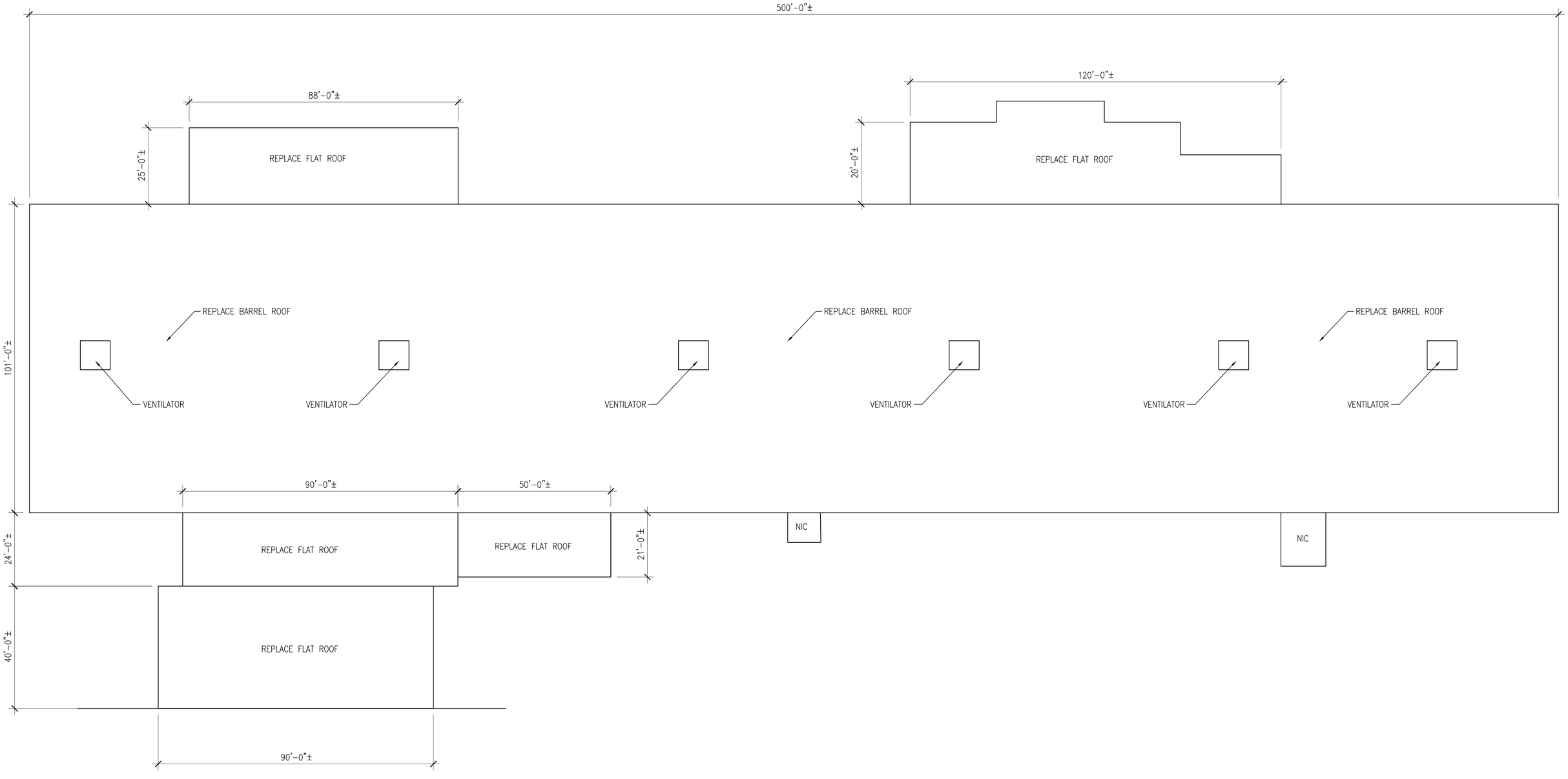


ROOF PLAN

SCALE: 1/16" = 1'-0"

PLAN NORTH

NAVFAC MID-ATLANTIC, LITTLE CREEK
JOINT EXPEDITIONARY BASE - LITTLE CREEK
BUILDING 3417 ROCKWELL HALL

NOTE:

1. REPLACE SINGLE PLY ROOFING SYSTEM ON GYM BARREL ROOF AND FLAT ROOFS AS SHOWN.

1/16" = 1'-0"

0 12' 24' 36'

RENOVATIONS TO GYMNASIUM – BUILDING 3147

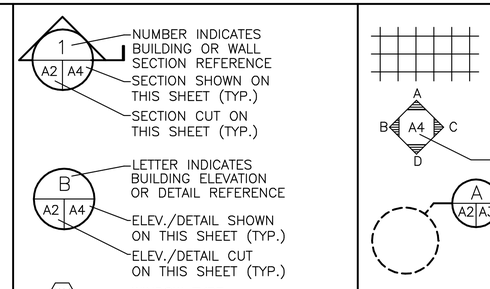
NAVAL AMPHIBIOUS BASE, LITTLE CREEK VIRGINIA BEACH, VIRGINIA

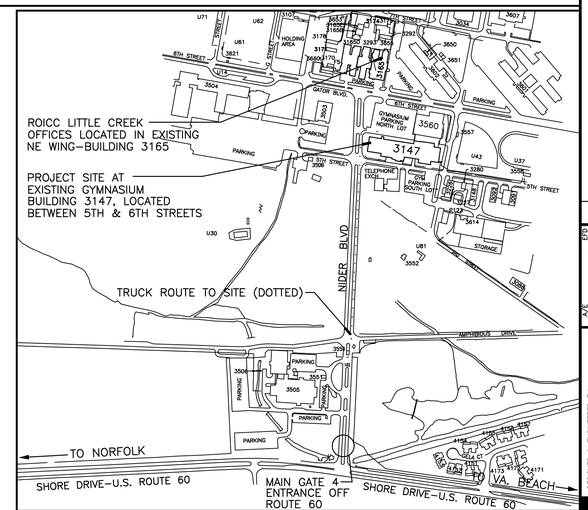
ABBREVIATIONS

A	AMPERE
AB	ANCHOR BOLT, AUGER BORING
ABS	AIR BREAK SWITCH
AC	AIR CONDITIONING, ASBESTOS CEMENT, ASPHALTIC CONCRETE
ACB	AIR CIRCUIT BREAKER
ACCES	ACCESS, ACCESSORY
ACSR	ALUMINUM CONDUCTOR STEEL REINFORCED
ACST	ACOUSTIC
ADDL	ADDITIONAL
ADJ	ADJUSTABLE
AFF	ABOVE FINISH FLOOR
ALUM	ALUMINUM
AMP	AMPERE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARCH	ARCHITECTURAL
ARR	ARRESTOR
ASB	ASBESTOS
ASPH	ASPHALT
AWG	AMERICAN WIRE GAGE
BAKSPLH	BACKSPLASH
BD	BOARD
BEJ	BUILDING EXPANSION JOINT
BLDG	BUILDING
BLKG	BLOCKING
BM	BEAM
B, BOT	BOTTOM
BRG	BEARING
BSMT	BASEMENT
BTWN	BETWEEN
CRS	STAINLESS STEEL
CAP	CAPACITY
CC	CENTER TO CENTER, COLOR CODE
CEM	CEMENT
CFM	CUBIC FEET PER MINUTE
I	CAST IRON
CIP	CAST IRON PIPE
CIR	CIRCULATING
CJ	CONTROL JOINT
CKT	CIRCUIT
C	CENTERLINE
CLG	CEILING
CL	CLEAR
CMP	CORRUGATED METAL PIPE
CMPA	CORRUGATED METAL PIPE ARCH
CMU	CONCRETE MASONRY UNITS
CND,C	CONDUIT
CNDS	CONDENSATE
CO	CLEANOUT
COMM	COMMUNICATION
COL	COLUMN
CONC	CONCRETE
COND	CONDUCTOR
CONN	CONNECTION
CONST	CONSTRUCTION
CONT	CONTINUOUS
CONV	CONVERTER
COP,CU	COPPER
CP	NONREINFORCED CONCRETE PIPE
CPT	CARPET
CR	CEILING REGISTER
CSK	COUNTER SUNK
CT	CERAMIC TILE, CURRENT TRANSFORMER
CTR	CENTER
CW	COLD WATER
CWB	CAPILLARY WATER BARRIER
CONTR	CONTRACTION
D	DEPTH, DEEP, DEGREE OF CURVATURE
DBL	DOUBLE
DET	DETAIL
DH	DRILL HOLE
DI	DRAIN INVERT
DIA	DIAMETER
DIM	DIMENSION
DL	DEAD LOAD
DMPR	DAMPER
DN	DOWN
DO	DITTO
DR	DOOR
DS	DOWNSPOUT
DWG	DRAWING
DWD	DRINKING WATER DISPENSER
EA	EACH
EAT	ENTERING AIR TEMPERATURE
EC	EMPTY CONDUIT
EF	EACH FACE
EL	ELEVATION
ELEC	ELECTRIC
EMT	ELECTRICAL METALLIC TUBING
EPDM	ETHYLENE PROPYLENE DIENE MONOMER
EQ	EQUAL
EQUIP	EQUIPMENT
EVAP	EVAPORATIVE
EW	EACH WAY
EWC	ELECTRIC WATER COOLER
EXH	EXHAUST
EXIST	EXISTING
EXP	EXPANSION, EXPOSED
EXP JT	EXPANSION JOINT
EXT	EXTERIOR
E	EAST
F	FAHRENHEIT, FIRE
FABX	FIRE ALARM BOX
FD	FLOOR DRAIN, FIRE DAMPER
FDN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FH	FIRE HYDRANT
FF	FINISH FLOOR
FIG	FIGURE
FIN	FINISH
FL	FLOOR, FLASHING
FLUOR	FLUORESCENT
FND	FOUNDATION
4 WAY	FOUR WAY
FPH	FROST PROOF HYDRANT
FPM	FEET PER MINUTE
FR	FRAME
FS	FULL SIZE
FT	FOOT, FEET
FTG	FOOTING
FJ	FELT JOINT
GA	GAUGE
GAL	GALLON
GALV	GALVANIZED
GL	GLASS
GPM	GALLONS PER MINUTE
GR	GRADE
GRD	GROUND
GSU	GLAZED STRUCTURAL UNIT
GW	GROUND WATER
GYP	GYPSUM
H, HGT	HEIGHT
HB	HOSE BIBB
HD	HARD DRAWN
HDWD	HARDWOOD
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HP	HORSEPOWER, HIGH POINT
HR	HOUR
HS	HIGH STRENGTH
HW	HOT WATER, HEADWALL
HWL	HIGH WATER LEVEL
HVY	HEAVY
HZ	HERTZ
ID	INSIDE DIAMETER, INSIDE DIMENSION
IN	INCH
INT	INTERIOR
INSUL	INSULATION, INSULATED
INV	INVERT
JB	JUNCTION BOX
JC	JANITOR CLOSET
JCT	JUNCTION
JT	JOINT
JST	JOIST
KCP	KEENE'S CEMENT PLASTER
KO	KNOCK OUT
KV	KILOVOLT
KVA	KILOVOLT–AMPERE
KW	KILOWATT
L	LOUVER, LENGTH, LENGTH OF CURVE
LAM	LAMINATE
LBS	POUNDS
LC	LEAD COVERED
LL	LIVE LOAD
LLH	LONG LEG HORIZONTAL
LLV	LONG LEG VERTICAL
LP	LOW POINT
LAV	LAVATORY
MACH	MACHINE
MAINT	MAINTENANCE
MATL	MATERIAL
MAX	MAXIMUM
MFR	MANUFACTURER
MECH	MECHANICAL
MET	METAL
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MO	MOTOR OPERATED, MASONRY OPENING
MP	MEDIUM PRESSURE
MTD	MOUNTED
MTG	MOUNTING
MWP	MEMBRANE WATERPROOFING
N	NORTH
NC	NON CORROSIVE
NDC	NOSE DOWN CURB
NEUT	NEUTRAL
NIC	NOT IN CONTRACT
NO	NUMBER
NOM	NOMINAL
NTS	NOT TO SCALE
OA	OUTSIDE AIR
OC	ON CENTER
OCB	OIL CIRCUIT BREAKER
OD	OUTSIDE DIAMETER
OPNG	OPENING
OPP	OPPOSITE
OSD	OPEN SITE DRAIN
OVHD,OH	OVERHEAD
P	PIPE
PB	PULL BOX
PCP	PORTLAND CEMENT PLASTER
PI	POINT OF INTERSECTION
PIV	POST INDICATOR VALVE
PJF	PREFORMED JOINT FILLER
PL	PLATE
PLAS	PLASTER, PLASTIC
PLNJ	PAPER AND LEAD NEOPRENE JACKET
PLYWD	PLYWOOD
PNL	PANEL
PR	PAIR
PRESS	PRESSURE
PRIM	PRIMARY
PRV	PRESSURE RELIEF VALVE
PS	PULL SWITCH
PSI	POUNDS PER SQUARE INCH
PT	POINT, POINT OF TANGENT, PRESSURE TREATED
PVC	POINT OF VERTICAL CURVE, POLY VINYL CHLORIDE
PVI	POINT OF VERTICAL INTERSECTION
PVT	POINT OF VERTICAL TANGENT
PSF	POUNDS PER SQUARE FOOT
QT	QUARRY TILE
R	RADIUS, RISER, RUBBER SHEATH
RA	RETURN AIR
RAD	RADIUS
RCB	RUBBER COVE BASE
RCP	REINFORCED CONCRETE PIPE
RD	ROOF DRAIN, ROAD
RECP	RECEPTACLE
RED	REDUCING
REINF	REINFORCEMENT
REG	REGULATOR, REGISTER
REQD	REQUIRED
REV	REVISION
RF	ROOF
RI	RUBBER INSULATED
RL	RAIN LEADER
RM	ROOM
RO	ROUGH OPENING
RSL	RESILENT
S	SOUTH
SACT	SUSPENDED ACOUSTICAL CEILING TILE
SAN	SANITARY SEWER
SAPC	SUSPENDED ACOUSTICAL PANEL CEILING
SCH	SCHEDULE
SD	SPLITTER DAMPER, STORM DRAIN
SECT	SECTION
SERV	SERVICE
SH	SHEET
1 PH	SINGLE PHASE
SKCP	SUSPENDED KEENE'S CEMENT PLASTER
SL	SLOPE
SMH	SANITARY MANHOLE
SP	STATIC PRESSURE, SINGLE POLE
SPC	SUSPENDED PLASTER CEILING
SPDT	SINGLE POLE, DOUBLE THROW
SPEC	SPECIFICATION
SPST	SINGLE POLE, SINGLE THROW
SQ	SQUARE
SS	SERVICE SINK
S/S	STAINLESS STEEL
STC	SOUND TRANSMISSION COEFFICIENT
STD	STANDARD
STL	STEEL
STRL	STRUCTURAL
SUSP	SUSPENDED
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCHGEAR
T	TILE, TOP, TANGENT
T&B	TOP AND BOTTOM
TC	TOP OF CURB
TEL	TELEPHONE
TEMP	TEMPERATURE, TEMPORARY
TERM	TERMINAL
3/C	THREE CONDUCTOR
3/P	THREE POLE
3 WAY	THREE WAY
THK	THICK
THRSLD	THRESHOLD
THRU	THROUGH
TP	TEST PIT
TRTD	TREATED
TS	TOP OF STEEL, TOP OF STONE, TOP OF SLAB
TW	TOP OF WALL
TYP	TYPICAL
UG	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
V	VENT, VOLT, VALVE, VENDING
VAC	VACUUM
V ASB	VINYL ASBESTOS
VC	VARNISH CAMBRIC, VITRIFIED CLAY
VCB	VINYL COVE BASE
VCP	VITRIFIED CLAY PIPE
VCT	VINYL COMPOSITION TILE
VENT	VENTILATING
VERT	VERTICAL
VEST	VESTIBULE
VS	VENT STACK
VTR	VENT THRU ROOF
VWC	VINYL WALL COVERING
W	WIDTH, WASTE, WATER, WATT, WEST, WASHER
W/	WITH
W/O	WITHOUT
WB	WET BULB
WC	WATER CLOSET
WD	WIDTH, WINDOW DIMENSION, WOOD
WL	WATER LEVEL
WP	WATERPROOF, WEATHERPROOF
WS	WASTE STACK, WATER SURFACE, WATERSTOP
WT	WEIGHT
WWM	WELDED WIRE MESH
XFMR	TRANSFORMER
X–STR	EXTRA STRENGTH
2:1	SLOPE 2 HORIZONTAL TO 1 VERTICAL
	DEFLECTION ANGLE

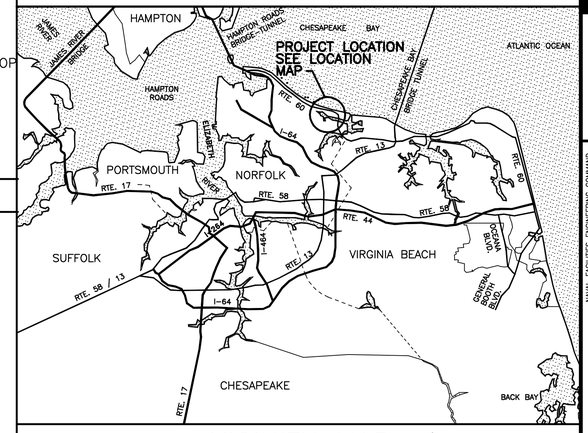
DRAWING SYMBOL LEGEND

WOOD BLOCKING
FINISH WOOD
BRICK
CMU
PRECAST CONCRETE
CONCRETE
PLASTER /GWB
RIGID INSULATION
BATT INSULATION
PLYWOOD
METAL
PLASTIC/ FIBERGLASS





LOCATION MAP
NO SCALE



VICINITY MAP
NO SCALE

GENERAL NOTES :

1. UNLESS INDICATED OTHERWISE, ALL TYPICAL NOTES, DETAILS AND FEATURES SHOWN AS APPLICABLE FOR ONE CONDITION SHALL BE APPLICABLE AT SIMILAR CONDITIONS WHETHER OR NOT IT IS SPECIFICALLY INDICATED OR NOTED.
2. THE CONTRACTOR SHALL FIELD VERIFY ALL GRADES, ELEVATIONS, AND DIMENSIONS AND SHALL BRING ANY DISCREPANCIES TO THE ATTENTION OF THE CONTRACTING OFFICER.
3. THE CONTRACTOR SHALL BEAR ALL RESPONSIBILITY FOR CORRECTIVE ACTION DUE TO THE CONTRACTOR'S FAILURE TO COORDINATE THE WORK.
4. ALL ELEVATIONS ARE REFERENCED FROM THE TOP OF GROUND FLOOR OF EACH BUILDING AT ELEVATION 0'–0". SEE CIVIL SHEETS FOR ACTUAL FINISHED FLOOR ELEVATIONS, TYPICAL.
5. ALL DIMENSIONS ARE TO CENTER LINE OF COLUMN, FACE OF MASONRY, OR FACE OF STUD, UNLESS OTHERWISE NOTED.

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E	RCA
DESIGN	RCA
DRAWN	
REVIEW	
CHIEF ARCH./ ENGR.	JB
PROJECT MANAGER	
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

ACTIVITY – SATISFACTORY TO — DATE

FOR RTD FOR COMMANDER NAVFAC — APPROVED

DEPARTMENT OF THE NAVY
NAVAL STATION N.A.B. LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
TITLE SHEET, VICINITY & LOCATION PLANS

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468425	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4.368425	
SHEET 1 OF 119	
T–1	

FILENAME: 5105T1.DWG, PLOT SCALE: 1=1, SAVED ON 08/04/97 AT 16:18, XREFS: NONE

RENOVATIONS TO GYMNASIUM
BUILDING 3147

INDEX OF DRAWINGS

SHEET NO.	EFD NO.	NAVFAC NO.	SHEET TITLE
T-1	468425	4368425	TITLE SHEET , VICINITY & LOCATION MAPS
T-2	468426	4368426	INDEX OF DRAWINGS
C-1	468427	4368427	EXISTING SITE PLAN & DEMO
C-2	468428	4368428	SITE PLAN
C-3	468429	4368429	DETAILS
L-1	468430	4368430	PLANTING PLAN, SCHEDULE AND DETAILS
AD-1	468431	4368431	ARCHITECTURAL DEMOLITION NOTES
AN-1	468432	4368432	ARCHITECTURAL NEW WORK NOTES
A-1	468433	4368433	EXIST. PARTIAL FIRST FLOOR PLAN-EAST
A-2	468434	4368434	EXIST. PARTIAL FIRST FLOOR PLAN-WEST
A-3	468435	4368435	EXIST. PARTIAL SECOND FLOOR PLAN-EAST
A-4	468436	4368436	EXIST. PARTIAL SECOND FLOOR PLAN-WEST
A-5	468437	4368437	NEW WORK PARTIAL FIRST FLOOR PLAN-EAST
A-6	468438	4368438	NEW WORK PARTIAL FIRST FLOOR PLAN-WEST
A-7	468439	4368439	NEW WORK PARTIAL SECOND FLOOR PLAN-EAST
A-8	468440	4368440	NEW WORK PARTIAL SECOND FLOOR PLAN-WEST
A-9			NOT USED
A-10			NOT USED
A-11	468441	4368441	EXISTING BUILDING ELEVATIONS
A-12	468442	4368442	EXISTING BUILDING ELEVATIONS
A-13	468443	4368443	EXISTING BUILDING ELEVATIONS
A-14	468444	4368444	NEW WORK BUILDING ELEVATIONS
A-15	468445	4368445	NEW WORK BUILDING ELEVATIONS
A-16	468446	4368446	NEW WORK BUILDING ELEVATIONS
A-17	468447	4368447	EXISTING PLANS & SECTIONS - SOUTH MECHANICAL ROOM
A-18	468449	4368449	NEW WORK PLANS & SECTIONS - SOUTH MECHANICAL ROOM
A-19	468450	4368450	EXISTING PLANS & SECTIONS - NORTH MECHANICAL ROOM
A-20	468451	4368451	NEW WORK PLANS & SECTIONS - NORTH MECHANICAL ROOM
A-21	468452	4368452	NEW WORK EXTERIOR WALL SECTIONS & DETAILS
A-22	468453	4368453	EXISTING BUILDING SECTIONS AT MWR OFFICE AREA
A-23			NOT USED
A-24			NOT USED
A-25			NOT USED
A-26	468454	4368454	NEW WORK BUILDING SECTIONS AT ENTRANCE CORRIDOR
A-27	468455	4368455	NEW WORK BUILDING SECTIONS AT MWR OFFICE AREA
A-28	468456	4368456	NEW WORK BUILDING SECTIONS AT LOCKER/EXERCISE ROOMS
A-29			NOT USED
A-30			NOT USED
A-31			NOT USED
A-32			NOT USED
A-33			NOT USED
A-34			NOT USED
A-35			NOT USED
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A-41			NOT USED
A-42			NOT USED
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A-44			NOT USED
A-45			NOT USED
A-46			NOT USED
A-47			NOT USED
A-48			NOT USED
A-49			NOT USED
A-50			NOT USED
A-51	468457	4368457	X-SECTION,WEST ELEVATION,-NEW SOUTH MAIN ENTRANCE
A-52	468458	4368458	SECTION,SOUTH ELEVATION,-NEW SOUTH MAIN ENTRANCE
A-53	468459	4368459	PLANS-DEMO&NEW WORK,-EXIST. EAST PUBLIC REST ROOMS
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A-57	468463	4368463	NEW WORK PLANS & SECTION,- WEST END
A-58	468464	4368464	MISC. NEW WORK DETAILS-WEST END
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A-60			NOT USED
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A-63	468468	4368468	DOOR DETAILS
A-64	468469	4368469	DOOR DETAILS
A-65			NOT USED
A-66			NOT USED
A-67			NOT USED
A-68			NOT USED
A-69	468470	4368470	NOT USED
A-70			NOT USED
A-71	468471	4368471	PLANS-DEMO&NEW WORK,-EXIST. WEST MEN'S REST ROOM
A-72	468472	4368472	PLANS-DEMO&NEW WORK,-EXIST. WEST WOMEN'S REST ROOM
A-73			NOT USED
A-74	468473	4368473	NEW CASEWORK ELEVATIONS,SECTIONS,& DETAILS
A-75	468474	4368474	FINISH SCHEDULE AND NOTES
A-76	468475	4368475	FINISH SCHEDULE AND NOTES
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S-5	468480	4368480	NEW WORK-SECTIONS AND DETAILS
S-6	468481	4368481	NEW WORK MECHANICAL SUPPORT DETAILS
S-7	468482	4368482	NEW WORK-WEST END
P-1	468483	4368483	FIRST FLOOR PARTIAL NEW PLAN-WEST
P-2	468484	4368484	PARTIAL PLAN-NEW WORK AT MWR OFFICES
P-3	468485	4368485	RISER DIAGRAMS&DETAILS AT MWR OFFICES
P-4	468486	4368486	PARTIAL PLANS-DEMOLITION AT WEST END
P-5	468487	4368487	PARTIAL PLANS-NEW WORK AT WEST END
P-6	468488	4368488	PARTIAL PLANS-NEW WORK AT WEST END
P-7	468489	4368489	DETAILS & SCHEDULE

LEGEND

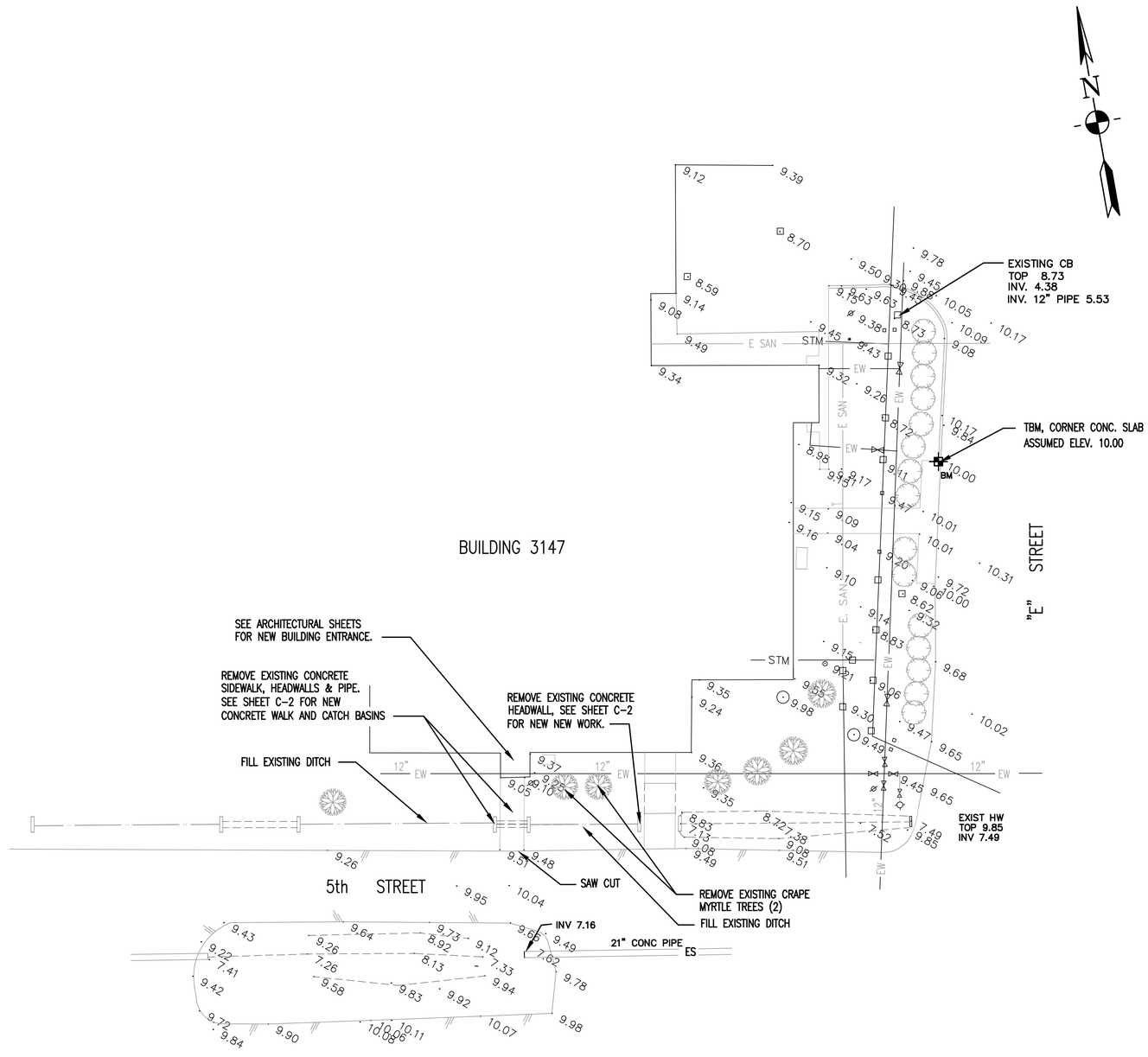
EXISTING		NEW
	ELEVATION	(12.65)
	MATCH GRADE	MG
5	CONTOURS	5
6" E SAN	SANITARY SEWER	
	CLEAN OUT	CO
6" EW	WATER	W
ES	STORM	S
	MANHOLE	
	CATCH BASIN	
	HEADWALL (HW)	
	VALVE	
	THRUST BLOCK	
	FIRE HYDRANT	
	TREE	
	CONCRETE	
	BUILDING	
	POINT OF CONNECTION	
BM	BENCH MARK	
	LIGHT / POWER POLE	

GENERAL NOTES

1. RESEED ALL AREAS DISTURBED BY CONSTRUCTION.

2. REGRADE EXISTING DITCH (APPROX. 100 LF) ON SOUTH SIDE OF 5th STREET AND SEED ALL DISTURBED AREAS.

3. UTILITIES ARE SHOWN AS INDICATED FROM EXISTING DRAWINGS. THE ACTUAL LOCATIONS MAY VARY. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.



EXISTING SITE PLAN

SCALE 1" = 20'

GRAPHIC SCALE

0' 20' 40' 60' 80' 100'

SCALE : 1" = 20'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E	DESIGN	PES
	DRAWN	PES
	REVIEW	
	QC	
	CHIEF ARCH./ ENGR.	
	PROJECT MANAGER	J.B.
	FIRE PROTECTION	
	BRANCH MANAGER	
	DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR DRAWER MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
EXISTING SITE PLAN & DEMO

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468427
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4,368,427
SHEET	3 OF 119

C-1

REVISION DATE 8/96

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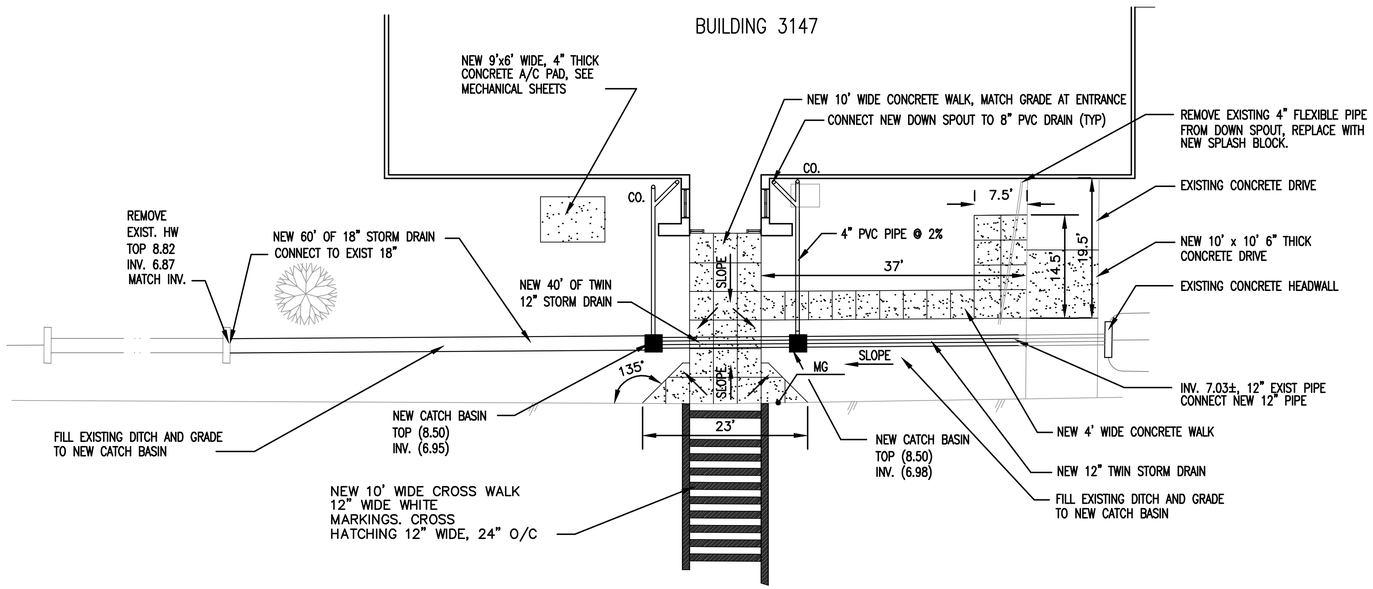
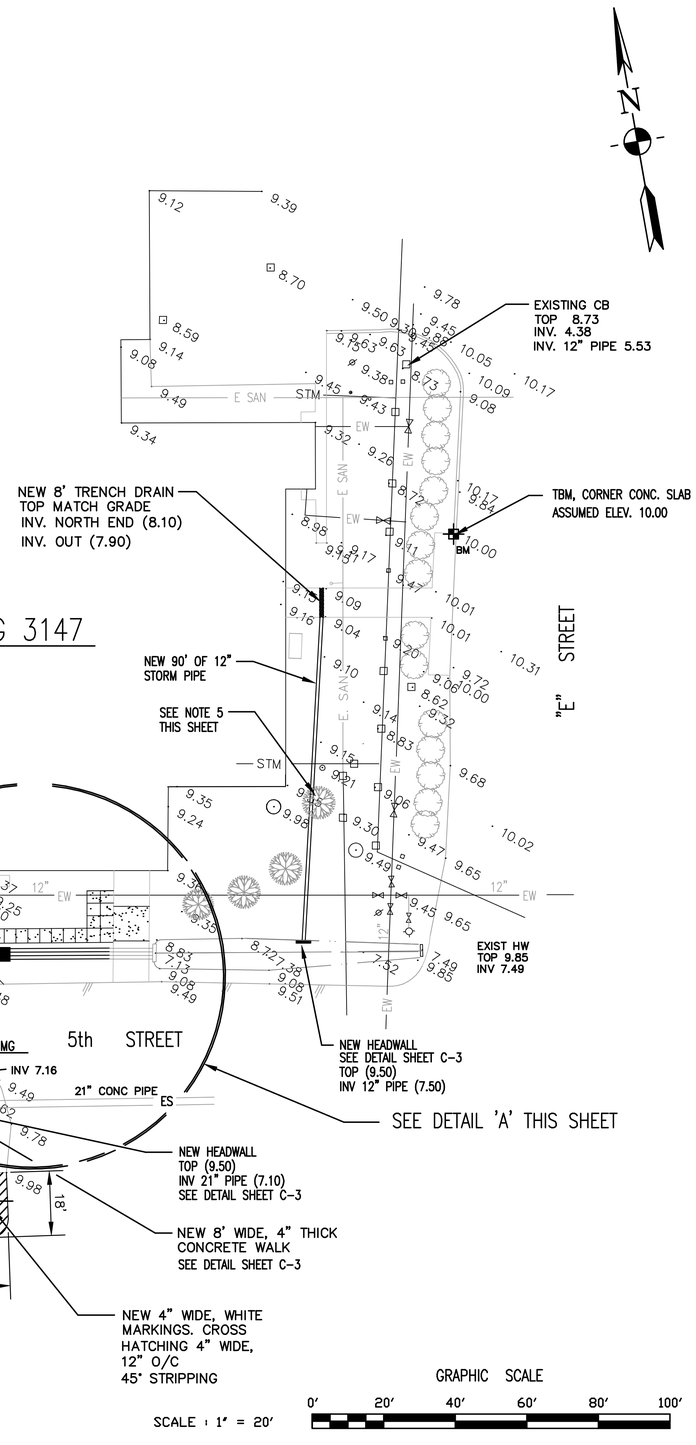


DETAIL 'A'

SCALE: 1" = 10'-0"



SITE PLAN

SCALE 1" = 20'

GENERAL NOTES

1. RESEED ALL AREAS DISTURBED BY CONSTRUCTION. SEE L1 FOR LAND SCRAPING PLAN.

2. REGRADE (APPROX. 100 LF) OF EXISTING DITCH ON SOUTH SIDE OF 5th STREET AND SEED ALL DISTURBED AREAS.

3. UTILITIES ARE SHOWN AS INDICATED FROM EXISTING DRAWINGS. THE ACTUAL LOCATIONS MAY VARY. CONTRACTOR SHALL VERIFY LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

4. CLEAN AND REGRADE APPROXIMATELY 200 LF OF DITCH AND 160 LF OF STORM DRAIN TO THE CORNER OF 5TH STREET AND NIDER BLVD. ALONG NORTH SIDE OF 5TH STREET. SEED ALL DISTURBED AREA'S.

5. CONTRACTOR SHALL PROTECT TREE'S DURING INSTALLATION ON NEW 12" STORM LINE.

REVISIONS

DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY: LANTDIV, NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR EFD FOR COMMANDER MARKS

A/E	EFD		
DESIGN	PES		
DRAWN	PES		
REVIEW			
QC		CHIEF ARCH / ENGR	
		PROJECT MANAGER	J.B.
		FIRE PROTECTION	
		BRANCH MANAGER	
		DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND — ATLANTIC DIVISION — NORFOLK, VIRGINIA

NAVAL STATION — N.A.B. LITTLE CREEK — VIRGINIA BEACH, VA

RENOVATIONS TO GYMNASIUM BUILDING 3147

SITE PLAN

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468428
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4,368,428
SHEET	4 OF 119

C-2

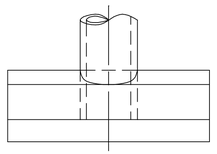
SEAL

8 7 6 5 4 3 2 1

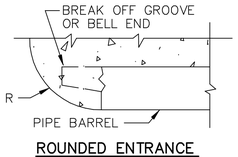
D C B A

REVISION DATE 8/96

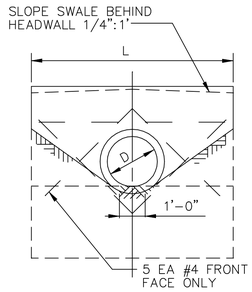
FILENAME: 5105C003.DWG; PLOT SCALE: 1" = 20'. SAVED ON 05/02/97 AT 10:46. XREFS: NONE



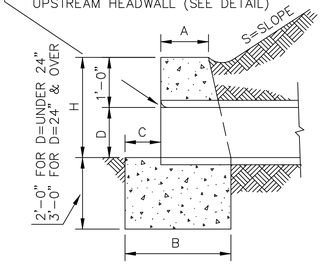
PLAN



ROUNDED ENTRANCE
(UPSTREAM HEADWALLS ONLY)



ELEVATION

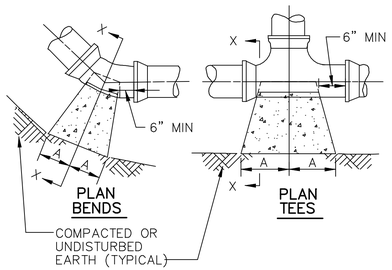


SECTION

ALL SLOPES						S=1.5:1	S=2:1	S=3:1
D	H	A	B	C	R	L	L	L
8"	1'-8"	8"	1'-0"	0	——	3'-6"	4'-2"	5'-6"
10"	1'-10"	8"	1'-0"	0	——	4'-0"	4'-10"	6'-6"
12"	2'-0"	10"	1'-4"	4"	——	4'-6"	5'-6"	7'-6"
15"	2'-3"	10"	1'-4"	4"	2 1/4"	5'-3"	6'-6"	9'-0"
18"	2'-6"	10"	1'-7"	6"	2 3/4"	6'-0"	7'-6"	10'-6"
21"	2'-9"	1'-0"	1'-8"	6"	3 1/8"	6'-9"	8'-6"	12'-0"

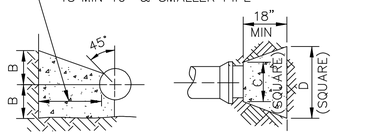
CONCRETE HEADWALL(TYPE "A")

NOT TO SCALE



PLAN
BENDS

PLAN
TEES



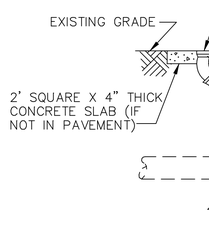
SECTION X-X
BENDS & TEES

PLAN & ELEVATION
PLUGS

SIZE	1/4 BENDS		1/8 BENDS		1/16 BENDS		TEES		PLUGS	
	A	B	A	B	A	B	A	B	C	D
6"	16"	10"	9"	10"	6"	8"	10"	12"	10"	21"
8"	22"	13"	12"	13"	8"	10"	13"	16"	12"	29"
10"	26"	17"	14"	17"	10"	13"	16"	20"	14"	36"
12"	29"	21"	16"	21"	11"	16"	18"	24"	16"	41"
14"	35"	24"	19"	24"	12"	20"	22"	27"	18"	48"
16"	38"	27"	21"	27"	12"	24"	24"	30"	20"	54"

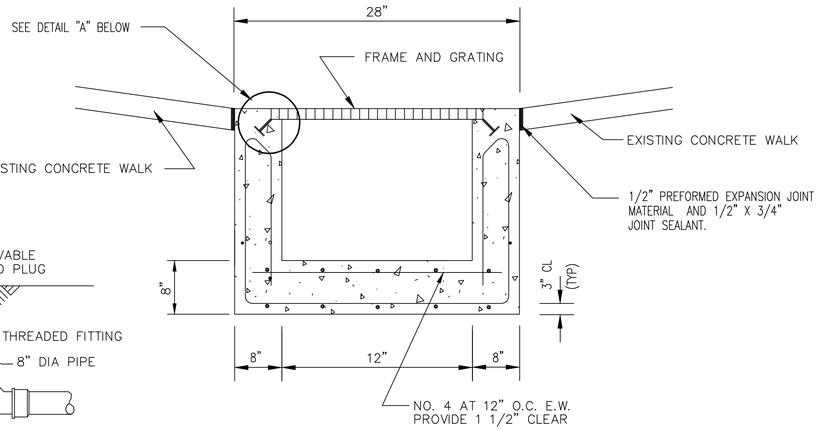
THRUST BLOCKS

NOT TO SCALE



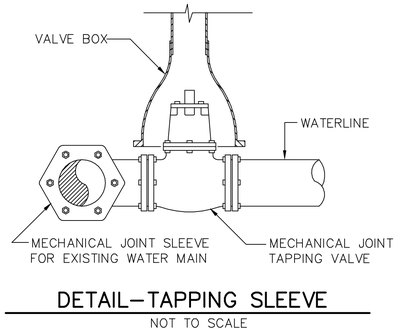
CLEANOUT DETAIL

NOT TO SCALE



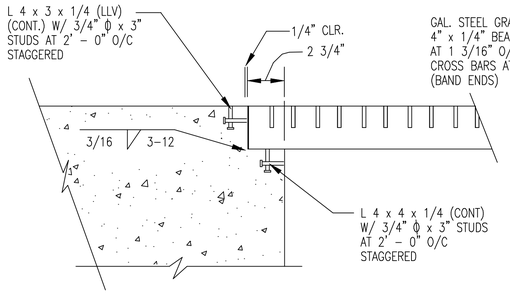
TRENCH DRAIN

NOT TO SCALE



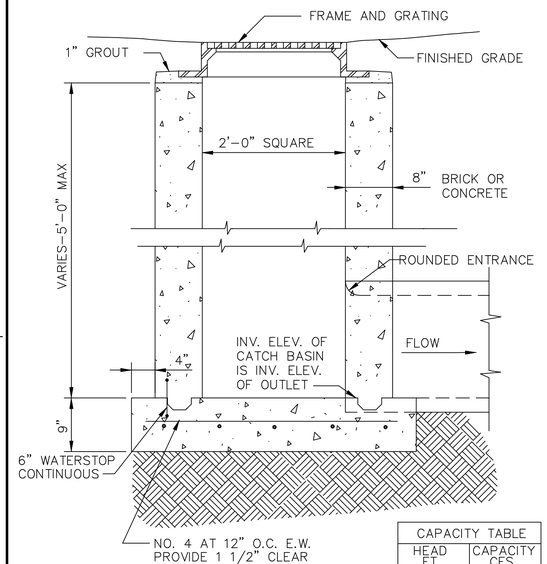
DETAIL-TAPPING SLEEVE

NOT TO SCALE



DETAIL "A"

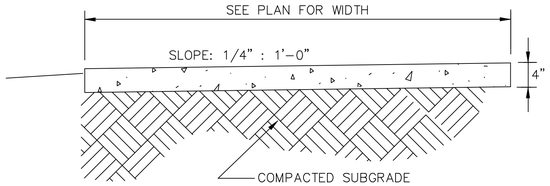
NOT TO SCALE



CAPACITY TABLE	
HEAD FT	CAPACITY CFS
0.2	2.4
0.4	3.4
0.6	4.2
0.8	4.9
1.0	5.4

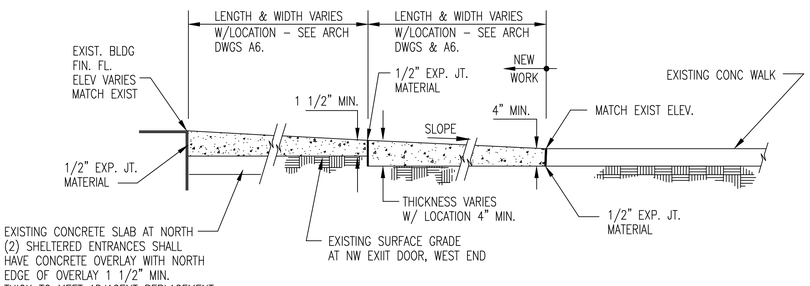
(18" PIPE AND SMALLER)
CATCH BASIN

NOT TO SCALE



CONCRETE SIDEWALK

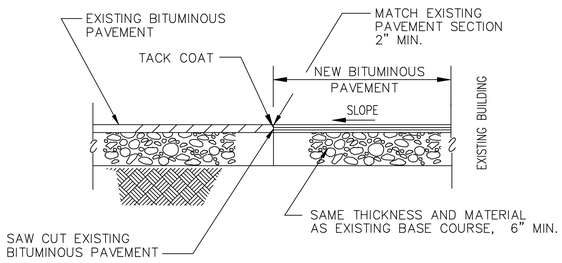
NOT TO SCALE



NOTE: SEE ARCHITECTURAL SHEETS A-6 FOR NEW WORK
SEE ARCHITECTURAL SHEETS FOR DEMOLITION OF WALKS

NEW PLATFORM W/SLOPED CONCRETE WALK DETAIL

NOT TO SCALE



SEE ARCHITECTURAL SHEETS A-5 AND A-6 FOR
LOCATION AND WIDTH OF PAVEMENT REPLACEMENT.

PAVEMENT PATCHING DETAIL

NOT TO SCALE

REVISIONS

DESCRIPTION	DATE	APPROVED
SYM.		

A/E
DESIGN PES
DRAWN PES
REVIEW
QC
CHIEF ARCH / ENGR
PROJECT MANAGER J.B.
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR ORDINANCE MARKING

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468429	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4,368,429	
SHEET 5 OF 119	

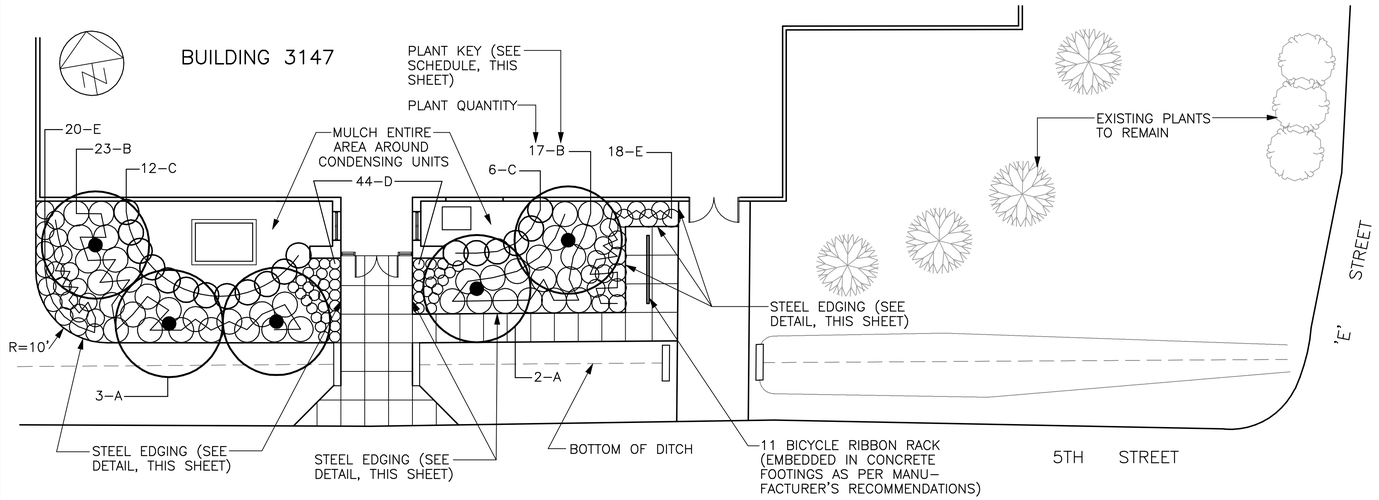
C-3

8 7 6 5 4 3 2 1

D C B A

REVISION DATE 8/96

FILENAME: 5105C002.DWG, PLOT SCALE: 1" = 20', SAVED ON 08/05/97 AT 07:43, XREFS: NONE



ENTRANCE FOYER PLANTING PLAN

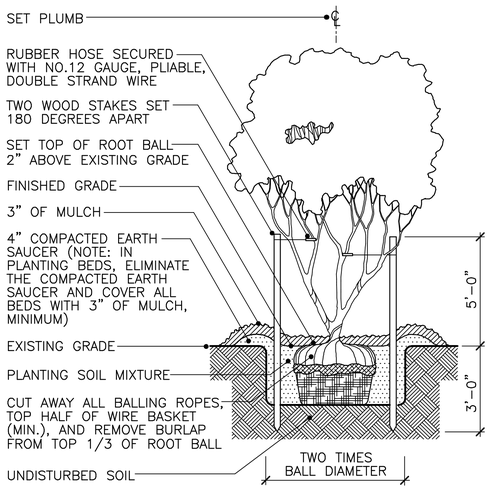
SCALE: 1" = 10'–0"

PLANTING NOTES

1. ALL PLANTS SHALL CONFORM TO THE AMERICAN STANDARD FOR NURSERY STOCK, LATEST EDITION. PLANTS SHALL BE NURSERY–GROWN, AND IN A HEALTHY, INSECT AND DISEASE–FREE CONDITION.
2. SUBSTITUTIONS OF SIZE OR VARIETY OF PLANT MATERIAL SHALL BE APPROVED ONLY BY THE CONTRACTING OFFICER.
3. ALL TREES AND SHRUBS HAVE BEEN LOCATED WITH RE–SPECT TO PROPOSED OR EXISTING UTILITIES TO THE MOST ACCURATE EXTENT POSSIBLE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFICATION OF ALL UTILITIES IN THE FIELD. IF DISCREPANCIES OCCUR, OR IF OBSTRUCTIONS BELOW GROUND OR OVERHEAD ARE ENCOUNTERED, THE CONTRACTING OFFICER SHALL BE NOTIFIED. NECESSARY ADJUSTMENTS SHALL BE MADE ONLY UPON THE APPROVAL OF THE CONTRACTING OFFICER.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL DIMENSIONS IN THE FIELD AND SHALL NOTIFY THE CON–TRACTING OFFICER OF ANY VARIANCE FROM PLANS.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THOROUGH–LY WATERING ALL PLANT MATERIAL AFTER PLANTING AND MULCHING.
6. ALL EXISTING SOIL SHALL BE EXCAVATED FROM PLANTING PITS AND REMOVED FROM THE CONSTRUCTION SITE. ALL PLANTING PITS SHALL BE BACKFILLED TO THE REQUIRED DEPTH WITH TOPSOIL AS SPECIFIED. WHERE A SHRUB OR GROUND COVER BED OCCURS, THE ENTIRE BED SHALL BE PREPARED WITH THE REQUIRED TOP–SOIL, AS SPECIFIED, TO THE REQUIRED DEPTH.
7. ALL PLANTING OPERATIONS SHALL BE PERFORMED AS PER DETAILS AND SPECIFICATIONS.
8. VERIFICATION OF TOTAL QUANTITIES AS SHOWN IN THE PLANT SCHEDULE SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR, AND THE KEYED PLAN SHALL GOVERN.
9. COVER THE FINISHED GRADES OF ALL SHRUB AND GROUND COVER BEDS WITH POLYPROPYLENE WEED CONTROL FABRIC PRIOR TO LAYING DOWN THE REQUIRED THREE INCH LAYER OF TAN RIVERBANK STONE MULCH (RANGING IN SIZE OF 1" TO 2–1/2" DIAMETER).
10. WHERE PLANTING BEDS ABUT WALKS AND CURBS, TOPS OF MULCHED BEDS SHALL BE DEPRESSED TWO INCHES.
11. COVER THE FINISHED GRADES OF ALL SHRUB AND GROUND COVER BEDS WITH POLYPROPYLENE WEED CONTROL FABRIC PRIOR TO LAYING DOWN THE REQUIRED THREE INCH LAYER OF MULCH.
12. "B&B" AS LISTED IN THE PLANT SCHEDULE INDICATES BALLED AND BURLAPPED.

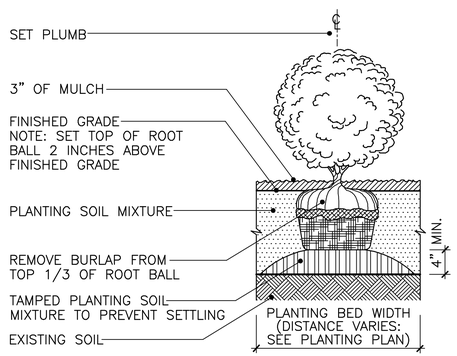
PLANT SCHEDULE

KEY	BOTANICAL NAME	COMMON NAME	QTY	PLANTING METHOD NO.	SIZE		ROOT	REMARKS
					HEIGHT	SPREAD		
A	ILEX X NELLIE R. STEVENS (TREE–FORM)	TREE–FORM NELLIE R. STEVENS	5	1	9'		B&B	3 STEMS; 4 TO 4–1/2' CLEAR TRUNK
B	JUNIPERUS CHINENSIS 'SAN JOSE'	SAN JOSE JUNIPER	40	2		18"–24"	CONTAINER	DENSELY BRANCHED
C	LIGUSTRUM LUCIDUM	WAXLEAF PRIVET	18	2	36"		B&B OR CONTAINER	DENSELY BRANCHED TO BASE
D	NANDINA DOMESTICA 'NANA PURPUREA'	DWARF NANDINA	44	2		12"	CONTAINER	DENSELY BRANCED TO BASE
E	NANDINA DOMESTICA 'GULFSTREAM'	GULFSTREAM NANDINA	38	2	15"–18"		CONTAINER	DENSELY BRANCHED TO BASE



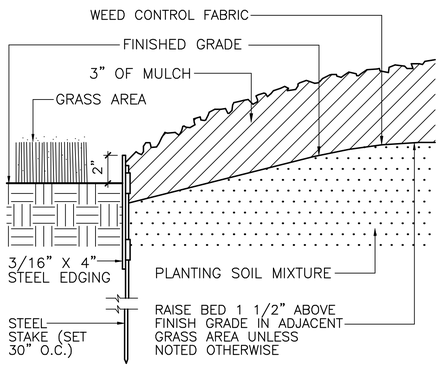
PLANTING METHOD NO.1

NOT TO SCALE



PLANTING METHOD NO.2

NOT TO SCALE



STEEL EDGING DETAIL

NOT TO SCALE

GRAPHIC SCALE:

1"=10' 0' 10' 20' 30' 40' 50'

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY – SATISFACTORY TO APPROVED DATE

FOR EFD FOR ORDINANCE MAPAC

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E DESIGN JLB DRAWN JLB REVIEW QC CHIEF ARCH./ ENGR. PROJECT MANAGER JLB FIRE PROTECTION BRANCH MANAGER DESIGN SUPERVISOR

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

NAB LITTLE CREEK VIRGINIA BEACH, VA

RENOVATIONS TO GYMNASIUM BUILDING 3147

PLANTING PLAN, SCHEDULE AND DETAILS

CODE ID. NO.	80091 SIZE D
SCALE:	AS NOTED
EFD NO.	468430
STA. PROJ. NO.	R–234
SPEC. NO.	05–95–5105
CONSTR. CONTR. NO.	N62470–95–B–5105
NAVFAC DRAWING NO.	4368430
SHEET	6 OF 119

L–1

SEAL

REV/DATE

DRAWFORM REVISION 25 SEPT 96

DEMOLITION NOTES

ALL EXISTING PAINTED BUILDING SURFACES MAY CONTAIN LEAD, CAREFULLY PERFORM ALL DEMOLITION AND RENOVATION WORK IN ACCORDANCE WITH SPEC SECTION 13283,"DEMOLITION/ALTERATION OF STRUCTURES CONTAINING LEAD-BASED PAINT."

1. CAREFULLY REMOVE EXISTING INDICATED AREAS OF 6" WIDE CONTINUOUS SCREW-ATTACHED METAL EDGE TRIM,AND RED QUARRY TILE FLOORING AND 1-1/2" DEEP TILE SETTING BED ONLY,AS EXISTING ADJACENT 5" THICK CONCRETE FLOOR SLAB BELOW, AND ADJACENT MAPLE WOOD GYM FLOORING SHALL REMAIN.
2. CAREFULLY SAWCUT AND REMOVE ONLY INDICATED HATCHED AREAS OF EXISTING MAPLE GYM WOOD FLOORING AND SLEEPER SUPPORT SYSTEM BELOW FLOORING THAT SHALL BE REMOVED, AND EXISTING 5" THICK CONCRETE FLOOR SLAB BELOW, AND ADJACENT MAPLE WOOD GYM FLOORING SHALL REMAIN.
3. EXISTING MAPLE GYM FLOORING SHALL REMAIN UNLESS OTHERWISE NOTED.
4. CAREFULLY SAWCUT AND REMOVE ONLY HATCHED AREA OF EXISTING EXTERIOR 5" CONCRETE PAVEMENT/SLAB AREAS (4" CONCRETE WALKS, 2" BITUMINOUS CONCRETE PAVE-MENT ON 6" OF STONE BASE) INDICATED,AS EXISTING MATCHING ADJACENT WORK SHALL REMAIN.
5. CAREFULLY SAWCUT AND REMOVE ONLY EXISTING HATCHED 8"CMU INFILL AREA IN 8" CMU BLDG.WALL WITH 2-1/2" E.I.F.S.SYSTEM TYPICALLY ON EXTERIOR.AREA THAT SHALL BE REMOVED IS TYPICALLY 6'-5" WIDE X 6'-9" HIGH,WITH EXISTING SILL APPROXIMATELY 3'-1" OR 3'-7" ABOVE EXISTING WOOD GYM FINISH FLOOR ELEVATION.(NEW OPENINGS PROVIDE FOR INSTALLATION OF NEW MECHANICAL LOUVERS)
6. REMOVE ONLY EXISTING DOOR AND FRAME U.O.N.
7. COMPLETELY REMOVE ONLY EXISTING DOORS,FRAME,AND ADJACENT GYPSUM BOARD ON WOOD FRAME INFILL WALL AT EXISTING 14' WIDE X 10' HIGH MASONRY OPENING.
8. COMPLETELY REMOVE ONLY EXISTING 7'HIGH X 20'WIDE 1/2" GLAZED WOOD COURT 4" CMU AND WOOD-FRAMED WALL AREAS ADJACENT TO AND INCLUDING COURT ENTRANCE DOOR. ALSO REMOVE EXISTING FRAMED 20' WIDE X 13'HIGH BACKCOURT WALL AREA ABOVE ENTRANCE DOOR SIDE OF COURTS,THAT HAS 1" LAMINATE-FACED PLAYING COURT PANELS ON INTERIOR SIDE,AND 1/2"PAINTED GYPSUM BOARD ON CORRIDOR SIDE.ALSO REMOVE THE ADJACENT 3-1/2"X 20'HIGH STEEL PIPE COLUMNS THAT BRACE THE EXISTING CORRIDOR SIDE OF COURTWALL ASSEMBLY. THE ADJACENT (3) REMAINING INNER PLAYING COURT WALLS,AND COURT FLOOR AREAS OF EACH COURT SHALL REMAIN.(TO BE ENCLOSED BY NEW WORK ON DWG.A-5)
9. COMPLETELY REMOVE ONLY EXISTING 7'HIGH X 18'-6" WIDE 1/2" GLAZED WOOD COURT 4" CMU AND WOOD-FRAMED WALL AREAS ADJACENT TO AND INCLUDING COURT ENTRANCE DOOR. ALSO REMOVE EXISTING FRAMED 18'-6" WIDE X 13' HIGH BACKCOURT WALL AREA ABOVE ENTRANCE DOOR SIDE OF COURTS,THAT HAS 1" LAMINATE-FACED PLAYING COURT PANELS ON INTERIOR SIDE,AND 1/2"PAINTED GYPSUM BOARD ON CORRIDOR SIDE.ALSO REMOVE THE ADJACENT 3-1/2"X 20'HIGH STEEL PIPE COLUMNS THAT BRACE THE EXISTING CORRIDOR SIDE OF COURTWALL ASSEMBLY. THE ADJACENT (3) REMAINING INNER PLAYING COURT WALLS,AND COURT FLOOR AREAS OF EACH COURT SHALL REMAIN.(TO BE ENCLOSED BY NEW WORK ON DWG.A-5)
10. COMPLETELY REMOVE ONLY EXISTING 7'HIGH X 20'WIDE 1/2" GLAZED WOOD COURT 4" CMU AND WOOD-FRAMED WALL AREAS ADJACENT TO AND INCLUDING COURT ENTRANCE DOOR. ALSO REMOVE EXISTING FRAMED 20' WIDE X 13'HIGH BACKCOURT WALL AREA ABOVE ENTRANCE DOOR SIDE OF COURTS,THAT HAS 1" LAMINATE-FACED PLAYING COURT PANELS ON INTERIOR SIDE,AND 1/2"PAINTED GYPSUM BOARD ON CORRIDOR SIDE.ALSO REMOVE THE EXISTING INTERIOR 20'W IDEX 40' LONG COURT PLAYING FLOOR AREA, AND SLEEPER SUPPORT SYSTEM BELOW EXIST. FLOOR. THE ADJACENT (3) REMAINING INTERIOR PLAYING COURT WALLS OF EACH COURT SHALL REMAIN.(TO BE ENCLOSED BY NEW WORK ON DWG.A-5)
11. COMPLETELY REMOVE ONLY EXISTING GLAZED STOREFRONT DOORS,FRAME,AND ADJACENT 8"CMU X 8'-8"HIGH WALLS THAT ABUT ADJACENT HANDBALL COURTS,AND ALSO REMOVE THE EXISTING WOOD FRAMED 12'WIDE X 8'LONG,GYPSUM BOARD CEILING AND MEZZANINE AREA ABOVE,SUPPORTED BY THESE 8" CMU WALLS.

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD /FOR ORDINANCE MAPAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

DEMOLITION NOTES

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468431	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368431	
SHEET 7 OF 119	

AD-1

FILENAME: 5105AD-1.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 08/14/97 AT 12:09, XREFS: NONE

SYMBOL KEY

1 DEMOLITION NOTE

- REMOVE INDICATED AREA OF EXIST.WOOD GYM FLOOR
- REMOVE INDICATED AREA OF EXIST. QUARRY TILE &1-1/2" SETTING BED
- W — REMOVE INDICATED AREA OF EXIST. CONCRETE WALK
- BP — REMOVE INDICATED AREA OF EXIST. BITUMINOUS PAVEMENT AND 6" STONE BASE

EXISTING — PARTIAL
1ST FLOOR PLAN — EAST

SCALE 3/32" = 1'-0"

· GENERAL NOTES ·

1. SEE DEMOLITION NOTES ON DWG. AD-1.

· KEY PLAN ·

3/32" = 1'-0"

REVISIONS			
DESCRIPTION	DATE	APPROVED	

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED / DATE

ACTIVITY - SATISFACTORY TO / DATE

APPROVED / DATE

FOR CTO FOR COMMANDER NAVFAC

A/E — DESIGN: RCA; DRAWN: RCA; REVIEW; CHIEF ARCH./ ENGR.: JB; PROJECT MANAGER; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DEPARTMENT OF THE NAVY — NAVAL STATION — N.A.B. LITTLE CREEK — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING PARTIAL FIRST FLOOR PLAN - EAST

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468433
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368433
SHEET	9 OF 119

A-1

FILENAME: 5105A1.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 08/14/97 AT 08:54, XREFS: NONE

SYMBOL KEY

- (18) (A) — COLUMN LINE NUMBER/LETTER
- 101A — ROOM NUMBER
- N.I.C. — NOT IN CONTRACT
- (3) — DEMOLITION NOTE
- REMOVE INDICATED AREA OF EXIST.WOOD GYM FLOOR
- REMOVE INDICATED AREA OF EXIST. QUARRY TILE &1-1/2" SETTING BED
- W — REMOVE INDICATED AREA OF EXIST. CONCRETE WALK
- BP — REMOVE INDICATED AREA OF EXIST. BITUMINOUS PAVEMENT AND 6" STONE BASE

16'-0" (16) 16'-0" (17) 16'-0" (18) 16'-0" (19) 16'-0" (20) 16'-0" (21) 16'-0" (22) 16'-0" (23) 16'-0" (24) 16'-0" (25) 16'-0" (26) 16'-0" (27) 16'-0" (28) 16'-0" (29) 16'-0" (30) 16'-0" (31) 18'-1" (32)

SPORTS PROGRAMS DIRECTOR
ASSISTANT PROGRAMS DIRECTOR
SPORTS PROGRAMS SECRETARY
LOBBY
VESTIBULE
FOYER
ENGRAV. ROOM
SPORTS PROGRAMS CO-ORDINATOR
ASSISTANT SPORTS PROGRAMS
STOR
MECH.
STOR
CONC. SLAB
EXISTING HEAT EXCHANGER
AHU
COPY
DARK ROOM
PRINTING & STORAGE
PRINT SHOP OFFICE AREA
BP
W
M
D.F.
DN
UP
ICE
3"F.D.
AC

4 A2|A22 — 2 A2|A22 — 1 A2|A22 — 3 A2|A22 — 5 A2|A55

EXISTING CONCRETE WALK
EXISTING GRASS AREA
EXISTING GRASS AREA

DIMENSIONS SHOWN ARE FROM FACE OF EXISTING CMU BEHIND EXIST. 2-1/2"+ THICK EIFS SYSTEM

RAISED CONCRETE WALKWAY 12-1/2" A.F.F.

SEE ENLARGED PLAN OF MWR ADMINISTRATION AND SPORTS PROGRAMS OFFICES -SEE DETAIL A1|A

SEE ENLARGED DEMOLITION PLAN OF EXISTING WEST END 1ST. FLOOR PLAN ON DETAIL

MATCHLINE (SEE SHEET A-1)

℄ BLDG.

GYMNASIUM PLAYING COURTS

SEE ENLARGED DEMOLITION PLAN OF EXISTING WEST END 1ST. FLOOR PLAN ON DETAIL A A2|A56

A2|A59

RENOVATE EXISTING MEN'S RESTROOM

EXISTING BULK STORAGE

EXISTING BULK STORAGE

RENOVATE EXISTING WOMEN'S RESTROOM

UP

24'-6 3/8" — 17'-3-5/8" — 17'-3-5/8" — 17'-4 1/4" — 24'-6-1/8"

20'-3 1/2" — 20'-0" — 20'-3 1/2" — 20'-3 1/2" — 101'-0" — 20'-3 1/2"

A B C D E F

EXISTING GRASS AREA
EXISTING GRASS AREA
EXISTING GRASS AREA
EXISTING GRASS AREA
EXISTING GRASS AREA

EXISTING CONCRETE WALKWAY
EXISTING CONCRETE WALKWAY

EXISTING BITUMINOUS PAVEMENT
EXISTING BITUMINOUS PAVEMENT
EXISTING BITUMINOUS PAVEMENT

EXISTING PARTIAL 1ST FLOOR PLAN — WEST

SCALE 3/32" = 1'-0"

· KEY PLAN ·

· GENERAL NOTES ·

1. SEE DEMOLITION NOTES ON DWG. AD-1.

3/32" = 1'-0" 0 5' 10' 20' 30' 40' 50'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E: RCA RCA — DESIGN, DRAWN, REVIEW, CHIEF ARCH./ENGR., PROJECT MANAGER JB, FIRE PROTECTION, QUALITY CONTROL, BRANCH MANAGER, DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND — ATLANTIC DIVISION — NORFOLK, VIRGINIA

NAVAL STATION — N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING PARTIAL FIRST FLOOR PLAN - WEST

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468434
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368434
SHEET	10 OF 119

A-2

FILENAME: 5105A2.DWG; PLOT SCALE: 3/32" = 1'-0", SAVED ON 08/14/97 AT 09:37, XREFS: NONE

8 7 6 5 4 3 2 1 — D C B A

SYMBOL KEY

- (18) (A) COLUMN LINE NUMBER/LETTER
- 101A ROOM NUMBER
- N.I.C. NOT IN CONTRACT
- 3 DEMOLITION NOTE
- REMOVE INDICATED AREA OF EXIST.WOOD FLOOR SHEATHING
- DOOR TYPE NUMBER
- F-8 ROOM FINISH TYPE
- S2 SURFACE MOUNTED SIGNAGE TYPE & NUMBER (SEE A-30 FOR SIGNAGE TYPES,SCHED.)
- F FIRE EXTINGUISHER CABINET
- 100A F-4
- S7C

EXIST. OPEN AREA ABOVE BOILER ROOM

EXIST. OPEN STORAGE AREA ABOVE WOMEN'S LOCKER ROOM 202

OPEN AREA ABOVE EXIST. HANDBALL COURT #3 20'WIDE X 40'LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #2 20'WIDE X 40'-1"LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #1 20'WIDE X 40'-1"LONG

EXIST. BOXING WORKOUT ROOM N.I.C.

EXISTING /STORAGE ROOM N.I.C.

EXIST. AEROBICS WORKOUT ROOM N.I.C.

EXIST. LAUNDRY N.I.C.

NEW 2ND FLOOR MULTI-PURPOSE EQUIPMENT ROOM 18'-6"WIDE X 41'-7"LONG

OPEN AREA ABOVE EXIST. GYMNASIUM PLAYING COURTS

MATCHLINE (SEE SHEET A-4)

EXIST. 2ND FLOOR EXERCISE ROOM N.I.C.

EXISTING RAISED EXERCISE EQUIP. PLATFORM N.I.C.

ACCESS CHASE

EXISTING 2ND FL. MEZZANINE 205 F-1

EXIST. OFFICE N.I.C.

EXIST. OFFICE 204 F-?

EXIST. OFFICE N.I.C.

OPEN AREA ABOVE SQUASH COURT #1 18'-6"WIDE X 32'LONG

OPEN AREA ABOVE EXIST. SQUASH COURT #2 18'-6"WIDE X 32'LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #5 20'WIDE X 40'LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #4 20'WIDE X 40'LONG

EXIST 2ND FLOOR BULK STORAGE ABOVE EXISTING 1ST FLOOR STORAGE 219 F-?

OPEN AREA ABOVE EXISTING POWER PALACE (WEIGHT-TRAINING EQUIPMENT) N.I.C.

LIMIT OF NEW WORK EXTERIOR RENOVATION WHERE BLDG 3147 MEETS BLDG. 3560

LIMIT OF NEW WORK EXTERIOR RENOVATION WHERE BLDG. 3147 MEETS BLDG. 3560

EXIST. BLDG. 3560 (BOWLING ALLEY) N.I.C.

EXISTING - PARTIAL 2ND FLOOR PLAN - EAST

SCALE 3/32" = 1'-0"

· KEY PLAN ·

· GENERAL NOTES ·

1. SEE DEMOLITION NOTES ON SHEET AD-1.

0 5' 10' 20' 30' 40' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S MAINT.
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA

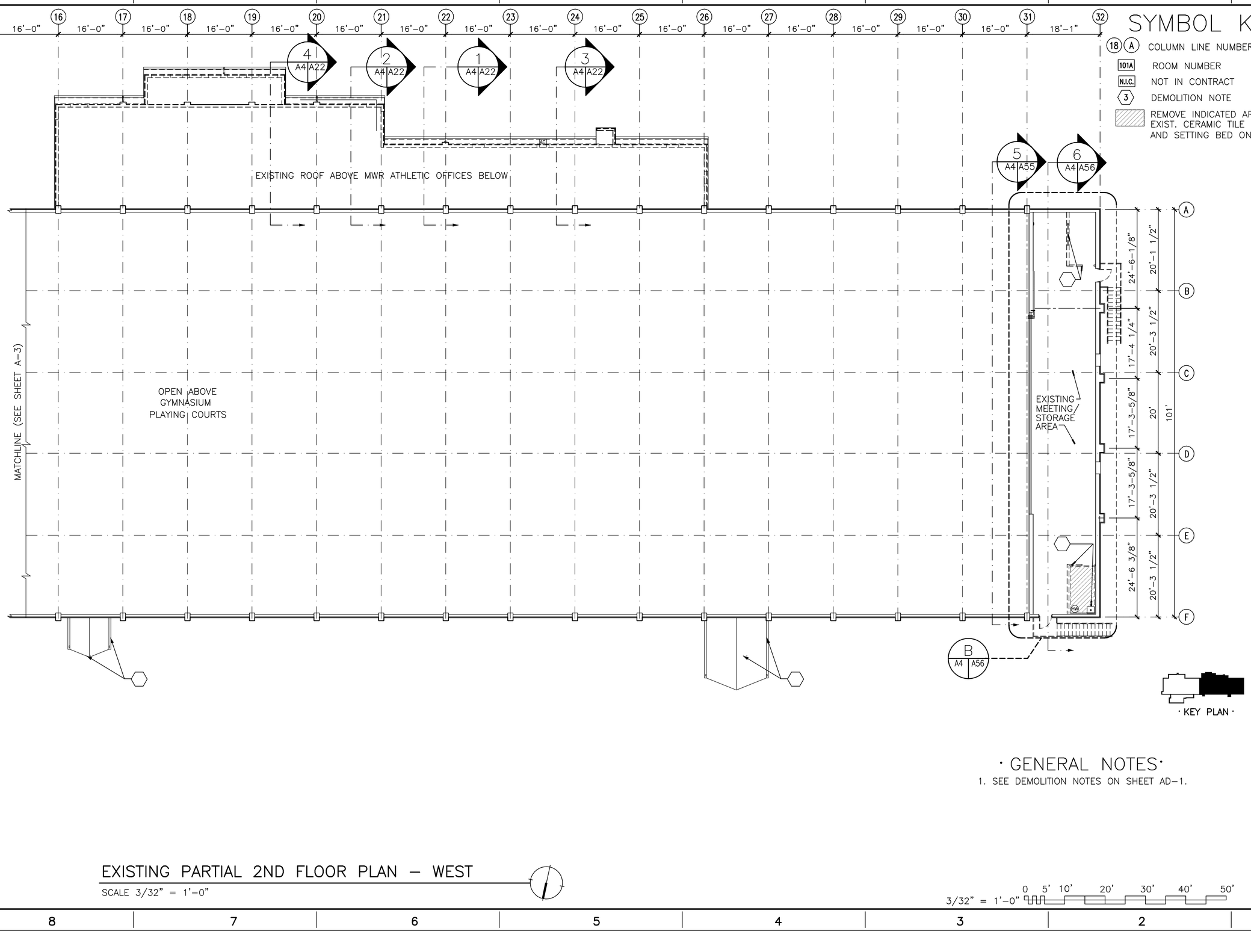
RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING PARTIAL SECOND FLOOR PLAN - EAST

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468435	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368435	
SHEET 11 OF 119	

A-3

FILENAME: 5105A3.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 13:35, XREFS: NONE



SYMBOL KEY

- (18) (A) COLUMN LINE NUMBER/LETTER
- 101A ROOM NUMBER
- N.I.C. NOT IN CONTRACT
- 3 DEMOLITION NOTE
- REMOVE INDICATED AREA OF EXIST. CERAMIC TILE FLOOR AND SETTING BED ONLY

· GENERAL NOTES ·

1. SEE DEMOLITION NOTES ON SHEET AD-1.

EXISTING PARTIAL 2ND FLOOR PLAN – WEST

SCALE 3/32" = 1'-0"

3/32" = 1'-0" 0 5' 10' 20' 30' 40' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E FJD
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ ENGR. JB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD OIC/ COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION N.A.B. LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

VIRGINIA BEACH, VIRGINIA

EXISTING PARTIAL SECOND FLOOR PLAN – WEST

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468436	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368436	
SHEET 12 OF 119	

A-4

SEAL

FILENAME: 510544.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 13:44, XREFS: NONE

NEW WORK – PARTIAL 1ST FLOOR PLAN–EAST

SCALE 3/32" = 1'-0"

DIMENSIONS SHOWN ARE FROM FACE OF EXISTING CMU BEHIND EXIST. 2-1/2"+ THICK EIFS SYSTEM TO REMAIN, ABOVE FACE OF NEW COLORED CMU VENEER COURSES BELOW.–SEE NEW ELEVATIONS ON DWGS A–14 TO A–16 AND DWG A–52

NEW MECH. ROOM 108A F-7
EXIST. STORAGE ROOM 108 F-7
EXIST. SAUNA VESTIBULE N.I.C.
EXIST. STEAM ROOM N.I.C.
EXIST. MECH ROOM N.I.C.
RENOVATE EXIST. EAST STAIRWAY 107 F-1
EXISTING MEN'S EXTERIOR TOILET 106 F-8
EXISTING WOMEN'S EXTERIOR TOILET 105 F-8
EXIST. SAUNA N.I.C.
EXIST. MEN'S SHOWERS 109 F-?
EXIST. MEN'S WASHROOM 109 F-9
EXIST. MEN'S TOILETS 109 F-?
EXISTING MEN'S OPEN LOCKER ROOM 110 F-9
EXIST. LAUNDRY N.I.C.
EXIST. CORRIDOR N.I.C.
EXIST. BOILER ROOM
NEW ENTRANCE VESTIBULE 100 F-1
EXISTING WOMEN'S LOCKER ROOM N.I.C.
EXISTING CORRIDOR 102 F-1
EXISTING EQUIP. STORAGE N.I.C.
I.D. CONTROL DESK
EXISTING STORAGE N.I.C.
EXISTING MEN'S RENTAL LOCKER ROOM N.I.C.
TOILET N.I.C.
SAUNA #2 N.I.C.
SHOWER #2 N.I.C.
EXISTING HANDBALL COURT #5 20'WIDE X 40'LONG 111 F-4
EXISTING HANDBALL COURT #4 20'WIDE X 40'LONG 112 F-4
EXISTING HANDBALL COURT #3 20'WIDE X 40'LONG 117 F-6
EXISTING HANDBALL COURT #2 20'WIDE X 40'-1"LONG 116 F-5
EXISTING HANDBALL COURT #1 20'WIDE X 40'-1"LONG 115 F-5
EXISTING SQUASH COURT #1 18'-6"WIDE X 32'LONG 114 F-5
EXISTING SQUASH COURT #2 18'-6"WIDE X 32'LONG 113 F-5
NEW STORAGE ROOM 120 F-10
EXISTING LOBBY 103 F-2
EXISTING GYMNASIUM PLAYING COURTS 118 F-11
MATCHLINE (SEE SHEET A–2)
NEW NORTH MECHANICAL ROOM (FORMER BULK STORAGE ROOM) 119 F-12
EXIST. VESTIBULE 121A F-
EXISTING POWER PALACE (WEIGHT–TRAINING EQUIPMENT) N.I.C.
EXIST. BLDG. 3560 (BOWLING ALLEY) NIC
LIMIT OF NEW COLORED CMU VENEER WHERE BLDG 3147 MEETS BLDG. 3560
EXISTING CONCRETE DRIVEWAY
EXISTING GRASS AREA
EXISTING BITUMINOUS PAVEMENT
NEW GRASS AREA
NEW CONC. WALKWAY SEE DWG L-1
EXISTING CONCRETE WALKWAY
EXIST. COILING DOOR
C.J.

SYMBOL KEY

- 18 A — COLUMN LINE NUMBER/LETTER
- 2 — NEW WORK NOTE NUMBER
- 107 — DOOR NUMBER
- L1 — LOUVER TYPE
- W3 — WINDOW TYPE
- V — VENDING MACHINE (N.I.C.)
- F-8 — ROOM FINISH TYPE
- 101A — ROOM NUMBER
- S2 — SURFACE MOUNTED SIGNAGE TYPE & NUMBER (SEE A–19 FOR SIGNAGE TYPES,SCHED.)
- N.I.C. — NOT IN CONTRACT
- F — FIRE EXTINGUISHER CABINET
- PROVIDE 12"X12"PORCELAIN CERAMIC FLOOR TILE ON NEW THINSET OR SETTING BED
- PROVIDE INDICATED AREA OF NEW WOOD GYM/PLAYING COURT FLOOR SYSTEM(INCLUDING BASE)
- NW — PROVIDE INDICATED AREA OF NEW CONCRETE WALK
- NBP — PROVIDE INDICATED AREA OF NEW BITUMINOUS PAVEMENT AND 6" STONE BASE

· GENERAL NOTES ·

1. SEE NEW WORK NOTES ON SHEET AN– 1.
2. DIMENSIONS SHOWN ARE FROM FACE OF EXISTING CMU BEHIND EXIST. 2-1/2"+ THICK EIFS SYSTEM TO REMAIN, ABOVE NEW 4"FACE COLORED CMU VENEER BELOW

· KEY PLAN ·

3/32" = 1'-0" 0 5' 10' 20' 30' 40' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR COMMANDER NAVFAC

E/C DESIGN RCA; DRAWN RCA; REVIEW TJD; CHIEF ARCH'/ ENGR.; PROJECT MANAGER JTB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK– PARTIAL FIRST FLOOR PLAN – EAST

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468437	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368437	
SHEET 13 OF 119	

A-5

SEAL

FILENAME: 51054S.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 13:45, XREFS: NONE

SYMBOL KEY

- (18) (A) — COLUMN LINE NUMBER/LETTER
- 2 — NEW WORK NOTE NUMBER
- 107 — DOOR NUMBER
- L1 — LOUVER TYPE
- W1 — WINDOW TYPE
- F-8 — ROOM FINISH TYPE
- 101A — ROOM NUMBER
- S2 — SURFACE MOUNTED SIGNAGE TYPE & NUMBER (SEE A-19 FOR SIGNAGE TYPES,SCHED.)
- N.I.C. — NOT IN CONTRACT
- F — FIRE EXTINGUISHER CABINET
- PROVIDE 12"X12"PORCELAIN CERAMIC FLOOR TILE ON NEW THINSET OR SETTING BED
- PROVIDE INDICATED AREA OF NEW WOOD GYM/PLAYING COURT FLOOR SYSTEM(INCLUDING BASE)

PROVIDE NEW CONCRETE AND MASONRY HANDICAPPED ACCESS RAMP,STEPS,& PLATFORMS,W/NEW CONC.SLAB IN EXIST. VESTIBULE TO ACCESS MWR OFFICES.

PROVIDE NEW CONCRETE AND MASONRY HANDICAPPED ACCESS RAMP & STEPS, AND COVERED ENTRANCE PLATFORM TO RENOVATED NEW CONFERENCE ROOM AREA.

PROVIDE 6'-5" WIDE X 6'-0" HIGH FIXED INTAKE WALL LOUVERS W/INTEGRATED CONTROL MOTOR-OPERATED DAMPERS BEHIND LOUVERS AT ALL LOCATIONS INDICATED. -SEE DETAIL

EXISTING GRASS AREA

EXISTING CONCRETE WALK

NEW 1:12 H/C RAMP DN

NEW PORCH

VESTIBULE 138 F-?

ASSISTANT PROGRAMS DIRECTOR 139 F-?

SPORTS PROGRAMS DIRECTOR 140 F-?

SPORTS PROGRAMS SECRETARY 141 F-?

COFFEE MESS 41A

STOR 41B

COPY

SPORTS INFORMATION LOBBY 135 F-?

SPORTS PROGRAMS INFO DESK 132 F-?

TROPHIES

ASSISTANT SPORTS PROGRAMS 133 F-?

ENGRAM ROOM 134 F-?

MWR SONPY TRAINING/BREAK AREA 130 F-?

MECH.ROOM/JAN. CL. 130 F-?

CORRIDOR 129 F-?

MEETING STORAGE 126

BREAK AREA 125 F-?

NEW MULTI-PURPOSE MEETING AREA 125A

126 F-?
127 F-?
128 F-?
131 F-?

SEE ENLARGED PLAN OF MWR ADMINISTRATION AND SPORTS PROGRAMS OFFICES -SEE DETAIL A/A6 A38

EXIST. RAISED CONCRETE WALKWAY 12-1/2" A.F.F.

NEW 6"RAISED CONCRETE HIGH WALKWAY ABOVE EXISTING SLAB,W/CONT.GUARDRAIL ADJACENT TO NEW H/C LIFT.-TOP ELEV. 1'-6 1/2"ABOVE EXIST.GYM WOOD FLOOR

GYMNASIUM PLAYING COURTS 118 F-?

NEW STAIRWAY #2 TO 2ND FLOOR STORAGE ROOM-SEE ENLARGED STAIR PLAN & SECTION ON DWGS. A-57,A-59

RENOVATED NEW WEST END EXERCISE MACHINE ROOM -SEE ENLARGED SECTION & FLOOR PLAN ON DETAIL A/A6 A57

RENOVATE EXISTING STORAGE TO NEW EXERCISE MACHINE ROOM 124 F-?

NEW STAIRWAY #1 TO 2ND FLOOR STORAGE ROOM-SEE ENLARGED STAIR PLAN & SECTION ON SHEET A-59

RENOVATE EXISTING WOMEN'S RESTROOM 122 F-?

MATCHLINE (SEE SHEET A-1)

EXIST VEST. 121A

EXIST VEST. 121B F-?

EXISTING CONCRETE WALKWAY

EXISTING BITUMINOUS PAVEMENT

RAMP DN

16'-0" 17'-0" 18'-0" 19'-0" 20'-0" 21'-0" 22'-0" 23'-0" 24'-0" 25'-0" 26'-0" 27'-0" 28'-0" 29'-0" 30'-0" 31'-0" 32'-0" 18'-1"

4'-0" 33'-10" 5'-5 5/8"

24'-6 3/8" 17'-3-5/8" 17'-3-5/8" 20'-3 1/2" 17'-4 1/4" 20'-3 1/2" 20' 20' 101'

SYMBOL KEY

- NW — PROVIDE INDICATED AREA OF NEW CONCRETE WALK
- NBP — PROVIDE INDICATED AREA OF NEW BITUMINOUS PAVEMENT AND 6" STONE BASE

NEW WORK PARTIAL 1ST FLOOR PLAN - WEST

SCALE 3/32" = 1'-0"

KEY PLAN

GENERAL NOTES

1. SEE NEW WORK NOTES ON SHEET AN-1 .

3/32" = 1'-0" 0 5' 10' 20' 30' 40' 50'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E FIRM: RCA

DESIGN	RCA
DRAWN	TJD
REVIEW	
CHIEF ARCH'/ ENGR.	
PROJECT MANAGER	JTB
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED — DATE

ACTIVITY - SATISFACTORY TO

APPROVED — DATE

FOR CO/OFFICER IN CHARGE

DEPARTMENT OF THE NAVY — NAVAL STATION N.A.B. LITTLE CREEK

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK PARTIAL FIRST FLOOR PLAN - WEST

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468438
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368438
SHEET	14 OF 119

A-6

FILENAME: 5105A6.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 11:41, XREFS: NONE

SYMBOL KEY

- (18) (A) COLUMN LINE NUMBER/LETTER
- [2] NEW WORK NOTE NUMBER
- (107) DOOR NUMBER
- (L1) LOUVER TYPE
- (W3) WINDOW TYPE
- [V] VENDING MACHINE (N.I.C.)
- [F-8] ROOM FINISH TYPE
- [101A] ROOM NUMBER
- [S2] SURFACE MOUNTED SIGNAGE TYPE & NUMBER (SEE A-19 FOR SIGNAGE TYPES,SCHED.)
- [N.I.C.] NOT IN CONTRACT
- [F] FIRE EXTINGUISHER CABINET

NEW WORK – PARTIAL 2ND FLOOR PLAN – EAST

SCALE 3/32" = 1'-0"

EXIST. OPEN AREA ABOVE BOILER ROOM

EXIST. TOOL /EQUIP. PARTS ROOM 202 F-?

NEW MECH. STORAGE ROOM 201 F-?

NEW MECH. ROOM 200 F-?

OPEN AREA ABOVE EXIST. HANDBALL COURT #3 20'WIDE X 40'LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #2 20'WIDE X 40'-1"LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #1 20'WIDE X 40'-1"LONG

OPEN AREA ABOVE 8' HIGH SUSPENDED CEILING BELOW

EXIST. BOXING EXERCISE ROOM N.I.C.

EXISTING /STORAGE ROOM N.I.C.

EXIST. AEROBICS EXERCISE ROOM N.I.C.

EXIST. LAUNDRY N.I.C.

NEW DOOR &RENOVATED EAST STAIRS 207 F-?

207A

207B

EXIST. 2ND FLOOR MEZZANINE 205 F-?

203 F-? NEW 2ND FLOOR MULTI-PURPOSE EQUIPMENT ROOM 18'-6"WIDE X 41'-7"LONG

OPEN AREA ABOVE EXIST. GYMNASIUM PLAYING COURTS

MATCHLINE (SEE SHEET A-4)

EXIST. 2ND FLOOR EXERCISE ROOM 206

EXISTING RAISED EXERCISE EQUIP. PLATFORM N.I.C.

ACCESS CHASE

NEW BRIDGE ACROSS CORRIDOR

EXIST. OFFICE N.I.C.

EXIST. OFFICE 204 F-?

204

OPEN AREA ABOVE SQUASH COURT #1 18'-6"WIDE X 32'LONG

OPEN AREA ABOVE EXIST. SQUASH COURT #2 18'-6"WIDE X 32'LONG

NEW STORAGE ROOM 220 F-?

OPEN AREA ABOVE EXIST. HANDBALL COURT #5 20'WIDE X 40'LONG

OPEN AREA ABOVE EXIST. HANDBALL COURT #4 20'WIDE X 40'LONG

2ND FLOOR NORTH MECH. ROOM ABOVE RENOVATED 1ST FLOOR MECH. ROOM 219 F-?

LIMIT OF NEW WORK EXTERIOR RENOVATION WHERE BLDG 3147 MEETS BLDG. 3560

OPEN AREA ABOVE EXISTING POWER PALACE (WEIGHT-TRAINING EQUIPMENT)

LIMIT OF NEW WORK EXTERIOR RENOVATION WHERE BLDG. 3147 MEETS BLDG. 3560

EXIST. BLDG. 3560 (BOWLING ALLEY) NIC

· GENERAL NOTES ·

1. SEE NEW WORK NOTES ON SHEET AN-1.

· KEY PLAN ·

0 5' 10' 20' 30' 40' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN RCA; DRAWN RCA; REVIEW TJD; CHIEF ARCH'/ ENGR.; PROJECT MANAGER JTB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — N.A.B. LITTLE CREEK

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK PARTIAL SECOND FLOOR PLAN – EAST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468439	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368439	
SHEET 15 OF 119	

A-7

FILENAME: 5105A7.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 14:02, XREFS: NONE

SYMBOL KEY

- 18 / A — COLUMN LINE NUMBER/LETTER
- 2 — NEW WORK NOTE NUMBER
- 208 — DOOR NUMBER
- L1 — LOUVER TYPE
- W3 — WINDOW TYPE NUMBER
- F-8 — ROOM FINISH TYPE
- 101A — ROOM NUMBER
- S2 — SURFACE MOUNTED SIGNAGE TYPE & NUMBER (SEE A-76 FOR SIGNAGE TYPES,SCHED.)
- NIC — NOT IN CONTRACT

16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 16'-0" | 18'-1"

4A A8|A27 · 2A A8|A27 · 1A A8|A27 · 3A A8|A27 · 5A A8|A55 · 6A A8|A57

EXISTING ROOF ABOVE MWR ATHLETIC OFFICES BELOW SHALL REMAIN UNDAMAGED & UNDISTURBED BY ALL ADJACENT NEW WORK

NEW MECH. EQUIP. ROOM 208 F-?

OPEN ABOVE EXISTING GYMNASIUM PLAYING COURTS

OPEN ABOVE EXISTING GYMNASIUM PLAYING COURTS

NEW STAIRWAY #2 TO 1ST FLOOR GYM & RESTROOMS ROOM-SEE ENLARGED STAIR PLAN & SECTION ON SHEETS A-57,A-59.

B A8|A57

NEW MULTI-PURPOSE GENERAL STORAGE AREA-SEE ENLARGED FLOOR PLAN ON DETAIL B A8|A57

NEW MULTI-PURPOSE GENERAL STORAGE AREA NEW ALLOWABLE LIVE LOAD: 100LBS/S.F. 209 F-?

NEW STAIRWAY #1 TO 1ST FLOOR GYM & RESTROOMS ROOM-SEE ENLARGED STAIR PLAN & SECTION ON SHEETS A-57,A-59.

100A F-4 · S7C

24'-6 3/8" · 17'-3-5/8" · 17'-4 1/4" · 24'-6-1/8" · 20'-3 1/2" · 20' · 20'-3 1/2" · 20'-1 1/2" · 101'

MATCHLINE (SEE SHEET A-3)

· GENERAL NOTES ·

1. SEE NEW WORK NOTES ON SHEET AN-1 .

NEW WORK PARTIAL 2ND FLOOR PLAN - WEST

SCALE 3/32" = 1'-0"

· KEY PLAN ·

3/32" = 1'-0" 0 5' 10' 20' 30' 40' 50'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN RCA
REVIEW TJD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD OIC/MANAGER MAPAC

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
NEW WORK PARTIAL SECOND FLOOR PLAN - WEST

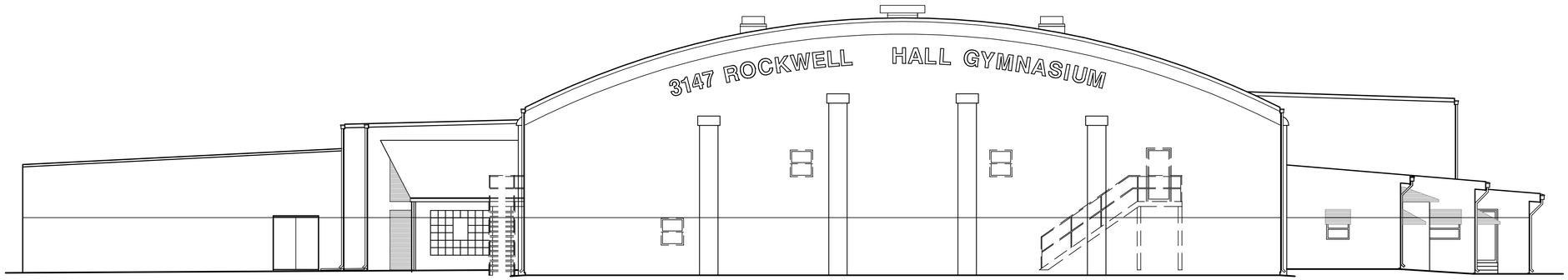
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468440	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368440	
SHEET 16 OF 119	

A-8

FILENAME: 5105A8.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 01/08/98 AT 14:14, XREFS: NONE

8 | 7 | 6 | 5 | 4 | 3 | 2 | 1 — D | C | B | A

THIS SHEET NOT USED



EXISTING WEST ELEVATION

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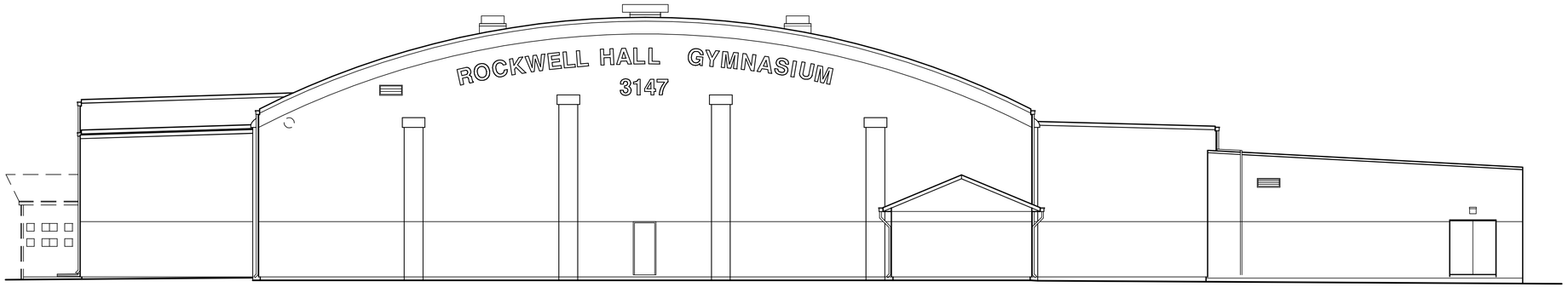


EXISTING EAST ELEVATION

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

1/8"=1'-0" 0' 5' 10' 20' 30'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E
EFD
DESIGN RCA
DRAWN JMA
REVIEW TLD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

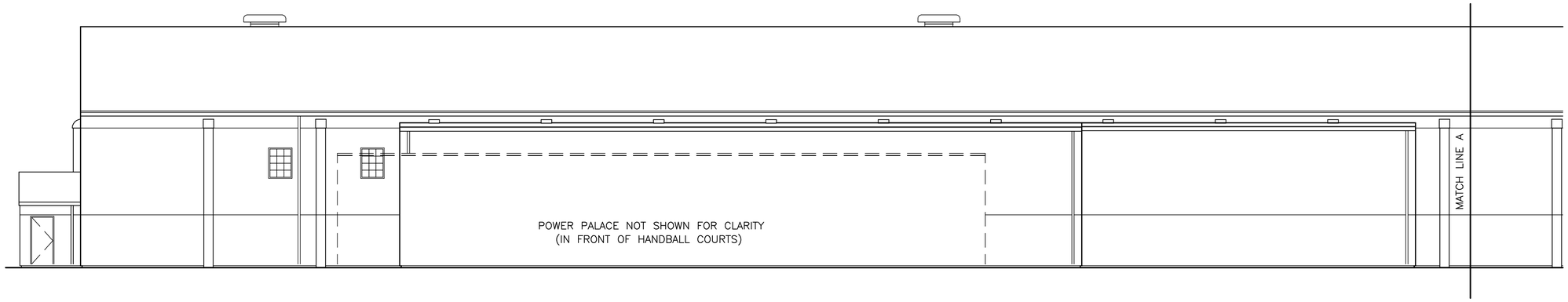
SIGNATURE

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL STATION
NAB LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
EXISTING EAST AND WEST ELEVATIONS

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468441	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368441	
SHEET 17 OF 119	

A-11

FILENAME: 5105A11.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 16:02, XREFS: 5105EXEL.DWG



EXISTING NORTH ELEVATION

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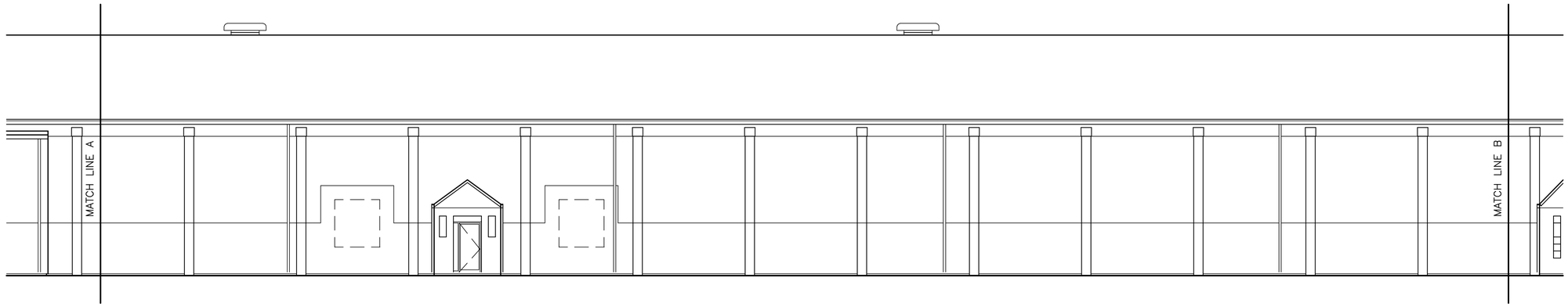
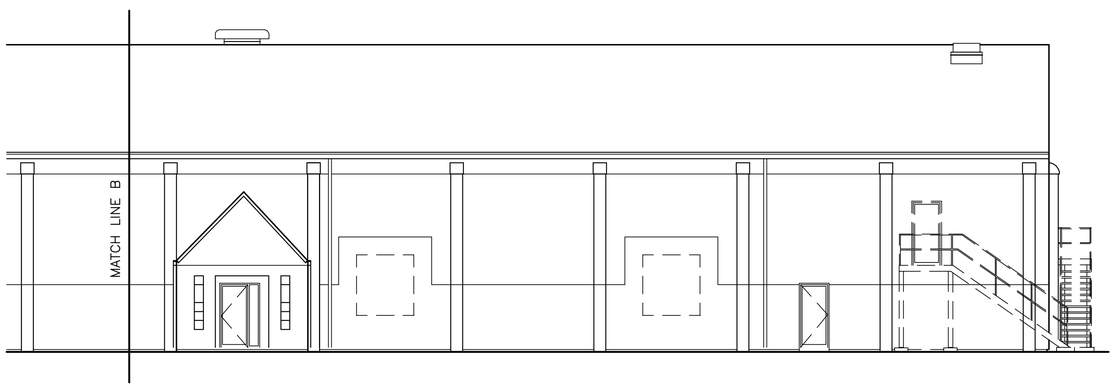




1/8"=1'-0" 0' 5' 10' 20' 30'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN JMA
REVIEW TLD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE

ACTIVITY - SATISFACTORY TO
APPROVED DATE

FOR EFD FOR COMMANDER NAVFAC

SIGNATURE

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VA

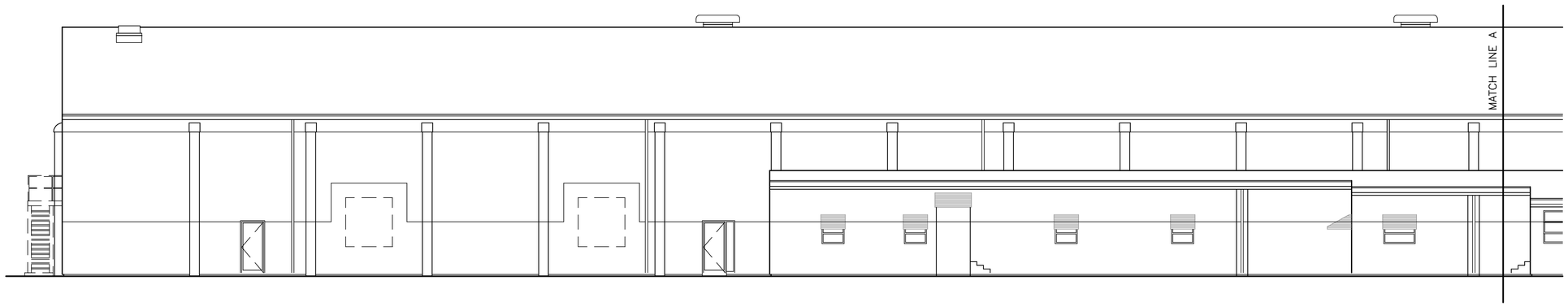
RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING NORTH ELEVATION

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468442	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368442	
SHEET 18 OF 119	

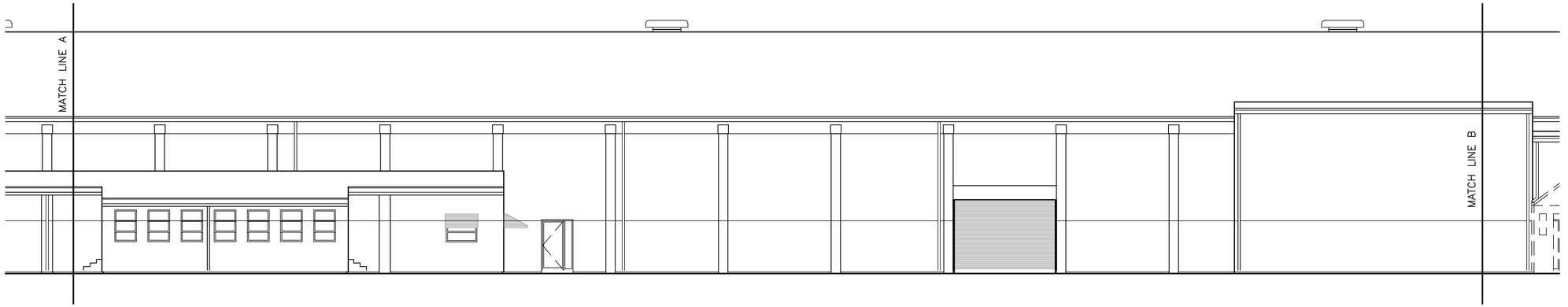
A-12

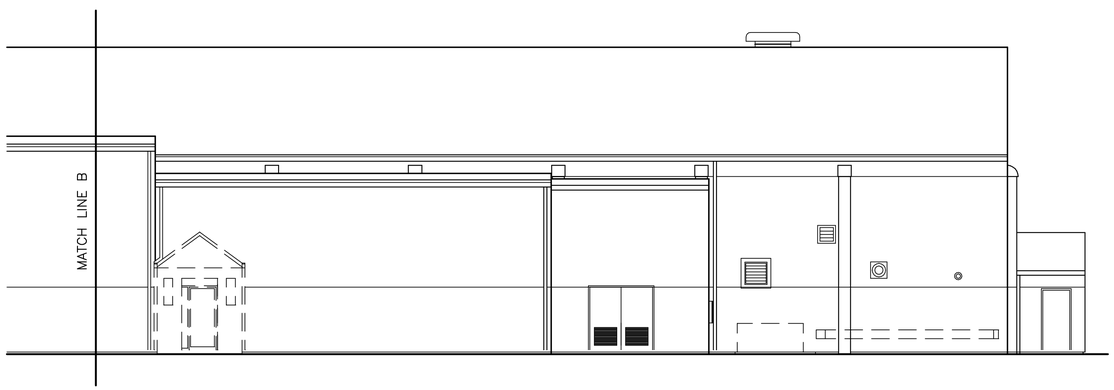
FILENAME: 5105A12.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 16:03, XREFS: C:\R13\PERSONAL\GYM\TEMP\5105EXEL.DWG



EXISTING SOUTH ELEVATION

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





1/8"=1'-0" 0' 5' 10' 20' 30'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E
E/D
DESIGN ROA
DRAWN JMA
REVIEW TJD
CHIEF ARCH./ ENGR.
PROJECT MANAGER VJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR CO, OIC, COMMANDER, NAVFAC

DEPARTMENT OF THE NAVY
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL STATION
NAB LITTLE CREEK
VIRGINIA BEACH, VA

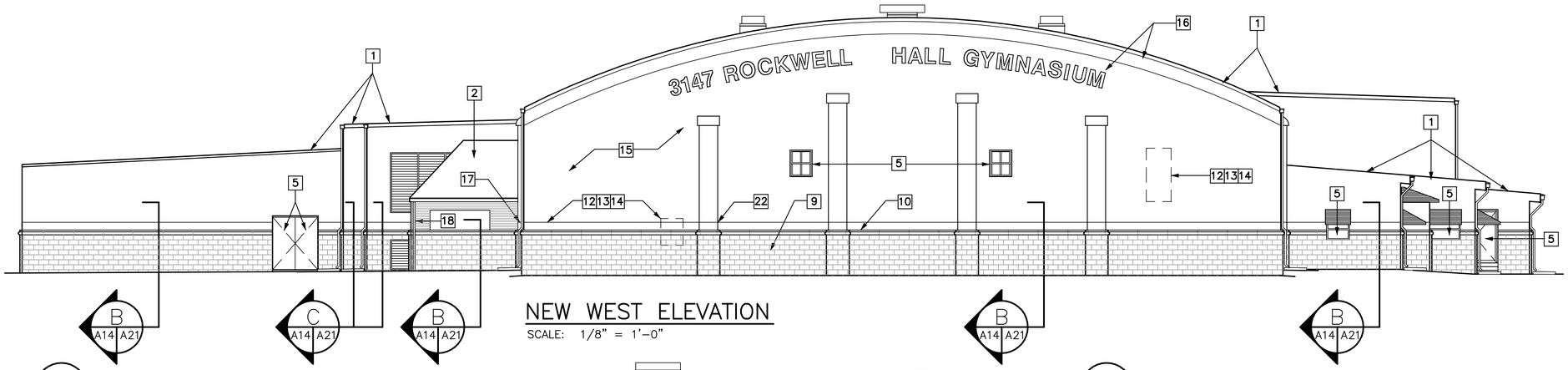
RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING SOUTH ELEVATION

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
E/D NO. 468443	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4.368443	
SHEET 19 OF 119	

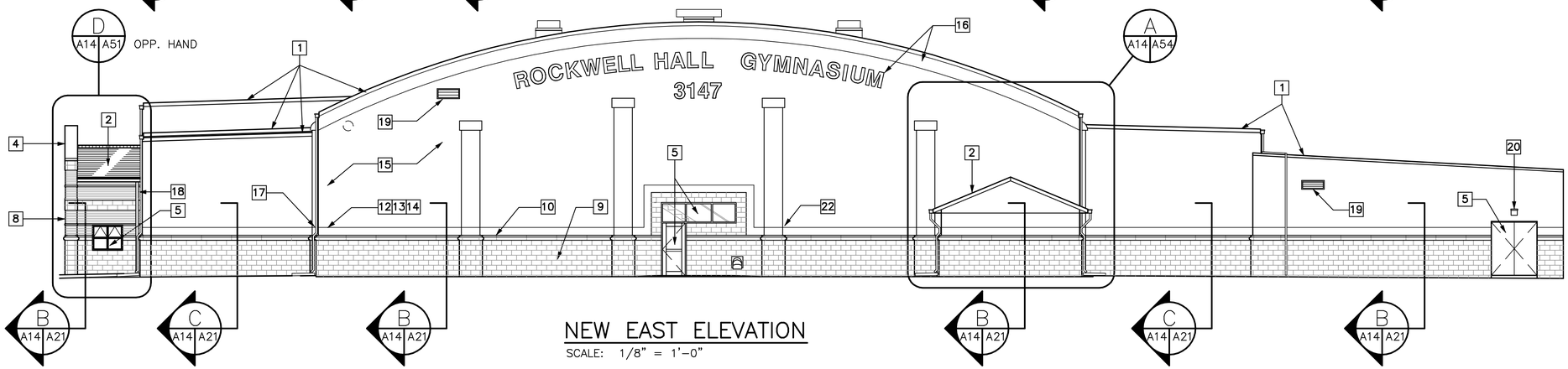
A-13

FILENAME: 5105A13.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 16:04, XREFS: 5105EXEL.DWG



NEW WEST ELEVATION

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



NEW EAST ELEVATION

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

EXTERIOR FINISH & COLOR NOTES: (THESE NOTES REFER TO DWGS. A14, A15 & A16 ONLY)

1. CAUTION: DO NOT DISTURB, MODIFY OR DAMAGE THE EXISTING WHITE SINGLE-PLY ROOF SYSTEM ON THE MAIN BUILDING BARREL-VAULTED ROOF, OR ON ANY ADJACENT EXISTING LEAN-TO ADDITION AREAS DURING THE COURSE OF NEW EXTERIOR OR INTERIOR RENOVATION WORK!
2. ALL ROOF SHINGLES SHALL BE CLASS "A" HEAVY-DUTY LAMINATED FIBERGLASS ARCHITECTURAL TYPE (40 YR) SIMILAR TO: ELK "PRESTIQUE PLUS" HIGH DEFINITION, COLOR: "SHAKEWOOD", APPLIED OVER #30 FELT.
3. ALL EXTERIOR MASONRY VENEER FLASHINGS, THRU-WALL FLASHING AND MISC. NEW ROOF FLASHINGS SHALL BE 16 OZ. LEAD-COATED COPPER.
4. ALL EXTERIOR METAL LOUVERS AND PREFINISHED METAL MASONRY WALL COPINGS SHALL BE A CUSTOM COLOR (P11) TO MATCH DURANAR XL 3-COAT (70% KYNAR 500) COLOR: UC54137, "BEIGE".
5. ALL EXTERIOR PREFINISHED ALUMINUM WINDOWS AND STOREFRONT SYSTEM DOORS & FRAMES: (COLOR P1), (70% KYNAR 500) DURANAR XL COLOR #UC-52006, "RIVER ROUGE RED", W/ FACTORY BAKED FLUOROPOLYMER FINISH.
6. EXTERIOR EXISTING & NEW (GALVANIZED AND FACTORY PRIMED) HOLLOW METAL DOORS FRAMES & HANDRAILS, SHALL MATCH COLOR (P2), SEMI-GLOSS ALKYD ENAMEL.
7. ALL MISC. EXPOSED EXTERIOR METAL WORK SHALL BE HOT-DIP GALVANIZED AFTER SHOP FABRICATION, (AND SHOP PRIMED WITH A PRETREATMENT PRIMER) INCLUDING: NEW METAL WINDOW, DOOR & LOUVER LINTELS, METAL HANDRAILS, GUARDRAILS, GUARD-POSTS & PICKETS. FIELD PAINT INSTALLED WORK WITH COLOR (P2), ALKYD ENAMEL.
8. FACE BRICK VENEER - TAYLOR #370, "AUTUMN BLEND" WIRECUT, IN MODULAR SIZE FOR ALL GENERAL NEW BRICK VENEER AREAS INDICATED.
9. SOLID COLOR CONCRETE MASONRY VENEER, (NOM. 4" X 8" X 16", AND INCLUDING SPECIAL INSIDE & OUTSIDE CORNER SHAPES) SHALL MATCH ADAMS #7224, "BERMUDA BEIGE", WITH EXPOSED VENEER SURFACES HAVING A SMOOTH COLORED SURFACE.
10. PRECAST ARCHITECTURAL COLORED CONCRETE WATERTABLE SHAPES FOR NEW VENEER MASONRY WORK, (NOM. 8" X 8" X 48", AND INCLUDING SPECIAL INSIDE & OUTSIDE CORNER SHAPES) SHALL MATCH ADAMS #7224, "BERMUDA BEIGE", W/ A SMOOTH SURFACE.
11. EXPOSED EXTERIOR & INTERIOR MASONRY VENEER MORTAR COLOR SHALL MATCH FLAMINGO COLOR #C-84.
12. ALL NEW EIFS REPAIR, MODIFICATION AND REPLACEMENT WORK TO EXISTING EIFS BUILDING AREAS SHALL BE INTEGRATED WITH THE EXISTING WORK IN A SEAMLESS, AND IMPERCEPTABLE WORKMANLIKE MANNER.

    REMOVE EXISTING EIFS UP TO 1'-0" ABOVE THE ADJACENT NEW MASONRY WORK.

    WHERE EXISTING EIFS SYSTEM WORK IS REMOVED FOR NEW MASONRY WORK, OR OTHER MODIFICATIONS INDICATED OR REQUIRED, THE EXPOSED CMU BACK-UP HAVING RESIDUAL EIFS FOAM AND EIFS ADHESIVE SHALL BE WATER-BLAST CLEANED TO REMOVE THE FOAM RESIDUE ONLY, AND THE OLD ADHESIVE PATCHES SHALL REMAIN, PRIOR TO PROCEEDING WITH ANY OTHER NEW WORK.

    AFTER THE WATER-BLAST CLEANING IS COMPLETE, AND THE EXPOSED WALL AREAS ARE DRY, NEW BITUMINOUS DAMPROOFING IN NEW WORK MASONRY AREAS SHALL BE APPLIED CAREFULLY & ONLY WITHIN THE LIMITS OF THE NEW MASONRY, TAKING CARE NOT TO APPLY DAMPPROOFING WHERE ADJACENT NEW EIFS REPAIR WORK SHALL BE INSTALLED. EXPOSED CUT EDGES OF EXISTING EIFS WORK THAT SHALL BE JOINED WITH NEW WORK DUE TO NEW EXTERIOR MASONRY, DOOR, WINDOW WORK AND OTHER MODIFICATIONS, SHALL HAVE THE CUT EDGES OF THE EXISTING FINISH COAT (BY GRINDING OR APPROVED SOLVENT METHODS) REMOVED A MINIMUM WIDTH OF 3" TO 4" WIDE CONTINUOUS TO EXPOSE THE EXISTING BASE COAT. NEW EIFS WORK USING STANDARD WEIGHT (4.3 OZ./S.Y.) REINFORCING MESH SHALL LAP ONTO THE 3" TO 4" WIDE EXPOSED BASE COAT, WITH A NEW NCB (NON-CEMENTITIOUS) BASE COAT, FOLLOWED BY AN ADDITIONAL NCB SKIM COAT TO LAP ONTO ADJACENT EXISTING WORK WITH FEATHERED EDGES TO ACHIEVE A SEAMLESS, CONTINUOUS, INVISIBLE JOINT.
13. THE EXTERIOR INSULATION & FINISH SYSTEM (EIFS), FOR REPAIRS TO EXISTING AND ALL NEW WORK ON EXTERIOR BUILDING AREAS, SHALL BE SIMILAR TO ALL DESIGN REQUIREMENTS OF: THE DRYVIT "OUTSULATION SYSTEM", A TYPE PB EIFS SYSTEM, CONSISTING OF AN ADHESIVE MORTAR ATTACHED HIGH-DENSITY 2-1/2" EXPANDED POLYSTYRENE INSULATION BOARD, (2) NCB (NON-CEMENTITIOUS) 100% ACRYLIC BASE COATS, STANDARD-DUTY (4.3 OZ./S.Y.) REINFORCING MESH, ACCESSORY ALL ZINC-METAL CORNER, DRIP, EDGE TRIMS & EXPANSION JOINT TRIMS, APPROVED SEALANT SYSTEMS AND ELASTOMERIC COLORED FINISH COAT SYSTEM.
14. THE ELASTOMERIC 100% ACRYLIC FINISH COATING SYSTEM SHALL HAVE THE MOST CURRENT INTEGRAL DIRT PICK-UP RESISTING (DPR), AND MILDEW-RESISTING FORMULATION FINISH TECHNOLOGY, WITH A "SANDBLAST" FINISH TEXTURE. COLOR SHALL MATCH DRYVIT COLOR NO. S7, "AMARILLO WHITE" FOR ALL GENERAL WALL AREAS.
15. EXISTING REMAINING ADJACENT EIFS SYSTEM GENERAL WALL AREAS, AND EXPOSED AREAS OF EXISTING COATED EXTERIOR CONCRETE BUILDING COLUMNS, NOT AFFECTED BY RENOVATION WALL MODIFICATIONS AND REPAIRS TO INTEGRETE NEW RENOVATION WORK, SHALL BE WATER BLAST CLEANED, AND RECOATED WITH A NEW MATCHING COLOR (S7), "AMARILLO WHITE" 100% ACRYLIC POLYMER, MILDEWCIDE CHEMISTRY AND DIRT PICKUP (DPR) TECHNOLOGY, SIMILAR TO DRYVIT "REVYVIT", SANDY TEXTURED COATING SYSTEM.
16. EXISTING REMAINING EIFS SYSTEM "ACCENT BAND COLOR" WALL AREAS AS INDICATED, AT THE BUILDING PERIMETER ADJACENT TO THE ROOF, AND ON EXISTING PROJECTING BUILDING LETTERS AT THE EAST AND WEST BARREL-VAULTED BUILDING ELEVATIONS, TO COVER THE EXISTING COLOR. THESE "ACCENT COLOR" AREAS SHALL ALSO BE WATER BLAST CLEANED, AND RECOATED WITH A NEW "ACCENT" COLOR (S3), "BRANDYWINE", 100% ACRYLIC POLYMER, MILDEWCIDE CHEMISTRY AND DIRT PICKUP (DPR) TECHNOLOGY, SIMILAR TO DRYVIT "REVYVIT", SANDY TEXTURED COATING SYSTEM.
17. EXISTING STAINLESS STEEL DOWNSPOUTS SHALL BE FIELD CUT AT A UNIFORM HEIGHT (1'-0" +/-) ABOVE ADJACENT LOCATIONS OF NEW MASONRY VENEER AND RELATED EIFS REPAIR WORK. PROVIDE SHOP-FABRICATED MATCHING OFFSET STAIN-LESS STEEL ELBOW AND EXTENSION ASSEMBLIES TO FIELD INSTALL AND ATTACH TO EXISTING DOWNSPOUTS. ALSO PROVIDE (2) STAINLESS STEEL DOWNSPOUT ANCHOR STRAPS PER MODIFIED DOWNSPOUT, WHICH SHALL BE UNIFORMLY ATTACHED TO NEW MASONRY VENEER WORK HORIZONTAL JOINT LOCATIONS ONLY, (DO NOT ATTACH TO ANY EXISTING OR NEW EIFS WORK!!!)

    SIMILARLY, INSTALL ALL NEW STAINLESS STEEL DOWNSPOUTS TO NEW MASONRY VENEER ONLY!!!
18. PROVIDE NEW STAINLESS STEEL GUTTERS AND DOWNSPOUTS AT NEW SOUTH MAIN ENTRANCE, AND AT EXISTING NORTH ENTRANCES TO BE MODIFIED WITH NEW MASONRY VENEER INSTALLED PER NEW MODIFIED DOWNSPOUT INSTALLATION NOTE ABOVE.
19. EXISTING LOUVER, PAINT TO MATCH EIFS COLOR.
20. EXISTING LIGHT FIXTURE.
21. EXISTING STOREFRONT DOOR SHALL REMAIN.
22. PROVIDE 3/4" WIDE CONTINUOUS VERTICAL SEALANT JOINT WITH BACK-UP ROD, WHERE NEW MASONRY VENEER AND EIFS REPAIR WORK ABUTS EACH SIDE OF EXTERIOR BLDG COLUMNS.

1/8"=1'-0" 0' 5' 10' 20' 30'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN MANAGER ROA
REVIEW CHIEF ARCH./ ENGR. TJD
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

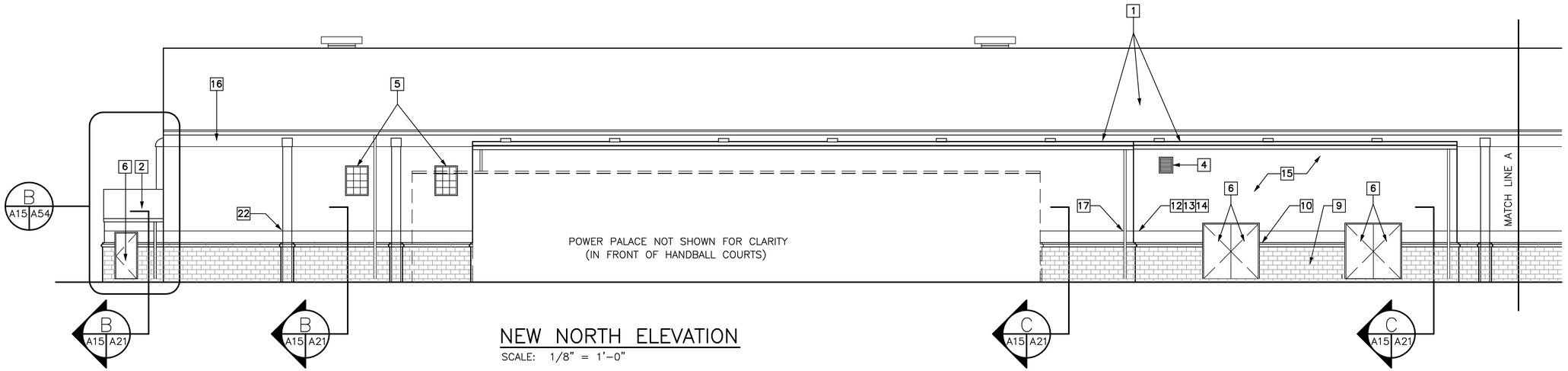
DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
ATLANTIC DIVISION
DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147
NEW EAST AND WEST ELEVATIONS

CODE ID. NO. 80091	SIZE D
SCALE:	AS NOTED
EFD NO.	468444
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368444
SHEET	20 OF 119

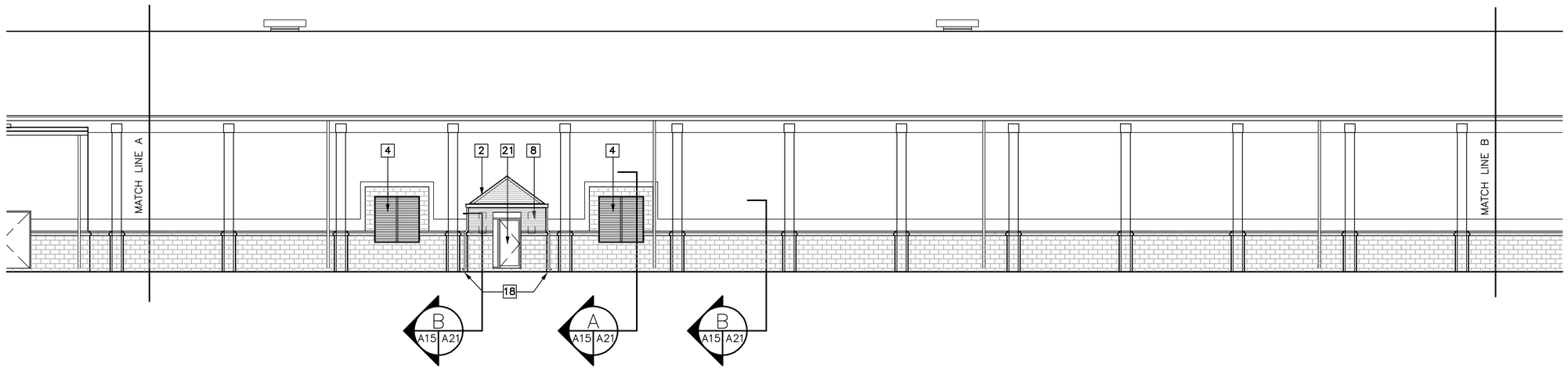
A-14

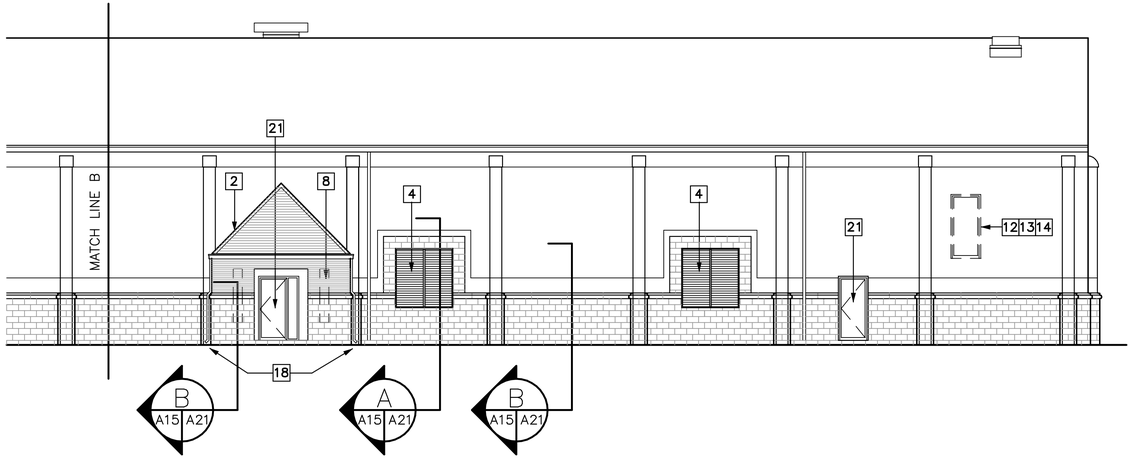
FILENAME: 5105A14.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 13:26, XREFS: 5105EXELDWG



NEW NORTH ELEVATION

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





NOTE: SEE SHEET A-14 FOR EXTERIOR FINISH & COLOR NOTES.

