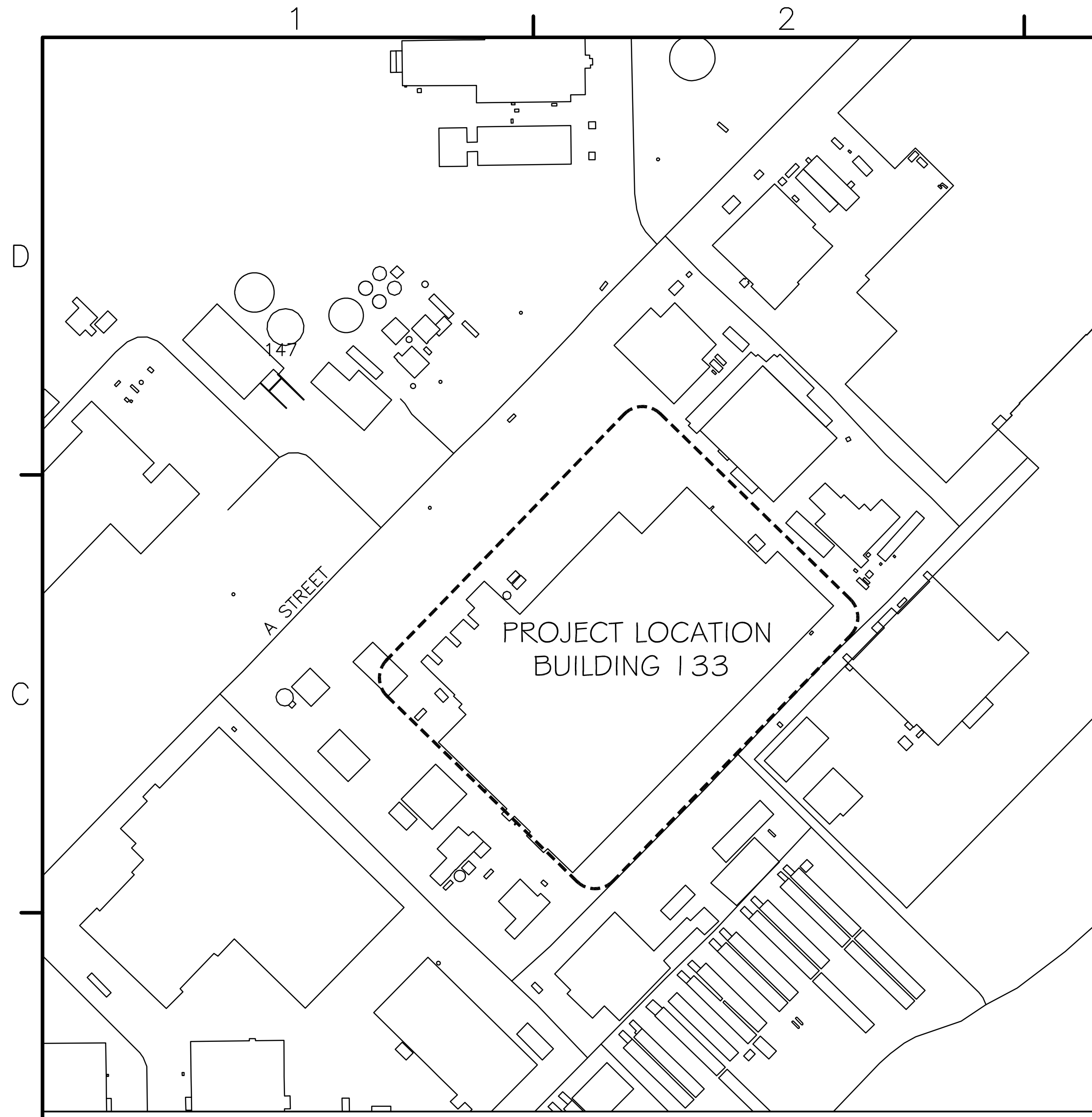
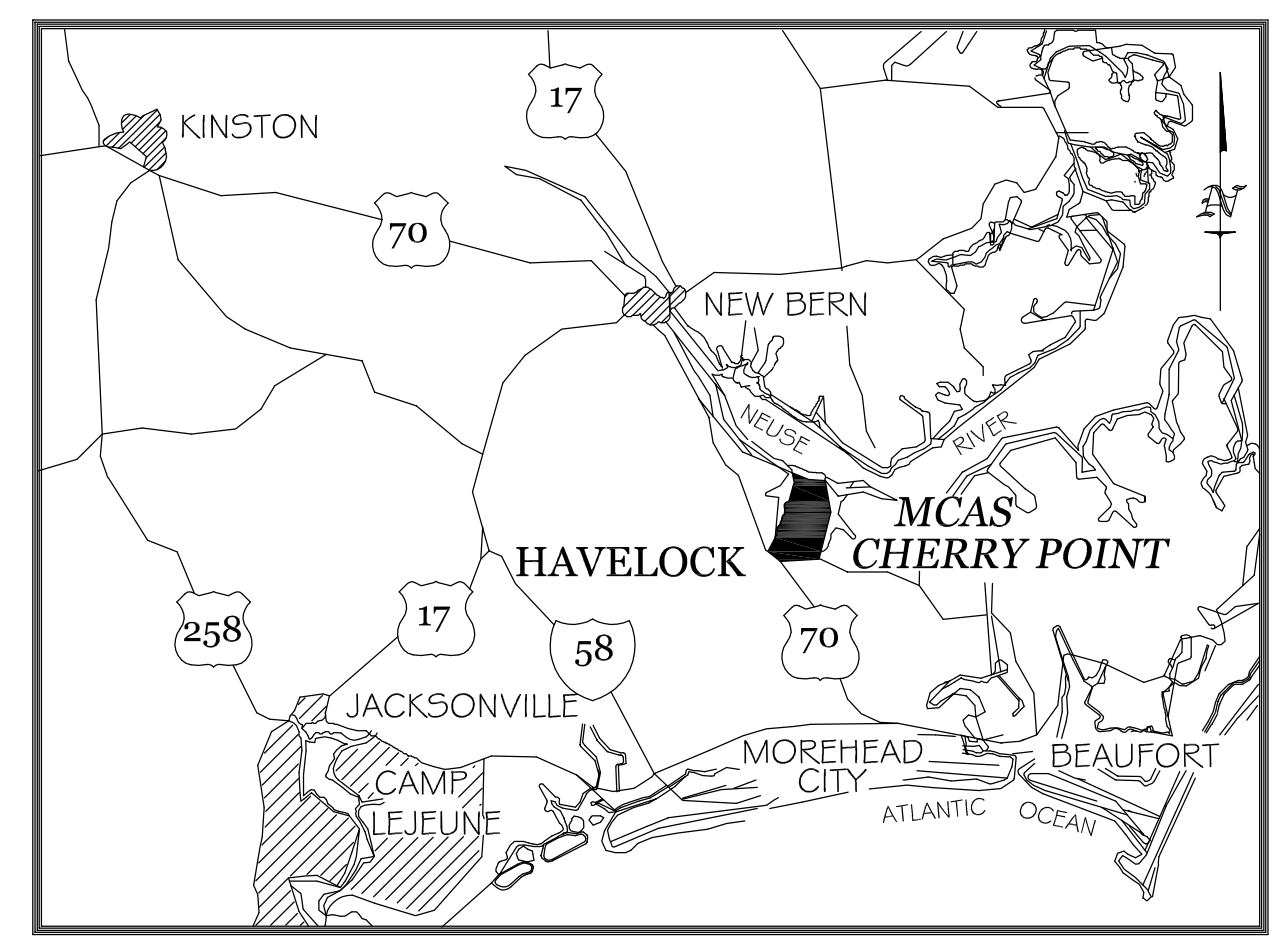


PROJECT R46-93C REPLACE AIR HANDLING UNITS BUILDING 133 - PHASE 3

MARINE CORPS AIR STATION CHERRY POINT, NORTH CAROLINA



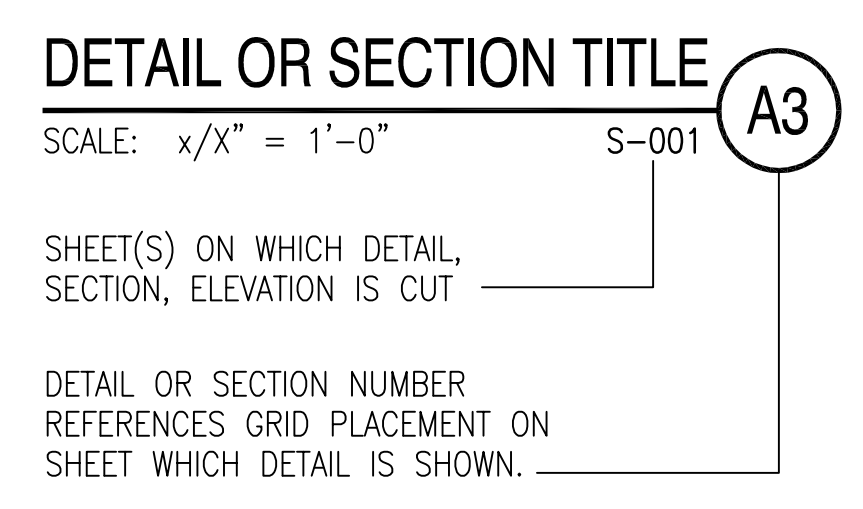
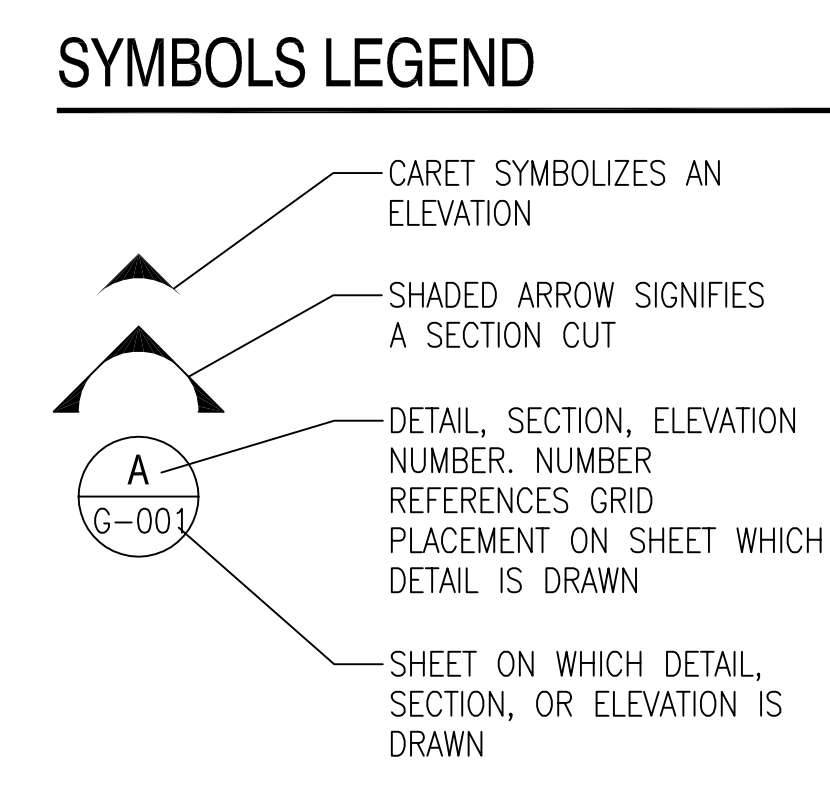
LOCATION MAP
NOT TO SCALE



VICINITY MAP

ABBREVIATIONS LIST

C.J.	CONSTRUCTION JOINT
CONC.	CONCRETE
ARCH.	CONNECTION
CONT.	CONTINUOUS
EXIST.	EXISTING
DIAM.	JOINT
LBS.	POUNDS
MIN.	MINIMUM
NO.	NUMBER
P.S.I.	POUNDS PER SQUARE INCH
P.S.F.	POUNDS PER SQUARE FOOT
REF.	REFERENCE
REINF.	REINFORCING
REQ'D.	REQUIRED
SCHED.	SCHEDULE
SECT.	SECTION
S.J.	SAWED JOINT
SHT.	SHEET
SPECS.	SPECIFICATIONS
STL.	STEEL
TYP.	TYPICAL
U.O.N.	UNLESS OTHERWISE NOTED
O.C.	ON CENTER
VERT.	VERTICAL
W/	WITH



DATE	DESCRIPTION	SYMBOL	APPROVED

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Kevin M. Rooversberg
REGISTERED PROFESSIONAL ENGINEER
STATE OF NORTH CAROLINA
SEAL 022830
ENGINEER
KEVIN M. ROOVERSBERG
06/13/2014

APPROVED

ACTIVITY - SATISFACTORY TO

DATE APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E DESIGN EFD
KMR
MTW DRAWN
KMR REVIEW
JBW QC

CHEF ARCH/ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

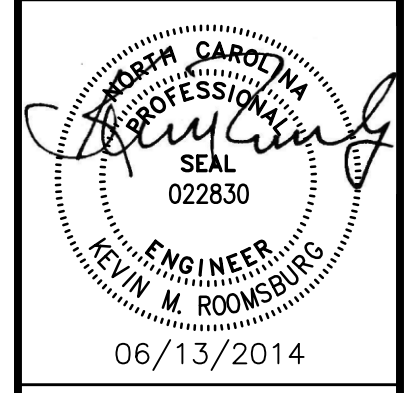
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
COVER SHEET

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
PFD NO.
STA. PROJ. NO. R46-93C
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12665241
SHEET 1 OF 57
G-001
DRAWING REVISION JULY 2003
Plot Scale:
1:1 (Paper Space)
Drawing Filename:

INDEX OF DRAWINGS

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12665242	G-002	INDEX OF DRAWINGS	12665270	M-KR.03	MECHANICAL NEW WORK ROOF PLAN AREA K
12665243	G-003	GENERAL NOTES	12665271	M-L.03	MECHANICAL NEW WORK FLOOR PLAN AREA L
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12665245	S-LR.03	STRUCTURAL ROOF PLAN AREA L	12665273	M-O.03	MECHANICAL NEW WORK FLOOR PLAN AREA O
12665246	S-101.03	PLATFORM FRAMING PLANS	12665274	M-OR.03	MECHANICAL NEW WORK ROOF PLAN AREA O
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12665251	S-403	TYPICAL SECTIONS - MECHANICAL PLATFORMS	12665279	M-103	MECHANICAL DETAILS
12665252	S-501	TYPICAL DETAILS	12665280	M-104	MECHANICAL DETAILS
12665253	S-502	EXISTING CONDITION PHOTOS	12665281	M-201	MECHANICAL CONTROL SCHEMATICS
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12665264	MD-K.03	MECHANICAL DEMOLITION FLOOR PLAN AREA K	12665292	E-L.03	ELECTRICAL NEW WORK FLOOR PLAN AREA L
12665265	MD-KR.03	MECHANICAL DEMOLITION ROOF PLAN AREA K	12665293	E-LR.03	ELECTRICAL NEW WORK ROOF PLAN AREA L
12665266	MD-O.03	MECHANICAL DEMOLITION FLOOR PLAN AREA O	12665294	E-O.03	ELECTRICAL NEW WORK FLOOR PLAN AREA O
12665267	MD-OR.03	MECHANICAL DEMOLITION ROOF PLAN AREA O	12665295	E-OR.03	ELECTRICAL NEW WORK ROOF PLAN AREA O
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			12665297	E-PR.03	ELECTRICAL NEW WORK ROOF PLAN AREA P

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APPROVED _____
DATE _____
ACTIVITY - SATISFACTORY TO _____
DATE APPROVED _____
FOR EFD FOR COMMANDER NAVFAC _____
DATE _____
A/E DESIGN _____ EFD _____
KMR _____
MTW DRAWN _____
KMR REVIEW _____
JBW _____
QC _____
CHIEF ARCH/ ENGR. _____
PROJECT MANAGER _____
FIRE PROTECTION _____
BRANCH MANAGER _____
DESIGN DIRECTOR _____

DEPARTMENT OF THE NAVY
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
 REPLACE AIR HANDLING UNITS, BLDG. 133
 PHASE 3
 INDEX OF DRAWINGS

CODE ID. NO. 80091 | SIZE D
SCALE: AS NOTED
FED. NO. _____
STA. PROJ. NO. R46-93C
SPEC. NO. _____
CONSTR. CONTR. NO. _____
NAVFAC DRAWING NO. 12665242
SHEET 2 OF 57
G-002

GENERAL NOTES:

GENERAL:

- 1. ALL WORK SHALL COMPLY WITH THE CODES LISTED BELOW AND IN THE SPECIFICATIONS.
2. UNDER NO CIRCUMSTANCES SHALL REPRODUCTION OF CONTRACT DRAWINGS BE USED AS SHOP DRAWINGS.
3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DIMENSIONS, ELEVATIONS, ETC., NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE STRUCTURE TO THE EXISTING STRUCTURE.
4. BEFORE PROCEEDING WITH ANY WORK WITHIN THE EXISTING STRUCTURE, THE CONTRACTOR SHALL FAMILIARIZE HIMSELF WITH STRUCTURAL CONDITIONS OF THE EXISTING STRUCTURE.
5. THE CONTRACTOR SHALL PROVIDE ALL TEMPORARY GUYING, BRACING AND SHORING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL ALL STRUCTURAL WORK AND CONNECTIONS HAVE BEEN COMPLETED.
6. LOADING APPLIED TO THE STRUCTURE DURING THE PROCESS OF CONSTRUCTION SHALL NOT EXCEED THE SAFE LOAD-CARRYING CAPACITY OF THE STRUCTURAL MEMBERS.
7. GENERAL NOTES APPLY TO ALL PARTS OF THE JOB EXCEPT WHERE SPECIFICALLY DETAILED OR NOTED OTHERWISE.
8. THE CONTRACTOR SHALL INFORM THE PROFESSIONAL OF RECORD IN WRITING OF ANY DEVIATION FROM THE CONTRACT DOCUMENTS.
9. CONTRACTOR SHALL HAVE A COMPLETE SET OF CONSTRUCTION DRAWINGS AND APPROVED PERMITS ON THE JOB SITE AT ALL TIMES.
10. CONTRACTOR IS RESPONSIBLE FOR ALL LAYOUT WORK REQUIRED TO PROPERLY CONSTRUCT THE WORK.
11. EXISTING UTILITIES MAY NOT BE INTERRUPTED WITHOUT APPROVAL OF THE CONTRACTING OFFICER.
12. CONTRACTOR SHALL REMOVE AND LEGALLY DISPOSE OF ALL CONSTRUCTION WASTE AND EXCESS MATERIALS AS WELL AS ALL UNSUITABLE MATERIALS OFF OF BASE PROPERTY.
13. CONTRACTOR SHALL REPAIR ANY DAMAGE DONE TO EXISTING FACILITIES LOCATED OUTSIDE THE LIMITS OF WORK DUE TO CONSTRUCTION ACTIVITIES.
14. ALL COSTS ASSOCIATED WITH LOCATING, DISCONNECTING, ABANDONING AND CAPPING OF UTILITIES SHALL BE BORNE BY THE CONTRACTOR.
15. CONTRACTOR SHALL REPAIR ALL IMPROVEMENTS TO EXISTING OR BETTER CONDITIONS IF DISTURBED DURING CONSTRUCTION.
16. CONTRACTOR SHALL OBTAIN ALL PERMITS AND APPROVALS PRIOR TO BEGINNING CONSTRUCTION.
17. DIMENSIONS SHOWN ARE APPROXIMATE. CONTRACTOR SHALL MAKE MEASUREMENTS DEEMED NECESSARY TO PROPERLY BID THIS WORK.
18. ALL DEMOLITION OPERATIONS SHALL BE CONDUCTED IN COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS, AND AS SPECIFIED.
19. THESE PLANS DEPICT THE GENERAL INTENT OF DEMOLITION. THE CONTRACTOR SHALL PROTECT ALL CONSTRUCTION WHICH IS TO REMAIN.
20. THE CONTRACTOR SHALL COORDINATE THE ABANDONMENT OR REMOVAL OF ALL UTILITIES WITH THEIR RESPECTIVE UTILITY SERVICES.
21. THE CONTRACTOR SHALL PROVIDE FENCING, BARRICADES, ETC. AS REQUIRED TO MAINTAIN SECURED AREAS AROUND DEMOLITION OPERATIONS, AS REQUIRED FOR PROTECTION.
22. BUILDING 133 FACILITIES MUST REMAIN IN OPERATION, I.E. ACCESS, UTILITY SERVICES, ETC. MUST BE MAINTAINED AT ALL TIMES.
23. COMPLY WITH STATE AND LOCAL HAULING AND DISPOSAL REGULATIONS. THE CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITION OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.
24. PROTECT EXISTING WORK WHICH IS TO REMAIN IN PLACE, BE REUSED, OR REMAIN THE PROPERTY OF THE GOVERNMENT.

GENERAL NOTES: (CONT.)

- 25. FOR PORTIONS OF THE BUILDING TO REMAIN, PROTECT BUILDING INTERIOR AND MATERIALS AND EQUIPMENT FROM THE WEATHER AT ALL TIMES.
26. PROTECT ELECTRICAL AND MECHANICAL SERVICES AND UTILITIES. WHERE REMOVAL OF EXISTING UTILITIES IS SPECIFIED OR INDICATED, PROVIDE APPROVED BARRICADES, TEMPORARY COVERING OF EXPOSED AREAS, AND TEMPORARY SERVICES OR CONNECTIONS FOR ELECTRICAL AND MECHANICAL UTILITIES.
27. PROVIDE WEATHERPROOF CLOSURES FOR EXTERIOR OPENINGS RESULTING FROM DEMOLITION WORK.
28. HAZARDOUS MATERIAL REMOVAL AND DISPOSAL SHALL COMPLY WITH THE SPECIFICATIONS.
29. IF SUSPECT HAZARDOUS MATERIALS ARE ENCOUNTERED DURING DEMOLITION OPERATIONS THAT ARE NOT INDICATED ON THE DRAWINGS OR IN THE REPORT OF INDUSTRIAL HYGIENE SERVICES PREPARED BY S&ME DATED OCTOBER 12, 2009, STOP WORK AND CONTACT THE CONTRACTING OFFICER FOR INSTRUCTION.
30. THE CONTRACTOR SHALL TREAT ALL PAINT ON ITEMS TO BE DEMOLISHED AS LEAD-CONTAINING PAINT.

STRUCTURAL STEEL:

- 1. ALL STRUCTURAL STEEL SHALL BE NEW, CLEAN AND STRAIGHT. STEEL WIDE FLANGE SHAPES SHALL CONFORM TO ASTM A-992, GRADE 50.
2. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL COMPLY WITH THE SPECIFICATIONS, THE NORTH CAROLINA STATEWIDE BUILDING CODE AND THE "SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS," ANSI/AISC 360-05, WITH ITS LATEST AMENDMENTS.
3. UNLESS OTHERWISE NOTED, ALL CONNECTIONS SHALL BE AISC TYPE 2, STANDARD FRAMED BEAM CONNECTIONS.
4. UNLESS OTHERWISE NOTED ALL SHOP CONNECTIONS SHALL BE WELDED AND ALL FIELD CONNECTIONS SHALL BE BOLTED.
5. ALL HOLES REQUIRED IN STRUCTURAL STEEL MEMBERS FOR PIPING SHALL BE SHOWN ON THE SHOP DRAWINGS AND BE MADE IN THE SHOP.
6. WELDING SHALL COMPLY WITH THE "STRUCTURAL WELDING CODE" PREPARED BY THE A.W.S., MINIMUM WELD SIZE SHALL BE 3/16" FILLET WELD, ELECTRODES SHALL BE E70XX.
7. UNLESS OTHERWISE NOTED HIGH STRENGTH BOLTS SHALL COMPLY WITH ASTM A-325 AND ANCHOR BOLTS SHALL COMPLY WITH ASTM A-307 OR ASTM A-36.
8. ALL STRUCTURAL STEEL, GRATING, STAIRS, BOLTS, NUTS AND WASHERS SHALL BE GALVANIZED.

STEEL GRATING NOTES:

- 1. DESIGN STEEL GRATING IN ACCORDANCE WITH THE NATIONAL ASSOCIATION OF ARCHITECTURAL METAL MANUFACTURERS, METAL BAR GRATING MANUAL, FOR BAR TYPE GRATING.
2. DESIGN STEEL GRATING TO SUPPORT A LIVE LOAD OF 100 POUNDS PER SQUARE FOOT FOR THE SPANS INDICATED, WITH MAXIMUM DEFLECTION OF L/240.
3. BAND EDGES OF GRATING WITH BARS OF THE SAME SIZE AS THE BEARING BARS.
4. ATTACH GRATINGS TO STRUCTURAL MEMBERS WITH WELDED-ON ANCHORS.

DESIGN CRITERIA:

- 1. UFC 3-310-01, STRUCTURAL LOAD DATA.

DESIGN LOADS:

DESIGN LIVE LOADS USED IN THE DESIGN OF THIS STRUCTURE ARE AS FOLLOWS:

- 1. UNIFORM LIVE LOADS: ROOF: 20 PSF MECHANICAL PLATFORMS: 60 PSF
2. WIND LOADS: WIND VELOCITY (3 SEC GUST) 128 MPH IMPORTANCE FACTOR I = 1.0, BUILDING CATEGORY II WIND EXPOSURE CATEGORY: C INTERNAL PRESSURE COEFFICIENT: +/- 0.55 (PARTIALLY ENCLOSED)

COMPONENTS AND CLADDING: WIND PRESSURE TO BE USED FOR DESIGN OF EXTERIOR COMPONENTS AND CLADDING MATERIALS NOT SPECIFICALLY DESIGNED ON THESE DRAWINGS SHALL BE 50 PSF.

SNOW LOADS: GROUND SNOW LOAD: 10 PSF

SEISMIC LOADS: IMPORTANCE FACTOR: 1.0 0-2 SECOND SPECTRAL RESPONSE, Ss = 16%g 1-0 SECOND SPECTRAL RESPONSE, S1 = 7%g SOIL SIDE CLASS = D (ASSUMED)

SAFETY:

- 1. IN ACCORDANCE WITH GENERALLY ACCEPTED CONSTRUCTION PRACTICES. CONTRACTOR SHALL BE SOLELY AND COMPLETELY RESPONSIBLE FOR CONDITION OF THE JOB SITE INCLUDING SAFETY OF ALL PERSONS AND PROPERTY DURING PERFORMANCE OF THE WORK.
2. THE DUTY OF THE ENGINEER IN CONDUCTING CONSTRUCTION REVIEW OF CONTRACTOR'S PERFORMANCE IS NOT INTENDED TO INCLUDE REVIEW OF ADEQUACY OF CONTRACTOR'S SAFETY MEASURES IN, ON, OR NEAR CONSTRUCTION SITE.

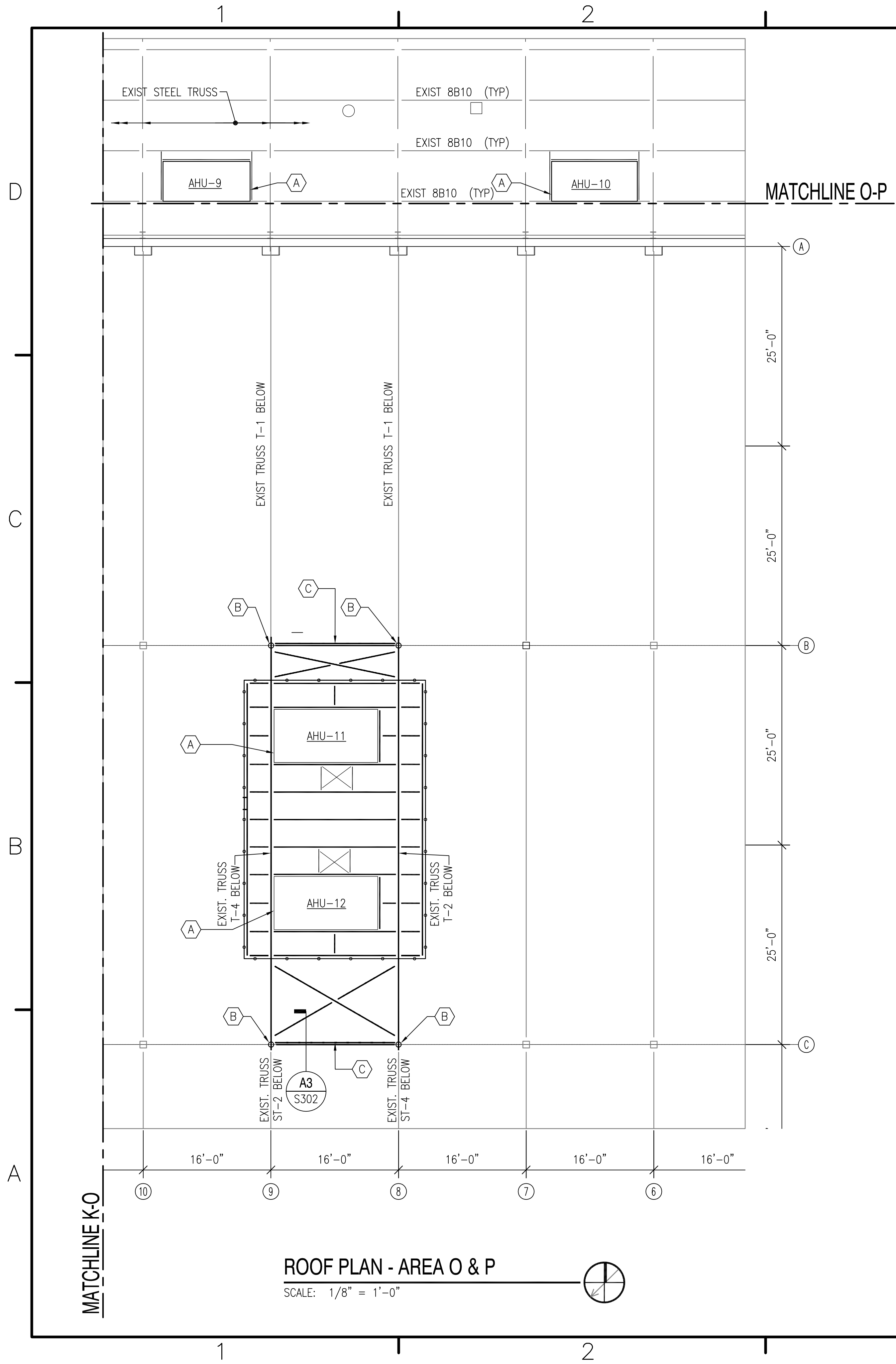
HANDRAILS/GUARDRAILS:

- 1. PROVIDE STEEL HANDRAILS, STRUCTURAL PIPE CONFORMING TO ASTM A53, X-STRONG. RAILINGS SHALL BE HOT-DIP GALVANIZED.
2. FABRICATE JOINT POSTS, RAIL AND CORNERS BY ONE OF THE FOLLOWING METHODS:
A. FLUSH-TYPE RAIL FITTINGS OF COMMERCIAL STANDARD, WELDED AND GROUND SMOOTH WITH RAILING SPLICE LOCKS SECURED WITH 3/8" HEXAGONAL-RECESSED-HEAD SETSCREWS.
B. MITERED AND WELDED JOINTS MADE BY FITTING POST INTO TOP RAIL AND INTERMEDIATE RAIL TO POST, MITERING CORNERS, GROOVE WELDING JOINTS, AND GRINDING SMOOTH.
C. RAILINGS MAY BE BENT AT CORNERS IN LIEU OF JOINTING, PROVIDED BENDS ARE MADE IN SUITABLE JIGS AND THE PIPE IS NOT CRUSHED.

WOOD FRAMING:

- 1. ALL LUMBER AND TIMBER FOR NEW CONSTRUCTION SHALL BE SOUTHERN PINE, NO. 2 GRADE.
2. ALL ROOF SHEATHING SHALL BE PLACED PERPENDICULAR TO THE DIRECTION OF THE SUPPORTING MEMBER.
3. ALL END JOINTS FOR ROOF SHEATHING SHALL BE STAGGERED 4'-0".
4. ALL SHEATHING SHALL BE NAILED AS FOLLOWS: PERIMETER & RIDGES 8D @ 6" O/C OTHER ENDS & EDGES 8D @ 6" O/C INTERMEDIATE SUPPORTS 8D @ 12" O/C
5. STORE LUMBER AND PLYWOOD ON LEVEL RACKS AND KEEP FREE OF GROUND TO AVOID WARPING.
6. JOIST BRIDGING, BRACING, ETC. SHALL BE PROVIDED AS REQUIRED BY THE SPECIFICATIONS.
7. JOIST LOCATION SHALL BE COORDINATED WITH PLUMBING, MECHANICAL AND ARCHITECTURAL REQUIREMENTS PRIOR TO INSTALLATION.
8. METAL CONNECTORS, WHERE USED, SHALL BE OF SIZE TO FIT MEMBERS AND OF SUFFICIENT STRENGTH TO DEVELOP THE FULL STRENGTH OF THE SUPPORTED MEMBER, COMPLETE WITH SPECIAL NAILS AS REQUIRED.

Professional Engineer Seal for Kevin M. Roeweberg, License No. 022830, dated 06/13/2014. Project title: REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3. Includes drawing details like CODE ID, SCALE, and SHEET 3 OF 57.



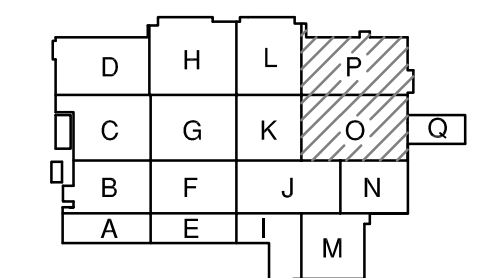
ROOF PLAN - AREA O & P
SCALE: 1/8" = 1'-0"

FRAMING NOTES:

- DATUM FOR ALL ELEVATIONS GIVEN ON THIS PLAN IS FINISHED TOP OF EXISTING ROOFING AT EACH MECHANICAL UNIT = 0'-0".
- TOP OF STEEL BEAM ELEVATIONS ARE INDICATED IN RELEVANT SECTIONS.
- FOR TYPICAL DETAILS REFER TO S-501. FOR GENERAL NOTES REFER TO SHEET G-003.
- EQUIPMENT DIMENSIONS INDICATED THUS (*) SHALL BE COORDINATED WITH EQUIPMENT FURNISHED PRIOR TO FABRICATION OF STEEL FOR MECHANICAL PLATFORMS.
- DIMENSIONS TO EXISTING STRUCTURE SHALL BE VERIFIED PRIOR TO FABRICATION OF STEEL FOR MECHANICAL PLATFORMS.
- CONTRACTOR SHALL PROVIDE 1" GALVANIZED WELDED RECTANGULAR GRATING CAPABLE OF SUPPORTING 100 PSF. MAIN BARS SPANNING AS INDICATED THUS (↔) ON PLAN.
- ALL STEEL SHALL BE GALVANIZED.
- STEEL FLOOR GRATING AND HAND RAILS SHALL BE GALVANIZED. HOT-DIP GALVANIZE AFTER FABRICATION WHERE PRACTICAL. GALVANIZING SHALL CONFORM TO ASTM A123 OR ASTM 153 AS APPLICABLE. APPLY ASTM A-780 ZINC RICH PAINT TO DAMAGED GALVANIZED COATINGS AND WELDS WHERE APPLICABLE.
- FOR ENLARGED FRAMING PLANS REFER TO S-101.03

PLAN KEYNOTES:

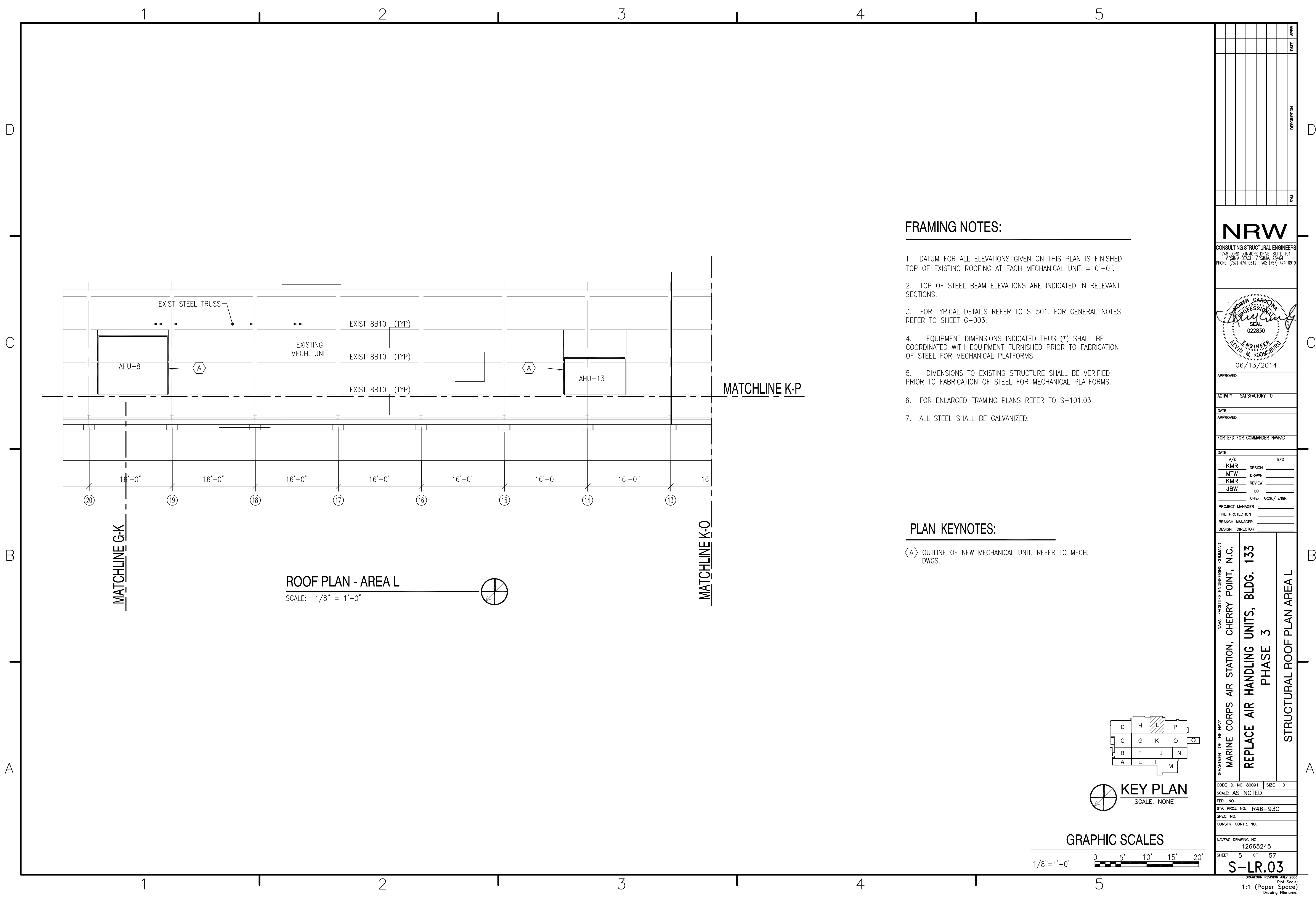
- (A) OUTLINE OF NEW MECHANICAL UNIT, REFER TO MECH. DWGS.
- (B) NEW POST UP COLUMN (HSS6.0x0.25).
- (C) VERTICAL X-BRACING, L6x6x½, REFER SECTION C3/402



KEY PLAN
SCALE: NONE



DATE	APPR
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS 748 LORO BLUNDAIRE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0612 FAX: (757) 474-0919	
06/13/2014	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 STRUCTURAL ROOF PLAN AREA O	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO.	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665244	
SHEET 4 OF 57	
S-OR.03	
<small>DATE PLOTTED: JULY 2003 Plot Scale: 1:1 (Paper Space) Drawing Filename:</small>	



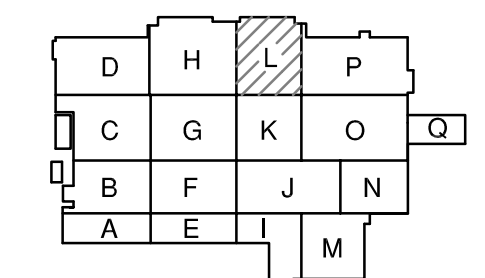
ROOF PLAN - AREA L
SCALE: 1/8" = 1'-0"

FRAMING NOTES:

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- FOR ENLARGED FRAMING PLANS REFER TO S-101.03
- ALL STEEL SHALL BE GALVANIZED.

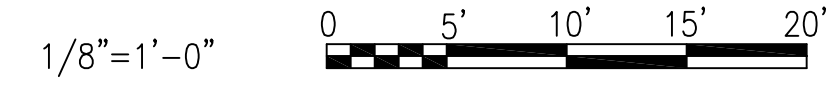
PLAN KEYNOTES:

- (A) OUTLINE OF NEW MECHANICAL UNIT, REFER TO MECH. DWGS.



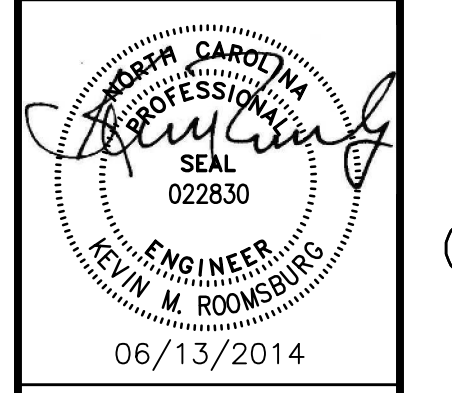
KEY PLAN
SCALE: NONE

GRAPHIC SCALES



SYMBOL	DESCRIPTION	DATE	APPROVED

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-0612 FAX: (757) 474-0919

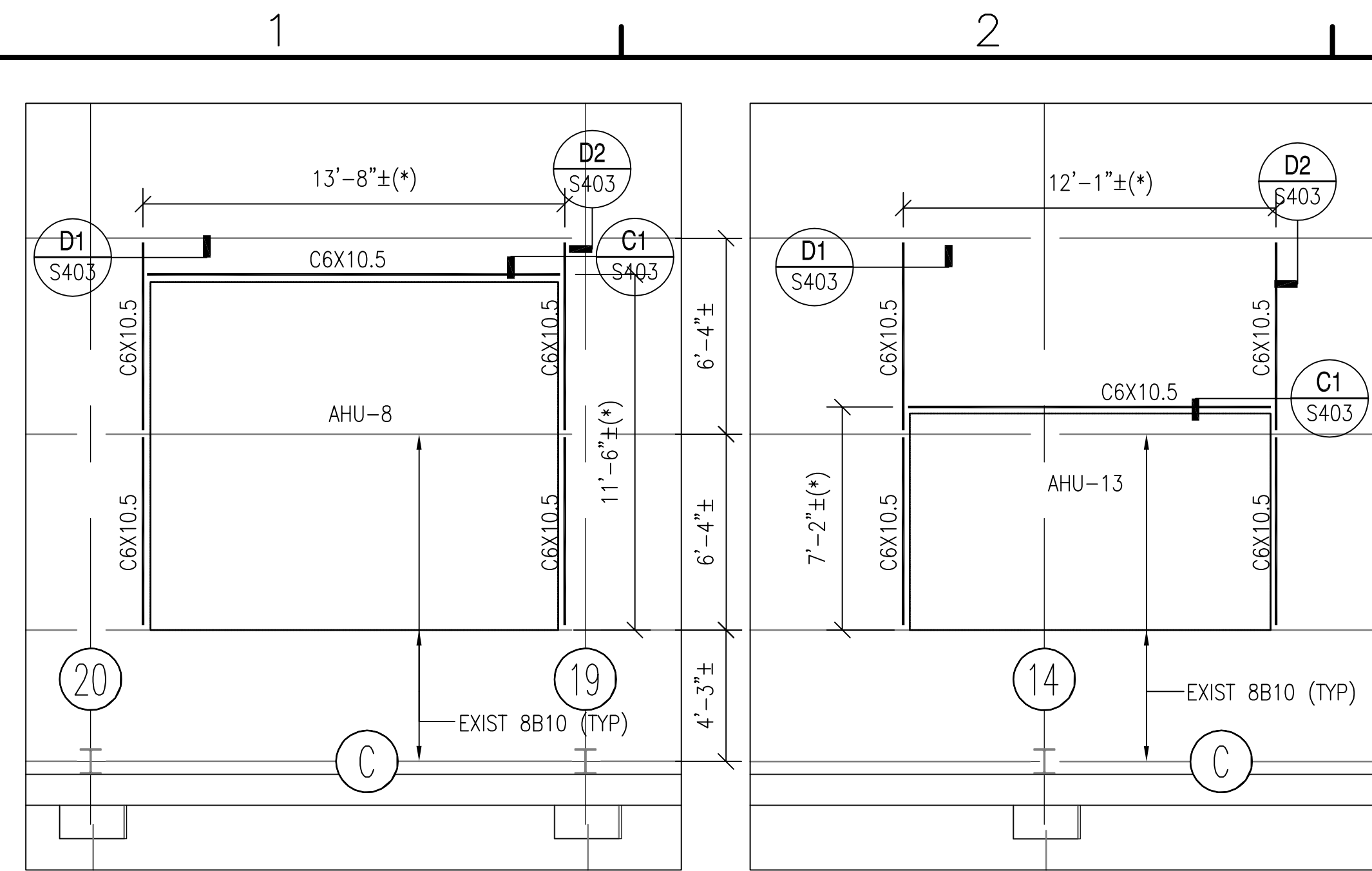


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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
STRUCTURAL ROOF PLAN AREA L

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO.	
STA. PROJ. NO. R46-93C	
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CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665245	
SHEET 5 OF 57	

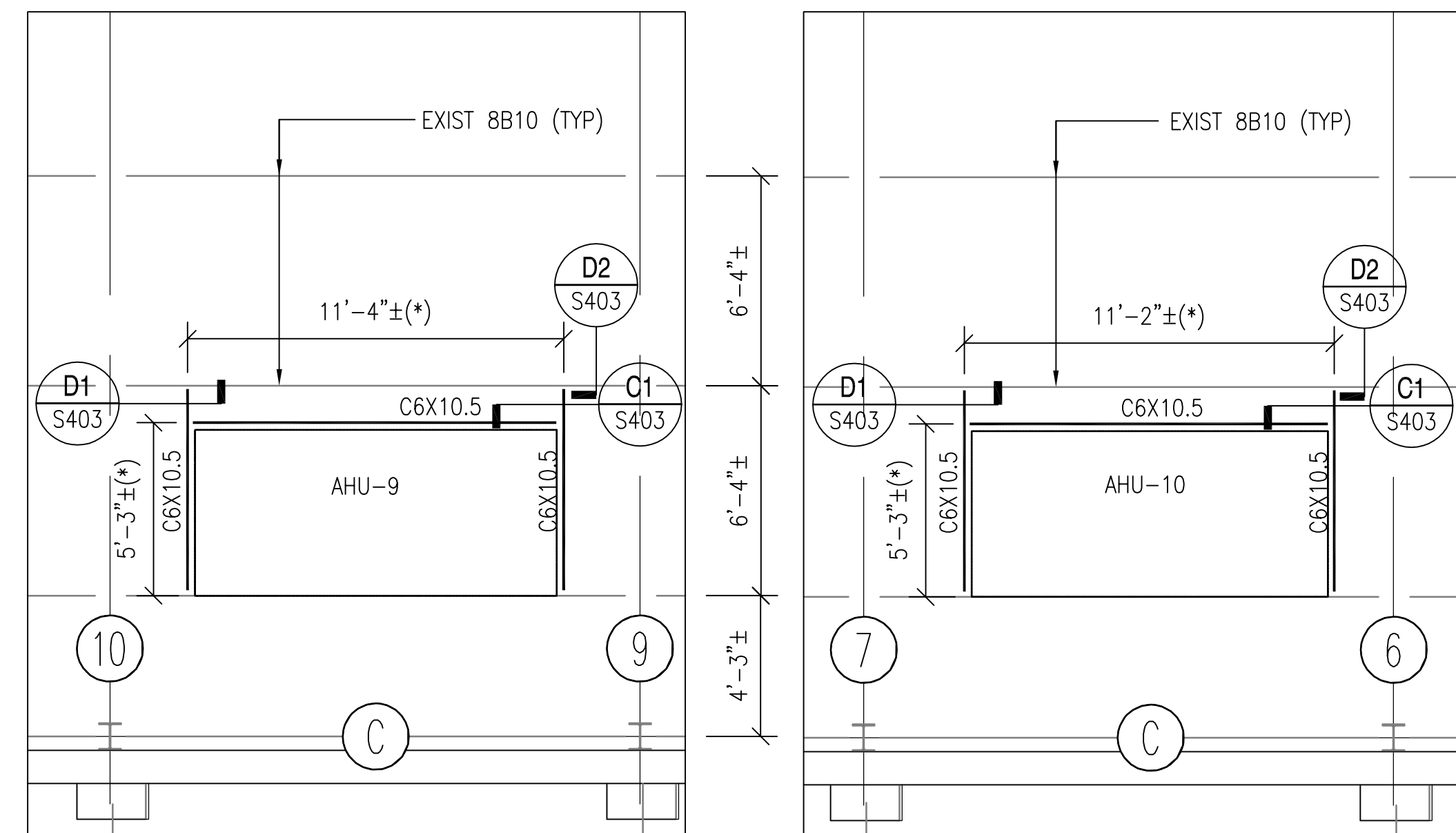
S-LR.03
DRAWING REVISION JULY 2003
Plot Scale: 1:1 (Paper Space)
Drawing Filename:



PLATFORM FRAMING PLAN - AREA - L

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

FOR PLAN NOTES REFER TO SHEET S-LR.03

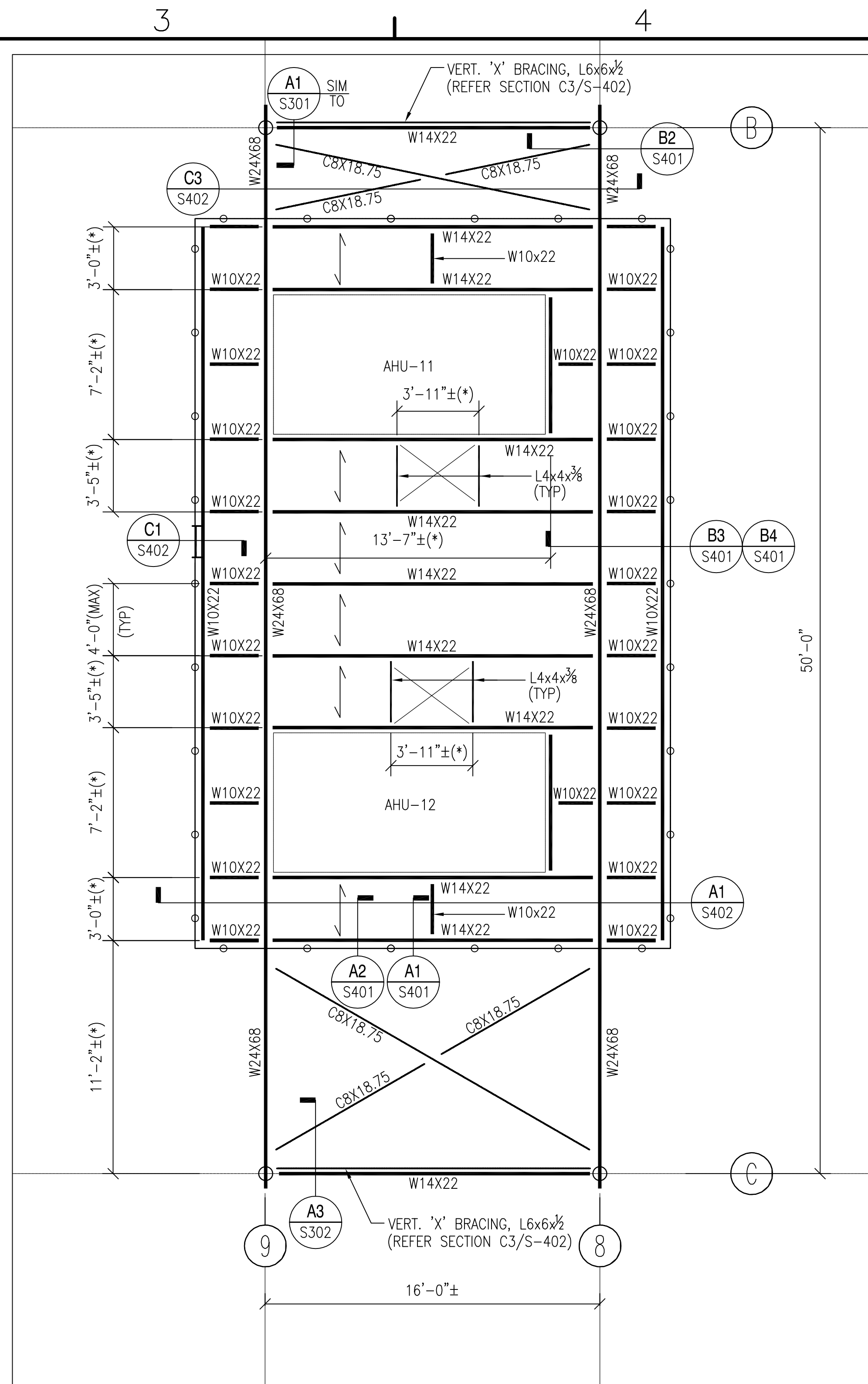


PLATFORM FRAMING PLAN - AREA - P

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

FOR PLAN NOTES REFER TO SHEET S-OR.03

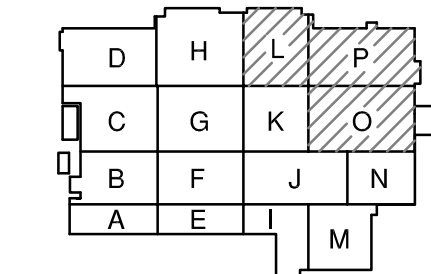
ALL DIMENSIONS MARKED WITH (*) SHALL BE COORDINATED WITH ACTUAL SIZE OF MECHANICAL UNIT BEFORE STEEL IS FABRICATED.



