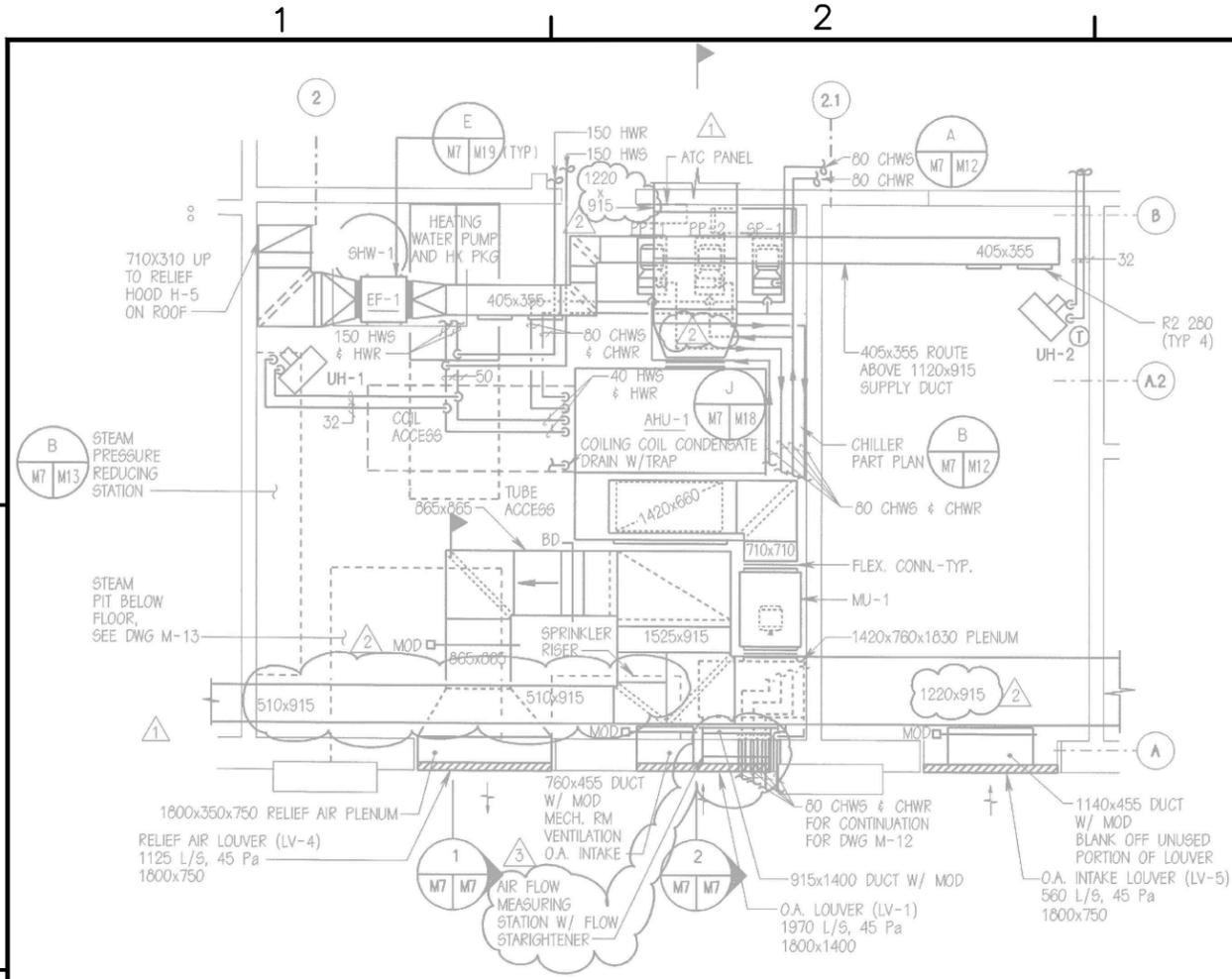
GENERAL NOTES

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 INCLUDED 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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.

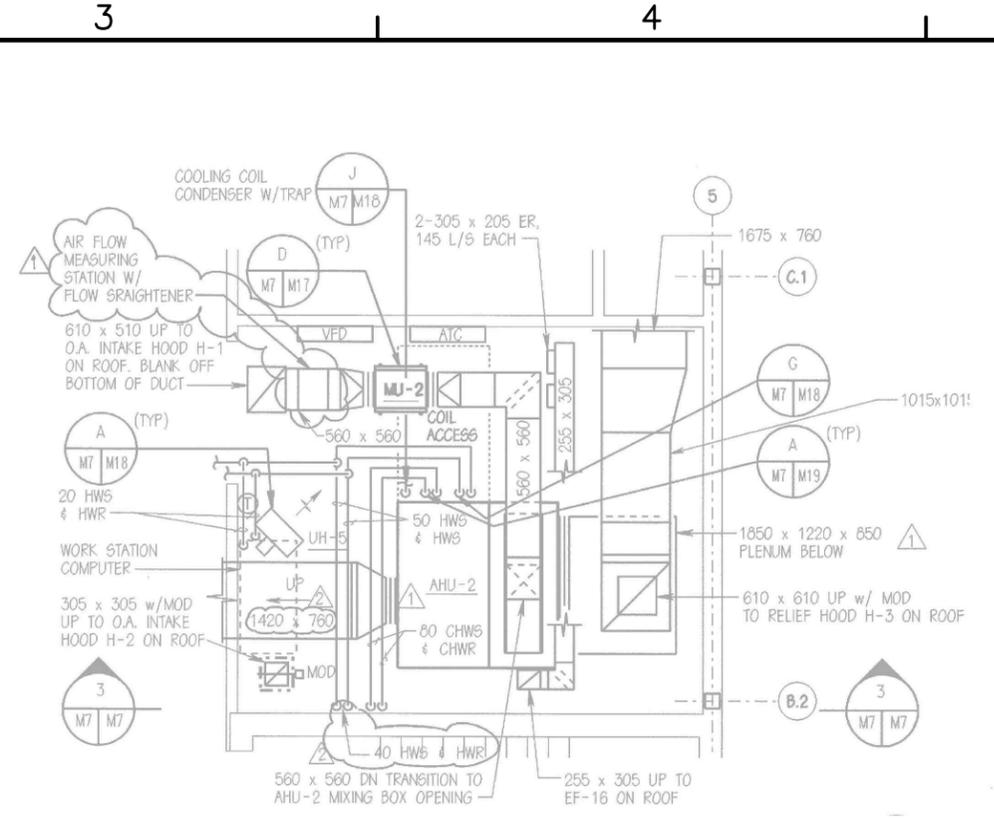
SHEET KEYNOTES

- 1 SECOND FLOOR MECHANICAL ROOM. REFER TO DRAWING M-103.

	APPR
	DATE
	DESCRIPTION
	REV
	
	
2411 Dulles Corner Park Suite 500 Herndon, VA 20177	
AVE INFO	
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 ENGINEERING COMMAND NAVFAC DTFSP	NORFOLK, VA
HVAC AND DDC FACILITY OPTIMIZATION BUILDING CEP-209 SECOND FLOOR PLAN	
SCALE: AS NOTED	
EPROJCT NO.: 1333285	
CONSTR. CONTR. NO. N62583-11-D-0533	
NAVFAC DRAWING NO. 12724385	
SHEET 17 OF 119	
M-102	
DRAWING REVISION: 10 MAY 2014	

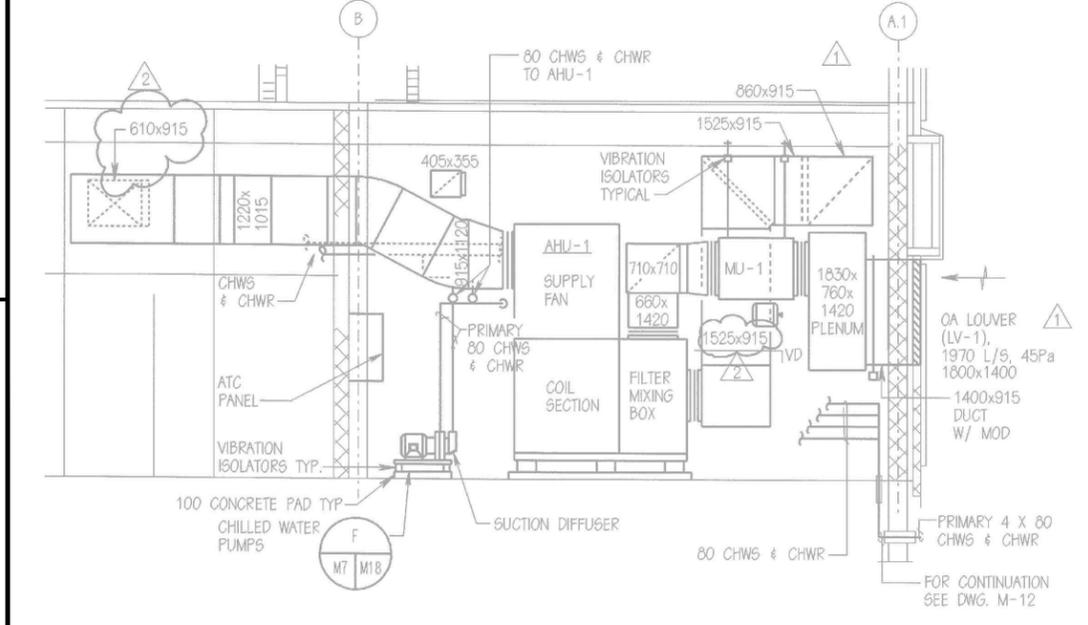


PARTIAL PLAN - FIRST FLOOR MECHANICAL ROOM
1/8"=1'-0"