1/8"=1'-0" 0' 5' 10' 20' 30'

NO.	DESCRIPTION	DATE	APPROVED
SYM.	REVISIONS		

A/E
DESIGN RCA
DRAWN RCA/JW
REVIEW TID
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED
DATE

ACTIVITY – SATISFACTORY TO
APPROVED
DATE

FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA
NAVAL STATION
NAB LITTLE CREEK
VIRGINIA BEACH, VA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW NORTH ELEVATION

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468445	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368445	
SHEET 21 OF 119	

A-15

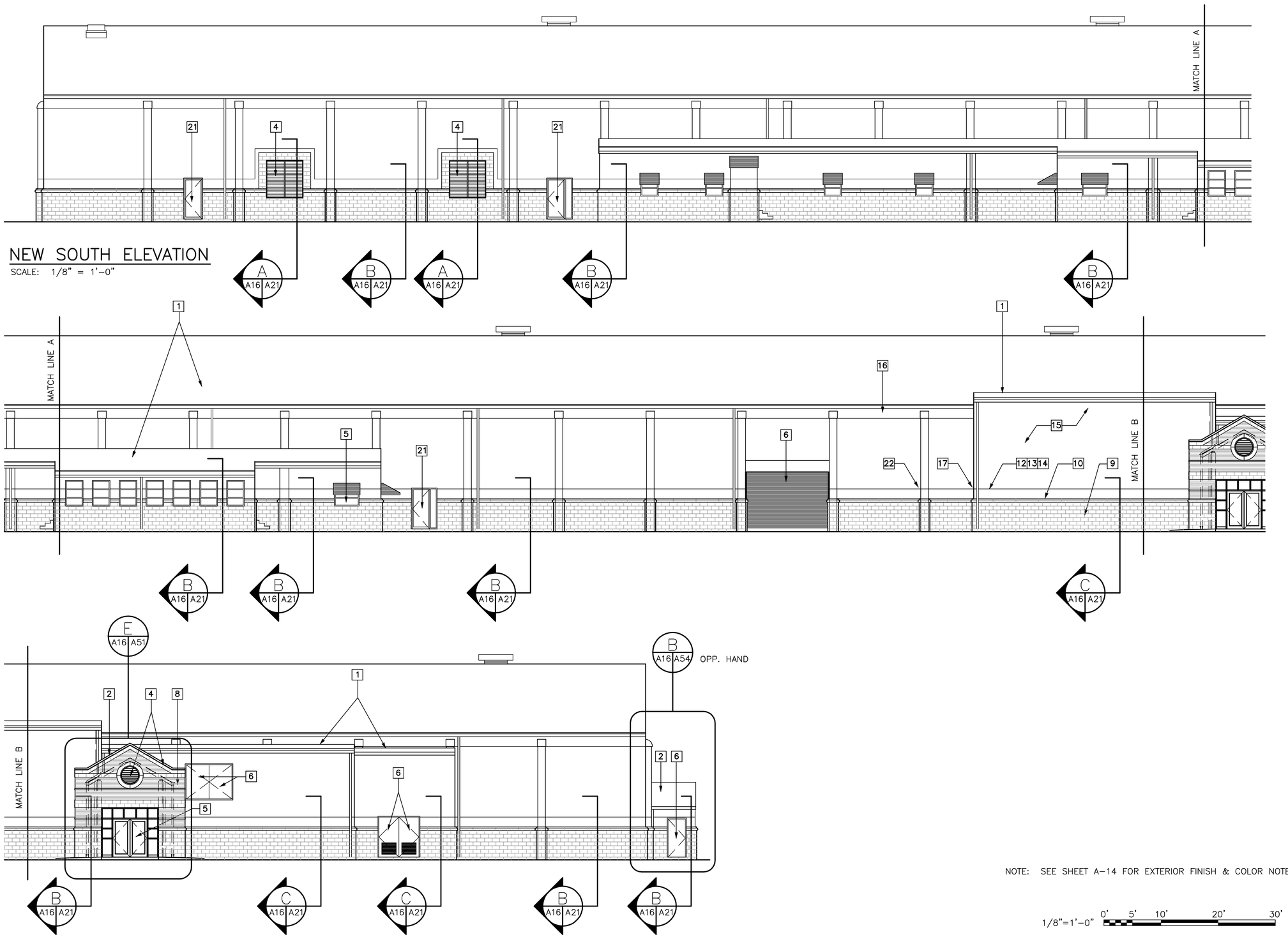
FILENAME: 5105A15.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 13:33, XREFS: C:\R13\PERSONAL\GYM\TEMP\5105EXEL.DWG

8 7 6 5 4 3 2 1

D C B A

NEW SOUTH ELEVATION

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



NOTE: SEE SHEET A-14 FOR EXTERIOR FINISH & COLOR NOTES.

1/8"=1'-0" 0' 5' 10' 20' 30'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN RCA/JW
REVIEW TJD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE

ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD, FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAVAL STATION
ATLANTIC DIVISION
NAB LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
NEW SOUTH ELEVATION

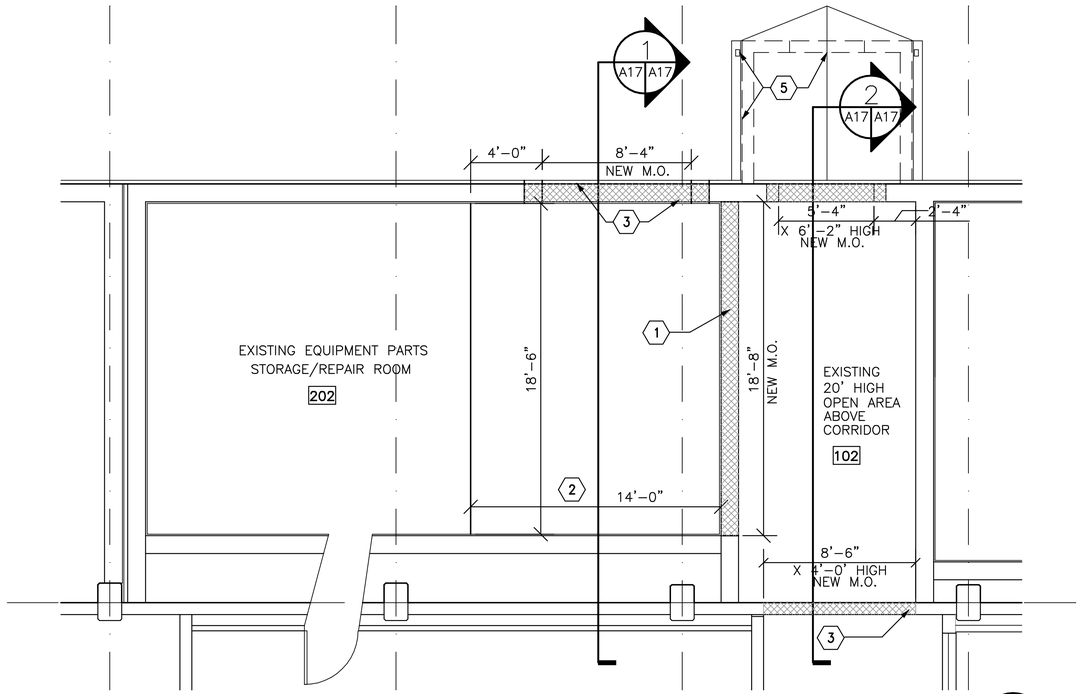
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468446	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368446	
SHEET 22 OF 119	

A-16

D C B A

8 7 6 5 4 3 2 1

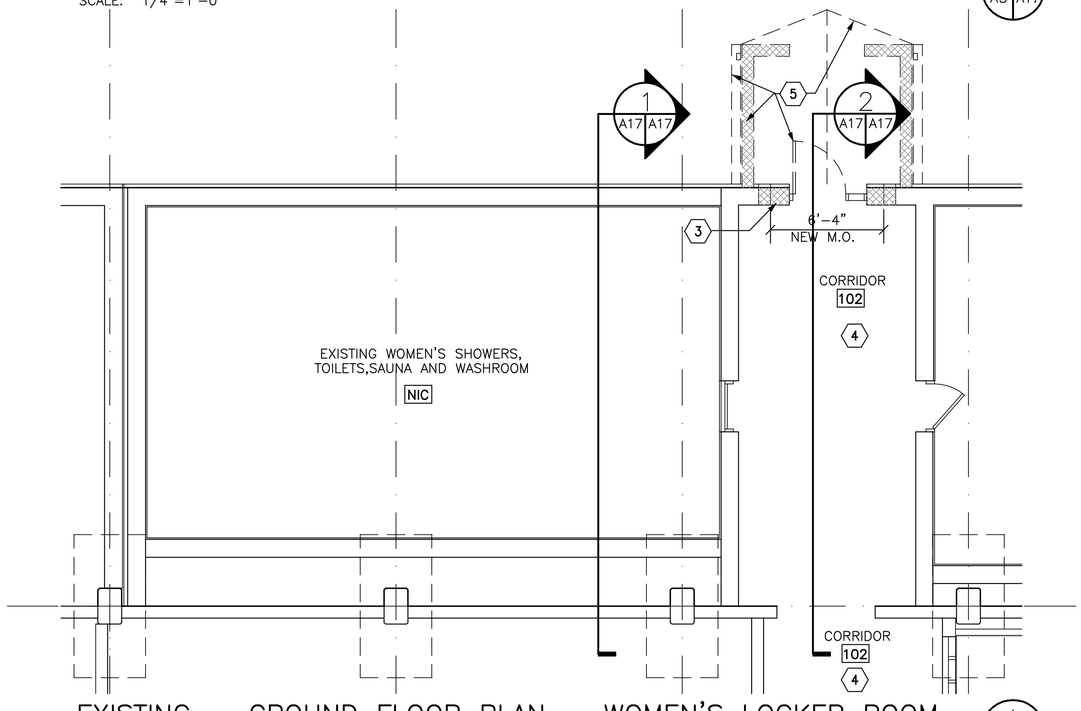
FILENAME: 5105A16.DWG, PLOT SCALE: 1=1, SAVED ON 08/14/97 AT 13:35, XREFS: 5105EXEL.DWG



EXISTING – SECOND FLOOR PLAN – SOUTH MECHANICAL ROOM

B
A3 A17

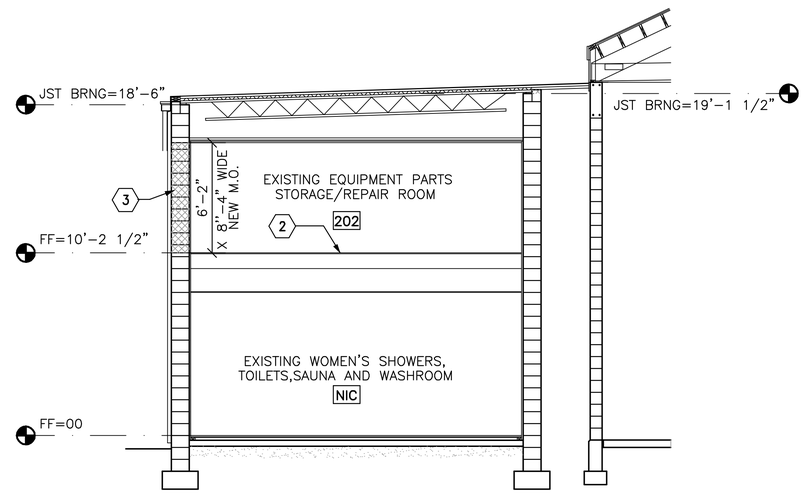
SCALE: 1/4"=1'–0"



EXISTING – GROUND FLOOR PLAN – WOMEN'S LOCKER ROOM

A
A1 A17

SCALE: 1/4"=1'–0"

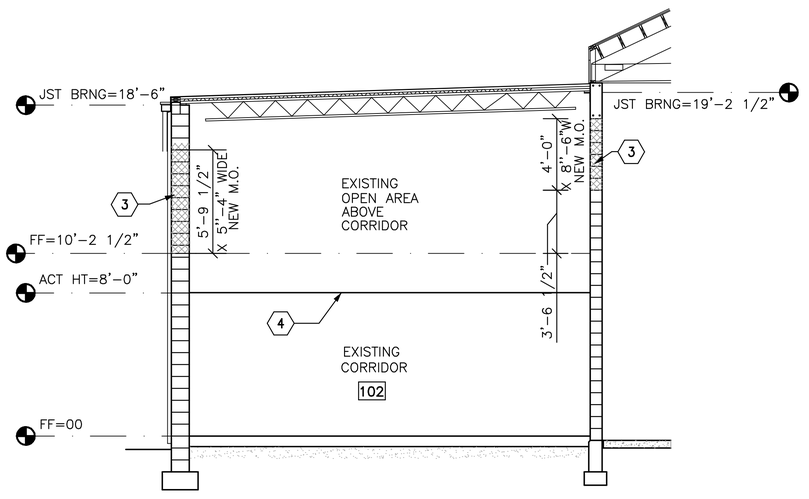


EXISTING – SOUTH MECHANICAL ROOM SECTION

1
A17 A17

SCALE: 1/4"=1'–0"

A1,A3



EXISTING – SOUTH MECHANICAL ROOM SECTION

2
A17 A17

SCALE: 1/4"=1'–0"

DEMOLITION NOTES:

1. REMOVE CMU WALL FROM TOP OF FLOOR JOISTS TO TOP OF WALL.
2. CAREFULLY REMOVE EXISTING 1/2" PLYWOOD FLOOR ONLY, TAKING CARE TO LEAVE EXISTING 2X10 FLOOR JOISTS TO REMAIN UNDISTURBED
3. REMOVE SECTION OF EXIST CMU OR CMU & EIFS WALL FOR NEW WORK REQUIREMENTS.
4. COMPLETELY REMOVE EXISTING ACT CEILING SYSTEM.
5. CAREFULLY REMOVE EXISTING EXTERIOR ENTRANCE VESTIBULE CMU WALLS, CONCRETE FLOOR SLAB AND FOUNDATION,WOOD ROOF FRAMING,SHEATHING, ASPHALT SHINGLE ROOFING,GUTTERS,DOWNSPOUTS,AND ADJACENT GLAZED STOREFRONT ENTRANCE DOOR.

1/4"=1'–0" 1' 0' 1' 5' 10' 15'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN RCA
DRAWN JMA
REVIEW TLD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED
DATE

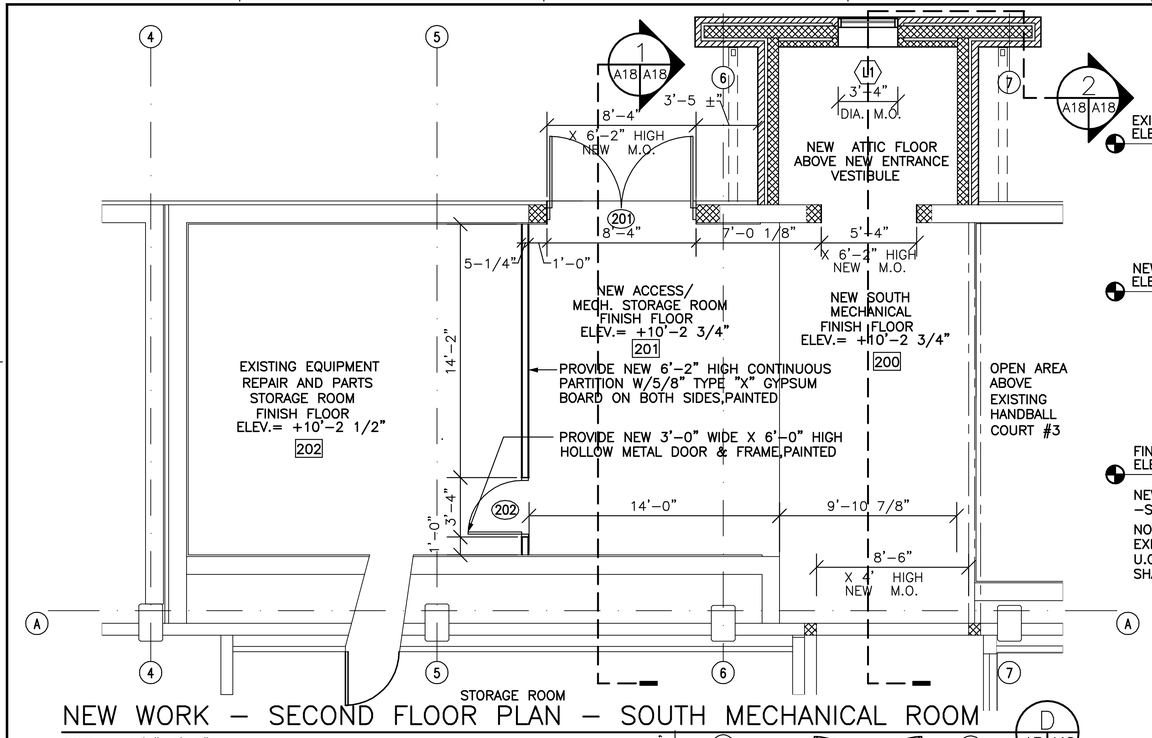
ACTIVITY – SATISFACTORY TO
APPROVED
DATE
FOR IFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
EXISTING PLANS & SECTIONS – SOUTH MECH. ROOM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468447	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368447	
SHEET 23 OF 119	

A-17

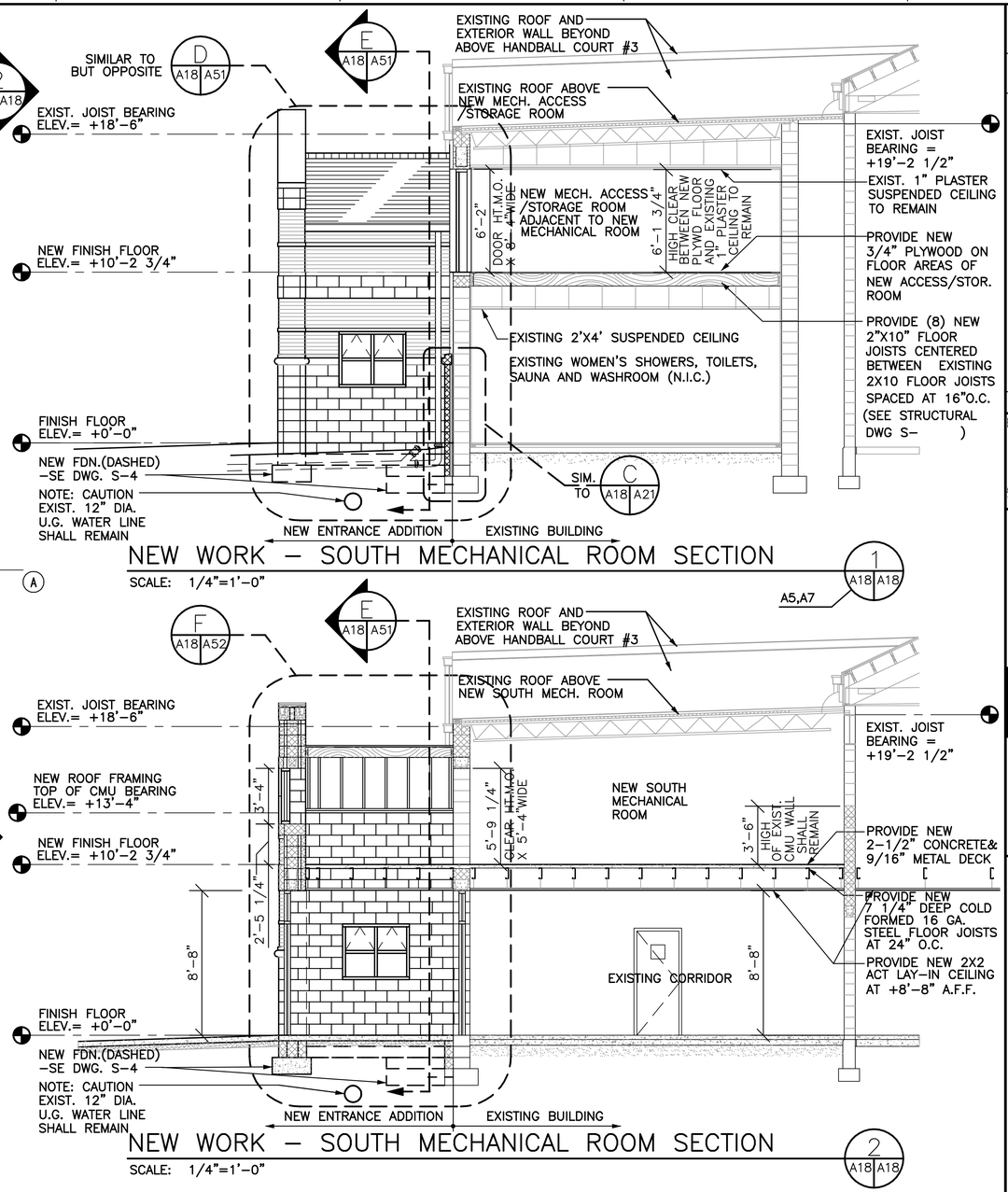
FILENAME: 5105A17.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/06/97 AT 11:24, XREFS: NONE



NEW WORK – SECOND FLOOR PLAN – SOUTH MECHANICAL ROOM

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

D A7 A18



NEW WORK – SOUTH MECHANICAL ROOM SECTION

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

1 A18 A18 A5,A7

NEW WORK – GROUND FLOOR PLAN – WOMEN'S LOCKER ROOM

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

C A5 A18

NEW WORK – SOUTH MECHANICAL ROOM SECTION

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

2 A18 A18

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E DESIGN RCA; DRAWN JMA; REVIEW TJD; CHIEF ARCH./ENGR.; PROJECT MANAGER JTB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED ACTIVITY – SATISFACTORY TO DATE

APPROVED FOR EFD, FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION NAB LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
VIRGINIA BEACH, VA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK PLANS & SECTIONS – SOUTH MECH. ROOM

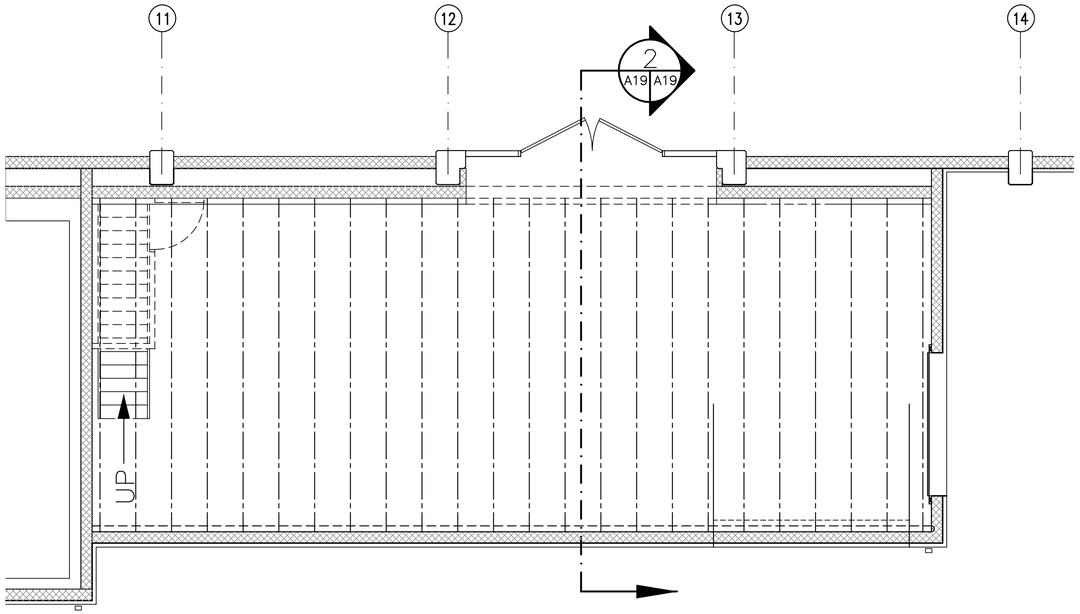
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468449	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368449	
SHEET 24 OF 119	

A-18

FILENAME: 5105A18.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 01/08/98 AT 11:12, XREFS: NONE

8 7 6 5 4 3 2 1

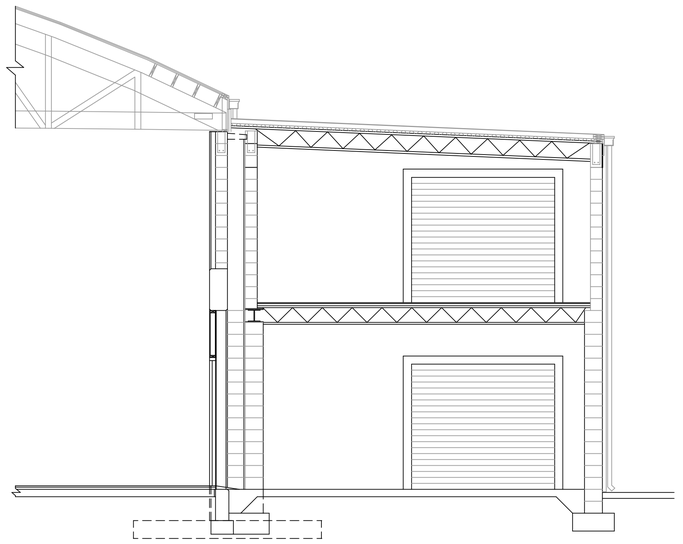
D C B A



EXISTING GROUND FLOOR PLAN – NORTH MECHANICAL ROOM

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

C A1 A19

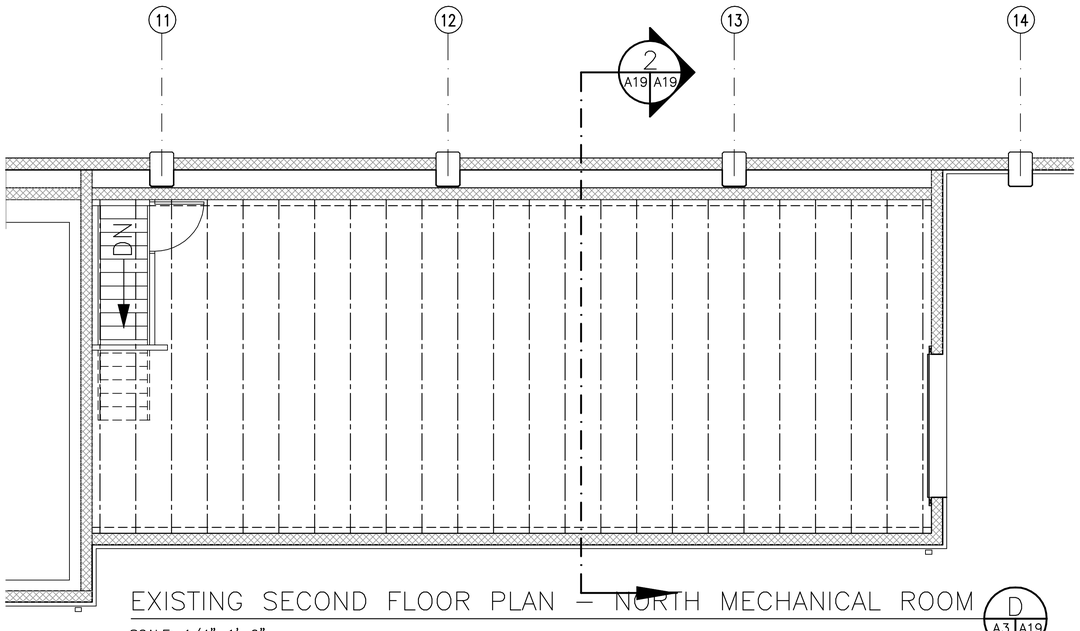


EXISTING NORTH MECHANICAL ROOM SECTION

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

2 A19 A19

A1,A3



EXISTING SECOND FLOOR PLAN – NORTH MECHANICAL ROOM

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

D A3 A19

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD

DESIGN RCA

DRAWN RCA

REVIEW

CHIEF ARCH./ ENGR. JB

PROJECT MANAGER

FIRE PROTECTION

QUALITY CONTROL

BRANCH MANAGER

DESIGN DIRECTOR

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY – SATISFACTORY TO

APPROVED DATE

FOR EFD /OIC COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION N.A.B. LITTLE CREEK

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

EXISTING PLANS&SECTIONS–NORTH MECHANICAL ROOM

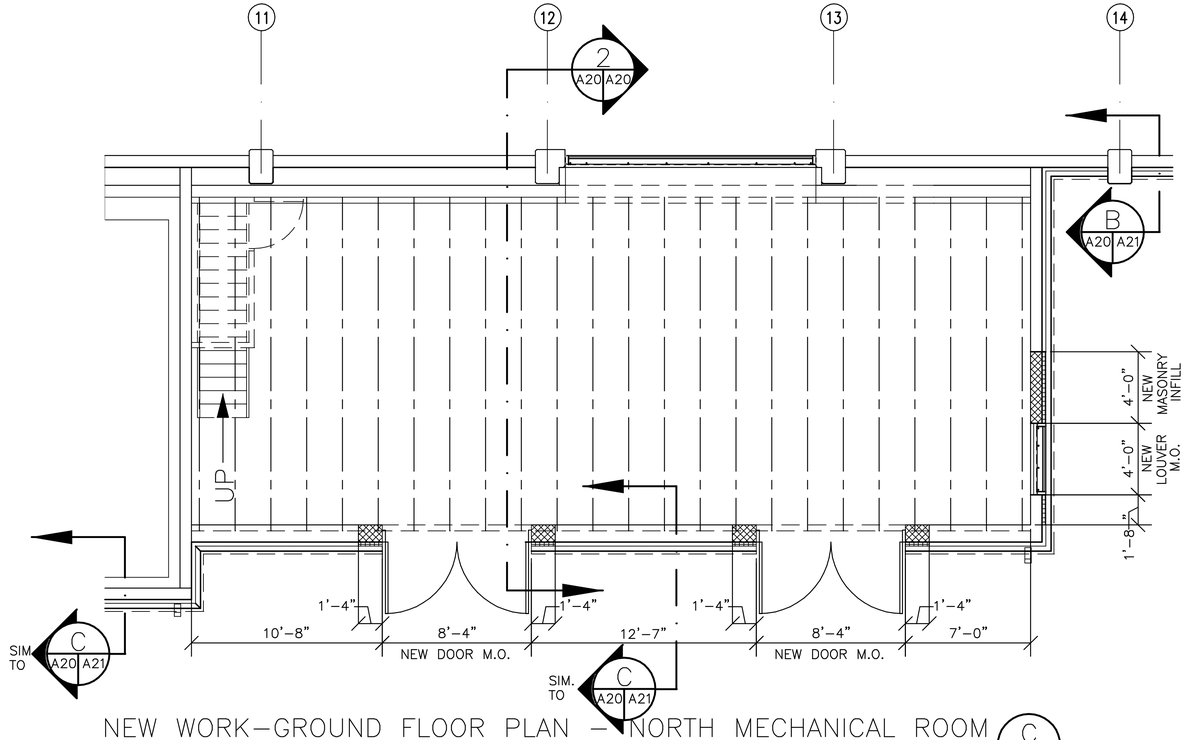
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468450	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368450	
SHEET 25 OF 119	

A-19

FILENAME: 5105A19.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/14/97 AT 16:41, XREFS: NONE

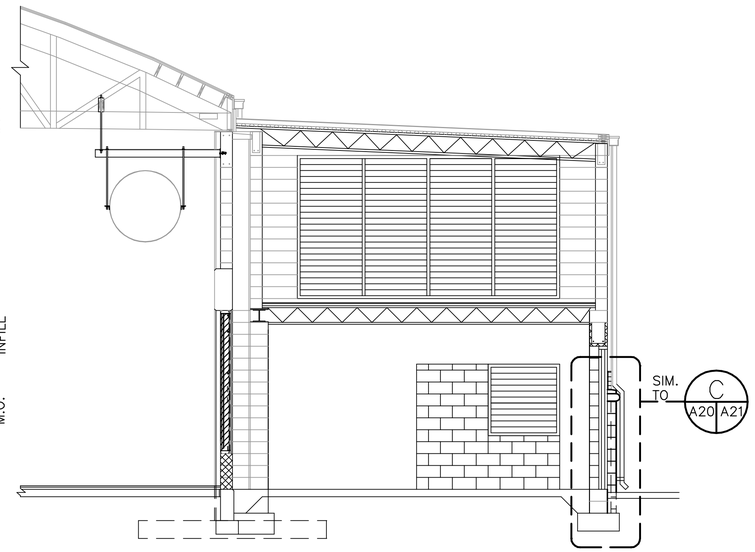
D C B A

8 7 6 5 4 3 2 1



NEW WORK–GROUND FLOOR PLAN – NORTH MECHANICAL ROOM C A5 A20

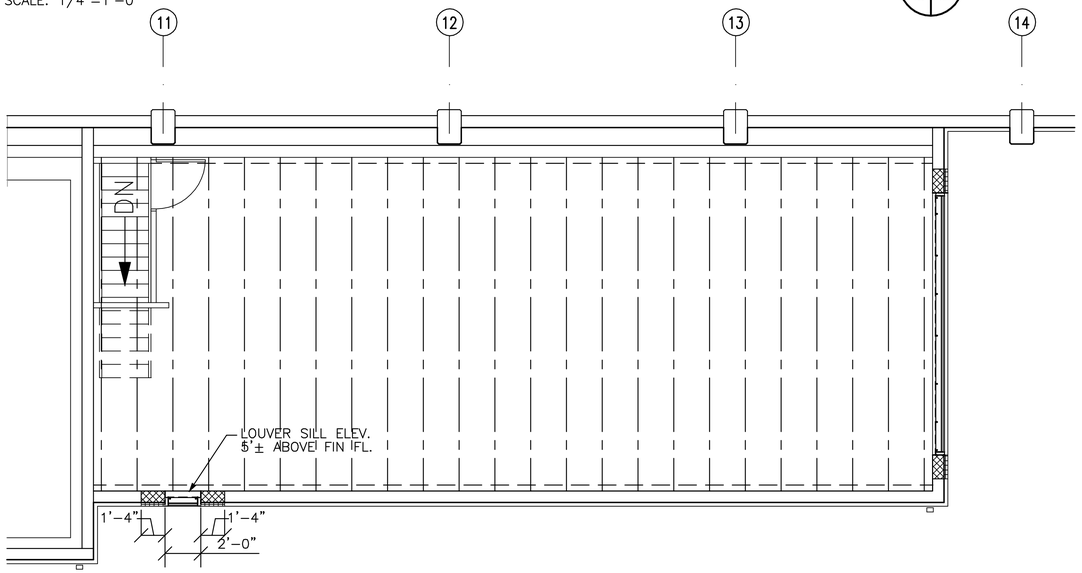
SCALE: 1/4"=1'-0"



NEW WORK–NORTH MECHANICAL ROOM SECTION 2 A5 A20

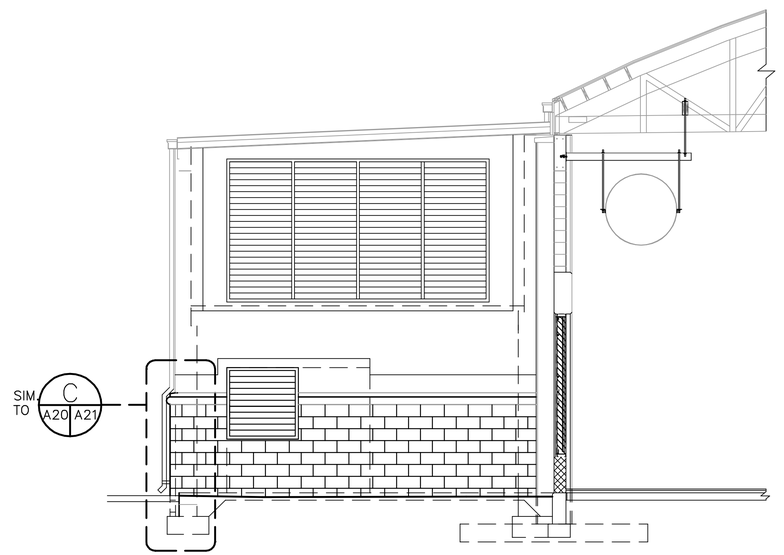
SCALE: 1/4"=1'-0"

A7,A20



NEW WORK–SECOND FLOOR PLAN – NORTH MECHANICAL ROOM D A7 A20

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



NEW WORK–NORTH MECHANICAL ROOM EXTERIOR ELEVATION

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

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD OIC/COMMANDER NAVFAC

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

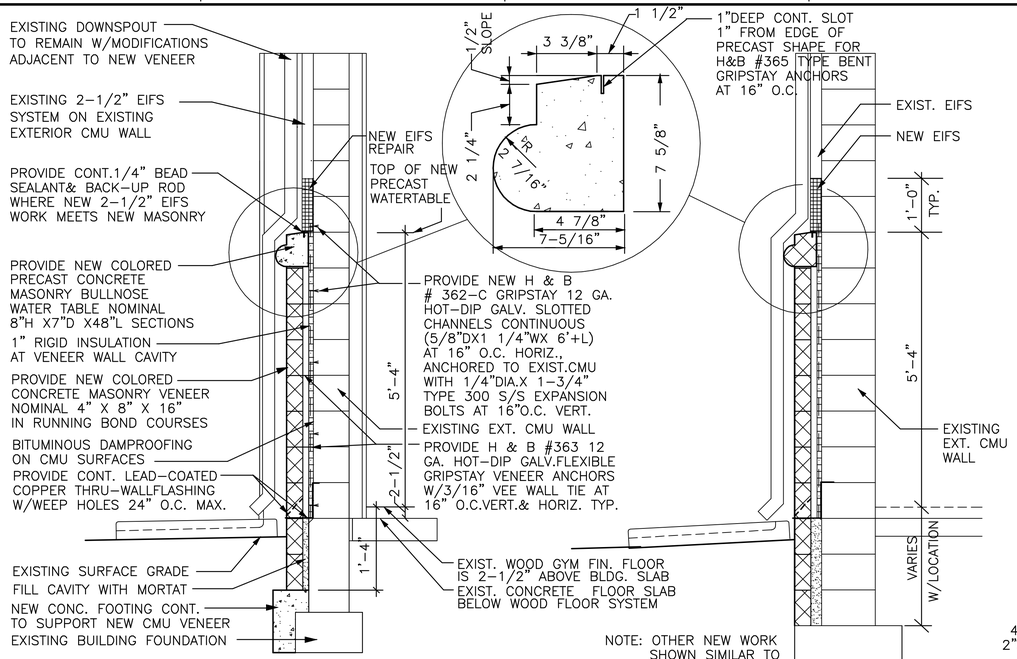
RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK PLANS&SECTIONS–NORTH MECHANICAL ROOM

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468451	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368451	
SHEET 26 OF 119	

A-20

FILENAME: 5105A20.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 01/08/98 AT 11:17, XREFS: NONE

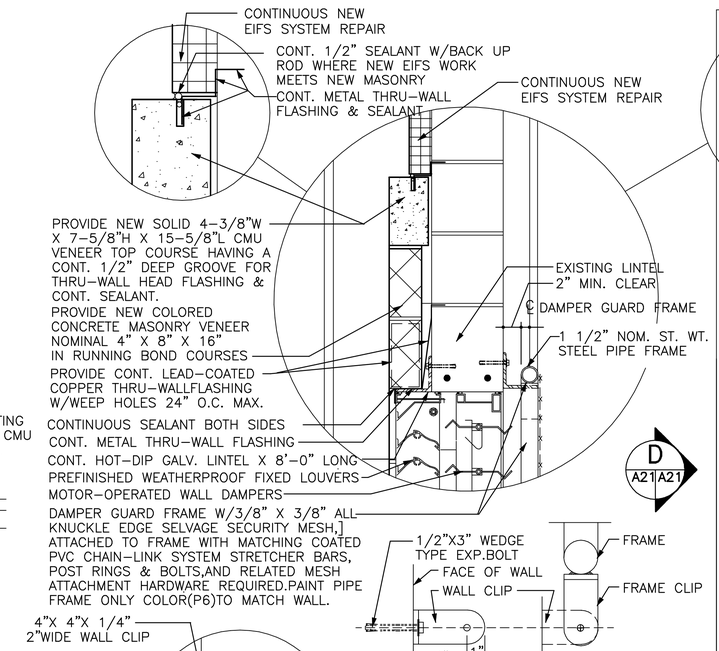


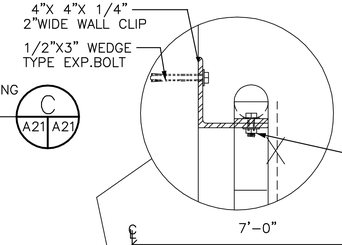
DETAIL TYPICAL CONTROL LOCATION (NEW COLORED CMU VENEER AT EXISTING MAIN BLDG. EXTERIOR WALL) B A21|A21

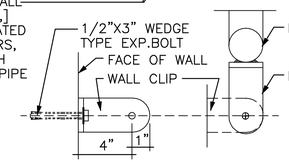
SCALE: 3/4"=1'-0"

DETAIL (NEW COLORED CMU VENEER AT EXISTING BLDG. ADDITION EXTERIOR WALL) C A21|A21

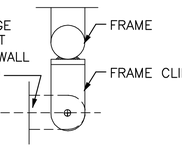
SCALE: 3/4"=1'-0"





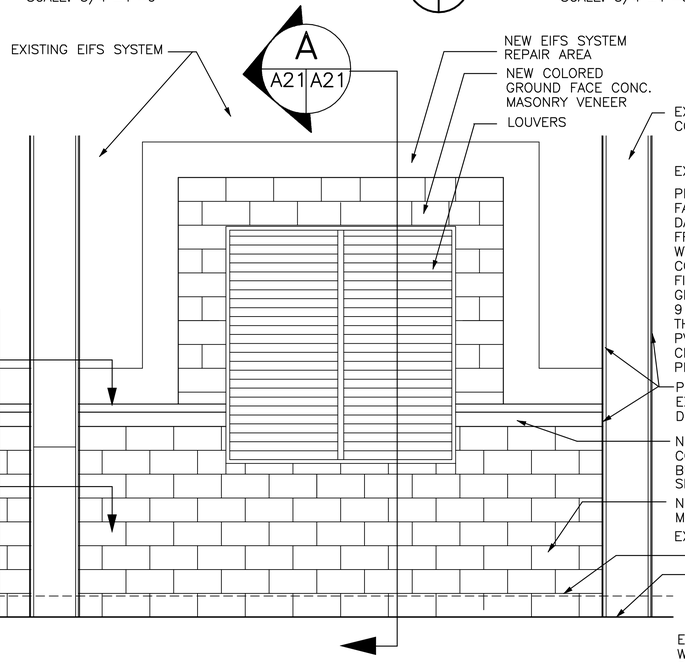


WALL CLIP TOP VIEW (4) REQ'D EA. FRAME



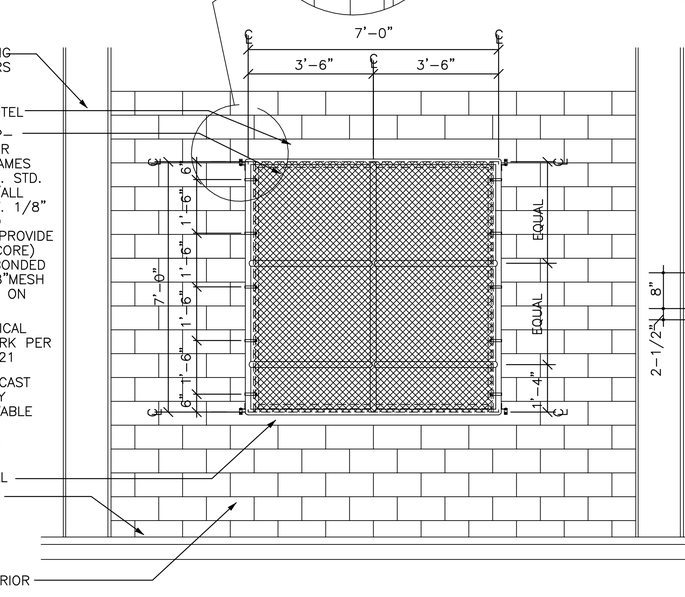
FRAME CLIP TOP VIEW (4) REQ'D EA. FRAME

NOTE: OTHER NEW WORK SHOWN SIMILAR TO DETAIL B/A21



EXTERIOR ELEV. (NEW COLORED CMU VENEER ADJACENT TO NEW. EXTERIOR MECH.WALL LOUVER LOCATIONS) D A21|A21

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

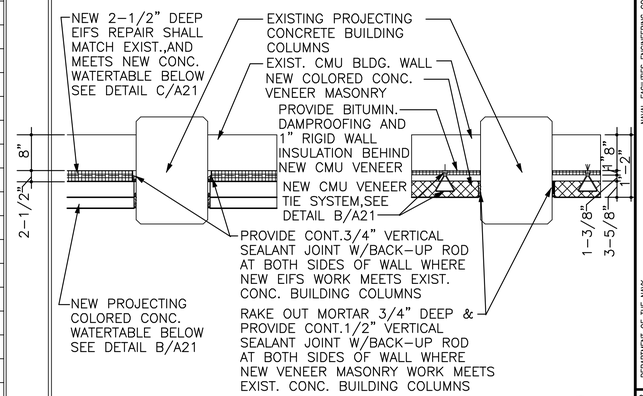


INTERIOR ELEV. (NEW LOUVER GUARD SCREEN & FRAME AT NEW. INTERIOR MECH.WALL LOUVER LOCATIONS) E A21|A21

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

DETAIL (NEW COLORED CMU VENEER AT NEW MECH.WALL LOUVERS,EXIST.MAIN BLDG. EXTERIOR WALL) A A21|A21

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



DETAIL (ALSO SEE NOTES,A-14) F A21|A21

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

DETAIL (ALSO SEE NOTES,A-14) G A21|A21

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

GRAPHIC SCALES

1/2"=1'-0" 1' 0' 1' 2' 3' 4' 5'

3/4"=1'-0" 1' 6" 0' 1' 2' 3' 4'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E FIRM: RCA DESIGN: RCA DRAWN: REVIEW: CHIEF ARCH./ ENGR.: JB PROJECT MANAGER: FIRE PROTECTION: QUALITY CONTROL: BRANCH MANAGER: DESIGN DIRECTOR:

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED

ACTIVITY - SATISFACTORY TO DATE

APPROVED

FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION N.A.B. LITTLE CREEK

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK EXTERIOR WALL SECTIONS & DETAILS

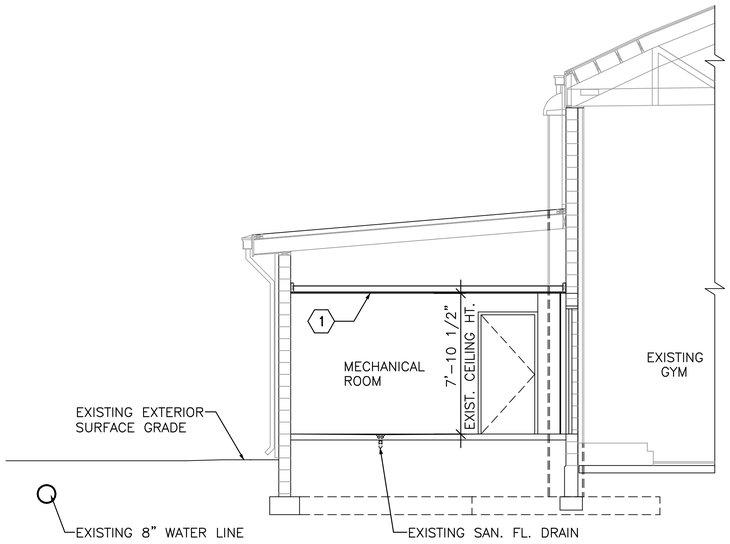
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468452	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368452	
SHEET 27 OF 119	

A-21

FILENAME: 5105A21.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 01/08/98 AT 11:28, XREFS: NONE

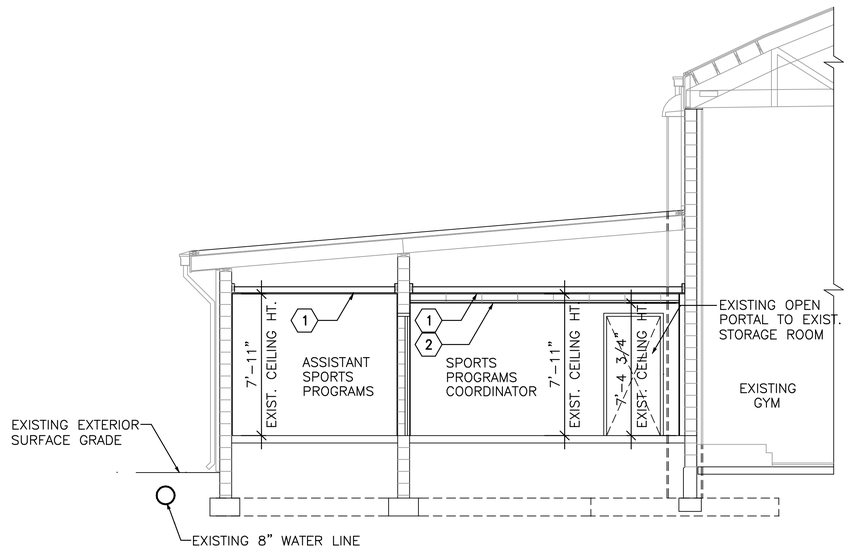
DEMOLITION NOTES:

1. REMOVE CEILING CONSTRUCTION COMPLETE, WHICH INCLUDES 1'X1' ACOUSTIC CEILING TILES GLUED TO 1/4" PLYWOOD SUBSTRATE. (PLYWOOD SUBSTRATE IS ANCHORED TO 2"X 4" FRAMING AT 24" O.C.,SUPPORTED AT ENDS BY CONTINUOUS 2"X6" LEDGER)
2. REMOVE EXISTING 2'X4' SUSPENDED CEILING TILE SYSTEM INCLUDING SUPPORT GRID,AND EXISTING TROFFER LIGHTING,WHICH IS HUNG FROM 1'X1' FIXED ACOUSTIC CEILING ABOVE.



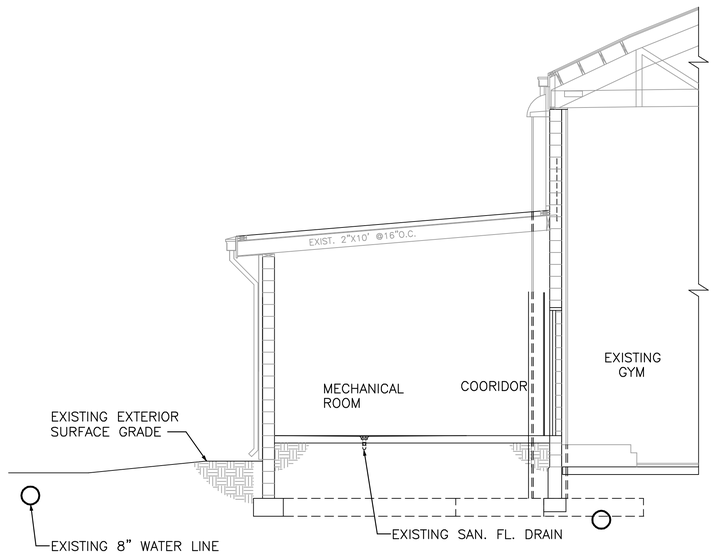
EXISTING–MWR SECTION 1 (A2 | A22)

SCALE: 1/4"=1'–0"



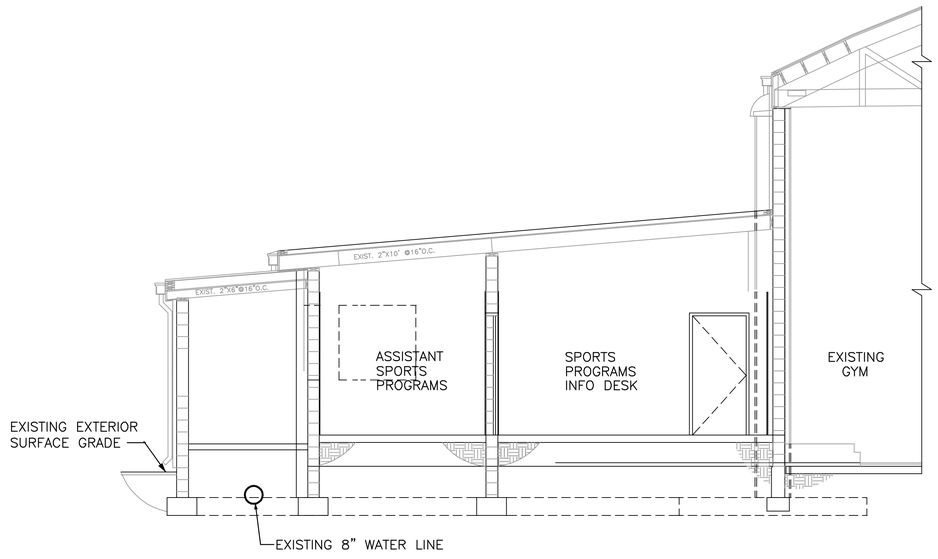
EXISTING–MWR SECTION 2 (A2 | A22)

SCALE: 1/4"=1'–0"



EXISTING–MWR SECTION 3 (A2 | A22)

SCALE: 1/4"=1'–0"



EXISTING–MWR SECTION 4 (A2 | A22)

SCALE: 1/4"=1'–0"

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN RCA
DRAWN JMA
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
EXISTING BUILDING SECTIONS AT MWR OFFICE AREA

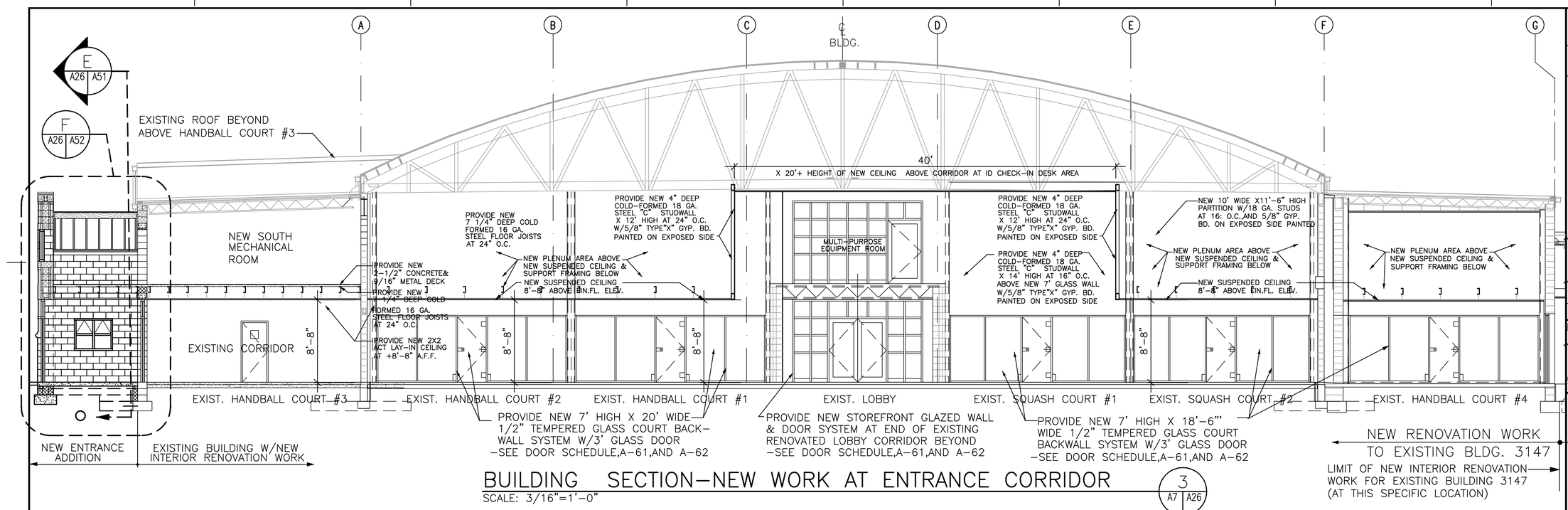
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468453	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368453	
SHEET 28 OF 119	

A–22

FILENAME: 5105A22.DWG; PLOT SCALE: 1/4" = 1'-0", SAVED ON 01/08/98 AT 11:24, XREFS: NONE

D C B A

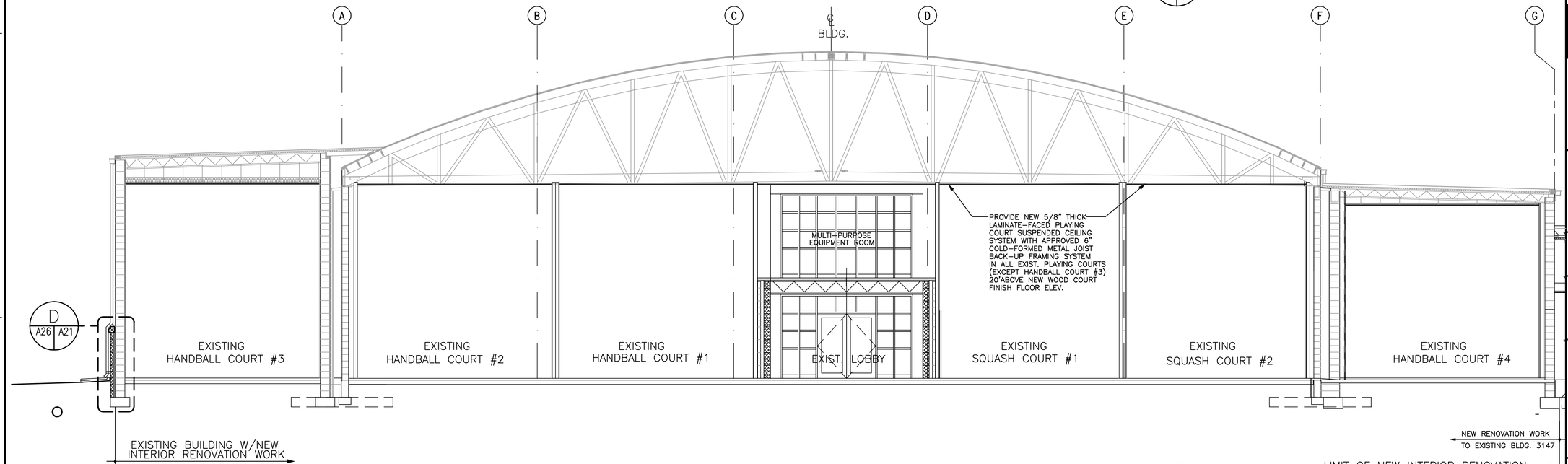
8 7 6 5 4 3 2 1



BUILDING SECTION-NEW WORK AT ENTRANCE CORRIDOR

SCALE: 3/16"=1'-0"

3 / A7 | A26



BUILDING SECTION-NEW WORK AT PLAYING COURTS

SCALE: 3/16"=1'-0"

4 / A7 | A26

GRAPHIC SCALE
SCALE 3/16" = 1'-0"
0 6" 1'2' 5' 10'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

DESIGN	RCA	
DRAWN	RCA	
REVIEW	TJD	
CHIEF ARCH./ ENGR.		
PROJECT MANAGER	JTB	
FIRE PROTECTION		
QUALITY CONTROL		
BRANCH MANAGER		
DESIGN DIRECTOR		

DESIGNED & ENGINEERED by LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE

ACTIVITY - SATISFACTORY TO
APPROVED DATE

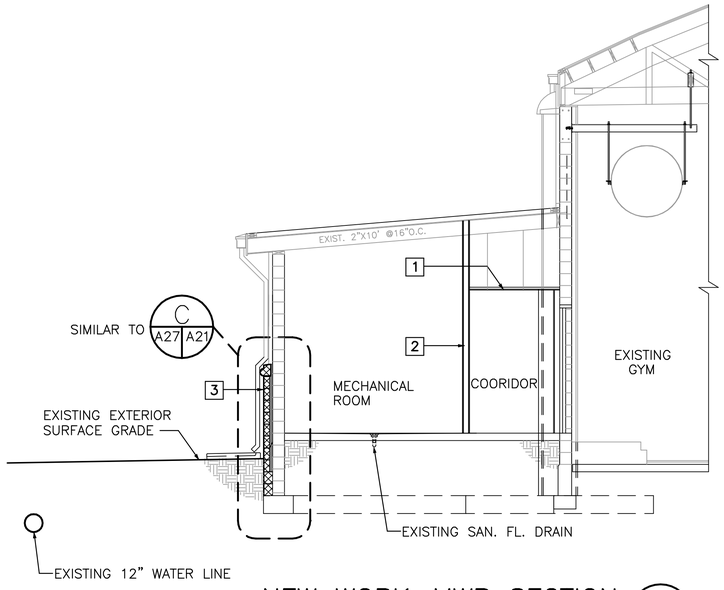
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
BUILDING SECTION-NEW WORK AT ENTRANCE CORRIDOR

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468454
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368454
SHEET	29 OF 119

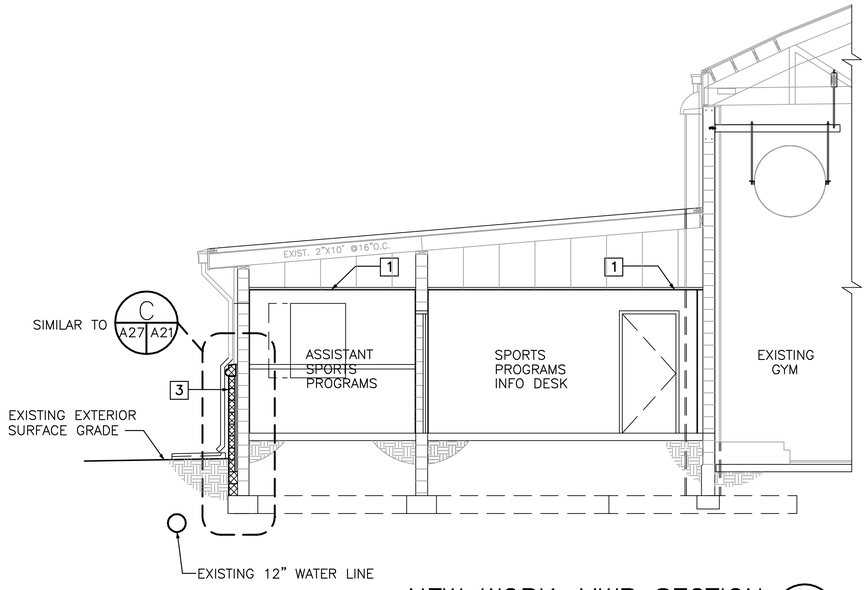
A-26

FILENAME: 5105A26.DWG, PLOT SCALE: 3/16" = 1'-0", SAVED ON 01/08/98 AT 13:02, XREFS: NONE



NEW WORK–MWR SECTION 1A (A6 | A27)

SCALE: 1/4"=1'–0"



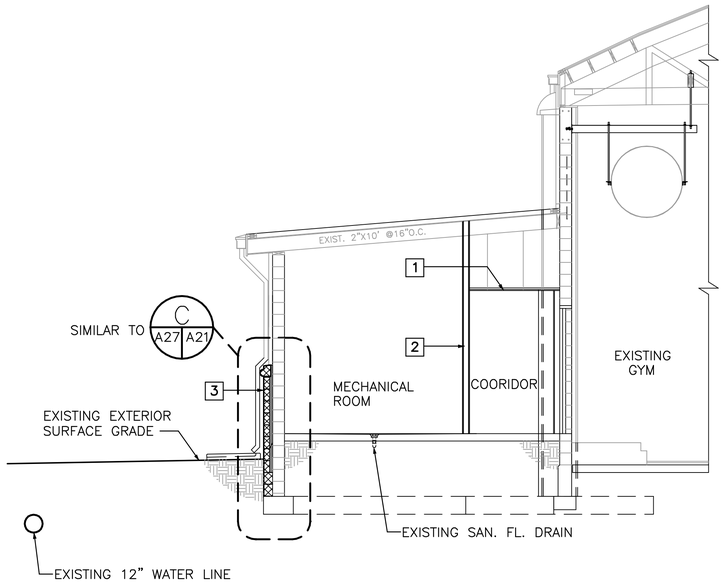
NEW WORK–MWR SECTION 2A (A6 | A27)

SCALE: 1/4"=1'–0"

NEW WORK NOTES:

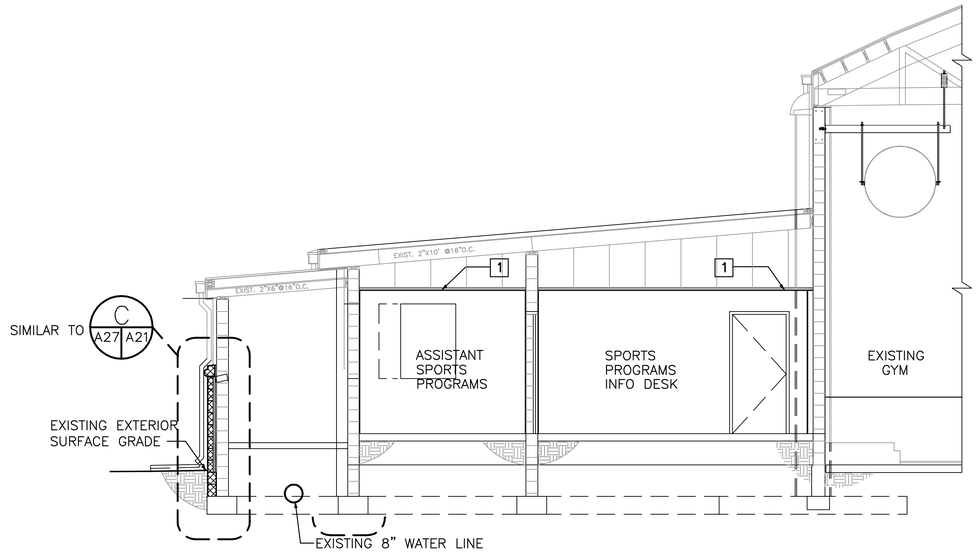
1. PROVIDE NEW 2'X2' ACT SYSTEM AT 8'–0"A.F.F.
2. PROVIDE NEW FULL HEIGHT PARTITION, W/18 GA. 3–5/8" METAL STUDS AT 16"O.C.,AND W/ 5/8" TYPE "X" GYPSUM BOARD ON BOTH SIDES PAINTED, COLOR: P–6.
3. PROVIDE CONTINUOUS NEW 8" HIGH PRECAST COLORED CONCRETE WATER TABLE BAND WITH NEW 4"COLORED CONCRETE MASONRY VENEER COURSES BELOW,INCLUDING NEW RIGID INSULATION, NEW SURFACE APPLIED MASONRY VENEER TIE SYSTEM,BITUMINOUS DAMPPROOFING ON EXIST. CMU BACK–UP,THRU–WALL FLASHING,AND REPAIRS TO ADJACENT EXISTING EIFS SYSTEM ABOVE SHALL REMAIN.

   NOTE: TOP OF NEW PRECAST WATERTABLE ELEVATION SHALL MATCH HEIGHT OF NEW WORK AT NEW SOUTH MAIN ENTRANCE (DWGS. A–51,A–52) AS A CONTROL ELEVATION FOR ALL NEW MASONRY VENEER WORK,WHICH IS APPROXIMATELY 5'–4" ABOVE EXISTING FINISH FLOOR ELEV. OF THE SOUTH END OF EXISTING CORRIDOR #102,AND EXISTING GYMNASIUM PLAYING COURTS,#118.



NEW WORK–MWR CONFERENCE ROOM 3A (A6 | A27)

SCALE: 1/4"=1'–0"



NEW WORK–MWR SECTION 4A (A6 | A27)

SCALE: 1/4"=1'–0"

GRAPHIC SCALE

SCALE : 1/4"=1'–0" 0 6" 1'2' 5' 10'

REVISIONS

DESCRIPTION	DATE	APPROVED
SYM.		

A/E EFD
DESIGN ROA
DRAWN JWA
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
NEW WORK BUILDING SECTIONS AT MWR OFFICE AREA

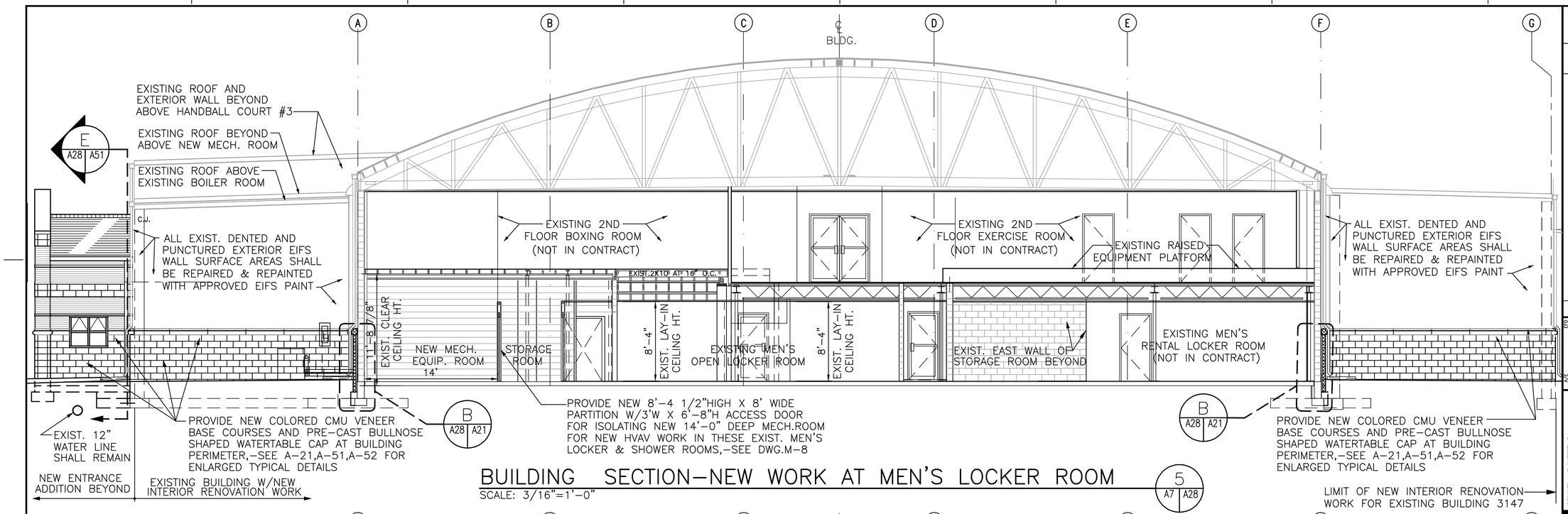
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468455	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368455	
SHEET 30 OF 119	

A–27

FILENAME: 5105A27.DWG, PLOT SCALE: 1/4" = 1'–0", SAVED ON 01/08/98 AT 13:05, XREFS: NONE

D C B A

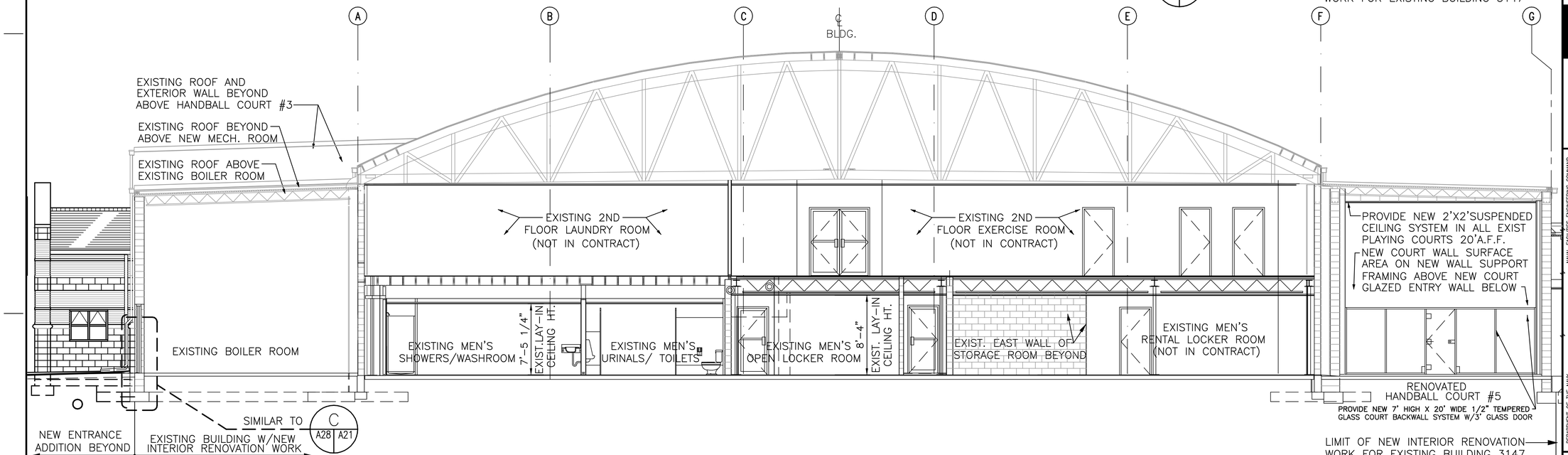
8 7 6 5 4 3 2 1



BUILDING SECTION-NEW WORK AT MEN'S LOCKER ROOM

SCALE: 3/16"=1'-0"

5 A7 A28



BUILDING SECTION-NEW WORK AT MEN'S LOCKER ROOM

SCALE: 3/16"=1'-0"

6 A7 A28

GRAPHIC SCALE

SCALE 3/16" = 1'-0" 0 6" 1'2' 5' 10'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

DESIGN RCA
DRAWN RCA
REVIEW TJD
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED

ACTIVITY - SATISFACTORY TO DATE

APPROVED

FOR RFD BY COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA
NAVAL STATION
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
NEW WORK BUILDING SECTIONS

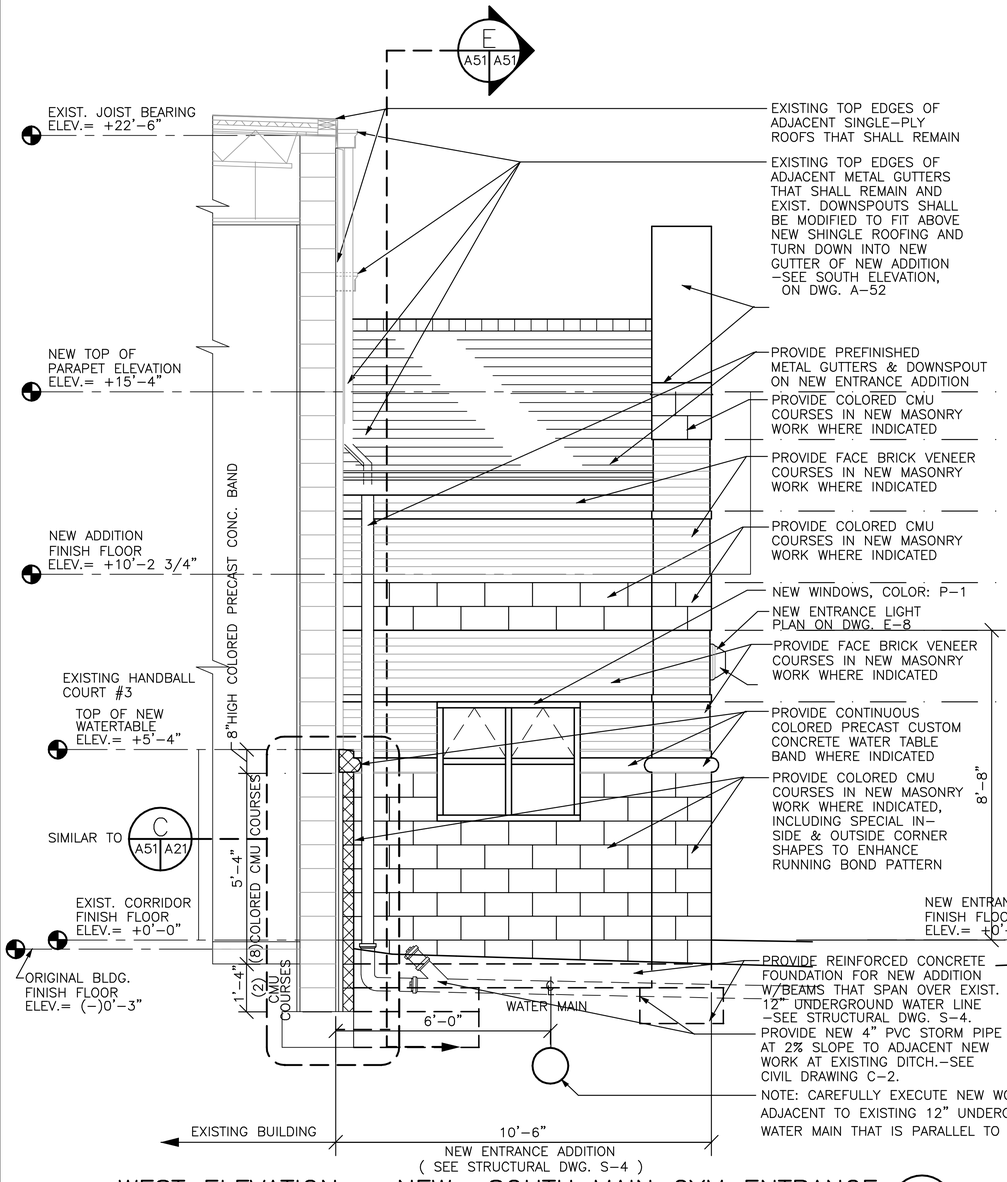
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468456	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368456	
SHEET 31 OF 119	

A-28

FILENAME: 5105A28.DWG, PLOT SCALE: 3/16" = 1'-0", SAVED ON 01/08/98 AT 13:20, XREFS: NONE

• GENERAL NOTES •

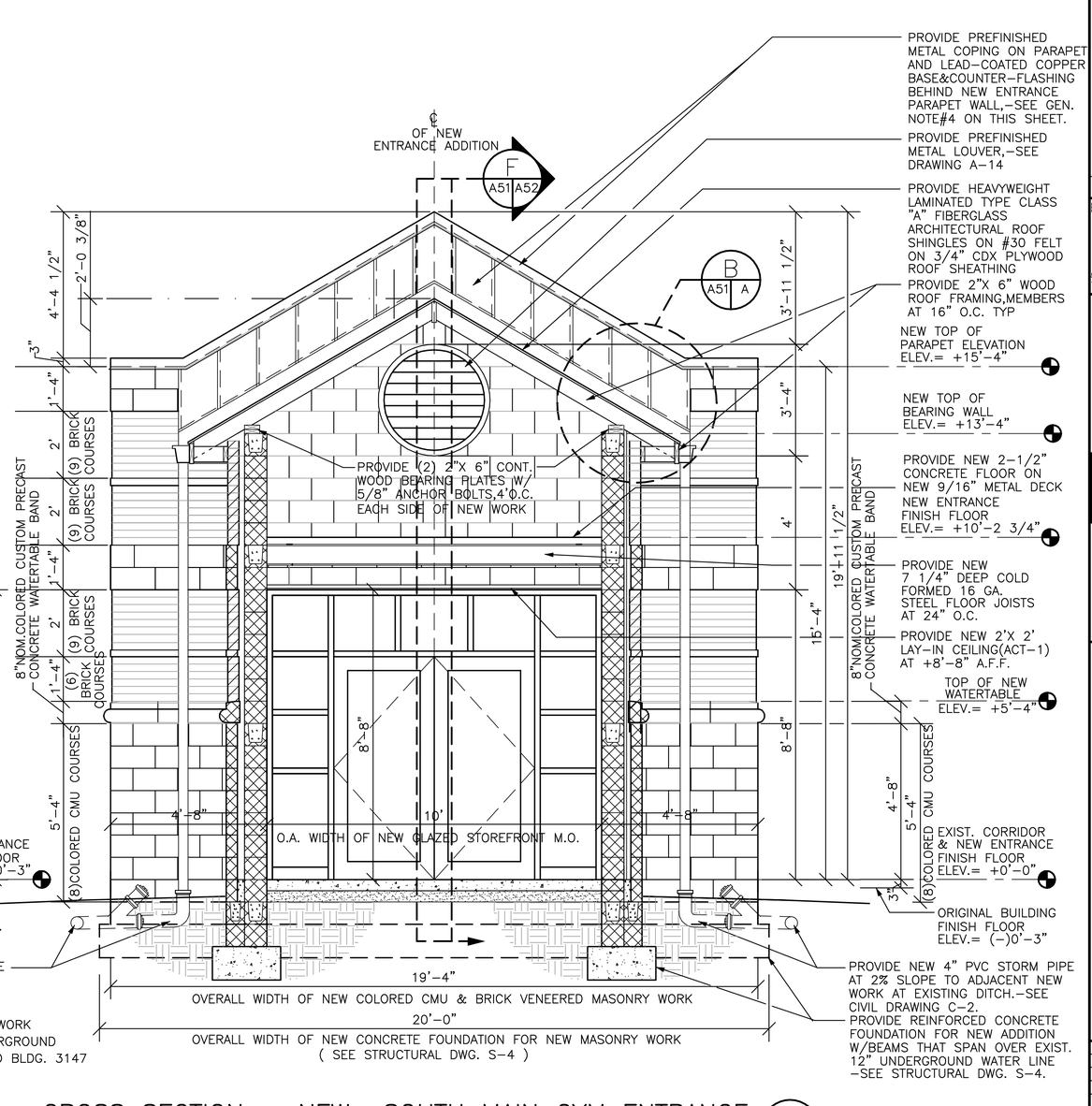
1. SEE DWG. A–75 FOR A LIST OF NEW INTERIOR FINISHES,& COLOR NOTES, AND A–14 FOR NEW EXTERIOR FINISHES.
2. SEE DWG. A–18 FOR ARCHITECTURAL PLAN OF NEW ENTRANCE ADDITION.
3. SEE DWG. S–4 FOR STRUCTURAL PLAN & DETAILS OF NEW ENTRANCE ADDITION.
4. PROVIDE 16 OZ. LEAD–COATED COPPER SHEET WITH 1"INTERLOCKING FLAT–LOCKED SEAMS ANCHORED BY HIDDEN LEAD–COATED COPPER CLEATS FOR CONTINUOUS ROOF RUNNER BASE FLASHING,AND COUNTER–FLASHING THAT EXTENDS UP UNDER PREFINISHED METAL COPING.



WEST ELEVATION – NEW SOUTH MAIN GYM ENTRANCE

SCALE: 1/2"=1'–0"

D A18 A51 — A28



CROSS SECTION – NEW SOUTH MAIN GYM ENTRANCE

SCALE: 1/2"=1'–0"

E A52 A51 — A18,A26,A28

SCALE: 1/2" = 1'–0"

0 6" 1' 2' 3' 4' 5' 6'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN RCA; DRAWN RCA; REVIEW TJD; CHIEF ARCH./ ENGR.; PROJECT MANAGER JJB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR; EFD

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED ACTIVITY – SATISFACTORY TO DATE

APPROVED FOR EFD FOR COMMANDER NAVFAC

SEAL

NAVAL FACILITIES ENGINEERING COMMAND
DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147
X–SECTION,WEST ELEVATION–NEW SOUTH MAIN ENTRANCE

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468457	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368457	
SHEET 32 OF 119	

A–51

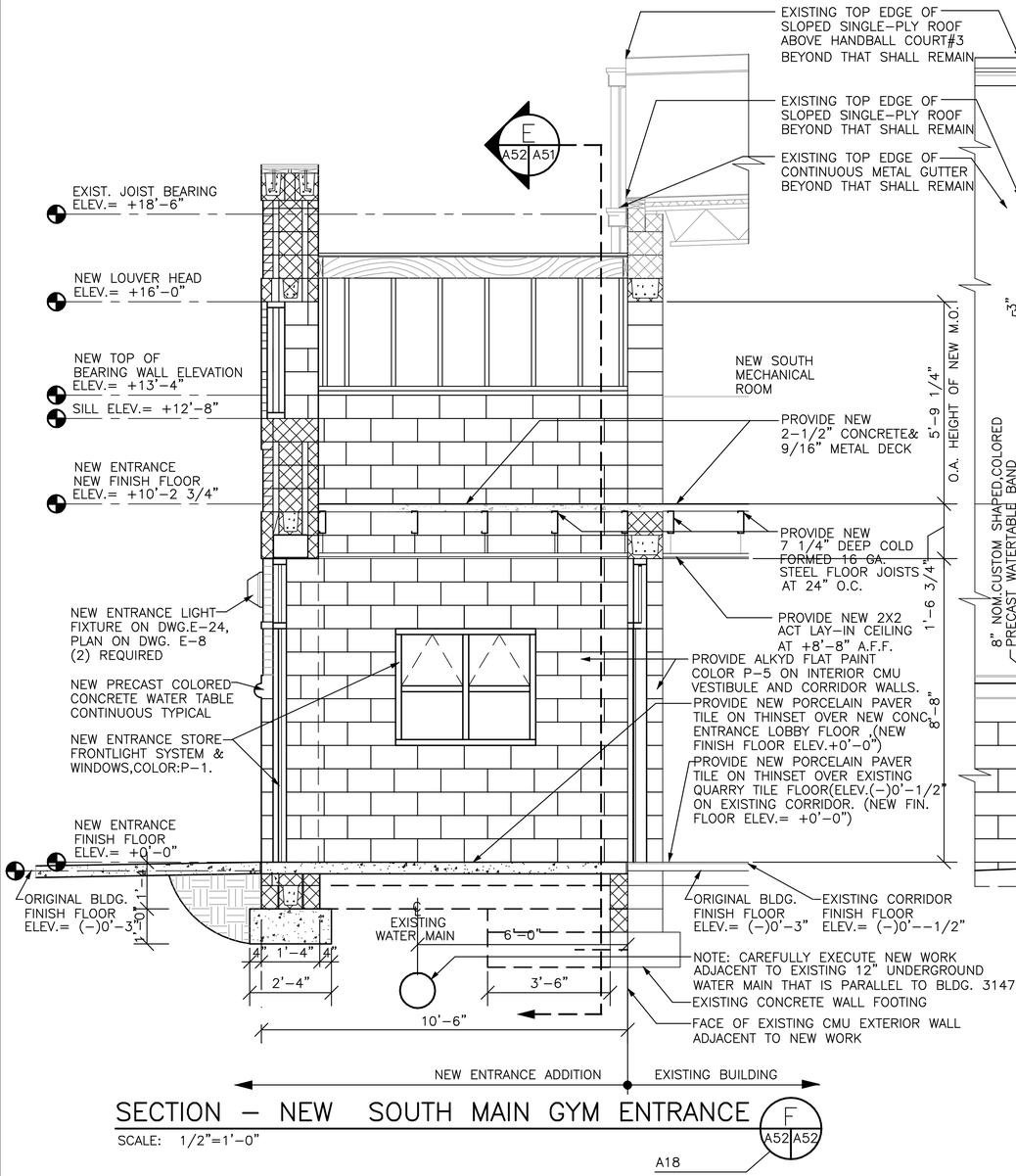
FILENAME: 5105451.DWG, PLOT SCALE: 1/2" = 1'–0", SAVED ON 01/08/98 AT 13:49, XREFS: NONE

8 7 6 5 4 3 2 1

D C B A

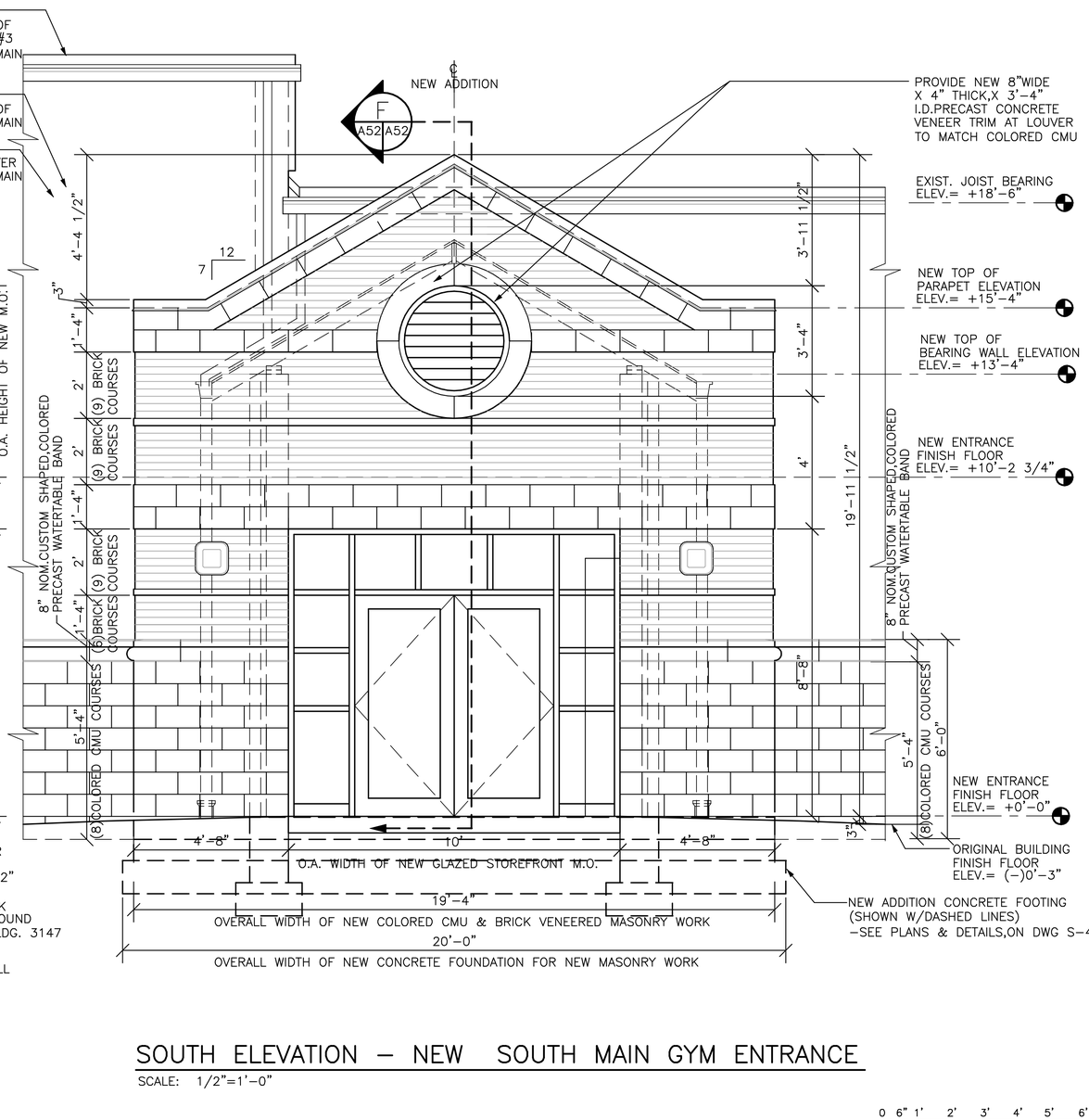
• GENERAL NOTES •

1. SEE DWG. A–75 FOR NEW INTERIOR FINISHES,A–14 FOR NEW EXTERIOR FINISHES.
2. SEE DWG. A–18 FOR ARCHITECTURAL PLAN OF NEW ENTRANCE ADDITION.
3. SEE DWG. S–4 FOR STRUCTURAL PLAN & DETAILS OF NEW ADDITION.



SECTION – NEW SOUTH MAIN GYM ENTRANCE

SCALE: 1/2"=1'–0"



SOUTH ELEVATION – NEW SOUTH MAIN GYM ENTRANCE

SCALE: 1/2"=1'–0"

SCALE: 1/2" = 1'–0" 0 6" 1' 2' 3' 4' 5' 6'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E		
DESIGN	RCA	
DRAWN	RCA	
REVIEW	TJD	
CHIEF ARCH./ ENGR.		
PROJECT MANAGER	JTB	
FIRE PROTECTION		
QUALITY CONTROL		
BRANCH MANAGER		
DESIGN DIRECTOR		

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE

ACTIVITY – SATISFACTORY TO
APPROVED DATE

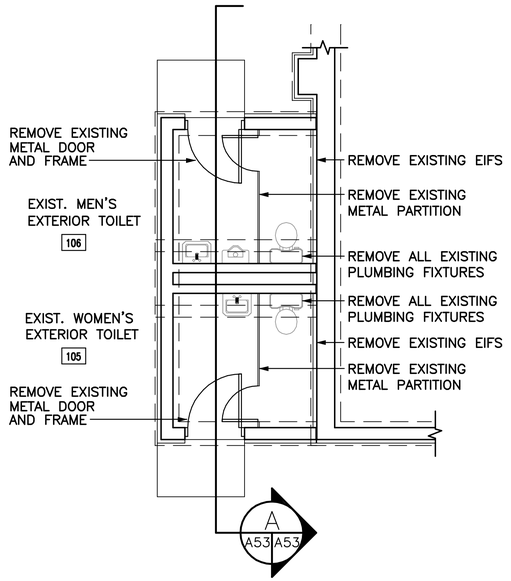
FOR RFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147
SECTION, SOUTH ELEVATION–NEW SOUTH MAIN ENTRANCE

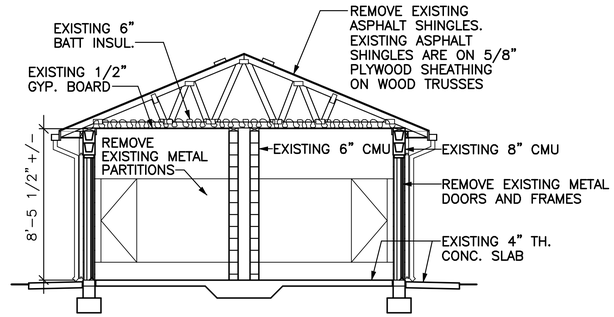
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468458	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368458	
SHEET 33 OF 119	

A–52

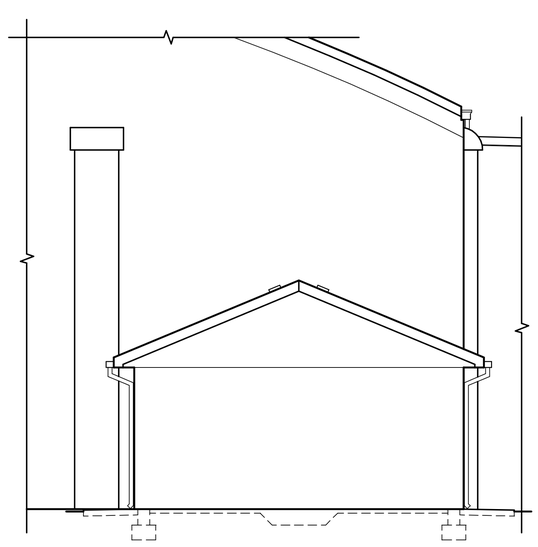
FILENAME: 5105A52.DWG, PLOT SCALE: 1/2" = 1'–0", SAVED ON 08/18/97 AT 13:50, XREFS: NONE



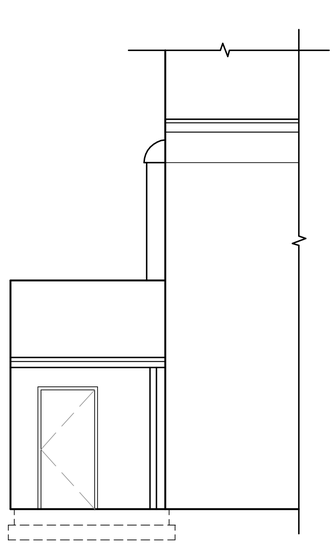
F A1 A53 EXISTING FLOOR PLAN
SCALE: 1/4" = 1'-0"



A A53 A53 EXISTING SECTION
SCALE: 1/4" = 1'-0"



A A11 A53 EXISTING EAST ELEVATION
SCALE: 1/4" = 1'-0"



B A12 A53 EXISTING NORTH ELEVATION
SCALE: 1/4" = 1'-0"

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN ROA
DRAWN JMA
REVIEW TJD
CHIEF
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR COMMANDER NAVFAC

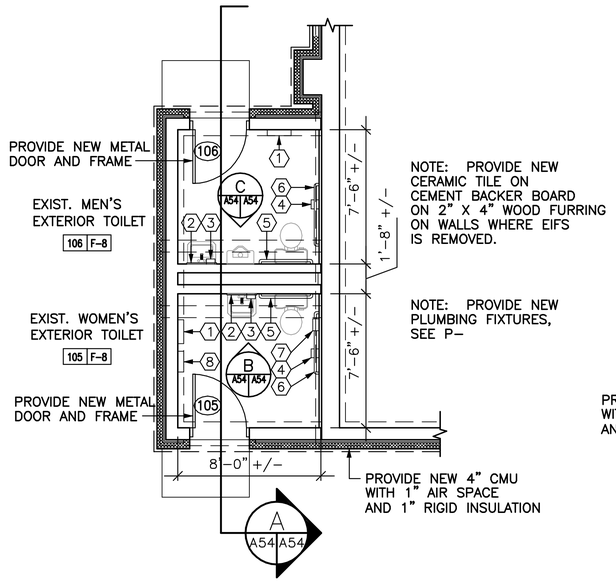
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
EXISTING EAST PUBLIC REST ROOMS

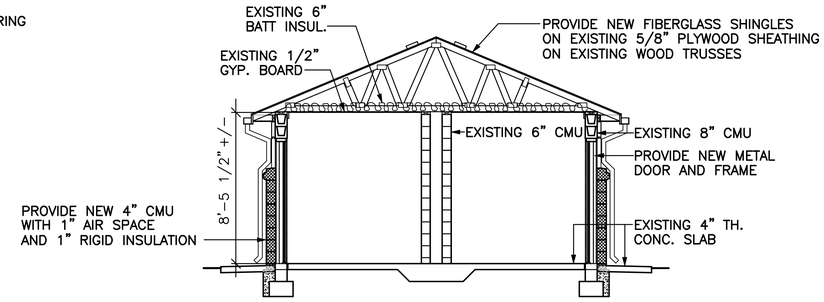
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468459	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368459	
SHEET 34 OF 119	

A-53

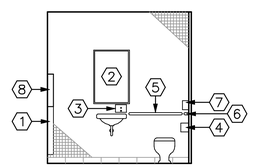
FILENAME: 5105A53.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/14/97 AT 13:38, XREFS: NONE



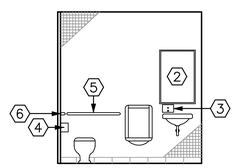
F1 A5 A54 NEW FLOOR PLAN
SCALE: 1/4" = 1'-0"



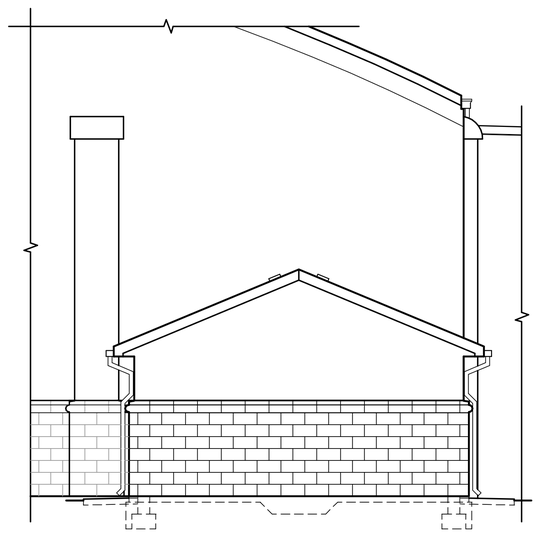
A A54 A54 NEW SECTION
SCALE: 1/4" = 1'-0"



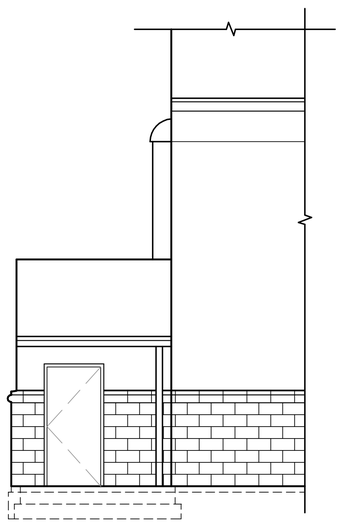
B A54 A54 WOMEN'S ROOM
SCALE: 1/4" = 1'-0"



C A54 A54 MEN'S ROOM
SCALE: 1/4" = 1'-0"



A A14 A54 NEW EAST ELEVATION
SCALE: 1/4" = 1'-0"



B A15 A54 NEW NORTH ELEVATION
SCALE: 1/4" = 1'-0"
A16

NEW TOILET ACCESSORY SCHEDULE

NO.	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT AFF	BOBRICK NO.
1	PAPER TOWEL DISPENSER/DISPOSAL	SURFACE	3'-4" TO DISPENSER	3949
2	MIRROR	CONCEALED HGR.	3'-4" TO BOTTOM	290-2436
3	SOAP DISPENSER	SURFACE	3'-4" TO TOP	306
4	TOILET TISSUE DISPENSER	SURFACE	2'-0" TO CENTER	2730
5	GRAB BAR 36"	SURFACE	2'-10" TO TOP	6206
6	GRAB BAR 42"	SURFACE	2'-10" TO TOP	6206
7	SANITARY NAPKIN DISPOSAL	SURFACE	3'-6" TO TOP	270
8	SANITARY NAPKIN/TAMPON VENDOR	SURFACE	3'-4" TO COIN SLOT	2802

NOTE: THIS SCHEDULE IS NOT PROPRIETARY - APPROVED EQUALS ARE ACCEPTABLE.

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN ROA
DRAWN JMA
REVIEW TJD
CHIEF ARCH./ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

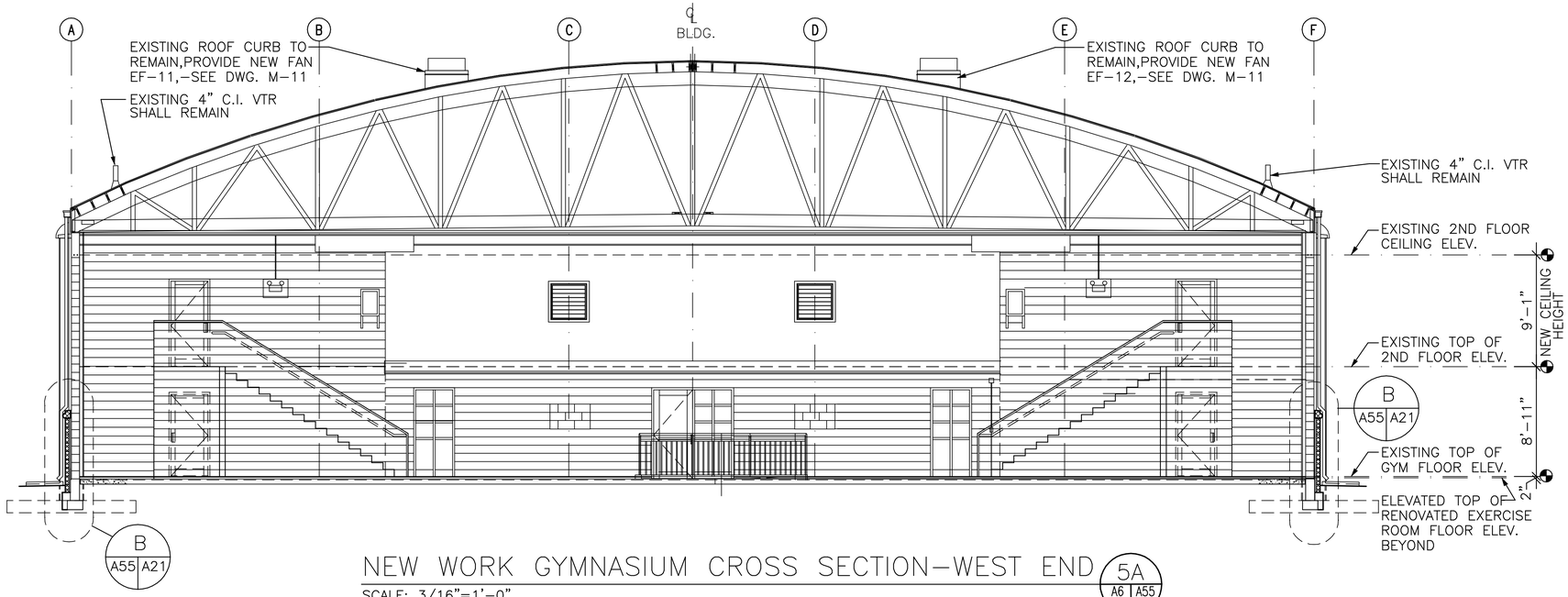
DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND
N.A.B. LITTLE CREEK NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
NEW WORK EAST PUBLIC REST ROOMS

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468460	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368460	
SHEET 35 OF 119	

A-54

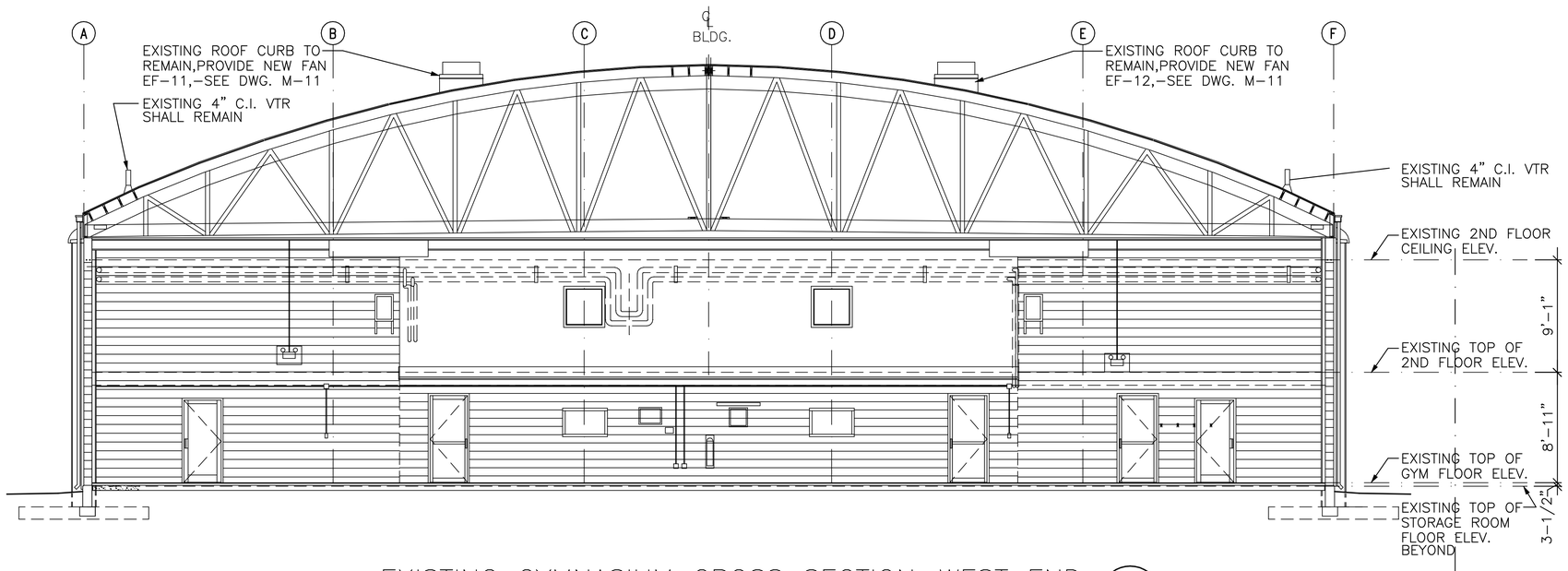
FILENAME: 5105A54.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/14/97 AT 13:39, XREFS: NONE



NEW WORK GYMNASIUM CROSS SECTION-WEST END

SCALE: 3/16"=1'-0"

5A
A6 A55



EXISTING GYMNASIUM CROSS SECTION-WEST END

SCALE: 3/16"=1'-0"

5
A2 A55

SCALE 3/16" = 1'-0" 0.6" 1'2' 5' 10'

REVISIONS

DSN.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ ENGR. JB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE

APPROVED
ACTIVITY - SATISFACTORY TO
APPROVED
DATE

FOR BID FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

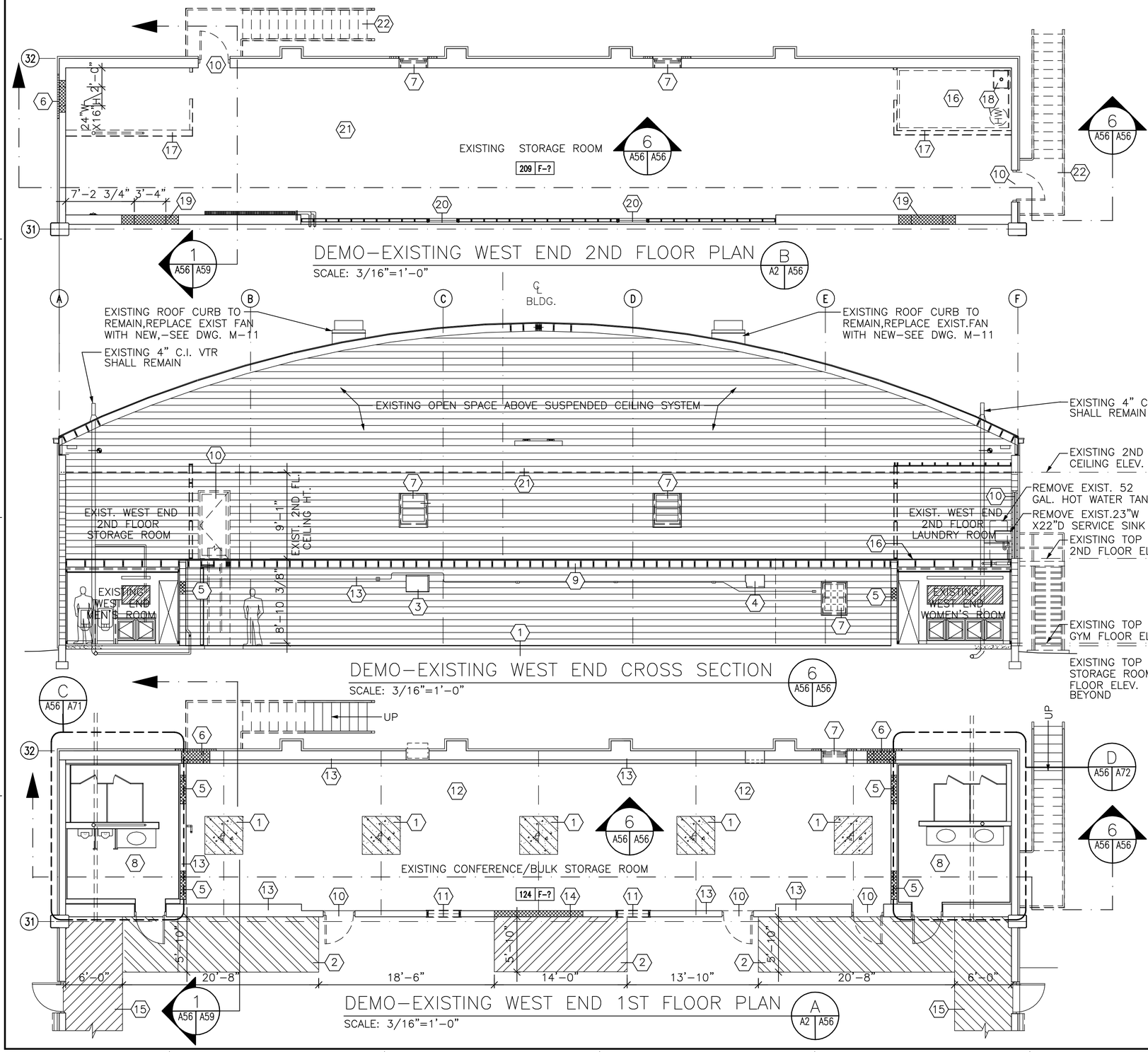
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147

EXIST. & NEW GYM CROSS SECTIONS-WEST END

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
E'D NO. 468461	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368461	
SHEET 36 OF 119	

A-55

FILENAME: 5105A55.DWG, PLOT SCALE: 3/16" = 1'-0", SAVED ON 08/07/97 AT 10:50, XREFS: NONE



GENERAL DEMOLITION NOTES (FOR THIS SHEET ONLY)

1. SAWCUT AND BREAKOUT EXISTING 5" CONCRETE FLOOR AREAS FOR NEW COLUMN FOUNDATIONS; EXCAVATE FOR NEW FOUNDATION; REMOVE EXISTING ABANDONED CONC. FOOTING
2. REMOVE ONLY EXISTING MAPLE GYM FLOORING AND SLEEPERS TO EXPOSE EXISTING 5" BUILDING FLOOR SLAB BELOW FOR NEW WORK
3. REMOVE EXISTING A/C UNIT AND PERIMETER WOOD BLOCKING /SHIMS
4. REMOVE EXISTING WOOD BLOCKING AT FORMER A/C OPENING
5. CAREFULLY SAWCUT AND REMOVE EXISTING 8" CMU WALL AREAS TO PROVIDE A NEW 16"H X 16"W OPENING TO EXISTING MEN'S AND WOMEN'S RESTROOMS FOR PROPOSED NEW DUCTWORK (4) LOCATIONS
6. SAME AS (5) ABOVE BUT FOR PROPOSED NEW 16" X 24" EXHAUST DUCTS TO EXTERIOR OF BUILDING
7. CAREFULLY REMOVE EXISTING WOOD WINDOW AND PERIMETER BLOCKING
8. DEMOLITION OF EXISTING MEN'S AND WOMEN'S RESTROOMS ARE SHOWN ON DRAWINGS A71 AND A72
9. CAREFULLY REMOVE EXISTING 12" SQUARE ACOUSTIC CEILING TILES AND 3/8" PLYWOOD SUBSTRATE ATTACHED TO 2" X 10" @ 16" O.C. FLOOR JOISTS ABOVE, WHICH SHALL REMAIN. ALSO REMOVE MISCELLANEOUS CROWN MOLD TRIM
10. REMOVE EXISTING 3'-0"x 7'-0" STOREFRONT DOOR AND FRAMES
11. COMPLETELY REMOVE EXISTING WOOD CASE TRIM, GLASS, TRIM, AND BLOCKING AT EXISTING VIEW WINDOWS INTO ROOM 124
12. REMOVE EXISTING GLUED DOWN CARPET ON EXISTING CONCRETE FLOOR SLAB THROUGHOUT ROOM 124
13. REMOVE EXISTING SURFACE MOUNTED ELECTRIC CONDUIT, SURFACE MOUNTED CEILING LIGHTS, AND MISCELLANEOUS OUTLETS, SWITCHES PER DRAWING E-7
14. CAREFULLY SAWCUT AND REMOVE EXISTING 8" CMU WALL AREAS APPROXIMATELY 7'-4"H X 6'-8"W TO PROVIDE OPENING FOR NEW WORK. ALSO PARTIALLY REMOVE 2"± EXISTING CONC. AS NECESSARY AT SILL AREA TO ALLOW FOR INSTALLATION OF NEW DOOR AT THIS LOCATION
15. CAREFULLY REMOVE EXISTING 6" WIDE CONTINUOUS METAL EDGE TRIM AND EXISTING RANDOM SIZED RED QUARRY TILE FLOORING AND 2 1/2"± SETTING BED TO EXPOSE EXISTING CONCRETE FLOOR SLAB BELOW, TAKING CARE NOT TO DAMAGE ADJACENT GYM FLOORING
16. CAREFULLY REMOVE ONLY EXISTING CERAMIC TILE FLOOR, BASE, AND SETTING BED TO EXPOSE EXISTING 3/4" SUB FLOOR BELOW
17. CAREFULLY REMOVE EXISTING WOOD FRAMED PARTITION, TAKING CARE NOT TO DAMAGE CAST IRON VENT PIPE WHICH SHALL REMAIN
18. REMOVE EXISTING SERVICE SINK, PIPING AND EXISTING HOT WATER TANK
19. SAWCUT AND CAREFULLY REMOVE EXISTING 12" CMU WALL AREAS TO PROVIDE OPENINGS FOR NEW DOORS
20. CUT OUT EXISTING 1/2" GYPBOARD ONLY AT AREAS OF EXISTING WALLED-OVER WINDOWS, AND REMOVE EXISTING GLASS AND STOPS, TO ALLOW FOR INSTALLATION OF NEW LOUVERS INDICATED ON DRAWING A-57
21. REMOVE EXISTING SUSPENDED 2' X 4' CEILING TILES AND GRID APPROXIMATELY 9'-1" ABOVE EXISTING FINISH FLOOR
22. REMOVE (2) EXISTING EXTERIOR STEEL STAIRWAYS AND FOUNDATIONS THAT ABUTT EXISTING BUILDING AT (2) EXIT DOOR LOCATIONS

REVISIONS

DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY: LANTDIV, NAVAL FACILITIES ENGINEERING COMMAND

APPROVED — DATE

ACTIVITY - SATISFACTORY TO — DATE

FOR BID FOR COMMANDER NAVFAC — SIGN

A/E	DESIGN	DRAWN	REVIEW	CHIEF	ARCH./ENGR.	PROJECT MANAGER	FIRE PROTECTION	QUALITY CONTROL	BRANCH MANAGER	DESIGN DIRECTOR
FPD	RCA	RCA			JB					

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

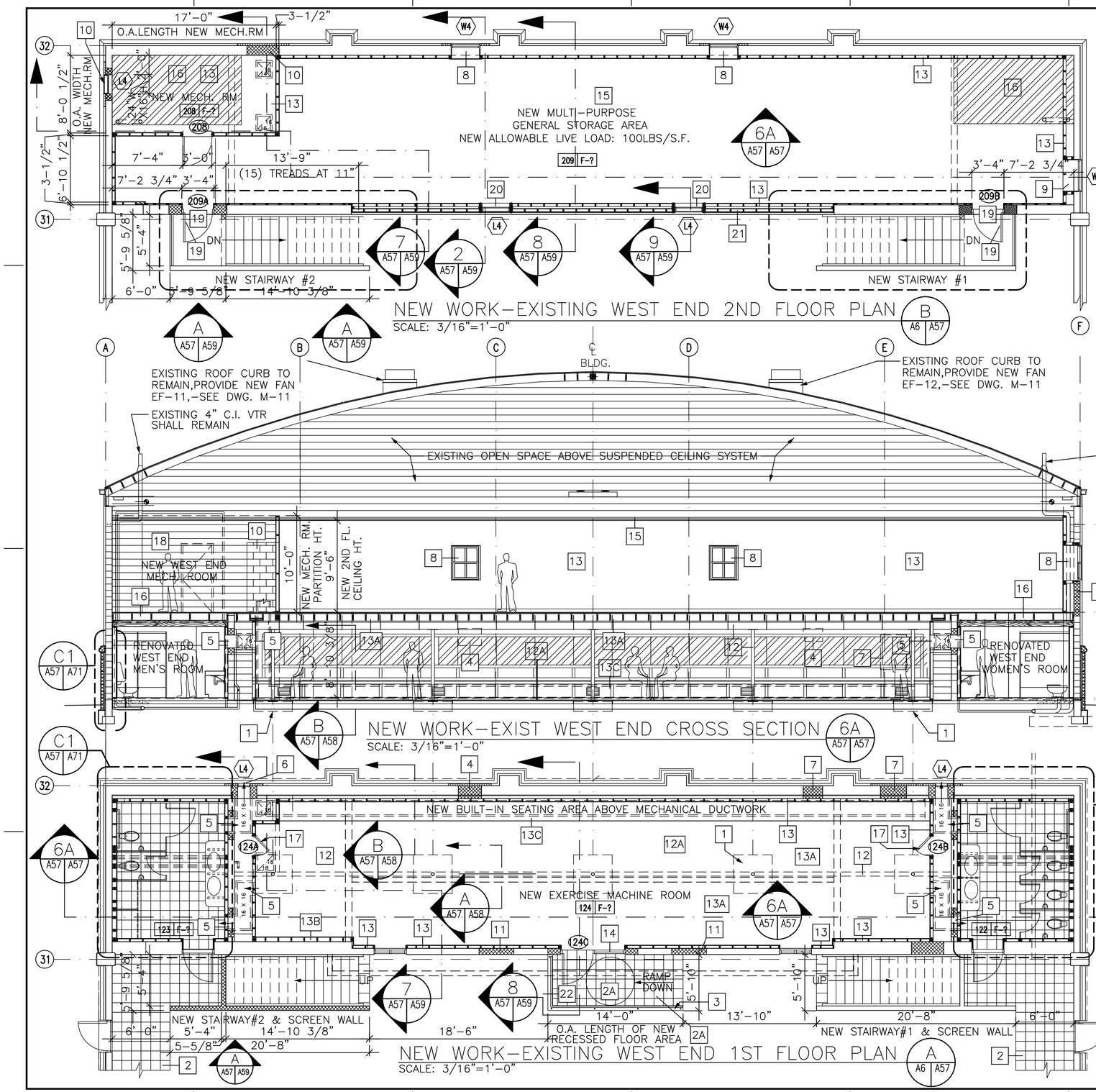
RENOVATIONS TO GYMNASIUM BUILDING 3147

DEMO EXIST. PLANS & SECTION-WEST END

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468462
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368462
SHEET	37 OF 119

A-56

FILENAME: 5105A56.DWG, PLOT SCALE: 3/16" = 1'-0", SAVED ON 01/08/98 AT 13:48, XREFS: NONE



GENERAL NEW WORK NOTES (FOR DWGS A57,A58,A59 ONLY)

1. PROVIDE NEW 12" DEEP X 4'-0" SQUARE COLUMN FOUNDATIONS REINFORCED W/(4) #4 BARS EACH WAY 3" FROM BOTTOM OF FOUNDATION. TOP OF NEW FOUNDATION SHALL BE 1 1/2"± BELOW TOP OF EXISTING FINISH FLOOR ELEVATION
2. PROVIDE 1"W X 2 1/2 "H X CONTINUOUS BAND OF MAPLE TRIM AND CONTINUOUS 2X BACKUP EDGE BLOCKING AT EDGES OF NEW OPENINGS IN GYM FLOOR FROM DEMOLITION. ALSO PROVIDE NEW 12"X 12" PAVER TILE FLOORING ON NEW SETTING BED. TOP OF NEW PAVER TILE SHALL BE FLUSH WHERE NEW WORK MEETS ADJACENT MAPLE TRIM, AND SHALL HAVE A 1/2" MINIMUM COMNTINUOUS ELASTOMERIC SEALANT JOINT AT PERIMETER OF NEW PAVER TILE WORK PER DETAIL E/A59.
- 2A. PROVIDE NEW MAPLE EDGE BAND AT FLOOR OPENING PER NOTE (2) ABOVE. PROVIDE NEW 12"X 12" PAVER TILE ON THINSET AT ALL LOWER FLAT AREAS OF NEW WORK. PROVIDE NEW PAVER TILE ON A NEW TAPERED SETTING BED AT NEW 4' WIDE RAMP AREA AND 1' WIDE FLAT AREA AT TOP OF RAMP
3. PROVIDE NEW 3'-6" HIGH 1 1/2" NOMINAL CONTINUOUS STEEL PIPE QUARD RAIL AND (5) POSTS WITH 1" SQUARE PICKETS @ 5" O.C. MAXIMUM BETWEEN POSTS. BOTTOM OF POSTS AND PICKETS SHALL BE SHOP WELDED TO TS 4"X 6"X 3/16" BASE MEMBER. PROVIDE (5) 1/2" DIAMETER ALL THREAD EPOXY CONTINUOUS ANCHOR BOLTS EMBEDDED 4" MINIMUM INTO EXISTING 5" CONCRETE FLOOR SLAB. CUT TOP OF THREADED ROD FLUSH WITH NUTS AFTER INSTALLATION
4. PROVIDE NEW 4" CMU TO BLOCK UP EXISTING INTERIOR WALL OPENINGS
5. PROVIDE NEW 8" CMU TOOTHED INTO EXISTING WORK TO PROVIDE CLEAR 16"X 16" OPENINGS INTO EXISTING MEN'S AND WOMEN'S RESTROOMS, (4) LOCATIONS. ALSO PROVIDE NEW 16"X 16" GRILLES PAINTED TO MATCH WALL FINISHES
6. PROVIDE NEW 4" AND 12" CMU TOOTHED INTO EXISTING WORK TO PROVIDE A CLEAR 16"H X 24" WIDE FINISHED OPENING TO BUILDING EXTERIOR. AT EXISTING BUILDING EIFS EXTERIOR PROVIDE NEW 2-1/2" EIFS SYSTEM A MINIMUM OF 12" WIDE AT PERIMETER OF NEW WALL OPENING AND INTEGRATE NEW WORK WITH EXISTING
7. PROVIDE NEW 4" AND 12" CMU TO BLOCK UP FORMER A/C, DOOR, OR WINDOW OPENINGS IN ROOM 124. ALSO PROVIDE NEW 2 1/2" EIFS SYSTEM WORK A MINIMUM OF 12" WIDE AT PERIMETER BEYOND BLOCKED UP OPENING WHERE NEW EXTERIOR MASONRY VENEER WORK DOES NOT OCCUR
8. PROVIDE (2) NEW PREFINISHED WINDOWS IN EXISTING WEST WALL OPENINGS OF ROOM 209, AND (1) NEW WINDOW IN NORTH WALL OF RM 209 AT FORMER EXISTING DOOR LOCATION
9. PROVIDE NEW 8" CMU (5) COURSES HIGH IN EXISTING 3'-4" WIDE OPENING BELOW NEW WINDOW IN NOTE (8) ABOVE. ALSO PROVIDE NEW 2 1/2" EIFS SYSTEM WORK A MINIMUM OF 12" WIDE AT PERIMETER BEYOND ADJACENT NEW BLOCKED UP OPENING TO MATCH ADJACENT EIFS WORK
10. SAME AS NOTE (9) ABOVE, BUT HAS 12" CMU INFILL, AND AREA IS 3'-4"X 7'-2"H X12" THICK. ALSO PROVIDE NEW 2 1/2" EIFS SYSTEM, ETC, 12" WIDE AT PERIMETER OF BLOCKED UP OPENING
11. PROVIDE NEW 8" CMU INFILL IN FORMER (2) VIEW WINDOW LOCATIONS. EACH AREA IS APPROXIMATELY 24"H X 40" WIDE
12. PROVIDE NEW CONTINUOUS STEEL SUPPORT BEAM APPROXIMATELY 74'-3" FABRICATED FROM TS 9"x5"x3/8" SUPPORTED BY (5) 3 1/2" NOMINAL STEEL PIPE COLUMNS, EACH HAVING 10"X 10" X 5/8" BASE PLATES AND (2) 5/8"Ø ANCHOR BOLTS PER BASE PLATE, AND 4 1/2"X 10"X 5/8" CAP PLATE FIELD CONTINUOUS FILLET WELDED OR BOLTED TO BOTTOM OF TS BEAM
- 12A. PROVIDE NEW 2 1/2" NOMINAL SELF-LEVELING CEMENTITIOUS FLOOR TOPPING THROUGHOUT ROOM 124 AFTER NEW COLUMNS AND CENTER BEAM ARE INSTALLED SO THAT FINISH FLOOR OF ROOM 124 MATCHES NEW DEPRESSED ENTRANCE FINISH FLOOR ELEVATION AT DOOR 124C, AND DEPRESSED AREA ABOVE NEW COLUMN FOUNDATIONS ARE COMPLETELY FILLED AND LEVEL.

(NEW WORK NOTES CONTINUED ON SHEET A-58)

SCALE 3/16" = 1'-0" 0'6" 1'2" 5' 10'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

DESIGN	ROA	PROJECT MANAGER	
DRAWN	ROA	FIRE PROTECTION	
REVIEW		QUALITY CONTROL	
CHIEF		BRANCH MANAGER	
ARCH./ENGR.	JB	DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: NAVAL FACILITIES ENGINEERING COMMAND LANTDIV
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID/FOR CONSTRUCTION MARKS
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
NEW WORK PLANS & SECTION-WEST END

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468463	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368463	
SHEET 38 OF 119	

A-57

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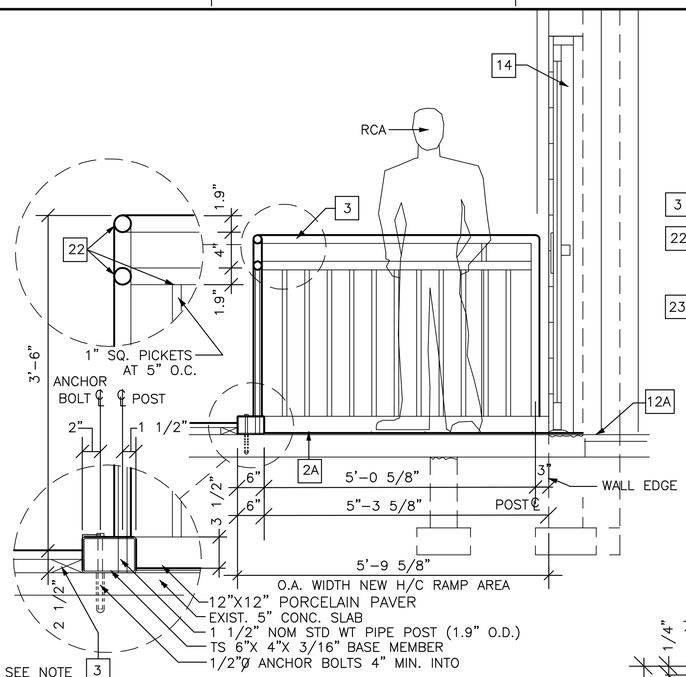
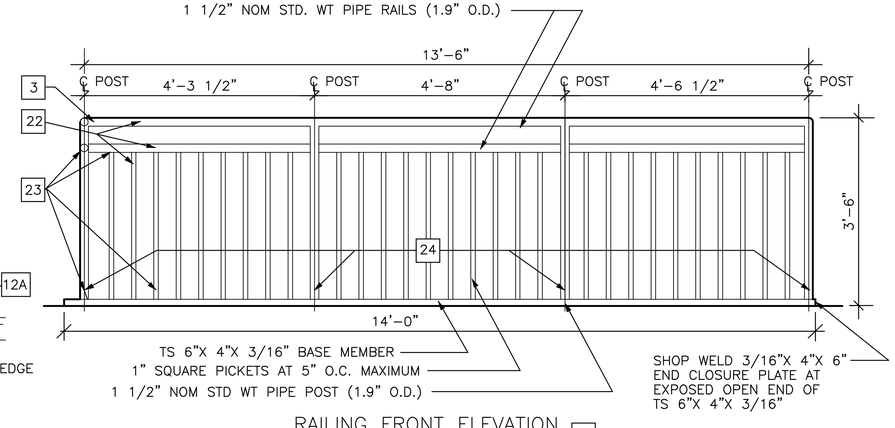
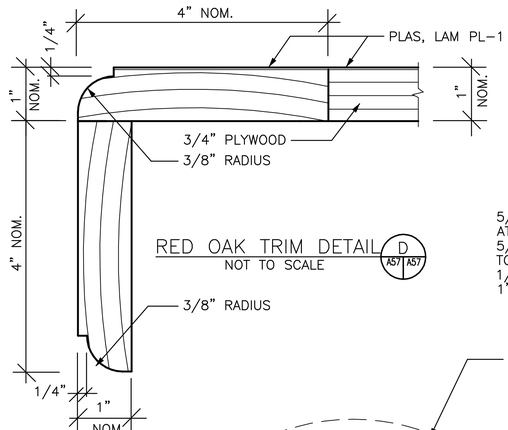


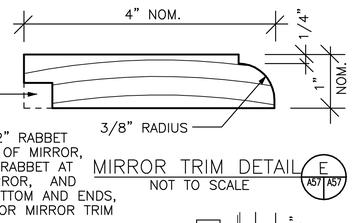
RAILING SIDE ELEVATION
SCALE 3/4'=1'-0"



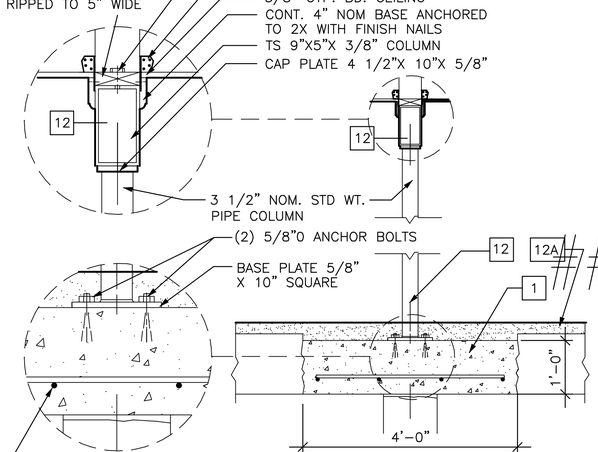
RAILING FRONT ELEVATION 3
SCALE 3/4'=1'-0"



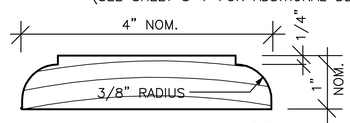
RED OAK TRIM DETAIL D
NOT TO SCALE A57 A57



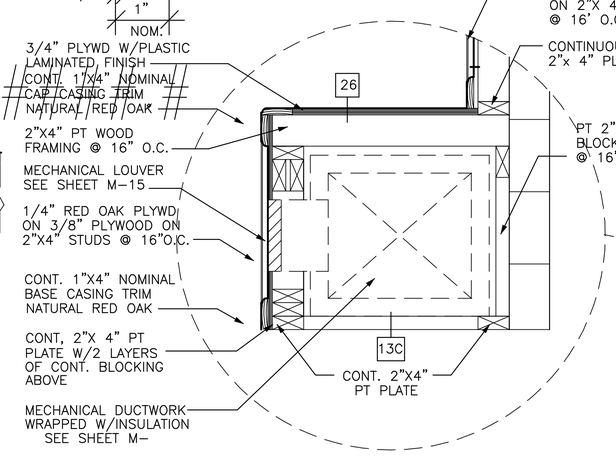
MIRROR TRIM DETAIL E
NOT TO SCALE A57 A57

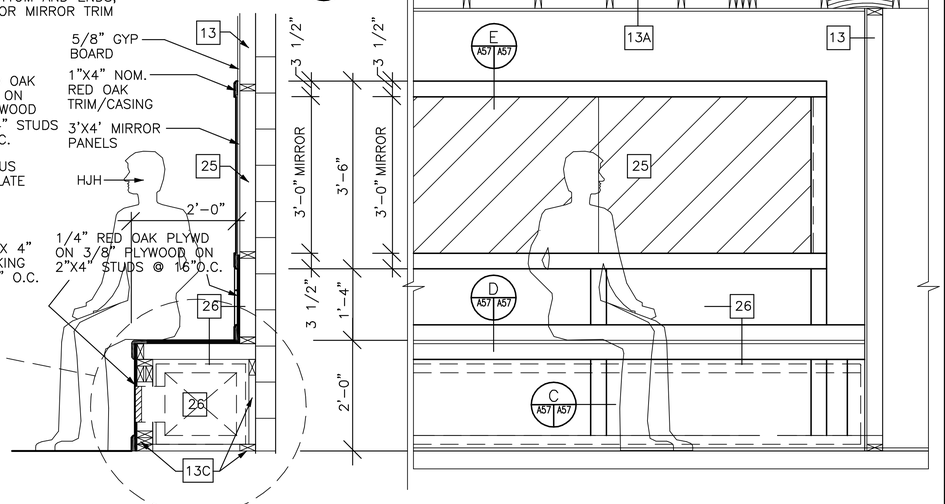


BEAM/COLUMN DETAIL A
SCALE 3/4'=1'-0" A57 A58
(SEE SHEET S-7 FOR ADDITIONAL DETAILS)



RED OAK TRIM DETAIL C
NOT TO SCALE A57 A57





BUILT-IN SEATING PARTIAL END ELEVATION AND DETAIL B
SCALE 3/4'=1'-0" A57 A58

3/4"=1'-0" 1' 6" 0' 2' 4'

GENERAL NEW WORK NOTES (CONT. FROM SHT A-57)

13 PROVIDE NEW 3 1/2" WOOD STUD FURRING 8'+ HIGH± @ 16"O.C. THROUGHOUT ROOM 124, AND 10' HIGH THROUGHOUT ROOM 209 WITH 5/8" TYPE GYPSUM BOARD THROUGHOUT ALL EXPOSED NEW FURRED AREAS, INCLUDING THE INTERIOR SIDE OF NEW MECHANICAL ROOM 208.