PLATFORM FRAMING PLAN - AREA - O

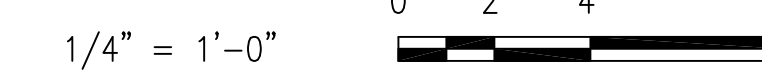
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FOR PLAN NOTES REFER TO SHEET S-OR.03

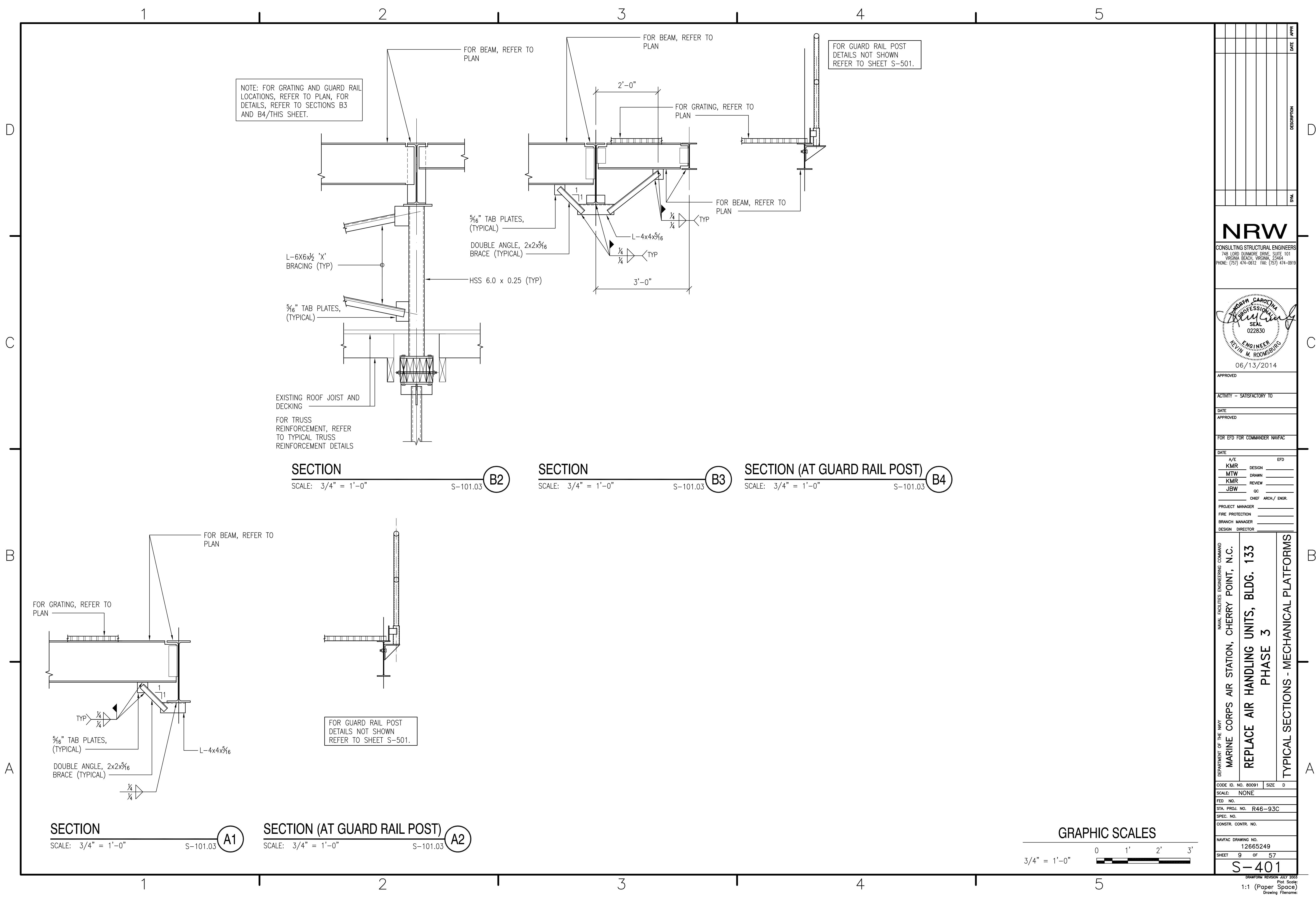


KEY PLAN
SCALE: NONE

GRAPHIC SCALES

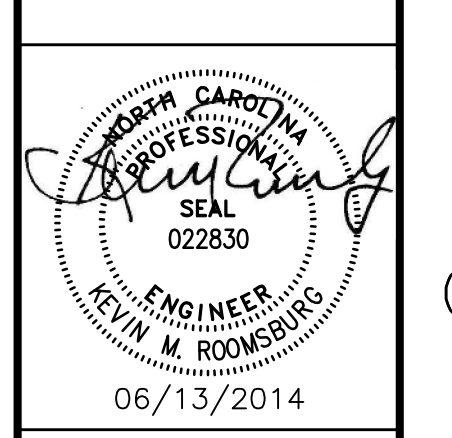


DATE	APPR
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
748 LORD DUNMORE DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA, 23464	
PHONE: (757) 474-0612 FAX: (757) 474-0919	
06/13/2014	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 PLATFORM FRAMING PLANS	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO.	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665246	
SHEET 6 OF 57	
S-101.03	
DRAWING REVISIONS	
1:1 (Paper Space)	
Drawing Filename:	



SYMBOL	DESCRIPTION	DATE	APPR

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-0612 FAX: (757) 474-0919



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ACTIVITY - SATISFACTORY TO

DATE APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE	A/E	EFD
	KMR	DESIGN
	MTW	DRAWN
	KMR	REVIEW
	JBW	QC
		CHEF ARCH/ ENGR.

PROJECT MANAGER

FIRE PROTECTION

BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY

NAVAL FACILITIES ENGINEERING COMMAND

MARINE CORPS AIR STATION, CHERRY POINT, N.C.

REPLACE AIR HANDLING UNITS, BLDG. 133

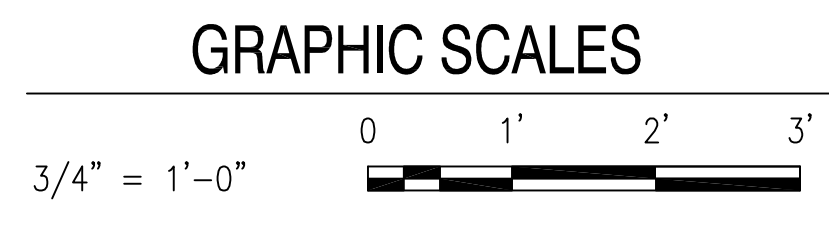
PHASE 3

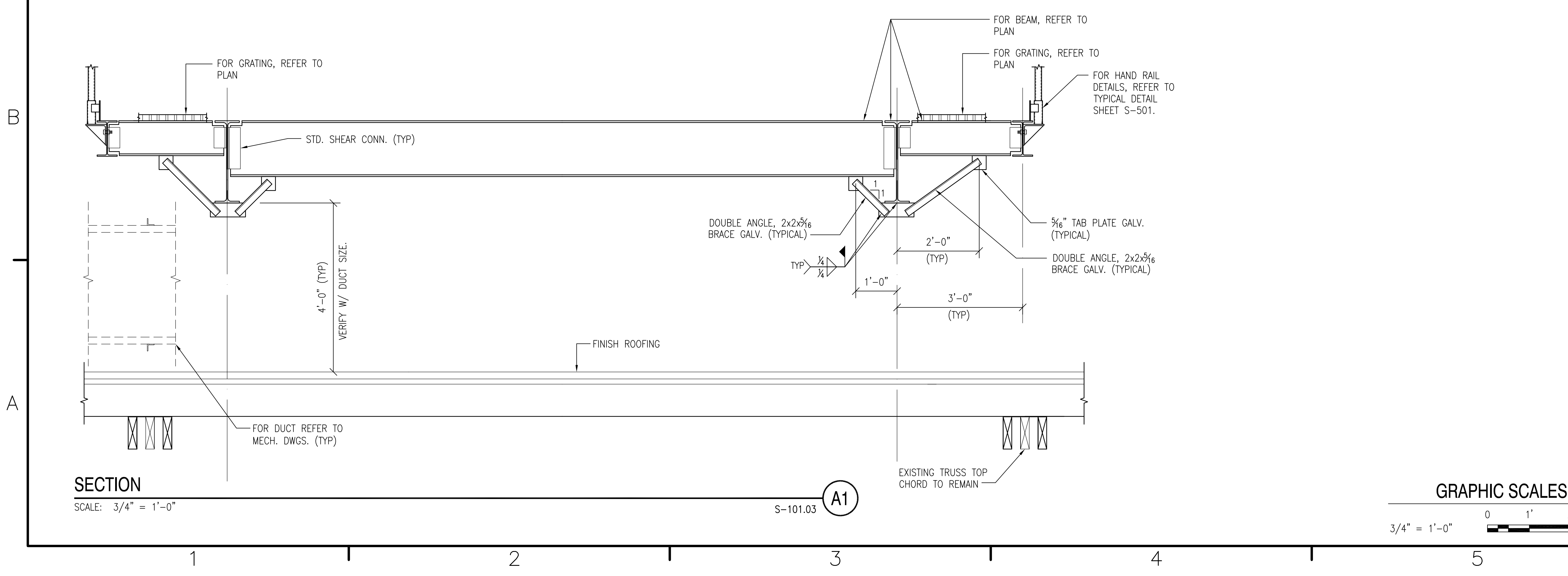
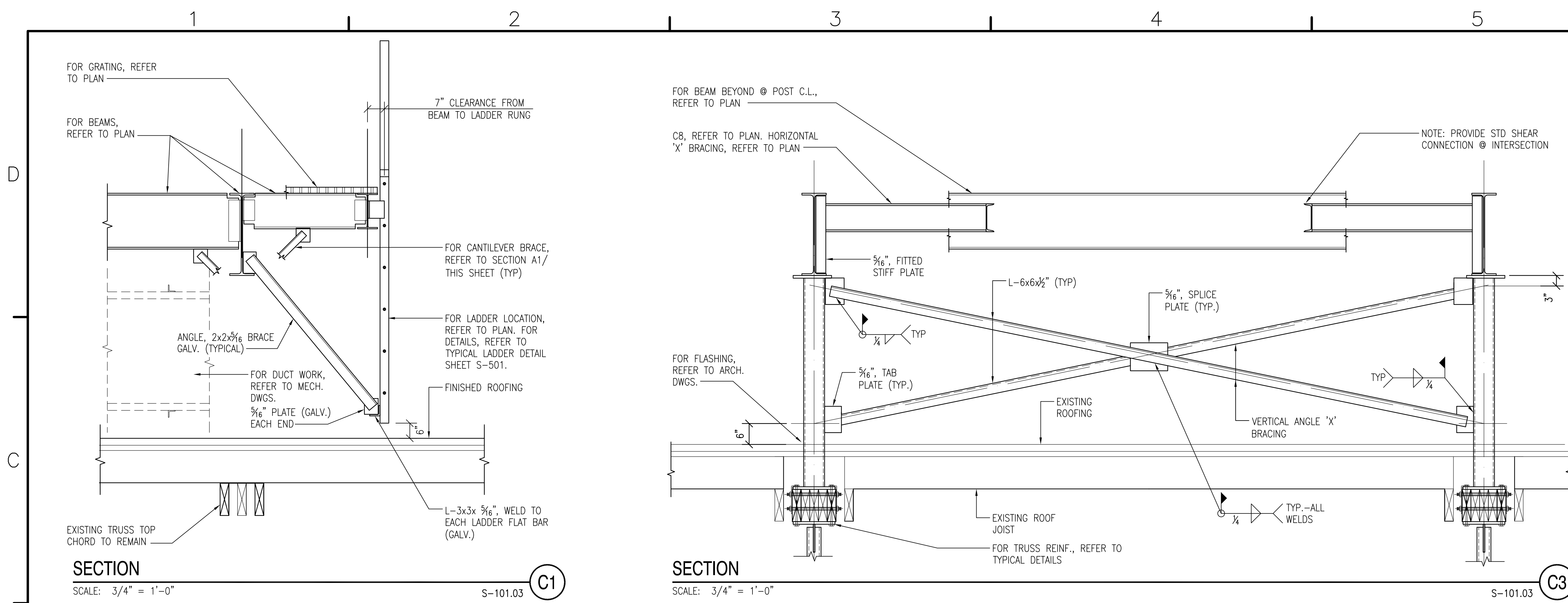
TYPICAL SECTIONS - MECHANICAL PLATFORMS

CODE ID. NO. 80091	SIZE D
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SPEC. NO.	
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SHEET 9	OF 57

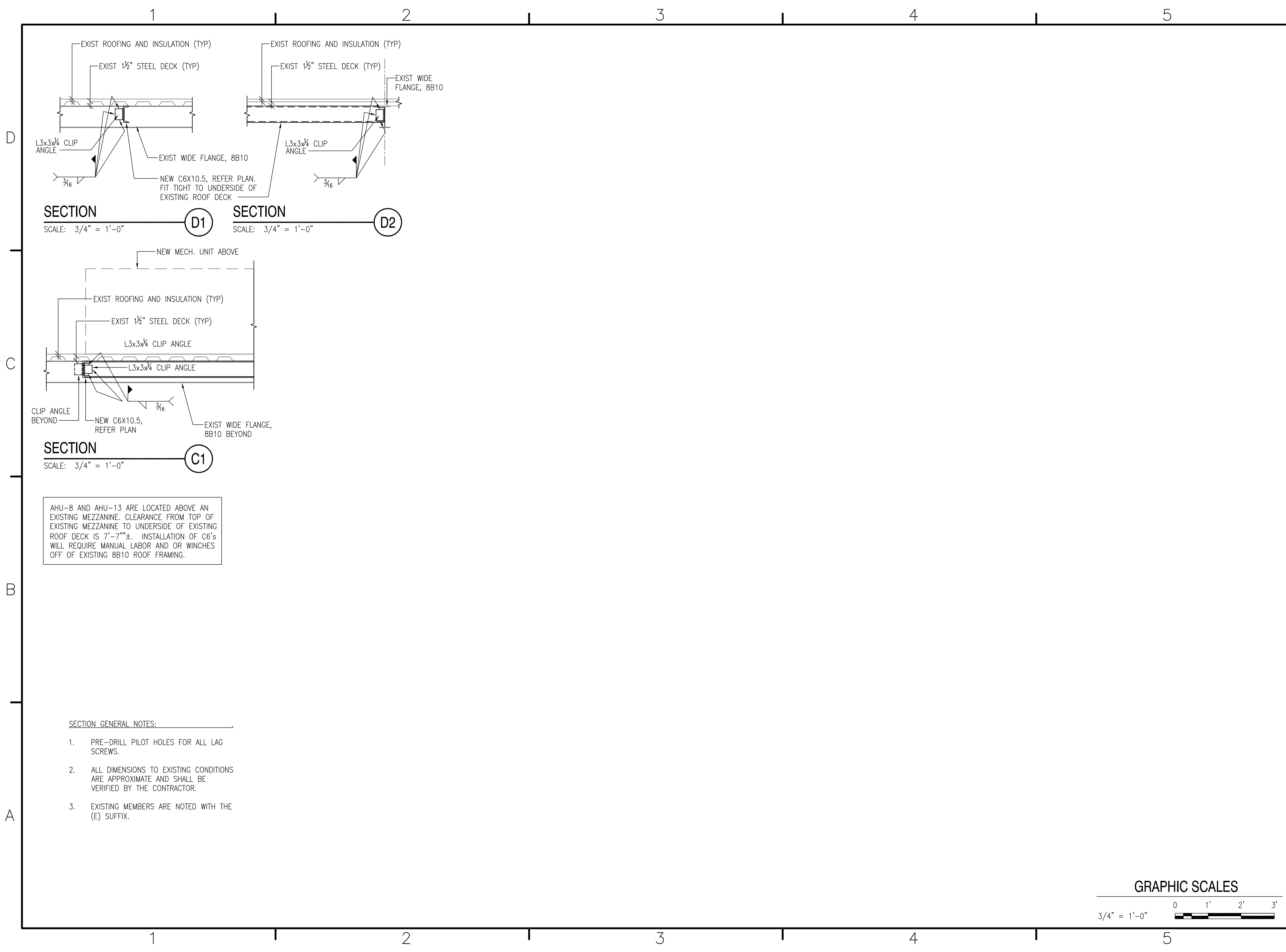
S-401

DRAWING REVISION JULY 2003
Plot Scale:
1:1 (Paper Space)
Drawing Filename:





DATE	APPR
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS 748 LORD DUNMORE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0612 FAX: (757) 474-0919	
06/13/2014	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND	
MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133	
PHASE 3	
TYPICAL SECTIONS - MECHANICAL PLATFORMS	
CODE ID. NO. 80091	SIZE D
SCALE: NONE	
FED. NO.	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665250	
SHEET 10 OF 57	
S-402	
DRAWING REVISION: JULY 2003 Plot Scale: 1:1 (Paper Space) Drawing Filename:	



SECTION

SCALE: 3/4" = 1'-0"

D1

SECTION

SCALE: 3/4" = 1'-0"

D2

SECTION

SCALE: 3/4" = 1'-0"

C1

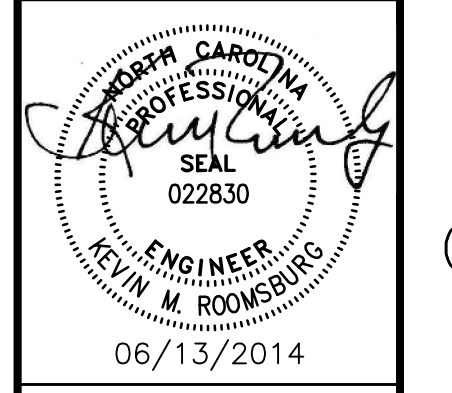
AHU-8 AND AHU-13 ARE LOCATED ABOVE AN EXISTING MEZZANINE. CLEARANCE FROM TOP OF EXISTING MEZZANINE TO UNDERSIDE OF EXISTING ROOF DECK IS 7'-7"±. INSTALLATION OF C6'S WILL REQUIRE MANUAL LABOR AND OR WINCHES OFF OF EXISTING 8B10 ROOF FRAMING.

SECTION GENERAL NOTES:

1. PRE-DRILL PILOT HOLES FOR ALL LAG SCREWS.
2. ALL DIMENSIONS TO EXISTING CONDITIONS ARE APPROXIMATE AND SHALL BE VERIFIED BY THE CONTRACTOR.
3. EXISTING MEMBERS ARE NOTED WITH THE (E) SUFFIX.

NO.	DATE	DESCRIPTION	BY	CHKD	APPR

NRW
 CONSULTING STRUCTURAL ENGINEERS
 748 LORD DUNMORE DRIVE, SUITE 101
 VIRGINIA BEACH, VIRGINIA, 23464
 PHONE: (757) 474-0612 FAX: (757) 474-0919



APPROVED

ACTIVITY - SATISFACTORY TO

DATE APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.

PROJECT MANAGER

FIRE PROTECTION

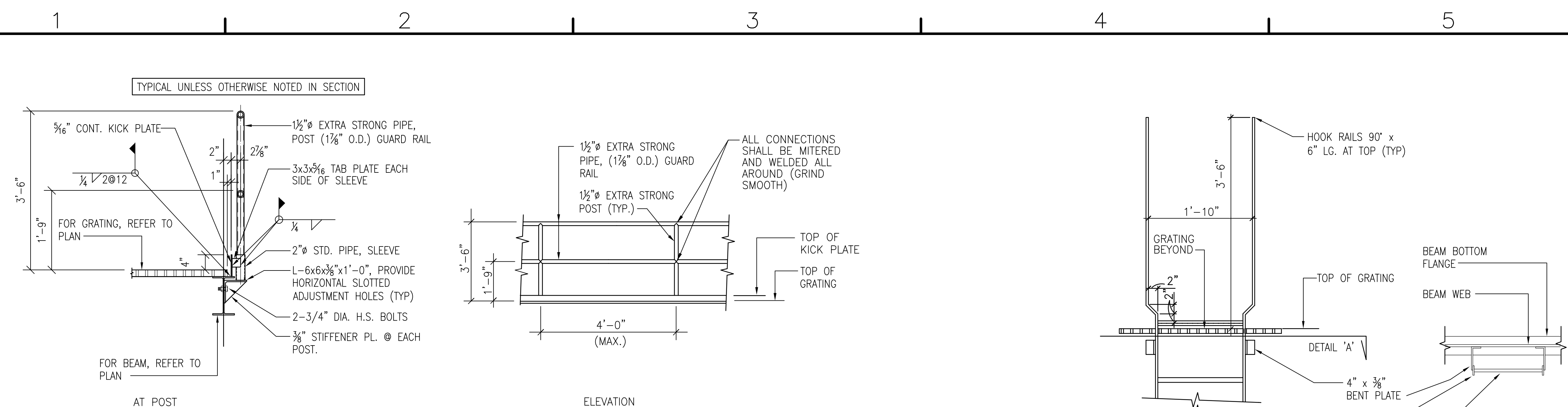
BRANCH MANAGER

DESIGN DIRECTOR

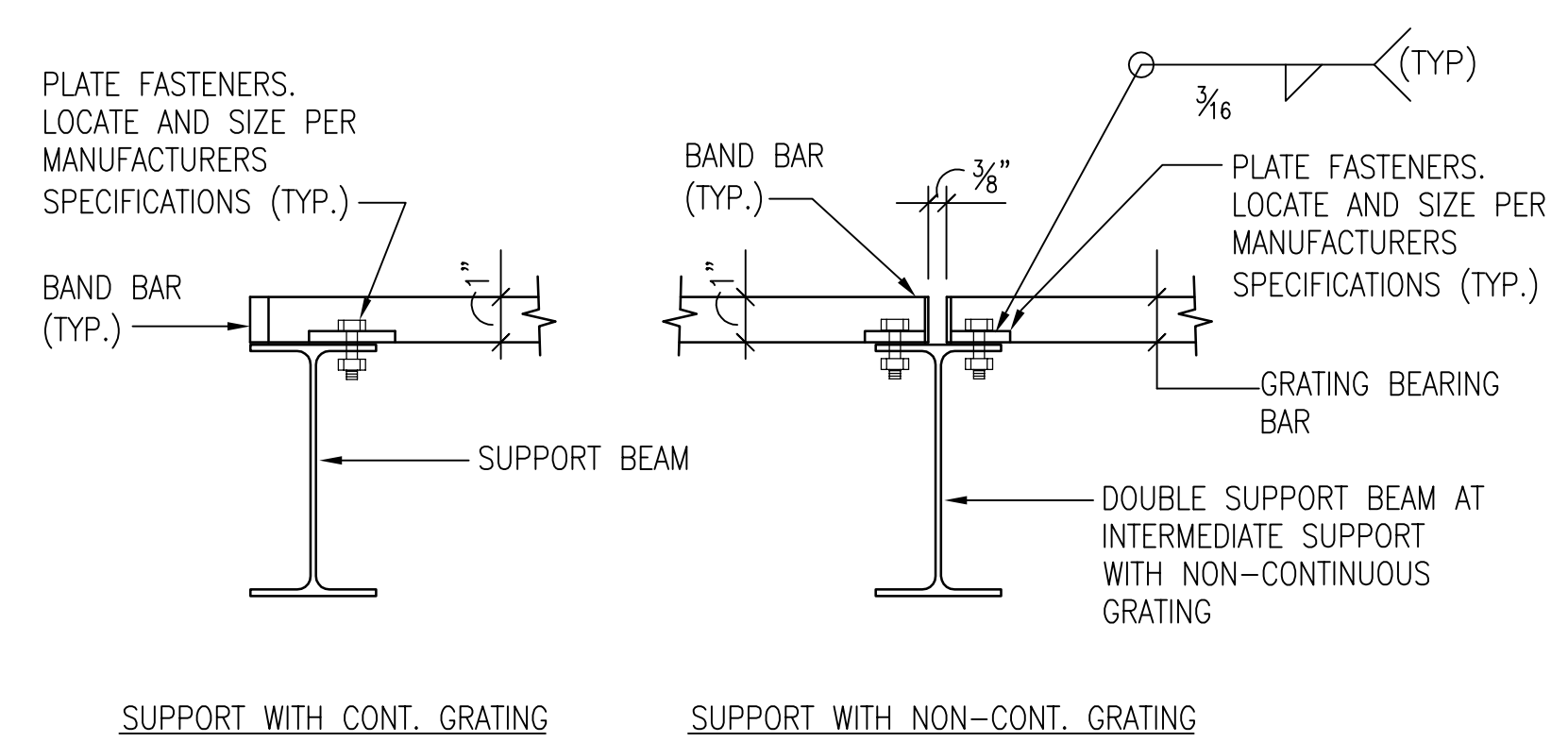
DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
 TYPICAL SECTIONS - MECHANICAL PLATFORMS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
FED. NO.	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665251	
SHEET 11 OF 57	

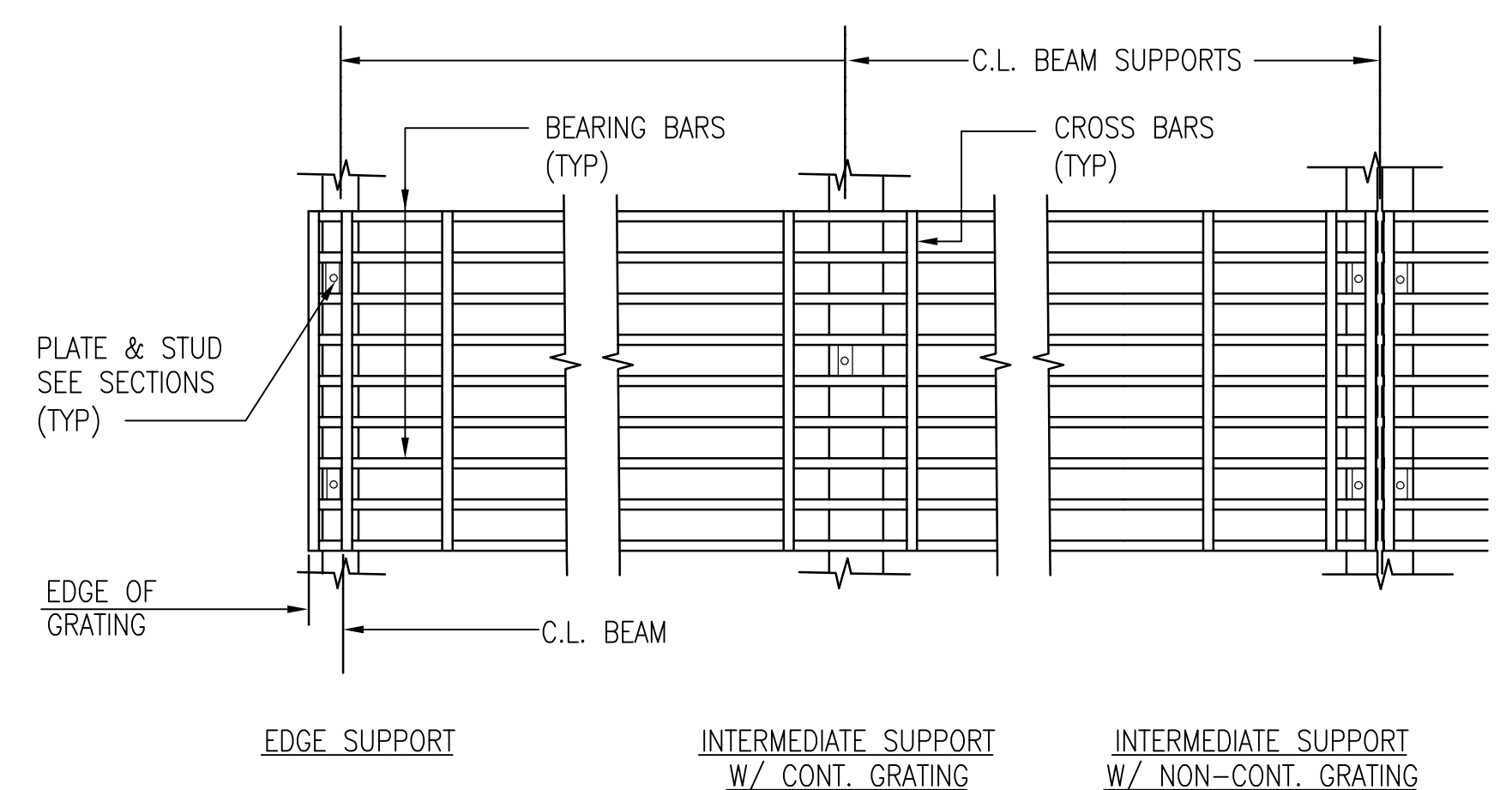




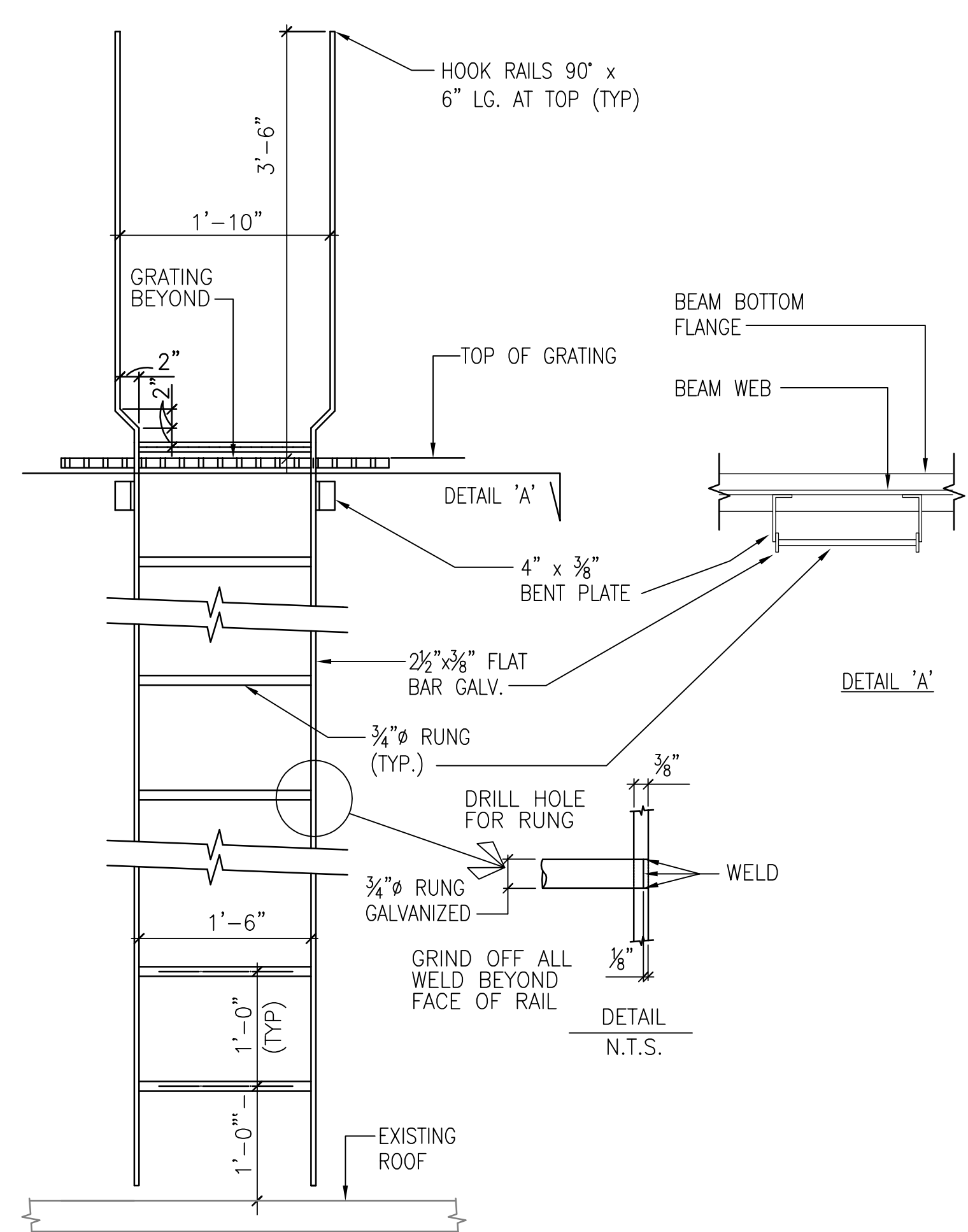
TYPICAL GUARD RAIL DETAILS
N.T.S.



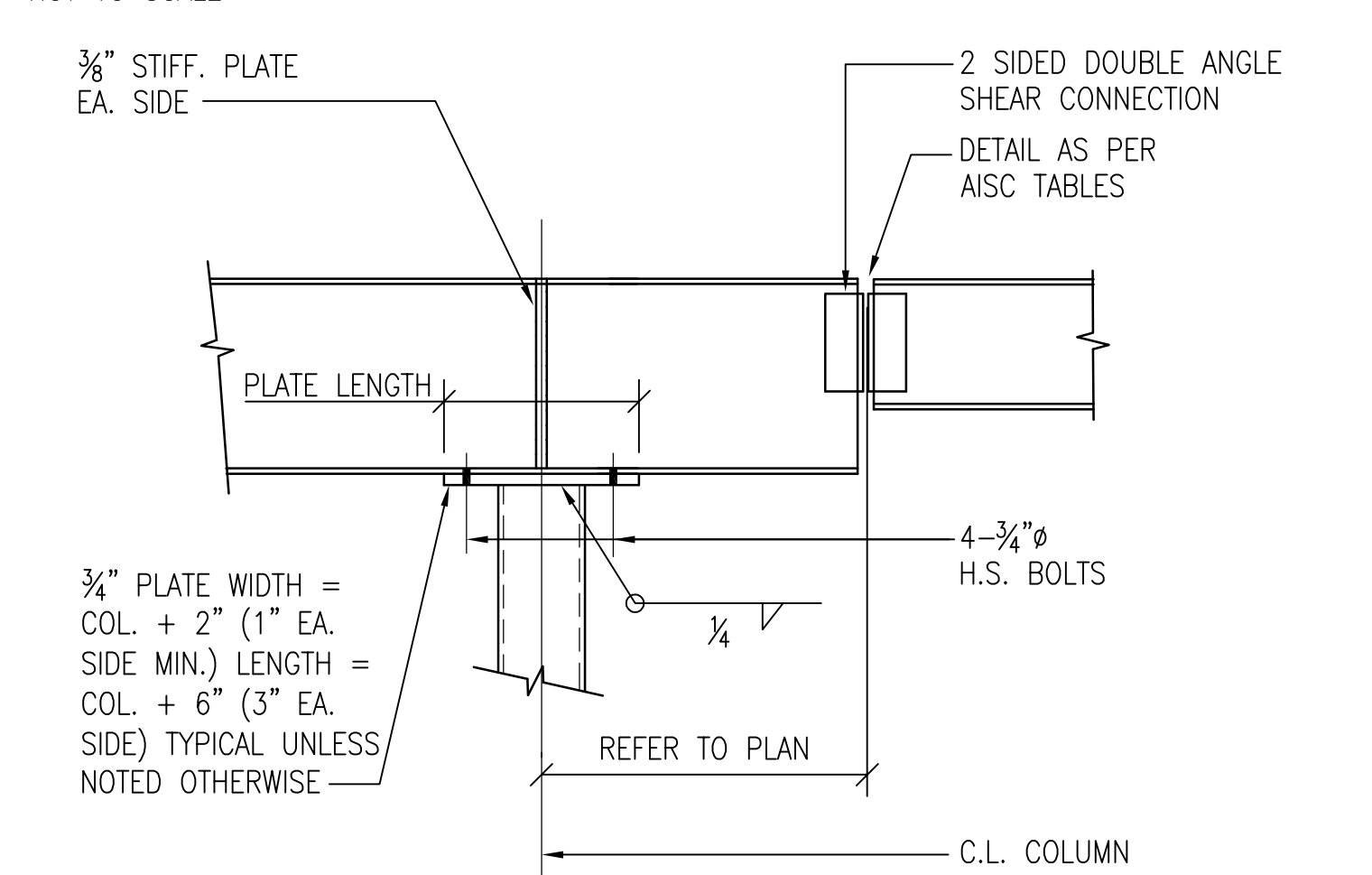
TYPICAL GRATING CONNECTION DETAILS
NOT TO SCALE



DECK FASTENING PATTERN PLAN
NOT TO SCALE

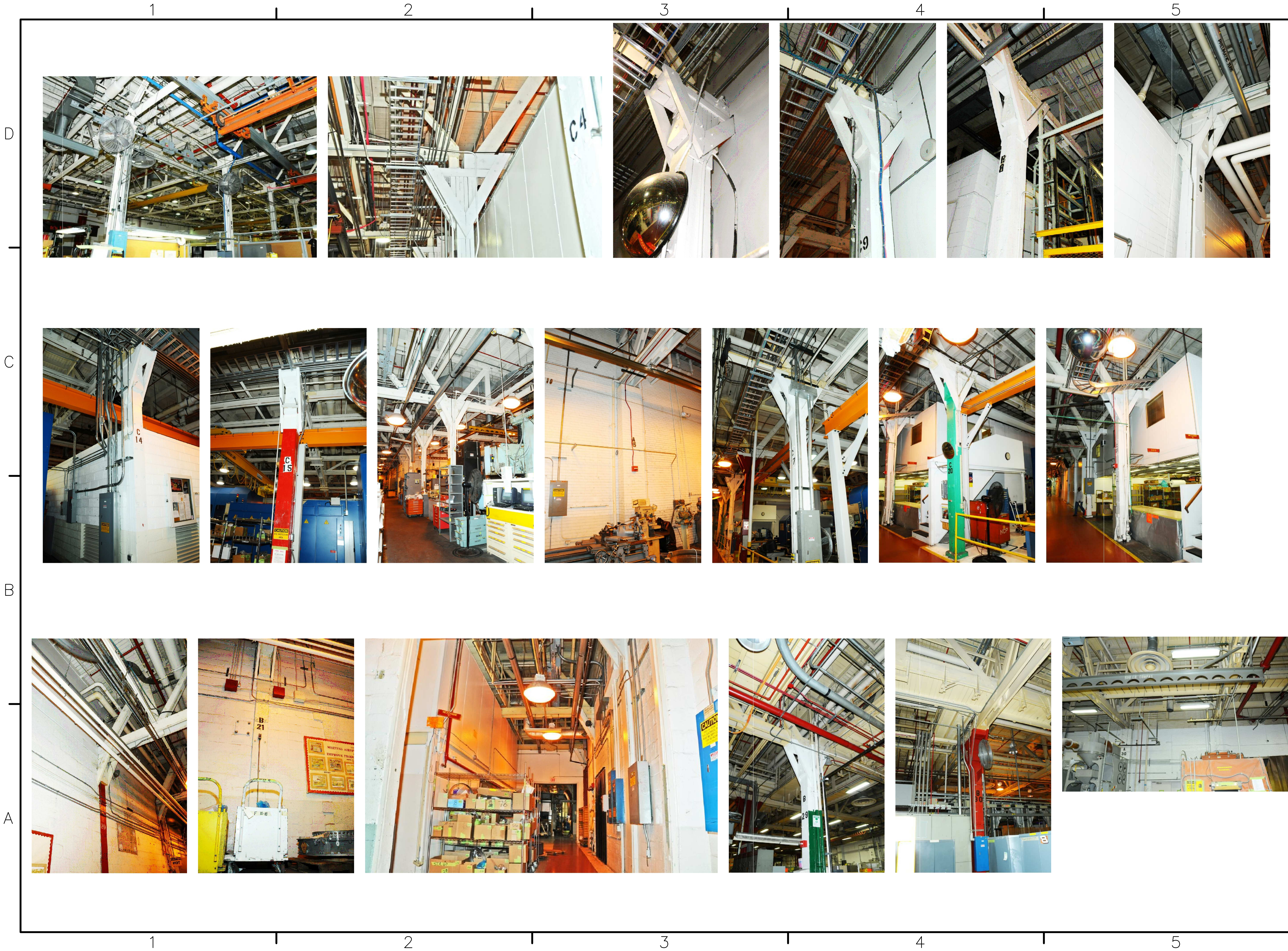


TYPICAL LADDER DETAILS
NOT TO SCALE



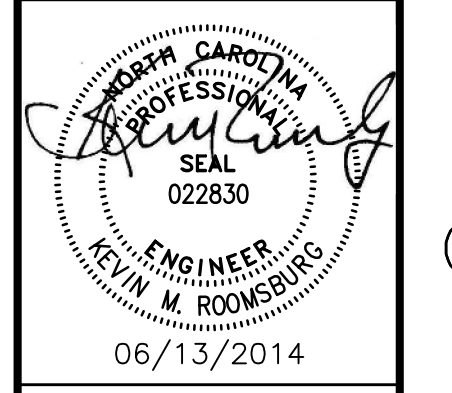
TYPICAL DETAIL SHOWING
BEAM BEARING ON COLUMN
NOT TO SCALE

DATE	APPR
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS 748 LORO BUNNORE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0612 FAX: (757) 474-0919	
ENGINEER KEVIN M. ROOVERSBERG 06/13/2014	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 TYPICAL DETAILS	
CODE ID. NO. 80091	SIZE D
SCALE: NONE	
FED. NO.	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665252	
SHEET 12 OF 57	
S-501	
DRAWING REVISION JULY 2003 Plot Scale: 1:1 (Paper Space) Drawing Filename:	



SYMBOL	DESCRIPTION	DATE	APPR.

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA 23464
PHONE: (757) 474-0612 FAX: (757) 474-0919



APPROVED

ACTIVITY - SATISFACTORY TO

DATE APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E	_____	EFD	_____
KMR	DESIGN	MTW	DRAWN
KMR	REVIEW	JBW	QC
	CHEF	ARCH/	ENGR.

PROJECT MANAGER _____
FIRE PROTECTION _____
BRANCH MANAGER _____
DESIGN DIRECTOR _____

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
EXISTING CONDITION PHOTOS

CODE ID. NO. 80091 SIZE D

SCALE: NONE

FED. NO.

STA. PROJ. NO. R46-93C

SPEC. NO.

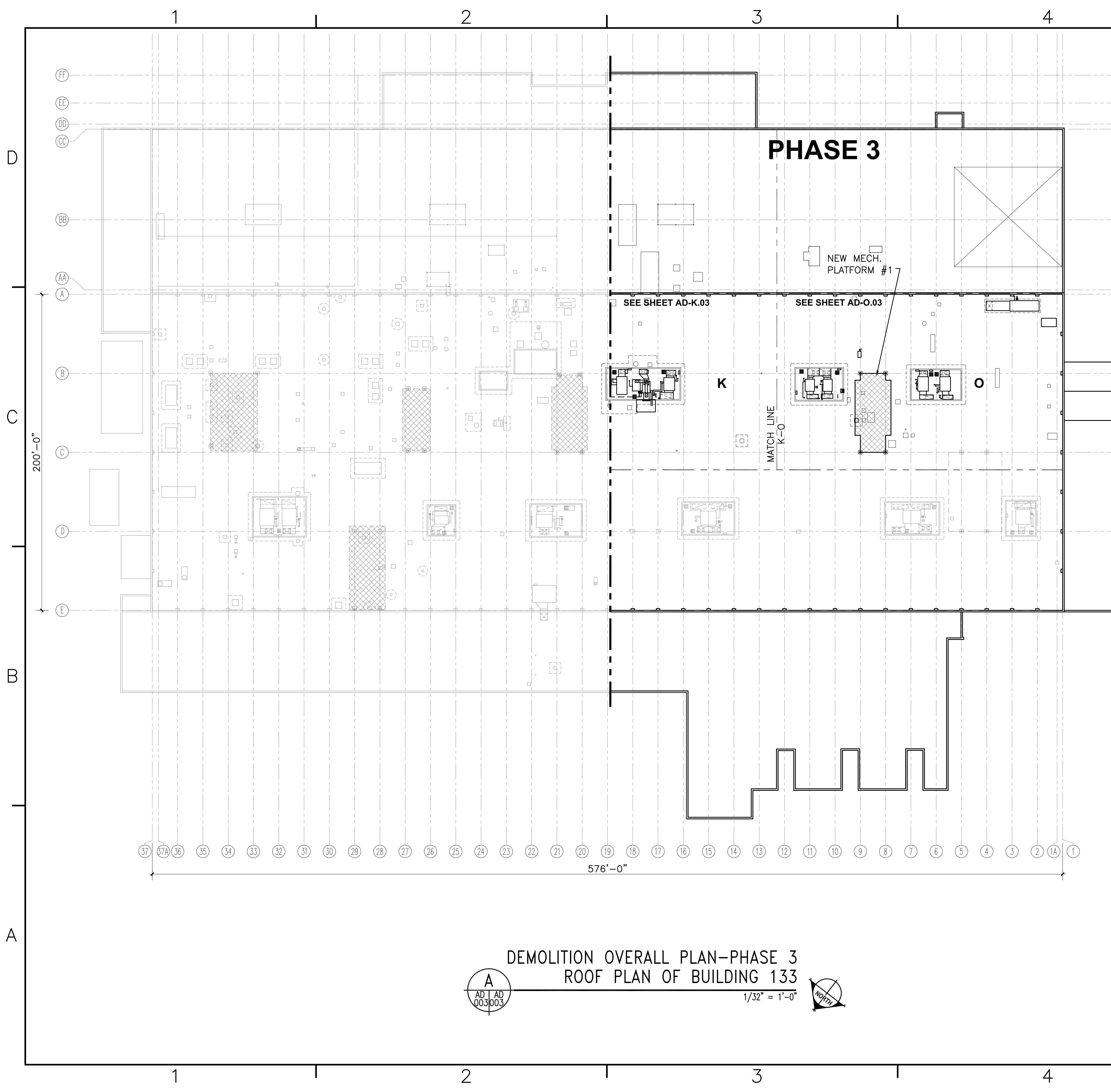
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12665253

SHEET 13 OF 57

S-502

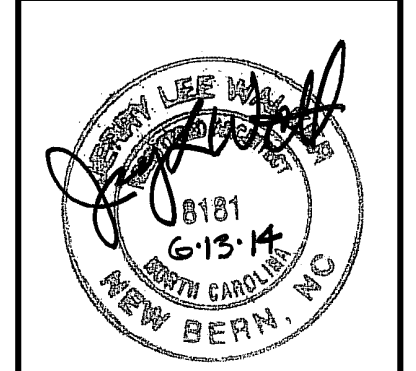
DRAWING REVISION: JULY 2003
Plot Scale: 1:1 (Paper Space)
Drawing Filename:



- ### GENERAL NOTES
1. COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
 2. CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
 3. REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
 4. CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.
 5. CONTRACTOR TO REVIEW MECHANICAL AND STRUCTURAL DRAWINGS BEFORE DEMOLITION AND NEW CONSTRUCTION TO DETERMINE ORDER OF EVENTS.

SYMBOL	DESCRIPTION	DATE	APPR

WALKER the GROUP ARCHITECTURE
 incorporated
 PO BOX 541, NEW BERN, NC 28563
 252-436-8770 252-436-8928(fax)

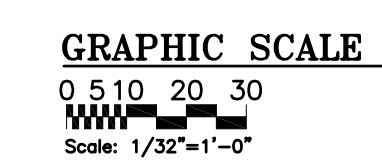


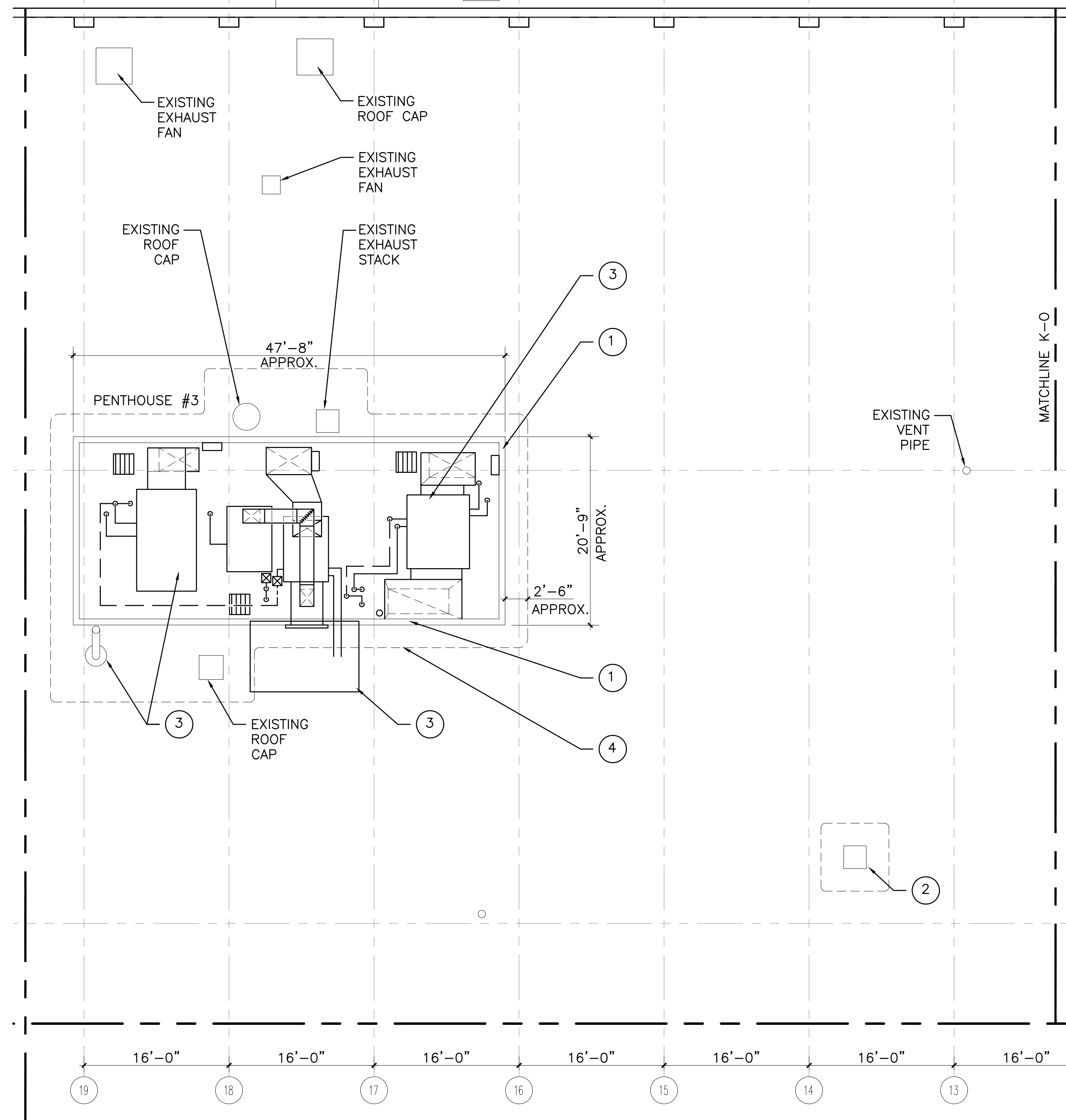
APPROVED _____
 ACTIVITY - SATISFACTORY TO _____
 DATE APPROVED _____
 FOR EFD FOR COMMANDER NAVFAC _____
 DATE _____
 A/E KMR EFD
 MTW DRAWN
 KMR REVIEW
 JBW QC
 CHIEF ARCH/ ENGR.
 PROJECT MANAGER _____
 FIRE PROTECTION _____
 BRANCH MANAGER _____
 DESIGN DIRECTOR _____

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS-BUILDING 133
PHASE 3
 DEMOLITION OVERALL ROOF PLAN-PHASE 3

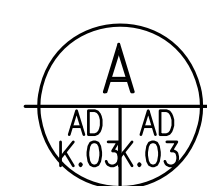
CODE ID. NO. 80091 SIZE D
 SCALE: AS NOTED
 FED. NO. WR5685642
 STA. PROJ. NO. R46-93
 SPEC. NO. _____
 CONSTR. CONTR. NO. _____
 NAVFAC DRAWING NO. 12665254
 SHEET 14 OF 57
AD-003

DEMOLITION OVERALL PLAN-PHASE 3
ROOF PLAN OF BUILDING 133
 1/32" = 1'-0"
 A
 AD AD
 003003





**AREA K DEMOLITION-PHASE 3
ROOF PLAN OF BUILDING 133**



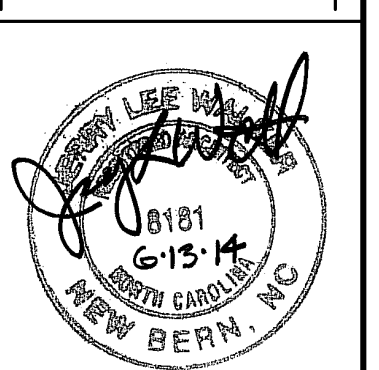
GENERAL NOTES

- COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
- CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
- REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
- CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.
- CONTRACTOR TO ANCHOR AND/OR STABILIZE 'EXISTING TO REMAIN' FIXTURES, PIPES, STACKS, DEVICES, ETC. DURING DEMOLITION AND NEW CONSTRUCTION.
- REFER TO STRUCTURAL SHEET S-403 FOR TYPICAL ROOF OPENING INFILL DETAILS.

DEMOLITION NOTES

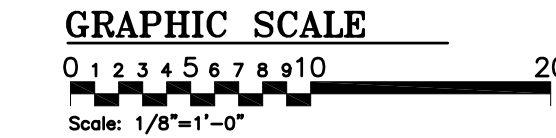
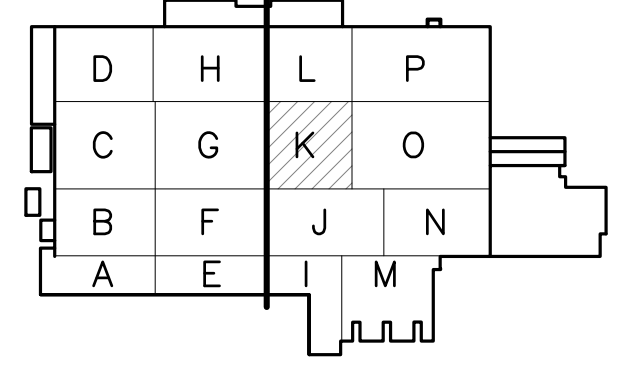
- DEMOLISH AND REMOVE EXISTING PENTHOUSE STRUCTURE, INCLUDING STUD WALLS, METAL SIDING, ROOF FRAMING, ROOFING, WOOD FLOORING, INSULATION INTERIOR WALL FINISHES, SPRINKLER PIPING, DOORS/FRAMES, LOUVERS, GUTTERS, DOWNSPOUTS, AND ACCESSORIES ASSOCIATED WITH THE PENTHOUSE STRUCTURE. SEE MECHANICAL DRAWINGS FOR DETAILS AND EXCEPTIONS. SEE SHEET A-102 FOR DEMOLITION.
- DEMOLISH AND REMOVE EXISTING ABANDONED EXHAUST STACK, FLASHING, CURB, AND ANCHORS, SEE MECHANICAL DRAWINGS FOR FURTHER DIRECTION. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS, SEE STRUCTURAL DRAWINGS. PREPARE DECKING FOR NEW ROOFING SYSTEM PATCH, SEE NEW WORK DRAWINGS.
- SEE MECHANICAL DRAWINGS FOR HVAC DEMOLITION NOTES.
- DEMOLISH AND REMOVE EXISTING ROOF SYSTEM TO APPROXIMATELY 2'-6" FROM EXISTING PENTHOUSE WALLS INCLUDING CURBS, EXPANSION JOINTS, CRICKETS, FLASHING OR OTHER ROOF ELEMENTS. PREPARE EXISTING ROOF DECK FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.
- LOCATION OF NEW MECHANICAL PLATFORM, SEE STRUCTURAL DRAWINGS FOR EXACT LOCATION.
- DEMOLISH AND REMOVE EXISTING ROOF SYSTEM TO ACCOMMODATE NEW STRUCTURE FOR NEW MECHANICAL PLATFORMS, (APPROXIMATELY 6 SF PER STRUCTURAL SUPPORT). SEE STRUCTURAL DRAWINGS FOR EXACT LOCATIONS. PREPARE OPENING AND WOOD DECK FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS. TYPICAL OF ALL STRUCTURAL LOCATIONS.
- DEMOLISH AND REMOVE EXISTING ABANDONED EXHAUST RELIEF SYSTEM, FLASHING, CURB, AND ANCHORS SEE MECHANICAL FOR FURTHER DIRECTION. PATCH OPENING AS PER STRUCTURAL REQUIREMENTS. PREPARE WOOD DECKING FOR NEW ROOFING SYSTEM PATCH, SEE NEW WORK DRAWINGS.
- DEMOLISH AND REMOVE EXISTING INTAKE HOOD, FLASHING, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE SHEET NEW WORK DRAWINGS.
- DEMOLISH AND REMOVE EXISTING ROOF TOP UNITS, FLASHING, CURBS, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.
- DEMOLISH AND REMOVE EXISTING CONDENSING UNIT, FLASHING, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.