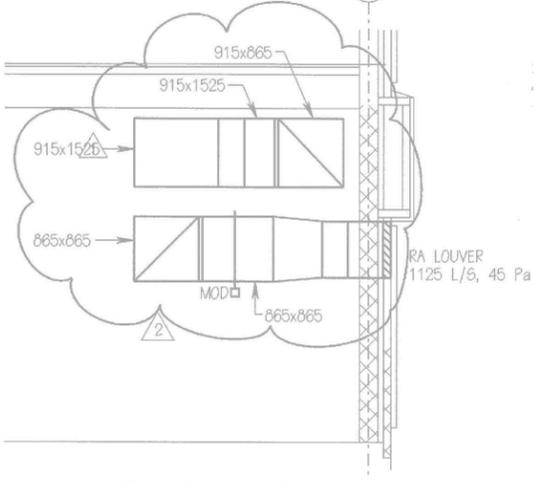


PARTIAL PLAN - SECOND FLOOR MECHANICAL ROOM
1/8"=1'-0"

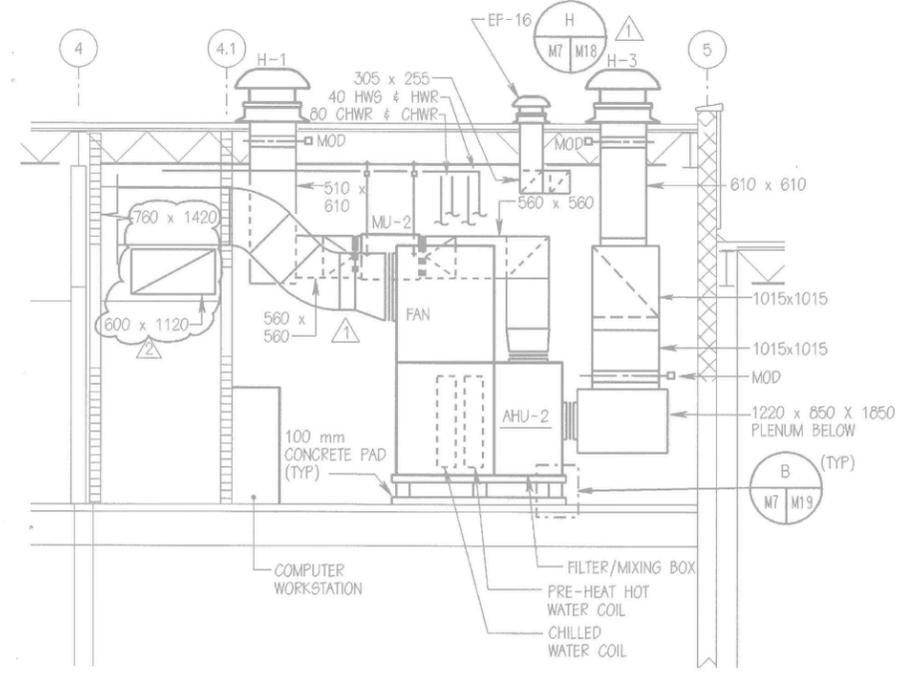
- GENERAL NOTES**
1. THIS PROJECT INCLUDES REPLACING THE EXISTING DDC SYSTEM THROUGHOUT THE FACILITY. UPGRADE CONSISTS OF REPLACING OR ADDING CONTROLS, VALVES AS NECESSARY, ACTUATORS, AND SENSORS FOR ALL EQUIPMENT PER THE DDC POINTS LIST INCLUDED IN PART 6 OF THIS RFP.
 2. RECORD DRAWINGS OF THE MECHANICAL 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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.



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

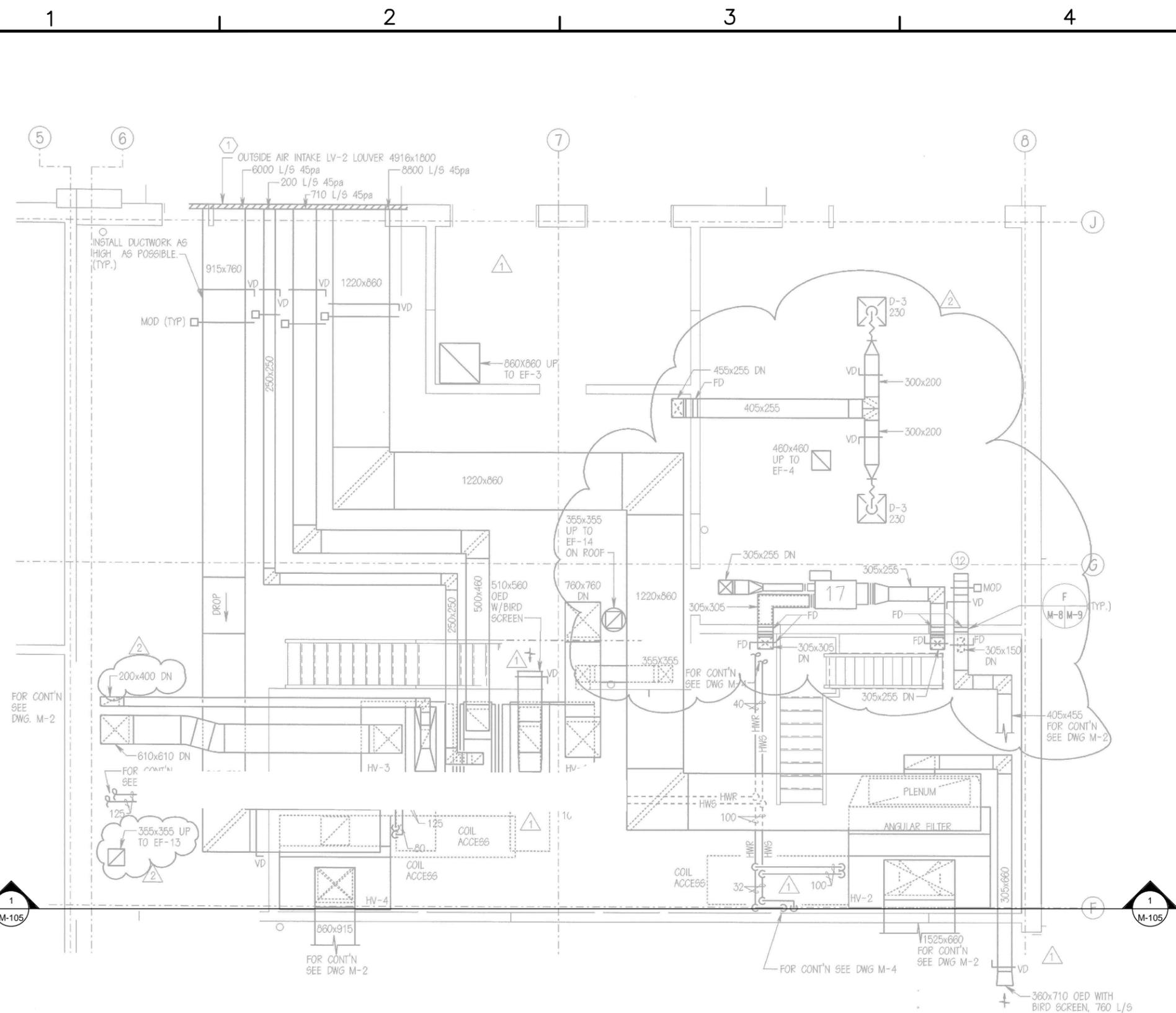


1 SECTION
1/8"=1'-0"



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

APPROVED	DATE
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	
HVIC AND DDC	
FACILITY OPTIMIZATION	
BUILDING CEP-209	
MECHANICAL ROOM PARTIAL PLANS AND SECTIONS	
SCALE:	AS NOTED
EPROJCT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724386
SHEET	18 OF 119
M-103	
DRAWING REVISION: 10 MAY 2014	



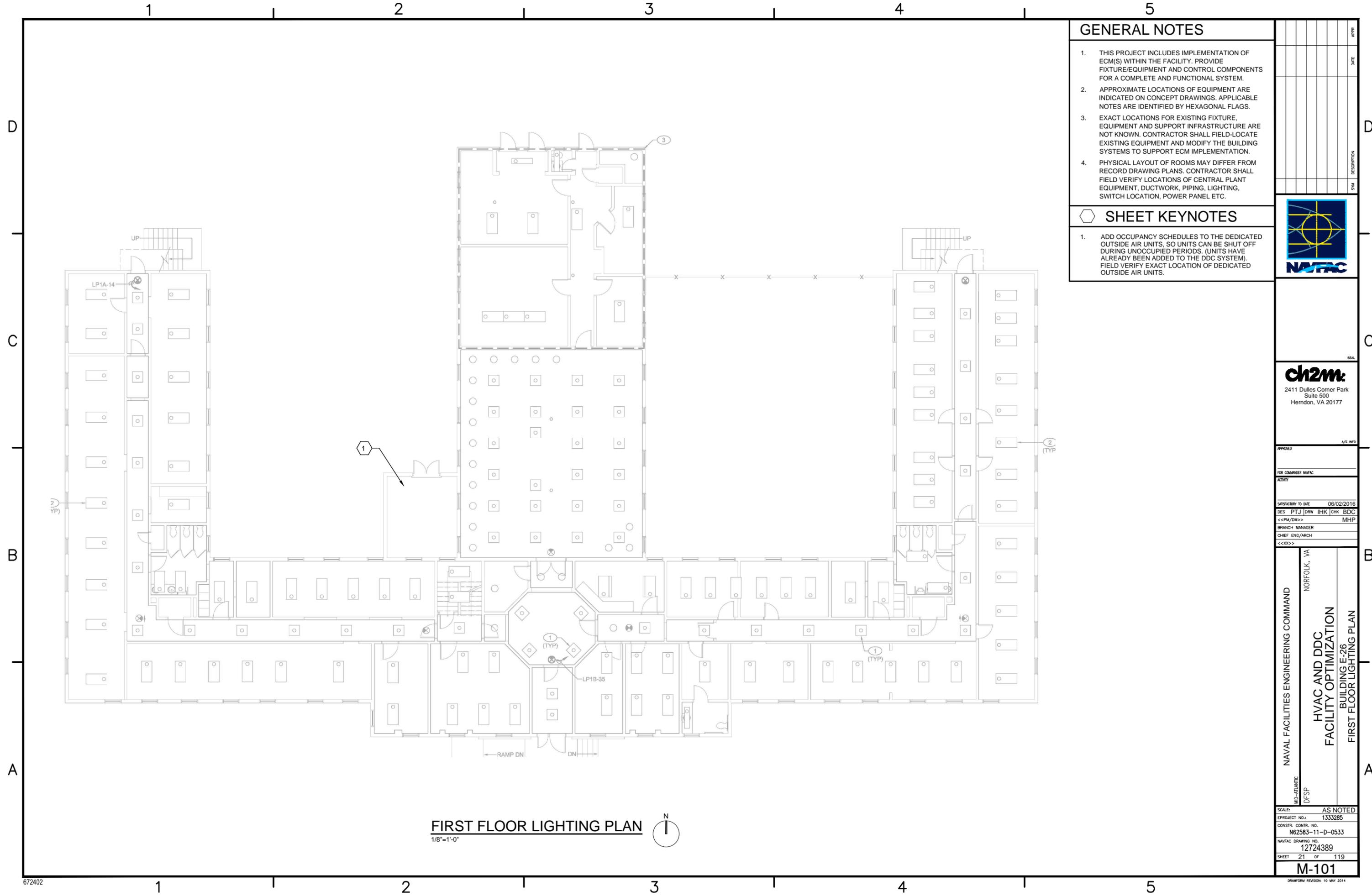
PLAN - MEZZANINE MECHANICAL EQUIPMENT AREA
 1/8"=1'-0"