13A PROVIDE NEW 5/8" GYPSUM BOARD CEILING IN ROOM 124.

13B PROVIDE 5 1/2" FURRING/ 5/8" GYPSUM BOARD AT 10'-6"± WALL OF ROOM 124

13C PROVIDE NEW 3 1/2" WOOD FRAMING, BLOCKING, AND TRIM CONTINUOUS AROUND NEW FLOOR MOUNTED MECHANICAL SUPPLY DUCT.

14 PROVIDE NEW PREFINISHED STOREFRONT DOOR #124C AND GLAZED SIDE PANELS THAT ARE 7'-4 1/2"H X 6'-8" WIDE X 4 1/2" DEEP, ALSO PROVIDE NEW LINTELS ABOVE COMPOSED OF (2) L 3/8" X 4" X 6" X 8'-0" LONG, WITH NEW 4" NOMINAL X 8" HIGH CMU ON EACH SIDE OF NEW LINTEL TO COURSE IN WITH EXISTING ADJACENT WORK. GROUT IN NEW CMU ADJACENT TO JAMBS SOLID WITH MORTAR FROM INTERIOR SIDE OF ROOM 124, SO NEW FURRING AND GYPSUM BOARD WILL CONCEAL NEW CMU WORK AT JAMBS

15 PROVIDE NEW SUSPENDED CEILING SYSTEM 9'-1" AFF IN ROOM 209, HAVING A 2' SQUARE GRID, AND 2' SQUARE X 5/8" LAY-IN TILES. SEE E-16 FOR NEW LIGHTING, AND M-15 FOR NEW MECHANICAL WORK

16 PROVIDE (1) 3/4" AND (1) 3/8" ADDITIONAL NEW LAYERS OF FLOOR SHEATHING OVER EXISTING SINGLE 3/4" LAYER OF SHEATHING TO MATCH EXISTING ADJACENT FINISH FLOOR ELEVATION

17 PROVIDE (2) NEW 3 1/2"X 8'± HIGH WOOD STUD PARTITIONS WITH 5/8" TYPE "X" GYPSUM BOARD ON EXPOSED SIDE, EACH HAVING A 2'-0"X 6'-8" ALUMINUM DOOR WITH HOLLOW METAL FRAME AT EACH END OF ROOM 124

18 PROVIDE NEW DOOR #208 IN NEW MECHANICAL ROOM PARTITIONS FRAMED FROM 3 1/2" WOOD STUDS @ 16"O.C. X 10' HIGH WITH 5/8" TYPE "X" GYPSUM BOARD ON BOTH SIDES

19 PROVIDE NEW DOORS 209A, 209B AND FRAMES, AND NEW 12" CMU BOND BEAM LINTELS ABOVE DOORS

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E DESIGN RCA; DRAWN RCA; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE APPROVED

ACTIVITY - SATISFACTORY TO DATE APPROVED

FOR BID OR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
MISC. NEW WORK DETAILS-WEST END

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
E/D NO. 468464	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368464	
SHEET 39 OF 119	

A-58

FILENAME: 5105A58.DWG, PLOT SCALE: 3/16" = 1'-0", SAVED ON 08/14/97 AT 16:08, XREFS: NONE

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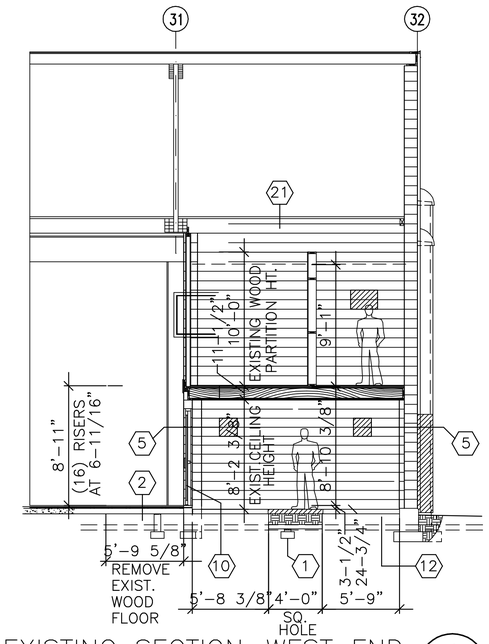
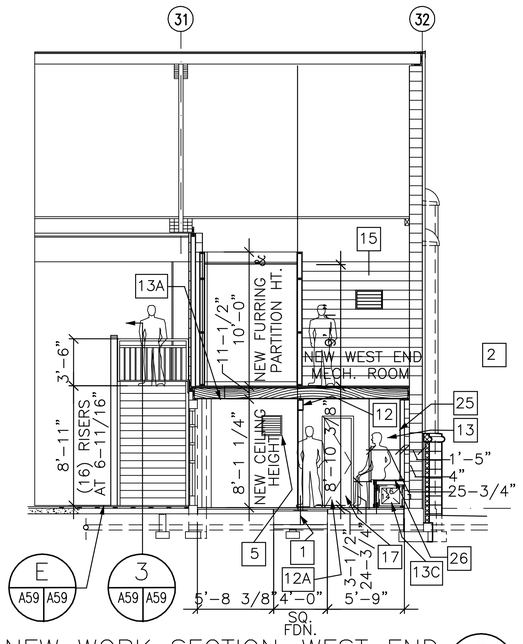


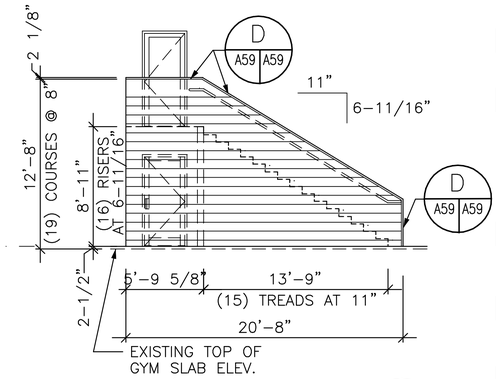
EXISTING SECTION—WEST END (1 / A56 | A59)

SCALE: 3/16"=1'-0"



NEW WORK SECTION—WEST END (2 / A57 | A59)

SCALE: 3/16"=1'-0"



ELEVATION (NEW WORK– WEST END STAIR ELEVATION) (A / A57 | A59)

SCALE: 3/16"=1'-0"

GENERAL NEW WORK NOTES (FOR DWGS A57,A58,A59 ONLY)

20 PROVIDE PERIMETER BLOCKING AND MISCELLANEOUS TRIM AND CASING IN NEW 3 1/2" WOOD STUD PARTITION (NOTE 13 SHEET A–58) OF EAST WALL OF ROOM 209 TO ALIGN WITH ADJACENT FRAMED FORMER WINDOW OPENINGS THAT WILL RECEIVE (2) NEW 2'–10" SQUARE X 4" DEEP TRANSFER LOUVERS. PAINT INSTALLED LOUVERS TO MATCH WALL FINISH COLOR ON EACH SIDE OF LOUVERS

21 PROVIDE NEW LAYER OF 5/8" GYPSUM BOARD OVER EXISTING 1/2" GYPSUM BOARD ON EXISTNG 3 1/2" X 10'+ HIGH X 50' LONG ON 2ND FLOOR GYMNASIUM SIDE OF PARTITION.

22 PROVIDE NEW SHOP–FABRICATED STEEL QUARDRAIL ASSEMBLY AT THE NEW RECESSED H/C ACCESS RAMP AREA. FIELD PAINT NEW INSTALLED ASSEMBLY COLOR P–9 WITH (2) FINISH COATS OF SEMI–GLOSS ALKYD ENAMEL

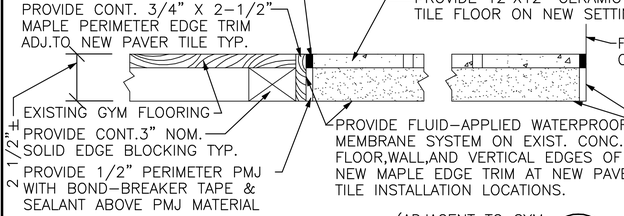
23 ALL WELDS SHALL BE CONTINUOUS 3/16" FILLET TYPE GROUND SMOOTH, PRIOR TO (2) SHOP PRIME COATS, AND (2) FIELD FINISH COATS

24 PROVIDE 1/2" DIA. ALL THREADED HILTI HVA TYPE RESIN SYSTEM ANCHOR BOLTS EMBEDDED A MINIMUM OF 4" INTO EXISTING 5" CONCRETE FLOOR SLAB – (5) BOLTS REQUIRED, INSTALL (1) BOLT ADJACENT TO EACH PIPE QUARD POST IN SHOP FABRICATED 3/4" DIA. HOLES IN 6" SIDE OF TS 6"X 4"X 3/16". ALSO PROVIDE FLAT WASHERS, LOCK WASHERS AND NUTS TO SECURE TS BASE MEMBER. CUT OFF EXPOSED THREADS FLUSH WITH TOP OF INSTALLED NUTS, AND FILE SMOOTH, PRIOR TO FIELD PAINTING.

25 PROVIDE NEW 3' HIGH X 4' LONG X 1/4" FLOAT GLASS MIRROR PANELS,(68"+ LONG OVERALL, W/2"+8" LONG MIRROR PANELS AT ENDS) ON WEST WALL ABOVE BUILT–IN SEATING. PERIMETER MIRROR FRAME SHALL BE 1"X 4" NOM. RED OAK PER DETAIL

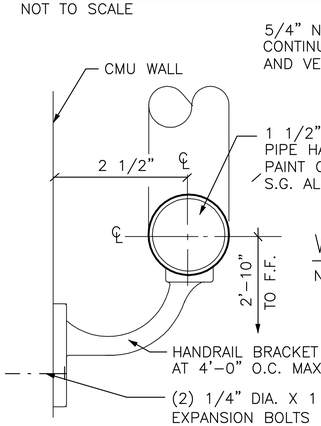
26 PROVIDE NEW 2'HIGH X 68'+LONG BUILT–IN SEATING & 16"HIGH BACKREST, W/PLASTIC LAMINATE ON SEATING AREA, WITH PERIMETER TRIM AND CASING FRAME FABRICATED FROM 1"X 4" NOM. RED OAK AND 1/2" RED OAK VENEER PLYWOOD PER DETAIL

27 PROVIDE (2) NEW STAIRWAYS CONSISTING OF SHOP–FABRICATED STEEL GUARDRAIL, PLATFORM, AND CLOSED TREAD ASSEMBLIES, FIELD INSTALLED AT NEW 6" NOMINAL REINFORCED SCREEN WALLS ADJACENT TO EXISTING RESTROOMS. FIELD PAINT ALL EXPOSED AREAS OF CMU COLOR P–6,AND NEW INSTALLED STAIR ASSEMBLY, INCLUDING HANDRAILS AND GUARDRAILS COLOR P–9, WITH (2) FINISH COATS OF SEMI–GLOSS ALKYD ENAMEL.



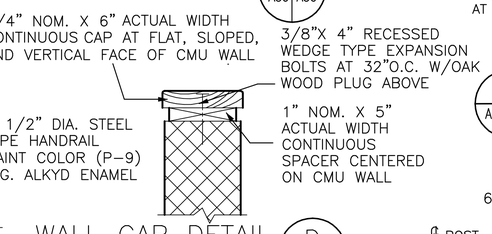
PAVER TILE FLOOR DETAIL (ADJACENT TO GYM WOOD FLOORING) (E / A59 | A59)

NOT TO SCALE



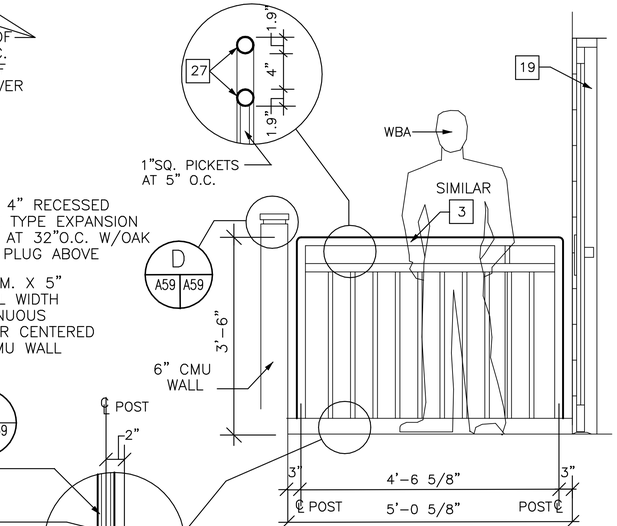
HANDRAIL BRACKET DETAIL (C / A59 | A59)

NOT TO SCALE



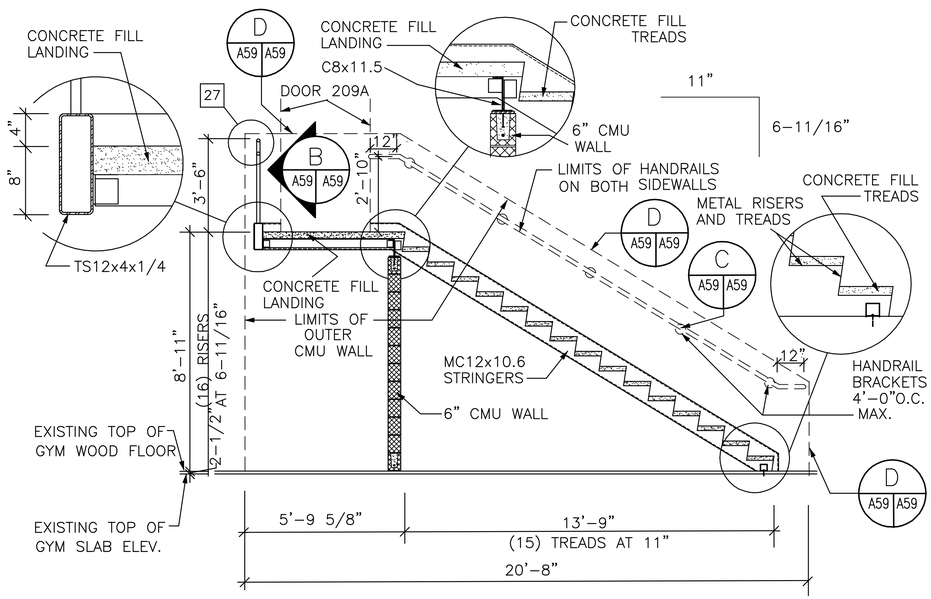
WALL CAP DETAIL (D / A59 | A59)

NOT TO SCALE



RAIL ELEVATION (B / A59 | A59)

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



STAIR SECTION (3 / A59 | A59)

NOT TO SCALE

SCALE 3/16" = 1'-0" 0'6" 1'2" 5' 10'

3/4"=1'-0" 1' 6" 0' 2' 4'

REVISIONS			
DESCRIPTION	DATE	APPROVED	

DESIGN	ROA
DRAWN	ROA
REVIEW	
CHIEF ARCH./ ENGR.	
PROJECT MANAGER	JB
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: NAVAL FACILITIES ENGINEERING COMMAND LANTDIV

APPROVED DATE

ACTIVITY – SATISFACTORY TO DATE

APPROVED

FOR BID FOR DRAWER MARK

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

PLANS,SECTIONS,ELEVS,–NEW WEST END STAIRS

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468465
STA. PROJ. NO.	R–234
SPEC. NO.	05–95–5105
CONSTR. CONTR. NO.	N62470–95–B–5105
NAVFAC DRAWING NO.	4368465
SHEET	40 OF 119

A–59

FILENAME: 5105A59.DWG; PLOT SCALE: 3/16" = 1'–0", SAVED ON 01/08/98 AT 13:52, XREFS: NONE

8 7 6 5 4 3 2 1

D C B A

DOOR SCHEDULE:

DOOR								FRAME										
DOOR NO.	DOOR SIZE (WIDTH X HT X THICK.)	DOOR TYPE	DOOR MATERIAL	DOOR COLOR	GLASS	VIEW GLASS	U'CUT/ LOUVER W X H	FRAME TYPE	FRAME COLOR	HEAD DETAIL	JAMB DETAIL	SILL DETAIL	FIRE RATING LABEL	HDWARE SET NO.	DOOR SIGNAGE TYPE	DOOR SIGNAGE TEXT	REMARKS GEN. NOTES
100	2 – 3'–0" X 6'–8" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	1	P1	1/A63	2/A63	3/A63	-----		---	-----	GEN. NOTE 1&3
101	2 – 3'–0" X 6'–8" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	2	P1	5/A63	6/A63	7/A63	-----		---	-----	GEN. NOTE 1
102	3'–0" X 6'–8" X 1 3/4"	A	HM	P5	1/4" TEMPERED	4" X 25"	---	12	P5	25/A64	26/A64	27/A64	60 MIN.		---	-----	WIRE GLASS
103	2 – 3'–0" X 6'–8" X 1 3/4"	B	ALUM	P10	1/4" TEMPERED	FULL	---	3	P10	13/A63	14/A63	15/A63	-----		---	-----	GEN. NOTES 1
104	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P10	1/4" TEMPERED	FULL	---	4	P10	17/A63	18/A63	15/A63	-----		---	-----	GEN. NOTES 1
105	3'–0" X 6'–8" X 1 3/4"	A	INSUL/HM	P2	---	---	---	12	P2	29/A64	30/A64	31/A64	-----		---	-----	GEN. NOTES 4
106	3'–0" X 6'–8" X 1 3/4"	A	INSUL/HM	P2	---	---	---	12	P2	29/A64	30/A64	31/A64	-----		---	-----	GEN. NOTES 4
107	3'–0" X 7'–0" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	5	P1	9/A63	10/A63	11/A63	-----		---	-----	GEN. NOTES 1&3
108	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	---	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
111	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
112	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
113	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
114	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
115	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
116	3'–0" X 6'–11" X 1/2"	D	GLASS	---	1/2" TEMPERED	FULL	---	11	P11	23/A63	24/A63	19/A63	-----		---	-----	-----
119A	2 – 4'–0" X 7'–10"X 1 3/4"	C	INSUL/HM	P2	---	---	---	13	P2	29/A64	30/A64	31/A64	-----		---	-----	GEN. NOTES 4
119B	2 – 4'–0" X 7'–10" X 1 3/4"	C	INSUL/HM	P2	---	---	---	13	P2	29/A64	30/A64	31/A64	-----		---	-----	GEN. NOTES 4
120A	3'–0" X 7'–2" X 1 3/4"	A	HM	P5	---	---	---	12	P5	33/A64	34/A64	35/A64	-----		---	-----	-----
120B	2 – 3'–0" X 7'–2" X 1 3/4"	C	HM	P5	---	---	---	13	P5	33/A64	34/A64	35/A64	-----		---	-----	-----
124A	2'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	---	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
124B	2'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	---	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
124C	3'–2" X 7'–2 1/2" X 1 3/4"	B	ALUM	P8	1/4" TEMPERED	FULL	---	7	P8	4/A63	8/A63	12/A63	-----		---	-----	GEN. NOTES 1
125A	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	6	P1	16/A63	20/A63	12/A63	-----		---	-----	GEN. NOTES 1&3
125B	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	1/4" TEMPERED	10"X10"	24"X24"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
126	2'–4" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	---	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
127	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	1" U'CUT	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
128	3'–0" X 6'–8" X 1 3/4""	A	SC–WOOD	P3	---	---	1" U'CUT	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
129	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P10	1/4" TEMPERED	FULL	---	6	P10	4/A63	8/A63	12/A63	-----		---	-----	GEN. NOTES 1
130	2 – 2'–0" X 6'–8" X 1 3/4"	C	SC–WOOD	P3	---	---	24"X12"	13	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
131A	3'–0" X 3'–4" X 1 3/4"	A	SC–WOOD	P3	1/4" TEMPERED	10"X10"	24"X24"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
131B	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	1/4" TEMPERED	10"X10"	24"X24"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
131C	2 – 3'–0" X 6'–8" X 1 3/4"	E	SC–WOOD	P3		---	---	14	P5	41/A64	42/A64	43/A64	-----		---	-----	GEN. NOTES 2
132	3'–0" X 3'–4" X 1 3/4"	F	SC–WOOD	P3	---	---	---	15	P5	-----	48/A64	-----	-----		---	-----	GEN. NOTES 2
133	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	24"X24"	12	P5	-----	45/A46	-----	-----		---	-----	GEN. NOTES 2
134	3'–0" X 6'–8"X 1 3/4"	A	SC–WOOD	P3	---	---	24"X24"	12	P5	1/A17	5/6/A17	11/A17	-----		---	-----	GEN. NOTES 2
135	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P10	1/4" TEMPERED	FULL	---	6	P10	4/A63	8/A63	12/A63	-----		---	-----	GEN. NOTES 1
136	2'–4" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	1" U'CUT	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
137	2'–4" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	1" U'CUT	12	P5	37/A64	38/A64	39/A64	-----		---	-----	GEN. NOTES 2
138A	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	6	P1	16/A63	20/A63	12/A63	-----		---	-----	GEN. NOTES 1&3
138B	3'–0" X 7'–2" X 1 3/4"	B	ALUM	P1	1" INSUL/TEMPERED	FULL	---	6	P1	16/A63	20/A63	12/A63	-----		---	-----	-----
139	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	---	12	P5	-----	46/A64	47/A64	-----		---	-----	-----
140	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	24"X12"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	-----
141A	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	24"X12"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	-----
141B	3'–0" X 6'–8" X 1 3/4"	A	SC–WOOD	P3	---	---	24"X12"	12	P5	37/A64	38/A64	39/A64	-----		---	-----	-----
201	2 – 4'–0" X 6'–0" X 1 3/4"	A	INSUL/HM	P5	---	---	---	13	P5	-----	32/A64	36/A64	-----		---	-----	GEN. NOTES 4
202	3'–0" X 6'–0" X 1 3/4"	A	HM	P5	---	---	---	12	P5	37/A64	38/A64	39/A64	60 MIN.		---	-----	WIRE GLASS
203	3'–0" X 6'–8" X 1 3/4"	A	ALUM	P10	1/4" TEMPERED	FULL	---	9	P10	21/A63	22/A63	15/A63	-----		---	-----	GEN. NOTES 1
204	3'–0" X 6'–8" X 1 3/4"	A	HM	P5	1/4" TEMPERED	4" X 25"	---	12	P5	25/A64	26/A64	27/A64	60 MIN.		---	-----	WIRE GLASS
207A	3'–0" X 6'–8" X 1 3/4"	A	HM	P5	1/4" TEMPERED	10" X 10"	---	12	P5	28/A64	40/A64	35/A64	60 MIN.		---	-----	WIRE GLASS
207B	2'–4" X 6'–8" X 1 3/4"	A	HM	P5	---	---	---	12	P5	28/A64	40/A64	35/A64	-----		---	-----	-----
208	3'–0" X 7'–0" X 1 3/4"	A	HM	P5	---	---	---	12	P5	37/A64	38/A64	39/A64	-----		---	-----	-----
209A	3'–0" X 7'–0" X 1 3/4"	A	HM	P5	1/4" TEMPERED	10" X 10"	---	12	P9	-----	44/A64	47/A64	-----		---	-----	-----
209B	3'–0" X 7'–0" X 1 3/4"	A	HM	P5	1/4" TEMPERED	10" X 10"	---	12	P9	-----	44/A64	47/A64	-----		---	-----	-----

GENERAL DOOR NOTES:

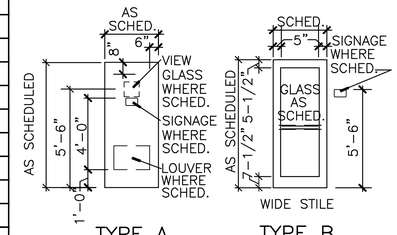
1. PROVIDE WIDE STILE ALUMINUM STOREFRONT DOORS W/ ALUMINUM DOOR FRAMES.
2. PROVIDE SOLID CORE DOOR W/STAIN GRADE OAK VENEER FACES.
3. PROVIDE 1" TEMPERED LOW "E" INSULATING GLASS-SEALED UNIT W/ARGON GAS.
4. PROVIDE INSULATED FOAM CORE IN HOLLOW METAL DOOR.
5. PROVIDE FINISHES ON DOOR & DOOR FRAME AS INDICATED ON DOOR SCHEDULE AND ON INTERIOR AND EXTERIOR COLOR NOTES ON SHEET A–75/76.

DOOR SCHEDULE ABBREVIATIONS :

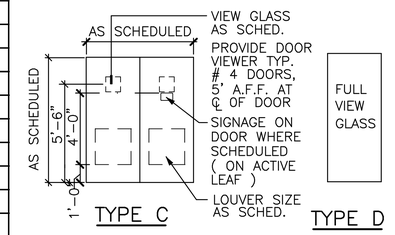
ALUM.	ALUMINUM STOREFRONT SYSTEM
E.I.F.S.	EXTERIOR INSULATION AND FINISH SYSTEM
FULL	FULLY GLAZED (ALUMINUM STORE–FRONT SYSTEM DOORS ONLY)
HM	HOLLOW METAL
INSUL.	INSULATED
P	PAINT
SC	SOLID CORE
STL.	STEEL

DOOR TYPES

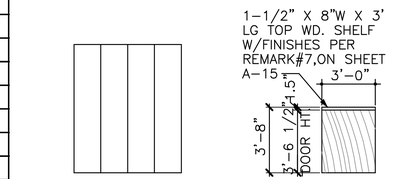
SCALE: 1/4" = 1'–0"



TYPE A TYPE B



TYPE C TYPE D



TYPE E TYPE F

SEE SHEET A–62 FOR ALUMINUM STOREFRONT DOOR/WINDOW FRAME TYPES, HOLLOW METAL AND WOOD FRAME TYPES AND SHEETS A–63 AND A–64 FOR DOOR DETAILS.

GRAPHIC SCALES

SCALE : 1/4"=1'–0" 0 6" 1'2' 5' 10'

REVISIONS

DESCRIPTION	DATE	APPROVED
STA.		

A/E
DESIGN ROA
DRAWN HJH
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S USE

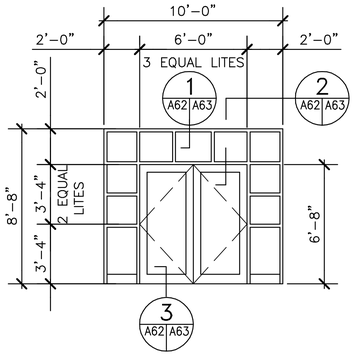
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

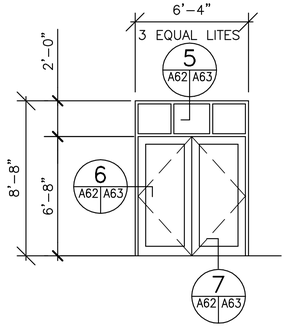
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
DOOR SCHEDULE

CODE ID. NO. 80091 SIZE D
SCALE: GRAPHIC
EFD NO. 468466
STA. PROJ. NO. R–234
SPEC. NO. 05–95–5105
CONSTR. CONTR. NO. N62470–95–B–5105
NAVFAC DRAWING NO. 4368466
SHEET 41 OF 119
A–61

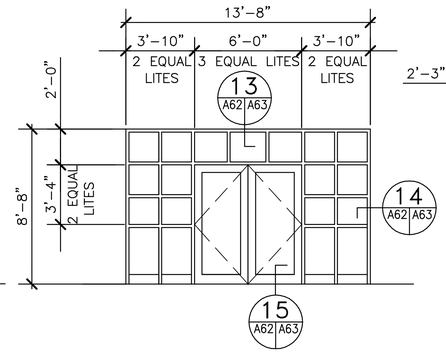
FILENAME: 5105A61.DWG, PLOT SCALE: 1/4" = 1'–0", SAVED ON 06/06/97 AT 10:24, XREFS: NONE



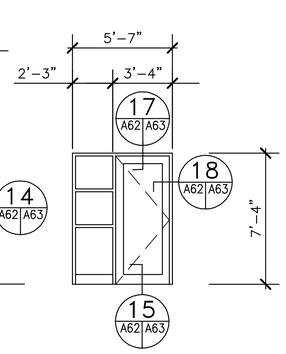
TYPE 1
NEW SOUTH MAIN ENTRANCE



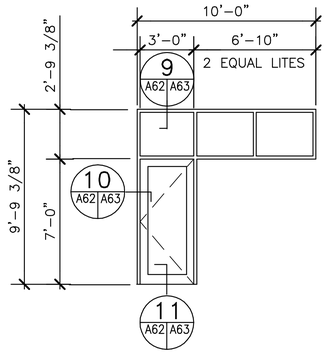
TYPE 2
VESTIBULE NEW SOUTH MAIN ENTRANCE



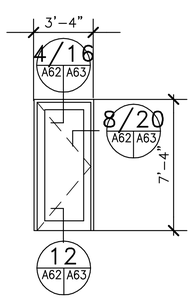
TYPE 3
1ST FLOOR ENTRANCE FROM GYM TO LOBBY



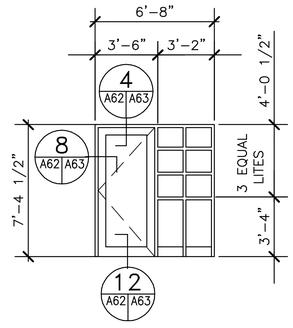
TYPE 4
NEW POWER PALACE ENTRANCE



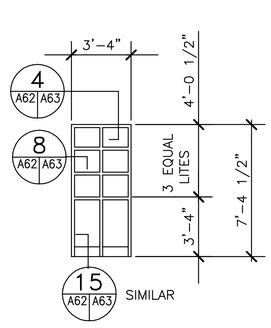
TYPE 5
NEW EAST STAIR ENTRANCE



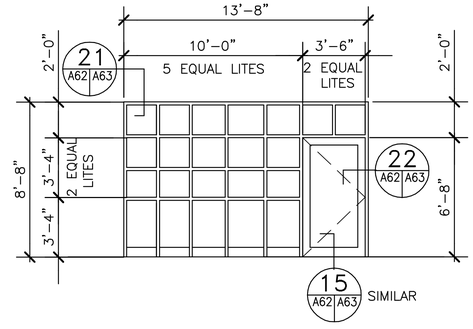
TYPE 6



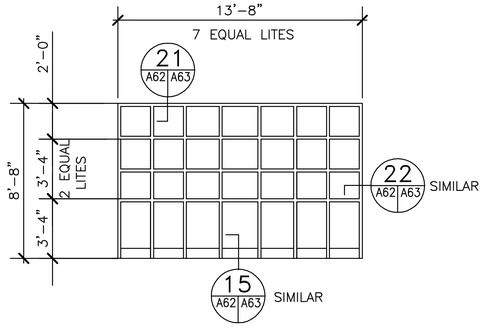
TYPE 7



TYPE 8
FRAME COLOR P–8



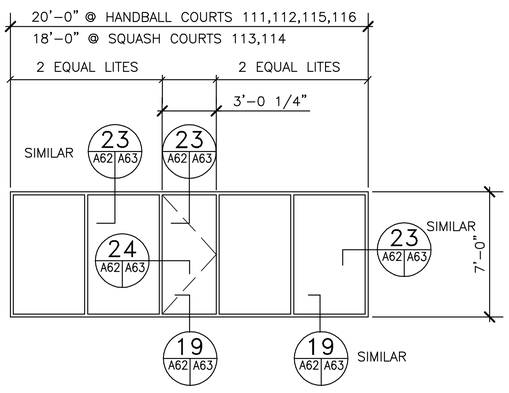
TYPE 9
2ND FLOOR ENTRANCE NEW MULTI–PURPOSE
EQUIPMENT ROOM



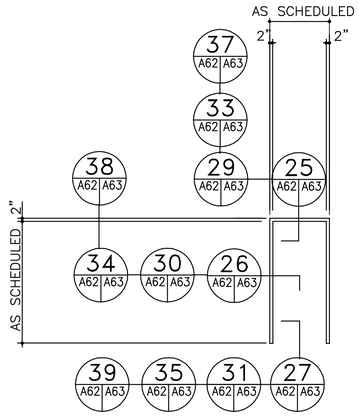
TYPE 10
2ND FLOOR WESTWALL OF NEW MULTI–PURPOSE
EQUIPMENT ROOM
FRAME COLOR P–10

ALUMINUM STOREFRONT DOOR/WINDOW FRAME TYPES

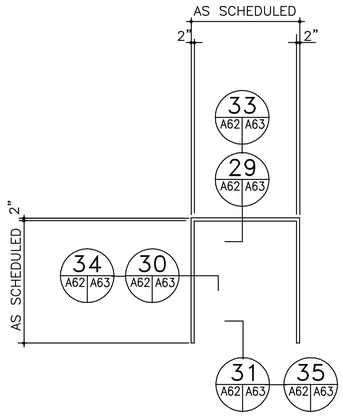
SCALE: 1/4" = 1'–0"



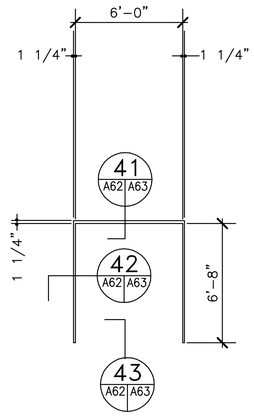
TYPE 11
1ST FLOOR HANDBALL/SQUASH COURTS



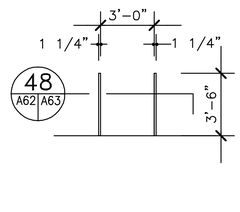
TYPE 12



TYPE 13



TYPE 14



TYPE 15

ALUMINUM DOOR/WINDOW FRAME SYSTEM

SCALE: 1/4" = 1'–0"

HOLLOW METAL/WOOD DOOR FRAME TYPES

GRAPHIC SCALES
SCALE : 1/4"=1'–0"
0 6" 1'2" 5' 10'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN ROA
DRAWN HJH
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR DRAWER MARKS

SEAL

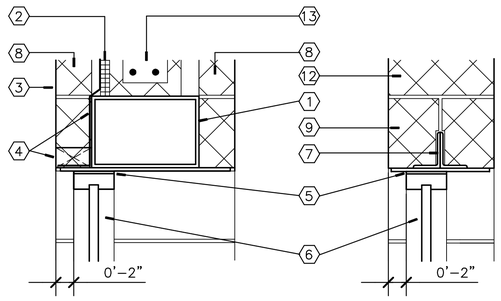
DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
DOOR / WINDOW FRAME TYPES

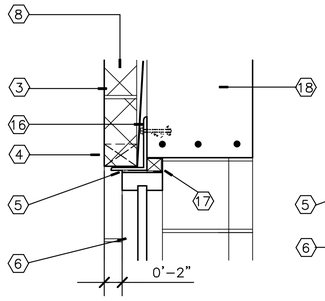
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468467	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368467	
SHEET 42 OF 119	
A–62	

FILENAME: 5105A61.DWG, PLOT SCALE: 1/4" = 1'–0", SAVED ON 06/06/97 AT 10:24, XREFS: NONE

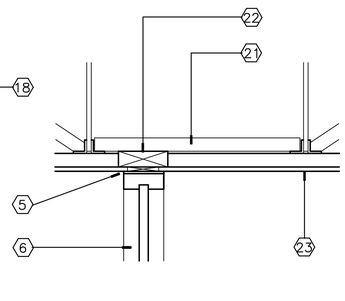
8 7 6 5 4 3 2 1
D C B A



HEAD DETAIL 1 — SCALE: 1-1/2" = 1'-0" — A62 | A63

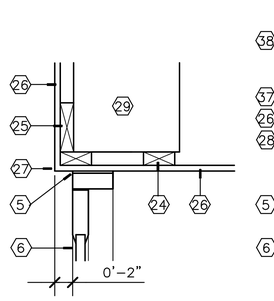


HEAD DETAIL 5 — SCALE: 1-1/2" = 1'-0" — A62 | A63

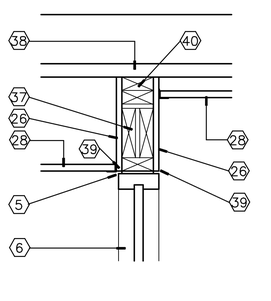


HEAD DETAIL 9 — SCALE: 1-1/2" = 1'-0" — A62 | A63

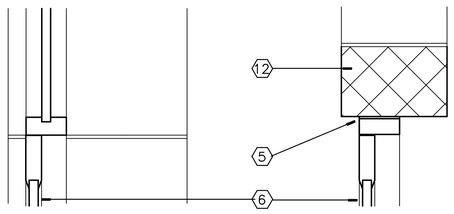
HEAD DETAIL 13 — SCALE: 1-1/2" = 1'-0" — A62 | A63



HEAD DETAIL 17 — SCALE: 1-1/2" = 1'-0" — A62 | A63

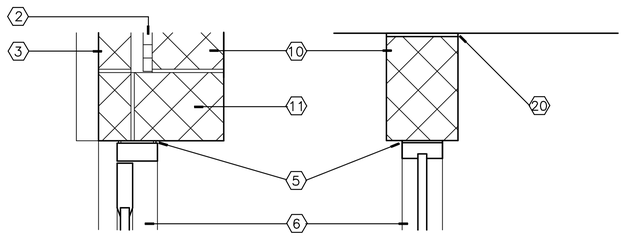


HEAD DETAIL 21 — SCALE: 1-1/2" = 1'-0" — A62 | A63

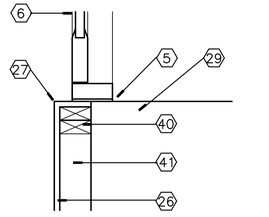


HEAD DETAIL 2 — SCALE: 1-1/2" = 1'-0" — A62 | A63

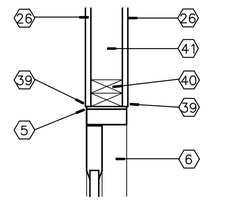
JAMB DETAIL 6 — SCALE: 1-1/2" = 1'-0" — A62 | A63



JAMB DETAIL 10 — SCALE: 1-1/2" = 1'-0" — A62 | A63

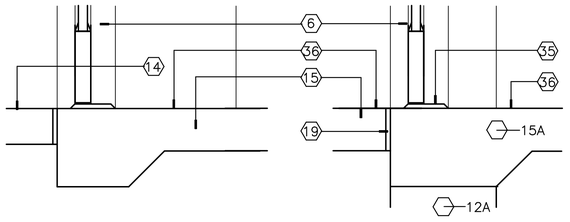


JAMB DETAIL 14 — SCALE: 1-1/2" = 1'-0" — A62 | A63

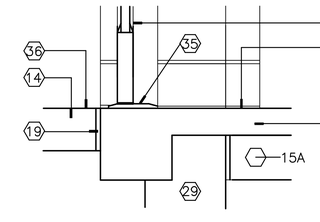


JAMB DETAIL 18 — SCALE: 1-1/2" = 1'-0" — A62 | A63

JAMB DETAIL 22 — SCALE: 1-1/2" = 1'-0" — A62 | A63

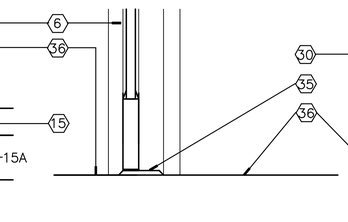


SILL DETAIL 3 — SCALE: 1-1/2" = 1'-0" — A62 | A63

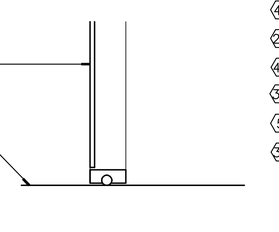


SILL DETAIL 7 — SCALE: 1-1/2" = 1'-0" — A62 | A63

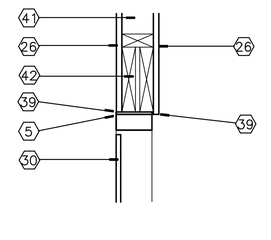
SILL DETAIL 11 — SCALE: 1-1/2" = 1'-0" — A62 | A63



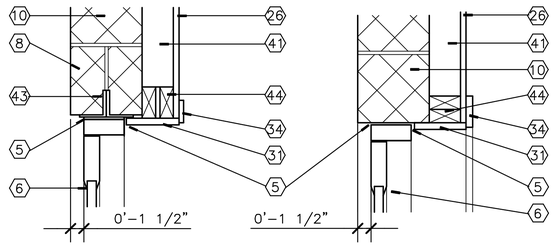
SILL DETAIL 15 — SCALE: 1-1/2" = 1'-0" — A62 | A63



19 — SCALE: 1-1/2" = 1'-0" — A62 | A63

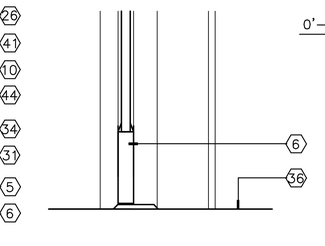


HEAD DETAIL 23 — SCALE: 1-1/2" = 1'-0" — A62 | A63

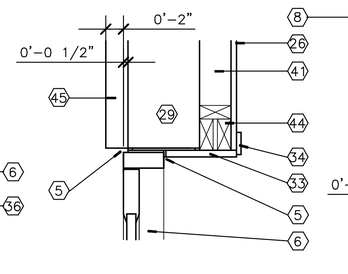


HEAD DETAIL 4 — SCALE: 1-1/2" = 1'-0" — A62 | A63

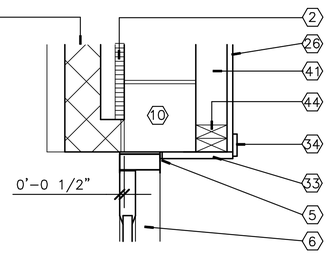
JAMB DETAIL 8 — SCALE: 1-1/2" = 1'-0" — A62 | A63



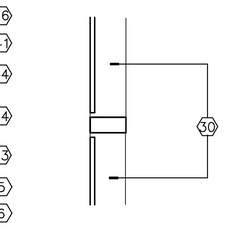
SILL DETAIL 12 — SCALE: 1-1/2" = 1'-0" — A62 | A63



HEAD DETAIL 16 — SCALE: 1-1/2" = 1'-0" — A62 | A63



JAMB DETAIL 20 — SCALE: 1-1/2" = 1'-0" — A62 | A63



JAMB DETAIL 24 — SCALE: 1-1/2" = 1'-0" — A62 | A63

GRAPHIC SCALE

SCALE: 1-1/2"=1'-0" — 1' 9" 6" 3" 0' 1' 2'

DOOR DETAIL KEY

1. CMU, STRUCTURAL STEEL TUBE WITH PLATE SEE SECTION 1 DRAWING S-5.
2. RIGID INSULATION
3. TWO 8" COURSES OF 4" COLORED CMU.
4. PROVIDE FLASHING CONT. AND WEEPS AT 24"O.C.
5. ELASTOMERIC SEALANT CONTINUOUS BOTH SIDES OF FRAMES TYPICAL.
6. ALUMINUM STOREFRONT AND GLAZING.
7. STEEL ANGLES WITH PLATE (L-8) SEE LINTEL SCHEDULE DRAWING S-3.
8. 4" CMU
9. 6" CMU
10. 8" CMU
11. 10" CMU
12. 12" CMU
13. 8" CMU BOND BEAM
14. CONCRETE WALK
15. CONCRETE SLAB ⟨15A⟩ EXISTING CONCRETE SLAB
16. STEEL ANGLE (L-9) SEE LINTEL SCHEDULE DRAWING S-3
17. PRESSURE TREATED WOOD BLOCKING WITH ALUMINUM BREAK METAL TO MATCH STOREFRONT COLOR/FINISH.
18. EXISTING CONCRETE BEAM
19. 1/2" EXPANSION JOINT
20. RAKE MORTAR JOINT 1/2" DEEP EACH SIDE AND PROVIDE SEALANT CONTINUOUS.
21. 3 5/8" X 18GA. BRACING WELDED TO THE BOTTOM CHORDS OF JOIST, SEE STRUCTURAL SECTION 3/S2/S2
22. 2X6 WOOD BLOCKING CONTINUOUS SECURED TO BRACING BETWEEN JOIST.
23. 5/8" DRYWALL CEILING OVER TO 2X4 WOOD FRAMING AT 24" O.C. RUNNING PERPENDICULAR AND SECURED TO THE BOTTOM CHORD OF SECOND FLOOR JOIST.
24. 2X4 WOOD BLOCKING
25. 2X6 WOOD BLOCKING
26. 5/8" DRYWALL
27. DRYWALL METAL CORNER REINFORCING CONTINUOUS.
28. LAY-IN ACOUSTICAL CEILING SYSTEM.
29. EXISTING CONSTRUCTION
30. HANDBALL/SQUASH COURT DOOR/GLASS FRAMING SYSTEM.
31. 5 1/2" X 3/4" WOOD JAMB.
32. 11 1/4" X 3/4" WOOD JAMB.
33. 3/4" WOOD JAMB CUT TO FIT.
34. 2 1/2" X 1/2" WOOD CASING.
35. HANDICAP ALUMINUM THRESHOLD, 1/2" MAXIMUM HEIGHT SET IN A CONTINUOUS BED OF ELASTOMERIC SEALANT.
36. FLOOR FINISH AS SCHEDULED,-SEE A-75
37. 2-2X6 WOOD HEADER
38. 2X6 WOOD STUD HORIZONTAL WITH A 2X6 WOOD STUD VERTICAL AT 36" O.C. FRAMED BETWEEN EXISTING ROOF TRUSSES, SEE STRUCTURAL SECTION 3/S2/S2.
39. DRYWALL METAL EDGE STRIP CONTINUOUS.
40. 2-2X4'S WOOD STUDS
41. 2X4 WOOD STUDS AT 16" O.C.
42. 2-2X8'S WOOD HEADER
43. STEEL ANGLES (L-7) SEE LINTEL SCHEDULE DRAWING S-3.
44. 2-2X4'S WOOD HEADER
45. 2 1/2" EIFS SYSTEM

REVISIONS

DESCRIPTION	DATE	APPROVED

X/E — DESIGN ROA — EFD — DRAWN RJH — REVIEW — CHIEF ARCH./ENGR. JB — PROJECT MANAGER — FIRE PROTECTION — QUALITY CONTROL — BRANCH MANAGER — DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED FOR EFD COMMANDER MAPAC

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

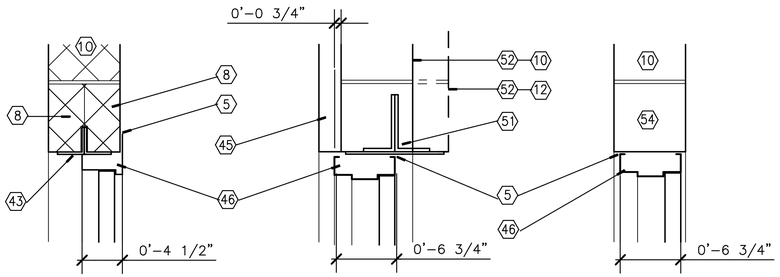
RENOVATION TO GYMNASIUM BUILDING 3147

DOOR DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468468	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368468	
SHEET 43 OF 119	

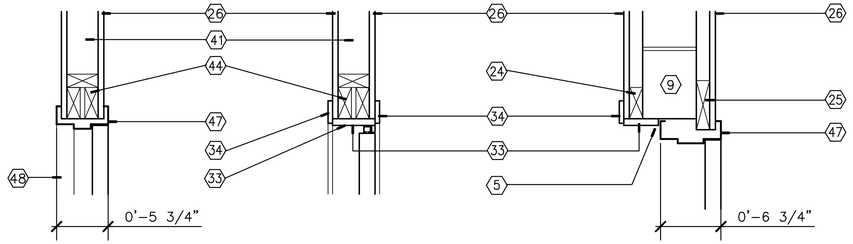
A-63

FILENAME: 5105A63.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 07/10/97 AT 13:24, XREFS: NONE



HEAD DETAIL 25 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

HEAD DETAIL 29 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

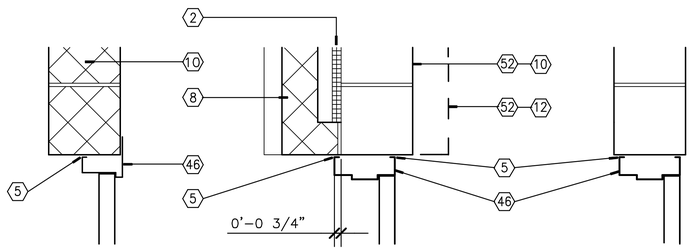


HEAD DETAIL 33 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

HEAD DETAIL 37 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

HEAD DETAIL 41 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 45 (A62 | A64)
SCALE: 1-1/2" = 1'-0"



JAMB DETAIL 26 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

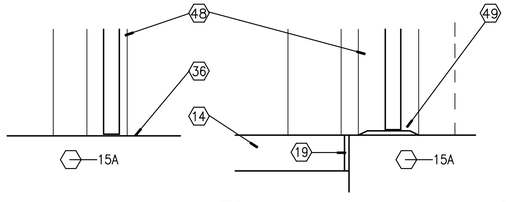
JAMB DETAIL 30 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 34 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

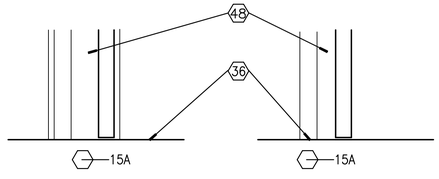
JAMB DETAIL 38 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 42 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 46 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

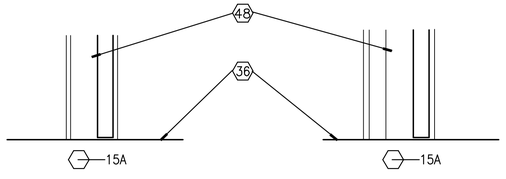


SILL DETAIL 27 (A62 | A64)
SCALE: 1-1/2" = 1'-0"



SILL DETAIL 31 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

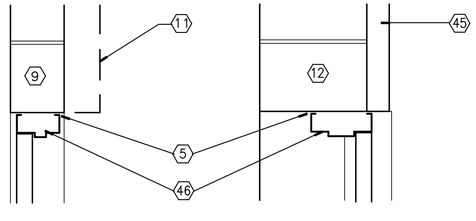
SILL DETAIL 35 (A62 | A64)
SCALE: 1-1/2" = 1'-0"



SILL DETAIL 39 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

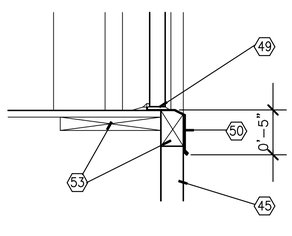
SILL DETAIL 43 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

SILL DETAIL 47 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

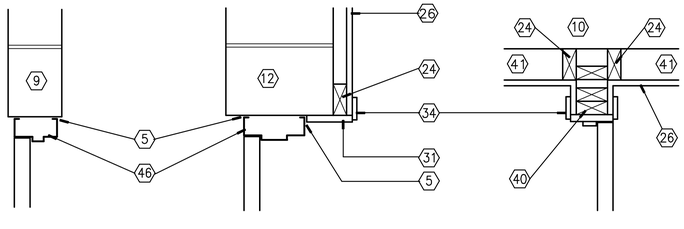


HEAD DETAIL 28 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 32 (A62 | A64)
SCALE: 1-1/2" = 1'-0"



SILL DETAIL 36 (A62 | A64)
SCALE: 1-1/2" = 1'-0"



JAMB DETAIL 40 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 44 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

JAMB DETAIL 48 (A62 | A64)
SCALE: 1-1/2" = 1'-0"

1-1/2"=1'-0" 1' 9" 6" 3" 0' 1' 2'

DOOR DETAIL KEY

1. CMU, STRUCTURAL STEEL TUBE WITH PLATE SEE SECTION 1 DRAWING S-5.
2. RIGID INSULATION
3. TWO 8" COURSES OF 4" COLORED CMU.
4. PROVIDE FLASHING CONT. AND WEEPS AT 24"O.C.
5. ELASTOMERIC SEALANT CONTINUOUS BOTH SIDES OF FRAMES TYPICAL.
6. ALUMINUM STOREFRONT AND GLAZING.
7. STEEL ANGLES WITH PLATE (L-8) SEE LINTEL SCHEDULE DRAWING S-3.
8. 4" CMU
9. 6" CMU
10. 8" CMU
11. 10" CMU
12. 12" CMU
13. 8" CMU BOND BEAM
14. CONCRETE WALK
15. CONCRETE SLAB ⟨15A⟩ EXISTING CONCRETE SLAB
16. STEEL ANGLE (L-9) SEE LINTEL SCHEDULE DRAWING S-3
17. PRESSURE TREATED WOOD BLOCKING WITH ALUMINUM BREAK METAL TO MATCH STOREFRONT COLOR/FINISH.
18. EXISTING CONCRETE BEAM
19. 1/2" EXPANSION JOINT
20. RAKE MORTAR JOINT 1/2" DEEP EACH SIDE AND PROVIDE SEALANT CONTINUOUS.
21. 3 5/8" X 18GA. BRACING WELDED TO THE BOTTOM CHORDS OF JOIST, SEE STRUCTURAL SECTION 3/S2/S2
22. 2X6 WOOD BLOCKING CONTINUOUS SECURED TO BRACING BETWEEN JOIST.
23. 5/8" DRYWALL CEILING OVER TO 2X4 WOOD FRAMING AT 24" O.C. RUNNING PERPENDICULAR AND SECURED TO THE BOTTOM CHORD OF SECOND FLOOR JOIST.
24. 2X4 WOOD BLOCKING
25. 2X6 WOOD BLOCKING
26. 5/8" DRYWALL
27. DRYWALL METAL CORNER REINFORCING CONTINUOUS.
28. LAY-IN ACOUSTICAL CEILING SYSTEM.
29. EXISTING CONSTRUCTION
30. HANDBALL/SQUASH COURT DOOR/GLASS FRAMING SYSTEM.
31. 5 1/2" X 3/4" WOOD JAMB.
32. 11 1/4" X 3/4" WOOD JAMB.
33. 3/4" WOOD JAMB CUT TO FIT.
34. 2 1/2" X 1/2" WOOD CASING.
35. HANDICAP ALUMINUM THRESHOLD,-SERIES J36233 TYPE, 1/2" MAXIMUM HEIGHT,-SET IN CONTINUOUS BED OF ELASTOMERIC SEALANT
36. FLOOR FINISH AS SCHEDULED,-SEE A-75
37. 2-2X6 WOOD HEADER
38. 2X6 WOOD STUD HORIZONTAL WITH A 2X6 WOOD STUD VERTICAL AT 36" O.C. FRAMED BETWEEN EXISTING ROOF TRUSSES, SEE STRUCTURAL SECTION 3/S2/S2.
39. DRYWALL METAL EDGE STRIP CONTINUOUS.
40. 2-2X4'S WOOD STUDS
41. 2X4 WOOD STUDS AT 16" O.C.
42. 2-2X8'S WOOD HEADER
43. STEEL ANGLES (L-7) SEE LINTEL SCHEDULE DRAWING S-3.
44. 2-2X4'S WOOD HEADER
45. 2 1/2" EIFS SYSTEM
46. HOLLOW METAL DOOR FRAME GROUT-IN SOLID AT JAMBS AND HEAD TYPICALLY PROVIDE 3 ANCHORS PER JAMB.
47. WRAP AROUND HOLLOW METAL DOOR FRAME WITH 3 ANCHORS PER JAMB.
48. HOLLOW METAL DOOR FRAME BEYOND.
49. METAL THRESHOLD
50. METAL SILL FLASHING CONTINUOUS AT OPENING.
51. STEEL ANGLES WITH PLATE AT DOORS 119A AND 119B (L-1) SEE LINTEL SCHEDULE DRAWING S-3.
52. 8" CMU AT DOORS 105 AND 106 WITH 12" CMU AT DOORS 119A AND 119B.
53. 2X12 PRESSURE TREATED WOOD PLATE ANCHORED TO EXISTING CMU WITH NEW 3/4" PLYWOOD FLOORING AND P.T. WD. BLKG. AT METAL SILL FLASHING AS SHOWN.
54. DOOR 120A (L6) AND DOOR 120B (L5) SEE LINTEL SCHEDULE DRAWING S-3.

REVISIONS

DESCRIPTION	DATE	APPROVED
STA.		

A/E
DESIGN ROA
DRAWN HJH
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY - SATISFACTORY TO
APPROVED
DATE
FOR BTD FOR COMMANDER NAVFAC

SEAL

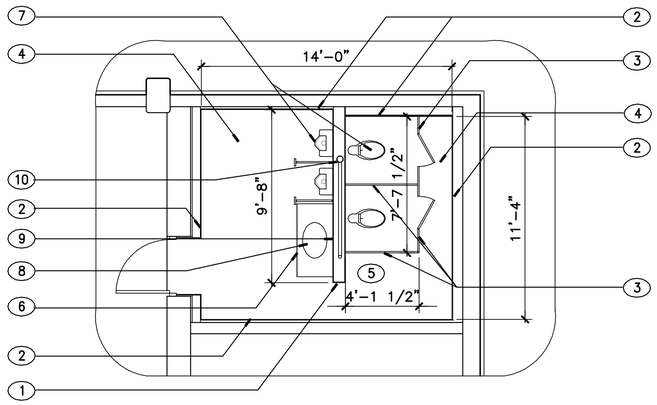
DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
DOOR DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468469	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368469	
SHEET 44 OF 119	

A-64

FILENAME: 5105A64.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 01/08/98 AT 14:01, XREFS: NONE



DEMOLITION PLAN– MEN'S ROOM (C / A56 | A71)

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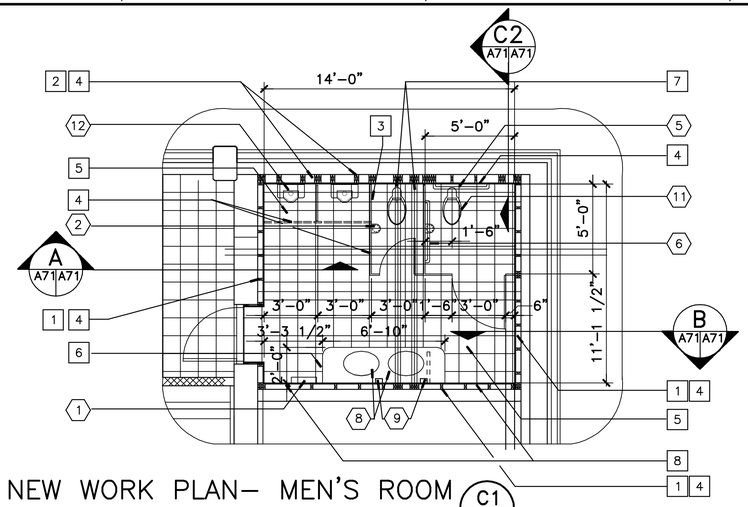
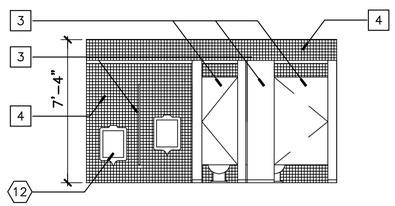


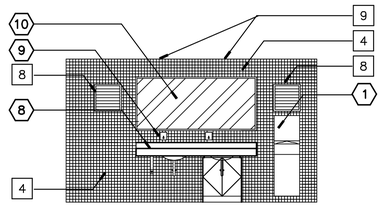
NEW WORK PLAN– MEN'S ROOM (C1 / A57 | A71)

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



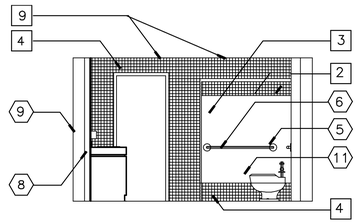
ELEVATION (A / A71 | A71)

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



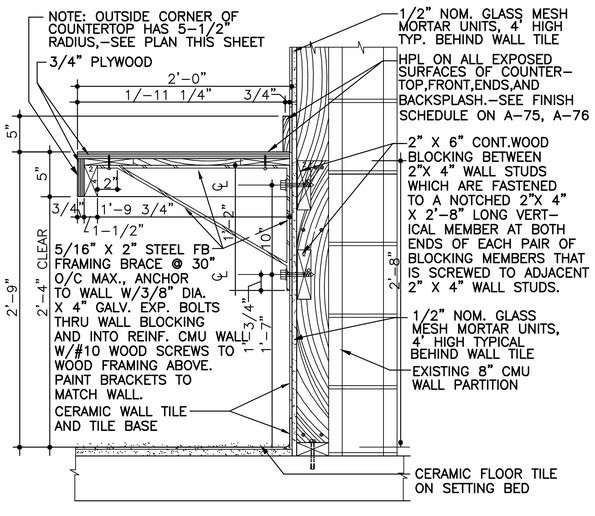
ELEVATION (B / A71 | A71)

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



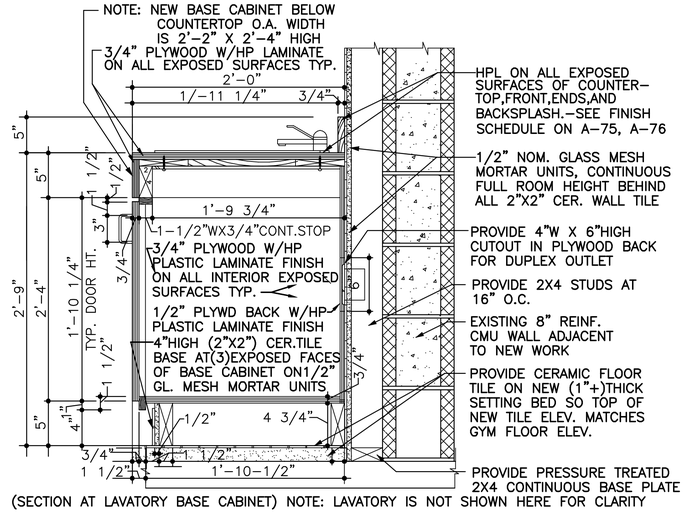
ELEVATION (C2 / A71 | A71)

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



DETAIL (E / A71 | A71, A72)

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



(SECTION AT LAVATORY BASE CABINET) NOTE: LAVATORY IS NOT SHOWN HERE FOR CLARITY

DETAIL (F / A71 | A71, A72)

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

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
2. ON ALL ARCHITECTURAL SHEETS, ALL MATERIALS NOTED ARE NEW UNLESS SPECIFICALLY NOTED AS EXISTING. ALL MATERIALS NOTED AS EXISTING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED. SEE DEMOLITION AND NEW WORK DETAILS FOR SPECIFIC NOTES.
3. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT MATERIALS SO THAT REPAIRS MATCH ORIGINAL FINISH CONDITIONS.
4. NAMES INDICATED FOR COLORS, TEXTURES AND PATTERNS OF MATERIALS ARE FOR THE PURPOSE OF COLOR, TEXTURE AND PATTERN SELECTION ONLY. OTHER MANUFACTURERS'MATERIALS ARE ACCEPTABLE PROVIDED MATERIALS CLOSELY APPROXIMATE COLORS, TEXTURES AND PATTERNS INDICATED,AND CONFORMING TO ALL OTHER REQUIREMENTS.SEE INTERIOR FINISH NOTES,DWG.A–75,A–76.

DEMOLITION NOTES:

(1) AFTER INSTALLING NEW SUPPORT BEAMS PER NEW WORK NOTE #7 BELOW,REMOVE EXISTING 2" X 6"X 8'–4"+HIGH PARTITION WALL HAVING 2"X 6" WOOD STUDS AT 16"O.C. WITH VINYL COVERED GYPSUM WALL BOARD & TRIM ENCLOSING EXISTING WALL PLUMBING NOTE: DO NOT REMOVE UNTIL NEW BEAMS ARE INSTALLED.

(2) REMOVE EXISTING VINYL COVERED GYPSUM WALL BOARD AND FURRING THROUGHOUT PERIMETER OF ROOM.EXISTING FURRING ADJACENT TO EXISTING CMU WALLS CONSISTS OF 2" X 4" AND 2" X 6"WOOD STUDS & PLATES.SOME 2" X 4" FURRING IS INSTALLED FLAT.

(3) REMOVE EXISTING TOILET FIXTURES, PHENOLIC PLASTIC TOILET PARTITIONS,TRIM,HARDWARE AND ACCESSORIES.

(4) EXISTING BROKEN RANDOM QUARRY FLOOR TILE ON SETTING BED SHALL REMAIN TO BE OVERLAID WITH A NEW 1"+ TILE SETTING BED AND NEW 12" SQUARE CERAMIC PAVER TILES PER NEW WORK NOTE #6 BELOW AND DETAILS E/A71 & F/A71 ON THIS SHEET.

(5) REMOVE EXISTING 2'X4' SUSPENDED ACOUSTICAL CEILING TILE, LIGHTS,CEILING LOUVERS AND SUSPENSION SYSTEM.

(6) REMOVE EXISTING COUNTERTOP & WOOD BASE VANITY CABINET.

(7) REMOVE EXISTING WATER CLOSETS & WALL–MOUNTED URINALS, ALSO SEE MECHANICAL DRAWING M–3.

(8) REMOVE EXISTING LAVATORY,–ALSO SEE MECHANICAL DWG. M–3.

(9) REMOVE EXISTING WALL–MOUNTED AND OVERHEAD 2'X4' LIGHT FIXTURES & EXHAUST FAN–SEE ELECTRICAL DRAWING E–6.

(10) FOR REMOVAL OF EXISTING PLUMBING SYSTEM AND VENT PIPE, SEE MECHANICAL DRAWINGS M3,&M4.

NEW WORK NOTES:

[1] PROVIDE 3 1/2"X 8'–4–1/2"HIGH PRESSURE TREATED WOOD STUD WALL PARTITION FRAMING,(INCLUDING NEW PLATES AT TOP & BOTTOMOF FRAMING)FACED WITH 1/2"GLASS MESH MORTAR UNITS 8'–4"HIGH TO RECEIVE NEW CERAMIC WALL TILE.ALL NEW WORK WALL FRAMING AT BOTH EAST AND WEST WALLS SHALL EXTEND UP TO MEET AND SUPPORT ENDS OF EXISTING 2"X10"JOISTS ABOVE.

[2] PROVIDE 5 1/2"X 8'–4–1/2"HIGH PRESSURE TREATED WOOD STUD PARTITION FRAMING,(INCLUDING NEW PLATES AT TOP & BOTTOM OF FRAMING)FACED WITH 1/2"GLASS MESH MORTAR UNITS FULL HEIGHT TO RECEIVE NEW CERAMIC WALL TILE.ALSO PROVIDE ADDITIONAL CONTINUOUS WOOD STUD WALL PARTITION FRAMING ADJACENT TO LOCATIONS OF WALL MOUNTED FIXTURES,PARTITIONS,& ACCESSORIES.

[3] PROVIDE SOLID 1" HIGH–DENSITY POLYLETHYLENE (HDPE) TOILET AND URINAL PARTITIONS,FLOOR MOUNTED AND TOP BRACED,WITH URINAL SCREEN TOP–BRACED,INTERSECTING WITH ADJACENT TOILET PARTITION TOP BRACE RAIL AND OPPOSITE INTERIOR WALL.

[4] PROVIDE 2X2X1/4" CERAMIC WALL TILE 8'–4"HIGH ON ALL NEW WALL AREAS.SEE DETAILS E,F/A71,& E,F/A–72 AND FINISH SCHEDULE NOTES DWG. A–75, A–76

[5] PROVIDE 12"X12"X 1/4"PORCELAIN PAVER FLOOR TILE.SEE DETAILS D/A72 & E/A–72 AND FINISH SCHED. NOTES DWG. A–75, A–76

[6] PROVIDE VANITY CABINET/COUNTERTOP/LAVATORY.SEE DETAILS E/A–71, & F/A71,AND FINISH SCHED. NOTES,DWG. A–75, A–76

[7] PROVIDE (4) GLUE LAMINATED SUPPORT BEAMS AND (8)NEW 2"X4"&2"X6"CONTINUOUS STUDS TO PROVIDE NEW END BEARING SUPPORTS AS PART OF THE NEW WALL FRAMING AS INDICATED, TO SUPPORT EXISTING FLOOR /CEILING JOISTS PRIOR TO REMOVING EXISTING 2"X6"STUD AND PREFINISHED DRYWALL PARTITION SUPPORTING JOIST ENDS ABOVE–SEE DETAIL F/A–72.

[8] PROVIDE(2)16" SQUARE ALUMINUM TRANSFER/EXHAUST DUCT GRILLES AT DUCT LOCATIONS,PAINTED COLOR (P–6) WITH SEMI–GLOSS ALKYD ENAMEL.–SEE DWG. A–57,NOTE#5,AND DWG.M–15.

[9] PROVIDE NEW LIGHTING AND SUSPENDED CEILING SYSTEM PER DWG. E–16 AND INTERIOR FINISH NOTES ON DWG.A–75, A–76

1/2"=1'–0" 1' 0' 1' 2' 3' 4' 5'

GRAPHIC SCALES: 1/8"=1'–0" 0' 5' 10' 20' 30'

REVISIONS

DESCRIPTION	DATE	APPROVED
DYN.		

A/E DESIGNED BY: RCA/RDN DRAWN BY: RCA/RDN REVIEW: CHIEF ARCH./ ENGR. JB PROJECT MANAGER FIRE PROTECTION QUALITY CONTROL BRANCH MANAGER DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED

ACTIVITY – SATISFACTORY TO DATE

APPROVED

FOR BID FOR ORDINANCE MARKING

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

RENOVATE EXIST MEN'S REST ROOM–WEST END

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468471
STA. PROJ. NO.	R–234
SPEC. NO.	05–95–5105
CONSTR. CONTR. NO.	N62470–95–B–5105
NAVFAC DRAWING NO.	4368471
SHEET	46 OF 119

A–71

FILENAME: 5105A71.DWG, PLOT SCALE: 1=1, SAVED ON 01/08/98 AT 11:46, XREFS: NONE

D C B A

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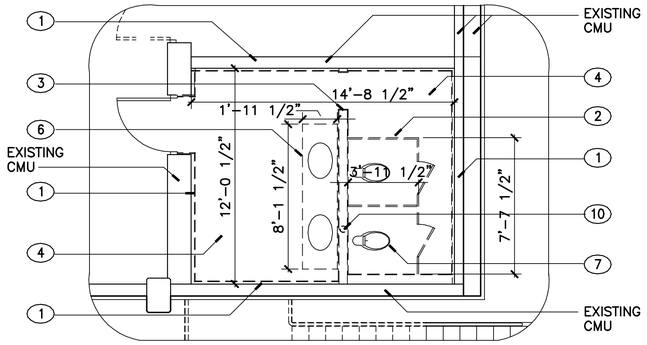
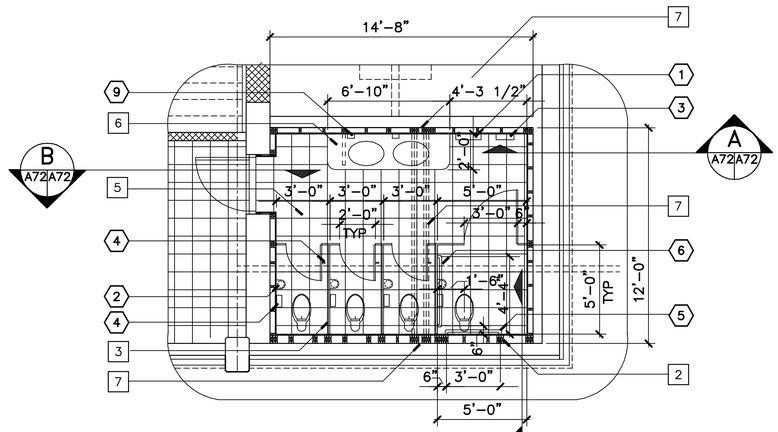


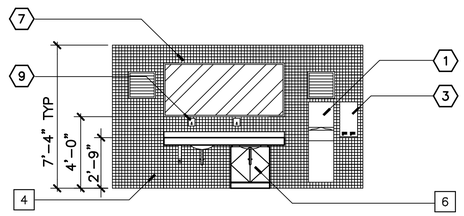
DEMOLITION PLAN– WOMENS'S ROOM (D / A56 A72)

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



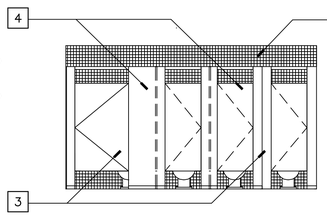
NEW WORK PLAN–WOMEN'S RM (D1 / A57 A72) (C / A72 A72)

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



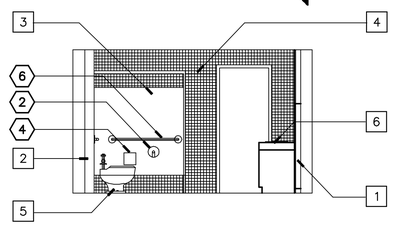
ELEVATION (A / A72 A72)

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



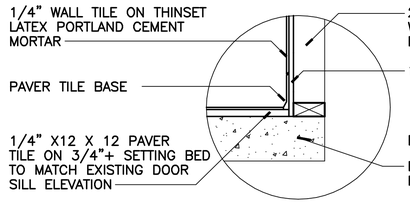
ELEVATION (B / A72 A72)

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



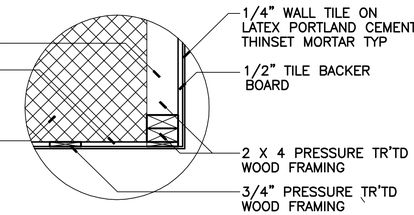
ELEVATION (C / A72 A72)

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



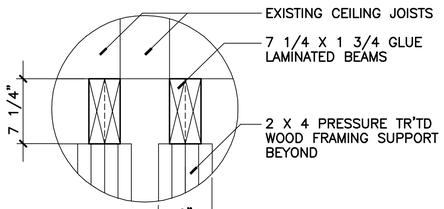
DETAIL (D / A72 A72)

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



DETAIL (E / A72 A72)

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



DETAIL (F / A72 A72)

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

NO.	DESCRIPTION	MOUNTING TYPE	MOUNTING HEIGHT AFF	MFG'R & MODEL NO.
1	PAPER TOWEL DISPENSER/DISPOSAL	SURFACE/RECESSED	5'–0 1/2" TO TOP	BOBRICK NO. 3947
2	TOILET TISSUE DISPENSER	SURFACE	1'–7" TO CENTER	BOBRICK NO. 2730
3	SANITARY NAPKIN VENDOR	SURFACE	5'–0 1/2" TO TOP	BOBRICK NO. 2802
4	SANITARY NAPKIN DISPOSAL	SURFACE	3'–6" TO TOP	BOBRICK NO. 270
5	GRAB BAR 36"	SURFACE	2'–10" TO TOP	BOBRICK NO. 6206
6	GRAB BAR 42"	SURFACE	2'–10" TO TOP	BOBRICK NO. 6206
7	MIRROR – WOMEN'S REST ROOM	CONCEALED HGR.	4'–0" TO BOTTOM	BOBRICK B–290 80 X 36
8	LAVATORY – VANITY COUNTERTOP	BUILT–IN	2'–9" TO TOP	CUSTOM MADE
9	SOAP DISPENSER	RECESSED	3'–4" TO TOP	BOBRICK NO. 306
10	MIRROR – MEN'S REST ROOM	CONCEALED HGR.	4'–0" TO BOTTOM	BOBRICK B–290 112 X 36
11	HANDICAP WATER CLOSET	FLOOR MOUNT	18" TO TOP OF RIM	XXXXXXXXXXX
12	HANDICAP URINAL	SURFACE MOUNT	17" TO TOP OF RIM	XXXXXXXXXXX

GENERAL NOTES:

1. THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS IN THE FIELD ALL DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE CONTRACTING OFFICER.
2. ON ALL ARCHITECTURAL SHEETS, ALL MATERIALS NOTED ARE NEW UNLESS SPECIFICALLY NOTED AS EXISTING. ALL MATERIALS NOTED AS EXISTING SHALL REMAIN UNLESS SPECIFICALLY NOTED TO BE REMOVED. SEE DEMOLITION AND NEW WORK DETAILS FOR SPECIFIC NOTES.
3. ALL EXISTING MATERIALS TO REMAIN WHICH ARE DAMAGED OR OTHERISE DISTURBED BY THE CONTRACTOR'S OPERATIONS SHALL BE PATCHED AND REPAIRED TO MATCH EXISTING ADJACENT MATERIALS SO THAT REPAIRS MATCH ORIGINAL FINISH CONDITIONS.
4. NAMES INDICATED FOR COLORS, TEXTURES AND PATTERNS OF MATERIALS ARE FOR THE PURPOSE OF COLOR, TEXTURE AND PATTERN SELECTION ONLY. OTHER MANUFACTURERS' MATERIALS ARE ACCEPTABLE PROVIDED MATERIALS CLOSELY APPROXIMATE COLORS, TEXTURES AND PATTERNS INDICATED AND CONFORM TO ALL OTHER REQUIREMENTS.–SEE INTERIOR FINISH NOTES,DWG.A–75.

DEMOLITION NOTES:

(1) AFTER INSTALLING NEW SUPPORT BEAMS PER NEW WORK NOTE #8 BELOW,REMOVE EXISTING 2" X 6"X 8'–4"+HIGH PARTITION WALL HAVING 2"X 6" WOOD STUDS AT 16"O.C. WITH VINYL COVERED GYPSUM WALL BOARD & TRIM ENCLOSING EXISTING WALL PLUMBING NOTE: DO NOT REMOVE UNTIL NEW BEAMS ARE INSTALLED.

(2) REMOVE EXISTING VINYL COVERED GYPSUM WALL BOARD AND FURRING THROUGHOUT PERIMETER OF ROOM.EXISTING FURRING ADJACENT TO EXISTING CMU WALLS CONSISTS OF 2" X 4" AND 2" X 6"WOOD STUDS & PLATES.SOME 2" X 4" FURRING IS INSTALLED FLAT.

(3) REMOVE EXISTING TOILET FIXTURES, PHENOLIC PLASTIC TOILET PARTITIONS,TRIM,HARDWARE AND ACCESSORIES.

(4) EXISTING BROKEN RANDOM QUARRY FLOOR TILE ON SETTING BED SHALL REMAIN TO BE OVERLAID WITH A NEW 1"+ TILE SETTING BED AND NEW 12" SQUARE CERAMIC PAVER TILES PER NEW WORK NOTE #6 BELOW AND DETAILS E/A71 & F/A71 ON THIS SHEET.

(5) REMOVE EXISTING 2'X4' SUSPENDED ACOUSTICAL CEILING TILE, LIGHTS,CEILING LOUVERS AND SUSPENSION SYSTEM.

(6) REMOVE EXISTING COUNTERTOP & WOOD BASE VANITY CABINET.

(7) REMOVE EXISTING WATER CLOSETS & WALL–MOUNTED URINALS, ALSO SEE MECHANICAL DRAWING M–3.

(8) REMOVE EXISTING LAVATORY,–ALSO SEE MECHANICAL DWG. M–3.

(9) REMOVE EXISTING WALL–MOUNTED AND OVERHEAD 2'X4' LIGHT FIXTURES & EXHAUST FAN–SEE ELECTRICAL DRAWING E–6.

(10) FOR REMOVAL OF EXISTING PLUMBING SYSTEM AND VENT PIPE, SEE MECHANICAL DRAWINGS M3,&M4.

NEW WORK NOTES:

1. PROVIDE 3 1/2"X 8'–4–1/2"HIGH PRESSURE TREATED WOOD STUD WALL PARTITION FRAMING,(INCLUDING NEW PLATES AT TOP & BOTTOMOF FRAMING)FACED WITH 1/2"GLASS MESH MORTAR UNITS 8'–4"HIGH TO RECEIVE NEW CERAMIC WALL TILE.ALL NEW WORK WALL FRAMING AT BOTH EAST AND WEST WALLS SHALL EXTEND UP TO MEET AND SUPPORT ENDS OF EXISTING 2"X10"JOISTS ABOVE.
2. PROVIDE 5 1/2"X 8'–4–1/2"HIGH PRESSURE TREATED WOOD STUD PARTITION FRAMING,(INCLUDING NEW PLATES AT TOP & BOTTOM OF FRAMING)FACED WITH 1/2"GLASS MESH MORTAR UNITS FULL HEIGHT TO RECEIVE NEW CERAMIC WALL TILE.ALSO PROVIDE ADDITIONAL CONTINUOUS WOOD STUD WALL PARTITION FRAMING ADJACENT TO LOCATIONS OF WALL MOUNTED FIXTURES,PARTITIONS,& ACCESSORIES.
3. PROVIDE SOLID PHENOLIIC CORE TOILET AND URINAL PARTITIONS, FLOOR MOUNTED AND TOP BRACED,WITH URINAL SCREEN TOP–BRACED,INTERSECTING WITH ADJACENT TOILET PARTITION TOP BRACE AND OPPOSITE INTERIOR WALL.
4. PROVIDE 2X2X1/4" CERAMIC WALL TILE 8'–4"HIGH ON ALL NEW WALL AREAS.SEE DETAILS E,F/A71,& E,F/A–72 AND FINISH SCHEDULE NOTES DWG. A–75, A–76
5. PROVIDE 12"X12"X 1/4"PORCELAIN PAVER FLOOR TILE.SEE DETAIL D/A72 AND FINISH SCHEDULE NOTES DWG. A–75, A–76
6. PROVIDE VANITY CABINET/COUNTERTOP/LAVATORY.SEE DETAILS E/A–71, & F/A–71,AND FINISH SCHEDULE NOTES,DWG. A–75, A–76
7. PROVIDE (4) GLUE LAMINATED SUPPORT BEAMS AND (8)NEW 2"X4"&2"X6"CONTINUOUS STUDS TO PROVIDE NEW END BEARING SUPPORTS AS PART OF THE NEW WALL FRAMING AS INDICATED, TO SUPPORT EXISTING FLOOR /CEILING JOISTS PRIOR TO REMOVING EXISTING 2"X6"STUD AND PREFINISHED DRYWALL PARTITION SUPPORTING JOIST ENDS ABOVE–SEE DETAIL F/A–72.
8. PROVIDE(2)16" SQUARE ALUMINUM TRANSFER/EXHAUST DUCT GRILLES AT DUCT LOCATIONS,PAINTED COLOR (P–6) WITH SEMI–GLOSS ALKYD ENAMEL.–SEE DWG. A–57,NOTE#5,AND DWG.M–15.
9. PROVIDE NEW LIGHTING AND SUSPENDED CEILING SYSTEM PER DWG. E–16 AND INTERIOR FINISH NOTES ON DWG. A–75, A–76

GRAPHIC SCALES: 1/4"=1'–0" 1' 0' 1' 5' 10' 15'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E DESIGNER RCA/RDN DRAWN RCA/RDN REVIEW CHIEF ARCH./ENGR. JB PROJECT MANAGER FIRE PROTECTION QUALITY CONTROL BRANCH MANAGER DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND APPROVED DATE

ACTIVITY – SATISFACTORY TO APPROVED DATE

FOR BID FOR CONTRACT MAPAC

SEAL

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

DEPARTMENT OF THE NAVY NAVAL STATION

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

RENOVATE EXIST. WOMEN'S REST RM–WEST END

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468472	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368472	
SHEET 47 OF 119	

A–72

FILENAME: 5105A72.DWG, PLOT SCALE: 1=1, SAVED ON 01/08/98 AT 11:51, XREFS: NONE

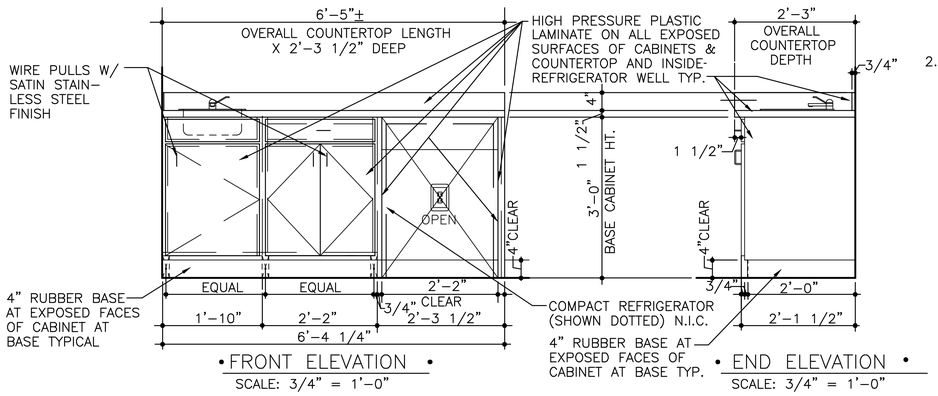
8 7 6 5 4 3 2 1

D C B A

GENERAL NOTES

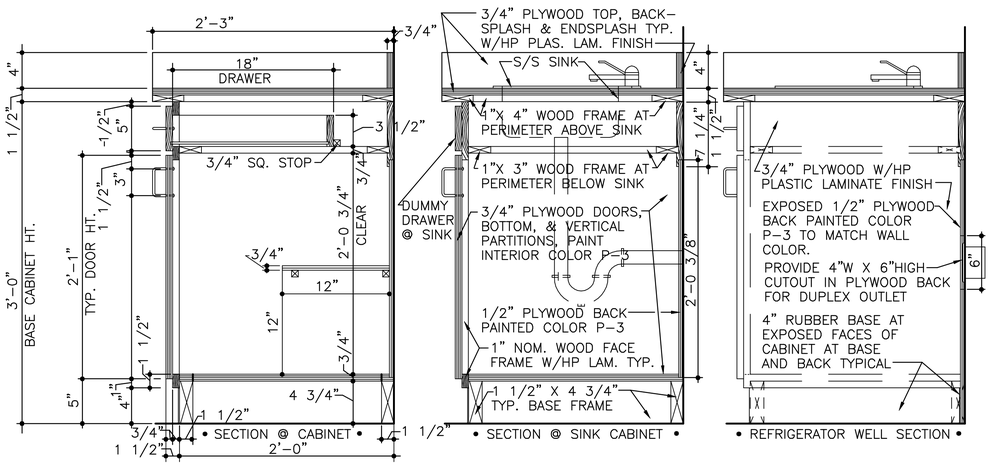
1. NEW COFFEE MESS BASE CABINETS & COUNTERTOPS INDICATED ARE SHOWN ON PLAN DWG. A-6, AND LOCATED IN MWR OFFICE AREAS #135,AND #125.

2. PLASTIC LAMINATE FOR THESE CABINETS SHALL BE AS INDICATED ON THE COLOR CODE LEDGEND ON DWG. A-75,A-76.COLORS SHALL BE AS FOLLOWS: COUNTERTOPS: COLOR PL2
BASE CABINETS: COLOR PL4



• FRONT ELEVATION •
SCALE: 3/4" = 1'-0"

• END ELEVATION •
SCALE: 3/4" = 1'-0"



SECTIONS/ELEVATIONS (NEW BUILT-IN COFFEE MESS CABINETS AND COUNTERTOP)

SCALE: 1 1/2" = 1'-0" & 3/4" = 1'-0"

A / A74 A74

GRAPHIC SCALES

SCALE : 3/4"=1'-0" 0 6" 1' 2' 3' 4' 5'

SCALE: 1-1/2" = 1'-0" 0 3" 6" 9" 1' 3" 6" 9" 2'

REVISIONS

DESCRIPTION	DATE	APPROVED
STNL.		

A/E
DESIGN RCA
DRAWN RCA
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH,VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147

NEW CASEWORK ELEVATIONS,SECTIONS,& DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468473	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368473	
SHEET 48 OF 119	

A-74

D C B A

8 7 6 5 4 3 2 1

FILENAME: 5105A74.DWG, PLOT SCALE: 3/4" = 1'-0", SAVED ON 08/14/97 AT 14:34, XREFS: NONE

FINISH SCHEDULE (CONTINUED ON DWG. A-76)

EAST END GYMNASIUM

FIN.NO.	AREA	FINISHES	CC	REMARKS
F-1 NEW SOUTH ENTRANCE VESTIBULE 100 ENTRANCE CORRIDOR 102 RENOVATED EAST INT. STAIRWAY 107	FLOOR	PORCELAIN PAVER TILES	PPT1	15
	BASE	PORCELAIN PAVER BASE	PPB1	
	WALLS	S.G AKYD ENAMEL ON EXIST/NEW CMU& GYP BD	P6	4
	WAINSCOT	S.G AKYD ENAMEL ON EXIST/NEW CMU& GYP BD	P7	5
	INTERIOR TRIM	SEMI-GLOSS ALKYD ENAMEL	P5	
	CEILING	CHAMFERED EDGE 2'SQ. ACOUSTIC LAY-IN TILES	ACT1	3,6
	DOORS (HM)	SEMI-GLOSS ALKYD ENAMEL	P5	1
	DOOR FRAMES (INT.)	SEMI-GLOSS ALKYD ENAMEL	P5	1
	STOREFRONT DOORS	FACTORY BAKED 70% FLUOROPOLYMER	P1	
	STOREFRONT FRAME	FACTORY BAKED 70% FLUOROPOLYMER	P1	
	WINDOW SILLS	SOLID SURFACE MATERIAL W/BULLNOSE EDGE	SSM1	7,8
	STL STAIRS/BRIDGE	SEMI-GLOSS ALKYD ENAMEL	P9	14
F-2 1ST FLOOR LOBBY 103	FLOOR	PORCELAIN PAVER TILES	PPT1	15
	BASE	PORCELAIN PAVER BASE	PPB1	
	WALLS	S.G AKYD ENAMEL ON EXIST/NEW CMU WALLS	P6	4
	WAINSCOT	S.G AKYD ENAMEL ON EXIST/NEW CMU WALLS	P7	5
	INTERIOR TRIM	SEMI-GLOSS ALKYD ENAMEL	P5	
	CEILING	5/8" GYPSUM BOARD	P6	
	STOREFRONT DOORS	FACTORY BAKED 70% FLUOROPOLYMER	P10	
	STOREFRONT FRAME	FACTORY BAKED 70% FLUOROPOLYMER	P10	
F-3 HANDBALL CORRIDOR 104	FLOOR	PORCELAIN PAVER TILES	PPT1	15
	BASE	PORCELAIN PAVER BASE	PPB1	
	WALLS	S.G AKYD ENAMEL ON EXIST/NEW CMU& GYP BD	P6	4
	WAINSCOT	S.G AKYD ENAMEL ON EXIST/NEW CMU& GYP BD	P7	5
	INTERIOR TRIM	SEMI-GLOSS ALKYD ENAMEL	P5	
	CEILING	CHAMFERED EDGE 2'SQ. ACOUSTIC LAY-IN TILES	ACT1	6 (8'-8" H)
	STOREFRONT DOORS	FACTORY BAKED 70% FLUOROPOLYMER	P10	
	STOREFRONT FRAME	FACTORY BAKED 70% FLUOROPOLYMER	P10	
F-4 HANDBALL COURTS 111 112	FLOOR	NEW MAPLE PLAYING COURT FLOOR SYSTEM		11
	GL WALL W/DOOR	NEW GLAZED WALL/DOOR SYSTEM	P4	9
	WALL(ABOVE DOOR)	NEW LAMINATE-FACED PLAYING WALL SYSTEM		9
	EXIST. ADJ. WALLS	EXIST. LAMINATE-FACED PLAYING WALL SYSTEM		10
	CEILING	NEW LAMINATE-FACED COURT CEILING SYSTEM		12
F-5 SQUASH & HANDBALL COURTS	FLOOR	NEW MAPLE PLAYING COURT FLOOR SYSTEM		11
	GL WALL W/DOOR	NEW GLAZED WALL/DOOR SYSTEM	P4	9
	WALL(ABOVE DOOR)	NEW LAMINATE-FACED PLAYING WALL SYSTEM		9
	EXIST. ADJ. WALLS	EXIST. LAMINATE-FACED PLAYING WALL SYSTEM		10
	CEILING	NEW LAMINATE-FACED COURT CEILING SYSTEM		12
F-6 HANDBALL COURT 117	FLOOR	NEW MAPLE PLAYING COURT FLOOR SYSTEM		11
	DOOR	EXIST GLAZED WOOD DOOR	P3	
	WALLS	EXIST. 1" PLASTER ON 12" CMU		10
	CEILING	EXIST. 1" PLASTER ON METAL LATH		
F-7 MECH.& STORAGE ROOM 108	EXIST CONC. FLOOR	EXISTING TROWELLED CONCRETE	-----	
	BASE	RUBBER BASE	RCB1	
	EXIST. ADJ. WALLS	S.G AKYD ENAMEL ON EXIST CMU	P6	4
	NEW WALL W/DOOR	S.G AKYD ENAMEL ON NEW 5/8" GYPSUM BD	P6	8'-4 1/2"H
	HM DOORS	SEMI-GLOSS ALKYD ENAMEL	P5	1
	HM FRAMES	SEMI-GLOSS ALKYD ENAMEL	P5	1
	CEILING	NONE - EXIST. EXPOSED STRUCTURE ABOVE	-----	
F-8 EXISTING EXTERIOR MEN'S & WOMEN'S RESTROOM 105 106	EXIST CONC. FLOOR	PORCELAIN PAVER TILES ON THINSET PC MORTAR	PPT1	15,&DWG A53
	BASE	PORCELAIN PAVER BASE ON THINSET PC MORTAR	PPB1	
	EXIST. CMU. WALLS	CERAMIC TILE (8'-2" A.F.F.) ON EXIST. CMU CT1	/CT2/CT3	
	NEW WEST WALL	CERAMIC TILE (8'-2" A.F.F.) ON NEW GMMU CT1	/CT2/CT3	SEE DWG A53
	NEW HM DOORS	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS	P2	1
	NEW HM FRAMES	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS	P2	1
	EXIST. CEILING	S.G AKYD ENAMEL ON NEW 5/8" GYPSUM BD	P6	8'-2" H
F-9	EXIST. CEILING	CHAMFERED EDGE 2'SQ. ACOUSTIC LAY-IN TILES	ACT1	6,13
F-10 120	FLOOR	2-1/2" CONC. FL. TOPPING W/SEALER-HARDNER	CSH	
	BASE	NONE-EXPOSED REINFORCED CMU		
	WALLS	S.G AKYD ENAMEL ON EXIST AND NEW CMU	P6	
	WAINSCOT	S.G AKYD ENAMEL ON EXIST/NEW CMU WALLS	P7	5
	HM DOORS	SEMI-GLOSS ALKYD ENAMEL	P5	1
	HM FRAMES	SEMI-GLOSS ALKYD ENAMEL	P5	1
	STL STAIRS/RAILS	SEMI-GLOSS ALKYD ENAMEL	P9	14
	CEILING	NONE - EXIST. EXPOSED STRUCTURE ABOVE	-----	
F-11 EXISTING RENOVATED GYMNASIUM PLAYING COURTS 118	WOOD FLOOR	EXIST./NEW MAPLE PLAYING COURT FLOOR SYSTEM	REMARKS	11
	FLOOR BASE	NEW VENTILATING PLAYING COURT FLOOR BASE	REMARKS	11
	PAVER TILE FLOOR	PORCELAIN PAVER TILES ON NEW SETTING BED	PPT1	16 & E/A59
	PAVER TILE BASE	PORCELAIN PAVER TILES W/THINSET PC MORTAR	PPB1	
	CMU WALLS	S.G AKYD ENAMEL ON EXIST AND NEW CMU	P6	17,18
	WAINSCOT	S.G AKYD ENAMEL ON EXIST/NEW CMU WALLS	P7	5
	GYP. BD. WALLS	S.G AKYD ENAMEL ON EXIST/NEW GYP, BD.	P6	
	STL STAIRS/RAILS	SEMI-GLOSS ALKYD ENAMEL	P9	14
	CEILING	CHAMFERED EDGE 2'SQ. ACOUSTIC LAY-IN TILES	ACT1	6
	HM DOORS	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS		1
	HM FRAMES	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS		1
	INT. WALL LOUVERS	FACTORY BAKED 70% FLUOROPOLYMER	P11	
	EXT. WALL LOUVERS	FACTORY BAKED 70% FLUOROPOLYMER	P11	

EAST END GYMNASIUM

FIN.NO.	AREA	FINISHES		REMARKS
F-12 NEW NORTH MECHANICAL EQUIP.RM. 119	FLOOR	EXIST. CONCRETE,FINISH W/CLR SEALER/HARDENER		
	BASE	NONE-EXIST. EXPOSED CMU,-NO PAINT	---	
	WALLS	NONE-EXIST. EXPOSED CMU,-NO PAINT	---	
	CEILING	NONE-EXIST. EXPOSED STL.FLOOR JOISTS ABOVE	---	
	HM DOORS	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS		1
	HM FRAMES	S.G. ALKYD ENAMEL ON PRE-PRIMED GALV UNITS		1
	INT. WALL LOUVERS	FACTORY BAKED 70% FLUOROPOLYMER	P11	
	EXT. WALL LOUVERS	FACTORY BAKED 70% FLUOROPOLYMER	P11	

FINISH SCHEDULE REMARKS:

1. PAINT COLORS FOR DOORS AND FRAMES ARE SHOWN ON THE DOOR SCHEDULE ON SHEET A-61 INTERIOR EXISTING & NEW HOLLOW METAL DOORS & FRAMES,-SHALL MATCH COLOR (P5),
2. NEW INTERIOR SOLID-CORE RED OAK VENEER DOORS SHALL RECEIVE A CLEAR FINISH TO MATCH COLOR (P3),POLYURETHANE VARNISH.
3. NEW SUSPENDED CEILING HEIGHTS VARY WITH LOCATION IN RENOVATED STAIR/CORRIDOR AREAS: (ALSO SEE BUILDING SECTION 3/A26,INDICATING CONDITIONS A,B,C DESCRIBED BELOW)
   (A) CEILINGS ADJACENT TO HANDBALL COURTS #1 & #2,AND ADJACENT TO SQUASH COURTS #1 & #2 SHALL BE 8'-8" HIGH.
   (B) CEILINGS ADJACENT TO NORTH & SOUTH SIDES OF EXISTING EQUIPMENT STORAGE ROOM #101 SHALL BE 8'-0" HIGH.
   (C) NEW CEILING AREA IN AREA #102 ADJACANT TO AND ABOVE THE EXISTING I.D. CONTROL DESK,AND EXISTING STEEL STAIRWAY TO THE 2ND FLOOR EXERCISE AREAS SHALL BE 20'+ HIGH,INSTALLED JUST BELOW BOTTOM CHORD OF EXISTING BOWSTRING BUILDING TRUSSES ABOVE.
   (D) NEW CEILING AREA IN AREA #107 SHALL BE 20'+HIGH BELOW EXIST. BLDG. TRUSSES
4. PAINT NEW EXPOSED GYPSUM BOARD WALL AREAS ABOVE AND ADJACENT TO NEW GLAZED PLAYING COURT WALL AREAS COLOR (P6),AND WAINSCOT AREAS COLOR (P7).
5. TOP OF WAINSCOT PAINT SHALL BE 5'-0" A.F.F. ELEVATION.
6. DO NOT CHECKERBOARD PATTERN OF CEILING TILES IN NEW (ACTS1) SUSPENDED CEILING GRID. INSTALL TILE PATTERN WITH ALL TILES ORIENTED IN THE SAME DIRECTION.
7. INSTALL ALL 1" MINI-BLINDS BETWEEN JAMBS AT ALL NEW MWR OFFICE/CONFERENCE AREA DOUBLE-HUNG WINDOW LOCATIONS.
8. ALL NEW WINDOWS SHALL BE PROVIDED WITH 3/4" THICK X 8"WIDE (OR 10" WIDE PER LOCATION OF NEW WINDOWS),NOMINAL WIDTH X CONTINUOUS,ALL SOLID SURFACE MATERIAL WINDOW SILLS COLOR:(SSM1),INTERIOR SILL TRIM, INSTALLED ABUTTING THE INTERIOR BOTTOM EDGE OF THE NEW WINDOW FRAMES,AND SHALL HAVE AN ADDITIONAL INTEGRAL 3/4" X 1" X CONTINUOUS PROJECTING SHOP-BONDED SOLID SURFACE BULLNOSE TRIM STRIP AT EACH SILL'S EDGE. THIS 1-1/2" HIGH THICKENED EDGE SHALL BE SHOP-ROUTED WITH A 3/4"QUARTER-ROUND CARBIDE BIT AT THE TOP, BOTTOM,AND END EDGES TO PROVIDE A CONTINUOUS BULLNOSE-SHAPED EDGE.
9. PROVIDE NEW 13'+HIGH INTERIOR PLAYING COURT WALL SYSTEM AND NEW COLD-FORMED METAL BACKCOURT STUD/BEAM FRAMING SYSTEM ABOVE NEW ADJACENT INDEPENDENT 7'HIGH GLAZED WALL & DOOR COURT SYSTEM BELOW,SHALL HAVE A STANDARD MATTE WHITE,LAMINATE -FACED FINISH,AS FURNISHED BY THE PLAYING COURT WALL SYSTEM MANUFACTURER,AND IN-STALLED TO INTEGRATE WITH EXISTING ADJACENT REMAINING COURT WALLS AFTER DEMOLITION.
10. CLEAN EXISTING ALL ADJACENT INTERIOR 20'+ HIGH COURT WALLS,AND PROVIDE A NEW COURT WALL REFINISH COATING SYSTEM, ESPECIALLY FORMULATED FOR PLAYING WALLS, AND ALSO PROVIDE/RESTORE NEW STANDARD COLORED,WALL PLAYING LINES AS NECESSARY TO MEET ALL TECHNICAL PLAYING REQUIREMENTS FOR EACH IDENTIFIED PLAYING COURT TYPE,WITH SPECIAL PLAYING COURT PAINT COATINGS AS PROVIDED BY A CERTIFIED, EXPERIENCED PLAYING COURT SYSTEM INSTALLER/REFINISHER.
11. CLEAN,SAND,AND FINISH/REFINISH ALL NEW AND EXISTING EXPOSED WOOD PLAYING COURT FLOORS WITH A NEW 4-COAT CLEAR POLYURETHANE HEAVY-DUTY PLAYING COURT FLOOR FINISH COATING SYSTEM,ESPECIALLY FORMULATED FOR WOOD COURT FLOORS. ALSO PROVIDE/RESTORE NEW STANDARD MULTI-COLORED FLOOR PLAYING LINES AS NECESSARY TO RESTORE ORIGINAL PLAYING LINE COLORS IN THEIR ORIGINAL LOCATIONS,AND MEETING ALL TECHNICAL PLAYING REQUIREMENTS FOR EACH IDENTIFIED PLAYING COURT FLOOR TYPE,WITH SPECIAL PLAYING COURT PAINT LINE COATINGS AS PROVIDED BY A CERTIFIED,EXPERIENCED PLAYING COURT SYSTEM INSTALLER/REFINISHER. ALSO PROVIDE NEW PERIMETER PLAYING COURT FLOOR TOP-VENTILATED FLOOR BASE THROUGHOUT GYM.
12. PROVIDE NEW 20'+HIGH LAMINATE-FACED PLAYING COURT CEILING SYSTEM AND NEW COLD-FORMED METAL CEILING SUPPORT FRAMING SYSTEM ABOVE EXISTING AND NEW ADJACENT PLAYING COURT WALL SYSTEM,WHICH SHALL HAVE A STANDARD MATTE WHITE,LAMINATE-FACED FINISH, AS FURNISHED BY A CERTIFIED,EXPERIENCED PLAYING COURT SYSTEM MANUFACTURER,AND INSTALLER TO INTEGRATE WITH ADJACENT WORK, AT A CONVENIENT INSTALLATION HEIGHT (APPROX. 20'+HIGH)BELOW EXISTING BUILDING WOOD BOWSTRING TRUSSES ABOVE.
13. CAREFULLY REMOVE AND REINSTALL EXISTING 2'SQ. ACOUSTIC LAY-IN CEILING TILES AND SUSPENS-ION SYSTEM TO INSTALL NEW HVAC MODIFICATIONS ABOVE THESE AREAS,AND REPLACE ALL DAMAGED EXISTING CEILING SYSTEM OR ANY EXIST. ADJACENT INTERIOR WORK WITH MATCHING MATERIALS TO RESTORE ORIGINAL CONDITIONS.-SEE BUILDING SECTION 6/A28 TAKEN THROUGH THIS AREA.
14. PROVIDE A LIGHT BROOM FINISH W/CLEAR SEALER-HARDENER FOR ALL NEW INTERIOR CONCRETE-FILLED METAL PAN STAIR TREADS AND PLATFORMS,AND ALL NEW EXTERIOR CAST-IN-PLACE REIN-FORCED CONCRETE STAIRS AND HANDICAP ACCESS RAMPS,LANDINGS,PLATFORMS,AND NEW SLOPED EXTERIOR NORTH ENTRANCE SLAB TOPPINGS,AND ALL NEW SLOPED EXTERIOR REPLACEMENT WALKWAYS.
15. PROVIDE NEW PORCELAIN PAVER TILES OVER NEW & EXIST.CONCRETE(AREAS # 100,105,106),AND OVER EXIST. QUARRY TILE FLOOR (AREAS #102,#103,AND # 104,USING THINSET LATEX PC MORTAR. AT THE EXISTING OPEN PORTAL BETWEEN SPACES #102 AND #104, ALSO PROVIDE A NEW 5'-0" WIDE TAPERED, SLOPING MORTAR SETTING BED X THE FULL WIDTH OF SPACE # 104, THAT EASES THE EXISTING FLOOR SLOPE FROM AREA #102 TO AREA # 104,PRIOR TO SETTING NEW PAVER TILES IN AREA # 104.
16. PROVIDE NEW PORCELAIN PAVER TILES OVER NEW 2-1/4"+DEEP SETTING BEDS IN MAIN GYM PLAYING COURT(AREA # 118),AT LOCATIONS INDICATED ON NEW WORK PLAN DRAWINGS A-5, AND A-6,SO THAT ALL NEW PAVER TILES INSTALLED IN NEW MORTAR SETTING BEDS MEET ADJACENT MAPLE GYM FLOOR AREAS FLUSH, CAREFULLY MATCHING THE DIFFERENTIAL CONTOURS OF THE ADJACENT NEW WOOD FLOOR TRIM,SO THAT NO UNEVENNESS OCCURS, AND AS SHOWN ON INSTALLATION DETAIL E/A59.
17. PROVIDE NEW SEMI-GLOSS ALKYD ENAMEL (COLOR P5) ON MISCELLANEOUS INTERIOR TRIM, U.O.N.
18. PROVIDE NEW SEMI-GLOSS ALKYD ENAMEL (COLOR P5) ON INTERIOR MOTOR-OPERATED LOUVER GUARD FRAMES ASSEMBLIES.

GENERAL FINISH & COLOR NOTE:

MANUFACTURERS NAMES AND NUMBERS ARE PROVIDED FOR COLOR,TEXTURE,PATTERN,AND QUALITY OF MATERIAL IDENTIFICATION ONLY.PRODUCTS OF OTHER MANUFACTURERS SHALL BE ACCEPTED FOR USE SUBJECT TO APPROVAL OF THE CONTRACTING OFFICER, ONLY IF THEY MATCH THE COLORS, FINISHES,TEXTURES AND PATTERNS OF THE MANU-FACTURER'S LISTED,AND MEET THE TECHNICAL AND PERFORMANCE REQUIREMENTS OF THE RELATED MATERIALS AND PRODUCTS IN THE CORRESPONDING SPECIFICATIONS SECTION.

COLOR CODE (CC) LEGEND:

(ACT1) ACOUSTIC CEILING TILE: ARMSTRONG CHAMFERED CIRRUS,-FINE TEXTURED,-STYLE #557 2' X 2' X 3/4" CHAMFERED EDGE LAY-IN FOR 9/16" EXPOSED TEE GRID TILE SUSPENSION SYSTEM.-COLOR: WHITE

(ACT2) ACOUSTIC CEILING TILE: ARMSTRONG #601 TRAVERTINE CERAMAGARD-PERFORATED TYPE 2' X 2' X 5/8" (UL LABEL) ,COLOR : WHITE TEE GRID TILE SUSPENSION SYSTEM.-COLOR: WHITE

(ACTS1) ACOUSTIC TILE SUSPENSION STSTEM - COLOR: WHITE ARMSTRONG "PRELUDE PLUS", 15/16" EXPOSED TEE GRID,

(CPT1) CARPET: LEES CARPETS, HEALTHCARE COLLECTION,BLEACH-RESISTANT,STAIN-RESISTANT,ANTI-MICROBIAL,AND W/MOISTURE BARRIER-PATTERN:"SPECIALIST," 30 OZ./S.Y. FACE WT.LEVEL LOOP PILE,COLOR:#203,"SUNRISE"

(CPT2) CARPET: LEES CARPETS, HEALTHCARE COLLECTION,BLEACH-RESISTANT,STAIN-RESISTANT,ANTI-MICROBIAL,AND W/MOISTURE BARRIER-PATTERN:"SPECIALIST," 30 OZ./S.Y. FACE WT.LEVEL LOOP PILE,COLOR:#41,"EUCALYPTUS"

(CSH) CLEAR SEALER HARDENER FOR MISC.NEW/EXIST. CONCRETE SURFACES

(CT1) CERAMIC WALL TILE:DAL-TILE, COLOR: # 6565(1),2" X 2", "ALMOND"(MATTE)
(CT2) CERAMIC WALL(ACCENT) TILE:DAL-TILE, COLOR:# 6591,2" X 2","BAHAMA"(MATTE)
(CT3) CERAMIC WALL(ACCENT) TILE:DAL-TILE, COLOR:# 5517(2),2" X 2","TOAST"(MATTE)

(CCB-1) CERAMIC COVE BASE: COLOR:# DK-335, 2" X 2","PORCELAIN"

(M1) WALK-ON MAT:PEDIGRID FOOT GRILLE CARPET,MODEL 1600C,COLOR:# 9305,"ESPRE"

P1 - SIMILAR TO PPG "DURANAR XL (70% KYNAR 500) EXOTIC 3-COAT SYSTEM" FLUOROPOLYMER FACTORY APPLIED COATING,"EXOTIC"COLOR:# UC52006, "RIVER ROUGE RED."

P2 - PAINT SIMILAR TO GARDCO COLOR # 181A,"WINESTONE", SEMI-GLOSS ALKYD ENAMEL, FOR ALL EXTERIOR DOORS NOTED, AND AS INDICATED FOR INTERIOR AND EXTERIOR DOOR FRAMES AND ALL EXTERIOR METAL GUARDRAIL POSTS,GUARD RAILS,AND HANDRAILS.

P3 - CLEAR FINISH SHALL BE A SYNTHETIC OIL BASE SATIN POLYURETHANE VARNISH FOR ALL INTERIOR WOOD VENEER DOORS.

P4 - PAINT SIMILAR TO OPTIONAL"WHITE"FACTORY FINISH ON ALL NEW STATIONARY AND MOVABLE"MOVING GLASS BACKWALL"HANDBALL AND SQUASH COURT GLAZED WALL FRAME SYSTEMS AND ACCESSORY RELATED HARDWARE,TRIM,AND FITTINGS, SIMILAR TO THE"CONVERT-A-COURT GLAZED BACKWALL AND COURT ACCESS DOOR SYSTEM BY CRS PRODUCTS INTERNATIONAL,SAUSALITO,CA.,1-800-661-4174

P5 - PAINT SIMILAR TO GARDCO COLOR # 4065P,"SHADED PORCH",SEMI-GLOSS ALKYD ENAMEL FOR ALL EXPOSED INTERIOR HM DOOR FRAMES, MISC.TRIM,AND MIS-CELLANEOUS WALL SURFACES WHERE INDICATED.

P6 - PAINT SIMILAR TO GUARDCO COLOR # 4031P,"QUILTER'S THREAD" ALKYD ENAMEL FOR ALL EXPOSED INTERIOR WALL SURFACES WHERE INDICATED.

P7 - ACCENT PAINT SIMILAR TO GARDCO COLOR # 4124T,"GROUND CLOVE",SEMI-GLOSS ALKYD ENAMEL FOR SELECTED INTERIOR ACCENT WALLS,AND MISCELLANEOUS ADJACENT TRIM SURFACES WHERE INDICATED.

P8 - SIMILAR TO PPG "DURANAR XL (70% KYNAR 500) EXOTIC 3-COAT SYSTEM" FLUOROPOLYMER FACTORY APPLIED COATING,"EXOTIC"COLOR:# UC52128, "CHEROKEE BLUE."

P9 - ACCENT PAINT SIMILAR TO GARDCO COLOR # 121A,"GREEN GABLE",SEMI-GLOSS ALKYD ENAMEL FOR SELECTED INTERIOR ACCENT WALLS,AND MISCELLANEOUS ADJACENT TRIM SURFACES WHERE INDICATED.

P10 - SIMILAR TO PPG "DURANAR XL (70% KYNAR 500) ADVANTAGE XL 3-COAT SYSTEM" FLUOROPOLYMER FACTORY APPLIED COATING,DURANAR COLOR: # UC44783,"AUTUMN MIST."

P11 - SIMILAR TO PPG "DURANAR XL (70% KYNAR 500) ADVANTAGE XL 3-COAT SYSTEM" FLUOROPOLYMER FACTORY APPLIED COATING,DURANAR COLOR: # UC54137,"BEIGE."

(PL1) PLASTIC LAMINATE 1 : NENAMAR # FS-5-1T, "ALPINE FISSURED", TEXTURED FINISH (FOR MEN'S & WOMEN'S RESTROOM COUNTERTOP AREAS AS INDICATED)

(PL2) PLASTIC LAMINATE 2: NENAMAR # FS-2-1T, "CANYON FISSURED",TEXTURED FINISH (PRIMARY MWR INFO DESK EXTERIOR &COUNTERTOP AREAS WHERE INDICATED)

(PL3) PLASTIC LAMINATE 3: NENAMAR # FN-1-1T, "COPPER FUSION", TEXTURED FINISH (ACCENT STRIPS ON MWR IOFO COUNTER/ DESK,-ADMIN. BLDG.)

(PL4) PLASTIC LAMINATE 4 : NENAMAR # S-7-25T, "NEUTRA", TEXTURED FINISH (ALL EXPOSED SURFACES OF LAVATORY AND MWR OFFICES SPORTS INFORMATION COUNTER/DESK BASE CABINET FRAME,DOOR,& DRAWER SURFACES)

(PPB1) PORCELAIN CROSSFIELD CERAMICS, PATTERN: CROSS SLATE PAVER BASE: COLOR: # A223, "SAND BISQUE)", 4" HIGH X 12" LONG

(PPT1) PORCELAIN CROSSFIELD CERAMICS, PATTERN: CROSS SLATE PAVER TILE: COLOR: # A233CS, "SAND BISQUE", 12" X 12"

(RCB1) RUBBER BASE: JOHNSONITE, COLOR: # DC-49, "BEIGE", 4" HEIGHT

(SSM1) SOLID SURFACE MATERIAL: CORIAN,SIERRA SERIES-COLOR:"SANDSTONE" (MWR INFO DESK COUNTERTOP EDGE TRIM,& FOR ALL WINDOW SILLS)

(TUP1) TOILET & URINAL PARTITIONS SHALL BE SIMILAR TO SANTANA FLOOR-MOUNTED AND OVERHEAD BRACED TYPE,(INCLUDING URINAL SCREENS,PER DWG.A-71) SOLID HIGH-DENSITY POLYETHELENE,(HDPE)SIMILAR TO SANTANA "POLY-MARBLE HD," COLOR:# 675,"EMERALD."

(VS1) VINYL SHEET GOODS:(MWR REST ROOM FLOORS)ARMSTRONG"CLASSIC CORLON" STYLE: "SANDOVAL"-COLOR: # 86660,"WHITE"

(WB) WINDOW BLINDS: BALI 1" ALUMINUM MINI-BLINDS,-COLOR:# 112, "ALABASTER"

REVISIONS

NO	DESCRIPTION	DATE	APPROVED

DESIGN RCA | DRAWN RCA | CHIEF | ARCH / ENGR | PROJECT MANAGER JB | FIRE PROTECTION | QUALITY CONTROL | BRANCH MANAGER | DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND DATE

APPROVED

ACTIVITY - SATISFACTORY TO DATE

APPROVED

FOR RTD FOR COMMANDER NAVFAC

SEAL

NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

DEPARTMENT OF THE NAVY ATLANTIC DIVISION

NAVAL STATION N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

FINISH SCHEDULE AND NOTES

CODE ID. NO. 80091	SIZE D
SCALE:	GRAPHIC
EFD NO.	468474
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368474
SHEET	49 OF 119

A75

FILENAME: 5105A75.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 09/08/99 AT 10:28, XREFS: NONE

FINISH SCHEDULE (CONTINUED FROM DWG. A-75)

WEST END GYMNASIUM

FIN.NO.	AREA	FINISHES	CC	REMARKS
F-13 NEW WEST EXERCISE MACHINE ROOM 124	FLOOR	CARPET ON NEW FLOOR TOPPING	CPT2	
	BASE	RUBBER BASE	RB1	
	WALLS	S.G AKYD ENAMEL ON EXIST/NEW CMU& GYP BD	P6	
	OAK TRIM	CLEAR SATIN POLYURETHANE OIL VARNISH	P3	5
	INTERIOR TRIM	SEMI-GLOSS ALKYD ENAMEL	P5	19
	CEILING	5/8" GYPSUM BOARD	P6	
	WOOD DOORS	CLEAR SATIN POLYURETHANE OIL VARNISH	P3	1
	DOOR FRAMES (HM)	SEMI-GLOSS ALKYD ENAMEL	P5	1
	STOREFRONT DOORS	FACTORY BAKED 70% FLUOROPOLYMER	P8	
	STOREFRONT FRAME	FACTORY BAKED 70% FLUOROPOLYMER	P8	
	BUILT-IN SEATING	HIGH PRESSURE PLASIC LAMINATE ON PLYWOOD	PL2	SEE DWG A58
	STL PIPE COLUMNS	SEMI-GLOSS ALKYD ENAMEL	P7	SEE DWG A58
F-14 RENOVATE EXISTING WOMEN'S & MEN'S RESTROOMS 122 123	FLOOR	PORCELAIN PAVER TILES	PPT1	SEE A71,A72
	BASE	PORCELAIN PAVER BASE	PPB1	
	WALLS	CERAMIC TILE (7'-6" A.F.F.) ON NEW GMMU	CT1/CT2/CT3	SEE A71,A72
	CEILING	CHAMFERED EDGE 2'SQ. ACOUSTIC LAY-IN TILES	ACT1	6 (7'-4"H)
	INTERIOR TRIM	SEMI-GLOSS ALKYD ENAMEL	P5	19
	DOOR & FRAME	EXISTING STOREFRONT DOOR SHALL REMAIN	----	
	LAV COUNTER	HIGH-PRESSURE PLASTIC LAMINATE ON PLYWOOD	PL1,PL4	
	TOILET PARTITIONS	SOLID HIGH-DENSITY POLYETHELENE (HDPE)	TUP1	

FIN.NO.	AREA	FINISHES		REMARKS

FINISH SCHEDULE REMARKS:

19. PAINT NEW INTERIOR WALL-MOUNTED MECHANICAL GRILLES/LOUVERS TO MATCH WALL COLOR (P6)

REVISIONS

DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY - SATISFACTORY TO

APPROVED DATE

FOR RTD TOP COMMANDER, NAVFAC

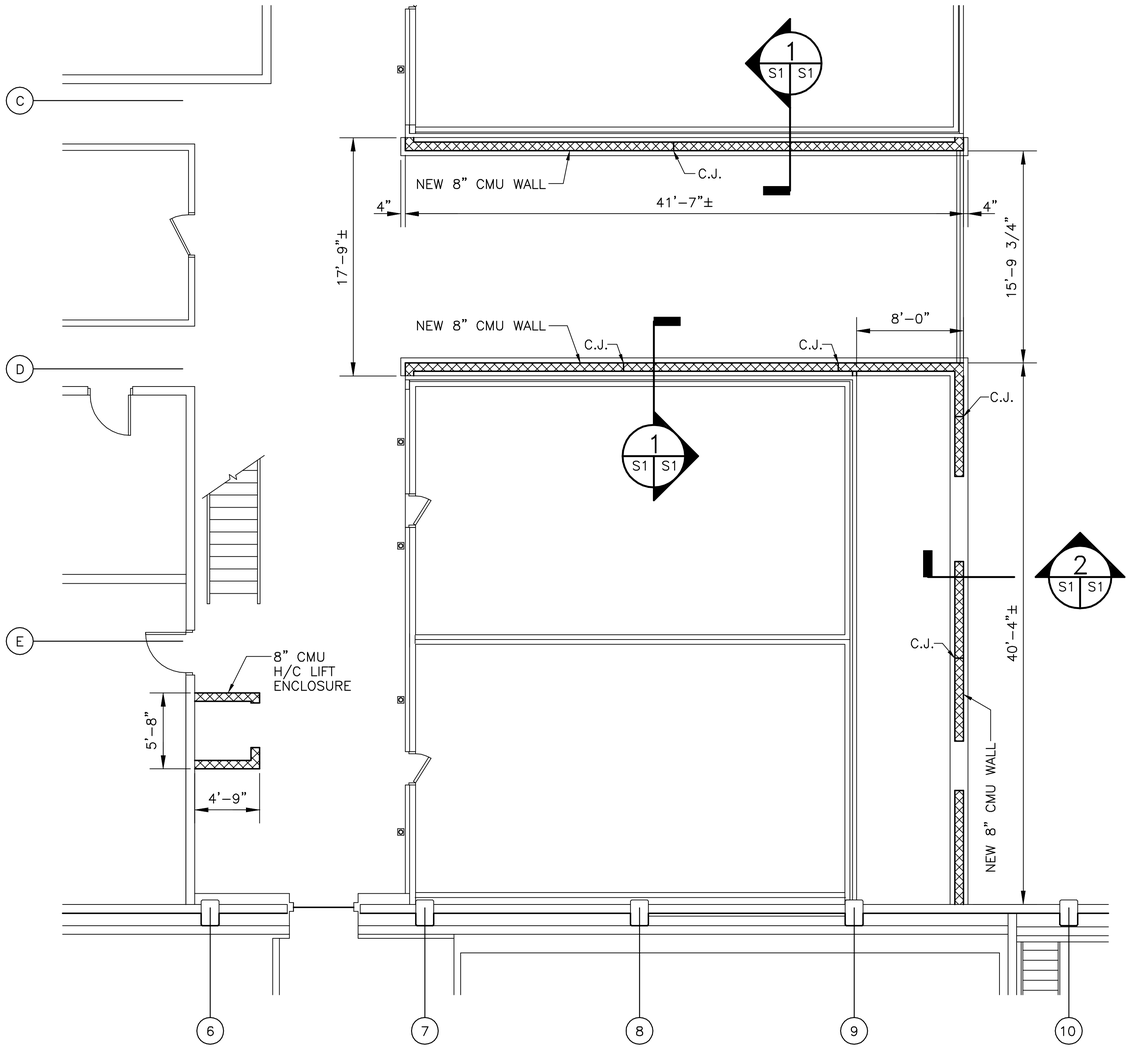
SEAL

DESIGN	RCA
DRAWN	RCA
REVIEW	
CHIEF	
AREA / BASE	JB
PROJECT MANAGER	
FIRE PROTECTION	
QUALITY CONTROL	
PLANS MANAGER	
DESIGN DIRECTOR	

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
FINISH SCHEDULE AND NOTES

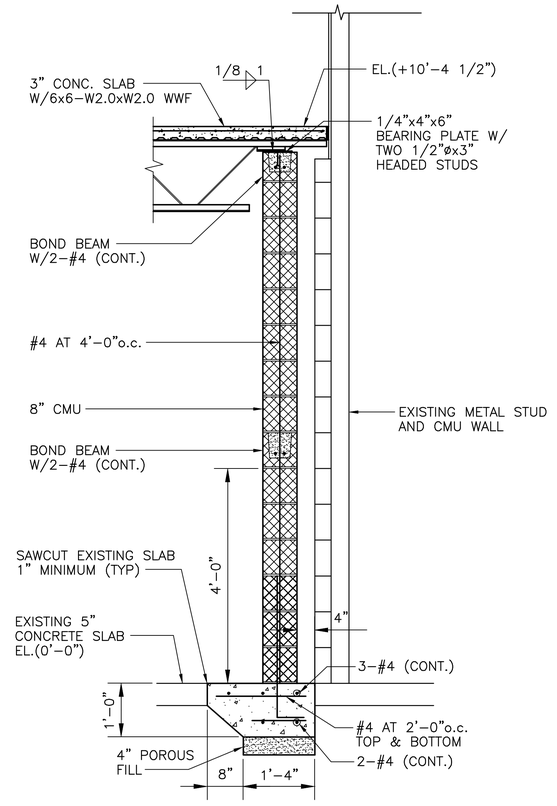
CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO. 468475	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368475	
SHEET 50 OF 119	
A-76	

FILENAME: 5105A76.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 09/08/99 AT 10:27, XREFS: NONE



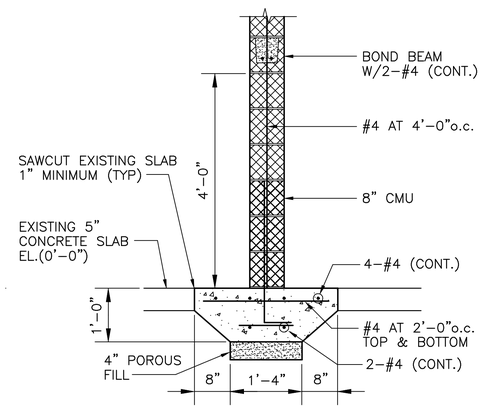
NEW WORK – PARTIAL EAST END FLOOR PLAN

3/16" = 1'-0"



SECTION 1 (S1 S1 / S2)

3/4" = 1'-0"



SECTION 2 (S1 S1)

3/4" = 1'-0"

GRAPHIC SCALES

3/16"=1'-0" 0' 5' 10' 20'

3/4"=1'-0" 1' 6" 0' 1' 2' 3' 4'

REVISIONS

DESCRIPTION	DATE	APPROVED
DYN.		