DATE	DESCRIPTION	SYN	APPR



APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

PHASE 3



KEY PLAN
SCALE: NONE

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

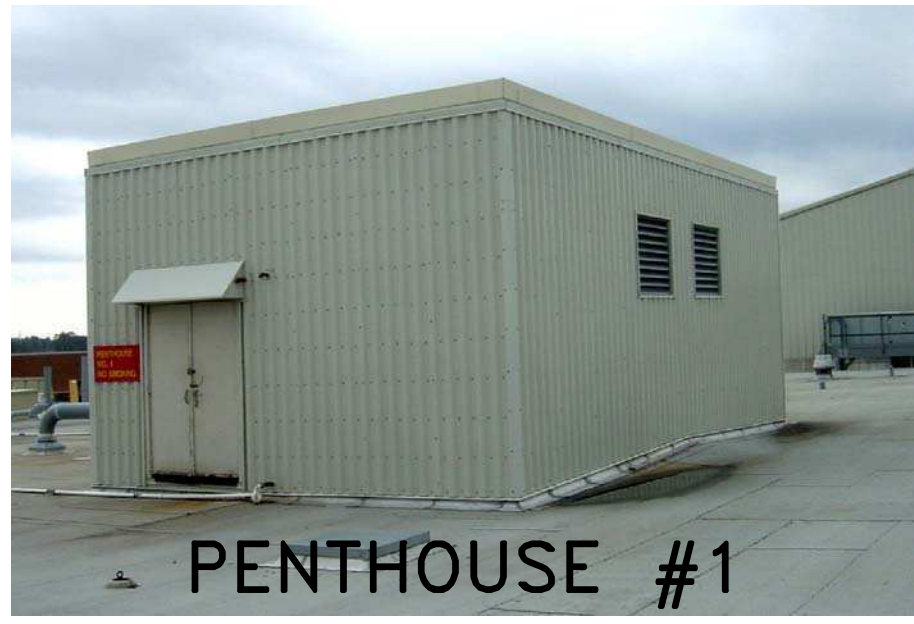
**REPLACE AIR HANDLING UNITS-BUILDING 133
PHASE 3**

DEMOLITION ROOF PLAN-AREA K-PHASE 3

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FIG. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665255	
SHEET 15 OF 57	

AD-K.03

DATE: 07/2003
1:1 (Paper Space)
Drawing Filename:

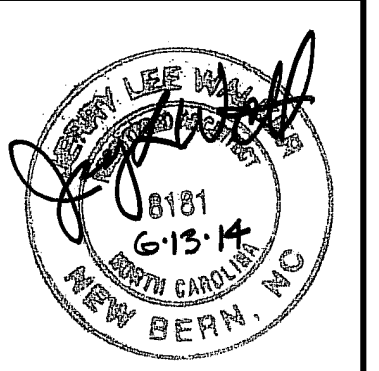


GENERAL NOTES

1. COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
2. CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
3. REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
4. CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.
5. CONTRACTOR TO ANCHOR AND/OR STABILIZE 'EXISTING TO REMAIN' FIXTURES, PIPES, STACKS, DEVICES, ETC. DURING DEMOLITION AND NEW CONSTRUCTION.
6. REFER TO STRUCTURAL SHEET S-403 FOR TYPICAL ROOF OPENING INFILL DETAILS.

DEMOLITION NOTES

1. DEMOLISH AND REMOVE EXISTING PENTHOUSE STRUCTURE, INCLUDING STUD WALLS, METAL SIDING, ROOF FRAMING, ROOFING, WOOD FLOORING, INSULATION INTERIOR WALL FINISHES, SPRINKLER PIPING, DOORS/FRAMES, LOUVERS, GUTTERS, DOWNSPOUTS, AND ACCESSORIES ASSOCIATED WITH THE PENTHOUSE STRUCTURE. SEE MECHANICAL DRAWINGS FOR DETAILS AND EXCEPTIONS. SEE SHEET A-102 FOR DEMOLITION.
2. DEMOLISH AND REMOVE EXISTING ABANDONED EXHAUST STACK, FLASHING, CURB AND ANCHORS. SEE MECHANICAL DRAWINGS FOR FURTHER DIRECTION. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOFING SYSTEM PATCH, SEE NEW WORK DRAWINGS.
3. SEE MECHANICAL DRAWINGS FOR HVAC DEMOLITION NOTES.
4. DEMOLISH AND REMOVE EXISTING ROOF SYSTEM TO APPROXIMATELY 2'-6" FROM EXISTING PENTHOUSE WALLS INCLUDING CURBS, EXPANSION JOINTS, CRICKETS, FLASHING OR OTHER ROOF ELEMENTS. PREPARE EXISTING ROOF DECK FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.
5. LOCATION OF NEW MECHANICAL PLATFORM, SEE STRUCTURAL DRAWINGS FOR EXACT LOCATION.
6. DEMOLISH AND REMOVE EXISTING ROOF SYSTEM TO ACCOMMODATE NEW STRUCTURE FOR NEW MECHANICAL PLATFORMS, (APPROXIMATELY 6 SF PER STRUCTURAL SUPPORT). SEE STRUCTURAL DRAWINGS FOR EXACT LOCATIONS. PREPARE OPENING AND WOOD DECK FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS. TYPICAL OF ALL STRUCTURAL LOCATIONS.
7. DEMOLISH AND REMOVE EXISTING ABANDONED EXHAUST RELIEF SYSTEM, FLASHING, CURB, AND ANCHORS SEE MECHANICAL FOR FURTHER DIRECTION. PATCH OPENING AS PER STRUCTURAL REQUIREMENTS. PREPARE WOOD DECKING FOR NEW ROOFING SYSTEM PATCH, SEE NEW WORK DRAWINGS.
8. DEMOLISH AND REMOVE EXISTING INTAKE HOOD, FLASHING, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE SHEET NEW WORK DRAWINGS.
9. DEMOLISH AND REMOVE EXISTING ROOF TOP UNITS, FLASHING, CURBS, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.
10. DEMOLISH AND REMOVE EXISTING CONDENSING UNIT, FLASHING, AND ANCHORS. PATCH OPENINGS AS PER STRUCTURAL REQUIREMENTS. PREPARE DECKING FOR NEW ROOF PATCH, SEE NEW WORK DRAWINGS.

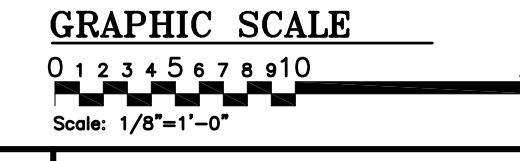
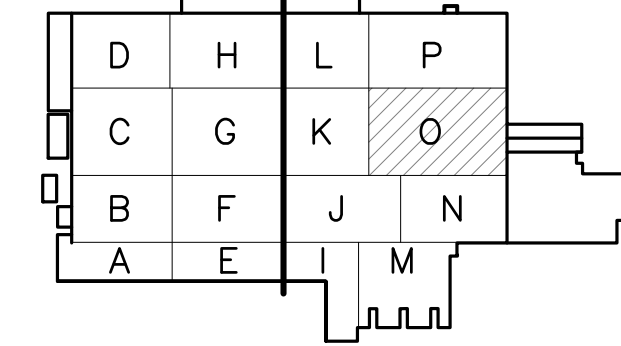


APPROVED	DATE
ACTIVITY - SATISFACTORY TO	DATE
FOR EFD FOR COMMANDER NAVFAC	DATE
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS-BUILDING 133
 PHASE 3
 DEMOLITION ROOF PLAN-AREA O-PHASE 3

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FIG. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665256	
SHEET 16 OF 57	

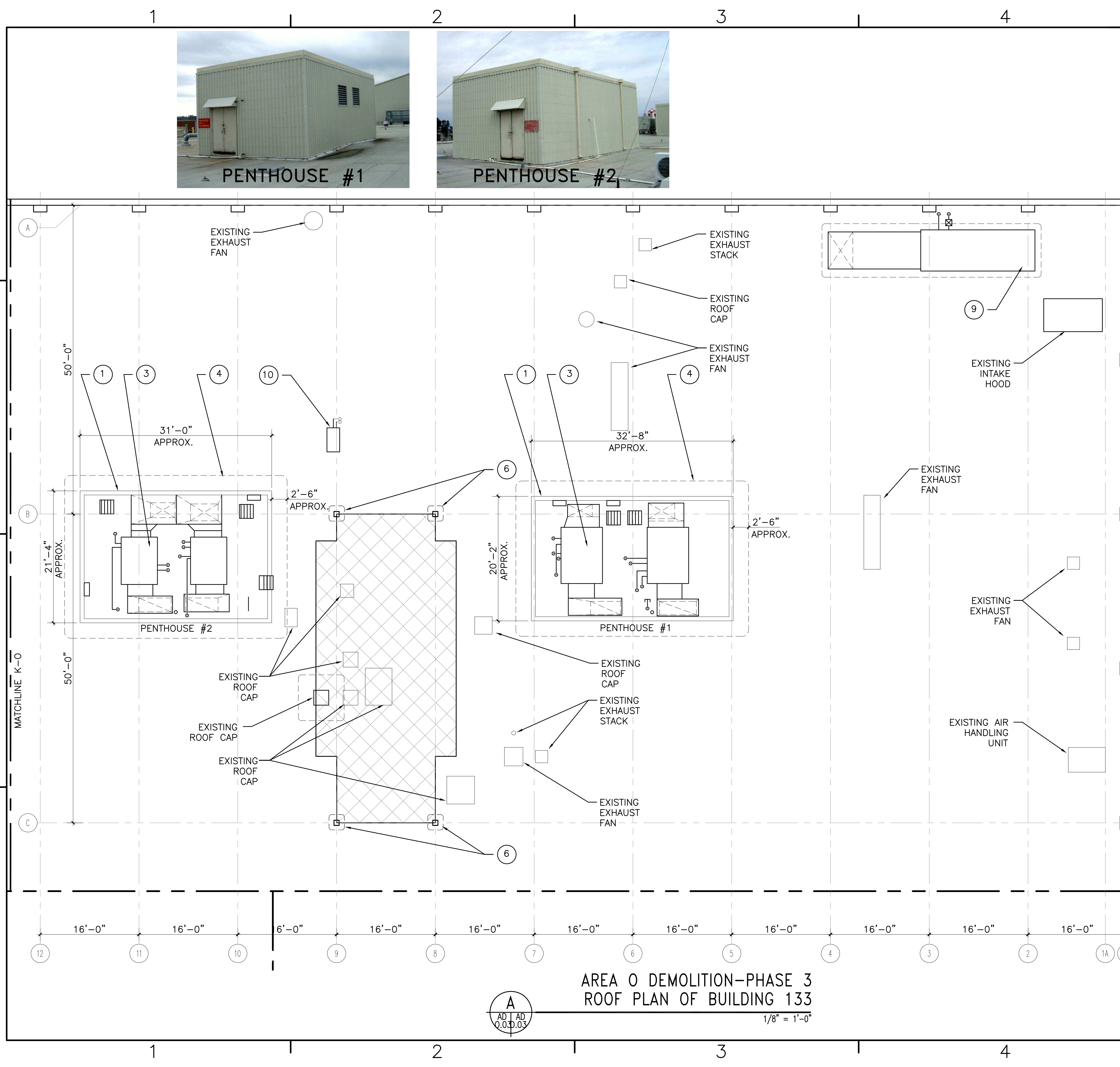
PHASE 3



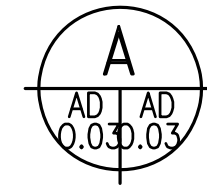
KEY PLAN
 SCALE: NONE

AD-0.03

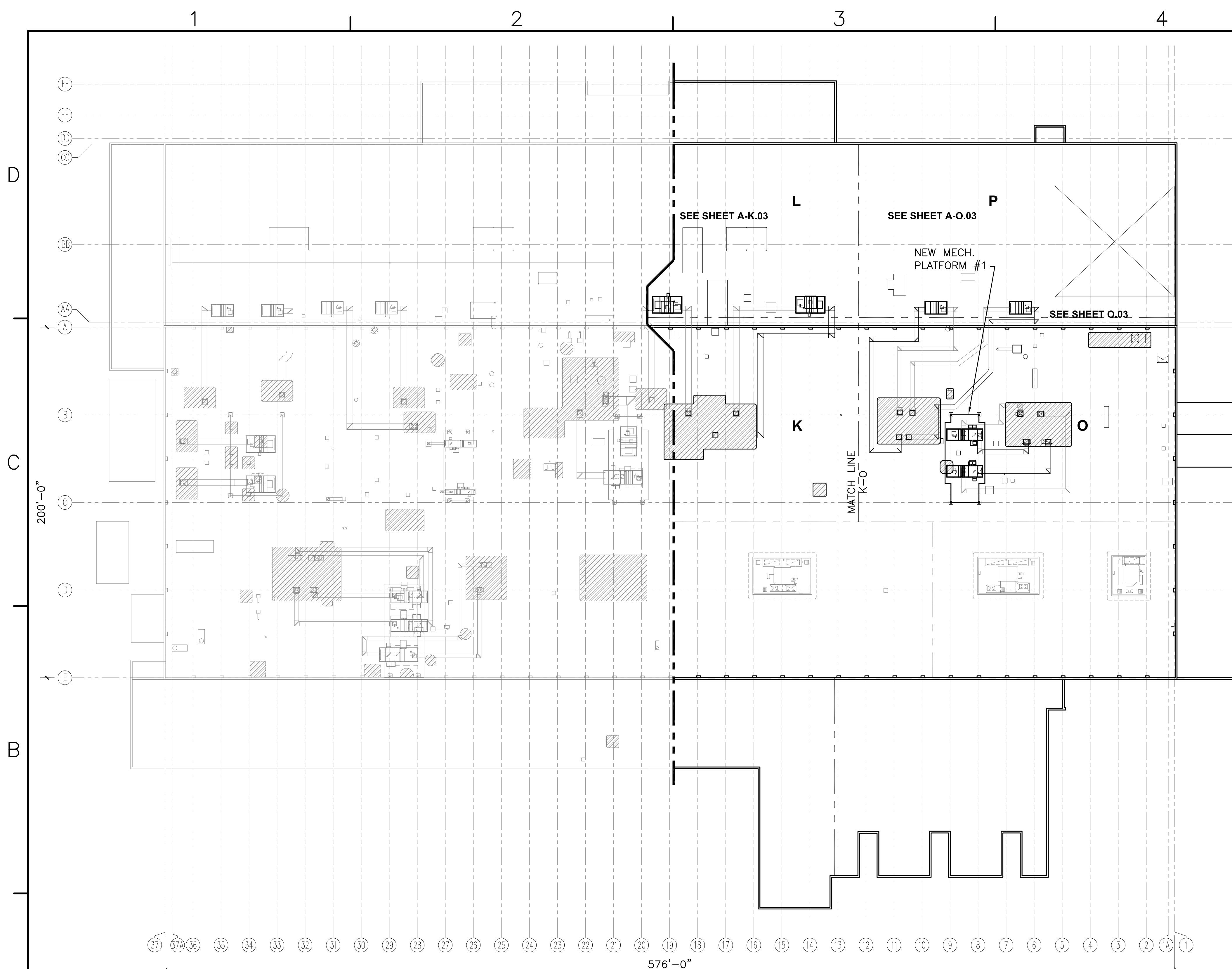
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 Drawing Filename:



**AREA O DEMOLITION-PHASE 3
 ROOF PLAN OF BUILDING 133**



1/8" = 1'-0"



- ### GENERAL NOTES
- COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
 - CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
 - REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
 - CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.

DATE	DESCRIPTION	APPR

WALKER the GROUP ARCHITECTURE
 incorporated
 PO BOX 541, NEW BERN, NC 28563
 252-634-8778 252-634-8703(m)



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ACTIVITY - SATISFACTORY TO

DATE APPROVED

FOR EFD FOR COMMANDER NAVFAC

DATE

A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.

PROJECT MANAGER

FIRE PROTECTION

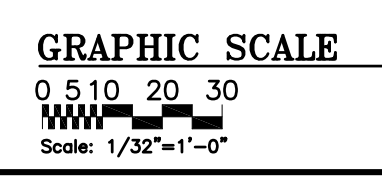
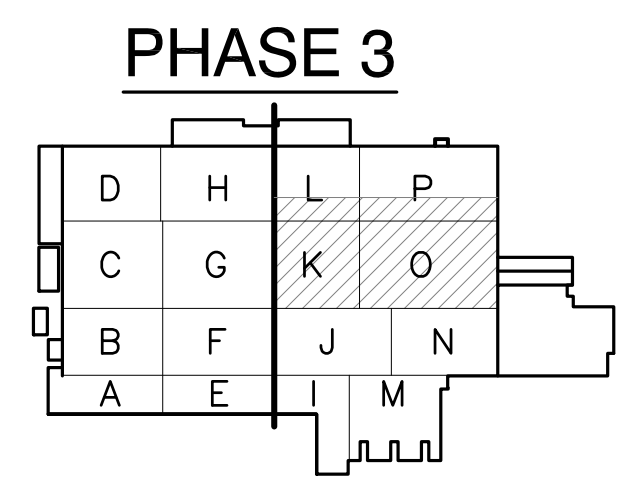
BRANCH MANAGER

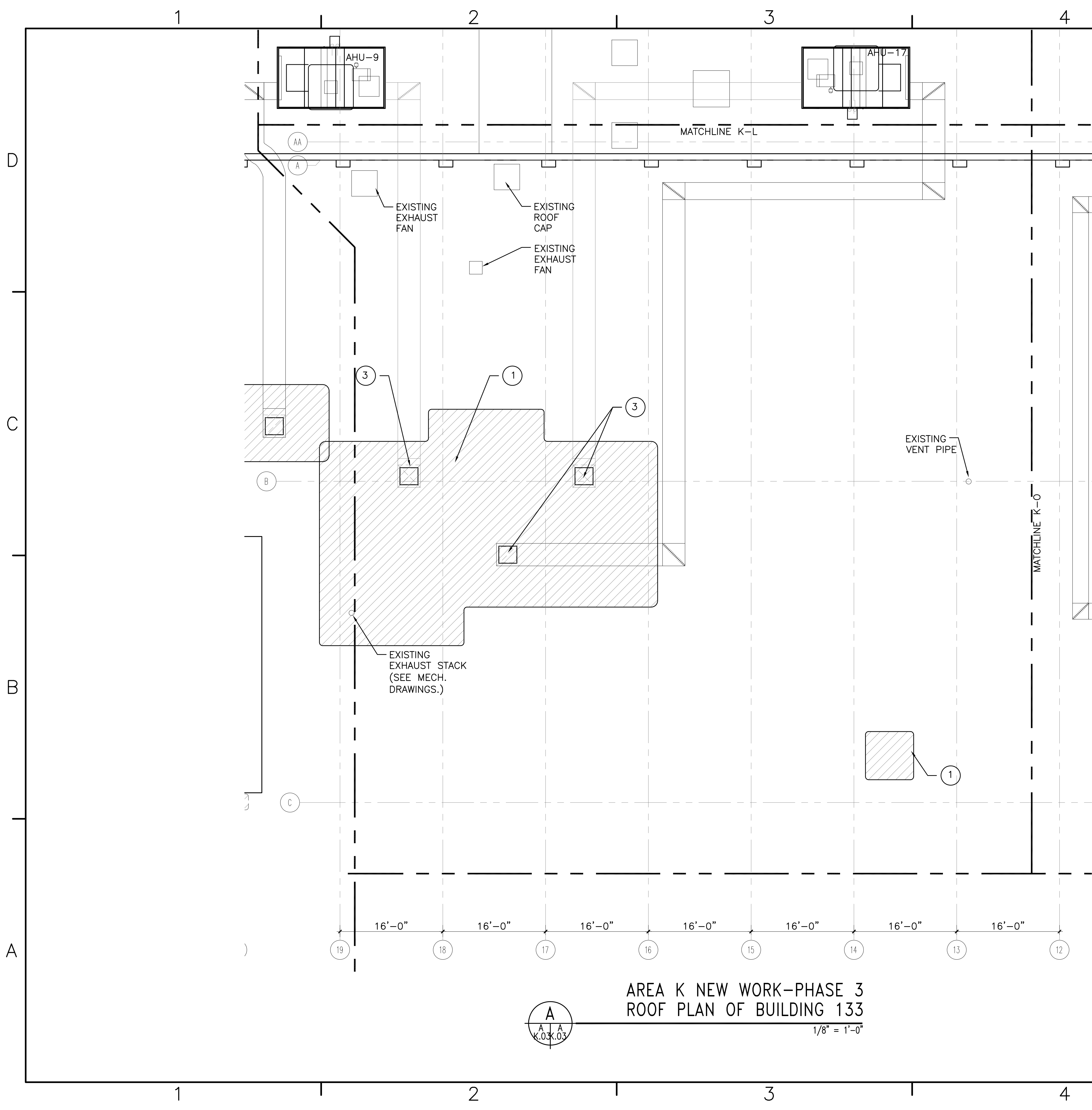
DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS-BUILDING 133
PHASE 3
 NEW WORK OVERALL ROOF PLAN-PHASE 3

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
PED. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665257	
SHEET 17 OF 57	
A-003	

NEW WORK OVERALL PLAN-PHASE 3
ROOF PLAN OF BUILDING 133
 1/32" = 1'-0"





AREA K NEW WORK-PHASE 3
ROOF PLAN OF BUILDING 133

A
K.03.K.03

1/8" = 1'-0"

GENERAL NOTES

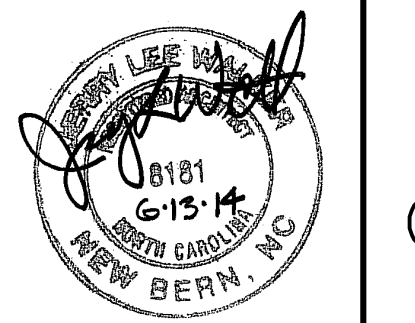
1. COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
2. CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
3. REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
4. CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.

CONSTRUCTION NOTES

1. INSTALL (PATCH) NEW 2-PLY MECHANICALLY FASTENED ROOFING SYSTEM WITH "WHITE" GRANULAR SURFACE CAP SHEET. SEE SHEET A-101 FOR DETAILS.
2. NEW ELEVATED MECHANICAL PLATFORM, SEE STRUCTURAL DRAWINGS FOR DETAILS.
3. NEW CURB MOUNT, SEE SHEET A-101 FOR CURB DETAIL, TYPICAL.
4. SEE SHEET A-101 / DETAIL C, STRUCTURE THRU ROOF DETAIL, TYPICAL.

SYN	DESCRIPTION	DATE	APPR

WALKER the GROUP ARCHITECTURE
Incorporated
PO BOX 541, NEW BERN, NC 28563
757-436-8778 757-436-8972(fax)

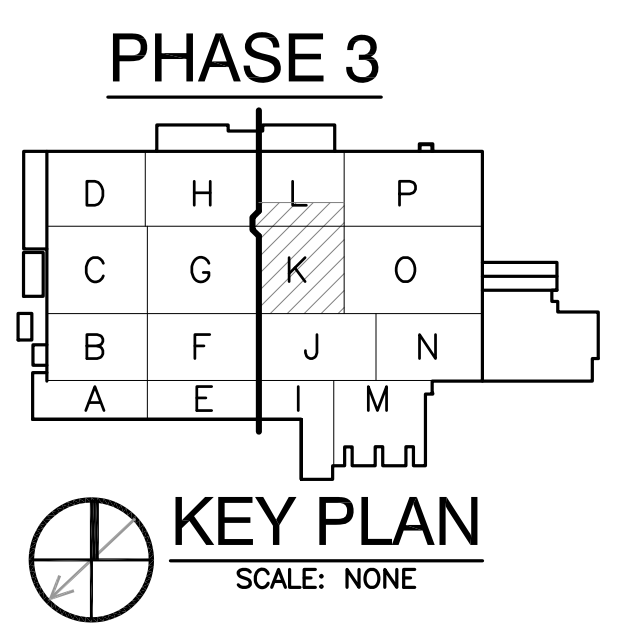
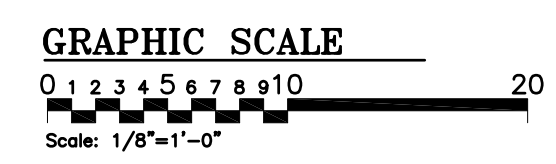


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ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

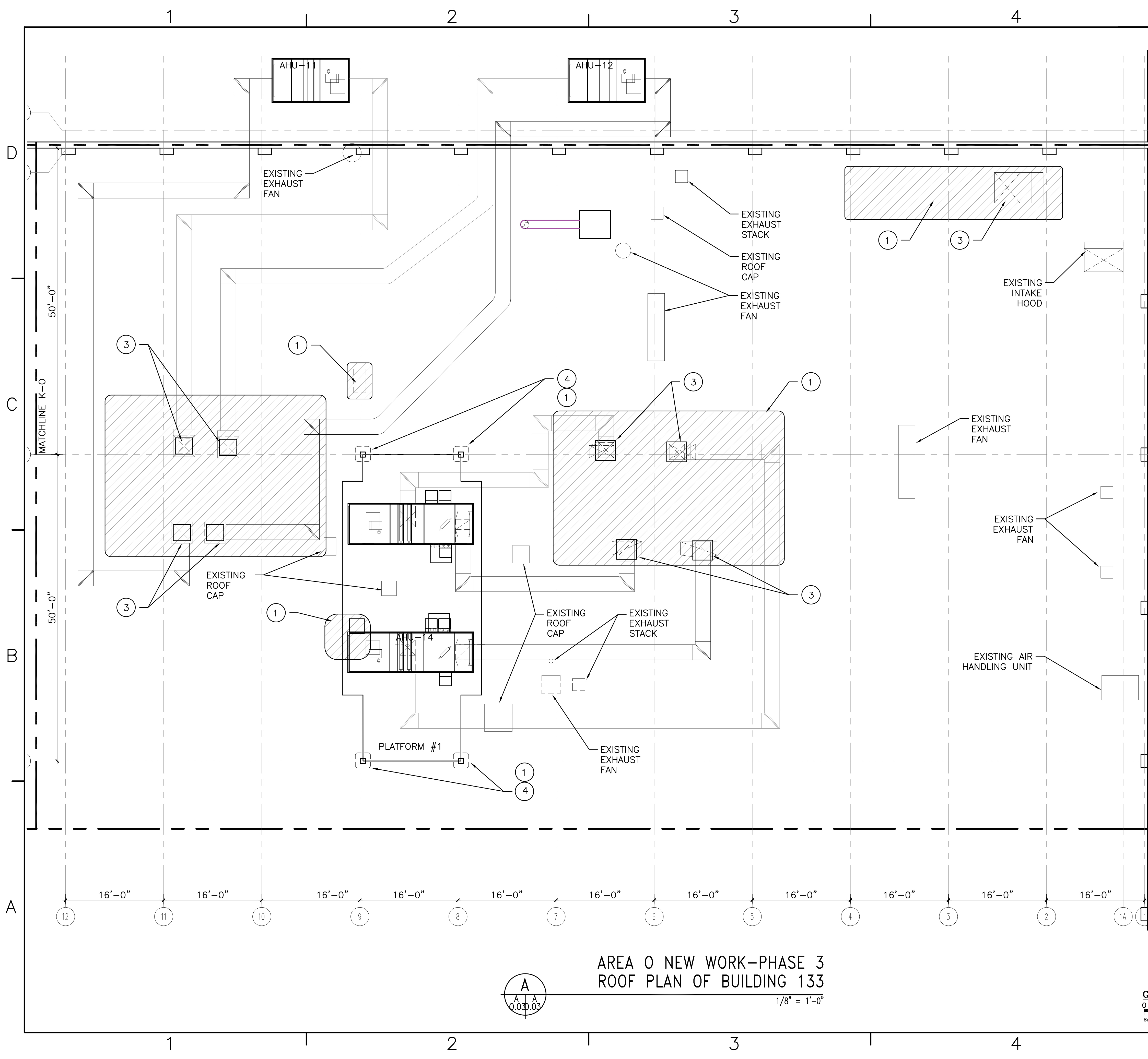
DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS-BUILDING 133
PHASE 3
NEW WORK ROOF PLAN-AREA K-PHASE 3

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
PID. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665258	
SHEET 18 OF 57	

A-K.03
DRAWING REVISION JULY 2003
Plot Scale: 1:1 (Paper Space)
Drawing Filename:



KEY PLAN
SCALE: NONE



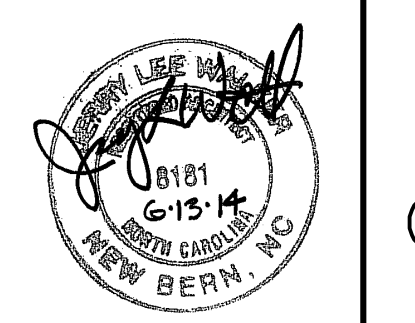
GENERAL NOTES

- COORDINATE ALL DEMOLITION/NEW WORK WITH THE ROOF MANUFACTURER/INSTALLER BEFORE MODIFYING OR INSTALLING EQUIPMENT IN ORDER TO PRESERVE THE INTEGRITY OF THE EXISTING SOPREMA ROOF WARRANTY.
- CONTRACTOR TO COORDINATE WORK HOURS WITH FLEET READINESS CENTER EAST PROJECT MANAGER.
- REFER TO MECHANICAL, ELECTRICAL, AND STRUCTURAL DRAWINGS FOR ADDITIONAL DEMOLITION NOTES.
- CONTRACTOR TO REFER TO THE ASBESTOS AND LEAD REPORTS FOR HAZARDOUS MATERIAL LOCATIONS.

CONSTRUCTION NOTES

- INSTALL (PATCH) NEW 2-PLY MECHANICALLY FASTENED ROOFING SYSTEM WITH "WHITE" GRANULAR SURFACE CAP SHEET. SEE SHEET A-101 FOR DETAILS.
- NEW ELEVATED MECHANICAL PLATFORM, SEE STRUCTURAL DRAWINGS FOR DETAILS.
- NEW CURB MOUNT, SEE SHEET A-101 FOR CURB DETAIL, TYPICAL..
- SEE SHEET A-101 / DETAIL C, STRUCTURE THRU ROOF DETAIL, TYPICAL.

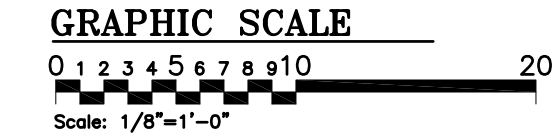
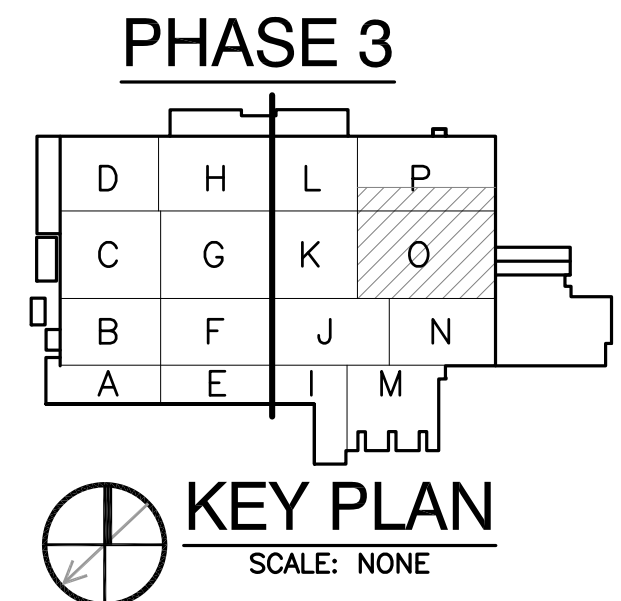
SYMBOL	DESCRIPTION	DATE	APPR



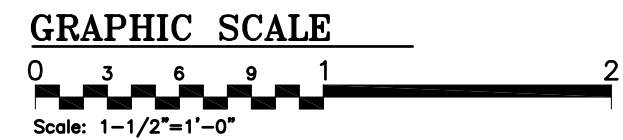
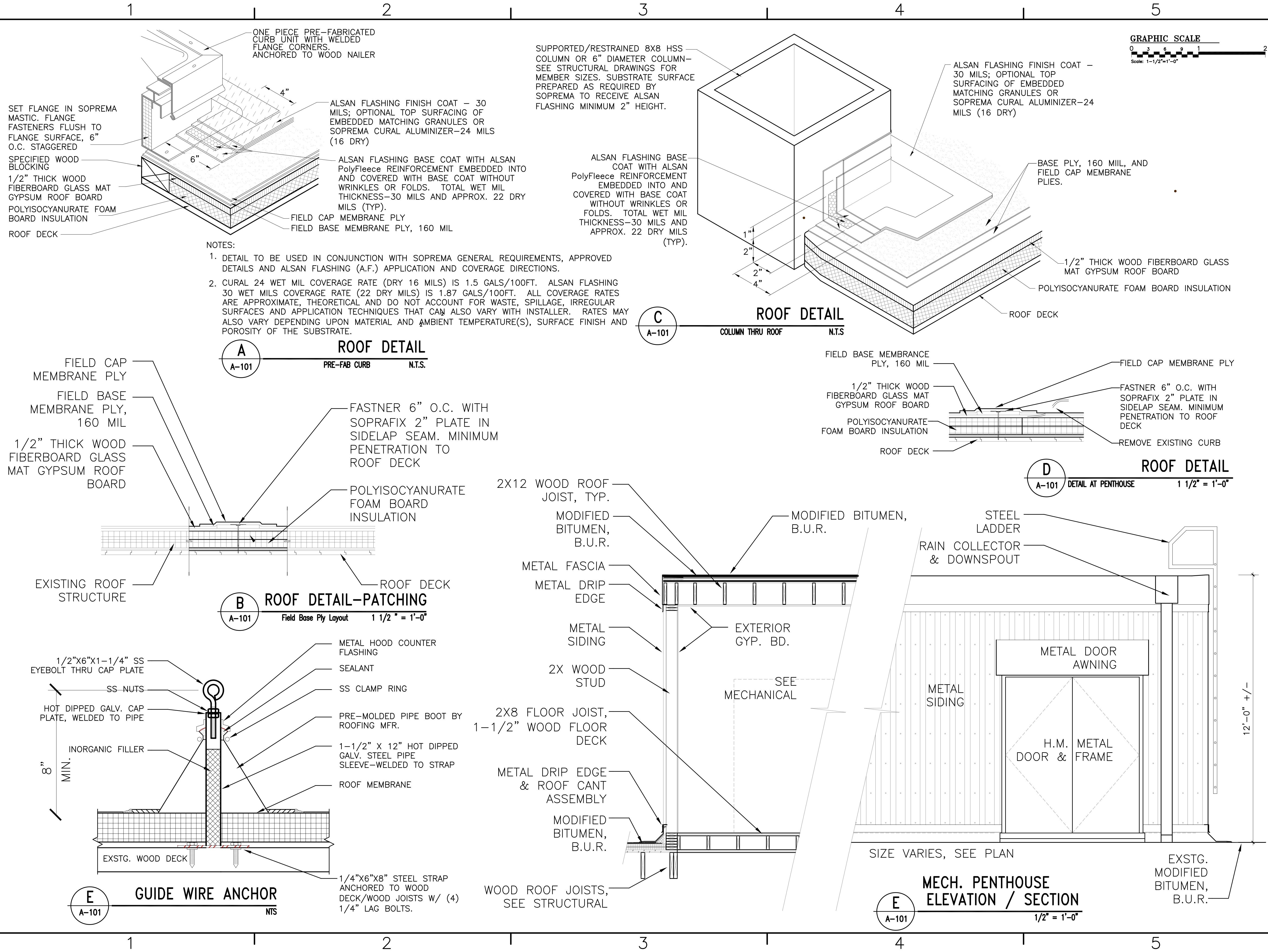
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS-BUILDING 133
 PHASE 3
 NEW WORK ROOF PLAN-AREA 0-PHASE 3

CODE ID. NO. 80091	SIZE D
SCALE AS NOTED	
PID. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 122685259	
SHEET 19 OF 57	
A-0.03	



AREA 0 NEW WORK-PHASE 3
ROOF PLAN OF BUILDING 133
 1/8" = 1'-0"

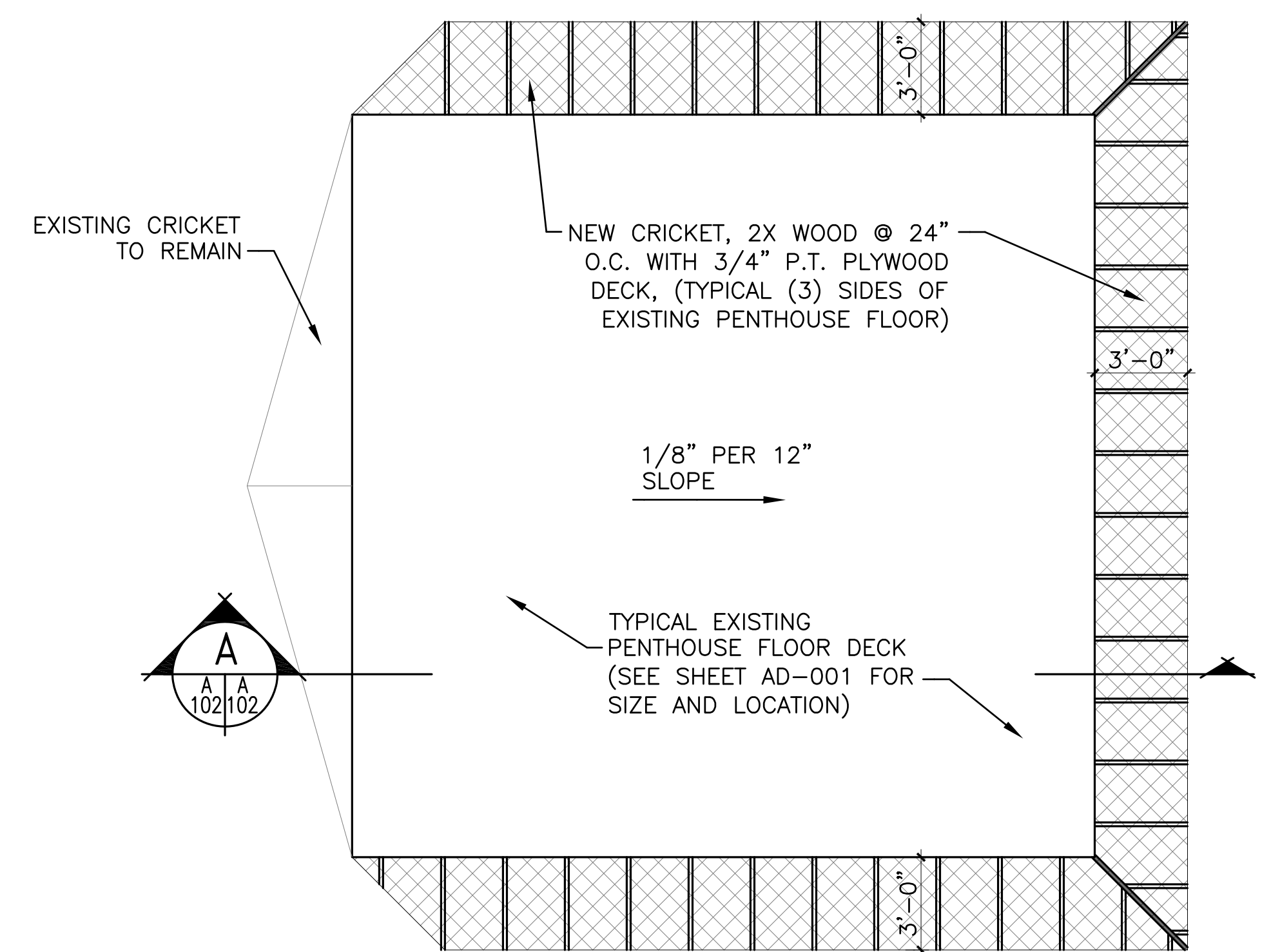


NOTES:
 1. DETAIL TO BE USED IN CONJUNCTION WITH SOPREMA GENERAL REQUIREMENTS, APPROVED DETAILS AND ALSAN FLASHING (A.F.) APPLICATION AND COVERAGE DIRECTIONS.
 2. CURAL 24 WET MIL COVERAGE RATE (DRY 16 MILS) IS 1.5 GALS/100FT. ALSAN FLASHING 30 WET MILS COVERAGE RATE (22 DRY MILS) IS 1.87 GALS/100FT. ALL COVERAGE RATES ARE APPROXIMATE, THEORETICAL AND DO NOT ACCOUNT FOR WASTE, SPILLAGE, IRREGULAR SURFACES AND APPLICATION TECHNIQUES THAT CAN ALSO VARY WITH INSTALLER. RATES MAY ALSO VARY DEPENDING UPON MATERIAL AND AMBIENT TEMPERATURE(S), SURFACE FINISH AND POROSITY OF THE SUBSTRATE.

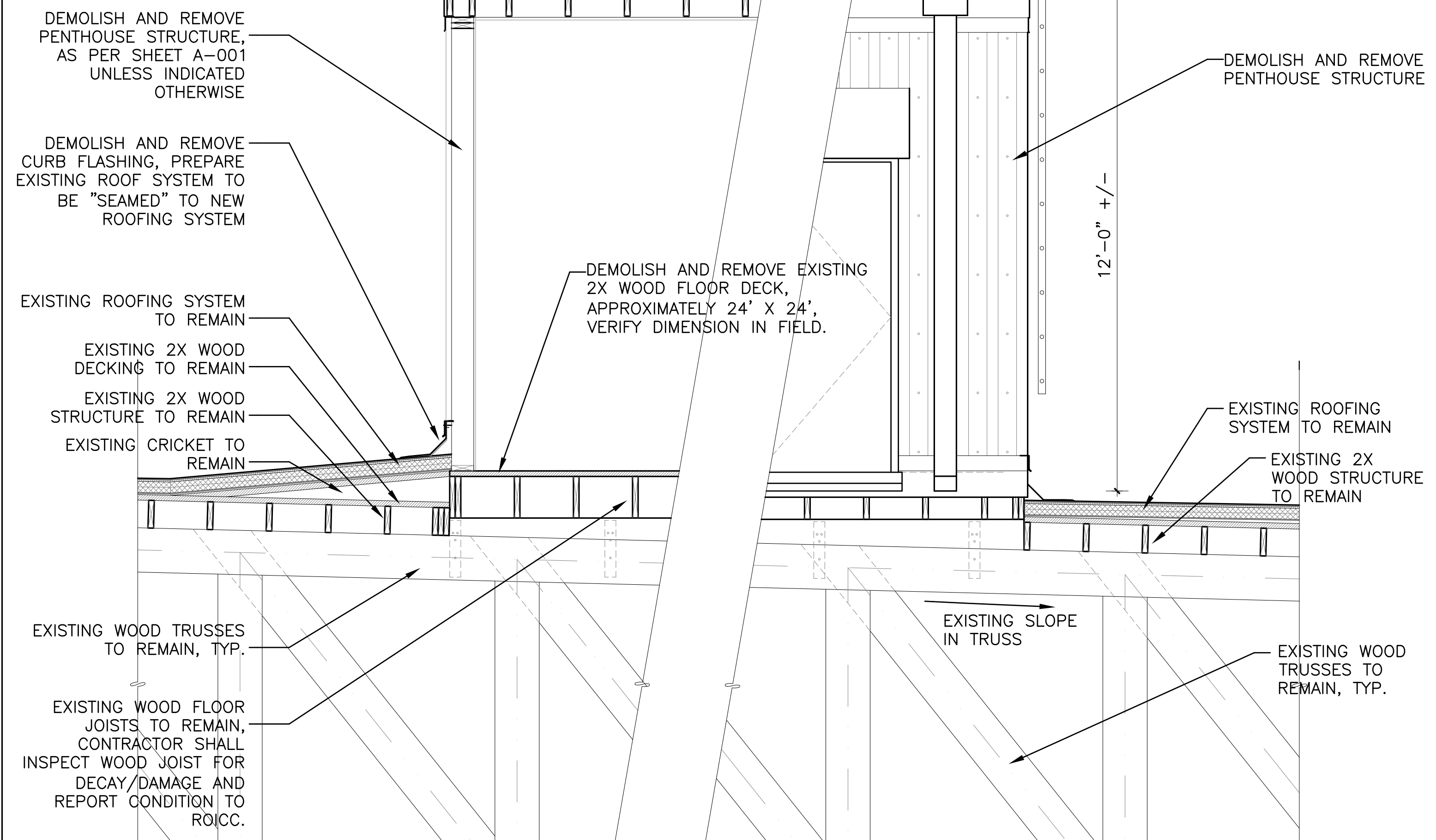
DATE	APPR
DESCRIPTION	
SYN	
WALKER the GROUP ARCHITECTURE <small>INCORPORATED</small> <small>PO BOX 541, NEW BERN, NC 28563</small> <small>252-638-8778 252-638-8779</small>	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVFAC DRAWING NO. 12665260 SHEET 20 OF 57 A-101	
DEPARTMENT OF THE NAVY MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS-BUILDING 133 PHASE 3 ROOF DETAILS	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FILED NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665260	
SHEET 20 OF 57	
A-101 <small>DRAWING REVISION JULY 2003</small> <small>Plot Scale: 1:1 (Paper Space)</small> <small>Drawing Filename:</small>	

NOTES:

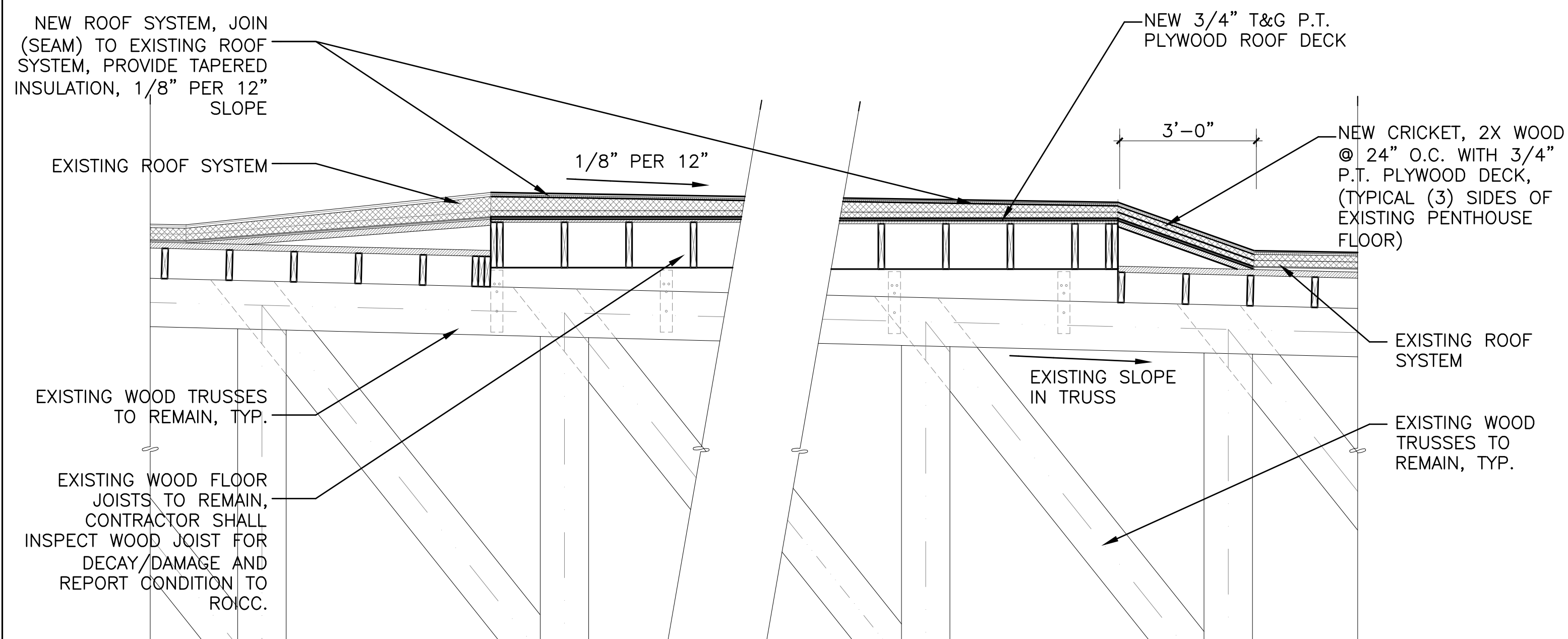
1. CONTRACTOR TO DEMOLISH PENTHOUSE STRUCTURE AS PER SHEET A-001 UNLESS INDICATED OTHERWISE
2. EXISTING PENTHOUSE FLOOR DECK (2X WOOD) TO BE DEMOLISHED AND REMOVED.
3. FLOOR STRUCTURE, ROOF CRICKETS, AND INSULATED ROOF SYSTEM TO REMAIN, AS INDICATED. CONTRACTOR SHALL INSPECT EXISTING WOOD ROOF STRUCTURE BELOW FLOOR DECK FOR DECAY/DAMAGE AND REPORT TO ROICC.
4. CONTRACTOR TO INSTALL NEW 2X WOOD FRAME AND DECKING FOR NEW CRICKETS AS INDICATED.
5. CONTRACTOR TO INSTALL NEW INSULATED ROOF SYSTEM OVER EXISTING PENTHOUSE FLOOR DECK AND NEW CRICKETS AS INDICATED. SEAM EXISTING ROOF SYSTEM TO EXISTING ROOF SYSTEM TO MAINTAIN ROOF WARRANTY.
6. CONTRACTOR TO MATCH EXISTING ROOF SYSTEM HEIGHT, I.E. POLYISOCYANURATE INSULATION, 1/2" GLASS MAT GYPSUM ROOF BOARD (PER ROOF MANUFACTURER), AND FIELD AND CAP MEMBRANE. PROVIDE TAPERED INSULATION AS INDICATED.



TYPICAL PENTHOUSE FLOOR/ROOF
1/4"=1'-0"

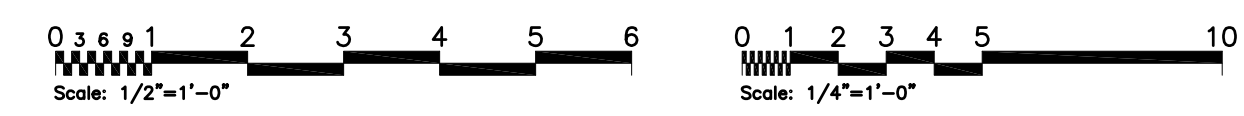


TYPICAL PENTHOUSE FLOOR DEMOLITION SECTION
1/2"=1'-0"



TYPICAL PENTHOUSE FLOOR RENOVATION SECTION
1/2"=1'-0"

GRAPHIC SCALE



DATE	APPR
DESCRIPTION	SYN
WALKER the GROUP ARCHITECTURE <small>INCORPORATED</small> <small>PO BOX 541, NEW BERN, NC 28563</small> <small>252-638-8978 252-638-8979</small>	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
KMR	DESIGN
MTW	DRAWN
KMR	REVIEW
JBW	QC
	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS-BUILDING 133 PHASE 2 ROOF DETAILS	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. PROJ. NO. WR5685642	
STA. PROJ. NO. R46-93	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665261	
SHEET 21 OF 57	
A-102 <small>ORIGINATOR: REVISION: JULY 2003</small> <small>Plot Scale: 1:1 (Paper Space)</small> <small>Drawing Filename:</small>	

LEGEND AND SYMBOLS LIST

SYSTEM NOMENCLATURE

ABBREVIATIONS

AHU-2
: NUMBER OF UNIT
AHU = AIR HANDLING UNIT
HC = HEATING COIL

AFF ABOVE FINISHED FLOOR
APD AIR PRESSURE DROP
BLDG. BUILDING
CHWS CHILLED WATER SUPPLY
CHWR CHILLED WATER RETURN
COND CONDENSATE
EAT ENTERING AIR TEMPERATURE
ESP EXTERNAL STATIC PRESSURE
E.W.T. ENTERING WATER TEMPERATURE
GPM GALLONS PER MINUTE
HPS HIGH PRESSURE STEAM
KW KILOWATT
LAT LEAVING AIR TEMPERATURE
L.W.T. LEAVING WATER TEMPERATURE
MAX MAXIMUM
MBH THOUSANDS BTUH
MIN MINIMUM
MPS MEDIUM PRESSURE STEAM
O.A. OUTSIDE AIR
P.D. PRESSURE DROP
PH PHASE
R.A. RETURN AIR
S.A. SUPPLY AIR
SCR STEAM CONDENSATE RETURN
TC TOTAL COOLING
TEMP TEMPERATURE
T*STAT THERMOSTAT
TYP. TYPICAL

GENERAL DEMOLITION NOTES

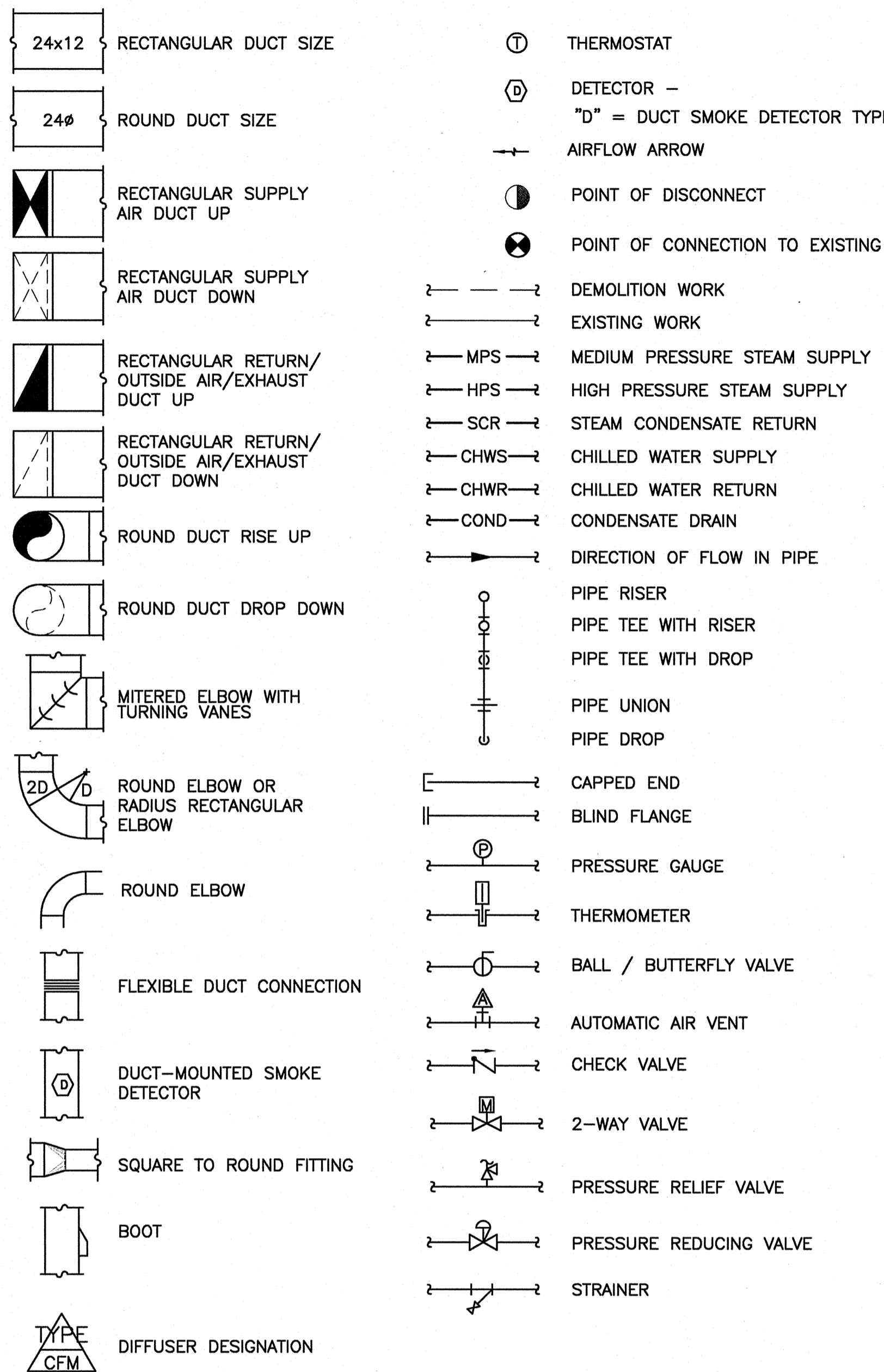
1. AN ATTEMPT HAS BEEN MADE TO SHOW ALL EQUIPMENT, PIPING, FIXTURES, AND DUCTWORK. CONTRACTOR SHALL VISIT THE SITE TO VERIFY COMPONENTS, LOCATIONS AND SIZES SHOWN OR NOT SHOWN. ALL HVAC COMPONENTS, INCLUDING CONTROLS, SHALL BE REMOVED IN THE DEMOLITION AREA UNLESS NOTED OTHERWISE ON THE DRAWINGS.
2. THE EXISTING BUILDING SHALL REMAIN IN CONTINUOUS & NON-INTERRUPTED OPERATION DURING RENOVATIONS AND ALTERATIONS. SERVICES TO EXISTING BUILDING SHALL BE MAINTAINED IN A FULLY OPERATIONAL AND FUNCTIONAL STATE THROUGHOUT CONSTRUCTION. SERVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, DOMESTIC WATER, SANITARY, STORM, STEAM HEATING, CHILLED WATER, HVAC SUPPLY, RETURN & EXHAUST, ELECTRICAL, TELECOMMUNICATIONS, AND FIRE ALARM. IF AN INTERRUPTION OF SERVICES IS DETERMINED TO BE NECESSARY TO ACCOMPLISH PROJECT CONSTRUCTION, A PROPOSAL SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL. A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF THE ANTICIPATED INTERRUPTION. ALL PROPOSED INTERRUPTIONS SHALL BE COORDINATED TO MINIMIZE THE NUMBER OF INTERRUPTIONS AND ANY PROPOSED INTERRUPTION SHALL BE LIMITED TO 72 HOURS. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES WHERE REQUIRED TO MAINTAIN BUILDING OPERATIONS DURING INTERRUPTIONS. TEMPORARY SERVICES SHALL BE REMOVED ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL.
3. CONTRACTOR SHALL BE RESPONSIBLE FOR DEMOLITION, REMOVAL, CAPPING, STORING, ABANDONING, DISCONNECTING, RELOCATING AND RECONNECTION OF EXISTING EQUIPMENT AND MATERIAL. ALL CUTTING, PATCHING, REPAIRING, REPLACEMENT AND REFINISHING, SHALL MATCH THE EXISTING CONSTRUCTION AS NEARLY AS POSSIBLE.
4. NEW EQUIPMENT SHALL BE IN OPERATION PRIOR TO DEMOLITION OF EXISTING EQUIPMENT. STAGE WORK SO THAT NEW EQUIPMENT IS IN OPERATION AND CONNECTED TO EXISTING DUCT SYSTEM PRIOR TO DEMOLISHING EXISTING EQUIPMENT ASSOCIATED WITH THE SAME EXISTING DUCT SYSTEM.
5. THE PRESENCE OF ASBESTOS CONTAINING MATERIALS (ACM) HAS BEEN CONFIRMED IN AREAS INCLUDED IN THE SCOPE OF WORK. EXTREME CAUTION SHOULD BE EXERCISED DURING ALL DEMOLITION IN AREAS WHERE WORK COULD UNCOVER EQUIPMENT, PIPING, DUCTING, ETC. THAT CONTAINS ASBESTOS. NOTIFY THE CONTRACTING OFFICER IMMEDIATELY OF SUSPECT MATERIAL. REFERENCE SPECIFICATIONS FOR FURTHER INFORMATION, PROCEDURES, AND LOCATIONS OF ACM. ALL DEMOLITION SHALL BE VERIFIED AND COORDINATED WITH ASBESTOS ABATEMENT PROCESS.
6. EQUIPMENT NOTED TO BE REMOVED SHALL BE REMOVED IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO ASSOCIATED DUCTWORK, PIPING, VALVING, DAMPERS, CONTROLS, SUPPORTS, AND HANGERS. AN ATTEMPT HAS BEEN MADE TO NOTE ACCOUTREMENTS, HOWEVER, THE CONTRACTOR SHALL REMOVE ACCOUTREMENTS FOUND IN THE FIELD ASSOCIATED WITH ITEMS BEING REMOVED.
7. REFER TO ARCHITECTURAL DRAWINGS FOR CURB REMOVAL, CAPPING, COVERING, INSULATING AND FLASHING REQUIREMENTS.
8. REMOVE ALL EXISTING THERMOSTATS AND SENSORS. PATCH AND MATCH WALL TO MATCH FINISH.