- 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 INCLUDED 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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.

APPR.	DATE
REV.	DESCRIPTION
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>>	
NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VA HVAC AND DDC FACILITY OPTIMIZATION BUILDING CEP-209 MEZZANINE PARTIAL PLAN	
SCALE: AS NOTED EPROJECT NO.: 1333285 CONSTR. CONTR. NO. N62583-11-D-0533 NAVFAC DRAWING NO. 12724387 SHEET 19 OF 119	
M-104 <small>DRAWING REVISION: 10 MAY 2014</small>	

BUILDING E-26



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

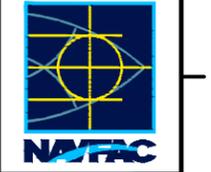
GENERAL NOTES

1. THIS PROJECT INCLUDES IMPLEMENTATION OF ECM(S) WITHIN THE FACILITY. PROVIDE FIXTURE/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 FIXTURE, 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 ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, PIPING, LIGHTING, SWITCH LOCATION, POWER PANEL ETC.

SHEET KEYNOTES

1. ADD OCCUPANCY SCHEDULES TO THE DEDICATED OUTSIDE AIR UNITS, SO UNITS CAN BE SHUT OFF DURING UNOCCUPIED PERIODS. (UNITS HAVE ALREADY BEEN ADDED TO THE DDC SYSTEM). FIELD VERIFY EXACT LOCATION OF DEDICATED OUTSIDE AIR UNITS.

REV	DESCRIPTION	DATE	APPR



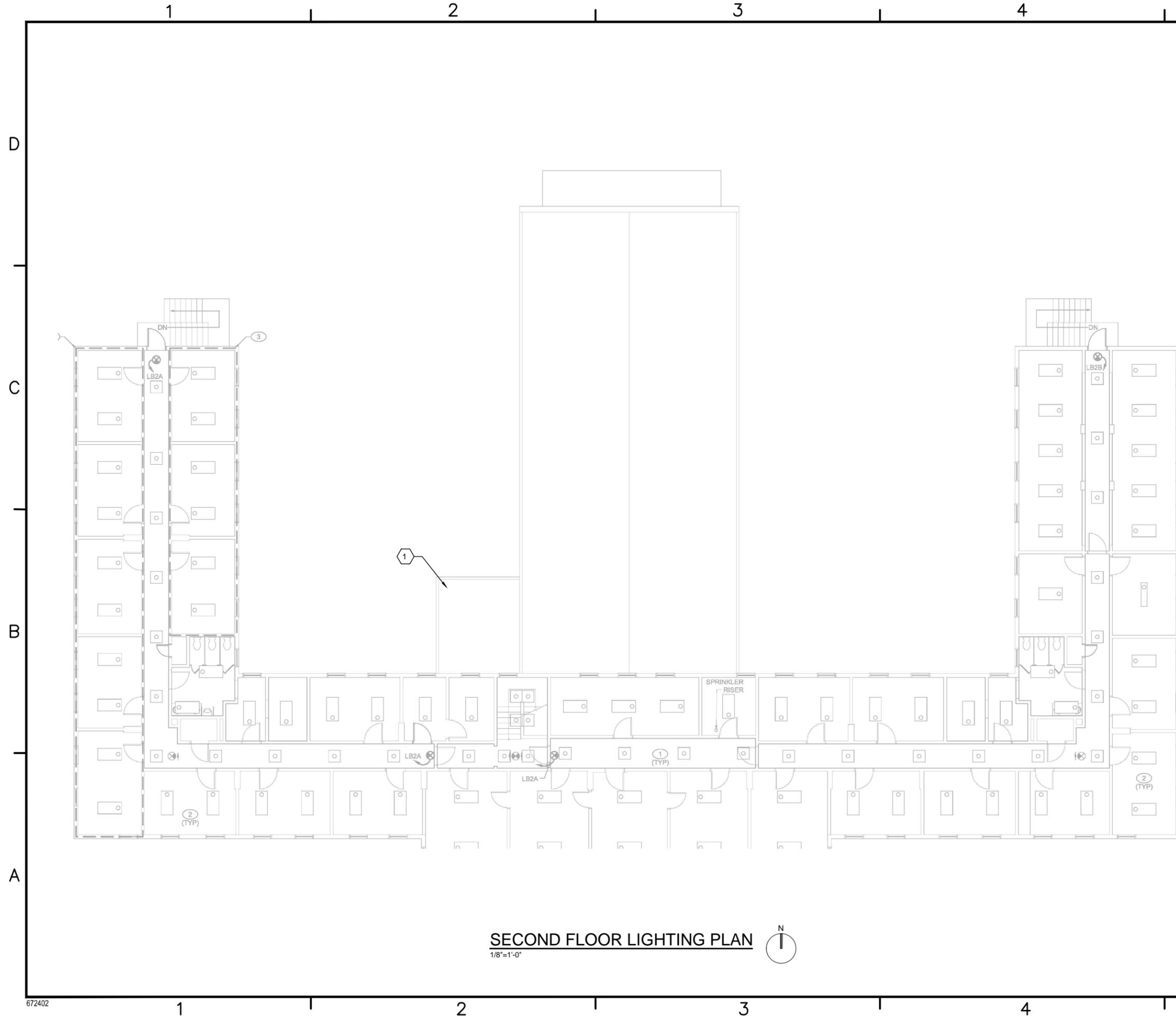
ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

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

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA
HVIC AND DDC
FACILITY OPTIMIZATION
BUILDING E-26
FIRST FLOOR LIGHTING PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724389
SHEET	21 OF 119

M-101
DRAWING REVISION: 10 MAY 2014



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

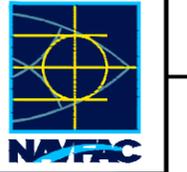
GENERAL NOTES

1. THIS PROJECT INCLUDES IMPLEMENTATION OF ECM(S) WITHIN THE FACILITY. PROVIDE FIXTURE/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 FIXTURE, 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 ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, PIPING, LIGHTING, SWITCH LOCATION, POWER PANEL ETC.

SHEET KEYNOTES

1. ADD OCCUPANCY SCHEDULES TO THE DEDICATED OUTSIDE AIR UNITS, SO UNITS CAN BE SHUT OFF DURING UNOCCUPIED PERIODS. (UNITS HAVE ALREADY BEEN ADDED TO THE DDC SYSTEM). FIELD VERIFY EXACT LOCATION OF DEDICATED OUTSIDE AIR UNITS.

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 IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<XXX>