A/E DESIGN ROS; DRAWN ROS; REVIEW OH; CHIEF ARCH./ENGR. JB; PROJECT MANAGER; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

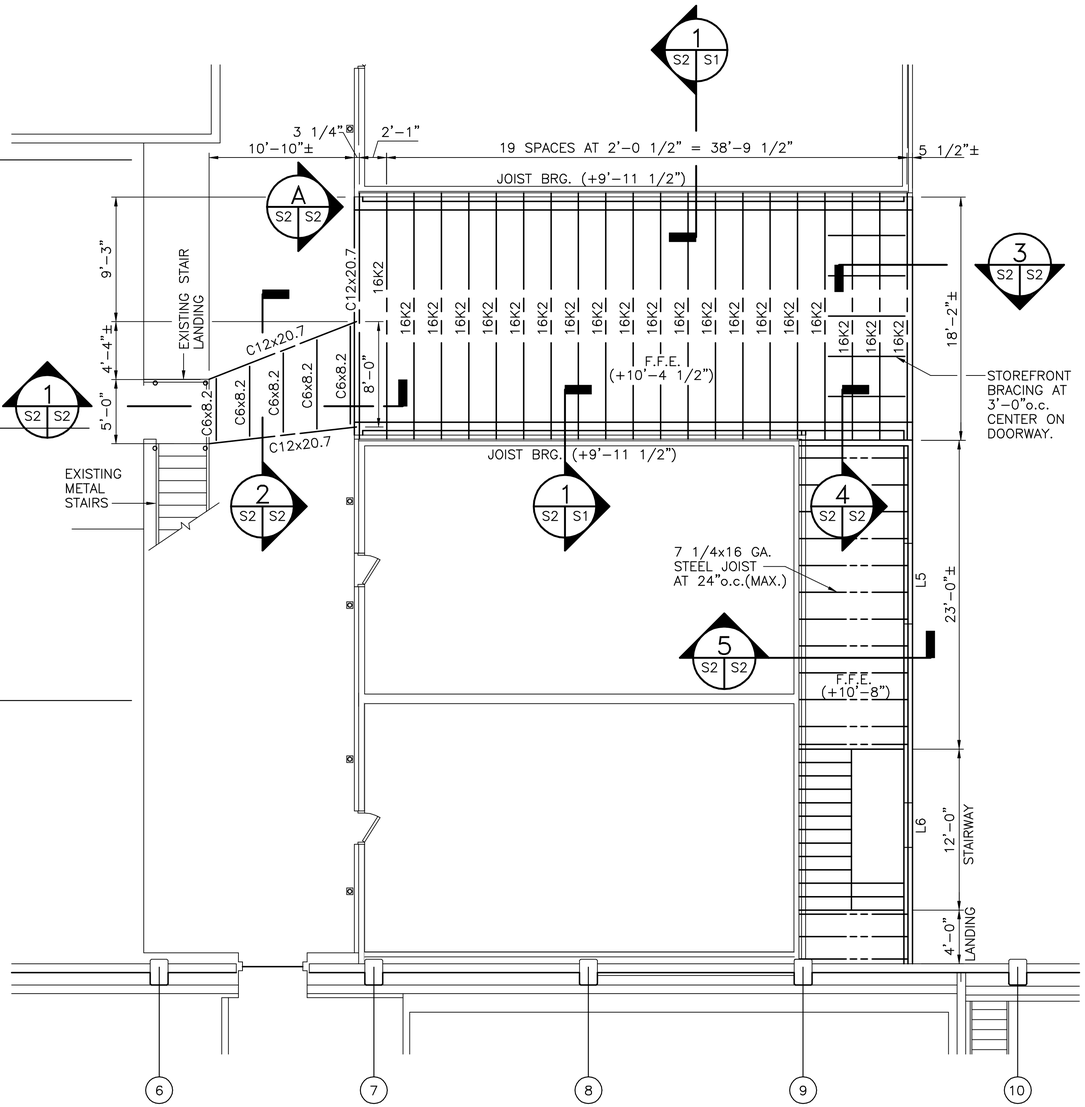
RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK – PARTIAL EAST END FLOOR PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468476	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368476	
SHEET 29 OF 119	

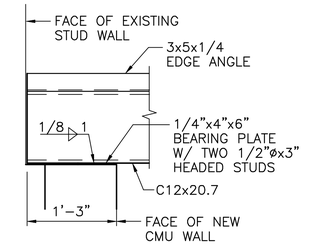
S-1

FILENAME: 5105S01.DWG, PLOT SCALE: 1=1, SAVED ON 10/23/97 AT 08:53, XREFS: NONE



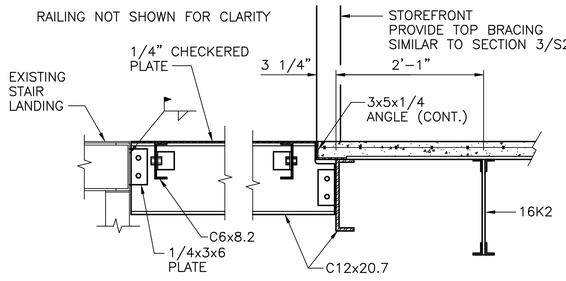
NEW WORK – EAST END MEZZANINE FRAMING PLAN

3/16" = 1'-0"



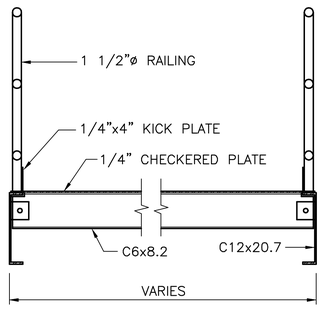
ELEVATION A

1" = 1'-0"



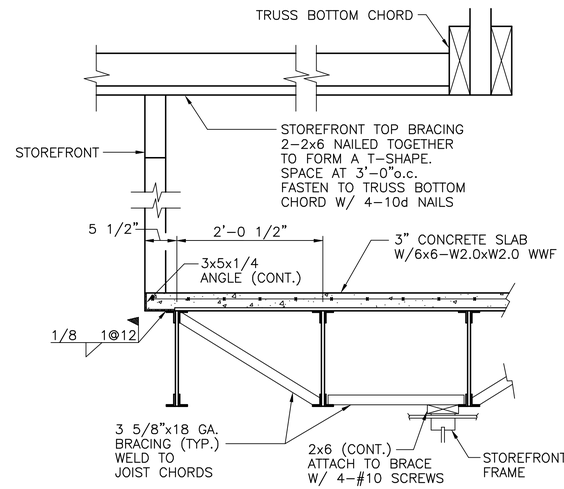
SECTION 1

1" = 1'-0"



SECTION 2

1" = 1'-0"



SECTION 3

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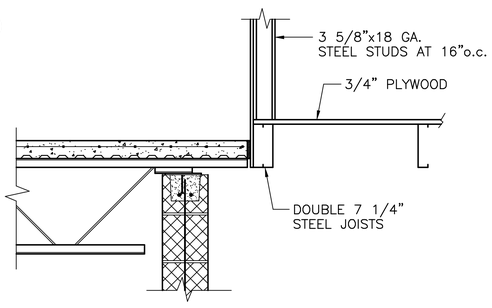

SECTION 4

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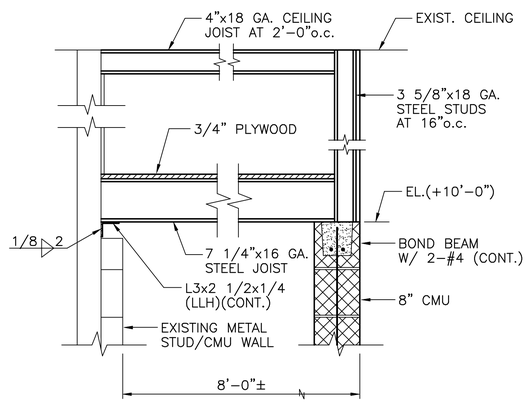

SECTION 5

1" = 1'-0"

GRAPHIC SCALES

3/16"=1'-0" 0' 5' 10' 20'

1"=1'-0" 1' 6" 0' 1' 2' 3'

REVISIONS			
DESCRIPTION	DATE	APPROVED	

A/E DESIGN ROS; DRAWN ROS; REVIEW OLH; CHIEF ARCH./ENGR. JB; PROJECT MANAGER; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED DATE

ACTIVITY – SATISFACTORY TO — APPROVED DATE

FOR BID FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION N.A.B. LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK – EAST END MEZZ. FRAMING PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468477	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368477	
SHEET 30 OF 119	

S-2

FILENAME: 5105S02.DWG, PLOT SCALE: 1=1, SAVED ON 10/23/97 AT 08:54, XREFS: NONE

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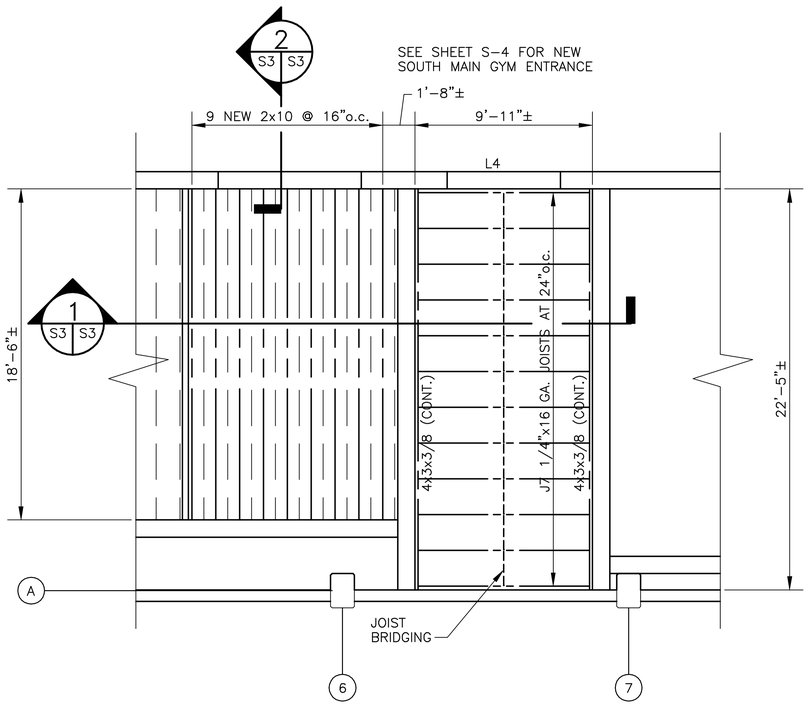
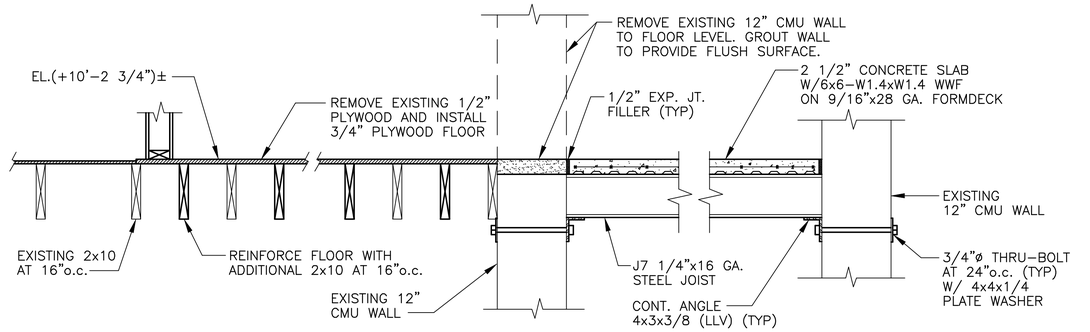
D C B A

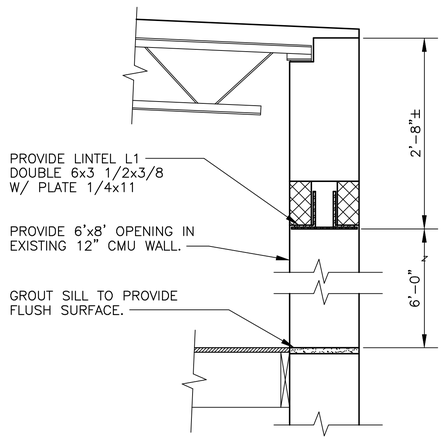


NEW WORK – SOUTH MECHANICAL ROOM FLOOR FRAMING PLAN

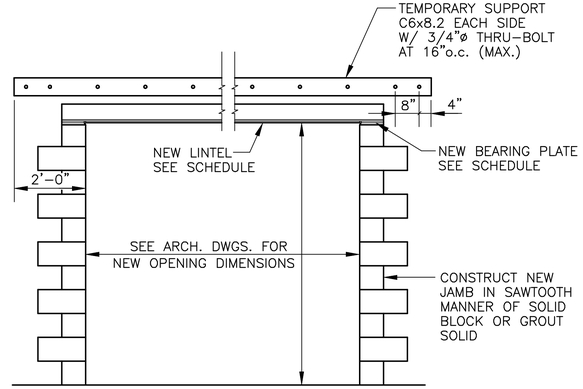
1/4" = 1'-0"



SECTION 1 / 1" = 1'-0"

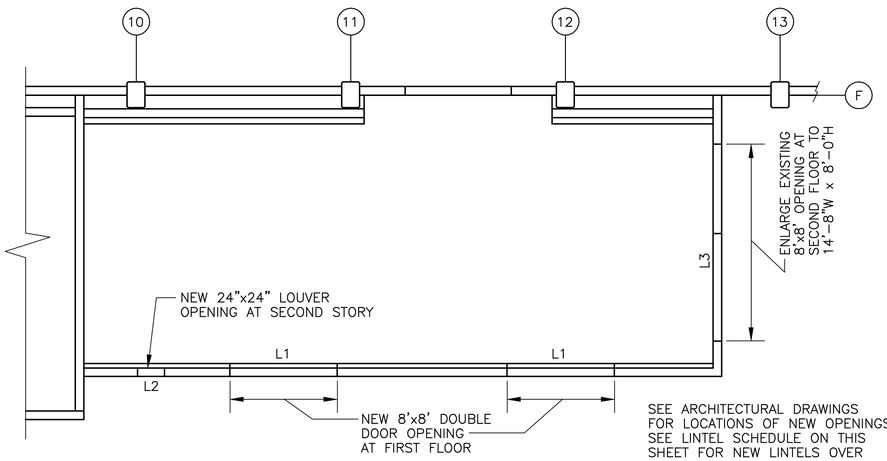


SECTION 2 / 1" = 1'-0"



DETAIL OF NEW OPENINGS IN EXISTING WALLS

NO SCALE



SEE ARCHITECTURAL DRAWINGS FOR LOCATIONS OF NEW OPENINGS. SEE LINTEL SCHEDULE ON THIS SHEET FOR NEW LINTELS OVER OPENINGS.

NEW WORK – NORTH MECHANICAL ROOM PLAN

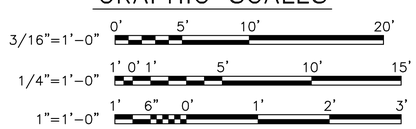
3/16" = 1'-0"

LINTEL SCHEDULE

	LINTEL SIZE	BEARING PLATE
L1	DOUBLE 6 x 3 1/2 x 3/8 W/ 1/4" x 11" BOTTOM PLATE	1/4" x 11" x 7 1/2"
L2	DOUBLE 4 x 3 1/2 x 1/4	1/4" x 7 1/2" x 7 1/2"
L3	WT 7 x 19	1/4" x 7 1/2" x 7 1/2"
L4	DOUBLE 4 x 3 x 1/4 W/ 1/4" x 11" BOTTOM PLATE	1/4" x 11" x 7 1/2"
L5	16" DEEP CMU W/ 2-#4	SEE NOTE 4
L6	8" DEEP CMU W/ 2-#4	SEE NOTE 4
L7	DOUBLE 3 x 3 x 1/4	1/4" x 7" x 7 1/2"
L8	DOUBLE 3 x 3 x 1/4 W/ 1/4" x 11" BOTTOM PLATE	1/4" x 7" x 7 1/2"
L9	6 x 4 x 3/8 BRICK ANGLE	SEE NOTE 5

1. WELD L1 AND L2 BOTTOM PLATE TO DOUBLE ANGLES WITH 1" LONG 1/4" FILLET WELDS AT 12" o.c.
2. ANCHOR BEARING PLATES WITH TWO 3/4"ø x 3" LONG HEADED STUDS.
3. WELD LINTEL TO BEARING PLATES WITH 1" LONG 3/16" FILLETS ON EACH SIDE.
4. EXTEND CMU LINTEL 2'-0" BEYOND EDGE OF OPENING.
5. ANCHOR TO EXISTING CONCRETE LINTEL W/ 1/2"ø EXP. BOLTS AT 24"o.c.

GRAPHIC SCALES



REVISIONS

DESCRIPTION	DATE	APPROVED

A/E: DESIGN ROS; DRAWN ROS; REVIEW OLH; CHIEF ARCH./ ENGR. JB; PROJECT MANAGER; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE — APPROVED

ACTIVITY – SATISFACTORY TO — DATE — APPROVED

FOR BID FOR: COMMANDER NAVFAC

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK – SOUTH MECHANICAL ROOM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468478	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368478	
SHEET 31 OF 119	

S-3

FILENAME: 5105S03.DWG, PLOT SCALE: 1=1, SAVED ON 10/23/97 AT 08:54, XREFS: NONE

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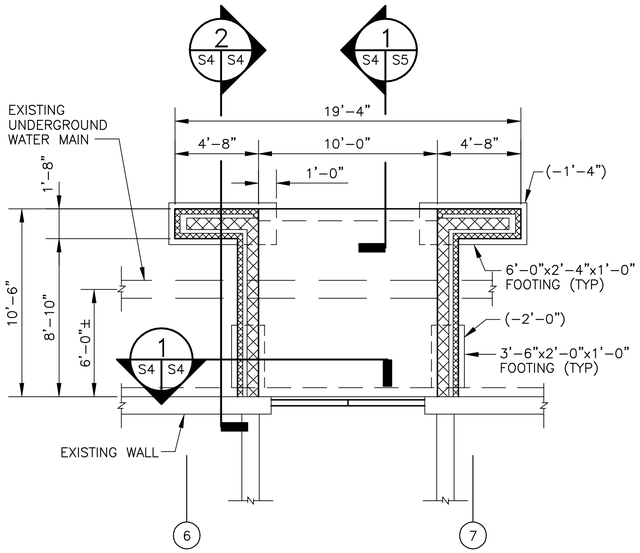
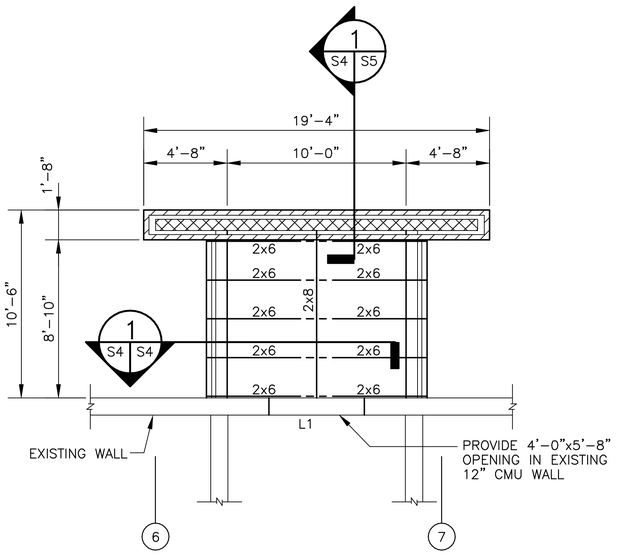
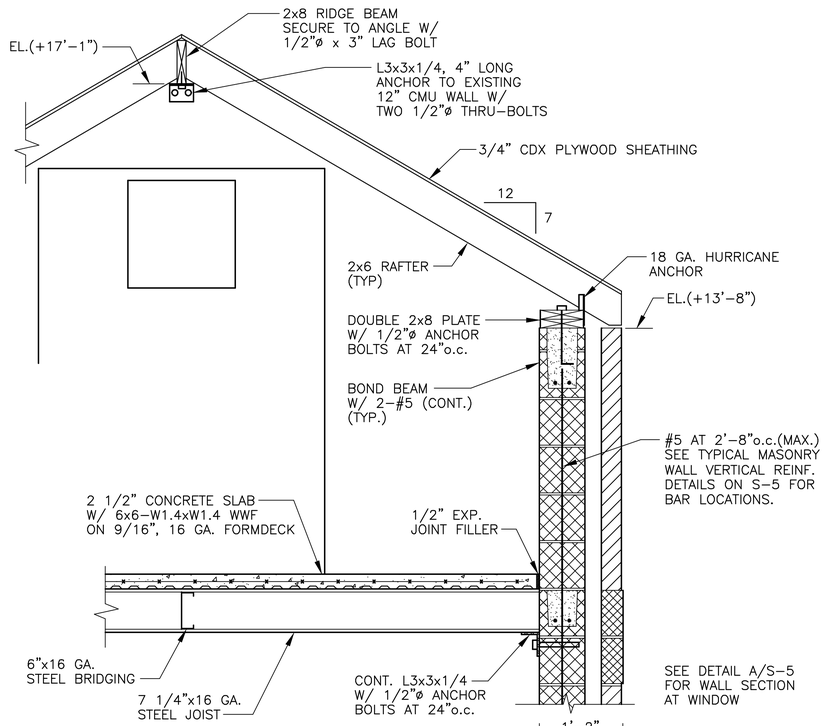
D C B A

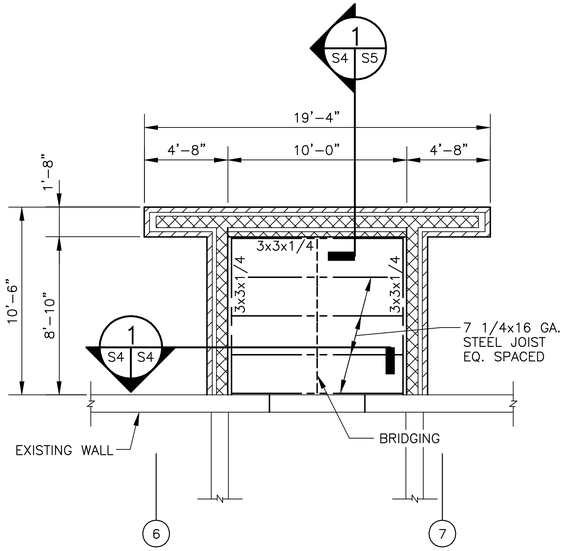


SOUTH MAIN GYM ENTRANCE
FOUNDATION PLAN
1/4" = 1'–0"

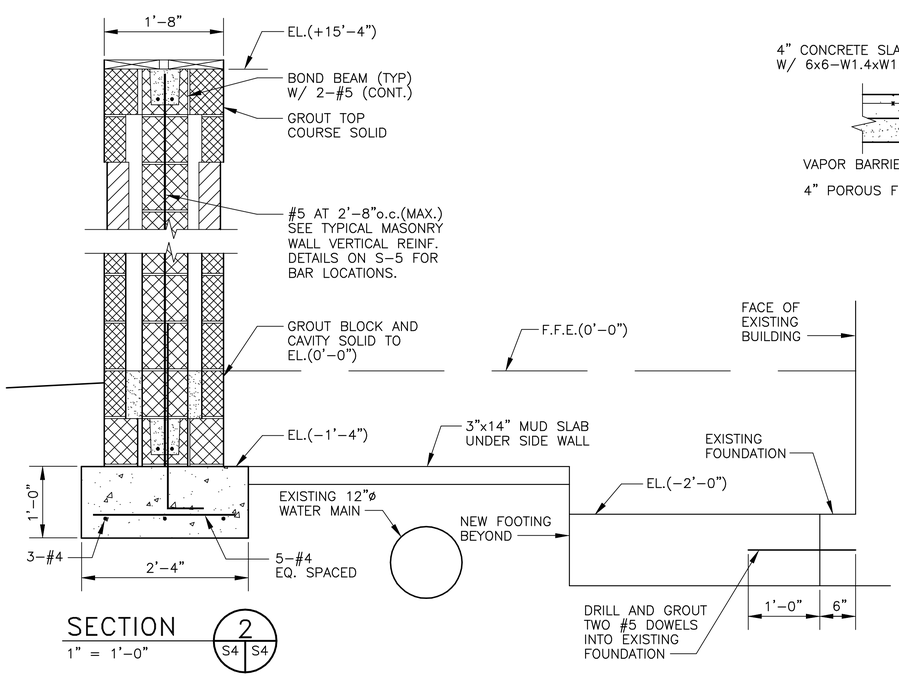


SOUTH MAIN GYM ENTRANCE
ROOF FRAMING PLAN
1/4" = 1'–0"





SOUTH MAIN GYM ENTRANCE
UPPER FLOOR FRAMING PLAN
1/4" = 1'–0"



SECTION 2
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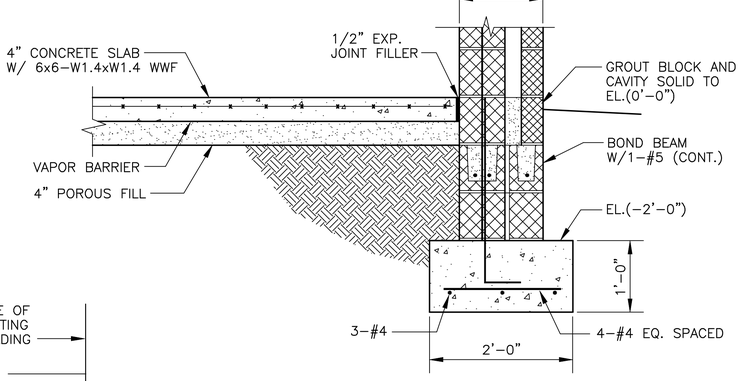

SECTION 1
1" = 1'–0"

GRAPHIC SCALES
1/4"=1'–0" 1' 0' 1' 5' 10' 15'

1"=1'–0" 1' 6" 0' 1' 2' 3'

REVISIONS

DESCRIPTION	DATE	APPROVED
SYM.		

A/E
DESIGN ROS
DRAWN ROS
REVIEW OLH
CHIEF ARCH./ ENGR. JB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO DATE
APPROVED
FOR BID FOR ORDINANCE MARKING

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
NEW WORK – SOUTH MAIN GYM ENTRANCE

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468479	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368479	
SHEET 32 OF 119	

S–4

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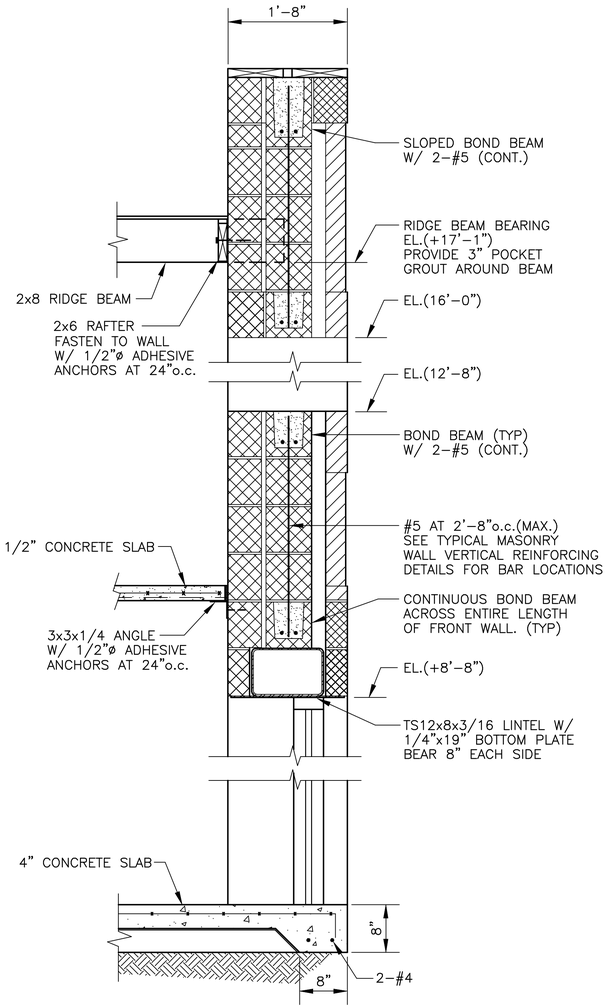
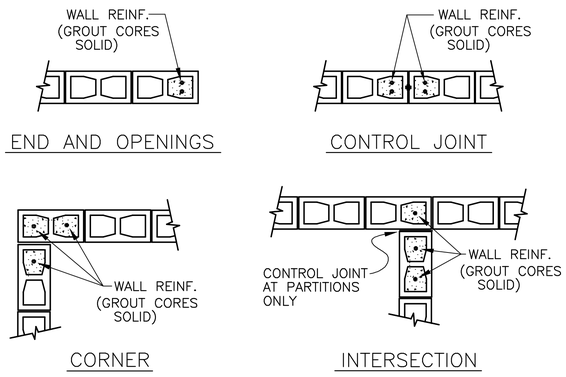


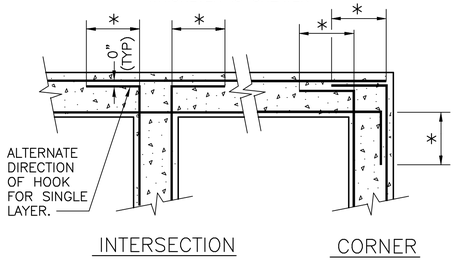
SECTION 1 (S4 | S5)
1" = 1'-0"



SEE WALL SECTIONS FOR SIZE AND NUMBER OF BARS REQUIRED FOR WALL REINFORCING

TYPICAL MASONRY WALL VERTICAL REINFORCING DETAILS

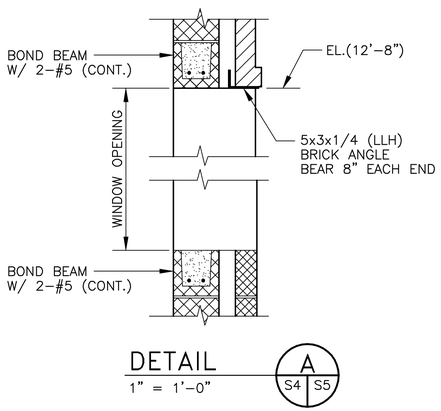
NO SCALE



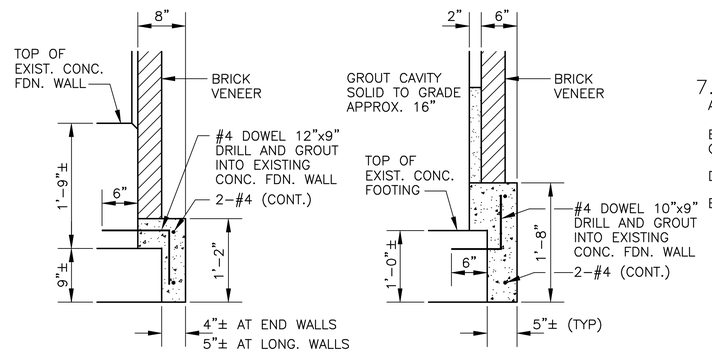
1. FOR SINGLE LAYER OF REINF., BEND AS FOR OUTER LAYER (40xBAR DIAM. OR 24", WHICHEVER IS GREATER)
2. DETAILS APPLY TO WALLS, BOND BEAMS, OR ANY OTHER REINFORCEMENT MARKED CONTINUOUS.

TYP. DETAIL FOR CONTINUOUS REINF. AT CORNERS AND INTERSECTIONS

NOT TO SCALE



DETAIL A (S4 | S5)
1" = 1'-0"



TYPICAL FOOTING EXTENSIONS TO SUPPORT BRICK VENEER

1" = 1'-0"

NOTES

1. GENERAL

A. DATUM FOR ALL ELEVATIONS SHOWN ON STRUCTURAL DRAWINGS THUS: (+X'-X") IS EXISTING FINISHED FIRST FLOOR ELEVATION (0'-0").
B. CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS AND ELEVATIONS DEPENDANT ON EXISTING WORK PRIOR TO FABRICATION.
C. CONTRACTOR SHALL VERIFY THE REQUIREMENTS OF THE WORK OF OTHER TRADES AT SLEEVES, INSERTS, HANGERS, CHASES, ANCHORS, HOLES, ETC. TO BE PROVIDED OR SET IN THE STRUCTURAL WORK.
D. FOR SIZE, LOCATION, ETC. OF EQUIPMENT PADS, PITS, OPENINGS, ETC. IN CONCRETE WORK SEE ARCHITECTURAL, MECHANICAL, ELECTRICAL, PLUMBING, ETC. DRAWINGS.

2. REINFORCING STEEL

A. REINFORCING STEEL SHALL CONFORM TO ASTM A615, GRADE 60.
B. REINFORCING STEEL MARKED CONTINUOUS (CONT.) SHALL BE LAPPED 48 X BAR DIAMETER AT SPLICES.
C. PROVIDE MINIMUM CONCRETE COVER AS FOLLOWS:
SURFACE CAST AGAINST EARTH (EXCEPT SLABS) — 3"
SURFACE EXPOSED TO EARTH OR WEATHER:
#6 AND LARGER — 2"
#5 AND SMALLER — 1 1/2"
SURFACE NOT EXPOSED TO EARTH OR WEATHER:
SLABS — 3/4" BEAMS — 1 1/2"

3. CONCRETE

A. CONCRETE SHALL HAVE A MINIMUM COMPRESSIVE STRENGTH AT 28 DAYS OF 3000 PSI.
B. UNLESS SHOWN OTHERWISE PROVIDE 3/4" CHAMFER ON ALL EXPOSED CORNERS OF CONCRETE WORK.

4. MASONRY

A. ALL CONCRETE MASONRY ALLOWABLE STRESSES ARE BASED ON A 28 DAY COMPRESSIVE STRENGTH OF f'_m= 1350 PSI.
B. ALL CONCRETE MASONRY UNITS (CMU) SHALL CONFORM TO ASTM C-90.
C. GROUT USED TO FILL CMU CELLS SHALL CONFORM TO ASTM C-476.
D. GROUT SOLID ALL CMU CELLS CONTAINING REINFORCING OR ANCHORS.
E. ALL MORTAR SHALL CONFORM TO ASTM C-270, TYPE M OR S.
F. PROVIDE 9 GAGE GALVANIZED HORIZONTAL JOINT REINFORCEMENT AT 16" O.C. IN ALL MASONRY WALLS.

5. STEEL

A. ALL STRUCTURAL STEEL SHAPES, PLATES, ANGLES, ETC. SHALL CONFORM TO ASTM A-36.
2. ALL EXTERIOR STEEL EXPOSED TO WEATHER SHALL BE HOT-DIPPED GALVANIZED AFTER FABRICATION.
3. FABRICATION AND ERECTION OF STRUCTURAL STEEL SHALL CONFORM WITH THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC) "MANUAL OF STEEL CONSTRUCTION".
4. FABRICATION AND ERECTION OF LIGHT GAGE STEEL FRAMING SHALL CONFORM WITH THE AMERICAN IRON AND STEEL INSTITUTE (AISI) "SPECIFICATION FOR DESIGN OF COLD FORMED STEEL STRUCTURAL MEMBERS."

6. DESIGN LOADS

LIVE LOADS:
NEW ENTRANCE ROOF — 20 PSF
NEW MEZZANINE FLOOR — 150 PSF
NEW SOUTH MECHANICAL ROOM — 100 PSF
NEW STORAGE ROOM — 100 PSF

WIND — 106 MPH
SEISMIC — ZONE 1, Z = .075

7. DESIGN CRITERIA

A. NAVFAC DM-2.9, "MASONRY STRUCTURAL DESIGN FOR BUILDINGS" (OCT. 1992)
B. NAVFAC P-355, "SEISMIC DESIGN FOR BUILDINGS" (OCT. 1992)
C. AISC, "MANUAL OF STEEL CONSTRUCTION, ALLOWABLE STRESS DESIGN", 1989
D. ACI 318-95, "BUILDING CODE REQUIREMENTS FOR REINFORCED CONCRETE"
E. MIL-HDBK-1002 "STRUCTURAL ENGINEERING CRITERIA MANUAL" (SEPT 1988)

GRAPHIC SCALES

1"=1'-0" 1' 6" 0' 1' 2' 3'

REVISIONS			
DSN.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN ROS
DRAWN ROS
REVIEW OLH
CHIEF ARCH./ ENGR. JB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR DRAWER MARK

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
RENOVATIONS TO GYMNASIUM
BUILDING 3147
VIRGINIA BEACH, VIRGINIA

NEW WORK - SECTIONS AND DETAILS

CODE ID. NO. 80091 | SIZE D
SCALE: AS NOTED
E/D NO. 468480
STA. PROJ. NO. R-234
SPEC. NO. 05-95-5105
CONSTR. CONTR. NO. N62470-95-B-5105
NAVFAC DRAWING NO. 4368480
SHEET 33 OF 119

S-5

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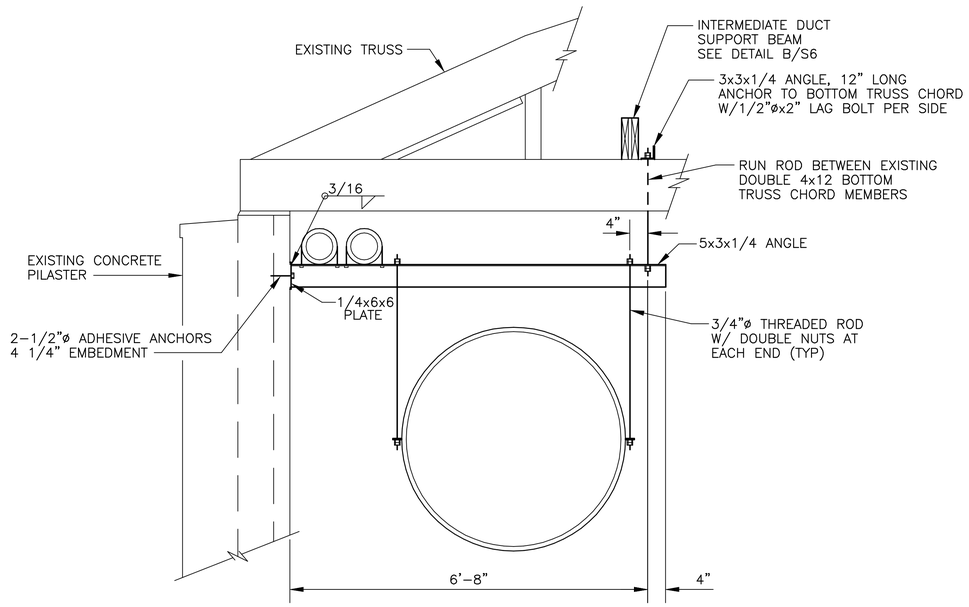
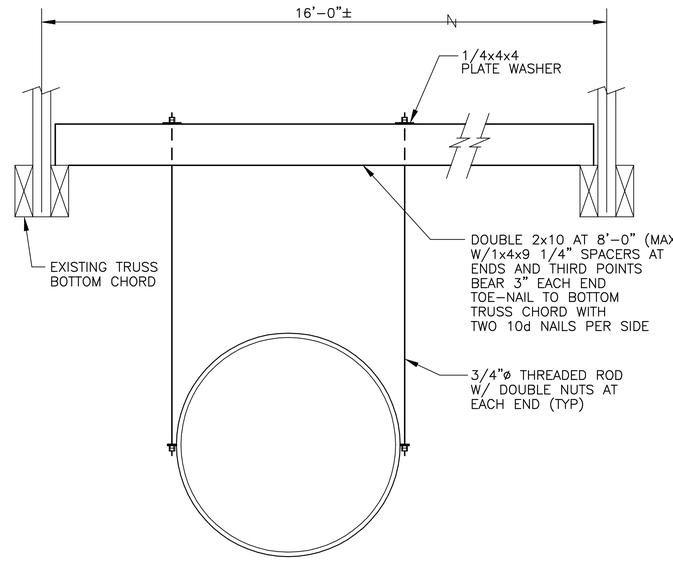


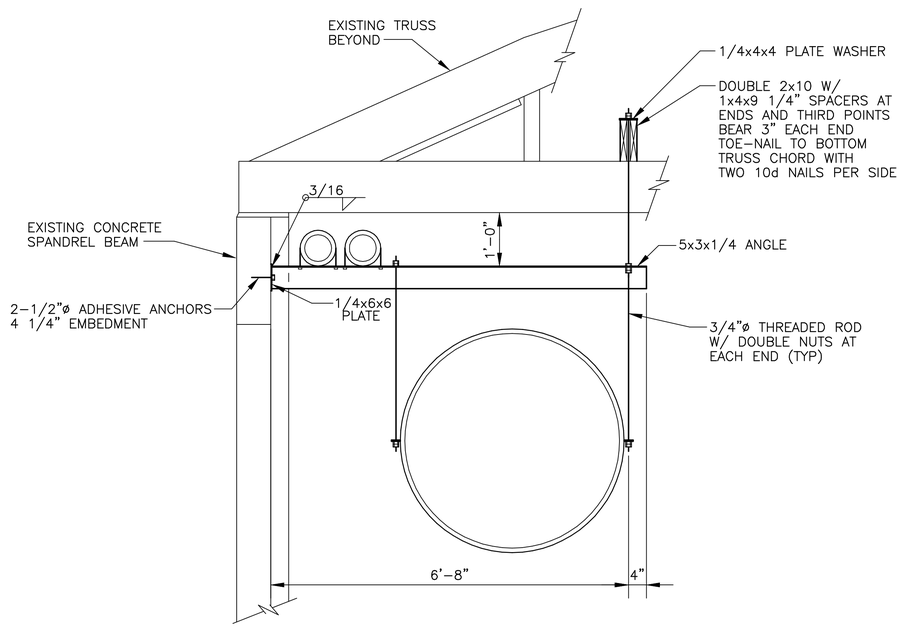
DUCT SUPPORT AT TRUSS LINE A (M10 | S6)

3/4" = 1'-0"



DUCT SUPPORT PARALLEL TO TRUSSES C (M10 | S6)

3/4" = 1'-0"



DUCT SUPPORT MIDWAY BETWEEN TRUSSES B (M10 | S6)

3/4" = 1'-0"

GRAPHIC SCALE

3/4"=1'-0" 1' 6" 0' 1' 2' 3' 4'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E DESIGN ROS; DRAWN ROS; REVIEW OLH; CHIEF ARCH./ENGR. JB; PROJECT MANAGER; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED DATE

ACTIVITY - SATISFACTORY TO — APPROVED DATE

FOR BID FOR OWNER'S USE

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

NEW WORK - MECHANICAL SUPPORT DETAILS

CODE ID. NO. 80091	SIZE D
SCALE:	AS NOTED
EFD NO.	468481
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368481
SHEET	34 OF 119

S-6

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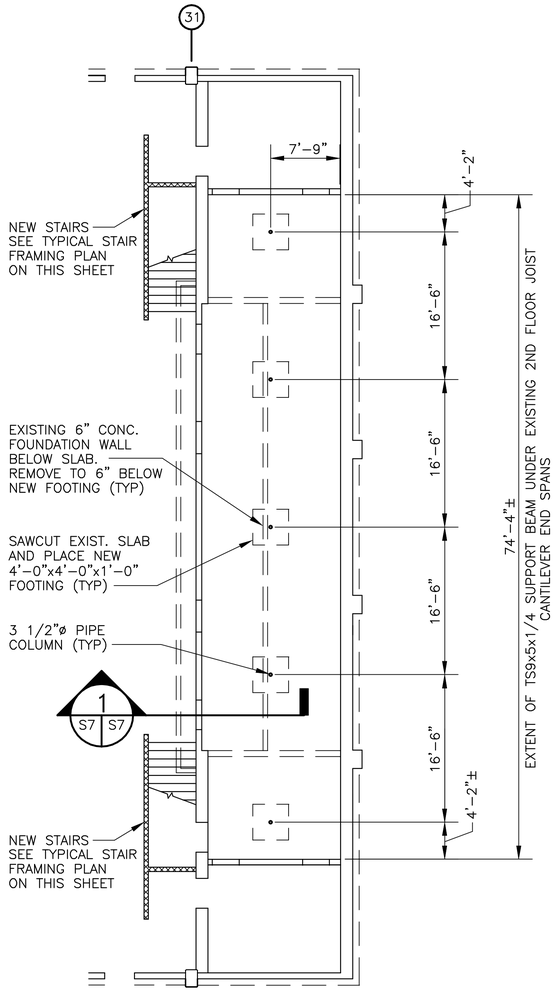
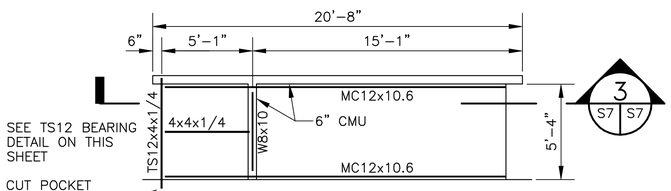


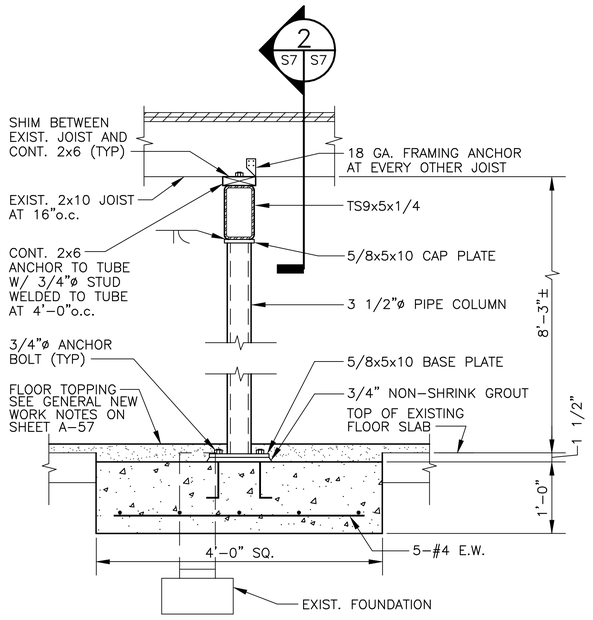
NEW WORK–PARTIAL WEST END 1ST FLOOR PLAN

1/8" = 1'-0"



TYPICAL STAIR FRAMING PLAN

1/4" = 1'-0"

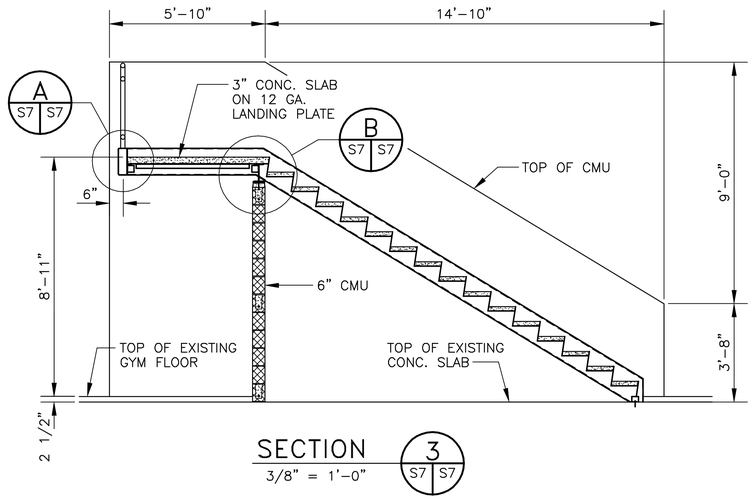


SECTION 1

1" = 1'-0"

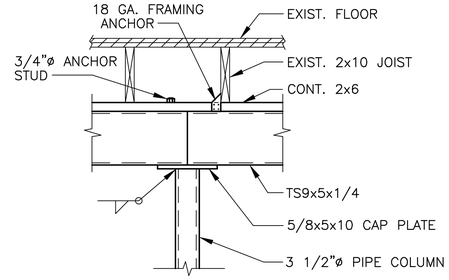
STAIR WALL REINFORCEMENT

1. PROVIDE 1–#5 VERTICAL REINFORCEMENT AT WALL ENDS AND INTERSECTIONS AND AT 4'–0"o.c.(MAX.) INBETWEEN.
2. PROVIDE CONTINUOUS BOND BEAMS WITH 1–#5 AT TOP AND BOTTOM OF WALLS AND AT ELEVATIONS +4'–0" AND +8'–0".



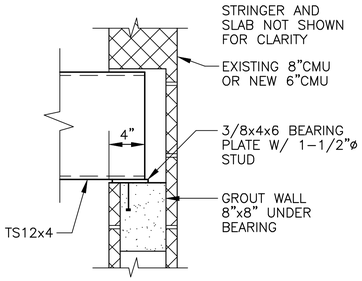
SECTION 3

3/8" = 1'-0"



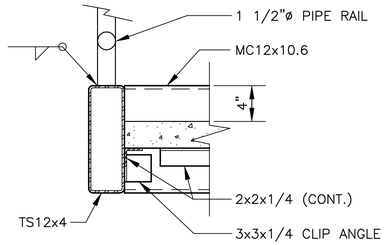
SECTION 2

1" = 1'-0"



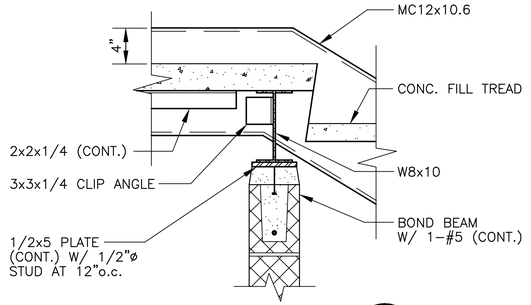
TS12 BEARING DETAIL

1 1/2" = 1'-0"



DETAIL A

1 1/2" = 1'-0"



DETAIL B

1 1/2" = 1'-0"

GRAPHIC SCALES

1/8"=1'-0" 0' 5' 10' 20' 30'

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

3/8"=1'-0" 1' 0 1' 5' 10'

1"=1'-0" 1' 6" 0' 1' 2' 3'

1-1/2"=1'-0" 1' 9" 6" 3" 0' 1' 2'

REVISIONS				
DESCRIPTION	DATE	APPROVED		

A/E
DESIGN ROS
DRAWN ROS
REVIEW OLH
CHIEF ARCH./ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR ORDINANCE MARKS

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
NEW WORK – WEST END

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468482	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368482	
SHEET 35 OF 119	

S-7

SEAL

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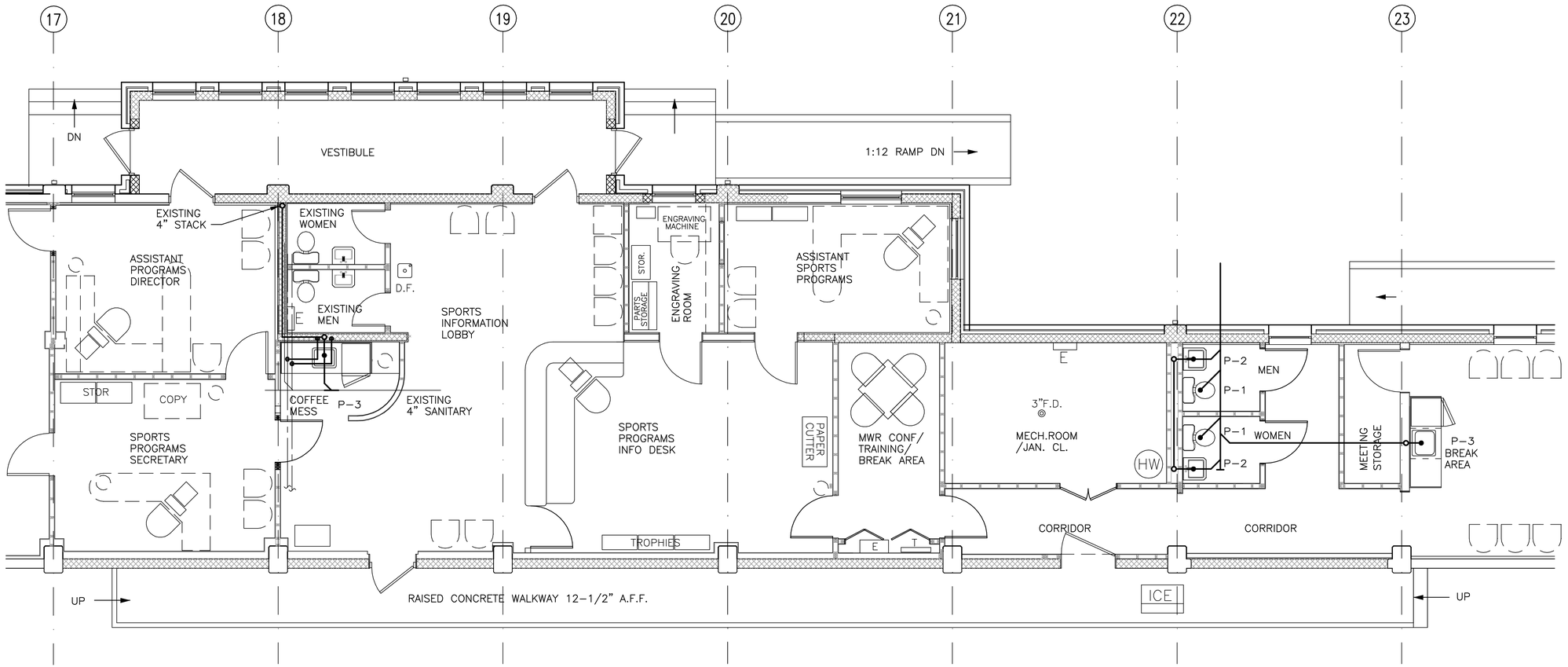


1ST FLOOR PARTIAL PLAN, NEW WORK – EAST

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

PLUMBING FIXTURE SCHEDULE					
MARK	DESCRIPTION	H.W.	C.W.	WASTE	REMARKS
P-1	WATER CLOSET	1/2	1/2	4	
P-2	LAVATORY	1/2	1/2	1 1/2	
P-3	KITCHEN SINK	1/2	1/2	1 1/2	
P-4	–	–	–	–	
–	–	–	–	–	

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

PLUMBING LEGEND

— — —	DOMESTIC HOT WATER SUPPLY (HW)
— — —	COLD WATER SUPPLY (CW)
— — — —	DOMESTIC HOT WATER RECIRCULATION (DHWR)
———	SANITARY LINE (SAN)
- - - - - - - - - -	VENT LINE
W.C.O.	WALL CLEAN OUT
V.T.R.	VENT THRU ROOF
F.C.O.	FLOOR CLEAN OUT
	WALL HYDRANT
	GATE VALVE
	BALANCING VALVE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
CP-1	HOT WATER CIRCULATING PUMP

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JAG
REVIEW JAG
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER MARK

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM BUILDING 3147
1ST FLOOR PARTIAL PLAN, NEW WORK – EAST

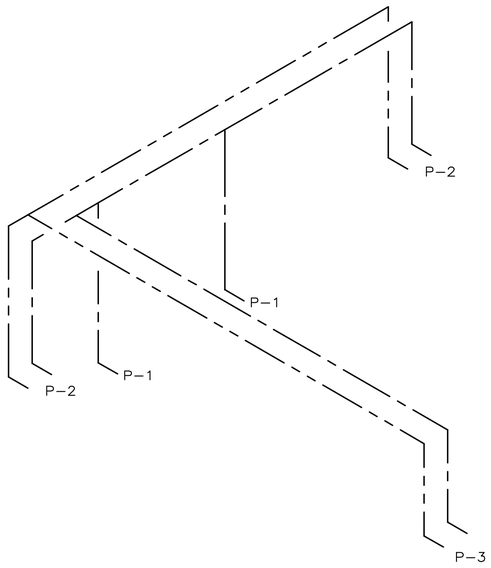
CODE ID. NO. 80091 SIZE D
SCALE:
EFD NO.
STA. PROJ. NO. R-234
SPEC. NO. 05-95-5105
CONSTR. CONTR. NO. N62470-95-B-5105
NAVFAC DRAWING NO.
SHEET OF
P-1

SEAL

FILENAME: 5105P01.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 02/25/97 AT 11:31, XREFS: NONE

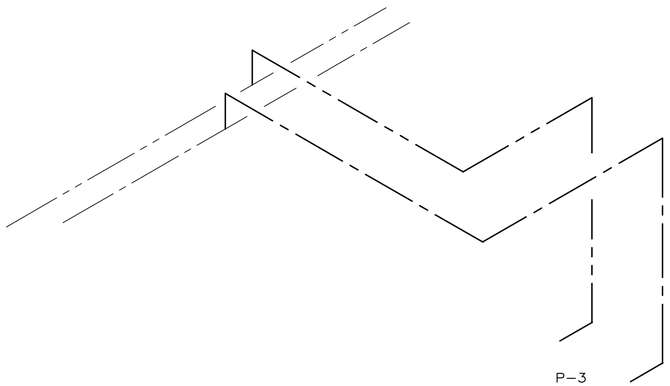
PLUMBING LEGEND

——— - - ———	DOMESTIC HOT WATER SUPPLY (HW)
——— – ———	COLD WATER SUPPLY (CW)
——— - - - ———	DOMESTIC HOT WATER RECIRCULATION (DHWR)
———	SANITARY LINE (SAN)
- - - - - - - - - - -	VENT LINE
W.C.O.	WALL CLEAN OUT
V.T.R.	VENT THRU ROOF
F.C.O.	FLOOR CLEAN OUT
——||——	WALL HYDRANT
——⋈——	GATE VALVE
——⋈——	BALANCING VALVE
N.C.	NORMALLY CLOSED
N.O.	NORMALLY OPEN
CP-1	HOT WATER CIRCULATING PUMP



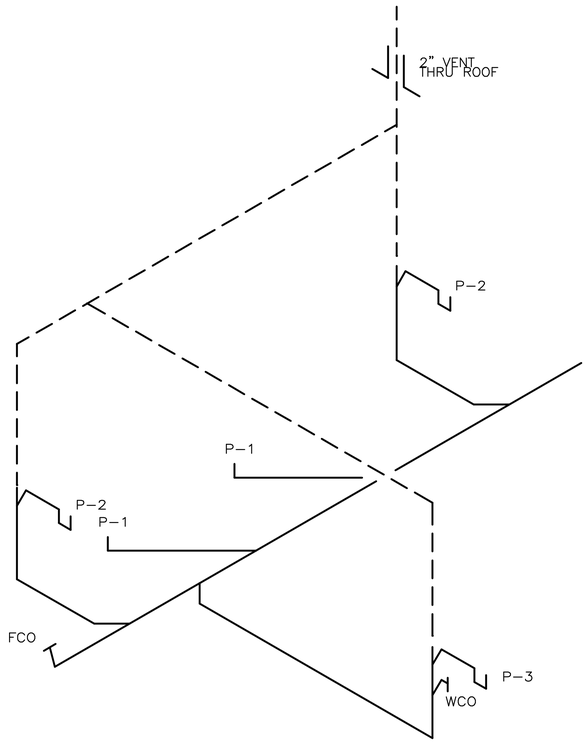
HOT & CLOLD WATER RISER DIAGRAM

NOT TO SCALE



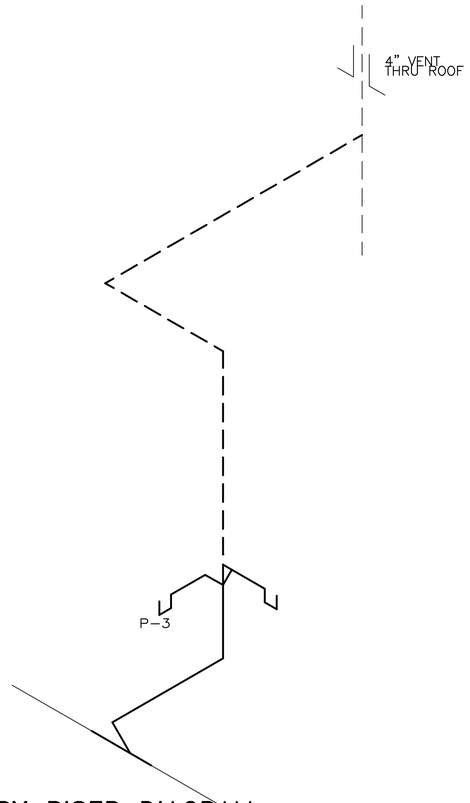
HOT & CLOLD WATER RISER DIAGRAM

NOT TO SCALE



SANITARY RISER DIAGRAM

NOT TO SCALE



SANITARY RISER DIAGRAM

NOT TO SCALE

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E — DESIGN — DRAWN JAG — REVIEW JAG — CHIEF ARCH./ ENGR. — PROJECT MANAGER JJB — FIRE PROTECTION — QUALITY CONTROL — BRANCH MANAGER — DESIGN DIRECTOR — EFD

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED — FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VA

RENOVATION TO GYMNASIUM BUILDING 3147

1ST FLOOR PARTIAL PLAN, NEW WORK – EAST

CODE ID. NO. 80091	SIZE D
SCALE:	
EFD NO.	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO.	
SHEET	OF
P-2	

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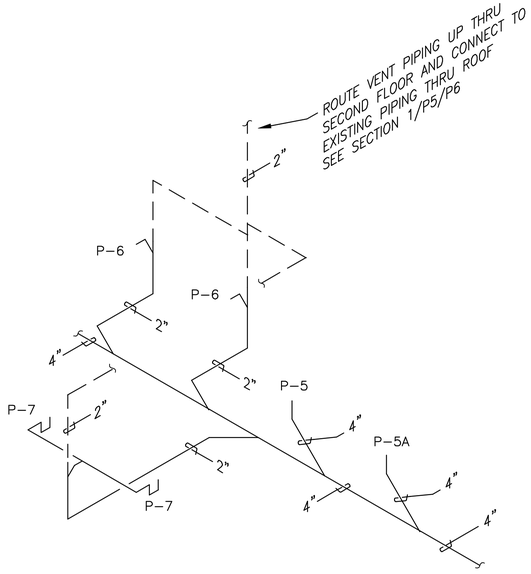
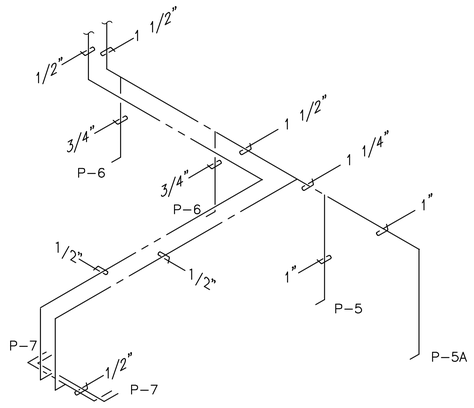


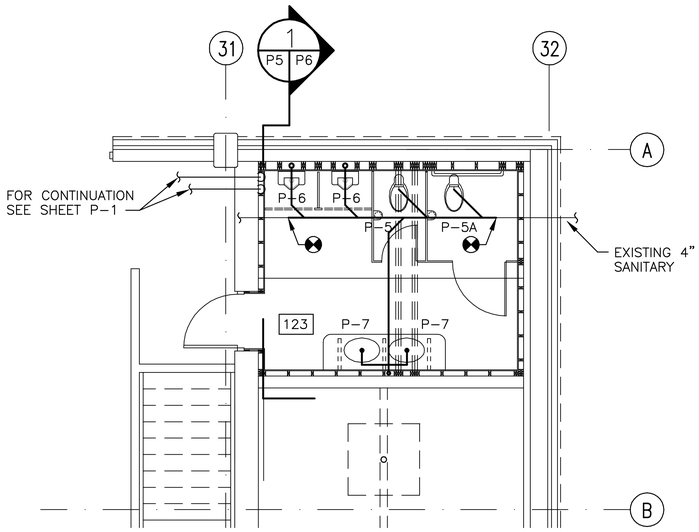
SANITARY RISER DIAGRAM
MEN'S TOILET – WEST END

NOT TO SCALE



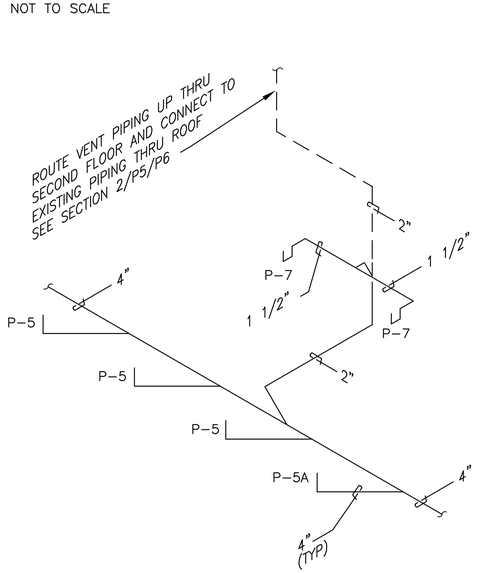
DOMESTIC WATER RISER DIAGRAM
MEN'S TOILET – WEST END

NOT TO SCALE



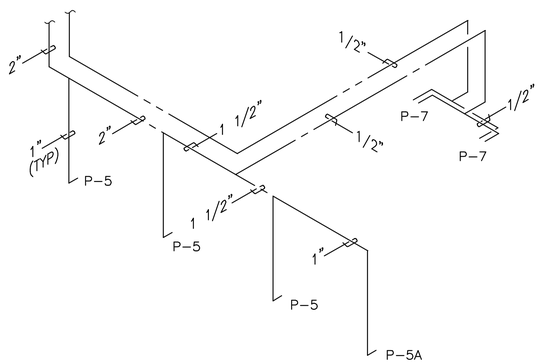
MEN'S TOILET PLAN – NEW WORK AT WEST END

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



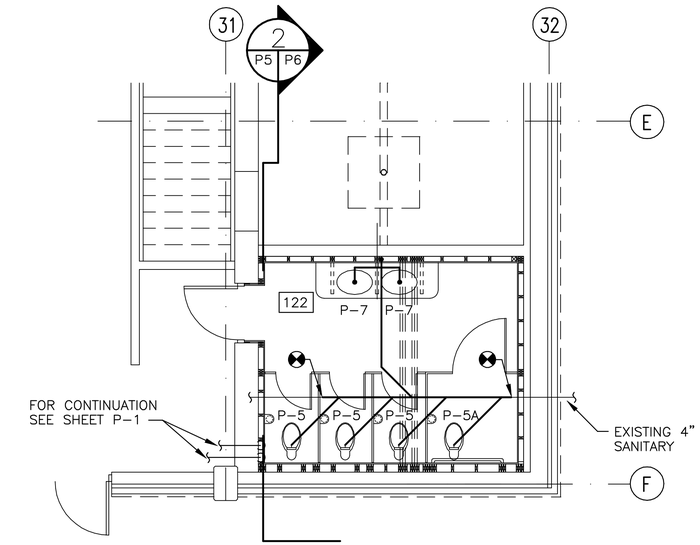
SANITARY RISER DIAGRAM
WOMEN'S TOILET – WEST END

NOT TO SCALE



DOMESTIC WATER RISER DIAGRAM
WOMEN'S TOILET – WEST END

NOT TO SCALE



WOMEN'S TOILET PLAN – NEW WORK AT WEST END

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

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

· KEY PLAN ·

REVISIONS			
DESCRIPTION	DATE	APPROVED	

A/E
DESIGN JWJ
DRAWN JWJ
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY – SATISFACTORY TO
DATE
APPROVED
FOR BID FOR CONTRACTOR MARKING

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
PARTIAL PLANS– NEW WORK AT WEST END

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468487	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368487	
SHEET 62 OF 119	

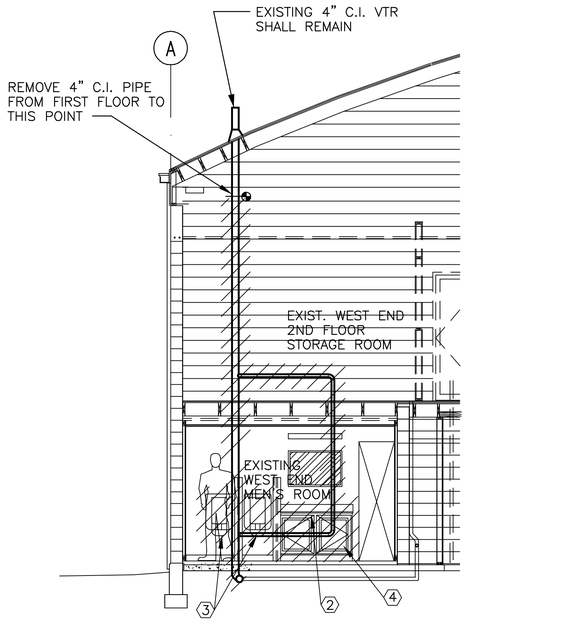
P-5

SEAL

FILENAME: 5105P03.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/13/97 AT 08:50, XREFS: NONE

8 7 6 5 4 3 2 1

D C B A



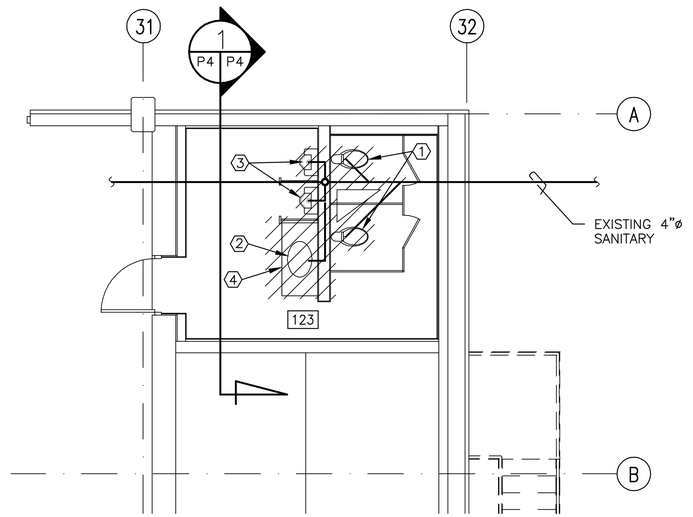
SECTION

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

1 P4 | P4

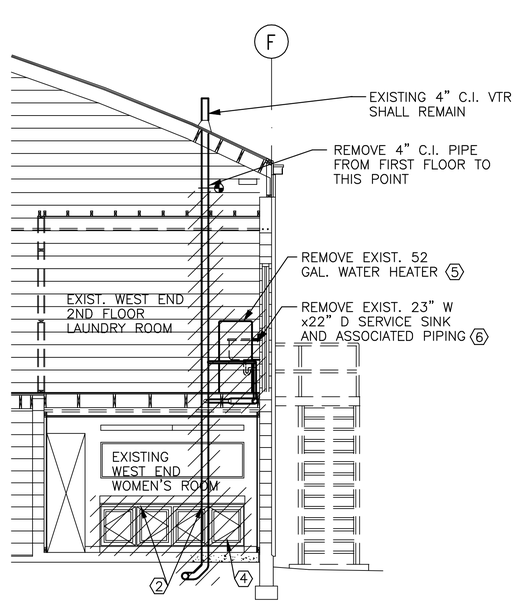
DEMOLITION NOTES

1. REMOVE EXISTING FLOOR MOUNTED TOILETS, FLUSH VALVES AND ASSOCIATED SUPPLY AND UNDER SLAB SANITARY PIPING.
2. REMOVE COUNTER MOUNTED SINKS 4" C.I. STACK TO SECOND FLOOR, 1 1/2" HORIZONTAL DRAIN PIPING, AND HOT AND COLD WATER SUPPLY
3. REMOVE EXISTING WALL HUNG URINALS, FLUSH VALVES, AND ASSOCIATED SUPPLY PIPING, IN WALL AND UNDER SLAB SANITARY PIPING.
4. REMOVE EXISTING ELECTRIC WATER HEATER LOCATED IN SINK VANITY. APPROX DIMENSIONS 14"øx17 1/2" HIGH
5. REMOVE EXISTING ELECTRIC WATER HEATER LOCATED IN 2ND FLOOR LAUNDRY ROOM (52 GALLON)
6. REMOVE EXISTING LAUNDRY SINK AND ASSOCIATED PIPING LOCATED IN 2ND FLOOR LAUNDRY ROOM
7. SEE SHEET P-5 FOR NEW WORK



MEN'S TOILET PLAN – DEMO WORK AT WEST END

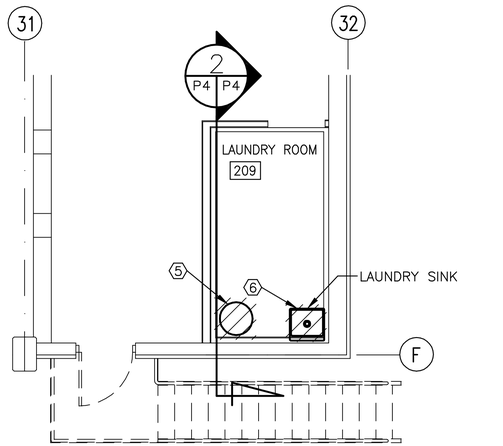
SCALE: 1/4" = 1'-0"



SECTION

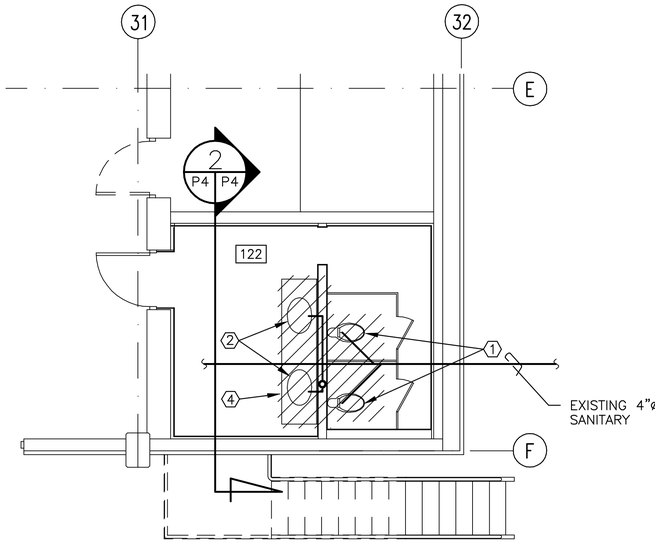
SCALE: 1/4" = 1'-0"

2 P4 | P4



PARTIAL 2ND FLOOR PLAN – DEMO WORK AT WEST END

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



WOMEN'S TOILET PLAN – DEMO WORK AT WEST END

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

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

· KEY PLAN ·

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN JWJ
DRAWN JWJ
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JWB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
PARTIAL PLANS – DEMOLITION AT WEST END

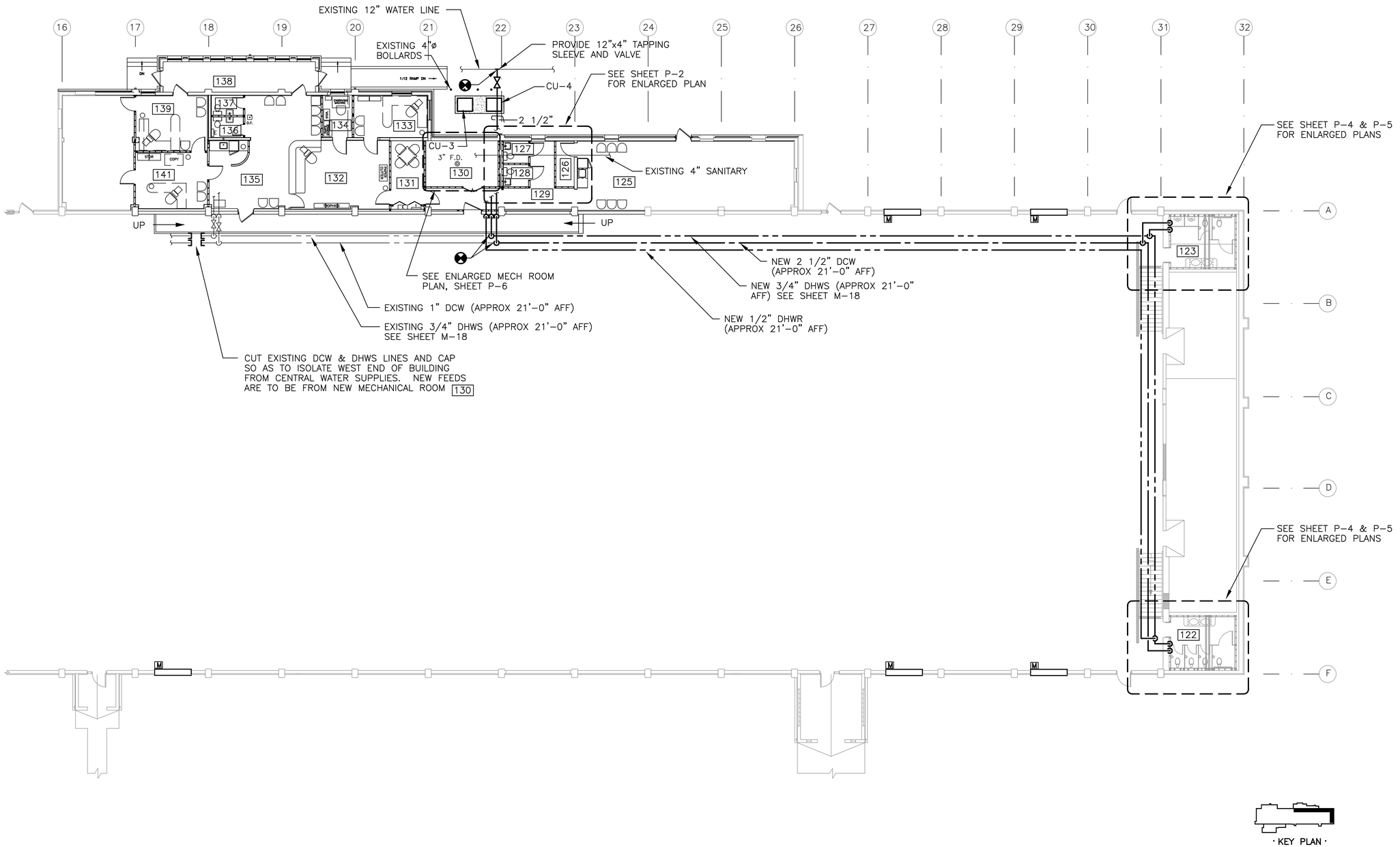
CODE ID. NO. 80091	SIZE D
SCALE:	AS NOTED
EFD NO.	468486
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368486
SHEET	61 OF 119

P-4

FILENAME: 5105P04.DWG; PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/04/97 AT 15:57. XREFS: NONE

8 7 6 5 4 3 2 1

D C B A



FIRST FLOOR PARTIAL PLAN, NEW WORK – WEST

SCALE: 3/32"=1'-0"

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E
EFD
DESIGN JWJ
DRAWN JWJ
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JWB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

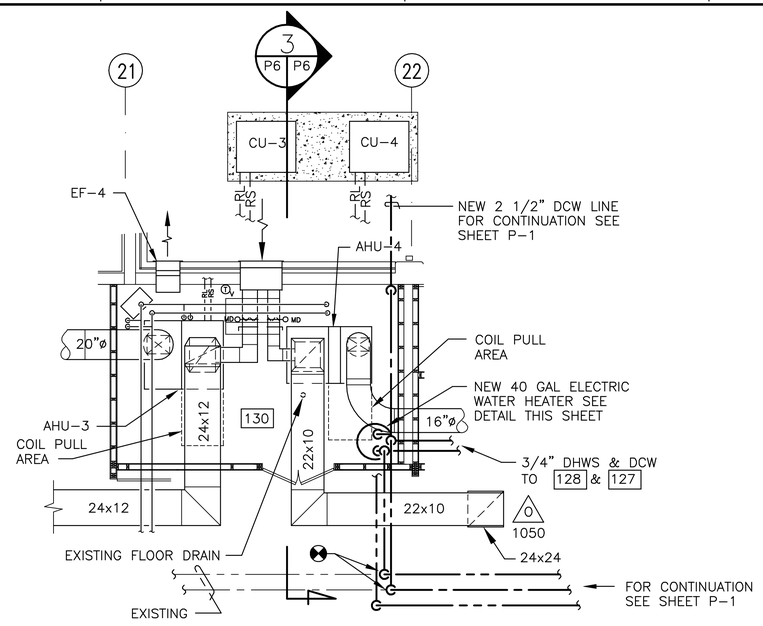
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147

FIRST FLOOR PARTIAL NEW PLAN– WEST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468483	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368483	
SHEET 58 OF 119	

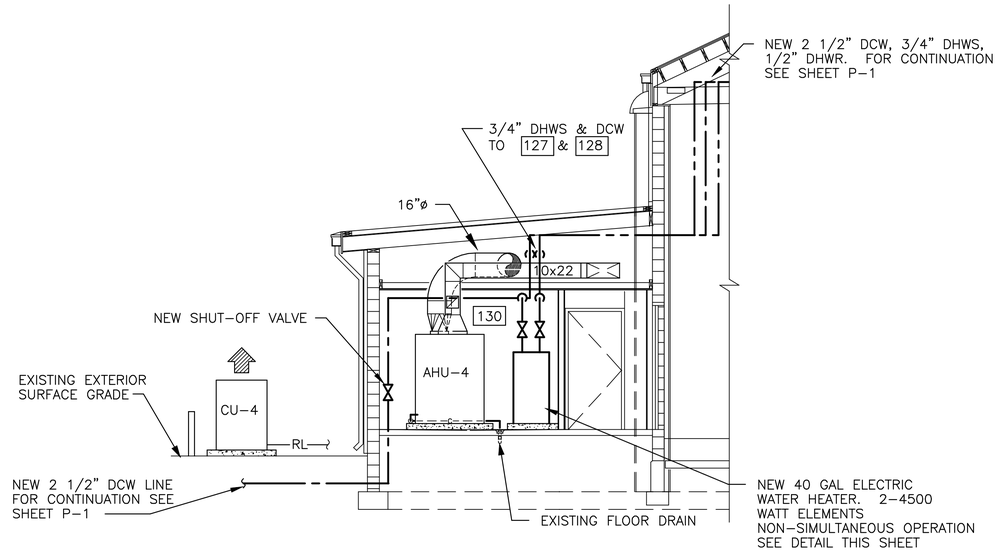
P-1

FILENAME: 5105P05.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 08/12/97 AT 15:29, XREFS: NONE



ENLARGED MECHANICAL ROOM PLAN

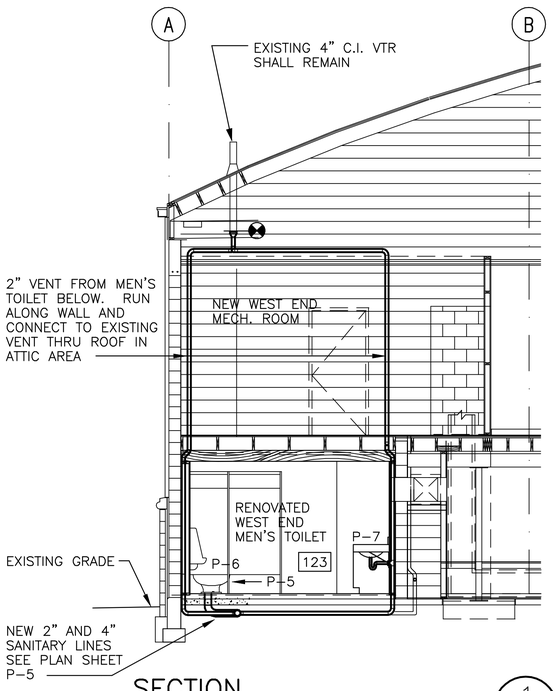
SCALE : 1/4" = 1'-0"



SECTION

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

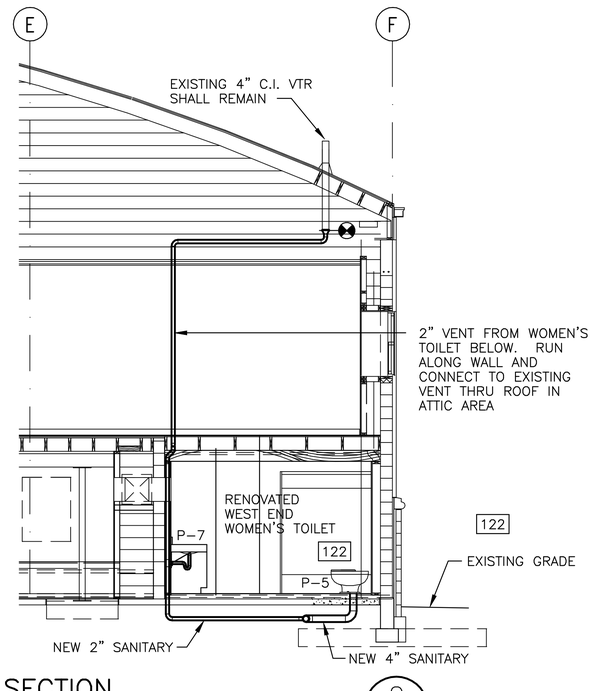
3
P6 P6



SECTION

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

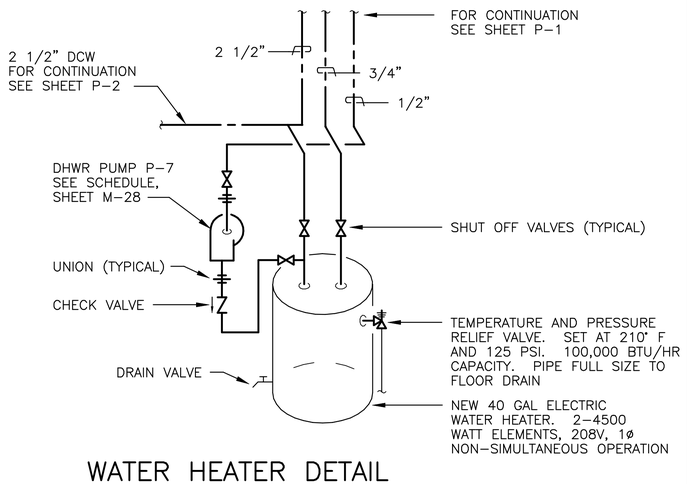
1
P5 P6



SECTION

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

2
P5 P6

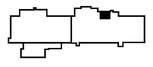


WATER HEATER DETAIL

NOT TO SCALE

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'



· KEY PLAN ·

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JWJ
DRAWN JWJ
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JWB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY NAVAL STATION
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
PARTIAL PLANS- NEW WORK AT WEST END

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468488	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368488	
SHEET 63 OF 119	

P-6

FILENAME: 5105P06.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/13/97 AT 11:02, XREFS: NONE

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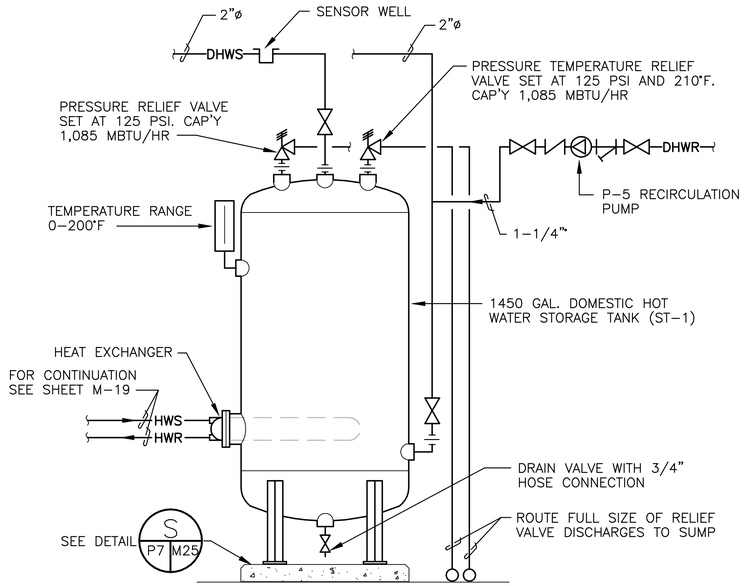
D C B A



HEAT EXCHANGER/HOT WATER STORAGE TANK DETAIL

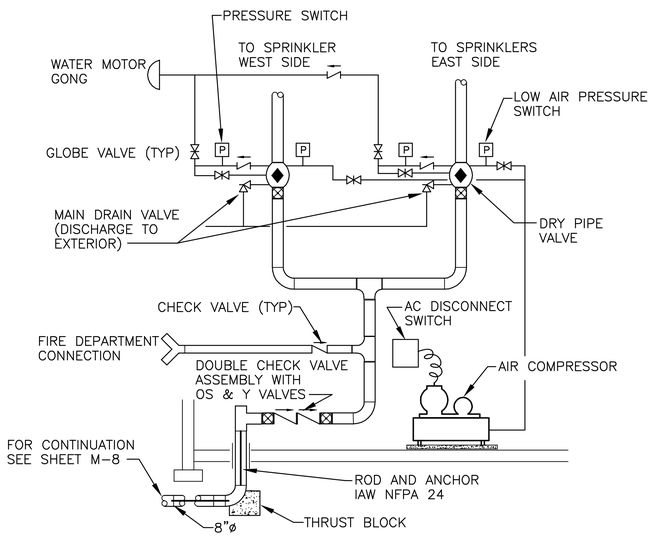
NOT TO SCALE

A
M19 P7

HEAT EXCHANGER/STORAGE TANK SCHEDULE

MARK	STORAGE CAPACITY (GALS)	APPROX. DIMENSION (øxH)	HEAT EXCHANGER ①					RECOVERY			LOCATION	REMARKS
			GPM	EWT (°F)	LWT (°F)	TUBESIDE P.D. (FT)	FOULING FACTOR	GPH	EWT (°F)	LWT (°F)		
ST-1	1450	60x150	108	180	160	2.0	0.00025	1450	50	140	MECH RM 101	

① PROVIDE DOUBLE WALL HEAT EXCHANGER



SPRINKLER RISER DIAGRAM

NOT TO SCALE

A
M8 P7

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN JAG
DRAWN JWJ
REVIEW
QC
CHIEF
PROJECT MANAGER JWB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED
DATE
ACTIVITY - SATISFACTORY TO
APPROVED
DATE
FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
DETAILS & SCHEDULE

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468489	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368489	
SHEET 64 OF 119	

P-7

FILENAME: 5105P07.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/13/97 AT 11:10, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

8 7 6 5 4 3 2 1

D C B A

MECHANICAL LEGEND & ABBREVIATIONS

- C — BOILER CONDENSATE
- D — COIL CONDENSATE
- DCWS — DOMESTIC COLD WATER (DCW)
- DCWR — DOMESTIC HOT WATER (DHW)
- HPS — HIGH PRESSURE STEAM; 125 PSI
- HWS — HOT WATER SUPPLY
- HWR — HOT WATER RETURN
- LPS — LOW PRESSURE STEAM; 15 PSI
- G — NATURAL GAS
- RL — REFRIGERANT LIQUID
- RS — REFRIGERANT SUCTION
- 3–WAY CONTROL VALVE
- 2–WAY CONTROL VALVE
- GATE VALVE
- GLOBE VALVE
- FLOW CONTROL BALANCING VALVE
- SQUARE HEAD COCK
- PRESSURE REDUCING VALVE (PRV)
- CHECK VALVE
- STRAINER
- UNION
- RELIEF VALVE
- PRESSURE GAGE
- THERMOMETER
- MANUAL AIR VENT (MAV)
- ECCENTRIC PIPE REDUCER
- PIPE CAP
- DIRECTION OF DOWNWARD PIPE SLOPE
- FLEXIBLE PIPE CONNECTION
- FLEXIBLE DUCT CONNECTION
- DIRECTION OF FLOW
- SENSOR WELL
- FIRE DAMPER (F.D.)
- OPPOSED BLADE DAMPER
- PRESS GAGE TAP W/CAP AND PET COCK
- PIPE ANCHORS. (A)
- TURNING VANES
- BD — BALANCING DAMPER
- MD — MOTOR OPERATED DAMPER
- CEILING SUPPLY DIFFUSER, REGISTER
- CEILING RETURN/EXHAUST REGISTER, GRILLE
- 100 — ROOM NUMBER
- DOOR LOUVER
- CONNECT NEW TO EXISTING
- LIMITS OF DEMOLITION
- S — WALL MOUNTED ON/OFF SWITCH
- TH — HEATING THERMOSTAT
- TV — VENTILATION THERMOSTAT
- TSC — TEMPERATURE SENSOR, COOLING
- TSH — TEMPERATURE SENSOR, HEATING
- TSV — TEMPERATURE SENSOR, VENTILATION
- M — MOTOR DRIVE

- A / XX — SUPPLY DIFFUSER IDENTIFIER / CFM
- A — EXHAUST/RETURN GRILLE IDENTIFIER
- XX — CFM
- A — DEMOLITION NOTE
- FILTER PULL OUT AREA
- XX — BUILDING COLUMN LINES
- FLEXIBLE DUCT
- PUMP

AFF	ABOVE FINISHED FLOOR
AS	AIR SEPARATOR
AHU	AIR HANDLING UNIT
BC	BUILDING CONTROLLER
BDD	BACKDRAFT DAMPER
BFP	BACKFLOW PREVENTER
CU	CONDENSING UNIT
DCW	DOMESTIC COLD WATER
DHWR	DOMESTIC HOT WATER RETURN
DHWS	DOMESTIC HOT WATER SUPPLY
DN	DOWN
DTC	DATA TERMINAL CABINET
EAT	ENTERING AIR TEMPERATURE
ET	EXPANSION TANK
EF	EXHAUST FAN
EWT	ENTERING WATER TEMPERATURE
ESP	EXTERNAL STATIC PRESSURE
ESST	EXISTING
FPM	FEET PER MINUTE
FT	FEET
HV	HEATING AND VENTILATING
HVU	HEATING AND VENTILATING UNIT
LAT	LEAVING AIR TEMPERATURE
LWT	LEAVING WATER TEMPERATURE
MAV	MANUAL AIR VENT
MD	MOTOR OPERATED DAMPER
MOD.	MODULATING
NOM	NOMINAL
OA	OUTSIDE AIR
POS	POSITION
PRESS	PRESSURE
PRV	PRESSURE REDUCING VALVE
RA	RETURN AIR
RM	ROOM
SA	SUPPLY AIR
SC	STEAM CONVERTER
SP	STATIC PRESSURE
SW	SWITCH
TYP	TYPICAL
VNG	VIRGINIA NATURAL GAS
W.G.	WATER GAGE
WPD	WATER PRESSURE DROP

GENERAL NOTES

1. THESE DRAWINGS INDICATE EXISTING CONDITIONS AS COULD BEST BE DETERMINED WITH AS–BUILT DRAWINGS AND FIELD CHECKS. SHOULD DISCREPANCIES BETWEEN THESE DRAWINGS AND THE EXISTING CONDITIONS BE NOTED, THE CONTRACTING OFFICER SHALL BE NOTIFIED BEFORE WORK PROCEEDS.
2. ALL PATCHES OF HOLES AND WALLS DUE TO REMOVAL OF PIPING, DUCTWORK OR ROUGH–INS SHALL MATCH EXISTING ADJACENT SURFACES.
3. COORDINATE WORK WITH OTHER TRADES SO AS NOT TO DISTURB NEW OR REPAIRED FINISHES.
4. ALL NEW PIPING AND DUCTWORK SHALL BE LOCATED AND DETERMINED WHERE TO BE RUN TO AVOID CONFLICTS WITH OTHER TRADES.
5. PROVIDE ACCESS PANELS WHERE SHOWN AND REQUIRED BY DAMPER LOCATIONS TO PROVIDE ACCESS TO BALANCING & VOLUME DAMPERS. ACCESS PANELS SHALL BE AS SPECIFIED.
6. IF ANY EQUIPMENT IS SUBMITTED AND APPROVED WITH UTILITY CONNECTIONS OTHER THAN WHAT IS SHOWN ON THE DRAWINGS, IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE PROPER UTILITY CONNECTIONS TO THIS EQUIPMENT AT NO ADDITIONAL COST TO THE GOVERNMENT.

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JAG
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S MARK
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

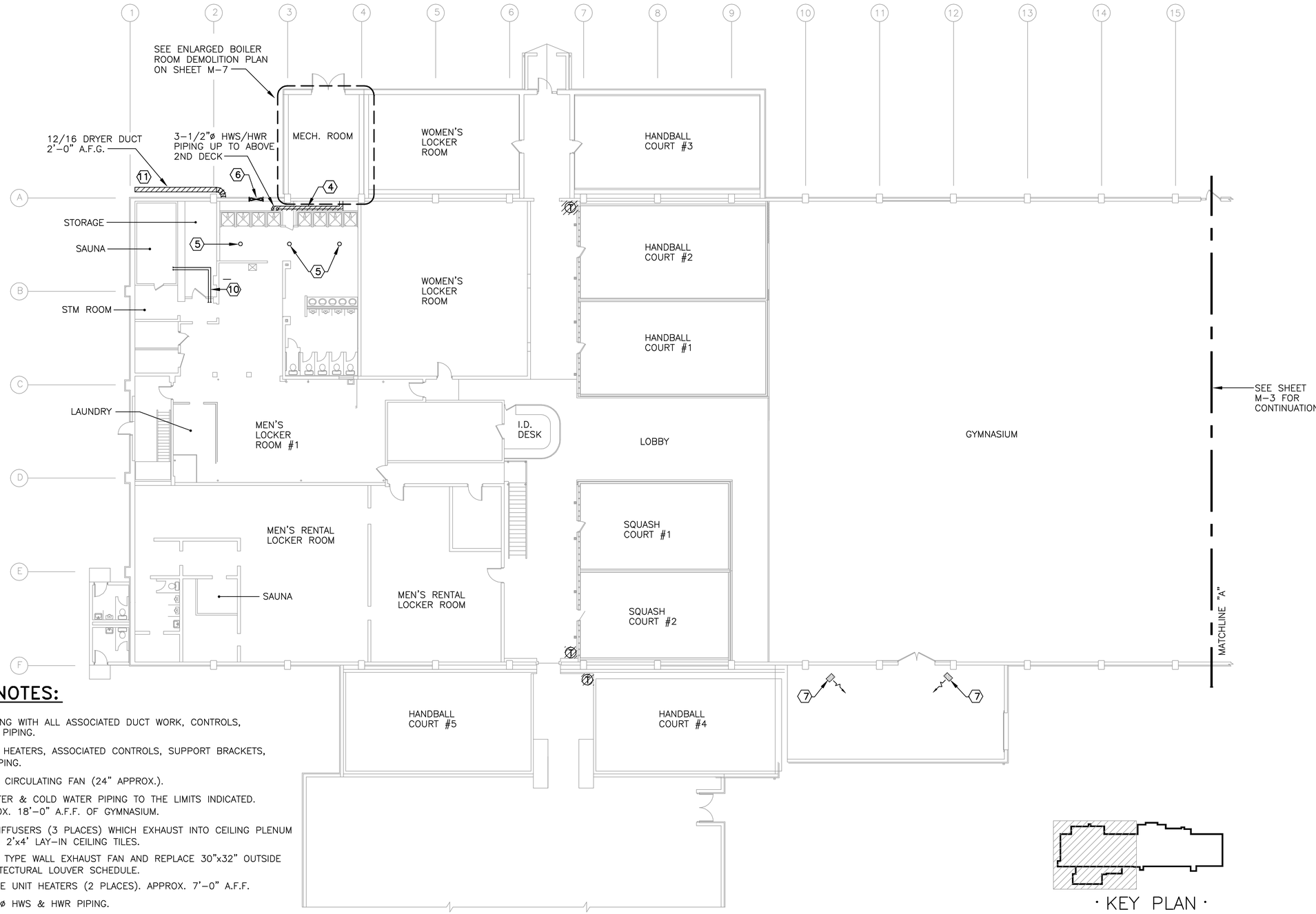
LITTLE CREEK
RENOVATION TO GYMNASIUM BUILDING 3147
VIRGINIA BEACH, VA

LEGEND, ABBREVIATIONS & GENERAL NOTES

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468490	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368490	
SHEET 65 OF 119	

M–1

FILENAME: 5105M1.DWG, PLOT SCALE: 1" = 128', SAVED ON 09/16/97 AT 14:03, XREFS: NONE



DEMOLITION NOTES:

1. REMOVE H & V UNIT ALONG WITH ALL ASSOCIATED DUCT WORK, CONTROLS, AND HOT & COLD WATER PIPING.
2. REMOVE HOT WATER UNIT HEATERS, ASSOCIATED CONTROLS, SUPPORT BRACKETS, HOT AND COLD WATER PIPING.
3. REMOVE PROPELLER TYPE CIRCULATING FAN (24" APPROX.).
4. REMOVE 3-1/2" HOT WATER & COLD WATER PIPING TO THE LIMITS INDICATED. PIPING IS LOCATED APPROX. 18'-0" A.F.F. OF GYMNASIUM.
5. REMOVE 10"ø EXHAUST DIFFUSERS (3 PLACES) WHICH EXHAUST INTO CEILING PLENUM AND REPLACE ASSOCIATED 2'x4' LAY-IN CEILING TILES.
6. REMOVE 30"ø PROPELLER TYPE WALL EXHAUST FAN AND REPLACE 30"x32" OUTSIDE WALL LOUVER, SEE ARCHITECTURAL LOUVER SCHEDULE.
7. REMOVE ELECTRICAL SPACE UNIT HEATERS (2 PLACES). APPROX. 7'-0" A.F.F.
8. REMOVE ABANDONED 1/2"ø HWS & HWR PIPING.
9. REMOVE CABINET EXHAUST FAN AND ASSOCIATED DUCT WORK.
10. REMOVE ABANDONED HWS & HWR PIPING BACK TO WALL.
11. REMOVE ABANDONED 12"/16" DRYER DUCT @ EXTERIOR OF BUILDING.

FIRST FLOOR PARTIAL DEMOLITION PLAN – EAST

SCALE: 3/32"=1'-0"

· KEY PLAN ·

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E DESIGN JAG; DRAWN JLB; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JWB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED DATE

ACTIVITY - SATISFACTORY TO — APPROVED DATE

FOR BID FOR OWNER'S MAINT.

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

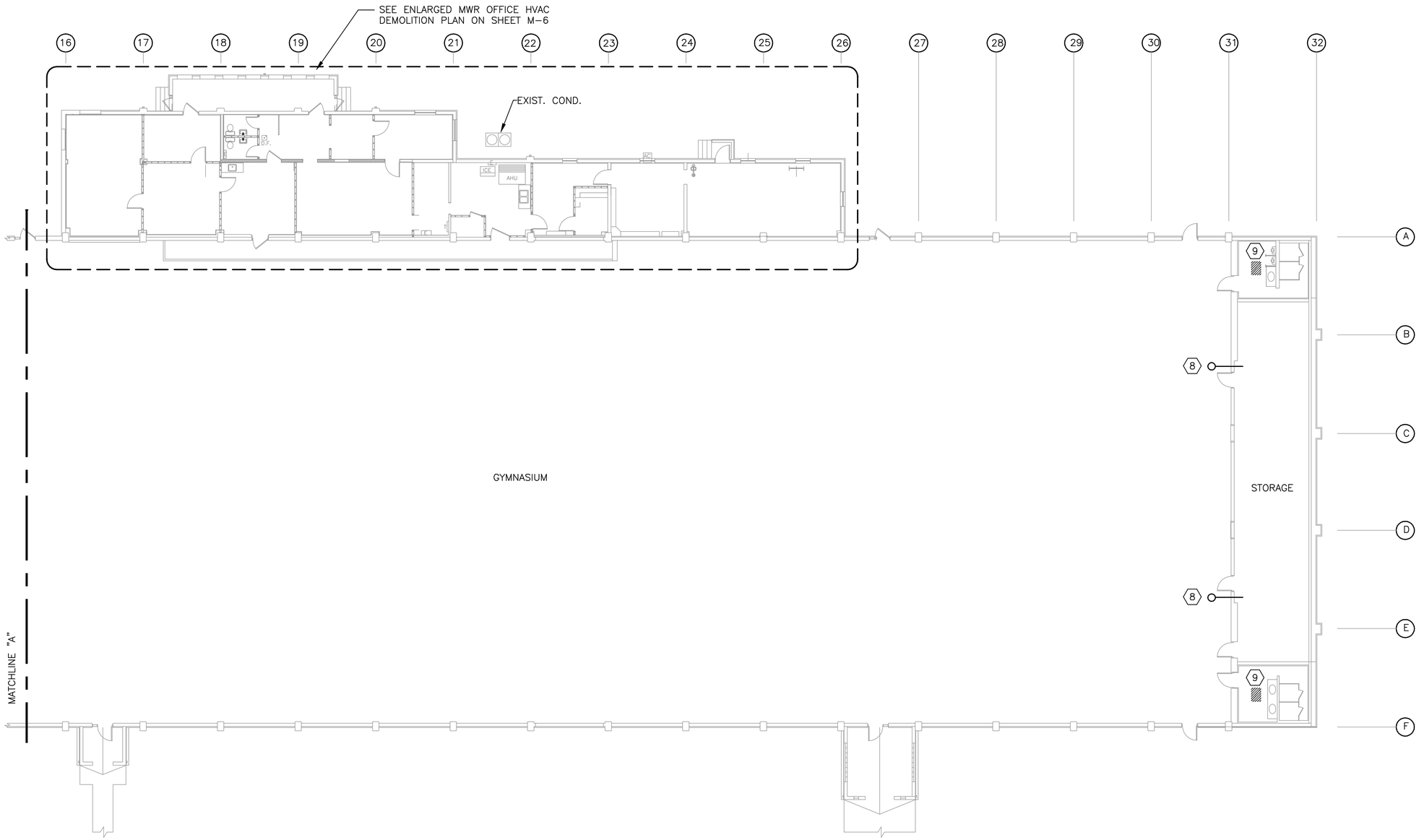
RENOVATION TO GYMNASIUM BUILDING 3147 — VIRGINIA BEACH, VA

FIRST FLOOR PARTIAL DEMOLITION PLAN– EAST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468491	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368491	
SHEET 66 OF 119	

M-2

FILENAME: 5105M2.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 09/16/97 AT 14:04, XREFS: NONE



NOTES

① SEE SHEET M-2 FOR DEMOLITION NOTES.

FIRST FLOOR PARTIAL DEMOLITION PLAN – WEST

SCALE: 3/32"=1'-0"

· KEY PLAN ·

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JLB
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR CHMNAVFAC NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147

FIRST FLOOR PARTIAL DEMOLITION PLAN – WEST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468492	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368492	
SHEET 67 OF 119	

M-3

FILENAME: 5105M3.DWG; PLOT SCALE: 3/32" = 1'-0", SAVED ON 09/16/97 AT 14:07, XREFS: NONE

SEE ENLARGED BOILER ROOM DEMOLITION PLAN ON SHEET M-7

STORAGE

HANDBALL COURT #3

HWS

HWR

4"ø HWR

HANDBALL COURT #2

2-1/2"ø

HWS

HWR

1"ø

WOODEN PLATFORM TO REMAIN

EXIST. AHU'S SERVING 2ND DECK TO REMAIN

4"ø HWS

4"ø HWR

AEROBICS WORKOUT

HANDBALL COURT #1

GYMNASIUM

SEE SHEET M-5 FOR CONTINUATION

ABANDONED H&V UNIT TO REMAIN

4"ø HWS

SQUASH COURT #1

SECOND FLOOR EXERCISE ROOM

RAISED EXERCISE EQUIP. PLATFORM

SQUASH COURT #2

4"ø HWS

2-1/2"ø

HWS

HWR

1-1/4"ø

MATCHLINE "A"

HWR

HWS

H & V UNIT

32" x 18"

HANDBALL COURT #5

HANDBALL COURT #4

BULK STORAGE

POWER PALACE (N.I.C.)

· KEY PLAN ·

NOTES

① SEE SHEET M-2 FOR DEMOLITION NOTES.

SECOND FLOOR PARTIAL DEMOLITION PLAN – EAST

SCALE: 3/32"=1'-0"

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E EFD

DESIGN JAG

DRAWN JLB

REVIEW

CHIEF ARCH./ ENGR.

PROJECT MANAGER JJB

FIRE PROTECTION

QUALITY CONTROL

BRANCH MANAGER

DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY - SATISFACTORY TO

APPROVED DATE

FOR BID FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

LITTLE CREEK VIRGINIA BEACH, VA

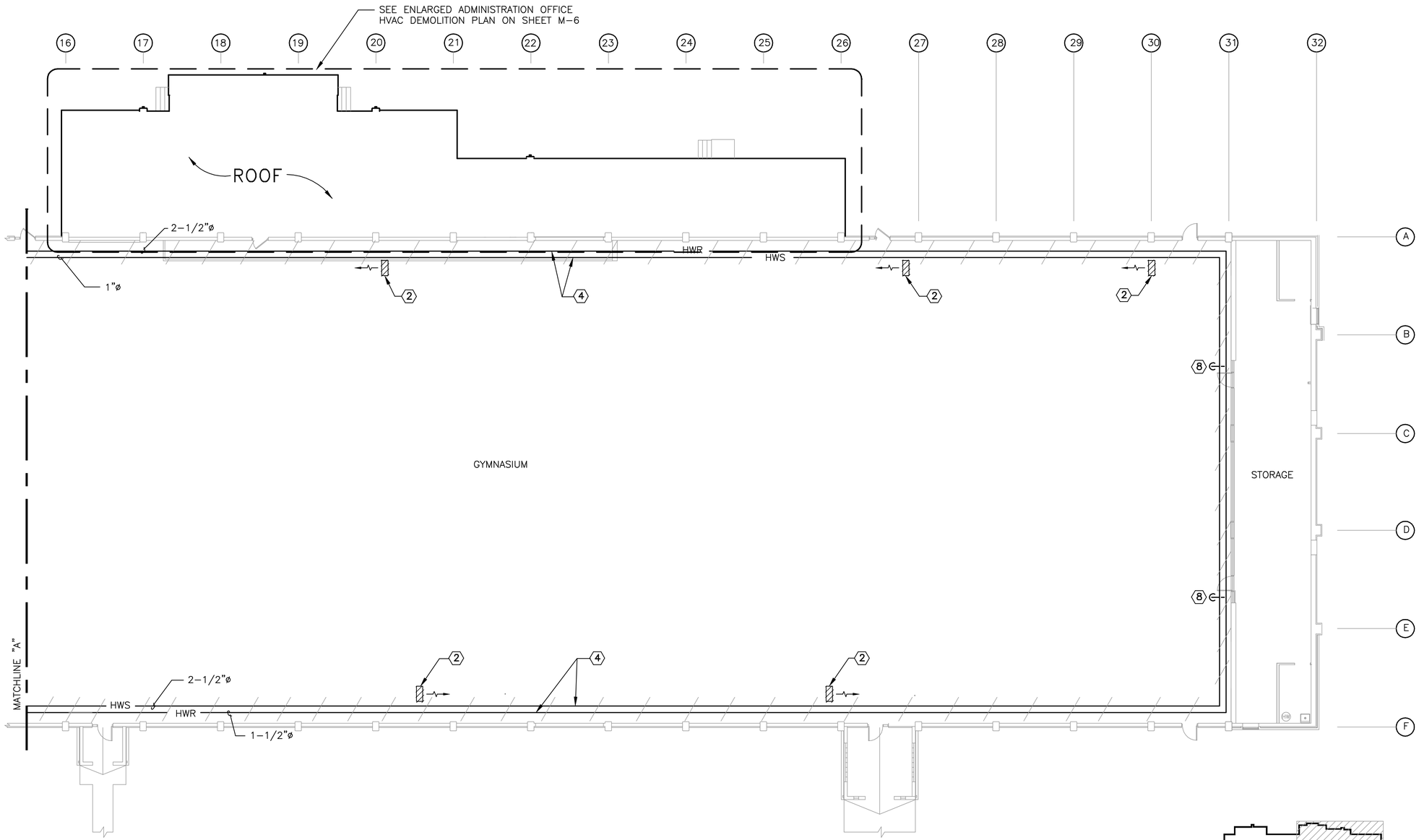
RENOVATION TO GYMNASIUM BUILDING 3147

SECOND FLOOR PARTIAL DEMOLITION PLAN– EAST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468493	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368493	
SHEET 68 OF 119	

M-4

FILENAME: 5105M4.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 09/16/97 AT 14:10, XREFS: NONE



· KEY PLAN ·

SECOND FLOOR PARTIAL DEMOLITION PLAN – WEST

SCALE: 3/32"=1'-0"

NOTES

① SEE SHEET M-2 FOR DEMOLITION NOTES.

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E DESIGN JAG; DRAWN JLB; REVIEW; CHIEF ARCH./ ENGR.; PROJECT MANAGER JAB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED DATE

ACTIVITY – SATISFACTORY TO — APPROVED DATE

FOR BID FOR CONTRACTOR MARKING

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — N.A.B. LITTLE CREEK — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATION TO GYMNASIUM BUILDING 3147

SECOND FLOOR PARTIAL DEMOLITION PLAN– WEST

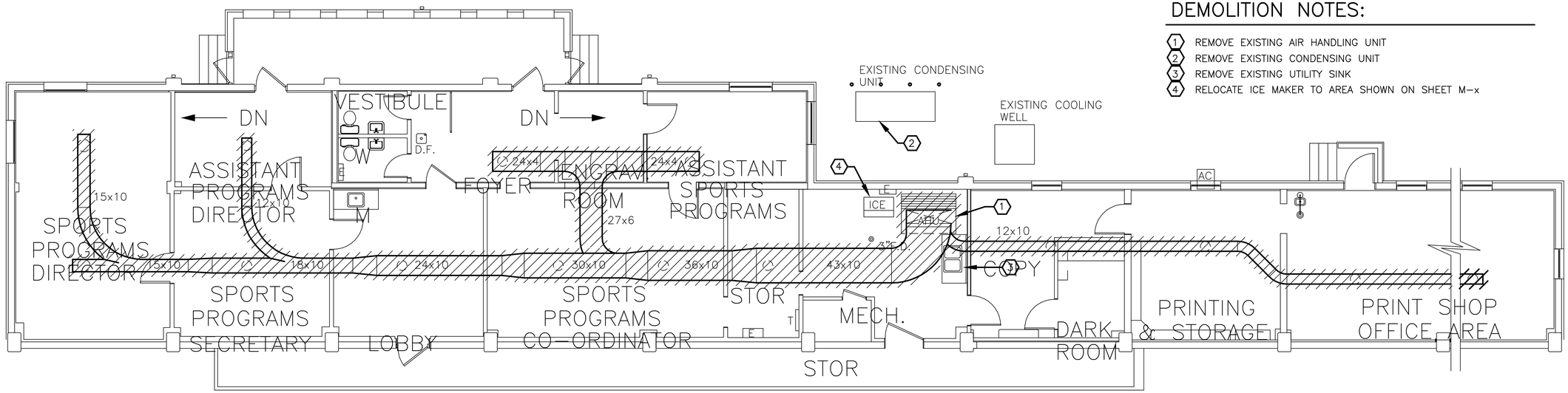
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468494	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368494	
SHEET 69 OF 119	

M-5

FILENAME: 5105M5.DWG; PLOT SCALE: 3/32" = 1'-0"; SAVED ON 09/16/97 AT 15:23, XREFS: NONE

DEMOLITION NOTES:

1. REMOVE EXISTING AIR HANDLING UNIT
2. REMOVE EXISTING CONDENSING UNIT
3. REMOVE EXISTING UTILITY SINK
4. RELOCATE ICE MAKER TO AREA SHOWN ON SHEET M–x



EXISTING PARTIAL 1ST FLOOR PLAN – WEST

SCALE 3/16" = 1'–0"

· KEY PLAN ·

GRAPHIC SCALE

3/16"=1'–0" 0' 5' 10' 20'

REVISIONS

DESCRIPTION	DATE	APPROVED
STA.		

A/E
DESIGN JAG
DRAWN JWJ
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY – SATISFACTORY TO
DATE
APPROVED
FOR BID FOR ORDINANCE MARKING

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
NEW WORK PARTIAL FIRST FLOOR PLAN – WEST

CODE ID. NO. 80091	SIZE D
SCALE: GRAPHIC	
EFD NO.	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO.	
SHEET	OF
M–4	

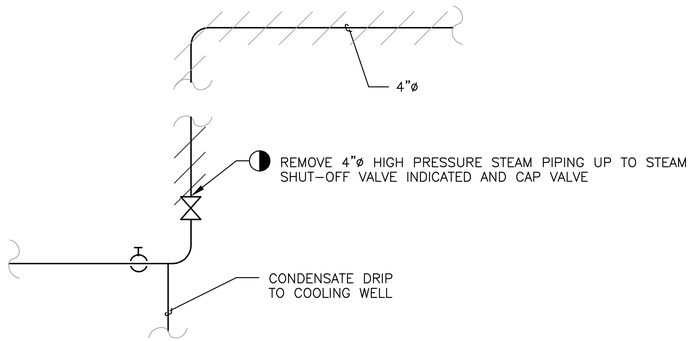
FILENAME: 5105M08.DWG, PLOT SCALE: 3/32" = 1'–0", SAVED ON 02/20/97 AT 13:18, XREFS: NONE

DEMOLITION NOTES:

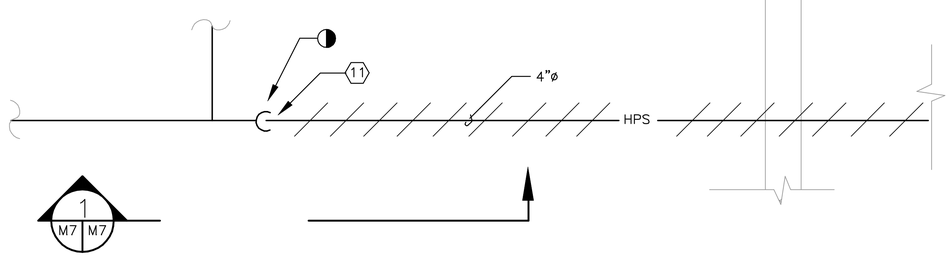
1. REMOVE STEAM–TO–HOT WATER CONVERTOR
2. REMOVE 2000 GALLON HOT WATER HEATER STORAGE TANK
3. DISCONNECT EXISTING EXPANSION TANK LOCATED IN OVERHEAD. SALVAGE FOR RE–INSTALLATION
4. DISCONNECT EXISTING AIR SEPARATOR. SALVAGE FOR RE–INSTALLATION.
5. REMOVE EXISTING HOT WATER HEATING SYSTEM CIRCULATING PUMP.
6. REMOVE STEAM PRESSURE REDUCING STATION INCLUDING ALL ASSOCIATED PIPING AND SUPPORTS.
7. DISCONNECT EXISTING DOMESTIC WATER CIRCULATING PUMP. SALVAGE FOR RE–INSTALLATION.
8. REMOVE CONDENSATE FLASH TANK AND SUPPORTS.
9. REMOVE CONDENSATE–TO–WATER, HEAT RECOVERY, HEAT EXCHANGER AND SUPPORTS.
10. REMOVE SHOT FEEDER AND SUPPORTS.
11. REMOVE 4"ø HIGH PRESSURE STEAM PIPING DOWN TO VALVE AS INDICATED, APPROX. 5'–0" A.F.G. CAP 4"ø VALVE WITH BLIND FLANGE.
12. REMOVE LOW PRESSURE STEAM (LPS) AND CONDENSATE (C) PIPING AND SUPPORTS BACK TO ABANDONED UNIT IN OVERHEAD OF 2ND DECK.
13. REMOVE ALL 4"ø HWS AND HWR PIPING AND SUPPORTS UP TO OVERHEAD OF 2ND DECK. SEE SHEET M–4.
14. REMOVE DHWS, DHWR, AND DCW PIPING AND SUPPORTS TO LIMITS SHOWN.
15. EXISTING 24"x24"x18" DEEP CONCRETE SUMP WITH SUMP PUMP AND ASSOCIATED PIPING SHALL REMAIN. ANY EXISTING STEAM CONDENSATE PIPING OR PRESSURE RELIEF PIPING TO SUMP SHALL BE REMOVED.

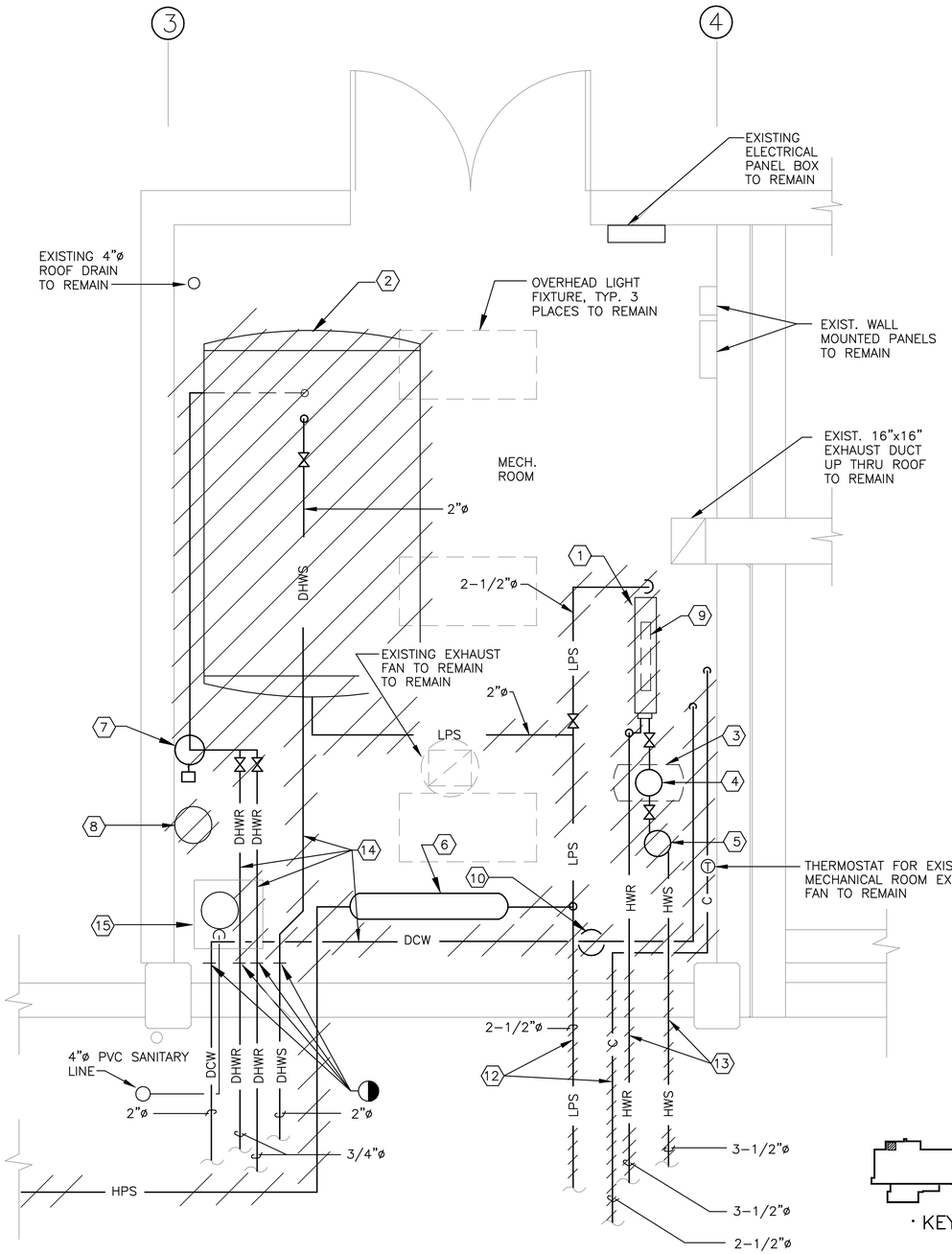
GENERAL NOTES:

1. ALL STEAM EQUIP. SHALL BE CONSIDER PROPERTY OF THE GOVERMENT.
2. ALL PIPE INSULATION IN MECHANICAL ROOM IS ASBESTOS FREE.
3. SUMP PUMP TO REMAIN.



SECTION
SCALE: 1/2"=1'–0"





· KEY PLAN ·

MECHANICAL ROOM DEMOLITION PLAN

SCALE: 1/2"–1'–0"

GRAPHIC SCALE
1/2"=1'–0" 1' 0' 1' 2' 3' 4' 5'

NO.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

A/E EFD
DESIGN JAG
DRAWN JLB
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JLB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR CHANNELIZATION

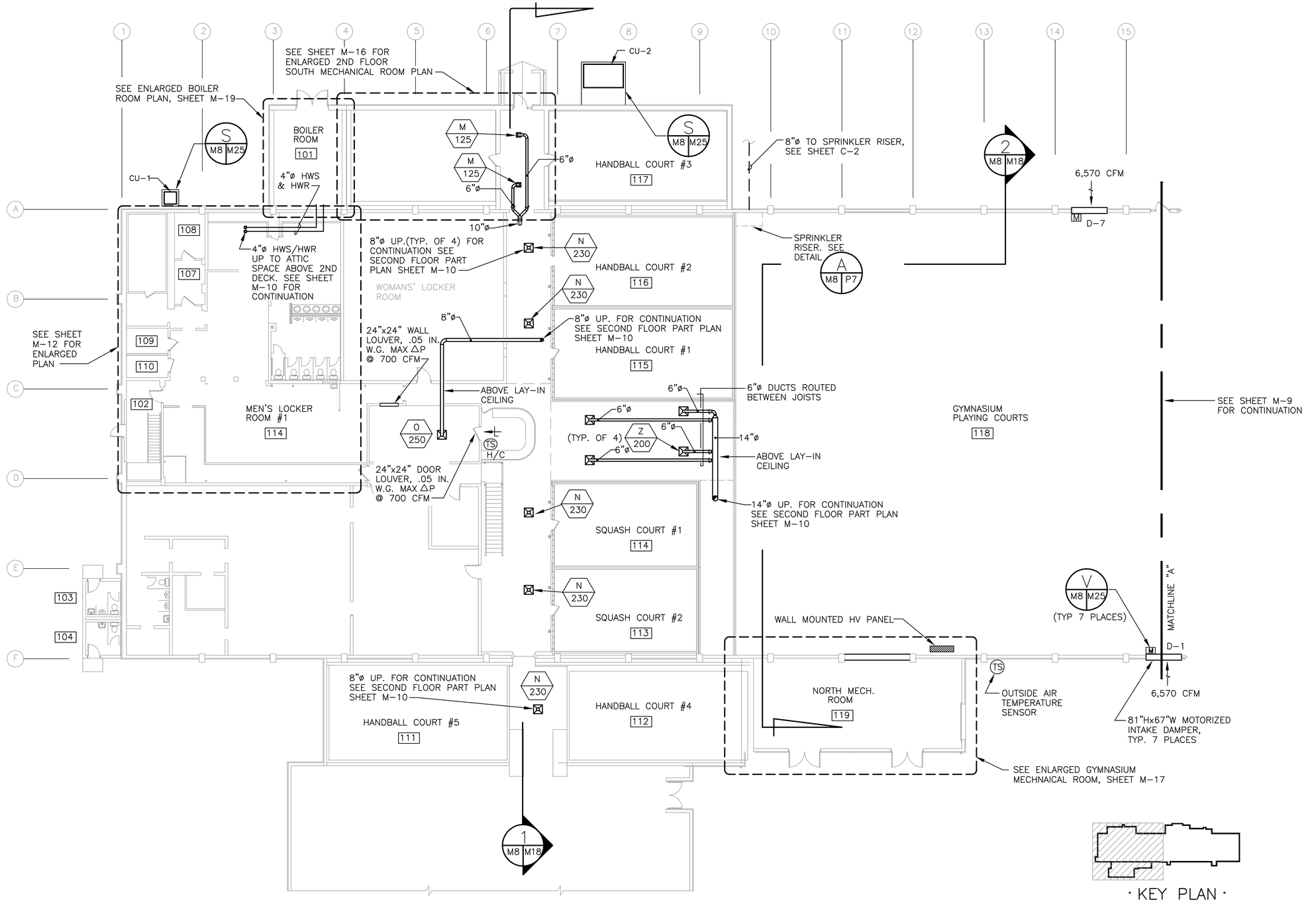
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
BOILER ROOM DEMOLITION PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468496	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368496	
SHEET 71 OF 119	

M–7

FILENAME: 51011M5.DWG, PLOT SCALE: 1" = 24', SAVED ON 06/03/97 AT 15:58, XREFS: NONE



FIRST FLOOR PARTIAL NEW WORK PLAN – EAST

SCALE: 3/32"=1'-0"

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E DESIGN JAG; DRAWN JLB; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JJB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED DATE — ACTIVITY - SATISFACTORY TO — APPROVED DATE — FOR BID FOR ORDINANCE MARKS

DEPARTMENT OF THE NAVY — NAVAL STATION LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA — VIRGINIA BEACH, VA

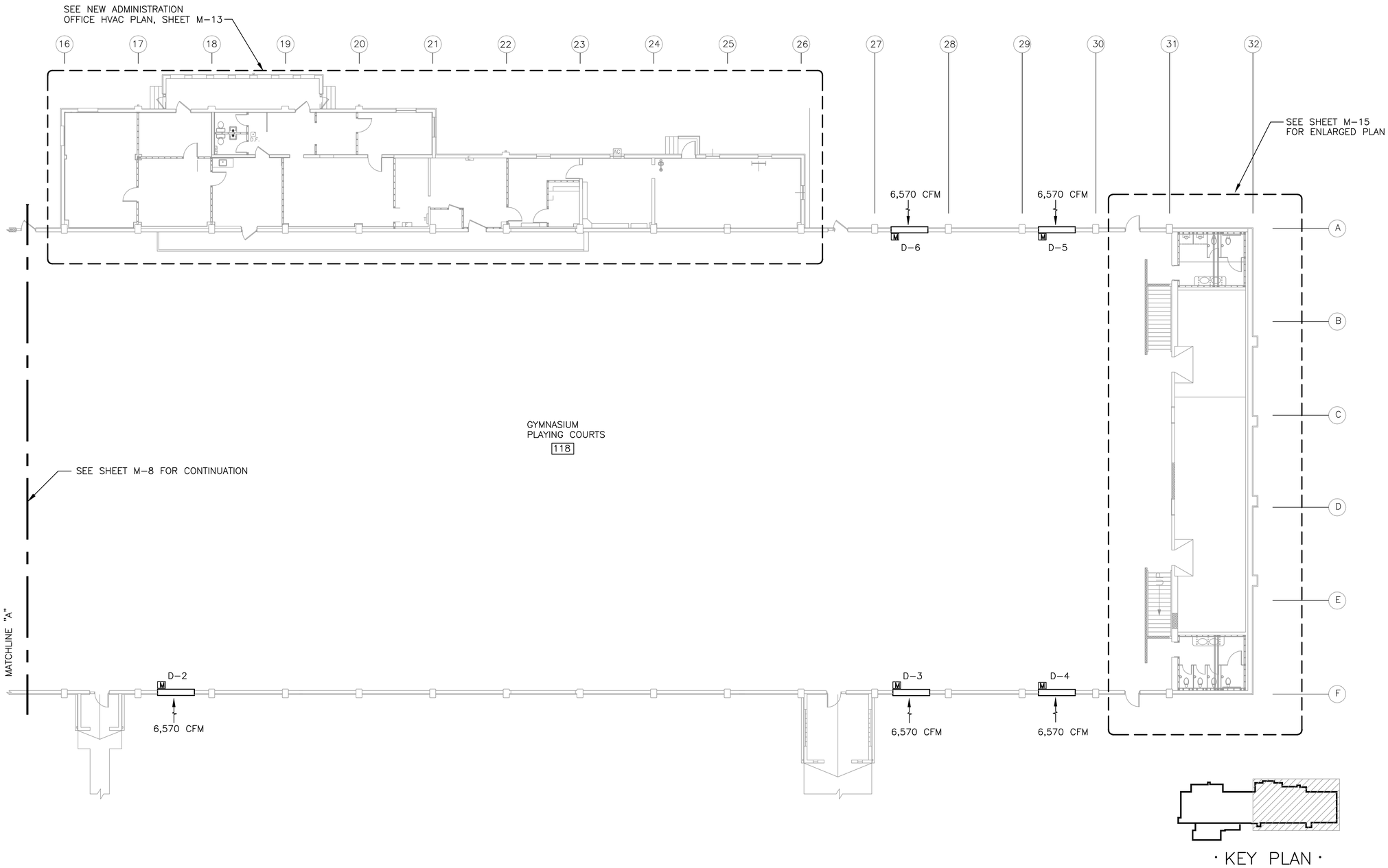
RENOVATION TO GYMNASIUM BUILDING 3147

FIRST FLOOR PARTIAL NEW WORK PLAN– EAST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468497	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368497	
SHEET 72 OF 119	

M-8

FILENAME: 5105M8.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 07/28/97 AT 11:05, XREFS: NONE



· KEY PLAN ·

FIRST FLOOR PARTIAL NEW WORK PLAN – WEST

SCALE: 3/32"=1'-0"

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JLB
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JWB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
FIRST FLOOR PARTIAL NEW WORK PLAN– WEST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468498	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368498	
SHEET 73 OF 119	

M-9

FILENAME: 5105M9.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 07/28/97 AT 14:30, XREFS: NONE

SEE SHEET M-16
FOR ENLARGED 2ND
DECK MECHANICAL ROOM PLAN

SEE ENLARGED BOILER
ROOM PLAN, SHEET M-19

CU-1

CU-2

(TYP OF 3)
6'-0"
5'-0"
5'-0"
7'-0"

202
201
117
116
115
118
114
113
204
205
111
112

10"ø
N 230
64/18
36"ø
32"ø
30"ø
12"ø
26"ø
28"ø
22"ø
14"ø
16"ø
20"ø
8"ø
48"ø
46"ø
4"ø HWS/HWR

A XX HWR HWS

4" HWS/HWR DOWN.
FOR CONTINUATION
SEE SHEET M-12

RUN DUCT UP INTO OVERHEAD
OF BARREL ROOF

8"ø DUCT DN.
SEE SHEET M-8
FOR CONTINUATION

G 1125
H 1115
I 825
J 1100
K 1045
L 1500
M 540
N 230
Q 190
S 1000
X 1140
R 2000

EF-3
EF-16
EF-17

24"W x 24"H WALL LOUVER.
0.08" W.G. @1080 CFM

ABOVE EXISTING
LAY-IN CEILING

TS H/C

EXISTING RAISED
EXERCISE EQUIP.
PLATFORM

8"ø (TYP OF 4)

14"ø DOWN,
FOR CONTINUATION
SEE SHEET M-8

R/D= 1.5, TYP
UNLESS NOTED

BELOW CEILING

SUPPORT 48"ø DUCT RUNNING ACROSS GYM
FLOOR IN DIRECTION SHOWN EVERY 10'-0",
SEE DETAIL C M10 M6

ABOVE CEILING

4"ø HWS/HWR ABOVE
GYMNASIUM CEILING. SEE PIPE
SUPPORT DETAIL M M10 M24

ABOVE LAY-IN
CEILING TILES

3"ø HWS/HWR ABOVE
GYMNASIUM CEILING
SEE PIPE SUPPORT DETAIL M M10 M24

MATCHLINE "A"

SEE SHEET M-11
FOR CONTINUATION

21,500

EXISTING 48x48 GRILLE
BELOW EXHAUST FAN
AND IN CEILING OF
GYMNASIUM
(TYP OF 4 PLACES)

SUPPORT DUCT RUNNING ALONG GYM WALLS
EVERY 8'-0", SEE DETAILS A M10 S6 B M10 S6

BELOW CEILING

SEE ENLARGED NORTH
MECHNAICAL ROOM, SHEET M-17

10"ø DN. FOR CONTINUATION
SEE SECOND FLOOR PART PLAN
SHEET M-8

1 M10 M18

· KEY PLAN ·

SECOND FLOOR PARTIAL NEW WORK PLAN – EAST

SCALE: 3/32"=1'-0"

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED
SYM.			