MECHANICAL GENERAL NOTES

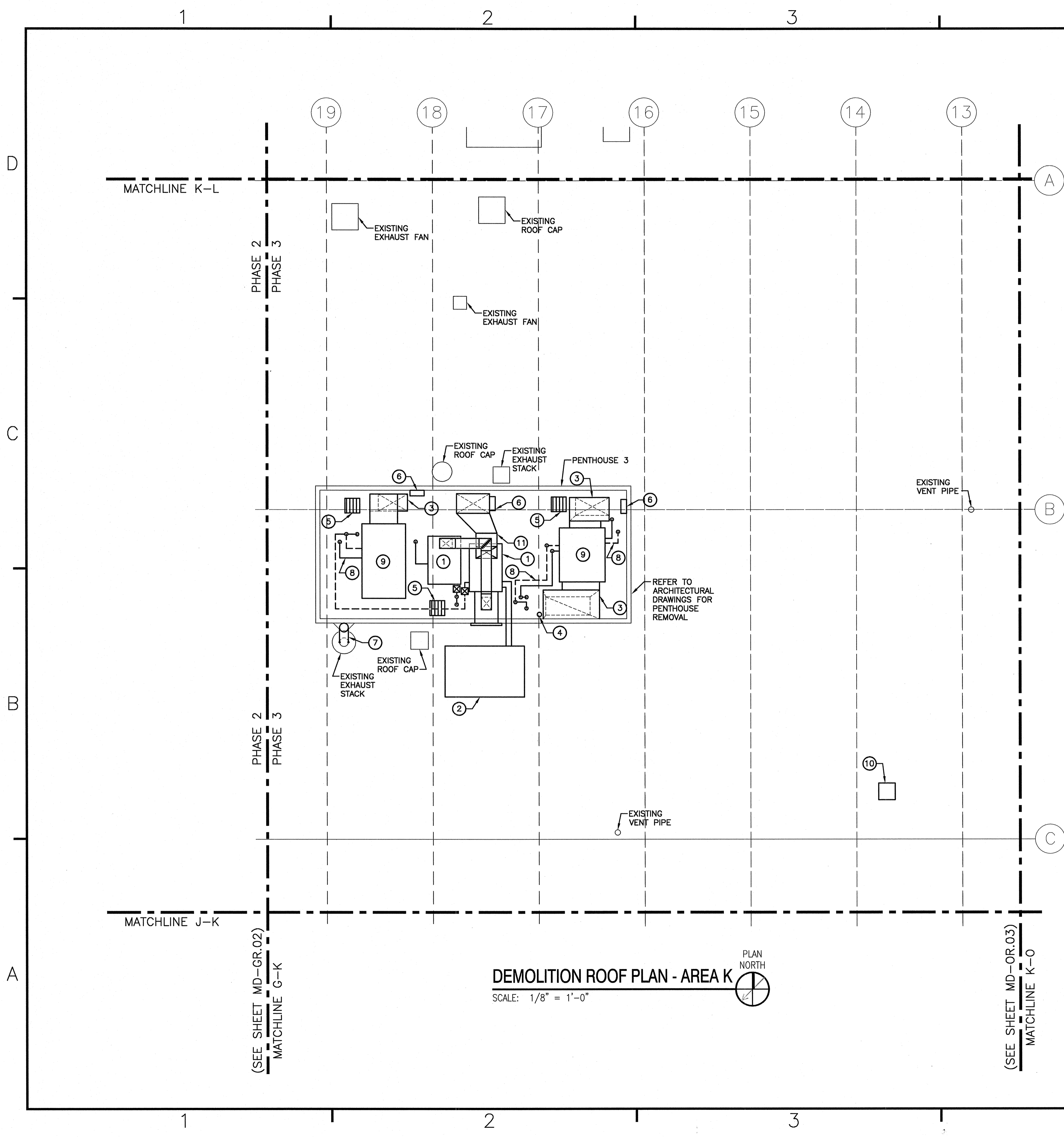
1. IT IS RECOMMENDED THAT THE CONTRACTOR VISIT THE SITE TO DETERMINE ALL PRE-EXISTING CONDITIONS AND WORK NECESSARY PRIOR TO SUBMISSION OF BID PRICE.
2. DRAWINGS ARE DIAGRAMMATIC ONLY; FINAL ROUTING OF DUCTWORK, PIPING AND EQUIPMENT LOCATIONS SHALL BE DETERMINED IN THE FIELD. ADDITIONAL OFFSETS, ELBOWS, ETC., SHALL BE PROVIDED AND INSTALLED WITHOUT ADDITIONAL COST TO THE GOVERNMENT.
3. ALL DUCTWORK SHALL BE CONSTRUCTED AND INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF SMACNA STANDARDS.
4. THE CONTRACTOR SHALL PROVIDE ALL INCIDENTAL ACCESSORIES NECESSARY TO MAKE THE WORK COMPLETE AND READY FOR OPERATION.
5. ALL MECHANICAL WORK SHALL BE IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE AND LOCAL CODES.
6. ALL MECHANICAL EQUIPMENT SHALL BE INSTALLED IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
7. THE CONTRACTOR SHALL COORDINATE ALL WORK CONCERNING EXISTING EQUIPMENT AND SYSTEMS REMAINING IN THE BUILDING.
8. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING THE INTEGRITY, CONDITION AND LOCATION OF EXISTING DUCTWORK AND PIPING WHICH IS TO BE REUSED. IF PIPING AND DUCTWORK CANNOT BE REUSED, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER TO DETERMINE THE EXTENT OF REPLACEMENT.
9. ISOLATION VALVES SHALL BE INSTALLED IN SUPPLY AND RETURN BRANCH PIPING SERVING MORE THAN ONE PIECE OF EQUIPMENT.
10. SHUTOFF VALVES SHALL BE INSTALLED IN THE SUPPLY AND RETURN PIPING TO ALL EQUIPMENT TO ALLOW FOR SERVICING. UNIONS OR FLANGES SHALL BE ARRANGED SUCH THAT EQUIPMENT CAN BE SERVICED WITHOUT CUTTING AND MINIMAL DISRUPTION OF PIPING SERVING THE EQUIPMENT.
11. THE CONTRACTOR SHALL INFORM AND COORDINATE WITH THE CONTRACTING OFFICER ALL NECESSARY INTERRUPTIONS TO EXISTING BUILDING SYSTEMS AND SERVICE THAT MAY AFFECT THE NORMAL OPERATION OF OCCUPIED PORTIONS OF THE BUILDING. THE CONTRACTING OFFICER SHALL BE INFORMED OF ANY INTERRUPTIONS AT LEAST TWO (2) WEEKS IN ADVANCE.
12. THE CONTRACTOR SHALL INFORM THE CONTRACTING OFFICER TWO (2) WEEKS IN ADVANCE OF ANY WORK TO BE UNDERTAKEN IN OCCUPIED AREAS OF THE BUILDING ASSOCIATED WITH THIS PROJECT. THE CONTRACTOR SHALL CONFORM TO THE GOVERNMENT'S CRITERIA FOR WORK HOURS, ENVIRONMENTAL ISOLATION, AND NOISE LIMITS IN THE PORTIONS OF THE BUILDING WHICH REMAIN OCCUPIED DURING CONSTRUCTION.
13. NO BULLHEAD TEES IN PIPING SYSTEMS SHALL BE ALLOWED ON THIS PROJECT. CONTRACTOR SHALL PROVIDE OFFSETS AS NECESSARY TO MEET THIS REQUIREMENT.
14. PROVIDE ALL NECESSARY DUCT TRANSITIONS FROM THE INDICATED DUCT SIZE TO THE ACTUAL EQUIPMENT DUCT COLLAR SIZE. TRANSITIONS SHALL BE MADE WITHIN 3"-0".
15. ALL EQUIPMENT INDICATED AS CONNECTED TO DUCT WORK SHALL BE PROVIDED WITH A 1" DUCT COLLAR.
16. PROVIDE EACH FAN WITH THE FAN MOTOR AND DRIVE ORIENTED TO ALLOW ACCESS.
17. ALL DUCTS SHALL BE GROUNDED ACROSS FLEXIBLE CONNECTIONS WITH FLEXIBLE BRAIDED COPPER GROUNDING STRIPS.
18. WHEN PROVIDING VALVES, INSURE THE ABILITY TO ACTUATE THE VALVE HANDLE THROUGH THE FULL RANGE OF OPERATION.
19. MAINTAIN 10 FT CLEARANCE BETWEEN AIR HANDLING UNIT OUTDOOR AIR INTAKES AND ALL ROOF EXHAUST STACKS, VENT PIPES, AND EXHAUST FANS.

ESTIMATED UNIT PRICE BID ITEMS

ITEM	QUANTITIES	MULTIPLIERS FOR UNFORESEEN INCREASE	BID QUANTITIES
DUCTWORK	150 POUNDS	1.10	165
PIPING	20 LINEAR FT.	1.10	22



NRW
 CONSULTING STRUCTURAL ENGINEERS
 748 LORD DANNORE DRIVE, SUITE 101
 VIRGINIA BEACH, VIRGINIA, 23464
 PHONE: (757) 474-9810
 FAX: (757) 474-9819
Dewberry
 Dewberry Engineers Inc.
 5001 HOWLANDS DRIVE
 SUITE 200
 FARMERSVILLE, NC 27834
 PHONE: (919) 884-8800
 FAX: (919) 884-8809
 NCES # 15029
 NORTH CAROLINA ENGINEERING SEAL
 030137
 WAJFRED H. RAJOTAK
 6-13-04
 APPROVED
 ACTIVITY - SATISFACTORY TO
 DATE
 APPROVED
 FOR EFD FOR COMMANDER NAVFAC
 DATE
 A/E EFD
 RAP DESIGN
 RAP DRAWN
 MHR REVIEW
 MHR QC
 MHR CHIEF ARCH/ ENGR.
 PROJECT MANAGER
 FIRE PROTECTION
 BRANCH MANAGER
 DESIGN DIRECTOR
 NAVAL FACILITIES ENGINEERING COMMAND
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
 REPLACE AIR HANDLING UNITS, BLDG. 133
 PHASE 3
 LEGENDS, ABBREVIATIONS, & NOTES
 CODE ID. NO. 80091 SIZE D
 SCALE: AS NOTED
 FED. NO. 5906707
 STA. PROJ. NO. R46-93C
 SPEC. NO.
 CONSTR. CONTR. NO.
 NAVFAC DRAWING NO.
 12665263
 SHEET 23 OF 57
 M-001
 DRAWING REVISION: JULY 2003
 Plot Scale:
 1:1 (Paper Space)
 Drawing Filename:



NOTES:

1. PRIOR TO STARTING DEMOLITION IN THIS AREA, NEW EQUIPMENT, PIPING AND DUCTWORK SERVING THIS AREA SHALL BE COMPLETED AND OPERATIONAL. EXISTING DUCTWORK TO REMAIN SHALL BE CONNECTED TO NEW EQUIPMENT PRIOR TO SEVERING EXISTING SERVICE AND UTILITIES. SEE DETAIL 1 ON M-102.

KEYED MECHANICAL NOTES:

- ① REMOVE EXISTING ABANDONED AIR HANDLING UNIT INCLUDING CONTROLS, PIPING, VALVES, TRAPS, AND SUPPORTS.
- ② REMOVE EXISTING CONDENSING UNIT INCLUDING SUPPORTS, PIPING, AND CONTROLS.
- ③ REMOVE EXISTING DUCT BACK TO ROOF PENETRATION. PREPARE EXISTING DUCT PENETRATION FOR CONNECTION TO NEW DUCTWORK.
- ④ REMOVE EXISTING SPRINKLER PIPING IN PENTHOUSE. DEMOLISH PIPE BACK TO MAIN OR NEAREST SPRINKLER HEAD BELOW ROOF AND CAP.
- ⑤ REMOVE EXISTING LOUVER IN FLOOR OF PENTHOUSE. PATCH ROOF TO MATCH EXISTING.
- ⑥ REMOVE EXISTING CONTROLLER AND ALL ASSOCIATED WIRING AND SUPPORTS.
- ⑦ REMOVE EXISTING STACK BACK TO POINT SHOWN.
- ⑧ REMOVE EXISTING STEAM, CONDENSATE, AND CHILLED WATER PIPING BACK TO SERVICE MAIN. SEE DWG. MD-K.02 FOR CONTINUATION.
- ⑨ REMOVE EXISTING AIR HANDLING UNIT INCLUDING CONTROLS, PIPING, VALVES, TRAPS, AND SUPPORTS.
- ⑩ REMOVE EXISTING ABANDONED EXHAUST STACK INCLUDING DUCTWORK AND CURB. PATCH ROOF TO MATCH EXISTING. REFER TO ARCH. DRAWINGS.
- ⑪ REMOVE EXISTING DUCT BACK TO ROOF PENETRATION. PATCH ROOF TO MATCH EXISTING. REFER TO ARCH. DRAWINGS.

NO.	DATE	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8812
FAX: (757) 474-0919

Dewberry
Dewberry & Davis, Inc.
5001 REDWOODS DRIVE
SUITE 100
FALLS CHURCH, VA 22040
PHONE: (703) 441-4000
FAX: (703) 441-4000

SEAL
030137
ENGINEER
MANFRED H. RADEK
6-13-14

APPROVED _____

ACTIVITY - SATISFACTORY TO _____

DATE _____

APPROVED _____

FOR EFD FOR COMMANDER NAVFAC

DATE _____

A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	QC
MHR	CHIEF ARCH/ ENGR.

PROJECT MANAGER _____

FIRE PROTECTION _____

BRANCH MANAGER _____

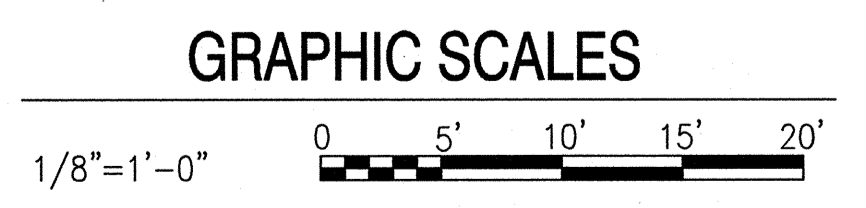
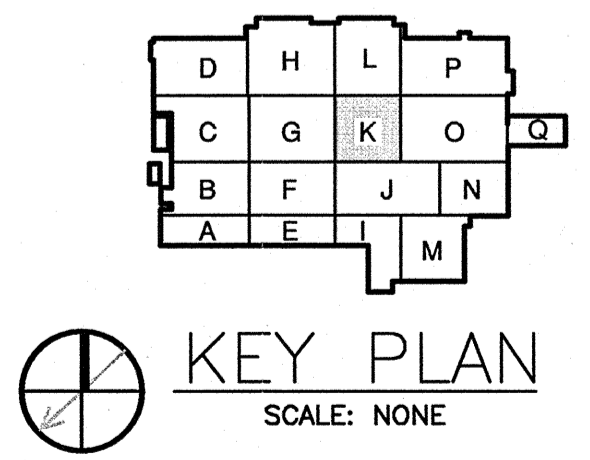
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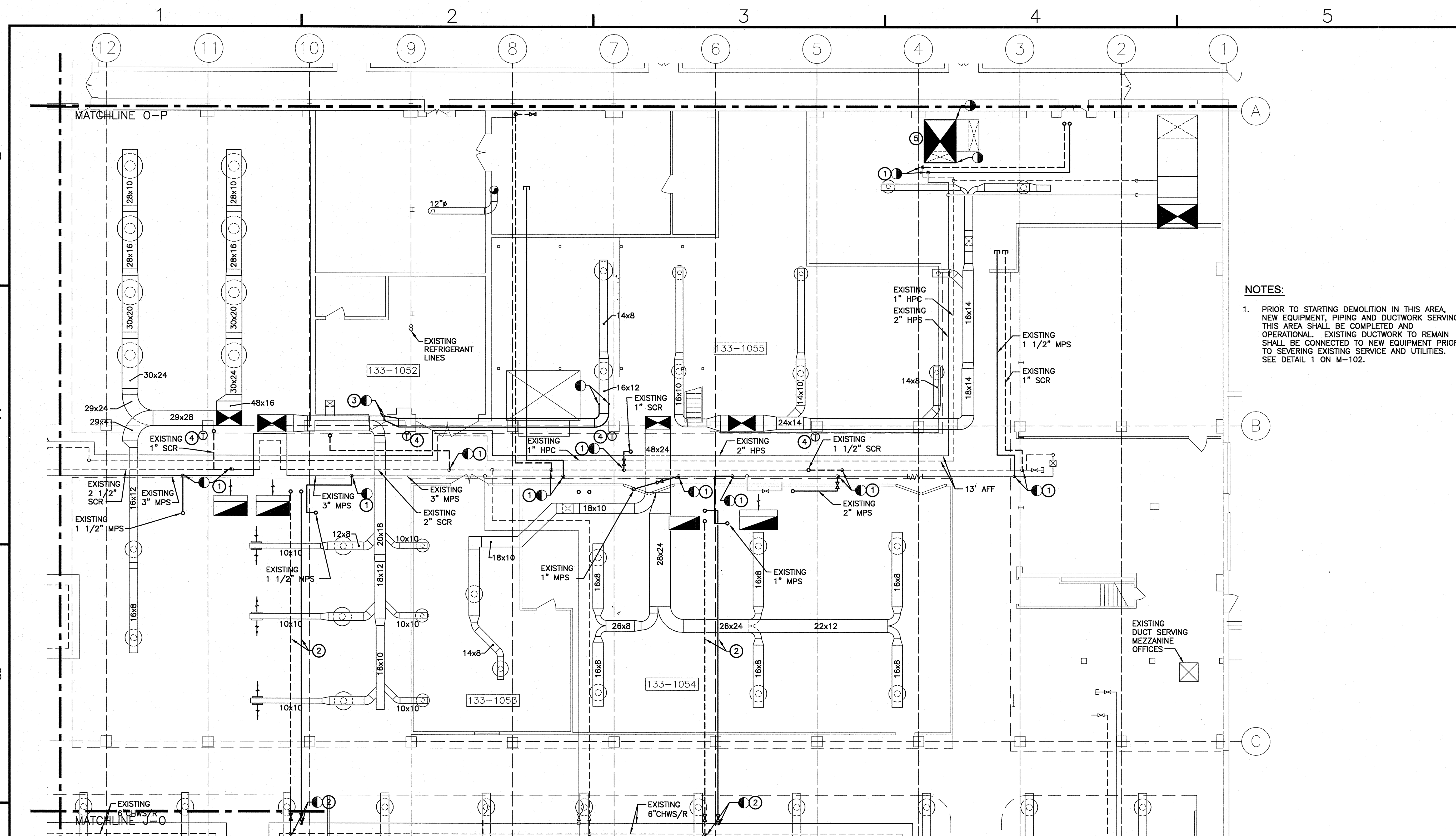
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.

REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3

MECHANICAL DEMOLITION ROOF PLAN AREA K

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665265	
SHEET 25 OF 55	
MD-KR.03	





NOTES:

1. PRIOR TO STARTING DEMOLITION IN THIS AREA, NEW EQUIPMENT, PIPING AND DUCTWORK SERVING THIS AREA SHALL BE COMPLETED AND OPERATIONAL. EXISTING DUCTWORK TO REMAIN SHALL BE CONNECTED TO NEW EQUIPMENT PRIOR TO SEVERING EXISTING SERVICE AND UTILITIES. SEE DETAIL 1 ON M-102.

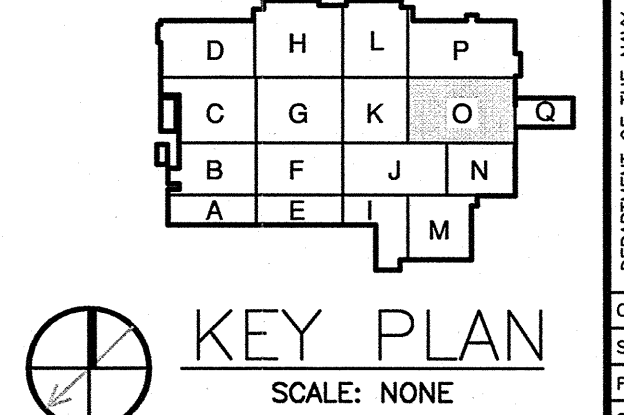
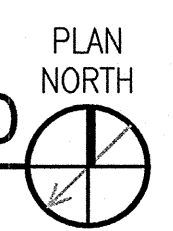
(SEE SHEET MD-K-03
MATCHLINE K-O

KEYED MECHANICAL NOTES:

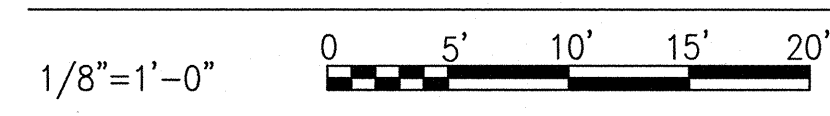
- ① REMOVE EXISTING STEAM/CONDENSATE RETURN LINES BACK TO MAIN INCLUDING VALVES, TRAPS AND CONTROLS. CAP LINES BACK TO MAIN.
- ② REMOVE EXISTING CHILLED WATER SUPPLY AND RETURN LINES INCLUDING VALVES AND CONTROLS. CAP LINES BACK TO MAIN.
- ③ REMOVE EXISTING DUCT BACK TO POINTS SHOWN.
- ④ REMOVE EXISTING THERMOSTAT AND ASSOCIATED WIRING.
- ⑤ REMOVE EXISTING DUCTWORK DOWN TO DUCT BRANCH CONNECTIONS. SEE DWG. M-0.03 FOR NEW DUCT ROUTING.

DEMOLITION FLOOR PLAN - AREA O

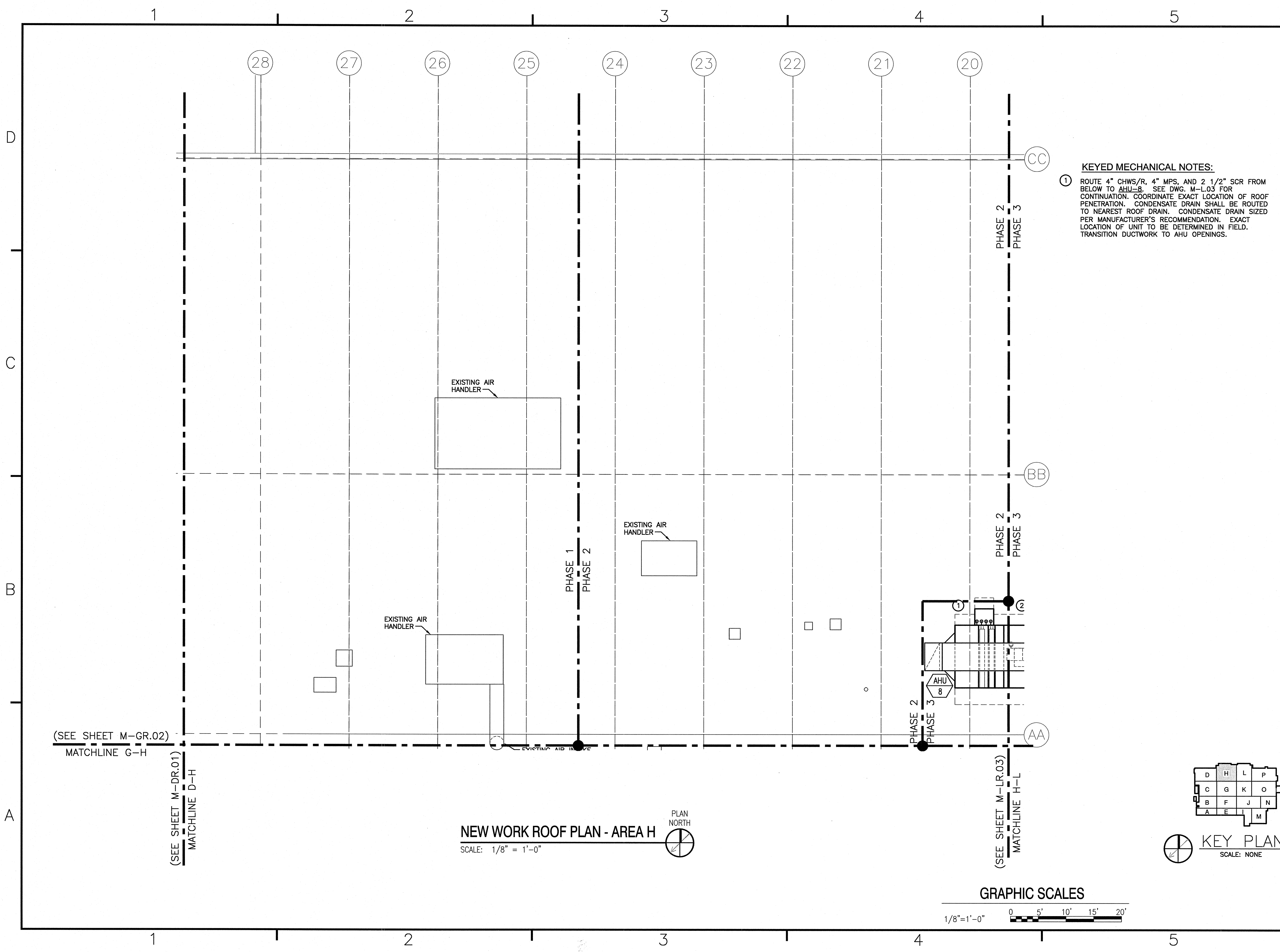
SCALE: 1/8" = 1'-0"



GRAPHIC SCALES



APPR	
DATE	
DESCRIPTION	
SYL	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
141 LORD DUMFRIES DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA, 23464	
PHONE: (757) 474-9812	
FAX: (757) 474-9818	
Dewberry	
Dewberry Engineers Inc.	
2001 BUCKINGHAM DRIVE	
RALEIGH, NC 27607	
PHONE: (919) 487-8800	
FAX: (919) 487-8805	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	QC
MHR	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND DEPARTMENT OF THE NAVY MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 MECHANICAL DEMOLITION FLOOR PLAN AREA O	
CODE ID. NO. 80991	SIZE D
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FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
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SHEET 26 OF 57	
MD-0.03	
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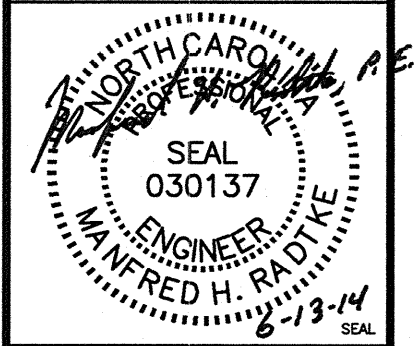


KEYED MECHANICAL NOTES:

① ROUTE 4" CHWS/R, 4" MPS, AND 2 1/2" SCR FROM BELOW TO AHU-8. SEE DWG. M-LR.03 FOR CONTINUATION. COORDINATE EXACT LOCATION OF ROOF PENETRATION. CONDENSATE DRAIN SHALL BE ROUTED TO NEAREST ROOF DRAIN. CONDENSATE DRAIN SIZED PER MANUFACTURER'S RECOMMENDATION. EXACT LOCATION OF UNIT TO BE DETERMINED IN FIELD. TRANSITION DUCTWORK TO AHU OPENINGS.

NRW
CONSULTING STRUCTURAL ENGINEERS
740 LONG DANMORR DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-2612
FAX: (757) 474-8919

Dewberry
Dewberry Engineers Inc.
2000 BERRYWOOD DRIVE
SUITE 200
FAIRFAX, VIRGINIA 22031
PHONE: (703) 261-8800
FAX: (703) 261-8800
WWW.DEBERRY.COM



APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

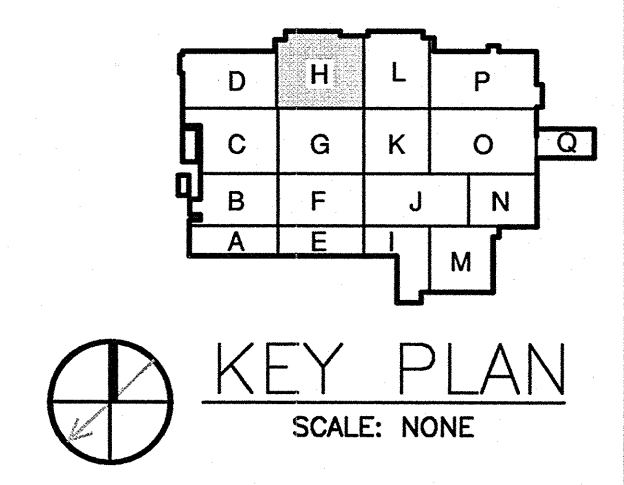
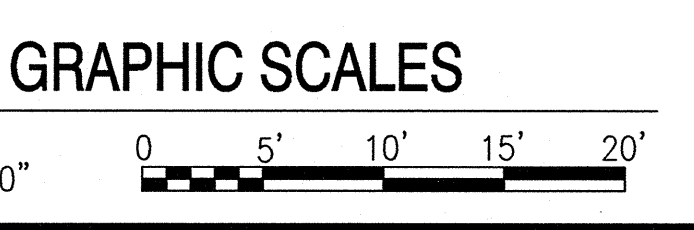
FOR EFD FOR COMMANDER NAVFAC

DATE

A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	OC
MHR	CHIEF ARCH/ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

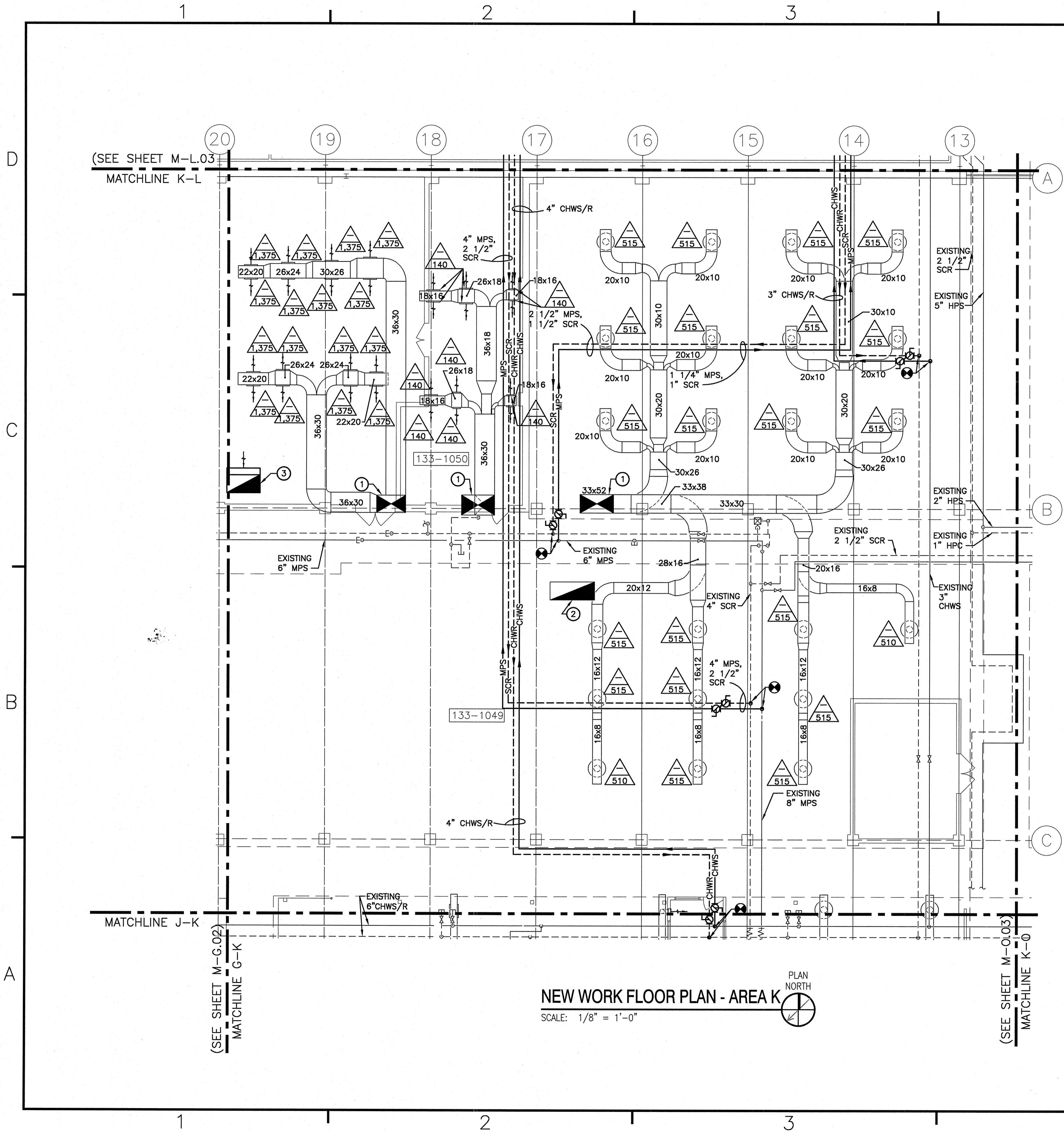
NEW WORK ROOF PLAN - AREA H
SCALE: 1/8" = 1'-0"
PLAN NORTH



DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3
MECHANICAL NEW WORK ROOF PLAN AREA H

CODE ID. NO. 80091 | SIZE D
SCALE: AS NOTED
FED. NO. 5906707
STA. PROJ. NO. R46-93C
SPEC. NO.
CONSTR. CONTR. NO.

NAVFAC DRAWING NO. 12665268
SHEET 28 OF 57
M-HR.03



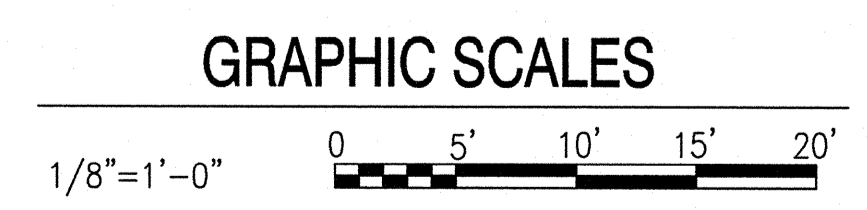
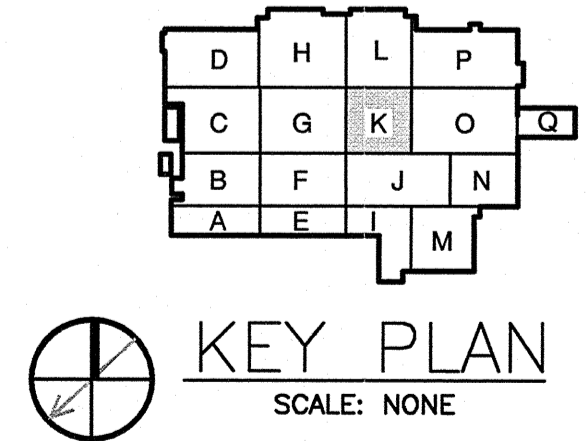
NOTES:

- 1. RE-BALANCE EXISTING DIFFUSERS TO CFM SHOWN.

KEYED MECHANICAL NOTES:

- ① EXISTING SUPPLY DUCT UP TO ROOF PENETRATION. TRANSITION TO NEW SUPPLY DUCTWORK ON ROOF. SEE DWG. M-KR.03 FOR CONTINUATION.
- ② EXISTING RETURN DUCT UP TO ROOF PENETRATION. TRANSITION TO NEW RETURN DUCTWORK ON ROOF. SEE DWG. M-KR.03 FOR CONTINUATION.
- ③ 60x32 RETURN DUCT UP TO ROOF. SEE DWG. M-KR.03 FOR CONTINUATION. BELLMOUTH AND 1/2" MESH BIRDSCREEN AT TERMINATION.

NEW WORK FLOOR PLAN - AREA K
 SCALE: 1/8" = 1'-0"



NRW									
CONSULTING STRUCTURAL ENGINEERS 748 LORE DANMORE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0612 FAX: (757) 474-0619									
Dewberry									
Dewberry Engineers Inc. 200 REDWOOD DRIVE SUITE 100 VIRGINIA BEACH, VA 23464 PHONE: (757) 474-0612 FAX: (757) 474-0619									
APPROVED									
ACTIVITY - SATISFACTORY TO									
DATE									
APPROVED									
FOR EFD FOR COMMANDER NAVFAC									
DATE									
NAME EFD									
RAP DESIGN									
RAP DRAWN									
MHR REVIEW									
MHR QC									
MHR CHIEF ARCH/ENGR.									
PROJECT MANAGER									
FIRE PROTECTION									
BRANCH MANAGER									
DESIGN DIRECTOR									
NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 MECHANICAL NEW WORK FLOOR PLAN AREA K									
CODE ID. NO. 80081 SIZE D									
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STA. PROJ. NO. R46-93C									
SPEC. NO.									
CONSTR. CONTR. NO.									
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SHEET 29 OF 57									
M-K.03									
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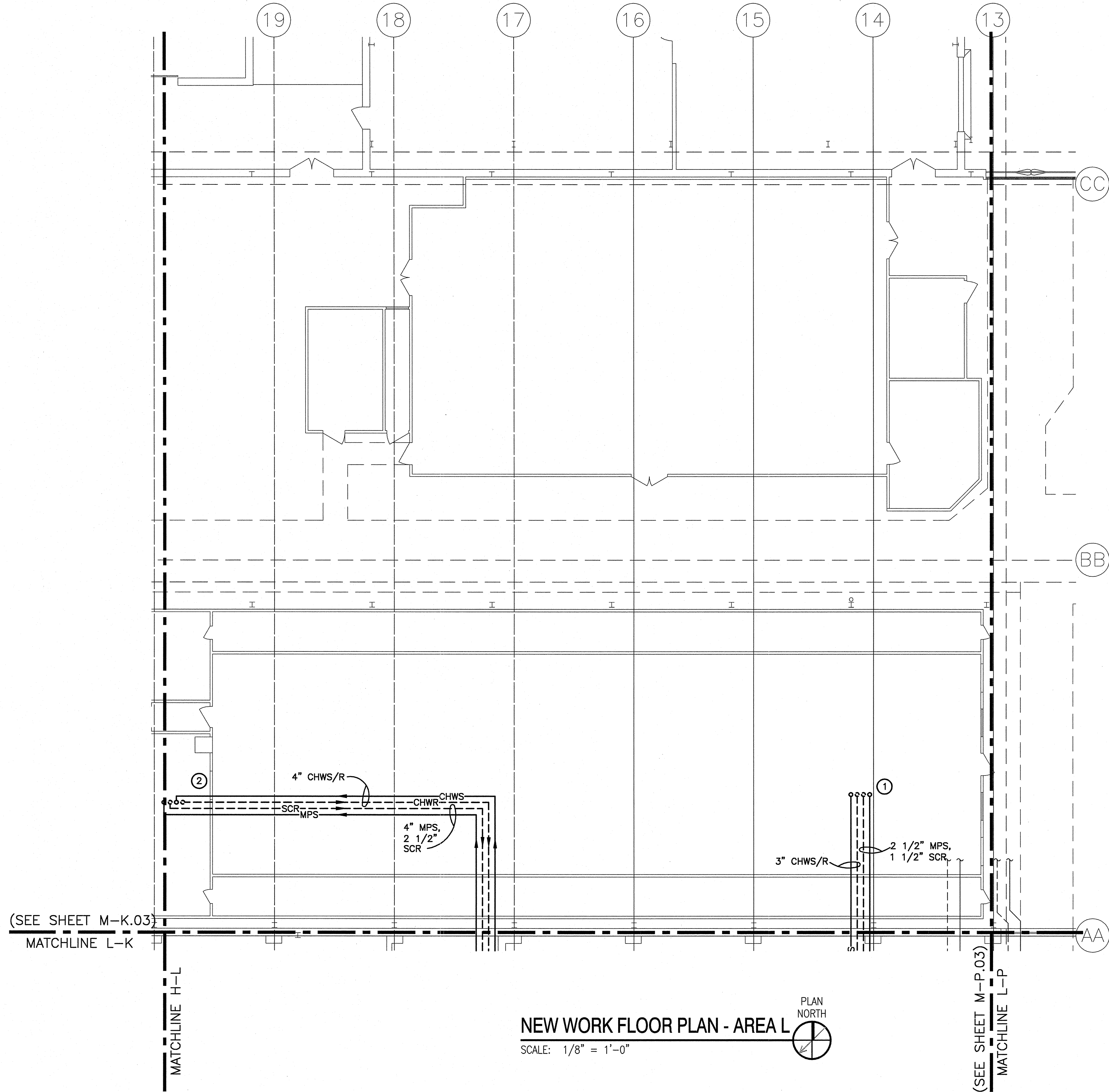
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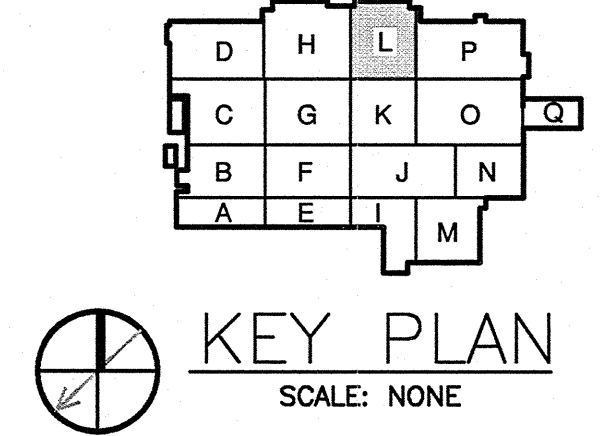


KEYED MECHANICAL NOTES:

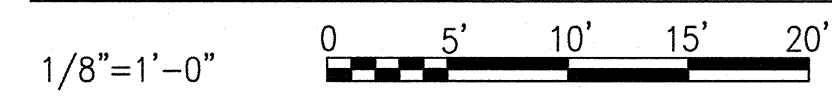
- ① ROUTE 3" CHWS/R, 2 1/2" MPS, AND 1 1/2" SCR UP TO AHU-13 ON ROOF. SEE DWG. M-LR.03 FOR CONTINUATION.
- ② ROUTE 4" CHWS/R, 4" MPS, AND 2 1/2" SCR UP TO AHU-8 ON ROOF. SEE DWG. M-HR.03 AND M-LR.03 FOR CONTINUATION.

DATE	1/18/14
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
748 LORD DUNMORE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA 23464 PHONE: (757) 474-0012 FAX: (757) 474-0019	
Dewberry	
Dewberry Engineers Inc. 200 HICKORYWOOD DRIVE FARMERSVILLE, VIRGINIA 23042 PHONE: (757) 546-1000 FAX: (757) 546-1000 CORP. #20079	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EPD FOR COMMANDER NAVFAC	
DATE	
A/E	EPD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	OC
MHR	CHIEF ARCH./ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND	
MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133	
PHASE 3	
MECHANICAL NEW WORK FLOOR PLAN AREA L	
CODE ID. NO.	80091
SCALE:	AS NOTED
FED. NO.	5906707
STA. PROJ. NO.	R46-93C
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12587471
SHEET	31 OF 57
M-L.03	

NEW WORK FLOOR PLAN - AREA L
SCALE: 1/8" = 1'-0"



GRAPHIC SCALES



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20 19 18 17 16 15 14 13 12 11 10 9

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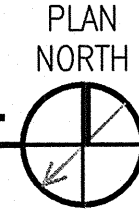
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MATCHLINE K-L

(SEE SHEET M-HR.03)
MATCHLINE H-L

(SEE SHEET M-OR.03)
MATCHLINE L-P

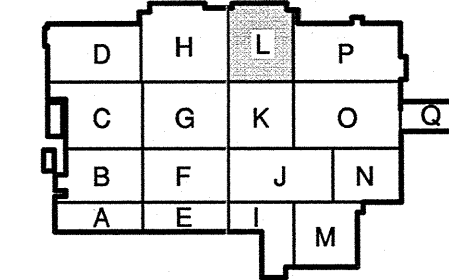
NEW WORK ROOF PLAN - AREA L

SCALE: 1/8" = 1'-0"



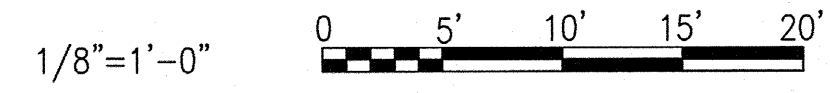
KEYED MECHANICAL NOTES:

- ① ROUTE 3" CHWS/R, 2 1/2" MPS, AND 1 1/2" SCR FROM BELOW TO AHU-13. SEE DWG. M-L03 FOR CONTINUATION. COORDINATE EXACT LOCATION OF ROOF PENETRATION. CONDENSATE DRAIN SHALL BE ROUTED TO NEAREST ROOF DRAIN. CONDENSATE DRAIN SIZED PER MANUFACTURER'S RECOMMENDATION. EXACT LOCATION TO BE DETERMINED IN FIELD. TRANSITION DUCTWORK TO AHU OPENINGS.
- ② ROUTE 4" CHWS/R, 4" MPS, AND 2 1/2" SCR FROM BELOW TO AHU-8. SEE DWG. M-L03 FOR CONTINUATION. COORDINATE EXACT LOCATION OF ROOF PENETRATION. CONDENSATE DRAIN SHALL BE ROUTED TO NEAREST ROOF DRAIN. CONDENSATE DRAIN SIZED PER MANUFACTURER'S RECOMMENDATION. EXACT LOCATION TO BE DETERMINED IN FIELD. TRANSITION DUCTWORK TO AHU OPENINGS.



KEY PLAN
SCALE: NONE

GRAPHIC SCALES



DATE	APPROVED
DESCRIPTION	APPROVED
NRW	
CONSULTING STRUCTURAL ENGINEERS	
741 LORD DUNHAM DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0012 FAX: (757) 474-0019	
Dewberry	
Dewberry & Davis, Inc. 1001 BOWEN DRIVE SUITE 200 FARMERSVILLE, VA 22942 PHONE: (800) 451-9999 FAX: (800) 451-9999 WWW.DDBVA.COM	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	APPROVED
FOR EFD FOR COMMANDER NAIFAC	
DATE	A/E
	RAP DESIGN
	RAP DRAWN
	MHR REVIEW
	MHR CC
	MHR CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND	
DEPARTMENT OF THE NAVY	
MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133	
PHASE 3	
MECHANICAL NEW WORK ROOF PLAN AREA L	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
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SHEET 32 OF 55	
M-LR.03	
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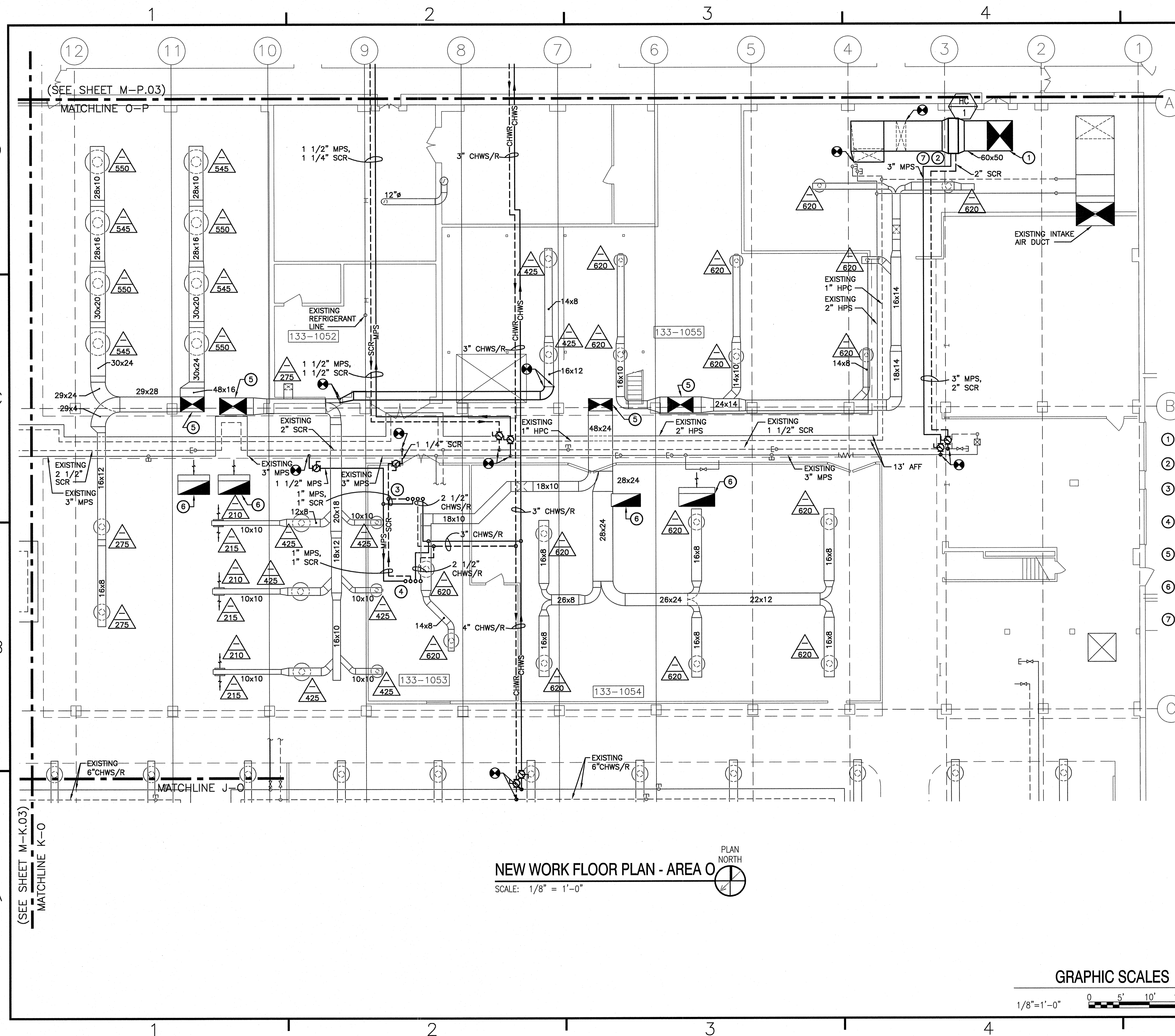
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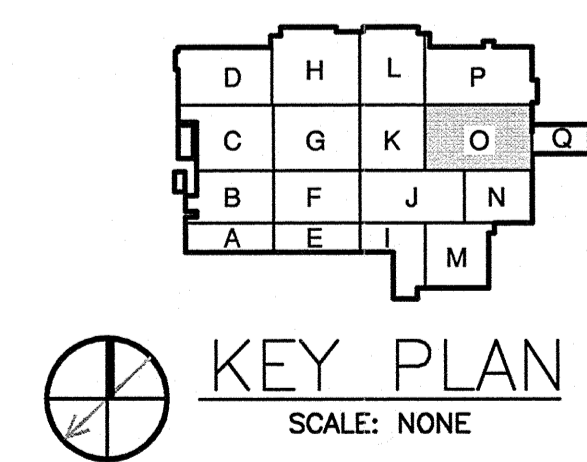
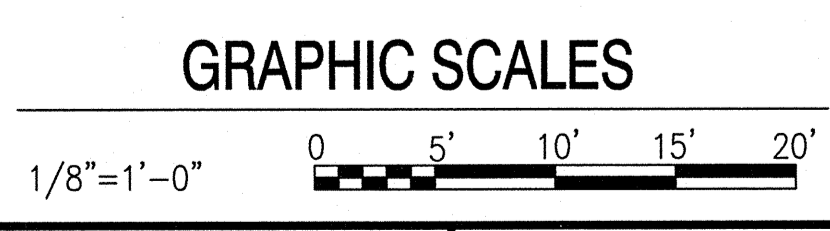


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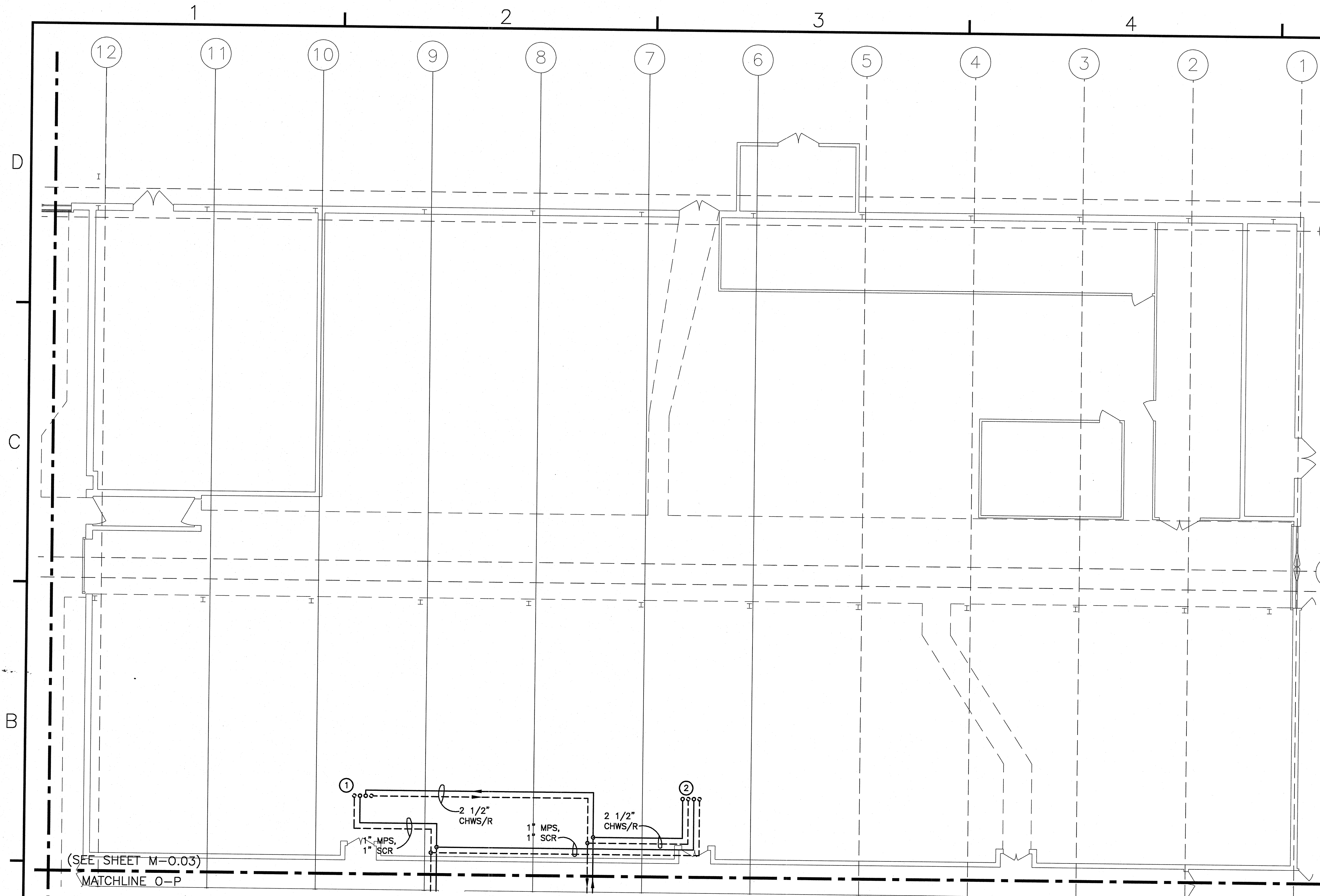
1. RE-BALANCE EXISTING DIFFUSERS TO CFM SHOWN.