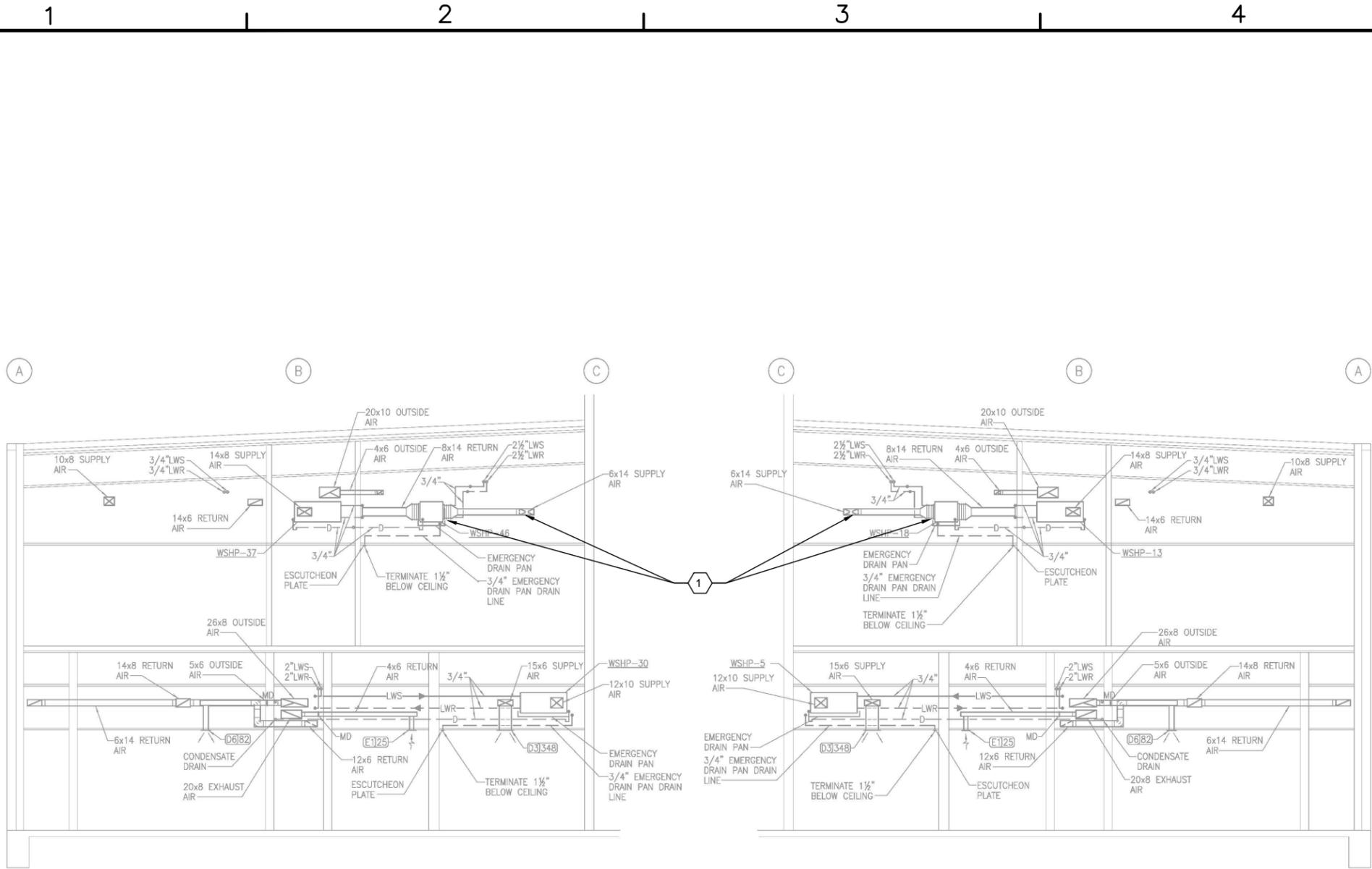
NAVFAC
MID-ATLANTIC
DFSP
NORFOLK, VA
NAVAL FACILITIES ENGINEERING COMMAND
HVAC AND DDC
FACILITY OPTIMIZATION
BUILDING E-26
SECOND FLOOR LIGHTING PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724390
SHEET	22 OF 119

M-102
DRAWING REVISION: 10 MAY 2014

BUILDING J-50

BUILDING LF-59



B2 PHASE 2 SECTION THRU WEST WING
 3/16" = 1'-0"
 M-101

B4 PHASE 1 SECTION THRU EAST WING
 3/16" = 1'-0"
 M-102

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.
2. APPROXIMATE LOCATIONS OF EQUIPMENT ARE INDICATED ON CONCEPT DRAWINGS. APPLICABLE NOTES ARE IDENTIFIED BY HEXAGONAL FLAGS.
3. EXACT LOCATIONS FOR EXISTING EQUIPMENT AND AVAILABLE DDC PANELS ARE NOT KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND INSTALL ADDITIONAL CONTROLLERS OR PANELS AS NECESSARY TO EXTEND THE EXISTING DDC NETWORK TO ACCOMMODATE THE ADDITIONAL CONTROL POINTS.
4. PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWING PLANS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, AND PIPING FOR INSTALLATION OF ADDITIONAL DDC SENSORS AND EQUIPMENT.
5. REFER TO RECORD DRAWINGS IN PART 6 FOR INFORMATION REGARDING EXISTING EQUIPMENT CONFIGURATION AND CONTROL SEQUENCES.

SHEET KEYNOTES

- 1 REPRESENTATIVE SECTION THROUGH ADMINISTRATIVE PORTION OF FACILITY SHOWING TYPICAL WSHP INSTALLATION ABOVE CEILINGS.

REV	DESCRIPTION	DATE



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
 MDP-ATLANTIC
 DFSP
 NORFOLK, VA
 HVAC AND DDC
 FACILITY OPTIMIZATION
 BUILDING LF-59
 SECTIONS

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724394
SHEET	26 OF 119

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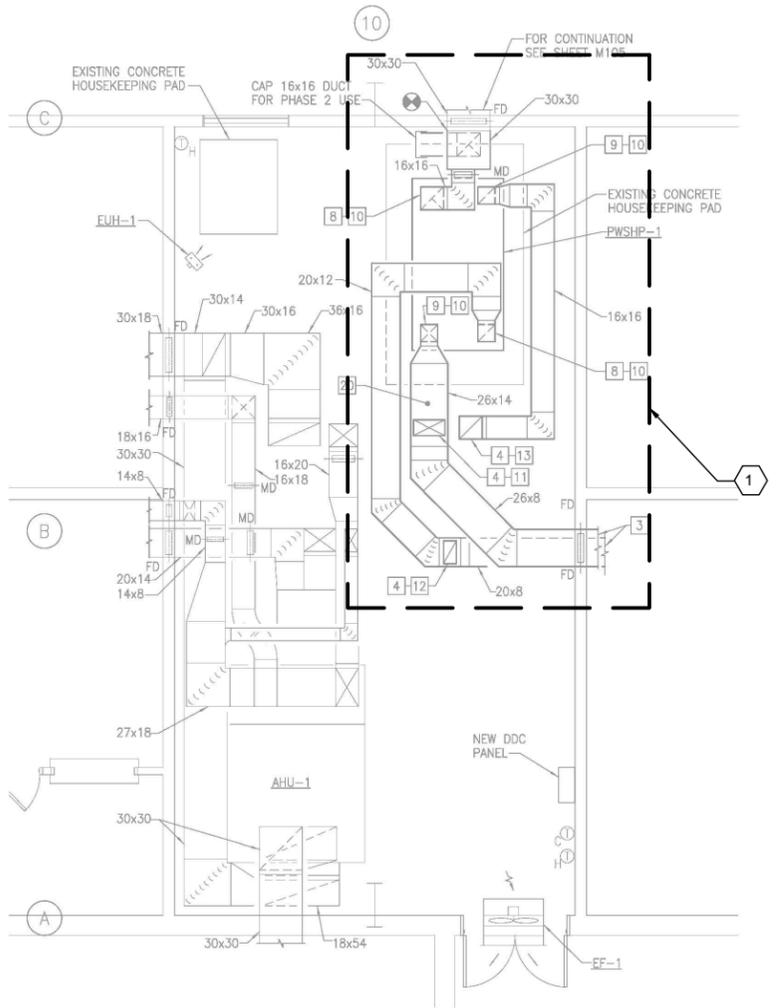
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GENERAL NOTES

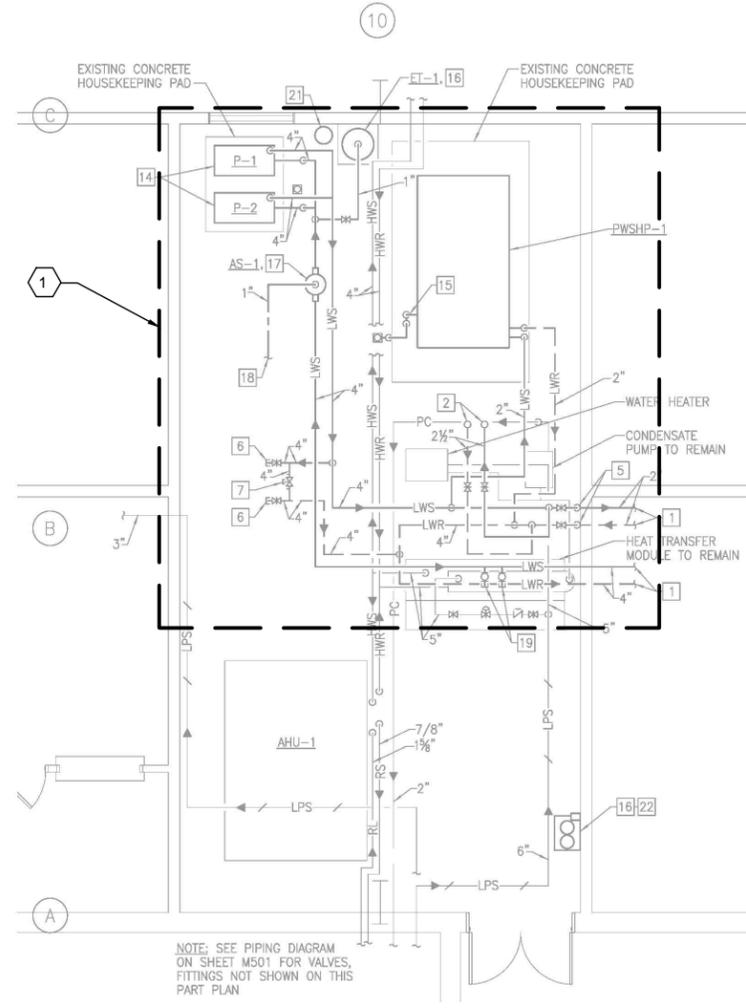
1. THIS PROJECT INCLUDES EXPANSION OF THE EXISTING DDC CONTROL SYSTEM TO INCLUDE POINTS TABULATED IN THE POINTS LIST IN PART 6 OF THIS RFP.
2. APPROXIMATE LOCATIONS OF EQUIPMENT ARE INDICATED ON CONCEPT DRAWINGS. APPLICABLE NOTES ARE IDENTIFIED BY HEXAGONAL FLAGS.
3. EXACT LOCATIONS FOR EXISTING EQUIPMENT AND AVAILABLE DDC PANELS ARE NOT KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING CONTROLLERS OR PANELS AS NECESSARY TO EXTEND THE EXISTING DDC NETWORK TO ACCOMMODATE THE ADDITIONAL CONTROL POINTS.
4. PHYSICAL LAYOUT OF MECHANICAL ROOMS MAY DIFFER FROM RECORD DRAWINGS. CONTRACTOR SHALL FIELD VERIFY LOCATIONS OF CENTRAL PLANT EQUIPMENT, DUCTWORK, AND PIPING FOR INSTALLATION OF ADDITIONAL DDC SENSORS AND EQUIPMENT.
5. REFER TO RECORD DRAWINGS IN PART 6 FOR INFORMATION REGARDING EXISTING EQUIPMENT CONFIGURATION AND CONTROL SEQUENCES.