A/E
DESIGN JAG
DRAWN JLB
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JAB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY - SATISFACTORY TO
APPROVED
DATE
FOR BID FOR OWNER'S MARKS

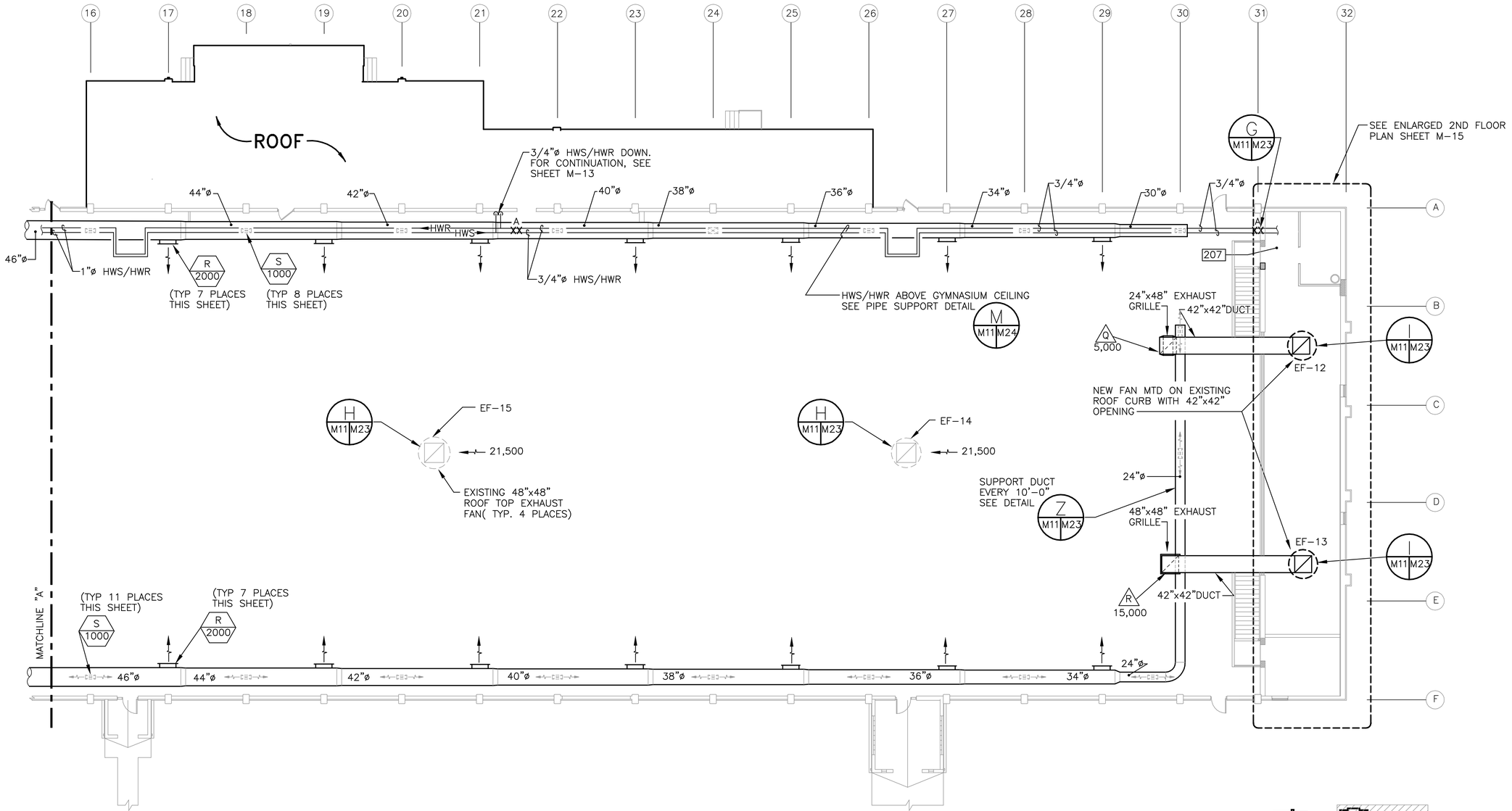
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM
BUILDING 3147
SECOND FLOOR PARTIAL NEW WORK PLAN - EAST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
E'D NO. 468499	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368499	
SHEET 74 OF 119	

M-10

FILENAME: 5105M10.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 08/08/97 AT 13:00, XREFS: NONE



SECOND FLOOR PARTIAL NEW WORK PLAN – WEST

SCALE: 3/32"=1'-0"

· KEY PLAN ·

GRAPHIC SCALE

3/32" = 1'-0" 5' 0 10' 20' 30' 50'

REVISIONS				
SYM.	DESCRIPTION	DATE	APPROVED	

A/E EFD
DESIGN JAC
DRAWN JLB
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY - SATISFACTORY TO
APPROVED
DATE
FOR EFD FOR ONWARD MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

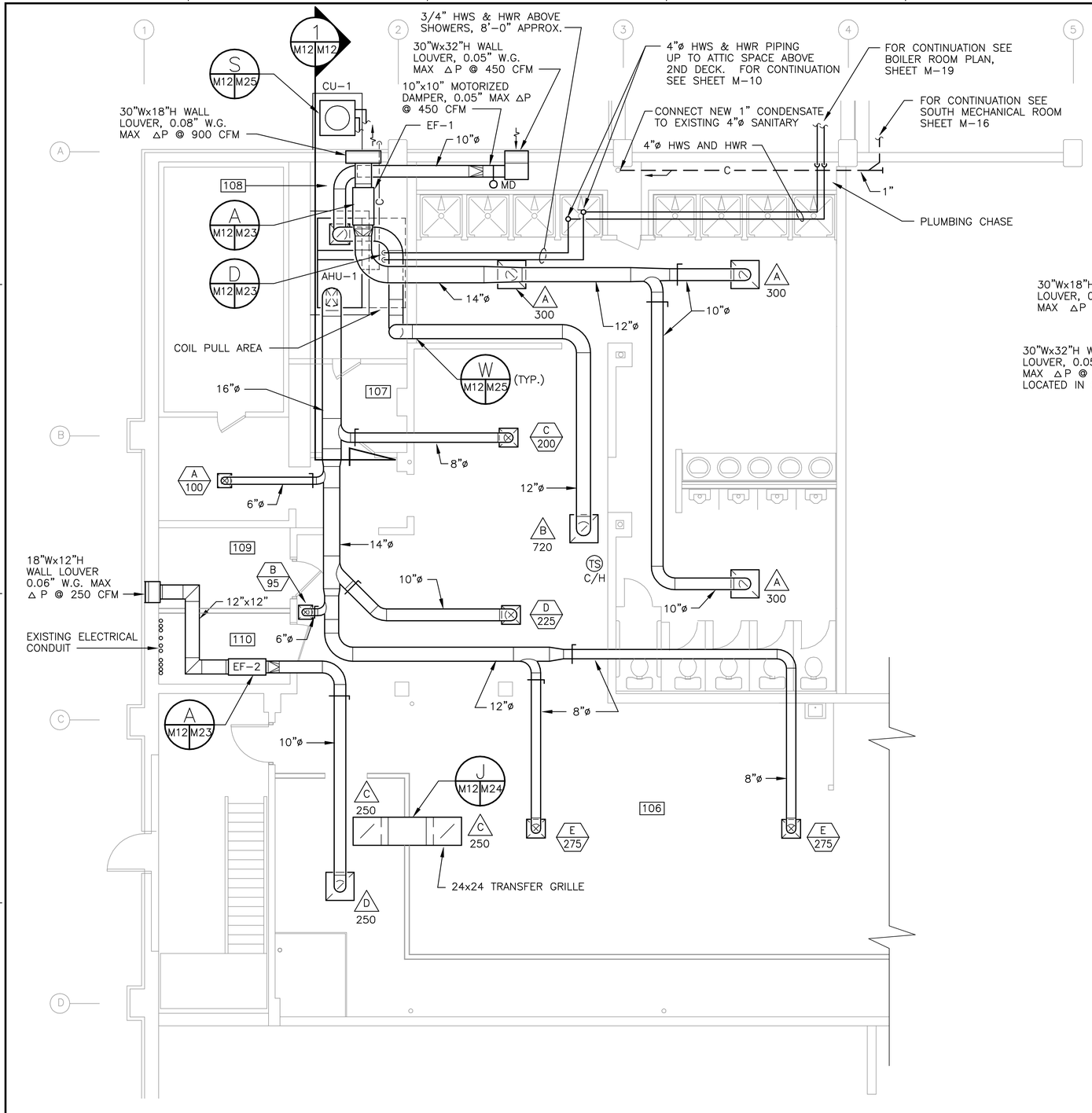
N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147

SECOND FLOOR NEW WORK PLAN – WEST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468500	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368500	
SHEET 75 OF 119	

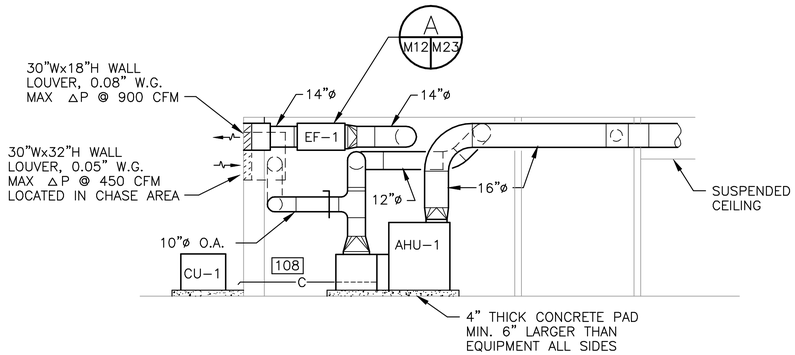
M-11

FILENAME: 5105M11.DWG, PLOT SCALE: 3/32" = 1'-0", SAVED ON 07/23/97 AT 15:22, XREFS: NONE



ENLARGED PLAN, MEN'S LOCKER ROOM

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



SECTION

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

·KEY PLAN·

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JWJ
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S MARK

SEAL

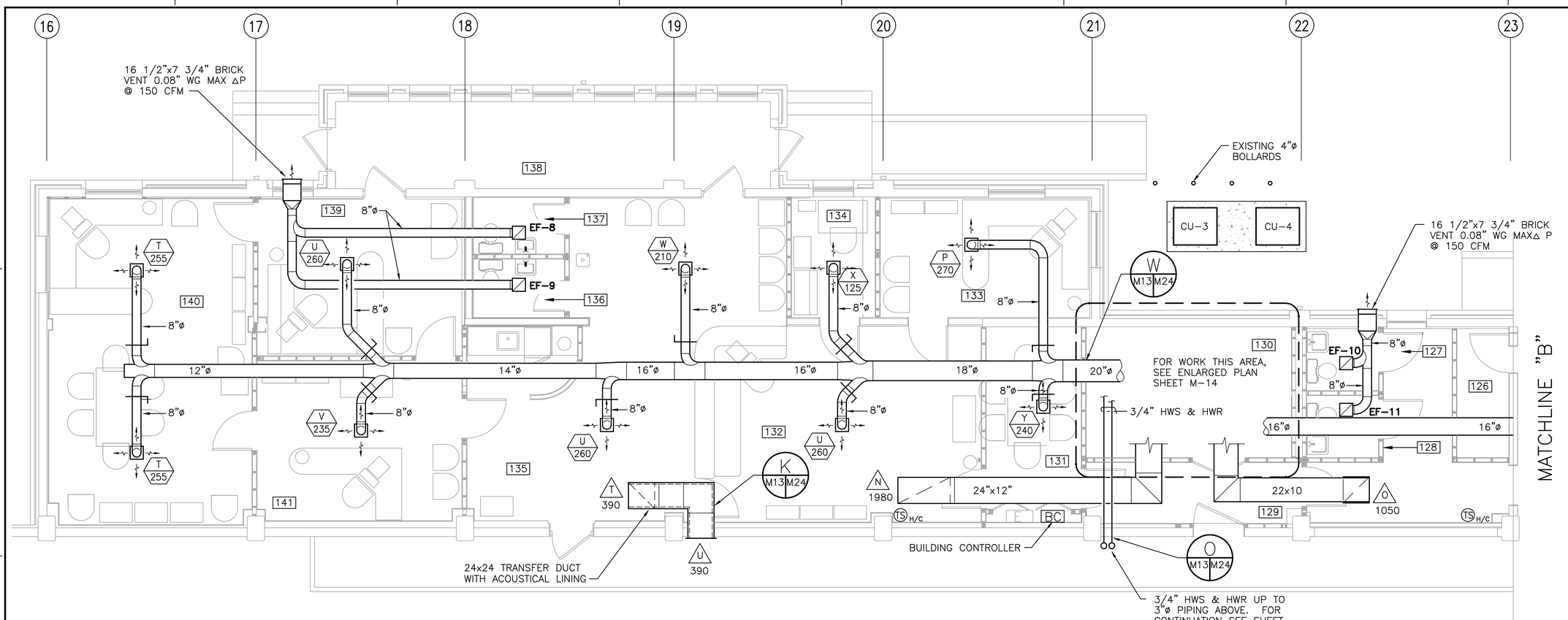
DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
ENLARGED PLAN, MEN'S LOCKER ROOM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468501	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368501	
SHEET 76 OF 119	

M-12

FILENAME: 5105M05.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 06/11/97 AT 11:23, XREFS: NONE



REVISIONS

DESCRIPTION	DATE	APPROVED

A/E
DESIGN JAG
DRAWN JWJ
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S MARK

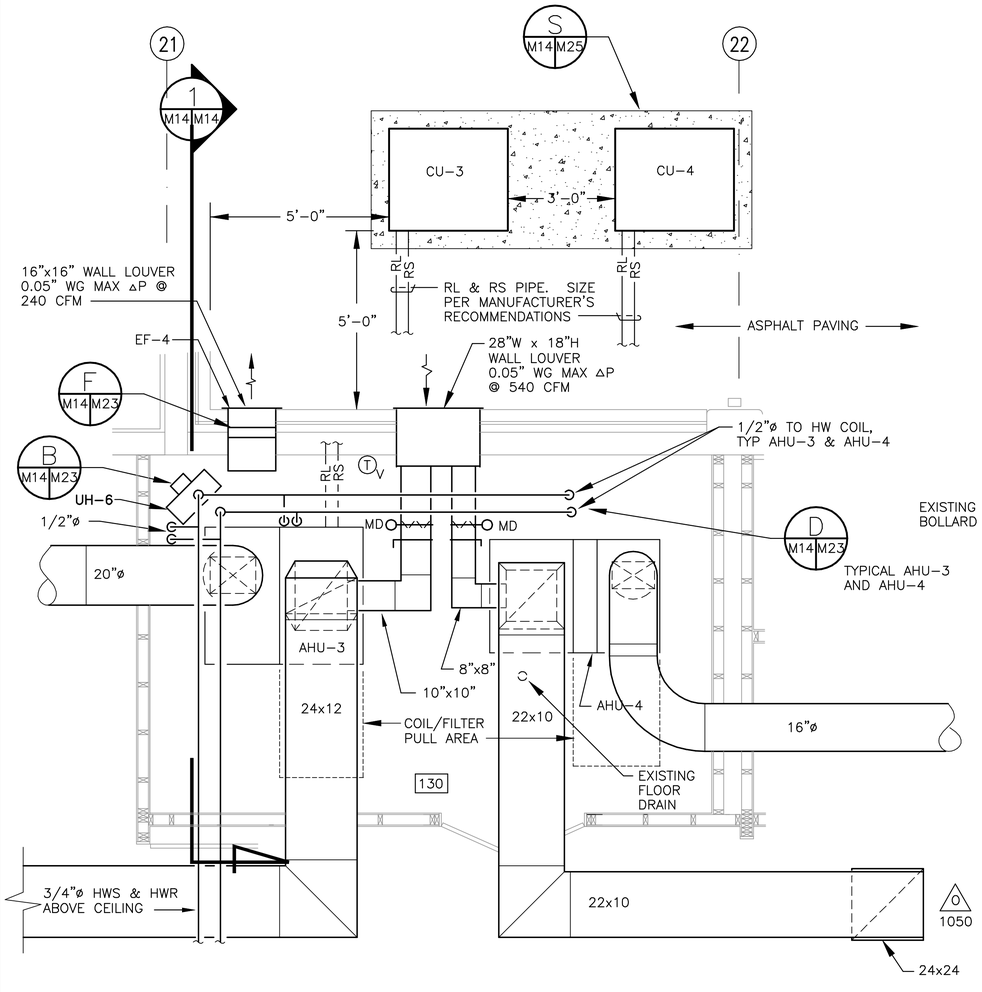
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAB LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
NEW WORK PLAN AT MWR OFFICES

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468502	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368502	
SHEET 77 OF 119	

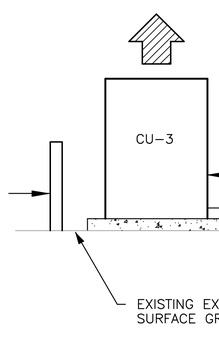
M-13

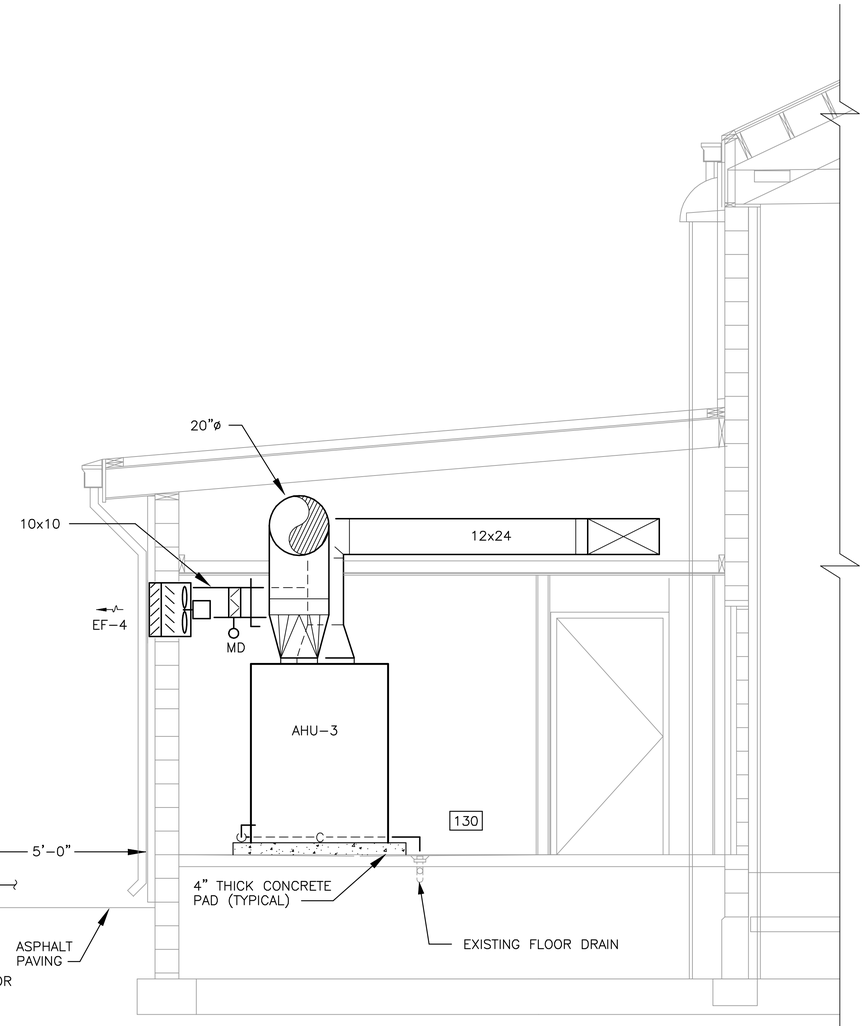
FILENAME: 5105M13.DWG; PLOT SCALE: 1/4" = 1'-0", SAVED ON 07/21/97 AT 12:07, XREFS: NONE



ENLARGED MECHANICAL ROOM PLAN

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





SECTION

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

1
M14 M14

·KEY PLAN·

GRAPHIC SCALE

1/2"=1'-0" 1' 0' 1' 2' 3' 4' 5'

REVISIONS			
DESCRIPTION	DATE	APPROVED
SYM.		

A/E
DESIGN JAG
DRAWN JMJ
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR OWNER'S MARK

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

NAB LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147

ENLARGED MECH. ROOM PLAN – MWR OFFICES

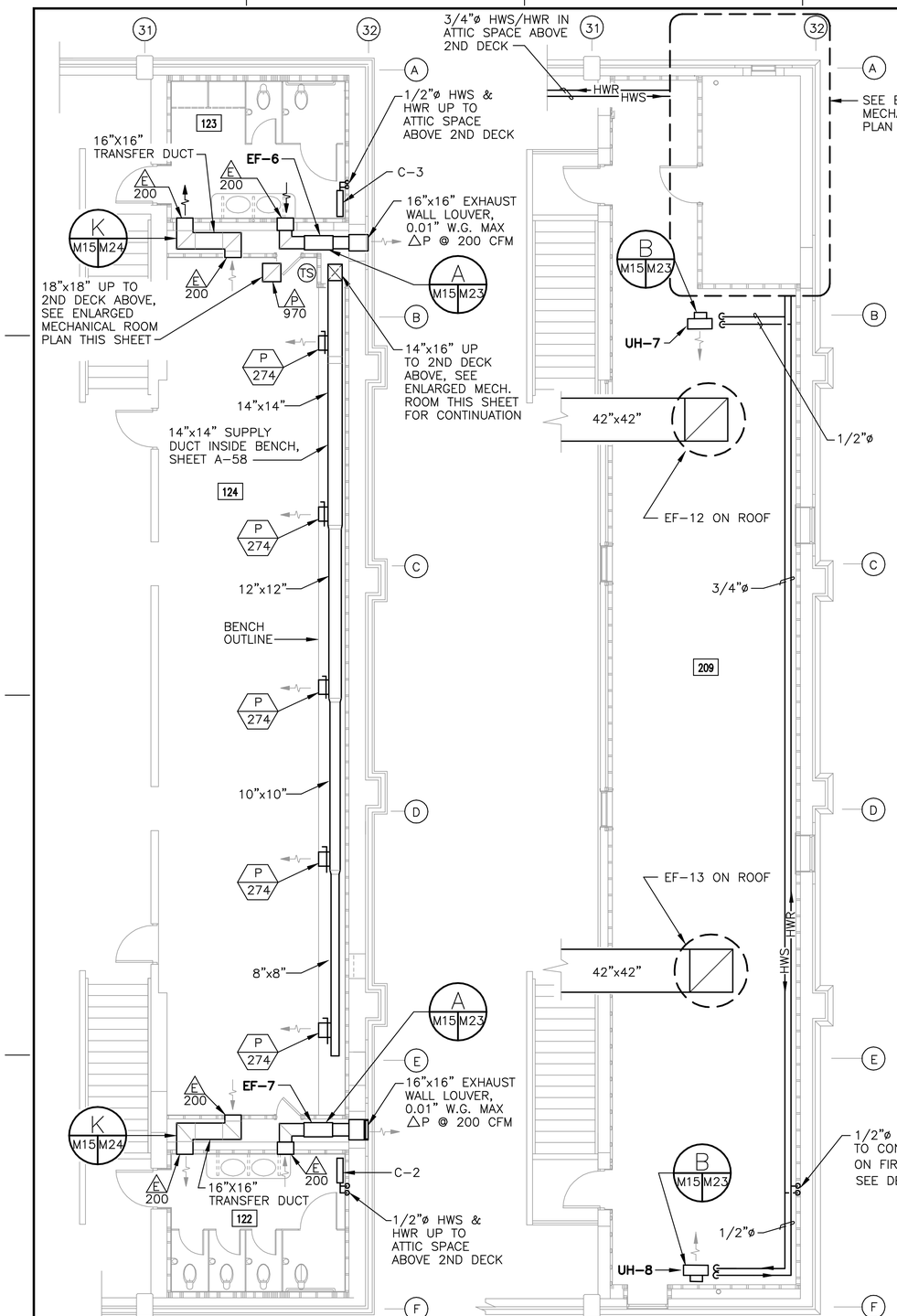
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468503	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368503	
SHEET 78 OF 119	

M-14

FILENAME: 5105M09A.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 06/16/97 AT 07:16, XREFS: NONE

D C B A

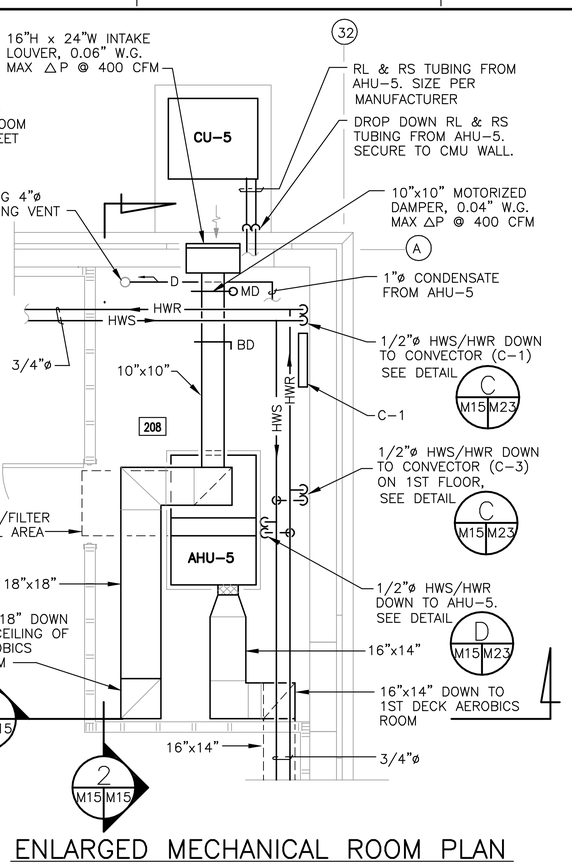
8 7 6 5 4 3 2 1



FIRST FLOOR NEW WORK PLAN – WEST

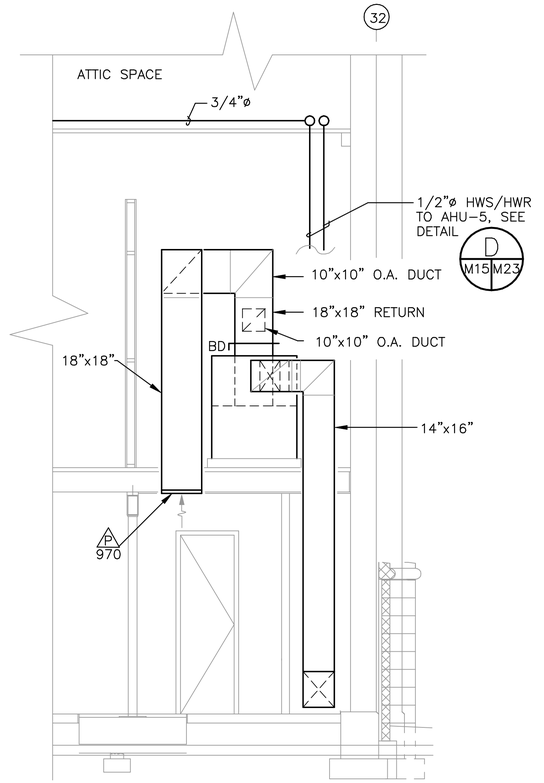
SCALE: 3/16"=1'-0"

SECOND FLOOR NEW WORK PLAN – WEST



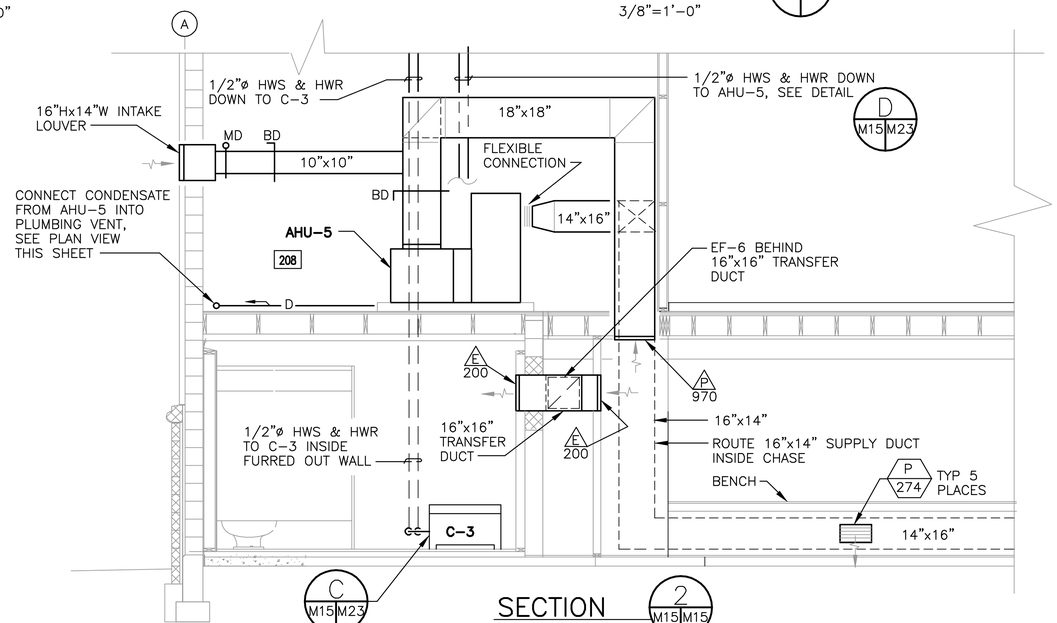
ENLARGED MECHANICAL ROOM PLAN

3/8"=1'-0"



SECTION 1 M15|M15

3/8"=1'-0"



SECTION 2 M15|M15

3/8"=1'-0"

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E	
DESIGN	JAG
DRAWN	JAG
REVIEW	
CHIEF ARCH./ENGR.	
PROJECT MANAGER	JAB
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY – SATISFACTORY TO

APPROVED DATE

FOR BID FOR OWNER'S MARKS

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

LITTLE CREEK
RENOVATION TO GYMNASIUM BUILDING 3147
VIRGINIA BEACH, VA

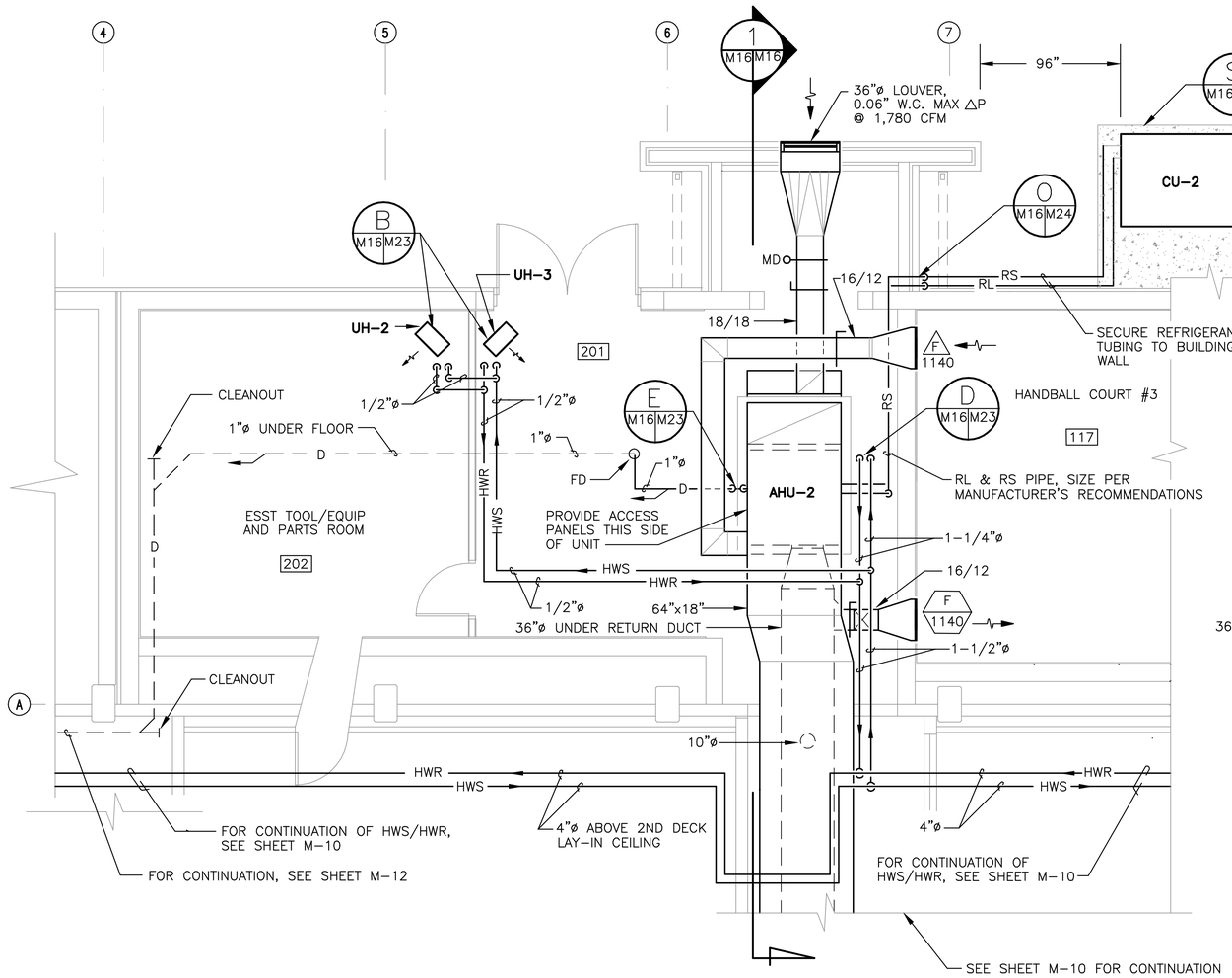
FIRST & SECOND FLOOR NEW WORK PLANS – WEST

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468504	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368504	
SHEET 79 OF 119	

M-15

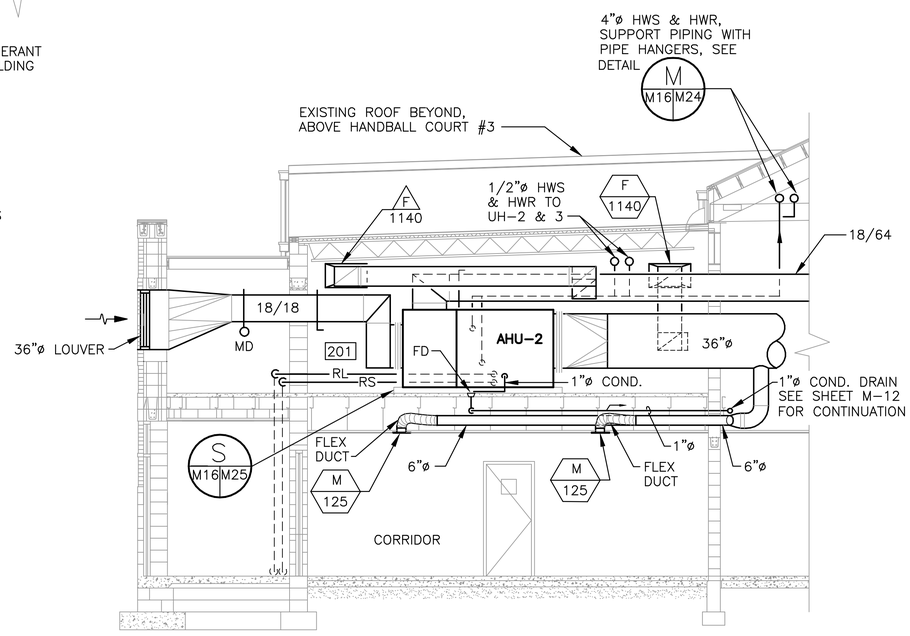
SEAL

FILENAME: 5105M15.DWG, PLOT SCALE: 3/16" = 1'-0". SAVED ON 07/28/97 AT 14:41, XREFS: NONE



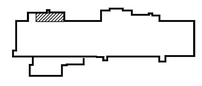
SECOND FLOOR NEW WORK PLAN – SOUTH MECHANICAL ROOM

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



SECTION 1 M16 M16

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



· KEY PLAN ·

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN JAG
DRAWN JAG
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JTB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR ORDINANCE WORK

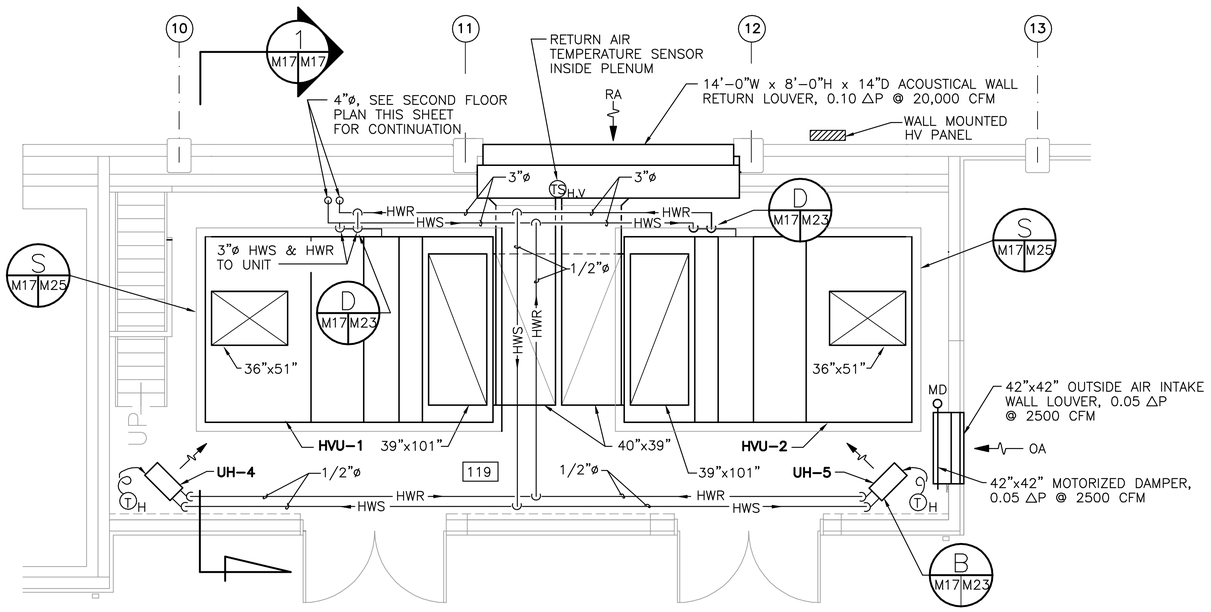
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147
SECOND FLOOR NEW WORK PLAN & SECTION – SOUTH MECH. ROOM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
E/FD NO. 468505	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4.368505	
SHEET 80 OF 119	

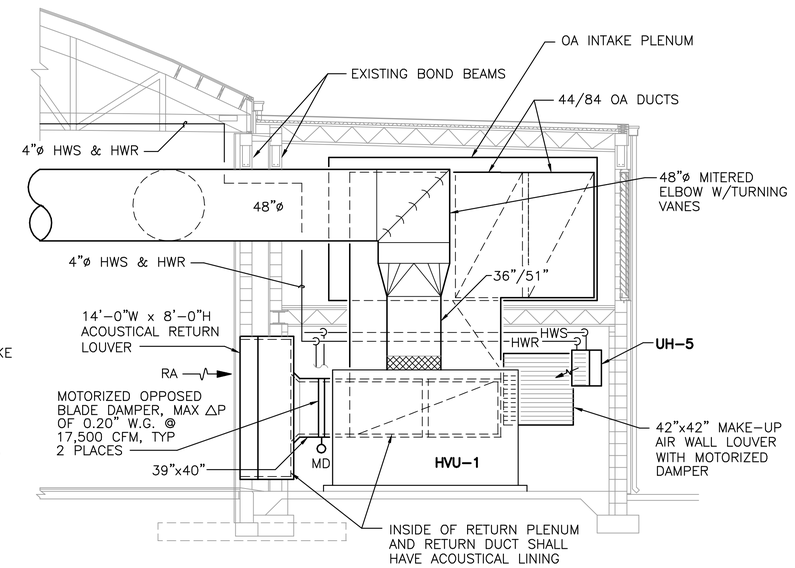
M-16

FILENAME: 5105M16.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 04/09/97 AT 11:19, XREFS: NONE



FIRST FLOOR NEW WORK PLAN – NORTH MECHANICAL ROOM

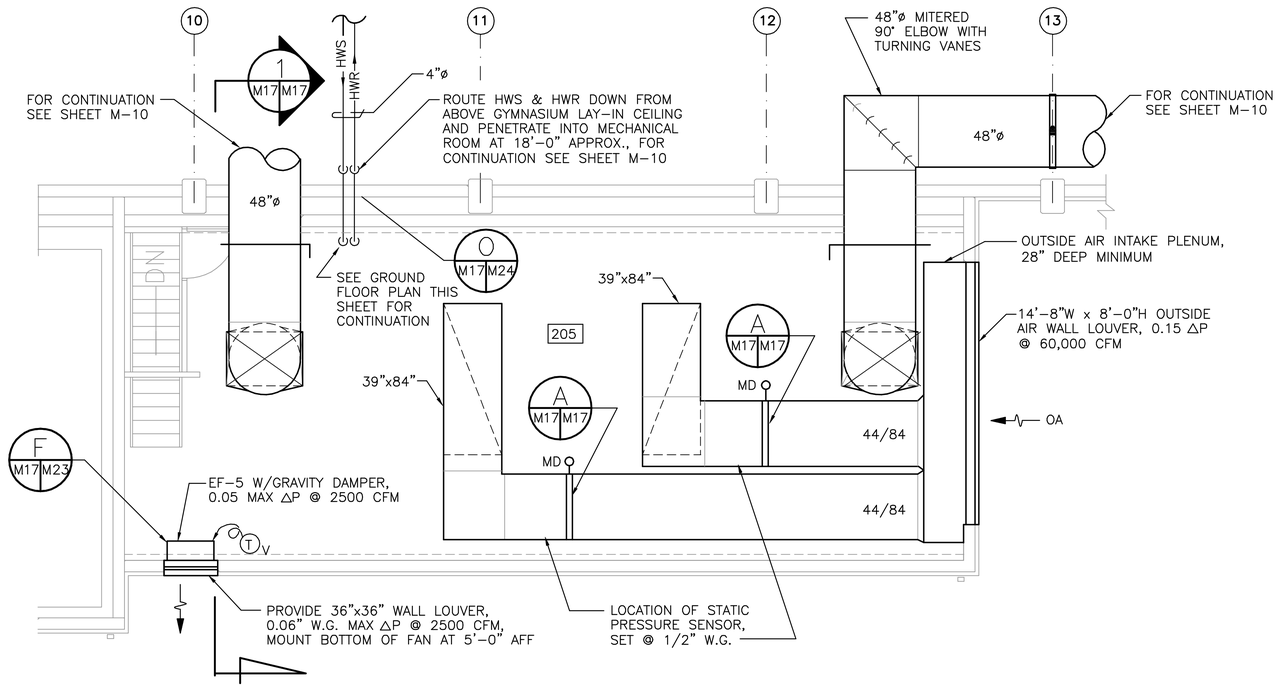
SCALE: 1/4"=1'-0"



NORTH MECHANICAL ROOM SECTION

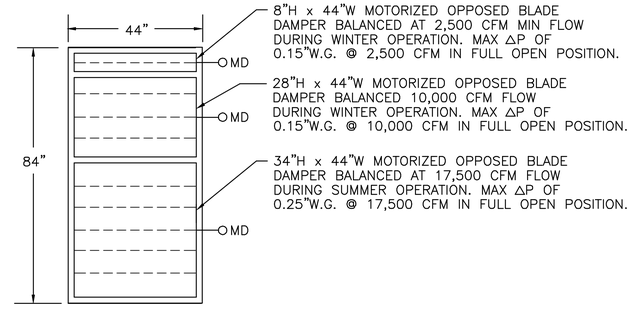
1 M17/M17

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



SECOND FLOOR NEW WORK PLAN – NORTH MECHANICAL ROOM

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

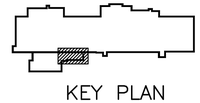


NOTE: DURRING SUMMER OPERATION IN THE VENT MODE, ALL DAMPERS ARE FULL OPEN

MIN/MAX DAMPER DETAIL

A M17/M17

NO SCALE



KEY PLAN

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG
DRAWN JAG
REVIEW
CHIEF ARCH./ENGR. JB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR DRAWER MARKS

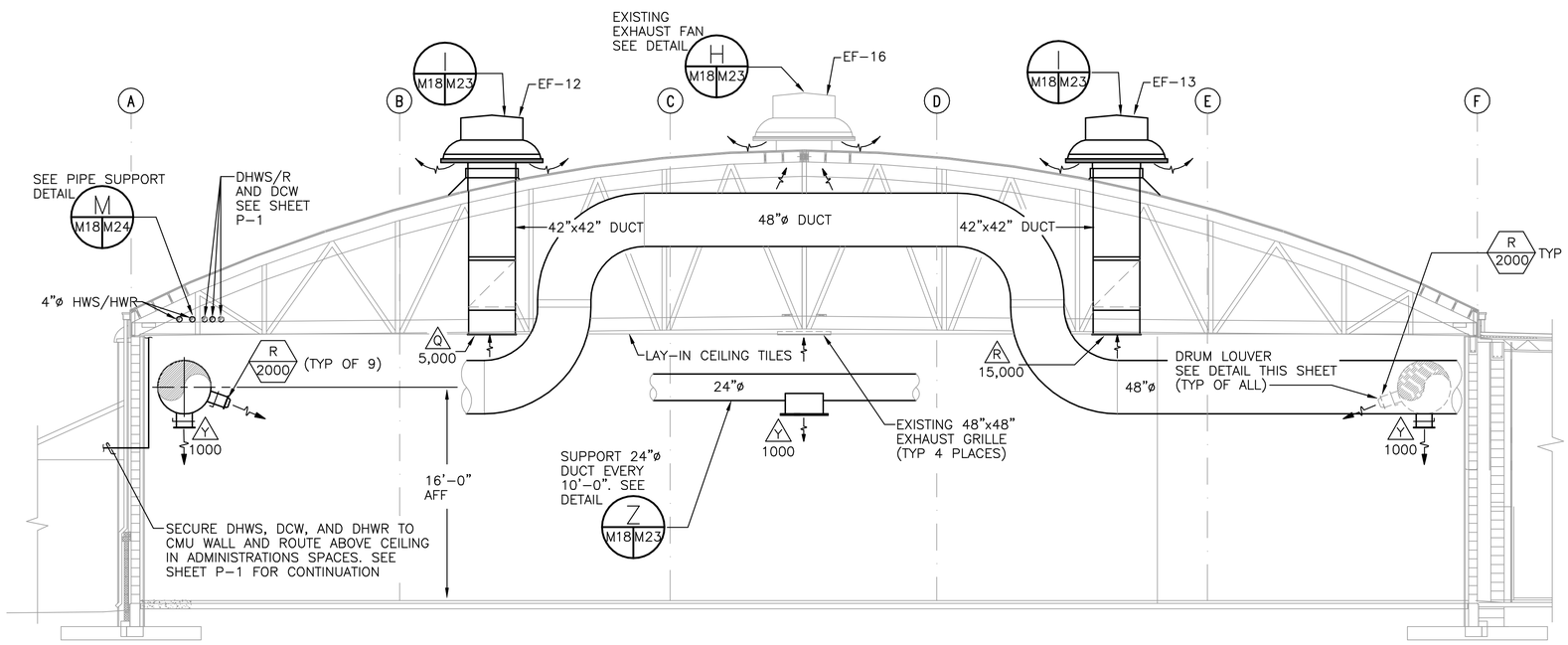
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION N.A.B. LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
1ST & 2ND FLOOR NEW WORK PLANS & SECTION – NORTH MECH. ROOM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468506	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368506	
SHEET 81 OF 119	

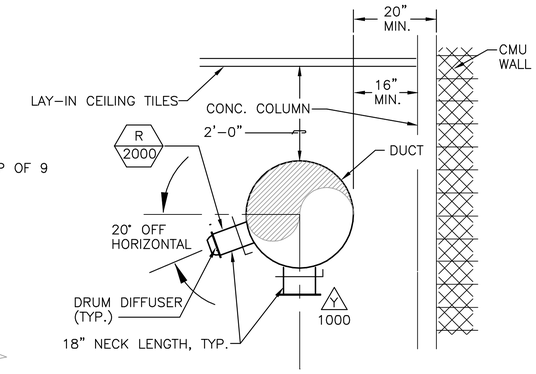
M-17

FILENAME: 5105M17.DWG, PLOT SCALE: 3/8" = 1'-0", SAVED ON 09/16/97 AT 15:49, XREFS: NONE



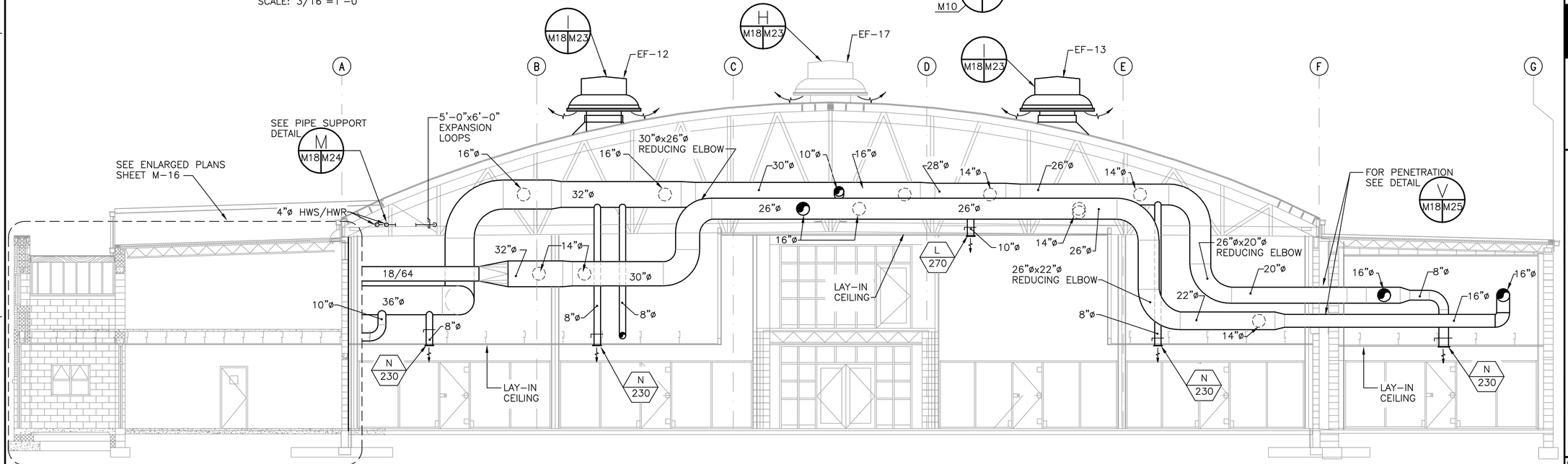
BUILDING SECTION – NEW WORK GYM INTERMEDIATE CROSS SECTION

SCALE: 3/16"=1'-0"



DRUM LOUVER DETAIL (TYP)

NO SCALE



BUILDING SECTION – NEW WORK AT ENTRANCE CORRIDOR

SCALE: 3/16"=1'-0"

1 M8 M18 M10

GRAPHIC SCALE

3/16"=1'-0" 0' 5' 10' 20'

REVISIONS				
SYM.	DESCRIPTION	DATE	APPROVED	

A/E DESIGN JAG EFD
DRAWN JLB
REVIEW
QC
CHIEF ARCH./ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE

APPROVED
ACTIVITY – SATISFACTORY TO
APPROVED
FOR CO FOR COMMANDER NAVFAC
DATE

DEPARTMENT OF THE NAVY
NAVAL STATION
N.A.B. LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

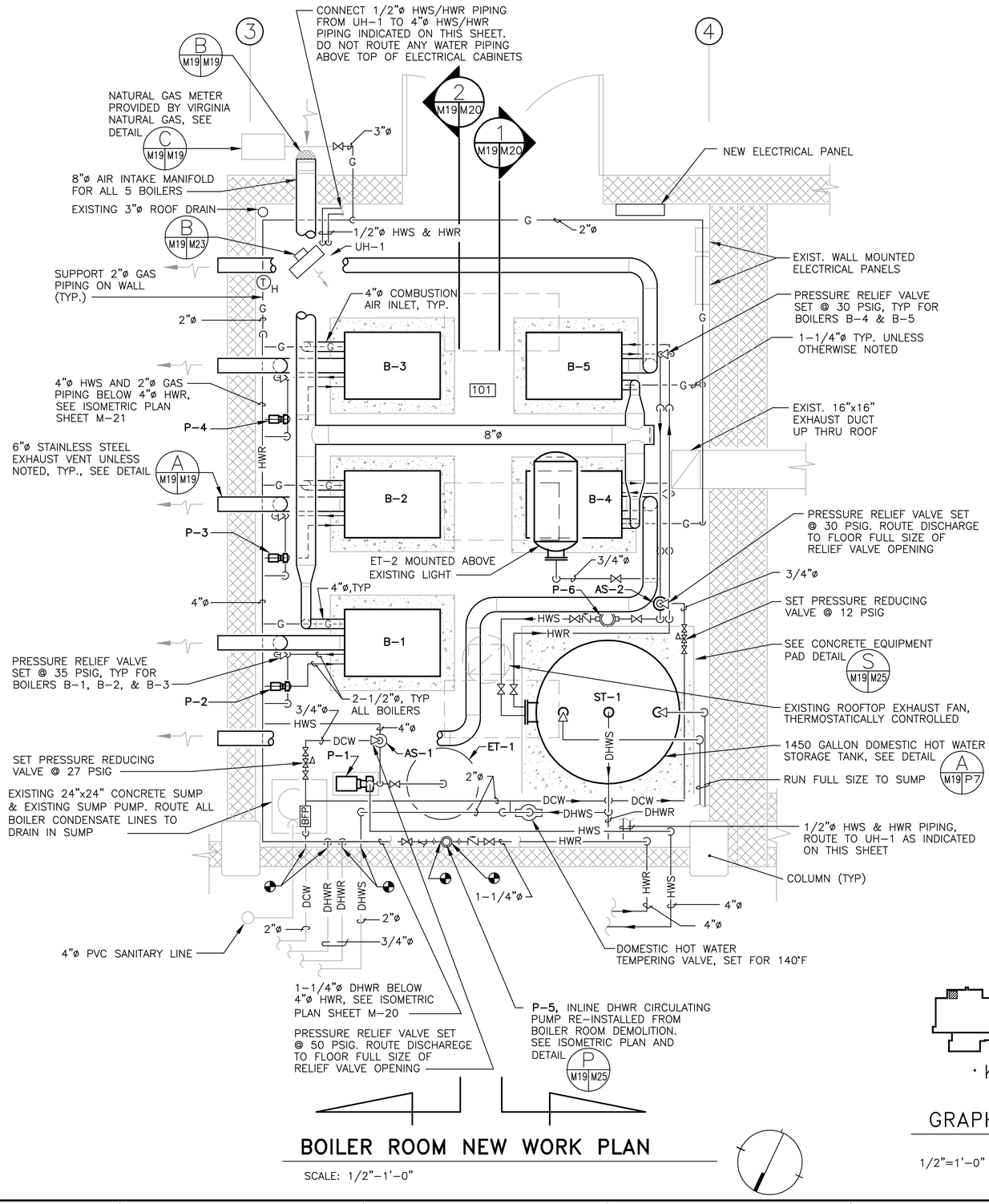
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
NEW WORK BUILDING SECTIONS

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468507	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368507	
SHEET 82 OF 119	

M-18

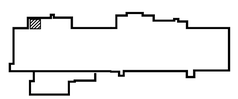
DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105M18.DWG, PLOT SCALE: 1/4" = 1'-0", SAVED ON 08/13/97 AT 09:19, XREFS: NONE



BOILER ROOM NEW WORK PLAN

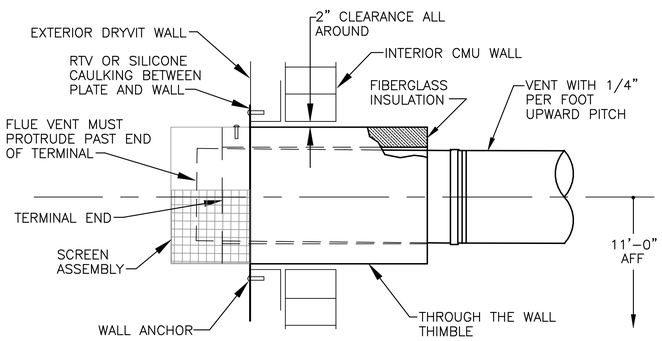
SCALE: 1/2"-1'-0"



· KEY PLAN ·

GRAPHIC SCALE

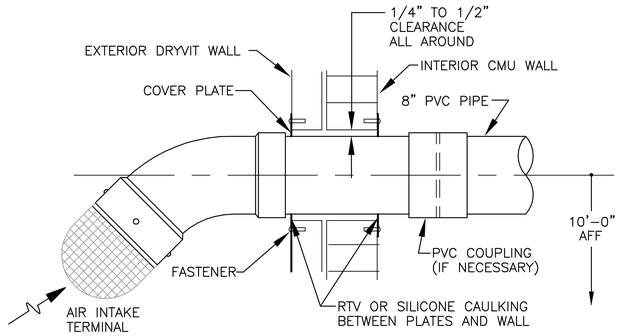
1/2"=1'-0" 1' 0' 1' 2' 3' 4' 5'



BOILER HORIZONTAL FLUE VENT DETAIL A M19 M19

NO SCALE

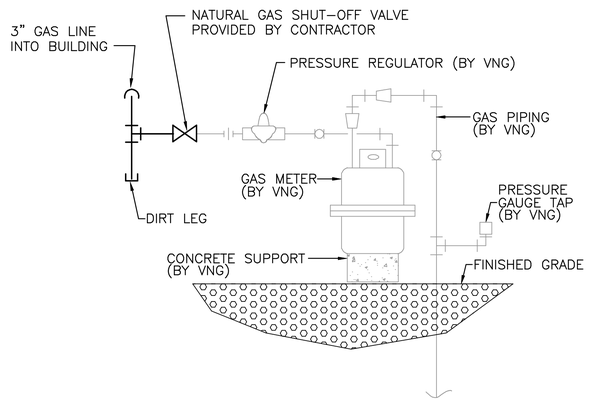
M20, M21



BOILER AIR INTAKE DETAIL B M19 M19

NO SCALE

M20, M21



GAS METER DETAIL C M19 M19

NO SCALE

M20

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E			
	DESIGN	JAG	EFD
	DRAWN	JAG	
	REVIEW		
	CHIEF ARCH./ ENGR.	JJB	
	PROJECT MANAGER		
	FIRE PROTECTION		
	QUALITY CONTROL		
	BRANCH MANAGER		
	DESIGN DIRECTOR		

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED

FOR EFD FOR ORDINANCE MARKS

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — N.A.B. LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

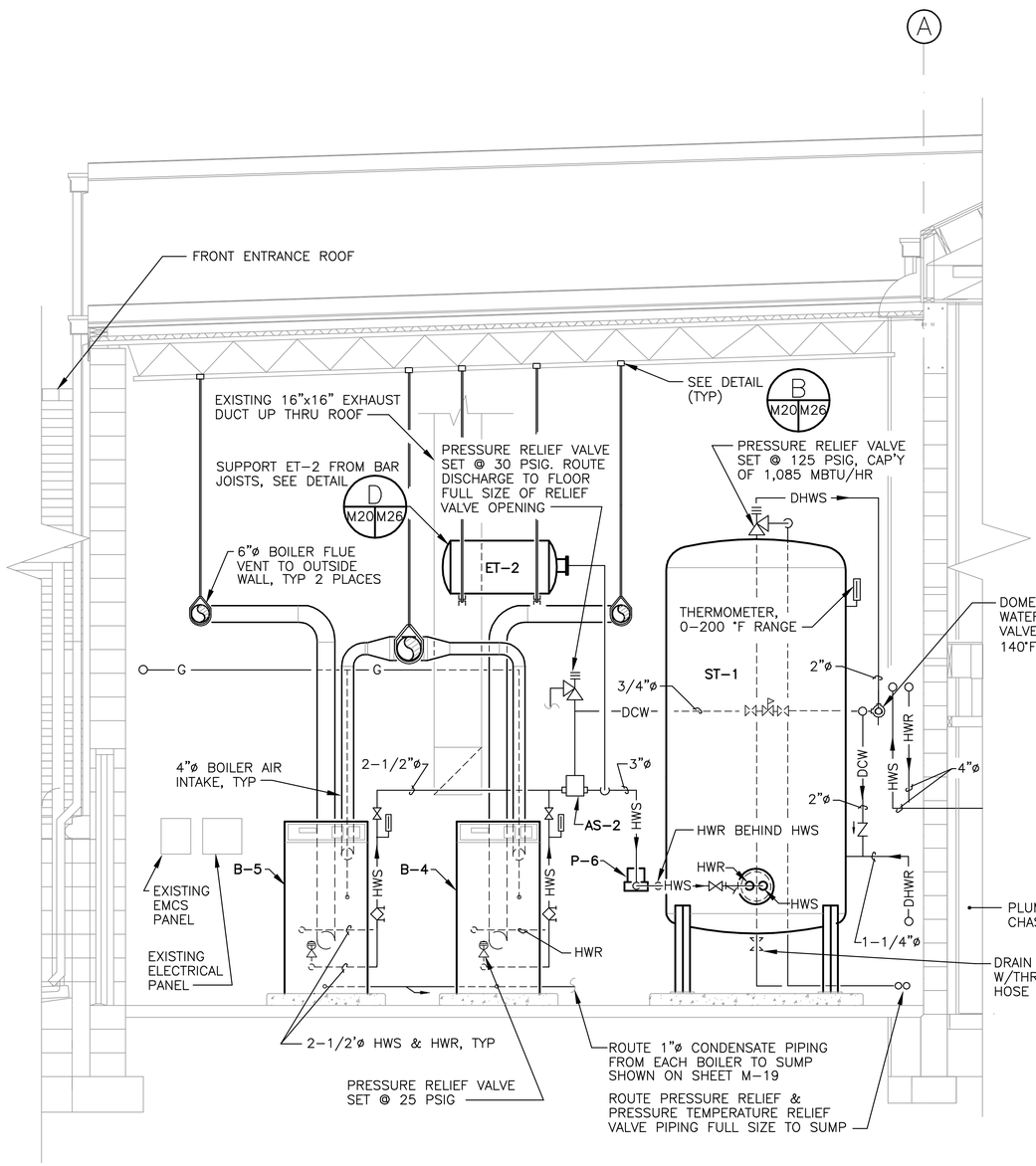
RENOVATION TO GYMNASIUM BUILDING 3147

BOILER ROOM NEW WORK PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468508	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368508	
SHEET 83 OF 119	

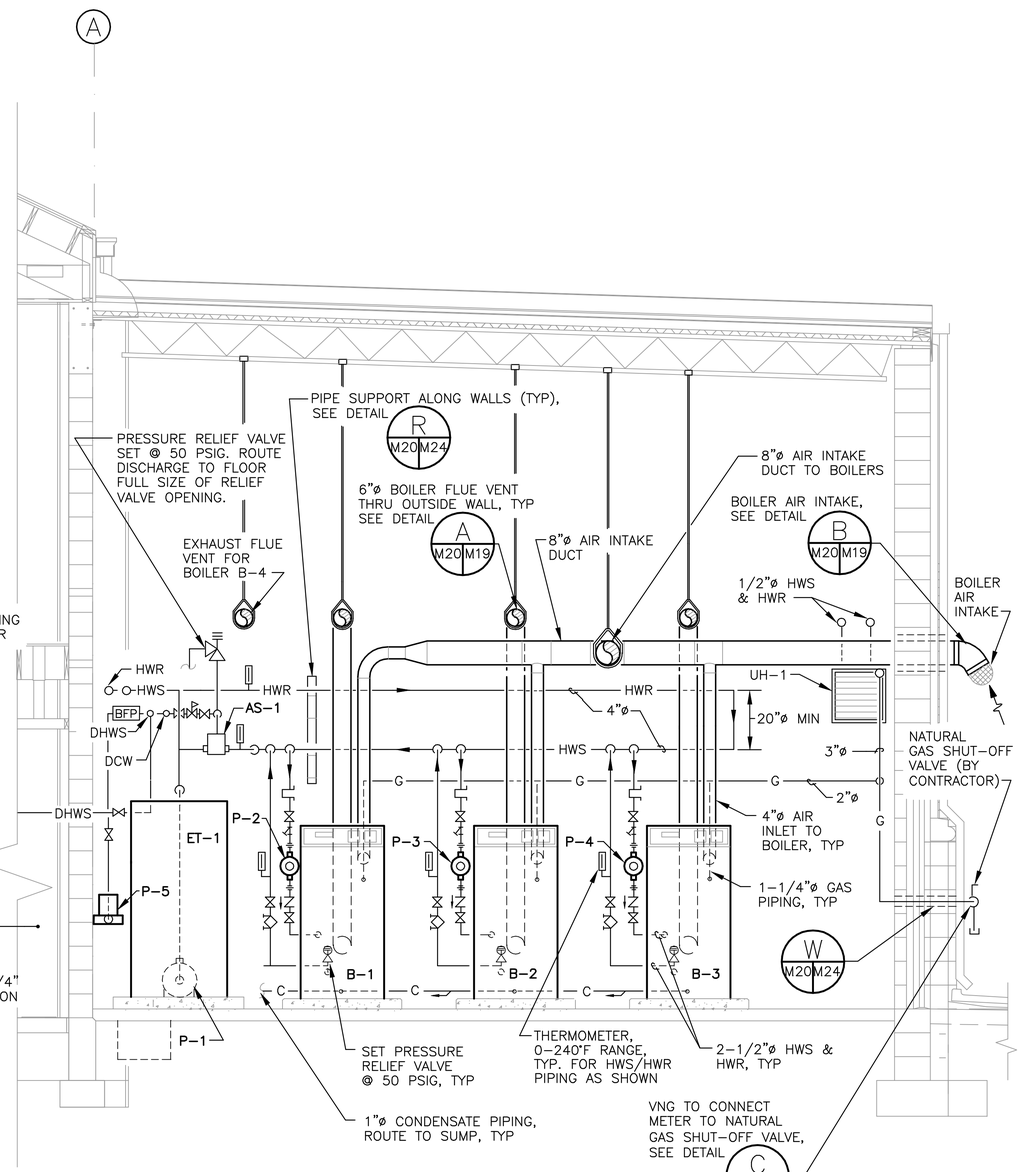
M-19

FILENAME: 5105M19.DWG, PLOT SCALE: 1/2" = 1'-0", SAVED ON 07/23/97 AT 16:17, XREFS: NONE



BOILER ROOM SECTION 1 M19|M20

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



BOILER ROOM SECTION 2 M19|M20

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

GRAPHIC SCALE

1/2"=1'-0" 1' 0' 1' 2' 3' 4' 5'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

X/E
DESIGN JAG
DRAWN JAG
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

EFD

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR OWNER'S INFMG

SEAL

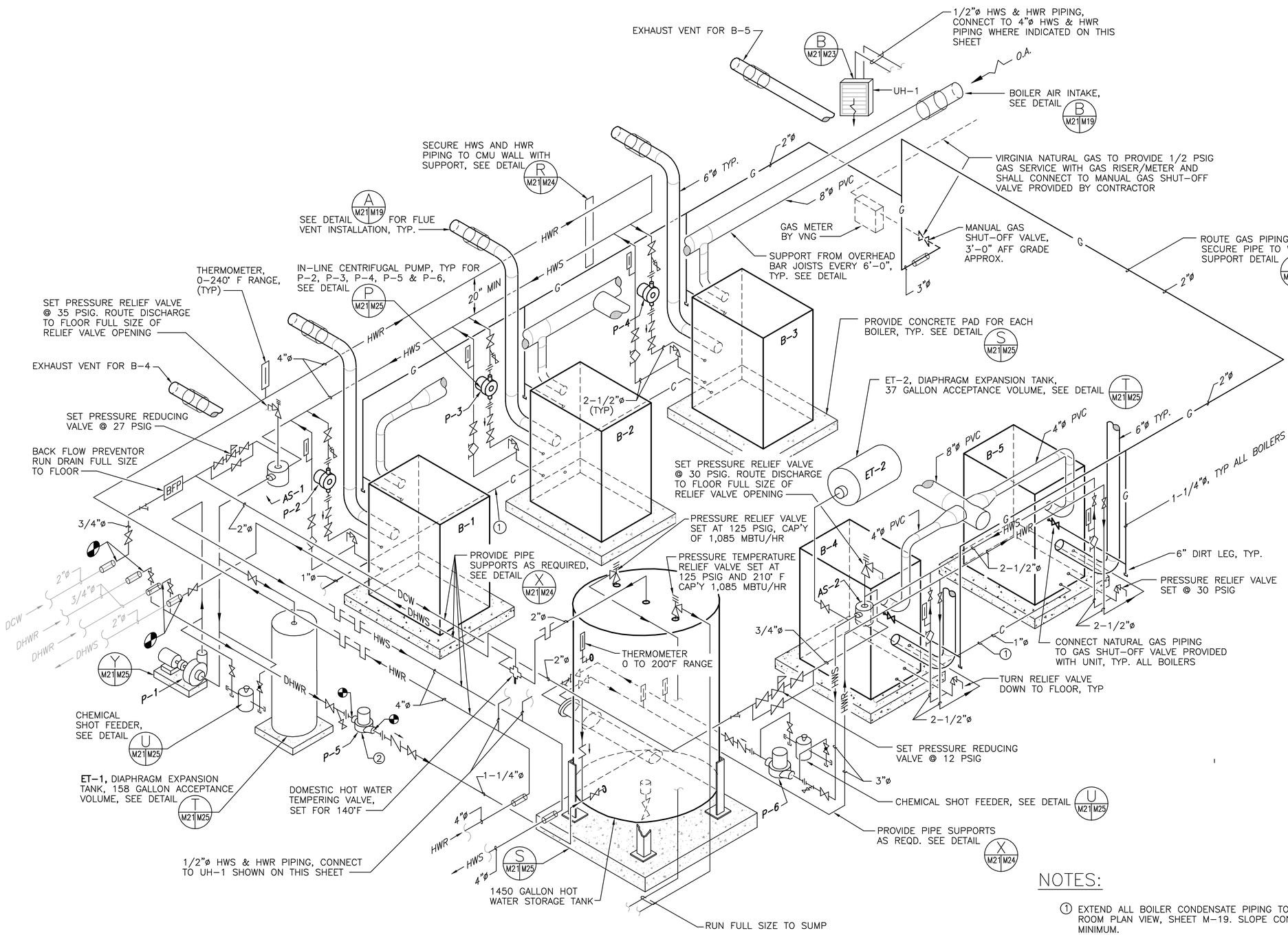
DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
BOILER ROOM SECTIONS

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468509	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368509	
SHEET 84 OF 119	

M-20

FILENAME: 5105M20.DWG, PLOT SCALE: 1/2" = 1'-0", SAVED ON 06/17/97 AT 13:39, XREFS: NONE



BOILER ROOM ISOMETRIC PLAN – NEW WORK

NOT TO SCALE

NOTES:

1. EXTEND ALL BOILER CONDENSATE PIPING TO SUMP AS SHOWN ON BOILER ROOM PLAN VIEW, SHEET M-19. SLOPE CONDENSATE PIPING 1/8" PER FOOT MINIMUM.
2. REUSE EXISTING INLINE DHWR CIRCULATING PUMP WHICH WAS REMOVED AS DEMOLITION NOTE (7) ON SHEET M-7.

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JAG JAG
DRAWN
REVIEW
CHIEF ARCH./ ENGR. JJB
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR ORDINANCE MAPAC

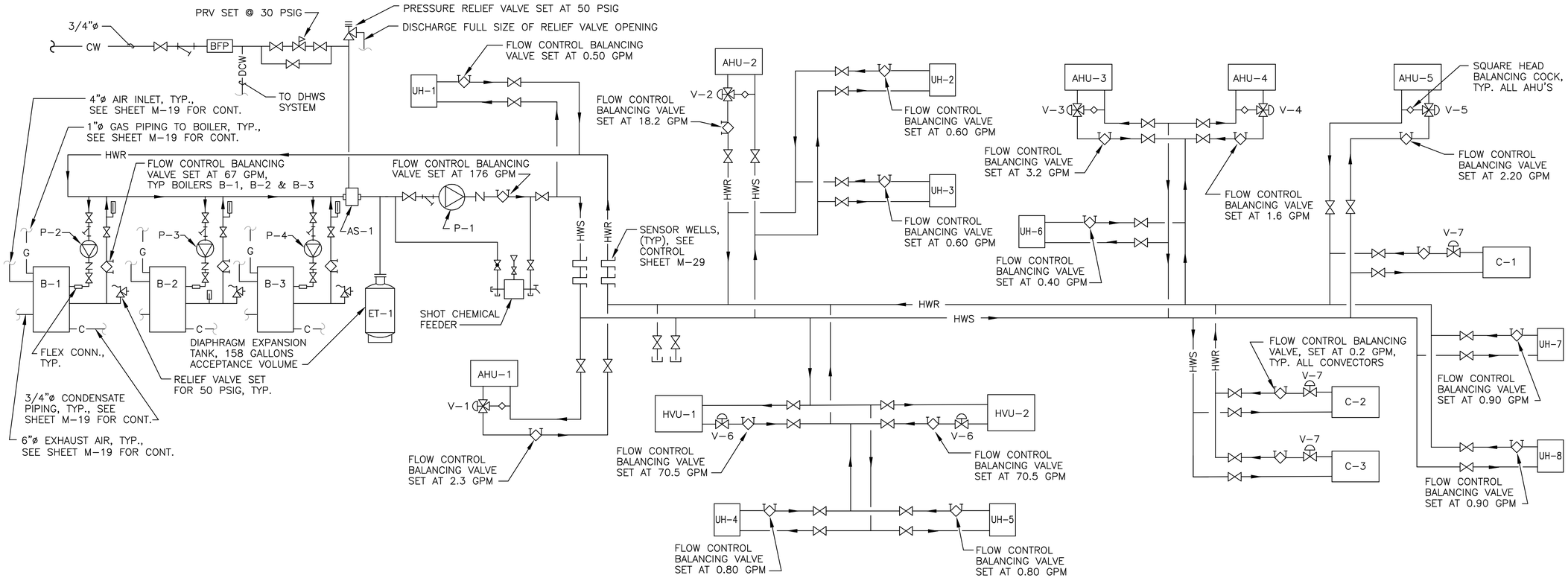
DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
MECHANICAL ROOM ISOMETRIC PLAN

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468510	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368510	
SHEET 85 OF 119	

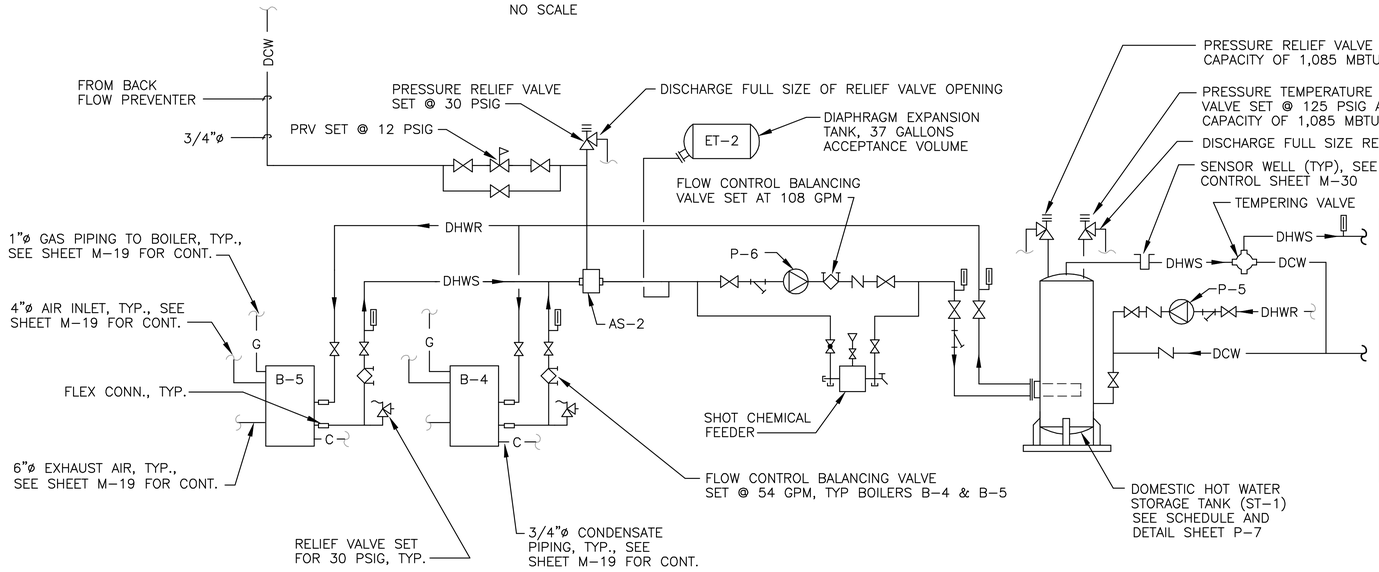
M-21

FILENAME: 5105M21.DWG, PLOT SCALE: 1=1, SAVED ON 06/04/97 AT 08:13, XREFS: NONE



NEW WORK – HEATING SYSTEM PIPING DIAGRAM

NO SCALE



NEW WORK – DOMESTIC HOT WATER SYSTEM PIPING DIAGRAM

NO SCALE

CONTROL VALVE SCHEDULE ②

MARK	UNIT SERVED	SERVICE	TYPE	ACTION	CAPACITY GPM	MIN. CV	NOM. SIZE (INCHES)	REMARKS
V-1	AHU-1	HWR	3-WAY	MOD	2.30	1.10	1/2	① ②
V-2	AHU-2	HWR	3-WAY	MOD	18.20	8.70	1-1/4	① ②
V-3	AHU-3	HWR	3-WAY	MOD	3.20	1.50	1/2	① ②
V-4	AHU-4	HWR	3-WAY	MOD	1.60	0.80	1/2	① ②
V-5	AHU-5	HWR	3-WAY	MOD	3.30	1.60	1/2	① ②
V-6	HVU-1,2	HWR	2-WAY	2-POS	70.50 EACH	33.80	3	① ②
V-7	ALL CONVECTORS	HWR	2-WAY	MOD	0.20	0.10	1/2	③

① NORMALLY OPEN TO COIL

② ALL VALVES MUST BE CAPABLE OF TIGHT CLOSURE AGAINST RESPECTIVE PUMP SHUT-OFF HEAD.

③ CONVECTORS SHALL BE PROVIDED WITH SELF-CONTAINED THERMOSTATIC CONTROL VALVES

REVISIONS

DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR OWNER'S MAPAC

A/E: DESIGN JAG; DRAWN JAG; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JJB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

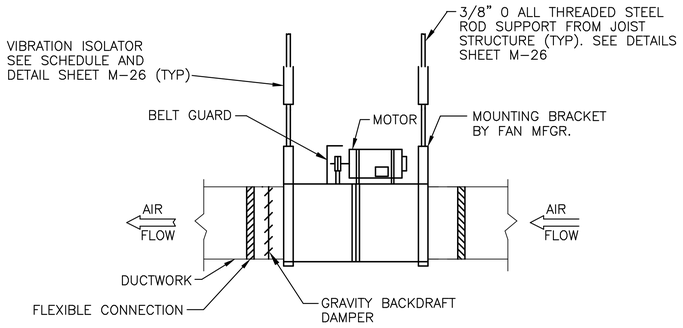
DEPARTMENT OF THE NAVY — NAVAL STATION N.A.B. LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
SYSTEM DIAGRAMS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
E/D NO. 468511	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368511	
SHEET 86 OF 119	

M-22

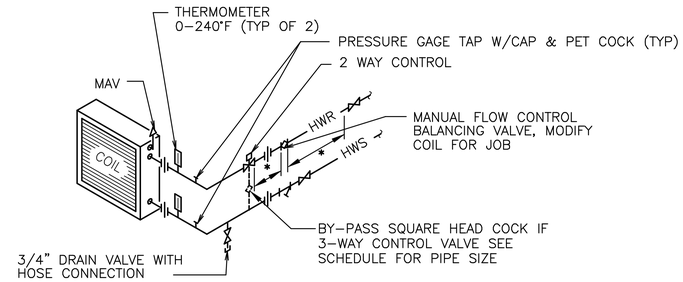
FILENAME: 5105M22.DWG, PLOT SCALE: 1/2" = 1'-0", SAVED ON 07/25/97 AT 15:02, XREFS: NONE



CENTRIFUGAL IN-LINE FAN DETAIL

NO SCALE

A — M10 | M23 — M12, M15



NOTE: 1. ARRANGE PIPING TO PERMIT REMOVAL OF COIL.

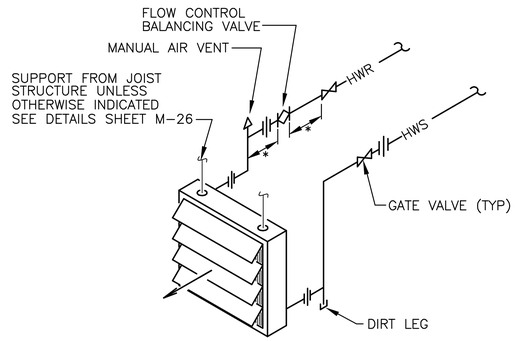
2. THE FLOW CONTROL BALANCING VALVES SHALL BE INSTALLED BY THE CONTRACTOR IN CONFORMANCE WITH VALVE MFGR'S RECOMMENDED SPACING UP/DOWNSTREAM FORM PIPE CHANGES IN DIRECTION AND/OR OTHER VALVES/COMPONENTS IN THE PIPING.

* STRAIGHT LENGTHS OF UNOBSTRUCTED PIPE WITHOUT INLINE APPURTENANCES SHALL BE INSTALLED UP AND DOWNSTREAM OF FLOW CONTROL BALANCING VALVES PER MFGR. INSTALLATION INSTRUCTIONS.

AHU & HVU HOT WATER COIL PIPING DETAIL

NO SCALE

D — M12 | M23 — M14,M15,M16,M17

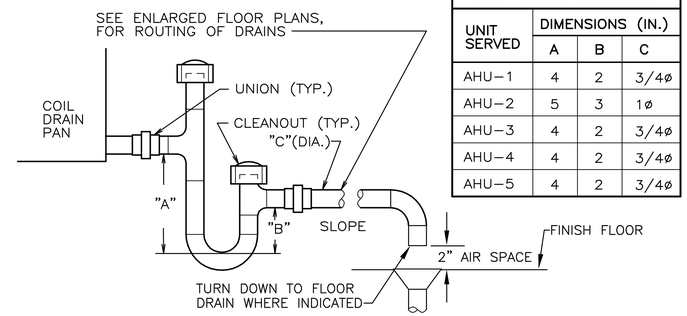


* THE FLOW CONTROL BALANCING VALVES SHALL BE INSTALLED BY THE CONTRACTOR IN CONFORMANCE WITH VALVE MFGR'S RECOMMENDED SPACING UP/DOWNSTREAM FROM PIPE CHANGES IN DIRECTION AND/OR OTHER VALVES/COMPONENTS IN THE PIPING.

HOT WATER UNIT HEATER PIPING DETAIL

NO SCALE

B — M17 | M23 — M16, M19

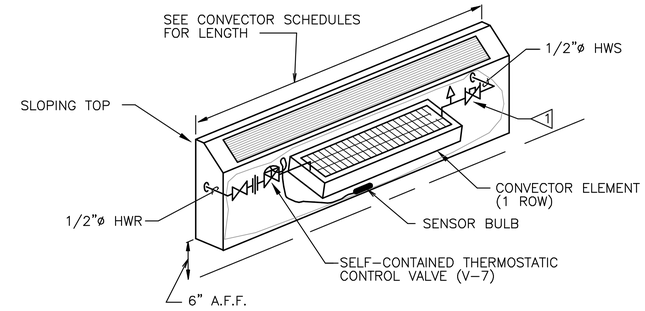


TRAP SIZING SCHEDULE			
UNIT SERVED	DIMENSIONS (IN.)		
	A	B	C
AHU-1	4	2	3/4ø
AHU-2	5	3	1ø
AHU-3	4	2	3/4ø
AHU-4	4	2	3/4ø
AHU-5	4	2	3/4ø

COIL CONDENSATE TRAP DETAIL

NO SCALE

E — M12 | M23 — M14,M15,M17



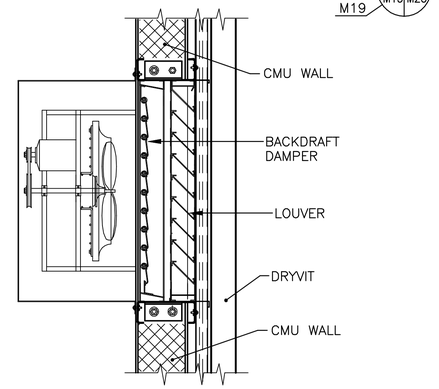
NOTES:

1. THE FLOW CONTROL BALANCING VALVES SHALL BE INSTALLED BY THE CONTRACTOR IN CONFORMANCE WITH VALVE MFGR'S RECOMMENDED SPACING UP/DOWNSTREAM FROM PIPE CHANGES IN DIRECTION AND/OR OTHER VALVES/COMPONENTS IN THE PIPING SYSTEM.

CONVECTOR DETAIL

NO SCALE

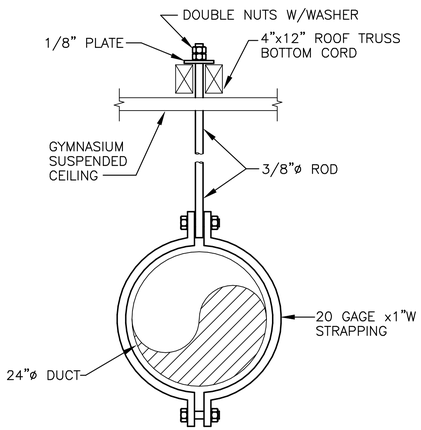
C — M15 | M23 — M19



WALL MOUNTED EXHAUST FAN

NO SCALE

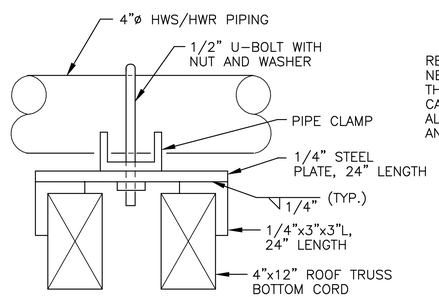
F — M14 | M23 — M15,,M17



DUCT SUPPORT DETAIL

NO SCALE

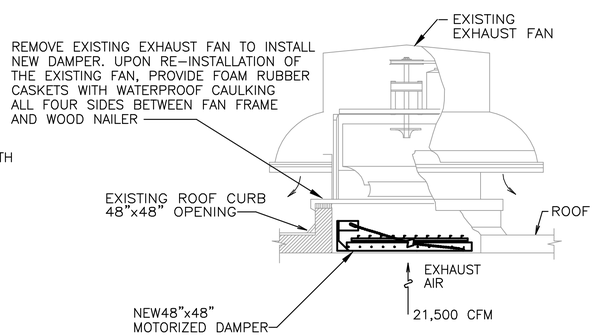
Z — M11 | M23 — M18



ANCHOR DETAIL

NO SCALE

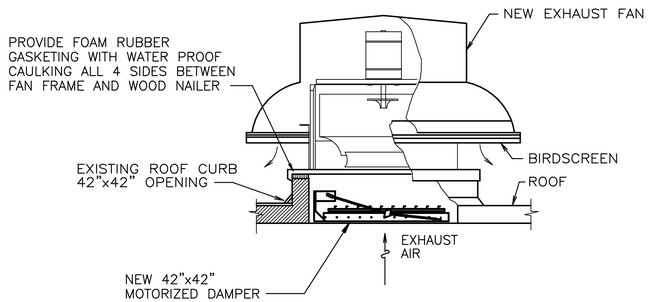
G — M10 | M23 — M11



EXHAUST FAN DETAIL (FOR EF-14, 15, 16, 17)

NO SCALE

H — M10 | M23 — M10,M11



EXHAUST FAN DETAIL (FOR EF-12, 13)

NO SCALE

I — M11 | M23 — M18

REVISIONS			
DESCRIPTION	DATE	APPROVED	
			D
			C
			B
			A

A/E: DESIGN JAG; DRAWN JJB; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JJB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV, NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

FOR BID FOR CHANGES MAPAC — SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATION TO GYMNASIUM BUILDING 3147

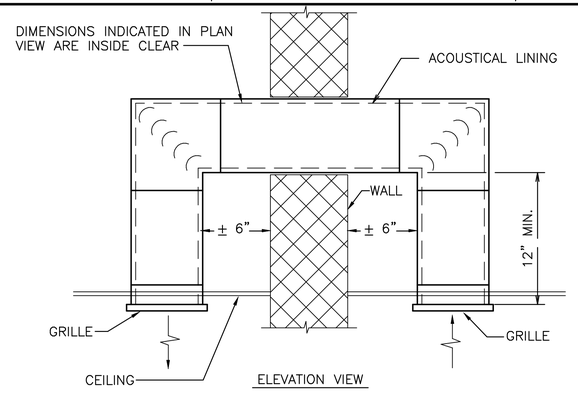
MECHANICAL DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468512	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368512	
SHEET 87 OF 119	

M-23

FILENAME: 5105M23.DWG, PLOT SCALE: 1=1, SAVED ON 07/25/97 AT 13:22, XREFS: NONE

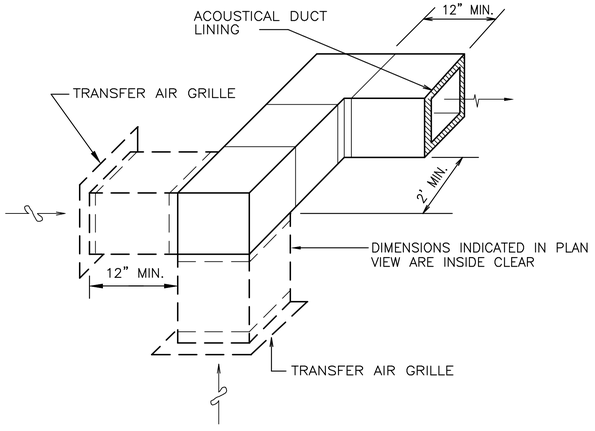
8 | 7 | 6 | 5 | 4 | 3 | 2 | 1



TRANSFER DUCT DETAIL

NO SCALE

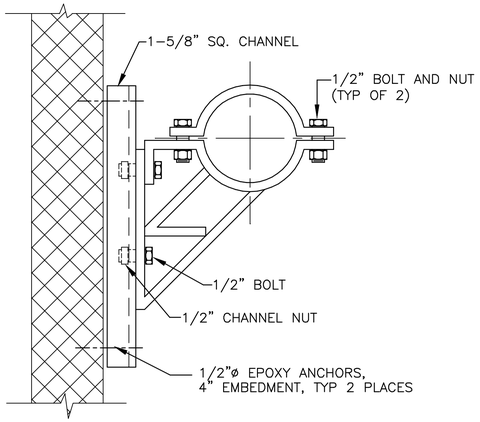
J — M12|M23 — M13,M14,M15



TRANSFER DUCT DETAIL

NO SCALE

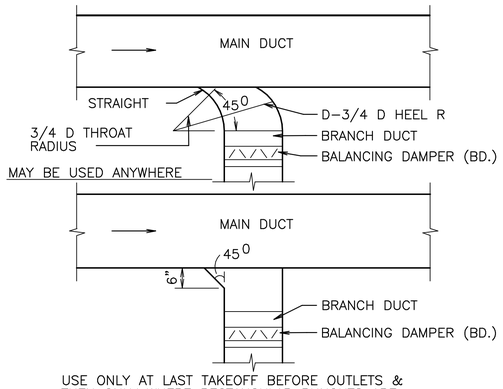
K — M12|M24 — M13, M15



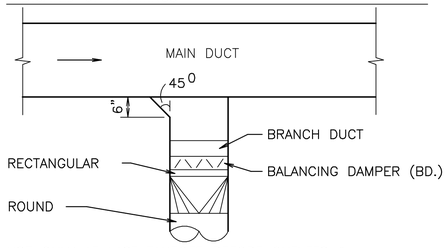
HORIZONTAL PIPE SUPPORT DETAIL

NO SCALE

R — M19|M24 — M20,M21



USE ONLY AT LAST TAKEOFF BEFORE OUTLETS & THEN ONLY WHERE RECTANGULAR RUNOUTS ARE INDICATED ON DRAWINGS

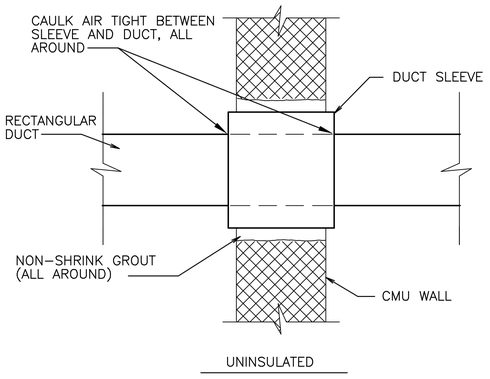


USE ONLY AT LAST TAKEOFF BEFORE OUTLETS & THEN ONLY WHERE ROUND RUNOUTS ARE INDICATED ON DRAWINGS

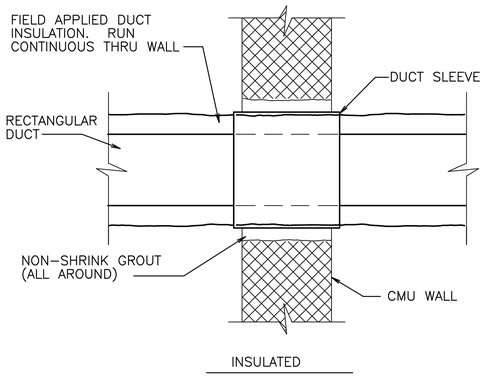
THIS CONNECTION SHALL BE USED AT ALL BRANCHES FROM MAINS AND SUB-MAINS. BALANCING DAMPERS SHALL BE PROVIDED AS SHOWN IN ADDITION TO THOSE INDICATED ON THE PLANS.

TYPICAL BRANCH CONNECTION

NO SCALE



UNINSULATED

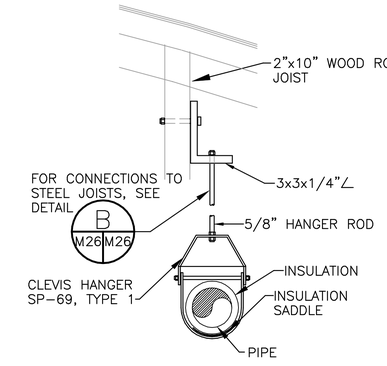


INSULATED

RECTANGULAR PENETRATION DETAIL (TYPICAL)

NO SCALE

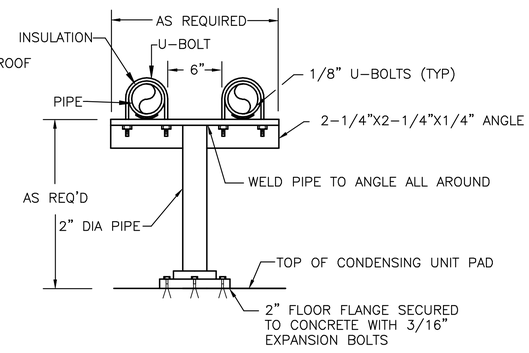
L — M13|M24



PIPE SUPPORT DETAIL

NO SCALE

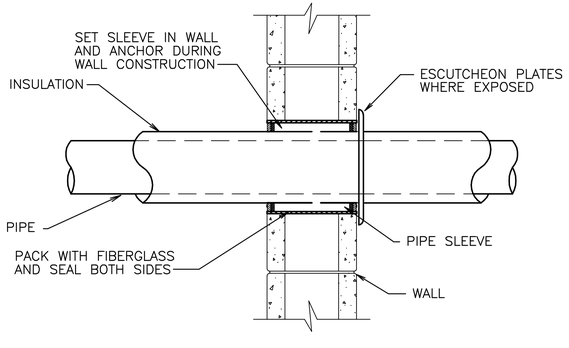
M — M15|M24 — M10,M11,M18



PIPE SUPPORT DETAIL

NO SCALE

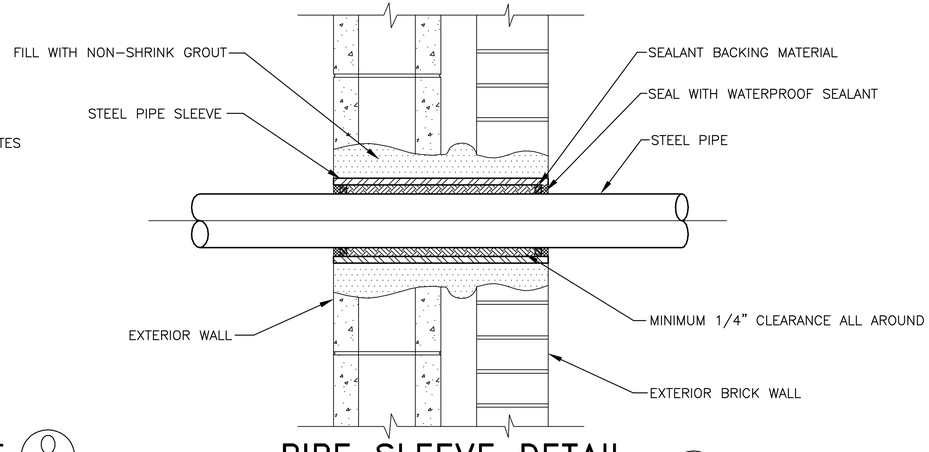
X — M20|M24 — M21



PIPE SLEEVE THRU INTERIOR WALL DETAIL

NO SCALE

O — M9|M24 — M13, M17



PIPE SLEEVE DETAIL

NO SCALE

W — M20|M24

REVISIONS

DESCRIPTION	DATE	APPROVED
FOR BID FOR ORDINANCE MARKING		

A/E

DESIGN	JAG
DRAWN	JLB
REVIEW	
CHIEF ARCH./ ENGR.	
PROJECT MANAGER	JLB
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED — DATE
ACTIVITY - SATISFACTORY TO — DATE
APPROVED

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM
BUILDING 3147
MECHANICAL DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468513	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368513	
SHEET 88 OF 119	

M-24

FILENAME: 5105M24.DWG, PLOT SCALE: 1=1, SAVED ON 07/28/97 AT 11:44, XREFS: NONE

D C B A

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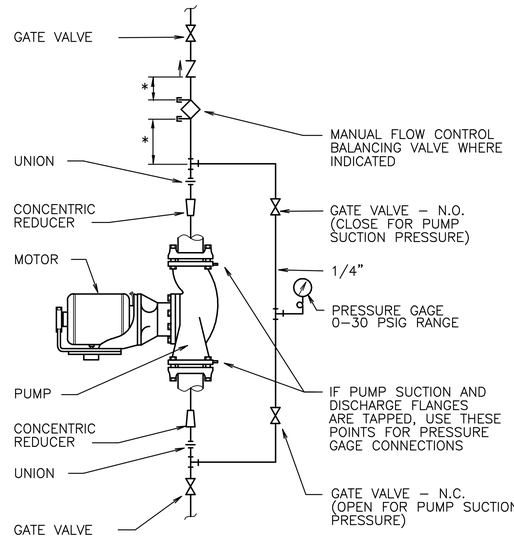
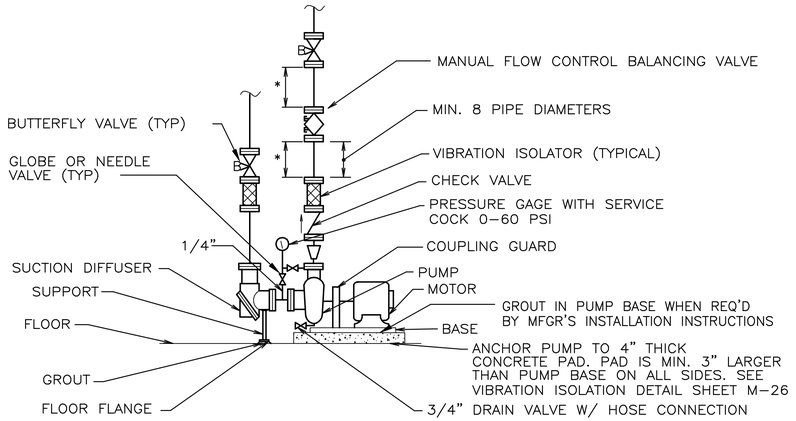


* STRAIGHT LENGTHS OF UNOBSTRUCTED PIPE WITHOUT INLINE APPURTENANCES SHALL BE INSTALLED UP/DOWNSTREAM OF FLOW CONTROL BALANCING VALVE PER MFGR'S INSTALLATION INSTRUCTIONS

INLINE CENTRIFUGAL PUMP

NO SCALE

P — M19 | M25 — M20,M21

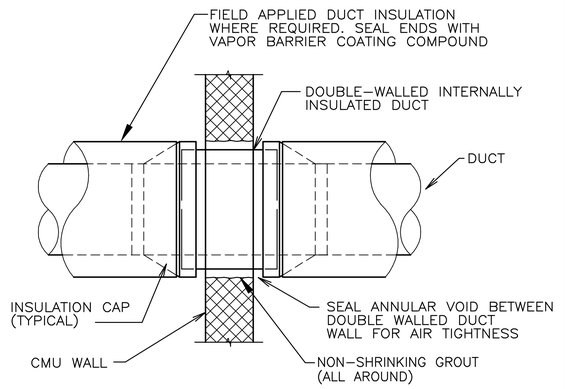


* STRAIGHT LENGTHS OF UNOBSTRUCTED PIPE WITHOUT INLINE APPURTENANCES SHALL BE INSTALLED UP/DOWNSTREAM OF FLOW CONTROL BALANCING VALVE PER MFGR'S INSTALLATION INSTRUCTIONS

BASE MOUNTED CENTRIFUGAL PUMP

NO SCALE

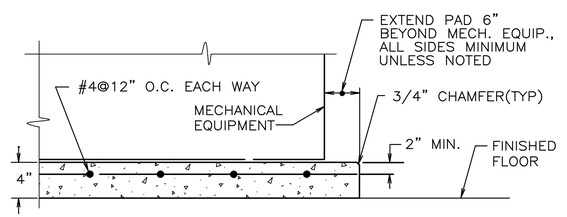
Y — M19 | M25 — M20,M21



INSULATED ROUND DUCT WALL PENETRATION DETAIL

NO SCALE

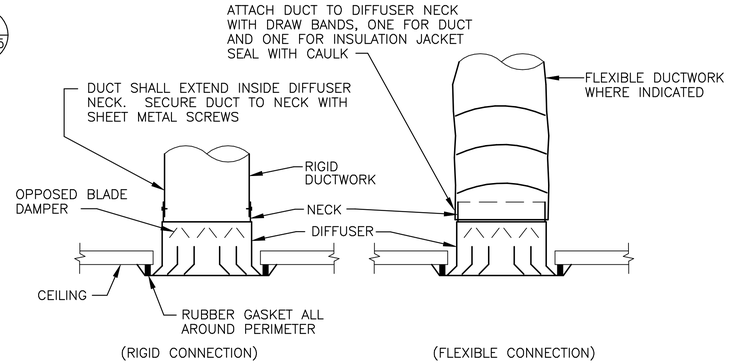
W — M18 | M25 — M12, M13



MECHANICAL EQUIPMENT PAD FOUNDATION DETAIL

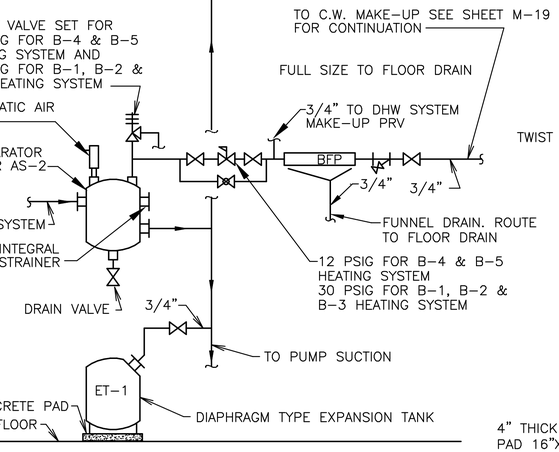
NO SCALE

S — M8 | M25 — P–7, M12,M14,M16,M17,M19,M20,M21



DUCT TO DIFFUSER/ REGISTER CONNECTION

NO SCALE (TYP. FOR ALL DIFFUSER/REGISTERS)

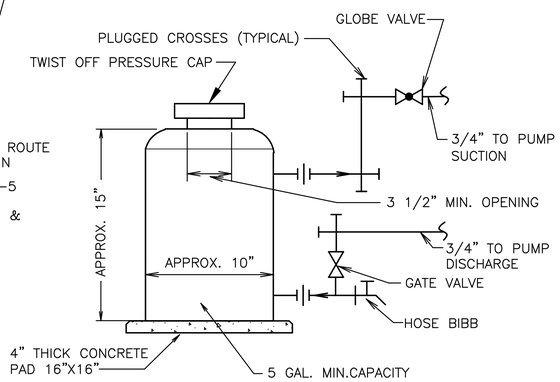


(HEATING SYSTEM SHOWN, DOMESTIC HW SYSTEM SIMILAR)

EXPANSION TANK / AIR SEPARATOR DETAIL

NO SCALE

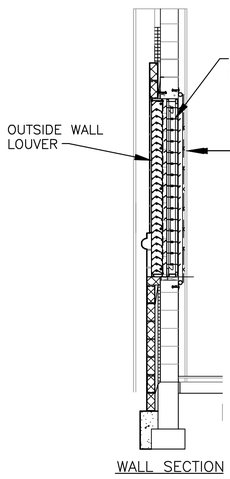
T — M19 | M25 — M20,M21



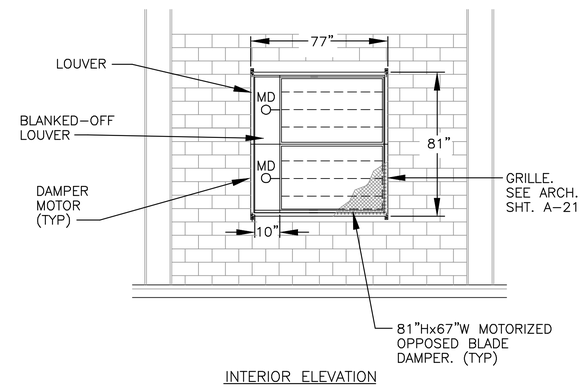
SHOT FEEDER DETAIL

NO SCALE

U — M19 | M25 — M20,M21



WALL SECTION



INTERIOR ELEVATION

AIR INTAKE DAMPER DETAIL

NO SCALE

V — M8 | M25

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN JAG; DRAWN JJB; REVIEW; CHIEF ARCH./ENGR.; PROJECT MANAGER JJB; FIRE PROTECTION; QUALITY CONTROL; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY – SATISFACTORY TO — APPROVED — DATE

FOR BID FOR ORDINANCE MARKS

SEAL

ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND, NORFOLK, VIRGINIA

DEPARTMENT OF THE NAVY — NAVAL STATION

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATION TO GYMNASIUM BUILDING 3147

MECHANICAL DETAILS

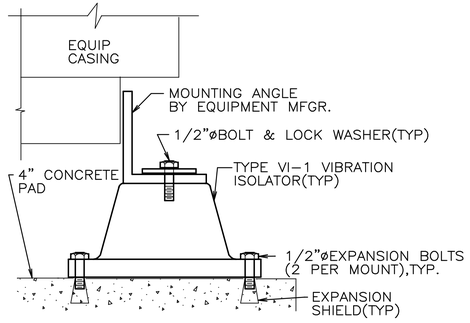
CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468514	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368514	
SHEET 89 OF 119	

M–25

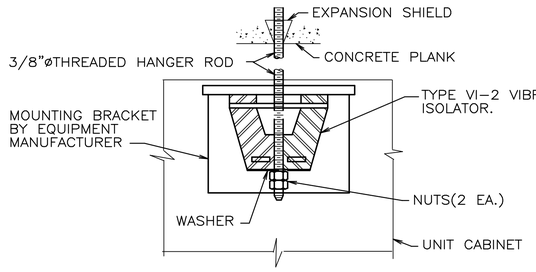
FILENAME: 5105M25.DWG, PLOT SCALE: 6" = 1'–0", SAVED ON 07/31/97 AT 10:39, XREFS: NONE

D C B A

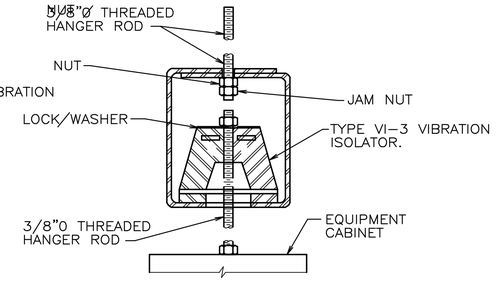
8 7 6 5 4 3 2 1



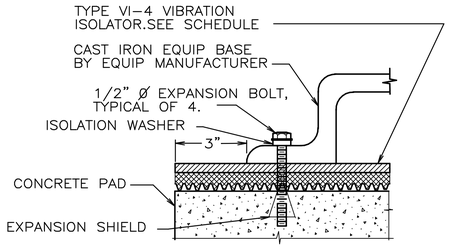
TYPE VI-1



TYPE VI-2



TYPE VI-3



TYPE VI-4

VIBRATION ISOLATOR DETAIL

NO SCALE

VIBRATION ISOLATOR SCHEDULE

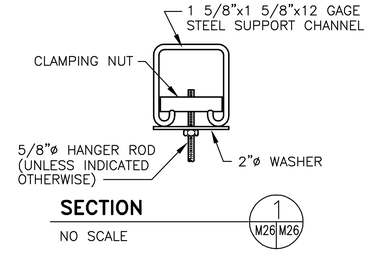
EQUIPMENT ISOLATED		EQUIPMENT ISOLATED		DEFLECTION (INCHES)	REMARKS
DESCRIPTION	MARK(S)	DESCRIPTION	MARK TYPE		
AIR HANDLING UNITS & HEATING & VENTILATING UNITS	ALL AHU'S & HVU'S	SINGLE DEFLECTION NEOPRENE-IN-SHEAR MOUNT	VI-1	1/2	(1) (2)
EXHAUST FANS	ALL INLINES	SINGLE DEFLECTION NEOPRENE-IN-SHEAR HANGER	VI-3	1/4	(1) (3)
UNIT HEATERS, FAN COIL	ALL UH'S & DSU-1	SINGLE DEFLECTION NEOPRENE-IN-SHEAR HANGER	VI-3	1/4	(1) (3)
BASE MTD. PUMP	P-1	SINGLE LAYER NEOPRENE SHEAR FLEX PAD	VI-4	1/16	(1) (4)

(1) LOAD RANGE OF ISOLATOR SHALL BE SUITABLE TO THE WEIGHTS OF APPROVED EQUIPMENT SELECTION

(2) VIBRATION MOUNTING SHALL CONSIST OF A STEEL TOP PLATE AND BASE-PLATE COMPLETELY EMBEDDED IN NEOPRENE. MOUNT SHALL BE PROVIDED WITH A TAPPED HOLE IN CENTER FOR BOLTING EQUIPMENT TO MOUNT

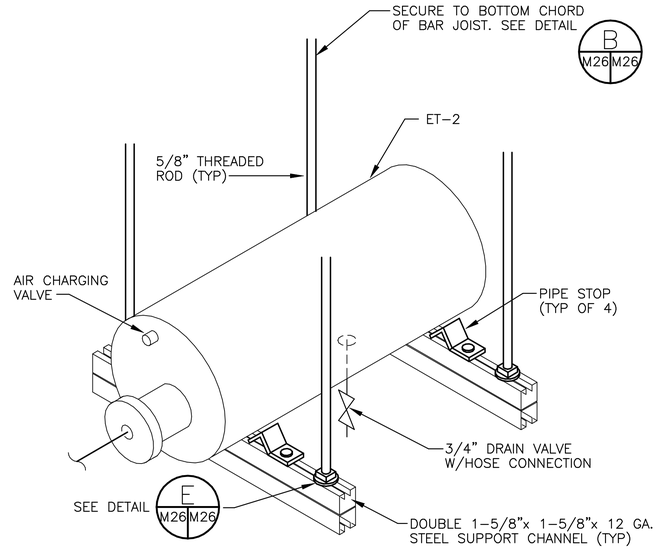
(3) RECTANGULAR STEEL HOUSING INCORPORATING NEOPRENE-IN-SHEAR ELEMENT

(4) LOAD DISTRIBUTING STEEL PLATE CEMENTED TO 3/8" THICK NEOPRENE SHEAR FLEX PAD



SECTION 1/M26 M26

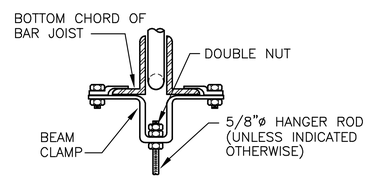
NO SCALE



HORIZONTAL EXPANSION TANK SUPPORT DETAIL

NO SCALE

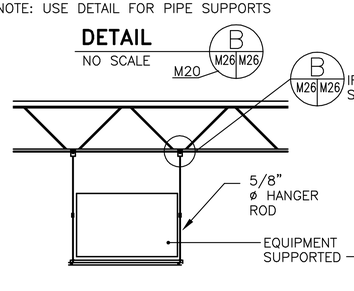
D/M20 M26 — M25



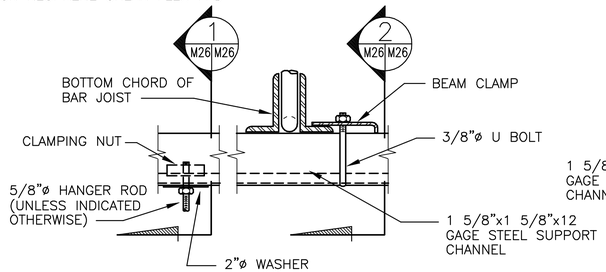
NOTE: USE DETAIL FOR PIPE SUPPORTS

DETAIL B/M26 M26 — M20

NO SCALE

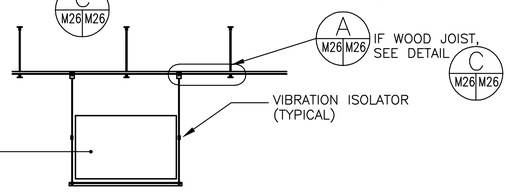


JOIST CENTERLINE PARALLEL TO UNIT

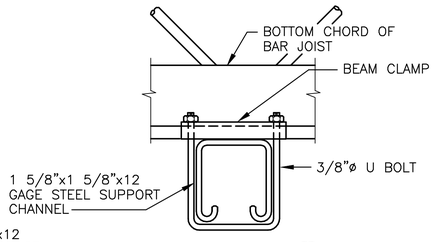


DETAIL A/M26 M26

NO SCALE

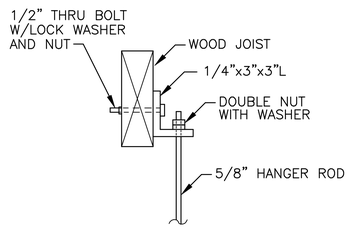


JOIST CENTERLINE PERPENDICULAR TO UNIT



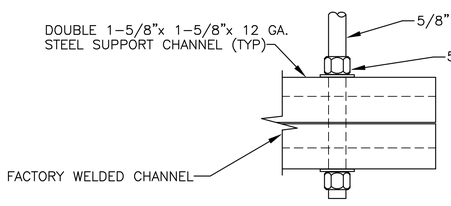
SECTION 2/M26 M26

NO SCALE



DETAIL C/M26 M26

NO SCALE



SUPPORT DETAIL E/M26 M26

NO SCALE

UNIT SUPPORT DETAILS

NO SCALE

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD: DESIGN JAG; DRAWN JLB; REVIEW; QC; CHIEF; AREA / DIVR; PROJECT MANAGER JLB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY — NAVAL STATION — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

N.A.B. LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

MECHANICAL DETAILS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468515	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368515	
SHEET 90 OF 119	

M-26

SEAL

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105M26.DWG, PLOT SCALE: 1=1, SAVED ON 07/23/97 AT 14:38, XREFS: NONE

AIR HANDLING UNIT SCHEDULE

MARK	FAN DATA						COOLING COIL DATA							HEATING COIL DATA						LOCATION	REMARKS
	S.A. (CFM)	O.A. (CFM)	E.S.P. ③ (IN WG)	FAN H.P.	VOLTS/PH	NEMA STARTER SIZE	TOTAL (B.T.U.H)	SENSIBLE (B.T.U.H)	ENT.AIR TEMP °FDB	ENT.AIR TEMP °FWB	LVG.AIR TEMP °FDB	LVG.AIR TEMP °FWB	MAX.COIL FV (FPM)	BTUH	ENT.AIR TEMP. °FDB	ENT.WTR TEMP. °F	GPM	WTR.P.D. FT. H20	MAX.COIL FV (FPM)		
AHU–1	1,170	450	0.75	1/2	208/3	00	50,018	32,475	81.8	68.6	56.1	55.2	500	22,646	50.3	180	2.3	0.15	700	RM 108	①
AHU–2	10,815	1,780	0.96	7–1/2	208/3	1	350,406	261,636	78.5	65.5	56.1	55.1	500	181,632	60.4	180	18.2	0.30	700	MECH. ROOM 201	① ②
AHU–3	2,370	390	0.78	1–1/2	208/3	00	69,293	52,470	78.5	65.6	58.0	56.4	500	32,107	60.4	180	3.2	0.50	700	RM 130	①
AHU–4	1,200	150	0.62	1/2	208/3	00	29,330	25,790	77.9	65.1	58.0	56.0	500	15,737	62.3	180	1.6	0.50	700	RM 130	①
AHU–5	1,370	400	0.80	3/4	208/3	00	63,929	37,581	80.4	67.1	55.0	52.0	500	22,116	54.6	180	2.2	0.20	700	RM 208	①

① SPLIT SYSTEM, SEE AIR COOLED CONDENSER SCHEDULE

② PROVIDE MINIMUM ONE STEP OF UNLOADING AT 33% OR 50%

③ EXTERNAL STATIC PRESSURE (E.S.P.) INCLUDES ALL DUCT LOSSES EXTERNAL TO THE COOLING UNIT AND 0.25"W.G. FOR DIRTY FILTERS. E.S.P. DOES NOT INCLUDE HOT WATER COIL LOSSES, COOLING COIL LOSSES, OR LOSSES THRU AHU CABINET.

AIR COOLED CONDENSER SCHEDULE

MARK	AMBIENT AIR °F	VOLTAGE/PH	SEER	NEMA STARTER SIZE
CU–1	96	208/3	12	INTEGRAL WITH UNIT
CU–2	96	208/3	12	INTEGRAL WITH UNIT
CU–3	96	208/1	12	INTEGRAL WITH UNIT
CU–4	96	208/1	12	INTEGRAL WITH UNIT
CU–5	96	208/1	12	INTEGRAL WITH UNIT
DSC–1	96	208/1	10	INTEGRAL WITH UNIT

NOTE: CONDENSER CAPACITY SHALL PROVIDE COOLING OF NET CAPACITY LISTED FOR THE EVAPORATOR.

HEATING & VENTILATING UNIT SCHEDULE

MARK	FAN CFM ①		O.A. CFM ②		E.S.P. ④ (IN WG)	BTUH	FAN MOTOR			WATER				AIR ③ EAT(°F)	LOCATION	REMARKS
	HIGH SPEED	LOW SPEED	MIN.	MAX.			H.P.	VOLTS/PH	NEMA STARTER SIZE	G.P.M.	EWT(°F)	LWT(°F)	MAXΔP(FT H20)			
HVU–1	30,000	20,000	2,500	10,000	2.50	705,169	20	208/3	3	70.5	180	160	5.0	45	NORTH MECH. ROOM 119	⑤
HVU–2	30,000	20,000	2,500	10,000	2.20	705,169	20	208/3	3	70.5	180	160	5.0	45	NORTH MECH. ROOM 119	⑤

① HIGH FAN SPEED IS USED DURING WARM WEATHER OPERATION ONLY AND LOW FAN SPEED IS USED DURING HEATING OPERATION ONLY.

② MINIMUM AND MAXIMUM O.A. REQUIREMENTS ARE BASED ON HEATING OPERATION ONLY AND WHEN THE FAN IS ON LOW SPEED. DURING WARM WEATHER OPERATION, AND WHEN THE FAN IS OPERATING AT HIGH SPEED, THE O.A. REQUIREMENT IS 100% (30,000 CFM).

③ E.A.T. IS BASED ON WINTER OPERATION WHEN IN THE HEATING MODE WITH SACFM=20,000 AND OACFM=10,000

④ EXTERNAL STATIC PRESSURE (E.S.P.) IS BASED ON 30,000 CFM FAN OPERATION. E.S.P. INCLUDES ALL DUCT LOSSES EXTERNAL TIO THE H & V UNIT AND 0.50"W.G. FOR DIRTY FILTERS. E.S.P. DOES NOT INCLUDE HOT WATER COIL LOSSES OR LOSSES THRU H & V UNIT.

⑤ INTERNAL FACE AND BY–PASS COIL

SUPPLY DIFFUSER SCHEDULE ①

MARK	CFM	NECK SIZE (HxW OR ø)	MAX.S.P. (IN. W.G.)	BLOW PATTERN	THROW (FT.)	LOCATION	REMARKS
Ⓐ	100	6"ø	0.03	4–WAY	3	RM 106	① ⑤
Ⓑ	95	6"ø	0.03	3–WAY	3	RM 106	① ⑤
Ⓒ	200	8"ø	0.04	4–WAY	5	RM 106, 110, 125	① ⑤
Ⓓ	225	8"ø	0.05	4–WAY	5	RM 106, 208	① ⑤
Ⓔ	275	10"ø	0.06	4–WAY	6	RM 106	① ⑤
Ⓕ	1140	16"x26"	0.03	SIDEWALL	27	RM 117	② ⑥
Ⓖ	1125	15"ø	0.14	4–WAY	12	RM 116	② ⑤
Ⓗ	1115	15"ø	0.14	4–WAY	12	RM 115	② ⑤
Ⓘ	825	12"ø	0.11	4–WAY	12	RM 113, 114	② ⑤
Ⓙ	1102	16"x26"	0.03	SIDEWALL	27	RM 112	② ⑥
Ⓚ	1040	16"x26"	0.02	SIDEWALL	25	RM 111	② ⑥
Ⓛ	270	10"ø	0.03	4–WAY	5	RM 133	① ⑤
Ⓜ	125	6"ø	0.07	4–WAY	4	GYM COORIDOR	① ⑤
Ⓝ	230	8"ø	0.04	4–WAY	5	GYM LOBBY	① ⑤
Ⓞ	250	8"ø	0.06	4–WAY	5	LOBBY STORAGE	① ⑤
Ⓟ	274	8"x14"	0.02	SIDEWALL	10	RM 124	④ ⑤
Ⓠ	190	6"ø	0.06	4–WAY	5	RM 203	① ⑤
Ⓡ	2000	12"x40"	0.09	DRUM	32	RM 118	③ ⑦
Ⓢ	——	——	——	——	——	——	NOT USED
Ⓣ	255	8"ø	0.06	4–WAY	5	RM 140	① ⑤
Ⓤ	260	8"ø	0.06	4–WAY	5	RM 132, 135 ,139	① ⑤
Ⓥ	235	8"ø	0.05	4–WAY	5	RM 141	① ⑤
Ⓦ	210	8"ø	0.03	4–WAY	5	RM 135	① ⑤
Ⓧ	125	8"ø	0.02	4–WAY	3	RM 134	① ⑤
Ⓨ	240	8"ø	0.05	4–WAY	5	RM 131	① ⑤

① DIFFUSERS SHALL BE ADJUSTABLE AND SUPPLIED WITH A 24"x24" PANEL FACE SUITABLE FOR A 24"x24" SUSPENDED CEILING.

② CENTER CORE OF SUPPLY DIFFUSER SHALL BE OF ADJUSTABLE CONE TYPE SUITABLE FOR A 24"x24" SUSPENDED CEILING.

③ DIFFUSER SHALL BE OF THE DRUM LOUVER TYPE

④ DIFFUSER SHALL BE OF HEAVY DUTY GAUGE STEEL CONSTRUCTION PROVIDED WITH ADJUSTABLE HORIZONTAL AND VERTICAL FACE BARS.

⑤ THROW BASED ON A TERMINAL VELOCITY OF 100 FPM

⑥ THROW BASED ON A TERMINAL VELOCITY OF 75 FPM WITH A 22 DEGREE HORIZONTAL DEFLECTION.

⑦ THROW BASED ON A TERMINAL VELOCITY OF 200 FPM DURING SUMMER OPERATION IN THE VENTILATION MODE WITH THE FAN ON HIGH SPEED (30,000 CFM).

DUCTLESS SPLIT AIR CONDITIONING SCHEDULE

MARK	FAN DATA				COOLING COIL DATA				ELECTRICAL			LOCATION	REMARKS
	TOTAL CFM	O.A. CFM	E.S.P. (IN WG)	HP	TOTAL (BTUH)	SENSIBLE (BTUH)	ENT AIR TEMP °FDB	ENT AIR TEMP °FWB	VOLTS/PH	AMPS	NEMA STARTER SIZE		
DSU–1	920	60	0.20	3/4	23,400	18,720	77	64.2	208/1	16	00	ROOM 125	①

① SPLIT SYSTEM, SEE AIR COOLED CONDENSER SCHEDULE

UNIT HEATER SCHEDULE

MARK	CFM	BTUH	FAN MOTOR			WATER				AIR	MTG. HGT. ① (FT)	THROW (FT)	LOCATION	REMARKS
			H.P.	VOLTAGE	PHASE	G.P.M.	EWT(°F)	LWT(°F)	MAX WPD(FT)	EAT(°F)				
UH–1	315	5000	1/25	120	1	0.50	180	160	0.20	55	7'–0"	15'–0"	BOILER ROOM 101	
UH–2	315	6000	1/25	120	1	0.60	180	160	0.20	55	6'–0"	15'–0"	SOUTH 2ND DECK MECH RM 202	
UH–3	315	6000	1/25	120	1	0.60	180	160	0.20	55	6'–0"	15'–0"	SOUTH 2ND DECK MECH RM 201	
UH–4	315	7800	1/25	120	1	0.80	180	160	0.20	55	6'–0"	15'–0"	NORTH MECH. RM 119	
UH–5	315	7800	1/25	120	1	0.80	180	160	0.20	55	6'–0"	15'–0"	NORTH MECH. RM 119	
UH–6	315	4000	1/25	120	1	0.40	180	160	0.20	55	6'–0"	15'–0"	ADMIN. MECH. RM 130	
UH–7	540	9000	1/25	120	1	0.90	180	160	0.20	55	6'–0"	20'–0"	WEST 2ND DECK STORAGE RM 209	
UH–8	540	9000	1/25	120	1	0.90	180	160	0.20	55	6'–0"	20'–0"	WEST 2ND DECK STORAGE RM 209	

① MOUNTING HEIGHT IS REFERENCED AS BOTTOM OF UNIT HEATER.