- KEYED MECHANICAL NOTES:**
- ① 60x50 SUPPLY DUCT UP THRU ROOF PENETRATION. SEE DWG. M-OR.03 FOR CONTINUATION.
 - ② HEATING COIL SHALL BE POSITIONED IN DUCT MAIN AS CLOSE TO ROOF DECK AS POSSIBLE.
 - ③ ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR UP TO AHU-11 ON ROOF. SEE DWG. M-OR.03 FOR CONTINUATION.
 - ④ ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR UP TO AHU-12 ON ROOF. SEE DWG. M-OR.03 FOR CONTINUATION.
 - ⑤ EXISTING SUPPLY DUCT UP TO ROOF PENETRATION. TRANSITION TO NEW SUPPLY DUCTWORK ON ROOF. SEE DWG. M-OR.03 FOR CONTINUATION.
 - ⑥ EXISTING RETURN DUCT UP TO ROOF PENETRATION. TRANSITION TO NEW RETURN DUCTWORK ON ROOF. SEE DWG. M-OR.03 FOR CONTINUATION.
 - ⑦ REMOVE GYPSUM BOARD CEILING TO ALLOW FOR INSTALLATION OF DUCT AND COIL.

NEW WORK FLOOR PLAN - AREA O
 SCALE: 1/8" = 1'-0"
 PLAN NORTH



DATE	APPROVED	DESCRIPTION
NRW		
CONSULTING STRUCTURAL ENGINEERS		
7400 LONG BEACH DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 471-6812 FAX: (757) 471-8919		
Dewberry		
Dewberry & Davis, Inc. 1501 FLORENCE DRIVE FLOOR 100 FALLS CHURCH, VA 22034 PHONE: (703) 441-1000 FAX: (703) 441-1001		
APPROVED	DATE	FOR EFD FOR COMMANDER NAVFAC
ACTIVITY - SATISFACTORY TO	DATE	A/E
APPROVED	DATE	RAP DESIGN
		RAP DRAWN
		MHR REVIEW
		MHR CC
		MHR CHIEF ARCH/ ENR.
PROJECT MANAGER		
FIRE PROTECTION		
BRANCH MANAGER		
DESIGN DIRECTOR		
NAVAL FACILITIES ENGINEERING COMMAND		
MARINE CORPS AIR STATION, CHERRY POINT, N.C.		
REPLACE AIR HANDLING UNITS, BLDG. 133		
PHASE 3		
MECHANICAL NEW WORK FLOOR PLAN AREA O		
CODE ID. NO. 80091	SIZE D	
SCALE: AS NOTED		
FED. NO. 5906707		
STA. PROJ. NO. R46-93C		
SPEC. NO.		
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.		
12665273		
SHEET 33 OF 55		
M-0.03		
DRAWING REVISION: JULY 2003 1:1 (Paper Space) Drawing Filename:		



CC

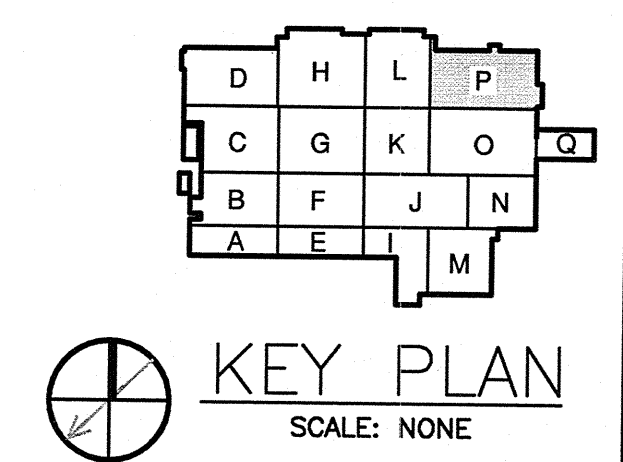
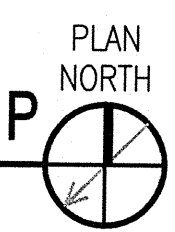
BB

- KEYED MECHANICAL NOTES:**
- ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR UP TO AHU-9 ON ROOF. SEE DWG. M-PR.03 FOR CONTINUATION.
 - ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR UP TO AHU-10 ON ROOF. SEE DWG. M-PR.03 FOR CONTINUATION.

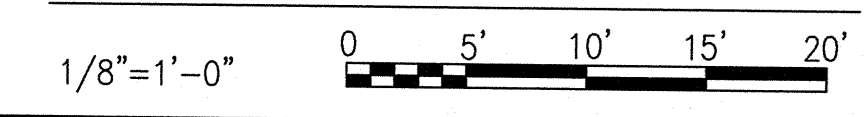
(SEE SHEET M-L.03)
MATCHLINE L-P

(SEE SHEET M-O.03)
MATCHLINE O-P

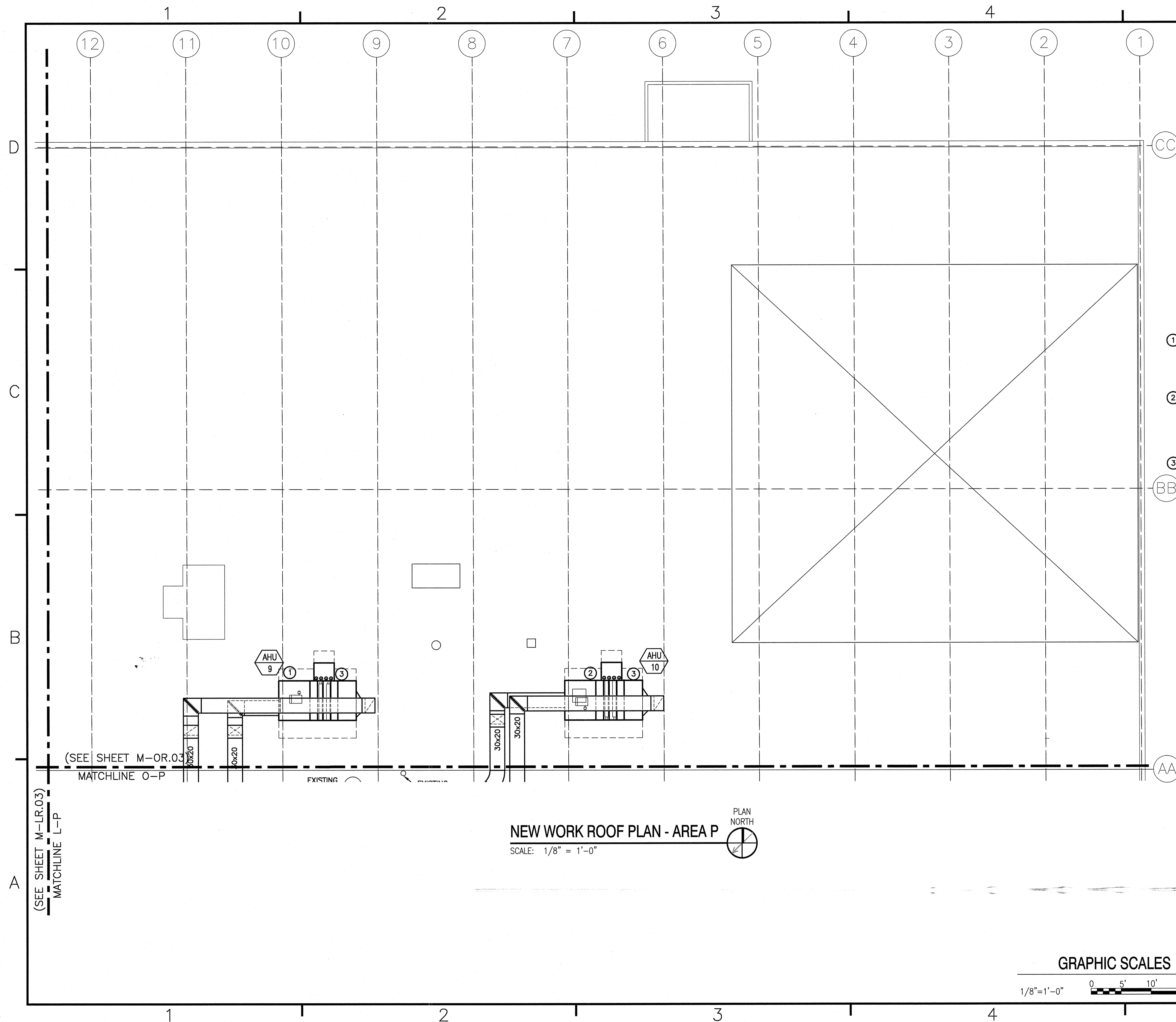
NEW WORK FLOOR PLAN - AREA P
SCALE: 1/8" = 1'-0"



GRAPHIC SCALES



DATE	1/13/14
DESCRIPTION	
SYMBOL	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
748 LORO DUNAGRE DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA 23464	
PHONE: (757) 474-0812	
FAX: (757) 474-0819	
Dewberry	
Dewberry Engineers Inc.	
2000 BROADWAY DRIVE	
SUITE 200	
FALLS CHURCH, VIRGINIA 22046	
PHONE: (703) 991-9900	
FAX: (703) 991-9901	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	QC
MHR	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 MECHANICAL NEW WORK FLOOR PLAN AREA P	
CODE ID. NO.	80091
SCALE	AS NOTED
FED. NO.	5906707
STA. PROJ. NO.	R46-93C
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	12665275
SHEET	35 OF 57
M-P.03	
<small> DRAFTSMAN REVISION JULY 2003 1:1 (Paper Space) Drawing Filename: </small>	



- KEYED MECHANICAL NOTES:**
- ① ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR FROM BELOW TO AHU-9. SEE DWG. M-P.03 FOR CONTINUATION. COORDINATE EXACT LOCATION OF ROOF PENETRATION. EXACT LOCATION OF UNIT TO BE DETERMINED IN FIELD. TRANSITION DUCTWORK TO AHU OPENINGS.
 - ② ROUTE 2 1/2" CHWS/R, 1" MPS, AND 1" SCR FROM BELOW TO AHU-10. SEE DWG. M-P.03 FOR CONTINUATION. COORDINATE EXACT LOCATION OF ROOF PENETRATION. EXACT LOCATION OF UNIT TO BE DETERMINED IN FIELD. TRANSITION DUCTWORK TO AHU OPENINGS. ENSURE OUTDOOR AIR INTAKE AT MINIMUM 10 FT. AWAY FROM NEAREST VENT PIPE.
 - ③ CONDENSATE DRAIN SHALL BE ROUTED TO NEAREST ROOF DRAIN. CONDENSATE DRAIN SIZED PER MANUFACTURER'S RECOMMENDATION.

NO.	DATE	DESCRIPTION

NRW
 CONSULTING STRUCTURAL ENGINEERS
 748 LORD DUNMORE DRIVE, SUITE 101
 VIRGINIA BEACH, VIRGINIA, 23464
 PHONE: (757) 474-0812
 FAX: (757) 474-0819

Dewberry
 Dewberry Engineers Inc.
 5000 HUNTERSWOOD DRIVE
 SUITE 200
 FALCON, NC 27729
 PHONE: (757) 278-1800
 FAX: (757) 278-1800
 HOURS: 8:00 AM - 5:00 PM

APPROVED

ACTIVITY - SATISFACTORY TO

DATE

APPROVED

FOR LTD FOR COMMANDER NAVFAC

DATE	A/E	EFD
	RAP DESIGN	
	RAP DRAWN	
	MHR REVIEW	
	MHR GC	
	MHR CHIEF ARCH/ ENGR.	

PROJECT MANAGER

FIRE PROTECTION

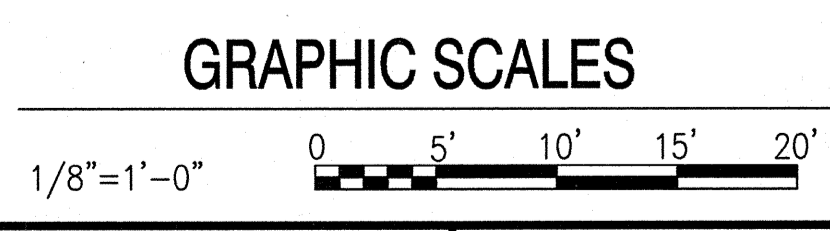
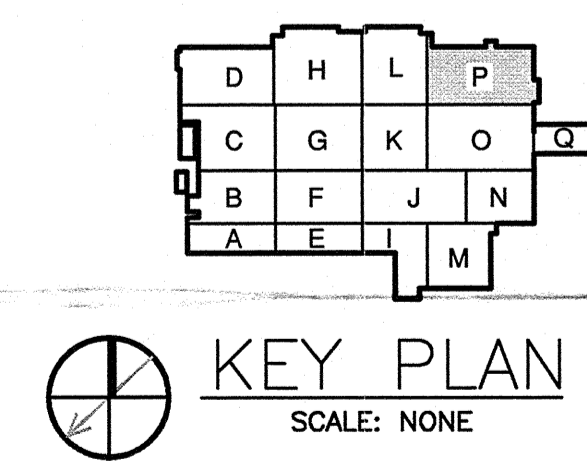
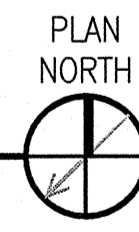
BRANCH MANAGER

DESIGN DIRECTOR

DEPARTMENT OF THE NAVY
 NAVAL FACILITIES ENGINEERING COMMAND
 MARINE CORPS AIR STATION, CHERRY POINT, N.C.
 REPLACE AIR HANDLING UNITS, BLDG. 133
 PHASE 3
 MECHANICAL NEW WORK ROOF PLAN AREA P

CODE ID. NO. 80091	SIZE D
SCALE AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665276	
SHEET 36 OF 57	
M-PR.03	

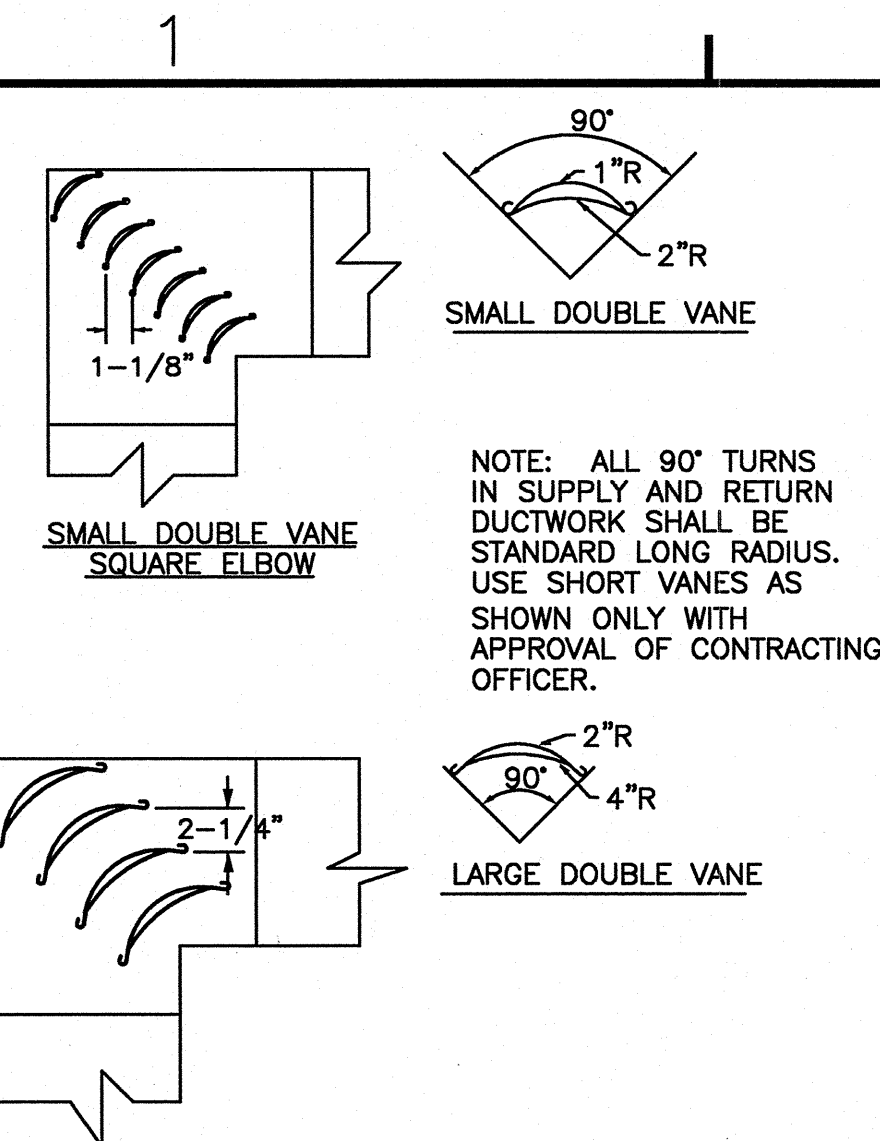
NEW WORK ROOF PLAN - AREA P
 SCALE: 1/8" = 1'-0"



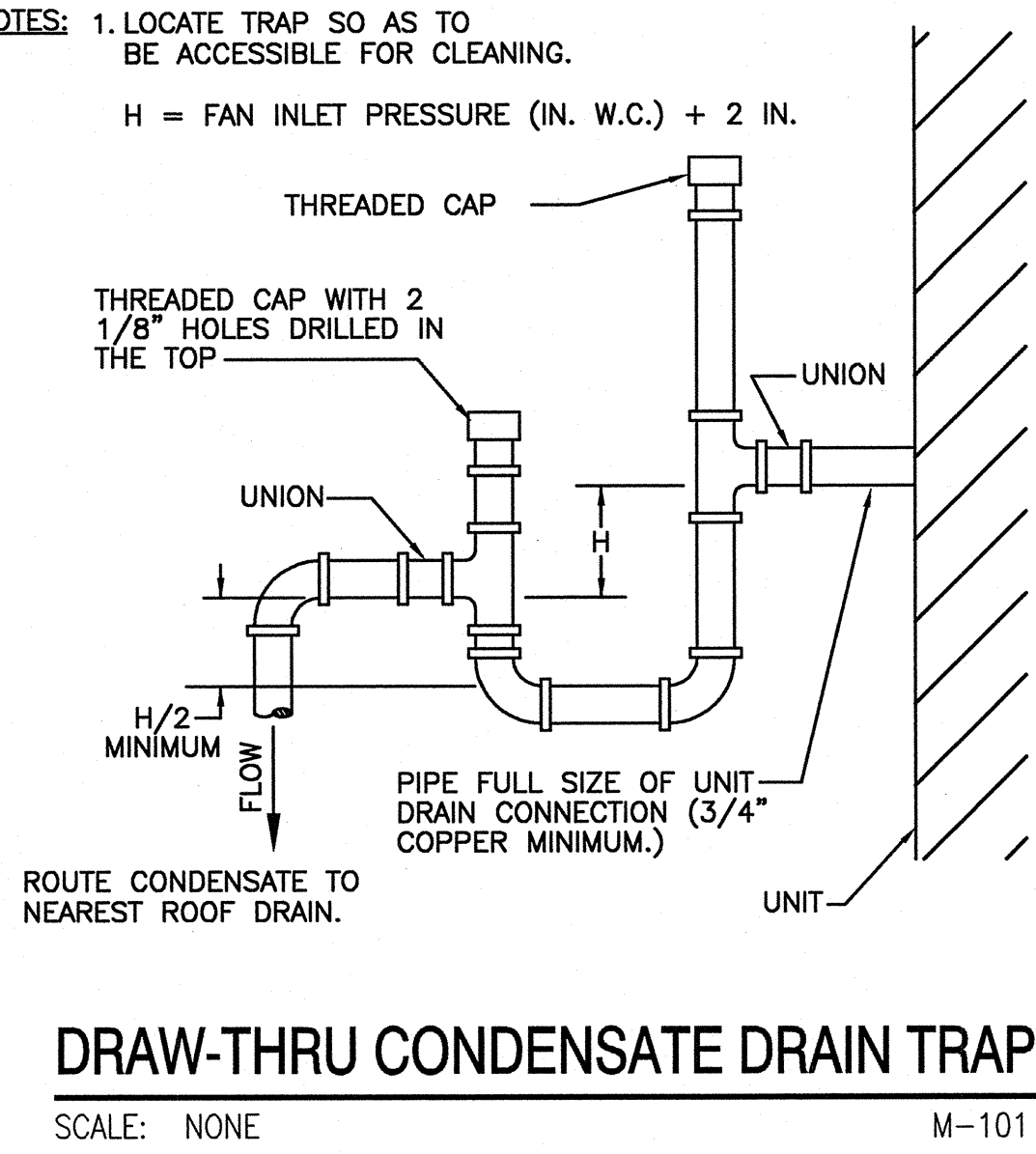
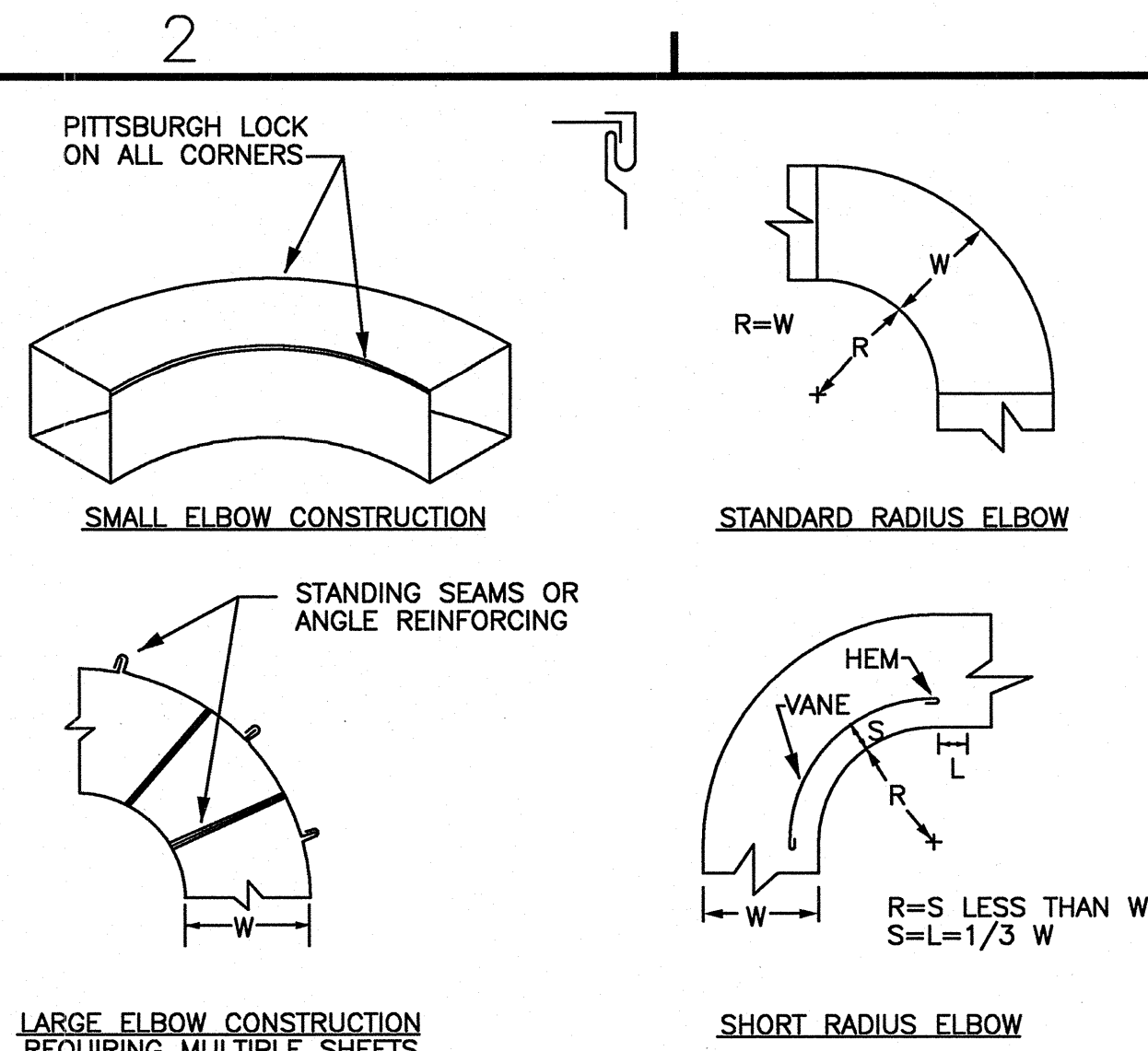
(SEE SHEET M-LR.03)
 MATCHLINE L-P

(SEE SHEET M-OR.03)
 MATCHLINE O-P

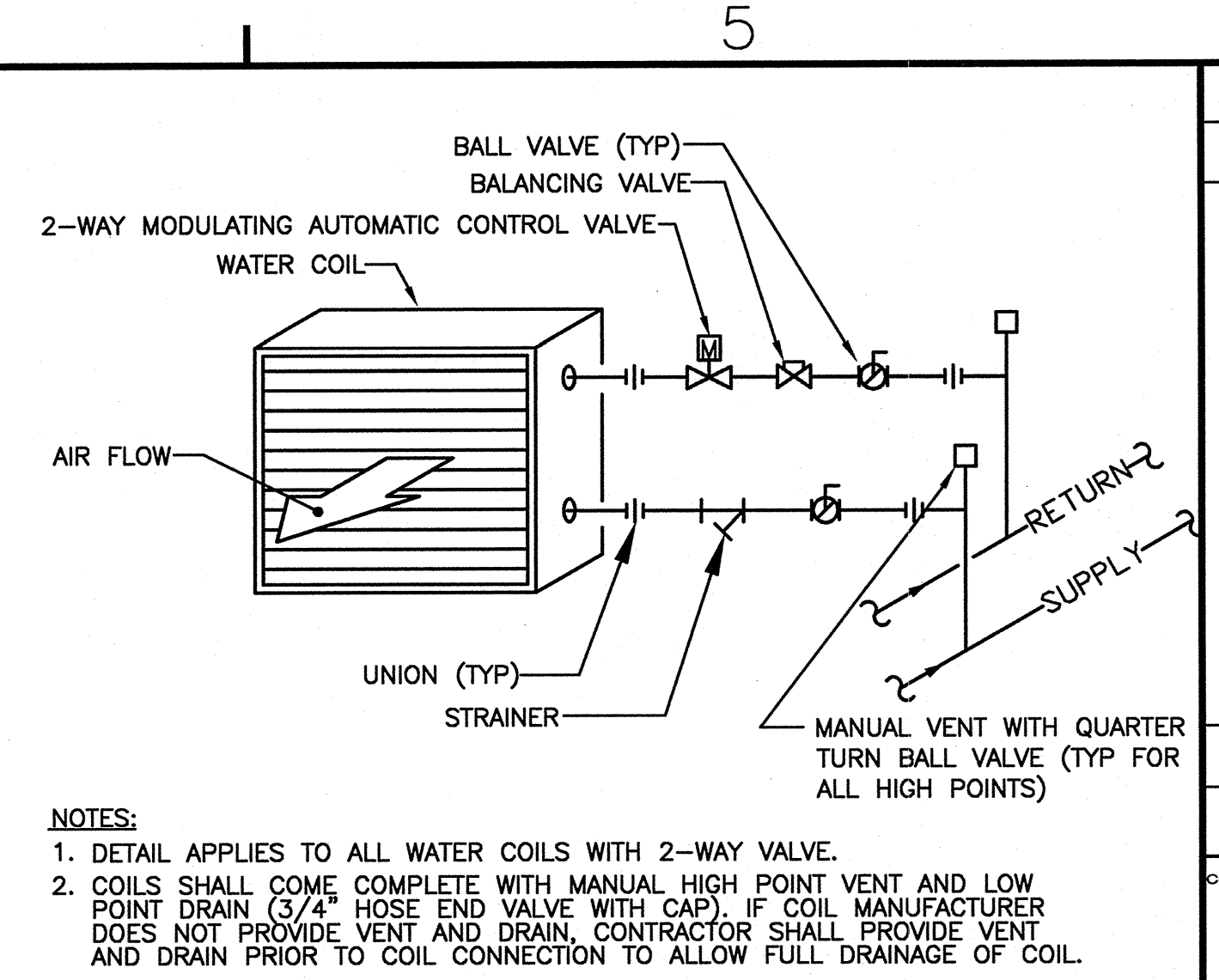
EXISTING



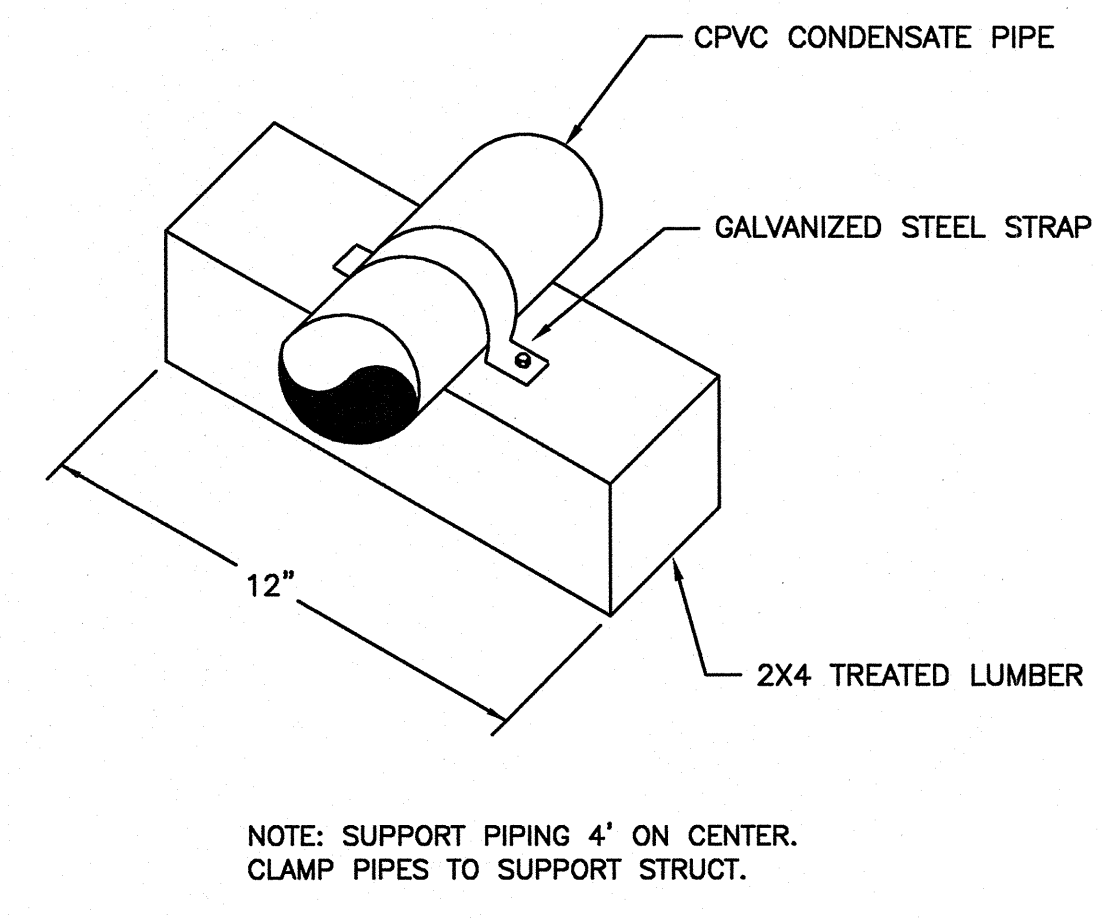
DUCTWORK DETAILS
SCALE: NONE M-101 1



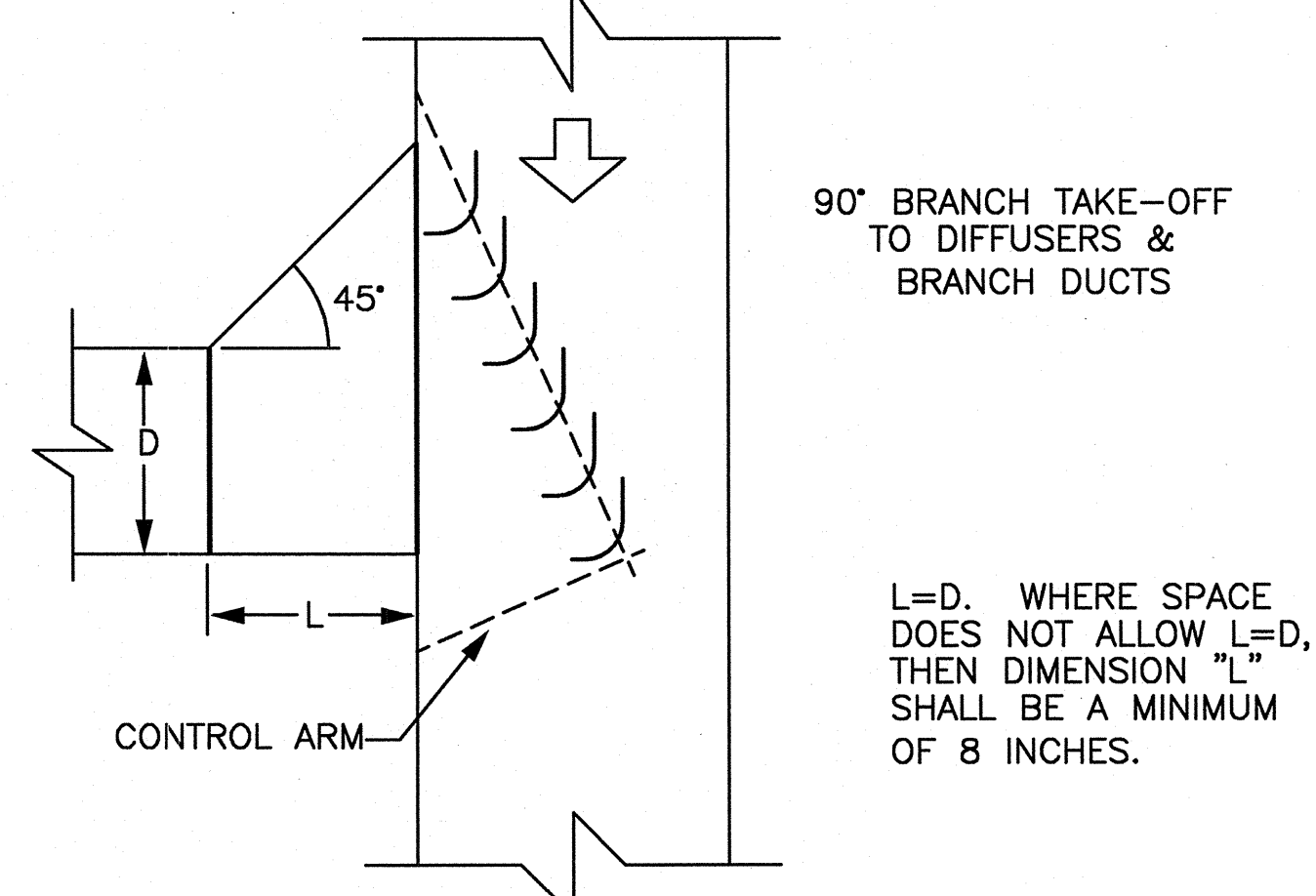
DRAW-THRU CONDENSATE DRAIN TRAP
SCALE: NONE M-101 2



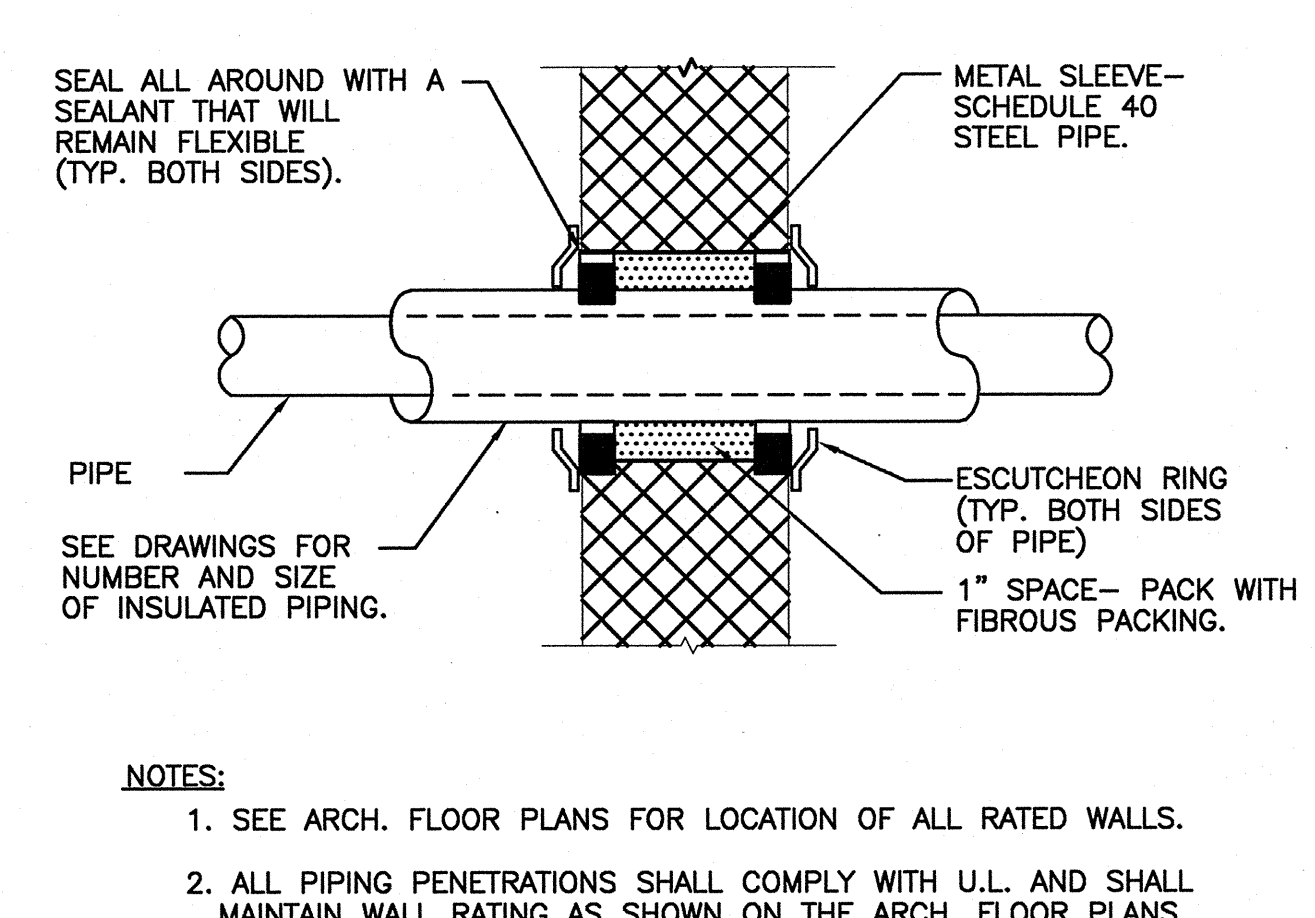
2-WAY COIL DETAIL
SCALE: NONE M-101 3



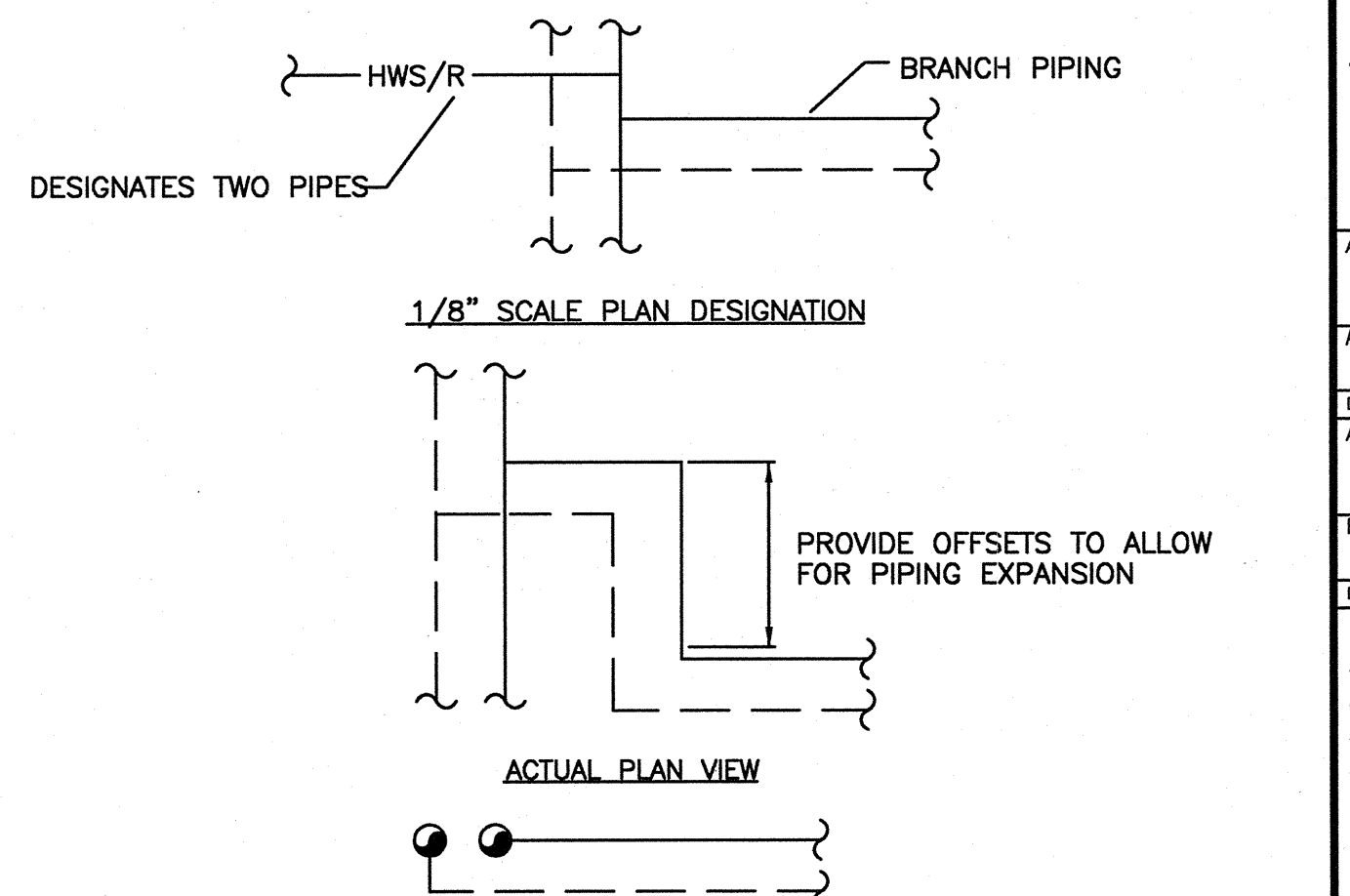
CONDENSATE PIPING SUPPORT DETAIL
SCALE: NONE M-101 4



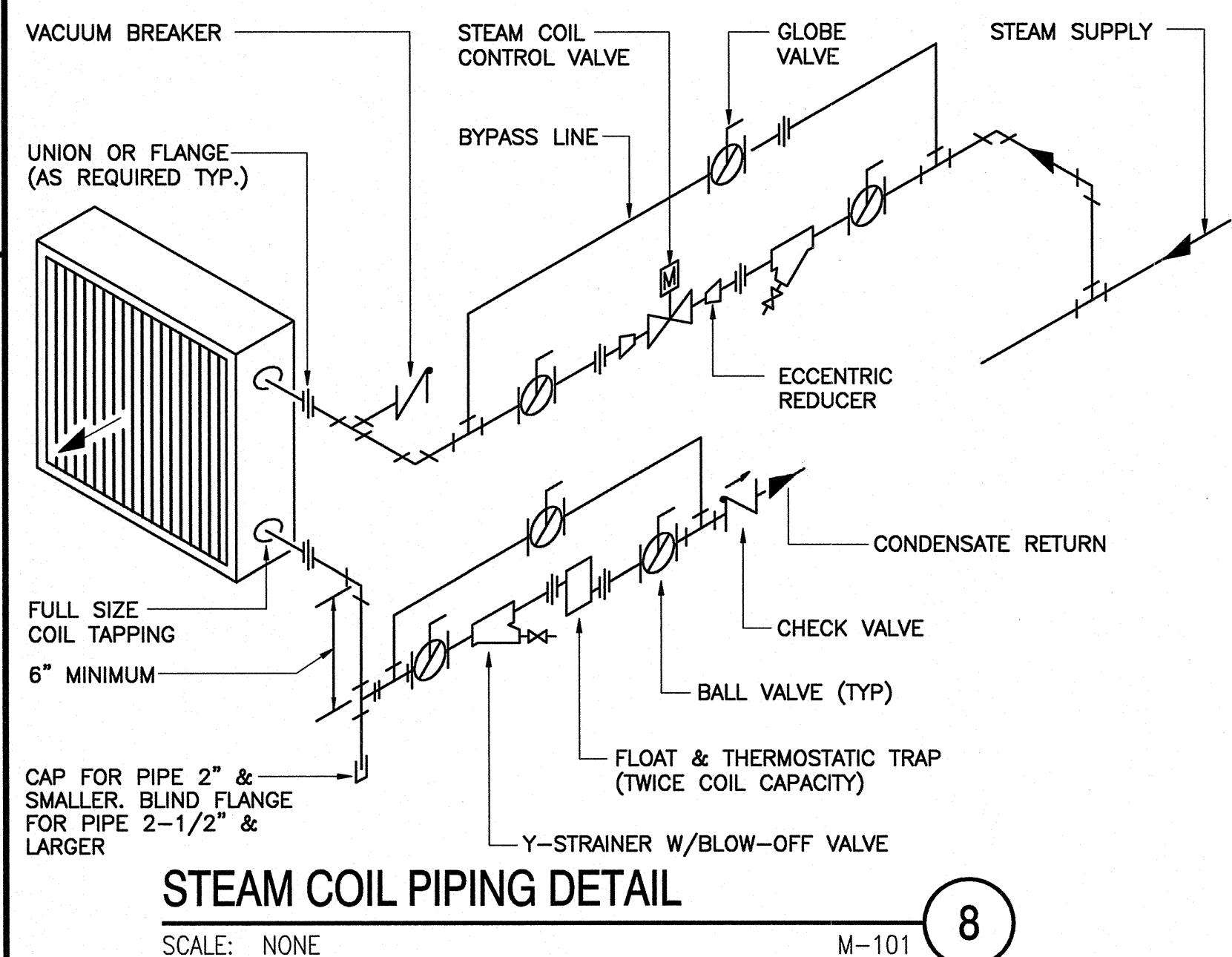
DUCT TAKE-OFF DETAIL
SCALE: NONE M-101 5



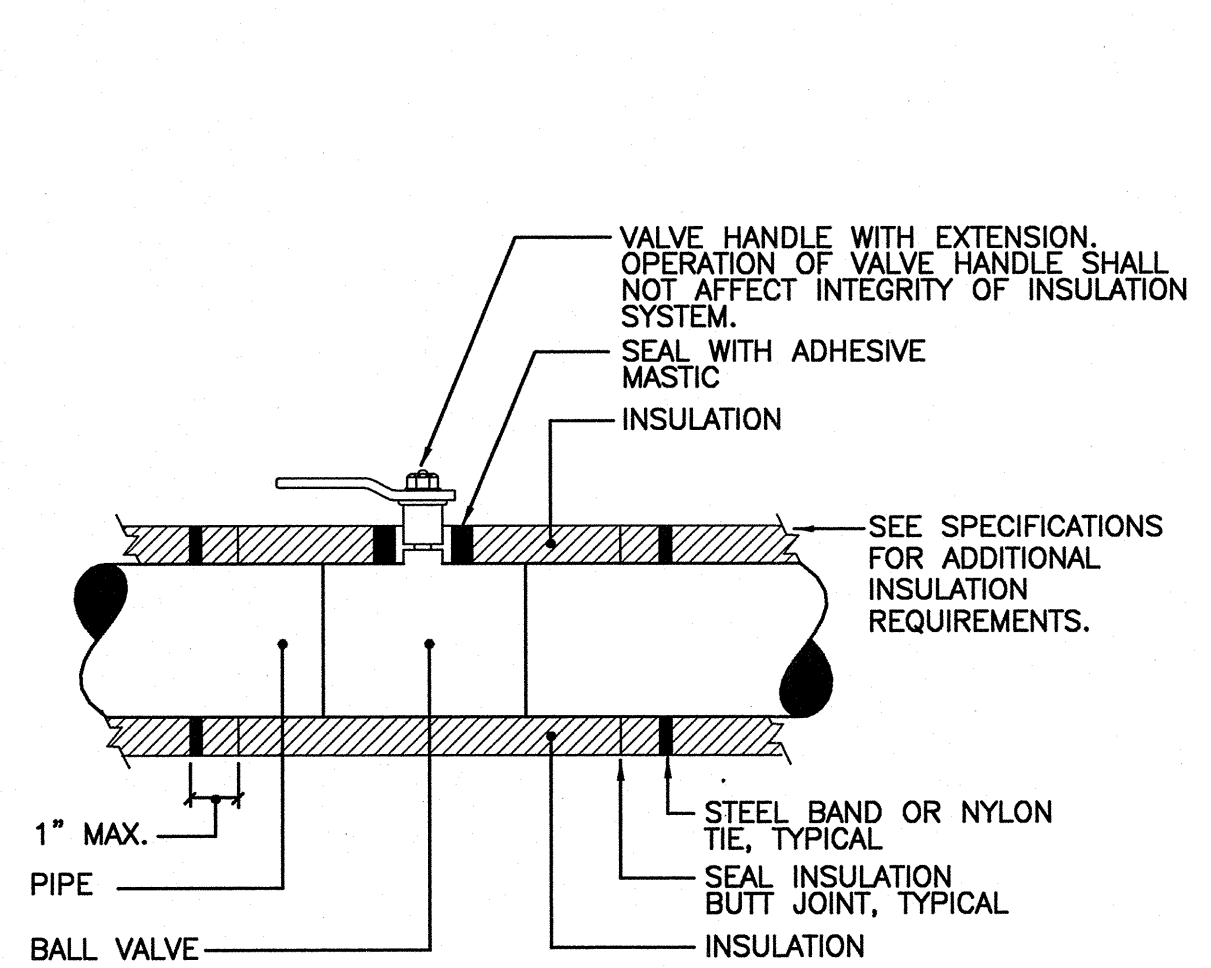
INTERIOR WALL PENETRATION
SCALE: NONE M-101 6



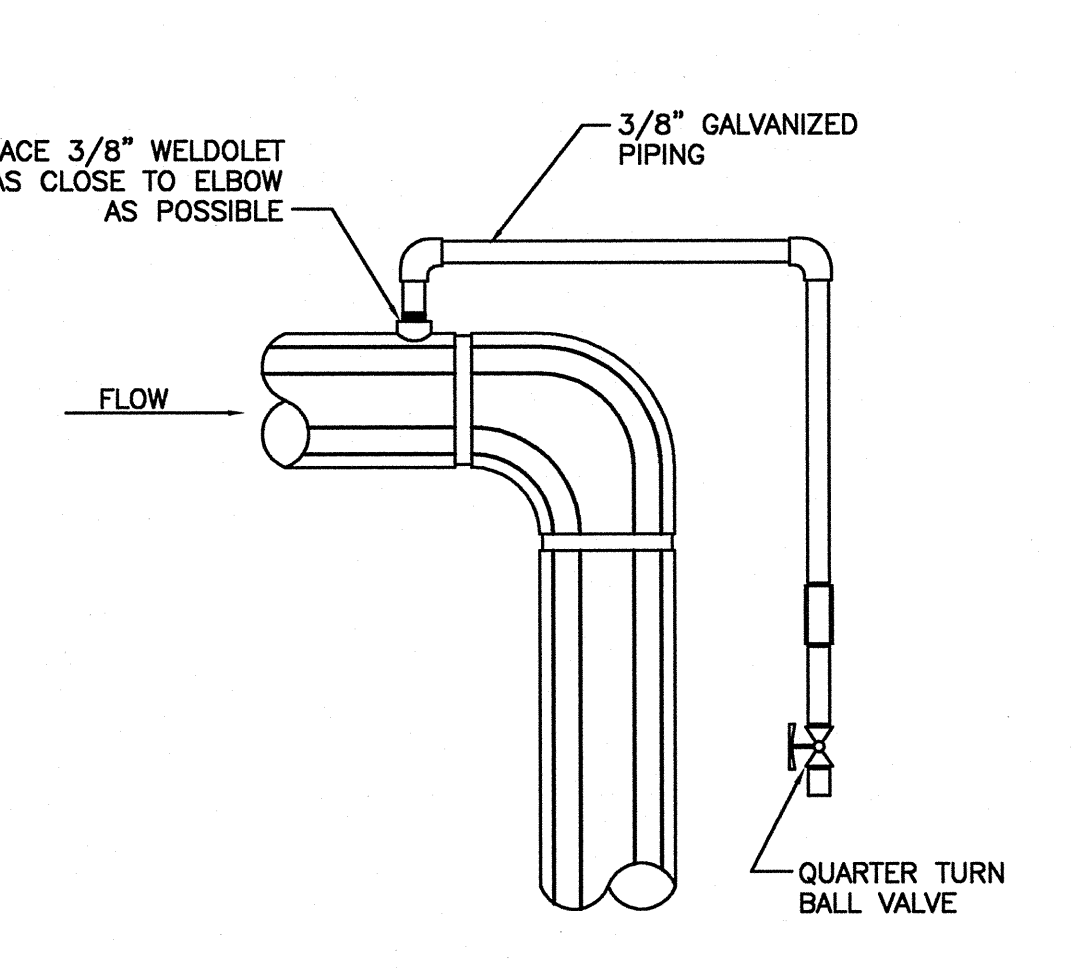
TYPICAL BRANCH CONNECTIONS
SCALE: NONE M-101 7