SHEET KEYNOTES

- 1 CURRENT MECHANICAL EQUIPMENT REPRESENTED ON THIS SHEET. REFER TO SHEET M-401 AND LF-59 RECORD DRAWINGS FOR ADDITIONAL MECHANICAL EQUIPMENT.

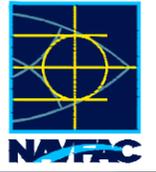


A1 PHASE 1 HVAC MECHANICAL ROOM ENLARGED DUCTWORK PLAN
1/4" = 1'-0"



A3 PHASE 1 HVAC MECHANICAL ROOM ENLARGED PIPING PLAN
1/4" = 1'-0"

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>

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VA
HVC AND DDC
FACILITY OPTIMIZATION
BUILDING LF-59
ENLARGED MECHANICAL ROOM PLANS
M-ATLANTIC
DFSP

SCALE:	AS NOTED
PROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724396
SHEET	28 OF 119

M-402

DRAWING REVISION: 10 MAY 2014

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BUILDING LP-21

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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 INCLUDED 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 KNOWN. CONTRACTOR SHALL FIELD-LOCATE EXISTING EQUIPMENT AND CONTROL RELATED COMPONENTS FOR USE IN 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. FIELD VERIFY EQUIPMENT LOCATIONS IN HANGAR AREA.

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>>

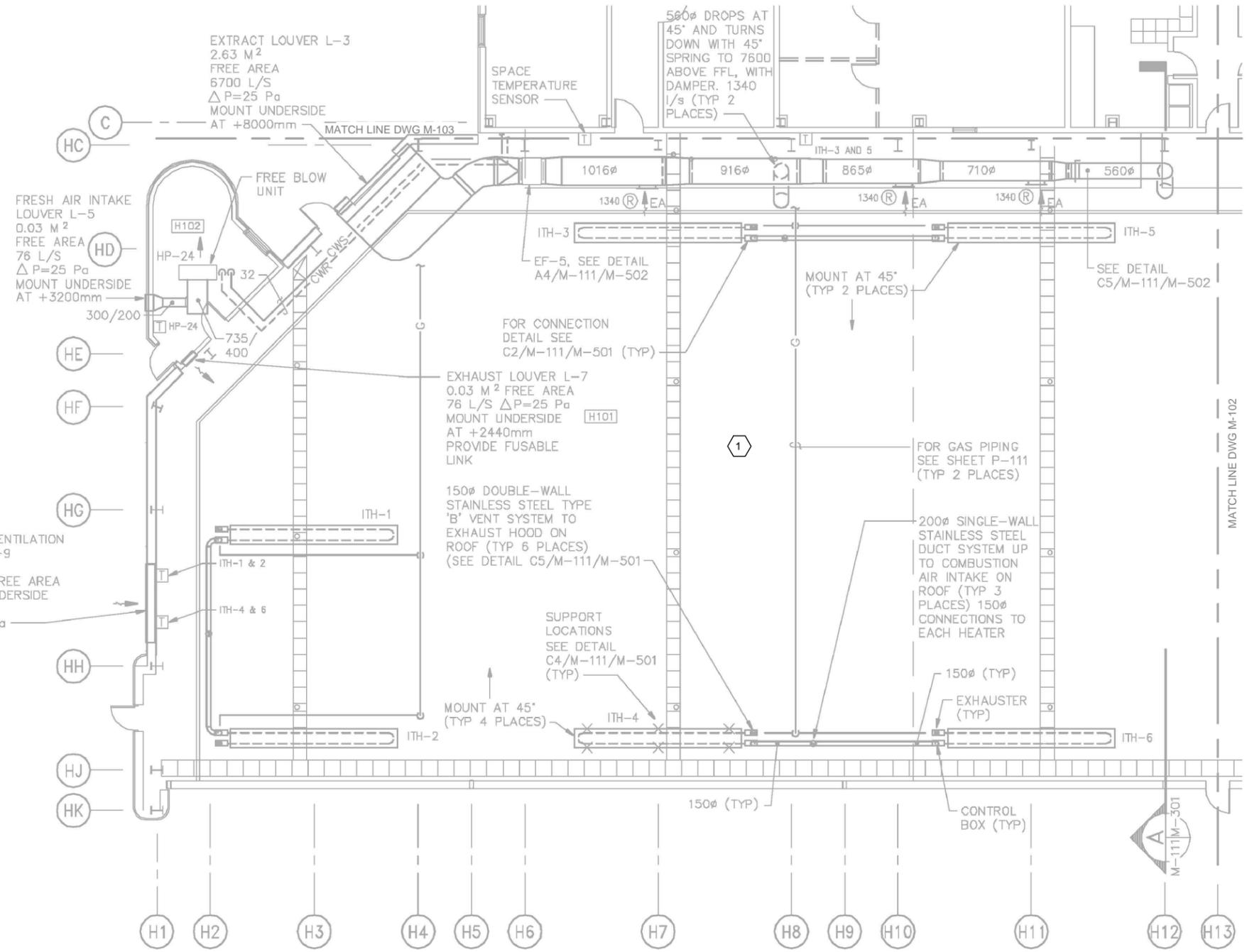
NAVAL FACILITIES ENGINEERING COMMAND
 NAVFAC
 DFSP
 NORFOLK, VA

HVAC AND DDC FACILITY OPTIMIZATION
 BUILDING LP-21
 PARTIAL FIRST FLOOR PLAN - MECHANICAL

SCALE: AS NOTED
 EPROJECT NO.: 1333285
 CONSTR. CONTR. NO. N62583-11-D-0533
 NAVFAC DRAWING NO. 12724397
 SHEET 29 OF 119

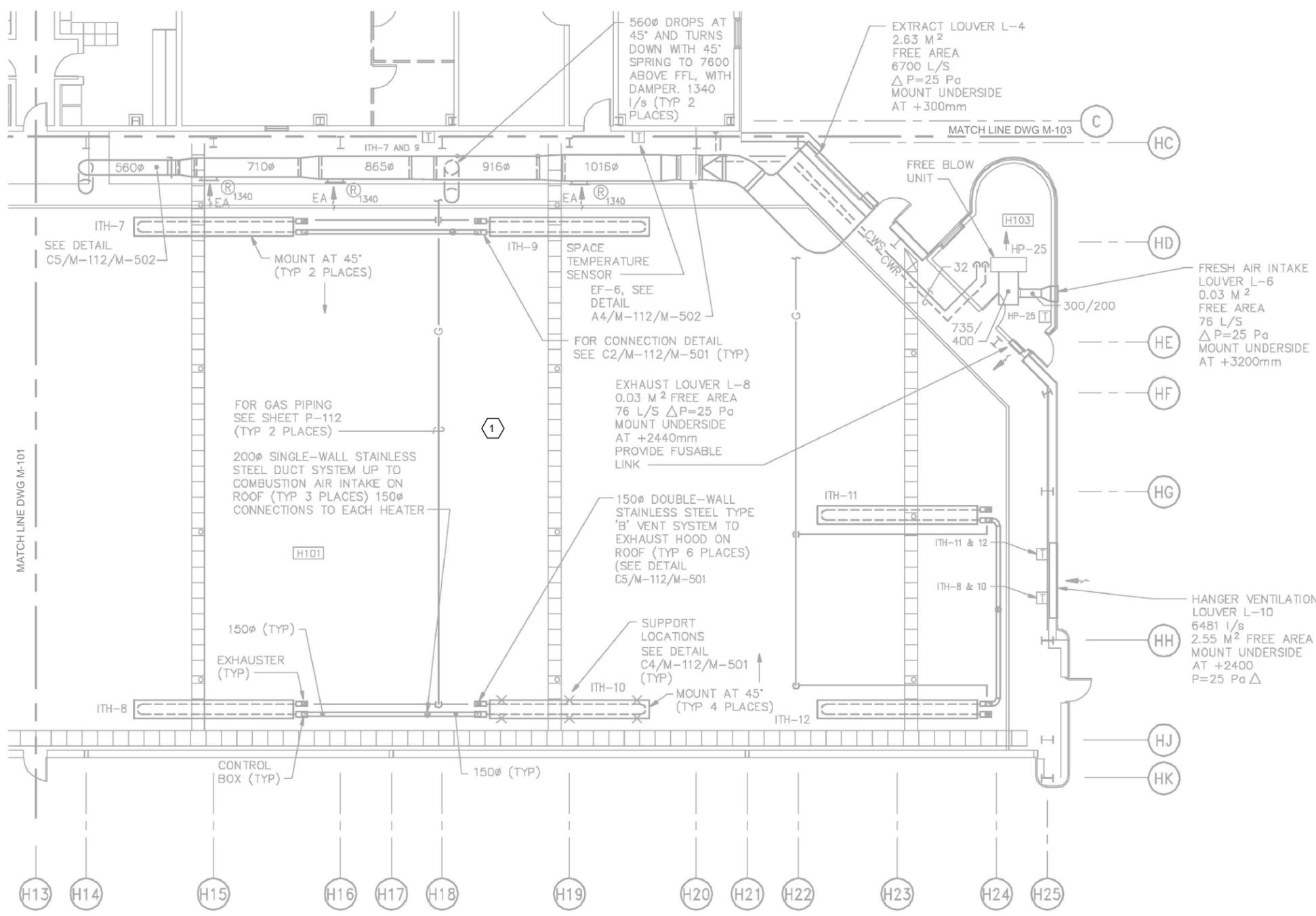
M-101

DRAMFORM REVISION: 10 MAY 2014



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





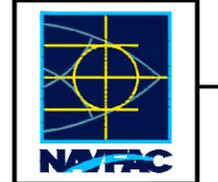
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6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

1. FIELD VERIFY EQUIPMENT LOCATIONS IN HANGAR AREA.

REV	DESCRIPTION	DATE	APPR



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>

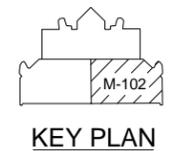
NAVFAC
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

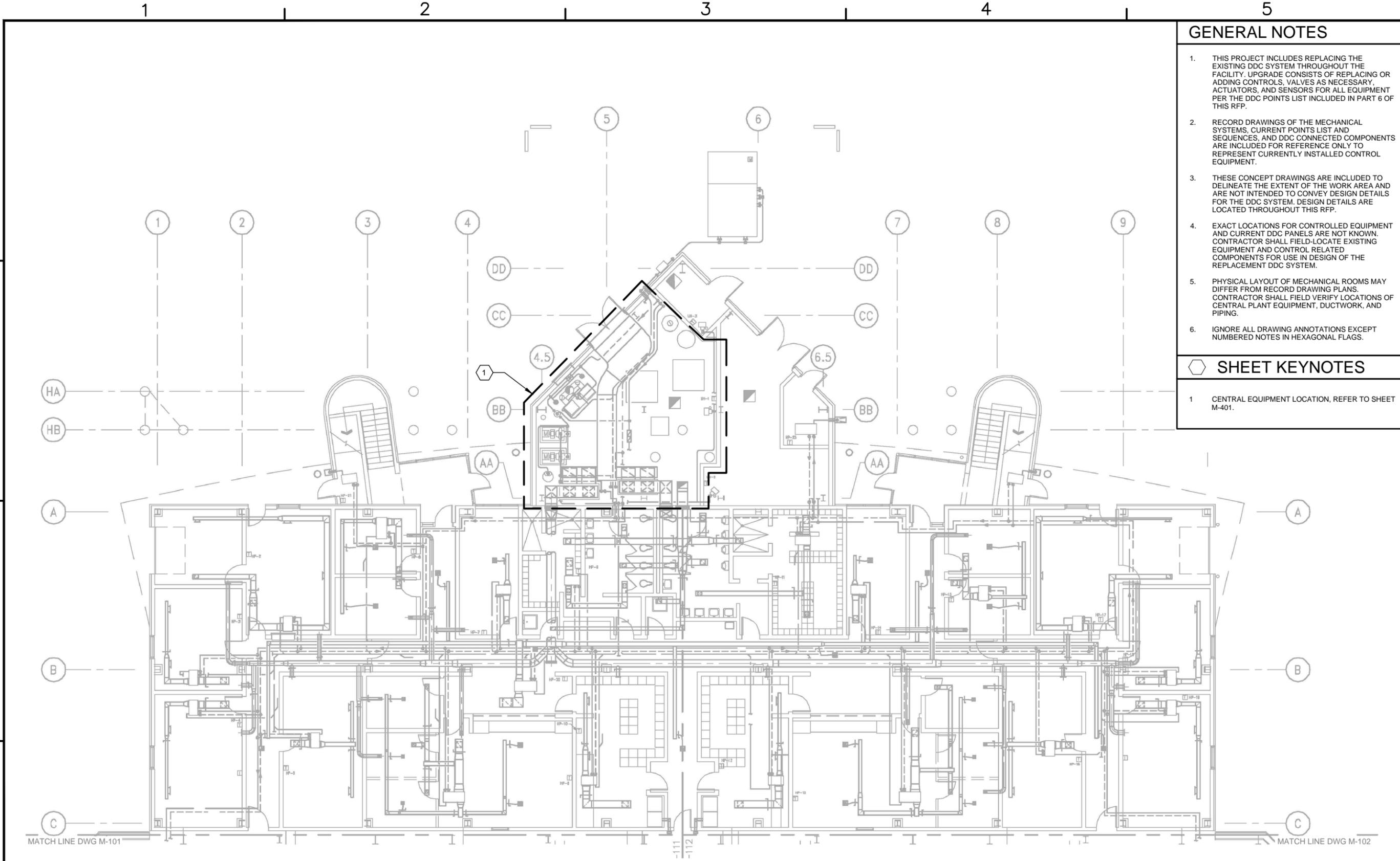
NAVFAC
NORFOLK, VA
DFSP
NAVAL FACILITIES ENGINEERING COMMAND
HVIC AND DDC
FACILITY OPTIMIZATION
BUILDING LP-21
PARTIAL FIRST FLOOR PLAN - MECHANICAL

SCALE: AS NOTED
EPROJECT NO.: 1333285
CONSTR. CONTR. NO. N62583-11-D-0533
NAVFAC DRAWING NO. 12724398
SHEET 30 OF 119

M-102
DRAWING REVISION: 10 MAY 2014

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





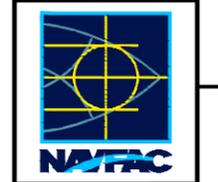
GENERAL NOTES

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6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

- 1 CENTRAL EQUIPMENT LOCATION, REFER TO SHEET M-401.

REV	DESCRIPTION	DATE	APPR



ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

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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
NORFOLK, VA
DFSP

NAVAL FACILITIES ENGINEERING COMMAND
HVAC AND DDC
FACILITY OPTIMIZATION
BUILDING LP-21
PARTIAL FIRST FLOOR PLAN - MECHANICAL

SCALE: AS NOTED
EPROJECT NO.: 1333285
CONSTR. CONTR. NO. N62583-11-D-0533
NAVFAC DRAWING NO. 12724399
SHEET 31 OF 119
M-103

DRAWING REVISION: 10 MAY 2014

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



KEY PLAN

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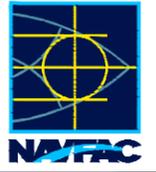
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GENERAL NOTES

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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
 DFS
 NAVFACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 HVAC AND DDC
 FACILITY OPTIMIZATION
 BUILDING LP-21
 PARTIAL SECOND FLOOR PLAN - MECHANICAL

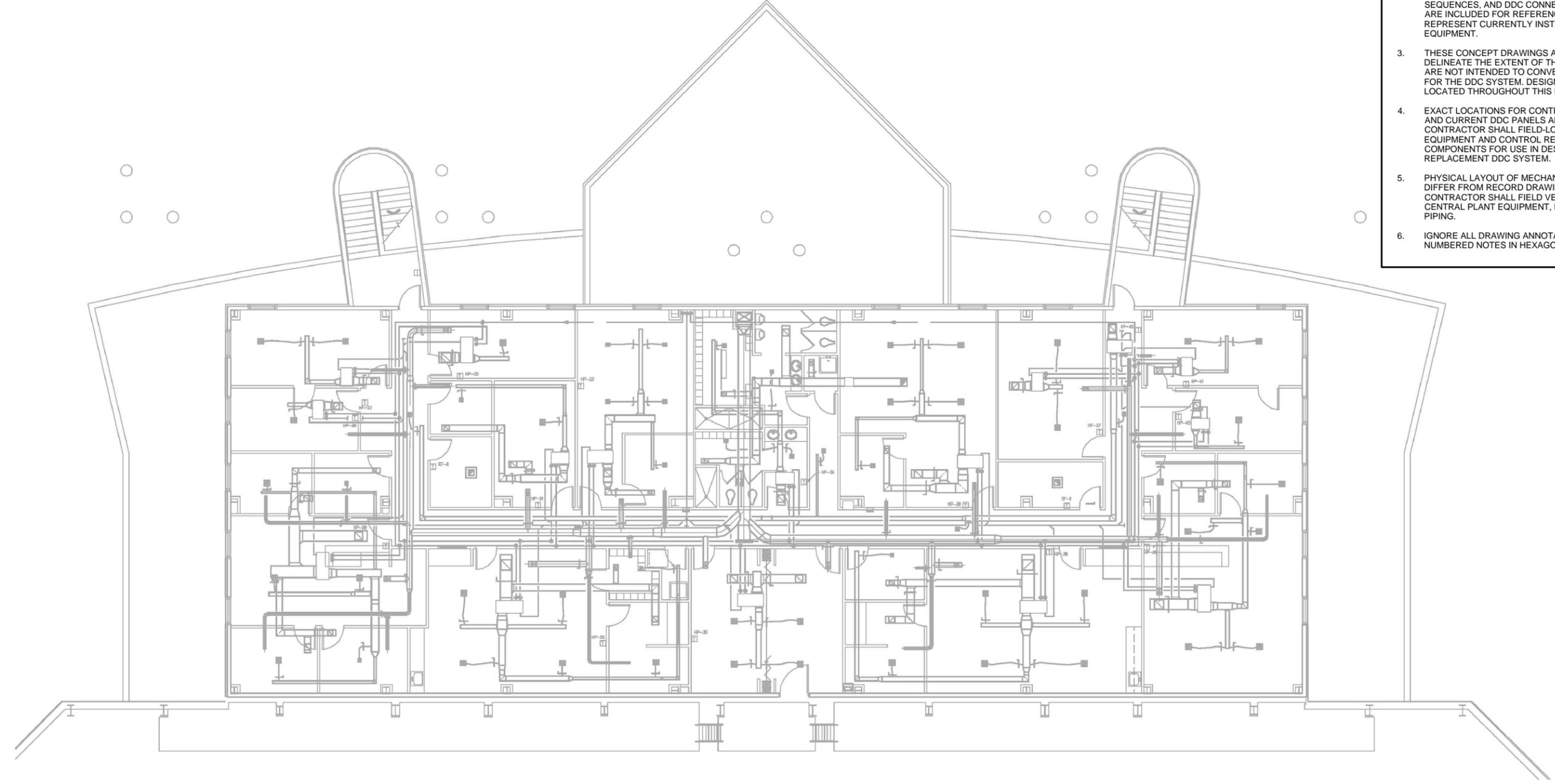
SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724400
SHEET	32 OF 119
M-104	

DATE

DESCRIPTION

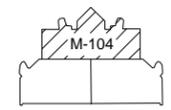
DATE

DESCRIPTION



PARTIAL SECOND FLOOR PLAN - MECHANICAL

1/8"=1'-0"



KEY PLAN

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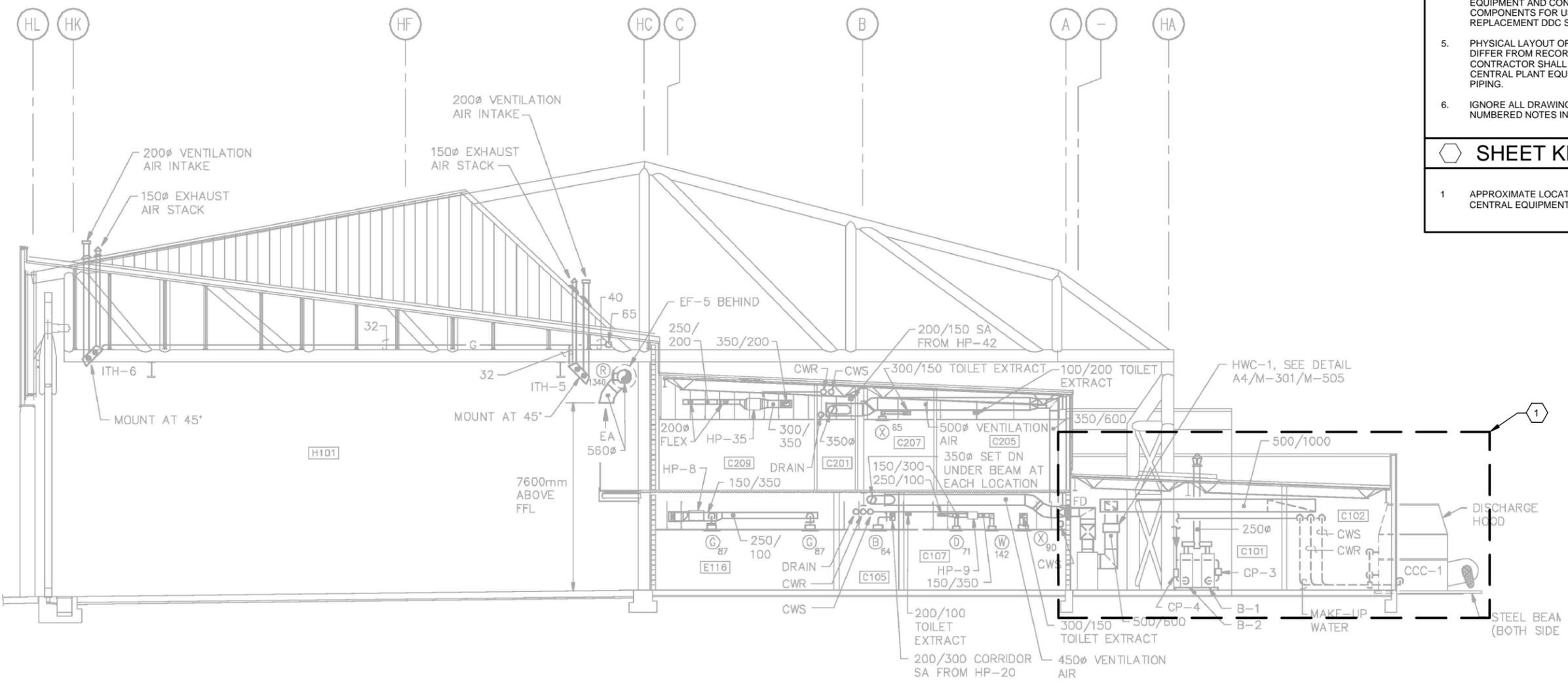
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GENERAL NOTES

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6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

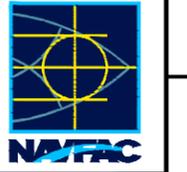
SHEET KEYNOTES

1. APPROXIMATE LOCATION OF FIRST FLOOR CENTRAL EQUIPMENT.



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

REV	DESCRIPTION	DATE	APPR



ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

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

NAVFAC ENGINEERING COMMAND
NORFOLK, VA
HVC AND DDC
FACILITY OPTIMIZATION
BUILDING LP-21
SECTION

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724401
SHEET	33 OF 119

M-301
DRAWING REVISION: 10 MAY 2014

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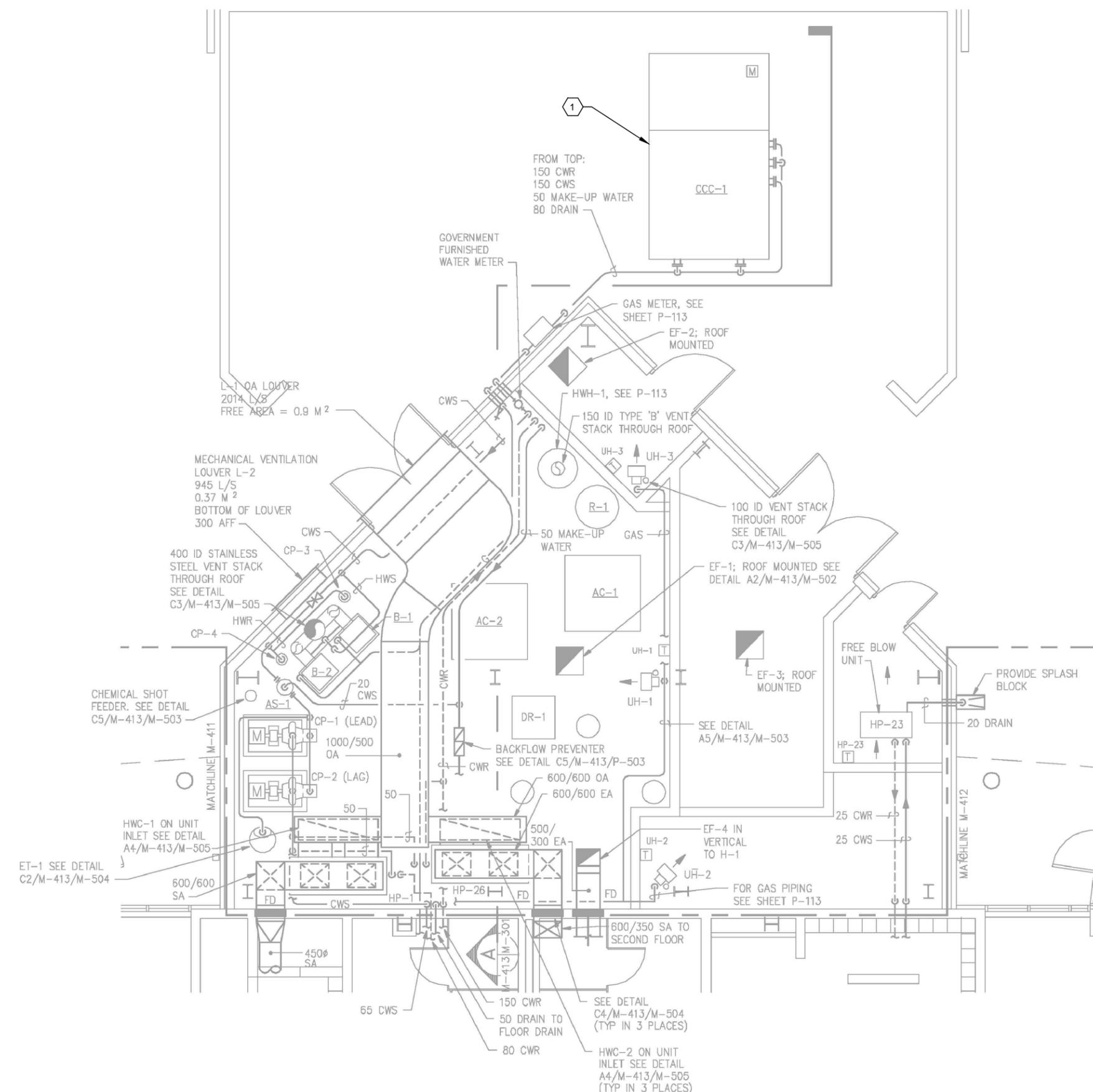
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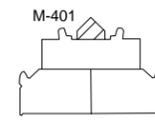
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MECHANICAL ROOM LAYOUT
1/4"=1'-0"



KEY PLAN

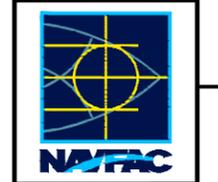
GENERAL NOTES

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6. IGNORE ALL DRAWING ANNOTATIONS EXCEPT NUMBERED NOTES IN HEXAGONAL FLAGS.

SHEET KEYNOTES

1. FIELD VERIFY LOCATION OF EXTERIOR MECHANICAL EQUIPMENT.

REV	DESCRIPTION	DATE	APPR



ch2m
2411 Dulles Corner Park
Suite 500
Herndon, VA 20177

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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 ENGINEERING COMMAND
NORFOLK, VA

DFSP

HVAC AND DDC FACILITY OPTIMIZATION
BUILDING LP-21
ENLARGED MECHANICAL ROOM LAYOUT

SCALE: AS NOTED
EPROJECT NO.: 1333285
CONSTR. CONTR. NO. N62583-11-D-0533
NAVFAC DRAWING NO. 12724402
SHEET 34 OF 119

M-401

DRAWING REVISION: 10 MAY 2014

BUILDING LP-27

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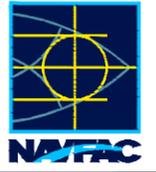
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SHEET KEYNOTES

1. CEILING MOUNTED WSHP UNIT. REFER TO LP-27 RECORD DRAWINGS FOR CONNECTED DUCTWORK. (TYPICAL)
2. REFER TO ENLARGED MECHANICAL ROOM PLAN - LOWER LEVEL FOR CENTRAL PLANT EQUIPMENT IN THIS AREA.

APPR	DATE	DESCRIPTION	REV



ch2m
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

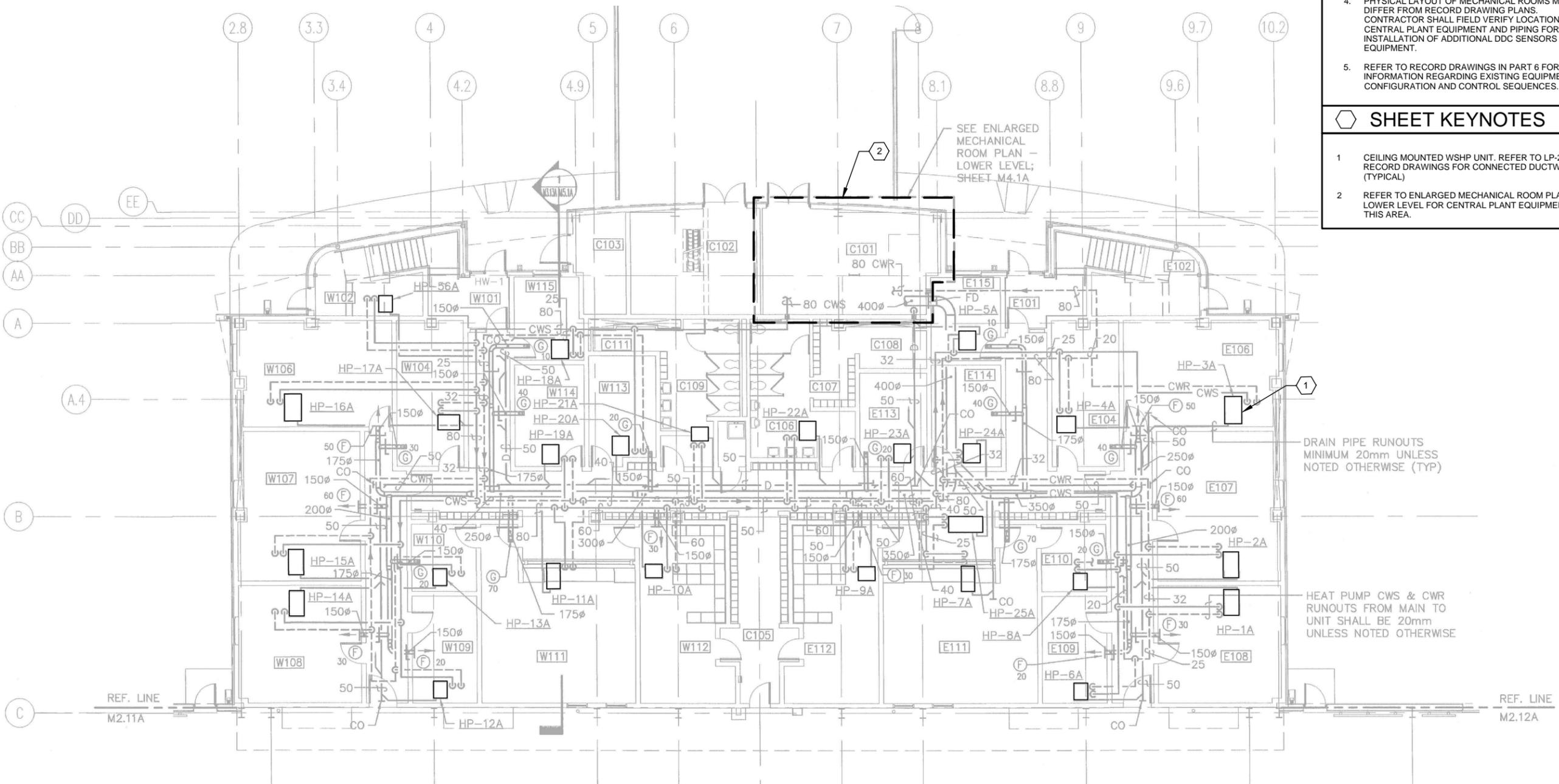
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<<XXX>>

NAVFAC
 NAVAL FACILITIES ENGINEERING COMMAND
 NORFOLK, VA
 DFSP

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.:	N62583-11-D-0533
NAVFAC DRAWING NO.:	12724403
SHEET	35 OF 119

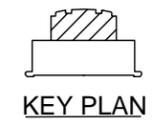
M-101

DATEFORM REVISION: 10 MAY 2014



PARTIAL FIRST FLOOR PLAN - PIPING & VENTILATION DUCTWORK

1/8"=1'-0"



KEY PLAN

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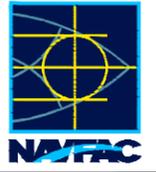
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SHEET KEYNOTES

1. CEILING MOUNTED WSHP UNIT. REFER TO LP-27 RECORD DRAWINGS FOR CONNECTED DUCTWORK. (TYPICAL)
2. REFER TO ENLARGED MECHANICAL ROOM PLAN - UPPER LEVEL FOR CENTRAL PLANT EQUIPMENT IN THIS AREA.

NO.	DATE	DESCRIPTION



ch2m
 2411 Dulles Corner Park
 Suite 500
 Herndon, VA 20177

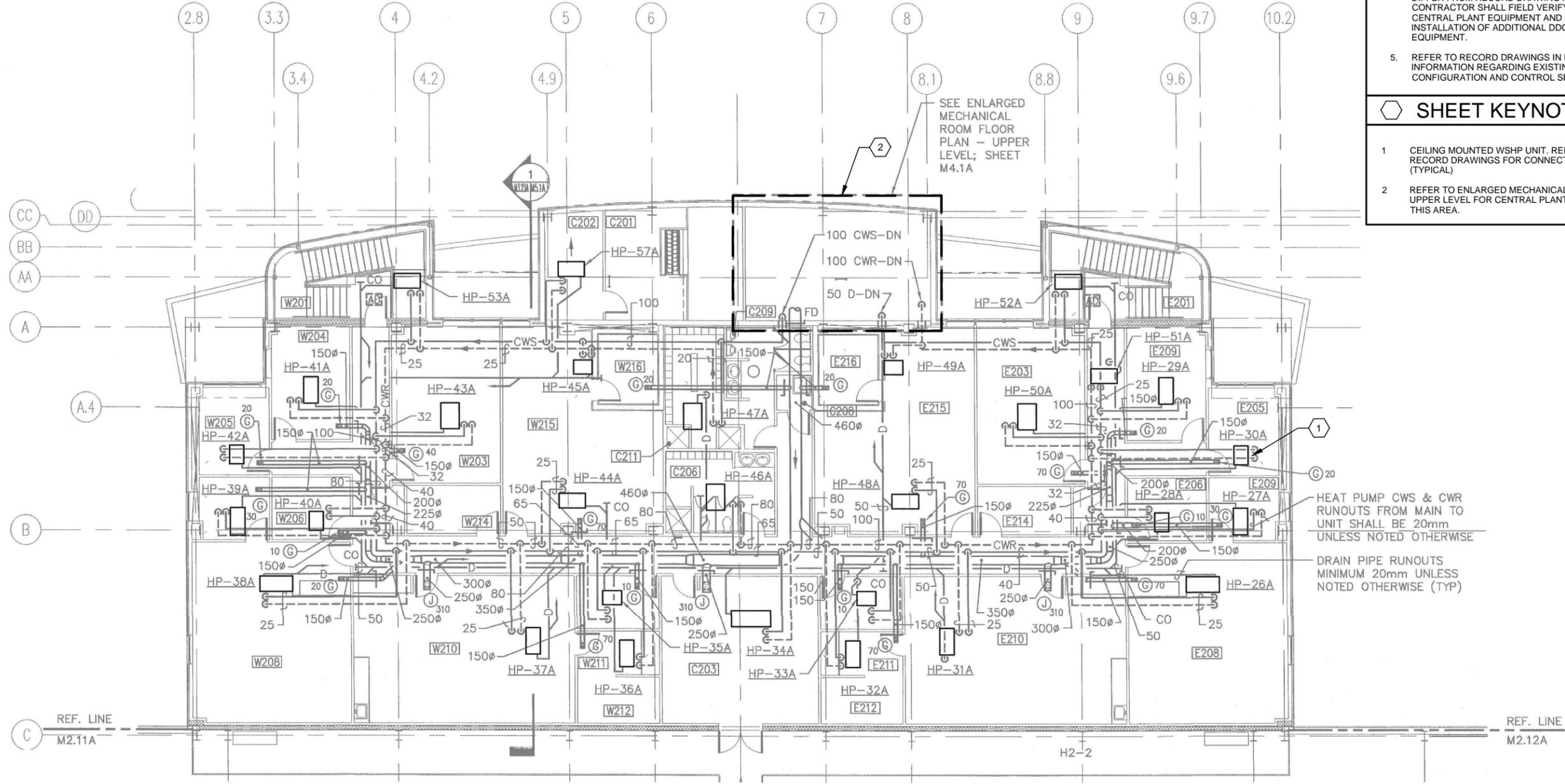
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE 06/02/2016
DES PTJ DRW IHK CHK BDC
<<PM/DM>> MHP
BRANCH MANAGER
CHIEF ENG/ARCH
<<XXX>>

NAVFAC ENGINEERING COMMAND
 NAVFAC
 NORFOLK, VA
 DFSP
 HVAC AND DDC
 FACILITY OPTIMIZATION
 BUILDING LP-27
 PARTIAL SECOND FLOOR PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1333285
CONSTR. CONTR. NO.	N62583-11-D-0533
NAVFAC DRAWING NO.	12724404
SHEET	36 OF 119

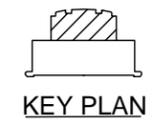
M-102

DATE REVISION: 10 MAY 2014



PARTIAL SECOND FLOOR PLAN - PIPING & VENTILATION DUCTWORK

1/8"=1'-0"



KEY PLAN

1

2

3

4

5