DESIGN CONDITIONS

ROOM DESCRIPTION	INDOOR			OUTDOOR		
	SUMMER		WINTER	SUMMER		WINTER
	°FDB	%RH	°FDB	°FDB	°FWB	°FDB
ADMINISTRATION OFFICES	76	50	68	91	76	22
TOILET/LOCKER	76	50	68	91	76	22
GYMNASIUM	–	–	68	91	76	22
MECH. ROOMS	–	–	55	91	76	22

CONVECTOR SCHEDULE ②

MARK	CAPACITY BTUH	EAT °FDB	EWT °F	GPM	MAX WPD/FT	WATER ΔT °F	SIZE LENGTH x HEIGHT x DEPTH	LOCATION	REMARKS
C–1	2400	55	180	0.2	0.20	20	32"x24"x4"	2ND DECK WEST MECH. ROOM	① ③ ④
C–2	2400	68	180	0.2	0.20	20	32"x24"x4"	1ST DECK SW TOILET	① ③ ④
C–3	2400	68	180	0.2	0.20	20	32"x24"x4"	1ST DECK NW TOILET	① ③ ④

① CONVECTOR UNIT SHALL BE WALL MOUNTED WITH BOTTOM OF UNIT AT 12" AFF AND SHALL HAVE A SLOPED TOP OUTLET
② ALL CONVECTOR RUN OUTS 1/2"ø
③ CAPACITY BASED ON .00025 FOULING FACTOR
④ SEE CONVECTOR DETAIL C SHEET M–23

REVISIONS

DESCRIPTION	DATE	APPROVED
FOR EFD FOR ORDINANCE MAPAC		

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY – SATISFACTORY TO — DATE

APPROVED — FOR EFD FOR ORDINANCE MAPAC

SEAL

A/E EFD

DESIGN JAG

DRAWN JAG

REVIEW

CHIEF ARCH./ ENGR.

PROJECT MANAGER JJB

FIRE PROTECTION

QUALITY CONTROL

BRANCH MANAGER

DIVISION DIRECTOR

NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK

VIRGINIA BEACH, VA

RENOVATION TO GYMNASIUM BUILDING 3147

MECHANICAL SCHEDULES

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468516	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368516	
SHEET 91 OF 119	

M–27

FILENAME: 5105M13.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/23/96 AT 14:34, XREFS: NONE

D C B A

8 7 6 5 4 3 2 1

BOILER SCHEDULE

MARK	DESCRIPTION	INPUT (MBH)	OUTPUT (MBH)	FUEL TYPE	FUEL FLOW RATE (CFH)	GAS PRESS.(INCHES W.G.) MIN.	GAS PRESS.(INCHES W.G.) MAX.	E.W.T. (F°)	L.W.T. (F°)	WATER GPM	ELECTRICAL V	ELECTRICAL PH	ELECTRICAL HZ	REMARKS
B-1	CONDENSING BOILER	750	675	NAT. GAS	750	6.0	10.0	160	180	67	115	1	60	(1)
B-2	CONDENSING BOILER	750	675	NAT. GAS	750	6.0	10.0	160	180	67	115	1	60	(1)
B-3	CONDENSING BOILER	750	675	NAT. GAS	750	6.0	10.0	160	180	67	115	1	60	(1)
B-4	CONDENSING BOILER	750	675	NAT. GAS	750	6.0	10.0	160	180	54	115	1	60	(1)
B-5	CONDENSING BOILER	750	675	NAT. GAS	750	6.0	10.0	160	180	54	115	1	60	(1)

(1) MAXIMUM PRESSURE DROP THRU BOILER SHALL NOT EXCEED 10 FT W.G.

PUMP SCHEDULE

MARK	GPM	HEAD (FT.WG.)	MOTOR DATA MAX. HP	MOTOR DATA RPM	MOTOR DATA VOLT/PH	MOTOR DATA NEMA STARTER	SERVICE	CONFIGURATION	LOCATION	REMARKS
P-1	176	66	7.5	1760	208/3	1	HWS	BASE MOUNTED CENTRIFUGAL	BOILER RM 101	
P-2	67	20	3/4	1750	208/3	00	HWS	VERTICAL INLINE CENTRIFUGAL	BOILER RM 101	
P-3	67	20	3/4	1750	208/3	00	HWS	VERTICAL INLINE CENTRIFUGAL	BOILER RM 101	
P-4	67	20	3/4	1750	208/3	00	HWS	VERTICAL INLINE CENTRIFUGAL	BOILER RM 101	
P-5	—	—	1/12	—	120/1	—	DHWR CIRCULATING	HORIZONTAL INLINE CENTRIFUGAL	BOILER RM 101	(1)
P-6	108	24	1.5	1760	208/3	00	HWS	HORIZONTAL INLINE CENTRIFUGAL	BOILER RM 101	
P-7	1	5	1/40	3250	120/1	—	DHWR CIRCULATING	HORIZONTAL INLINE CENTRIFUGAL	MECH. RM 130	

(1) EXISTING DHWR CIRCULATING PUMP SALVAGED FROM DEMOLITION, SEE SHEET M-7

DUCT CONSTRUCTION AND LEAK TEST SCHEDULE

MARK	DUCT PRESSURE CLASS (INCHES W.G.) SUPPLY DUCT	RETURN DUCT	EXHAUST DUCT	OUTSIDE AIR DUCT	DUCT SEAL CLASS	DUCT LEAK CLASS	DUCT TEST PRESSURE	DUCT TEST TYPE	REMARKS
AHU-1	1/2	1/2	—	1/2	C	12		NONE	
AHU-2	1/2	1/2	—	1/2	C	12		NONE	
AHU-3	1/2	1/2	—	1/2	C	12		NONE	
AHU-4	1/2	1/2	—	1/2	C	12		NONE	
AHU-5	1/2	1/2	—	1/2	C	12		NONE	
HVU-1 & 2	1	1	—	1	B	6		NONE	
EF-1 THRU EF-13	—	—	1/2	—	C	12		NONE	

EXPANSION TANK SCHEDULE

MARK	TANK VOL. (GALS)	TYPE	AIR CHARGE (PSIG)	CONFIGURATION	APPROX. DIMEN. (DIA.X HGT)	LOCATION	REMARKS
ET-1	158	DIAPHRAGM	30	VERTICAL FLOOR MOUNTED	30"x88"	BOILER RM 101	
ET-2	37	DIAPHRAGM	12	HORIZONTAL SUSPENDED	18"x48"	BOILER RM 101	

AIR SEPARATOR SCHEDULE

MARK	GPM	MAX. W.P.D (FT.WG.)	WITH INTEGRAL STRAINER	LOCATION	REMARKS
AS-1	176	2.0	YES	BOILER RM 101	
AS-2	108	2.0	YES	BOILER RM 101	

EXHAUST FAN SCHEDULE

MARK	CFM	E.S.P. (IN. W.G.)	MOTOR DATA HP	MOTOR DATA RPM	MOTOR DATA VOLT/PH	NEMA STARTER	DRIVE TYPE	CONFIGURATION	DAMPER (BY FAN MFGR) TYPE	DAMPER (BY FAN MFGR) SIZE	DAMPER (BY FAN MFGR) Δ P (IN WG)	LOCATION	REMARKS
EF-1	900	0.350	1/4	1304	120/1	00	DIRECT	IN-LINE CENTRIFUGAL	BDD	16"x16"	0.05	MECH. RM 108	(5)
EF-2	250	0.270	1/20	1060	120/1	00	DIRECT	IN-LINE CENTRIFUGAL	BDD	12"x12"	0.05	RM 110	(5)
EF-3	1080	0.320	1/4	748	120/1	00	DIRECT	IN-LINE CENTRIFUGAL	BDD	22"x22"	0.05	LOBBY/RAQUET BALL COURTS	(5)
EF-4	240	0.160	1/20	1015	120/1	00	DIRECT	WALL PROPELLER	BDD	16"x16"	0.05	MECH. RM 130	
EF-5	2500	0.200	1/3	540	120/1	00	BELT	WALL PROPELLER	BDD	30"x30"	0.05	MECH. RM 205	
EF-6	200	0.125	1/28	634	120/1	00	DIRECT	IN-LINE CENTRIFUGAL	BDD	12"x12"	0.05	RM 122	(5)
EF-7	200	0.125	1/28	634	120/1	00	DIRECT	IN-LINE CENTRIFUGAL	BDD	12"x12"	0.05	RM 123	(5)
EF-8	75	0.125	1/20	1550	120/1	(2)	DIRECT	CEILING CENTRIFUGAL	BDD	3"x10"	0.05	RM 137	
EF-9	75	0.125	1/20	1550	120/1	(2)	DIRECT	CEILING CENTRIFUGAL	BDD	3"x10"	0.05	RM 136	
EF-10	75	0.125	1/20	1550	120/1	(2)	DIRECT	CEILING CENTRIFUGAL	BDD	3"x10"	0.05	RM 127	
EF-11	75	0.125	1/20	1550	120/1	(2)	DIRECT	CEILING CENTRIFUGAL	BDD	3"x10"	0.05	RM 128	
EF-12	5,000	0.130	1.0	445	208/3	00	DIRECT	ROOFTOP PROPELLER	MD	42"x42"	0.10	GYM ROOFTOP	
EF-13	15,000	0.440	3.0	1255	208/3	0	DIRECT	ROOFTOP PROPELLER	MD	42"x42"	0.10	GYM ROOFTOP	
EF-14	21,500	0.125	2	—	208/3	—	BELT	ROOFTOP PROPELLER	MD	48"x48"	0.10	GYM ROOFTOP	(1) (3)
EF-15	21,500	0.125	2	—	208/3	—	BELT	ROOFTOP PROPELLER	MD	48"x48"	0.10	GYM ROOFTOP	(1) (3)
EF-16	21,500	0.125	2	—	208/3	—	BELT	ROOFTOP PROPELLER	MD	48"x48"	0.10	GYM ROOFTOP	(1) (3)
EF-17	21,500	0.125	2	—	208/3	—	BELT	ROOFTOP PROPELLER	MD	48"x48"	0.10	GYM ROOFTOP	(1) (3)

(1) ROOFTOP EXHAUST FAN IS EXISTING

(2) EXHAUST FAN SHALL BE INTERLOCKED WITH WALL LIGHT SWITCH.

(3) REMOVE EXISTING BACK DRAFT DAMPER AND PROVIDE NEW MOTOR OPERATED DAMPER.

(4) EXHAUST FAN SHALL BE INTERLOCKED WITH AHU-5.

(5) EXHAUST FAN MOTORS SHALL BE PROVIDED WITH SOLID STATE SPEED CONTROLERS.

REGISTER AND GRILLE SCHEDULE

MARK	CFM	NECK SIZE (HxW OR ø)	MAX. S.P. IN W.G.	APPLICATION	DEFLECTION	LOCATION	REMARKS
A	300	10"ø	0.03	EXHAUST GRILLE	0°	RM 106	(2)
B	720	12"ø	0.09	RETURN GRILLE	0°	RM 106	(2)
C	250	24"x24"	0.01	TRANSFER GRILLE	0°	RM 106	(2)
D	250	10"ø	0.03	EXHAUST GRILLE	0°	LAUNDRY	(2)
E	200	16"x16"	0.01	EXH./TRAN. GRILLE	40°	RM 122, 123, 124	
F	1,140	16"x28"	0.04	RETURN GRILLE	40°	RM 117	
G	1,125	16"x28"	0.04	RETURN GRILLE	40°	RM 116	
H	1,115	16"x28"	0.04	RETURN GRILLE	40°	RM 115	
I	825	16"x28"	0.02	RETURN GRILLE	40°	RM 114	
J	1,100	16"x28"	0.04	RETURN GRILLE	40°	RM 112	
K	1,045	16"x28"	0.03	RETURN GRILLE	40°	RM 111	
L	1,500	24"x48"	0.02	RETURN GRILLE	0°	GYM LOBBY	(2)
M	540	12"ø	0.05	EXHAUST GRILLE	0°	GYM LOBBY	(2)
N	1,980	24"x48"	0.03	RETURN GRILLE	0°	RM 132	(2)
O	1,050	24"x24"	0.04	RETURN GRILLE	0°	RM 125	(2)
P	970	24"x24"	0.03	RETURN GRILLE	0°	RM 208	(2)
Q	5,000	24"x48"	0.08	EXHAUST GRILLE	0°	RM 118	(1)
R	15,000	48"x48"	0.12	EXHAUST GRILLE	0°	RM 118	(1)
S	200	24"x24"	0.02	RETURN GRILLE	0°	RM 208	(2)
T	390	24"x24"	0.02	TRANSFER GRILLE	0°	RM 135	(2)
U	390	12"x24"	0.04	TRANSFER GRILLE	0°	RM 118	
V	150	24"x24"	0.01	TRANSFER GRILLE	0°	RM 125	(2)
W	150	12"x24"	0.03	TRANSFER GRILLE	0°	RM 118	
X	1,140	24"x24"	0.04	RETURN GRILLE	0°	RM 203	(2)
Y	1000	12"x36"	0.03	SUPPLY REGISTER	55°	RM 118	(3)

(1) EXHAUST GRILLE SHALL BE OF THE GRID CORE FACE TYPE SUITABLE FOR A 24"x24" SUSPENDED CEILING.

(2) RETURN, EXHAUST, AND TRANSFER GRILLES SHALL HAVE A 24"x24" OR 24"x48" PERFORATED FACE PANEL AS SHOWN ON DRAWINGS AND SHALL BE SUITABLE FOR A 24"x24" SUSPENDED CEILING.

(3) SUPPLY REGISTER SHALL BE OF THE DOUBLE DEFLECTION TYPE WITH A MIN. 13 FT THROW FOR A TERMINAL VELOCITY OF 75 FPM.

NATURAL GAS USAGE @ 1000 BTU/CUBIC FOOT (CF)

MARK	CF/HR
B-1	750
B-2	750
B-3	750
B-4	750
B-5	750
TOTAL	3,750

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND

APPROVED DATE

ACTIVITY - SATISFACTORY TO

APPROVED DATE

FOR BID FOR ORDINARY MAINT.

SEAL

X/E

	EFD	DATE
DESIGN	JAG	
DRAWN	JAG	
REVIEW		
CHIEF ARCH./ ENGR.		
PROJECT MANAGER	JJB	
FIRE PROTECTION		
QUALITY CONTROL		
BRANCH MANAGER		
DESIGN DIRECTOR		

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM BUILDING 3147
MECHANICAL SCHEDULES

CODE ID. NO.	80091
SIZE	D
SCALE:	NONE
EFD NO.	468517
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368517
SHEET	92 OF 119

M-28

FILENAME: 5105M15.DWG, PLOT SCALE: 1" = 1', SAVED ON 01/06/97 AT 11:29, XREFS: NONE

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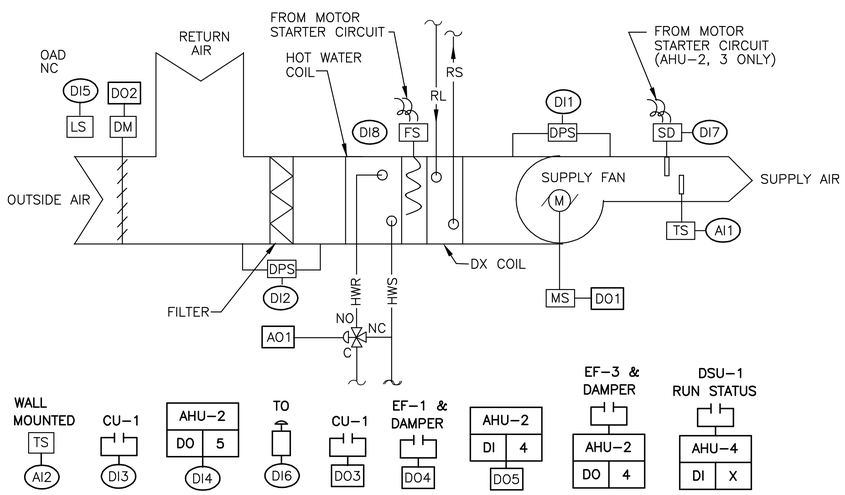
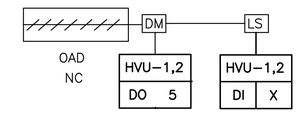


AHU–1, CONTROL DIAGRAM

(AHU–2, 3, 4 & 5 SIMILAR) NOT TO SCALE

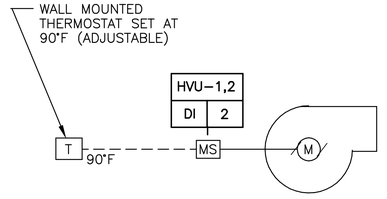
AHU–1		
LOCAL DDC CONTROLLER		
INPUTS		
ANALOG	AI1	SUPPLY AIR TEMP.
	AI2	ROOM TEMP.
DIGITAL	DI1	AHU FAN STATUS
	DI2	FILTER STATUS
	DI3	CU–1 COMP. STATUS
	DI4	AHU–2 RUN STATUS
	DI5	OAD CLOSED
	DI6	TIMED OVERRIDE
	DI7	SMOKE DETECTOR (1)
	DI8	FREEZESTAT
OUTPUTS		
ANALOG	AO1	HWR VALVE POSITION
DIGITAL	DO1	AHU–1 FAN START
	DO2	OAD OPEN
	DO3	CU–1 COMP. START
	DO4	EF–1 START
	DO5	AHU–2 START

(1) AHU–2, 3 ONLY



D–1 CONTROL DIAGRAM

(D–2, 3, 4, 5, 6 SIMILAR) NOT TO SCALE

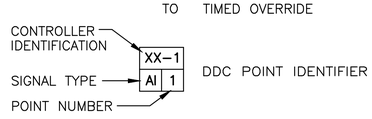


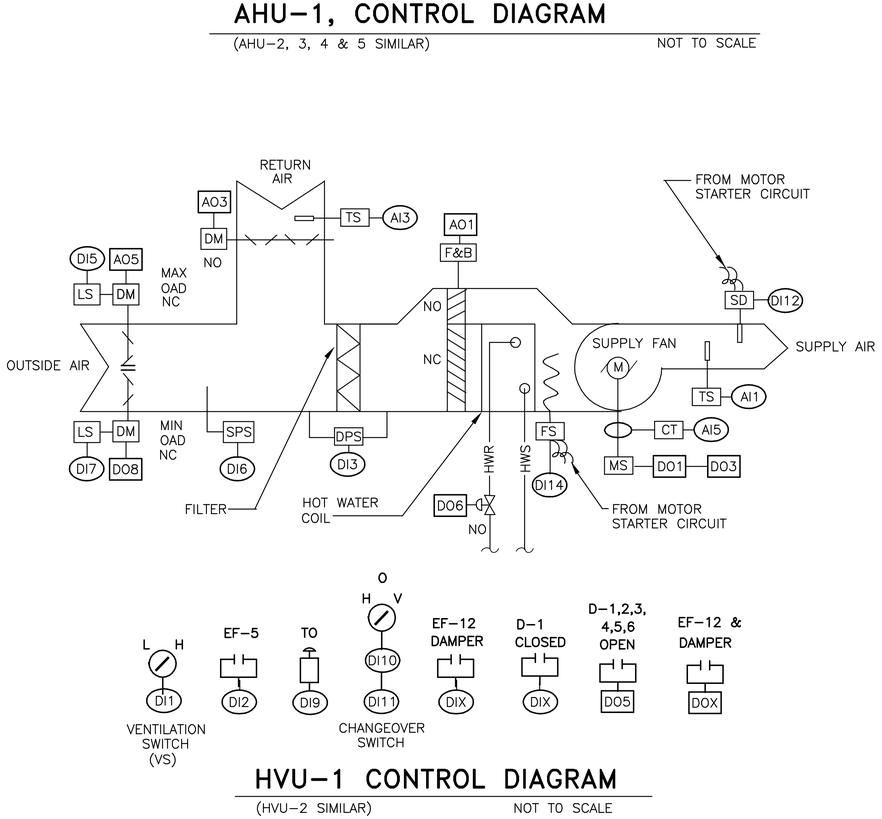
EF–5 CONTROL DIAGRAM

(EF–4 SIMILAR W/O DDC INTERFACE) NOT TO SCALE

CONTROL LEGEND

- DPS DIFFERENTIAL PRESSURE SWITCH
- SPS STATIC PRESSURE SWITCH
- MS MOTOR STARTER
- DM DAMPER MOTOR
- LS LIMIT SWITCH
- FS FREEZESTAT
- SD SMOKE DETECTOR
- TS TEMPERATURE SENSOR
- CT CURRENT TRANSDUCER
- T ROOM THERMOSTAT
- S START/STOP INTERFACE
- M MOTOR
- 3–WAY CONTROL VALVE
- 2–WAY CONTROL VALVE
- SENSOR WELL
- AVERAGING SENSOR
- NO CONTACT
- DIRECTION OF FLOW
- OAD OUTSIDE AIR DAMPER
- NO NORMALLY OPEN
- NC NORMALLY CLOSED
- OA OUTSIDE AIR
- TO TIMED OVERRIDE



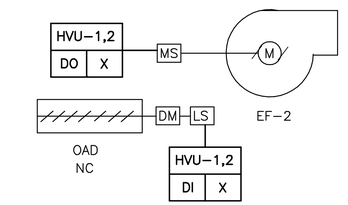


HVU–1 CONTROL DIAGRAM

(HVU–2 SIMILAR) NOT TO SCALE

HVU–1, 2				
LOCAL DDC CONTROLLER				
INPUTS			OUTPUTS	
ANALOG	AI1	HVU–1SUPPLY AIR TEMP.	AO1	HVU–1 F&B DAMPER
	AI2	HVU–2 SUPPLY AIR TEMP.	AO2	HVU–2 F&B DAMPER
	AI3	HVU–1 RETURN AIR TEMP.	AO3	HVU–1 RA DAMPER
	AI4	HVU–2 RETURN AIR TEMP.	AO4	HVU–2 RA DAMPER
	AI5	HVU–1 FAN STATUS (1)	AO5	HVU–1 MAX OAD
	AI6	HVU–2 FAN STATUS (1)	AO6	HVU–2 MAX OAD
DIGITAL	DI1	VENTILATION SWITCH	DO1	HVU–1 LOW FAN
	DI2	EF–5 STATUS	DO2	HVU–2 LOW FAN
	DI3	HVU–1 FILTER STATUS	DO3	HVU–1 HIGH FAN
	DI4	HVU–2 FILTER STATUS	DO4	HVU–2 HIGH FAN
	DI5	HVU–1 MAX OAD CLOSED	DO5	D–1,2,3,4,5,6,7 OPEN
	DI6	HVU–2 MAX OAD CLOSED	DO6	HVU–1 HW COIL VALVE
	DI7	HVU–1 MIN OAD CLOSED	DO7	HVU–2 HW COIL VALVE
	DI8	HVU–2 MIN OAD CLOSED	DO8	HVU–1 MIN OAD
	DI9	TIMED OVERRIDE	DO9	HVU–2 MIN OAD
	DI10	CHANGEOVER HEAT/COOL	DOX	EF–12 START (2)
	DI11	CHANGEOVER OFF		
	DI12	HVU–1 SMOKE DETECTOR		
	DI13	HVU–2 SMOKE DETECTOR		
	DI14	HVU–1 FREEZESTAT		
	DI15	HVU–2 FREEZESTAT		
	DI16	HVU–1 OA PRESSURE SWITCH		
	DI17	HVU–2 OA PRESSURE SWITCH		
	DIX	EF–12 OAD CLOSED (2)		
	DIX	D–1 CLOSED (3)		

(1) INDICATE HIGH OR LOW SPEED
(2) TYPICAL FOR EF–12,13,14,15,16,17
(3) TYPICAL FOR D–1,2,3,4,5,6,7



EF–12 CONTROL DIAGRAM

(EF–13, 14, 15, 16,17 SIMILAR) NOT TO SCALE

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

E/E
DESIGN RDD
DRAWN RDD
REVIEW
CHIEF ARCH./ ENGR.
PROJECT MANAGER JOB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED

SATISFACTORY TO
DATE
ACTIVITY – SATISFACTORY
APPROVED
FOR BID FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM
BUILDING 3147
CONTROL DIAGRAMS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468518	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368518	
SHEET 93 OF 119	

M–29

FILENAME: 5105M16.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/23/96 AT 14:37, XREFS: NONE

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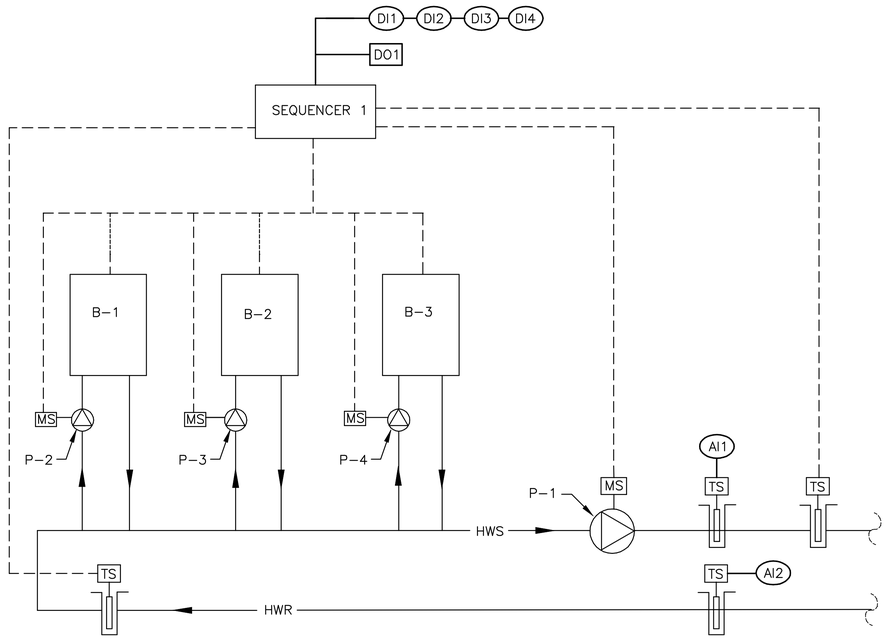
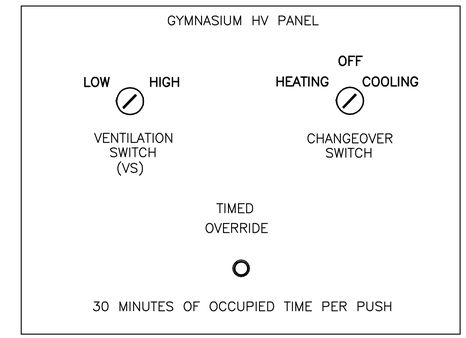


HOT WATER SYSTEM CONTROL DIAGRAM

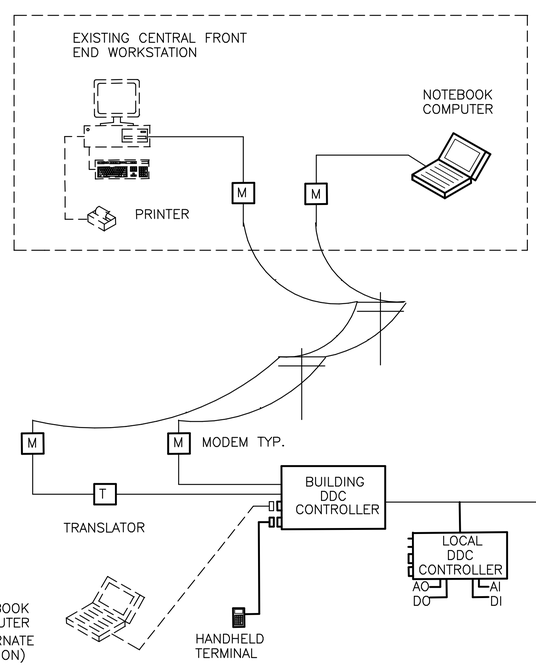
NOT TO SCALE

BC		
LOCAL DDC CONTROLLER		
INPUTS		
ANALOG	AI1	HWS TEMP.
	AI2	HWR TEMP.
	AI3	DHW TEMP.
	AI4	OUTSIDE AIR TEMP
DIGITAL	DI1	P-1 PUMP STATUS
	DI2	B-1 BOILER STATUS
	DI3	B-2 BOILER STATUS
	DI4	B-3 BOILER STATUS
	DI5	B-4 BOILER STATUS
	DI6	B-5 BOILER STATUS
	DI7	ELECT METER KWH
	DI8	GAS METER THERM
OUTPUTS		
DIGITAL	DO1	SEQUENCER 1 START
	DO2	P-5 PUMP ENABLE

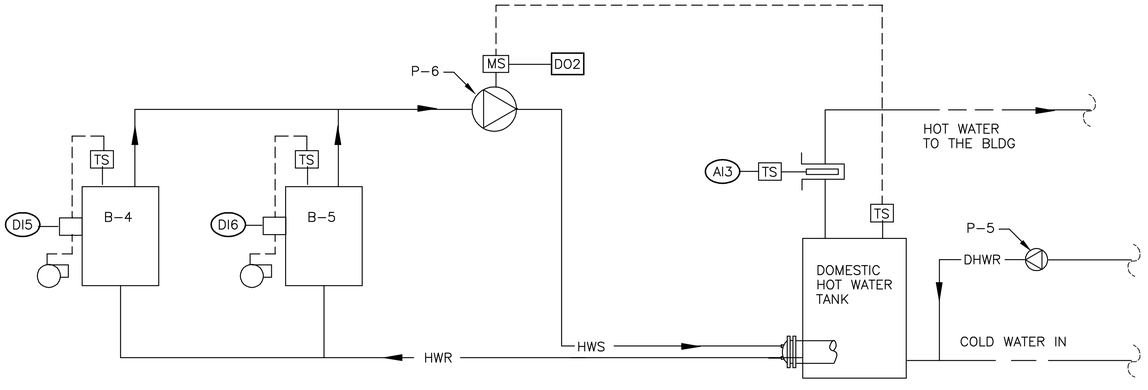


GYMNASIUM HV PANEL

NOT TO SCALE

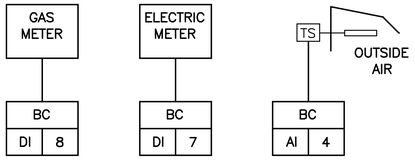


DDC SYSTEM DIAGRAM



DOMESTIC HOT WATER CONTROL DIAGRAM

NOT TO SCALE



REVISIONS

DESCRIPTION	DATE	APPROVED
DYN.		

A/E
EFD
DESIGN RDD
DRAWN RDD
REVIEW
CHIEF
PROJECT MANAGER
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR
APPR/ ENGR. JJB

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED
ACTIVITY - SATISFACTORY TO
DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM
BUILDING 3147

CONTROL DIAGRAMS/SEQUENCE OF OPERATIONS

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468519	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368519	
SHEET 94 OF 119	

M-30

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FILENAME: 5105M28.DWG, PLOT SCALE: 1" = 1', SAVED ON 08/04/97 AT 08:56, XREFS: NONE

SEQUENCE OF OPERATION

CHANGEOVER
THE HOT WATER SYSTEM SHALL BE ENABLED BY THE DDC SYSTEM AUTOMATICALLY WHEN THE OUTSIDE AIR, OA, TEMPERATURE FALLS TO 60 DEG. F AS SENSED BY AN EXTERIOR WALL MOUNTED SENSOR. WHEN THE OA RISES TO 70 DEG. F, THE REVERSE SHALL OCCUR. THE CONDENSING UNITS FOR AHU-1, 2, 3, 4, 5 SHALL BE ENABLED WHEN THE OA TEMPERATURE RISES TO 65 DEG. F. WHEN THE OA TEMPERATURE FALLS TO 60 DEG. F, THE REVERSE SHALL OCCUR. HVU-1, 2 SHALL CHANGEOVER FROM HEATING TO COOLING MANUALLY BY A WALL MOUNTED CHANGEOVER SWITCH.

METERING
ELECTRICAL ENERGY USE SHALL BE RECORDED IN KWH. NATURAL GAS USE SHALL BE RECORDED IN 100 CUBIC FEET, CCF.

AHU-1- OCCUPIED MODE
THE OCCUPIED MODE SHALL BE DETERMINED BY THE DDC SYSTEM WHICH SHALL CONTROL THE SA FAN TO RUN CONTINUOUSLY, FULLY OPEN ITS OA DAMPER, ENERGIZE EF-1 AND FULLY OPEN ITS OA DAMPER. ROOM TEMPERATURE, AS SENSED BY A WALL MOUNTED TEMPERATURE SENSOR, SHALL COOL TO 76 DEG. BY ENERGIZING THE STAGES OF DX COOLING; AND SHALL HEAT TO 68 DEG. F BY MODULATING THE HOT WATER COIL (HW) VALVE.

UNOCCUPIED MODE
DURING THE UNOCCUPIED PERIOD AHU-1, ITS CONDENSING UNIT, AND EF-1 SHALL BE DE-ENERGIZED AND ALL OA DAMPERS SHALL BE FULLY CLOSED. A LIMIT SWITCH SHALL INDICATE THE FULLY CLOSED STATUS OF THE OA DAMPERS. ROOM TEMPERATURE SHALL BE MAINTAINED AT 55 DEG. F BY CYCLING THE AHU-1 FAN AND MODULATING THE HW VALVE. THE OA DAMPERS SHALL REMAIN CLOSED.

AHU-2
THE DDC SYSTEM SHALL CONTROL AHU-2 SIMILAR TO AHU-1 AND INTERLOCK AHU-2 WITH EF-3. AHU-1 AND AHU -2 SHALL BE INTERLOCKED TO OPERATE TOGETHER.

AHU-3, 4, 5
THE DDC SYSTEM SHALL CONTROL AHU-3, 4, 5 SIMILAR TO AHU-1 EXCEPT THEY ARE NOT INTERLOCKED TOGETHER. EF-6, 7 ARE INTERLOCKED WITH AHU-5.

DSU-1
THE DSU IS ASSOCIATED WITH THE AHU-4 SYSTEM AND SHALL OPERATE INDEPENDENTLY OF THE DDC SYSTEM EXCEPT ITS RUN STATUS SHALL BE ANNUNCIATED TO THE AHU-4 DIGITAL CONTROLLER.

HVU-1 OCCUPIED
DURING THE OCCUPIED PERIOD, AS DETERMINED BY THE DDC SYSTEM, HVU-1 AND HVU-2 SHALL BE CONTROLLED TOGETHER THROUGH A WALL MOUNTED CHANGEOVER SWITCH WITH HEAT, VENT, OFF MODES. THE SA FANS SHALL RUN CONTINUOUSLY IN THE HEAT AND VENT MODES. WHEN IN THE OFF MODE, THE UNITS SHALL BE IN THE UNOCCUPIED MODE.

WHEN IN THE VENT MODE, THE HW VALVE SHALL REMAIN CLOSED AND THE FACE AND BYPASS (F&B) DAMPERS SHALL REMAIN IN THE BYPASS POSITION, BOTH OA DAMPERS SHALL FULLY OPEN, AND THE RETURN AIR (RA) DAMPER SHALL FULLY CLOSED. WHEN THE WALL MOUNTED VENTILATION SWITCH (VS) IS IN THE LOW POSITION, THE SA FANS SHALL RUN AT LOW SPEED AND THE SEVEN OA INTAKE DAMPERS, D-1, 2, 3, 4, 5, 6, 7 SHALL FULLY OPEN. EF-16, 17 SHALL BE ENERGIZED AND THEIR OA DAMPER SHALL FULLY OPEN. WHEN THE VS IS IN THE HIGH POSITION, THE SA FANS SHALL RUN AT HIGH SPEED, AND EF-12, 13, 14, 15, 16, 17 SHALL BE ENERGIZED.

WHEN IN THE HEATING MODE, THE HW VALVE SHALL OPEN FULLY, THE SA FANS SHALL RUN ONLY AT LOW SPEED AND THE RA DAMPER SHALL BE POSITIONED BY THE VS. RA TEMPERATURE, AS SENSED BY A DUCT MOUNTED TEMPERATURE SENSOR, SHALL BE MAINTAINED AT 68 DEG. F BY MODULATING THE F&B DAMPER. ON A FALL IN RA TEMPERATURE, THE F&B DAMPER SHALL MODULATE OPEN TO THE HW COIL, ON A RISE IN RA TEMPERATURE THE REVERSE SHALL OCCUR. WHEN THE VS IS IN THE LOW POSITION, THE HVU MIN OA DAMPER SHALL FULLY OPEN, PASSING 2500 CFM, THE RA DAMPER SHALL CLOSE TO PASS 17,500 CFM, AND EF-12 SHALL BE ENERGIZED AND ITS OA DAMPER SHALL FULLY OPEN. WHEN THE VS IS IN THE HIGH POSITION, THE HVU MAX OA DAMPER SHALL OPEN TO A POSITION PASSING 10,000 CFM, THE RA DAMPER SHALL CLOSE TO PASS 10,000 CFM, AND EF 12, 13 SHALL BE ENERGIZED AND THEIR OA DAMPERS SHALL FULLY OPEN.

UNOCCUPIED
DURING THE UNOCCUPIED PERIOD, THE HEAT AND COOL POSITIONS ON THE CHANGEOVER SWITCH SHALL BE OVERRIDDEN, ALL HVU AND EF FANS AND SHALL BE DE-ENERGIZED; ALL OA DAMPERS SHALL BE FULLY CLOSED; THE F&B DAMPER SHALL BE IN THE BYPASS POSITION, THE HW VALVE SHALL BE OPEN TO THE COIL; THE RA DAMPER SHALL BE FULLY OPEN. OA DAMPERS SHALL HAVE A LIMIT SWITCH TO INDICATE FULLY CLOSED STATUS. WHEN THE RA TEMPERATURE SENSOR REACHES 55 DEG. F, THAT UNIT'S SA FAN SHALL START AND THE F&B DAMPER SHALL FULLY OPEN TO THE COIL. WHEN THE TEMPERATURE REACHES 58 DEG. F, THE REVERSE SHALL OCCUR.

AHU & HV SAFETIES
A FREEZESTAT LOCATED IN THE MIXED AIR DUCT SHALL DE-ENERGIZE THE AHU OR HVU AND THE EF AND CLOSE BOTH OA DAMPERS WHEN ITS SET POINT, 40 DEG. F, IS REACHED. A SMOKE DETECTOR, FOR AHU-2, 3 AND HVU-1, 2, LOCATED IN THE SUPPLY AIR DUCT SHALL DE-ENERGIZE THE AHU OR HVU AND ASSOCIATED EF AND CLOSE BOTH OA DAMPERS WHEN SMOKE IS DETECTED.

WHEN THE STATIC PRESSURE SWITCH, SPS, LOCATED IN THE OA DUCT REACHES ITS SET POINT, 0.5 INCHES W.G., THE SA FAN SHALL BE SHUT OFF AND AN ALARM ISSUED. THE SPS SHALL BE MANUALLY RESETABLE FROM THE DIGITAL CONTROLLER.

HAND-OFF-AUTOMATIC SWITCHES
THE AHU, HVU, AND EF FANS SHALL BE POWERED THROUGH AN HOA SWITCH. IN THE HAND MODE, THE FAN SHALL BE MANUALLY STARTED/STOPPED AND IF AN EF, ITS RESPECTIVE OA DAMPER SHALL OPEN/CLOSE. IN THE OFF MODE, POWER TO THE UNIT SHALL BE SECURED. IN THE AUTO MODE, THE UNIT SHALL BE CONTROLLED BY THE DDC SYSTEM

TIMED OVERRIDE
AHU-1, 2, 3, 4, 5 SHALL EACH HAVE AN INTEGRAL 'TO' SWITCH WITH THE ROOM TS. THE 'TO' FOR HVU-1, 2 IS LOCATED IN THE GYMNASIUM HV PANEL. THE TIMED OVERRIDE SHALL CHANGE THE UNIT AND ASSOCIATED EF'S TO THE OCCUPIED MODE IN 30 MINUTE INCREMENTS TO A MAXIMUM OF 2 HOURS.

EF-4, 5
EXHAUST FANS SHALL BE ENERGIZED BY A WALL MOUNTED THERMOSTAT TO MAINTAIN A MAXIMUM TEMPERATURE OF 90 DEG. F. PROVIDE RUN STATUS TO THE DDC SYSTEM FOR EF-5.

EF-2, 8, 9, 10, 11
EXHAUST FANS SHALL BE ENERGIZED BY THE LIGHT SWITCH(S) IN ANY ROOM IT SERVES. THESE FANS SHALL NOT INTERFACE WITH THE DDC SYSTEM.

UNIT HEATERS
UNIT HEATERS SHALL BE CONTROLLED BY A WALL MOUNTED THERMOSTAT WHICH SHALL CYCLE THE FAN TO MAINTAIN ITS SET POINT. THE UNIT HEATERS SHALL NOT INTERFACE WITH THE DDC SYSTEM.

HOT WATER SYSTEM
WHEN ENABLED BY THE DDC SYSTEM, THE SEQUENCER SHALL START THE SYSTEM PUMP, P-1, WHICH SHALL RUN CONTINUOUSLY, AND THE NECESSARY NUMBER OF BOILERS AND BOILER PUMPS, P-2, 3, 4, TO MAINTAIN THE HOT WATER SUPPLY, HWS, TEMPERATURE AT 180 DEG. F , ADJUSTABLE. WHEN DISABLED, THE SEQUENCER SHALL BE DE-ENERGIZED AND THE BOILERS AND PUMPS SHALL BE OFF. THE DDC SYSTEM SHALL SENSE SUPPLY AND RETURN HOT WATER TEMPERATURE AND ALLOW MANUAL ENABLING/DISABLING THE SEQUENCER TO EFFECTIVELY RESET HWS TEMPERATURE DURING THE MEDIAN SEASON.

DOMESTIC HOT WATER (DHW)
A TEMPERATURE SENSOR READING DHW TANK TEMPERATURE SHALL START / STOP PUMP P-6 TO MAINTAIN ITS SETPOINT, 140 DEG. F. BOILERS B-4 AND B-5 SHALL BE ENABLED MANUALLY AND MAINTAIN THEIR TANK TEMPERATURE AT 180 DEG. F, ADJUSTABLE, USING INTEGRAL CONTROLS. THE DDC SYSTEM SHALL SENSE THE DHW SUPPLY TEMPERATURE AND ENABLE/DISABLE P-6 TO EFFECTIVELY RESET DHW TEMPERATURE. A DHW RECIRC. PUMP, P-5, SHALL BE STARTED MANUALLY AND RUN CONTINUOUSLY.

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E
DESIGN RDD
DRAWN RDD
REVIEW
CHIEF ARCH./ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
DATE
APPROVED

ACTIVITY - SATISFACTORY TO
APPROVED
DATE

FOR EFD FOR DRAWER MAPAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VA
RENOVATION TO GYMNASIUM
BUILDING 3147
SEQUENCE OF OPERATION

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468520	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368520	
SHEET 95 OF 119	

M-31

FILENAME: 5105M16.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/23/96 AT 14:37, XREFS: NONE

8 7 6 5 4 3 2 1
D C B A

ELECTRICAL LEGEND (INTERIOR)

ITEMS SHOWN AS DASHED ARE EXISTING ITEMS TO REMAIN.

- FLUORESCENT LIGHTING FIXTURE. (R2–DENOTES A RECESSED 2'X4' FIXTURE WITH 2 LAMPS)
- FLUORESCENT LIGHTING FIXTURE. (R2–DENOTES A RECESSED 1'X4' FIXTURE WITH 2 LAMPS) (S2–DENOTES A SURFACE MT. 1'X4' FIXTURE WITH 2 LAMPS)
- FLUORESCENT EMERGENCY AND/OR NIGHT LIGHTING FIXTURE.
- INCANDESCENT OR HIGH INTENSITY DISCHARGE LIGHTING FIXTURE.
- EXIT LIGHTING FIXTURE. ARROW, WHEN USED, INDICATES DIRECTION.
- LIGHTING FIXTURE TYPE. SEE LIGHTING FIXTURE SCHEDULE ON SHEET E–20
- EMERGENCY BATTERY POWERED LIGHTING UNIT.
- S — SINGLE POLE SWITCH. 20A., 120/277V.
- S_2 — DOUBLE POLE SWITCH. 20A., 120/277V.
- S_3 — THREE–WAY SWITCH. 20A., 120/277V.
- S_K — KEY OPERATED SWITCH
- S_M — MOTOR RATED SWITCH WITH OVERLOADS.
- DUPLEX CONVENIENCE RECEPTACLE. 20 A., 125 VAC. MOUNT 18" AFF UON
- $\ominus_4$ — DUPLEX CONVENIENCE RECEPTACLE. 15 A., 125 VAC. MOUNT 18" AFF UON (4–DENOTES A QUAD RECEPTACLE)
- $\ominus_{GFI}$ — DUPLEX CONVENIENCE RECEPTACLE WITH INTERNAL GROUND FAULT PROTECTION. 20 A., 125 VAC. MOUNT 42" AFF UON
- SINGLE RECEPTACLE. 20A., 125 VAC. MOUNT 18" AFF UON
- PLUGMOLD/STRIP RECEPTACLE
- LC1 — LIGHTING CONTACTOR #1. DESCRIPTION INDICATED ON DRAWINGS.
- SPECIAL PURPOSE RECEPTACLE. 30A., 2 POLE, 3 WIRE, 240 VAC. MOUNT 18" AFF UON
- E — EQUIPMENT CONNECTION AS NOTED.
- J — JUNCTION BOX.
- M 1/2 — MOTOR CONNECTION, HP INDICATED.
- MAGNETIC MOTOR CONTROLLER.
- 3P 60/40 — DISCONNECT SWITCH. 240 V IN NEMA 1 ENCLOSURE UON 3P = NO. OF POLES, 60 = SWITCH RATING, 40 = FUSE RATING (NF INDICATES NON–FUSIBLE).
- ELECTRICAL PANELBOARD (208Y/120 VOLT).
- OR — BRANCH CIRCUIT OR FEEDER WIRING IN CONDUIT. NO TICK MARKS INDICATE 2 #12 CONDUCTORS & 1 #12 GND. IN 1/2" CONDUIT UON. TICK MARKS, WHEN SHOWN, INDICATE NUMBER OF #12 CONDUCTORS IF OTHER THAN THREE; (√) INDICATES GROUND. CONDUIT LARGER THAN 1/2" & WIRE LARGER THAN #12 SHALL BE AS INDICATED.
- A–1,3,5 — HOMERUNS TO PANEL. PANEL & CIRCUIT DESIGNATIONS AS INDICATED.
- INDICATES A CONDUIT RUN CONCEALED IN CEILING, WALL, FLOOR, OR ABOVE SUSPENDED CEILING UON.
- CONDUIT TURNED UP.
- TELEPHONE TERMINAL BACKBOARD.
- TELEPHONE OUTLET, MOUNT 18" AFF
- LINE VOLTAGE THERMOSTAT, MOUNT 48" AFF
- FACP — FIRE ALARM CONTROL PANEL (FACP).
- F — FIRE ALARM MANUAL STATION, MOUNT 48" AFF
- F — FIRE ALARM STROBE/HORN, MOUNT 88" AFF
- FS — SPRINKLER PRESSURE SWITCH
- SPRINKLER VALVE TAMPER
- S — FIRE ALARM STROBE LIGHT
- D — DUCT SMOKE DETECTOR
- LA — DRY PIPE SPRINKLER LOW AIR PRESSURE SWITCH
- FAT — FIRE ALARM TRANSMITTER
- POINT OF CONNECTION (ONE–LINE DIAGRAM ONLY)

GENERAL NOTES

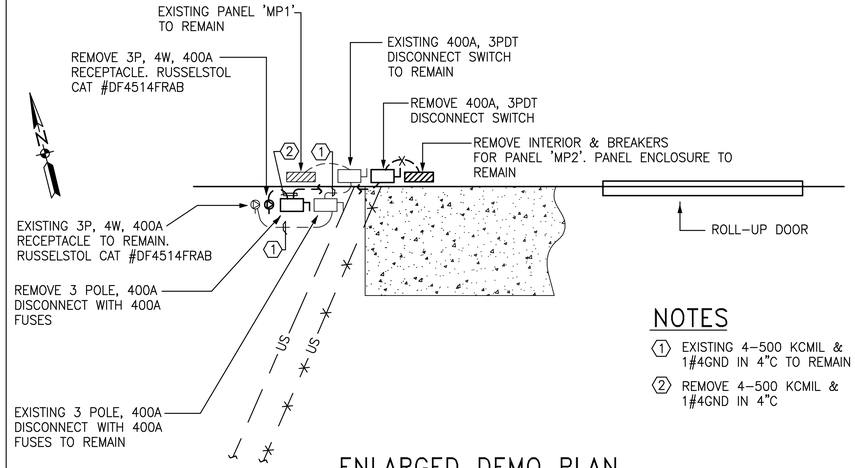
1. ON ALL DRAWINGS INDICATING NEW WORK, ALL MATERIALS ARE NEW AND SHALL BE PROVIDED BY THE CONTRACTOR UNLESS SPECIFICALLY NOTED AS EXISTING. ALL MATERIALS NOTED AS EXISTING SHALL REMAIN UNLESS SPECIFICALLY INDICATED TO BE REMOVED.

GENERAL DEMOLITION NOTES

1. PROVIDE ALL ELECTRICAL DEMOLITION WORK NECESSARY TO INSTALL NEW WORK. REROUTE AND RECONNECT ANY CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERES WITH NEW CONSTRUCTION.
2. CONDUITS MAY BE ABANDONED IN WALLS AND FLOORS THAT ARE TO REMAIN. CUT OFF ABANDONED CONDUITS IN FLOOR 2" BELOW FINISHED FLOOR AND GROUT FLUSH. PROVIDE BLANK COVERS FOR ABANDONED OUTLETS.
3. REMOVE ALL WIRING AND CONDUIT BACK TO POWER SOURCE OR LAST ACTIVE DEVICE AS APPLICABLE.
4. PATCH WALLS THAT ARE TO REMAIN TO MATCH EXISTING CONDITIONS AS A RESULT OF PERFORMING DEMOLITION WORK.
5. MAINTAIN CONTINUITY OF ALL EXISTING CIRCUITS TO REMAIN OR PORTIONS THEREOF AFFECTED BY NEW WORK.
6. ALL MATERIALS REMOVED UNDER DEMOLITION (NOT TO BE RELOCATED OR REINSTALLED) SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED COMPLETELY FROM THE SITE, UNLESS OTHERWISE NOTED.
7. EXERCISE CARE IN REMOVING DEMOLITION ITEMS AND REPAIR OR REPLACE ANY DAMAGE CAUSED TO EXISTING CONSTRUCTION AND EQUIPMENT TO REMAIN.
8. REMOVE ALL STARTERS, DISCONNECT SWITCHES AND ASSOCIATED CONDUIT AND WIRING FOR ALL EQUIPMENT REMOVED, UNLESS OTHERWISE NOTED.
9. WHEN CONDUIT AND WIRE ARE SHOWN FOR REMOVAL, ASSUME 3#12 IN 1/2"C, UNLESS OTHERWISE NOTED.

ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR
C	CONDUIT
CB	CIRCUIT BREAKER
CKT	CIRCUIT
DEMO	DEMOLITION
EC	EMPTY CONDUIT
ETR	EXISTING TO REMAIN
EXIST	EXISTING
GFI	GROUND FAULT INTERRUPTER
GND	GROUND
HPS	HIGH PRESSURE SODIUM
JB	JUNCTION BOX
MLO	MAIN LUGS ONLY
MH	METAL HALIDE
MT	MOUNT
MTBB	MAIN TELEPHONE BACKBOARD
MCB	MAIN CIRCUIT BREAKER
NTS	NOT TO SCALE
PNL	PANEL
TBB	TELEPHONE BACKBOARD
UON	UNLESS OTHERWISE NOTED
WP	WEATHERPROOF
W/W	WIREWAY
XFMR	TRANSFORMER

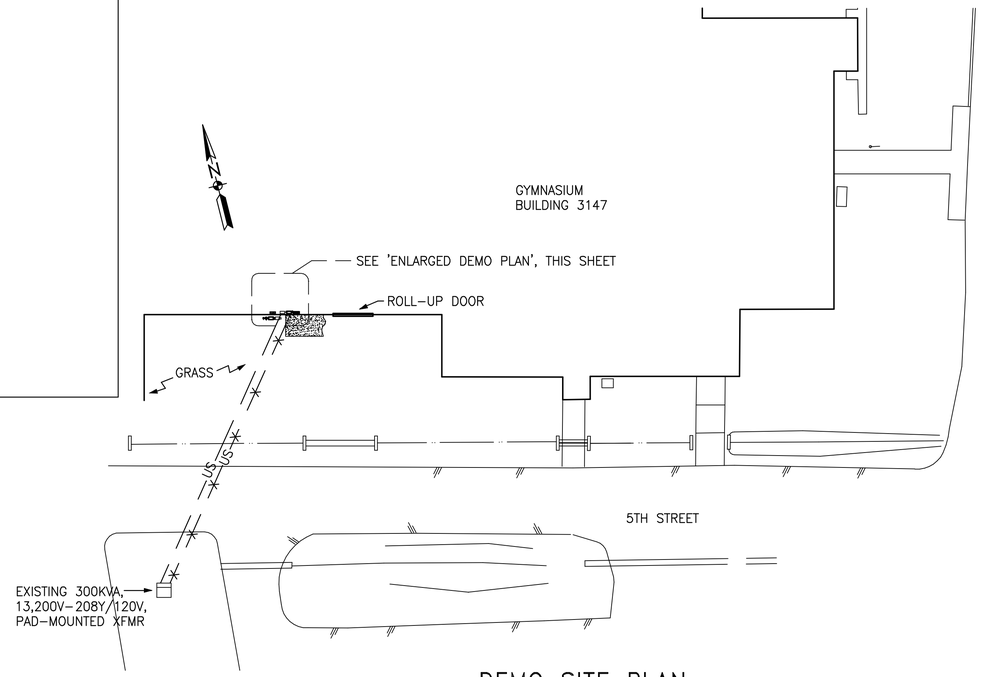


NOTES

1. EXISTING 4–500 KCMIL & 1#4GND IN 4"C TO REMAIN
2. REMOVE 4–500 KCMIL & 1#4GND IN 4"C

ENLARGED DEMO PLAN

1" =5'–0"



DEMO SITE PLAN

1" = 50'–0"

SITE LEGEND

- EXISTING UNDERGROUND SECONDARY SERVICE TO REMAIN. 4–500 KCMIL IN 4"C
- REMOVE UNDERGROUND SECONDARY SERVICE–4–500 KCMIL IN 4"C. ABANDON CONDUIT IN PLACE UON.

NOTE

1. COORDINATE SITE DEMOLITON WITH 'EXISTING ONE–LINE DIAGRAM' ON SHEET E–17.
2. FOR NEW SITE WORK, SEE 'SITE PLAN' ON SHEET E–22.

GRAPHIC SCALE

1"=5' 0' 5' 10' 15' 20' 25'

1"=50' 0' 50' 100' 150' 200' 250'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN JHB; DRAWN JHB; REVIEW RLF; QC; CHIEF; ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

FOR BID/FOR CONTRACT AWARD

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY – SATISFACTORY TO — APPROVED — DATE

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — NAB LITTLE CREEK — VIRGINIA BEACH, VIRGINIA

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

ELECTRICAL LEGEND & SITE DEMO PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
E'D NO. 468521	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368521	
SHEET 96 OF 119	

E–1

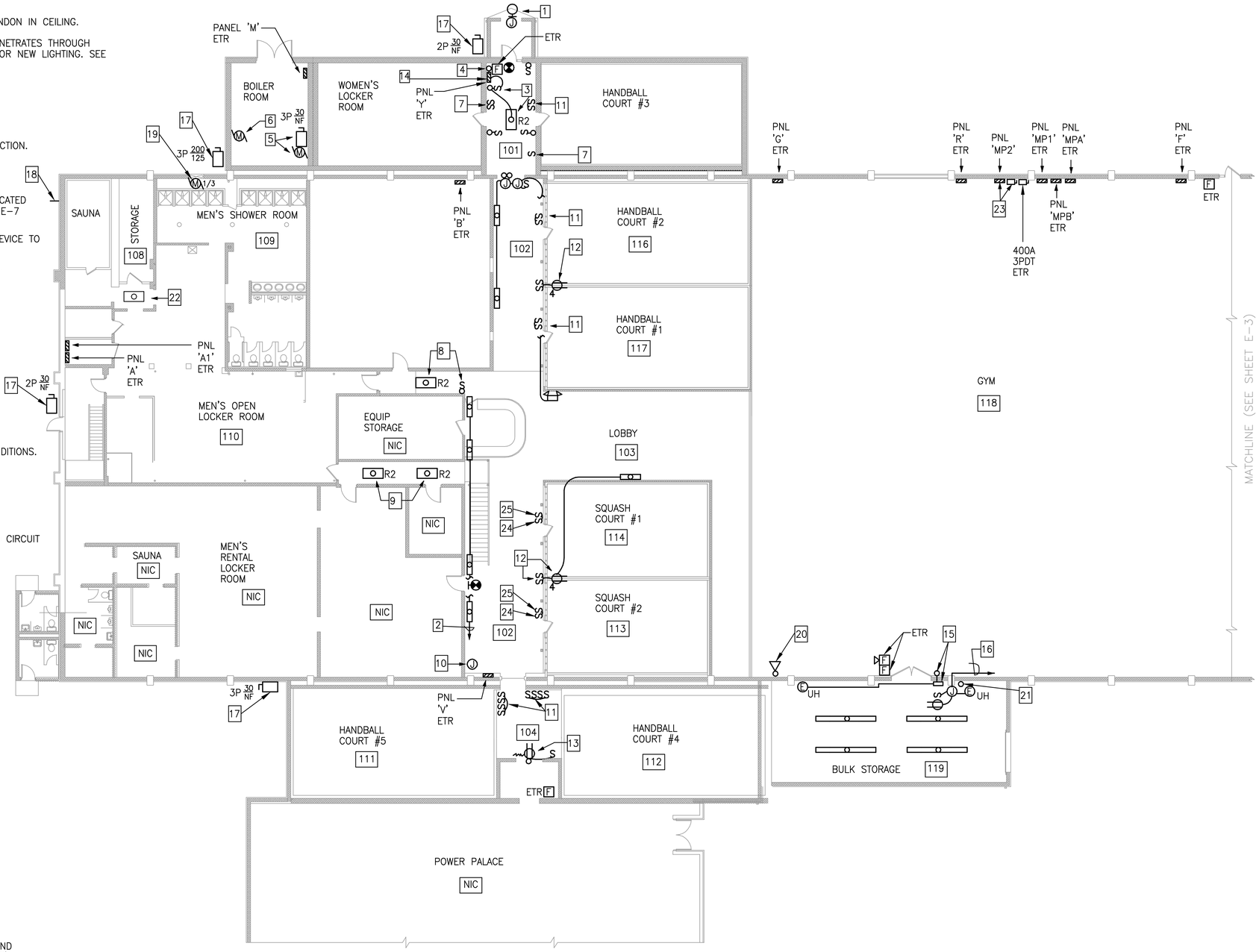
DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E001C.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 11:08, XREFS: NONE

DEMOLITION NOTES (THIS SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET UNLESS OTHERWISE NOTED.

1. REMOVE FLOODLIGHT CONDUIT BACK TO ROOM 101 AND ABANDON IN CEILING.
2. REMOVE CONDUIT BACK TO APPROXIMATELY 1' BEFORE IT PENETRATES THROUGH WALL AND PROVIDE JUNCTION BOX. REUSE CIRCUIT 'Z-16' FOR NEW LIGHTING. SEE SHEET E-8 FOR COORDINATION.
3. REMOVE CONDUIT AND WIRING BACK TO PANEL 'Y'. REUSE BREAKER 'Y-17' FOR NEW LIGHTING.
4. REMOVE EMPTY 1/2" CONDUIT THAT GOES FROM PANEL 'Y' TO APPROXIMATELY 3" ABOVE DROP CEILING.
5. REMOVE EXISTING HOT WATER HEATING SYSTEM PUMP CONNECTION. REMOVE DISCONNECT, CONDUIT AND WIRING BACK TO CIRCUIT 'M-2'. LABEL BREAKER AS 'SPARE'.
6. DISCONNECT EXISTING DOMESTIC WATER CIRCULATION PUMP CONNECTION. REMOVE CONDUIT BACK TO JUNCTION BOX LOCATED AT THE CEILING LEVEL. COORDINATE WITH NOTE #1, SHEET E-7 FOR RECONNECTION OF PUMP.
7. REMOVE SWITCH(ES). REMOVE WIRE BACK TO FIRST ACTIVE DEVICE TO REMAIN AND PROVIDE COVER PLATE.
8. REMOVE LIGHT FIXTURE. RECONNECT NEW FIXTURE. PROVIDE NEW SWITCH COVER.
9. REMOVE LIGHT FIXTURES. RECONNECT NEW FIXTURES.
10. REMOVE JUNCTION BOX AND CONDUIT.
11. REMOVE HANDBALL LIGHT SWITCHES. REMOVE SWITCH WIRING AND CONDUIT BACK TO HANDBALL COURT LIGHTS.
12. REMOVE QUAD-RECEPTACLE AND ASSOCIATED CONDUIT AND WIRING.
13. REMOVE FAN RECEPTACLE, FLEXIBLE CONDUIT AND COILED WIRE, AND CONDUIT DOWN TO SWITCH ON WALL.
14. PREP AND PAINT PANEL "Y" COVER TO MATCH EXISTING CONDITIONS.
15. REMOVE LOAD CENTER. REMOVE 1" CONDUIT FROM LOAD CENTER TO APPROXIMATELY 1' ABOVE RECESSED CEILING IN GYM, PULL CONDUCTORS BACK TO LAST ACTIVE DEVICE OR POWER SOURCE AS APPLICABLE.
16. REMOVE 3/4" C AND CONDUCTORS FROM JUNCTION BOX TO CIRCUIT "J-6". REUSE BREAKER FOR MOTOR LOUVERS, SEE SHEET E-9 FOR COORDINATION. SEE SHEET E-3 FOR LOCATION OF PANEL "J".
17. REMOVE EXISTING DISCONNECT FOR CONSTRUCTION OF NEW WALL SURFACE. EXTEND CONDUIT AND CONDUCTORS FOR REATTACHMENT OF DISCONNECT TO NEW WALL. RECONNECT CIRCUIT TO MATCH EXISTING.
18. CUT EMPTY CONDUIT FLUSH WITH EXTERIOR WALL AND PATCH WALL TO MATCH EXISTING CONDITIONS.
19. REMOVE EXHAUST FAN MOTOR CONNECTION. REMOVE CONDUIT AND WIRES BACK TO FIRST ACTIVE DEVICE TO REMAIN.
20. REMOVE TELEPHONE BOX AND CABLE. REMOVE CABLE BACK TO BACKBOARD. PATCH WALL TO MATCH EXISTING CONDITIONS.
21. CONDUIT GOING UP TO 2ND DECK LIGHTS.
22. REMOVE ABANDONED LIGHT, CONDUIT AND WIRING BACK TO FIRST ACTIVE DEVICE TO REMAIN.
23. SEE 'EXISTING ONE-LINE DIAGRAM', SHEET E-17 AND 'NEW ONE-LINE DIAGRAM', SHEET E-18 FOR DEMOLITION AND REINSTALLATION OF 'MP2' AND IT'S EMERGENCY DISCONNECT.
24. REMOVE SQUASH LIGHT SWITCH. REMOVE SWITCH WIRING AND CONDUIT BACK TO SQUASH COURT LIGHTS.
25. REMOVE SQUASH COURT VENT SWITCH. REMOVE CONDUIT AND WIRING BACK TO CIRCUIT 'V-5'. LABEL BREAKER AS 'SPARE'.



DEMO PARTIAL FIRST FLOOR PLAN - EAST GYM

3/32" = 1'-0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS			
SYM.	DESCRIPTION	DATE	APPROVED

A/E	DESIGN	JHB
	DRAWN	JHB
	REVIEW	RCF
	CHIEF ARCH./ ENGR.	
	PROJECT MANAGER	JB
	FIRE PROTECTION	
	QUALITY CONTROL	
	BRANCH MANAGER	
	DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED — FOR BID FOR DRAWER MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

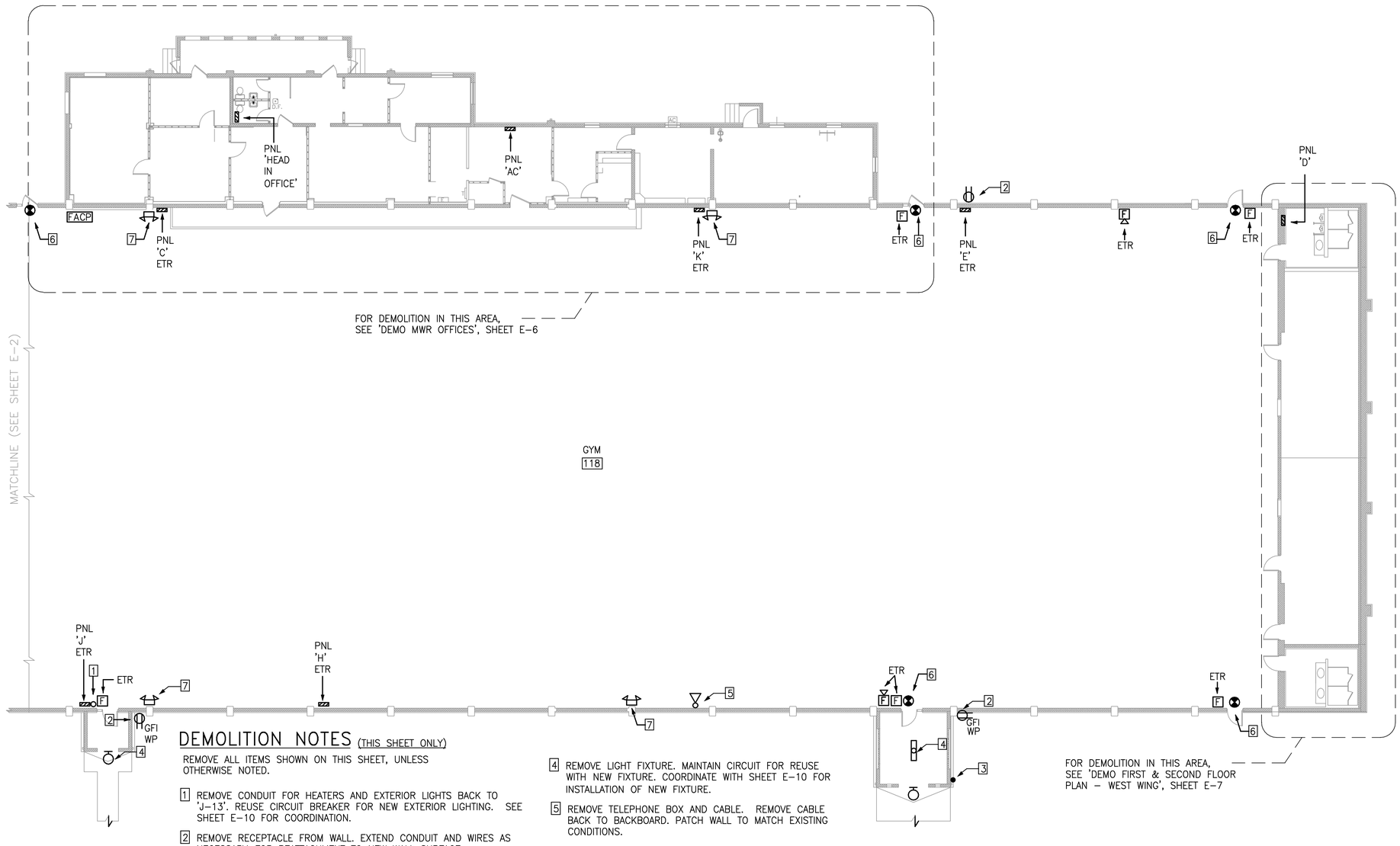
NAB LITTLE CREEK
VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147

DEMO PARTIAL FIRST FLOOR PLAN - EAST GYM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
E/D NO. 468522	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-5105	
NAVFAC DRAWING NO. 4368522	
SHEET 97 OF 119	

E-2

FILENAME: 5105E002.DWG; PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 10:59; XREFS: NONE



DEMOLITION NOTES (THIS SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET, UNLESS OTHERWISE NOTED.

1. REMOVE CONDUIT FOR HEATERS AND EXTERIOR LIGHTS BACK TO 'J–13'. REUSE CIRCUIT BREAKER FOR NEW EXTERIOR LIGHTING. SEE SHEET E–10 FOR COORDINATION.
2. REMOVE RECEPTACLE FROM WALL. EXTEND CONDUIT AND WIRES AS NECESSARY FOR REATTACHMENT TO NEW WALL SURFACE.
3. CUT CONDUIT APPROX. 1' BELOW GRADE AND REMOVE. PULL WIRES BACK TO LAST ACTIVE DEVICE OR SOURCE AS APPLICABLE.
4. REMOVE LIGHT FIXTURE. MAINTAIN CIRCUIT FOR REUSE WITH NEW FIXTURE. COORDINATE WITH SHEET E–10 FOR INSTALLATION OF NEW FIXTURE.
5. REMOVE TELEPHONE BOX AND CABLE. REMOVE CABLE BACK TO BACKBOARD. PATCH WALL TO MATCH EXISTING CONDITIONS.
6. REMOVE EXIT SIGN ONLY. CONDUIT AND CIRCUIT TO REMAIN FOR RECONNECTION OF NEW SIGN.
7. REMOVE EMERGENCY LIGHT. CONDUIT AND CIRCUIT TO REMAIN FOR RECONNECTION OF NEW LIGHT.

· KEY PLAN ·

DEMO PARTIAL FIRST FLOOR PLAN – WEST GYM

3/32" = 1'–0"

GRAPHIC SCALE

3/32"=1'–0" 0' 10' 20' 30' 40'

REVISIONS			
NO.	DESCRIPTION	DATE	APPROVED
STNL			

A/E DESIGN JHB; DRAWN JHB; REVIEW REF; QC; CHIEF; ARCH./ ENGR. PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY – SATISFACTORY TO — APPROVED — DATE

FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — NAB LITTLE CREEK — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

DEMO PARTIAL FIRST FLOOR PLAN – WEST GYM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468523	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-5105	
NAVFAC DRAWING NO. 4368523	
SHEET 98 OF 119	

E-3

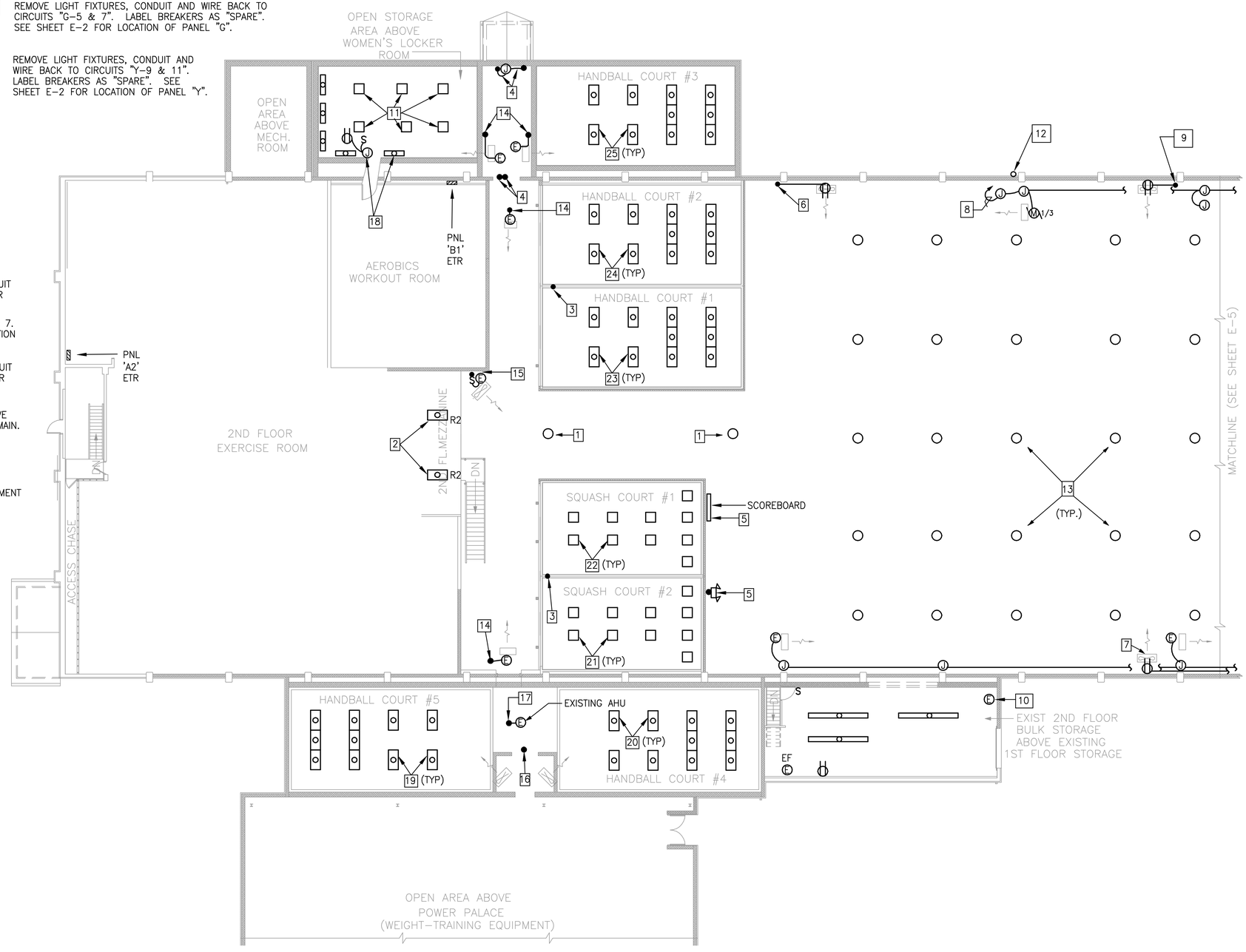
FILENAME: 5105E003.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 11:02, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

DEMOLITION NOTES (THIS SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET UNLESS OTHERWISE NOTED.

1. REMOVE HPS FIXTURES
2. REMOVE LIGHT FIXTURES ONLY. MAINTAIN CIRCUIT FOR RECONNECTION OF NEW FIXTURE.
3. REMOVE QUAD-RECEPTACLE CONDUIT AND WIRING. CIRCUIT FOR HANDBALL LIGHT SWITCHES IS TO BE MAINTAINED.
4. REMOVE CONDUITS AND WIRING BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE.
5. RELOCATE DEVICE. EXTEND CIRCUITS TO NEW LOCATION, AS SHOWN ON SHEET E-11.
6. REMOVE RECEPTACLES, CONDUIT AND WIRING BACK TO "G-2". LABEL BREAKER AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "G".
7. REMOVE RECEPTACLES, CONDUIT AND WIRING BACK TO CIRCUIT "J-8". LABEL BREAKER AS "SPARE". SEE SHEET E-3 FOR LOCATION OF PANEL "J".
8. REMOVE CONDUIT AND WIRES BACK TO CIRCUITS "MPB-5 & 7. LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "MBP".
9. REMOVE RECEPTACLES, CONDUIT AND WIRING BACK TO CIRCUIT "F-7". LABEL BREAKER AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "F".
10. REMOVE ELECTRICAL CONNECTION TO EXHAUST FAN. REMOVE CONDUIT AND WIRING BACK TO FIRST ACTIVE DEVICE TO REMAIN.
11. REMOVE HPS LIGHTS. REMOVE CONDUIT AND WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE.
12. REMOVE OVERHEAD SERVICE DROP INSULATORS AND ATTACHMENT POST. PATCH WALL TO MATCH EXISTING CONDITIONS.
13. REMOVE 400W MERCURY VAPOR FIXTURES. REMOVE JB'S, CONDUIT AND MOUNTING BRACKETS. REMOVE WIRING BACK TO SOURCE.
14. REMOVE EQUIPMENT CONNECTION. REMOVE CONDUIT & WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE.
15. REMOVE EQUIPMENT CONNECTION. REMOVE CONDUIT & WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE. REMOVE SWITCH AND JUNCTION BOX.
16. REMOVE CONDUIT & WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE. COORDINATE WITH NOTE #13, SHEET E-2.
17. REMOVE EQUIPMENT CONNECTION TO AIR HANDLER. REMOVE CONDUIT & WIRE BACK TO SOURCE TO REMAIN.
18. REMOVE FLUORESCENT LIGHT FIXTURES, RECEPTACLES, JUNCTION BOXES, CONDUIT AND WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN AS APPLICABLE.
19. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUITS "V-12 & 14". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "V".
20. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUITS "V-9 & 11". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "V".
21. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUIT "V-1". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "V".
22. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUIT "V-3". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "V".
23. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUITS "G-3 & 9". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "G".
24. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUITS "G-5 & 7". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "G".
25. REMOVE LIGHT FIXTURES, CONDUIT AND WIRE BACK TO CIRCUITS "Y-9 & 11". LABEL BREAKERS AS "SPARE". SEE SHEET E-2 FOR LOCATION OF PANEL "Y".



DEMO PARTIAL SECOND FLOOR PLAN - EAST GYM

3/32" = 1'-0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN JHB; DRAWN JHB; REVIEW REF; QC; CHIEF; ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR CONTRACT MARKS

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION — NAB LITTLE CREEK

ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

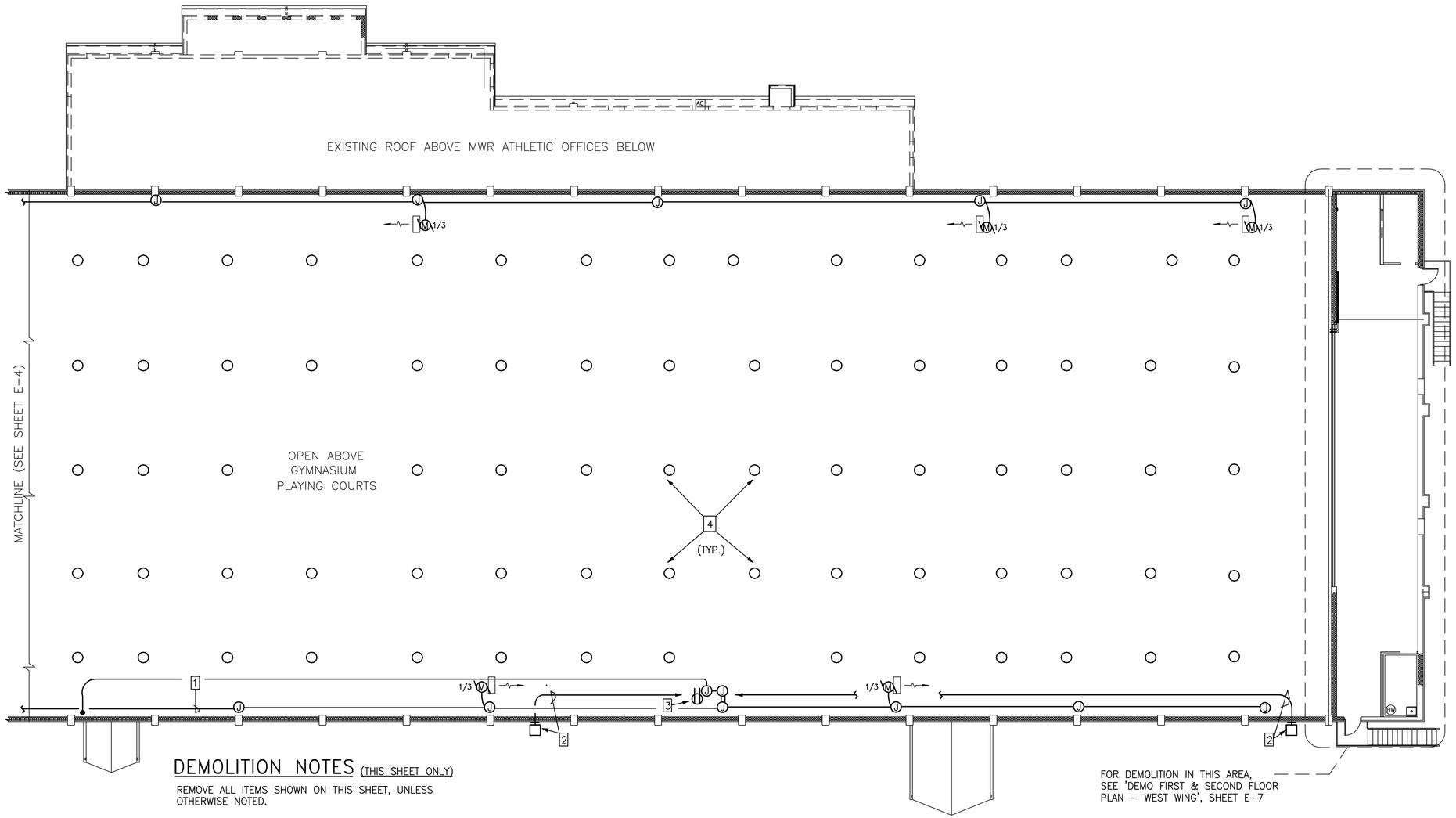
DEMO PARTIAL SECOND FLOOR PLAN - EAST GYM

CODE ID. NO.	80091
SIZE	D
SCALE:	AS NOTED
EFD NO.	468524
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-5105
NAVFAC DRAWING NO.	4368524
SHEET	99 OF 119

E-4

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E004.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 11:04, XREFS: NONE



DEMOLITION NOTES (THIS SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET, UNLESS OTHERWISE NOTED.

1. REMOVE CONDUIT AND WIRE BACK TO CIRCUIT 'J–13'. SEE SHEET E–3 FOR LOCATION OF PNL 'J'. REMOVE 1–3P,20A BREAKER FROM PNL 'J' AND PROVIDE 3–1P,20A BREAKERS.
2. REMOVE EXTERIOR LIGHT AND ASSOCIATED CONDUIT AND WIRING BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN, AS APPLICABLE.
3. REMOVE RECEPTACLE, CONDUIT AND WIRING BACK TO FIRST ACTIVE DEVICE TO REMAIN.
4. REMOVE 400W MERCURY VAPOR FIXTURES. REMOVE JB'S, CONDUIT AND MOUNTING BRACKETS. REMOVE WIRING BACK TO SOURCE.

DEMO PARTIAL SECOND FLOOR PLAN – WEST GYM

3/32" = 1'–0"

· KEY PLAN ·

GRAPHIC SCALE

3/32"=1'–0" 0' 10' 20' 30' 40'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E ED'D
DESIGN JHB
DRAWN JHB
REVIEW RCF
QC
CHIEF ARCH./ EMGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR ED'D FOR CHANGES MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
DEMO PARTIAL SECOND FLOOR PLAN WEST GYM

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
ED'D NO. 468525
STA. PROJ. NO. R–234
SPEC. NO. 05–95–5105
CONSTR. CONTR. NO. N62470–95–5105
NAVFAC DRAWING NO. 4368525
SHEET 100 OF 119
E–5

DRAWFORM REVISION 25 SEPT 96

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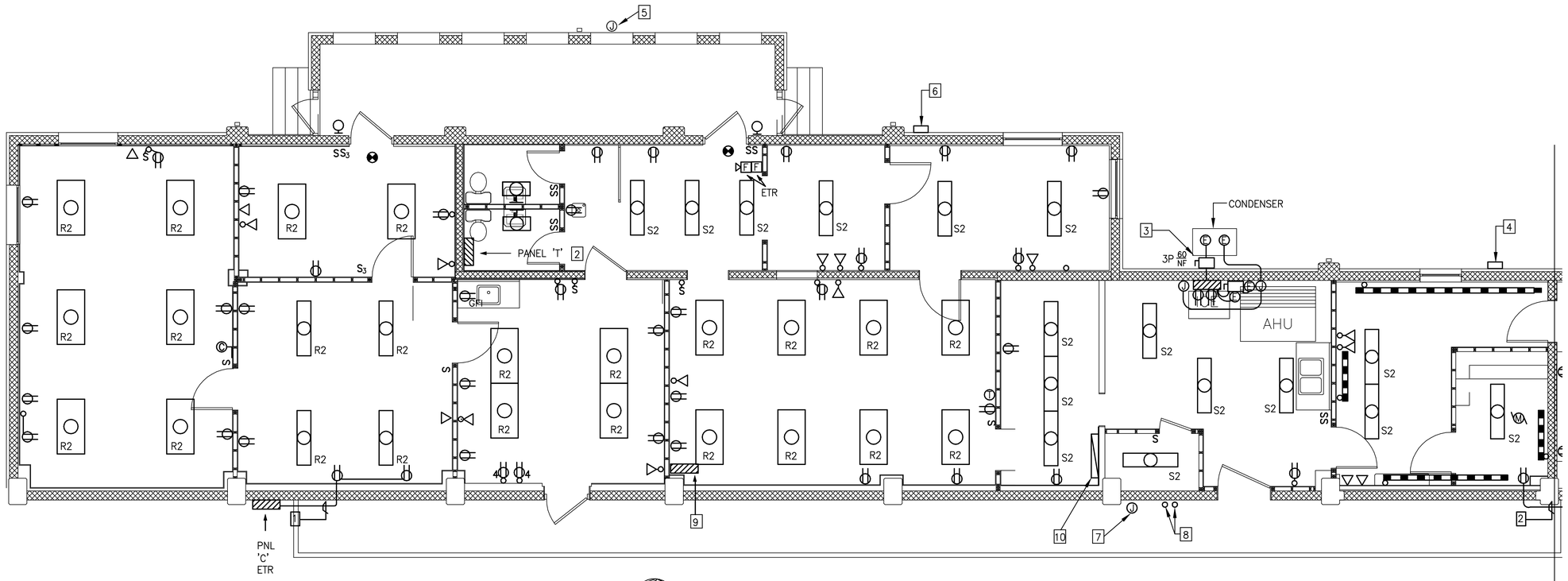
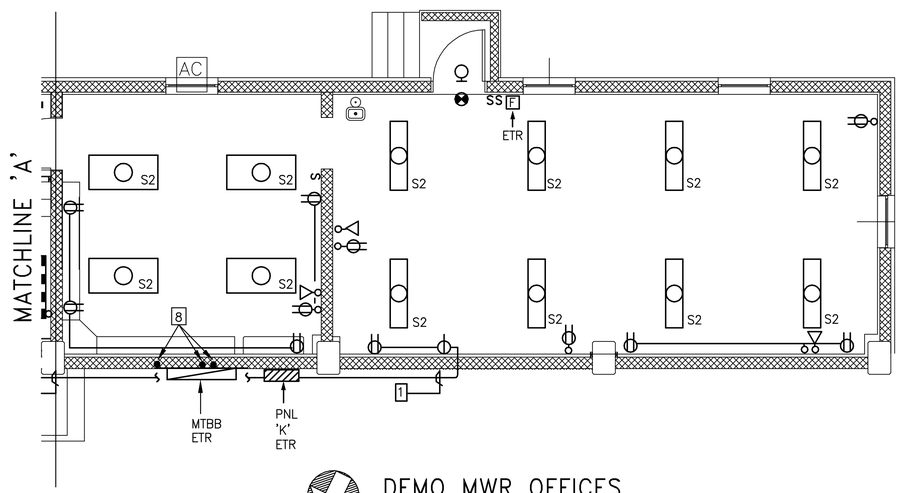


DEMO MWR OFFICES
1/4" = 1'-0"



DEMO MWR OFFICES
1/4" = 1'-0"

DEMOLITION NOTES (THIS SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET, UNLESS NOTED OTHERWISE.

1. REMOVE CONDUIT AND WIRING BACK TO PANELBOARD. PATCH CMU WALL TO MATCH EXISTING CONDITIONS.
2. REMOVE CONDUIT AND WIRING BACK TO 'K-18'. LABEL BREAKER AS 'SPARE'.
3. REMOVE DISCONNECT, EQUIPMENT CONNECTIONS, CONDUIT & WIRING BACK TO SOURCE.
4. REMOVE EMPTY DISCONNECT ENCLOSURE. ABANDON CONDUIT IN WALL. PATCH WALL TO MATCH EXISTING CONDITIONS.
5. REMOVE JUNCTION BOX LOCATED IN SOFFIT ABOVE WINDOW. PATCH SOFFIT TO MATCH EXISTING CONDITIONS.
6. REMOVE ENCLOSURE. ABANDON CONDUIT IN WALL. PATCH WALL TO MATCH EXISTING CONDITIONS.
7. REMOVE JUNCTION BOX AND TELEPHONE CABLE BACK TO BACKBOARD.
8. REMOVE TELEPHONE CABLE BACK TO BACKBOARD.
9. REMOVE 2P, 100A. LOAD CENTER. REMOVE 1 1/4" CONDUIT WITH 3#4 & 1#8 BACK TO SOURCE.
10. REMOVE TELEPHONE BACKBOARD. REMOVE BACKBOARD CABLING BACK TO MTBB (LOCATED BESIDE PANEL "K"). COORDINATE WITH SHEET E-14 FOR LOCATION OF NEW BACKBOARD.

KEY PLAN

GRAPHIC SCALE
1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS				
SYM.	DESCRIPTION	DATE	APPROVED	

P/E	DESIGN	JHB	
	DRAWN	JHB	
	REVIEW	REF	
	CHIEF ARCH./ ENGR.		
	PROJECT MANAGER	JB	
	FIRE PROTECTION		
	QUALITY CONTROL		
	BRANCH MANAGER		
	DESIGN DIRECTOR		

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION NAB LITTLE CREEK
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
DEMO MWR OFFICES

CODE ID. NO. 80091	SIZE D
SCALE:	AS NOTED
EFD NO.	468526
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-B-5105
NAVFAC DRAWING NO.	4368526
SHEET	101 OF 119

E-6

FILENAME: 5105E006B.DWG, PLOT SCALE: 1=1, SAVED ON 08/15/97 AT 10:30, XREFS: NONE

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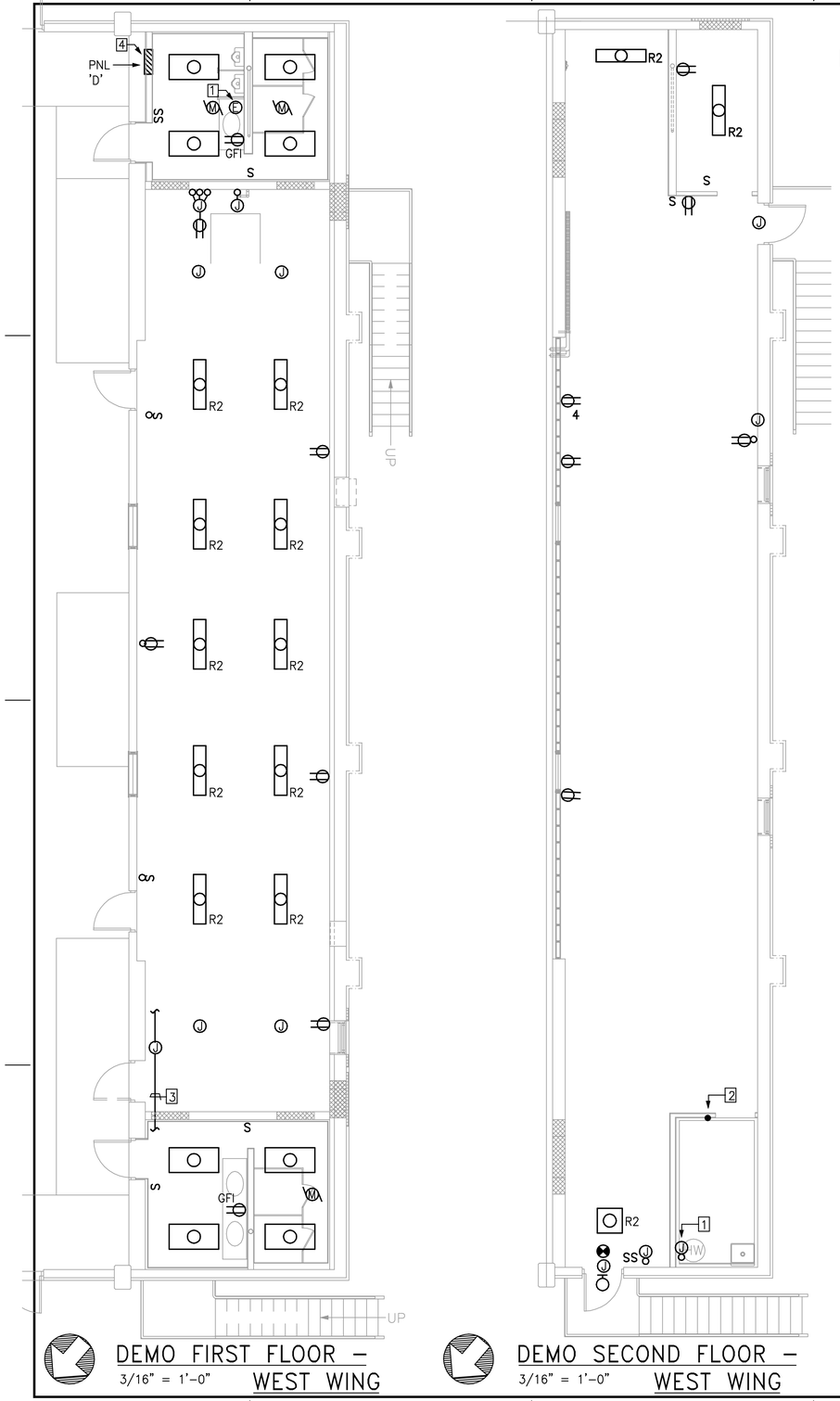
D C B A



DEMO FIRST FLOOR – WEST WING
3/16" = 1'-0"

DEMO SECOND FLOOR – WEST WING
3/16" = 1'-0"

DEMOLITION NOTES (THIS SIDE OF SHEET ONLY)

REMOVE ALL ITEMS SHOWN ON THIS SHEET, UNLESS OTHERWISE NOTED.

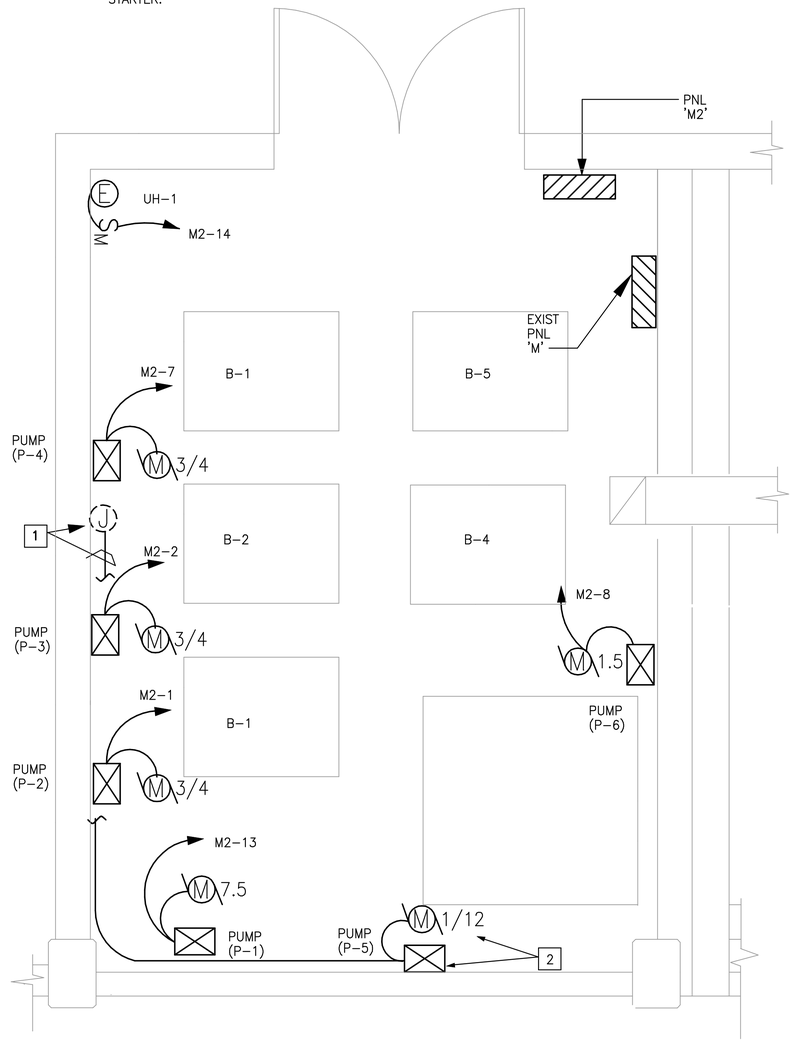
1. ELECTRICAL CONNECTION TO WATER HEATER.
2. PULL WIRE HANGING DOWN FROM CEILING BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN.
3. REMOVE CONDUIT & WIRE BACK TO FIRST ACTIVE DEVICE OR SOURCE TO REMAIN.
4. REMOVE PANELBOARD. REMOVE FEEDERS BACK TO SOURCE. ABANDON BRANCH CIRCUIT CONDUITS IN WALL.

· KEY PLAN ·

GRAPHIC SCALE
3/16"=1'-0" 0' 5' 10' 20'

NOTES (BOILER ROOM ONLY)

1. PROVIDE CONDUIT AND WIRE FROM EXISTING JUNCTION BOX, LOCATED AT CEILING, AND EXTEND EXISTING CIRCUIT TO NEW LOCATION OF SALVAGED DOMESTIC WATER CIRCULATION PUMP (P–5).
2. REINSTALL SALVAGED DOMESTIC WATER CIRCULATION PUMP AND STARTER.



BOILER ROOM – POWER
1/2" = 1'-0"

· KEY PLAN ·

GRAPHIC SCALE
1/2"=1'-0" 1' 0' 1' 2' 3' 4' 5'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ EMGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC
SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
DEMO FIRST & SECOND FLOOR PLAN – WEST WING, BOILER ROOM – POWER

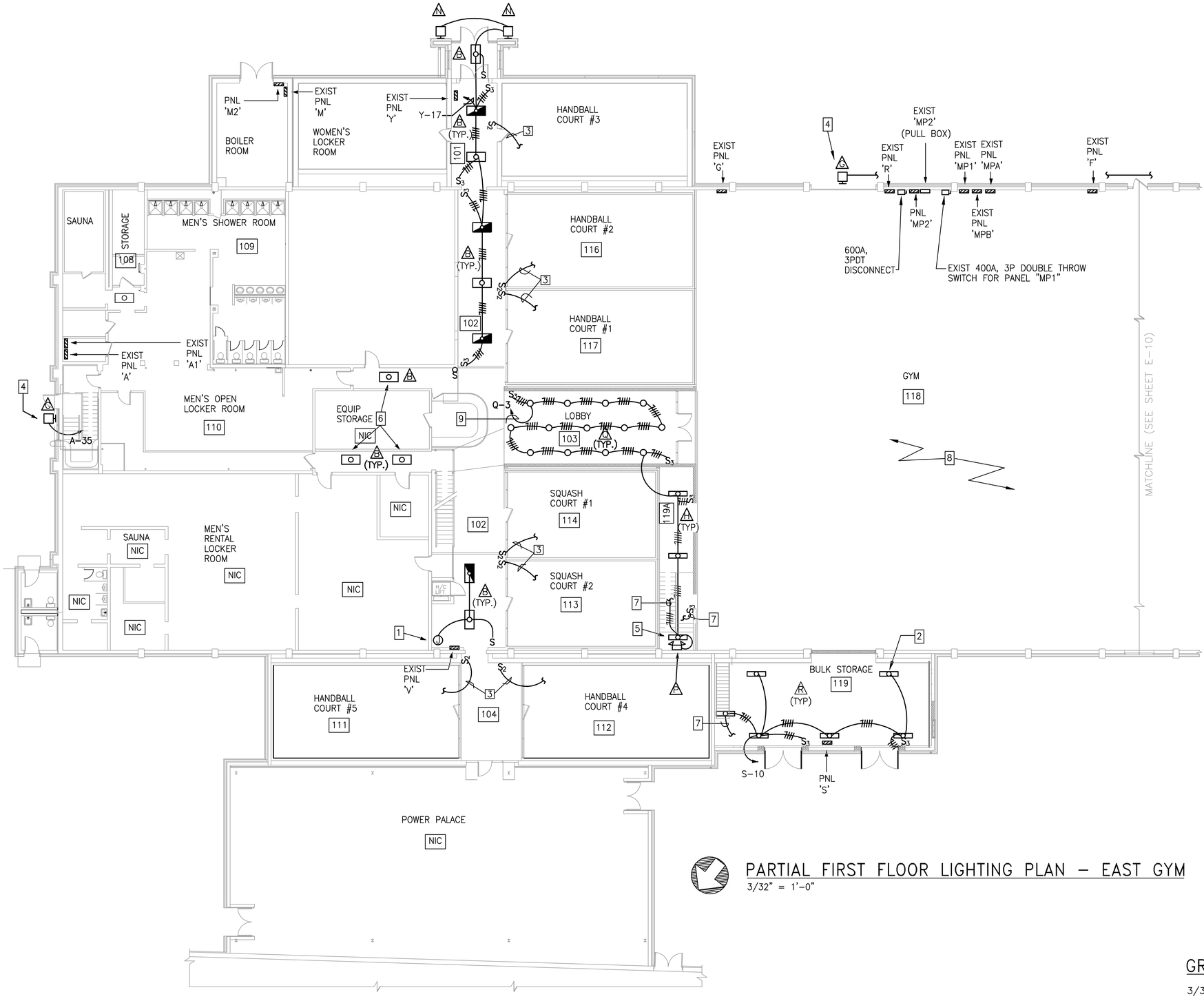
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468527	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368527	
SHEET 102 OF 119	

E–7

8 7 6 5 4 3 2 1
D C B A

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E007.DWG, PLOT SCALE: 1=1, SAVED ON 08/15/97 AT 10:28, XREFS: NONE



NOTES

1. PROVIDE 4" X 4" JB AND CONNECT TO EXISTING CIRCUIT THAT IS FED FROM CIRCUIT 'Z-16'. SEE SHEET E-2, NOTE #2 FOR COORDINATION.
2. MOUNT FIXTURE TO UNDERSIDE OF STRUCTURAL BEAMS.
3. CIRCUIT GOES UP TO COURT LIGHTING. FOR CONTINUATION OF CIRCUIT, SEE SHEET E-11.
4. WALL MOUNT FIXTURE 15'-0" AFG.
5. PENDANT MOUNT FIXTURE 8'-0" AFF.
6. RECONNECT LIGHT FIXTURE TO EXISTING CIRCUIT.
7. CIRCUIT CONTINUES UP TO SECOND FLOOR. SEE E-11 FOR CONTINUATION OF CIRCUIT.
8. SEE SHEET E-11 FOR OVERHEAD LIGHTING.
9. SEE SHEET E-11 FOR LOCATION OF PANEL "Q".

PARTIAL FIRST FLOOR LIGHTING PLAN - EAST GYM

3/32" = 1'-0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR
SYM.

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

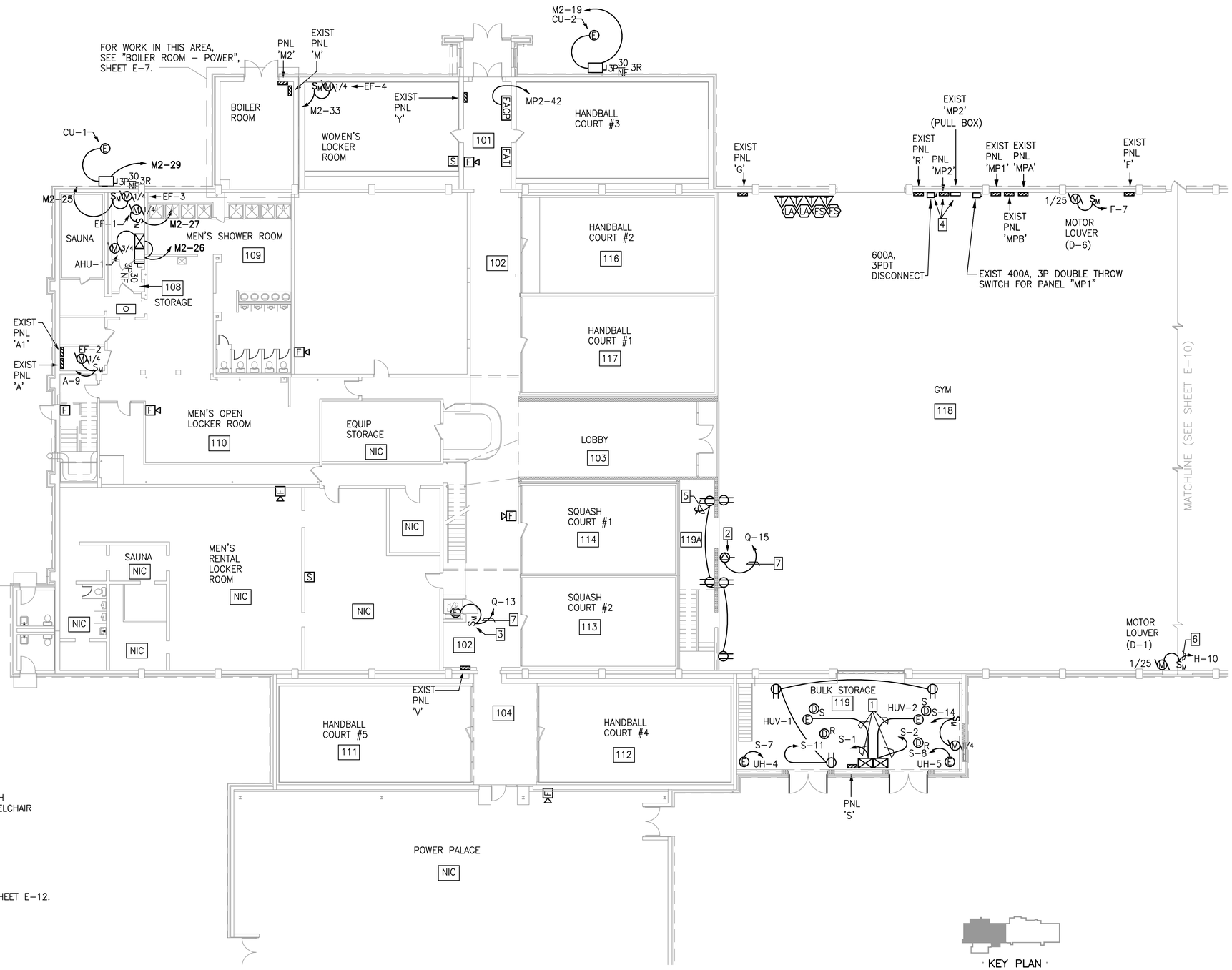
NAB LITTLE CREEK VIRGINIA BEACH, VA
RENOVATIONS TO GYMNASIUM BUILDING 3147
PARTIAL FIRST FLOOR LIGHTING PLAN - EAST GYM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468528	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-5105	
NAVFAC DRAWING NO. 4368528	
SHEET 103 OF 119	

E-8

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E008.DWG; PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 09:46; XREFS: NONE



NOTES

1. 3#4 & 1#6 GND IN 1"C
2. SPECIAL EVENTS RECEPTACLE. PROVIDE NEMA TYPE L14-30-R, 30A, 125/250V.
3. PROVIDE NEMA TYPE 1, SINGLE POLE SWITCH WITH PILOT LIGHT AND HANDLE GUARD/LOCK FOR WHEELCHAIR LIFT. MOUNT 48" AFF.
4. SEE 'NEW ONE-LINE DIAGRAM', SHEET E-18 AND 'SITE PLAN', SHEET E-1, FOR COORDINATION OF NEW 600A. PNL 'MP2' AND 600A. DISCONNECT SWITCH.
5. FOR CONTINUATION OF CIRCUIT, SEE NOTE #2, SHEET E-12.
6. SEE SHEET E-10 FOR LOCATION OF PANEL 'H'.
7. SEE SHEET E-11 FOR LOCATION OF PANEL 'Q'.

PARTIAL FIRST FLOOR POWER PLAN – EAST GYM

3/32" = 1'-0"

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN JHB; DRAWN JHB; REVIEW REF; QC; CHIEF; ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV, NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY – SATISFACTORY TO — APPROVED — DATE

FOR BID FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY — NAVAL STATION — NAB LITTLE CREEK — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

VIRGINIA BEACH, VIRGINIA

PARTIAL FIRST FLOOR POWER PLAN – EAST GYM

CODE ID. NO.	80091
SIZE	D
SCALE:	AS NOTED
EFD NO.	468529
STA. PROJ. NO.	R-234
SPEC. NO.	05-95-5105
CONSTR. CONTR. NO.	N62470-95-5105
NAVFAC DRAWING NO.	4368529
SHEET	104 OF 119

E-9

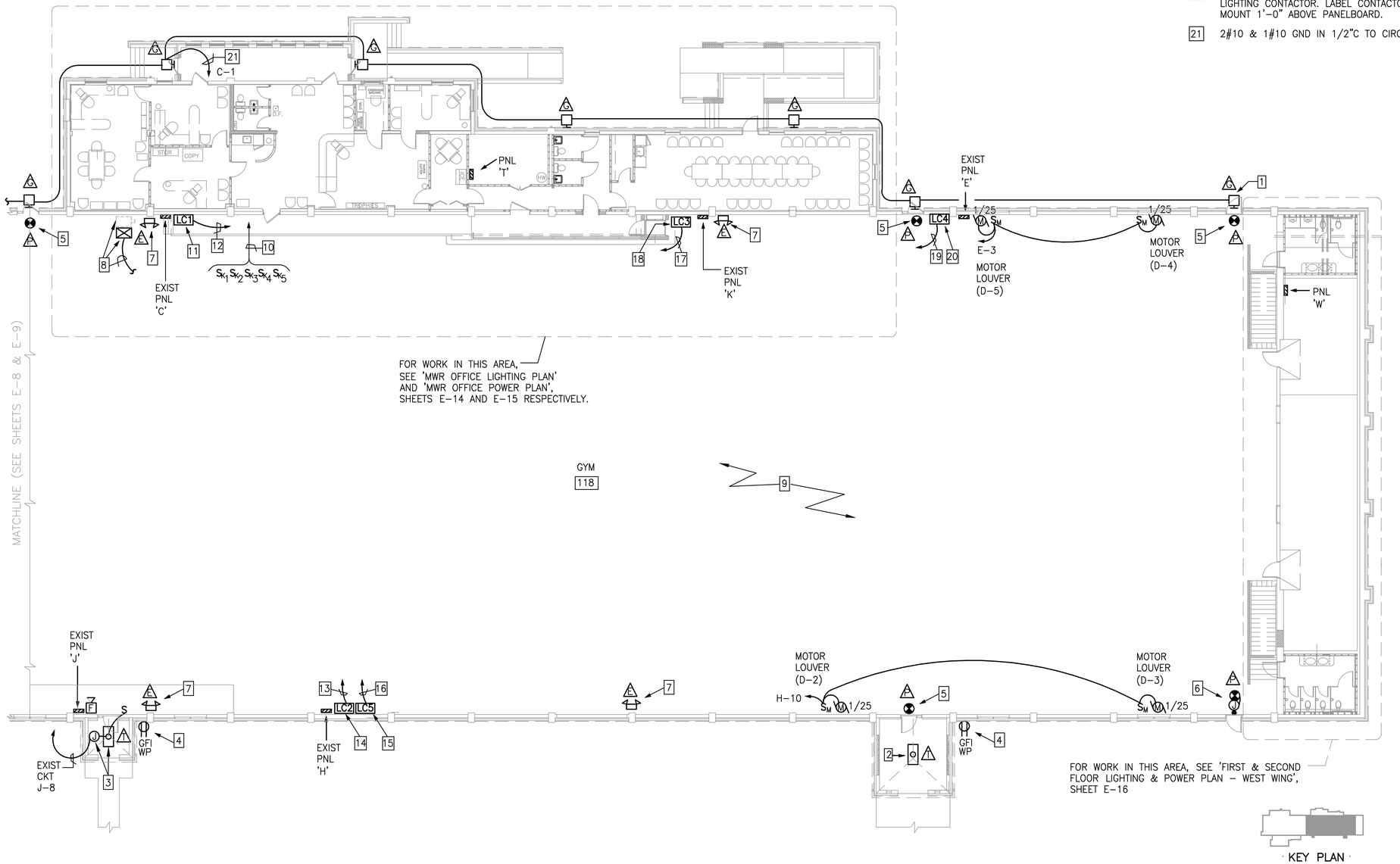
DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E009.DWG, PLOT SCALE: 1=1, SAVED ON 08/21/97 AT 16:24, XREFS: NONE

NOTES

SEE 'LIGHTING CONTROL DIAGRAMS' ON SHEET E-21 FOR DETAILS ON LIGHTING CONTACTORS AND KEYED SWITCHES

1. MOUNT FIXTURE 10'-0" AFG. (TYP.)
2. TAP EXISTING CIRCUIT.
3. PROVIDE JB AND TAP EXISTING CIRCUIT.
4. EXTEND EXISTING CONDUIT AND WIRES AS NECESSARY. REATTACH RECEPTACLE AND RECONNECT.
5. RECONNECT DEVICE TO EXISTING CIRCUIT. MOUNT EXIT SIGN AT SAME HEIGHT AS REMOVED EXIT SIGN. PROVIDE PROTECTIVE WIRE CAGE FOR EXIT SIGN AND SURFACE MOUNT ON WALL.
6. PROVIDE 4" X 4" JB, CONDUIT & WIRE TO EXTEND EXISTING CIRCUIT TO EXIT SIGN. PROVIDE PROTECTIVE WIRE CAGE FOR EXIT SIGN AND SURFACE MOUNT ON WALL.
7. CONNECT EMERGENCY LIGHT TO EXISTING CIRCUIT AND MOUNT AT SAME HEIGHT AS REMOVED EMERGENCY LIGHT.
8. CONNECT NEMA SIZE 0 MOTOR STARTER TO EXISTING 30A, NON-FUSED DISCONNECT. REUSE EXISTING CIRCUIT 'F-2'. SEE SHEET E-9 FOR PANELBOARD LOCATION. SEE SHEET E-16 FOR INSTALLATION OF EXHAUST FAN 'EF-12' ON ROOFTOP.
9. SEE SHEET E-13 FOR OVERHEAD LIGHTING.
10. LOCATE LIGHTING CONTACTOR KEYED CONTROL SWITCHES NEXT TO ENTRANCE DOOR TO MWR OFFICE. MOUNT 48" AFF.
11. PROVIDE NEMA TYPE 1, 10 POLE, 20A, 208V LIGHTING CONTACTOR. LABEL CONTACTOR 'LC1'. MOUNT 1'-0" ABOVE PANELBOARD.
12. TO KEYED SWITCH 'SK1' NEXT TO MWR ADMIN OFFICES. RUN CONDUIT CONCEALED ABOVE DROP CEILING.
13. TO KEYED SWITCH 'SK2' NEXT TO MWR ADMIN OFFICES. RUN CONDUIT CONCEALED ABOVE DROP CEILING.
14. PROVIDE NEMA TYPE 1, 8 POLE, 20A, 208V LIGHTING CONTACTOR. LABEL CONTACTOR 'LC2'. MOUNT 1'-0" ABOVE PANELBOARD.
15. PROVIDE NEMA TYPE 1, 2 POLE, 20A, 208V LIGHTING CONTACTOR. LABEL CONTACTOR 'LC5'. MOUNT 1'-0" ABOVE PANELBOARD.
16. TO KEYED SWITCH 'SK5' NEXT TO MWR ADMIN OFFICES. RUN CONDUIT CONCEALED ABOVE DROP CEILING.
17. TO KEYED SWITCH 'SK3' NEXT TO MWR ADMIN OFFICES. RUN CONDUIT CONCEALED ABOVE DROP CEILING.
18. PROVIDE NEMA TYPE 1, 8 POLE, 20A, 208V LIGHTING CONTACTOR. LABEL CONTACTOR 'LC3'. MOUNT 1'-0" ABOVE PANELBOARD.
19. TO KEYED SWITCH 'SK4' NEXT TO MWR ADMIN OFFICES. RUN CONDUIT CONCEALED ABOVE DROP CEILING.
20. PROVIDE NEMA TYPE 1, 8 POLE, 20A, 208V LIGHTING CONTACTOR. LABEL CONTACTOR 'LC4'. MOUNT 1'-0" ABOVE PANELBOARD.
21. 2#10 & 1#10 GND IN 1/2"C TO CIRCUIT 'C-1'.



PARTIAL FIRST FLOOR LIGHTING & POWER PLAN – WEST GYM

3/32" = 1'-0"

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

NO.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

A/E	DESIGN	DRAWN	REVIEW	QC	CHIEF	PROJECT MANAGER	FIRE PROTECTION	BRANCH MANAGER	DESIGN DIRECTOR
EFD	JHB	JHB	REF		ARCH / ENGR.	JB			

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE — APPROVED

ACTIVITY – SATISFACTORY TO — DATE — APPROVED

FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION NAB LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

PARTIAL FIRST FLOOR LIGHTING & POWER PLAN – WEST GYM

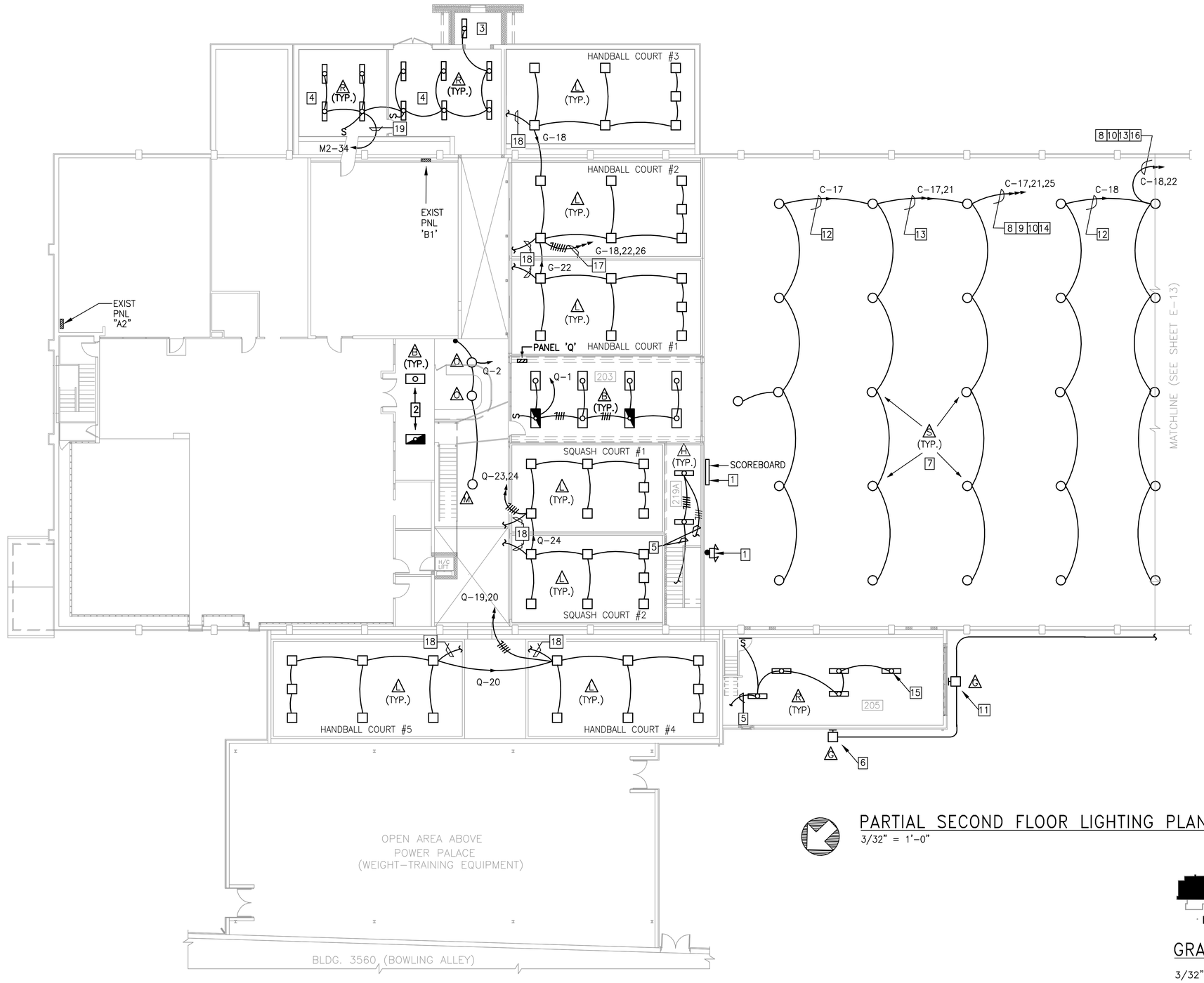
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468530	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N6247-95-B-5105	
NAVFAC DRAWING NO. 4368530	
SHEET 105 OF 119	
E-10	

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E010.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 09:49, XREFS: NONE

D C B A

8 7 6 5 4 3 2 1



NOTES

1. EXTEND CIRCUITS TO NEW LOCATION OF DEVICES. MOUNT DEVICES AT SAME HEIGHT AFF AS PRIOR LOCATION. RECONNECT AS EXISTING.
2. CONNECT FIXTURES TO EXISTING LIGHTING CIRCUITS.
3. MOUNT FIXTURE TO UNDERSIDE OF ROOF STRUCTURE.
4. SURFACE MOUNT FIXTURES TO UNDERSIDE OF ROOF STRUCTURE.
5. CIRCUIT CONTINUES DOWN TO FIRST FLOOR. SEE SHEET E-8 FOR CONTINUATION OF CIRCUIT.
6. MT. FIXTURE 18'-0" AFG.
7. PENDANT MOUNT NEW 400W MH FIXTURES. SEE DETAIL "A", SHEET E-19.
8. SEE SHEET E-10, FOR LOCATION OF PANELBOARD & LIGHTING CONTACTORS.
9. RELOCATE EXISTING SPARE BREAKERS C-17 & 19 TO SPACES C-41 & 42 RESPECTIVELY. REMOVE EXISTING SPARE BREAKERS C-21, 23, 25 & 27. PROVIDE THREE GE, TYPE THQB, 2P, 20A CB'S IN SPACES C-17, 21 & 25.
10. RUN CIRCUITS TO PANELBOARD VIA 10 POLE LIGHTING CONTACTOR 'LC1'. SEE SHEET E-10 FOR LIGHTING CONTACTOR LOCATION.
11. MT. FIXTURE 10'-0" AFG.
12. PROVIDE 2#10 & 1#10 GND IN 1/2"C
13. PROVIDE 4#10 & 1#10 GND IN 1/2"C
14. PROVIDE 6#10 & 1#10 GND IN 3/4"C
15. MOUNT FIXTURES TO UNDERSIDE OF STRUCTURAL BEAMS.
16. REMOVE EXISTING SPARE BREAKERS C-18,20,22 & 24. PROVIDE TWO GE, TYPE THQB, 2P, 20A CB'S IN SPACES C-18 & 22.
17. PROVIDE THREE GE, TYPE THQB, 2P, 20A CB'S IN SPACES G-18,22 & 26. SEE SHEET E-9 FOR LOCATION OF PANELBOARD.
18. CIRCUIT GOES DOWN TO FIRST FLOOR COURT LIGHT SWITCH. FOR CONTINUATION OF CIRCUIT, SEE SHEET E-8.
19. SEE SHEET E-9 FOR LOCATION OF PANEL 'M2'.

PARTIAL SECOND FLOOR LIGHTING PLAN – EAST GYM

3/32" = 1'-0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E: DESIGN JHB; DRAWN JHB; REVIEW RLF; QC; CHIEF ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR CONTRACTOR MARKING

SEAL

DEPARTMENT OF THE NAVY — NAVAL STATION NAB LITTLE CREEK — ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

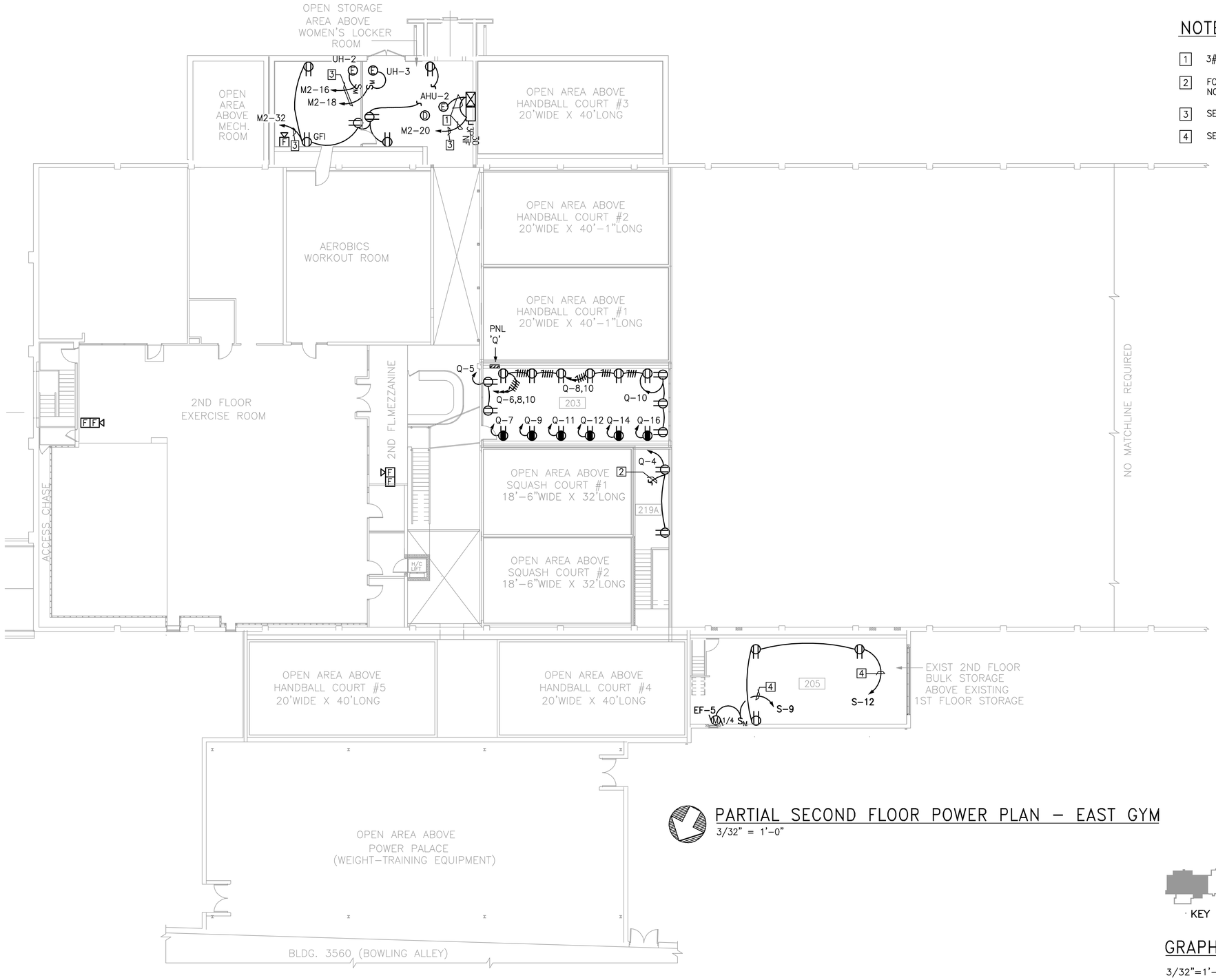
PARTIAL SECOND FLOOR LIGHTING PLAN - EAST GYM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468531	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368531	
SHEET 106 OF 119	

E-11

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E011.DWG, PLOT SCALE: 1=1, SAVED ON 08/20/97 AT 15:45, XREFS: NONE



NOTES

1. 3#8 & 1#10 GND IN 1" C
2. FOR CONTIUNUATION OF CIRCUIT, SEE NOTE #5, SHEET E-9.
3. SEE SHEET E-9 FOR LOCATION OF PANEL 'M2'.
4. SEE SHEET E-9 FOR LOCATION OF PANEL 'S'.

PARTIAL SECOND FLOOR POWER PLAN - EAST GYM

3/32" = 1'-0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'-0" 0' 10' 20' 30' 40'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
PARTIAL SECOND FLOOR POWER PLAN - EAST GYM

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468532	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368532	
SHEET 107 OF 119	

E-12

DRAWFORM REVISION 25 SEPT 96

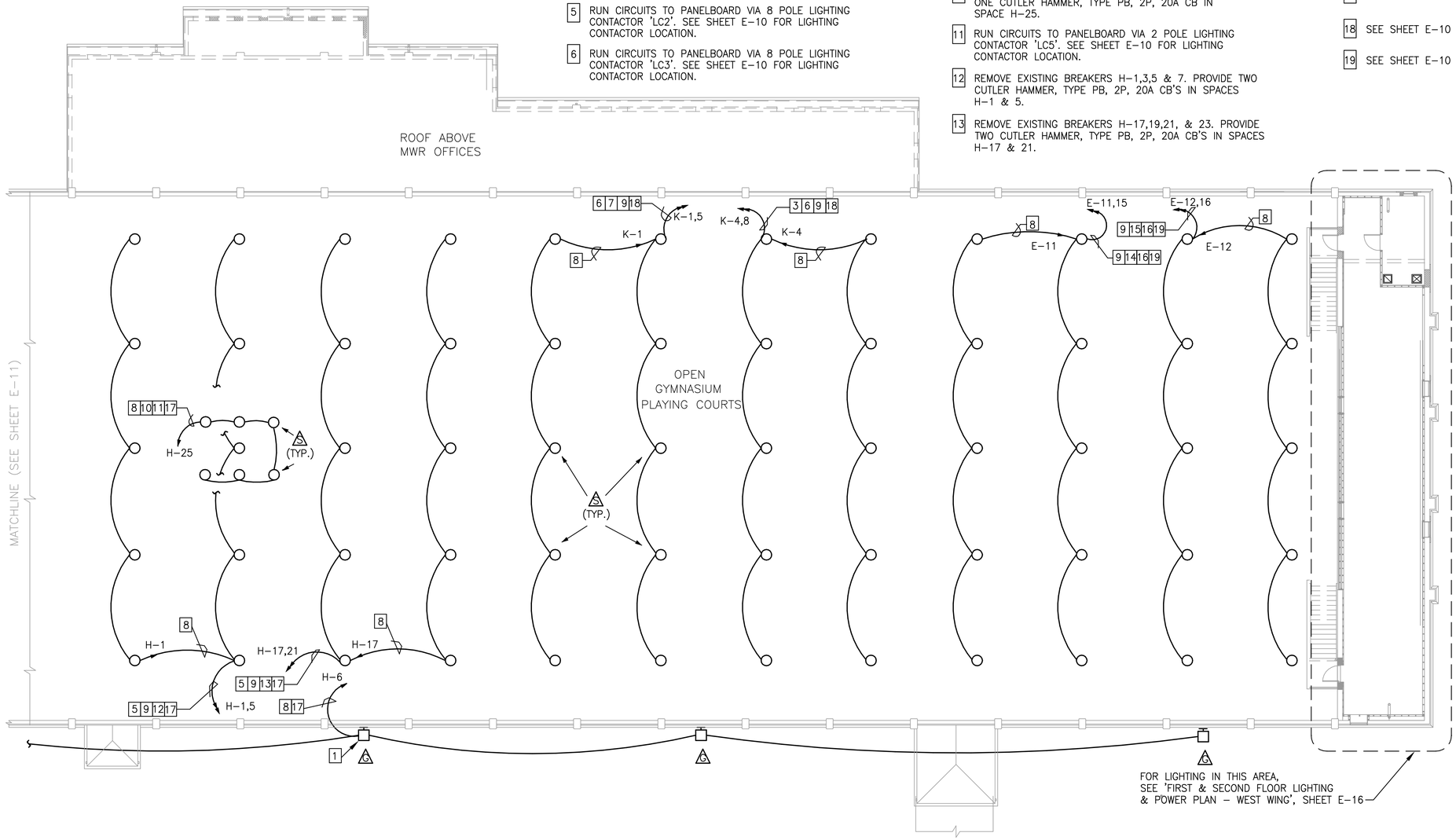
FILENAME: 5105E012.DWG; PLOT SCALE: 1=1, SAVED ON 08/20/97 AT 15:42, XREFS: NONE

8 7 6 5 4 3 2 1

D C B A

NOTES

1. MOUNT FIXTURES 18'–0" AFG (TYP.).
2. PENDANT MOUNT NEW 400W MH FIXTURES. SEE DETAIL "A" ON SHEET E–19.
3. REMOVE EXISTING BREAKERS K–4, 6, 8 & 10. PROVIDE TWO SQUARE "D" TYPE QOB, 2P, 20A CB'S IN SPACES K–4 & K–8.
4. PROVIDE NEMA TYPE 1, 8 POLE, 30A, 208V LIGHTING CONTACTOR. MOUNT 1'–0" ABOVE PANELBOARD.
5. RUN CIRCUITS TO PANELBOARD VIA 8 POLE LIGHTING CONTACTOR 'LC2'. SEE SHEET E–10 FOR LIGHTING CONTACTOR LOCATION.
6. RUN CIRCUITS TO PANELBOARD VIA 8 POLE LIGHTING CONTACTOR 'LC3'. SEE SHEET E–10 FOR LIGHTING CONTACTOR LOCATION.
7. REMOVE EXISTING BREAKERS K–1, 3, 5 & 7. PROVIDE TWO SQUARE "D" TYPE QOB, 2P, 20A CB'S IN SPACES K–1 & 5.
8. 2#10 & 1#10 GND IN 1/2" CONDUIT.
9. 4#10 & 1#10 GND IN 1/2" C.
10. REMOVE EXISTING BREAKERS H–25 & 27. PROVIDE ONE CUTLER HAMMER, TYPE PB, 2P, 20A CB IN SPACE H–25.
11. RUN CIRCUITS TO PANELBOARD VIA 2 POLE LIGHTING CONTACTOR 'LC5'. SEE SHEET E–10 FOR LIGHTING CONTACTOR LOCATION.
12. REMOVE EXISTING BREAKERS H–1,3,5 & 7. PROVIDE TWO CUTLER HAMMER, TYPE PB, 2P, 20A CB'S IN SPACES H–1 & 5.
13. REMOVE EXISTING BREAKERS H–17,19,21, & 23. PROVIDE TWO CUTLER HAMMER, TYPE PB, 2P, 20A CB'S IN SPACES H–17 & 21.
14. REMOVE EXISTING BREAKERS E–13,15 & 17. PROVIDE TWO GE, TYPE THQB, 2P, 20A CB'S IN SPACES E–11 & 15.
15. REMOVE EXISTING BREAKERS E–14,16 & 18. PROVIDE TWO GE, TYPE THQB, 2P, 20A CB'S IN SPACES E–12 & 16.
16. RUN CIRCUITS TO PANELBOARD VIA 8 POLE LIGHTING CONTACTOR 'LC4'. SEE SHEET E–10 FOR LIGHTING CONTACTOR LOCATION.
17. SEE SHEET E–10 FOR LOCATION OF PANEL 'H'.
18. SEE SHEET E–10 FOR LOCATION OF PANEL 'K'.
19. SEE SHEET E–10 FOR LOCATION OF PANEL 'E'.