STEAM COIL PIPING DETAIL
SCALE: NONE M-101 8

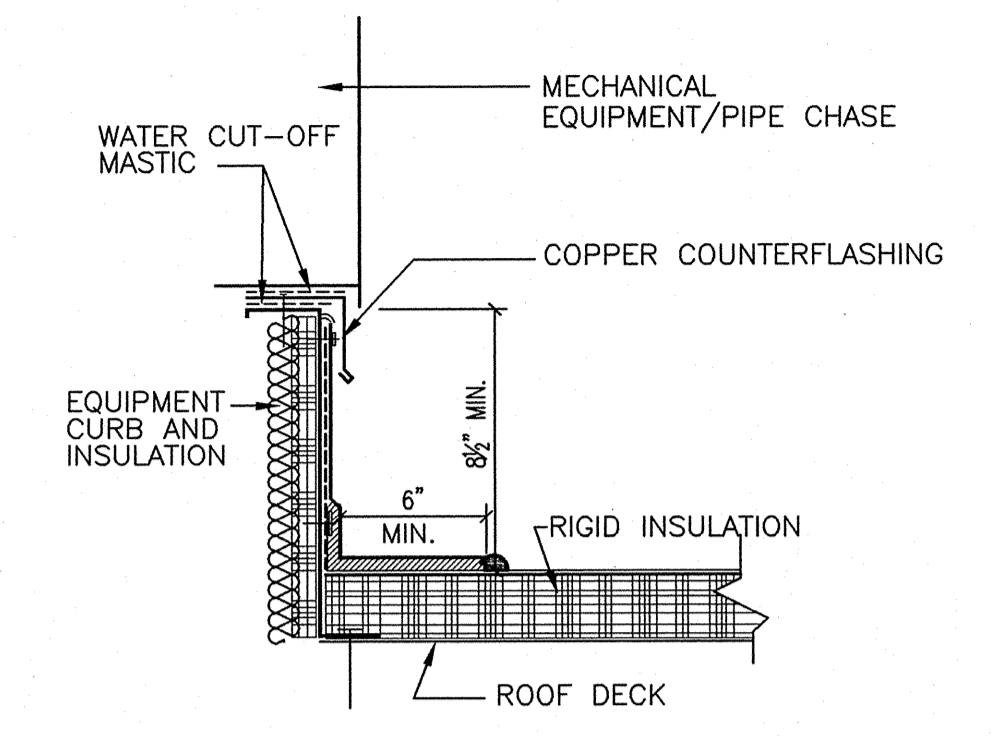
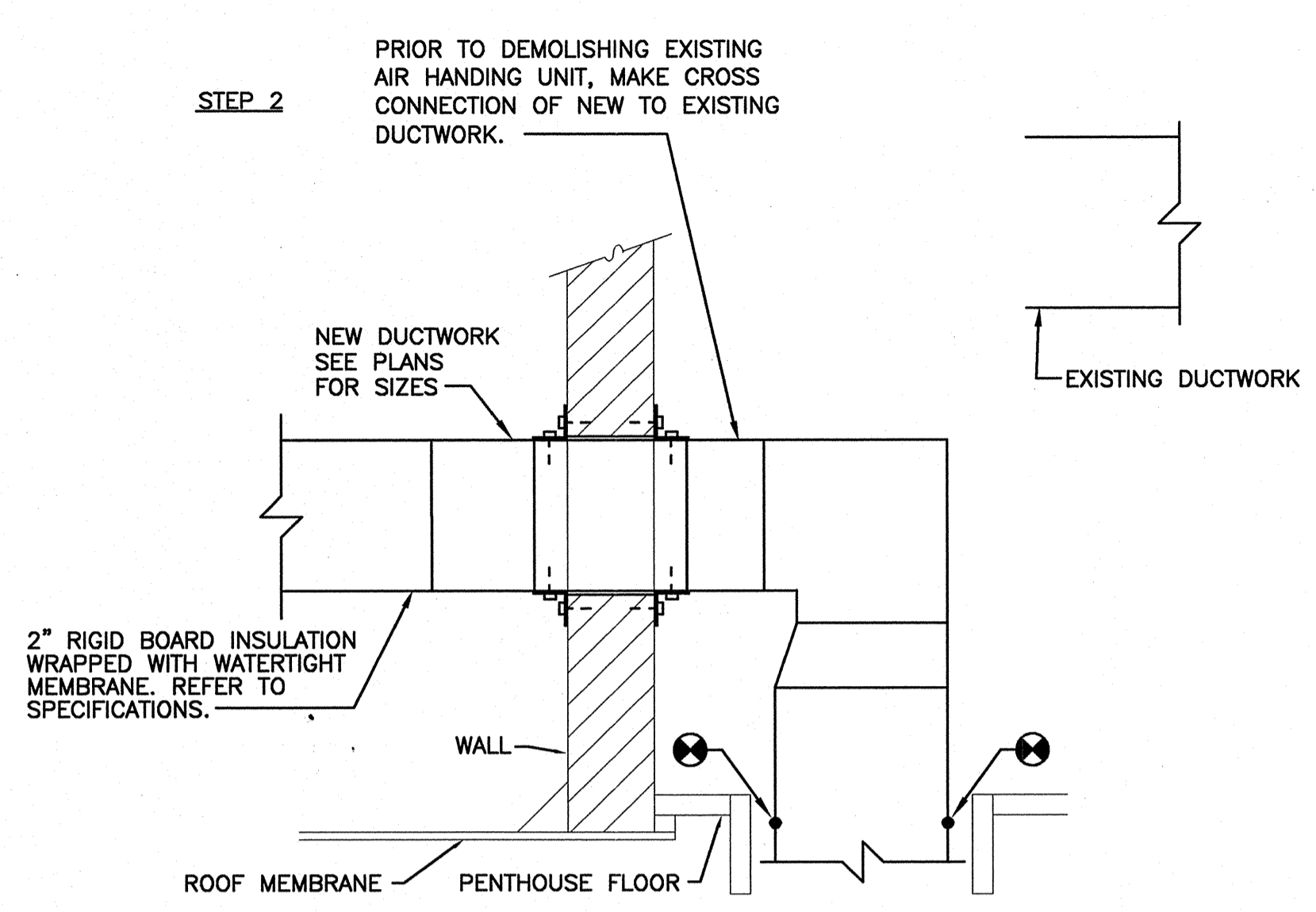
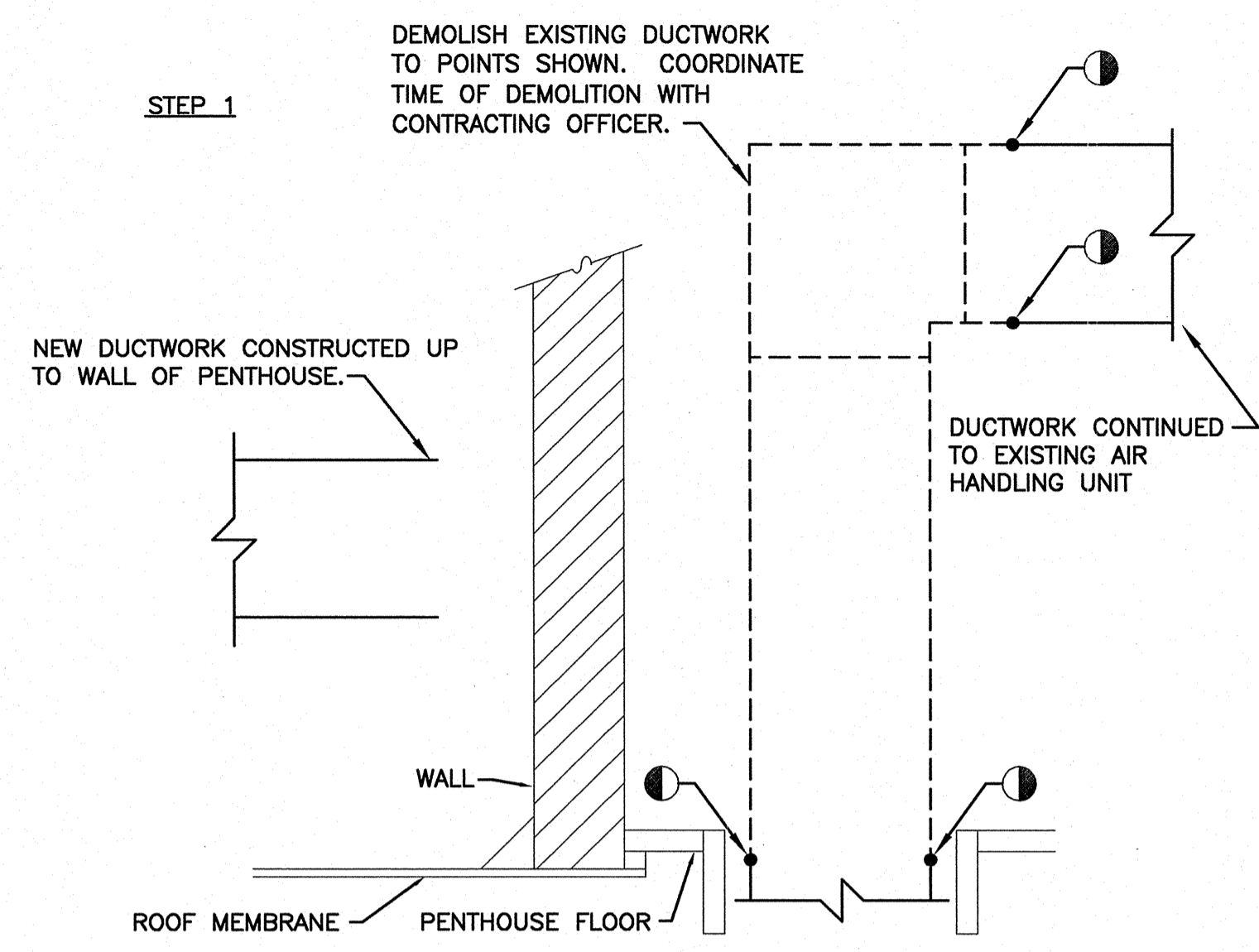


BALL VALVE INSULATION DETAIL
SCALE: NONE M-101 9



MANUAL AIR VENT ON MAIN DETAIL
SCALE: NONE M-101 10

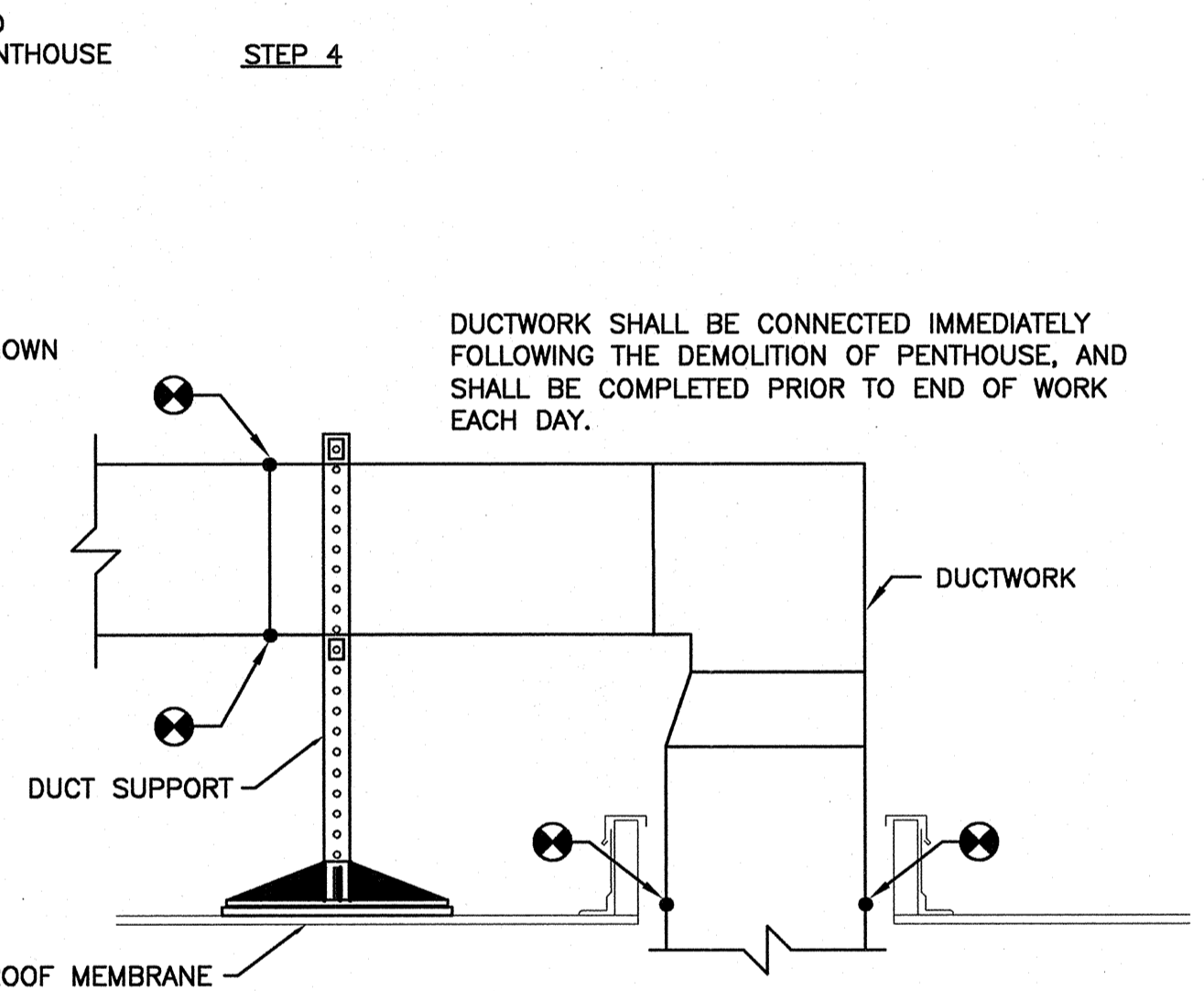
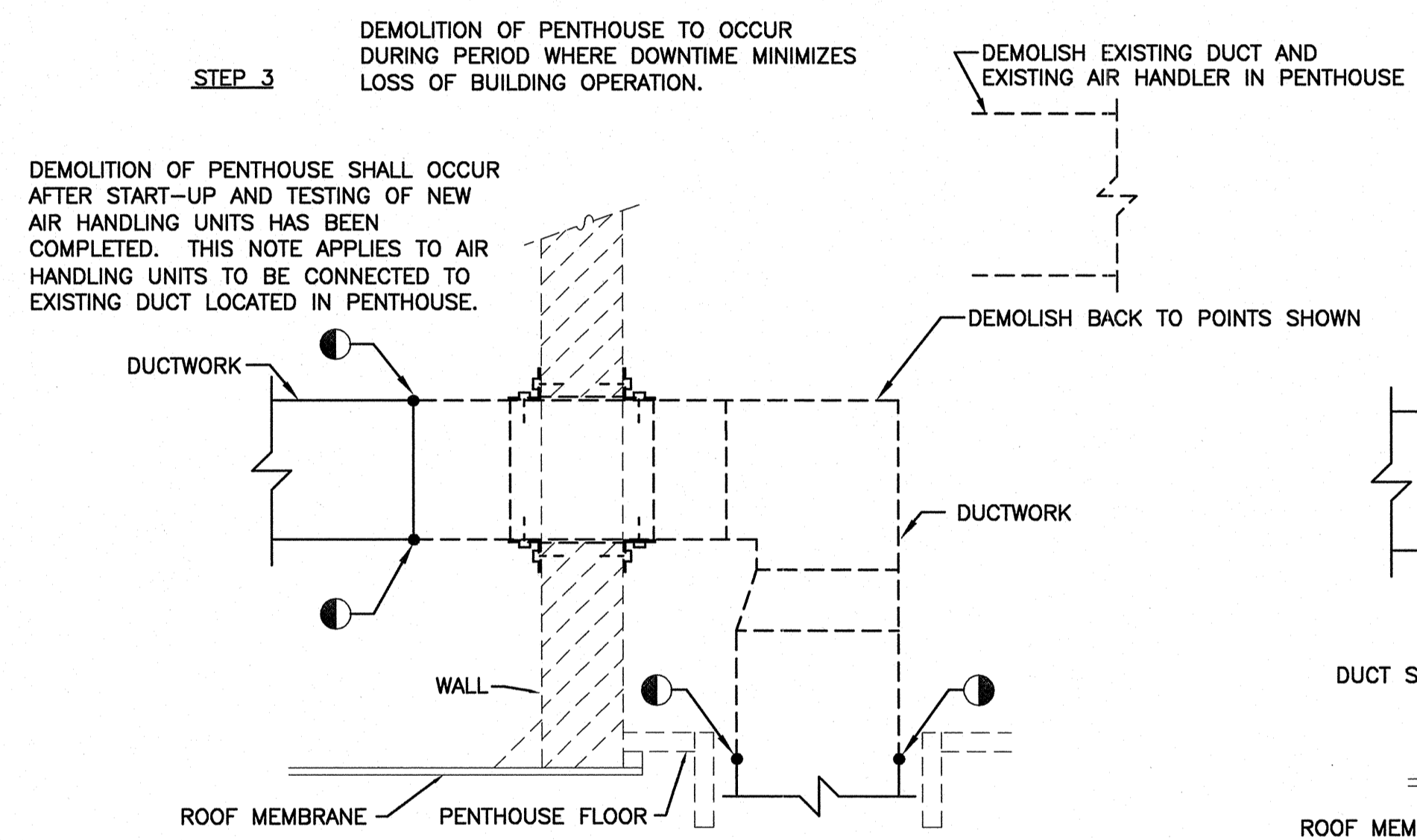
DATE	APPR
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
748 LIND DUMORE DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA, 23464	
PHONE: (757) 474-0912	
FAX: (757) 474-0919	
Dewberry	
Dewberry Engineers Inc.	
500 HODGKINS DRIVE	
SUITE 100	
FALLS CHURCH, VIRGINIA 22046	
PHONE: (571) 261-2700	
FAX: (571) 261-2701	
LICENSE # 0137	
REGISTERED PROFESSIONAL ENGINEER	
IN THE STATE OF VIRGINIA	
W. FRED H. RIDGWAY	
6-13-74	
SEAL	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	QC
MHR	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND	
MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133	
PHASE 3	
MECHANICAL DETAILS	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
12665277	
SHEET	37 of 57
M-101	
DRAWING REVISION JULY 2003	
1:1 (Paper Space)	
Drawing Filename:	



NOTE: CURB HEIGHT TO BE ADJUSTED AS REQUIRED TO PROVIDE A MINIMUM 8 1/2" ABOVE TOP OF THE ROOF (TO OBTAIN ROOF WARRANTY). PROVIDE WOOD BLOCKING AS REQUIRED TO ADJUST CURB HEIGHT.

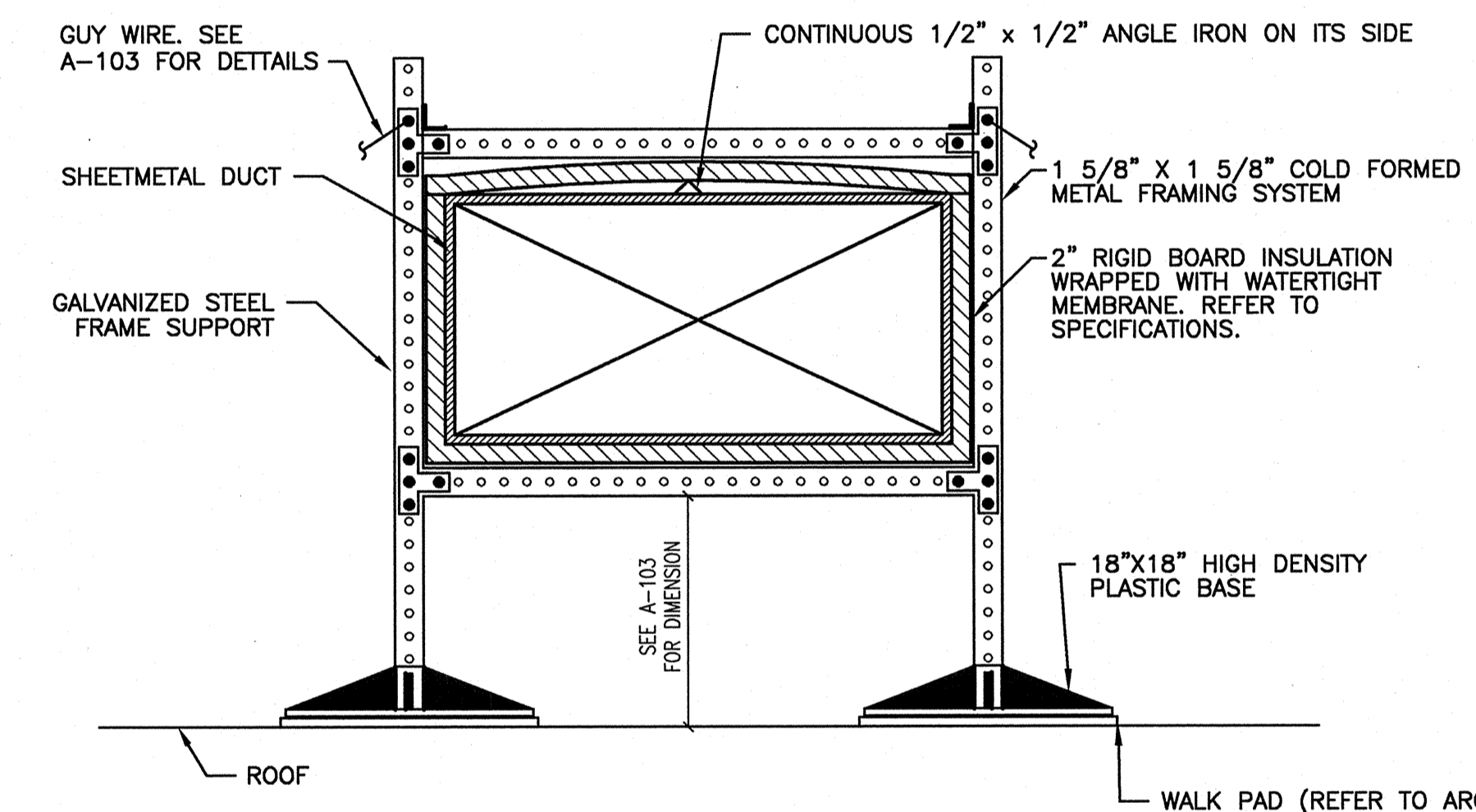
FAN AND HOOD ROOF CURB DETAIL

SCALE: NONE M-102 **2**



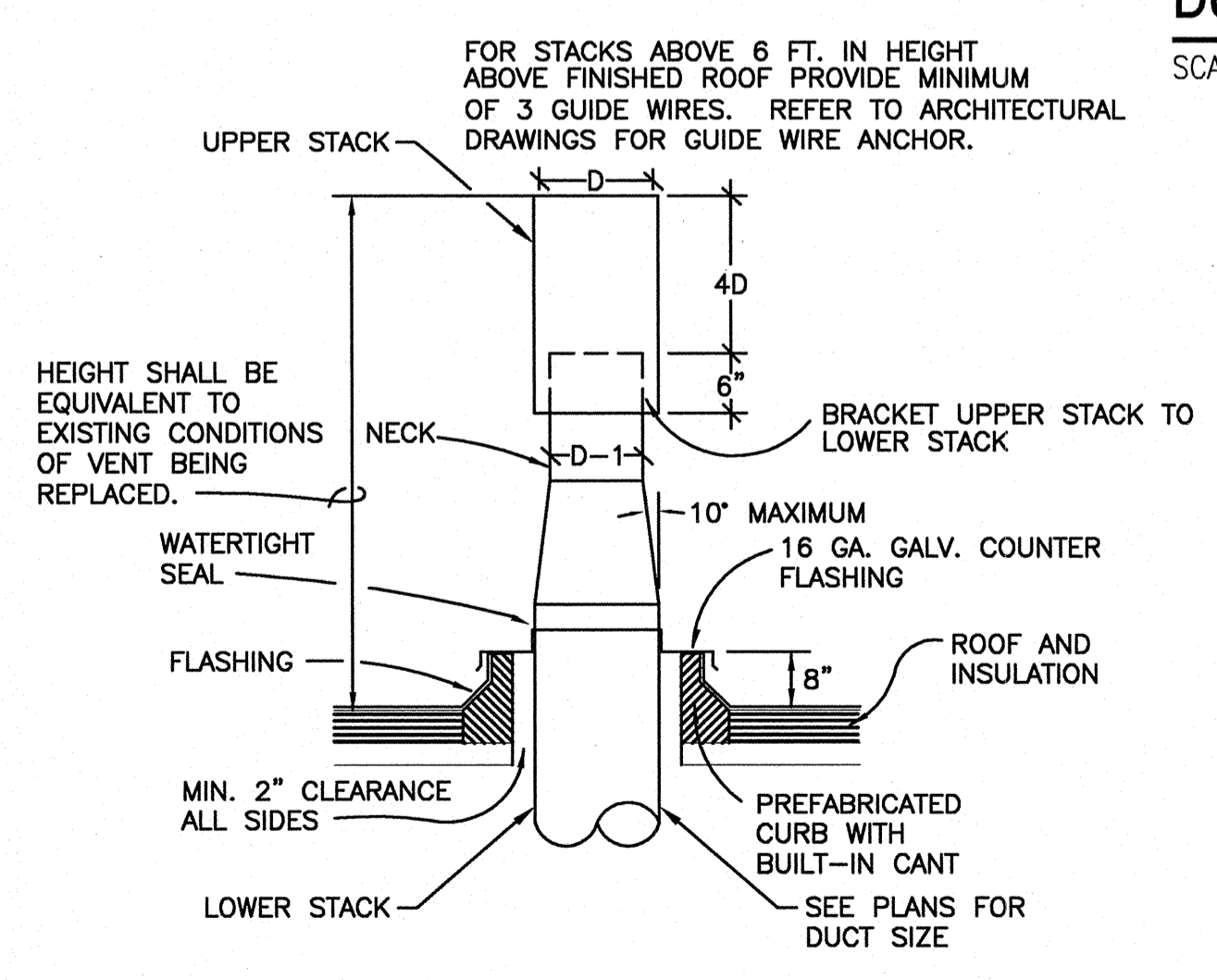
DUCTWORK CROSS CONNECTION DETAIL

SCALE: NONE M-102 **1**



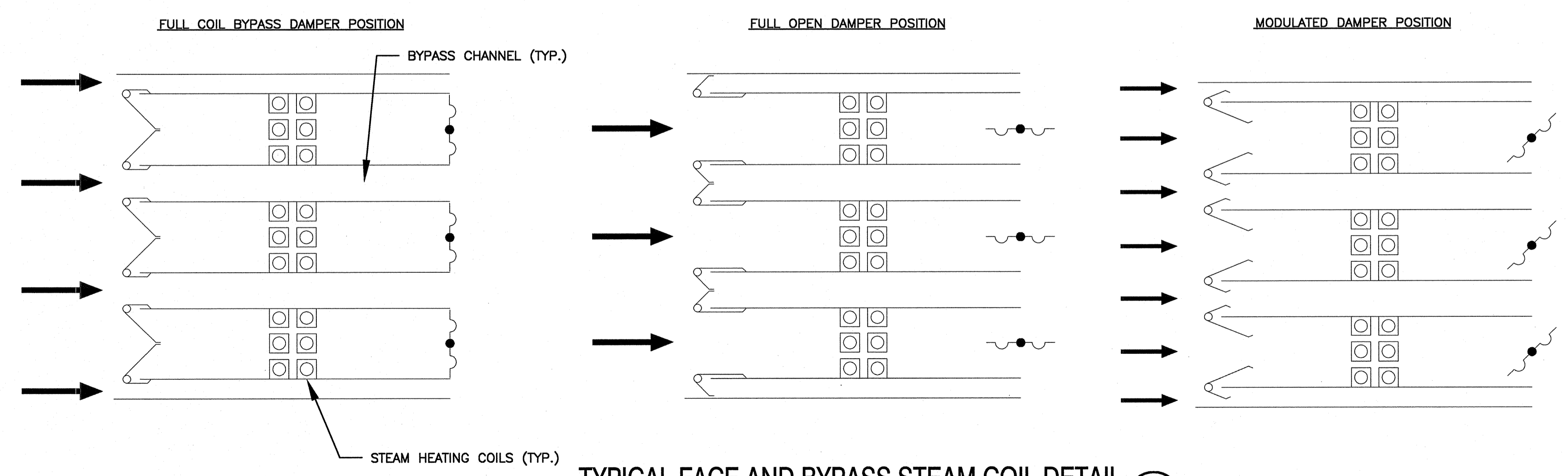
EXTERIOR DUCTWORK AND SUPPORT DETAIL

SCALE: NONE M-102 **3**



EXHAUST STACK DETAIL

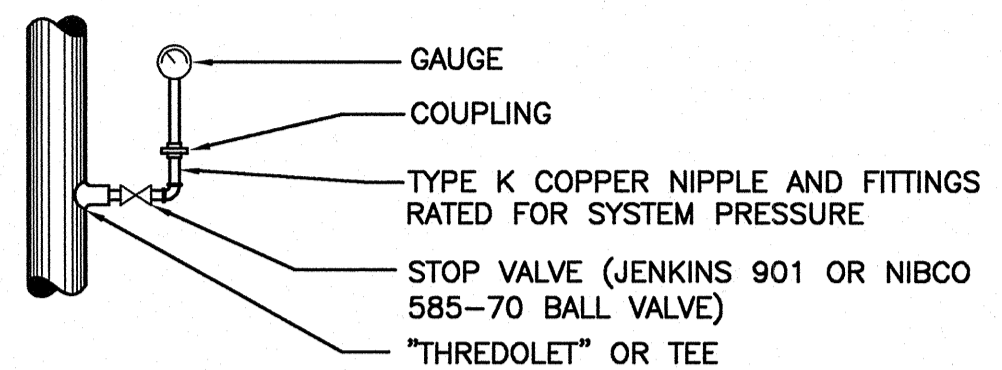
SCALE: NONE M-102 **4**



TYPICAL FACE AND BYPASS STEAM COIL DETAIL

SCALE: NONE M-102 **5**

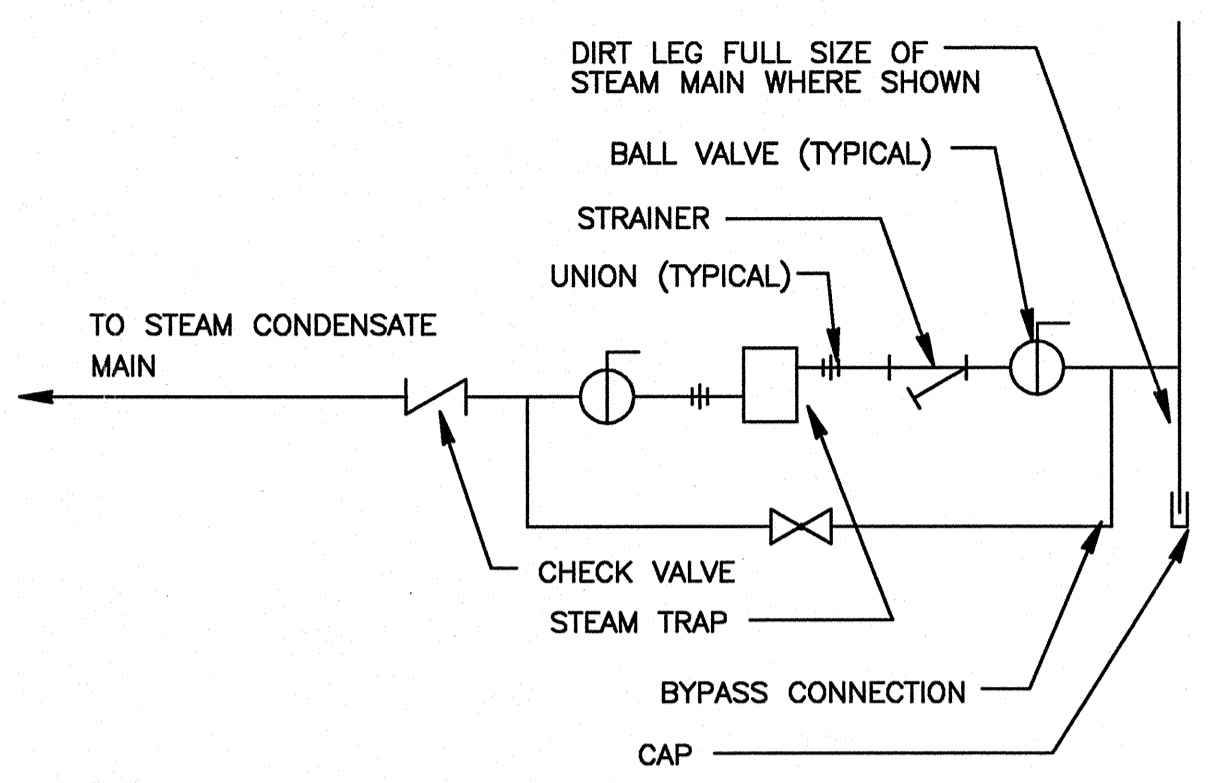
DATE	
DESCRIPTION	
SYN	
NRW	
CONSULTING STRUCTURAL ENGINEERS	
740 LORD DUNMORE DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA, 23464	
PHONE: (757) 474-9612	
FAX: (757) 474-0919	
Dewberry	
Dewberry Engineers, Inc.	
800 WOODBRIDGE DRIVE	
RALEIGH, NC 27609	
PHONE: (919) 489-8900	
FAX: (919) 489-8900	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	CC
MHR	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 MECHANICAL DETAILS	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665278	
SHEET 38 OF 57	
M-102	



GAUGE AND GAUGE PIPING SHALL NOT EXTEND INTO AISLES OR WALKWAYS.

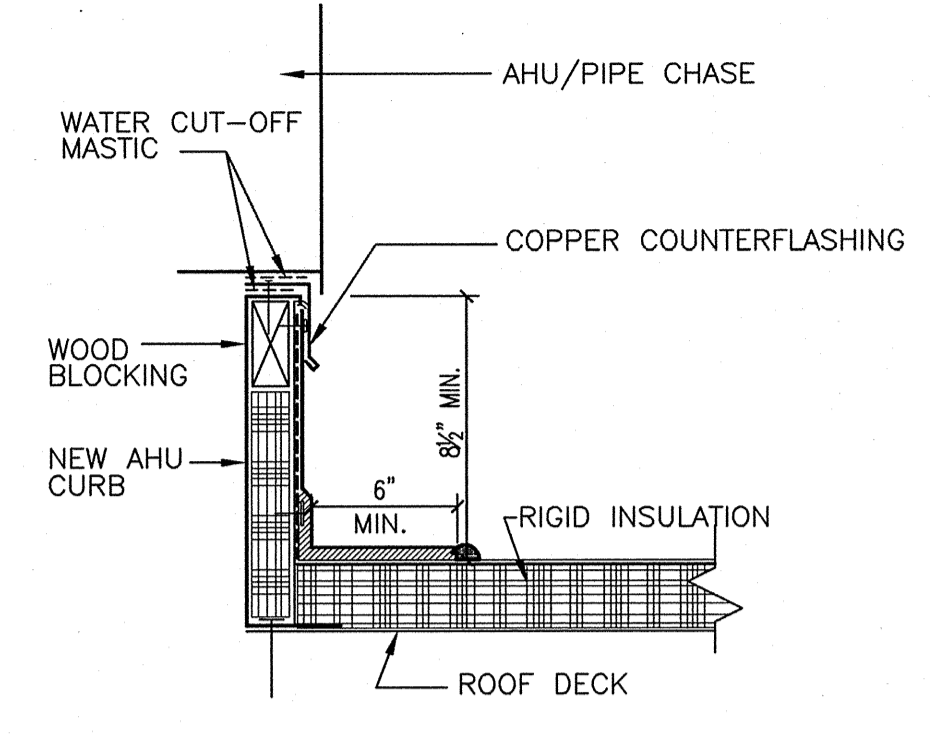
TYPICAL GAUGE PIPING DETAIL

SCALE: NONE M-103 (1)



TYPICAL STEAM TRAP ASSEMBLY DETAIL

SCALE: NONE M-103 (2)



NOTE: ADJUST CURB HEIGHT AS REQUIRED TO PROVIDE A MINIMUM 8 1/2" ABOVE TOP OF THE ROOF (TO OBTAIN ROOF WARRANTY). PROVIDE WOOD BLOCKING AS REQUIRED TO ADJUST CURB HEIGHT.

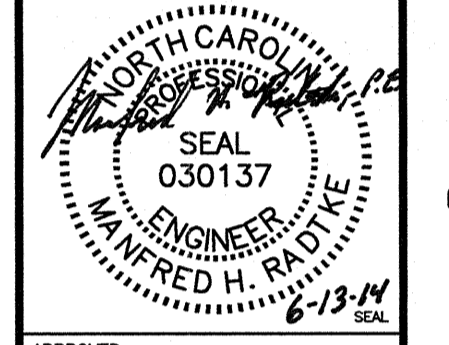
AIR HANDLING UNIT/PIPE CHASE ROOF CURB DETAIL

SCALE: NONE M-103 (3)

NO.	DATE	APPR.	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
246 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-9612
FAX: (757) 474-0919

Dewberry
Dewberry Engineers Inc.
2005 BUCKINGHAM DRIVE
WILMINGTON, NC 28407
PHONE: (910) 341-1000
FAX: (910) 341-1000
MOBILE: (910) 341-1000

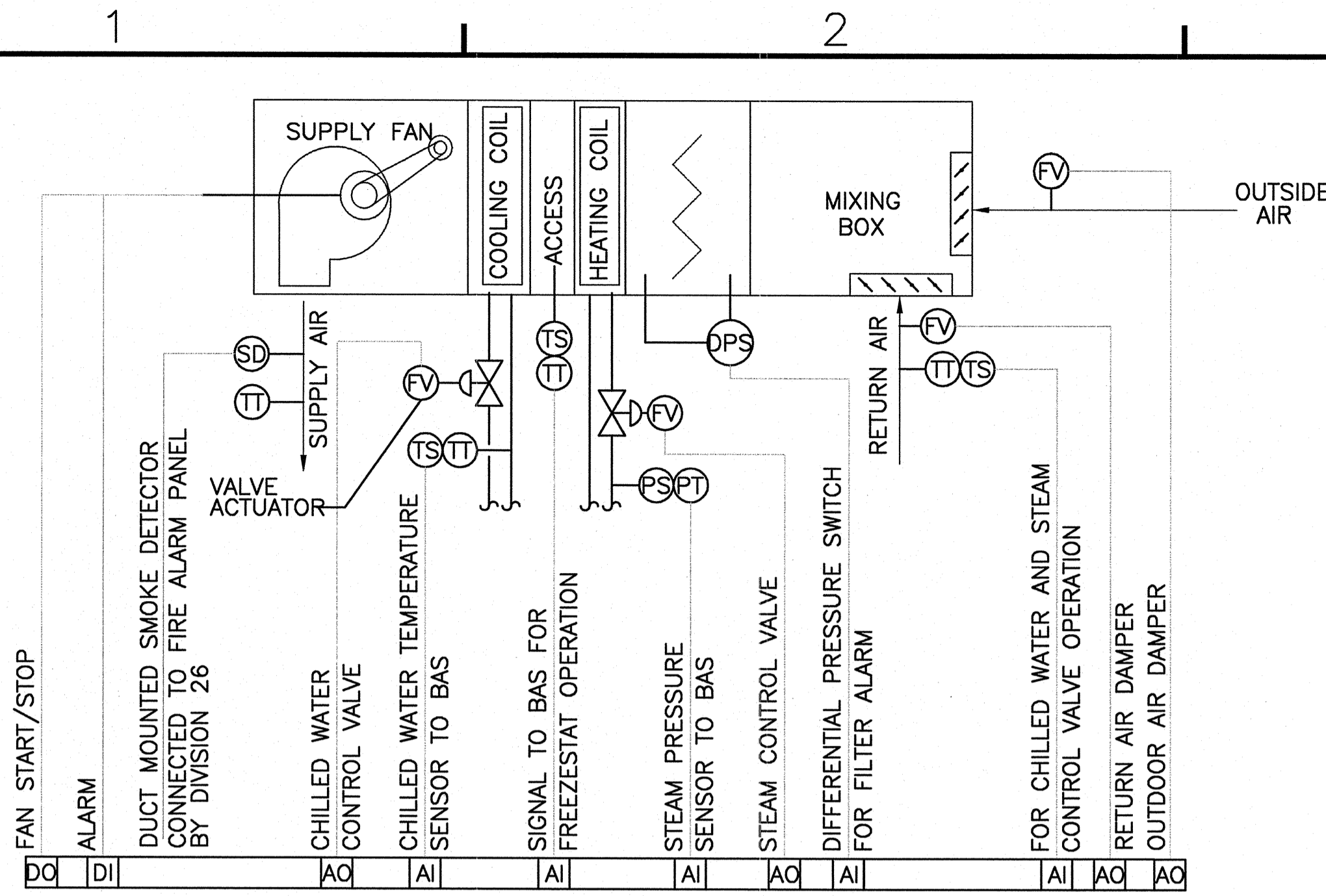


APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
RAP	DESIGN
RAP	DRAWN
MHR	REVIEW
MHR	QC
MHR	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
MECHANICAL DETAILS**

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665279	
SHEET 39 OF 57	

M-103
DRAWING REVISION JULY 2003
1:1 (Paper Space)
Drawing Filename:



- ### LEGEND
- AI ANALOG INPUT
 - AO ANALOG OUTPUT
 - BAS BUILDING AUTOMATION SYSTEM
 - DI DIGITAL INPUT
 - DO DIGITAL OUTPUT
 - DPS DIFFERENTIAL PRESSURE SENSOR
 - FV FLOW VALVE (VALVE/DAMPER ACTUATOR)
 - PI PRESSURE INDICATOR
 - PS PRESSURE SENSOR
 - PT PRESSURE TRANSMITTER
 - SD SMOKE DETECTOR
 - TS TEMPERATURE SENSOR
 - TT TEMPERATURE TRANSMITTER

- NOTES:
- POINTS INDICATED ARE MINIMUM REQUIRED DATA TO BE ACCESSIBLE VIA BAS.
 - SMOKE DETECTORS SHALL BE FURNISHED AND WIRED UNDER DIVISION 26. MOUNTED UNDER DIVISION 23.

AHU-8, 9, 10, 11, 12, & 13 CONTROL SCHEMATIC
 SCALE: NONE M-201 1

SEQUENCE OF OPERATION - AHU-8, 9, 10, 11, 12, & 13

AIR HANDLING UNITS SHALL BE STARTED, STOPPED AND FULLY MONITORED AND CONTROLLED BY THE DDC SYSTEM.

STEAM HEATING COIL: DURING OCCUPIED PERIODS, WHEN FAN IS RUNNING, SYSTEM MODULATES CONTROL VALVE TO MAINTAIN RETURN AIR SET POINT TEMPERATURE. OCCUPIED HEATING SETPOINT SHALL BE 68°F (ADJUSTABLE).

- DURING UNOCCUPIED PERIODS, WHEN FAN IS OFF, RETURN VALVE TO CLOSED POSITION.
- DURING UNOCCUPIED PERIODS, WHEN FAN IS ON, ENABLE NORMAL CONTROL.
- CONTROL VALVE SHALL FAIL IN THE 'OPEN' POSITION UPON POWER LOSS.

HYDRONIC COOLING COIL: DURING OCCUPIED PERIODS, WHEN FAN IS RUNNING, SYSTEM MODULATES CONTROL VALVE TO MAINTAIN RETURN AIR SET POINT TEMPERATURE. OCCUPIED COOLING SETPOINT SHALL BE 78°F (ADJUSTABLE).

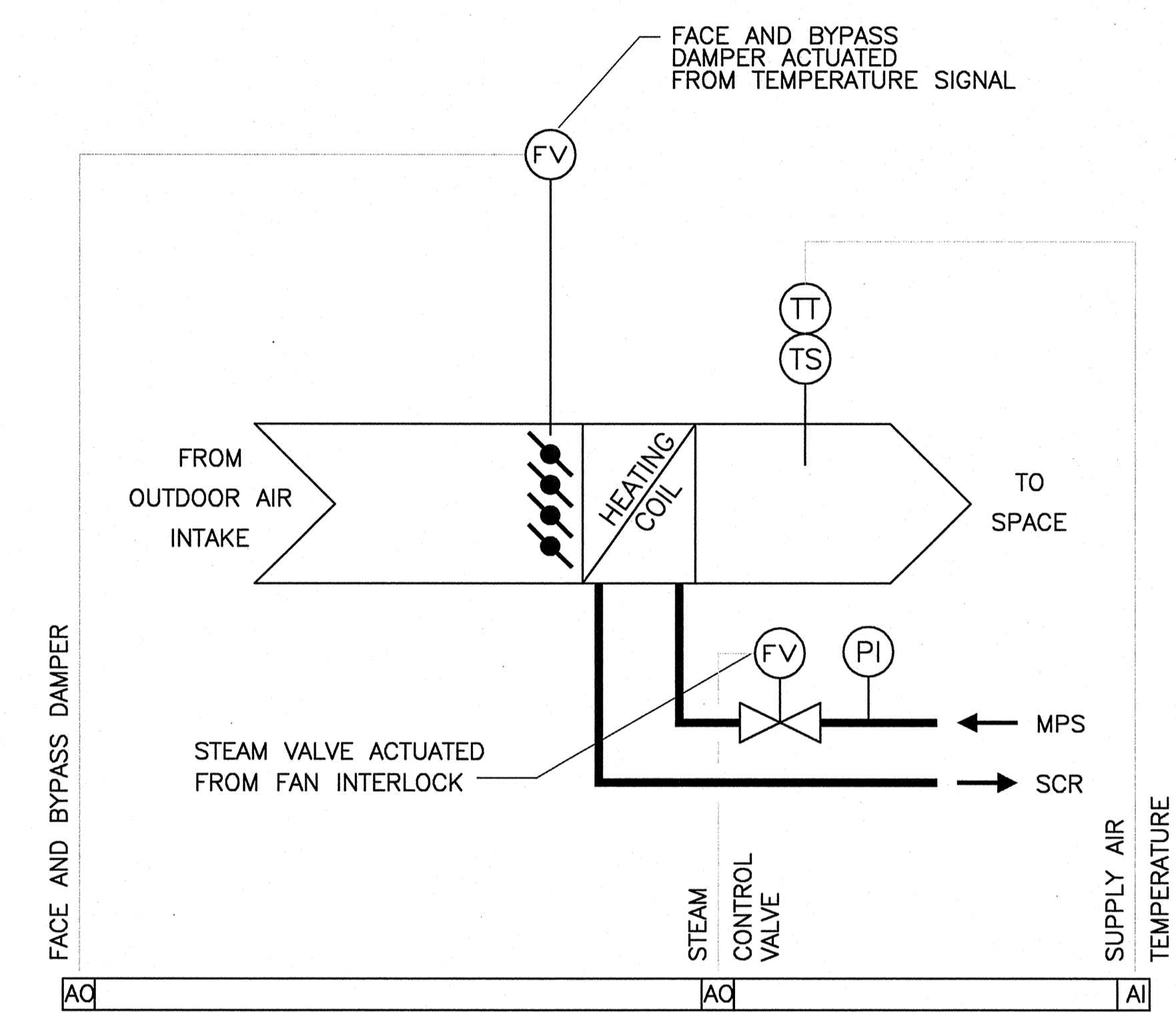
- DURING UNOCCUPIED PERIODS, WHEN FAN IS OFF, RETURN VALVE TO CLOSED POSITION.
- DURING UNOCCUPIED PERIODS, WHEN FAN IS ON, ENABLE NORMAL CONTROL.
- CONTROL VALVE SHALL FAIL IN THE 'OPEN' POSITION UPON POWER LOSS.

LOW LIMIT SAFETY THERMOSTATS LOCATED ON THE DOWNSTREAM SIDE OF THE HEATING COIL SHALL STOP THE FAN, OPEN STEAM VALVE, AND CLOSE THE OUTSIDE AIR DAMPER WHENEVER TEMPERATURE OF 36°F (ADJUSTABLE) OR LOWER ARE SENSED.

AHU-8 SHALL BE INTERLOCKED WITH SPRAY BOOTH #2 FAN. AHU-8 SHALL BE IN CONTINUOUS OPERATION. WHEN SPRAY BOOTH #2 FAN IS OFF, UNIT OUTDOOR AIR DAMPER POSITION SHALL DELIVER 50% OUTDOOR AIR. WHEN SPRAY BOOTH #2 FAN IS ON, UNIT OUTDOOR AIR DAMPER SHALL DELIVER 100% OUTDOOR AIR AND RETURN AIR DAMPER SHALL CLOSE.

FIRE ALARM SHUTDOWN: WHENEVER THE FIRE ALARM IS ACTIVATED, ALL AIR HANDLING UNITS SHALL BE STOPPED.

MAINTENANCE MANAGEMENT: THE DDC SYSTEM SHALL MEASURE AND RECORD RUN TIME FOR ALL START/STOP POINTS IN THE SYSTEM. BASED UPON THE ACCUMULATED RUN TIME PROVIDE MAINTENANCE MESSAGES ON THE INTERVAL RECOMMENDED BY THE EQUIPMENT MANUFACTURERS. ANY DIGITAL INPUT POINT THAT IS USED FOR MAINTENANCE PURPOSES (I.E. DIRTY FILTER) SHALL ALSO GENERATE A MAINTENANCE MESSAGE.



HEATING COIL CONTROL SCHEMATIC
 SCALE: NONE M-201 2

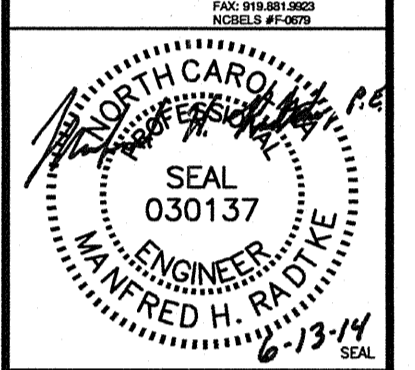
SEQUENCE OF OPERATION - HC-1

HEATING COIL SHALL BE INTERLOCKED WITH ASSOCIATED SPRAY BOOTH EXHAUST FAN. WHEN FAN IS ENGAGED, AND OUTSIDE AIR TEMPERATURE IS BELOW 65°F, CONTROL VALVE SHALL FULLY OPEN. WHEN FAN IS DISENGAGED, RETURN CONTROL VALVE TO CLOSED POSITION.

WHEN CONTROL VALVE IS OPEN, A DISCHARGE AIR TEMPERATURE SENSOR SHALL SIGNAL THE BAS TO MODULATE THE FACE AND BYPASS DAMPER TO MAINTAIN DISCHARGE TEMPERATURE SETPOINT OF 68°F (ADJUSTABLE). WHEN CONTROL VALVE IS CLOSED, FACE AND BYPASS DAMPER SHALL BE IN FULL BY-PASS POSITION.

CONTRACTOR SHALL DEMONSTRATE OPERATION OF UNIT TO THE CONTRACTING OFFICER FOR THE FOLLOWING MODES OF OPERATION:

- UNOCCUPIED
- OCCUPIED HEATING
- OCCUPIED COOLING
- LOW LIMIT SAFETY
- SPRAY BOOTH EXH. FAN INTERLOCK

NRW									
CONSULTING STRUCTURAL ENGINEERS 748 LORD DUNMORE DRIVE SUITE 101 VIRGINIA BEACH, VIRGINIA, 23464 PHONE: (757) 474-0012 FAX: (757) 474-0019									
Dewberry Dewberry Engineers Inc. 2000 WILSON DRIVE SUITE 200 FREDERICKSBURG, VA 22405 PHONE: (800) 828-8800 FAX: (541) 949-0000									
									
APPROVED _____									
ACTIVITY - SATISFACTORY TO _____									
DATE APPROVED _____									
FOR EFD FOR COMMANDER NAVFAC _____									
DATE _____									
A/E _____ EFD _____									
RAP _____ DESIGN _____									
RAP _____ DRAWN _____									
MHR _____ REVIEW _____									
MHR _____ QC _____									
MHR _____ CHIEF ARCH/ ENGR _____									
PROJECT MANAGER _____									
FIRE PROTECTION _____									
BRANCH MANAGER _____									
DESIGN DIRECTOR _____									
DEPARTMENT OF THE NAVY MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 MECHANICAL CONTROL SCHEMATICS									
CODE ID. NO. 80091 SIZE D									
SCALE AS NOTED									
FED. NO. 5906707									
STA. PROJ. NO. R46-93C									
SPEC. NO.									
CONSTR. CONTR. NO.									
NAVFAC DRAWING NO. 12665281									
SHEET 41 OF 57									
M-201									
DRAWING REVISION JULY 2003 1:1 (Paper Space) Drawing File Name:									

ELECTRICAL LEGEND

FLOOR MOUNTED	WALL MOUNTED	CEILING MOUNTED	ITEM DESCRIPTION
			DUPLEX RECEPTACLE (SEE NOTE #1)
			GFI, WEATHER RESISTANT DUPLEX RECEPTACLE WITH CAST METAL, WEATHER-PROOF WHILE-IN-USE COVER (SEE NOTE #1)
			QUADRAPLEX RECEPTACLE (SEE NOTE #1)
			COMBINATION CONTROLLER/DISCONNECT
			DISCONNECT SWITCH - BY CONTRACTOR <u>A</u> = NUMBER OF POLES, <u>B</u> = FUSE RATING, <u>C</u> = SWITCH RATING
			SAFETY SWITCH AND/OR COMBINATION CONTROLLER
			EXISTING 120/208V SURFACE MOUNTED PANELBOARD TO REMAIN.
			EXISTING 277/480V SURFACE MOUNTED PANELBOARD TO REMAIN.
			NEW 277/480V SURFACE MOUNTED PANELBOARD
			EXISTING 120/208V FLUSH MOUNTED PANELBOARD TO REMAIN.
			EXISTING 277/480V FLUSH MOUNTED PANELBOARD TO REMAIN.
			EXISTING 120/208V BUSWAY TO REMAIN.
			EXISTING 277/480V BUSWAY TO REMAIN.
			JUNCTION BOX
			EQUIPMENT CONNECTION
			ELECTRIC MOTOR, FAN, ETC.
			EQUIPMENT CONNECTION TO MECHANICAL EQUIPMENT. SUBSCRIPT INDICATES TYPE OF EQUIPMENT, FCU-FAN COIL UNIT, AHU-AIR HANDLING UNIT, CU-CABINET UNIT HEATER, UH-UNIT HEATER ETC.
			SWITCHED CIRCUITS
			UNSWITCHED CIRCUITS
			IN AREAS WHERE RECEPTACLES ARE SHOWN WIRED TO MULTIPLE CIRCUITS, CONTRACTOR SHALL ALTERNATE THE CIRCUITS AMONG ADJACENT RECEPTACLES. FOR THIS PURPOSE, QUADRUPEL RECEPTACLES SHALL BE TREATED AS TWO DUPLEX RECEPTACLES.
			MECHANICAL PLATFORM DRIVEN GROUND ROD
			EXISTING FIRE ALARM CONTROL PANEL TO REMAIN. JOHNSON CONTROL SYSTEM. SEE NOTE #2.
			FIRE DETECTOR - "H" INDICATES HEAT DETECTOR TYPE. "I" INDICATES IONIZATION DETECTOR TYPE. "P" INDICATES PHOTO-ELECTRIC DETECTOR TYPE. "D" INDICATES DUCT SMOKE DETECTOR TYPE. "R" INDICATES FAN CONTROL RELAY. "S" INDICATES KITCHEN HOOD SUPPRESSION CONNECTION.
			SPRINKLER SWITCH - "F" INDICATES FLOW TYPE. "T" INDICATES TAMPER TYPE.
			FIRE ALARM SPEAKER - "F" INDICATES SPEAKER "A" INDICATES AUDIO / VISUAL DEVICE "S" INDICATES STROBE DEVICE
			DUCT DETECTOR REMOTE TEST DEVICE AND INDICATING LIGHT

ELECTRICAL LEGEND NOTES:

- MOUNT AT 20" AFF TO TOP, UNLESS OTHERWISE NOTED. ADJUST TO MATCH MASONRY COURSES IF APPLICABLE. MOUNT ALL BOXES TRUE AND PLUMB.
- ALL WALL MOUNTED SPEAKER/STROBES AND STROBES SHALL BE 75cd UNLESS OTHERWISE NOTED. MOUNT ALL SPEAKER/STROBES, STROBES, AND REMOTE ALARM INDICATORS 84" AFF TO TOP. COORDINATE LOCATION OF FAN CONTROL RELAY WITH DIV. 23. PROVIDE DUCT DETECTORS TO DIV. 23. FOR MOUNTING. FOR EACH DUCT DETECTOR PROVIDE REMOTE TEST DEVICE AND INDICATING LIGHT ON COLUMN MOUNTED 84" AFF. ALL WIRING BY DIV. 26. ADJUST ALL MOUNTING HEIGHTS TO MATCH MASONRY COURSES IN APPLICABLE. MOUNT ALL BOXES TRUE AND PLUMB.

GENERAL NOTES TO PLANS:

- THE EXISTING BUILDING SHALL REMAIN IN CONTINUOUS & NON-INTERRUPTED OPERATION DURING RENOVATIONS AND ALTERATIONS. SERVICES TO EXISTING BUILDING SHALL BE MAINTAINED IN A FULLY OPERATIONAL AND FUNCTIONAL STATE THROUGHOUT CONSTRUCTION. SERVICES SHALL INCLUDE, BUT NOT BE LIMITED TO, DOMESTIC WATER, SANITARY, STORM, STEAM HEATING, CHILLED WATER, HVAC SUPPLY, RETURN & EXHAUST, ELECTRICAL, TELECOMMUNICATIONS, AND FIRE ALARM. IF AN INTERRUPTION OF SERVICES IS DETERMINED TO BE NECESSARY TO ACCOMPLISH PROJECT CONSTRUCTION, A PROPOSAL SHALL BE SUBMITTED TO THE CONTRACTING OFFICER FOR APPROVAL A MINIMUM OF TWO (2) WEEKS IN ADVANCE OF ANTICIPATED INTERRUPTION. ALL PROPOSED INTERRUPTIONS SHALL BE COORDINATED TO MINIMIZE NUMBER OF INTERRUPTIONS AND ANY PROPOSED INTERRUPTION SHALL BE LIMITED TO 72 HOURS. CONTRACTOR SHALL PROVIDE TEMPORARY SERVICES AS REQUIRED TO KEEP BUILDING CONTINUOUSLY OPERATIONAL DURING INTERRUPTION. TEMPORARY SERVICES SHALL BE REMOVED ONLY AFTER NEW PERMANENT SERVICES ARE INSTALLED AND FULLY OPERATIONAL. NO FIRE ALARM SERVICE INTERRUPTIONS WILL BE ALLOWED DURING NORMAL WORKING HOURS AT THE FACILITY. THE FIRE ALARM SYSTEM MUST BE MADE FULLY OPERATIONAL AT THE COMPLETION OF EACH DAY'S SCHEDULED CONSTRUCTION PERIOD. FULL OPERATION OF THE FIRE ALARM SYSTEM SHALL INCLUDE THE MONITORING OF THE FIRE PROTECTION (SPRINKLER) SYSTEM FOR ACTIVATION.
- THESE DRAWINGS ARE GENERALLY DIAGRAMMATIC AND DO NOT SHOW ALL DETAILS REQUIRED FOR THE COMPLETE SYSTEM. THEY SHOULD HOWEVER BE FOLLOWED AS CLOSELY AS POSSIBLE IN THE GENERAL ARRANGEMENT AND LOCATION OF EQUIPMENT. ALL DIMENSIONS SHALL BE CHECKED AT THE BUILDING AND ALL STRUCTURAL AND FINISH CONDITIONS INVESTIGATED. THE CONTRACTOR SHALL ARRANGE HIS WORK TO MEET THESE CONDITIONS AND PROVIDE SUCH EQUIPMENT AND ACCESSORIES AS MAY BE REQUIRED.
- ARCHITECTURAL AND STRUCTURAL DRAWINGS SHALL TAKE PRECEDENCE OVER THE ELECTRICAL DRAWINGS REGARDING BUILDING CONSTRUCTION, DIMENSIONS AND ARRANGEMENT.
- BEFORE INSTALLING EQUIPMENT, MAKE FIELD MEASUREMENTS TO INSURE THAT ALL ITEMS OF EQUIPMENT FURNISHED WILL FIT INTO THE SPACE AS SHOWN ON THE DRAWINGS. WHERE EQUIPMENT WILL NOT FIT AS SHOWN ON THE DRAWINGS, PROVIDE A DRAWING TO THE CONTRACTING OFFICER FOR APPROVAL WITH A PROPOSED REVISED ARRANGEMENT BEFORE INSTALLING THE EQUIPMENT.
- ADJUST EQUIPMENT AND FIXTURES TO AVOID INTERFERENCE WITH OTHER EQUIPMENT.
- PROPERLY SUPPORT ALL WORK AND EQUIPMENT INSTALLED UNDER THIS CONTRACT PLUMB AND PARALLEL WITH BUILDING LINES. STUDY ALL GENERAL, STRUCTURAL, PLUMBING, MECHANICAL, AND ELECTRICAL DRAWINGS, SHOP DRAWINGS, AND CATALOG DATA TO DETERMINE HOW EQUIPMENT, ACCESSORIES, PIPING, FIXTURES, AND RELATED ITEMS ARE TO BE SUPPORTED, MOUNTED, OR SUSPENDED. PROVIDE ALL BOLTS, INSERTS, PIPE STANDS, BRACKETS, STRUCTURAL SUPPORTS, AND ACCESSORIES FOR PROPER SUPPORT OF EQUIPMENT FURNISHED UNDER THIS CONTRACT. COORDINATE WORK TO MINIMIZE INTERFERENCE. LINES WHICH REQUIRE SLOPE SHALL TAKE PRECEDENCE OVER ELECTRICAL WORK.
- NOTIFY THE CONTRACTING OFFICER IN WRITING IMMEDIATELY UPON DISCOVERY OF ANY DISCREPANCY OR POINTS OF CONFLICT IN THE DRAWINGS OR THE SPECIFICATIONS. THE CONTRACTING OFFICER WILL CLARIFY SUCH DISCREPANCY OR POINTS OF CONFLICT IN WRITING PRIOR TO THE PROGRESS OF THE WORK BEYOND THE POINT CONCERNED.
- DO NOT COVER UP CONSTRUCTION UNTIL IT HAS BEEN INSPECTED BY THE CONTRACTING OFFICER.
- ALL CONDUCTORS SHALL BE COPPER.
- ALL EMPTY CONDUIT RUNS IN EXCESS OF 10' SHALL BE PROVIDED WITH A PULL WIRE.
- DO NOT SHARE NEUTRALS ON RECEPTACLE BRANCH CIRCUITS.
- COORDINATE EXACT LOCATION AND ELECTRICAL REQUIREMENTS OF MECHANICAL EQUIPMENT PRIOR TO ROUGH-IN AND INSTALLATION.
- ELECTRICAL REQUIREMENTS FOR HVAC EQUIPMENT ARE FOR HVAC EQUIPMENT SPECIFIED. IF SUBSTITUTE HVAC EQUIPMENT IS SUPPLIED, CONTRACTOR IS RESPONSIBLE FOR MODIFICATIONS AND/OR ADDITIONS TO ELECTRICAL REQUIREMENTS OF HVAC EQUIPMENT SUPPLIED. SUBMIT CHANGES TO CONTRACTING OFFICER FOR APPROVAL. ANY PROPOSED CHANGES MUST BE APPROVED BY THE CONTRACTING OFFICER PRIOR TO PERFORMING CHANGE.
- IN ALL AREAS REQUIRING A FIRE RATING, CONDUIT AND CABLE PENETRATIONS SHALL BE SEALED WITH AN APPROVED FIRE STOPPING MATERIAL.
- THE EXISTING ADDRESSABLE FIRE ALARM SYSTEM IS A JOHNSON CONTROLS IFC3030 AND IS MAINTAINED BY THE BASE. ALL NEW DEVICES, APPLIANCES, AND ACCESSORIES SHALL MATCH EXISTING DEVICES AND SHALL BE LISTED TO OPERATE ON THE EXISTING SYSTEM. WHERE NEW SLC LOOP DEVICES ARE SHOWN, ALL NEW WIRING SHALL BE PROVIDED FROM THE NEAREST EXISTING UPSTREAM DEVICE TO THE NEW DEVICE AND FROM THE NEW DEVICE TO THE NEAREST EXISTING DOWNSTREAM DEVICE. ALL TERMINATIONS SHALL BE MADE AT THE DEVICE. SPLICES TO EXISTING WIRING AND T-TAPS ARE NOT PERMITTED. ALL WIRING SHALL BE INSTALLED IN CONDUIT AND SHALL BE COLOR CODED TO MATCH EXISTING SYSTEM. PROVIDE UPDATED DOCUMENTATION INCLUDING DEVICE LISTS, SENSITIVITY REPORT, AND ZONE MAPS. FIRE ALARM SYSTEM INSTALLER SHALL BE A FACTORY AUTHORIZED MANUFACTURER'S REPRESENTATIVE AND SHALL HAVE DOCUMENTED TRAINING ON THE EXISTING SYSTEM WITHIN THE LAST TWO YEARS. PROVIDE ALL NECESSARY APPURTENANCES AS REQUIRED FOR A FULLY OPERATIONAL AND NFPA 72 COMPLIANT SYSTEM. ALL FIRE ALARM DEVICES REMOVED FROM PROJECT SHALL BE TURNED OVER TO CONTRACTING OFFICER.
- PROVIDE WIRING AND RELAYS TO ALL AHUs AND MAUs PROVIDED IN THIS PROJECT TO SHUT UNIT DOWN ON DETECTION OF SMOKE SIGNAL FOR SHUTDOWN SHALL ORIGINATE FROM THE FIRE ALARM CONTROL PANEL. REFER TO DETAIL 2/E-102 FOR ADDITIONAL INFORMATION. COORDINATE EXTENT OF SHUTDOWN WITH CONTRACTING OFFICER.

GENERAL DEMOLITION NOTES:

- EXISTING DEVICES ARE SHOWN USING STANDARD SYMBOLS. SYMBOLS SHOWN 'BOLD AND DASHED' DENOTE ELECTRICAL EQUIPMENT AND DEVICES TO BE REMOVED. SYMBOLS SHOWN 'THIN AND SOLID' DENOTE ELECTRICAL EQUIPMENT AND DEVICES TO REMAIN. CONDUIT AND WIRING IS NOT GENERALLY SHOWN AND SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
- WHERE EXISTING ELECTRICAL EQUIPMENT AND DEVICES ARE SHOWN TO BE REMOVED, THE CONTRACTOR SHALL REMOVE EQUIPMENT, DEVICES AND ALL ASSOCIATED CONDUIT AND CONDUCTORS THAT SHALL NOT REMAIN IN OPERATION BACK TO THEIR RESPECTIVE SOURCE OR TO THE POINT ON A SHARED CIRCUIT FROM WHERE THE EQUIPMENT OR DEVICE IS SERVED.
- EXISTING CONDUIT AND CONDUCTORS MAY BE REUSED WHERE THEY ARE OF THE TYPE SPECIFIED, MEET THE REQUIREMENTS FOR THE NEW CIRCUITS AS DEFINED BY THE CONTRACT DOCUMENTS, AND REMAIN IN GOOD CONDITION. EXISTING CIRCUITRY WITHOUT EQUIPMENT GROUNDING CONDUCTORS SHALL NOT BE REUSED. HOWEVER, THE CIRCUIT MAY, PROVIDED NEW CONDUCTORS (INCLUDING AN EQUIPMENT GROUNDING CONDUCTOR) ARE INSTALLED.
- RELOCATE AS NECESSARY ALL EXISTING CIRCUITS FOUND PASSING THROUGH THE AREA OF CONSTRUCTION, AND WHICH ARE PRESENTLY IN USE IN OTHER PARTS OF THE BUILDING UNAFFECTED BY THIS PROJECT, TO MAINTAIN THE CONTINUITY OF SERVICE AND GROUNDING.
- ALL EXISTING WIRING DEVICES AND COVERPLATES WITHIN THE AREA OF CONSTRUCTION AND SHOWN TO REMAIN IN OPERATION SHALL BE REPLACED WITH NEW MATERIALS WHICH MEET THE REQUIREMENTS OF THE CONTRACT DOCUMENTS.
- COORDINATE THE REMOVAL AND RE-INSTALLATION (OR PROTECTION IN PLACE) OF EXISTING ELECTRICAL EQUIPMENT AND DEVICES TO REPLACE OR REFINISH EXISTING WALLS AND CEILINGS.

PHASING NOTES:

- UNLESS OTHERWISE NOTED, CONTRACTOR SHALL FOLLOW SCHEDULES AS SET FORTH BY THE ARCHITECTURAL DRAWINGS AND GENERAL SPECIFICATIONS. UPON DETERMINATION THAT OUT-OF-PHASE WORK IS REQUIRED, SUBMIT TO CONTRACTING OFFICER FOR APPROVAL.

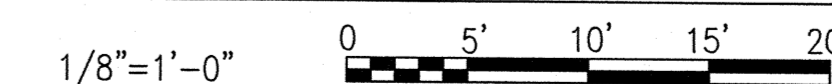
ABBREVIATIONS

A	AMPS
ACT	ACOUSTICAL CEILING TILE
AFF	ABOVE FINISHED FLOOR
AHU	AIR HANDLING UNIT
BAS	BUILDING AUTOMATION SYSTEM
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
CWP	COLD WATER PIPE
DGR	DRIVEN GROUND ROD
EF	EXHAUST FAN
EDH	ELECTRIC DUCT HEATER
EHC	EXISTING HUB CABINET
EUH	ELECTRIC UNIT HEATER
EWH	ELECTRIC WALL HEATER
EX	EXISTING
GC	GENERAL CONTRACTOR
GFI	GROUND FAULT CIRCUIT INTERRUPTER
GND	GROUND
LEC	LOCAL EXCHANGE CARRIER
MCB	MAIN CIRCUIT BREAKER
MDP	MAIN DISTRIBUTION PANEL
MLO	MAIN LUGS ONLY
NF	NON-FUSED
NTS	NOT TO SCALE
PMP	PUMP
RECEPT.	RECEPTACLE
RTU	ROOF TOP UNIT
SCUV	SELF CONTAINED UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VOLTS
WH	WATER HEATER
WP	WEATHER PROOF
XFMR	TRANSFORMER

DEMOLITION LEGEND

	DUPLEX RECEPTACLE TO BE REMOVED. SEE DEMOLITION NOTE #2.
	DISCONNECT SWITCH TO BE REMOVED. SEE DEMOLITION NOTE #2.
	JUNCTION BOX TO BE REMOVED. SEE DEMOLITION NOTE #2.
	FIRE ALARM STROBE TO BE REMOVED. SEE DEMOLITION NOTE #2.
	FLUORESCENT STRIP LIGHT TO BE REMOVED. SEE DEMOLITION NOTE #2.
	DUCT DETECTOR TO BE REMOVED. SEE DEMOLITION NOTE #2.

GRAPHIC SCALES



NO.	DATE	DESCRIPTION

NRW
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APPROVED
ACTIVITY - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE
A/E
M/LY DESIGN
M/LY DRAWN
SPW REVIEW
SPW QC
SPW CHIEF ARCH/ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

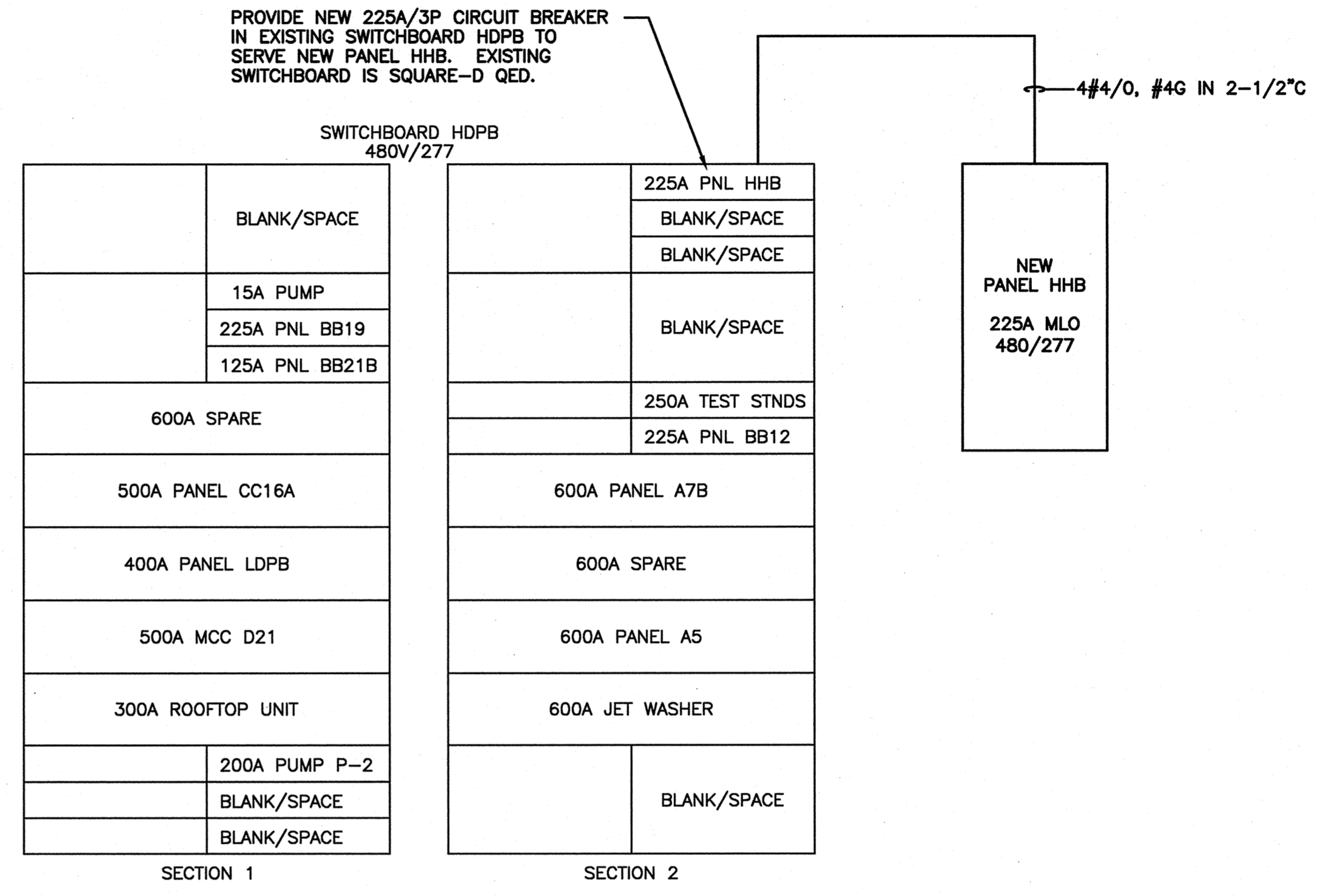
DEPARTMENT OF THE NAVY
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
LEGENDS, ABBREVIATIONS, & NOTES

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
FED. NO. 5908707
STA. PROJ. NO. R46-93C
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12665283
SHEET 43 OF 57

E-001
DRAWING REVISION JULY 2003
1:1 (Paper Space)
Drawing Filename

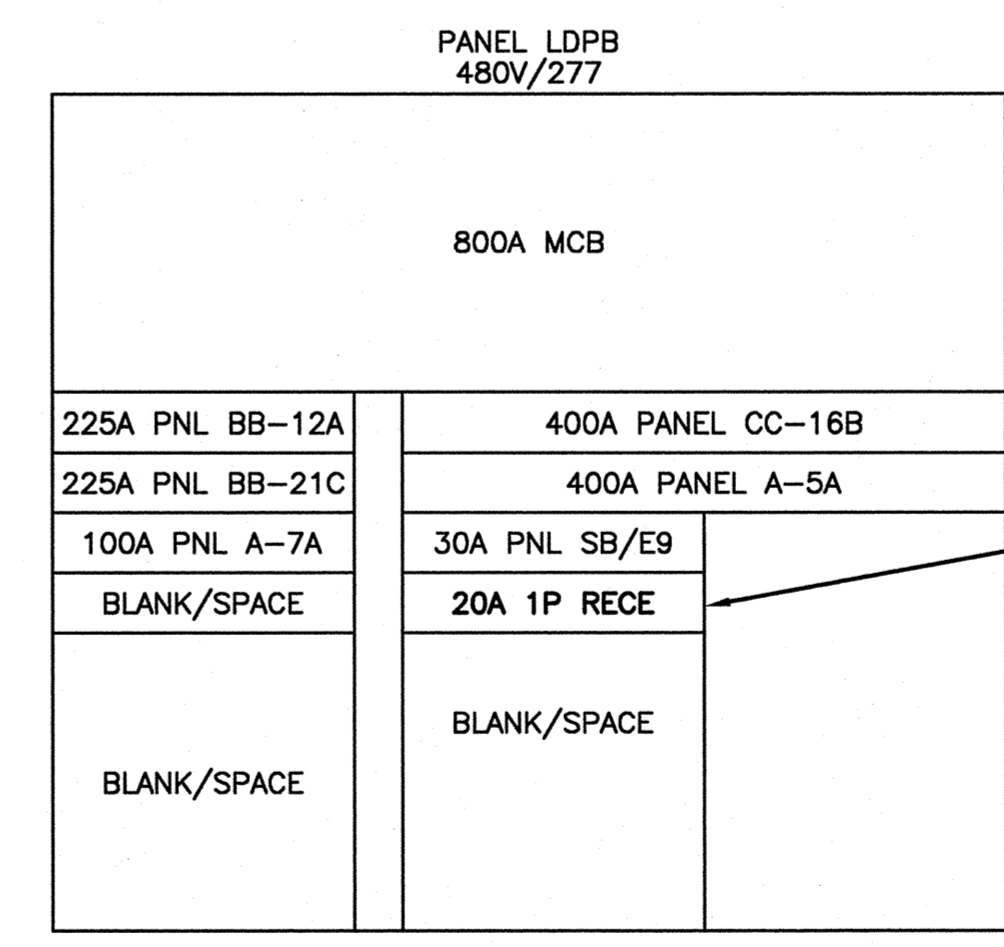
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	A	B	C							A	B	C		
LIGHTS	1000				20	1	1	2	1	20	1440		RECEPTACLES	
LIGHTS		1000			20	1	3	4	1	20	1440		RECEPTACLES	
LIGHTS			1000		20	1	5	6	1	20		1440	RECEPTACLES	
LIGHTS	1000				20	1	7	8	1	20	1440		RECEPTACLES	
RECEPTACLES		1440			20	1	9	10	1	20		1000	LIGHTS	
RECEPTACLES			1440		20	1	11	12	1	20			SPARE IN JUNCTION BOX	
LIGHTING CONTACTOR CONTROL	1500				20	1	13	14	1	20	1000		LIGHTS	
POLE		1800			20	3	15	16	2	20		1500	LIGHTS	
3 #12, 1 #12G, 3/4"C.			1800				17	18					2 #12, 1 #12G, 3/4"C.	
	1800						19	20					SPACE	
RECEPTACLES		1440			20	1	21	22					SPACE	
RECEPTACLES			1440		20	1	23	24	3	30			SPACE	
RECEPTACLES	1440				20	1	25	26						
RECEPTACLES		1440			20	1	27	28						
RECEPTACLES			1440		20	1	29	30	3	30		2880	HEAT EXCHANGER	
EXCHANGER	2880				30	3	31	32			2880		3 #10, 1 #10G, 3/4"C.	
3 #10, 1 #10G, 3/4"C.		2880					33	34			2880			
			2880				35	36	3	30		2000	QA OFFICE	
QA OFFICE	1800				20	3	37	38			2000		3 #10, 1 #10G, 3/4"C.	
3 #12, 1 #12G, 3/4"C.		1800					39	40			2000			
		1800					41	42	1	20		360	*RECEPTACLES - ROOF	
VOLTAGE RATING 120/208				MAIN BREAKER? YES				TOTAL LOAD (VA)				PANEL DESIGNATION		PC9
# OF PHASES 3				BREAKER RATING 225A				DEMAND FACTOR				NOTES:		
# OF WIRES 4				BUS RATING 225A				DEMAND LOAD (VA)				EXISTING PANEL; BUS E.		
MOUNTING? SURFACE				NEUTRAL RATING 100%				DEMAND AMPS				*PROVIDE NEW BREAKER AS REQUIRED.		
SE RATED? NO				MINIMUM KAIC 42										

LOAD SERVED	VA/PHASE			CB	P	CKT	CKT	P	CB	VA/PHASE			LOAD SERVED	
	A	B	C							A	B	C		
AHU-8 (15 HP)					40	3	1	2	3	15	305		AHU-9 (3 HP)	
- SEE FEEDER SCHEDULE		5817					5	4			305		- SEE FEEDER SCHEDULE	
			5817				7	6				305		
AHU-10 (3 HP)		305			15	3	7	8	3	40	5817		AHU-13 (15 HP)	
- SEE FEEDER SCHEDULE			305				9	10			5817		- SEE FEEDER SCHEDULE	
							11	12				5817		
SPACE							13	14					SPACE	
SPACE							15	16					SPACE	
SPACE							17	18					SPACE	
SPACE							19	20					SPACE	
SPACE							21	22					SPACE	
SPACE							23	24					SPACE	
SPACE							25	26					SPACE	
SPACE							27	28					SPACE	
SPACE							29	30					SPACE	
VOLTAGE RATING 277/480				MAIN BREAKER? NO				TOTAL LOAD (VA)				PANEL DESIGNATION		HHB
# OF PHASES 3				BREAKER RATING 225A				DEMAND FACTOR				NOTES:		
# OF WIRES 4				BUS RATING 225A				DEMAND LOAD (VA)						
MOUNTING? SURFACE				NEUTRAL RATING 100%				DEMAND AMPS						
SE RATED? NO				MINIMUM KAIC 42										



SWITCHBOARD HDPB ELEVATION/RISER 1

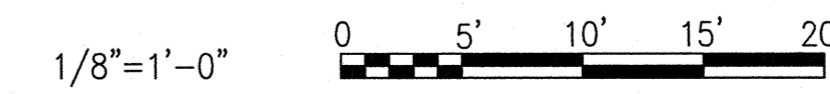
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PANEL LDPB ELEVATION 2

SCALE: NONE E-101

GRAPHIC SCALES

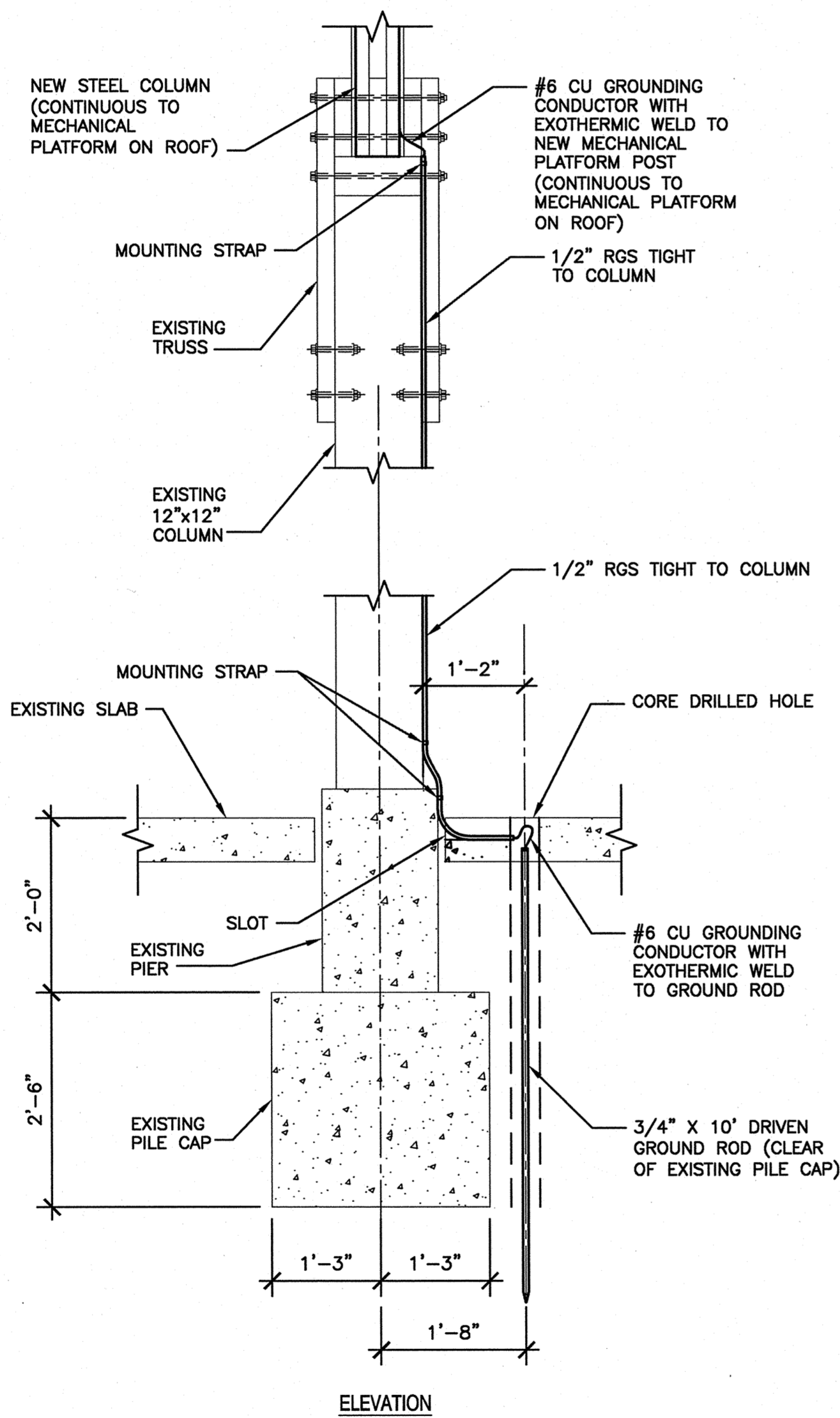


DATE		APPR
DESCRIPTION		
SYN		
NRW		
CONSULTING STRUCTURAL ENGINEERS		
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ACTIVITY - SATISFACTORY TO		
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MLY	DESIGN	
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SPW	CHEF ARCH/ ENGR.	
PROJECT MANAGER		
FIRE PROTECTION		
BRANCH MANAGER		
DESIGN DIRECTOR		
NAVAL FACILITIES ENGINEERING COMMAND		
MARINE CORPS AIR STATION, CHERRY POINT, N.C.		
REPLACE AIR HANDLING UNITS, BLDG. 133		
PHASE 3		
PANEL SCHEDULE		
CODE NO. 80091	SIZE D	
SCALE: AS NOTED		
FED. NO. 5906707		
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SPEC. NO.		
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.		
12665284		
SHEET 44 OF 57		
E-101		
1:1 (Paper Space)		

HVAC EQUIPMENT, DISCONNECT, FEEDER, AND BUSPLUG SCHEDULE

EQUIPMENT TAG	EQUIPMENT			DISCONNECT SCHEDULE			FEEDER	BUSPLUG			
	VOLTAGE	HP	ELECTRIC HEAT	SWITCH SIZE	FUSE RATING	ENCLOSURE	WIRE SIZE	CONNECTION	LOCATION	CB FRAME	CB TRIP
AHU-8	480V/3Ø	15	N/A	60A	NF	NEMA 4X SS	3 #6, 1 #8G, 1" C.	CONNECT TO NEW PANEL/BREAKER	HHB-1:3:5	NA	NA
AHU-9	480V/3Ø	3	N/A	30A	NF	NEMA 4X SS	3 #10, 1 #10G, 3/4" C.	CONNECT TO NEW PANEL/BREAKER	HHB-2:4:6	NA	NA
AHU-10	480V/3Ø	3	N/A	30A	NF	NEMA 4X SS	3 #10, 1 #10G, 3/4" C.	CONNECT TO NEW PANEL/BREAKER	HHB-7:9:11	NA	NA
AHU-11	208V/3Ø	3	N/A	30A	NF	NEMA 4X SS	3 #10, 1 #10G, 3/4" C.	CONNECT TO NEW BUSPLUG.	BUS E	100A	SEE NOTE 1
AHU-12	208V/3Ø	5	N/A	30A	NF	NEMA 4X SS	3 #10, 1 #10G, 3/4" C.	CONNECT TO NEW BUSPLUG.	BUS E	100A	SEE NOTE 1
AHU-13	480V/3Ø	15	N/A	60A	NF	NEMA 4X SS	3 #6, 1 #8G, 1" C.	CONNECT TO NEW PANEL/BREAKER	HHB-8:10:12	NA	NA

NOTE:
1. PROVIDE CIRCUIT BREAKER SIZED PER MAXIMUM ALLOWED IN ACCORDANCE WITH NEC 430.52 FOR ACTUAL EQUIPMENT TO BE INSTALLED.

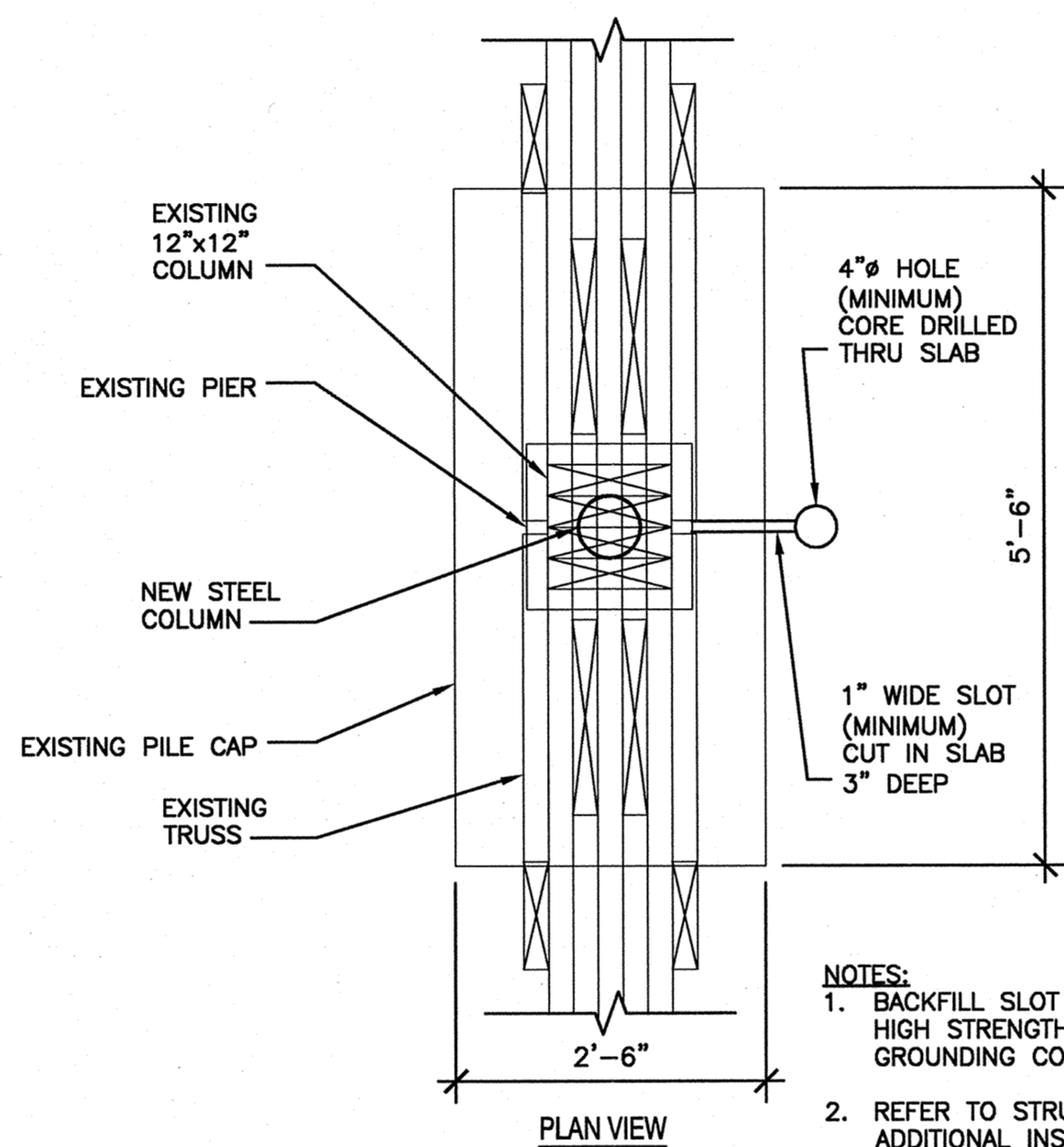


TYPICAL POST UP COLUMN GROUNDING DETAIL

SCALE: NONE

E-102

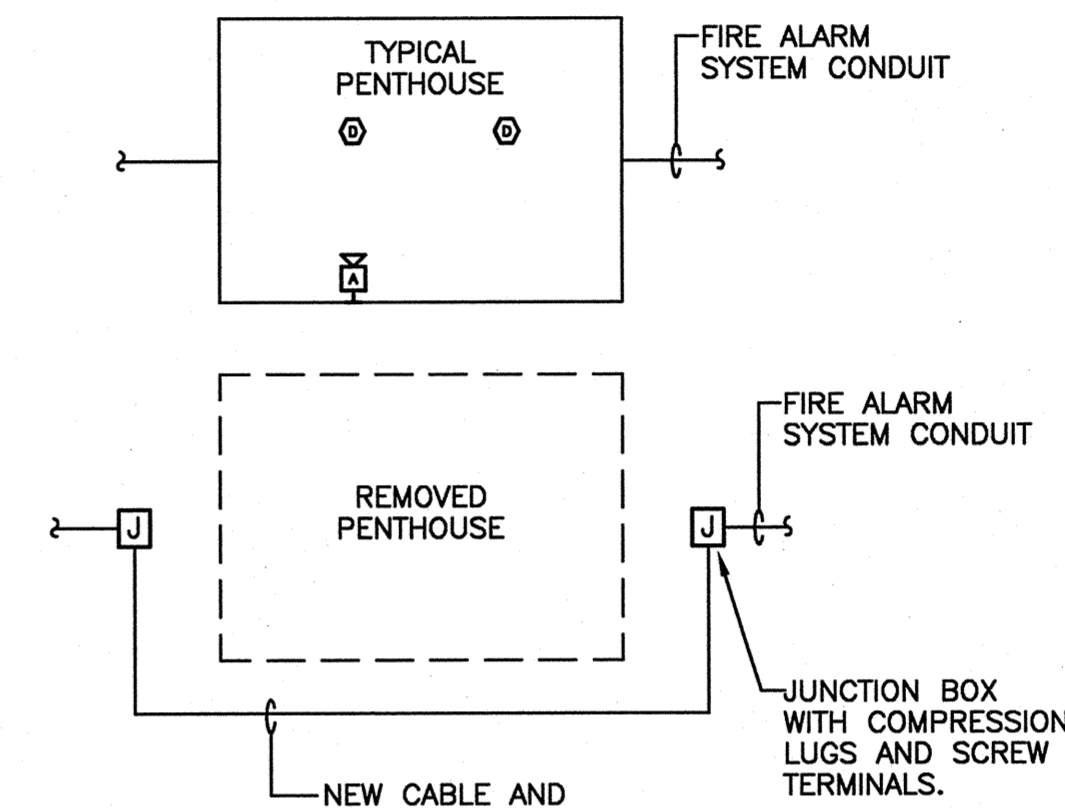
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NOTES:
1. BACKFILL SLOT AND HOLE IN SLAB WITH HIGH STRENGTH NON-SHRINK GROUT AFTER GROUNDING CONNECTIONS ARE MADE.
2. REFER TO STRUCTURAL SHEETS FOR ADDITIONAL INSTALLATION INFORMATION FOR NEW COLUMNS.

E-102

3

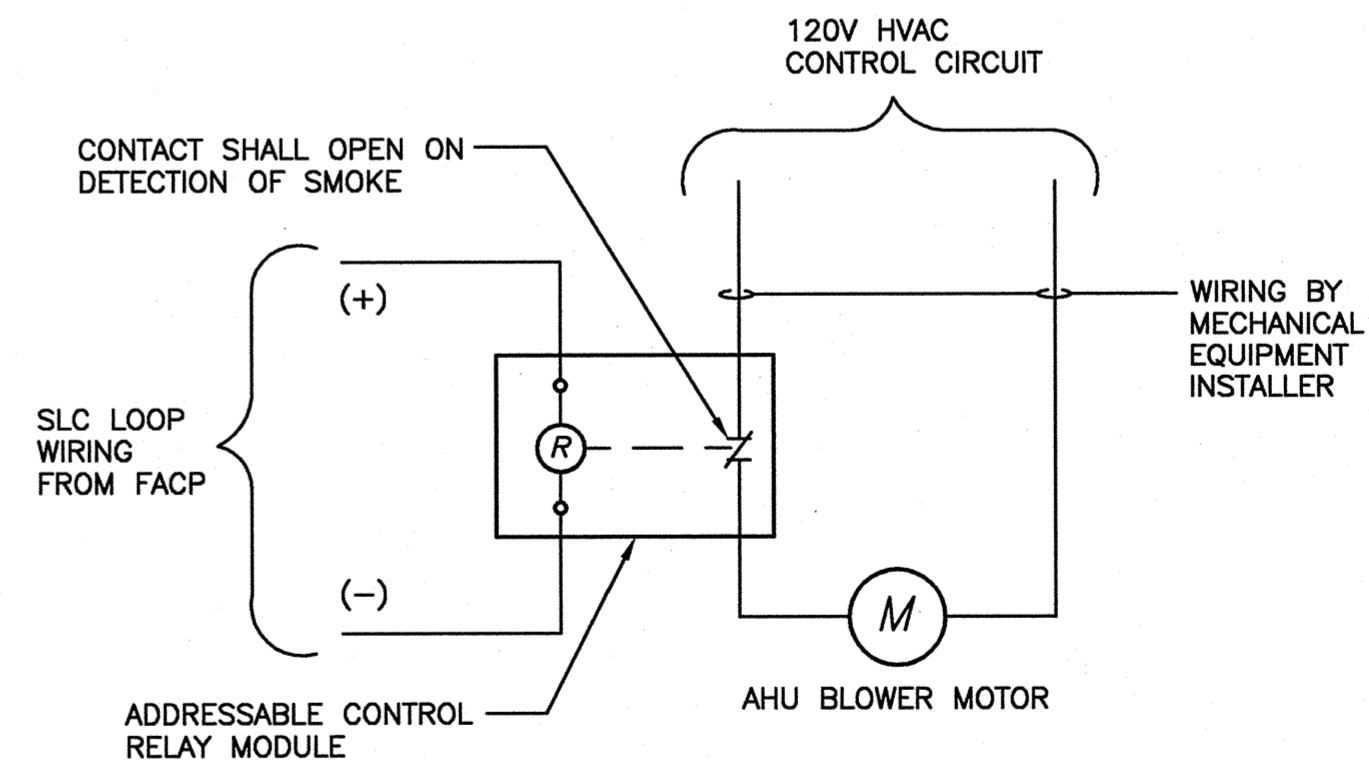


TYPICAL FIRE ALARM JUMPER DETAIL

SCALE: NONE

E-102

1



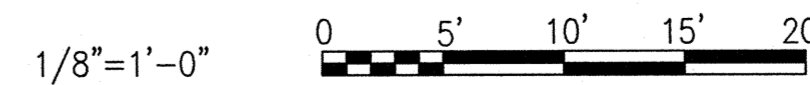
TYPICAL AHU FAN SHUT DOWN DETAIL

SCALE: NONE

E-102

2

GRAPHIC SCALES



NO.	DATE	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8812
FAX: (757) 474-0919

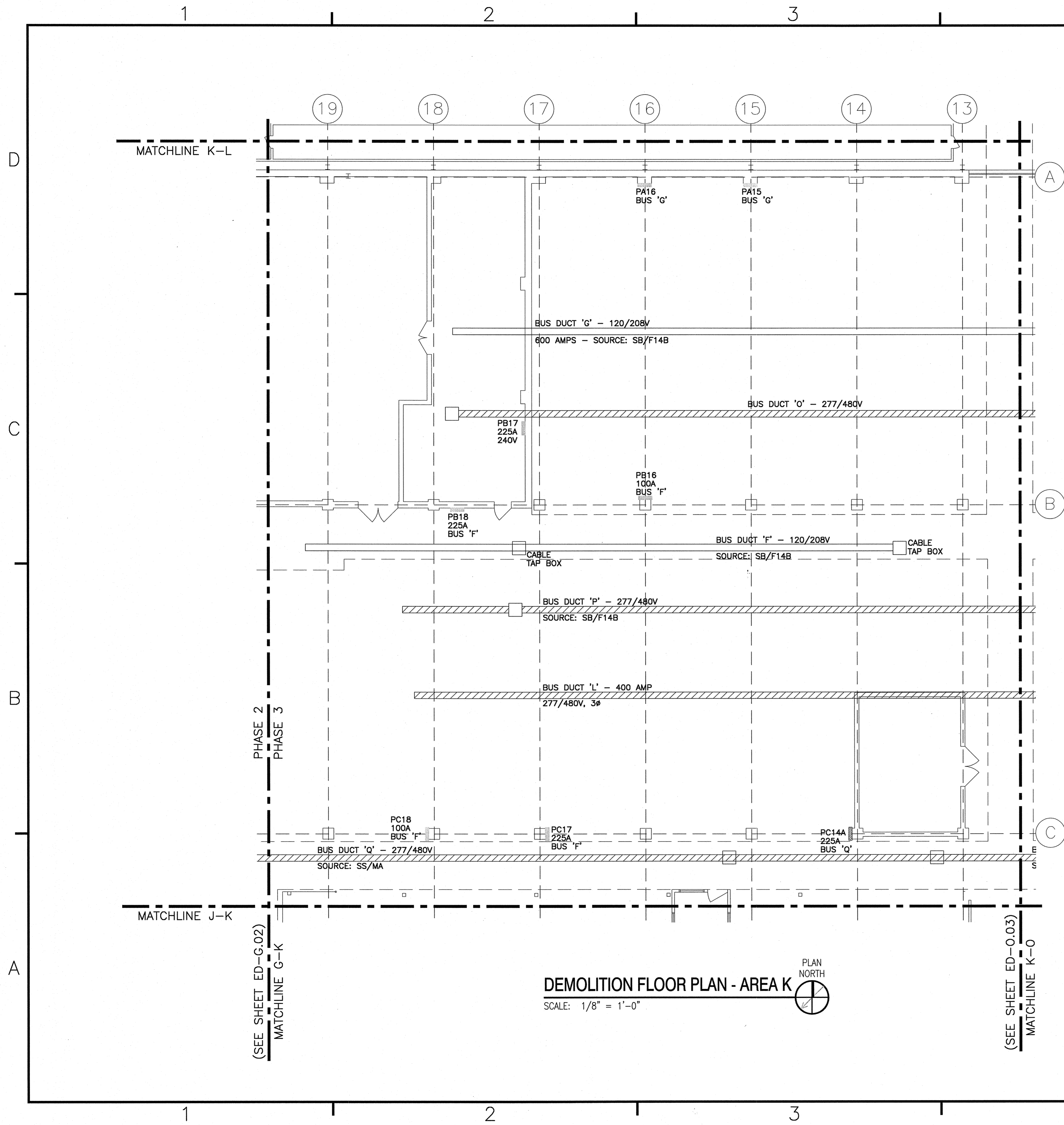
Dewberry
Dewberry Engineers Inc.
505 HENNINGSON DRIVE
SUITE 200
FARMERS BURTON ROAD
CROSS CREEK #1000
17111

SEAL
038009
MICHAEL L. YOUNG
ENGINEER

APPROVED
ACTIVITY - SATISFACTORY TO
DATE APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE
A/E EFD
M/LY DESIGN
M/LY DRAWN
SPW REVIEW
SPW CC
SPW CHIEF ARCH/ ENGR.
PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

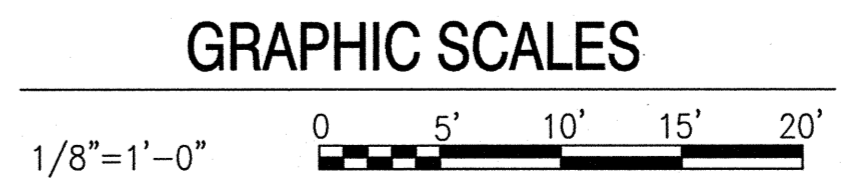
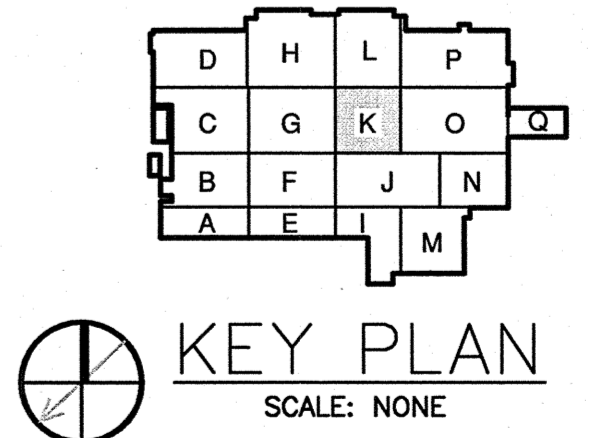
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
SCHEDULES AND DETAILS

DEPARTMENT OF THE NAVY
CODE ID. NO. 80091 SIZE D
SCALE AS NOTED
FED. NO. 5006707
STA. PROJ. NO. R46-93C
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12665285
SHEET 45 OF 57
E-102
DRAWING REVISION JULY 2003
Plot Scale
1:1 (Paper Space)
Drawing Filename

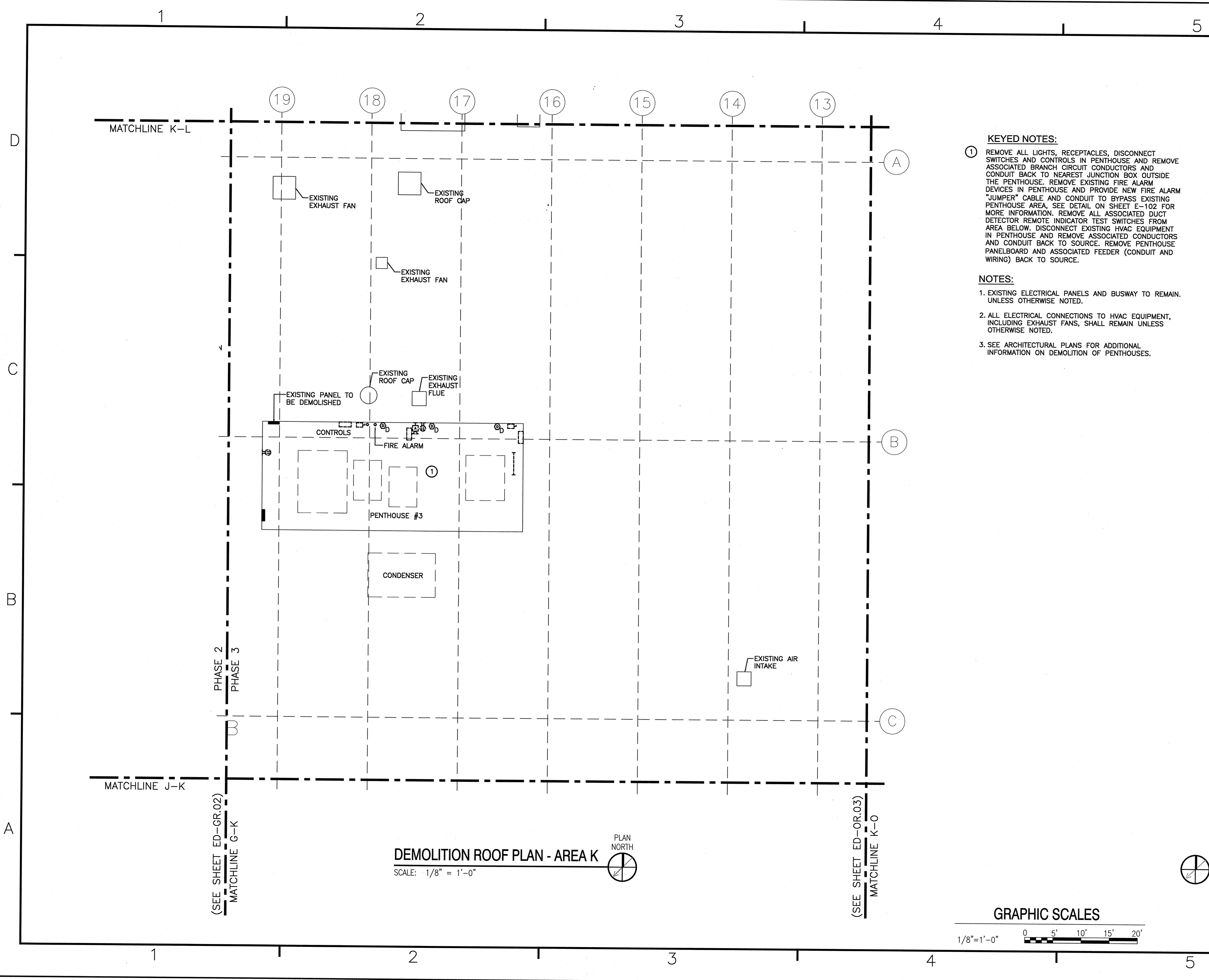


- NOTES:**
- EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
 - ALL ELECTRICAL CONNECTIONS TO HVAC EQUIPMENT, INCLUDING EXHAUST FANS, SHALL REMAIN UNLESS OTHERWISE NOTED.