PARTIAL SECOND FLOOR LIGHTING PLAN – WEST GYM

3/32" = 1'–0"

KEY PLAN

GRAPHIC SCALE

3/32"=1'–0" 0' 10' 20' 30' 40'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E ETD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ EMGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR ETD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
PARTIAL SECOND FLOOR LIGHTING PLAN – WEST GYM

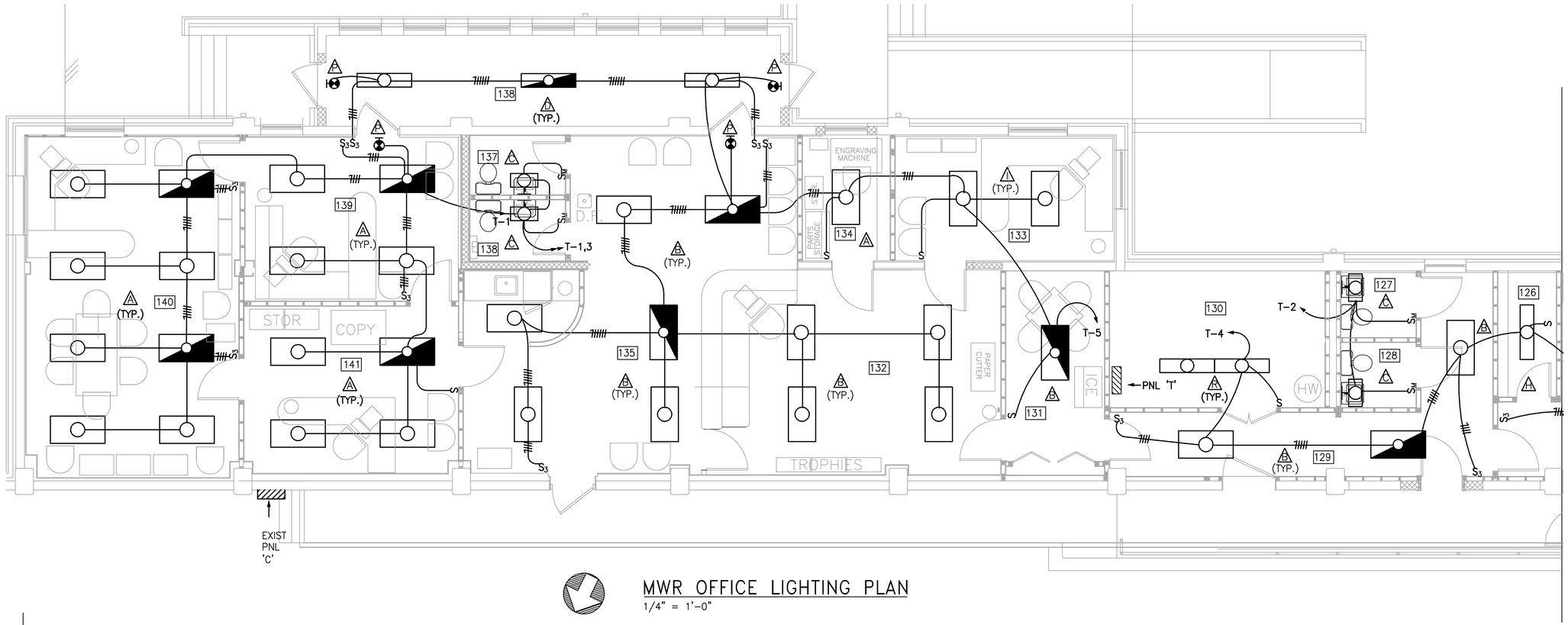
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
ETD NO. 468533	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N6247–95–B–5105	
NAVFAC DRAWING NO. 4368533	
SHEET 108 OF 119	
E–13	

D C B A

8 7 6 5 4 3 2 1

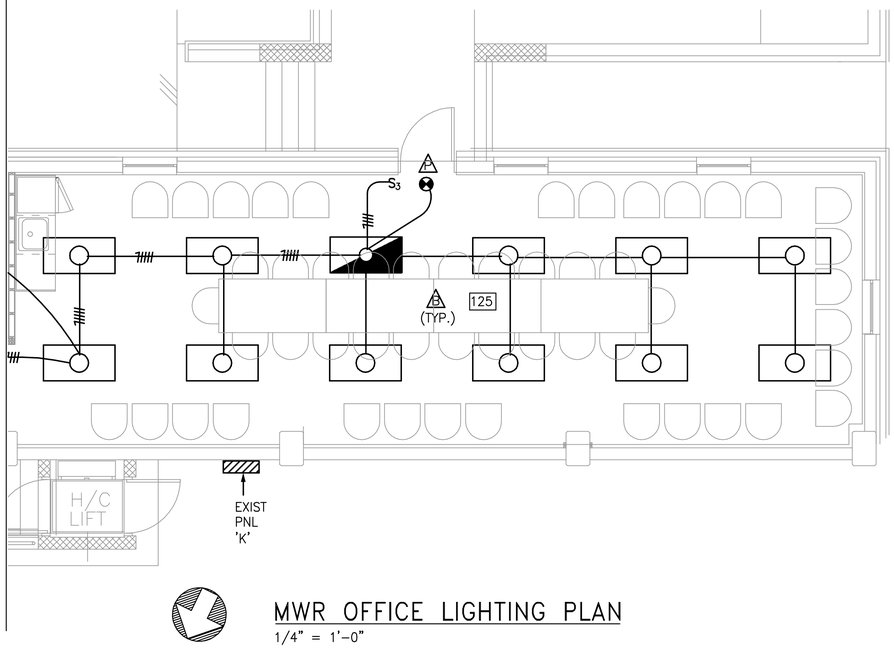
DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E013B.DWG, PLOT SCALE: 1=1, SAVED ON 08/20/97 AT 13:04, XREFS: NONE



MWR OFFICE LIGHTING PLAN

1/4" = 1'-0"



MWR OFFICE LIGHTING PLAN

1/4" = 1'-0"

KEY PLAN

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E

	EFD
DESIGN	JHB
DRAWN	JHB
REVIEW	RCF
CHIEF ARCH./ ENGR.	
PROJECT MANAGER	JB
FIRE PROTECTION	
QUALITY CONTROL	
BRANCH MANAGER	
DESIGN DIRECTOR	

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE

ACTIVITY - SATISFACTORY TO
APPROVED DATE

FOR EFD FOR COMMANDER NAVFAC

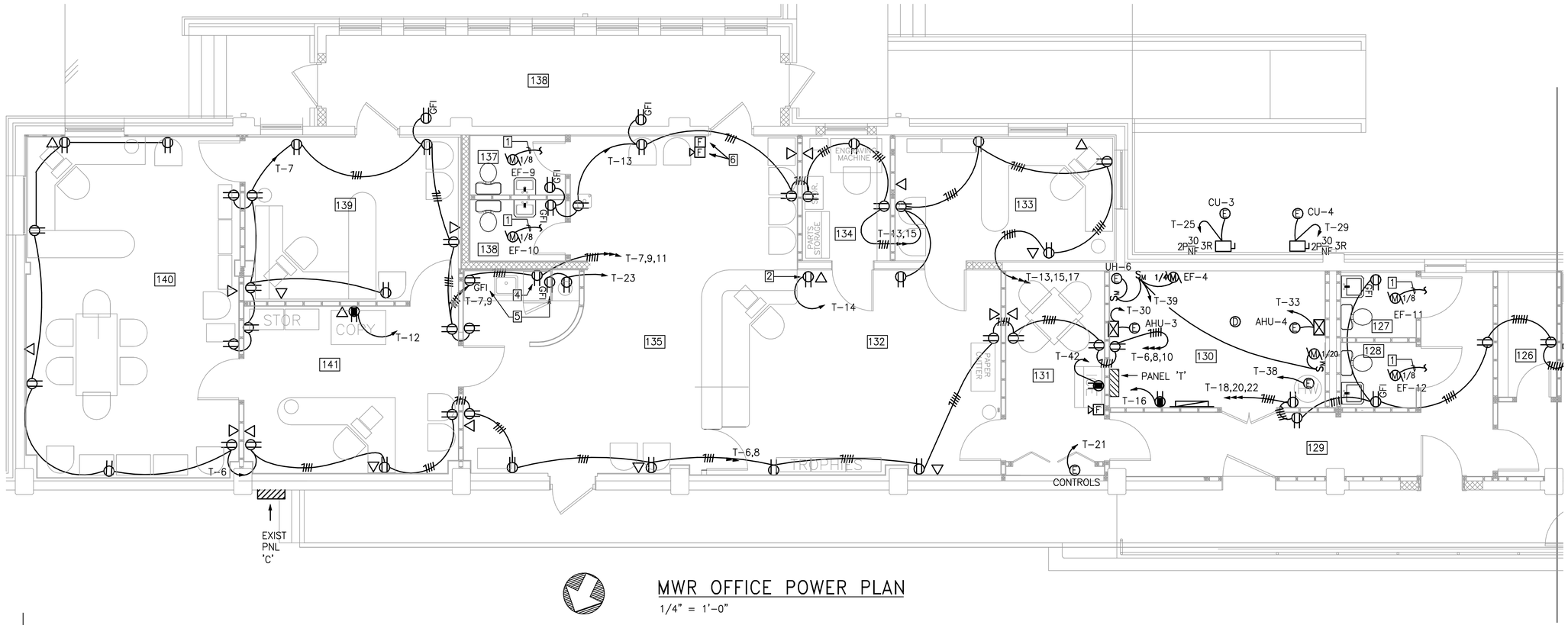
DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
MWR OFFICE LIGHTING PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468534	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368534	
SHEET 109 OF 119	

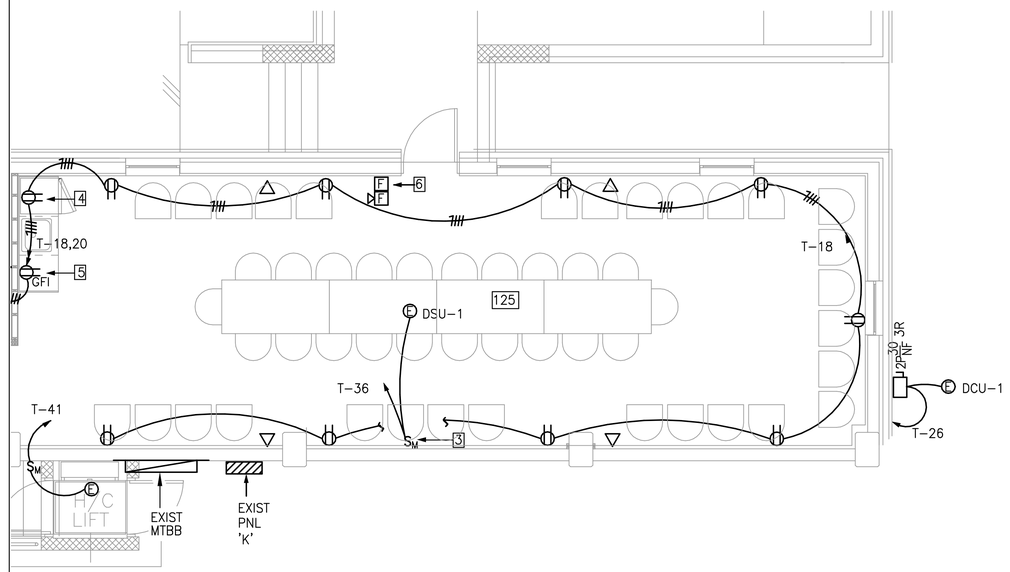
E-14

FILENAME: 5105E014.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 10:16, XREFS: NONE



MWR OFFICE POWER PLAN

1/4" = 1'-0"



MWR OFFICE POWER PLAN

1/4" = 1'-0"

NOTES:

1. CONNECT TO LIGHTING CIRCUIT AND CONTROL VIA LIGHT SWITCH. SEE SHEET E-14 FOR COORDINATION.
2. RECEPTACLE TO SERVE AS CONNECTION POINT FOR DESK RECEPTACLES.
3. MOUNT ABOVE RECESSED CEILING.
4. MOUNT RECEPTACLE 18" AFF FOR REFRIGERATOR.
5. MOUNT RECEPTACLE 4" ABOVE BACK SPLASH.
6. REUSE EXISTING FIRE ALARM HARDWARE. RECONNECT CONDUIT AND WIRING.
7. MOUNT SWITCH 48" AFF.

KEY PLAN

GRAPHIC SCALE

1/4"=1'-0" 1' 0' 1' 5' 10' 15'

REVISIONS

DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW RCF
CHIEF ARCH./ ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
QUALITY CONTROL
BRANCH MANAGER
DESIGN DIRECTOR
SYM.

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED
DATE

ACTIVITY - SATISFACTORY TO
APPROVED
DATE

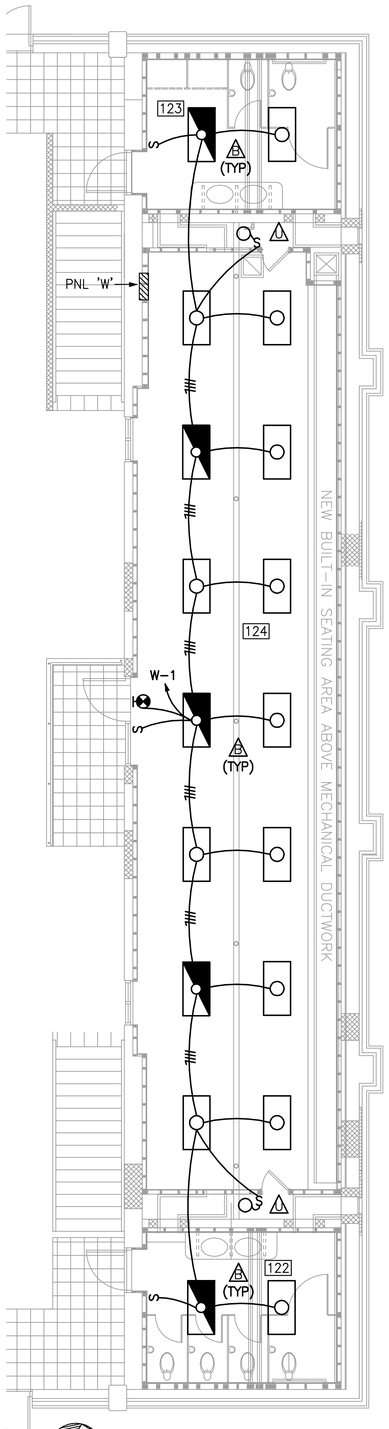
FOR EFD/ FOR COMMANDER NAVFAC

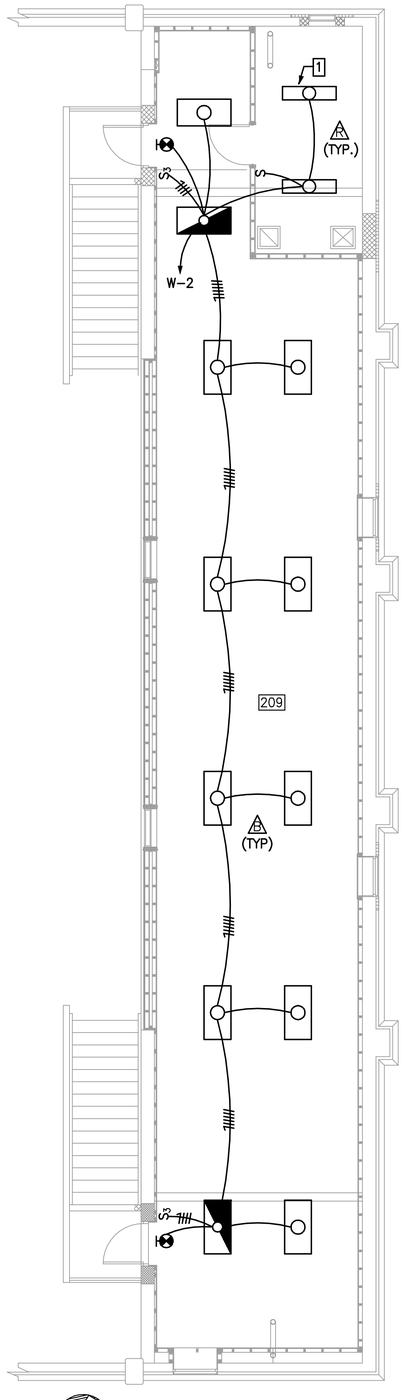
DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
REVOVATIONS TO GYMNASIUM BUILDING 3147
MWR OFFICE POWER PLAN

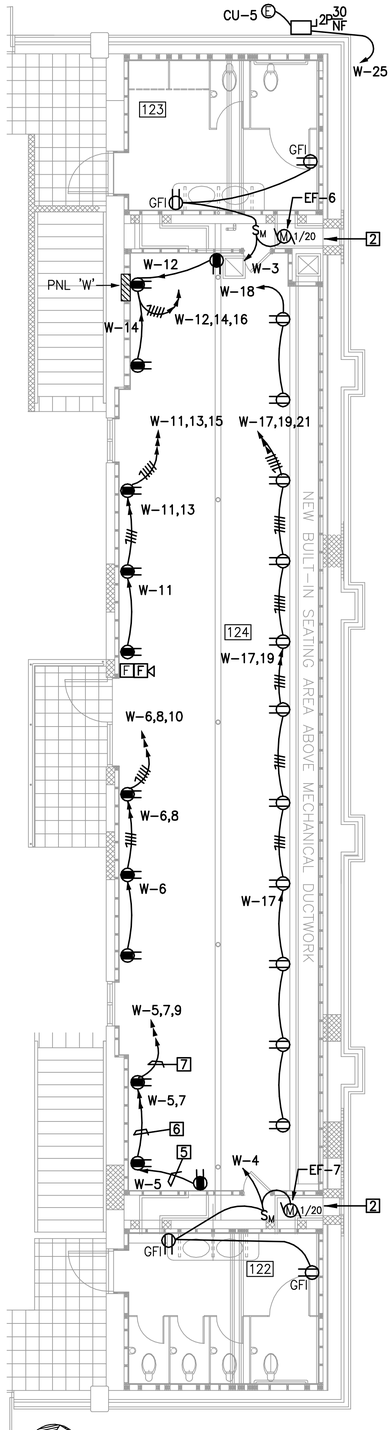
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468535	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368535	
SHEET 110 OF 119	

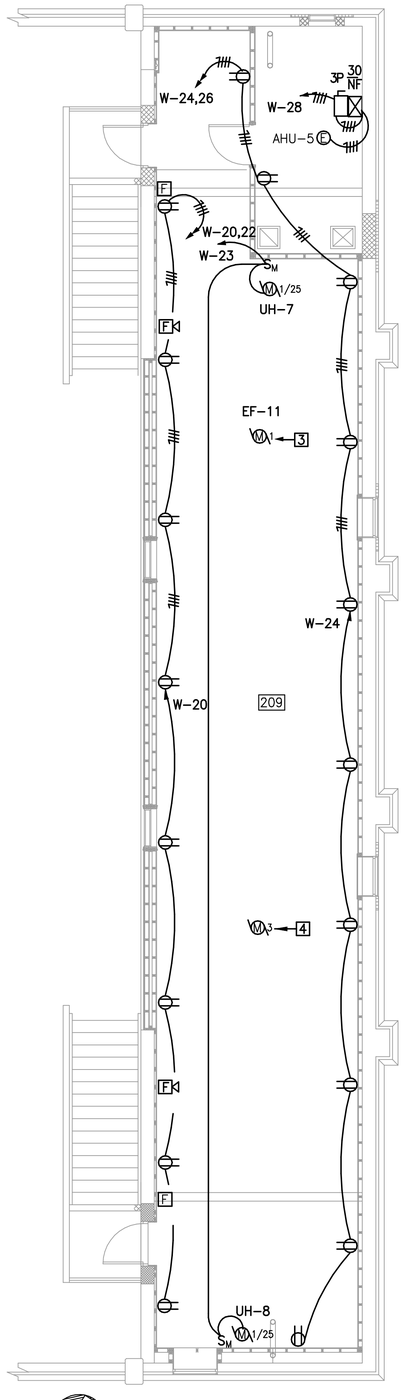
E-15

FILENAME: 5105E015.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 10:18, XREFS: NONE









NOTES:

1. PENDANT MT. 8'-0" AFF.
2. WIRE EXHAUST FAN AHEAD OF GFI's.
3. CONNECT 1HP, 208V, 3ø MOTOR TO EXISTING 30A, NON-FUSED DISCONNECT ON ROOFTOP. CIRCUIT FED FROM F-1. SEE SHEET E-8 FOR PANELBOARD LOCATION.
4. CONNECT 3HP, 208V, 3ø MOTOR TO EXISTING 30A, NON-FUSED DISCONNECT ON ROOFTOP. CIRCUIT FED FROM F-2. SEE SHEET E-8 FOR PANELBOARD LOCATION. SEE SHEET E-9 FOR MOTOR STARTER COORDINATION.
5. 2#10 & 1#10 GND IN 1/2" C.
6. 3#10 & 1#10 GND IN 1/2" C.
7. 4#10 & 1#10 GND IN 1/2" C.

LIGHTING – 1ST FLOOR
SCALE: 3/16" = 1'-0"

LIGHTING – 2ND FLOOR
SCALE: 3/16" = 1'-0"

POWER – 1ST FLOOR
SCALE: 3/16" = 1'-0"

POWER – 2ND FLOOR
SCALE: 3/16" = 1'-0"

KEY PLAN

GRAPHIC SCALE
3/16"=1'-0" 0' 5' 10' 20'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED

A/E: EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ENGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

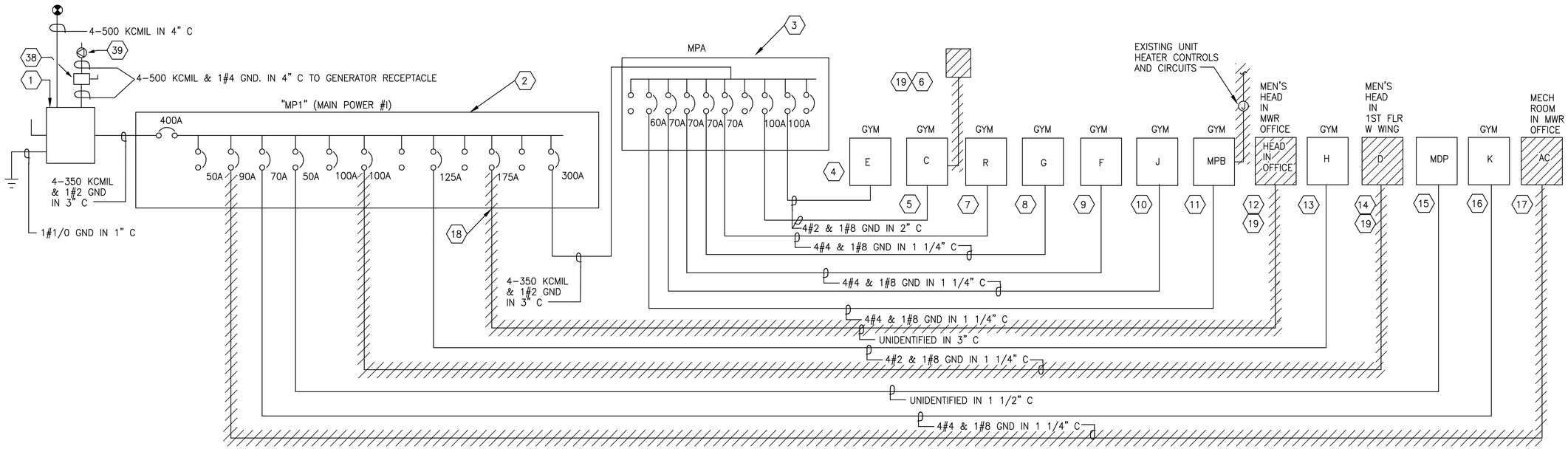
DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
NAB LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM
BUILDING 3147
FIRST & SECOND FLOOR LIGHTING & POWER PLAN – WEST WING

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468536	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368536	
SHEET 111 OF 119	

E-16

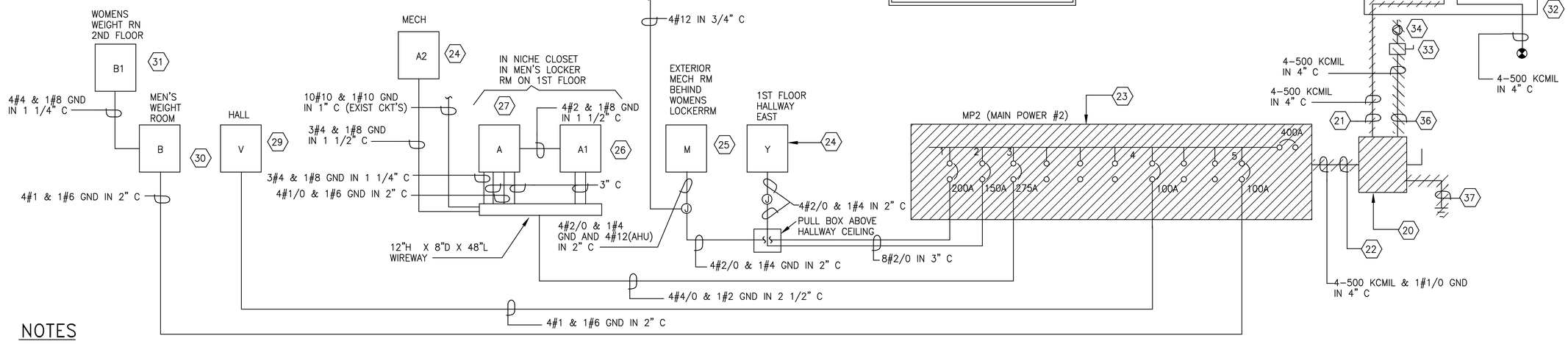
DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E016.DWG, PLOT SCALE: 1=1, SAVED ON 09/30/97 AT 10:20, XREFS: NONE



NOTE

ALL ELECTRICAL ITEMS ARE TO REMAIN UNLESS OTHERWISE NOTED



NOTES

1. 400A, 3PDT (CENTER OFF), SERVICE DUTY RATED, SERVICE DISCONNECT SWITCH. DISCONNECT SWITCH SERVES AS EMERGENCY MANUAL TRANSFER SWITCH.
2. GE TYPE CCB, SYTLE 2, 400A W/400A MCB.
3. GE TYPE NLAB, STYLE 2, 400A MLO.
4. GE TYPE NLAB, STYLE 5, 225A MLO.
5. GE TYPE NLAB, STYLE 5, 225A MLO.
6. 2P, 100A LOAD CENTER
7. GE TYPE NLAB, STYLE 5, 100A MLO.
8. GE TYPE NLAB, STYLE 5, 100A MLO.
9. GE TYPE NLAB, STYLE 5, 100A MLO.
10. GE TYPE NLAB, STYLE 5, 100A MLO.
11. GE TYPE NLAB, STYLE 5, 100A MLO.
12. 225A
13. CUTLER HAMMER, TYPE PB, 225A MLO.
14. SQUARE "D", 225 A W/150 MCB.
15. SQUARE "D", TYPE NQOB, SERIES 2, 100A MLO
16. SQUARE "D", TYPE NQOB, SERIES 2, 100A MLO
17. SQUARE "D", TYPE NQOB, SERIES 2, 100A MLO
18. CONDUIT AND FEEDERS PENETRATE THROUGH CMU AT PANEL AND RUNS DIRECT BURIED TO MWR OFFICE. ABANDON CONDUIT IN GROUND AND PLUG HOLE AT PANEL.
19. REMOVE PANEL, REMOVE CONDUIT AND FEEDERS BACK TO POWER SOURCE.
20. REMOVE 400A, 3PDT, (CENTER OFF), SERVICE DUTY RATED, SERVICE DISCONNECT SWITCH. DISCONNECT SWITCH SERVES AS EMERG. TRANSFER SWITCH.
21. REMOVE 4-500 KCMIL CABLE BACK TO EXISTING 300 KVA PAD-MTD XFMR. SEE "SITE PLAN" ON SHEET E-1. REMOVE 4"C BACK TO W/W AND PATCH WALL. TO MATCH EXISTING CONDITIONS.
22. REMOVE 4-500 KCMIL & 1#1/0 GND IN 4" C FROM EXISTING 400A DISCONNECT TO PANEL "MP2"
23. REMOVE PANEL INTERIOR AND BREAKERS FOR PANEL "MP2" (GE TYPE NLAB, STYLE 5, 400A W/400A MCB). EXISTING ENCLOSURE TO REMAIN AND SERVE AS PULL BOX FOR NEW PANEL. SEE "NEW ONE-LINE DIAGRAM" SHEET E-18 FOR CONTINUATION.
24. GE TYPE NLAB, TYPE 5, 225A MLO
25. GE "A" SERIES, CAT #AF438, 200A MLO
26. GE TYPE NLAB, STYLE 5, 225A MLO
27. GE TYPE NLAB, STYLE 5, 225A MLO
28. 100A MLO, 1ø, 3W
29. 100A MLO
30. 100A MLO
31. 100A MLO
32. WIREWAY SECURED TO EXTERIOR WALL.
33. REMOVE EXTERIOR MOUNTED 400A DISCONNECT SWITCH
34. REMOVE EXTERIOR 400A RECEPTACLE FOR EMERGENCY GENERATOR
35. ABANDON CONDUIT AND REMOVE FEEDERS FROM TRANSFORMER BACK TO 400A DISCONNECT SWITCH INSIDE GYM.
36. REMOVE CONDUIT & 4-500 KCMIL BACK TO DISCONNECT. PATCH WALL TO MATCH EXISTING CONDITIONS.
37. REMOVE 1#1/0 GND IN 1"C.
38. EXTERIOR MOUNTED, 3 POLE, 400A DISCONNECT SWITCH WITH 400A CLASS RK5 FUSES.
39. EXTERIOR MOUNTED, 3P, 4W, 400A RECEPTACLE FOR EMERGENCY GENERATOR. RUSSELSTOL CAT. #DF4514FRAB.

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E DESIGN JHB; DRAWN PHK; REVIEW RLF; QC; CHIEF; ARCH./ ENGR.; PROJECT MANAGER; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — APPROVED — DATE

ACTIVITY - SATISFACTORY TO — APPROVED — DATE

FOR BID FOR OWNER'S MAINT.

SEAL

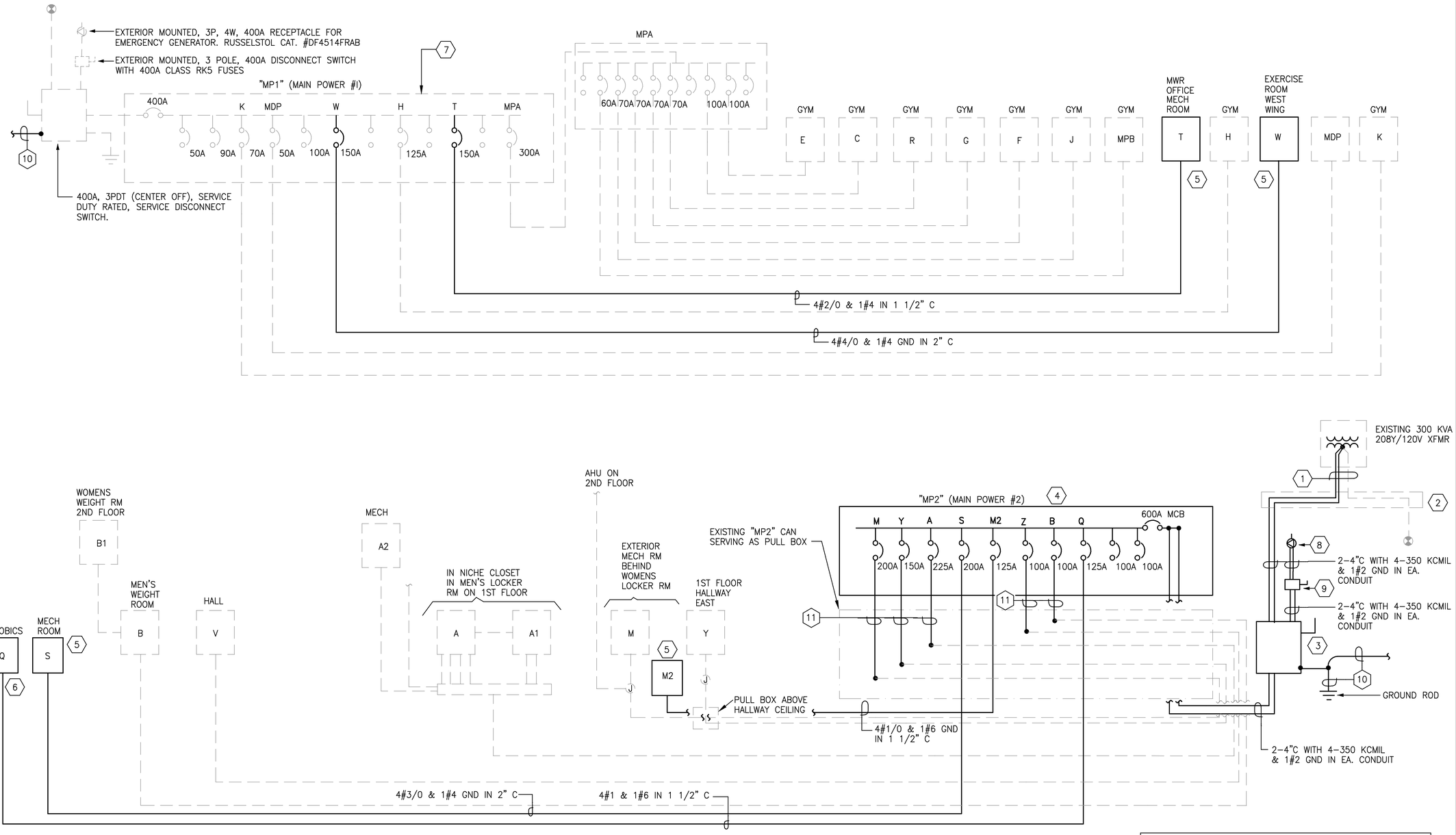
DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
RENOVATIONS TO GYMNASIUM BUILDING 3147
VIRGINIA BEACH, VIRGINIA
EXISTING ONE-LINE DIAGRAM
NAVAL FACILITIES ENGINEERING COMMAND
ATLANTIC DIVISION
NORFOLK, VIRGINIA

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468537	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368537	
SHEET 112 OF 119	

E-17

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E017B.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/30/97 AT 10:31, XREFS: NONE



NOTES

1. SEE "SITE PLAN", SHEET E-1 FOR CONTINUATION OF NEW & EXISTING FEEDERS TO EXISTING TRANSFORMER.
2. WIREWAY SECURED TO EXTERIOR WALL.
3. PROVIDE 600A, 3PDT, (CENTER OFF), SERVICE DUTY RATED, SERVICE DISCONNECT SWITCH. DISCONNECT SWITCH TO SERVE AS EMERGENCY MANUAL TRANSFER SWITCH.
4. PROVIDE 600A PANEL W/600A MCB. MOUNT ADJACENT TO EXISTING "MP2" ENCLOSURE SERVING AS PULL BOX AND REWORK EXISTING FEEDERS OVER TO THEIR NEW BREAKERS.
5. PROVIDE 225A, MLO PANEL.
6. PROVIDE 225A, MLO PANEL.
7. GE TYPE CCB, STYLE 2, 400A W/ 400A MCB.
8. PROVIDE 3P, 4W, 600A, 208V, ANGLED RECEPTACLE ON BOX WITH CAP FOR EMERGENCY GENERATOR. PROVIDE MATCHING PLUG AND TURN OVER TO GOVERNMENT.
9. PROVIDE 3 POLE, 600A, DISCONNECT SWITCH IN NEMA 3R ENCLOSURE. FUSE AT 600A.
10. PROVIDE 1#1/0 GND IN 1" C. BOND TO PANEL 'MP1' SERVICE DISCONNECT SWITCH GROUND & WATER LINE.
11. EXTEND EXISTING CIRCUITS TO NEW PANEL LOCATION.

NOTES

1. SEE 'EXISTING ONE-LINE DIAGRAM' ON SHEET E-17 FOR EXISTING FEEDER WIRE & CONDUITS SIZES AND PANELBOARD SIZES.
2. ALL PANELBOARDS ARE 208Y/120V, 3ø, 4W, UON.

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E FED DESIGN JHB; DRAWN PHK; REVIEW RFF; QC; CHIEF; ARCH./ ENGR.; PROJECT MANAGER; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE

APPROVED — ACTIVITY - SATISFACTORY TO — DATE

APPROVED — FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY — NAVAL STATION — NAB LITTLE CREEK — ATLANTIC DIVISION — NAVAL FACILITIES ENGINEERING COMMAND — NORFOLK, VIRGINIA

RENOVATION TO GYMNASIUM BUILDING 3147

VIRGINIA BEACH, VIRGINIA

NEW ONE-LINE DIARGAM

CODE ID. NO. 80091	SIZE D
SCALE: NONE	
EFD NO. 468538	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368538	
SHEET 113 OF 119	

E-18

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E018B.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/30/97 AT 10:33, XREFS: NONE

(GYM AREA) PANELBOARD 'MP2' SCHEDULE ①

600 A., 600 A. MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 22 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
PNL 'M' (BOILER ROOM)	–			200	2/0	1		2	2/0	150	–			PNL 'Y' (MAIN CORRIDOR–ACROSS FROM HANDBALL #3)
		–										–		
			–										–	
PNL 'A' (MEN'S LOCKER ROOM)	–			225	4/0	7		8	3/0	200	149			PNL 'S' (BULK STORAGE)
		–										139		
			–										136	
PNL 'M2' (BOILER ROOM)	97			125	1/0	13		14	1	100				PNL 'Z' (CORRIDOR–ACROSS FROM SQUASH #3)
		100												
			89											
PNL 'B' (MEN'S WEIGHT ROOM)				100	1	19		20	1	100	59			PNL 'Q' (2ND DECK ABOVE LOBBY)
												76		
													66	
SPARE				100		25		26		100				SPARE
SPACE								32						SPACE
SPACE						37		38						SPACE
								40						SPACE
								42	12	20			5	FACP
TOTAL	97	100	89								208	215	207	TOTAL
TOTAL CONNECTED AMPS A: 305 B: 315 C: 296														

① PROVIDE LABEL ON PANELBOARD COVER WHICH READS "EMERGENCY BREAKER WITHIN." LABEL SHALL BE MADE OF RED LAMINATED PLASTIC WITH WHITE CENTER CORE.

② PROVIDE LOCK–ON BREAKER AND PAINT RED.

(BOILER ROOM) PANELBOARD 'M2' SCHEDULE

225 A. 125 A. MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
PUMP (P–2)	5			15	12	1		2	12	15	5			PUMP (P–3)
		5										5		
			5										5	
PUMP (P–4)	26			50	8	7		8	12	15	6			PUMP (P–6)
		26										6		
			26										6	
PUMP (P–1)	5			15	12	13		14	12	20	6			UH–1
		5						16	12	20		6		UH–2 (S. MECH RM)
			5					18	12	20			6	UH–3 (S. MECH RM)
CU–2	18			30	12	19		20	8	50	26			AHU–2 (S. MECH RM)
		18										26		
			18										26	
EF–3	6			20	12	25		26	12	20	4			AHU–1 (MENS LOCK RM)
EF–1		6		20	12	27						4		
CU–1			4	20	12	29							4	
	4							32	12	20	9			RECPT – S. MECH RM.
EF–4		6		20	12	33		34	12	20		6		LIGHTS– S. MECH. RM.
SPARE				20		35		36		20				SPARE
SPARE				20		37		38		20				SPARE
SPARE				20		39		40		20				SPARE
SPARE				20		41		42						SPACE
TOTAL	64	66	58								55	47	41	TOTAL
TOTAL CONNECTED AMPS A: 119 B: 113 C: 99														

(2ND DECK ABOVE LOBBY) PANELBOARD "Q" SCHEDULE

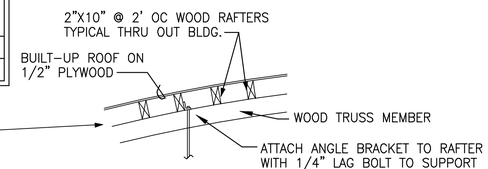
225A., MLO, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

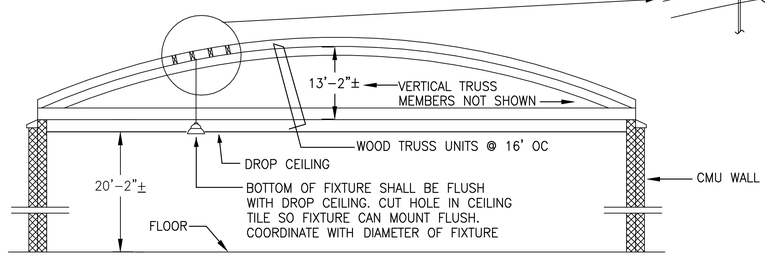
LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS (RM–203)	5			20	12	1		2	12	20	6			LIGHTS – OVER DESK(103)
LIGHTS(RM–103,119A,219A)		5		20	12	3		4	12	20		9		RECPT (RM–119A,219A,GYM)
RECPT–AEROBICS(RM–203)			4	20	12	5		6	12	20			6	RECPT–AEROBICS(RM–203)
RECPT–TREADMILL(RM–203)	16			20	12	7		8	12	20	6			RECPT–AEROBICS(RM–203)
RECPT–TREADMILL(RM–203)		16		20	12	9		10	12	20		6		RECPT–AEROBICS(RM–203)
RECPT–TREADMILL(RM–203)			16	20	12	11		12	12	20			16	RECPT–TREADMILL(RM–203)
ELEVATOR (CORRIDOR)	10			20	12	13		14	12	20	16			RECPT–TREADMILL(RM–203)
RECPT – SPEC. EVENTS (GYM)		24		30	10	15		16	12	20		16		RECPT–TREADMILL(RM–203)
			24					18		20				SPARE
HANDBALL COURT #4	10			20	12	19		20	12	20	10			HANDBALL COURT #5
		10										10		
SQUASH COURT #1			10	20	12	23		24	12	20			10	SQUASH COURT #5
	10										10			
SPARE				20		27		28		20				SPARE
SPARE				20		29		30		20				SPARE
SPACE						31		32						SPACE
SPACE						33		34						SPACE
SPACE						35		36						SPACE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	51	55	54								48	41	32	TOTAL
TOTAL CONNECTED AMPS A: 99 B: 96 C: 86														

(BULK STORAGE) PANELBOARD "S" SCHEDULE

225 A. , MLO., 208Y/120V., 3 PHASE, 4WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
HUV–1 (RM–119)	63			100	4	1		2	4	100	63			HUV–2 (RM–119)
		63										63		
			63										63	
UH–4 (RM–119)	5			20	12	7		8	12	20	5			UH–5 (RM–119)
EF–5 (RM–205)		6		20	12	9		10	12	20		7		LIGHTS (RM–119,205)
RECPT (RM–119)			5	20	12	11		12	12	20			5	RECPT (RM–205)
SPARE				20		13		14	12	20	6			MOTOR LOUVER (RM–119)
SPACE						15		16		20				SPARE
SPACE						17		18		20				SPARE
SPACE						19		26		20				SPARE
SPACE						21								
SPACE						23								
SPACE						25		26		30				SPARE
SPACE						27								
SPACE						29								
TOTAL	68	69	68								74	70	68	TOTAL
TOTAL CONNECTED AMPS A: 142 B: 139 C: 136														





DETAIL "A"
NTS

REVISIONS

DESCRIPTION	DATE	APPROVED
SYM.		

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ EMGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE
APPROVED
ACTIVITY – SATISFACTORY TO — DATE
APPROVED
FOR EFD FOR COMMANDER NAVFAC

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
PANEL SCHEDULES

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468539	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368539	
SHEET 114 OF 119	

E–19

FILENAME: 5105E019.DWG, PLOT SCALE: 1" = 1', SAVED ON 08/15/97 AT 12:03, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

(MWR OFFICE MECH. ROOM) PANELBOARD 'T' SCHEDULE

225 A., 125A MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS (RM-139,140,141)	9			20	12	1		2	12	20	11			LIGHTS (RM-127 & 128)
LIGHTS (RM-136 & 137)		12		20	12	3		4	12	20		12		LIGHTS(RM-125,126,129,130)
LIGHTS (RM-131 thru 135)			12	20	12	5		6	12	20			9	RECPT (RM-140)
RECPT (RM-139,140,141)	9			20	12	7		8	12	20	9			RECPT (RM-131,135)
RECPT (RM-139 & 141)		9		20	12	9		10	12	20		9		RECPT (RM-130,131,132)
RECPT (RM-135)			5	20	12	11		12	12	20			15	RECPT (RM-141)
RECPT (RM- 135,137,138)	7			20	12	13		14	12	20	16			RECPT (RM-132)
RECPT (RM-134 & 135)		9		20	12	15		16	12	20		2		RECPT-TELE (RM-130)
RECPT (RM-132 & 133)			8	20	12	17		18	12	20			8	RECPT (RM-125)
SPARE				20		19		20	12	20	10			RECPT (RM-125)
CONTROLS (RM-131)		5		20	12	21		22	12	20		9		RECPT (RM-125 thru 130)
RECPT (RM-135)			3	20	12	23		24		20				SPARE
CU-3 (OUTSIDE)	7			15	12	25		26	12	15	8			DCU-1 (OUTSIDE)
		7										8		
CU-4 (OUTSIDE)			4	15	12	29		30	12	15			8	AHU-3 (OUTSIDE)
	4										8			
AHU-4 (RM-130)		5		15	12	33						8		
			5					36	10	30			16	DSU-1 (RM-125)
	5							38	10	35	22			WATER HEATER (RM-130)
UH-6 & EF-4 (RM 130)		6		20	12	39						22		
WHEELCHAIR LIFT			10	20	12	41		42		20			10	ICE MACHINE (RM-131)
TOTAL	41	53	47								84	70	66	TOTAL

TOTAL CONNECTED AMPS A: 125 B: 123 C: 113

(1ST FL. EXERCISE - WEST) PANELBOARD 'W' SCHEDULE

225 A., 125A. MCB, 208Y/120 V., 3 PHASE, 4 WIRE, 10 KAIC MINIMUM, FLUSH MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
LIGHTS(RM-122 thru 124)	11			20	12	1		2	12	20	9			LIGHTS (RM-209)
RECEPT (RM-123)		8		20	12	3		4	12	20		8		RECEPT (RM-122)
RECEPT-TREADMILL (124)			16	20	10	5		6	12	20			16	RECEPT-TREADMILL (124)
RECEPT-TREADMILL (124)	16			20	10	7		8	12	20	16			RECEPT-TREADMILL (124)
RECEPT-TREADMILL (124)		16		20	10	9		10	12	20		16		RECEPT-TREADMILL (124)
RECEPT-TREADMILL (124)			16	20	12	11		12	12	20			16	RECEPT-TREADMILL (124)
RECEPT-TREADMILL (124)	16			20	12	13		14	12	20	16			RECEPT-TREADMILL (124)
RECEPT-TREADMILL (124)		16		20	12	15		16	12	20		16		RECEPT-TREADMILL (124)
RECEPT-AEROBICS (124)			6	20	12	17		18	12	20			6	RECEPT-AEROBICS (124)
RECEPT-AEROBICS (124)	6			20	12	19		20	12	20	6			RECEPT (RM-209)
RECEPT-AEROBICS (124)		6		20	12	21		22	12	20		6		RECEPT (RM-209)
UH-7 & UH-8 (RM-209)			10	20	12	23		24	12	20			8	RECEPT (RM-209)
CU-5 (OUTSIDE)	6			15	12	25		26	12	20	8			RECEPT (RM-209)
		6						28	12	15		8		AHU-5 (RM-209)
SPARE				20		29							8	
SPARE				20		31					8			
SPARE				20		33		34		20				SPARE
SPARE				20		35		36		20				SPARE
SPACE						37		38						SPACE
SPACE						39		40						SPACE
SPACE						41		42						SPACE
TOTAL	55	52	48								63	54	54	TOTAL

TOTAL CONNECTED AMPS A: 118 B: 106 C: 102

(GYM) MODIFIED PANELBOARD 'C' SCHEDULE

225 A. MLO, 208Y/120 V., 3 PHASE, 4 WIRE, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
OUTSIDE LIGHTS	9			20	10	1		2		20				SPARE
SPARE				20		3		4		20				SPARE
SPARE				20		5		6		20				SPARE
SPARE				20		7		8		20				SPARE
SPARE				20		9		10		20				SPARE
SPARE				20		11		12	12	20				RECEPTACLE
SPARE				20		13		14		20				SPARE
LIGHT CONTACTOR 'LC1'		1		20	12	15		16		20				SPARE
GYM LIGHTS (BASKETBALL COURT)			13	20	10	17		18	10	20			11	GYM LIGHTS (BASKETBALL COURT)
	13											11		
GYM LIGHTS (BASKETBALL COURT)		11		20	10	21		22	10	20		11		GYM LIGHTS (BASKETBALL COURT)
			11										11	
GYM LIGHTS	11			20	10	25		26		20				SPARE
		11						28		20				SPARE
SPARE				20		29		30		20				SPARE
SPARE				20		31		32		20				SPARE
SPECIAL EVENTS				30	10	37		38	3	100				UNIDENTIFIED
SPACE						41		42						SPACE
TOTAL	33	22	11								11	11	22	TOTAL

TOTAL CONNECTED AMPS A: 44 B: 34 C: 33

LIGHTING FIXTURE SCHEDULE

FIXTURE SYMBOL	SKETCH NO. & TYPE	NUMBER AND TYPE OF LAMPS	VOLTAGE	MOUNTING	NOTES
A	NL-9, TYPE C	2-F32/T8	120	RECESSED	
B	NL-3, TYPE C	2-F32/T8	120	RECESSED	
C	NL-4, TYPE A	2-F17/T8	120	WALL MT	DOWN LIGHT ONLY
D	NL-8, TYPE A	1-F32/T8	120	SURFACE	PROVIDE UL DAMP LABEL
E	NL-51	2-18W HALOGEN	120	WALL MT. 8'-0" AFF	
F	NOT USED				
G	NL-25, TYPE B	1-100W HPS	120	WALL MT.	PROVIDE WITH INTEGRAL PHOTOCELL
H	NL-7, TYPE A	1-F32/T8	120	SURFACE	
I	NL-9, TYPE E	4-F32/T8	120	RECESSED	
J	NL-3, TYPE A	2-F40/T5	120	RECESSED	
K	NL-1, TYPE A	2-F32/T8	120	SURFACE	
L	NL-28, TYPE A	1-250W MH	208	RECESSED	
M	NL-27	1-250W MH	120	RECESSED	
N		1-100W MH	120	WALL MT. 7'-9 5/8" AFF	1. PROVIDE W/ INTEGRAL PHOTOCELL. 2.CENTER ON WALL
O	NL-27	1-175W MH	120	RECESSED	
P	NL-61	LED	120	WALL MT. 8'-0" AFF	SINGLE FACE
Q	NL-18	2-F18/T4 TWIN TUBE	120	RECESSED	ALUMINUM TRIM
R	NL-7, TYPE B	2-F32/T8	120	SURFACE	
S	NL-22, TYPE F	1-400W MH	208	RECESSED	OPTIONS: a,b,d & f
T	NL-8, TYPE B	2-F32/T8	120	SURFACE	PROVIDE UL DAMP LABEL
U		1-100W INCAND.	120	WALL MT. 7'-0"	SEE FIXTURE TYPE 'U' ON SHEET E-24

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E: EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ EMGR.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION
ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA
NAB LITTLE CREEK VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
PANEL SCHEDULES & LIGHT FIXTURE SCHEDULE

CODE ID. NO. 80091 SIZE D
SCALE: AS NOTED
EFD NO. 468540
STA. PROJ. NO. R-234
SPEC. NO. 05-95-5105
CONSTR. CONTR. NO. N62470-95-B-5105
NAVFAC DRAWING NO. 4368540
SHEET 115 OF 119
E-20

FILENAME: 5105E020.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/30/97 AT 10:36, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

(GYM) MODIFIED PANELBOARD 'E' SCHEDULE

225 A. MLO, 208Y/120 V., 3 PHASE, 4 WIRE, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
EXT. LIGHTING				20	12	1		2		20				SPARE
DAMPERS #4 & #5		6		20	12	3		4		20				SPARE
LIGHT CONTACTOR 'LC4'			1	20	12	5		6		20				SPARE
RECEPTACLE				20	12	7		8	12	20				RECEPTACLE
SCOREBOARD				20	12	9		10	12	20				BASKETBALL GOAL
GYM LIGHTS (BASKETBALL COURT)			11	20	10	11		12	10	20			11	GYM LIGHTS (BASKETBALL COURT)
	11										11			
GYM LIGHTS (BASKETBALL COURT)		11		20	10	15		16	10	20		11		GYM LIGHTS (BASKETBALL COURT)
			11										11	
SPARE				20		19		20		20				SPARE
SPARE				20		25		26		20				SPARE
SPARE				30		31		32		20				SPARE
SPARE				30		35		38						BLANK
SPARE				30		39		32		30				SPARE
TOTAL	11	17	23								11	11	22	TOTAL

TOTAL CONNECTED AMPS A: 22 B: 28 C: 45

(GYM) MODIFIED PANELBOARD 'G' SCHEDULE

100 A. MLO, 208Y/120 V., 3 PHASE, 4 WIRE, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
SPARE				20		1		2		20				SPARE
SPARE				20		3		4		20				SPARE
SPARE				20		5		6		20				SPARE
SPARE				20		7		8		20				SPARE
SPARE				20		9		10		20				SPARE
VEDING MACH				20	12	11		12		20				SPARE
VEDING MACH				20	12	13		14		20				SPARE
VEDING MACH				20	12	15		16	12	20				UNIDENTIFIED
SPARE				20		17		18	12	20			20	HANDBALL COURT #3
SPACE				20		19					20			
SPACE				20		21		22	12	20		20		HANDBALL COURT #2
SPACE				20		23							20	
SPACE				20		25		26	12	20	20			HANDBALL COURT #1
SPECIAL EVENTS				20	12	27						20		
								30						SPACE
TOTAL											20	20	20	TOTAL

TOTAL CONNECTED AMPS A: 20 B: 20 C: 20

(GYM) MODIFIED PANELBOARD 'H' SCHEDULE

225 A. MLO, 208Y/120 V., 3 PHASE, 4 WIRE, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
GYM LIGHTS (BASKETBALL COURT)	11			20	10	1		2		20				SPARE
		11						4		20				SPARE
GYM LIGHTS (BASKETBALL COURT)			11	20	10	5		6	10	20			6	OUTSIDE LIGHTS
	11							8		20				SPARE
LIGHT CONTACTOR 'LC2'		1		20	12	9		10	12	20		4		DAMPERS #1,#2 & #3
LIGHT CONTACTOR 'LC5'			1	20	12	11		12		20				RECEPTACLE
SPARE				70		13		14		30				SPARE
GYM LIGHTS (BASKETBALL COURT)			11	20	10	17		18	12	20				RECEPTACLE
	11							20	10	30				SPECIAL EVENTS
GYM LIGHTS (BASKETBALL COURT)		11		20	10	21								
			11					24	10	30				SPECIAL EVENTS
BOXING RING LIGHTS	11			20	10	25								
		11						28	10	30				SPECIAL EVENTS
SPACE						29								
TOTAL	44	34	34									4	6	TOTAL

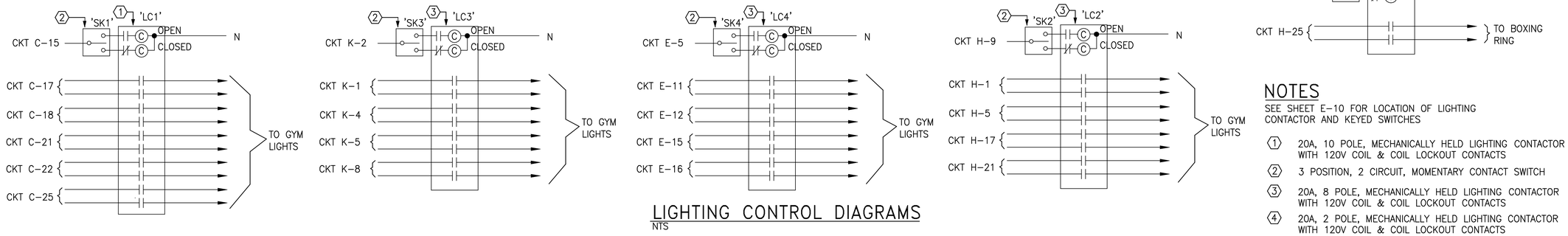
TOTAL CONNECTED AMPS A: 44 B: 38 C: 40

(GYM) MODIFIED PANELBOARD 'K' SCHEDULE

100 A. MLO, 208Y/120 V., 3 PHASE, 4 WIRE, SURFACE MOUNT

LOAD SERVED	LOAD (AMPS) A	B	C	BKR. TRIP	WIRE SIZE	CKT. NO.	PHASE A B C	CKT. NO.	WIRE SIZE	BKR. TRIP	LOAD (AMPS) A	B	C	LOAD SERVED
GYM LIGHTS (BASKETBALL COURT)	11			20	10	1		2	12	20	1			LIGHT CONTACTOR 'LC3'
		11						4	10	20		11		GYM LIGHTS (BASKETBALL COURT)
GYM LIGHTS (BASKETBALL COURT)			11	20	10	5							11	
	11							8	10	20	11			GYM LIGHTS (BASKETBALL COURT)
SPARE				20		9						11		
SPARE				20		11		12	12	20				RECEPTACLE ON PNL
EMERG LIGHTS				20	12	13		14		20				SPARE
SPARE				20		15								
SPARE				20		17		18		20				SPARE
SPARE				20		19								
SPARE				20		21		22		20				SPARE
SPARE				20		23		24		20				SPARE
SPARE				20		25		26		20				SPARE
SPARE				20		27		28	10	30				SPECIAL EVENTS
TOTAL	22	11	11								12	22	11	TOTAL

TOTAL CONNECTED AMPS A: 34 B: 33 C: 22



LIGHTING CONTROL DIAGRAMS

NTS

NOTES

SEE SHEET E-10 FOR LOCATION OF LIGHTING CONTACTOR AND KEYED SWITCHES

1. 20A, 10 POLE, MECHANICALLY HELD LIGHTING CONTACTOR WITH 120V COIL & COIL LOCKOUT CONTACTS
2. 3 POSITION, 2 CIRCUIT, MOMENTARY CONTACT SWITCH
3. 20A, 8 POLE, MECHANICALLY HELD LIGHTING CONTACTOR WITH 120V COIL & COIL LOCKOUT CONTACTS
4. 20A, 2 POLE, MECHANICALLY HELD LIGHTING CONTACTOR WITH 120V COIL & COIL LOCKOUT CONTACTS

REVISIONS

SYM.	DESCRIPTION	DATE	APPROVED

A/E EFD
DESIGN JHB
DRAWN JHB
REVIEW REF
QC
CHIEF ARCH./ EMGR
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY – SATISFACTORY TO
APPROVED DATE
FOR EFD COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY NAVAL STATION ATLANTIC DIVISION NAVAL FACILITIES ENGINEERING COMMAND NORFOLK, VIRGINIA

NAB LITTLE CREEK VIRGINIA BEACH, VIRGINIA

RENOVATIONS TO GYMNASIUM BUILDING 3147

PANEL SCHEDULES & LIGHTING CONTROL DIAGRAMS

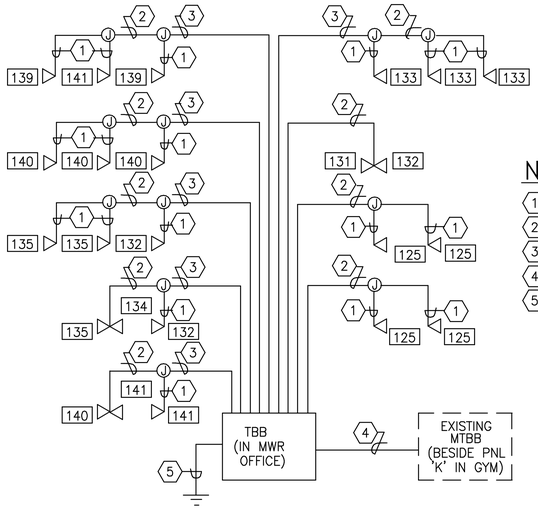
CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468541	
STA. PROJ. NO. R-234	
SPEC. NO. 05-95-5105	
CONSTR. CONTR. NO. N62470-95-B-5105	
NAVFAC DRAWING NO. 4368541	
SHEET 116 OF 119	
E-21	

DRAWFORM REVISION 25 SEPT 96

FILENAME: 5105E021.DWG, PLOT SCALE: 1" = 1', SAVED ON 09/30/97 AT 10:37, XREFS: NONE

8 7 6 5 4 3 2 1

D C B A

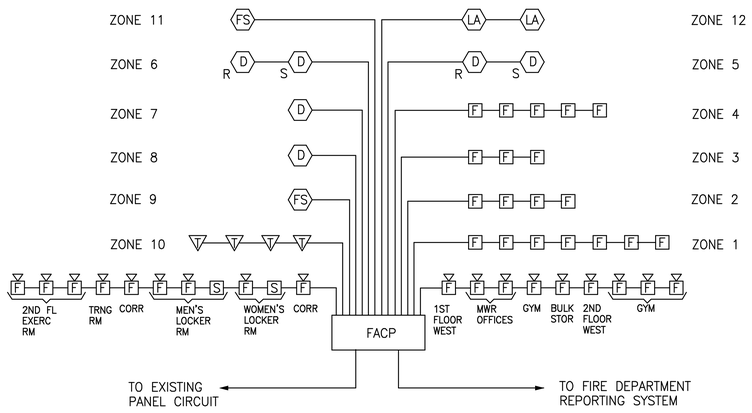


NOTES

1. 2 – 24AWG 4 PAIR IN 3/4" C
2. 4 – 24AWG 4 PAIR IN 1" C
3. 6 – 24AWG 4 PAIR IN 1–1/4" C
4. 1 – 25 PAIR IN 2–1/2"C
5. CONNECT #6 BARE COPPER GND. TO BUILDING GROUNDING ELECTRODE SYSTEM

TELEPHONE RISER DIAGRAM

NTS

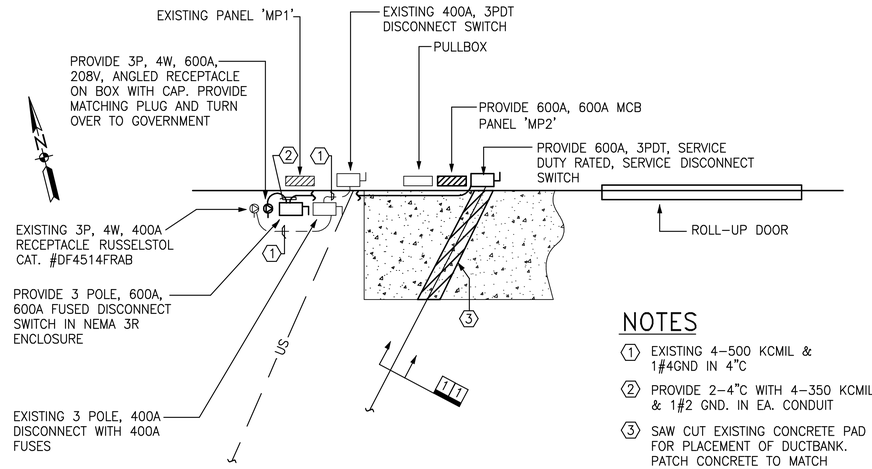


FIRE ALARM RISER DIAGRAM

NTS

ZONE SCHEDULE

1	MANUAL PULL STATIONS – GYM
2	MANUAL PULL STATIONS – EAST SIDE 1ST & 2ND FLOORS
3	MANUAL PULL STATIONS – MWR OFFICES
4	MANUAL PULL STATIONS – MAIN ENTRANCE, LOCKERS & EXERCISE ROOM
5	DUCT DETECTOR – UNIT VENTILATOR #1
6	DUCT DETECTOR – UNIT VENTILATOR #2
7	DUCT DETECTOR – AHU–2, 2ND FLOOR MAINTENANCE ROOM
8	DUCT DETECTOR – AHU–3, SOUTH SIDE OFFICE AREA
9	SPRINKLER SYSTEM WATER FLOW EAST SIDE
10	SPRINKLER CONTROL VALVE TAMPER SWITCHES
11	SPRINKLER SYSTEM WATER FLOW WEST SIDE
12	DRY PIPE SPRINKLER SYSTEM LOW AIR PRESSURE



NOTES

1. EXISTING 4–500 KCMIL & 1#4GND IN 4"C
2. PROVIDE 2–4"C WITH 4–350 KCMIL & 1#2 GND. IN EA. CONDUIT
3. SAW CUT EXISTING CONCRETE PAD FOR PLACEMENT OF DUCTBANK. PATCH CONCRETE TO MATCH EXISTING CONDITIONS.

ENLARGED SITE PLAN

1" =5'–0"

SITE LEGEND

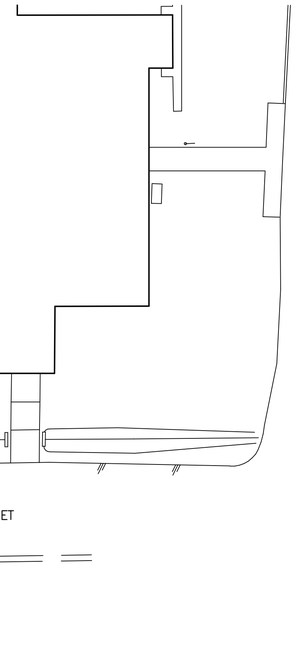
UNDERGROUND DUCTBANK, CONCRETE ENCASED UON

DUCTBANK SECTION LOOKING IN DIRECTION OF ARROWS

NEW CABLE DESIGNATION
DESCRIPTION PER CABLE SCHEDULE

HEAVY LINE INDICATES BOTTOM OF DUCT

— — US — — EXISTING UNDERGROUND SECONDARY SERVICE TO REMAIN. 4–500 KCMIL IN 4"C



NOTE

1. COORDINATE SITE WORK WITH 'NEW ONE–LINE DIAGRAM' ON SHEET E–18.

SITE PLAN

1" = 50'–0"

CABLE SCHEDULE

CABLE IDENTIFICATION		DESCRIPTION	CONDUIT SIZE (INCHES)	REMARKS
EXIST	NEW			
	1	4–350 KCMIL (600V)	4	SECONDARY SERVICE CONDUIT

GRAPHIC SCALE

1"=5' 0' 5' 10' 15' 20' 25'

1"=50' 0' 50' 100' 150' 200' 250'

REVISIONS

NO.	DESCRIPTION	DATE	APPROVED
SYM.			

A/E DESIGN JHB; DRAWN JHB; REVIEW REF; QC; CHIEF; ARCH./ENGR.; PROJECT MANAGER JB; FIRE PROTECTION; BRANCH MANAGER; DESIGN DIRECTOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND — DATE — APPROVED

ACTIVITY – SATISFACTORY TO — DATE — APPROVED

FOR EFD FOR DRAWER MARKS

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA

NAB LITTLE CREEK
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
RISER DIAGRAMS & SITE PLAN

CODE ID. NO. 80091	SIZE D
SCALE: AS NOTED	
EFD NO. 468542	
STA. PROJ. NO. R–234	
SPEC. NO. 05–95–5105	
CONSTR. CONTR. NO. N62470–95–B–5105	
NAVFAC DRAWING NO. 4368542	
SHEET 117 OF 119	

E–22

DRAWFORM REVISION 25 SEPT 96

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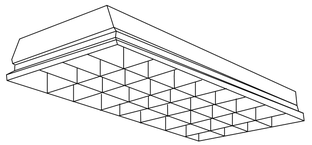


LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE MINIMUM 0.026" THICK STEEL. HOUSING SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION. ENDS SHALL BE SECURED WITH SCREWS OR WELDED. HOUSING SHALL BE COMPLETELY PAINTED AFTER FABRICATION WITH MINIMUM 85% REFLECTANCE WHITE ENAMEL. MINIMUM DEPTH OF HOUSING 7" ± 1". MINIMUM DEPTH OF LOUVER SHALL BE 3".
2. LUMINAIRE SHALL HAVE FULL MATTE BLACK REVEAL FOR FLOATING DOOR EFFECT. PROVIDE MOUNTING TRIM AND HARDWARE COMPATIBLE WITH CEILING MATERIAL.
3. LUMINAIRE SHALL BE HIGH EFFICIENCY, LOW BRIGHTNESS TYPE WITH INTERLOCKED LOUVERS CONTOURED TO A PARABOLIC SHAPE. LOUVERS SHALL BE OF MINIMUM 0.0235" SEMI-SPECULAR ANODIZED ALUMINUM IN NATURAL OR GOLD FINISH AS INDICATED.
4. FIXTURE HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
5. NO EXPOSED INTERNAL WIRING.
6. BALLAST SHALL BE HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS, ONE AT EACH END.
7. LOUVER SHALL BE SUITABLE FOR HINGING FROM EITHER SIDE AND SHALL HAVE TWO SAFETY HINGES AND TWO SPRING LOADED LATCHES OR FOUR SPRING LOADED LATCHES.

LAMP TYPES

TYPE A – 2'X2' – 2 F40/T5 LONG TWIN TUBE LAMPS – 9, 12 OR 16 CELLS.
TYPE B – 2'X2' – 3 F40/T5 LONG TWIN TUBE LAMPS – 9, 12 OR 16 CELLS.
TYPE C – 2'X4' – 2 F32/T8 LAMPS – 12, 16, 24 OR 32 CELLS
TYPE D – 2'X4' – 3 F32/T8 LAMPS – 18, 24 OR 27 CELLS
TYPE E – 2'X4' – 4 F32/T8 LAMPS – 12, 24 OR 32 CELLS

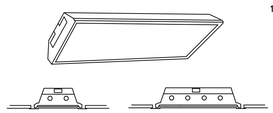
NOTE

INDICATE FINISH AND NO. OF CELLS.

PARABOLIC TROFFERS 2' X 2' AND 2' X 4'

SKETCH DATE NOVEMBER 1995 | STYLE NL-9

A 1



LUMINAIRE REQUIREMENTS

1. HOUSING SHALL BE 0.026" MIN. THICKNESS. HEIGHT SHALL BE 4" MIN. AND SHALL NOT PERMANENTLY DEFORM WHEN LIFTED BY ONE CORNER WITH LENS DOOR IN PLACE NOR WITH LENS DOOR REMOVED. LENS DOOR SHALL NOT OPEN WHEN LUMINAIRE IS LIFTED BY ONE CORNER. LUMINAIRE SHALL HAVE LESS THAN THE FOLLOWING DEFLECTION WHEN LIFTED BY ONE CORNER WITH LENS DOOR REMOVED.

TYPE:	A	B	C, D, & E
	3"	2 1/2"	4"

2. HOUSING SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND HAVE BAKED WHITE ENAMEL FINISH 85% MIN. REFLECTANCE (INTERIOR). PAINT ENTIRE HOUSING AND LENS DOOR WHITE, AFTER FABRICATION. HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
3. LATCHES SHALL BE A 0.030" MINIMUM THICKNESS STEEL OR 0.015" MINIMUM THICKNESS SPRING STEEL.
4. LENS DOOR SHALL BE 0.023" MINIMUM THICKNESS STEEL, SHALL BE ASSEMBLED WITH SCREWS (FOR LENS REPLACEMENT). PROVIDE LIGHT TIGHT FIT WITHOUT MOVABLE BAFFLES. GASKETING SHALL NOT BE A MEANS OF ACHIEVING LIGHT TIGHT DOOR.
5. LENS SHALL BE 0.156", PATTERN 19 (FOR TYPES A, C, D, E) AND 0.125", PATTERN 12 (FOR TYPE B) PLUS OR MINUS 10% OVERALL (0.09" MAX, PRISM PENETRATION) CLEAR PRISMATIC 100% ACRYLIC.
6. DOOR SHALL BE CAPABLE OF HINGING AND LATCHING FROM EITHER SIDE OF LUMINAIRE. PROVIDE SAFETY TYPE HINGES.
7. BALLAST SHALL BE HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS ONE AT EACH END.
8. PHOTOMETRICS: MINIMUM COEFFICIENT OF UTILIZATION (CU) FOR THE FOLLOWING CAVITY REFLECTANCES: CEILING = 80% WALL = 50% FLOOR = 20%

ROOM CAVITY RATIO	TYPE: CU	A	B	C	D	E
1		72	70	80	79	76
2		64	63	71	70	68
3		58	56	64	63	61
4		52	51	57	56	54
MIN. SPACING CRITERIA		1.2	1.2	1.2	1.2	1.2

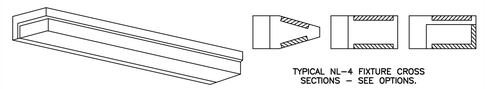
9. PROVIDE MOUNTING HARDWARE COMPATIBLE WITH CEILING MATERIAL IN WHICH LUMINAIRE IS TO BE INSTALLED.

TYPE A – 2'X2' 2 F40/T5 LONG TWIN TUBE LAMPS
TYPE B – 1'X4' 2 F32/T8 LAMPS
TYPE C – 2'X4' 2 F32/T8 LAMPS
TYPE D – 2'X4' 3 F32/T8 LAMPS
TYPE E – 2'X4' 4 F32/T8 LAMPS

FLUORESCENT TROFFER LUMINAIRE LENS TYPE

SKETCH DATE NOVEMBER 1995 | STYLE NL-3

B J



TYPICAL NL-4 FIXTURE CROSS SECTIONS – SEE OPTIONS.

LUMINAIRE REQUIREMENTS

1. 0.032" MINIMUM THICKNESS STEEL BACK PLATE AND REFLECTOR. CHEMICAL TREATMENT FOR RUST PREVENTION. BAKED WHITE ENAMEL FINISH. PROVIDE KNOCKOUTS THROUGH BACK PLATE. HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
2. 0.032" MINIMUM THICKNESS DIE FORMED STEEL OR EXTRUDED ALUMINUM HOUSING. BAKED BLACK ENAMEL OR BRUSHED ALUMINUM FINISH OR WOOD GRAIN VINYL ON ALUMINUM HOUSING, UNLESS INDICATED OTHERWISE. STEEL HOUSING SHALL HAVE ALL JOINTS WELDED AND GROUND SMOOTH. HOUSING SHALL BE PAINTED AFTER FABRICATION.
3. MAXIMUM OVERALL LUMINAIRE HEIGHT SHALL BE 5-1/2 INCHES. MAXIMUM LUMINAIRE DEPTH SHALL BE 8 INCHES. MAXIMUM LUMINAIRE LENGTH SHALL BE:

TYPE A – 26 INCHES
TYPE B – 50 INCHES

4. LOWER LENS SHALL BE CLEAR SINGLE PIECE 100% ACRYLIC HAVING AN OVERALL NOMINAL THICKNESS OF 0.110 INCHES PLUS OR MINUS 10%. UPLIGHT LENS SHALL BE 100% ACRYLIC WITH A MINIMUM OF 0.09 INCHES OVERALL THICKNESS.
5. LENS SHALL BE PRISMATIC (TO REDIRECT LIGHT, PREVENTING DIRECT GLARE AT HIGH VIEWING ANGLES) OR LUMINAIRE SHALL HAVE OPAQUE FRONT.
6. LENS SHALL HAVE SPRING STEEL LATCHES FOR RETAINING LENS, OR POSITIVE MEANS OF HOLDING LENS IN PLACE.
7. LUMINAIRE SHALL PROVIDE UP AND DOWN LIGHT. UP LIGHT SHALL BE SEPARATELY SWITCHED WHERE INDICATED. LAMPS SHALL BE ENCLOSED ON TOP AND BOTTOM.
8. BALLAST SHALL BE HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH SOUND RATING OF "A". SECURE BALLASTS TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS – ONE AT EACH END.
9. WHERE LUMINAIRE REQUIRES SEPARATELY SWITCHED UP LIGHT, LUMINAIRE SHALL HAVE TWO BALLASTS AND METAL BAFFLE BETWEEN LAMPS.

TYPE A – 2 F17/T8 LAMPS
TYPE B – 2 F32/T8 LAMPS

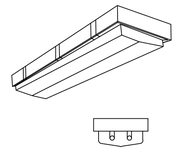
OPTIONS

1. UP AND DOWN LIGHT
2. UP AND/OR DOWN LIGHT (SEE NOTE 9)
3. DOWN LIGHT ONLY (SOLID TOP REQ'D)

WALL-MOUNTED FLUORESCENT

SKETCH DATE NOVEMBER 1995 | STYLE NL-4

C



LUMINAIRE REQUIREMENTS

1. MOLDED 100% ACRYLIC DIFFUSE LENS (NOT CLEAR) FULLY GASKETED WITH FIBERGLASS OR PLASTIC HOUSING.
2. PROVIDE A MINIMUM OF 6 PLASTIC LATCHES TO SECURE LENS.
3. BALLAST SHALL BE HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH A SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP-ON BRACKET OR 2 SCREWS – ONE AT EACH END.
4. UL LISTED FOR DAMP OR WET LABEL AS INDICATED.
5. OVERALL LUMINAIRE LENGTH SHALL BE 48" NOMINAL.
6. MINIMUM COEFFICIENT OF UTILIZATION (CU) WITH CAVITY REFLECTANCES OF 80% CEILING, 50% WALLS AND 20% FLOOR SHALL BE:

RCR	TYPE A	TYPE B
1	CU = 76	70
2	65	60
3	57	52
4	50	46

7. MINIMUM SPACING CRITERIA: 1.5
8. HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.

TYPE A – 1 F32/T8 LAMP.
TYPE B – 2 F32/T8 LAMPS.

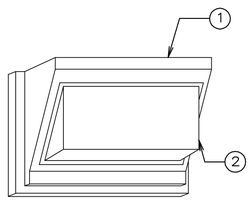
HOUSING OPTIONS

1. UL LISTED FOR DAMP LOCATIONS.
2. UL LISTED FOR WET LOCATIONS.

WET/DAMP LOCATION LUMINAIRES

SKETCH DATE NOVEMBER 1995 | STYLE NL-8

D 1



TYPE A – 70W HIGH PRESSURE SODIUM
TYPE B – 100W HIGH PRESSURE SODIUM
TYPE C – 150W HIGH PRESSURE SODIUM
TYPE D – 175W METAL HALIDE
TYPE E – 35W LOW PRESSURE SODIUM

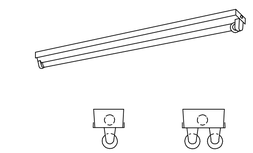
LUMINAIRE REQUIREMENTS

1. HOUSING–DIECAST ALUMINUM, SEALED AND GASKETED. UL LISTED FOR WET LOCATIONS. PROVIDE INTERNAL GREEN GROUNDING SCREW. (DIMENSIONS: APPROXIMATELY 16"L X 10"H X 11"D)
2. REFRACTOR–BOROSILICATE PRISMATIC GLASS. PROVIDE ALUMINUM REFLECTOR.
3. BALLAST–HIGH POWER FACTOR (≥ .9) ENCASED AND POTTED MULTI–VOLTAGE.
4. FINISH–DARK BRONZE, UNLESS OTHERWISE NOTED.
5. LAMP SOCKET SHALL BE ADJUSTABLE.
6. PROVIDE INTEGRAL PHOTOCELL WHEN INDICATED.

EXTERIOR COMMERCIAL WALL MOUNT H.I.D.

SKETCH DATE NOVEMBER 1995 | STYLE NL-25

G



LUMINAIRE REQUIREMENTS

1. 0.026" MINIMUM THICKNESS STEEL CHANNEL.
2. CHEMICALLY TREAT STEEL FOR RUST PREVENTION, AND FINISH WITH BAKED WHITE ENAMEL OR POLYESTER PAINT.
3. BALLAST SHALL BE HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH A SOUND RATING OF "A".
4. HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
5. PROVIDE 0.019" MINIMUM THICKNESS STEEL REFLECTOR (SYMMETRIC OR ASYMMETRIC AS INDICATED) WHEN INDICATED.

TYPE A – 1 F32/T8 LAMP
TYPE B – 2 F32/T8 LAMPS
TYPE C – 1 F96/T12 LAMP
TYPE D – 2 F96/T12 LAMPS

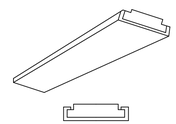
OPTIONS

1. WIRE GUARD

STRIP FLUORESCENT

SKETCH DATE NOVEMBER 1995 | STYLE NL-7

H R



LUMINAIRE REQUIREMENTS

1. 0.032" MIN. THICKNESS FORMED STEEL HOUSING. CHEMICAL TREATMENT FOR RUST PREVENTION. BAKED WHITE ENAMEL FINISH. 85% MIN. REFLECTANCE (INTERIOR). ENTIRE HOUSING SHALL BE PAINTED WHITE, AFTER FABRICATION. HOUSING SHALL NOT PERMANENTLY DEFORM NOR SHALL IT DEFLECT MORE THAN ONE INCH (TWO INCHES FOR TYPE B) WHEN LIFTED BY ONE CORNER.
2. SECURE HOUSING ENDS BY RIVETS OR SCREWS. PROVIDE A KNOCKOUT IN EACH END AND TWO IN TOP OF HOUSING. HOUSING SHALL HAVE INTERNAL GREEN GROUNDING SCREW.
3. OVERALL LUMINAIRE LENGTH SHALL BE 48 INCHES NOMINAL. OVERALL WIDTH SHALL BE 12 INCHES MINIMUM FOR 2 LAMP, 15-1/2 INCHES MINIMUM FOR 4 LAMP. OVERALL HEIGHT SHALL BE 3-1/2 INCHES MAXIMUM.
4. LENS SHALL BE CLEAR 100% ACRYLIC HAVING A MINIMUM OVERALL (BOTTOM OF LENS) THICKNESS OF 0.140 INCH WITH A MAXIMUM PRISM PENETRATION DEPTH OF 0.07 INCHES (0.055 INCH MIN. OVERALL SIDE THICKNESS).
5. LENS SHALL BE PRISMATIC TYPE, INJECTION MOLDED INTO A SINGLE 5-SIDED UNIT WITH 1/2 INCH MINIMUM RE-ENTRANT FLANGE ON EACH LONG SIDE FOR ADDITIONAL STRENGTH.
6. LENS SHALL BE CAPABLE OF HINGING AND LATCHING FROM EITHER SIDE OF FIXTURE.
7. BALLAST: HIGH POWER FACTOR (≥ .95) INSTANT START CLASS P ELECTRONIC BALLAST WITH SOUND RATING OF "A". SECURE BALLAST TO HOUSING WITH AT LEAST ONE SCREW AND SLIP ON BRACKET OR TWO SCREWS – ONE AT EACH END.
8. PHOTOMETRICS: MINIMUM COEFFICIENT OF UTILIZATION (CU) FOR THE FOLLOWING CAVITY REFLECTANCES: CEILING = 80% WALL = 50% FLOOR = 20%

	TYPE A	TYPE B
RCR = 1	CU = 69	66
2	62	59
3	56	53
4	50	48

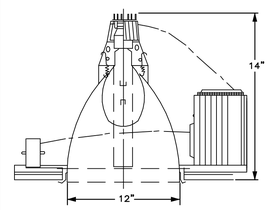
9. MINIMUM SPACING CRITERIA: 1.3

TYPE A – 2 F32/T8 LAMPS
TYPE B – 4 F32/T8 LAMPS

SURFACE MOUNTED WRAP-AROUND LUMINAIRE FOR PREMIUM OFFICE/CLASSROOM TYPE SPACES

SKETCH DATE NOVEMBER 1995 | STYLE NL-1

K



REGRESSED LENS

TYPE A 70W HPS
TYPE B 100W HPS
TYPE C 150W HPS

LUMINAIRE REQUIREMENTS

1. CAST OR EXTRUDED ALUMINUM SOCKET HOUSING WITH PORCELAIN SOCKET FOR VERTICAL BURNING LAMP.
2. SPECULAR ALUMINUM REFLECTOR.
3. WHITE TRIM RING SUITABLE FOR USE WITH CEILING MATERIAL INSTALLED.
4. HIGH POWER FACTOR (≥ .9) ENCASED AND POTTED BALLAST ARRANGED FOR MAINTENANCE FROM BELOW CEILING.
5. WIRING JUNCTION BOX SUITABLE FOR 75° C. BRANCH CIRCUIT THROUGH WIRING.
6. LENS SHALL BE TEMPERED GLASS WITH FRESNEL OR PRISMATIC PATTERN.
7. PROVIDE LAMP AS INDICATED.
8. PROVIDE INTERNAL GREEN GROUNDING SCREW.
9. PROVIDE U.L. DAMP LABEL WHEN INDICATED.

USING REFLECTANCES OF 80% CEILING, 50% WALLS AND 20% FLOOR, MINIMUM COEFFICIENTS OF UTILIZATION SHALL BE AS FOLLOWS:

RCR	TYPE A
1	CU = 55
2	50
3	45
4	40
MIN. SPACING CRITERIA	1.0

RECESSED ROUND REGRESSED LENS TYPE H.I.D.

SKETCH DATE NOVEMBER 1995 | STYLE NL-27

M O

REVISIONS

DESCRIPTION	DATE	APPROVED
SYM.		

A/E
DESIGN JHB
DRAWN JHB
REVIEW RFF
QC
CHIEF ARCH./ EQUIP.
PROJECT MANAGER JB
FIRE PROTECTION
BRANCH MANAGER
DESIGN SUPERVISOR

DESIGNED & ENGINEERED BY: LANTDIV NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR BID FOR CONTRACTOR MARKING

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATIONS TO GYMNASIUM BUILDING 3147
LIGHTING PLATES

CODE ID. NO. 80091 | SIZE D
SCALE: AS NOTED
EFD NO. 468543
STA. PROJ. NO. R-234
SPEC. NO. 05-95-5105
CONSTR. CONTR. NO. N62470-95-B-5105
NAVFAC DRAWING NO. 4368543
SHEET 118 OF 119
E-23

FILENAME: 5105E023.DWG, PLOT SCALE: 1" = 1', SAVED ON 08/15/97 AT 09:03, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

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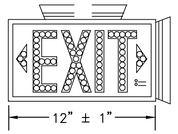
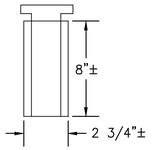


FRONT VIEW



END VIEW

LUMINAIRE REQUIREMENTS

1. ALUMINUM, STEEL, THERMOPLASTIC OR POLYCARBONATE HOUSING.
2. BRUSHED ALUMINUM, THERMOPLASTIC OR STEEL STENCIL WITH LETTERS 6 INCHES TALL AND 3/4" WIDE STROKES AND PUNCH-OUT FACE, FOR LED'S OR INTERNAL LED ILLUMINATION.
3. RED ILLUMINATION PROVIDED BY LIGHT EMITTING DIODES (LED), APPROXIMATELY 120 LED'S PER FACE. (THIS QUANTITY DOES NOT APPLY TO INTERNALLY ILLUMINATED SIGNS.)
4. CLEAR PROTECTIVE NON-BREAKABLE LENS TO PROTECT LED'S. (NOT REQUIRED FOR INTERNALLY ILLUMINATED SIGNS.)
5. PROVIDE POWER FAILURE, BROWN OUT PROTECTION AND SURGE PROTECTION.
6. PROVIDE NI-CAD BATTERY POWER AND SOLID STATE TYPE CHARGER.
7. PROVIDE UNIVERSAL ARROWS AND BLANK OFF PLATES.
8. PROVIDE SINGLE OR DOUBLE FACE AS INDICATED.
9. PROVIDE UNIVERSAL MOUNTING.
10. UNITS MOUNTED EXPOSED TO THE ELEMENTS OR IN CLASSIFIED AREAS SHALL HAVE UL LABEL AS INDICATED.
11. PROVIDE INTERNAL GREEN GROUNDING SCREW.
12. PROVIDE TEST BUTTON IN BOTTOM OF HOUSING.
13. PROVIDE INDICATOR LIGHTS IN FACE TO INDICATE WHEN UNIT IS ON NORMAL POWER OR ON BATTERY POWER.
14. HOUSING SHALL HAVE A MATTE BLACK FINISH, EXCEPT AS INDICATED OTHERWISE.

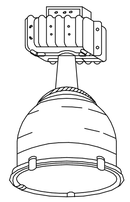
NOTES:

1. UNIT NOT AVAILABLE WITH WET LABEL.
2. UNIT IS AVAILABLE WITH DAMP LABEL.

LIGHT EMITTING DIODE EXIT SIGN

SKETCH DATE NOVEMBER 1995 | STYLE NL-61

P



HIGH PRESSURE SODIUM

TYPE A – 150 W.
TYPE B – 250 W.
TYPE C – 400 W.
TYPE D – 1000 W.

METAL HALIDE

TYPE E – 250 W.
TYPE F – 400 W.
TYPE G – 1000 W.

NOTE:

TYPES E, F, AND G ALWAYS REQUIRE ITEM 5-F.

LUMINAIRE REQUIREMENTS

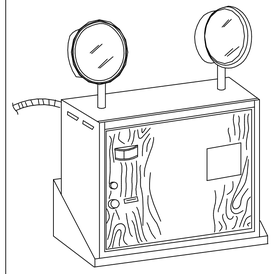
1. STEEL OR ALUMINUM BALLAST HOUSING. SPUN ALUMINUM OR GLASS REFLECTOR. PROVIDE VENTILATION OPENINGS AT TOP OF REFLECTOR. PROVIDE INTERNAL GREEN GROUNDING SCREW.
2. PROVIDE HIGH POWER FACTOR (≥ .9) ENCASED AND POTTED BALLAST AS SPECIFIED.
3. SUITABLE FOR 55° C AMBIENT OPERATION, UNLESS OTHERWISE NOTED.
4. PROVIDE SAFETY CHAIN FOR BALLAST, GLASS DOOR AND REFLECTOR.
5. OPTIONS WHEN NOTED:
   a. CUSHIONED SHOCK ABSORBING HANGER
   b. POWER HOOK
   c. AUXILIARY QUARTZ LAMP AND ARC SENSING RELAY
   d. WIRE GUARD
   e. SUITABLE FOR 65° C AMBIENT OPERATION
   f. CLEAR TEMPERED GLASS LENS IN GASKETED DOOR, HINGED AND HELD WITH STAINLESS STEEL LATCHES
   g. UL WET OR DAMP LABEL AS INDICATED.
6. MINIMUM SPACING CRITERIA: 0.95
7. MINIMUM COEFFICIENTS OF UTILIZATION (CU) FOR CAVITY REFLECTANCES OF 70% CEILING, 50% WALLS, 20% FLOOR SHALL BE:

RCR	CU'S TYPES A,B,C,D	CU'S TYPES E,F,G
1	77	73
2	71	68
3	66	63

HIGH-BAY OPEN/ENCLOSED INDUSTRIAL H.I.D.

SKETCH DATE NOVEMBER 1995 | STYLE NL-22

S



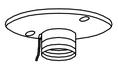
LUMINAIRE REQUIREMENTS

1. SEALED BATTERY, SPECIFICALLY DESIGN FOR EMERGENCY LIGHTING, SOLID STATE FULLY AUTOMATIC – THREE RATE CHARGER FOR NICKEL CADMIUM BATTERY AND TWO RATE HIGH/LOW CHARGER FOR LEAD CALCIUM OR LEAD ACID SEALED BATTERIES.
2. MINIMUM 0.032" THICK STEEL HOUSING WITH BAKED ENAMEL PAINTED FINISH (BROWN OR BEIGE), OR NONMETALLIC PLASTIC HOUSING.
3. TEST SWITCH
4. "AC ON" PILOT LIGHT.
5. AUTOMATIC OVERLOAD PROTECTION – FUSE OR CIRCUIT BREAKER.
6. HEADS SHALL BE FULLY ADJUSTABLE VERTICALLY AND HORIZONTALLY.
7. SEALED BEAM HALOGEN LAMPS MINIMUM 12 WATT OR 18 WATT AS INDICATED.
8. INPUT VOLTAGE AS INDICATED.
9. VOLTMETER.
10. 3/C #16, SO CORD SET – (HARD WIRE TO CIRCUIT)
11. PROVIDE MINIMUM 0.032" THICK STEEL WALL MOUNTING SHELF, OR MOUNTING BRACKETS OR HOLES IN HOUSING FOR MOUNTING UNIT ON WALL.
12. LOW VOLTAGE, DEEP DISCHARGE DISCONNECT.
13. PROVIDE INTERNAL GREEN GROUNDING SCREW.

EMERGENCY LIGHTING UNIT

SKETCH DATE NOVEMBER 1995 | STYLE NL-51

E

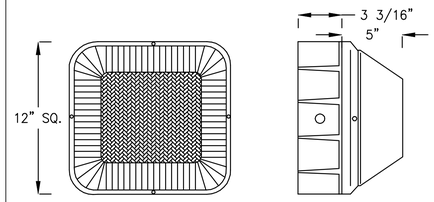


LUMINAIRE REQUIREMENTS

1. PORCELAIN BODY WITH MEDIUM BASE COPPER ALLOY SCREW SHELL. BINDING SCREW TERMINALS. RATED FOR 250 WATTS AT 240 VOLTS.
2. PROVIDE ON-OFF PULL SWITCH WITH CHAIN AND CORD.
3. PROVIDE INTERNAL GREEN GROUNDING SCREW.

PORCELAIN LAMPHOLDER

U



LUMINAIRE REQUIREMENTS

1. PROVIDE LUMARK VR2000 BY COOPER LIGHTING, CATALOG #: MHGC-PP-100-NPF-120V-PB-120V OR EQUAL.
2. LENS SHALL CONSIST OF ONE-PIECE INJECTION MOLDED UV STABILIZED POLYCARBONATE MIN. 0.130" THICK.
3. SHALL HAVE FOUR STAINLESS STELL TORX FASTENERS WITH REJECT PINS. FASTENERS SHALL BE SEALED BY NEOPRENE O-RING. SCREWS SHALL BE RECESSED IN LENS.
4. REFLECTOR SHALL CONSIST OF 16 GA. CRS WITH WHITE HIGH REFLECTANCE POLYESTER POWDER COAT FINISH.
5. HOUSING SHALL CONSIST OF DIE-CAST ALUMINUM WITH REINFORCED RIBS ON EXPOSED SIDEWALLS. HOUSING SHALL HAVE BLACK POLYESTER POWDER COAT.

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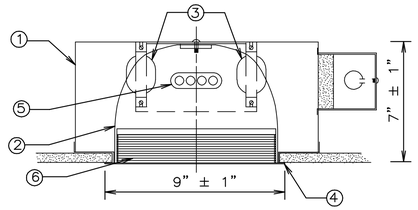

LUMINAIRE REQUIREMENTS

1. HOUSING – ALUMINUM OR STEEL WITH BAKED ENAMEL FINISH. (12" X 12" ±1") PROVIDE INTERNAL GREEN GROUNDING SCREW.
2. REFLECTOR-SPECULAR ALUMINUM.
3. HIGH POWER FACTOR (≥ .9) ELECTROMAGNETIC BALLAST.
4. TRIM FLANGE-WHITE ACRYLIC PAINT OR ALUMINUM AS INDICATED.
5. LAMPS-COMPACT FLUORESCENT, SIZE AS INDICATED.
6. MATTE BLACK EXTRUDED MULTIGROOVE BAFFLE.
7. MINIMUM FIXTURE EFFICIENCY-65%.
8. MINIMUM SPACING CRITERIA: 1.1
9. FIXTURE SHALL BE UL LISTED.

TYPE A – 2 F9/T4 TWIN TUBE COMPACT FLUOR. LAMPS.
TYPE B – 2 F13/T4 TWIN TUBE COMPACT FLUOR. LAMPS.

RECESSED ROUND, OPEN BOTTOM MULTIGROOVE COMPACT FLUORESCENT

SKETCH DATE NOVEMBER 1995 | STYLE NL-18

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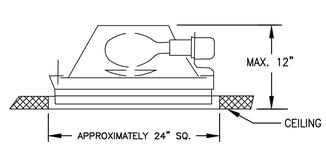

LUMINAIRE REQUIREMENTS

1. MINIMUM 0.026" THICK DIE FORMED STEEL HOUSING WELDED OR PUT TOGETHER WITH SCREWS TO FORM A RIGID UNIT. HOUSING HINGED FOR RELAMPING FROM ABOVE AND BELOW CEILING.
2. ENTIRE LUMINAIRE SHALL BE FLUSH WITH CEILING, NO PROTRUDING FASTENERS OR HINGES.
3. STEEL DOOR FRAME MINIMUM 0.032" THICK STEEL WITH BAKED WHITE ENAMEL FINISH.
4. REFLECTOR SHALL BE SPECULAR ALUMINUM.
5. TEMPERED IMPACT RESISTANT PRISMATIC GLASS LENS.
6. PORCELAIN LAMPHOLDER.
7. ALL STEEL PARTS SHALL BE CHEMICALLY TREATED FOR RUST PREVENTION AND PAINT ADHESION AND SHALL BE PAINTED WITH WHITE BAKED ENAMEL FINISH.
8. HIGH POWER FACTOR (≥ .9) ENCASED AND POTTED BALLAST.
9. PROVIDE INTERNAL GREEN GROUNDING SCREW.
10. FIXTURE SHALL BE U.L. LISTED.
11. PROVIDE HEAT RESISTANT REFRACTOR BELOW LAMP.

TYPE A – 250 WATT METAL HALIDE
TYPE B – 400 WATT METAL HALIDE
TYPE C – 150 WATT HIGH PRESSURE SODIUM
TYPE D – 250 WATT HIGH PRESSURE SODIUM

HANDBALL AND RACQUETBALL COURT LUMINAIRE

SKETCH DATE NOVEMBER 1995 | STYLE NL-28

L

NO.	DESCRIPTION	DATE	APPROVED
	REVISIONS		

A/E EFD
DESIGN JJB
DRAWN JJB
REVIEW R.F.F.
QC
CHIEF ARCH./ENGR.
PROJECT MANAGER JJB
FIRE PROTECTION
BRANCH MANAGER
DESIGN DIRECTOR

DESIGNED & ENGINEERED BY:
LANTDIV
NAVAL FACILITIES ENGINEERING COMMAND
APPROVED DATE
ACTIVITY - SATISFACTORY TO
APPROVED DATE
FOR EFD FOR COMMANDER NAVFAC

SEAL

DEPARTMENT OF THE NAVY
NAVAL STATION
NAB LITTLE CREEK
ATLANTIC DIVISION
NAVAL FACILITIES ENGINEERING COMMAND
NORFOLK, VIRGINIA
VIRGINIA BEACH, VIRGINIA
RENOVATION TO GYMNASIUM BUILDING 3147
LIGHTING PLATES

CODE ID. NO. 80091 | SIZE D
SCALE: AS NOTED
EFD NO. 468544
STA. PROJ. NO. R-234
SPEC. NO. 05-95-5105
CONSTR. CONTR. NO. N62470-95-B-5105
NAVFAC DRAWING NO. 4368544
SHEET 119 OF 119
E-24

FILENAME: 5105E024.DWG, PLOT SCALE: 1" = 1', SAVED ON 08/15/97 AT 09:02, XREFS: NONE

DRAWFORM REVISION 25 SEPT 96

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D C B A

GENERAL NOTES:

1. THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE PROVISIONS OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION, AS ADOPTED BY THE UNIFIED FACILITIES CRITERIA, AND AS FOLLOWS:

UFC 1-200-01	GENERAL BUILDING REQUIREMENTS, WITH CHANGE 1
UFC 301-01	STRUCTURAL ENGINEERING WITH CHANGE 3
UFC 3-310-01	STRUCTURAL LOAD DATA, WITH CHANGE 2
UFC 3-310-02A	STRUCTURAL DESIGN CRITERIA FOR BUILDINGS
UFC 3-320-01A	WELDING – DESIGN PROCEDURES AND INSPECTIONS
UFC 3-330-01A	COMMENTARY ON SNOW LOADS

2. THE WORK UNDER THE FOLLOWING SPECIFICATION SECTIONS IS SUBJECT TO SPECIAL INSPECTIONS AS DESCRIBED IN SECTION 1704 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION:
   A. 051200 – STRUCTURAL STEEL
   B. 061000 - ROUGH CARPENTRY

3. THE CONTRACTOR SHALL BE RESPONSIBLE FOR TEMPORARY SHORING AND BRACING REQUIRED TO ERECT AND HOLD THE STRUCTURE IN PROPER ALIGNMENT UNTIL PERMANENT SUPPORTS AND LATERAL BRACING ARE IN PLACE.

4. BEFORE PROCEEDING WITH WORK WITHIN THE EXISTING STRUCTURE THE CONTRACTOR SHALL BECOME FAMILIAR WITH THE EXISTING STRUCTURAL CONDITIONS. THE SHORING AND BRACING SHOWN IS A PARTIAL AND SCHEMATIC REPRESENTATION OF THAT REQUIRED. THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE DESIGN AND ERECTION OF ALL SAFEGUARDS NECESSARY TO PROTECT THE EXISTING STRUCTURE FROM DAMAGE.

5. THE CONTRACTOR SHALL FIELD VERIFY THE DIMENSIONS, ELEVATIONS, AND OTHER REQUIREMENTS NECESSARY FOR THE PROPER CONSTRUCTION AND ALIGNMENT OF THE NEW PORTIONS OF THE STRUCTURE TO THE EXISTING. THE CONTRACTOR HALL MAKE ALL MEASUREMENTS NECESSARY FOR FABRICATION AND ERECTION OF STRUCTURAL MEMBERS.

6. SPECIFIC NOTES AND SPECIFIC DETAILS ON THE DRAWINGS SHALL TAKE PRECEDENCE OVER STRUCTURAL NOTES AND TYPICAL DETAILS.

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

ROOF	20 PSF

   C. WIND DESIGN DATA:

ULTIMATE DESIGN WIND SPEED	120 MPH
NOMINAL DESIGN WIND SPEED	90 MPH
RISK CATEGORY	II
WIND EXPOSURE	C
INTERNAL PRESSURE COEFFICIENT	±0.18
COMPONENTS AND CLADDING DESIGN PRESSURES	
(ZONE 1 WITH 10 SF TRIBUTARY AREA)	±34.4 PSF
(ZONE 4 WITH 10 SF TRIBUTARY AREA)	±40.8 PSF

STRUCTURAL STEEL NOTES:

1. STRUCTURAL STEEL FOR THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE FOURTEENTH EDITION OF THE AMERICAN INSTITUTE OF STEEL CONSTRUCTION (AISC 360-10) "STEEL CONSTRUCTION MANUAL" – ALLOWABLE STRESS DESIGN.

2. STRUCTURAL STEEL SHALL COMPLY WITH THE FOLLOWING SPECIFICATIONS:
   A. STRUCTURAL STEEL W- AND WT-SHAPES – ASTM A992, Fy=50 KSI
   B. RECTANGULAR AND SQUARE HSS – ASTM A500, GRADE B, Fy=46 KSI
   C. ALL OTHER STRUCTURAL STEEL SHAPES, PLATES AND BARS - ASTM A36, Fy=36 KSI (UNLESS OTHERWISE NOTED)

3. WELDING SHALL BE IN ACCORDANCE WITH AWS D1.1, "STRUCTURAL WELDING CODE - STEEL". WELD ELECTRODES SHALL BE E70XX. CONTINUOUS 1/4" FILLET WELDS ARE REQUIRED UNLESS OTHERWISE NOTED.

4. THE FABRICATION OF STRUCTURAL STEEL FRAMING SHOWN TO BE CURVED SHALL BE ACCOMPLISHED BY ROLLING IF FEASIBLE. WHERE ROLLING IS NOT FEASIBLE SUBMIT AN ALTERNATE METHOD FOR REVIEW.

5. UNLESS OTHERWISE NOTED, ATTACH BLOCKING AND NAILERS TO STEEL FRAMING USING 3/16" DIAMETER POWDER ACTUATED FASTENERS AT 24" ON-CENTER OR 1/2" DIAMETER BOLTS AT 48" ON-CENTER. STAGGER FASTENERS TO ALTERNATE SIDES OF BEAM WEB.

ROUGH CARPENTRY NOTES:

1. ROUGH CARPENTRY FOR THIS STRUCTURE HAS BEEN DESIGNED IN ACCORDANCE WITH THE NATIONAL FOREST PRODUCTS ASSOCIATION (NFPA) "NATIONAL DESIGN SPECIFICATIONS FOR WOOD CONSTRUCTION".

2. UNLESS OTHERWISE NOTED, ALL NAILING SHALL CONFORM TO THE "FASTENING SCHEDULE" SHOWN IN TABLE 2304.9.1 OF THE INTERNATIONAL BUILDING CODE, 2012 EDITION.

3. WOOD FRAMING MEMBERS SHALL COMPLY WITH PS 20 "AMERICAN SOFTWOOD LUMBER STANDARD" AND THE FOLLOWING REQUIREMENTS:
   A. MOISTURE CONTENT - SEASONED, WITH 19 PERCENT MAXIMUM MOISTURE CONTENT.
   B. GRADE - NO. 2.
   C. SPECIES – SOUTHERN PINE GRADED UNDER SPIB RULES

4. STEEL PLATE CONNECTORS SHALL COMPLY WITH ASTM A36 SPECIFICATIONS (Fy=36 KSI). BOLTS CONNECTING WOOD MEMBERS SHALL COMPLY WITH ASTM A307 STEEL BOLTS, AND SHALL BE 3/4" DIAMETER UNLESS OTHERWISE SPECIFIED.

5. METAL FRAMING ANCHORS SHALL COMPLY WITH ASTM A653 GRADE A (STRUCTURAL QUALITY). ANCHORS SHALL BE CAPABLE OF SUPPORTING THE REACTIONS SHOWN.

6. WHERE MULTIPLE FRAMING MEMBERS ARE INDICATED, SCAB CONTINGENT MEMBERS TOGETHER WITH 16d NAILS AT 12" ON-CENTER, ALTERNATING AT 2 INCHES FROM EACH EDGE, UNLESS OTHERWISE INDICATED.

SPECIAL INSPECTIONS:

1. SPECIAL INSPECTIONS SHALL BE COMPLETED FOR THE FOLLOWING ELEMENTS ACCORDING TO IBC SECTION 1704.

2. STRUCTURAL STEEL FABRICATION AND ERECTION SHALL BE SPECIAL INSPECTED AS FOLLOWS:
   A. PERIODIC INSPECTION:
      1. BOLTS, NUTS AND WASHERS ACCORDING TO AISC 360-10.
      2. SINGLE-PASS FILLET WELDS LESS THAN OR EQUAL TO 5/16"
      3. STEEL FRAME JOINT DETAILS FOR COMPLIANCE WITH CONSTRUCTION DOCUMENTS INCLUDING MEMBER LOCATIONS, CONNECTION DETAILS AND ANY OTHER BRACING AND STIFFENING DETAILS

3. WOOD FRAMING (TRUSSES, ROOF RAFTERS, WALLS) SHALL BE SPECIAL INSPECTED AS FOLLOWS:
   A. PERIODIC INSPECTION:
      1. SIZE, GRADE, SPECIES AND LAYOUT OF FRAMING MEMBERS
      2. CONNECTION DETAILS SUCH AS NAILING, SCREWING, BOLTING, ANCHORING, BRACING AND HOLD DOWNS

STRUCTURAL ABBREVIATION LIST:

w/	WITH	K	KIPS
±	PLUS/MINUS	K.S.F.	KIPS PER SQUARE FOOT
Ø	DIAMETER	K.S.I.	KIPS PER SQUARE INCH
CL	CENTERLINE		
SQ.	SQUARE	LG.	LONG
o/c	ON CENTER	LLH	LONG LEG HORIZONTAL
		LLO	LONG LEG OUTSTANDING
A.B.	ANCHOR BOLT	LLV	LONG LEG VERTICAL
AESS	ARCHITECTURALLY EXPOSED STRUCTURAL STEEL	LSH	LONG SIDE HORIZONTAL
		LSV	LONG SIDE VERTICAL
ACI	AMERICAN CONCRETE INSTITUTE		
AISC	AMERICAN INSTITUTE OF STEEL CONSTRUCTION	M.O.S.	MIDDLE OF SLAB
		M.O.W.	MIDDLE OF WALL
A.R.	ANCHOR ROD	MANUF.	MANUFACTURER or MANUFACTURER'S
ASTM	AMERICAN SOCIETY FOR TESTING AND MATERIALS	MAS.	MASONRY
ADJ.	ADJACENT	MATL.	MATERIAL
ARCH.	ARCHITECT or ARCHITECTURAL	MAX.	MAXIMUM
		MECH.	MECHANICAL
B.	BOTTOM	MIN.	MINIMUM
B.E.J.	BUILDING EXPANSION JOINT	MTL.	METAL
B.D.	BAR DIAMETER		
BLDG.	BUILDING	N.T.S.	NOT TO SCALE
BM.	BEAM		
BRCG.	BRACING	OPP.	OPPOSITE
BRDG.	BRIDGING		
BRG.	BEARING	P/T	POST-TENSIONED
BTWN.	BETWEEN	PAF	POWDER ACTUATED FASTENER
		P.C.	PRECAST
C.G.	CENTER OF GRAVITY	P.E.B.	PRE-ENGINEERED BUILDING
C.I.P.	CAST IN PLACE	PLF	POUNDS PER LINEAR FOOT
C.J.P.	COMPLETE JOINT PENETRATION	P.S.	PRE-STRESSED
CANT.	CANTILEVER	PSF	POUNDS PER SQUARE FOOT
CLR.	CLEAR	PSI	POUNDS PER SQUARE INCH
CMU	CONCRETE MASONRY UNIT	P.T.	PRESSURE TREATED
COL.	COLUMN	Pc	PIECE
CONC.	CONCRETE	PLUMB.	PLUMBING
CONN.	CONNECT or CONNECTION	PROJ.	PROJECTION
CONT.	CONTINUOUS		
COORD.	COORDINATE	R.	RADIUS
		REF.	REFERENCE
D.	DEEP or DEPTH	REINF.	REINFORCED or REINFORCING
DBL.	DOUBLE	REQD.	REQUIRED
DET.	DETAIL	REV.	REVISION
DIA.	DIAMETER		
DIAG.	DIAGONAL	SLO	SHORT LEG OUTSTANDING
DWG.	DRAWING	S.D.I.	STEEL DECK INSTITUTE
DWL.	DOWEL	S.E.J.	SEISMIC EXPANSION JOINT
		S.J.I.	STEEL JOIST INSTITUTE
E.F.	EACH FACE	S.O.G.	SLAB ON GRADE
E.O.	EDGE OF	S.F.	STEPPED FOOTING
E.W.	EACH WAY	SCHED.	SCHEDULE
EA.	EACH	SECT.	SECTION
EL.	ELEVATION	SHT.	SHEET
ELEC.	ELECTRICAL	SIM.	SIMILAR
ELEV.	ELEVATOR or ELEVATION	S.I.R.D.A.	SLOPED INTEGRAL ROOF DECK ASSEMBLY
EMB.	EMBED or EMBEDMENT		
ENG.	ENGINEER	SL.	SLOPE
EQ.	EQUAL	SPA.	SPACE
EQUIV.	EQUIVALENT	STD.	STANDARD
EXIST.	EXISTING	STIFF.	STIFFENER
EXP.	EXPANSION	STIR.	STIRRUP
		STL.	STEEL
F.L.	FULL LENGTH	STRUCT.	STRUCTURAL
F.O.	FACE OF		
F.R.	FIRST RISER	T.	TOP
FIN.	FINISH or FINISHED	T.O.S.	TOP OF STEEL
FLR.	FLOOR	TEMP.	TEMPERATURE
FTG.	FOOTING	TYP.	TYPICAL
G.C.	GENERAL CONTRACTOR	U.O.N.	UNLESS OTHERWISE NOTED
ga	GAGE		
GALV.	GALVANIZED	VERT.	VERTICAL
GD.	GRADE		
		W.	WIDE or WIDTH
H.C.	HOLLOW CORE	W.P.	WORKING POINT
HK.	HOOK	W.W.F.	WELDED WIRE FABRIC
HORIZ.	HORIZONTAL		
J.B.E.	JOIST BEARING ELEVATION		
JT.	JOINT		

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PROFESSIONAL ENGINEER

J.W. CLARK ENTERPRISES, INC.

ROCKWELL HALL TRUSS REPAIR

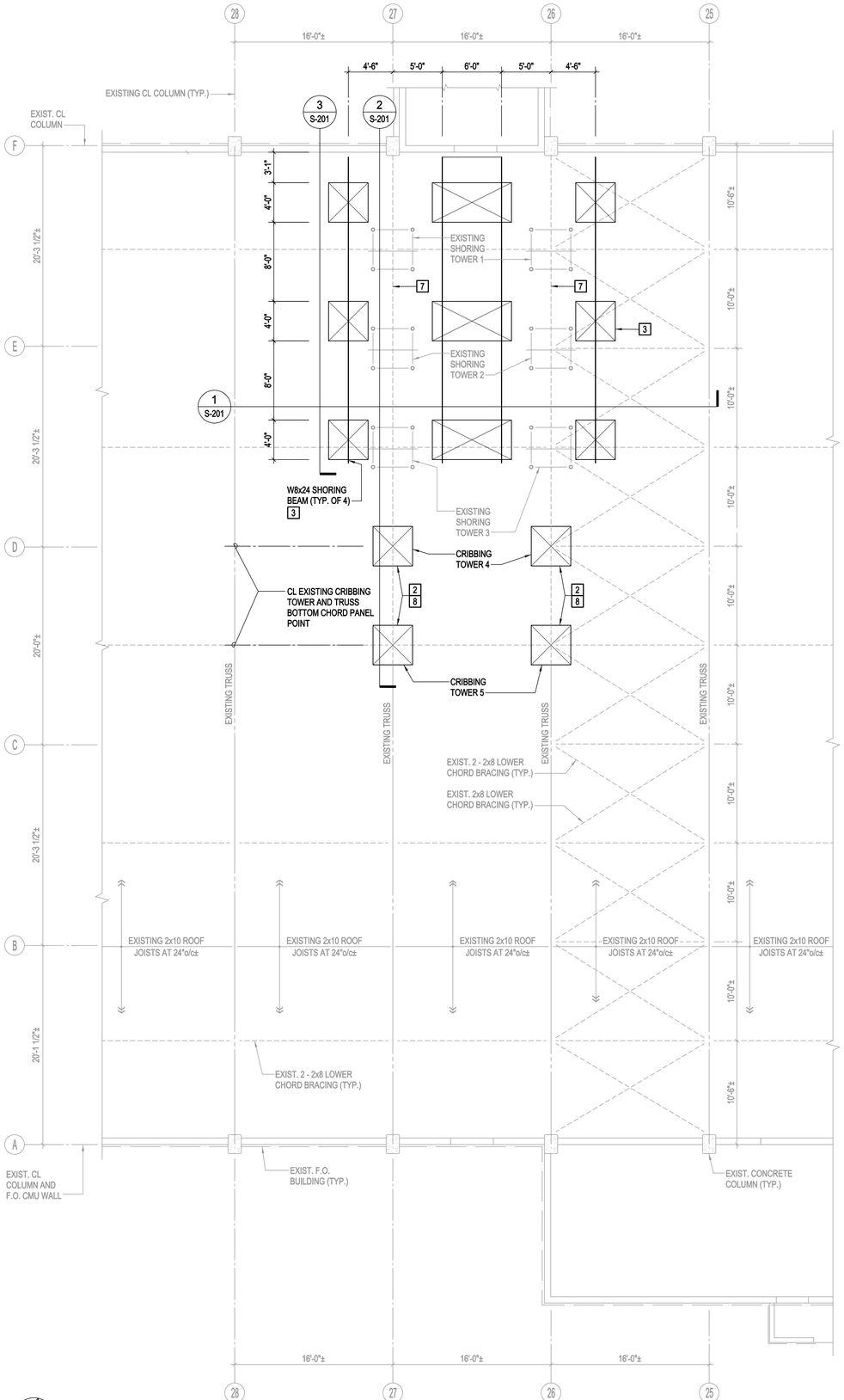
JEB LITTLE CREEK, VIRGINIA BEACH, VIRGINIA

STRUCTURAL NOTES AND ABBREVIATIONS

PROJECT No:	17.334
DESIGNED BY:	MJM
DRAWN BY:	NEB
CHECKED BY:	MJM
DATE:	8/3/18
REVISIONS:	

DRAWING NUMBER

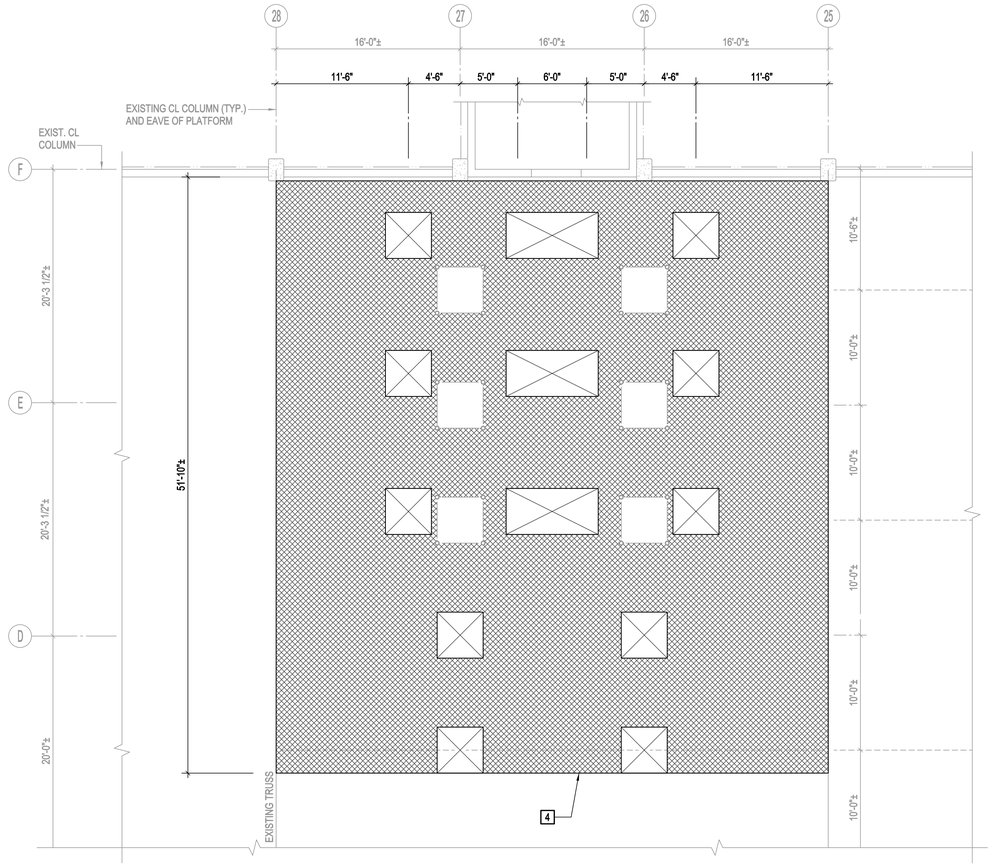
S-001



NORTH

EXISTING ROOF FRAMING SHORING PLAN

3/16" = 1'-0"



NORTH

PLATFORM PLAN

3/16" = 1'-0"

SEQUENCE NOTES:

1 = REMOVE CEILING AND OTHER OBSTRUCTIONS AS REQUIRED TO INSTALL SHORING AND NEW WORK.

2 = INSTALL CRIBBING TOWERS 4 AND 5 AND PROVIDE CAPABILITY TO JACK TRUSSES. TOWERS AND JACKS SHALL BE CAPABLE OF SUPPORTING A MINIMUM LOAD OF 40 KIPS.

3 = INSTALL CRIBBING TOWERS FOR SUPPORT OF (4) SHORING BEAMS. TOWERS SHALL HAVE THE CAPACITY TO JACK SHORING BEAMS (10 TONS) TO LIFT RAFTERS.

4 = INSTALL SYSTEM SCAFFOLD WITH STAIR ACCESS AROUND CRIBBING AND SHORING TOWERS TO PROVIDE WORKING PLATFORM APPROXIMATELY 20 FT. ABOVE FLOOR. INCLUDE COMPLETE SYSTEM INCLUDING RAILING AND OTHER OSHA COMPLIANT COMPONENTS.

5 = SISTER THE FIRST 5 RAFTERS IN THIS BAY WITH NEW 2x10 RAFTERS. FASTEN TOGETHER WITH NO. 8 x 3" SCREWS AT 16"o/c STAGGERED.

6 = INSTALL RAFTER SHORING EACH SIDE OF TRUSSES.

7 = PROCEED WITH DEMOLITION OF EXISTING TRUSSES. WORK SHALL START AT BEARING END AND PROCEED METHODICALLY TO EXTENTS SHOWN ON THE DRAWINGS. FINAL TRIMMING SHALL BE COORDINATED WITH THE STEEL DRAWINGS.

8 = JACK TRUSS AT TOWERS 4 AND 5, SIMULTANEOUS WITH RAFTERS, UNTIL BOTTOM CHORD IS CAMBERED APPROXIMATELY 4 INCHES AT TOWER 5 (20'-0" ABOVE TEMPORARY PLYWOOD SURFACE). RAFTERS CAN BE COMPARED WITH ADJACENT BAYS AND ROOF PROFILE.

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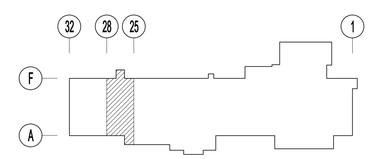
11 = REMOVE CRIBBING TOWER 4 AND THEN 5.

THE INFORMATION REGARDING THE EXISTING CONSTRUCTION WAS OBTAINED FROM THE RECORD DRAWINGS PREPARED BY BUREAU OF YARDS & DOCKS DATED SEPTEMBER 9, 1943. ALL INFORMATION SPECIFYING EXISTING CONDITIONS MUST BE VERIFIED BY THE GENERAL CONTRACTOR. THE AFOREMENTIONED DRAWINGS WILL BE MADE AVAILABLE TO THE CONTRACTOR UPON REQUEST.

GRAPHIC SCALE:

3/16" = 1'-0"

5' 0 5' 10'



NORTH

KEY PLAN

NOT TO SCALE

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ROCKWELL HALL TRUSS REPAIR

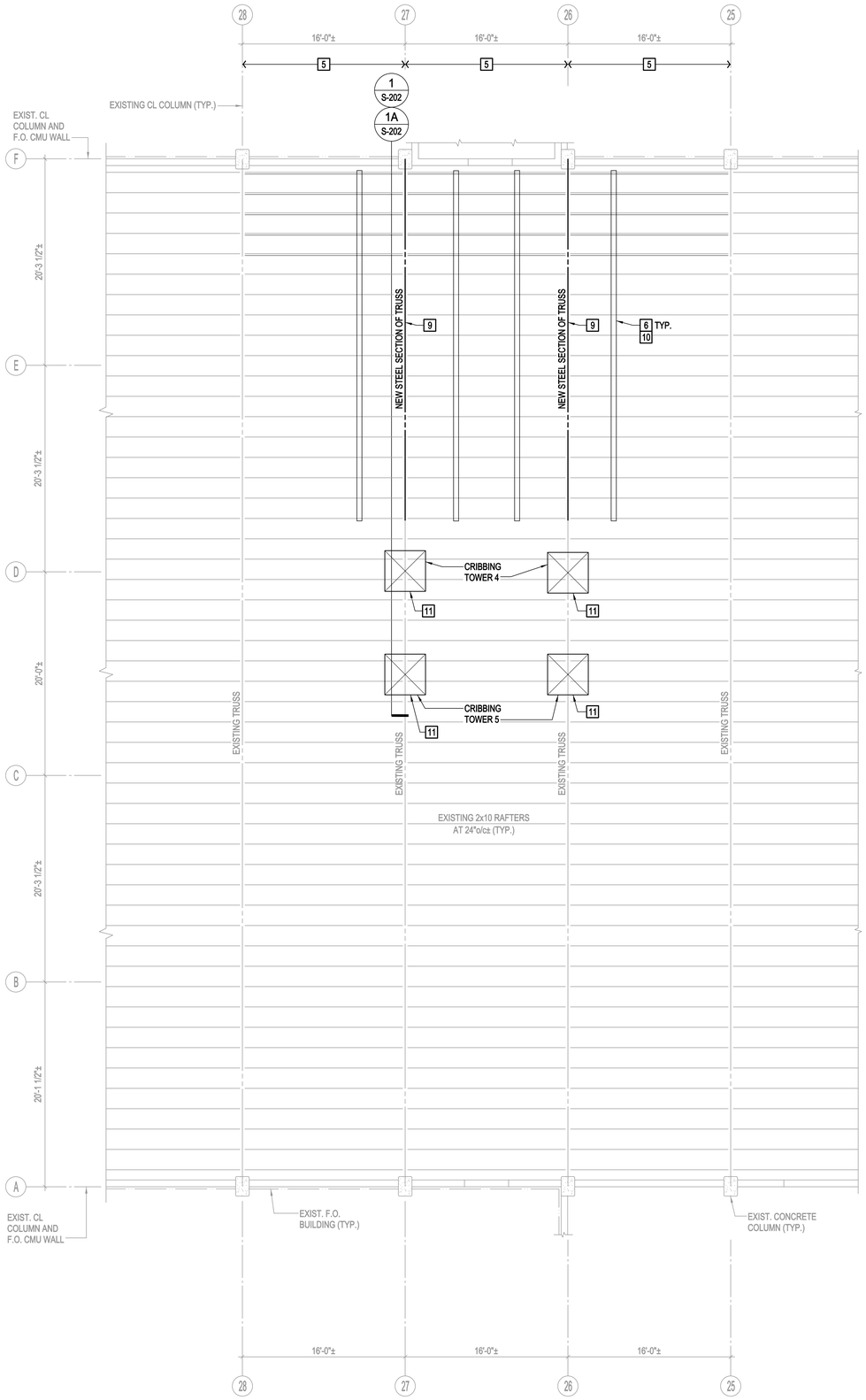
JEB LITTLE CREEK, VIRGINIA BEACH, VIRGINIA

EXISTING ROOF FRAMING SHORING PLAN

PROJECT No:	17.334
DESIGNED BY:	MJM
DRAWN BY:	NEB
CHECKED BY:	MJM
DATE:	8/3/18
REVISIONS:	

DRAWING NUMBER

S-101



NORTH

EXISTING ROOF FRAMING REPAIR PLAN

3/16" = 1'-0"

SEQUENCE NOTES:

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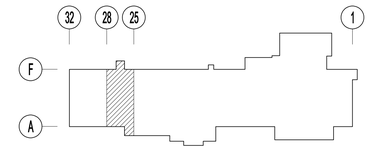

NORTH

KEY PLAN

NOT TO SCALE

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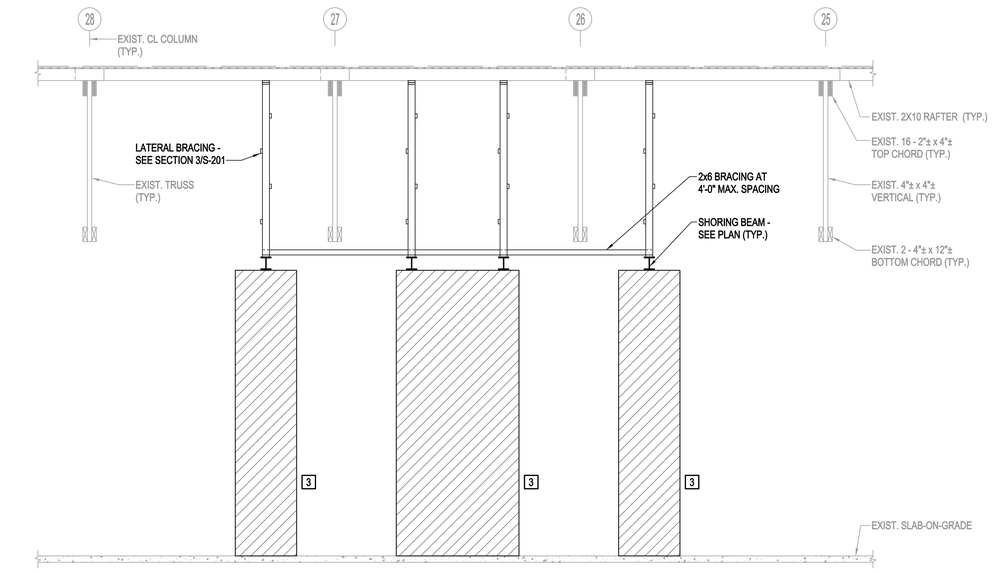
ROCKWELL HALL TRUSS REPAIR

JEB LITTLE CREEK, VIRGINIA BEACH, VIRGINIA

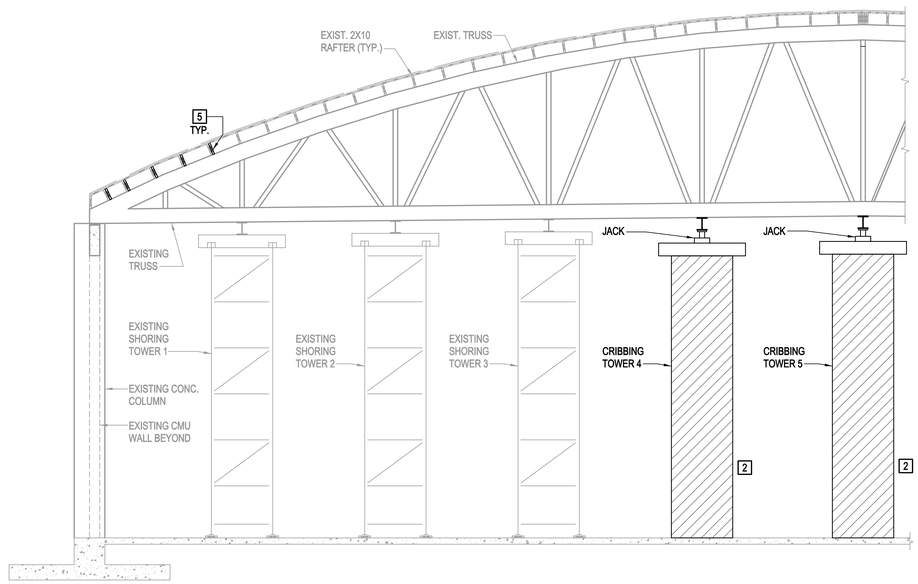
EXISTING ROOF FRAMING REPAIR PLAN

PROJECT No: 17.334
DESIGNED BY: MJM
DRAWN BY: NEB
CHECKED BY: MJM
DATE: 8/3/18
REVISIONS:

DRAWING NUMBER
S-102

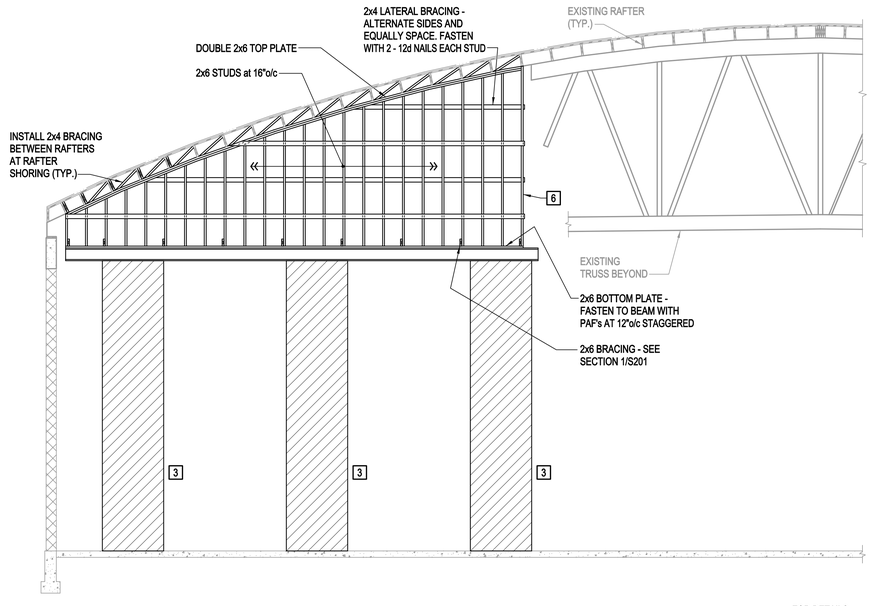


1 S-201 **SECTION**
1/4" = 1'-0"



FOR DETAILS NOT NOTED SEE SECTION 1/S-201

2 S-201 **SECTION**
1/4" = 1'-0"



FOR DETAILS NOT NOTED SEE SECTION 1/S-201

3 S-201 **SECTION**
1/4" = 1'-0"

SEQUENCE NOTES:

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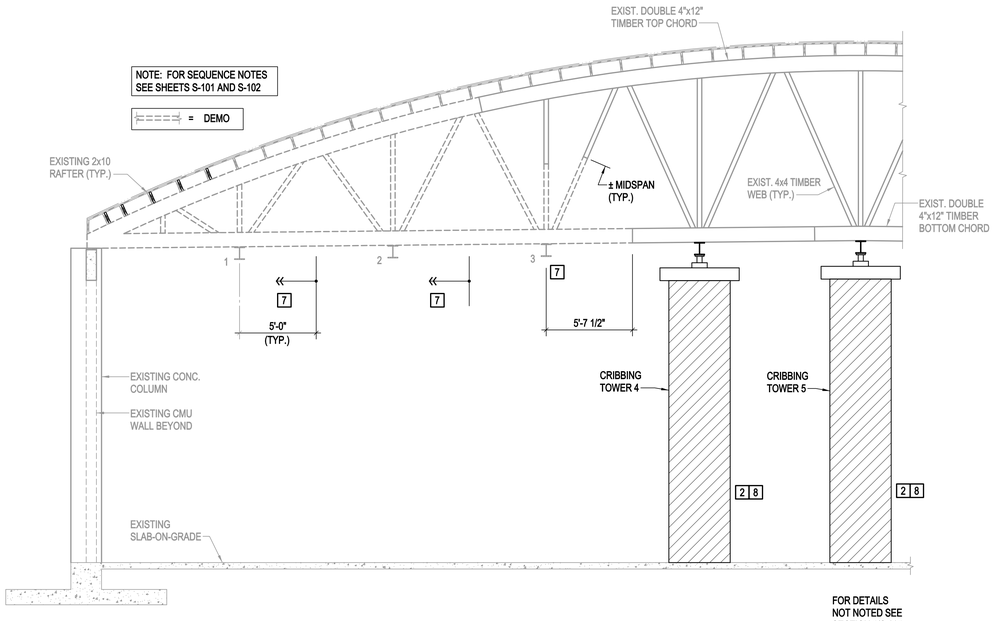
ROCKWELL HALL TRUSS REPAIR

JEB LITTLE CREEK, VIRGINIA BEACH, VIRGINIA

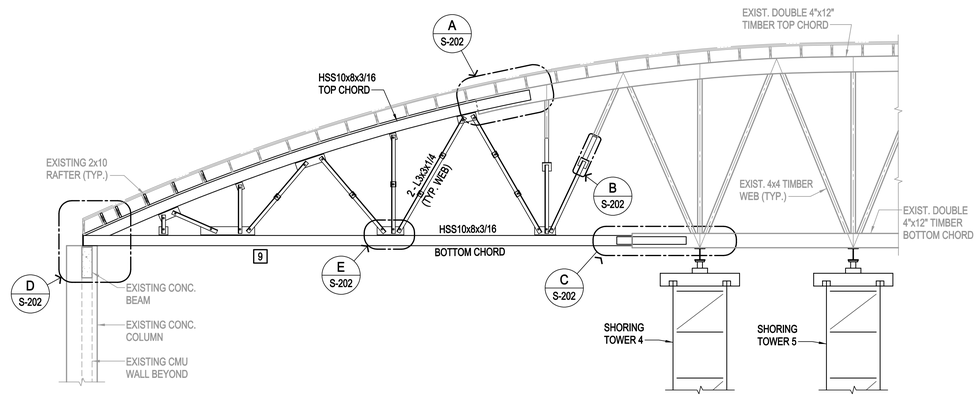
SECTIONS

PROJECT No: 17.334
DESIGNED BY: MJM
DRAWN BY: NEB
CHECKED BY: MJM
DATE: 8/3/18
REVISIONS:

DRAWING NUMBER
S-201

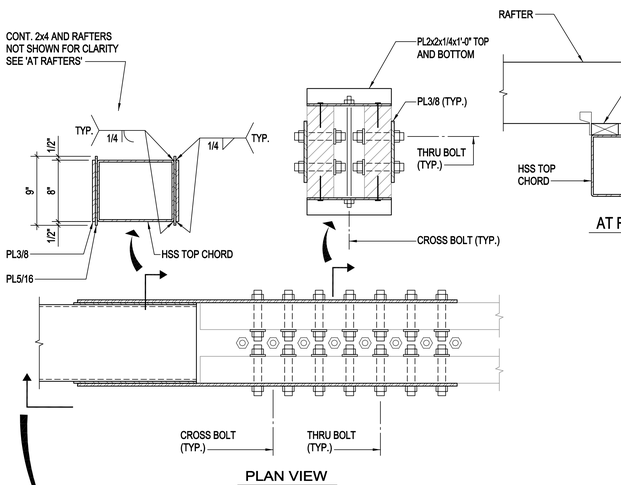


1 S-202 **SECTION - DEMOLITION**
1/4" = 1'-0"

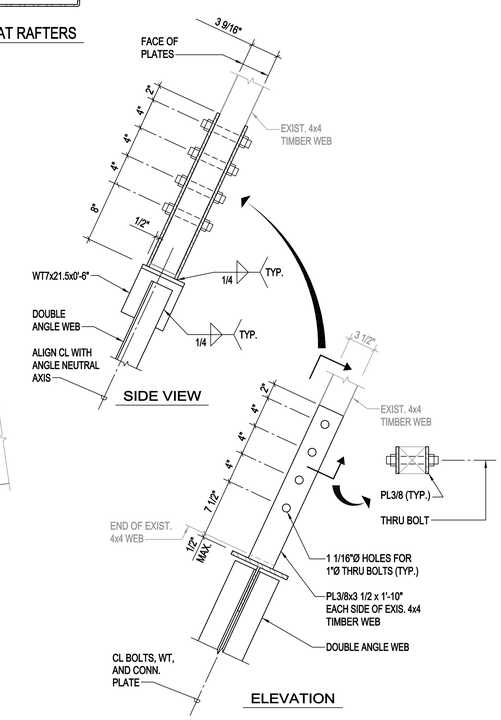


NOTES:
1. FOR SEQUENCE NOTES SEE SHEETS S-101 AND S-102
2. SEE TRUSS FABRICATION ELEVATION ON SHEET S-203

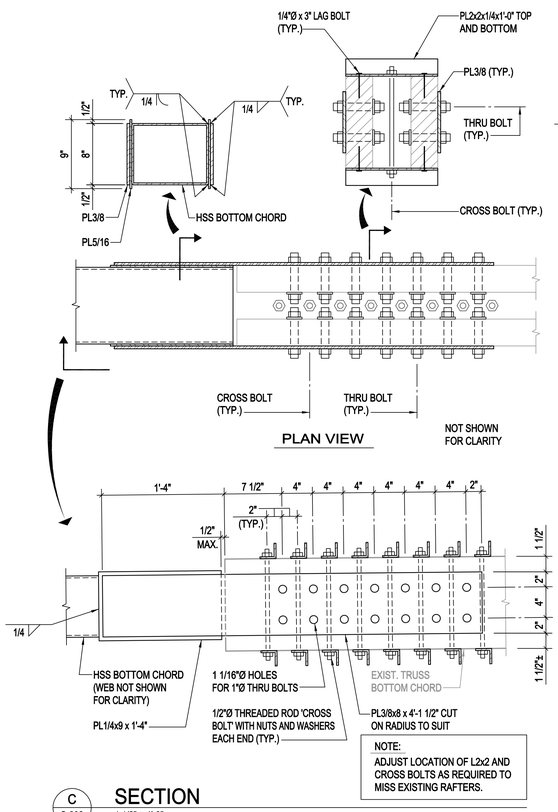
1A S-202 **SECTION - NEW WORK**
1/4" = 1'-0"



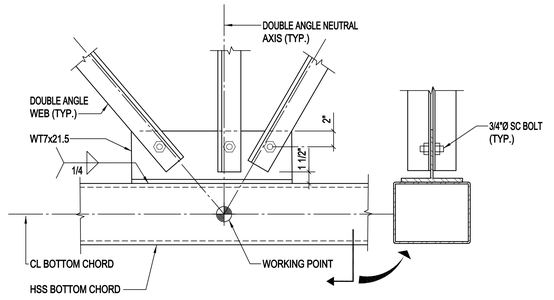
A S-202 **SECTION**
1 1/2" = 1'-0"



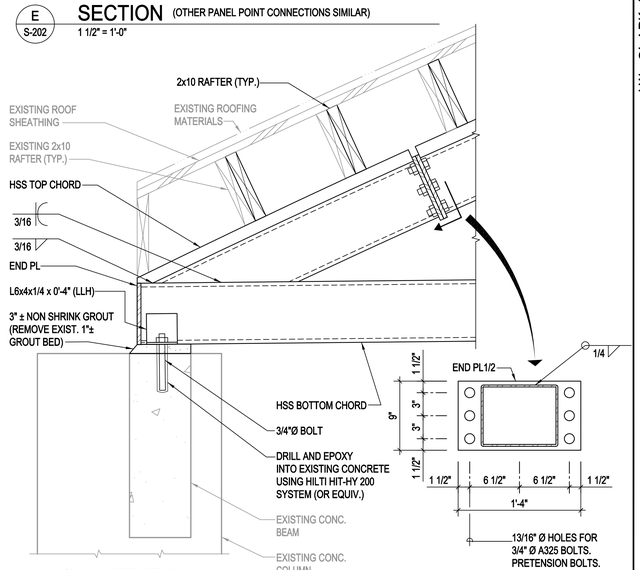
B S-202 **SECTION**
1 1/2" = 1'-0"



C S-202 **SECTION**
1 1/2" = 1'-0"



E S-202 **SECTION** (OTHER PANEL POINT CONNECTIONS SIMILAR)
1 1/2" = 1'-0"



D S-202 **SECTION**
1 1/2" = 1'-0"

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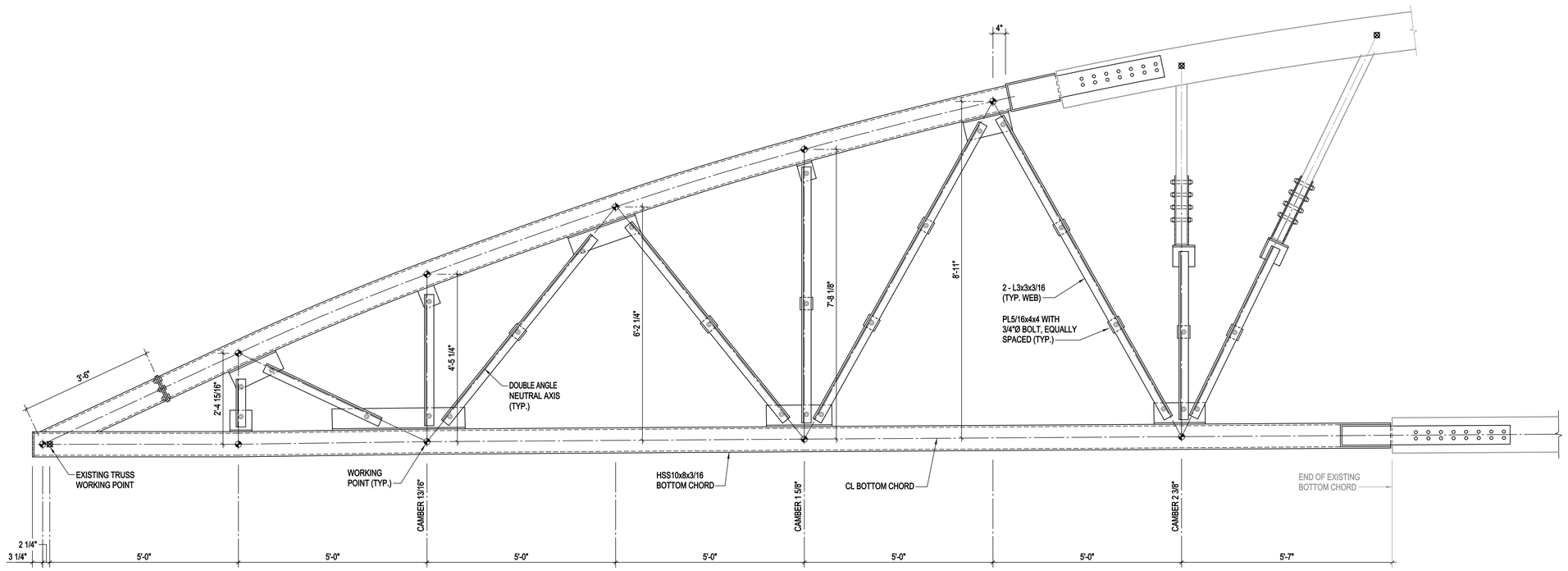
ROCKWELL HALL TRUSS REPAIR

JEB LITTLE CREEK, VIRGINIA BEACH, VIRGINIA

SECTIONS AND DETAILS

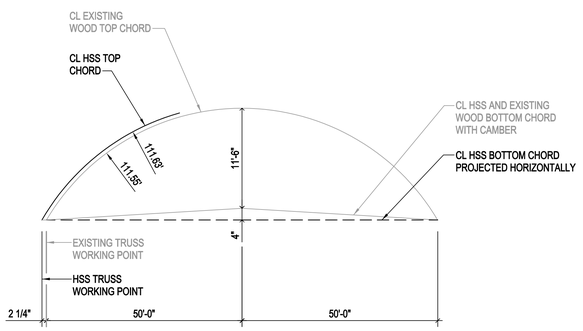
PROJECT No: 17.334
DESIGNED BY: MJM
DRAWN BY: NEB
CHECKED BY: MJM
DATE: 8/3/18
REVISIONS:

DRAWING NUMBER
S-202



TRUSS FABRICATION ELEVATION

3/4" = 1'-0"



TRUSS FABRICATION PARAMTERS

NOT TO SCALE

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TRUSS FABRICATION ELEVATION

PROJECT No: 17.334
DESIGNED BY: MJM
DRAWN BY: NEB
CHECKED BY: MJM
DATE: 8/3/18
REVISIONS:

DRAWING NUMBER
S-203

SECTION 01 31 23.13 20

ELECTRONIC CONSTRUCTION AND FACILITY SUPPORT CONTRACT MANAGEMENT SYSTEM
05/17

PART 1 GENERAL

1.1 CONTRACT ADMINISTRATION

Utilize the Naval Facilities Engineering Command's (NAVFAC's) Electronic Construction and Facility Support Contract Management System (eCMS) for the transfer, sharing and management of electronic technical submittals and documents. The web-based eCMS is the designated means of transferring technical documents between the Contractor and the Government. Paper media or e-mail submission, including originals or copies, of the documents identified in Table 1 are not permitted, except where eCMS is unavailable, non-functional or specifically requested in addition to electronic submission. Contact the Contracting Officer's Representative (COR) regarding availability of eCMS training and reference materials.

1.2 USER PRIVILEGES

The Contractor will be provided access to eCMS. All technical submittals and documents must be transmitted to the Government via the COR. Project roles and system roles will be established to control each user's menu, application, and software privileges, including the ability to create, edit, or delete objects.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

List of Contractor's Personnel; G

1.4 SYSTEM REQUIREMENTS AND CONNECTIVITY

1.4.1 General

The eCMS requires a web-browser (platform-neutral) and Internet connection. Obtain from an approved vendor an External Certification Authority (ECA), Primary Key Infrastructure (PKI) certificate, or other similar digital identification to support two-factor authentication and access to eCMS. Provide and maintain computer hardware and software for the eCMS access throughout the duration of the contract for all Contractor-designated users. Provide connectivity, speed, bandwidth, and access to the Internet to ensure adequate functionality. Neither upgrading of the Contractor's computer system nor delays associated from the usage of the eCMS will be justification or grounds for a time extension or cost adjustment to the Contract.

1.4.2 Contractor Personnel List

Within 20 calendar days of contract award, provide to the Contracting Officer a list of Contractor's personnel who will have the responsibility for the transfer, sharing and management of electronic design, technical submittals and documents and will require access to the eCMS. Project personnel roles to be filled in the eCMS include the Contractor's Project Manager, Designer of Record, Superintendent, Quality Control (QC) Manager, and Site Safety and Health Officer (SSHO). Personnel must be capable of electronic document management. Notify the COR immediately of any personnel changes to the project. The Contracting Officer reserves the right to perform a security check on all potential users. Provide the following information:

First Name
Last Name
E-mail Address
Office Address
Project Role (e.g. Project Manager, QC Manager, Superintendent)

1.4.3 Field Administration

Within 30 days of Contract Award, provide a tablet computer with a Common Access Card (CAC) reader at the job site for Government use only. The tablet computer must have a web-browser, built-in camera, and cellular data connectivity. Provide tablet computer with a rugged case suitable for use in a construction environment. The tablet computer must be fully charged and made available at all times for Government use to facilitate the input of construction data at the job site. After completion of the work, reset the tablet computer to factory default settings. The tablet computer remains the property of the Contractor and must be removed from the site. There are restrictions on use of WIFI on military bases. Cellular data connectivity and availability, and use of WIFI requires coordination with and approval by the Contracting Officer.

1.5 SECURITY CLASSIFICATION

In accordance with Department of Navy guidance, all military construction contract data are unclassified, unless specified otherwise by a properly designated Original Classification Authority (OCA) and in accordance with an established Security Classification Guide (SCG). Refer to the project's OCA when questions arise about the proper classification of information.

The eCMS and tablet computer must only be used for the transaction of unclassified information associated with construction projects. In conformance with the Freedom of Information Act (FOIA), Department of Defense Manual 5200.01-V4: DoD Information Security Program: Controlled Unclassified Information (CUI), and DoD requirements, any unclassified project documentation uploaded into the eCMS must be designated either "U - UNCLASSIFIED" (U) or "FOUO - UNCLASSIFIED-FOR OFFICIAL USE ONLY" (FOUO).

1.6 ECMS UTILIZATION

Establish, maintain, and update data and documentation in the eCMS throughout the duration of the contract.

Personally Identifiable Information (PII) transmittal is not permitted in the eCMS.

1.6.1 Information Security Classification/Identification

The eCMS must be used for the transmittal of the following documents. This requirement supersedes conflicting requirements in other sections, however, submittal review times in Section 01 33 00 SUBMITTAL PROCEDURES remain applicable. Table 1 - Project Documentation Types provides the appropriate U and FOUO designations for various types of project documents. Construction documents requiring FOUO status must be marked accordingly. Apply the appropriate markings before any document is uploaded into eCMS. Markings are not required on U documents.

Table 1 also identifies which eCMS application is to be used in the transmittal of data (these are subject to change based on the latest software configuration). If a designated application is not functional within 4 hours of initial attempt, defer to the Submittal application and submit the required data as an uploaded portable document (e.g. PDF), word processor, spreadsheet, drawing, or other appropriate format. Hard copy or e-mail submission of these items is acceptable only if eCMS is documented to be not available or not functional. After uploading documents to the Submittal application, transmit the submittals and attachments to the COR via the Transmittal application. For Submittals, select the following:

Preparation by = Contractor personnel assigned to prepare the submittal
Approval by = Contracting Officer Representative (COR)
Returned by = Design Lead/Manager
Forwarded to = Contractor project manager

Table 1 - Project Documentation Types

SUBJECT/NAME	CLASS	REMARKS	ECMS APPLICATION
As-Built Drawings	U	Locations of sensitive areas must be labeled as either "Controlled Area" or "Restricted Area" and may be shown on unclassified documents with the approval from Site Security Manager	Submittals and Transmittals
Building Information Modeling (BIM)	U	1. Locations of sensitive areas must be labeled as either "Controlled Area" or "Restricted Area" and may be shown on unclassified documents with the approval from Site Security Manager 2. Design reviews will be performed in existing "Dr Checks"	Submittals and Transmittals
Construction Permits	U	Refer to rules of the issuing activity, state or jurisdiction	Submittals and Transmittals

SUBJECT/NAME	CLASS	REMARKS	ECMS APPLICATION
Construction Schedules (Activities and Milestones)	U	After the schedule submittal is approved by the COR, import the schedule file into the scheduling application, and select "Approve" to establish a new schedule baseline	Submittals, Transmittals and Scheduling App
Construction Schedules (Cost-Loaded)	FOUO	After the schedule submittal is approved by the COR, import the schedule file into the scheduling application, and select "Approve" to establish a new schedule baseline	Submittals, Transmittals and Scheduling App
Construction Schedules (3-Week Lookahead)	U	Import the schedule file into the scheduling application, and select "Approve" to establish a new schedule baseline	Scheduling App
DD 1354 Transfer of Real Property	U		Submittals and Transmittals
Daily Production Reports	FOUO	Provide weather conditions, crew size, man-hours, equipment, and materials information	Daily Report
Daily Quality Control (QC) Reports	FOUO	Provide QC Phase, Definable Features of Work Identify visitors	Daily Report
Designs and Specifications	U	1. Locations of sensitive areas must be labeled as either "Controlled Area" or "Restricted Area" and may be shown on unclassified documents with the approval from Site Security Manager 2. Design reviews will be performed in existing "Dr Checks"	Submittals and Transmittals
Environmental Notice of Violation (NOV), Corrective Action Plan	U	Refer to rules of the issuing activity, state or jurisdiction	Submittals and Transmittals
Environmental Protection Plan (EPP)	FOUO		Submittals and Transmittals

SUBJECT/NAME	CLASS	REMARKS	ECMS APPLICATION
Invoice (Supporting Documentation)	FOUO	Applies to supporting documentation only. Invoices are submitted in Wide-Area Workflow (WAWF)	Submittals and Transmittals
Jobsite Documentation, Bulletin Board, Labor Laws, SDS	U		Submittals and Transmittals
Meeting Minutes	FOUO		Meeting Minutes
Operations & Maintenance Support Information (OMSI/eOMSI), Facility Data Worksheet	U	1. Locations of sensitive areas must be labeled as either "Controlled Area" or "Restricted Area" and may be shown on unclassified documents with the approval from Site Security Manager 2. Design reviews will be performed in existing "Dr Checks"	Submittals and Transmittals
Photographs	U	Subject to base/installation restrictions	Submittals and Transmittals
QCM Initial Phase Checklists	FOUO		Checklists (Site Management)
QCM Preparatory Phase Checklists	FOUO		Checklists (Site Management)
Quality Control Plans	FOUO		Submittals and Transmittals
QC Certifications	U		Submittals and Transmittals
QC Punch List	U		Punch Lists (Testing Logs)
Red-Zone Checklist	U		Checklists (Site Management)
Rework Items List	FOUO		Punch Lists (Testing Logs)
Request for Information (RFI) Post-Award	FOUO		RFIs

SUBJECT/NAME	CLASS	REMARKS	ECMS APPLICATION
Safety Plan	FOUO		Daily Report
Safety - Activity Hazard Analyses (AHA)	FOUO		Daily Report
Safety - Mishap Reports	FOUO		Daily Report
SCIF/SAPF Accreditation Support Documents	FOUO	Note: Some Construction Security plans may be classified as Secret. Classified information must not be uploaded into eCMS. Refer to the Site Security Manager, as applicable.	Submittals and Transmittals
Shop Drawings	U	Locations of sensitive areas must be labeled as either "Controlled Area" or "Restricted Area" and may be shown on unclassified documents with the approval from Site Security Manager	Submittals and Transmittals
Storm Water Pollution Prevention (Notice of Intent - Notice of Termination)	U	Refer to rules of the issuing activity, state or jurisdiction	Submittals and Transmittals
Submittals and Submittal Log	U		Submittals and Transmittals
Testing Plans, Logs, and Reports	FOUO		Submittals and Transmittals
Training/Reference Materials	U		Submittals and Transmittals
Training Records (Personnel)	FOUO		Submittals and Transmittals
Utility Outage/Tie-In Request/Approval	FOUO		Submittals and Transmittals
Warranties/BOD Letter	FOUO		Submittals and Transmittals

SUBJECT/NAME	CLASS	REMARKS	ECMS APPLICATION
Quality Assurance Reports	FOUO		Checklists (Government initiated)
Non-Compliance Notices	FOUO		Non-Compliance Notices (Government initiated)
Other Government-prepared documents	FOUO		GOV ONLY
All Othere Documents	FOUO	Refer to FOIA guidelines and contact the FOIA official to determine whether exemptions exist	As applicable

1.6.2 Markings on FOUO documents

a. Only FOUO documents being electronically uploaded into the eCMS (.docx, .xlsx, .pptx and others as appropriate), and associated paper documents described in the paragraph CONTRACT ADMINISTRATION require FOUO markings as indicated in the subparagraphs below.

b. FOUO documents that are originally created within the eCMS application using the web-based forms (RFIs, Daily Reports, and others as appropriate) will be automatically watermarked by the eCMS software, and these do not require additional markings.

c. FOUO documents must be marked "UNCLASSIFIED//FOR OFFICIAL USE ONLY" at the bottom of the outside of the front cover (if there is one), the title page, the first page, and the outside of the back cover (if there is one).

d. FOUO documents must be marked on the internal pages of the document as "UNCLASSIFIED//FOR OFFICIAL USE ONLY"' at top and bottom.

e. Where Installations require digital photographs to be designated FOUO, place the markings on the face of the photograph.

f. For visual documentation, other than photographs and audio documentation, mark with either visual or audio statements as appropriate at both the beginning and end of the file.

1.7 QUALITY ASSURANCE

Requested Government response dates on Transmittals and Submittals must be in accordance with the terms and conditions of the Contract. Requesting response dates earlier than the required review and response time, without concurrence by the Government COR, may be cause for rejection.

Incomplete submittals will be rejected without further review and must be resubmitted. Required Government response dates for resubmittals must

reflect the date of resubmittal, not the original submittal date.

PART 2 PRODUCTS

Not Used.

PART 3 EXECUTION

Not Used.

-- End of Section --

SECTION 01 32 16.00 20

SMALL PROJECT CONSTRUCTION PROGRESS SCHEDULES
08/18

PART 1 GENERAL

1.1 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section 01 33 29 SUSTAINABILITY REPORTING. Submit the following in accordance with Section 01 33 00 SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

Baseline Construction Schedule; G

Baseline Design Schedule; G

SD-07 Certificates

Monthly Updates

1.2 PRE-CONSTRUCTION SCHEDULE REQUIREMENT

Prior to the start of work, prepare and submit to the Contracting Officer a Baseline Design Schedule and Baseline Construction Schedule in the form of a Network Analysis Schedule (NAS) Bar Chart Schedule in accordance with the terms in Contract Clause FAR 52.236-15 Schedules for Construction Contracts, except as modified in this contract. The approval of a Baseline Construction Schedule is a condition precedent to:

a. The Contractor starting demolition work or construction stage(s) of the contract.

b. Processing Contractor's invoice(s) for construction activities/items of work.

c. Review of any schedule updates.

Submittal of the Baseline Design and Construction Schedule, and subsequent schedule updates, is understood to be the Contractor's certification that the submitted schedule meets the requirements of the Contract Documents, represents the Contractor's plan on how the work will be accomplished, and accurately reflects the work that has been accomplished and how it was sequenced (as-built logic).

1.3 SCHEDULE FORMAT

1.3.1 Network Analysis Schedule (NAS)

Use the critical path method (CPM) to schedule and control project activities. Prepare and maintain project schedules using Primavera P6

Microsoft Project 2010.Importing data into the scheduling program using data conversion techniques or third party software is cause for rejection of the submitted schedule.

Within 15 calendar days after approval of the Initial Schedule or approval of the final design for a design build project, submit to the Contracting Officer a final NAS schedule.

1.3.1.1 Activity Requirements

a. At a minimum, identify the following in the schedule:

(1) Design and Construction time for major systems and components

(2) Each activity assigned with its appropriate Responsibility Code

(3) Each activity assigned with its appropriate Phase and Area Codes

(4) Major submittals and submittal processing time

(5) Major equipment lead time

b. Build the Schedule as follows:

(1) Show design periods, submittals, Government review periods, material/equipment delivery, utility outages, on-site construction, inspection, testing, and closeout activities. Government and Contractor on-site work activities must be driven by calendars that reflect Saturdays, Sundays and all Federal Holidays as non-work days for 5-day work week calendars.

(2) With the exception of the Contract Award and End Contract milestone activities, use of open-ended activities is not allowed; each activity must have predecessor and successor ties. No activity must have open start or open finish (dangling) logic. Minimize redundant logic ties. Once an activity exists on the schedule it must not be deleted or renamed to change the scope of the activity and must not be removed from the schedule logic without approval from the Contracting Officer. While an activity cannot be deleted, where said activity is no longer applicable to the schedule but must remain within the logic stream for historical record, it can be changed to a milestone. Document any such change in the milestone's "Notebook," including a date and explanation for the change. The ID number for a deleted activity must not be re-used for another activity.

(3) Assign each activity its appropriate Responsibility Code and Area Code, indicating location and responsibility to accomplish the work indicated by the activity, Phase Code, and Work Location Code. Include anticipated tasks to be assigned Government responsibility.

(4) Date/time constraints or lags, other than those required by the contract, are not allowed unless approved by the Contracting Officer. Include as the last activity in the contract schedule, a milestone activity named "Contract Completion Date".

(5) Include the following Contract Milestones:

(a) Include as the first activity on the schedule a start milestone titled "Contract Award", which must have a Mandatory Start constraint equal to the Contract Award Date;

(b) Include Interim or Phased Completion Milestones required by the Contract or as approved by the Contracting Officer;

(c) Include Facility Turnover Planning Meeting Milestones;

(d) Include an unconstrained finish milestone on the schedule titled "Substantial Completion". Substantial Completion is defined as the point in time the Government would consider the project ready for beneficial occupancy wherein by mutual agreement of the Government and Contractor. Government use of the facility is allowed while construction access continues in order to complete remaining items (e.g. punch list and other close out submittals).

(e) Include an unconstrained finish milestone on the schedule titled "Projected Completion". Projected Completion is defined as the point in time the Government would consider the project complete. This milestone must have the Contract Completion Date (CCD) milestone as its only successor.

(f) Include as the last activity on the schedule a finish milestone titled "Contract Completion (CCD)" with constraint type "Must Finish No Later Than". Calculation of schedule updates must be such that if the finish of the "Projected Completion" milestone falls after the contract completion date, then negative float will be calculated on the longest path and if the finish of the "Projected Completion" milestone falls before the contract completion date, the float calculation must reflect positive float on the longest path. This milestone must be set to 5:00 pm.

(6) Provide lead time for major equipment.

1.3.1.2 Anticipated Weather Lost Work Days

Assign the Weather Calendar to any activity that could be impacted by adverse weather. The Contracting Officer will issue a modification in accordance with the contract clauses, giving the Contractor a time extension for the difference of days between the anticipated and actual adverse weather delay if the number of actual adverse weather delay days exceeds the number of days anticipated for the month in which the delay occurs and the adverse weather delayed activities are critical to contract completion. A lost workday due to weather conditions is defined as a day in which the Contractor cannot work at least 50 percent of the day on the impacted activity.

1.3.1.3 Activity Identification

a. Identify Government, Construction Quality Management (CQM), Construction activities planned for the project and other activities that could impact project completion if delayed.

b. Identify administrative type activity/milestones including pre-construction submittal and permit requirements prior to demolition or construction stage.

c. Create separate activities for each Phase, Area, Floor Level, and Location the activity is occurring.

d. Do not use construction category activity to represent non-work type reference (Such as, Serial Letter or Request for Information) in NAS.

e. Place non-work reference within P6 activity details notebook. Activity categories included in the schedule are specified below.

1.3.1.4 Responsibility Code

Assign each activity its appropriate Responsibility Code indicating responsibility to accomplish the work indicated by the activity, Phase Code and Work Location Code.

1.3.1.5 Primavera P6 Settings and Parameters

Use the following Primavera P6 settings and parameters in preparing the Baseline Schedule. Deviation from these settings and parameters, without prior consent of the Contracting Officer, is cause for rejection of schedule submission.

a. General: Define or establish Calendars and Activity Codes at the "Project" level, not the "Global" level.

b. Admin Drop-Down Menu, Admin Preferences, Time Periods Tab:

(1) Set time periods for P6 to 8.0 Hours/Day, 40.0 Hours/Week, 172.0 Hours/Month and 2000.0 Hours/Year.

(2) Use assigned calendar to specify the number of work hours for each time period: Must be checked.

c. Admin Drop-Down Menu, Admin Preferences, Earned Value Tab: Earned Value Calculation: Use "Budgeted values with current dates".

d. Project Level, Dates Tab: Set "Must Finish By" date to "Contract Completion Date", and set "Must Finish By" time to 05:00pm.

e. Project Level, Defaults Tab:

(1) Duration Type: Set to "Fixed Duration & Units".

(2) Percent Complete Type: Set to "Physical".

(3) Activity Type: Set to "Task Dependent".

(4) Calendar: Set to "Standard 5 Day Workweek". Calendar must reflect Saturday, Sunday and all Federal holidays as non-work days. Alternative calendars may be used with Contracting Officer approval.

f. Project Level, Calculations Tab:

(1) Activity percent complete based on activity steps: Must be Checked.

(2) Reset Remaining Duration and Units to Original: Must be Checked.

(3) Subtract Actual from At Completion: Must be Checked.

(4) Recalculate Actual units and Cost when duration percent (%) complete changes: Must be Checked.

(5) Link Actual to Date and Actual This Period Units and Cost: Must be Checked.

(6) Price/Unit: Set to "$1/h".

(7) Update units when costs change on resource assignments: Must be Unchecked.

g. Project Level, Settings Tab:

(1) Define Critical Activities: Check "Longest Path".

h. The NAS must have a minimum of 30 construction activities. No on-site construction activity may have durations in excess of 20 working days.

1.3.2 Schedule Submittals and Procedures

Submit Schedules and updates in hard copy and on electronic media that is acceptable to the Contracting Officer. Submit an electronic back-up of the project schedule in an import format compatible with the Government's scheduling program.

1.4 SCHEDULE MONTHLY UPDATES

Update the Design and Construction Schedule at monthly intervals or when the schedule has been revised. Keep the updated schedule current, reflecting actual activity progress and plan for completing the remaining work. Submit copies of purchase orders and confirmation of delivery dates as directed by the Contracting Officer.

a. Narrative Report: Identify and justify the following:

(1) Progress made in each area of the project;

(2) Longest Path: Include printed copy on 11 by 17 inch paper, landscape setting;

(3) Date/time constraint(s), other than those required by the contract;

(4) Listing of changes made between the previous schedule and current updated schedule including: added or removed activities, original and remaining durations for activities that have not started, logic (sequence, constraint, lag/lead), milestones, planned sequence of operations, longest path, calendars or calendar assignments, and cost loading.

(5) Any decrease in previously reported activity Earned Amount;

(6) Pending items and status thereof, including permits, changes orders, and time extensions;

(7) Status of Contract Completion Date and interim milestones;

(8) Current and anticipated delays (describe cause of delay and corrective actions(s) and mitigation measures to minimize);

(9) Description of current and future schedule problem areas.

For each entry in the narrative report, cite the respective Activity ID and Activity Name, the date and reason for the change, and description of the change.

1.5 CONTRACT MODIFICATION

Submit a Time Impact Analysis (TIA) with each cost and time proposal for a proposed change. TIA must illustrate the influence of each change or delay on the Contract Completion Date or milestones. No time extensions will be granted nor delay damages paid unless a delay occurs which consumes all available Project Float, and extends the Projected Finish beyond the Contract Completion Date.

a. Each TIA must be in both narrative and schedule form. The narrative must define the scope and conditions of the change; provide start and finish dates of impact, successor and predecessor activity to impact period, responsible party, describe how it originated, and how it impacts the schedule. The schedule submission must consist of three native files:

(1) Fragnet used to define the scope of the changed condition

(2) Most recent accepted schedule update as of the time of the proposal or claim submission that has been updated to show all activity progress as of the time of the impact start date.

(3) The impacted schedule that has the fragnet inserted in the updated schedule and the schedule "run" so that the new completion date is determined.

b. For claimed as-built project delay, the inserted fragnet TIA method must be modified to account for as-built events known to occur after the data date of schedule update used.

c. TIAs must include any mitigation, and must determine the apportionment of the overall delay assignable to each individual delay. Apportionment must provide identification of delay type and classification of delay by compensable and non-compensable events. The associated narrative must clearly describe analysis methodology used, and the findings in a chronological listing beginning with the earliest delay event.

(1) Identify and classify types of delays as follows:

(a) Force majeure delay (e.g. weather delay): Any delay event caused by something or someone other than the Government (including its agents) or the Contractor, or the risk of which has

not been assigned solely to the Government or the Contractor. If the force majeure delay is on the critical path, in absence of other types of concurrent delays, the Contractor is granted an extension of contract time, classified as a non-compensable event.

(b) A Contractor-delay: Any delay event caused by the Contractor, or the risk of which has been assigned solely to the Contractor. If the contractor-delay is on the critical path, in absence of other types of concurrent delays, Contractor is not granted extension of contract time, and classified as a non-compensable event. Where absent other types of delays, and having impact to project completion, provide a Corrective Action Plan, identifying plan to mitigate delay, to the Contracting Officer.

(c) A Government-delay: Any delay event caused by the Government, or the risk of which has been assigned solely to the Government. If the Government-delay is on the longest path, in absence of other types of concurrent delays, the Contractor is granted an extension of contract time, and classified as a compensable event.

(2) Use functional theory to analyze concurrent delays, where: Separate delay issues delay project completion, do not necessarily occur at same time, rather occur within same monthly schedule update period at minimum, or within same as-built period under review. If a combination of functionally concurrent delay types occurs, it is considered Concurrent Delay, which is defined in the following combinations:

(a) Government-delay concurrent with Contractor-delay: Excusable time extension, classified non-compensable event.

(b) Government-delay concurrent with force majeure delay: Excusable time extension, classified non-compensable event.

(c) Contractor-delay concurrent with force majeure delay: Excusable time extension, classified non-compensable event.

(3) A pacing delay, reacting to another delay (parent delay) equally or more critical than paced activity, must be identified prior to pacing. Contracting Officer will notify Contractor prior to pacing. Contractor must notify Contracting Officer prior to pacing. Notification must include identification of parent delay issue, estimated parent delay time period, paced activity(s) identity, and pacing reason(s). Pacing Concurrency is defined as follows:

(a) Government-delay concurrent with Contractor-pacing: Excusable time extension, classified compensable event.

(b) Contractor-delay concurrent with Government-pacing: Inexcusable time extension, classified non-compensable event.

1.6 3-WEEK LOOK AHEAD SCHEDULE

Prepare and issue a 3-Week Look Ahead schedule to provide a more detailed day-to-day plan of upcoming work identified on the Construction Schedule. Key the work plans to activity numbers when a NAS is required and update

each week to show the planned work for the current and following two-week period. Additionally, include upcoming outages, closures, preparatory meetings, and initial meetings. Identify critical path activities on the Three-Week Look Ahead Schedule. The detail work plans are to be bar chart type schedules, maintained separately from the Construction Schedule on an electronic spreadsheet program and printed on 8-1/2 by 11 inch sheets as directed by the Contracting Officer. Activities must not exceed 5 working days in duration and have sufficient level of detail to assign crews, tools and equipment required to complete the work. Deliver three hard copies and one electronic file of the 3-Week Look Ahead Schedule to the Contracting Officer no later than 8 a.m. each Monday, and review during the weekly CQC Coordination or Production Meeting.

1.7 CORRESPONDENCE AND TEST REPORTS:

Correspondence (e.g., letters, Requests for Information (RFIs), e-mails, meeting minute items, Production and QC Daily Reports, material delivery tickets, photographs) must reference Schedule Activities that are being addressed. Test reports (e.g., concrete, soil compaction, weld, pressure) must reference Schedule Activities that are being addressed.

1.8 ADDITIONAL SCHEDULING REQUIREMENTS

Any references to additional scheduling requirements, including systems to be inspected, tested and commissioned, that are located throughout the remainder of the Contract Documents, are subject to all requirements of

this section.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

Not used.

-- End of Section --

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SECTION 01 33 29.05 20

SUSTAINABILITY REPORTING FOR DESIGN-BUILD
03/19

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF HEATING, REFRIGERATING AND AIR-CONDITIONING ENGINEERS (ASHRAE)

ASHRAE 90.1 - IP	(2013) Energy Standard for Buildings Except Low-Rise Residential Buildings
ASHRAE 90.1 - SI	(2013) Energy Standard for Buildings Except Low-Rise Residential Buildings
ASHRAE 189.1	(2014) Standard for the Design of High-Performance Green Buildings Except Low-Rise Residential Buildings

COUNCIL ON ENVIRONMENTAL QUALITY (CEQ) (WHITE HOUSE)

HPSB Guiding Principles	(2016) Guiding Principles for Sustainable Federal Buildings and Determining Compliance with the Guiding Principles for Sustainable Federal Buildings

GREEN BUILDING INITIATIVE (GBI)

GBI GP Compliance	(2016) GBI Guiding Principles Compliance Program for New Construction (DOD Version)
GBI Green Globes for NC	(2017) Green Globes(tm) for New Construction Technical Reference Manual

GREEN BUSINESS CERTIFICATION INC. (GBCI)

GP Assessment (DOD)	Guiding Principles Assessment for Department of Defense

SHEET METAL AND AIR CONDITIONING CONTRACTORS' NATIONAL ASSOCIATION (SMACNA)

ANSI/SMACNA 008	(2007) IAQ Guidelines for Occupied Buildings Under Construction, 2nd Edition

U.S. DEPARTMENT OF AGRICULTURE (USDA)

FSRIA 9002	Farm Security and Rural Investment Act Section 9002 (USDA Biopreferred Program)

U.S. DEPARTMENT OF DEFENSE (DOD)

FC 1-300-09N	(2014; with Change 4, 2018) Navy and Marine Corps Design

U.S. DEPARTMENT OF ENERGY (DOE)

Energy Star	(1992; R 2006) Energy Star Energy Efficiency Labeling System (FEMP)

U.S. GREEN BUILDING COUNCIL (USGBC)

LEED v4 BDC	LEED v4 Building Design and Construction

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

10 CFR 433.300	Subpart C - Green Building Certification for Federal Buildings
40 CFR 247	Comprehensive Procurement Guideline for Products Containing Recovered Materials

1.2 SUMMARY

This specification includes general requirements and procedures for this project to be designed, constructed, and documented per the federally mandated High Performance and Sustainable Building or "HPSB Guiding Principles" (GP), , UFC 1-200-02 High Performance and Sustainable Building Requirements, and other requirements identified in this specification.

1.3 SUBMITTALS

Submittals requirements are specified in the technical sections using Submittal Description (SD) numbers and titles. Submittals requiring Government approval use a "G" or submittal designator in the UFGS sections. In addition, submit the GPV-required sustainability documentation in this specification as "S" submittals. Submittals not having a "G" designation are for Contractor Quality Control approval.

Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with the requirements of this Section.

Government approval is required for submittals in RFP Part 2 with a "G" designation. Additional construction submittals reserved for Government approval are listed in the Section 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES. Submittals with a "G" designation found in the sections used by the Contractor to create construction specification, require DOR approval.

DOR approved submittals are also listed in the "Construction Submittals" paragraph in each RFP PART 4, Performance Technical Specifications. Provide required certification or validation submittals in accordance with Section 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES, Section 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES, FC 1-300-09N, Navy and Marine Corps Design Procedures, and as identified below.

SD-01 Preconstruction Submittals

Preliminary High Performance and Sustainable Building Checklist G

SD-05 Design Data

Final Design High Performance and Sustainable Building Checklist G

Final Design Sustainability eNotebook; G

SD-11 Closeout Submittals

Final High Performance and Sustainable Building Checklist; G

Final Sustainability eNotebook; G

Amended Final Sustainability eNotebook; G

Amended Final High Performance and Sustainable Building Checklist; G

1.4 GUIDING PRINCIPLES VALIDATION (GPV)

Provide sustainability documentation to verify achievement of HPSB Guiding Principles Validation (GPV).

Provide the following for GPV:

a. Refer to HPSB Checklist at the end of this specification section. These requirements are based on legislative mandates that must be met by all projects. (Multiple checklists indicate multiple buildings that require individual HPSB Checklist tracking.)

b. No changes to the HPSB Checklist are allowed without approval from the Contracting Officer, in accordance with Section 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES and Section 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES, paragraph DESIGN CHANGE AND VARIATION. Immediately bring to the attention of the Contracting Officer any project changes that impact meeting the approved HPSB Guiding Principles Requirements for this project.

c. All work, including "S" submittals, required to incorporate the applicable HPSB Guiding Principles Requirements indicated on the HPSB Checklist and in this contract.

e. Design and construction related documentation for the project Sustainability eNotebook, and keep updated with regularly-scheduled construction meetings. Include design and construction related documentation containing the following components;

(1) HPSB Checklist

(3) Documentation illustrating HPSB Guiding Principle Requirements compliance (including "S" submittals)

1.4.1 Costs

Bear all costs associated with designing, constructing, demonstrating and documenting that project complies with approved HPSB Guiding Principles Requirements.

1.4.2 Calculations

Provide all design data, calculations, product data, labels and product certifications required in this specification to demonstrate compliance with the HPSB Guiding Principles Requirements.

1.5 SUSTAINABILITY ENOTEBOOK

The Sustainability eNotebook is an electronic organizational file that serves as a repository for all required sustainability submittals. To support documentation of compliance with an approved HPSB checklist, provide and maintain a comprehensive and current Sustainability eNotebook. Sustainability eNotebook must contain all required data to support full compliance with the HPSB Guiding Principles Requirements, including:

a. HPSB checklist

b. Sustainable Action Plan

c. calculations

d. labels

e. "S" submittals (sustainability documentation requirements)

f. Certifications, assessments, or validations

Provide Sustainability eNotebook in the form of an Adobe PDF file; bookmark each HPSB Guiding Principles Requirementand sub-bookmark at each document. Match format to HPSB Guiding Principles numbering system indicated herein. Maintain up-to-date information, such as spreadsheets, templates, with each current submittals.

Contracting Officer may deduct from the monthly progress payment accordingly if Sustainability eNotebook information is not current, until information is updated and on track per project goals.

1.5.1 High Performance Sustainable Building (HPSB) Checklist

Provide documentation that provides proof of and supports compliance with the completed HPSB Checklist.

1.5.1.1 HPSB Checklist Submittals

Submit updated HPSB Checklist with each Sustainability eNotebook submittal. Attach final HPSB Checklist to each DD1354 Real Property Record Submittal.

1.5.2 Sustainability Action Plan

Include the following information in the Sustainability Action Plan:

a. Planned method to achieve each GP requirement.

b. Provide analysis of each HPSB Guiding Principles Requirement and how project will comply. Final government approved narrative(s) must be included in the HPSB Checklist submittal.

c. Name and contact information for: Contractor's Point of Contact (POC) ensuring sustainability goals are accomplished and documentation is assembled. For TPC that include on-site visit by third party representative, provide list of required attendees.

d. Include the Indoor Air Quality plan with the Sustainability Action Plan.

1.5.3 "S" Submittals for Sustainability Documentation

Submit the GPV sustainability documentation required in this specification as "S" submittals in all affected UFGS Sections.

a. Highlight GPV compliance data in "S" submittal.

b. Add "S" submittals to the Sustainability eNotebook only after submittal approval, and bookmark them as required in paragraph SUSTAINABILITY ENOTEBOOK below.

c. Ensure all approved "S" submittals (the sustainability documentation requirements) are included in each Sustainability eNotebook submittal.

1.5.4 Sustainability eNotebook Submittal Schedule

Provide Sustainability eNotebook Submittals at the following milestones of the project:

b. Final Design Sustainability eNotebook

Submit updated Sustainability eNotebook with updated Final Design High Performance and Sustainable Building Checklist with the final design, in accordance with Section 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES. If issues relating to achieving the sustainability goals of the project are subsequently identified, identify reasons and mitigation from DOR, and resubmit2 electronic copies on DVDs to the Contracting Officer for approval.

c. Construction Progress Meetings.

Provide up-to-date GP documentation in the Sustainability eNotebook for

each meeting.

d. Final Sustainability eNotebook

Submit updated Sustainability eNotebook with updated Final High Performance and Sustainable Building Checklist[with TPC Checklist], in accordance with Section 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES at Beneficial Occupancy Date (BOD). Final progress payment retainage may be held by Contracting Officer until Final Sustainability construction phase documentation is complete. Obtain DOR approval and submit 2 electronic copies on DVDs to the Contracting Officer for approval.

e. Amended Final Sustainability eNotebook

Amend and resubmit the Amended Final Sustainability eNotebook with Amended Final High Performance and Sustainable Building Checklist, to include post-occupancy corrections, updates, and requirements. Final progress payment retainage may be held by Contracting Officer until amended final sustainability documentation is complete. Submit 2 final electronic copies of the Amended Final Sustainability eNotebook Submittal on DVDs to the Contracting Officer no longer than 30 days after the GPdesignated data collection period.

1.6 DOCUMENTATION REQUIREMENTS

a. Incorporate each of the following HPSB Guiding Principles requirements into project and provide documentation that proves compliance with each listed requirement. Items below are organized by HPSB Guiding Principles. For life-cycle cost analysis requirements, one document with all analyses is acceptable, with Contracting Officer approval.

b. For each of the following paragraphs that require the use of products listed on Government-required websites, provide documentation of the process used to select products, or process used to determine why listed products do not meet project performance requirements.

1.6.1 Integrated Design Process

For the submittal documentation below, follow the steps of design optimization, as applicable, in ASHRAE 189.1 Section F1.1.1 (Charrette Process), with the exception that F1.1.1, b. does not apply.

1.6.1.1 Design Submittal Documentation

a. Provide listing the sustainability integrated design team, and a description of their roles in all stages of a project's planning and delivery:

(1) Include Contractor's Sustainability Coordinators; Architecture and Engineering disciplines involved on the project, and the DOR in charge of the overall project and each discipline; Construction Subcontractors and the company representatives that align with each architectural and engineering discipline, Planning, Public Works, Environmental Specialist and other appropriate installation personnel.

(2) Describe their roles and responsibilities and plan-of-action for how each team member will be involved to achieve the project sustainability requirements, and how the Contractor will coordinate with Government personnel.

(3) Maintain the list and descriptions up-to-date throughout the project.

b. Provide narratives that:

(1) Indicate performance goals for siting, energy, water, materials, and indoor environmental quality along with other comprehensive design goals and ensures incorporation of these goals throughout the design and lifecycle of the building.

(2) Demonstrate integration of the goals into design and construction.

1.6.2 Commissioning (Cx)

Develop and incorporate Commissioning requirements into the documents. Submit Final Commissioning Report required by Section 01 91 00.15 TOTAL BUILDING COMMISSIONING as proof of this tracking requirement.

1.6.3 Optimize Energy Performance

[Reduce measured building energy use by at least 30 percent compared to building energy use in 2003 or a year thereafter with metered energy use data.

If none of the reduction choices is life-cycle cost-effective, modify the design of the proposed building system(s) to achieve an energy consumption level at the highest level of energy efficiency that is life-cycle cost-effective.

1.6.3.1 Design Submittal Documentation

a. Narrative that provides a summary of:

(1) The decision making process leading to the selection of at least three energy-efficient solutions (for each individual building energy system) to be analyzed; and the selected design solution(s)

(2) The specific energy standard and version utilized; and the software used in the analysis

(3) The calculated energy consumption and energy use intensity (EUI in kBTU/sf/yr) of the baseline building and the proposed design alternatives

b. A minimum of the following energy modeling files and summaries for the baseline and proposed alternatives:

(1) Input, schedules and libraries; and output

(2) Calculated energy use by energy type

(3) Calculated energy use by building system

c. The life-cycle cost-analysis input and output files for the baseline and the proposed alternatives

1.6.3.2 Construction Submittal Documentation

Provide revised energy modeling for actual system constructed.

1.6.4 Energy Efficient Products

Provide only energy-using products that are Energy Star rated or have Federal Energy Management Program (FEMP) recommended efficiency. Where Energy Star or FEMP recommendations have not been established, provide most efficient product that are life-cycle cost effective. Provide only energy using product that meets FEMP requirements for low standby power consumption. Energy efficient products can be found at: http://www1.eere.energy.gov/femp/ and http://www.energystar.gov/.

For construction submittal documentation, provide proof that product is labeled energy efficient and complies with the cited requirements.

1.6.5 On-site Renewable Energy Generation

Provide project energy needs thru on-site renewable energy generation, when life-cycle cost effective.

1.6.5.1 Design Submittal Documentation

a. Provide design drawings and calculations that demonstrate total on-site renewable energy as an annual percentage of proposed building energy consumption in kBTU/year.

b. Provide design drawings, equipment ratings, and calculations that demonstrate the generation capacity of the system in mmbtu/year for thermal and kwAC for electricity

c. Provide life cycle cost analysis (LCCA).

1.6.6 Solar Domestic Hot Water (SDHW)

Provide 30 percent or more of domestic hot water needs through solar thermal water heating, when life-cycle cost effective.

1.6.6.1 Design Submittal Documentation

a. Provide design drawings and calculations that demonstrate total on-site renewable energy as an annual percentage of proposed building energy consumption in kBTU/year.

b. Provide design drawings, equipment ratings, and calculations that demonstrate the generation capacity of the system in mmbtu/year for thermal and kwAC for electricity

b. Provide life cycle cost analysis (LCCA).

1.6.7 Building-level Power Metering

Provide building-level meters for electricity, natural gas (and steam where applicable) use.

1.6.7.1 Design Submittal Documentation

a. Provide design drawings that highlight meter locations on the site.

b. Provide manufacturers data validating compatibility with base-wide system and component advanced meter requirements.

1.6.8 Indoor Water Use

a. Meet the requirements of ASHRAE 189.1 Section 6.3.2 (Building Water Use Reduction), which incorporates USEPA WaterSense-labeled products. Water closet replacements in renovations may have a flush value of up to 1.6 GPF (6.1 LPF) to accommodate existing plumbing capacity.

b. Meet the requirements of ASHRAE 189.1 Section 6.4.2 (Building Water Use Reduction).

c. Meet the requirements of ASHRAE 189.1 Section 6.4.3 (Special Water Features).

1.6.8.1 Construction Submittal Documentation

Provide proof that fixtures are labeled EPA WaterSense or Energy Star, for products available with EPA WaterSense or Energy Star labeling; for all other fixtures, proof they comply with the cited efficiency requirements.

1.6.9 Indoor Water Metering

a. Provide building-level meters for potable water use.

1.6.9.1 Design Submittal Documentation

a. Provide design drawings that highlight meter locations on the site.

b. Provide manufacturers data validating compatibility with base-wide system and component advanced meter requirements.

1.6.10 Outdoor Water Use

Potable water use is prohibited for irrigating new landscaping, other than for plant establishment. When non-potable water is life cycle cost effective and is used for new, permanent irrigation, provide the following:

1.6.10.1 Design Submittal Documentation

a. Provide design drawings and analysis that identify the non-potable water source used and demonstrate the non-potable water source is appropriate for landscape irrigation.

b. Provide life cycle cost analysis (LCCA).

1.6.11 Outdoor Water Meters

a. Provide building-level meters for potable water used for existing irrigation systems using potable water and serving more than 25,000 square feet of landscape, when life-cycle cost effective.

b. Provide manufacturers data validating compatibility with base-wide system and component advanced meter requirements.

1.6.11.1 Design Submittal Documentation

a. Provide design drawings that highlight meter locations on the site.

b. Provide life cycle cost analysis (LCCA).

1.6.12 Alternative Water

Use alternative sources of water to replace potable water usage, when life-cycle cost effective and to the extent permitted by local laws and regulations.

1.6.12.1 Design Submittal Documentation

a. Provide design drawings and calculations that demonstrate the alternative water sources used, potable water savings as compared to non-alternative water sourcing, and projected annual potable water savings.

b. Provide life cycle cost analysis (LCCA).

1.6.13 Stormwater Management

Develop and incorporate stormwater requirements into the documents. Submit design and construction documentation required by UFC 3-210-10 and Agency processes, as proof of this tracking requirement.

1.6.14 Ventilation and Thermal Comfort

Meet the requirements of UFC 3-410-01.

1.6.14.1 Design Submittal Documentation

a. Provide design drawings and calculations that demonstrate HVAC systems and the building envelope have been designed to meet the requirements.

1.6.15 Daylighting

Achieve the minimum daylighting requirements of ASHRAE 189.1, Section 8.4.1.2 "Minimum Sidelighting effective Aperture for Office Spaces and Classrooms" or Section 8.5.1.2 "Usable Daylight Illuminance in Office Spaces and Classrooms". Provide automated lighting controls in accordance with UFC 3-530-01.

1.6.15.1 Design Submittal Documentation

a. Provide floor plans and elevations.

b. Provide design analysis delineating requirements, to include compliant reflective surface locations and shading devices (where applicable).

1.6.16 Moisture Control

Meet the requirements of ASHRAE 189.1 Section 10.3.1.5 (Moisture Control), UFC 3-410-01, Chapter 3, Sections 3-2 and 3-3 (Ventilation Air), and UFC 3-101-01 Chapter 3 (Building Envelope Requirements).

1.6.16.1 Design Submittal Documentation

a. Provide drawings of building envelope details and HVAC humidity controls.

b. Provide plan for construction material storage and protection, humidity controls during construction, and operation and maintenance plan for ongoing building moisture control.

1.6.17 Reduce Volatile Organic Compounds (VOC) (Low-Emitting Materials)

Meet the requirements of Table 3-1 at the end of this specification.

For Construction submittal documentation, provide certifications or labels that demonstrate compliance with cited requirements, based on the attached TABLE 3-1.

1.6.18 Indoor Air Quality During Construction

Prior to construction, create indoor air quality plan. Develop and implement an IAQ construction management plan during construction and flush building air before occupancy.

For renovation of occupied existing buildings, meet the requirements of ANSI/SMACNA 008 IAQ Guidelines for Occupied Buildings Under Construction.

Provide documentation showing that after construction ends and prior to occupancy, HVAC filters were replaced and building air was flushed out in accordance with the cited standard.

1.6.19 Recycled Content

Comply with 40 CFR 247. Refer to: https://www.epa.gov/smm/comprehensive-procurement-guideline-cpg-program for assistance identifying products cited in 40 CFR 247. Selected products must comply with non-proprietary requirements of the Federal Acquisition Regulation and must meet performance requirements.

1.6.19.1 Construction Submittal Documentation

a. Provide manufacturers' documents stating the recycled content by material, or written justification for claiming one of the exceptions allowed on the cited website.

b. Substitutions: Submit for Government approval for proposed alternative products or systems that provide equivalent performance and appearance and have greater contribution to project recycled content requirements. For all such proposed substitutions, submit with the Sustainability Action Plan accompanied by product data demonstrating equivalence.

c. In order to complete compliance with FAR 52.223-1 Biobased Product Certification, refer to submittal requirement for recycled/recovered material content in UFGS 01 78 00 "CERTIFICATION OF EPA[AND USDA] DESIGNATED ITEMS."

1.6.20 Bio-Based Products

Provide products and materials composed of the highest percentage of bio-based materials (including rapidly renewable resources and certified sustainably harvested products), consistent with FSRIA 9002 USDA BioPreferred Program, to the maximum extent possible without jeopardizing the intended end use or detracting from the overall quality delivered to the end user. Use only supplies and materials of a type and quality that conform to applicable specifications and standards.

Comply with FSRIA 9002 USDA BioPreferred Program. Refer to www.biopreferred.gov for the product categories and BioPreferred Catalog. Selected products must comply with non-proprietary requirements of the Federal Acquisition Regulation, and must meet performance requirements. Provide the following documentation:

a. USDA BioPreferred label for each product; for bio-based products used on project but not listed with BioPreferred program, provide bio-based content and percentage.

b. In order to complete compliance with FAR 52.223-1 Biobased Product Certification, refer to submittal requirement for biobased products in UFGS 01 78 00 "CERTIFICATION OF EPA[AND USDA] DESIGNATED ITEMS."

1.6.21 Waste Material Management (Recycling – Design)

Meet the requirements of ASHRAE 189.1 Section 9.3.4.1 (Storage and Collection of Recyclables – Recyclables), where markets or onsite recycling exist.

For design submittal documentation, provide drawing showing an appropriately sized and placed storage area has been dedicated for recyclables.

1.6.22 Waste Material Management (Recycling – Construction)

Divert construction debris from landfill disposal where markets or on-site recycling exists.

Submit in accordance with Section 01 74 19.05 20 CONSTRUCTION AND DEMOLITION WASTE MANAGEMENT FOR DESIGN-BUILD.

1.6.23 Validation and Certification Restrictions

The purchase of renewable energy credits (RECs) specifically to meet project sustainability goals is prohibited.

PART 2 PRODUCTS

Not used.

PART 3 EXECUTION

3.1 SUSTAINABILITY COORDINATION

3.1.1 Coordinating Sustainability Documentation Progress

Provide sustainability focus and coordination at the following meetings to achieve sustainability goals. Coordinate meeting requirements below with other UFGS meeting requirements in this project. The designated [TPC accredited] sustainability professional responsible for GP documentation must participate in these meetings to coordinate documentation completion.

3.1.1.1 Design Review Meetings

Review progress towards meeting Sustainability requirements and completeness of Sustainability eNotebookat the following meetings:

a. Post Award Kick-Off Meeting: Refer to Section 01 31 19.05 20 POST AWARD MEETINGS. Discuss the following: [TPC and] HPSB Checklist[s], Sustainability Action Plan, Design submittal and Construction submittal requirements and schedule, individuals responsible for achieving each Guiding Principle Requirement.

b. Design Quality Assurance Meetings: Refer to Section 01 31 19.05 20 POST AWARD MEETINGS for requirements. Discuss progress toward accomplishing Sustainability goals and obtaining sustainability documentation at each design submittal review. Refer to RFP Part 2 Section 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES for designated design submittals.

c. Design Complete Review Meetings (No later than 60 days after final design complete submission): Review HPSB Checklist, Sustainability eNotebookfor completeness and identify any outstanding issues relating to final score and documentation requirements.

3.1.1.2 Construction Progress Meetings

Review GP sustainability requirements with project team including contractor and sub-contractor representatives. Demonstrate HPSB Checklist documentation is being collected and updated to the Sustainability eNotebook.

a. Facility Turnover Meetings: Refer to Section 01 31 19.05 20 POST AWARD MEETINGS for further requirements. Review HPSB Checklist, Sustainability eNotebookfor completeness and identify any outstanding issues relating to final documentation requirements.

b. Final Sustainability eNotebook Review

3.2 TABLE 3-1 VOLATILE ORGANIC COMPOUNDS (VOC) (LOW EMITTING MATERIALS) REQUIREMENTS

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements

Source: ASHRAE 189.1 section 8.4.2(Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Adhesives and Sealants	**CDPH/EHLB/Standard method V1.1 (California Section 01350)** (Use "office" or "classroom" space limits for all applications)	or	Adhesives (carpet, resilient, wood flooring; panel; primers) Sealants (acoustical; firestop; HVAC Air duct; primers) Caulks	**SCAQMD Rule 1168** (Use "other" category for HVAC duct sealant) (for firestop adhesive, UFC 3-600-01 overrides conflicting requirements)
			Aerosol adhesives	**Section 3 of Green Seal Standard GS-36** (except: cleaners, solvent cements, and primers used with plastic piping and conduit in plumbing, fire suppression, and electrical systems; HVAC air duct sealants when the application space air temp is less than 40
Paints and Coatings	**CDPH/EHLB/Standard method V1.1 (California Section 01350)** (Use "office" or "classroom" space limits for	or	Flat and nonflat topcoats, primers, undercoaters, and anti-corrosive coatings	**Green Seal Standard GS-11**

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements

Source: ASHRAE 189.1 section 8.4.2(Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Paints and Coatings	**CDPH/EHLB/Standard method V1.1 (California Section 01350)** (Use "office" or "classroom" space limits for all applications)	or	Concrete/masonry sealers (waterproofing concrete/masonry sealers), concrete curing compounds, dry fog coatings, faux finishing coatings, fire resistive coatings, floor coatings, graphic arts (sign) coatings, industrial maintenance coatings, mastic texture coatings, metallic pigmented coatings, multicolor coatings, pretreatment wash primers, reactive penetrating sealers, recycled coatings, shellacs (clear and opaque), specialty primers, stains, wood coatings (clear wood finishes), wood preservatives,	**California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings** or **SCAQMD Rule 1113**

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements

Source: ASHRAE 189.1 section 8.4.2(Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Paints and Coatings	**CDPH/EHLB/Standard method V1.1 (California Section 01350)** (Use "office" or "classroom" space limits for all applications)	or	Basement specialty coatings, high-temperature coatings, low solids coatings, stone consolidants, swimming-pool coatings, tub- and tile-refining coatings, and waterproofing membranes	**California Air Resources Board (CARB) Suggested Control Measure for Architectural Coatings**
Floor Covering Materials	For carpet, all locations: **CDPH/EHLB/Standard Method V1.1 (California Section 01350)** or label for **Section 9** of **CDPH/EHLB/Standard Method V1.1 (California Section 01350)**		none	none

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements

Source: ASHRAE 189.1 section 8.4.2(Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Composite Wood, Wood Structural Panel, and Agrifiber Products particleboard medium density fiberboard (MDF) wheatboard strawboard panel substrates door cores **no added urea-formaldehyde resins** including laminating adhesives for composite wood and agrifiber assemblies	Third-party certification (approved by CARB) of **California Air Resource Board's (CARB) regulation**, Airborne Toxic Control Measure to Reduce Formaldehyde Emissions from Composite Wood Products		none	none
	CDPH/EHLB/Standard method V1.1 (California Section 01350) (Use "office" or "classroom" space limits for all applications) (except: Structural panel components such as plywood, particle board, wafer board, and oriented strand board identified as "EXPOSURE 1," "EXTERIOR," or "HUD-APPROVED" are considered acceptable for interior use.)			

TABLE 3-1 Volatile Organic Compounds (VOC) (Low Emitting Materials) Requirements

Source: ASHRAE 189.1 section 8.4.2(Materials)(Interior Applications Only)

MATERIAL CATEGORY	EMISSIONS REQUIREMENT		MATERIALS WITH ADDED VOC REQUIREMENT	MATERIAL CATEGORY
Office Furniture Systems and Seating installed prior to occupancy	**ANSI/BIFMA X7.1 ANSI/BIFMA X7.1:** (95 percent of installed office furniture system workstations and seating units) **Section 7.6.2 of ANSI/BIFMA e3** (50 percent of office furniture system workstations and seating units)		none	none
Ceiling and Wall Systems ceiling and wall insulation acoustical ceiling panels tackable wall panels gypsum wall board and panels wall coverings	**CDPH/EHLB/Standard method V1.1 (California Section 01350)** (Use "office" or "classroom" space limits for all applications)		none	none

-- End of Section --

SECTION 01 35 26.05 20

GOVERNMENT SAFETY REQUIREMENTS FOR DESIGN-BUILD
12/15

PART 1 GENERAL

1.1 REFERENCES

The publications listed below form a part of this specification to the extent referenced. The publications are referred to within the text by the basic designation only.

AMERICAN SOCIETY OF SAFETY PROFESSIONALS (ASSP)

ASSP A10.34	(2001; R 2012) Protection of the Public on or Adjacent to Construction Sites
ASSP A10.44	(2014) Control of Energy Sources (Lockout/Tagout) for Construction and Demolition Operations
ASSP A1264.1	(2017) Safety Requirements for Workplace Walking/Working Surfaces and Their Access; Workplace, Floor, Wall and Roof Openings; Stairs and Guardrail/Handrail Systems
ASSP Z244.1	(2016) The Control of Hazardous Energy Lockout, Tagout and Alternative Methods
ASSP Z359.0	(2012) Definitions and Nomenclature Used for Fall Protection and Fall Arrest
ASSP Z359.1	(2016) The Fall Protection Code
ASSP Z359.2	(2017) Minimum Requirements for a Comprehensive Managed Fall Protection Program
ASSP Z359.3	(2017) Safety Requirements for Lanyards and Positioning Lanyards
ASSP Z359.4	(2013) Safety Requirements for Assisted-Rescue and Self-Rescue Systems, Subsystems and Components
ASSP Z359.6	(2016) Specifications and Design Requirements for Active Fall Protection Systems
ASSP Z359.7	(2011) Qualification and Verification Testing of Fall Protection Products
ASSP Z359.11	(2014) Safety Requirements for Full Body Harnesses

ASSP Z359.12	(2009) Connecting Components for Personal Fall Arrest Systems
ASSP Z359.13	(2013) Personal Energy Absorbers and Energy Absorbing Lanyards
ASSP Z359.14	(2014) Safety Requirements for Self-Retracting Devices for Personal Fall Arrest and Rescue Systems
ASSP Z359.15	(2014) Safety Requirements for Single Anchor Lifelines and Fall Arresters for Personal Fall Arrest Systems
ASSP Z490.1	(2016) Criteria for Accepted Practices in Safety, Health, and Environmental Training

ASME INTERNATIONAL (ASME)

ASME B30.3	(2016) Tower Cranes
ASME B30.5	(2014) Mobile and Locomotive Cranes
ASME B30.8	(2015) Floating Cranes and Floating Derricks
ASME B30.9	(2014; INT Feb 2011 - Nov 2013) Slings
ASME B30.20	(2013; INT Oct 2010 - May 2012) Below-the-Hook Lifting Devices
ASME B30.22	(2016) Articulating Boom Cranes
ASME B30.26	(2015; INT Jun 2010 - Jun 2014) Rigging Hardware

ASTM INTERNATIONAL (ASTM)

ASTM F855	(2015) Standard Specifications for Temporary Protective Grounds to Be Used on De-energized Electric Power Lines and Equipment

HUMAN FACTORS AND ERGONOMICS SOCIETY

ANSI/HFES 100	(2007) Human Factors Engineering of Computer Workstations

INSTITUTE OF ELECTRICAL AND ELECTRONICS ENGINEERS (IEEE)

IEEE 1048	(2003) Guide for Protective Grounding of Power Lines
IEEE C2	(2017; Errata 1-2 2017; INT 1 2017) National Electrical Safety Code

NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION (NEMA)

NEMA Z535.2	(2011) Environmental and Facility Safety Signs

NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)

NFPA 1	(2018) Fire Code
NFPA 10	(2018; TIA 18-1) Standard for Portable Fire Extinguishers
NFPA 51B	(2014) Standard for Fire Prevention During Welding, Cutting, and Other Hot Work
NFPA 70	(2017; ERTA 1-2 2017; TIA 17-1; TIA 17-2; TIA 17-3; TIA 17-4; TIA 17-5; TIA 17-6; TIA 17-7; TIA 17-8; TIA 17-9; TIA 17-10; TIA 17-11; TIA 17-12; TIA 17-13; TIA 17-14; TIA 17-15; TIA 17-16; TIA 17-17) National Electrical Code
NFPA 70E	(2018; TIA 18-1; TIA 81-2) Standard for Electrical Safety in the Workplace
NFPA 241	(2013; Errata 2015) Standard for Safeguarding Construction, Alteration, and Demolition Operations
NFPA 306	(2019) Standard for the Control of Gas Hazards on Vessels

U.S. ARMY CORPS OF ENGINEERS (USACE)

EM 385-1-1	(2014) Safety and Health Requirements Manual

U.S. NATIONAL ARCHIVES AND RECORDS ADMINISTRATION (NARA)

10 CFR 20	Standards for Protection Against Radiation
29 CFR 1910	Occupational Safety and Health Standards
29 CFR 1910.146	Permit-required Confined Spaces
29 CFR 1910.147	The Control of Hazardous Energy (Lock Out/Tag Out)
29 CFR 1910.333	Selection and Use of Work Practices
29 CFR 1915	Confined and Enclosed Spaces and Other Dangerous Atmospheres in Shipyard Employment
29 CFR 1915.89	Control of Hazardous Energy (Lockout/Tags-Plus)
29 CFR 1919	Gear Certification

29 CFR 1926	Safety and Health Regulations for Construction
29 CFR 1926.16	Rules of Construction
29 CFR 1926.450	Scaffolds
29 CFR 1926.500	Fall Protection
29 CFR 1926.1400	Cranes and Derricks in Construction
49 CFR 173	Shippers - General Requirements for Shipments and Packagings
CPL 2.100	(1995) Application of the Permit-Required Confined Spaces (PRCS) Standards, 29 CFR 1910.146

1.2 DEFINITIONS

1.2.1 Competent Person (CP)

The CP is a person designated in writing, who, through training, knowledge and experience, is capable of identifying, evaluating, and addressing existing and predictable hazards in the working environment or working conditions that are dangerous to personnel, and who has authorization to take prompt corrective measures with regards to such hazards.

1.2.2 Competent Person, Cranes and Rigging

The CP, Cranes and Rigging, as defined in EM 385-1-1 Appendix Q, is a person meeting the competent person, who has been designated in writing to be responsible for the immediate supervision, implementation and monitoring of the Crane and Rigging Program, who through training, knowledge and experience in crane and rigging is capable of identifying, evaluating and addressing existing and potential hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.3 Competent Person, Fall Protection

The CP, Fall Protection, is a person meeting the competent person requirements as defined in EM 385-1-1 Appendix Q and in accordance with ASSP Z359.0, who has been designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the fall protection program, who through training, knowledge and experience in fall protection and rescue systems and equipment, is capable of identifying, evaluating and addressing existing and potential fall hazards and, who has the authority to take prompt corrective measures with regard to such hazards.

1.2.4 Competent Person, Scaffolding

The CP, Scaffolding is a person meeting the competent person requirements in EM 385-1-1 Appendix Q, and designated in writing by the employer to be responsible for immediate supervising, implementing and monitoring of the scaffolding program. The CP for Scaffolding has enough training, knowledge and experience in scaffolding to correctly identify, evaluate and address

existing and potential hazards and also has the authority to take prompt corrective measures with regard to these hazards. CP qualifications must be documented and include experience on the specific scaffolding systems/types being used, assessment of the base material that the scaffold will be erected upon, load calculations for materials and personnel, and erection and dismantling. The CP for scaffolding must have a documented, minimum of 8-hours of scaffold training to include training on the specific type of scaffold being used (e.g. mast-climbing, adjustable, tubular frame), in accordance with EM 385-1-1 Section 22.B.02.

1.2.5 Competent Person (CP) Trainer

A competent person trainer as defined in EM 385-1-1 Appendix Q, who is qualified in the material presented, and who possesses a working knowledge of applicable technical regulations, standards, equipment and systems related to the subject matter on which they are training Competent Persons. A competent person trainer must be familiar with the typical hazards and the equipment used in the industry they are instructing. The training provided by the competent person trainer must be appropriate to that specific industry. The competent person trainer must evaluate the knowledge and skills of the competent persons as part of the training process.

1.2.6 High Risk Activities

High Risk Activities are activities that involve work at heights, crane and rigging, excavations and trenching, scaffolding, electrical work, and confined space entry.

1.2.7 High Visibility Accident

A High Visibility Accident is any mishap which may generate publicity or high visibility.

1.2.8 Load Handling Equipment (LHE)

LHE is a term used to describe cranes, hoists and all other hoisting equipment (hoisting equipment means equipment, including crane, derricks, hoists and power operated equipment used with rigging to raise, lower or horizontally move a load).

1.2.9 Medical Treatment

Medical Treatment is treatment administered by a physician or by registered professional personnel under the standing orders of a physician. Medical treatment does not include first aid treatment even through provided by a physician or registered personnel.

1.2.10 Near Miss

A Near Miss is a mishap resulting in no personal injury and zero property damage, but given a shift in time or position, damage or injury may have occurred (e.g., a worker falls off a scaffold and is not injured; a crane swings around to move the load and narrowly misses a parked vehicle).

1.2.11 Operating Envelope

The Operating Envelope is the area surrounding any crane or load handling equipment. Inside this "envelope" is the crane, the operator, riggers and crane walkers, other personnel involved in the operation, rigging gear between the hook, the load, the crane's supporting structure (i.e. ground or rail), the load's rigging path, the lift and rigging procedure.

1.2.12 Qualified Person (QP)

The QP is a person designated in writing, who, by possession of a recognized degree, certificate, or professional standing, or extensive knowledge, training, and experience, has successfully demonstrated their ability to solve or resolve problems related to the subject matter, the work, or the project.

1.2.13 Qualified Person, Fall Protection (QP for FP)

A QP for FP is a person meeting the requirements of EM 385-1-1 Appendix Q, and ASSP Z359.0, with a recognized degree or professional certificate and with extensive knowledge, training and experience in the fall protection and rescue field who is capable of designing, analyzing, and evaluating and specifying fall protection and rescue systems.

1.2.14 Recordable Injuries or Illnesses

Recordable Injuries or Illnesses are any work-related injury or illness that results in:

a. Death, regardless of the time between the injury and death, or the length of the illness;

b. Days away from work (any time lost after day of injury/illness onset);

c. Restricted work;

d. Transfer to another job;

e. Medical treatment beyond first aid;

f. Loss of consciousness; or

g. A significant injury or illness diagnosed by a physician or other licensed health care professional, even if it did not result in (a) through (f) above.

1.2.15 Load Handling Equipment (LHE) Accident or Load Handling Equipment Mishap

A LHE accident occurs when any one or more of the eight elements in the operating envelope fails to perform correctly during operation, including operation during maintenance or testing resulting in personnel injury or death; material or equipment damage; dropped load; derailment; two-blocking; overload; or collision, including unplanned contact between the load, crane, or other objects. A dropped load, derailment, two-blocking, overload and collision are considered accidents, even though no material damage or injury occurs. A component failure (e.g., motor burnout, gear tooth failure, bearing failure) is not considered an accident

solely due to material or equipment damage unless the component failure results in damage to other components (e.g., dropped boom, dropped load, or roll over). Document any mishap that meets the criteria described in the Contractor Significant Incident Report (CSIR) using the NAVFAC prescribed Navy Crane Center (NCC) form.

1.3 SUBMITTALS

Government approval is required for submittals with a "G" designation; submittals not having a "G" designation are for Contractor Quality Control approval. Submittals with an "S" are for inclusion in the Sustainability eNotebook, in conformance with Section 01 33 29.05 20 SUSTAINABILITY REPORTING FOR DESIGN-BUILD. Submit the following in accordance with Section 01 33 00.05 20 CONSTRUCTION SUBMITTAL PROCEDURES and 01 33 10.05 20 DESIGN SUBMITTAL PROCEDURES:

SD-01 Preconstruction Submittals

APP - Pre-Design Submittal; G

APP - Pre-Construction Submittal; G

SD-06 Test Reports

Monthly Exposure Reports

Notifications and Reports

Accident Reports; G

LHE Inspection Reports

SD-07 Certificates

Contractor Safety Self-Evaluation Checklist

Crane Operators/Riggers

Standard Lift Plan; G

Critical Lift Plan ; G

Naval Architecture Analysis; G

Activity Hazard Analysis (AHA)

Confined Space Entry Permit

Hot Work Permit

Certificate of Compliance

Third Party Certification of Barge-Mounted Mobile Cranes

License Certificates

Radiography Operation Planning Work Sheet; G

1.4 MONTHLY EXPOSURE REPORTS

Provide a Monthly Exposure Report and attach to the monthly billing request. This report is a compilation of employee-hours worked each month for all site workers, both Prime and subcontractor. Failure to submit the report may result in retention of up to 10 percent of the voucher.

1.5 CONTRACTOR SAFETY SELF-EVALUATION CHECKLIST

Contracting Officer will provide a "Contractor Safety Self-Evaluation checklist" to the Contractor at the pre-construction conference. Complete the checklist monthly and submit with each request for payment voucher. An acceptable score of 90 or greater is required. Failure to submit the completed safety self-evaluation checklist or achieve a score of at least 90 may result in retention of up to 10 percent of the voucher.

1.6 REGULATORY REQUIREMENTS

In addition to the detailed requirements included in the provisions of this contract, comply with the most recent edition of USACE EM 385-1-1, and the following federal, state, and local laws, ordinances, criteria, rules and regulations. Submit matters of interpretation of standards to the appropriate administrative agency for resolution before starting work. Where the requirements of this specification, applicable laws, criteria, ordinances, regulations, and referenced documents vary, the most stringent requirements govern.

1.6.1 Subcontractor Safety Requirements

For this contract, neither Contractor nor any subcontractor may enter into contract with any subcontractor that fails to meet the following requirements. The term subcontractor in this and the following paragraphs means any entity holding a contract with the Contractor or with a subcontractor at any tier.

1.6.1.1 Experience Modification Rate (EMR)

Subcontractors on this contract must have an effective EMR less than or equal to 1.10, as computed by the National Council on Compensation Insurance (NCCI) or if not available, as computed by the state agency's rating bureau in the state where the subcontractor is registered, when entering into a subcontract agreement with the Prime Contractor or a subcontractor at any tier. The Prime Contractor may submit a written request for additional consideration to the Contracting Officer where the specified acceptable EMR range cannot be achieved. Relaxation of the EMR range will only be considered for approval on a case-by-case basis for special conditions and must not be anticipated as tacit approval. Contractor's Site Safety and Health Officer (SSHO) must collect and maintain the certified EMR ratings for all subcontractors on the project and make them available to the Government at the Government's request.

1.6.1.2 OSHA Days Away from Work, Restricted Duty, or Job Transfer (DART) Rate

Subcontractors on this contract must have a DART rate, calculated from the

most recent, complete calendar year, less than or equal to 3.4 when entering into a subcontract agreement with the Prime Contractor or a subcontractor at any tier. The OSHA Dart Rate is calculated using the following formula:

(N/EH) x 200,000

where:

N = number of injuries and illnesses with days away, restricted work, or job transfer

EH = total hours worked by all employees during most recent, complete calendar year

200,000 = base for 100 full-time equivalent workers (working 40 hours per week, 50 weeks per year)

The Prime Contractor may submit a written request for additional consideration to the Contracting Officer where the specified acceptable OSHA Dart rate range cannot be achieved for a particular subcontractor. Relaxation of the OSHA DART rate range will only be considered for approval on a case-by-case basis for special conditions and must not be anticipated as tacit approval. Contractor's Site Safety and Health Officer (SSHO) must collect and maintain self-certified OSHA DART rates for all subcontractors on the project and make them available to the Government at the Government's request.

1.7 SITE QUALIFICATIONS, DUTIES, AND MEETINGS

1.7.1 Personnel Qualifications

1.7.1.1 Site Safety and Health Officer (SSHO)

Provide an SSHO that meets the requirements of EM 385-1-1 Section 1. The SSHO must ensure that the requirements of 29 CFR 1926.16 are met for the project. Provide a Safety oversight team that includes one (1) person function as the Site Safety and Health Officer (SSHO). The SSHO must be at the work site at all times to implement and administer the Contractor's safety program and government-accepted Accident Prevention Plan. The SSHO and Alternate SSHO must have the required training, experience, and qualifications in accordance with EM 385-1-1 Section 01.A.17, and all associated sub-paragraphs.

If the SSHO is off-site for a period longer than 24 hours, an equally-qualified alternate SSHO must be provided and must fulfill the same roles and responsibilities as the primary SSHO. When the SSHO is temporarily (up to 24 hours) off-site, a Designated Representative (DR), as identified in the AHA may be used in lieu of an Alternate SSHO, and must be on the project site at all times when work is being performed. Note that the DR is a collateral duty safety position, with safety duties in addition to their full time occupation.

1.7.1.2 Contractor Quality Control (QC) Manager:

The Contractor Quality Control Manager can be the SSHO on this project.

1.7.1.3 Competent Person Qualifications

Provide Competent Persons in accordance with EM 385-1-1, Appendix Q and herein. Competent Persons for high risk activities include confined space, cranes and rigging, excavation/trenching, fall protection, and electrical work. The CP for these activities must be designated in writing, and meet the requirements for the specific activity (i.e. competent person, fall protection).

The Competent Person identified in the Contractor's Safety and Health Program and accepted Accident Prevention Plan, must be on-site at all times when the work that presents the hazards associated with their professional expertise is being performed. Provide the credentials of the Competent Persons(s) to the the Contracting Officer for information in consultation with the Safety Office.

1.7.1.3.1 Competent Person for Scaffolding

Provide a Competent Person for Scaffolding who meets the requirements of EM 385-1-1, Section 22.B.02 and herein.

1.7.1.3.2 Competent Person for Fall Protection

Provide a Competent Person for Fall Protection who meets the requirements of EM 385-1-1, Section 21.C.04, 21.B.03, and herein.

1.7.1.4 Crane Operators/Riggers

Provide Operators meeting the requirements in EM 385-1-1, Section 15.B for Riggers and Section 16.B for Crane Operators. In addition, for mobile cranes with Original Equipment Manufacturer (OEM) rated capacities of 50,000 pounds or greater, designate crane operators qualified by a source that qualifies crane operators (i.e., union, a government agency, or an organization that tests and qualifies crane operators). Provide proof of current qualification.

1.7.2 Personnel Duties

1.7.2.1 Duties of the Site Safety and Health Officer (SSHO)

The SSHO must:

a. Conduct daily safety and health inspections and maintain a written log which includes area/operation inspected, date of inspection, identified hazards, recommended corrective actions, estimated and actual dates of corrections. Attach safety inspection logs to the Contractors' daily production report.

b. Conduct mishap investigations and complete required accident reports. Report mishaps and near misses.

c. Use OSHA's Form 300 to log work-related injuries and illnesses occurring on the project site for Prime Contractors and subcontractors. Post and maintain the Form 300 on the site Safety Bulletin Board.

d. Maintain applicable safety reference material on the job site.

e. Attend the pre-construction conference, pre-work meetings including preparatory meetings, and periodic in-progress meetings.

f. Review the APP and AHAs for compliance with EM 385-1-1, and approve, sign, implement and enforce them.

g. Establish a Safety and Occupational Health (SOH) Deficiency Tracking System that lists and monitors outstanding deficiencies until resolution.

h. Ensure subcontractor compliance with safety and health requirements.

i. Maintain a list of hazardous chemicals on site and their material Safety Data Sheets (SDS).

j. Maintain a weekly list of high hazard activities involving energy, equipment, excavation, entry into confined space, and elevation, and be prepared to discuss details during QC Meetings.

k. Provide and keep a record of site safety orientation and indoctrination for Contractor employees, subcontractor employees, and site visitors.

Superintendent, QC Manager, and SSHO are subject to dismissal if the above duties are not being effectively carried out. If Superintendent, QC Manager, or SSHO are dismissed, project work will be stopped and will not be allowed to resume until a suitable replacement is approved and the above duties are again being effectively carried out.

1.7.3 Meetings

1.7.3.1 Prework Conference

a. Contractor representatives who have a responsibility or significant role in accident prevention on the project must attend the Prework Conference. This includes the project superintendent, Site Safety and Occupational Health officer, quality control manager, or any other assigned safety and health professionals who participated in the development of the APP (including the Activity Hazard Analyses (AHAs) and special plans, program and procedures associated with it).

b. Discuss the details of the submitted APP to include incorporated plans, programs, procedures and a listing of anticipated AHAs that will be developed and implemented during the performance of the contract. This list of proposed AHAs will be reviewed at the conference and an agreement will be reached between the Contractor and the Contracting Officer as to which phases will require an analysis. In addition, establish a schedule for the preparation, submittal, and Government review of AHAs to preclude project delays.

c. Deficiencies in the submitted APP, identified during the Contracting Officer's review, must be corrected, and the APP re-submitted for review prior to the scheduling the Prework Conference. Work is not permitted to begin until an APP is established that is acceptable to the Contracting Officer.

1.7.3.2 Safety Meetings

Conduct safety meetings to review past activities, plan for new or changed operations, review pertinent aspects of appropriate AHA (by trade), establish safe working procedures for anticipated hazards, and provide pertinent Safety and Occupational Health (SOH) training and motivation. Conduct meetings at least once a month for all supervisors on the project location. The SSHO, supervisors, foremen, or CDSOs must conduct meetings at least once a week for the trade workers. Document meeting minutes to include the date, persons in attendance, subjects discussed, and names of individual(s) who conducted the meeting. Maintain documentation on-site and furnish copies to the Contracting Officer on request. Notify the Contracting Officer of all scheduled meetings 7 calendar days in advance.

1.8 ACCIDENT PREVENTION PLAN (APP)

1.8.1 Plans and Submissions

1.8.1.1 APP - Pre-Design Submittal

Provide a site-specific Accident Prevention Plan (APP), including Activity Hazard Analyses (AHA), in accordance with the US Army Corps of Engineers Safety and Health Manual EM 385-1-1 Appendix A, paragraph 3.k for the design team to follow during site visits and investigations. For subsequent visits, update the form if there are changes in the personnel who will be attending, or the tasks to be performed. Submit the APP for review and acceptance by the Government at least 15 calendar days prior to the start of the design field work. Field work may not begin until the pre-design APP is accepted by the Contracting Officer.

If the design scope includes borings or other subsurface investigations, as part of the APP identify the type of field investigation and verification techniques, such as visual, local utility locating service scanning and third party/subcontractor scanning, potholing, or hand digging within two feet of a known utility. Mark underground utilities before starting any ground-disturbing actions. Notify the Contracting Officer 15 days prior to the start of soil borings or sub-surface investigations.

Prior to the start of construction incorporate the Pre-Design APP into the Pre-Construction APP so that one site specific APP exists for the project and submit to the Contracting Officer for acceptance

1.8.1.2 APP - Pre-Construction Submittal

A qualified person must prepare the written site-specific APP. Prepare the APP in accordance with the format and requirements of EM 385-1-1, Appendix A, and as supplemented herein. Cover all paragraph and subparagraph elements in EM 385-1-1, Appendix A. The APP must be job-specific and address any unusual or unique aspects of the project or activity for which it is written. The APP must interface with the Contractor's overall safety and health program referenced in the APP in the applicable APP element, and made site-specific. Describe the methods to evaluate past safety performance of potential subcontractors in the selection process. Also, describe innovative methods used to ensure and monitor safe work practices of subcontractors. The Government considers the Prime Contractor to be the "controlling authority" for all work site safety and health of the subcontractors. Contractors are responsible for informing their subcontractors of the safety provisions under the terms of the contract and the penalties for noncompliance, coordinating the work to prevent one craft from interfering with or creating hazardous working conditions for other

crafts, and inspecting subcontractor operations to ensure that accident prevention responsibilities are being carried out. The APP must be signed by an officer of the firm (Prime Contractor senior person), the individual preparing the APP, the on-site superintendent, the designated SSHO, the Contractor Quality Control Manager, and any designated Certified Safety Professional (CSP) or Certified Health Physicist (CHP). The SSHO must provide and maintain the APP and a log of signatures by each subcontractor foreman, attesting that they have read and understand the APP, and make the APP and log available on-site to the Contracting Officer. If English is not the foreman's primary language, the Prime Contractor must provide an interpreter.

Submit the APP to the Contracting Officer 15 calendar days prior to the date of the preconstruction conference for acceptance. Work cannot proceed without an accepted APP. Once reviewed and accepted by the Contracting Officer, the APP and attachments will be enforced as part of the contract. Disregarding the provisions of this contract or the accepted APP is cause for stopping of work, at the discretion of the Contracting Officer, until the matter has been rectified. Continuously review and amend the APP, as necessary, throughout the life of the contract. Changes to the accepted APP must be made with the knowledge and concurrence of the Contracting Officer, project superintendent, SSHO and Quality Control Manager. Incorporate unusual or high-hazard activities not identified in the original APP as they are discovered. Should any severe hazard exposure (i.e. imminent danger) become evident, stop work in the area, secure the area, and develop a plan to remove the exposure and control the hazard. Notify the Contracting Officer within 24 hours of discovery. Eliminate and remove the hazard. In the interim, take all necessary action to restore and maintain safe working conditions in order to safeguard onsite personnel, visitors, the public (as defined by ASSP A10.34), and the environment.

1.8.2 Names and Qualifications

Provide plans in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

a. Names and qualifications (resumes including education, training, experience and certifications) of site safety and health personnel designated to perform work on this project to include the designated Site Safety and Health Officer and other competent and qualified personnel to be used. Specify the duties of each position.

b. Qualifications of competent and of qualified persons. As a minimum, designate and submit qualifications of competent persons for each of the following major areas: excavation; scaffolding; fall protection; hazardous energy; confined space; health hazard recognition, evaluation and control of chemical, physical and biological agents; and personal protective equipment and clothing to include selection, use and maintenance.

1.8.3 Plans

Provide plans in the APP in accordance with the requirements outlined in Appendix A of EM 385-1-1, including the following:

1.8.3.1 Standard Lift Plan (SLP)

Plan lifts to avoid situations where the operator cannot maintain safe control of the lift. Prepare a written SLP in accordance with EM 385-1-1, Section 16.A.03, using Form 16-2 for every lift or series of lifts (if duty cycle or routine lifts are being performed). The SLP must be developed, reviewed and accepted by all personnel involved in the lift in conjunction with the associated AHA. Signature on the AHA constitutes acceptance of the plan. Maintain the SLP on the LHE for the current lift(s) being made. Maintain historical SLPs for a minimum of 3 months.

1.8.3.2 Critical Lift Plan - Crane or Load Handling Equipment

Provide a Critical Lift Plan as required by EM 385-1-1, Section 16.H.01, using Form 16-3. Critical lifts require detailed planning and additional or unusual safety precautions. Develop and submit a critical lift plan to the Contracting Officer 30 calendar days prior to critical lift. Comply with load testing requirements in accordance with EM 385-1-1, Section 16.F.03.

In addition to the requirements of EM 385-1-1, Section 16.H.02, the critical lift plan must include the following:

a. For lifts of personnel, demonstrate compliance with the requirements of 29 CFR 1926.1400 and EM 385-1-1, Section 16.T.

c. Multi-purpose machines, material handling equipment, and construction equipment used to lift loads that are suspended by rigging gear, require proof of authorization from the machine OEM that the machine is capable of making lifts of loads suspended by rigging equipment. Demonstrate that the operator is properly trained and that the equipment is properly configured to make such lifts and is equipped with a load chart.

1.8.3.3 Fall Protection and Prevention (FP&P) Plan

The plan must comply with the requirements of EM 385-1-1, Section 21.D and ASSP Z359.2, be site specific, and address all fall hazards in the work place and during different phases of construction. Address how to protect and prevent workers from falling to lower levels when they are exposed to fall hazards above 6 feet. A competent person or qualified person for fall protection must prepare and sign the plan documentation. Include fall protection and prevention systems, equipment and methods employed for every phase of work, roles and responsibilities, assisted rescue, self-rescue and evacuation procedures, training requirements, and monitoring methods. Review and revise, as necessary, the Fall Protection and Prevention Plan documentation as conditions change, but at a minimum every six months, for lengthy projects, reflecting any changes during the course of construction due to changes in personnel, equipment, systems or work habits. Keep and maintain the accepted Fall Protection and Prevention Plan documentation at the job site for the duration of the project. Include the Fall Protection and Prevention Plan documentation in the Accident Prevention Plan (APP).

1.8.3.4 Rescue and Evacuation Plan

Provide a Rescue and Evacuation Plan in accordance with EM 385-1-1 Section 21.N and ASSP Z359.2, and include in the FP&P Plan and as part of the APP.

Include a detailed discussion of the following: methods of rescue; methods of self-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility.

1.8.3.5 Hazardous Energy Control Program (HECP)

Develop a HECP in accordance with EM 385-1-1 Section 12, 29 CFR 1910.147, 29 CFR 1910.333, 29 CFR 1915.89, ASSP Z244.1, and ASSP A10.44. Submit this HECP as part of the Accident Prevention Plan (APP). Conduct a preparatory meeting and inspection with all effected personnel to coordinate all HECP activities. Document this meeting and inspection in accordance with EM 385-1-1, Section 12.A.02. Ensure that each employee is familiar with and complies with these procedures.

1.9 ACTIVITY HAZARD ANALYSIS (AHA)

Before beginning each activity, task or Definable Feature of Work (DFOW) involving a type of work presenting hazards not experienced in previous project operations, or where a new work crew or subcontractor is to perform the work, the Contractor(s) performing that work activity must prepare an AHA. AHAs must be developed by the Prime Contractor, subcontractor, or supplier performing the work, and provided for Prime Contractor review and approval before submitting to the Contracting Officer. AHAs must be signed by the SSHO, Superintendent, QC Manager and the subcontractor Foreman performing the work. Format the AHA in accordance with EM 385-1-1, Section 1 or as directed by the Contracting Officer. Submit the AHA for review at least 15 working days prior to the start of each activity task, or DFOW. The Government reserves the right to require the Contractor to revise and resubmit the AHA if it fails to effectively identify the work sequences, specific anticipated hazards, site conditions, equipment, materials, personnel and the control measures to be implemented.

AHAs must identify competent persons required for phases involving high risk activities, including confined entry, crane and rigging, excavations, trenching, electrical work, fall protection, and scaffolding.

1.9.1 AHA Management

Review the AHA list periodically (at least monthly) at the Contractor supervisory safety meeting, and update as necessary when procedures, scheduling, or hazards change. Use the AHA during daily inspections by the SSHO to ensure the implementation and effectiveness of the required safety and health controls for that work activity.

1.9.2 AHA Signature Log

Each employee performing work as part of an activity, task or DFOW must review the AHA for that work and sign a signature log specifically maintained for that AHA prior to starting work on that activity. The SSHO must maintain a signature log on site for every AHA. Provide employees whose primary language is other than English, with an interpreter to ensure a clear understanding of the AHA and its contents.

1.10 DISPLAY OF SAFETY INFORMATION

1.10.1 Safety Bulletin Board

Within one calendar day(s) after commencement of work, erect a safety bulletin board at the job site. Where size, duration, or logistics of project do not facilitate a bulletin board, an alternative method, acceptable to the Contracting Officer, that is accessible and includes all mandatory information for employee and visitor review, may be deemed as meeting the requirement for a bulletin board. Include and maintain information on safety bulletin board as required by EM 385-1-1, Section 01.A.06. Additional items required to be posted include:

a. Hot work permit.

1.10.2 Safety and Occupational Health (SOH) Deficiency Tracking System

Establish a SOH deficiency tracking system that lists and monitors the status of SOH deficiencies in chronological order. Use the tracking system to evaluate the effectiveness of the APP. A monthly evaluation of the data must be discussed in the QC or SOH meeting with everyone on the project. The list must be posted on the project bulletin board and updated daily, and provide the following information:

a. Date deficiency identified;

b. Description of deficiency;

c. Name of person responsible for correcting deficiency;

d. Projected resolution date;

e. Date actually resolved.

1.11 SITE SAFETY REFERENCE MATERIALS

Maintain safety-related references applicable to the project, including those listed in paragraph REFERENCES. Maintain applicable equipment manufacturer's manuals.

1.12 EMERGENCY MEDICAL TREATMENT

Contractors must arrange for their own emergency medical treatment. Government has no responsibility to provide emergency medical treatment.

1.13 NOTIFICATIONS and REPORTS

1.13.1 Mishap Notification

Notify the Contracting Officer as soon as practical, but no more than twenty-four hours, after any mishaps, including recordable accidents, incidents, and near misses, as defined in EM 385-1-1 Appendix Q, any report of injury, illness, load handling equipment (LHE) or rigging mishaps, or any property damage. The Contractor is responsible for obtaining appropriate medical and emergency assistance and for notifying fire, law enforcement, and regulatory agencies. Immediate reporting is required for electrical mishaps, to include Arc Flash; shock; uncontrolled release of hazardous energy (includes electrical and non-electrical); load handling equipment or rigging; fall from height (any level other than same

surface); and underwater diving. These mishaps must be investigated in depth to identify all causes and to recommend hazard control measures.

Within notification include Contractor name; contract title; type of contract; name of activity, installation or location where accident occurred; date and time of accident; names of personnel injured; extent of property damage, if any; extent of injury, if known, and brief description of accident (for example, type of construction equipment used and PPE used). Preserve the conditions and evidence on the accident site until the Government investigation team arrives on-site and Government investigation is conducted. Assist and cooperate fully with the Government's investigation(s) of any mishap.

1.13.2 Accident Reports

a. Conduct an accident investigation for recordable injuries and illnesses, property damage, and near misses as defined in EM 385-1-1, to establish the root cause(s) of the accident. Complete the applicable NAVFAC Contractor Incident Reporting System (CIRS), and electronically submit via the NAVFAC Enterprise Safety Applications Management System (ESAMS). The Contracting Officer will provide copies of any required or special forms.

b. Near Misses: For Navy Projects, complete the applicable documentation in NAVFAC Contractor Incident Reporting System (CIRS), and electronically submit via the NAVFAC Enterprise Safety Applications Management System (ESAMS). Near miss reports are considered positive and proactive Contractor safety management actions.

c. Conduct an accident investigation for any load handling equipment accident (including rigging gear accidents) to establish the root cause(s) of the accident. Complete the LHE Accident Report (Crane and Rigging Gear) form and provide the report to the Contracting Officer within 30 calendar days of the accident. Do not proceed with crane operations until cause is determined and corrective actions have been implemented to the satisfaction of the Contracting Officer. The Contracting Officer will provide a blank copy of the accident report form.

1.13.3 LHE Inspection Reports

Submit LHE inspection reports required in accordance with EM 385-1-1 and as specified herein with Daily Reports of Inspections.

1.13.4 Certificate of Compliance and Pre-lift Plan/Checklist for LHE and Rigging

Provide a FORM 16-1 Certificate of Compliance for LHE entering an activity under this contract and in accordance with EM 385-1-1. Post certifications on the crane.

Develop a Standard Lift Plan (SLP) in accordance with EM 385-1-1, Section 16.H.03 using Form 16-2 Standard Pre-Lift Crane Plan/Checklist for each lift planned. Submit SLP to the Contracting Officer for approval within 15 calendar days in advance of planned lift.

1.14 HOT WORK

1.14.1 Permit and Personnel Requirements

Submit and obtain a written permit prior to performing "Hot Work" (i.e. welding or cutting) or operating other flame-producing/spark producing devices, from the Fire Division. A permit is required from the Explosives Safety Office for work in and around where explosives are processed, stored, or handled. CONTRACTORS ARE REQUIRED TO MEET ALL CRITERIA BEFORE A PERMIT IS ISSUED. Provide at least two 20 pound 4A:20 BC rated extinguishers for normal "Hot Work". The extinguishers must be current inspection tagged, and contain an approved safety pin and tamper resistant seal. It is also mandatory to have a designated FIRE WATCH for any "Hot Work" done at this activity. The Fire Watch must be trained in accordance with NFPA 51B and remain on-site for a minimum of one hour after completion of the task or as specified on the hot work permit.

When starting work in the facility, require personnel to familiarize themselves with the location of the nearest fire alarm boxes and place in memory the emergency Fire Division phone number. REPORT ANY FIRE, NO MATTER HOW SMALL, TO THE RESPONSIBLE FIRE DIVISION IMMEDIATELY.

1.14.2 Work Around Flammable Materials

Obtain services from a NFPA Certified Marine Chemist for "HOT WORK" within or around flammable materials (such as fuel systems or welding/cutting on fuel pipes) or confined spaces (such as sewer wet wells, manholes, or vaults) that have the potential for flammable or explosive atmospheres.

Whenever these materials, except beryllium and chromium (VI), are encountered in indoor operations, local mechanical exhaust ventilation systems that are sufficient to reduce and maintain personal exposures to within acceptable limits must be used and maintained in accordance with manufacturer's instruction and supplemented by exceptions noted in EM 385-1-1, Section 06.H

1.15 SEVERE STORM PLAN

In the event of a severe storm warning, the Contractor must:

a. Secure outside equipment and materials and place materials that could be damaged in protected areas.

b. Check surrounding area, including roof, for loose material, equipment, debris, and other objects that could be blown away or against existing facilities.

c. Ensure that temporary erosion controls are adequate.

PART 2 PRODUCTS

PART 3 EXECUTION

3.1 CONSTRUCTION AND OTHER WORK

Comply with EM 385-1-1, NFPA 70, NFPA 70E, NFPA 241, the APP, the AHA, Federal and State OSHA regulations, and other related submittals and activity fire and safety regulations. The most stringent standard prevails.

PPE is governed in all areas by the nature of the work the employee is performing. Use personal hearing protection at all times in designated noise hazardous areas or when performing noise hazardous tasks. Safety glasses must be worn or carried/available on each person. Mandatory PPE includes:

a. Hard Hat

b. Long Pants

c. Appropriate Safety Shoes

d. Appropriate Class Reflective Vests

3.1.1 Worksite Communication

Employees working alone in a remote location or away from other workers must be provided an effective means of emergency communications (i.e., cellular phone, two-way radios, land-line telephones or other acceptable means). The selected communication must be readily available (easily within the immediate reach) of the employee and must be tested prior to the start of work to verify that it effectively operates in the area/environment. An employee check-in/check-out communication procedure must be developed to ensure employee safety.

3.1.2 Hazardous Material Use

Each hazardous material must receive approval from the Contracting Office or their designated representative prior to being brought onto the job site or prior to any other use in connection with this contract. Allow a minimum of 10 working days for processing of the request for use of a hazardous material.

3.1.3 Hazardous Material Exclusions

Notwithstanding any other hazardous material used in this contract, radioactive materials or instruments capable of producing ionizing/non-ionizing radiation (with the exception of radioactive material and devices used in accordance with EM 385-1-1 such as nuclear density meters for compaction testing and laboratory equipment with radioactive sources) as well as materials which contain asbestos, mercury or polychlorinated biphenyls, di-isocyanates, lead-based paint, and hexavalent chromium, are prohibited. The Contracting Officer, upon written request by the Contractor, may consider exceptions to the use of any of the above excluded materials. Low mercury lamps used within fluorescent lighting fixtures are allowed as an exception without further Contracting Officer approval. Notify the Radiation Safety Officer (RSO) prior to excepted items of radioactive material and devices being brought on base.

3.1.4 Unforeseen Hazardous Material

Contract documents identify materials such as PCB, lead paint, and friable and non-friable asbestos and other OSHA regulated chemicals (i.e. 29 CFR Part 1910.1000). If material(s) that may be hazardous to human health upon disturbance are encountered during construction operations, stop that portion of work and notify the Contracting Officer immediately. Within 14 calendar days the Government will determine if the material is hazardous.

If material is not hazardous or poses no danger, the Government will direct the Contractor to proceed without change. If material is hazardous and handling of the material is necessary to accomplish the work, the Government will issue a modification pursuant to FAR 52.243-4, "Changes" and FAR 52.236-2, "Differing Site Conditions."

3.2 UTILITY OUTAGE REQUIREMENTS

Apply for utility outages at least 14 days in advance. At a minimum, the written request must include the location of the outage, utilities being affected, duration of outage, any necessary sketches, and a description of the means to fulfill energy isolation requirements in accordance with EM 385-1-1, Section 11.A.02 (Isolation). Some examples of energy isolation devices and procedures are highlighted in EM 385-1-1, Section 12.D. In accordance with EM 385-1-1, Section 12.A.01, where outages involve Government or Utility personnel, coordinate with the Government on all activities involving the control of hazardous energy.

These activities include, but are not limited to, a review of HECP and HEC procedures, as well as applicable Activity Hazard Analyses (AHAS). In accordance with EM 385-1-1, Section 11.A.02 and NFPA 70E, work on energized electrical circuits must not be performed without prior government authorization. Government permission is considered through the permit process and submission of a detailed AHA. Energized work permits are considered only when de-energizing introduces additional or increased hazard or when de-energizing is infeasible.

3.3 OUTAGE COORDINATION MEETING

After the utility outage request is approved and prior to beginning work on the utility system requiring shut-down, conduct a pre-outage coordination meeting in accordance with EM 385-1-1, Section 12.A. This meeting must include the Prime Contractor, the Prime and subcontractors performing the work, the Contracting Officer, and the Installation Representative. All parties must fully coordinate HEC activities with one another. During the coordination meeting, all parties must discuss and coordinate on the scope of work, HEC procedures (specifically, the lock-out/tag-out procedures for worker and utility protection), the AHA, assurance of trade personnel qualifications, identification of competent persons, and compliance with HECP training in accordance with EM 385-1-1, Section 12.C. Clarify when personal protective equipment is required during switching operations, inspection, and verification.

3.4 CONTROL OF HAZARDOUS ENERGY (LOCKOUT/TAGOUT)

Provide and operate a Hazardous Energy Control Program (HECP) in accordance with EM 385-1-1 Section 12, 29 CFR 1910.333, 29 CFR 1915.89, ASSP A10.44, NFPA 70E, and paragraph HAZARDOUS ENERGY CONTROL PROGRAM (HECP).

3.4.1 Safety Preparatory Inspection Coordination Meeting with the Government or Utility

For electrical distribution equipment that is to be operated by Government or Utility personnel, the Prime Contractor and the subcontractor performing the work must attend the safety preparatory inspection coordination meeting, which will also be attended by the Contracting Officer's Representative, and required by EM 385-1-1, Section 12.A.02. The meeting will occur immediately preceding the start of work and following the

completion of the outage coordination meeting. Both the safety preparatory inspection coordination meeting and the outage coordination meeting must occur prior to conducting the outage and commencing with lockout/tagout procedures.

3.4.2 Lockout/Tagout Isolation

Where the Government or Utility performs equipment isolation and lockout/tagout, the Contractor must place their own locks and tags on each energy-isolating device and proceed in accordance with the HECP. Before any work begins, both the Contractor and the Government or Utility must perform energy isolation verification testing while wearing required PPE detailed in the Contractor's AHA and required by EM 385-1-1, Sections 05.I and 11.B. Install personal protective grounds, with tags, to eliminate the potential for induced voltage in accordance with EM 385-1-1, Section 12.E.06.

3.4.3 Lockout/Tagout Removal

Upon completion of work, conduct lockout/tagout removal procedure in accordance with the HECP. In accordance with EM 385-1-1, Section 12.E.08, each lock and tag must be removed from each energy isolating device by the authorized individual or systems operator who applied the device. Provide formal notification to the Government (by completing the Government form if provided by Contracting Officer's Representative), confirming that steps of de-energization and lockout/tagout removal procedure have been conducted and certified through inspection and verification. Government or Utility locks and tags used to support the Contractor's work will not be removed until the authorized Government employee receives the formal notification.

3.5 FALL PROTECTION PROGRAM

Establish a fall protection program, for the protection of all employees exposed to fall hazards. Within the program include company policy, identify roles and responsibilities, education and training requirements, fall hazard identification, prevention and control measures, inspection, storage, care and maintenance of fall protection equipment and rescue and evacuation procedures in accordance with ASSP Z359.2 and EM 385-1-1, Sections 21.A and 21.D.

3.5.1 Training

Institute a fall protection training program. As part of the Fall Protection Program, provide training for each employee who might be exposed to fall hazards. Provide training by a competent person for fall protection in accordance with EM 385-1-1, Section 21.C. Document training and practical application of the competent person in accordance with EM 385-1-1, Section 21.C.04 and ASSP Z359.2 in the AHA.

3.5.2 Fall Protection Equipment and Systems

Enforce use of personal fall protection equipment and systems designated (to include fall arrest, restraint, and positioning) for each specific work activity in the Site Specific Fall Protection and Prevention Plan and AHA at all times when an employee is exposed to a fall hazard. Protect employees from fall hazards as specified in EM 385-1-1, Section 21.

Provide personal fall protection equipment, systems, subsystems, and components that comply with EM 385-1-1 Section 21.I, 29 CFR 1926.500 Subpart M,ASSP Z359.0, ASSP Z359.1, ASSP Z359.2, ASSP Z359.3, ASSP Z359.4, ASSP Z359.6, ASSP Z359.7, ASSP Z359.11, ASSP Z359.12, ASSP Z359.13, ASSP Z359.14, and ASSP Z359.15.

3.5.2.1 Additional Personal Fall Protection

In addition to the required fall protection systems, other protection such as safety skiffs, personal floatation devices, and life rings, are required when working above or next to water in accordance with EM 385-1-1, Sections 21.O through 21.O.06. Personal fall protection systems and equipment are required when working from an articulating or extendible boom, swing stages, or suspended platform. In addition, personal fall protection systems are required when operating other equipment such as scissor lifts. The need for tying-off in such equipment is to prevent ejection of the employee from the equipment during raising, lowering, travel, or while performing work.

3.5.2.2 Personal Fall Protection Harnesses

Only a full-body harness with a shock-absorbing lanyard or self-retracting lanyard is an acceptable personal fall arrest body support device. The use of body belts is not acceptable. Harnesses must have a fall arrest attachment affixed to the body support (usually a Dorsal D-ring) and specifically designated for attachment to the rest of the system. Snap hooks and carabiners must be self-closing and self-locking, capable of being opened only by at least two consecutive deliberate actions and have a minimum gate strength of 3,600 lbs in all directions. Use webbing, straps, and ropes made of synthetic fiber. The maximum free fall distance when using fall arrest equipment must not exceed 6 feet, unless the proper energy absorbing lanyard is used. Always take into consideration the total fall distance and any swinging of the worker (pendulum-like motion), that can occur during a fall, when attaching a person to a fall arrest system. All full body harnesses must be equipped with Suspension Trauma Preventers such as stirrups, relief steps, or similar in order to provide short-term relief from the effects of orthostatic intolerance in accordance with EM 385-1-1, Section 21.I.06.

3.5.3 Fall Protection for Roofing Work

Implement fall protection controls based on the type of roof being constructed and work being performed. Evaluate the roof area to be accessed for its structural integrity including weight-bearing capabilities for the projected loading.

a. Low Sloped Roofs:

(1) For work within 6 feet of an edge, on a roof having a slope less than or equal to 4:12 (vertical to horizontal), protect personnel from falling by use of personal fall arrest/restraint systems, guardrails, or safety nets. A safety monitoring system is not adequate fall protection and is not authorized. Provide in accordance with 29 CFR 1926.500.

(2) For work greater than 6 feet from an edge, erect and install warning lines in accordance with 29 CFR 1926.500 and EM 385-1-1, Section L.

b. Steep-Sloped Roofs: Work on a roof having a slope greater than 4:1 (vertical to horizontal) requires a personal fall arrest system, guardrails with toe-boards, or safety nets. This requirement also applies to residential or housing type construction.

3.5.4 Horizontal Lifelines (HLL)

Provide HLL in accordance with EM 385-1-1, Section 21.I.08.d.2. Commercially manufactured horizontal lifelines (HLL) must be designed, installed, certified and used, under the supervision of a qualified person, for fall protection as part of a complete fall arrest system which maintains a safety factor of 2 (29 CFR 1926.500). The competent person for fall protection may (if deemed appropriate by the qualified person) supervise the assembly, disassembly, use and inspection of the HLL system under the direction of the qualified person. Locally manufactured HLLs are not acceptable unless they are custom designed for limited or site specific applications by a Registered Professional Engineer who is qualified in designing HLL systems.

3.5.5 Guardrails and Safety Nets

Design, install and use guardrails and safety nets in accordance with EM 385-1-1, Section 21.F.01 and 29 CFR 1926 Subpart M.

3.5.6 Rescue and Evacuation Plan and Procedures

When personal fall arrest systems are used, ensure that the mishap victim can self-rescue or can be rescued promptly should a fall occur. Prepare a Rescue and Evacuation Plan and include a detailed discussion of the following: methods of rescue; methods of self-rescue or assisted-rescue; equipment used; training requirement; specialized training for the rescuers; procedures for requesting rescue and medical assistance; and transportation routes to a medical facility. Include the Rescue and Evacuation Plan within the Activity Hazard Analysis (AHA) for the phase of work, in the Fall Protection and Prevention (FP&P) Plan, and the Accident Prevention Plan (APP). The plan must comply with the requirements of EM 385-1-1, ASSP Z359.2, and ASSP Z359.4.

3.5.7 Fall Prevention During Design Phase

During design phase the Contractor must consider and eliminate fall hazards anticipated during the operation and maintenance evolutions of the facility. If it is not feasible to eliminate or prevent the need to work at heights with the subsequent exposure to fall hazards, control measures must be included in the design to protect personnel conducting maintenance work after completion of the project. In addition to the detailed requirements included in the provisions of this contract, the design work must incorporate the requirements of 29 CFR 1910 and ASSP Z359.0, ASSP Z359.1, ASSP Z359.2, ASSP Z359.3, ASSP Z359.4, ASSP A1264.1, and NFPA 1.

3.6 ERGONOMICS CONSIDERATIONS DURING DESIGN PHASE

Design Facilities, processes, job tasks, tools and materials to reduce or eliminate work-related musculoskeletal (WMSD) injuries and risk factors in the workplace. Ensure that facility maintenance access is designed to reduce WMSD risk factors to the lowest level possible. In addition to the detailed requirements included in the provisions of this contract, the design work must incorporate the requirements of MIL-STD-1472, DoD-HDBK 743

and ANSI/HFES 100.

3.7 WORK PLATFORMS

3.7.1 Scaffolding

Provide employees with a safe means of access to the work area on the scaffold. Climbing of any scaffold braces or supports not specifically designed for access is prohibited. Comply with the following requirements:

a. Scaffold platforms greater than 20 feet in height must be accessed by use of a scaffold stair system.

b. Ladders commonly provided by scaffold system manufacturers are prohibited for accessing scaffold platforms greater than 20 feet maximum in height.

c. An adequate gate is required.

d. Employees performing scaffold erection and dismantling must be qualified.

e. Scaffold must be capable of supporting at least four times the maximum intended load, and provide appropriate fall protection as delineated in the accepted fall protection and prevention plan.

f. Stationary scaffolds must be attached to structural building components to safeguard against tipping forward or backward.

g. Special care must be given to ensure scaffold systems are not overloaded.

h. Side brackets used to extend scaffold platforms on self-supported scaffold systems for the storage of material are prohibited. The first tie-in must be at the height equal to 4 times the width of the smallest dimension of the scaffold base.

i. Scaffolding other than suspended types must bear on base plates upon wood mudsills (2 in x 10 in x 8 in minimum) or other adequate firm foundation.

j. Scaffold or work platform erectors must have fall protection during the erection and dismantling of scaffolding or work platforms that are more than six feet.

k. Delineate fall protection requirements when working above six feet or above dangerous operations in the Fall Protection and Prevention (FP&P) Plan and Activity Hazard Analysis (AHA) for the phase of work.

3.7.2 Elevated Aerial Work Platforms (AWPs)

Workers must be anchored to the basket or bucket in accordance with manufacturer's specifications and instructions (anchoring to the boom may only be used when allowed by the manufacturer and permitted by the CP). Lanyards used must be sufficiently short to prohibit worker from climbing out of basket. The climbing of rails is prohibited. Lanyards with built-in shock absorbers are acceptable. Self-retracting devices are not

acceptable. Tying off to an adjacent pole or structure is not permitted unless a safe device for 100 percent tie-off is used for the transfer.

Use of AWPs must be operated, inspected, and maintained as specified in the operating manual for the equipment and delineated in the AHA. Operators of AWPs must be designated as qualified operators by the Prime Contractor. Maintain proof of qualifications on site for review and include in the AHA.

3.8 EQUIPMENT

3.8.1 Material Handling Equipment (MHE)

a. Material handling equipment such as forklifts must not be modified with work platform attachments for supporting employees unless specifically delineated in the manufacturer's printed operating instructions. Material handling equipment fitted with personnel work platform attachments are prohibited from traveling or positioning while personnel are working on the platform.

b. The use of hooks on equipment for lifting of material must be in accordance with manufacturer's printed instructions. Material Handling Equipment Operators must be trained in accordance with OSHA 29 CFR 1910, Subpart N.

c. Operators of forklifts or power industrial trucks must be licensed in accordance with OSHA.

3.8.2 Load Handling Equipment (LHE)

a. Equip cranes and derricks as specified in EM 385-1-1, Section 16.

b. Notify the Contracting Officer 15 working days in advance of any LHE entering the activity, in accordance with EM 385-1-1, Section 16.A.02, so that necessary quality assurance spot checks can be coordinated. Prior to cranes entering federal activities, a Crane Access Permit must be obtained from the Contracting Officer. A copy of the permitting process will be provided at the Preconstruction Conference. Contractor's operator must remain with the crane during the spot check. Rigging gear must comply with OSHA, ASME B30.9 Standards safety standards.

c. Comply with the LHE manufacturer's specifications and limitations for erection and operation of cranes and hoists used in support of the work. Perform erection under the supervision of a designated person (as defined in ASME B30.5). Perform all testing in accordance with the manufacturer's recommended procedures.

d. Comply with ASME B30.5 for mobile and locomotive cranes, ASME B30.22 for articulating boom cranes, ASME B30.3 for construction tower cranes, ASME B30.8 for floating cranes and floating derricks, ASME B30.9 for slings, ASME B30.20 for below the hook lifting devices and ASME B30.26 for rigging hardware.

e. Under no circumstance must a Contractor make a lift at or above 90 percent of the cranes rated capacity in any configuration.

f. When operating in the vicinity of overhead transmission lines,

operators and riggers must be alert to this special hazard and follow the requirements of EM 385-1-1 Section 11, and ASME B30.5 or ASME B30.22 as applicable.

g. Do not use crane suspended personnel work platforms (baskets) unless the Contractor proves that using any other access to the work location would provide a greater hazard to the workers or is impossible. Do not lift personnel with a line hoist or friction crane. Additionally, submit a specific AHA for this work to the Contracting Officer. Ensure the activity and AHA are thoroughly reviewed by all involved personnel.

h. Inspect, maintain, and recharge portable fire extinguishers as specified in NFPA 10, Standard for Portable Fire Extinguishers.

i. All employees must keep clear of loads about to be lifted and of suspended loads.

j. Use cribbing when performing lifts on outriggers.

k. The crane hook/block must be positioned directly over the load. Side loading of the crane is prohibited.

l. A physical barricade must be positioned to prevent personnel access where accessible areas of the LHE's rotating superstructure poses a risk of striking, pinching or crushing personnel.

m. Maintain inspection records in accordance by EM 385-1-1, Section 16.D, including shift, monthly, and annual inspections, the signature of the person performing the inspection, and the serial number or other identifier of the LHE that was inspected. Records must be available for review by the Contracting Officer.

n. Maintain written reports of operational and load testing in accordance with EM 385-1-1, Section 16.F, listing the load test procedures used along with any repairs or alterations performed on the LHE. Reports must be available for review by the Contracting Officer.

o. Certify that all LHE operators have been trained in proper use of all safety devices (e.g. anti-two block devices).

p. Take steps to ensure that wind speed does not contribute to loss of control of the load during lifting operations. At wind speeds greater than 20 mph, the operator, rigger and lift supervisor must cease all crane operations, evaluate conditions and determine if the lift may proceed. Base the determination to proceed or not on wind calculations per the manufacturer and a reduction in LHE rated capacity if applicable. Include this maximum wind speed determination as part of the activity hazard analysis plan for that operation.

3.8.3 Machinery and Mechanized Equipment

a. Proof of qualifications for operator must be kept on the project site for review.

b. Manufacture specifications or owner's manual for the equipment must be on-site and reviewed for additional safety precautions or requirements that are sometimes not identified by OSHA or USACE EM 385-1-1.

Incorporate such additional safety precautions or requirements into the AHAs.

3.8.4 USE OF EXPLOSIVES

Explosives must not be used or brought to the project site without prior written approval from the Contracting Officer. Such approval does not relieve the Contractor of responsibility for injury to persons or for damage to property due to blasting operations.

Storage of explosives, when permitted on Government property, must be only where directed and in approved storage facilities. These facilities must be kept locked at all times except for inspection, delivery, and withdrawal of explosives.

3.9 ELECTRICAL

Perform electrical work in accordance with EM 385-1-1, Appendix A, Sections 11 and 12.

3.9.1 Conduct of Electrical Work

As delineated in EM 385-1-1, electrical work is to be conducted in a de-energized state unless there is no alternative method for accomplishing the work. In those cases obtain an energized work permit from the Contracting Officer. The energized work permit application must be accompanied by the AHA and a summary of why the equipment/circuit needs to be worked energized. Underground electrical spaces must be certified safe for entry before entering to conduct work. Cables that will be cut must be positively identified and de-energized prior to performing each cut. Attach temporary grounds in accordance with ASTM F855 and IEEE 1048. Perform all high voltage cable cutting remotely using hydraulic cutting tool. When racking in or live switching of circuit breakers, no additional person other than the switch operator is allowed in the space during the actual operation. Plan so that work near energized parts is minimized to the fullest extent possible. Use of electrical outages clear of any energized electrical sources is the preferred method.

When working in energized substations, only qualified electrical workers are permitted to enter. When work requires work near energized circuits as defined by NFPA 70, high voltage personnel must use personal protective equipment that includes, as a minimum, electrical hard hat, safety shoes, insulating gloves and electrical arc flash protection for personnel as required by NFPA 70E. Insulating blankets, hearing protection, and switching suits may also be required, depending on the specific job and as delineated in the Contractor's AHA. Ensure that each employee is familiar with and complies with these procedures and 29 CFR 1910.147.

3.9.2 Qualifications

Electrical work must be performed by QP personnel with verifiable credentials who are familiar with applicable code requirements. Verifiable credentials consist of State, National and Local Certifications or Licenses that a Master or Journeyman Electrician may hold, depending on work being performed, and must be identified in the appropriate AHA. Journeyman/Apprentice ratio must be in accordance with State, Local requirements applicable to where work is being performed.

3.9.3 Arc Flash

Conduct a hazard analysis/arc flash hazard analysis whenever work on or near energized parts greater than 50 volts is necessary, in accordance with NFPA 70E.

All personnel entering the identified arc flash protection boundary must be QPs and properly trained in NFPA 70E requirements and procedures. Unless permitted by NFPA 70E, no Unqualified Person is permitted to approach nearer than the Limited Approach Boundary of energized conductors and circuit parts. Training must be administered by an electrically qualified source and documented.

3.9.4 Grounding

Ground electrical circuits, equipment and enclosures in accordance with NFPA 70 and IEEE C2 to provide a permanent, continuous and effective path to ground unless otherwise noted by EM 385-1-1.

Check grounding circuits to ensure that the circuit between the ground and a grounded power conductor has a resistance low enough to permit sufficient current flow to allow the fuse or circuit breaker to interrupt the current.

3.9.5 Testing

Temporary electrical distribution systems and devices must be inspected,

tested and found acceptable for Ground-Fault Circuit Interrupter (GFCI) protection, polarity, ground continuity, and ground resistance before initial use, before use after modification and at least monthly. Monthly inspections and tests must be maintained for each temporary electrical distribution system and signed by the electrical CP or QP.

-- End of Section --

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