DEMOLITION FLOOR PLAN - AREA K
 SCALE: 1/8" = 1'-0"



DESCRIPTION	DATE	APP'D
NRW		
CONSULTING STRUCTURAL ENGINEERS		
746 LORD DUNMORE DRIVE, SUITE 101		
VIRGINIA BEACH, VIRGINIA, 23464		
PHONE: (757) 474-8612		
FAX: (757) 474-0918		
Dewberry		
Dewberry Engineers Inc.		
500 WOODCOCK DRIVE		
RALEIGH, NC 27601		
PHONE: 919-881-8800		
FAX: 919-881-8802		
WWW.DEBERRY.COM		
APPROVED		
ACTIVITY - SATISFACTORY TO		
DATE		
APPROVED		
FOR EPD FOR COMMANDER NAVFAC		
DATE		
A/E	DESIGN	EPD
MLY	DESIGN	
MLY	DRAWN	
SPW	REVIEW	
SPW	CC	
SPW	CHEF ARCH/ ENGR.	
PROJECT MANAGER		
FIRE PROTECTION		
BRANCH MANAGER		
DESIGN DIRECTOR		
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 ELECTRICAL DEMOLITION FLOOR PLAN AREA K		
CODE ID. NO.	80091	SIZE
SCALE	AS NOTED	
FED. NO.	5906707	
STA. PROJ. NO.	R46-93C	
SPEC. NO.		
CONSTR. CONTR. NO.		
NAVFAC DRAWING NO.	12665286	
SHEET	46 OF 57	
ED-K.03		
DRAWING REVISION JULY 2003		
1:1 (Paper Space)		
Drawing Filename		



KEYED NOTES:

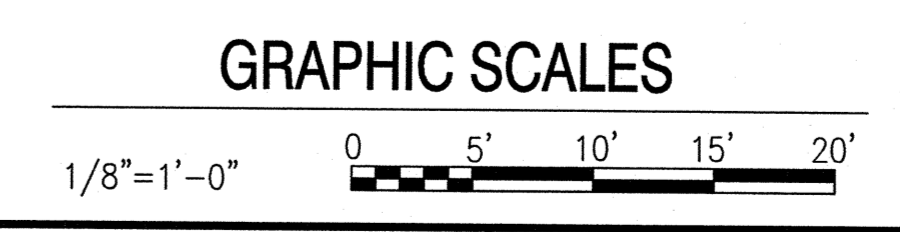
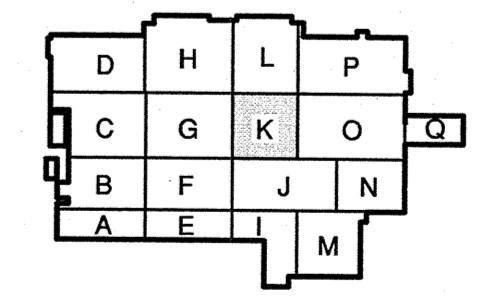
① REMOVE ALL LIGHTS, RECEPTACLES, DISCONNECT SWITCHES AND CONTROLS IN PENTHOUSE AND REMOVE ASSOCIATED BRANCH CIRCUIT CONDUCTORS AND CONDUIT BACK TO NEAREST JUNCTION BOX OUTSIDE THE PENTHOUSE. REMOVE EXISTING FIRE ALARM DEVICES IN PENTHOUSE AND PROVIDE NEW FIRE ALARM "JUMPER" CABLE AND CONDUIT TO BYPASS EXISTING PENTHOUSE AREA. SEE DETAIL ON SHEET E-102 FOR MORE INFORMATION. REMOVE ALL ASSOCIATED DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES FROM AREA BELOW. DISCONNECT EXISTING HVAC EQUIPMENT IN PENTHOUSE AND REMOVE ASSOCIATED CONDUCTORS AND CONDUIT BACK TO SOURCE. REMOVE PENTHOUSE PANELBOARD AND ASSOCIATED FEEDER (CONDUIT AND WIRING) BACK TO SOURCE.

NOTES:

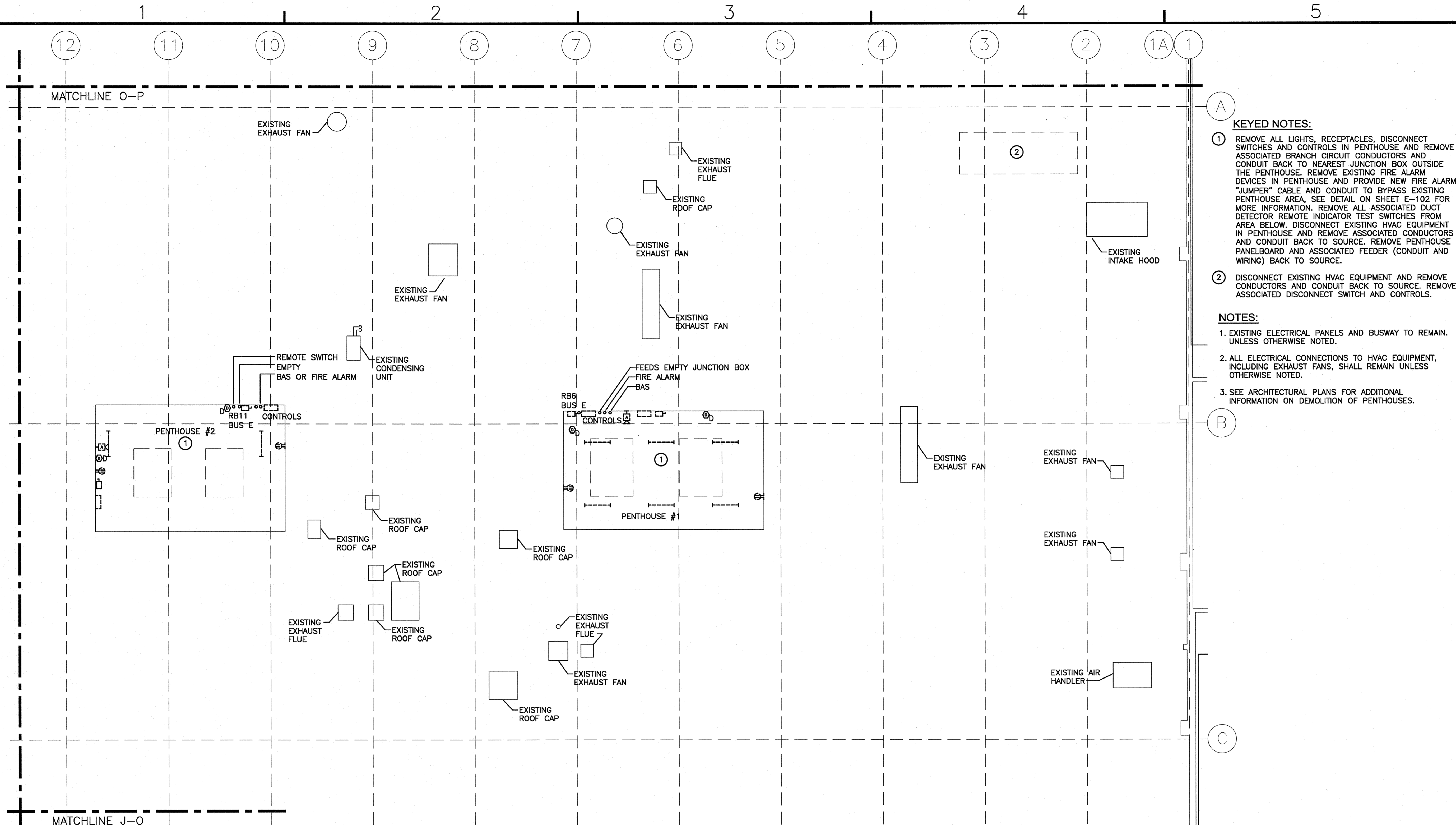
1. EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN, UNLESS OTHERWISE NOTED.

2. ALL ELECTRICAL CONNECTIONS TO HVAC EQUIPMENT, INCLUDING EXHAUST FANS, SHALL REMAIN UNLESS OTHERWISE NOTED.

3. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEMOLITION OF PENTHOUSES.



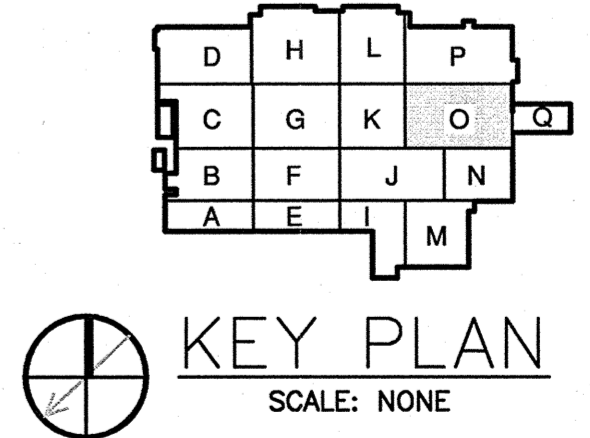
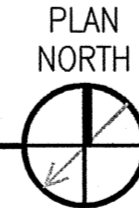
DATE	APPROVED
DESCRIPTION	DATE
SYN	DATE
NRW	
CONSULTING STRUCTURAL ENGINEERS	
746 LORD DANAHOE DRIVE, SUITE 101	
VIRGINIA BEACH, VIRGINIA 23464	
PHONE: (757) 474-0812	
FAX: (757) 474-0819	
Dewberry	
Dewberry Engineers Inc.	
2001 W. BROADWAY DRIVE	
SUITE 200	
RICHMOND, VIRGINIA 23220	
PHONE: (804) 353-8888	
FAX: (804) 353-8889	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EPD FOR COMMANDER NAVFAC	
DATE	
A/E	ETD
MLY	DESIGN
MLY	DRAWN
SPW	REVIEW
SPW	CC
SPW	CHEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C.	
REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3	
ELECTRICAL DEMOLITION ROOF PLAN AREA K	
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
12665287	
SHEET 47 OF 57	
ED-KR.03	
DRAWING REVISION JULY 2003	
1:1 (Paper Space)	
Drawing Filename:	



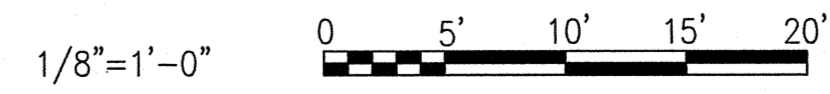
(SEE SHEET ED-KR.03)
MATCHLINE K-O

DEMOLITION ROOF PLAN - AREA O

SCALE: 1/8" = 1'-0"



GRAPHIC SCALES



- KEYED NOTES:**
- ① REMOVE ALL LIGHTS, RECEPTACLES, DISCONNECT SWITCHES AND CONTROLS IN PENTHOUSE AND REMOVE ASSOCIATED BRANCH CIRCUIT CONDUCTORS AND CONDUIT BACK TO NEAREST JUNCTION BOX OUTSIDE THE PENTHOUSE. REMOVE EXISTING FIRE ALARM DEVICES IN PENTHOUSE AND PROVIDE NEW FIRE ALARM "JUMPER" CABLE AND CONDUIT TO BYPASS EXISTING PENTHOUSE AREA, SEE DETAIL ON SHEET E-102 FOR MORE INFORMATION. REMOVE ALL ASSOCIATED DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES FROM AREA BELOW. DISCONNECT EXISTING HVAC EQUIPMENT IN PENTHOUSE AND REMOVE ASSOCIATED CONDUCTORS AND CONDUIT BACK TO SOURCE. REMOVE PENTHOUSE PANELBOARD AND ASSOCIATED FEEDER (CONDUIT AND WIRING) BACK TO SOURCE.
 - ② DISCONNECT EXISTING HVAC EQUIPMENT AND REMOVE CONDUCTORS AND CONDUIT BACK TO SOURCE. REMOVE ASSOCIATED DISCONNECT SWITCH AND CONTROLS.
- NOTES:**
- 1. EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN, UNLESS OTHERWISE NOTED.
 - 2. ALL ELECTRICAL CONNECTIONS TO HVAC EQUIPMENT, INCLUDING EXHAUST FANS, SHALL REMAIN UNLESS OTHERWISE NOTED.
 - 3. SEE ARCHITECTURAL PLANS FOR ADDITIONAL INFORMATION ON DEMOLITION OF PENTHOUSES.

NO.	DATE	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LIND DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-6400
FAX: (757) 474-0819

Dewberry
Dewberry Engineers Inc.
2501 HUNTERSWOOD DRIVE
SUITE 200
FALLS CHURCH, VA 22044
PHONE: (703) 441-8000
FAX: (703) 441-8001

MICHAEL L. YOUNG
REGISTERED PROFESSIONAL ENGINEER
No. 038009
STATE OF VIRGINIA

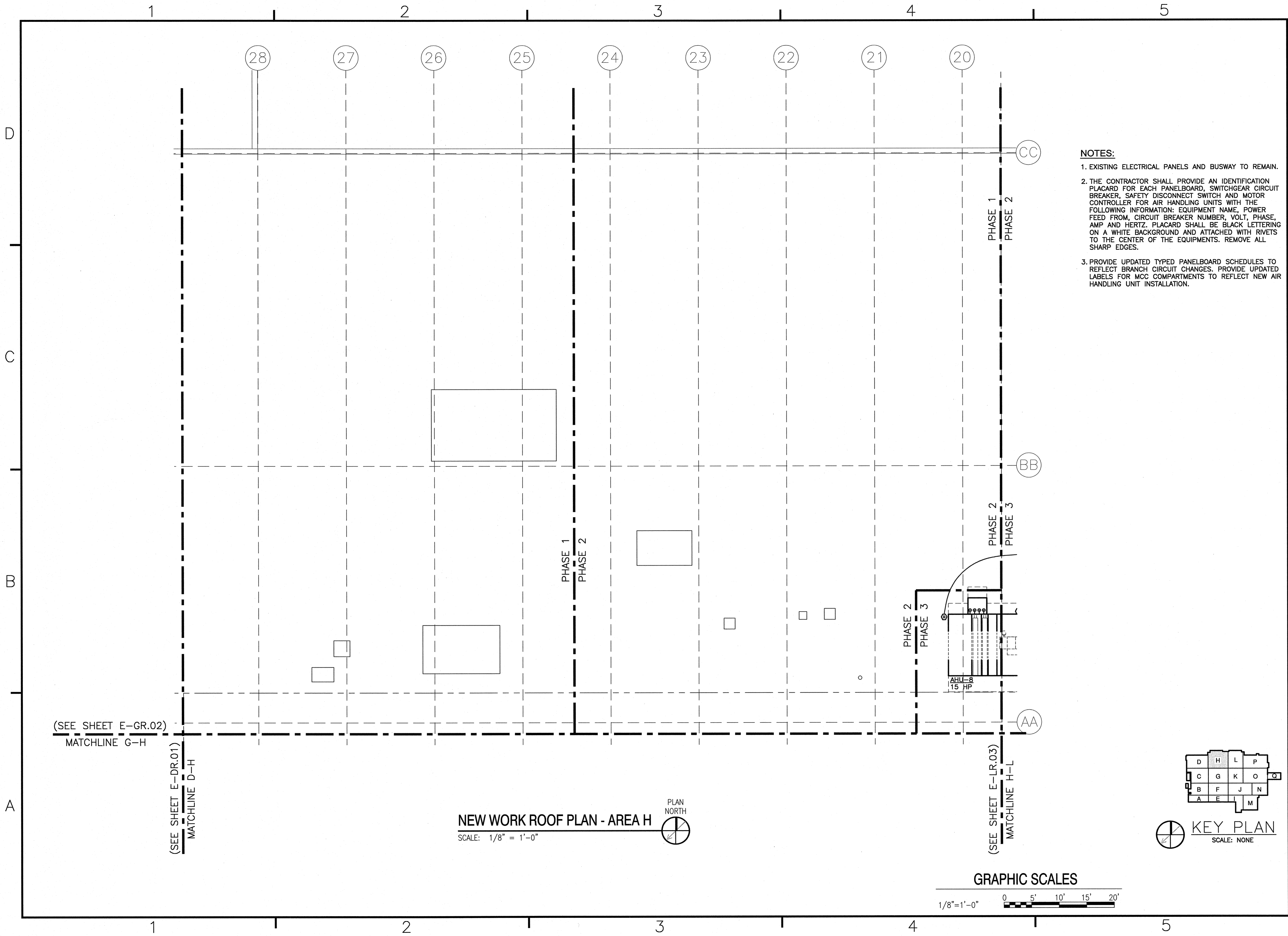
APPROVED: _____
ACTIVITY - SATISFACTORY TO _____
DATE: _____
APPROVED: _____
FOR EFD FOR COMMANDER NAVFAC
DATE: _____
A/E: MLY DESIGN
MLY DRAWN
SPW REVIEW
SPW CC
SPW CHIEF ARCH/ ENGR.

PROJECT MANAGER: _____
FIRE PROTECTION: _____
BRANCH MANAGER: _____
DESIGN DIRECTOR: _____

NAVVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3**
ELECTRICAL DEMOLITION ROOF PLAN AREA O

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
P.D. NO. 5906707
STA. PROJ. NO. R46-93C
SPEC. NO. _____
CONSTR. CONTR. NO. _____
NAVFAC DRAWING NO. 12665289
SHEET 49 OF 57

ED-OR.03
DRAWN BY: J. BROWN JULY 2003
Plot Scale:
1:1 (Paper Space)
Drawing Filename:



NOTES:

- EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
- THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
- PROVIDE UPDATED TYPED PANELBOARD SCHEDULES TO REFLECT BRANCH CIRCUIT CHANGES. PROVIDE UPDATED LABELS FOR MCC COMPARTMENTS TO REFLECT NEW AIR HANDLING UNIT INSTALLATION.

NO.	DESCRIPTION	DATE	BY

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DANNORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8910
FAX: (757) 474-8919

Dewberry
Dewberry Engineers Inc.
5815 BOWDOCK DRIVE
SUITE 200
BALTIMORE, MD 21287
PHONE: (410) 528-8800
FAX: (410) 528-8801
E-MAIL: dewberry.com

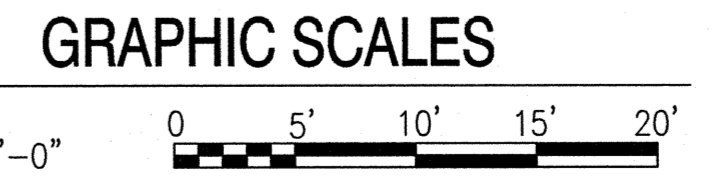
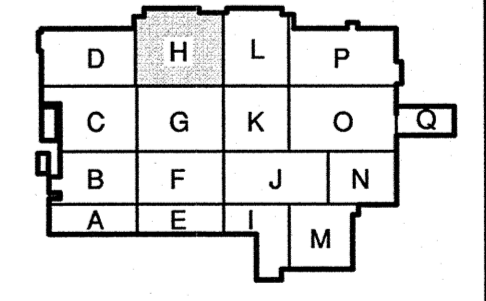
APPROVED
ACTIVITY - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
DATE
A/E DESIGN EFD
MLY DESIGN
MLY DRAWN
SPW REVIEW
SPW CC
SPW CHIEF ARCH/ ENGR.

PROJECT MANAGER
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3**
ELECTRICAL NEW WORK ROOF PLAN AREA H

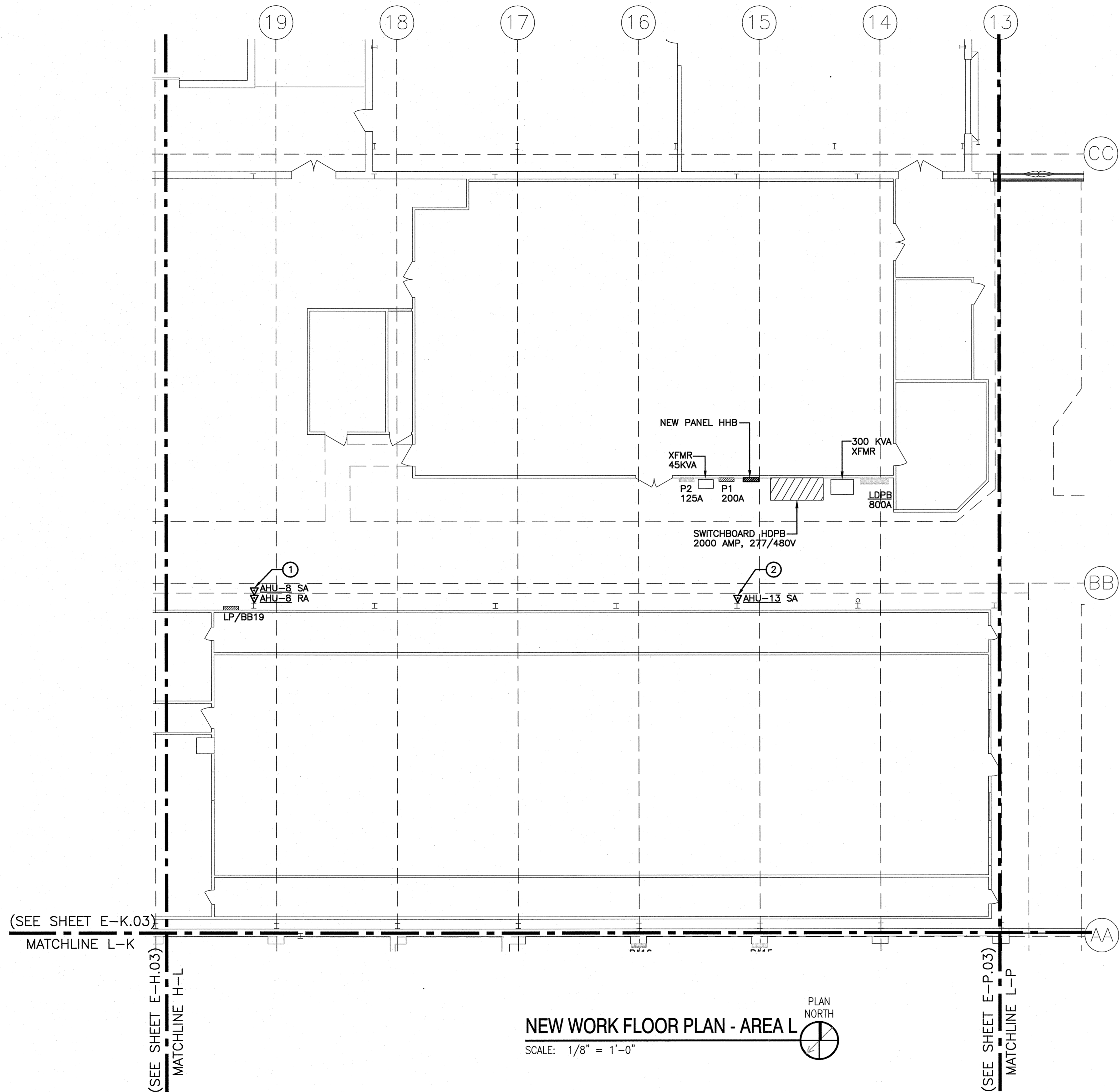
CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
EFD NO. 5906707
STL. PROJ. NO. R46-93C
SPEC. NO.
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12665290
SHEET 50 OF 57

E-HR.03
DRAWN BY: B. KELLEY
DATE: 04/20/03
Plot Scale: 1:1 (Paper Space)
Drawing Filename:



1 2 3 4 5

D
C
B
A



KEYED NOTES:

- ① AT THIS LOCATION, MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES ON WALL 12" BELOW EXISTING FIRE ALARM HORN/STROBE ON COLUMN. SEE ROOF PLAN ABOVE FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT ON COLUMN.
- ② AT THIS LOCATION, MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES ON WALL AT 84" AFF. SEE ROOF PLAN ABOVE FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT ON COLUMN.

NOTES:

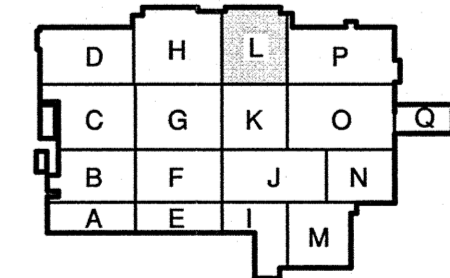
- 1. EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
- 2. THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
- 3. PROVIDE UPDATED TYPED PANELBOARD SCHEDULES TO REFLECT BRANCH CIRCUIT CHANGES. PROVIDE UPDATED LABELS FOR MCC COMPARTMENTS TO REFLECT NEW AIR HANDLING UNIT INSTALLATION.
- 4. BRANCH CIRCUITS AND/OR MOTOR FEEDERS SERVING NEW WORK EITHER ORIGINATE OR ARE ROUTED THROUGH AREA SHOWN ON PLAN.

(SEE SHEET E-K.03)
MATCHLINE L-K

(SEE SHEET E-H.03)
MATCHLINE H-L

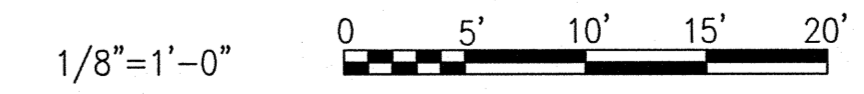
(SEE SHEET E-P.03)
MATCHLINE L-P

NEW WORK FLOOR PLAN - AREA L
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE

GRAPHIC SCALES



NO.	DATE	BY	CHKD.	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DANNORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8912
FAX: (757) 474-8919

Dewberry
Dewberry Engineers Inc.
2811 BOWEN DRIVE
FALLS CHURCH, VA 22033
PHONE: (703) 881-8800
FAX: (703) 881-8809

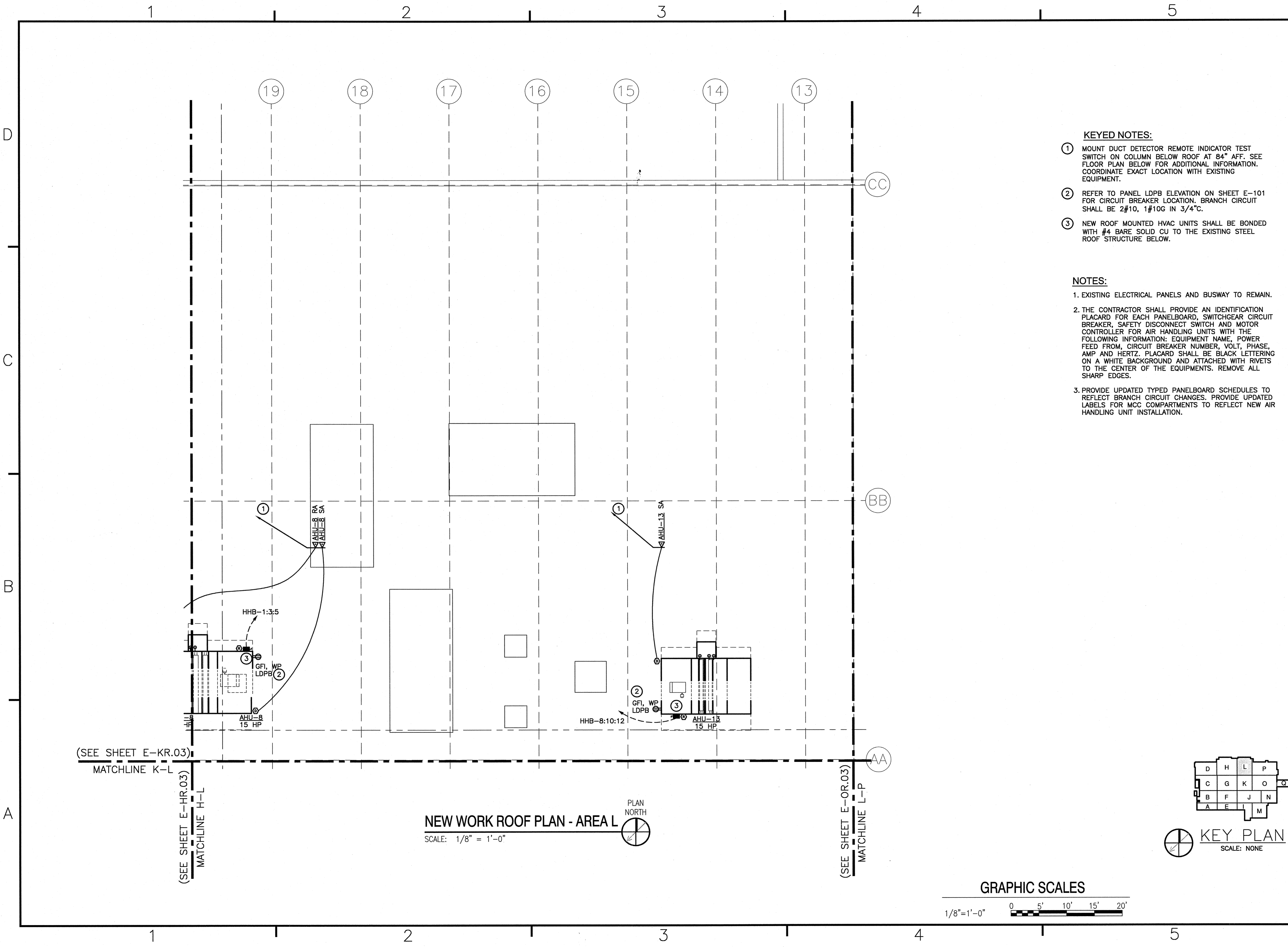
(Signature)
MICHAEL L. YOUNG
ENGINEER
SEAL

APPROVED _____
ACTIVITY - SATISFACTORY TO _____
DATE _____
APPROVED _____
FOR EFD FOR COMMANDER NAVFAC _____
DATE _____
A/E _____ EFD _____
M/LY DESIGN _____
M/LY DRAWN _____
SPW REVIEW _____
SPW QC _____
SPW CHIEF ARCH/ ENGR. _____
PROJECT MANAGER _____
FIRE PROTECTION _____
BRANCH MANAGER _____
DESIGN DIRECTOR _____

NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3**
ELECTRICAL NEW WORK FLOOR PLAN AREA L

CODE ID. NO. 80091	SIZE D
SCALE AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665292	
SHEET 52 OF 57	

E-L.03
DRAWN/REVISED: JULY 2001
1:1 (Paper Space)
Drawing Filename:



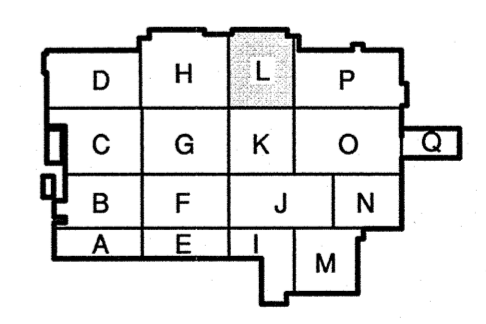
- KEYED NOTES:**
- ① MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCH ON COLUMN BELOW ROOF AT 84" AFF. SEE FLOOR PLAN BELOW FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT.
 - ② REFER TO PANEL LDPB ELEVATION ON SHEET E-101 FOR CIRCUIT BREAKER LOCATION. BRANCH CIRCUIT SHALL BE 2#10, 1#10G IN 3/4"C.
 - ③ NEW ROOF MOUNTED HVAC UNITS SHALL BE BONDED WITH #4 BARE SOLID CU TO THE EXISTING STEEL ROOF STRUCTURE BELOW.

- NOTES:**
1. EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
 2. THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
 3. PROVIDE UPDATED TYPED PANELBOARD SCHEDULES TO REFLECT BRANCH CIRCUIT CHANGES, PROVIDE UPDATED LABELS FOR MCC COMPARTMENTS TO REFLECT NEW AIR HANDLING UNIT INSTALLATION.

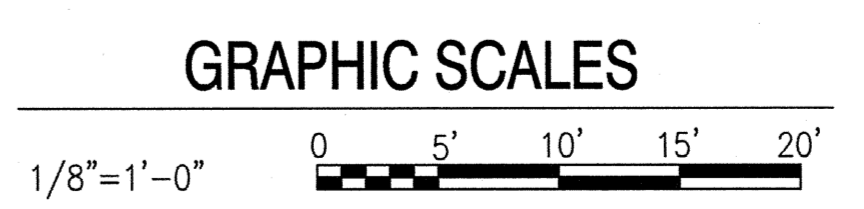
(SEE SHEET E-KR.03)
MATCHLINE K-L

(SEE SHEET E-HR.03)
MATCHLINE H-L

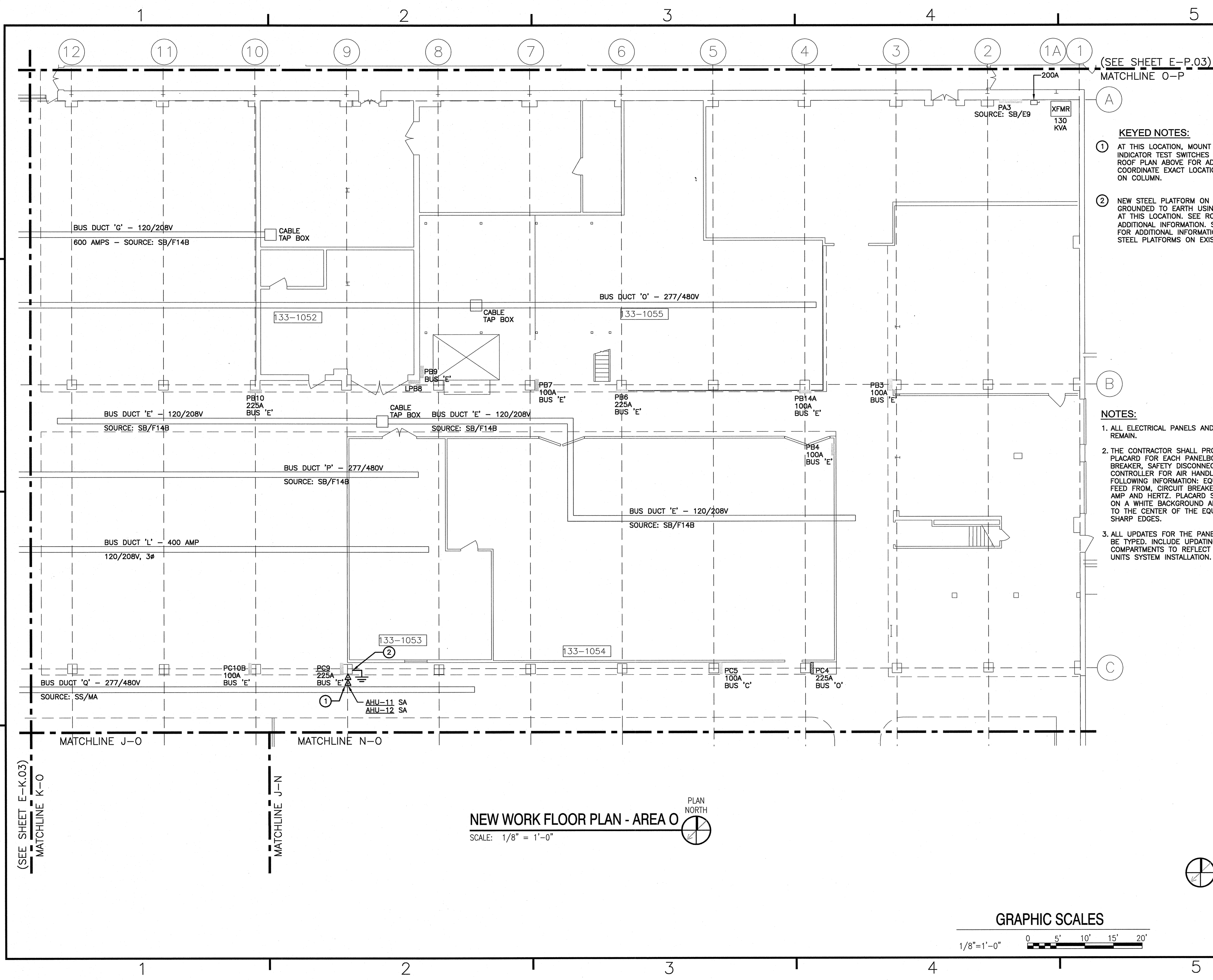
NEW WORK ROOF PLAN - AREA L
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE



	DESCRIPTION
	DATE
	BY
NRW	
CONSULTING STRUCTURAL ENGINEERS	
748 LORD DUNMORE DRIVE, SUITE 101 VIRGINIA BEACH, VIRGINIA 23464 PHONE: (757) 474-0912 FAX: (757) 474-0919	
Dewberry	
Dewberry Engineers Inc. 401 FARMWOOD DRIVE SOUTH FARM RALEIGH, NC 27607 PHONE: 919-880-8800 FAX: 919-880-8801	
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE APPROVED	
FOR EPD FOR COMMANDER NAVFAC	
DATE	
A/E	
M/Y DESIGN	
M/Y DRAWN	
SPW REVIEW	
SPW CC	
SPW CHIEF ARCH / ENGR.	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	
NAVAL FACILITIES ENGINEERING COMMAND MARINE CORPS AIR STATION, CHERRY POINT, N.C. REPLACE AIR HANDLING UNITS, BLDG. 133 PHASE 3 ELECTRICAL NEW WORK ROOF PLAN AREA L	
CODE ID. NO. 80091 SIZE D	
SCALE AS NOTED	
FED. PROJ. NO. 5906707	
STA. PROJ. NO. R45-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665293	
SHEET 53 OF 57	
E-LR.03	
DRAWING REVISION JULY 2003 1:1 (Paper Space) Drawing Filename:	



(SEE SHEET E-P.03)
MATCHLINE O-P

KEYED NOTES:

- ① AT THIS LOCATION, MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES ON WALL AT 84" AFF. SEE ROOF PLAN ABOVE FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT ON COLUMN.
- ② NEW STEEL PLATFORM ON ROOF ABOVE SHALL BE GROUNDED TO EARTH USING A DRIVEN GROUND ROD AT THIS LOCATION. SEE ROOF PLAN ABOVE FOR ADDITIONAL INFORMATION. SEE DETAIL 3/ SHEET E-102 FOR ADDITIONAL INFORMATION ON GROUNDING NEW STEEL PLATFORMS ON EXISTING WOODEN COLUMNS.

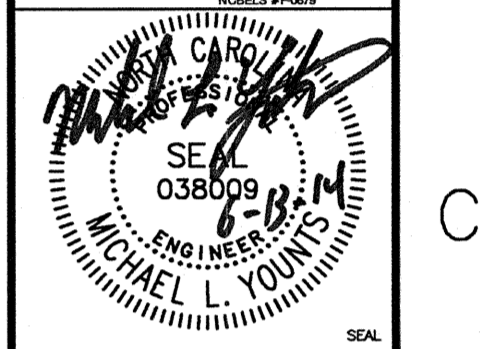
NOTES:

- 1. ALL ELECTRICAL PANELS AND BUSWAY ARE EXISTING TO REMAIN.
- 2. THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
- 3. ALL UPDATES FOR THE PANELBOARD SCHEDULE SHALL BE TYPED. INCLUDE UPDATING AND LABELING ALL MCC COMPARTMENTS TO REFLECT WITH NEW AIR HANDLING UNITS SYSTEM INSTALLATION.

NO.	DATE	DESCRIPTION

NRW
CONSULTING STRUCTURAL ENGINEERS
7410 LINDA DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8812
FAX: (757) 474-8819

Dewberry
Dewberry Engineers Inc.
2011 HOLLOWOOD DRIVE
FALLS CHURCH, VA 22024
PHONE: (703) 474-8812
FAX: (703) 474-8819



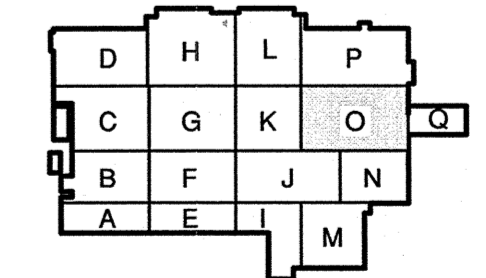
APPROVED	DATE
ACTIVITY - SATISFACTORY TO	DATE
FOR EFD FOR COMMANDER NAVFAC	DATE
A/E	EFD
MLY DESIGN	
MLY DRAWN	
SPW REVIEW	
SPW CC	
SPW CHIEF ARCH/ ENGR.	
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3**
ELECTRICAL NEW WORK FLOOR PLAN AREA O

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
PED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12685294	
SHEET 54 OF 57	

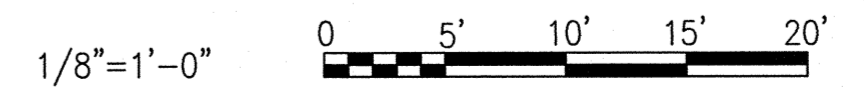
E-0.03
1:1 (Paper Space)
Drawing Filename:

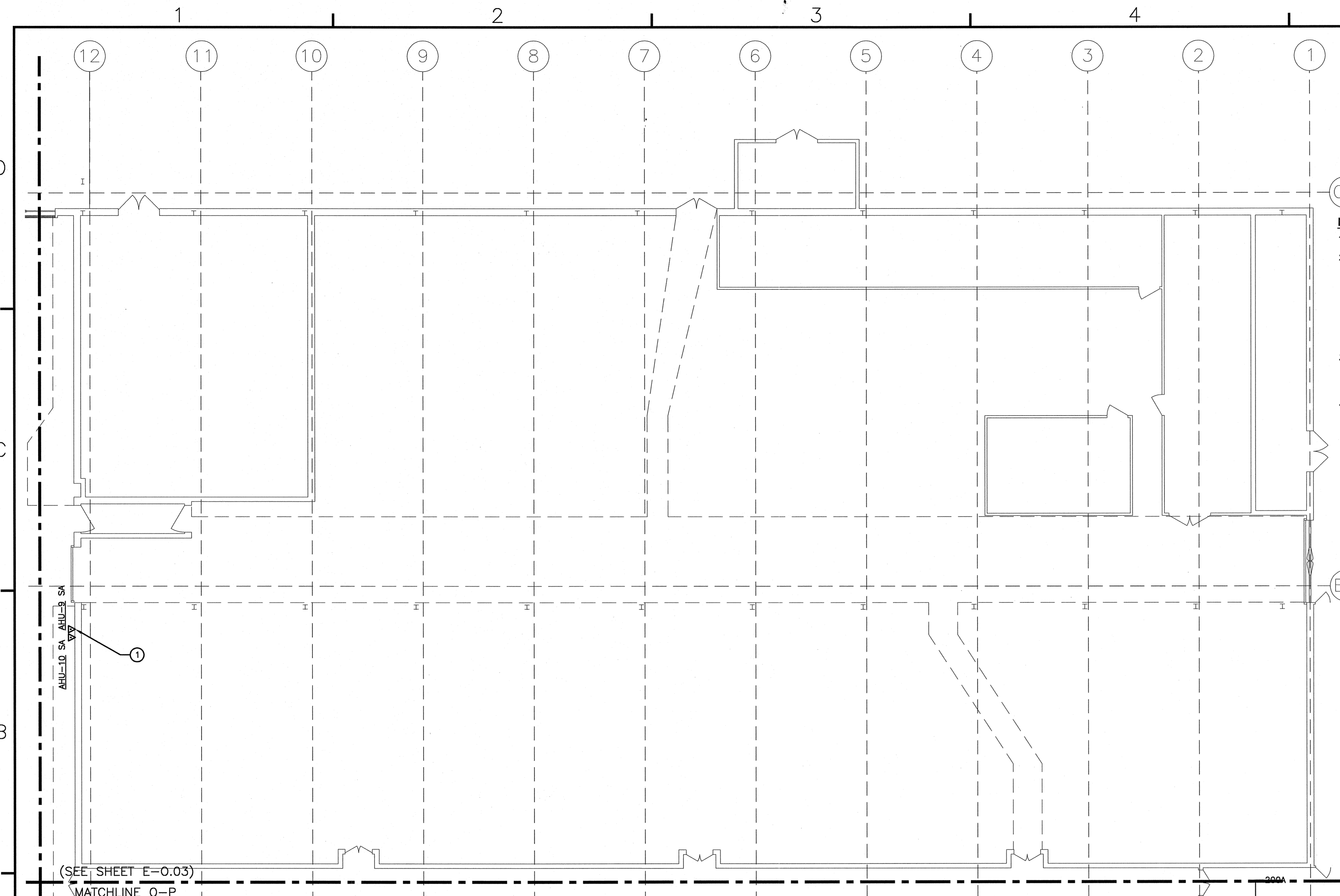
NEW WORK FLOOR PLAN - AREA O
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE

GRAPHIC SCALES





KEYED NOTES:

① AT THIS LOCATION, MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCHES ON WALL AT 84" AFF. SEE ROOF PLAN ABOVE FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT.

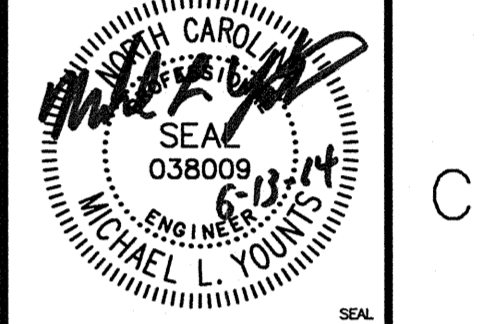
NOTES:

- EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
- THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
- PROVIDE UPDATED TYPED PANELBOARD SCHEDULES TO REFLECT BRANCH CIRCUIT CHANGES. PROVIDE UPDATED LABELS FOR MCC COMPARTMENTS TO REFLECT NEW AIR HANDLING UNIT INSTALLATION.
- BRANCH CIRCUITS AND/OR MOTOR FEEDERS SERVING NEW WORK EITHER ORIGINATE OR ARE ROUTED THROUGH AREA SHOWN ON PLAN.

NO.	DESCRIPTION	DATE	APP'D.

NRW
CONSULTING STRUCTURAL ENGINEERS
748 LORD DUNMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
PHONE: (757) 474-8812
FAX: (757) 474-0919

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Dewberry Engineers Inc.
3001 FREDERICKS DRIVE
RALEIGH, NC 27607
PHONE: (919) 876-1000
FAX: (919) 876-1002
www.dewberry.com



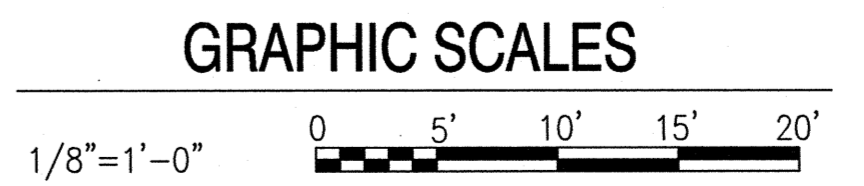
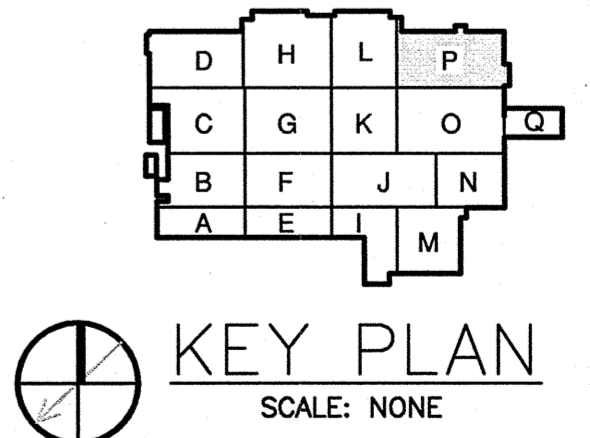
APPROVED	
ACTIVITY - SATISFACTORY TO	
DATE	
APPROVED	
FOR EFD FOR COMMANDER NAVFAC	
DATE	
A/E	EFD
MLY	DESIGN
MLY	DRAWN
SPW	REVIEW
SPW	CC
SPW	CHIEF ARCH/ ENGR.
PROJECT MANAGER	
FIRE PROTECTION	
BRANCH MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
**REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3**
ELECTRICAL NEW WORK FLOOR PLAN AREA P

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
FED. NO. 5906707	
STA. PROJ. NO. R46-93C	
SPEC. NO.	
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO. 12665296	
SHEET 56 OF 57	

E-P.03
DATE PLOTTED: JULY 2003
Plot Scale: 1:1 (Paper Space)
Drawing Filename:

NEW WORK FLOOR PLAN - AREA P
SCALE: 1/8" = 1'-0"



(SEE SHEET E-L.03)
MATCHLINE L-P

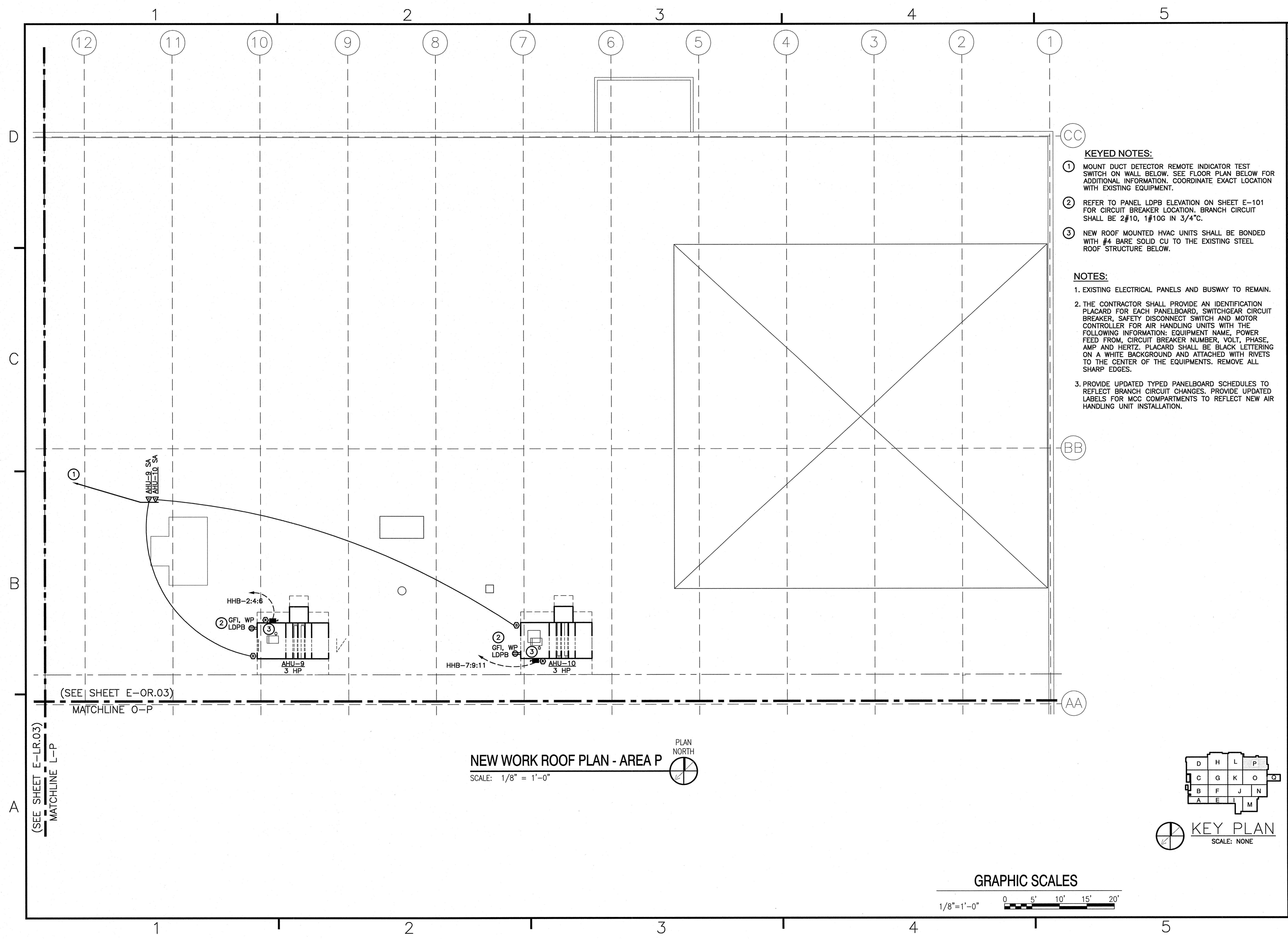
(SEE SHEET E-0.03)
MATCHLINE O-P

A
B
C
D

D
C
B
A

1 2 3 4 5

1 2 3 4 5



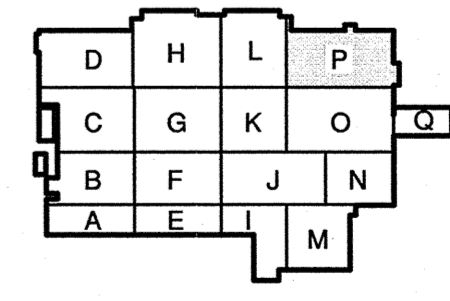
KEYED NOTES:

- ① MOUNT DUCT DETECTOR REMOTE INDICATOR TEST SWITCH ON WALL BELOW. SEE FLOOR PLAN BELOW FOR ADDITIONAL INFORMATION. COORDINATE EXACT LOCATION WITH EXISTING EQUIPMENT.
- ② REFER TO PANEL LDPB ELEVATION ON SHEET E-101 FOR CIRCUIT BREAKER LOCATION. BRANCH CIRCUIT SHALL BE 2#10, 1#10G IN 3/4"C.
- ③ NEW ROOF MOUNTED HVAC UNITS SHALL BE BONDED WITH #4 BARE SOLID CU TO THE EXISTING STEEL ROOF STRUCTURE BELOW.

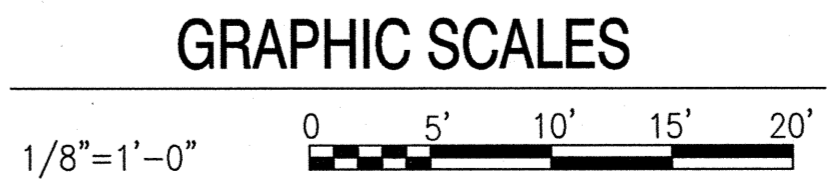
NOTES:

1. EXISTING ELECTRICAL PANELS AND BUSWAY TO REMAIN.
2. THE CONTRACTOR SHALL PROVIDE AN IDENTIFICATION PLACARD FOR EACH PANELBOARD, SWITCHGEAR CIRCUIT BREAKER, SAFETY DISCONNECT SWITCH AND MOTOR CONTROLLER FOR AIR HANDLING UNITS WITH THE FOLLOWING INFORMATION: EQUIPMENT NAME, POWER FEED FROM, CIRCUIT BREAKER NUMBER, VOLT, PHASE, AMP AND HERTZ. PLACARD SHALL BE BLACK LETTERING ON A WHITE BACKGROUND AND ATTACHED WITH RIVETS TO THE CENTER OF THE EQUIPMENTS. REMOVE ALL SHARP EDGES.
3. PROVIDE UPDATED TYPED PANELBOARD SCHEDULES TO REFLECT BRANCH CIRCUIT CHANGES. PROVIDE UPDATED LABELS FOR MCC COMPARTMENTS TO REFLECT NEW AIR HANDLING UNIT INSTALLATION.

NEW WORK ROOF PLAN - AREA P
SCALE: 1/8" = 1'-0"



KEY PLAN
SCALE: NONE



NO. 1	DESCRIPTION	DATE	BY

NRW
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748 LOND DANMORE DRIVE, SUITE 101
VIRGINIA BEACH, VIRGINIA, 23464
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501 REDWOOD DRIVE
FARMERSVILLE, NC 27834
PHONE: (800) 888-8899
FAX: (800) 888-8899

SEAL
038009
MICHAEL L. YOUNG
ENGINEER

APPROVED _____
ACTIVITY - SATISFACTORY TO _____
DATE _____
APPROVED _____
FOR EFD FOR COMMANDER NAVFAC _____
DATE _____
A/E _____ EFD _____
M.L.Y. DESIGN _____
M.L.Y. DRAWN _____
S.P.W. REVIEW _____
S.P.W. CC _____
S.P.W. CHIEF ARCH/ENGR. _____
PROJECT MANAGER _____ MHR _____
FIRE PROTECTION _____
BRANCH MANAGER _____
DESIGN DIRECTOR _____

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS AIR STATION, CHERRY POINT, N.C.
REPLACE AIR HANDLING UNITS, BLDG. 133
PHASE 3
ELECTRICAL NEW WORK ROOF PLAN AREA P

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
FED. NO. 5906707
STA. PROJ. NO. R46-93C
SPEC. NO. _____
CONSTR. CONTR. NO. _____
NAVFAC DRAWING NO. 12685297
SHEET 57 OF 57

E-PR.03
DRAWN: RYAN, JULY 2003
1:1 (Paper Space)
Drawing Filename: