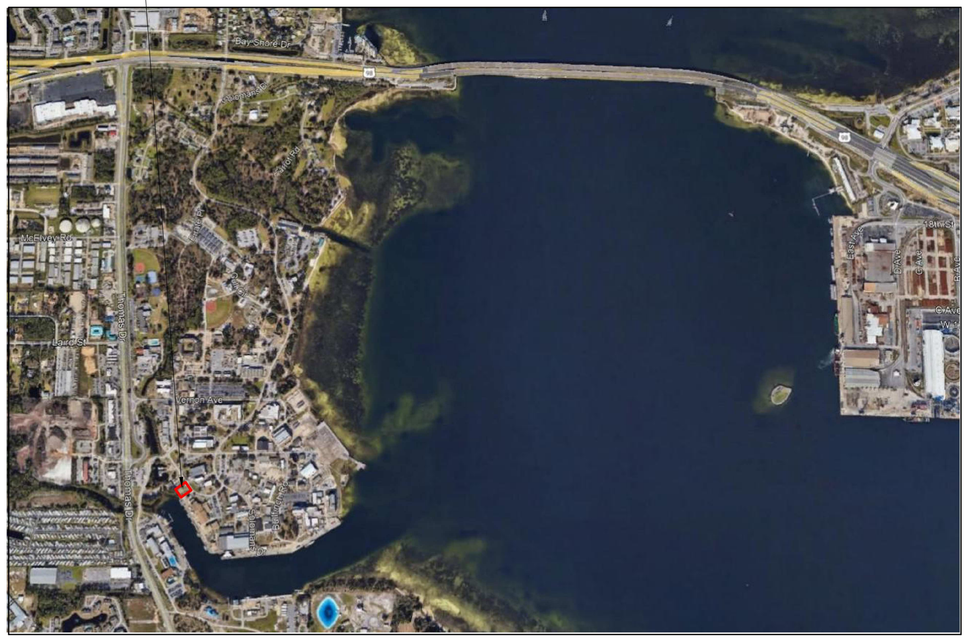
MARITIME MINING FACILITY

NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

PROJECT LOCATION



VICINITY MAP

SCALE: N.T.S.

PROJECT LOCATION



LOCATION MAP

SCALE: N.T.S.

N69450-18-D-0000

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23 APRIL 2025

MOOREHEAD.KAMILAH.P.1597858325 Digitally signed by MOOREHEAD.KAMILAH.P.1597858325 DN: C=US, O=U.S. Government, OU=DoD, OU=PKI, OU=OUD, CN=MOOREHEAD.KAMILAH.P.1597858325 Date: 2025.07.09 11:51:51-04'00'	MOOREHEAD.KAMILAH.P.1597858325 Digitally signed by MOOREHEAD.KAMILAH.P.1597858325 DN: C=US, O=U.S. Government, OU=DoD, OU=PKI, OU=OUD, CN=MOOREHEAD.KAMILAH.P.1597858325 Date: 2025.05.01 16:47:45-04'00'	MASCARENHAS.TABATHA.MARIE.1246398646 Digitally signed by MASCARENHAS.TABATHA.MARIE.1246398646 Date: 2025.05.13 08:35:15 -04'00'	GANDIONCO.ANDRE.YBANEZ.1253606254 Digitally signed by GANDIONCO.ANDRE.YBANEZ.1253606254 DN: C=US, O=U.S. Government, OU=DoD, OU=PKI, OU=OUD, CN=GANDIONCO.ANDRE.YBANEZ.1253606254 Date: 2025.05.01 16:42:53-04'00'	LEE.JUDD.JR.1398180280 Digitally signed by LEE.JUDD.JR.1398180280 Date: 2025.05.09 10:01:48 -04'00'	KING.HOLLY.M.1385250165 Digitally signed by KING.HOLLY.M.1385250165 Date: 2025.05.06 11:14:26 -04'00'	WARD.JAMES.E.1386951132 Digitally signed by WARD.JAMES.E.1386951132 Date: 2025.05.08 16:17:42 -04'00'	TATTERSALL.RICHARD.W.1522131497 Digitally signed by TATTERSALL.RICHARD.W.1522131497 Date: 2025.07.28 15:31:22 -04'00'
DESIGN MANAGER - KAMILAH MOOREHEAD	DESIGN ARCHITECT - KAMILAH MOOREHEAD	DESIGN MECHANICAL - TABATHA MASCARENHAS	DESIGN CIVIL - ANDRE GANDIONCO	DESIGN LANDSCAPE ARCHITECT - JUDD LEE	CHIEF ARCHITECT- HOLLY KING, R.A.	CHIEF MECHANICAL - JAMES WARD, P.E.	CHIEF CIVIL - RICHARD TATTERSALL, P.E.
PROJECT MANAGER - ORLANDO HARRIS	Digitally signed by PATEL.JAYENDRA.R.1622550942 Date: 2025.05.01 16:47:56-04'00' DESIGN STRUCTURAL - JAYENDRA PATEL	ORTIZ.RODRIGUEZ.LEONARDO.ANDRES.1546064707 Digitally signed by ORTIZ.RODRIGUEZ.LEONARDO.ANDRES.1546064707 Date: 2025.05.02 06:16:21 -04'00' DESIGN ELECTRICAL - LEONARDO RODRIGUEZ ORTIZ	RODAK.JESSE.ANDREW.1040692963 Digitally signed by RODAK.JESSE.ANDREW.1040692963 DN: C=US, O=U.S. Government, OU=DoD, OU=PKI, OU=OUD, CN=RODAK.JESSE.ANDREW.1040692963 Date: 2025.05.01 17:49:49-04'00' DESIGN FIRE PROTECTION - JESSE RODAK		GRIMES.MICHAEL.D.1384443873 Digitally signed by GRIMES.MICHAEL.D.1384443873 Date: 2025.05.05 15:00:37 -04'00' CHIEF STRUCTURAL - MICHAEL GRIMES, P.E.	CONTESTABILE.MICHELLE.1009694478 Digitally signed by CONTESTABILE.MICHELLE.1009694478 Date: 2025.07.28 14:23:15 -04'00' CHIEF ELECTRICAL - MICHELLE CONTESTABILE, P.E.	HIGGINS.JOSEPH.PATRICK.1285673573 Digitally signed by HIGGINS.JOSEPH.PATRICK.1285673573 Date: 2025.05.02 09:37:18 -04'00' CHIEF FIRE PROTECTION- JOSEPH HIGGINS, P.E.

SYM	DESCRIPTION
DATE	
APPR	

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AE INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer / DRW Author / CHK Checker	
DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENGARCH	H.M KING
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

COVER SHEET

SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	N69450-18-D-0000
NAVFAC DRAWING NO.	
SHEET	0 OF

G001

DRAWFORM REVISION: 18 MARCH 2025

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G002	SHEET INDEX
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LS002	LIFE SAFETY SITE PLAN
LS101	LIFE SAFETY BUILDING PLAN
C001	GENERAL NOTES
C002	C002 GENERAL NOTES
C003	LOCATION MAP
C004	GEOTECHNICAL BORINGS
C100	EXISTING CONDITIONS AND DEMOLITION
C101	EXISTING CONDITIONS AND DEMOLITION
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C300	UTILITIES SITE PLAN
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C510	CONSTRUCTION DETAILS
C511	STORM DRAINAGE DETAILS
C520	UTILITY DETAILS
C521	UTILITY DETAILS
C530	EROSION CONTROL NOTES
S001	GENERAL STRUCTURAL NOTES
S002	ABBREVIATIONS AND C & C DESIGN WIND PRESSURES
S101	FOUNDATION AND MEZZANINE FRAMING PLAN
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A105	MEZZANINE FLOOR REFLECTED CEILING PLAN
A201	NORTH AND SOUTH ELEVATIONS
A202	EAST AND WEST ELEVATIONS
A301	BUILDING SECTIONS
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A401	ENLARGED PLANS & INTERIOR ELEVATIONS
A403	ENLARGED STAIR PLANS & DETAILS
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A503	ROOF DETAILS
A601	DOOR SCHEDULE, WINDOW TYPES, AND DETAILS
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IN101	INTERIOR FINISH PLANS
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FA001	FIRE ALARM GENERAL NOTES
FA101	FIRE ALARM BUILDING PLAN
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P106	COMPRESSED AIR - OVERALL MEZZANINE FLOOR PLAN
P107	RISER DIAGRAMS
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E001	ELEC ABBREVIATIONS AND SYMBOLS LEGEND
E002	ELECTRICAL GENERAL NOTES
EDS01	ELECTRICAL SITE-DEMO
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EL101	FIRST FLOOR LIGHTING PLAN
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E501	ELECTRICAL DETAILS
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E504	ELECTRICAL DETAILS
E505	LIGHTNING PROTECTION DETAILS
E601	SINGLE LINE DIAGRAM AND RISERS
E701	ELECTRICAL SCHEDULES

(CUI) DRAWING SET PROVIDED SEPARATELY

SHEET INDEX (CUI)

SHEET NUMBER	SHEET NAME
T001	TELECOMM SYMBOLS LEGEND ABBREVIATION AND NOTES
TD101	TELECOMM SITE - DEMO
TS101	TELECOMM SITE NEW
TS102	ELECTRICAL SITE - NEW
T100	FIRST FLOOR - TELECOMM
T101	SECOND FLOOR - TELECOMM
T501	TELECOM DETAILS
T502	ACCESS CONTROL DETAILS
T600	TELECOM DIAGRAMS
Grand total: 101	

SYM | DESCRIPTION | DATE | APPR

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

SHEET INDEX

SCALE: AS NOTED

EPROJECT NO.: 1802981

CONSTR. CONTR. NO.
N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET 2 OF

G002

DRAWFORM REVISION: 18 MARCH 2025

BUILDING & LIFE SAFETY CODE CRITERIA
MARITIME MINING FACILITY

NSA PANAMA CITY, FLORIDA

BASIC BUILDING CODE INFORMATION

APPLICABLE CODES

- UFC 3-600-01 DESIGN FIRE PROTECTION ENGINEERING FOR FACILITIES, 8 AUGUST 2016, CHANGE 6, 6 MAY 2021
- INTERNATIONAL BUILDING CODE (IBC) 2021 FOR FIRE RESISTANCE REQUIREMENTS AND AREA LIMITATIONS AS REFERENCED BY UFC 3-600-01, PARAGRAPH 2-1
- 2021 NFPA 1 FIRE CODE
- 2022 NFPA 10 STANDARD FOR PORTABLE FIRE EXTINGUISHERS
- 2022 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
- 2022 NFPA 24 STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES
- 2022 NFPA 70 NATIONAL ELECTRICAL CODES
- 2022 NFPA 72 NATIONAL FIRE ALARM CODES
- 2022 NFPA 80 STANDARD FOR FIRE DOOR AND OTHER OPENING PROTECTIVES
- 2023 NFPA 88A STANDARD FOR PARKING STRUCTURES
- 2021 NFPA 90A INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS
- 2021 NFPA 101 LIFE SAFETY CODE
- UFC 4-021-01, MASS NOTIFICATION SYSTEMS, CHANGE 1 JANUARY 2010

CONSTRUCTION CLASSIFICATION	(IBC 602)
TYPE: TYPE IIB UNPROTECTED, SPRINKLERED EXTERIOR WALLS OF NON-COMBUSTIBLE MATERIALS	

OCCUPANCY GROUP:

PRIMARY BUSINESS GROUP B/ NEW BUSINESS INCIDENTAL USE STORAGE	(IBC 304) (NFPA 101, 6.1.11 AND CH. 38) (IBC 311)

DOES BUILDING REQUIRE INCIDENTAL USE AREA SEPARATION?	☒ NO	☐ YES	(IBC 509.4, TABLE 509)
DOES BUILDING HAVE ACCESSORY OCCUPANCY (IES)?	☒ NO	☐ YES	(IBC 508.2)
MIXED OCCUPANCIES?	☒ NO	☐ YES	(IBC 508.1)
NON SEPARATED?	☒ NO	☐ YES	(IBC 508.3)
SEPARATED?	☒ NO	☐ YES	(IBC 508.4)

BUILDING AREA

AREA LIMIT (506.2) OF IBC:	92,000 SF
TOTAL DESIGNED AREA OF BUILDING:	3,642 SF

BUILDING HEIGHT

HEIGHT LIMIT (504.3) OF IBC:	55 FT / 4 STORIES
TOTAL DESIGNED HEIGHT OF BUILDING:	<25 FT / 1 STORY

BUILDING DESIGN OCCUPANT LOAD

USE	ROOM #	AREA	ALLOWED PER OCCUPANT	OCCUPANCY LOAD
BUSINESS		3,101 SF	150 SF/OCCUPANT	21 OCCUPANTS
MEZZANINE		828 SF	150 SF/OCCUPANT	6 OCCUPANTS
MECH ROOM	103	105 SF	500 SF/OCCUPANT	1 OCCUPANTS
TELECOMM ROOM	104	86 SF	500 SF/OCCUPANT	1 OCCUPANTS
ELECTRICAL ROOM	106	85 SF	500 SF/OCCUPANT	1 OCCUPANTS
SECURE ROOM	107	265 SF	500 SF/OCCUPANT	1 OCCUPANTS
GRAND TOTAL		3642 SF		31 OCCUPANTS

FIRE RESISTANCE RATING OF BUILDING ELEMENTS

BUILDING ELEMENT	RATING AS REQUIRED (IN HOURS)	RATING AS DESIGNED (IN HOURS)	NOTES
STRUCTURAL FRAME (PER IBC TABLE 601)	0 HR	0 HR	
BEARING WALLS EXTERIOR INTERIOR (PER IBC TABLE 601)	 0 HR 0 HR	 0 HR 0 HR	
NONBEARING WALLS & PARTITIONS EXTERIOR INTERIOR (PER IBC TABLE 601 & 602)	 0 HR 0 HR	 0 HR 0 HR	
FLOOR CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS (PER IBC TABLE 601)	0 HR	0 HR	
ROOF CONSTRUCTION INCLUDING SUPPORTING BEAMS & JOISTS (PER IBC TABLE 601)	0 HR	0 HR	
FIRE WALLS (PER NFPA 101, 8.6.5 (2))	0 HR	0 HR	
FIRE BARRIERS (PER UFC 3-600-01 4-48.5.2)	0 HR	0 HR	
OCCUPANCY SEPARATION WALLS (PER NFPA 101 TABLE 6.1.14.4.1b)	0 HR	0 HR	
EXIT ACCESS CORRIDOR WALLS (PER IBC TABLE 1018.1)	0 HR	0 HR	
FIRE PARTITIONS (PER IBC SECTION 709)	N/A	N/A	
OPENING & PROTECTIVE LISTING BY CATEGORY (FIRE SHUTTERS, DOORS, ETC) (PER IBC SECTION 716)	0 HR	0 HR	

GENERAL FIRE PROTECTION REQUIREMENTS

SEPARATIONS	☒ NO	☐ YES
FIRE BLOCKING REQUIRED?:	☒ NO	☐ YES
DRAFTSTOPPING REQUIRED?:	☒ NO	☐ YES
SMOKE CONTROL SYSTEM REQUIRED?:	☒ NO	☐ YES
SMOKE BARRIERS REQUIRED?:	☒ NO	☐ YES
SMOKE PARTITION REQUIRED?:	☒ NO	☐ YES
FIRE PARTITION REQUIRED?:	☒ NO	☐ YES
FIRE BARRIER REQUIRED?:	☒ NO	☐ YES
ALARM & DETECTION		
FIRE ALARM SYSTEM REQUIRED?:	☐ NO	☒ YES PER UFC 3-600-01
FIRE ALARM SYSTEM PROVIDED?:	☐ NO	☒ YES
SUPPRESSION		
STANDPIPES REQUIRED?:	☒ NO	☐ YES PER IBC SECTION 905
STANDPIPES PROVIDED?:	☒ NO	☐ YES
SPRINKLERS REQUIRED?:	☒ NO	☐ YES PER UFC 3-600-01
SPRINKLERS PROVIDED?:	☐ NO	☒ YES
PORTABLE EXTINGUISHERS REQUIRED?:	☐ NO	☒ YES PER UFC 3-600-01
OTHER SUPPRESSION SYSTEMS REQUIRED?:	☒ NO	☐ YES PER UFC 3-600-01
SMOKE & HEAT VENTS REQUIRED?:	☒ NO	☐ YES PER UFC 3-600-01

MEANS OF EGRESS

CODE ITEM	NOTES
EGRESS WIDTH BUSINESS (PER NFPA 101 CHAPTER 38)	EGRESS WIDTH PER PERSON SERVED (NFPA 101 TABLE 7.3.3.1) LEVEL COMPONENTS & RAMPS .2 INCHES / OCCUPANT VERTICAL COMPONENTS .3 INCHES / OCCUPANT MINIMUM CLEAR OPENING OF EXIT DOORS (NFPA 101 7.2.1.2) 32 INCHES PROVIDED CLEAR OPENING 34 INCHES MINIMUM WIDTH FOR VERTICAL COMPONENTS (NFPA 101 7.2.2) 36 INCHES PROVIDED WIDTH 48 INCHES CALCULATION FOR REQUIRED EGRESS WIDTH (NFPA 7.3.3.3 AND 7.3.4) 32 INCHES * 5 EXITS / .2 INCHES/OCCUPANT = 800 OCCUPANTS 36 INCHES * 1 STAIR / .3 INCHES/OCCUPANT = 120 OCCUPANTS MINIMUM NUMBER OF EXITS ARE PROVIDED IN ACCORDANCE WITH NFPA 101 38.2.4 REQUIREMENTS
EXIT ACCESS TRAVEL DISTANCE BUSINESS OCCUPANCY (PER NFPA 101 38.2.6.3)	BUSINESS OCCUPANCY (SPRINKLERED): 300 FEET PROPOSED MAXIMUM TRAVEL DISTANCE: 110 FEET
DEAD END CORRIDOR BUSINESS OCCUPANCY (PER NFPA 101 38.2.5.3.1)	PERMITTED (SPRINKLERED): 50 FEET PROPOSED: NONE
COMMON PATH OF TRAVEL BUSINESS OCCUPANCY (PER NFPA 101 38.2.5.1)	PERMITTED (SPRINKLERED): 100 FEET PROPOSED: 76 FEET

APPR | DATE | DESCRIPTION | SYM

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ACTIVITY

SATISFACTORY TO DATE

DES	JR	DRW JR	CHK AMD
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	K. WITTMAN		
FIRE PROTECTION	A. DISANTO		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

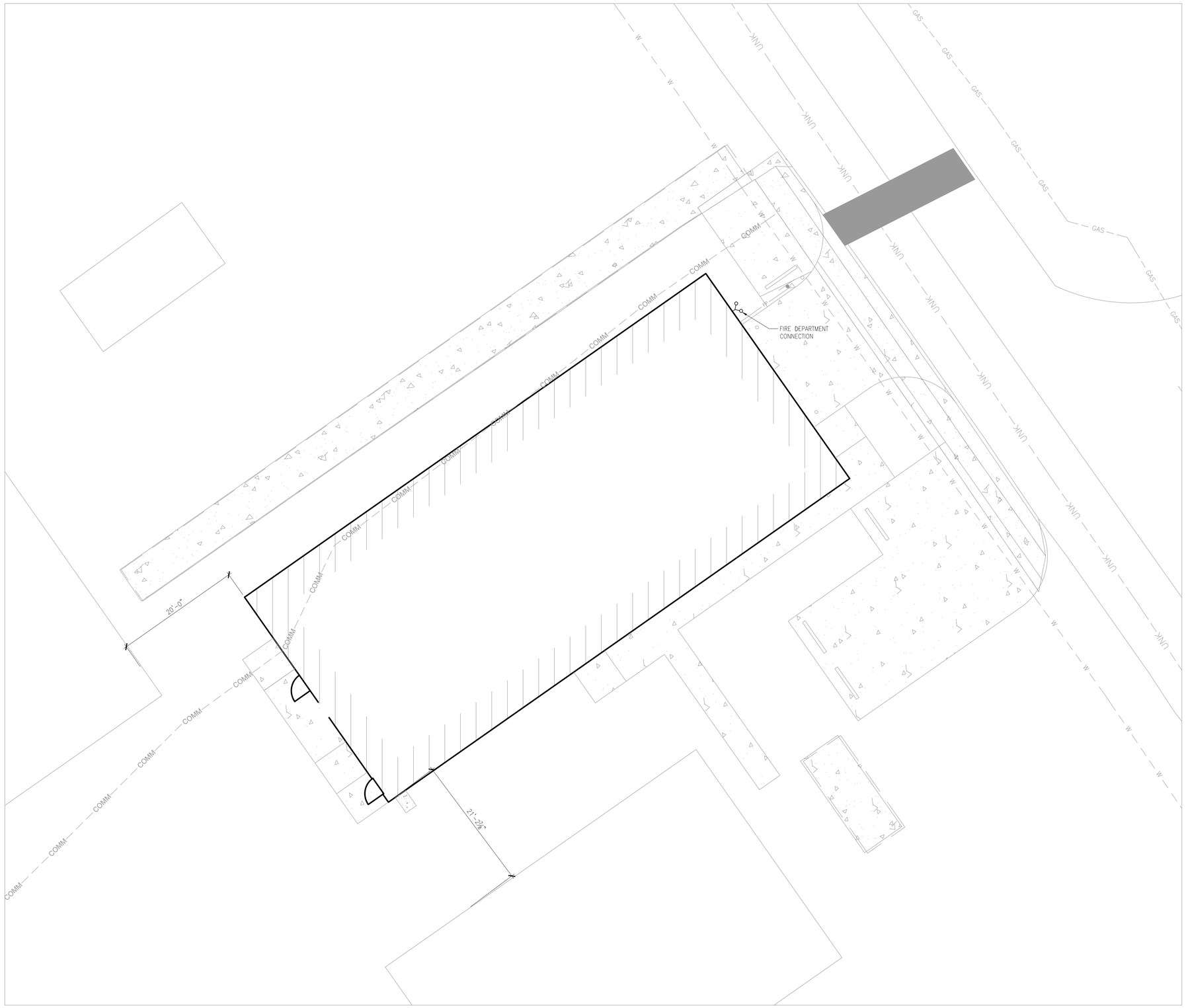
LIFE SAFETY GENERAL NOTES

SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

LS001

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: \\NAEAAKSFS101v.ndsusea.nods.navy.mil\GS020$\NAVFAC_JAXS_16AA\DBE\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\N61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\LS001 Life Safety General Notes.dwg LAYOUT NAME: LS001 LIFE SAFETY GENERAL NOTES PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodda



GENERAL SHEET NOTES

SYMBOL LEGEND

KEYPLAN

N
PLAN NORTH

GRAPHIC SCALE

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

SYM	DESCRIPTION	DATE	APPR

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DES	JR	DRW	JR	CHK	AMD

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH K. WITTMAN
FIRE PROTECTION A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

LIFE SAFETY SITE PLAN

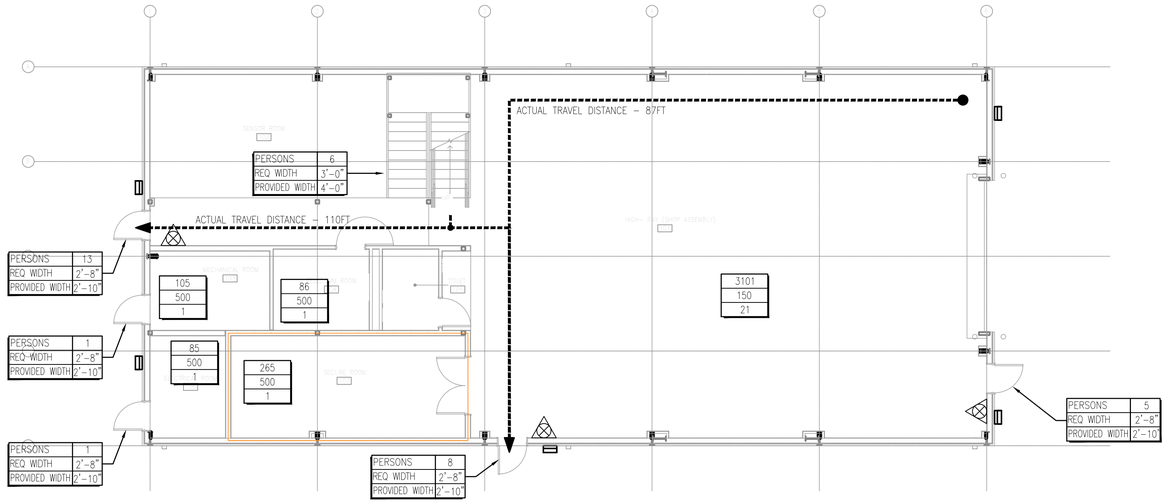
SCALE: AS SHOWN
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

LS002

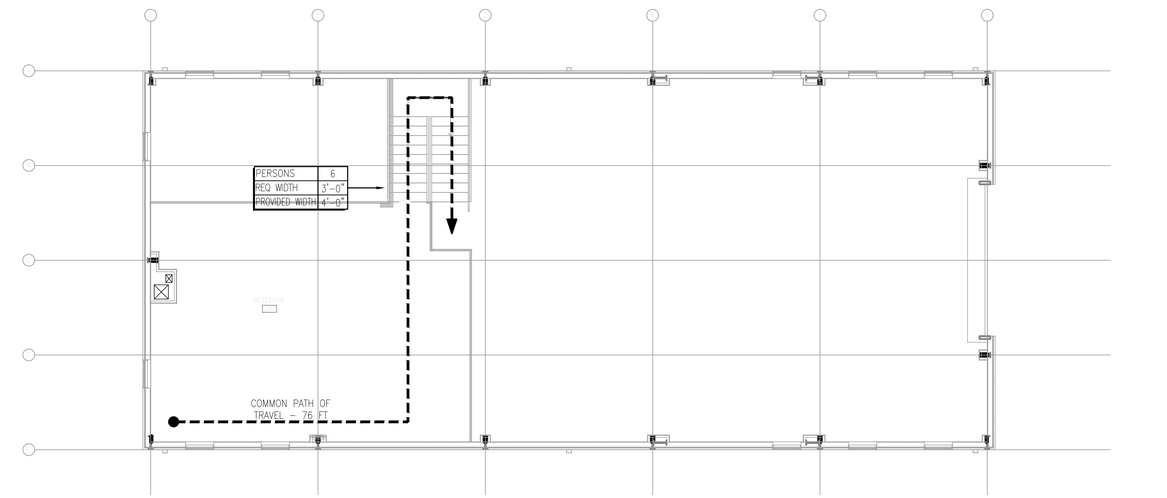
FILE NAME: \\NAEAJAXFS101v.nodsusves.nods.navy.mil\CS020$\NAVFAC_JAXS_16AA\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\P\NG1008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\FX002 - FIRE SPRINKLER SITE PLAN.dwg LAYOUT NAME: LIFE SAFETY SITE PLAN PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodak

SHEET FORMAT IS 22" X 34". IF PRINTED SHEET IS NOT 22" X 34", THEN IT IS NOT TO SCALE

FILE NAME: \\NEAAKSFS101v.ndsusses.nods.navy.mil\CS0208$\NAVFAC_JAXS_FEAA\CIB\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\NE1008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\LS001 Life Safety Building Plan.dwg LAYOUT NAME: LS002 LIFE SAFETY BUILDING PLAN PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodok



1 LIFE SAFETY DETAIL – FIRST FLOOR
Scale: 1/8" = 1'-0"



2 LIFE SAFETY DETAIL – MEZZANINE
Scale: 1/8" = 1'-0"

PLAN NORTH

GENERAL SHEET NOTES

SYMBOL LEGEND

375 / 15 / 25 — OCCUPANCY LOAD

PERSONS 00 / REQ WIDTH 3'-0" / PROVIDED WIDTH 3'-0" — EGRESS CAPACITY

FIRE EXTINGUISHER

PATH OF EGRESS TRAVEL

SMOKE WALL

1 HOUR SEPARATION ASSEMBLY
60 MINUTE OPENING PROTECTION

2 HOUR SEPARATION ASSEMBLY
90 MINUTE OPENING PROTECTION

3 HOUR SEPARATION ASSEMBLY
120 MINUTE OPENING PROTECTION

4 HOUR SEPARATION ASSEMBLY
180 MINUTE OPENING PROTECTION

GRAPHIC SCALE

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

APPR | DATE | SYM | DESCRIPTION

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ACTIVITY

SATISFACTORY TO DATE

DES JR | DRW JR | CHK AMD

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH K. WITTMAN

FIRE PROTECTION A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY — PANAMA CITY, FL

MARITIME MINING FACILITY

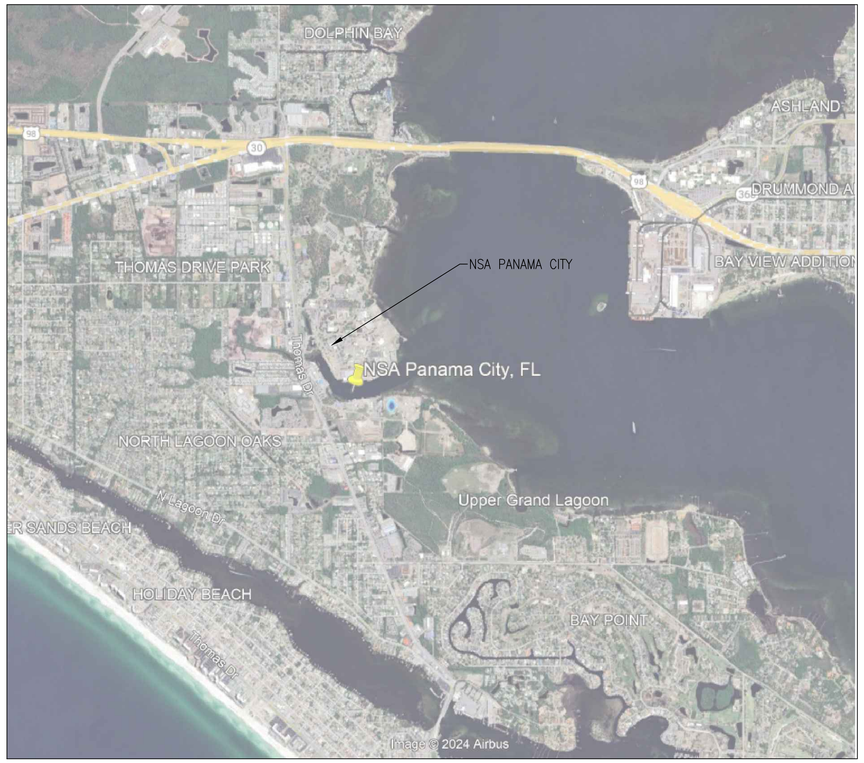
LIFE SAFETY BUILDING PLAN

SCALE: AS SHOWN
EPROJECT NO.: 1802981
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SHEET OF

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DRAWFORM REVISION: 7 AUGUST 2009

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VICINITY MAP
NOT TO SCALE



LOCATION MAP AND HAUL ROUTE
SCALE: 1"=100'

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

SYM	DESCRIPTION	DATE	APPR
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CHK	--		
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FIRE PROTECTION	A. KOUCHINSKY		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

LOCATION MAP

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

C001

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\N61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C001 GENERAL NOTES.dwg LAYOUT NAME: C001 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandionco

SYMBOLS LEGEND

SCALE: N.T.S.

EXISTING	NEW
B-5	SOIL SPT BORING LOCATION AND DESIGNATION
A-5	SOIL AUGER BORING LOCATION AND DESIGNATION
	DRAINAGE FLOW PATTERN
– – – (25.00) – – –	MAJOR CONTOUR W/ LABEL — 15
– – – (21.00) – – –	MINOR CONTOUR — 15.5
×26.79	SPOT ELEVATION — 24.60
	POWER POLE — PP
	GUY WIRE
	LIGHT POLE — OR
	FIBER OPTIC CABINET — FOC
MH	SANITARY SEWER MANHOLE — SMH
10" SS	SANITARY SEWER LINE — 6" SANITARY
	CLEANOUT — OR
15" SD	STORM DRAINAGE LINE — 36" RCP
	STORM DRAINAGE MANHOLE — DMH
	STORM DRAINAGE INLET — DI
DS-4	DRAINAGE FEATURE DESIGNATION — DI-136
	ROOF DRAIN COLLECTION — RD
FH	FIRE HYDRANT — FH
	FIRE DEPARTMENT CONNECTION — FDC
	POST INDICATOR VALVE — PIV
WV	WATER VALVE
	WATER METER — M
	UTILITY SLEEVE CROSSING PAVEMENT — SL
	CONCRETE ROADS, SIDEWALKS AND PADS
X X	CHAIN-LINK FENCE (C.L.F.)
	4 STRAND BARBED WIRE FENCE
	CONCRETE PAVEMENT JOINTS
	CONCRETE PAVEMENT JOINT TYPE — D
	CONCRETE PAVEMENT SLAB TO BE REINFORCED
	SIGN
	GEOMETRY CONTROL POINT — R8
	CURVE DESIGNATION — CR2
	SIDEWALK JOINT PATTERN
	STONE RIPRAP
	TURBIDITY BARRIER
	INLET PROTECTION — 8
	CATCH BASIN PROTECTION BARRIER

EXISTING	NEW
	BENCH MARK
	SURVEY CONTROL POINT
	MONITORING WELL
FV	FUEL VALVE
	TRANSFORMER PAD
	EXPOSED PIPE
	TIE DOWN
	DITCH/SWALE/EDGE OF WATER
TOB	TOP OF BANK
TOS	TOP OF SLOPE
	INTERIOR CLEAR ZONE
	EXTERIOR CLEAR ZONE
BF	BACK FLOW PREVENTOR
CO	SANITARY CLEAN OUT
	TRANSFORMER / ELECTRICAL BOX
	LIGHT POLE
	FIRE HYDRANT
E	ELECTRIC MANHOLE
ST	STORM MANHOLE
T	TELEPHONE MANHOLE
MH	"NO LABEL" MANHOLE
S	SANITARY MANHOLE
MP	METAL POST
WP	WOOD POST
	SPRINKLER HEAD
TP	TELEPHONE PEDESTAL
I	IRRIGATION VALVE
G	GAS VALVE
W	WATER VALVE
TV	CABLE TV BOX
32.05 MW	MONITORING WELL
	½" CAPPED IRON ROD #6679 FOR CONTROL
EL:32.05 BH 05	BORE HOLE NUMBER & ELEVATION
	JUNCTION BOX

GRAPHICS LEGEND

SCALE: N.T.S.

EXISTING	NEW	
		DEMOLITION
		BITUMINOUS PAVEMENT
		PAVEMENT STRIPING
		LIGHT DUTY CONCRETE
		PERVIOUS PAVERS
		BUILDING
		OVERHANG/CANOPY
		CONCRETE CURB & GUTTER
		TREE

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

ABBREVIATIONS LEGEND

SCALE: N.T.S.

AC	ASPHALTIC CONCRETE	MH	MANHOLE
ALO	APPROXIMATE LOCATION OF	MIN.	MINIMUM
B/C	BOTTOM OF CURB	MP	MATCH PAVEMENT
BL	BREAKLINE	MUTCD	MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES
BLDG	BUILDING	NAS	NAVAL AIR STATION
BP	BASIN PROTECTION	NTS	NOT TO SCALE
BMP	BEST MANAGEMENT PRACTICES	OC	ON CENTER
CL	CENTERLINE	OD	OUTSIDE DIAMETER
C.B.	CATCH BASIN	O/H	OVERHEAD
C.B.S.	CONCRETE BLOCK STRUCTURE	OWS	OIL/WATER SEPARATOR
CN	CURVE NUMBER	PCC	PORTLAND CEMENT CONCRETE
C.O.	CLEANOUT	PIV	POST INDICATOR VALVE
COMM	COMMUNICATIONS	PSI	POUNDS PER SQUARE INCH
CONC	CONCRETE	PSF	POUNDS PER SQUARE FOOT
DIA	DIAMETER	PVC	POLYVINYL CHLORIDE
ø	DIAMETER	R	RADIUS
ECP	ENTRY CONTROL POINT	RD	ROOF DRAIN
EP or E/P	EDGE OF PAVEMENT	RCP	REINFORCED CONCRETE PIPE
EX.	EXISTING	SAN	SANITARY SEWER
FFE	FINISHED FLOOR ELEVATION	sf	SQUARE FEET
F.W.	FIRE WELL	STD.	STANDARD
GALV.	GALVANIZED	TBM	TEMPORARY BENCHMARK
GEN.	GENERATOR	T/C	TOP OF CURB
GSE	GROUND SUPPORT EQUIPMENT	TS	TRANSFER SWITCH
HB	HAYBALES	TYP.	TYPICAL
HGL	HYDRAULIC GRADE LINE	U/G	UNDERGROUND
INV	INVERT	UG	UNDERGROUND
LOD	LIMITS OF DISTURBANCE	UGC	UNDERGROUND COMMUNICATIONS
MAX	MAXIMUM	UGE	UNDERGROUND ELECTRIC
MECH	MECHANICAL EQUIPMENT	WWF	WELDED WIRE FABRIC
MG	MATCH GRADE	XFMR	TRANSFORMER

ANNOTATION SYMBOLS LEGEND

SCALE: N.T.S.

NORTH ARROW

1"=20' 0' 20' 40' 60' 80' 100'

DWG SCALE INDICATOR

DETAIL CALLOUT INDICATOR

VIEW# / SHEET — DETAIL NUMBER; SHEET DETAIL IS LOCATED ON

DRAWING TITLE INDICATOR

VIEW TITLE — DRAWING VIEW TITLE
Scale: SCALE — DRAWING VIEW SCALE
DRAWING VIEW NUMBER

REVISION CLOUD AND NUMBER INDICATOR

REVISION CLOUD (LIMITS OF REVISION AREA)
3 — REVISION NUMBER (PRE-AWARD AMMENDMENTS)
C — REVISION LETTER (POST-AWARD AMMENDMENTS)

LINETYPE LEGEND

SCALE: N.T.S.

EXISTING		NEW
4W	POTABLE WATER LINE – 4 INCH	4W
3W	POTABLE WATER LINE – 3 INCH	3W
8F	FIRE SERVICE LINE – 8 IN	8F
C	CONDUIT	C
D	DRAIN LINE	D
E	ELECTRIC	E
ET	ELECTRIC / TELEPHONE	ET
XX XX	FENCE – AIRFIELD SECURITY	XX XX
X X X	FENCE – CHAIN LINK	X X X
O	FENCE – WOOD	O
F	FIRE PROTECTION WATER	F
FO	FIBER OPTIC	FO
GAS	GAS LINE – 1 INCH	GAS
NGAS	NATURAL GAS PIPE	NGAS
	LIMITS OF CONSTRUCTION	LOC
	LIMITS OF DISTURBANCE	LOD
OE	OVERHEAD ELECTRIC	OE
W	POTABLE WATER PIPE	W
UE	ROOF DRAIN PIPE	RD
SD	STORM DRAIN	SD
SF	SILT FENCE	SF
SS	SANITARY SEWER PIPE	SS
ST	STORM SEWER PIPE	ST
SAN	SANITARY SERVICE PIPE	SAN
TP	TEMPORARY STORM SEWER PIPE	TP
UTV	UNDERGROUND CABLE TV	UTV
UC	UNDERGROUND COMMUNICATION	UC
UE	UNDERGROUND ELECTRIC	UE
UF	UNDERGROUND FUEL	UF
	TREE LINE	

STORM WATER POLLUTION PREVENTION PLAN (SWPPP)

SCALE: N.T.S.

GENERAL SWPPP NOTES

THE FOLLOWING NARRATIVE OF THE STORMWATER POLLUTION PREVENTION PLAN, OF WHICH IMPLEMENTATION OF IS THE CONTRACTOR'S RESPONSIBILITY, CONTAINS REFERENCES TO THE DESIGN STANDARDS AND OTHER SHEETS OF THESE CONSTRUCTION PLANS. THE FIRST SHEET OF THE CONSTRUCTION PLANS (CALLED THE COVER SHEET) CONTAINS AN INDEX TO THE OTHER SHEETS. THE COMPLETE STORMWATER POLLUTION PREVENTION PLAN INCLUDES SEVERAL ITEMS: THIS NARRATIVE DESCRIPTION, THE DOCUMENTS REFERENCED IN THIS NARRATIVE, THE CONTRACTOR'S APPROVED EROSION CONTROL PLAN, AND REPORTS OF INSPECTIONS MADE DURING CONSTRUCTION.

1. SITE DESCRIPTION

1.A. NATURE OF CONSTRUCTION ACTIVITY
THIS PROJECT INCLUDES THE CONSTRUCTION OF **THE MARITIME MINING FACILITY PRE-ENGINEERED METAL BUILDING OF 3,600 SF WITH POTABLE WATER, FIRE, AND SANITARY UTILITIES, AND A STORMWATER MANAGEMENT SYSTEM.**

1.B SITE LOCATION
THE SITE IS LOCATED WITHIN **NSA PANAMA CITY, FLORIDA, ON SKYLARK ROAD, NORTH OF BUILDING 618.**

1.C. SEQUENCE OF MAJOR SOIL DISTURBING ACTIVITIES
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A DETAILED SEQUENCE OF CONSTRUCTION FOR ALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL FOLLOW THE SEQUENCE OF MAJOR ACTIVITIES DESCRIBED BELOW, UNLESS THE CONTRACTOR PROPOSES A DIFFERENT SEQUENCE, APPROVED BY THE ENGINEER, THAT IS EQUAL OR BETTER AT CONTROLLING EROSION AND TRAPPING.

FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING THOSE AREAS NECESSARY FOR THE INSTALLATION OF CONTROLS, BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

1.D. SITE MAP:
THE CONSTRUCTION PLANS ARE BEING USED AS THE SITE MAPS. THE LOCATION OF THE REQUIRED INFORMATION IS DESCRIBED BELOW. THE SHEET NUMBERS FOR THE PLAN SHEETS REFERENCED ARE IDENTIFIED ON THE COVER SHEET OF THESE CONSTRUCTION PLANS.

* DRAINAGE PATTERNS:
PRE-DEVELOPMENT DRAINAGE IS **VIA SHEET FLOW TO AN EXISTING STORM DRAIN SYSTEM THAT DRAINS TO A DRY RETENTION STORMWATER MANAGEMENT FACILITY (SWMF) TO THE SOUTH WHICH DISCHARGES TO THE WEST TO ALLIGATOR BAYOU.**

POST-DEVELOPMENT DRAINAGE FLOWS TO **PROPOSED SWALES WHERE IT WILL ATTENUATE PRIOR TO BEING DISCHARGED TO** THE EXISTING DRY RETENTION SWMF.

* APPROXIMATE SLOPES: SITE SLOPE IS LESS THAN 3% AND IS PRIMARILY NORTH TO SOUTH.
* AREAS OF SOIL DISTURBANCE: AREAS TO BE DISTURBED ARE LIMITED TO THE AREAS OF NEW CONSTRUCTION. ANY AREAS WHERE PERMANENT FEATURES ARE SHOWN TO BE CONSTRUCTED ABOVE OR BELOW GROUND WILL BE DISTURBED. TOTAL PROJECT AREA IS **1.0 ACRES.** TOTAL AREA DISTURBED IS **1.0 ACRES.**
* AREAS NOT TO BE DISTURBED: AREAS OUTSIDE THE CONSTRUCTION LIMITS WILL NOT BE DISTURBED.
* AREAS TO BE STABILIZED: TEMPORARY STABILIZATION PRACTICES ARE SHOWN IN THE SAME LOCATION AS THE TEMPORARY CONTROLS MENTIONED ABOVE. PERMANENT STABILIZATION IS SHOWN ON THE PLAN SHEETS.

1.E. RECEIVING WATER:
THE OUTFALL IS LOCATED OUTSIDE OF THE PROJECT LIMITS. THE EXISTING SWMF OUTFALLS TO ALLIGATOR BAYOU.

2. CONTROLS

2.A. EROSION AND SEDIMENT CONTROLS:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STABILIZATION AND STRUCTURAL PRACTICES BASED ON THE CONTRACTOR'S PROPOSED CONSTRUCTION PLAN. THE FOLLOWING RECOMMENDED GUIDELINES ARE BASED ON THE CONSTRUCTION PLANS. WHERE FOLLOWING THE EROSION CONTROL PLAN OUTLINED IN THESE CONSTRUCTION PLANS, THE CONTRACTOR MAY CHOOSE TO ACCEPT THE FOLLOWING GUIDELINES OR MODIFY THEM IN THE EROSION CONTROL PLAN.

SUBJECT TO APPROVAL OF THE CONSTRUCTION MANAGER. AS WORK PROGRESSES, THE CONTRACTOR SHALL MODIFY THE PLAN TO ADAPT TO SEASONAL VARIATION, CHANGES IN CONSTRUCTION ACTIVITIES, AND THE NEED FOR BETTER PRACTICES. FOR EACH CONSTRUCTION PHASE, INSTALL PERIMETER CONTROLS AFTER CLEARING AND GRUBBING TO THE EXTENT NECESSARY FOR INSTALLATION OF CONTROLS BUT BEFORE BEGINNING OTHER WORK FOR THE CONSTRUCTION PHASE. REMOVE PERIMETER CONTROLS ONLY AFTER ALL UPSTREAM AREAS ARE STABILIZED.

2.A.1 STABILIZATION PRACTICES:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE STABILIZATION PRACTICES PROPOSED TO CONTROL EROSION. THE CONTRACTOR SHALL INITIATE ALL STABILIZATION MEASURES AS SOON AS PRACTICAL, BUT IN NO CASE MORE THAN 14 DAYS, IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED. THE STABILIZATION PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE ENGINEER.

TEMPORARY:
* SEED/MULCH IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

PERMANENT:
* CONCRETE OR ASPHALT SURFACE.
* SOD IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

2.A.2 STRUCTURAL PRACTICES:
IN THE SEDIMENT AND EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED STRUCTURAL PRACTICES TO CONTROL OR TRAP SEDIMENT AND OTHERWISE PREVENT THE DISCHARGE OF POLLUTANTS FROM EXPOSED AREAS OF THE SITE. SEDIMENT CONTROLS SHALL BE IN PLACE BEFORE DISTURBING SOIL UPSTREAM OF THE CONTROL. THE STRUCTURAL PRACTICES SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION MANAGER.

TEMPORARY:
* SILT FENCE IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.
* SYNTHETIC BALES IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SOUTHEAST SPECIFICATIONS.

PERMANENT:
* SWALES AND STORMWATER POND: SOD IN ACCORDANCE WITH APPLICABLE UFC AND NAVFAC SPECIFICATIONS AND AS INDICATED ON PLANS FOR STORMWATER MANAGEMENT SYSTEM.

2.B STORMWATER MANAGEMENT:
RUNOFF WILL DISCHARGE FROM THE ROOFS VIA DOWNSPOUTS. THE DOWNSPOUTS FROM THE PROPOSED WILL DISCHARGE TO THE PROPOSED SWALES AND DISCHARGE TO THE SWMF POND LOCATED SOUTH OF BUILDING 618.

SITE STORMWATER MANAGEMENT HAS BEEN DESIGNED TO MEET THE REQUIREMENTS OF THE ENERGY AND INDEPENDENCE SECURITY ACT (EISA) SECTION 438, LEED-NC FOR 3.0 CREDITS SS6.1 AND SS6.2, AND CHAPTER 62-346, FLORIDA ADMINISTRATIVE CODE (F.A.C.)("ERP").

2.C OTHER CONTROLS

2.C.1 WASTE DISPOSAL:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE METHODS PROPOSED TO PREVENT THE DISCHARGE OF SOLID MATERIALS, INCLUDING BUILDING MATERIALS, TO WATERS OF THE UNITED STATES. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE CONTRACT MANAGER:

* LITTER CONTROL AND COLLECTION WITHIN THE PROJECT DURING CONSTRUCTION SERVICES.
* DISPOSAL OF ALL FERTILIZER OR OTHER CHEMICAL CONTAINERS ACCORDING TO EPA'S STANDARD PRACTICES AS DETAILED BY THE MANUFACTURER AND PER APPLICABLE UFC AND NAVFAC SE REQUIREMENTS.
* DISPOSAL OF SOLID WASTE MATERIALS, INCLUDING BUILDING AND CONSTRUCTION MATERIALS, OFF THE PROJECT SITE BUT NOT IN SURFACE WATERS OR WETLANDS.

2.C.2 OFF-SITE VEHICLE TRACKING AND DUST CONTROL:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE THE PROPOSED METHODS FOR MINIMIZING OFFSITE VEHICLE TRACKING OF SEDIMENT AND THE GENERATION OF DUST. THE PROPOSED METHODS SHALL INCLUDE AT LEAST THE FOLLOWING, UNLESS OTHERWISE APPROVED BY THE CONSTRUCTION MANAGER.

* COVERING LOADED HAUL TRUCKS.
* REMOVING EXCESS DIRT FROM ROADS DAILY.
* STABILIZING CONSTRUCTION ENTRANCES.

2.C.3 STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, SANITARY SEWER, OR SEPTIC TANK REGULATIONS:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL DESCRIBE PROPOSED PROCEDURES TO COMPLY WITH APPLICABLE STATE AND LOCAL REGULATIONS FOR WASTE DISPOSAL, AND SANITARY SEWER OR SEPTIC SYSTEMS.

2.C.4 FERTILIZERS AND PESTICIDES:
IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A LIST OF TOXIC SUBSTANCES LIKELY TO BE USED ON THE JOB AND PROVIDE A PLAN ADDRESSING THE GENERATION, APPLICATION, MIGRATION, STORAGE, AND DISPOSAL OF THESE SUBSTANCES.

3. MAINTENANCE

IN THE EROSION CONTROL PLAN, THE CONTRACTOR SHALL PROVIDE A PLAN FOR MAINTAINING ALL EROSION AND SEDIMENT CONTROLS THROUGHOUT CONSTRUCTION. THE MAINTENANCE PLAN SHALL AT A MINIMUM, COMPLY WITH THE FOLLOWING:

* SILT FENCE: MAINTAIN REGULARLY. THE CONTRACTOR SHOULD ANTICIPATE REPLACING SILT FENCE ON 12 MONTH INTERVALS – SOONER IF SEDIMENT BUILDUP REACHES HALFWAY UP FENCING OR HIGHER.

4. INSPECTIONS

QUALIFIED PERSONNEL SHALL INSPECT THE FOLLOWING ITEMS AT LEAST ONCE EVERY SEVEN CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM THAT IS 0.50 INCHES OR GREATER. TO COMPLY, THE CONTRACTOR SHALL INSTALL AND MAINTAIN RAIN GAGES AND RECORD THE DAILY RAINFALL. WHERE SITES HAVE BEEN PERMANENTLY STABILIZED, INSPECTIONS SHALL BE CONDUCTED AT LEAST ONCE EVERY MONTH. THE CONTRACTOR SHALL ALSO INSPECT AND CERTIFY THAT CONTROLS INSTALLED IN THE FIELD AGREE WITH THE LATEST STORMWATER POLLUTION PREVENTION PLAN.

* POINTS OF DISCHARGE TO WATERS OF THE UNITED STATES.
* POINTS OF DISCHARGE TO MUNICIPAL SEPARATE STORM WATER SYSTEMS.
* DISTURBED AREAS OF THE SITE THAT HAVE NOT BEEN FINALLY STABILIZED.
* AREAS USED FOR STORAGE OF MATERIALS THAT ARE EXPOSED TO PRECIPITATION.
* STRUCTURAL CONTROLS.
* LOCATIONS WHERE VEHICLES ENTER OR EXIT THE SITE.

THE CONTRACTOR SHALL INITIATE REPAIRS WITHIN 24 HOURS OF INSPECTIONS THAT INDICATE ITEMS ARE NOT IN GOOD WORKING ORDER.

IF INSPECTIONS INDICATE THAT THE INSTALLED STABILIZATION AND STRUCTURAL PRACTICES ARE NOT SUFFICIENT TO MINIMIZE EROSION, RETAIN SEDIMENT, AND PREVENT DISCHARGING POLLUTANTS, THE CONTRACTOR SHALL PROVIDE ADDITIONAL MEASURES, AS APPROVED BY THE CONSTRUCTION MANAGER.

5. NON-STORMWATER DISCHARGE

IN THE CONTRACTOR'S EROSION CONTROL PLAN, THE CONTRACTOR SHALL IDENTIFY ALL ANTICIPATED NON-STORMWATER DISCHARGES (EXCEPT FLOWS FROM FIRE FIGHTING ACTIVITIES). THE CONTRACTOR SHALL DESCRIBE THE PROPOSED MEASURES TO PREVENT POLLUTION OF THESE NON-STORMWATER DISCHARGES.

APPR	DATE	DESCRIPTION	SYM

NAVFAC

FOR BID ONLY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	AYG	DRW AYG	CHK --
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	J. FRANK		
FIRE PROTECTION	A. KOUCHINSKY		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY — PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

GENERAL NOTES

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

C002

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH161008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C001 GENERAL NOTES.dwg LAYOUT NAME: C002 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandiaco

GENERAL NOTES

SCALE: N.T.S.

GENERAL NOTES

1. HORIZONTAL COORDINATES ARE IN US SURVEY FEET AND REFER TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, NAD83 AND VERTICAL ELEVATIONS ARE IN FEET AND REFER TO THE NORTH AMERICAN VERTICAL DATUM OF 1988 (NAVD88). SURVEY PROVIDED BY **EMERALD COAST ASSOCIATES, INC.** BASED ON FIELD WORK CONDUCTED **BETWEEN SEPTEMBER 2024 AND OCTOBER 2024.**
2. THE SURVEY PROVIDED DOES NOT GUARANTEE THE EXISTENCE OR NONEXISTENCE, SIZE, TYPE, DEPTH, MATERIAL OR LOCATION OF ANY UNDERGROUND UTILITIES. ALL UTILITIES SHOWN ARE BASED ON ABOVEGROUND UTILITY STRUCTURES, AVAILABLE UTILITY MAPS AND SITE PLANS.
3. THE GEOTECHNICAL ENGINEERING REPORT, PREPARED BY TERRACON CONSULTANTS, IS PROVIDED AS A SEPARATE DOCUMENT. THE CONTRACTOR SHALL BE RESPONSIBLE FOR REMOVAL/DISPOSAL OF ANY UNSUITABLE MATERIAL FROM THEIR OPERATION, FURNISHING AND COMPACTING SUITABLE REPLACEMENT BACKFILL MATERIAL IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS.
4. THE CONTRACTOR SHALL BE RESPONSIBLE FOR OBTAINING ALL NECESSARY PERMITS AND INSURANCE REQUIRED FOR THE PROJECT. CONTRACTOR TO COORDINATE ALL WORK WITH **NSA PANAMA CITY**.
5. IT IS THE RESPONSIBILITY OF THE CONTRACTOR TO CONFIRM, IN THE FIELD, THE LOCATIONS AND ELEVATIONS SHOWN PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
6. THE CONTRACTOR SHALL COORDINATE ALL CONSTRUCTION WITH ALL OTHER UTILITIES CONSTRUCTION IN NEARBY AREA.
7. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE EROSION CONTROLS DURING AND FOLLOWING CONSTRUCTION UNTIL ALL DISTURBED AREAS HAVE BEEN STABILIZED TO AVOID ADVERSE ENVIRONMENTAL IMPACTS TO OFF-SITE PROPERTY AND DRAINAGE SYSTEMS. REFER TO STORMWATER POLLUTION PREVENTION PLAN.
8. ALL UNDERGROUND UTILITIES TO BE INSTALLED SHALL BE IN ACCORDANCE WITH THE APPROVED PLANS AND SPECIFICATIONS.
9. THE CONTRACTOR SHALL NOTIFY ALL APPLICABLE UTILITIES COMPANIES AND THE CONTRACTING OFFICER 48 HOURS, AND **NSA PANAMA CITY** TWO WEEKS PRIOR TO INITIATING ANY EXCAVATION ACTIVITIES, OR AS SPECIFIED BY THE UTILITIES COMPANIES AND THE PERMITS OBTAINED FOR THE WORK.
10. THE CONTRACTING OFFICER SHALL BE GIVEN TWENTY FOUR HOURS (24-HR) NOTICE OF ALL MEETINGS AND OR TESTING MEASURES RELATED TO SAID PROJECT.
11. CONSTRUCTION WARNING SIGNS ARE TO BE MOUNTED AND ERECTED BEFORE CONSTRUCTION CAN COMMENCE. THESE AND ALL TRAFFIC CONTROL DEVICES SHALL FOLLOW THE STANDARDS SET FORTH BY THE MILITARY SURFACE DEVELOPMENT AND DISTRIBUTION COMMAND TRANSPORTATION ENGINEERING AGENCY (SDDCTEA) PAMPHLET 55-17 AND MANUAL OF UNIFORM TRAFFIC CONTROL DEVICES (MUTCD) AS WELL AS FLORIDA DEPARTMENT OF TRANSPORTATION STANDARD INDEX.
12. THE CONTRACTOR IS RESPONSIBLE FOR CLEARLY IDENTIFYING THE AREA OF CONSTRUCTION AND SAFELY ROUTING ALL VEHICULAR AND PEDESTRIAN TRAFFIC AROUND THE CONSTRUCTION AREA. THE CONSTRUCTION AREA SHALL BE CLEARLY MARKED AT ALL TIMES.
13. THE CONTRACTOR SHALL LOCATE, VERIFY, AND IDENTIFY ALL EXISTING UNDERGROUND UTILITIES SHOWN OR NOT SHOWN ON THE PLANS PRIOR TO ANY EXCAVATING ACTIVITIES.
14. THE CONTRACTOR SHALL VERIFY ALL UTILITY LOCATIONS PRIOR TO EXCAVATION AND TAKE ALL MEASURES NECESSARY TO PROTECT UTILITIES DURING CONSTRUCTION. FENCE POSTS SHALL BE SPACED AS NEEDED TO AVOID UNDERGROUND UTILITIES AND STEAM LINES. CONTRACTOR SHALL SOFT DIG OR HAND DIG IN AREAS WITH CONGESTED UTILITY CORRIDORS. SHOULD ANY UTILITY LINE OR COMPONENT BECOME DAMAGED OR REQUIRE RELOCATION THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE RESPONSIBLE UTILITY COMPANY AND THE CONTRACTING OFFICER.
15. THE CONTRACTOR SHALL PROTECT EXISTING UTILITIES, SURVEY MARKERS, MONUMENTS, ETC. DURING CONSTRUCTION. THE CONTRACTOR SHALL RESTORE/REPLACE ANY DAMAGE CAUSED BY CONSTRUCTION ACTIVITIES.
16. FOR RESTRICTIONS AND REQUIREMENTS RELATIVE TO WORK ON OR ADJACENT TO THE AIRFIELD, SEE SPECIFICATION SECTION 01 35 13.
17. THE GOVERNMENT WILL RELOCATE DUMPSTERS AS NEEDED FOR CONSTRUCTION. CONTRACTOR TO IDENTIFY DUMPSTERS TO BE MOVED AND NOTIFY GOVERNMENT WITH MINIMUM OF 14 DAYS NOTICE.

DEMOLITION NOTES

ALL CODES REGULATING DEMOLITION WORK SHALL BE COMPLIED WITH. THE CONTRACTOR SHALL PUT UP BARRIERS AND WARNING LIGHTS, AS MAY BE NECESSARY OR REQUIRED BY CODE, TO PROTECT AND PREVENT UNAUTHORIZED PERSONNEL FROM ENTERING THE DEMOLITION WORK AREA. ALL DEMOLITION OPERATIONS SHALL COMPLY WITH THE REQUIREMENTS OF THE FEDERAL OCCUPATIONAL SAFETY AND HEALTH ACT (OSHA) INSOFAR AS THEY APPLY TO DEMOLITION WORK TO BE PERFORMED UNDER THIS CONTRACT.

1. ALL THE EXISTING FACILITIES SHALL BE ACCESSIBLE DURING THE WHOLE TIME OF CONSTRUCTION.
2. TEMPORARY PROTECTIVE DEVICES, AS REQUIRED SHALL BE INSTALLED ADJACENT TO THE DEMOLITION WORK FOR PROTECTION OF PERSONNEL, EXISTING ADJACENT BUILDINGS, STRUCTURES AND EQUIPMENT AGAINST DUST, FALLING OR FLYING DEBRIS. ANY DAMAGE TO EXISTING STRUCTURES, FACILITIES AND/OR EQUIPMENT RESULTING FROM DEMOLITION WORK SHALL BE REPAIRED BY THE CONTRACTOR AT NO COST TO THE GOVERNMENT.
3. ALL DEBRIS, STUMPS AND MATERIALS GENERATED BY PROJECT DEMOLITION SHALL BE HAULED AWAY AND DISPOSED OF BY THE CONTRACTOR. THE CONTRACTOR SHALL MAKE HIS OWN ARRANGEMENTS FOR OBTAINING DISPOSAL AREAS. THE CONTRACTOR SHALL TAKE EVERY PRECAUTION TO PREVENT SPILLAGE OF MATERIALS BEING HAULED IN PUBLIC STREETS. IT SHALL BE THE CONTRACTOR RESPONSIBILITY TO IMMEDIATELY CLEAN UP ANY SPILLAGE WHICH MAY ACCIDENTALLY OCCUR.
5. THE CONTRACTOR SHALL MAINTAIN AN ORDER OF NEATNESS AND GOOD HOUSEKEEPING. TOOLS, SCAFFOLDING AND OTHER DEMOLITION EQUIPMENT SHALL AT ALL TIMES BE KEPT IN A NEAT AND ORDERLY ARRANGEMENT. AT THE CONCLUSION OF THE DEMOLITION OPERATIONS, THE ENTIRE WORK AREA SHALL BE LEFT IN A CLEAN CONDITION AS REQUIRED FOR SUBSEQUENT NEW WORK.
6. FOR AREAS OF THE BASE WITH LARGE AMOUNTS OF UNDERGROUND UTILITIES, THE CONTRACTOR SHALL UTILIZE METHODS DURING TRENCHING AND FENCE POST DIGGING OPERATIONS TO "SOFT" LOCATE UTILITIES.
7. CONTRACTOR TO SCHEDULE CLEARING AND GRADING WORK FOR CLEAR ZONES AND UTILITY TRENCHING SUCH THAT THERE IS NOT MORE THAN 5 DAYS BETWEEN GROUND DISTURBANCE AND SEEDING. IF THIS CRITERIA IS NOT MET, THE CONTRACTOR SHALL PROVIDE SILT FENCING AT THE LIMITS OF DISTURBANCE.

EROSION CONTROL NOTES

1. IF NECESSARY, SLOPES, WHICH EXCEED EIGHT (8) VERTICAL FEET SHOULD BE STABILIZED WITH SYNTHETIC OR VEGETATIVE MATS, IN ADDITION TO HYDROSEEDING. IT MAY BE NECESSARY TO INSTALL TEMPORARY SLOPE DRAINS DURING CONSTRUCTION. TEMPORARY BERMS MAY BE NEEDED UNTIL THE SLOPE IS BROUGHT TO GRADE.
2. STABILIZATION MEASURES SHALL BE INITIATED AS SOON AS PRACTICABLE IN PORTIONS OF THE SITE WHERE CONSTRUCTION ACTIVITIES HAVE TEMPORARILY OR PERMANENTLY CEASED, BUT IN NO CASE MORE THAN FOURTEEN (14) DAYS AFTER WORK HAS CEASED, EXCEPT AS STATED BELOW.
   2.1. WHERE STABILIZATION BY THE 14TH DAY IS PRECLUDED BY SNOW COVER OR FROZEN GROUND CONDITIONS STABILIZATION MEASURES MUST BE INITIATED AS SOON AS PRACTICABLE
   2.2. WHERE CONSTRUCTION ACTIVITY ON A PORTION OF THE SITE IS TEMPORARILY CEASED, AND EARTH-DISTURBING ACTIVITIES WILL BE RESUMED WITHIN 14 DAYS, TEMPORARY STABILIZATION MEASURES DO NOT HAVE TO BE INITIATED ON THAT PORTION OF THE SITE.
3. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED EVERY SEVEN (7) DAYS. IF SITE INSPECTIONS IDENTIFY BMPS THAT ARE DAMAGED OR ARE NOT OPERATING EFFECTIVELY, MAINTENANCE MUST BE PERFORMED AS SOON AS PRACTICAL OR AS REASONABLY POSSIBLE AND BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE.

   OR

   ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED AT LEAST ONCE EVERY FOURTEEN (14) CALENDAR DAYS AND WITHIN 24 HOURS OF THE END OF A STORM EVENT OF 0.5 INCHES OR GREATER. IF SITE INSPECTIONS IDENTIFY BMPS THAT ARE DAMAGED OR ARE NOT OPERATING EFFECTIVELY, MAINTENANCE MUST BE PERFORMED AS SOON AS PRACTICAL OR AS REASONABLY POSSIBLE AND BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE.
4. PROVIDE SILT FENCE AND/OR OTHER CONTROL DEVICES, AS MAY BE REQUIRED, TO CONTROL SOIL EROSION DURING UTILITY CONSTRUCTION. ALL DISTURBED AREAS SHALL BE CLEANED, GRADED, AND STABILIZED WITH GRASSING IMMEDIATELY AFTER THE UTILITY INSTALLATION. FILL, COVER, AND TEMPORARY SEEDING AT THE END OF EACH DAY ARE RECOMMENDED. IF WATER IS ENCOUNTERED WHILE TRENCHING, THE WATER SHOULD BE FILTERED TO REMOVE ANY SEDIMENTS BEFORE BEING PUMPED BACK INTO ANY WATERS OF THE STATE.
5. ALL EROSION CONTROL DEVICES SHALL BE PROPERLY MAINTAINED DURING ALL PHASES OF CONSTRUCTION UNTIL THE COMPLETION OF ALL CONSTRUCTION ACTIVITIES AND ALL DISTURBED AREAS HAVE BEEN STABILIZED. ADDITIONAL CONTROL DEVICES MAY BE REQUIRED DURING CONSTRUCTION IN ORDER TO CONTROL EROSION AND/OR OFFSITE SEDIMENTATION. ALL TEMPORARY CONTROL DEVICES SHALL BE REMOVED ONCE CONSTRUCTION IS COMPLETE AND THE SITE IS STABILIZED.
6. THE CONTRACTOR MUST TAKE NECESSARY ACTION TO MINIMIZE THE TRACKING OF MUD ONTO PAVED ROADWAY(S) FROM CONSTRUCTION AREAS AND THE GENERATION OF DUST. THE CONTRACTOR SHALL DAILY REMOVE MUD/SOIL FROM PAVEMENT, AS MAY BE REQUIRED.
7. RESIDENTIAL SUBDIVISIONS REQUIRE EROSION CONTROL FEATURES FOR INFRASTRUCTURE AS WELL AS FOR INDIVIDUAL LOT CONSTRUCTION. INDIVIDUAL PROPERTY OWNERS SHALL FOLLOW THESE PLANS DURING CONSTRUCTION OR OBTAIN APPROVAL OF AN INDIVIDUAL PLAN IN ACCORDANCE WITH S.C REG. 72-300 ET SEQ. AND SCR100000.
8. TEMPORARY DIVERSION BERMS AND/OR DITCHES WILL BE PROVIDED AS NEEDED DURING CONSTRUCTION TO PROTECT WORK AREAS FROM UPSLOPE RUNOFF AND/OR TO DIVERT SEDIMENT-LADEN WATER TO APPROPRIATE TRAPS OR STABLE OUTLETS.
9. ALL WATERS OF THE STATE (WOS), INCLUDING WETLANDS, ARE TO BE FLAGGED OR OTHERWISE CLEARLY MARKED IN THE FIELD. A DOUBLE ROW OF SILT FENCE IS TO BE INSTALLED IN ALL AREAS WHERE A 50-FOOT BUFFER CAN'T BE MAINTAINED BETWEEN THE DISTURBED AREA AND ALL WOS. A 10-FOOT BUFFER SHOULD BE MAINTAINED BETWEEN THE LAST ROW OF SILT FENCE AND ALL WOS.
10. LITTER, CONSTRUCTION DEBRIS, OILS, FUELS, AND BUILDING PRODUCTS WITH SIGNIFICANT POTENTIAL FOR IMPACT (SUCH AS STOCKPILES OF FRESHLY TREATED LUMBER) AND CONSTRUCTION CHEMICALS THAT COULD BE EXPOSED TO STORM WATER MUST BE PREVENTED FROM BECOMING A POLLUTANT SOURCE IN STORM WATER DISCHARGES.
11. ALL SEDIMENT AND EROSION CONTROL DEVICES SHALL BE INSPECTED ONCE CALENDAR EVERY WEEK. IF PERIODIC INSPECTION OR OTHER INFORMATION INDICATES THAT A BMP HAS BEEN INAPPROPRIATELY, OR INCORRECTLY, THE PERMITTEE MUST ADDRESS THE NECESSARY REPLACEMENT OR MODIFICATION REQUIRED TO CORRECT THE BMP WITHIN 48 HOURS OF IDENTIFICATION.
12. A COPY OF THE SWPPP, INSPECTIONS RECORDS, AND RAINFALL DATA MUST BE RETAINED AT THE CONSTRUCTION SITE OR A NEARBY LOCATION EASILY ACCESSIBLE DURING NORMAL BUSINESS HOURS, FROM THE DATE OF COMMENCEMENT OF CONSTRUCTION ACTIVITIES TO THE DATE THAT FINAL STABILIZATION IS REACHED.
13. INITIATE STABILIZATION MEASURES ON ANY EXPOSED STEEP SLOPE (3H:1V OR GREATER) WHERE LAND-DISTURBING ACTIVITIES HAVE PERMANENTLY OR TEMPORARILY CEASED, AND WILL NOT RESUME FOR A PERIOD OF 7 CALENDAR DAYS.
14. MINIMIZE SOIL COMPACTION AND, UNLESS INFEASIBLE, PRESERVE TOPSOIL.
15. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM EQUIPMENT AND VEHICLE WASHING, WHEEL WASH WATER, AND OTHER WASH WATERS. WASH WATERS MUST BE TREATED IN A SEDIMENT BASIN OR ALTERNATIVE CONTROL THAT PROVIDES EQUIVALENT OR BETTER TREATMENT PRIOR TO DISCHARGE;
16. MINIMIZE THE DISCHARGE OF POLLUTANTS FROM DEWATERING OF TRENCHES AND EXCAVATED AREAS. THESE DISCHARGES ARE TO BE ROUTED THROUGH APPROPRIATE BMPS (SEDIMENT BASIN, FILTER BAG, ETC.).
17. THE FOLLOWING DISCHARGES FROM SITES ARE PROHIBITED:
    17a. WASTEWATER FROM WASHOUT OF CONCRETE, UNLESS MANAGED BY AN APPROPRIATE CONTROL;
    17b. WASTEWATER FROM WASHOUT AND CLEANOUT OF STUCCO, PAINT, FORM RELEASE OILS, CURING COMPOUNDS AND OTHER CONSTRUCTION MATERIALS;
    17c. FUELS, OILS, OR OTHER POLLUTANTS USED IN VEHICLE AND EQUIPMENT OPERATION AND MAINTENANCE; AND
    17d. SOAPS OR SOLVENTS USED IN VEHICLE AND EQUIPMENT WASHING.
18. AFTER CONSTRUCTION ACTIVITIES BEGIN, INSPECTIONS MUST BE CONDUCTED AT A MINIMUM OF AT LEAST ONCE EVERY CALENDAR WEEK AND MUST BE CONDUCTED UNTIL FINAL STABILIZATION IS REACHED ON ALL AREAS OF THE CONSTRUCTION SITE.
19. IF EXISTING BMPS NEED TO BE MODIFIED OR IF ADDITIONAL BMPS ARE NECESSARY TO COMPLY WITH THE REQUIREMENTS OF THE CONSTRUCTION GENERAL PERMIT (SCR100 AND/OR SC'S WATER QUALITY STANDARDS, IMPLEMENTATION MUST BE COMPLETED BEFORE THE NEXT STORM EVENT WHENEVER PRACTICABLE. IF IMPLEMENTATION BEFORE THE NEXT STORM EVENT IS IMPRACTICABLE, THE SITUATION MUST BE DOCUMENTED IN THE SWPPP AND ALTERNATIVE BMPS MUST BE IMPLEMENTED AS SOON AS REASONABLY POSSIBLE.

PHASING NOTES

1. PRE-CONSTRUCTION CONFERENCE
2. STAKE LIMITS OF CONSTRUCTION AND INSTALL TREE BARRICADES
3. INSTALL AND INSPECT EROSION AND SEDIMENTATION CONTROLS PRIOR TO BEGINNING ANY OTHER DISTURBANCE ACTIVITIES
4. CONSTRUCT IMPROVEMENTS.
5. REMOVE ALL SEDIMENTS FROM THE STORM WATER SYSTEM AS NEEDED AND FINALIZE STABILITY OF ALL DISTURBED AREAS.
6. PROVIDE AS-BUILT DRAWINGS AND ANY APPLICABLE CERTIFICATIONS A MINIMUM OF TWO WEEKS PRIOR TO REQUESTING FINAL INSPECTION AND CERTIFICATE OF OCCUPANCY.
7. REMOVE ALL SEDIMENTATION CONTROL DEVICES AND TREE PROTECTION BARRIERS AND GIRDLES.

UTILITY NOTES

1. SEWER, WATER, STORM DRAIN AND SLEEVES DEEMED NECESSARY FOR IRRIGATION AND ELECTRIC (AT A MINIMUM) MUST BE INSTALLED PRIOR TO THE CONSTRUCTION OF CURB, BASE AND PAVEMENT. APPROVAL BY LOCAL AUTHORITY MUST BE OBTAINED PRIOR TO FURTHER CONSTRUCTION. THIS INCLUDES ALL UTILITIES, PHONE, CABLE, ELECTRIC, ETC.
2. SITE CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATION WITH LIGHTING IRRIGATION AND ELECTRICAL UTILITY REGARDING REQUIRED CONDUITS.
3. PIPE LENGTHS SHOWN ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE.
4. WATER AND WASTEWATER CONSTRUCTION SHALL BE ACCORDING TO THE CURRENT SPECIFICATIONS.
5. ALL MANHOLES, INLETS AND CLEANOUTS SUBJECT TO VEHICULAR LOADING, INCLUDING THOSE AREAS REQUIRING FUTURE MAINTENANCE, SHALL HAVE TRAFFIC BEARING RINGS, COVERS, GRATES, ETC.
6. ALL STORM SEWER STUB OUTS ARE TO BE CLOSED WITH MASONRY SEAL AT THE STUB END.
7. ALL STORM WATER DRAIN PIPE JOINTS WITH IN 5 FEET OF PAVING SHALL BE WRAPPED WITH APPROPRIATE FILTER FABRIC UNLESS OTHERWISE NOTED IN THE CONSTRUCTION DOCUMENTS.
8. THE EXISTENCE, SIZE AND/OR LOCATION OF UTILITIES ARE NOT GUARANTEED. THE CONTRACTOR SHALL FIELD VERIFY THE SIZE, MATERIAL, AND LOCATION OF ALL UTILITIES PRIOR TO CONSTRUCTION.

PAVING AND DRAINAGE NOTES

1. ALL CONSTRUCTION SHALL BE IN ACCORDANCE WITH THE APPROVED CONSTRUCTION DOCUMENTS. ANY DEVIATION FROM THE APPROVED CONSTRUCTION DOCUMENTS SHALL BE THE SOLE RESPONSIBILITY OF THE CONTRACTOR AND/OR ENTITY RESPONSIBLE FOR THE INSTALLATION TO UPDATE/REPLACE ANY DEFICIENT MATERIAL/EQUIPMENT NECESSARY TO BRING THE FINAL PRODUCT TO THE STANDARDS OF THE PERMITTED CONSTRUCTION DOCUMENTS.
2. **SKYLARK ROAD** SHALL REMAIN OPEN DURING CONSTRUCTION OF THE **MARITIME MINING FACILITY**. CONTRACTOR TO DEVELOP CONSTRUCTION PHASING PLAN FOR GOVERNMENT REVIEW AND APPROVAL. CONTRACTOR RESPONSIBLE FOR ALL TEMPORARY PAVING, STRIPING AND SIGNAGE REQUIRED UNDER THE CONSTRUCTION PHASING PLAN.
3. THE CONTRACTOR SHALL COORDINATE ALL NOTIFICATIONS AND UTILITY LOCATION EFFORTS WITH THE UTILITY OWNERS PRIOR TO THE COMMENCEMENT OF CONSTRUCTION.
4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SEEDED AND MULCHED OR SODDED IN ACCORDANCE WITH THESE CONSTRUCTION PLANS AND PROJECT SPECIFICATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE TRENCH SAFETY SYSTEM. THE TRENCH SAFETY SYSTEM SHALL BE COMPLIANT WITH EM385-1-1.
6. THE CONTRACTOR IS RESPONSIBLE TO ENSURE THE LAYDOWN AREA IS RESTORED TO EXISTING OR BETTER CONDITIONS
7. THE CONTRACTOR IS COMPLETELY RESPONSIBLE FOR THE INSTALLATION AND MAINTENANCE OF SEDIMENT AND EROSION CONTROL MEASURES DURING CONSTRUCTION.
8. THE CONTRACTOR SHALL ADHERE TO ALL NOTES PROVIDED IN THESE CONSTRUCTION DRAWINGS.
9. ALL CONSTRUCTION LINES & GRADES SHALL BE ESTABLISHED AND MAINTAINED BY THE CONTRACTOR.

SIGNAGE AND PAVEMENT MARKING NOTES

1. ALL SIGNS SHALL MEET SDDCTEA, MUTCD, AND FLORIDA DEPARTMENT OF TRANSPORTATION STANDARDS FOR ENGINEERING GRADE SIGN FACES IN REFLECTIVITY.
2. ALL SIGNS SHALL BE ON A TEN-FOOT (10') POLE A MINIMUM SEVEN FEET (7') FROM THE GROUND WITH BREAKAWAY INSTALLATION PER SDDCTEA REQUIREMENTS.
3. ALL SIGNS SHALL BE SIZED IN ACCORDANCE WITH MUTCD STANDARDS.
4. WHERE APPLICABLE, STOP LINES SHALL BE PLACED 4 FEET IN ADVANCE OF AND PARALLEL TO THE NEAREST CROSSWALK LINE.
5. TYPICAL PARKING STRIPES SHALL BE 4 INCHES WIDE AND WHITE.
6. DOUBLE SOLID YELLOW LINES SHALL BE 6" WIDE EACH, SEPARATED BY 4".
7. ALL CROSS-WALK MARKINGS SHALL BE WHITE.
8. PAVEMENT MARKINGS SHALL CONFORM TO THE SDDCTEA, MUTCD, AND SPECIFICATION SECTION 32 17 23.
9. ALL PARKING STALLS SHALL BE 18.5' DEEP.
10. ALL STRIPING SHALL BE 18" O.C. AND 45 DEGREES TO DIRECTION OF TRAFFIC.

GRADING NOTES

1. GROUND SURFACE PREPARATION: REMOVE VEGETATION INCLUDING GRASS, ROOTS AND SURFACE ORGANICS, DEBRIS, UNSATISFACTORY SOIL MATERIALS, OBSTRUCTIONS, AND DELETERIOUS MATERIALS FROM GROUND SURFACE PRIOR TO PLACEMENT OF FILLS. PLOW STRIP, OR BREAK UP SLOPED SURFACES STEEPER THAN 1 VERTICAL TO 2 HORIZONTAL SO THAT FILL MATERIAL WILL BOND WITH EXISTING SURFACE.
2. REMOVE AND REPLACE, OR SCARIFY AND AIR DRY SOIL MATERIAL THAT IS TOO WET TO PERMIT COMPACTION TO SPECIFIED DENSITY. DO NOT PLACE BACKFILL OR FILL MATERIAL ON SURFACES THAT ARE MUDDY, FROZEN OR CONTAIN FROST OR ICE.
3. MOISTURE CONTROL: WHERE SUB-GRADE OR LAYER OF SOIL MATERIAL MUST BE MOISTURE CONDITIONED BEFORE COMPACTION, UNIFORMLY APPLY WATER TO SURFACE OF SUB-GRADE OR LAYER OF SOIL MATERIAL. APPLY WATER IN MINIMUM QUANTITY AS NECESSARY TO PREVENT FREE WATER FROM APPEARING ON THE SURFACE DURING OR SUBSEQUENT TO COMPACTION OPERATIONS. COMPACT EACH LAYER TO REQUIRED PERCENTAGE OF MAXIMUM DRY DENSITY OR RELATIVE DRY DENSITY FOR EACH AREA CLASSIFICATION.
4. SPREAD SOIL MATERIAL THAT HAS BEEN REMOVED BECAUSE IT IS TOO WET TO PERMIT COMPACTION. ASSIST DRYING BY DISCING, HARROWING OR PULVERIZING UNTIL MOISTURE CONTENT IS REDUCED TO A SATISFACTORY VALUE.
5. PLACE BACKFILL AND FILL MATERIAL IN LAYERS NOT MORE THAT 12 INCHES OF LOOSE DEPTH FOR MATERIAL COMPACTED BY HEAVY COMPACTION EQUIPMENT AND NOT MORE THAN 6 INCHES OF LOOSE DEPTH FOR MATERIAL COMPACTED BY HAND OPERATED TAMPERS.
6. COMPACT SUB-GRADE AND EACH LAYER OF BACKFILL OR FILL MATERIAL TO AT LEAST 95% OF THE STANDARD PROCTOR MAXIMUM DRY DENSITY. ALL AREAS UNDER PROPOSED PAVEMENTS, STRUCTURES AND BUILDINGS SHALL BE COMPACTED TO A MINIMUM OF 98% OF THE MODIFIED PROCTOR MAXIMUM DRY DENSITY OR AS OTHERWISE STATED IN THE SPECIFICATIONS.
7. QUALITY CONTROL TESTING DURING CONSTRUCTION: ALLOW GEOTECHNICAL ENGINEER TO INSPECT AND APPROVE EACH SUB-GRADE AND BACKFILL OR FILL LAYER BEFORE FURTHER BACKFILL OR CONSTRUCTION WORK IS PERFORMED. TEST SHALL BE PERFORMED EVERY 5,000 SQUARE FEET PER LIFT. WITH A MINIMUM OF 1 TEST PER LIFT.

TREE PROTECTION AND MITIGATION PLAN NOTES

1. PRIOR TO ANY DEMOLITION OR CONSTRUCTION ACTIVITIES ON-SITE THE CONTRACTOR SHALL ERECT TREE PROTECTION BARRICADES AS SHOWN ON THE APPROVED CONSTRUCTION DOCUMENTS. UNLESS OTHERWISE NOTED NO ACTIVITY SHALL BE ALLOWED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE. THE AREAS WITHIN THE TREE BARRICADE SHALL NOT BE USED FOR THE STORAGE OF CONSTRUCTION MATERIALS OR WASTE OF ANY KIND. THE FOLLOWING MEASURES SHALL BE IMPLEMENTED TO ENSURE THE PROTECTION OF ALL TREES NOT PERMITTED FOR REMOVAL:
   1.1. THE CANOPY PROTECTION ZONE OF EACH PROTECTED TREE SHALL BE PROTECTED DURING CONSTRUCTION ACTIVITIES AND MAINTAINED DURING AND AFTER DEVELOPMENT IN A NATURAL STATE.
   1.2. THERE SHALL BE NO IMPERVIOUS AREA OR GRADE CHANGE WITHIN THE CRITICAL PROTECTION ZONE OF THE TREE.
   1.3. SKINNING, BARKING, BUMPING AND THE LIKE SHALL NOT BE PERMITTED.
   1.4. HAND CLEARING SHALL BE REQUIRED WHEN THE REMOVAL OF DEBRIS AND NOXIOUS OR INVASIVE VEGETATION IS REQUIRED.
   1.5. PROTECTIVE BARRICADES SHALL BE CONSTRUCTED AS SHOWN ON THE CONSTRUCTION DOCUMENTS
2. IN ADDITION TO CONSTRUCTING THE TREE BARRICADE AS DEPICTED, THE FOLLOWING PROTECTIVE MEASURES SHALL BE IMPLEMENTED WHEN WORK IS REQUIRED TO BE PERFORMED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE:
   2.1. THE CONTRACTOR SHALL PLACE A PROTECTIVE GIRDLE ENCIRCLING THE TRUNK TO A HEIGHT OF 5 FEET. THE PROTECTIVE GIRDLE SHALL BE CONSTRUCTED OF 2X4 STUDS SPACED NO MORE THAN 2 INCHES APART AND WIRED VERTICALLY NO MORE THAN 12 INCHES APART. A LAYER OF BURLAP WILL BE PLACED BETWEEN THE 2X4 PROTECTIVE GIRDLE AND THE TRUNK OF THE TREE, PHYSICAL CONNECTION OF THE PROTECTIVE GIRDLE TO THE TREE VIA NAILS, SCREWS OR OTHER SIMILAR MEASURES WILL NOT BE PERMITTED. TREE BARRICADES MAY BE REMOVED AS NECESSARY TO PERFORM REQUIRED ACTIVITIES DURING THE COURSE OF THIS PROJECT HOWEVER PROTECTIVE GIRDLES SHALL REMAIN IN PLACE UNTIL ALL CONSTRUCTION ACTIVITIES ARE COMPLETE.
   2.2. WHEN ACTIVITIES ARE REQUIRED TO BE PERFORMED WITHIN THE CANOPY PROTECTION ZONE OF ANY PROTECTED TREE THE CONTRACTOR SHALL PROVIDE AT A MINIMUM, IN ADDITION TO THE OPERATOR, 1 PERSON PER VEHICLE OR MACHINERY WORKING WITHIN THE CANOPY PROTECTION ZONE TO ACT SOLELY AS AN OBSERVER TO PREVENT CONTACT BETWEEN MACHINERY AND TREES.
3. A CERTIFIED ARBORIST SHALL BE CONSULTED TO IMPLEMENT ROOT PRUNING AS NEEDED TO PROTECT THE ROOT SYSTEMS OF PROTECTED TREES.
4. ALL TREES NOT SPECIFICALLY DESIGNATED FOR REMOVAL SHALL BE PROTECTED.

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PHN61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C001 GENERAL NOTES.dwg LAYOUT NAME: C003 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandionco

APPR	DATE	DESCRIPTION	SYM
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NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES AYC DRW AYC CHK --

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH J. FRANK

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

GENERAL NOTES

SCALE: --

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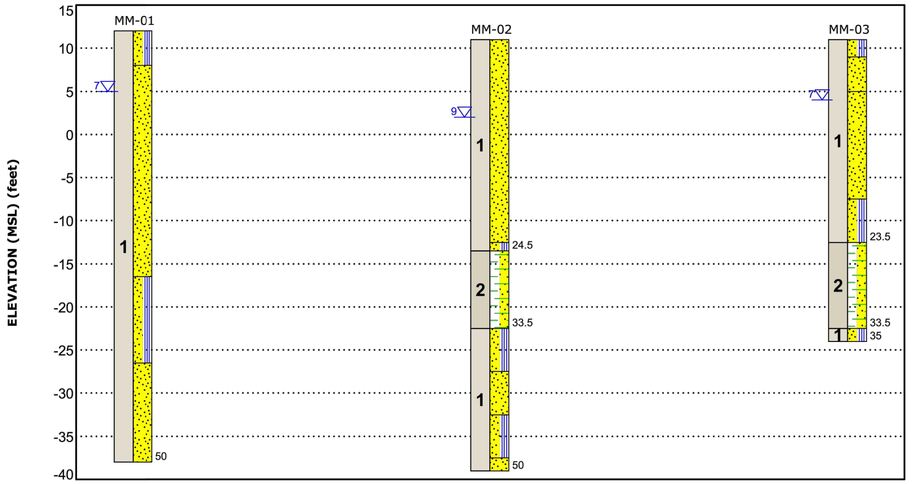
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DRAWFORM REVISION: 7 AUGUST 2009

Maritime Mining Facility
NSA Panama City | Panama City, Florida
Terracon Project No. HF245060

Terracon
2930 Wellington Cir, Ste 201
Tallahassee, FL

GeoModel



This is not a cross section. This is intended to display the Geotechnical Model only. See individual logs for more detailed conditions.

Model Layer	Layer Name	General Description	Legend
1	Sand	Sand with varying amounts of silt	Poorly-graded Sand with Silt; Poorly-graded Sand; Organic Silt with Sand
2	Organic Silt with Sand	Silt with varying amounts of sand and organic matter; gray in color	

▽ First Water Observation

Groundwater levels are temporal. The levels shown are representative of the date and time of our exploration. Significant changes are possible over time.
Water levels shown are as measured during and/or after drilling. In some cases, boring advancement methods mask the presence/absence of groundwater. See individual logs for details.

NOTES:
Layering shown on this figure has been developed by the geotechnical engineer for purposes of modeling the subsurface conditions as required for the subsequent geotechnical engineering for this project.
Numbers adjacent to soil column indicate depth below ground surface.

Geotechnical Engineering Report
Maritime Mining Facility | NSA Panama City, Florida
November 7, 2024 | Terracon Project No. HF245060

Terracon

Exploration Plan

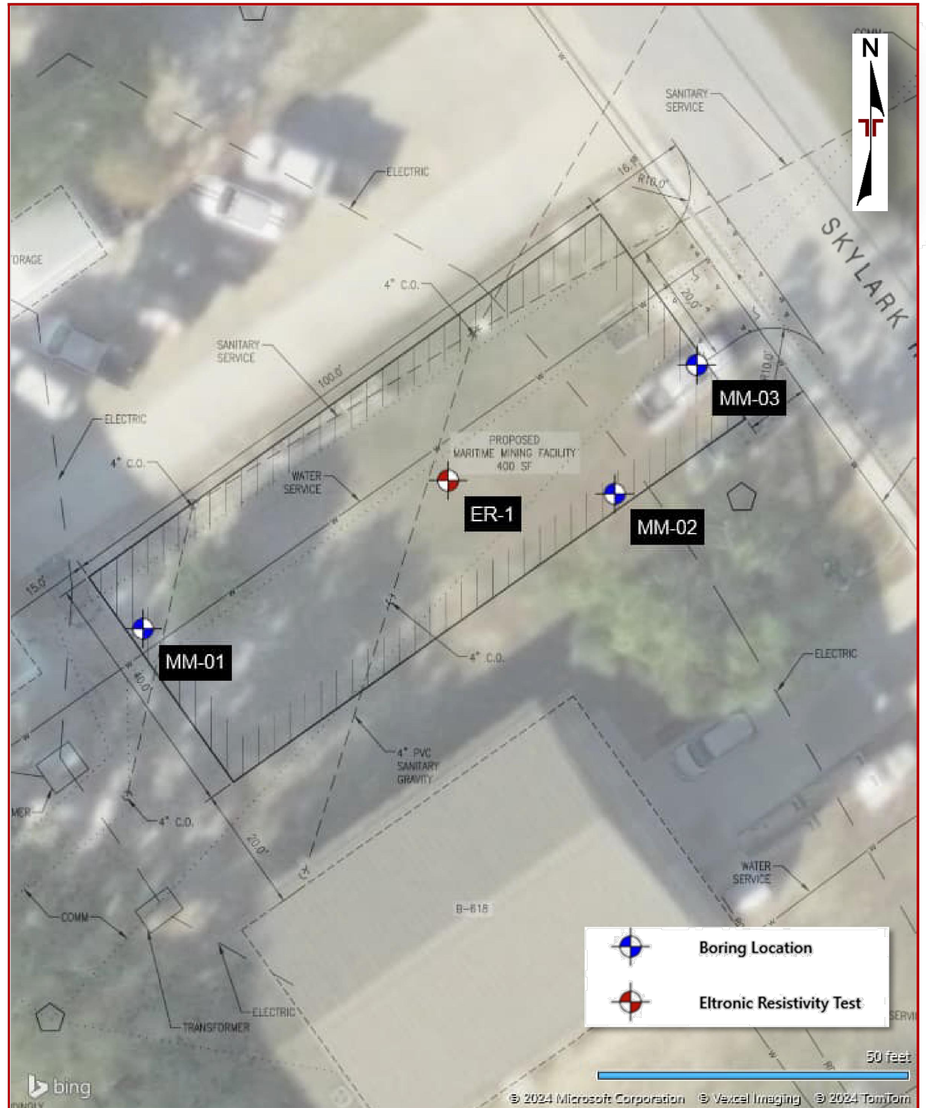


DIAGRAM IS FOR GENERAL LOCATION ONLY, AND IS NOT INTENDED FOR CONSTRUCTION PURPOSES MAP PROVIDED BY MICROSOFT BING MAPS

GEOTECHNICAL BORING LOG

N.T.S.

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

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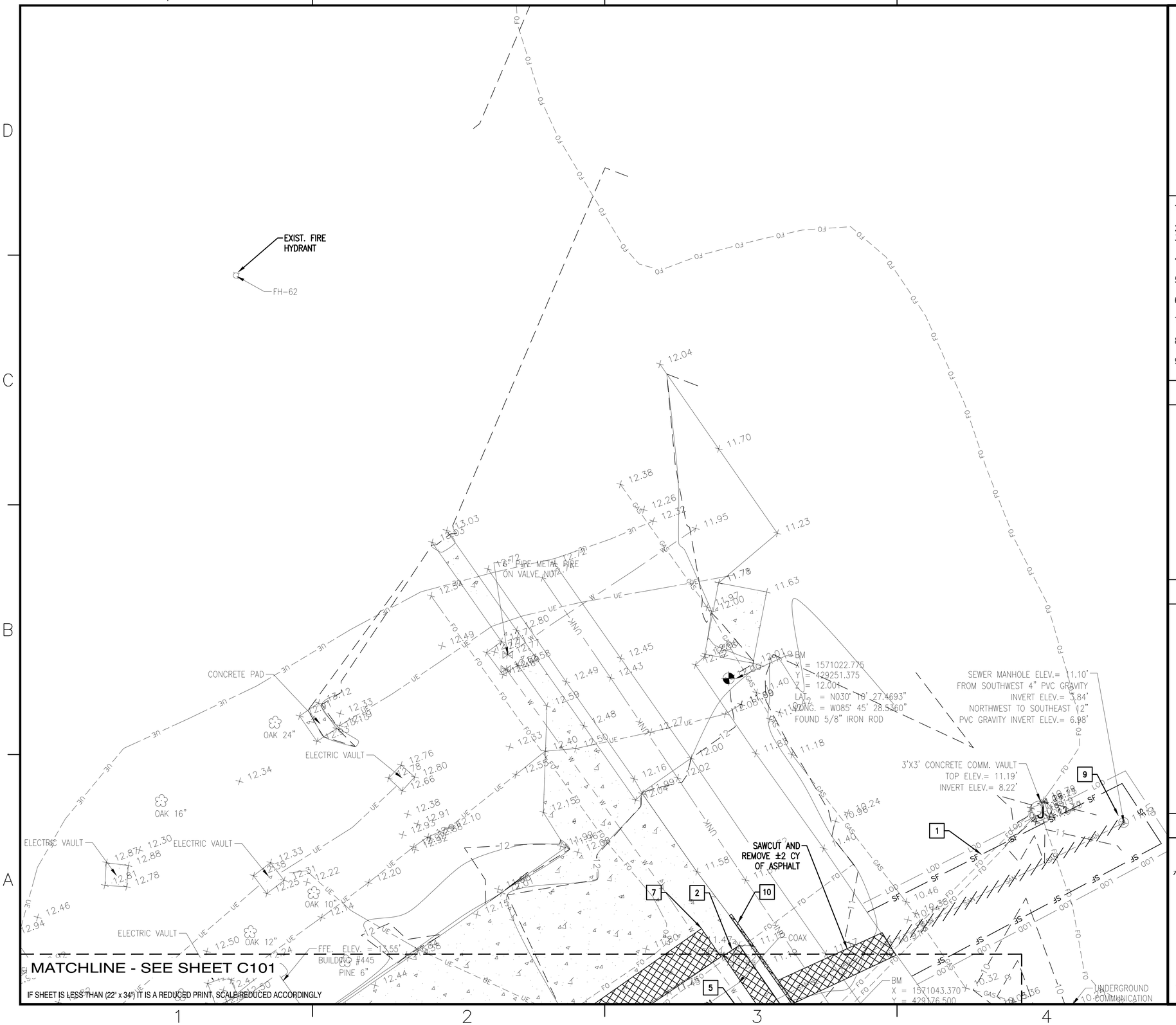
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DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
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NSA PANAMA CITY
PANAMA CITY, FLORIDA
MARITIME MINING FACILITY
GEOTECHNICAL BORINGS

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
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C004

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HN01008\MARITIME MINING FACILITY CIP PROJECT--1802981\Working Technical Files\Civil\DWG\C004 GEOTECHNICAL BORINGS.dwg LAYOUT NAME: C003 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandionco



GENERAL NOTES

1. ALL UTILITIES DEPICTED ARE FROM THE SURVEY CONTRACTOR AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.
2. CONTRACTOR MUST OBTAIN A DIG PERMIT PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SITE FEATURES TO REMAIN.
4. THE CONTRACTOR MUST COORDINATED SERVICE INTERRUPTIONS WITH THE TENANT AND PWD PRIOR TO DISCONECTION.
5. ALL LIMITS OF DISTURBANCE/DEMOLITION ARE APPROXIMATE AND MUST BE APPROVED IF DEMOLITION EXCEEDS THE BOUNDARY LIMITS.
6. CONSTRUCTION LAYDOWN AREA TO BE DETERMINED AND APPROVED BY NSA PANAMA CITY PRIOR TO PURCHASE OF MATERIALS AND MOBILIZATION.
7. ENSURE THAT EROSION CONTROL MEASURES USED ARE MAINTAINED AND FULLY FUNCTIONAL DURING RAINFALL EVENTS.
8. ALL SAWCUT OF PAVEMENT MUST BE CLEAN AND FREE OF SPALLING. REPAIR SPALLING PRIOR TO TIE-IN OF CONCRETE OR ASPHALT PAVEMENT.
9. COORDINATE ALL OTHER UTILITY SERVICE REMOVAL, RELOCATION, AND DEMOLITION WITH RESPECTED DISCIPLINES.

SURVEY CONTROL

HORIZONTAL CONTROL
COORDINATE SYSTEM: FLORIDA STATE PLANE, NORTH ZONE (0903)
DATUM: NAD83 (2011)
UNITS: U.S. SURVEY FEET

VERTICAL CONTROL
DATUM: NAVD88 (GEOID18)
UNITS: U.S. SURVEY FEET

HORIZONTAL AND VERTICAL CONTROL BASIS:
UNITED STATES CORPS OF ENGINEERS CONTROL POINTS: SEE TABLE BELOW

CONTROL POINT INFORMATION

DESIGNATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
484A	430432.060	1571212.799	14.682	USACE ALUMINUM DISK
484B	431005.396	1571262.431	13.805	USACE ALUMINUM DISK

KEY NOTES

1. SILT FENCE. SEE DETAIL 1/C530.
2. REMOVE CONCRETE SIDEWALK TO NEAREST JOINT.
3. REMOVE ALL TREE, STUMP AND ROOTS.
4. REMOVE WATER SERVICE. SEE GENERAL NOTE #4.
5. REMOVE SANITARY GRAVITY SERVICE. SEE GENERAL NOTE #4.
6. REMOVE SANITARY CLEAN OUT.
7. SAW-CUT AND REMOVE CONCRETE.
8. SEE ELECTRICAL AND TELECOM PLANS.
9. MODIFY EXISTING SANITARY MANHOLE. SEE UTILITY PLANS.
10. MINIMIZE SAWCUT AT ASPHALT FOR DRIVEWAY AND SIDEWALK TIE-IN

LEGEND

- CONCRETE OR ASPHALT PAVEMENT REMOVAL
- UTILITY SERVICE REMOVAL
- SF — SILT FENCE
- LOD — LIMITS OF DISTURBANCE
- INLET PROTECTION
- OUTLET PROTECTION

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

SYM	DESCRIPTION	DATE	APPR
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NAVFAC

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SEAL
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES AYG DRW AYG CHK --
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

EXISTING CONDITIONS AND DEMOLITION

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
C100

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\N61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C100 EXISTING CONDITIONS AND DEMOLITIONS AND DEMOLITION.dwg LAYOUT NAME: C100 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandionco

MATCHLINE - SEE SHEET C100

MATCHLINE - SEE SHEET C102

SKYLARK ROAD

BUILDING 436A

BUILDING 436

BUILDING 618

FFE. ELEV. = 13.55'
BUILDING #445

FFE. ELEV. = 12.46'
BUILDING #436

FFE. ELEV. = 11.35'
BUILDING #618

PALM 16"

PALM 26"

PINE 36"

PINE 6"

TRANSFORMER

MM-01

MM-02

MM-03

CP

BM
X = 1571043.370
Y = 429176.500
Z = 10.822
LAT. = N030° 10' 26.7304"
LONG. = W085° 45' 28.2920"
FOUND MONUMENT LB2108

8" PVC GRAVITY
TOP ELEV.= 12.01'
INVERT ELEV.= 10.33'

8" PVC GRAVITY
TOP ELEV.= 12.12'
INVERT ELEV.= 8.88'

8" PVC GRAVITY
TOP ELEV.= 12.42'
INVERT ELEV.= 10.90'

8" PVC GRAVITY
TOP ELEV.= 12.47'
INVERT ELEV.= 10.23'

8" PVC GRAVITY
TOP ELEV.= 12.10'
INVERT ELEV.= 11.08'

6" DS. ELEV.= 13.33'

6" DS. ELEV.= 12.79'

6" DS. ELEV.= 11.80'

6" DS. ELEV.= 10.94'

6" DS. ELEV.= 10.80'

4" PVC GRAVITY
TOP ELEV.= 11.96'
COULD NOT REMOVE LID

4" PVC GRAVITY
TOP ELEV.= 11.17'
INVERT ELEV.= 8.41'

4" PVC GRAVITY
TOP ELEV.= 10.89'
INVERT ELEV.= 8.93'

4" PVC GRAVITY
TOP ELEV.= 10.90'
COULD NOT OPEN

4" PVC GRAVITY
TOP ELEV.= 11.17'
INVERT ELEV.= 9.06' BUILDING 618

4" PVC GRAVITY
TOP ELEV.= 11.85'
FILLED WITH SAND
INVERT ELEV.= 11.35'

6" PVC IN CONCRETE
INVERT ELEV.= 6.17'

2'x3' CONCRETE DROP INLET
WITH STEEL LID ELEV. = 7.66'
12" PVC INVERT ELEV.= 6.17'

12" PVC DRAIN IN CONCRETE
INVERT ELEV.= 1.96'

8" PVC WATER LINE

6" WATER VALVE CAP
VALVE 1' BELOW GROUND

SAWCUT AND
REMOVE ±13 CY
OF CONCRETE

SAWCUT AND
REMOVE ±3 CY
OF CONCRETE

REMOVE ±4 CY
OF CONCRETE

LINE FIELD LOCATED
SIZE = 1 1/2" (FROM

SEE GENERAL
NOTE #3

SEE GENERAL
NOTE #3

ABANDO
UTILITY

5.0'

COAX

WATER EDGE

ZONE AE
WITHIN 1% ANNUAL FLOODPLAIN

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

GENERAL NOTES

1. ALL UTILITIES DEPICTED ARE FROM THE SURVEY CONTRACTOR AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.
2. CONTRACTOR MUST OBTAIN A DIG PERMIT PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SITE FEATURES TO REMAIN.
4. THE CONTRACTOR MUST COORDINATED SERVICE INTERRUPTIONS WITH THE TENANT AND PWD PRIOR TO DISCONECTION.
5. ALL LIMITS OF DISTURBANCE/DEMOLITION ARE APPROXIMATE AND MUST BE APPROVED IF DEMOLITION EXCEEDS THE BOUNDARY LIMITS.
6. CONSTRUCTION LAYDOWN AREA TO BE DETERMINED AND APPROVED BY NSA PANAMA CITY PRIOR TO PURCHASE OF MATERIALS AND MOBILIZATION.
7. ENSURE THAT EROSION CONTROL MEASURES USED ARE MAINTAINED AND FULLY FUNCTIONAL DURING RAINFALL EVENTS.
8. ALL SAWCUT OF PAVEMENT MUST BE CLEAN AND FREE OF SPALLING. REPAIR SPALLING PRIOR TO TIE-IN OF CONCRETE OR ASPHALT PAVEMENT.
9. COORDINATE ALL OTHER UTILITY SERVICE REMOVAL, RELOCATION, AND DEMOLITION WITH RESPECTED DISCIPLINES.

SURVEY CONTROL

HORIZONTAL CONTROL
COORDINATE SYSTEM: FLORIDA STATE PLANE, NORTH ZONE (0903)
DATUM: NAD83 (2011)
UNITS: U.S. SURVEY FEET

VERTICAL CONTROL
DATUM: NAVD88 (GEOID18)
UNITS: U.S. SURVEY FEET

HORIZONTAL AND VERTICAL CONTROL BASIS:
UNITED STATES CORPS OF ENGINEERS CONTROL POINTS: SEE TABLE BELOW

CONTROL POINT INFORMATION

DESIGNATION	NORTHING	EASTING	ELEVATION	DESCRIPTION
484A	430432.060	1571212.799	14.682	USACE ALUMINUM DISK
484B	431005.396	1571262.431	13.805	USACE ALUMINUM DISK

KEY NOTES

1. SILT FENCE. SEE DETAIL 1/C530.
2. REMOVE CONCRETE SIDEWALK TO NEAREST JOINT.
3. REMOVE ALL TREE, STUMP AND ROOTS.
4. REMOVE WATER SERVICE. SEE GENERAL NOTE #4.
5. REMOVE SANITARY GRAVITY SERVICE. SEE GENERAL NOTE #4.
6. REMOVE SANITARY CLEAN OUT.
7. SAW-CUT AND REMOVE CONCRETE.
8. SEE ELECTRICAL AND TELECOM PLANS.
9. MODIFY EXISTING SANITARY MANHOLE. SEE UTILITY PLANS.
10. MINIMIZE SAWCUT AT ASPHALT FOR DRIVEWAY AND SIDEWALK TIE-IN

LEGEND

- CONCRETE OR ASPHALT PAVEMENT REMOVAL
- UTILITY SERVICE REMOVAL
- SF — SILT FENCE
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- INLET PROTECTION
- OUTLET PROTECTION

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

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DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

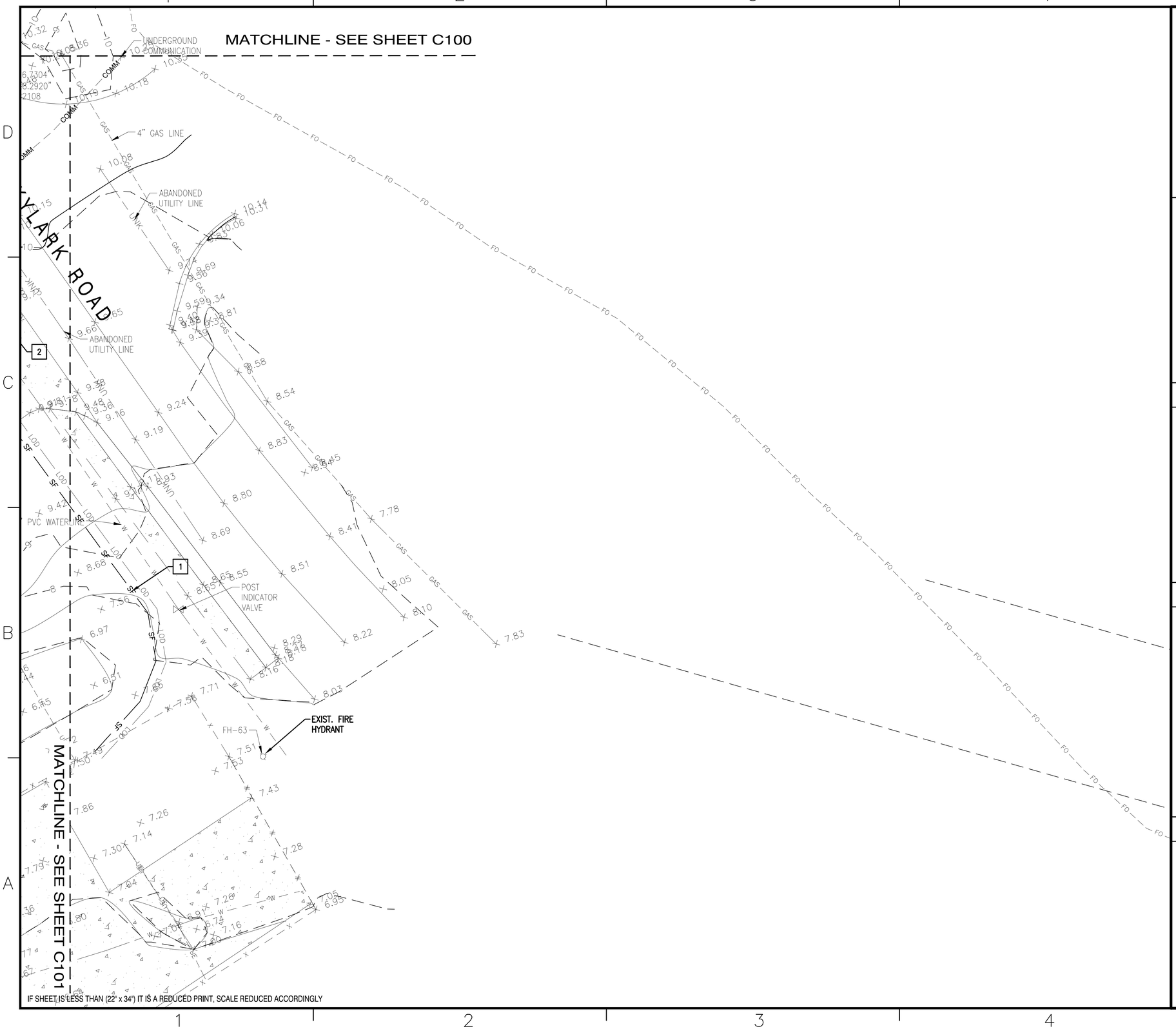
EXISTING CONDITIONS AND DEMOLITION

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

C101

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIVIL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HW1008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C100 EXISTING CONDITIONS AND DEMOLITION.dwg LAYOUT NAME: C101 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandiosco



GENERAL NOTES

1. ALL UTILITIES DEPICTED ARE FROM THE SURVEY CONTRACTOR AND MUST BE VERIFIED PRIOR TO CONSTRUCTION.
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7. ENSURE THAT EROSION CONTROL MEASURES USED ARE MAINTAINED AND FULLY FUNCTIONAL DURING RAINFALL EVENTS.
8. ALL SAWCUT OF PAVEMENT MUST BE CLEAN AND FREE OF SPALLING. REPAIR SPALLING PRIOR TO TIE-IN OF CONCRETE OR ASPHALT PAVEMENT.
9. COORDINATE ALL OTHER UTILITY SERVICE REMOVAL, RELOCATION, AND DEMOLITION WITH RESPECTED DISCIPLINES.

SURVEY CONTROL

HORIZONTAL CONTROL
COORDINATE SYSTEM: FLORIDA STATE PLANE, NORTH ZONE (0903)
DATUM: NAD83 (2011)
UNITS: U.S. SURVEY FEET

VERTICAL CONTROL
DATUM: NAVD88 (GEOID18)
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HORIZONTAL AND VERTICAL CONTROL BASIS:
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CONTROL POINT INFORMATION

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KEY NOTES

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ACTIVITY
SATISFACTORY TO DATE

DES AYG DRW AYG CHK --
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

EXISTING CONDITIONS AND DEMOLITION

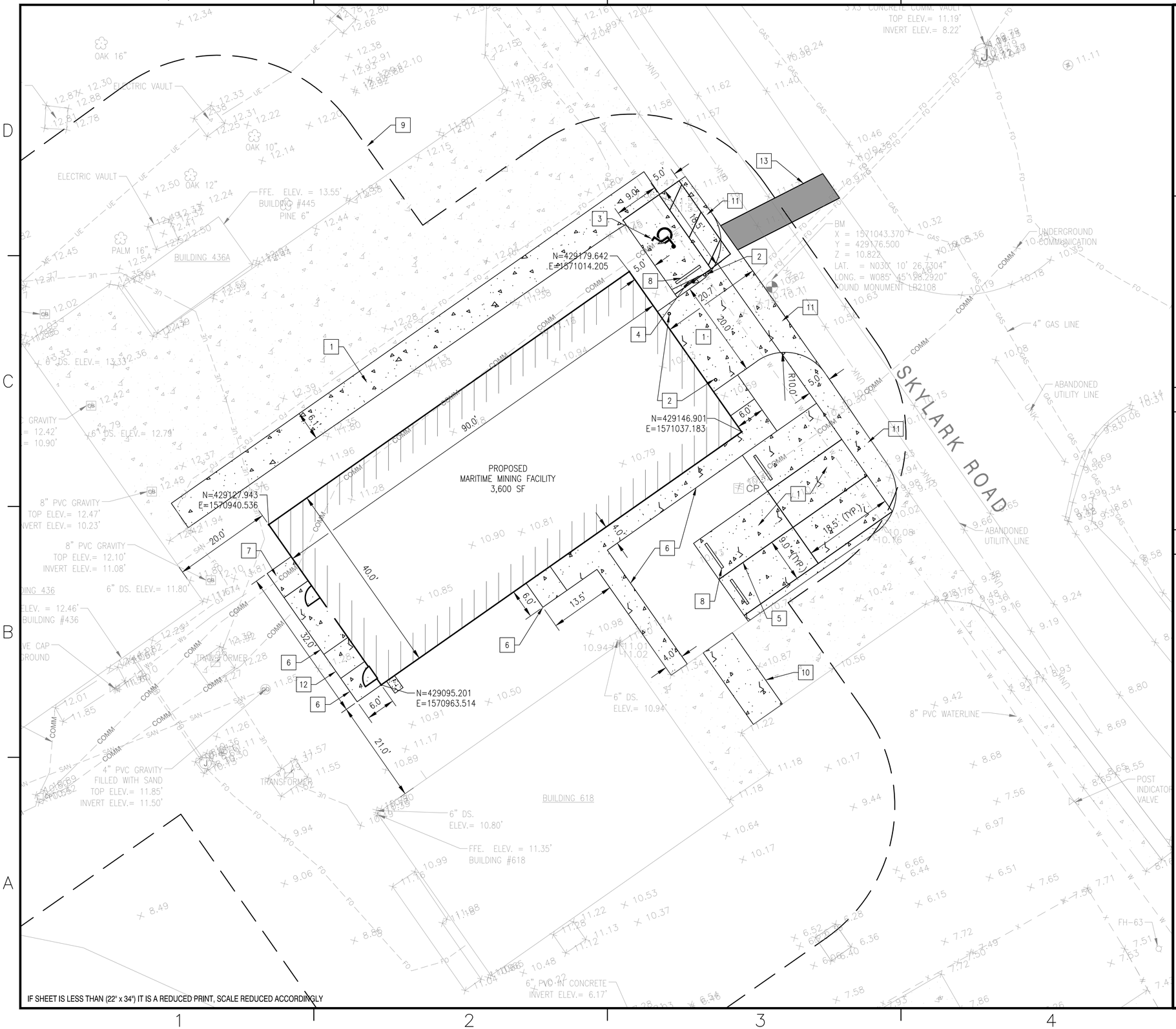
SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

C102

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIBIL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PW\N01008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C100 EXISTING CONDITIONS AND DEMOLITION.dwg LAYOUT NAME: C102 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandionco

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23 APRIL 2025



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FILE NAME: P:\CIVIL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HVAC\100B\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C200 SITE PLAN.dwg LAYOUT NAME: C200 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gandonca

GENERAL NOTES

1. PROJECT INTENT IS FOR A 3,600 SF PRE-ENGINEERED METAL BUILDING WITH HIGH BAY FOR THE MARITIME MINING FACILITY LOCATED AT NSA PANAMA CITY, FL.
2. PROPOSED DRIVEWAY TIE-IN SHALL LIMIT THE RECONSTRUCTION OF THE EXISTING ASPHALT ROADWAY. SAW-CUT AS NECESSARY AND REDUCE SPALLING.
3. THE CONTRACTOR IS RESPONSIBLE FOR ANY DAMAGE TO AREAS WHERE NEW CONSTRUCTION WILL TIE INTO EXISTING. ALL REPAIR MUST BE REPLACED IN-KIND OR ACCORDANCE WITH PLANS AND SPECIFICATIONS AS PART OF THIS CONTRACT.
4. THE PROPOSED COORDINATES FOR THE BUILDING CORNERS WERE GENERATED IN AUTOCAD AND BASED ON THE SURVEY PROVIDED BY EMERALD COAST ASSOCIATES, INC. CONDUCTED IN OCTOBER 2024.
5. THE BUILDING DIMENSIONS FROM BUILDING 618 AND 436 MUST BE VERIFIED IN THE FIELD WHEN STAKING THE CORNERS TO CONFIRM THE LOCATION OF THE PROPOSED MMF AND THE COORDINATES PROVIDED.
6. COORDINATE BUILDING LOCATION WITH STRUCTURAL PLANS.

LANDSCAPE NOTES

1. ALL DISTURBED AREAS SHALL BE SODDED WITH CENTIPEDE GRASS. REFER TO SPECIFICATIONS 32 05 33 AND 32 92 23 FOR MORE INFORMATION.
2. A TOTAL OF (4) FOUR NEW TREES ARE REQUIRED TO MITIGATE FOR THE REMOVAL OF EXISTING TREES ON SITE. PROVIDE (2) TWO 2-INCH CALIPER SLASH PINE TREES AND (2) TWO 12 FOOT CLEAR TRUNK CABBAGE PALMS. FINAL PLANTING LOCATION SHALL BE DETERMINED BY THE NSA PANAMA CITY NATURAL RESOURCES MANAGER. REFER TO SPEC 32 93 00 FOR MORE DETAILED PLANTING REQUIREMENTS.

KEY NOTES

1. CONCRETE DRIVEWAY AND PARKING AREA. SEE DETAIL 8/C500.
2. 6" BOLLARD (TYP.) SEE DETAIL 1/C500.
3. ADA PARKING SPACE. SEE DETAIL 6/C500
4. ADA PARKING SIGNAGE AND POST. SEE DETAIL 3/C500 AND 4/C500.
5. 4" WHITE PAVEMENT MARKING
6. 4" CONCRETE SIDEWALK AND LANDING. SEE DETAIL 7/C500.
7. MECHANICAL EQUIPMENT PAD FOR CU-1. SEE DETAIL 9/C500.
8. CONCRETE WHEEL STOP. SEE DETAIL 2/C500.
9. ATFP 33' UNOBSTRUCTED SPACE
10. CONCRETE PAVEMENT REPAIR. SEE DETAIL 2/C501.
11. HEAVY DUTY CONCRETE PAVEMENT. SEE DETAIL 10/C500.
12. MECHANICAL EQUIPMENT PAD FOR OU-1 TO MATCH CONCRETE SIDEWALK. SEE DETAIL 7/C500.
13. ASPHALT PAVEMENT REPAIR. SEE DETAIL 1/C510.

SITE DATA TABLE	
TOTAL SITE	10,169 SF
PROPOSED BUILDING	3,600 SF
IMPERVIOUS (SIDEWALK, PARKING LOT, DRIVEWAY)	2,288 SF
TOTAL IMPERVIOUS (+EXIST. 630 SF)	6,458 SF
FEMA PANEL NUMBER	12005C0317H
FLOOD ZONE	X

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

DRAWFORM REVISION: 7 AUGUST 2009

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

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DES	AYG	DRW AYG	CHK --
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	J. FRANK		
FIRE PROTECTION	A. KOUCHINSKY		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
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NSA PANAMA CITY
PANAMA CITY, FLORIDA

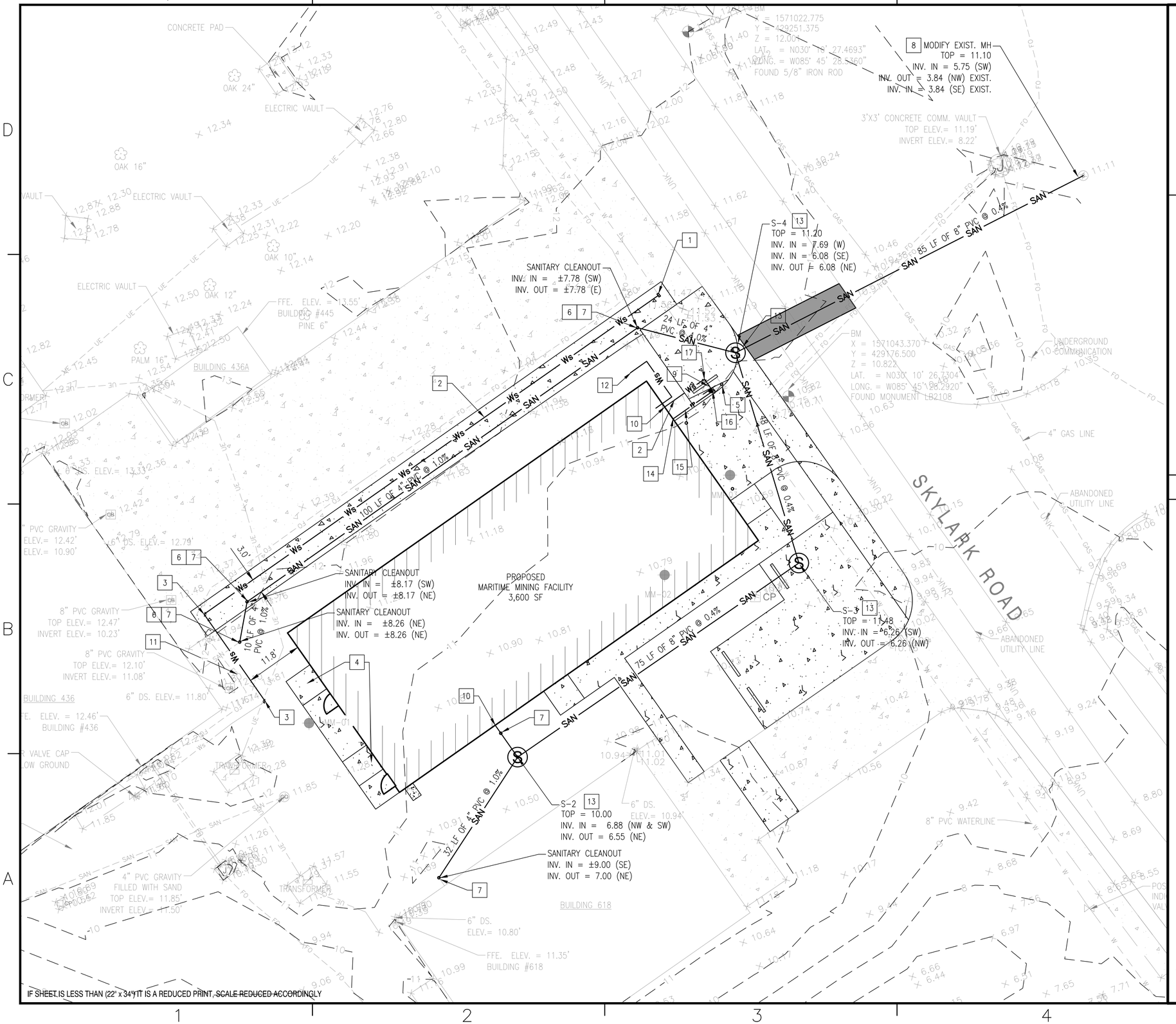
MARITIME MINING FACILITY

SITE PLAN

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

C200

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23 APRIL 2025



GENERAL NOTES

1. LOCATIONS OF UNDERGROUND UTILITIES SHOWN ARE APPROXIMATE. CONTRACTOR SHALL FIELD VERIFY THE LOCATION OF ALL UTILITIES WITHIN THE PROJECT LIMITS AND NOTIFY THE CONTRACTING OFFICER OF ANY DISCREPANCIES FOUND PRIOR TO CONSTRUCTION.
2. CONTRACTOR MUST SUBMIT UTILITY PERMIT TO THE UTILITY BRANCH A MIN. OF 30 DAYS PRIOR TO CONSTRUCTION.
3. CONTRACTOR SHALL PROTECT ALL EXISTING UTILITIES AND SITE FEATURES TO REMAIN.
4. 6" WATER SERVICE ENTERING THE BUILDING WILL SUPPLY FIRE AND POTABLE WATER (SEE MECHANICAL AND FIRE PLANS).
5. MAINTAIN A 24" MIN. COVER FOR WATER, SANITARY, AND FIRE UTILITIES.
6. MAINTAIN A 24" MIN. COVER FOR ELECTRICAL AND COMMUNICTIONS UTILITIES.
7. THRUST BLOCKS OR JOINT RESTRAINTS ARE REQUIRED AT ALL TEES, BENDS, OR ELBOWS OF PRESSURIZED PIPING IN ACCORDANCE WITH DRAWINGS, SPECIFICATIONS, AND MANUFACTURER'S RECOMMENDATIONS.
8. ALL UTILITIES MUST MAINTAIN A 10' MIN. FROM BUILDING FOUNDATION.
9. CONTRACTOR MUST COORDINATE THE INSTALLATION, TESTING, AND INSPECTION OF ALL DOMESTIC WATER AND FIRE SYSTEMS WITH THE ASSOCIATED UTILITY COMPANIES AND AGENCIES.

KEY NOTES

1. 8"X6" TAPPING SLEEVE AND VALVE. SEE DETAIL 1/C521.
2. 2" WATER SERVICE LINE
3. 6" 90° BEND
4. MECHANICAL EQUIPMENT PAD. SEE DETAIL 9/C500.
5. CONNECT TO EXISTING WATER SERVICE
6. 4" PVC 45° BEND
7. 4" SANITARY CLEANOUT. SEE DETAIL 3/C521.
8. MODIFY EXISTING MH. REPLACE 4" PVC WITH 8" PVC.
9. 6"X2" REDUCER FOR WATER SERVICE.
10. SEE MECHANICAL PLANS FOR CONNECTION OF WATER SERVICE.
11. SEE TELECOMMUNICATIONS PLANS.
12. BACKFLOW PREVENTER DISCHARGE TO ROOF DRAIN CLEANOUT. SEE MECHANICAL PLANS.
13. SANITARY SEWER MANHOLE. SEE DETAIL 4/C521.
14. SEE FIRE PROTECTION PLANS FOR CONNECTION OF FIRE SERVICE.
15. 6" FIRE SERVICE LINE
16. 6"X6"X6" TEE
17. 2" PVC 45° BEND

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

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NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

UTILITIES SITE PLAN

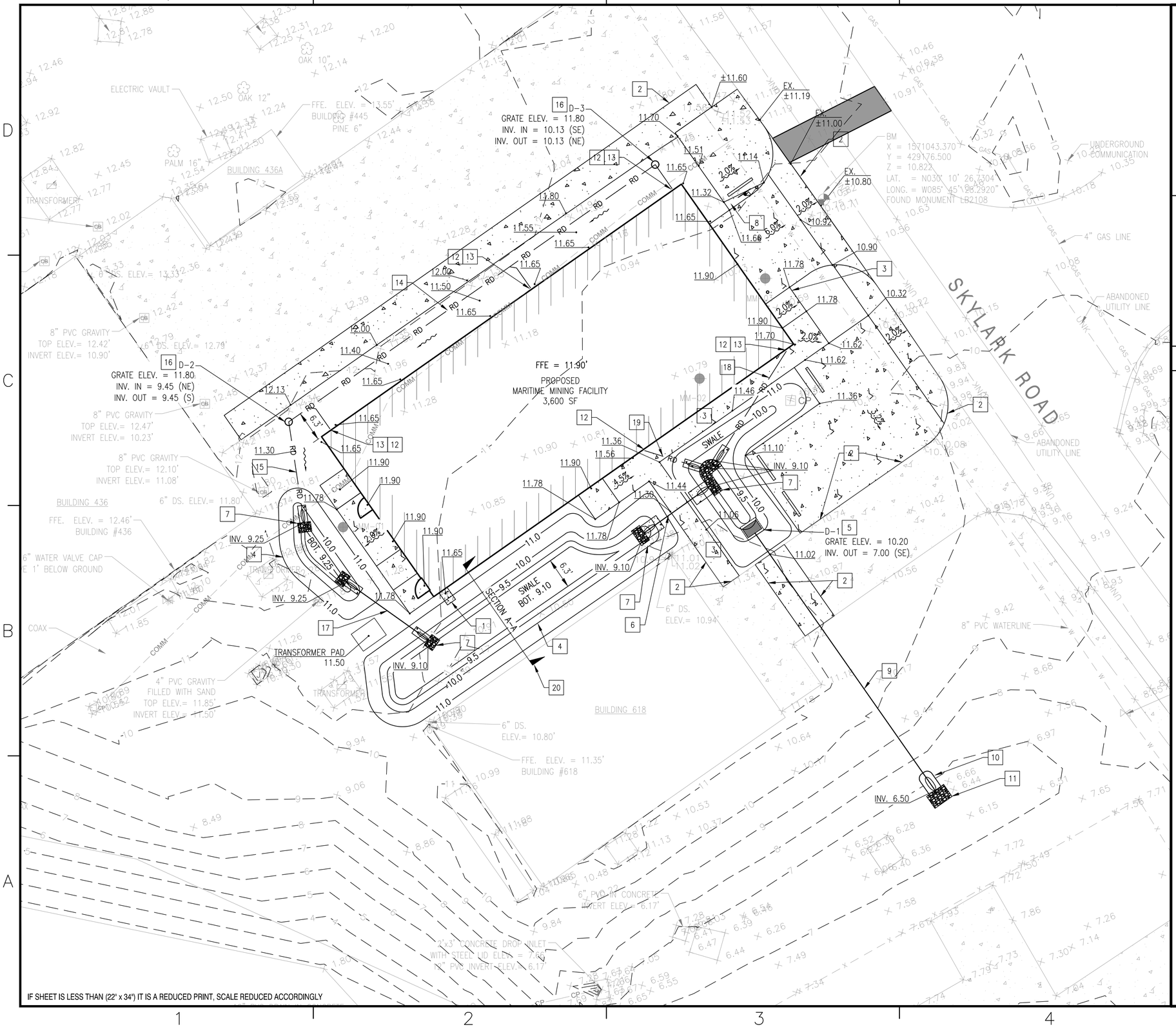
SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

C300

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DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIB\LTProject_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HN61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C300 UTILITIES SITE PLAN.dwg LAYOUT NAME: C300 PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gandionco



IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

GENERAL NOTES

1. PROPOSED ELEVATIONS INDICATED ARE FOR TOP OF FINAL GRADE PAVEMENT, OR STRUCTURE UNLESS INDICATED OTHERWISE.
2. ELEVATIONS DENOTED AS "MATCH" ARE INTENDED TO MEET EXISTING GRADE ELEVATIONS, CONTRACTOR SHALL VERIFY ELEVATIONS AT TIE-INS AND MATCH POINTS PRIOR TO BEGINNING CONSTRUCTION.
3. PROVIDE POSITIVE DRAINAGE AWAY FROM BUILDING AND TO ALL PROPOSED DRAINAGE STRUCTURES.
4. ALL AREAS DISTURBED BY CONSTRUCTION SHALL BE SODDED IN ACCORDANCE WITH THE SPECIFICATIONS.

KEY NOTES

1. CONCRETE SPLASH PAD. SEE DETAIL 3/C510.
2. MATCH EXISTING
3. 2% MAX. CROSS SLOPE
4. GRADE AT 3:1 MAX. SLOPE
5. TYPE "C" INLET. SEE DETAIL 2/C510.
6. 20 LF OF 12" HDPE STORM PIPE
7. STORM PIPE END COLLAR W/ RIP-RAP APRON. SEE DETAIL 5/C501.
8. STEEP TRANSITION FROM DRIVEWAY TO ADA PARKING SPACE
9. 68 LF OF 15" RCP STORM PIPE
10. 15" MES. SEE DETAIL 1/C511.
11. RIP-RAP APRON. SEE DETAIL 2/C511.
12. ROOF DRAIN CONNECTION AND LATERAL. SEE DETAIL 3/C511.
13. ROOF DRAIN CLEANOUT. SEE DETAIL 4/C511.
14. 95 LF OF 8" PVC ROOF DRAIN PIPE @ 0.75%
15. 22 LF OF 8" PVC ROOF DRAIN PIPE @ 0.75%
16. 18" DIA. YARD DRAIN BASIN. SEE DETAIL 6/C511.
17. 22 LF OF 12" HDPE STORM PIPE @ 0.68%
18. 27 LF OF 8" PVC ROOF DRAIN PIPE @ 1.0%
19. 13 LF OF 8" PVC ROOF DRAIN PIPE @ 1.0%
20. SWALE SECTION A-A. (TYP.) SEE DETAIL 8/C511.

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FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY — PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

GRADING AND DRAINAGE PLAN

SCALE: --

EPROJECT NO.: 1802981

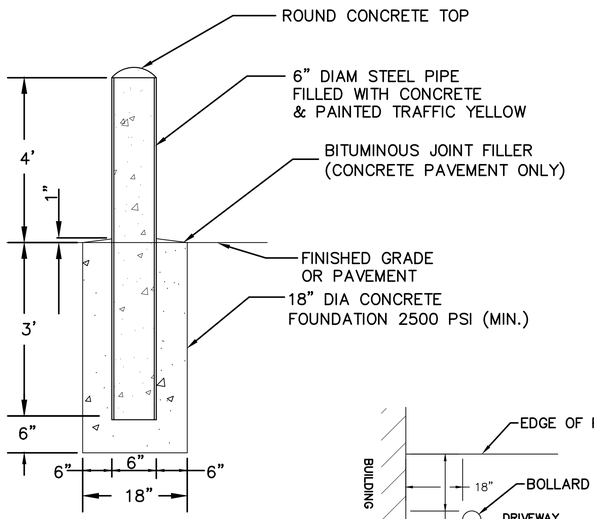
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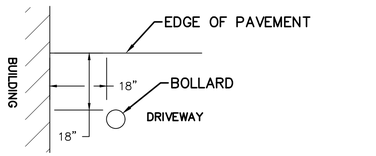
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SHEET OF

C400

FILE NAME: P:\GIS\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PHI610308\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C400 GRADING AND DRAINAGE PLAN.dwg LAYOUT NAME: C400 PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gandonco

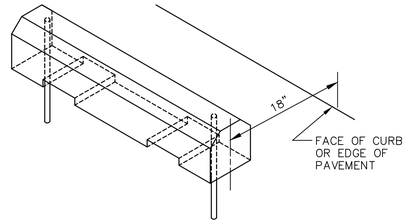


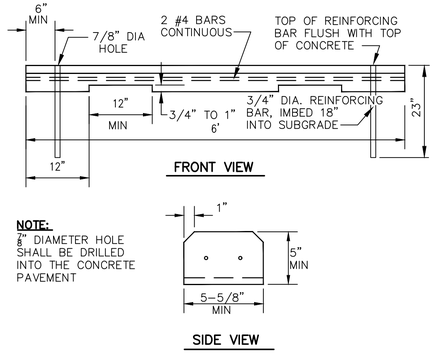


NOTE:
BOLLARD TO BE PLACED 18" FROM FACE OF BUILDING AND EDGE OF DRIVEWAY TO FACE OF BOLLARD

PLAN

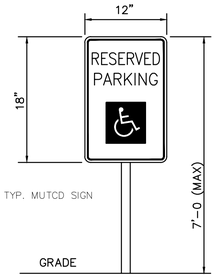
1 C500 BOLLARD DETAIL
NOT TO SCALE



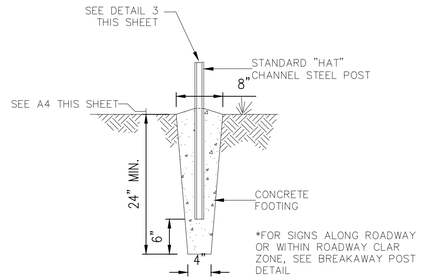


NOTE:
7/8" DIAMETER HOLE SHALL BE DRILLED INTO THE CONCRETE PAVEMENT

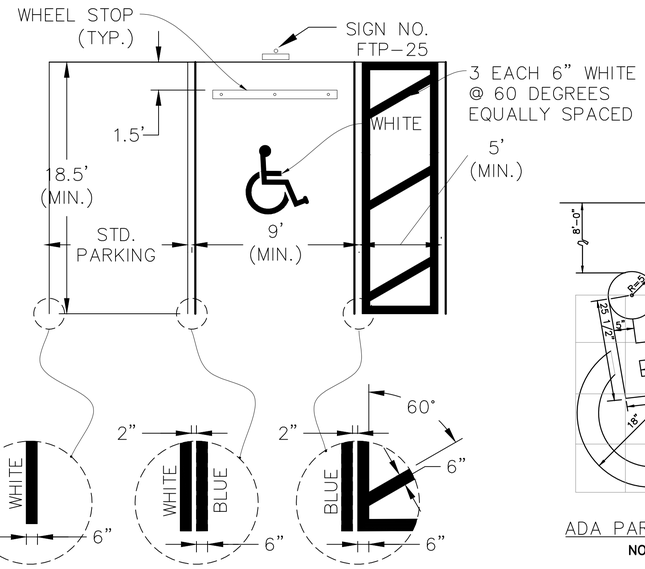
2 C500 CONCRETE WHEELSTOPS
NOT TO SCALE

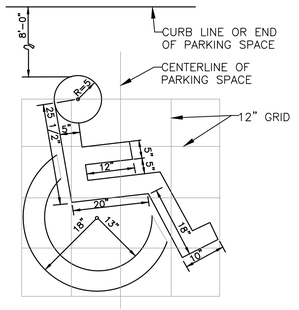


3 C500 HANDICAP SIGN
NOT TO SCALE

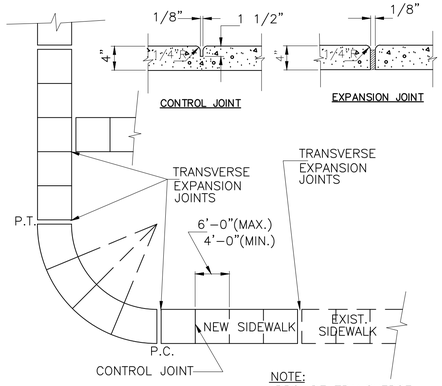


4 C500 SIGN INSTALL DETAIL
NOT TO SCALE



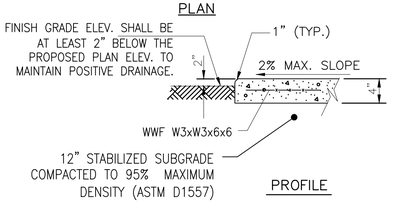


ADA PARKING SYMBOL
NOT TO SCALE



NOTE:
PROVIDE TRANSVERSE EXPANSION JOINTS @ APPROX. 30' SPACING MAX. SPACING OF 50FT.

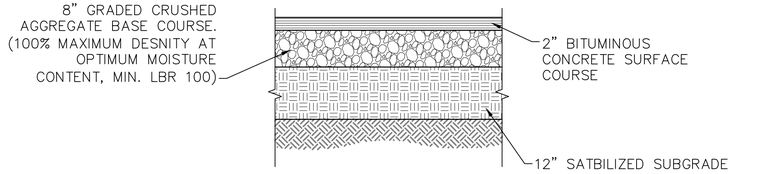
PLAN



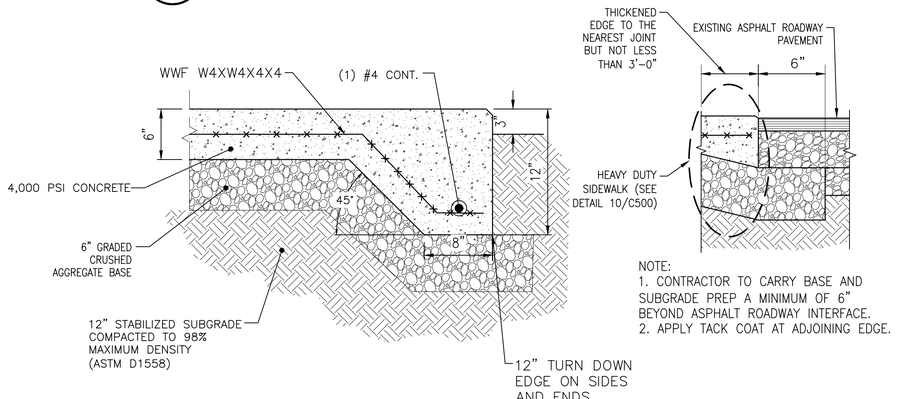
PROFILE

7 C500 TYPICAL SIDEWALK DETAILS
NOT TO SCALE

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY



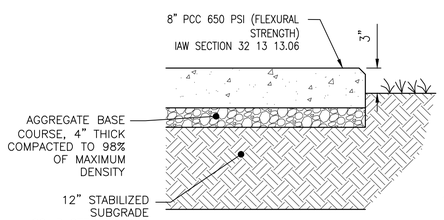
5 C500 TYPICAL PAVEMENT SECTION FLEXIBLE (ASPHALT)
NOT TO SCALE



NOTE:
1. CONTRACTOR TO CARRY BASE AND SUBGRADE PREP A MINIMUM OF 6" BEYOND ASPHALT ROADWAY INTERFACE.
2. APPLY TACK COAT AT ADJOINING EDGE.

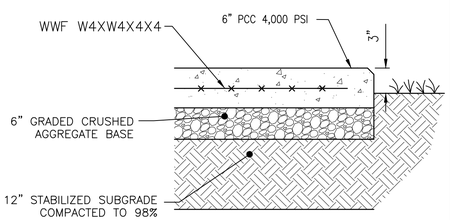
8 C500 DRIVEWAY PAVEMENT DETAIL
NOT TO SCALE

6 C500 ADA PARKING DETAIL
NOT TO SCALE



NOTE:
PAD MUST BE 6" MIN WIDER THAN OUT TO OUT DIMENSION OF EQUIPMENT ON ALL SIDES.

9 C500 CONCRETE EQUIPMENT PAD
NTS



NOTE:
HEAVY DUTY CONCRETE PAVEMENT SIDEWALK PLACED AT VEHICULAR TRAFFIC LOCATIONS SUCH AS DRIVEWAY AND PARKING AREAS.

10 C500 HEAVY DUTY SIDEWALK
NTS

APPR | DATE | DESCRIPTION | SYM

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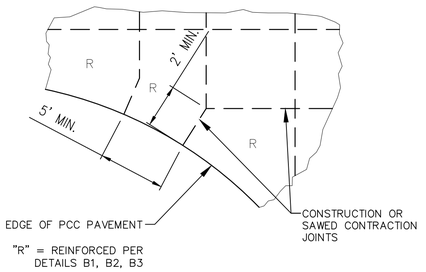
A/E INFO
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES AYG | DRW AYG | CHK --
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA
MARITIME MINING FACILITY
CONSTRUCTION DETAILS

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
C500

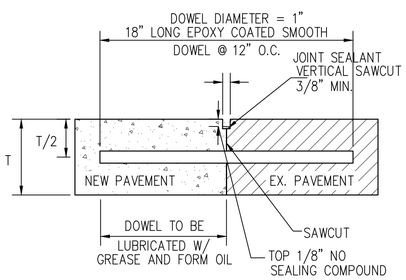
DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\DIBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HJH610081\MARITIME MINING FACILITY CIP PROJECT-1-1802981\Working Technical Files\Civil\DWG\C500 CONSTRUCTION DETAILS.dwg LAYOUT NAME: C500 PLOTTED: Friday, May 02, 2025 - 8:18am USER: andre.gonsilveo



1 C501 CURVED PAVEMENT JOINT DETL.

NOT TO SCALE

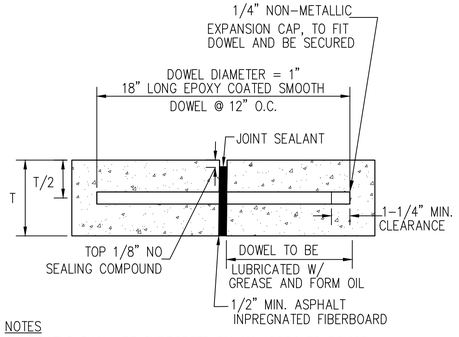


T = PAVEMENT THICKNESS

NOTES

1. DRILL HOLES 9" DEEP, 12" LATERAL SPACING INTO SURROUNDING PCC PAVEMENT THOROUGHLY.
2. INSERT EPOXY, TO FILL HOLE AND INSERT BARS WITH RETENTION COLLARS.
3. DOWELS SHALL BE AUGNED PERPENDICULAR TO THE SQUARE FACE OF CONCRETE.
4. FOR EPOXY GROUT, THE DIAMETER SHALL BE NOT MORE THAN 1/8-INCH LARGER THAN THE DOWEL DIAMETER.
5. FOR CEMENT-BASED GROUT, THE HOLE DIAMETER SHALL BE AT LEAST 1/4-INCH LARGER AND NOT MORE THAN 3/8-INCH LARGER THAN THE DOWEL.
6. DRILLING, CLEANING, AND GROUTING SHALL BE PERFORMED PER THE EPOXY MANUFACTURER'S RECOMMENDATIONS FOR THIS SPECIFIC APPLICATION.
7. INSTALL END CAPS ON THE FREE END OF DOWELS.
8. JOINT SEALANT TO BE AS NOTED IN PCC JOINT DETAIL.

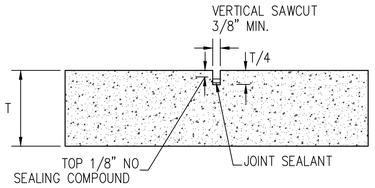
BUTT JOINT



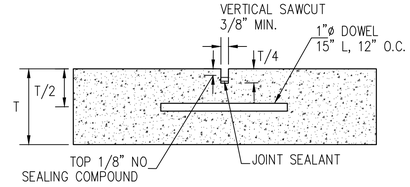
NOTES

1. DOWELS SHALL BE SUPPORTED BY AN APPROVED DEVICE

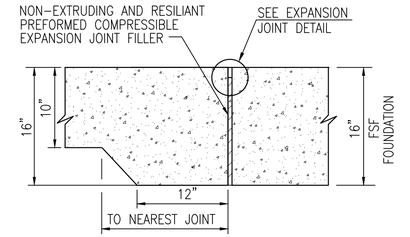
TRANSVERSE EXPANSION JOINT



CONTRACTION JOINT



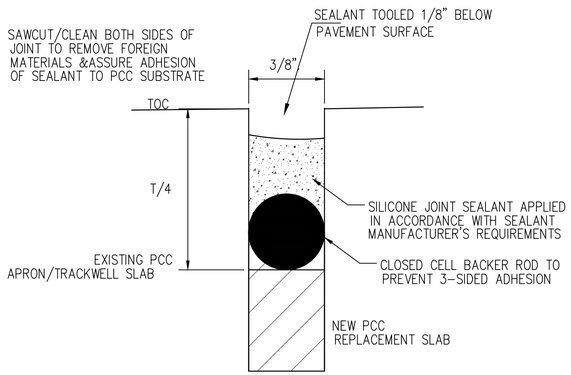
CONTRACTION JOINT DOWELED



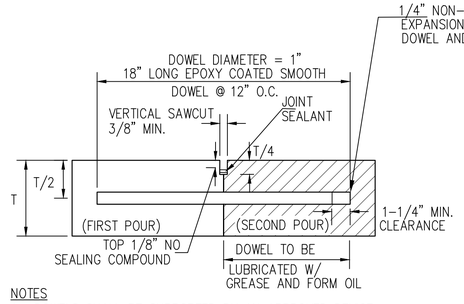
THICKENED EDGE EXPANSION JOINT- FSF ADDITION

NOTES:

1. TRANSVERSE CONSTRUCTION JOINTS SHALL BE INSTALLED AT A PLANNED TRANSVERSE JOINT, AT THE END OF EACH DAY'S PLACING OPERATIONS AND WHEN CONCRETE PLACEMENT IS INTERRUPTED. TRANSVERSE CONSTRUCTION JOINTS SHALL BE CONSTRUCTED BY PLACING CONCRETE BEYOND THE TRANSVERSE CONSTRUCTION JOINT LOCATION AND THEN SAW CUTTING FULL DEPTH AND REMOVING CONCRETE BACK TO THE TRANSVERSE CONSTRUCTION JOINT LOCATION. FOR THE LATTER CASE, DOWELS SHALL BE INSTALLED IN ACCORDANCE WITH DETAIL SHOWN ON THIS SHEET.
2. FOR INSTALLATION OF DOWELS AND TIE BARS THE DRILLING METHOD SHALL BE CAPABLE OF MAINTAINING DRILL HOLES PARALLEL TO THE CONCRETE SURFACE AND NORMAL TO THE JOINT LINE WITHIN ¼"± AT THE END OF THE DOWEL AND TIE BAR. DRILL HOLES SHALL BE ACCURATELY LAID OUT SUCH THAT THE MAXIMUM DEVIATION DOES NOT EXCEED 1" HORIZONTALLY. DRILL HOLE DIAMETER SHALL BE APPROXIMATELY ⅛" LARGER THAN DOWEL AND TIE BAR DIAMETERS. A MINIMUM OF SEVEN (7) DAYS CURE TIME OR A COMPRESSIVE STRENGTH OF 2,500 PSI IS REQUIRED FOR DRILLING OF NEW CONCRETE.
3. USE TYPE 'LCJ' JOINT FOR ALL CONSTRUCTION JOINTS PLACED DUE TO CONTRACTOR'S POURING SEQUENCE.
4. IF CONTRACTOR PLACES A TYPE 'LCJ' JOINT AT A TRANSVERSE JOINT LOCATION DUE TO POURING SEQUENCE, LEAVE OUT ONE DOWEL FROM EACH END AS NOT TO INTERFERE WITH LONGITUDINAL DOWELS.
5. DOWELS IN HEADERS SHALL BE DRILLED AND EPOXIED OR MAY BE CAST-IN-PLACE USING A DOWEL CAGE AND SPLIT FORM. NO OTHER DOWEL INSTALLATION DEVICES ARE ACCEPTABLE.
6. ALL JOINTS AROUND EXISTING AND PROPOSED STRUCTURES SHALL BE TYPE 'TEJE'.
7. WELDED WIRE REINFORCEMENT (WWR) SHALL REMAIN A MINIMUM OF 3" CLEAR FROM ALL JOINTS.



JOINT DETAIL (TYP.)



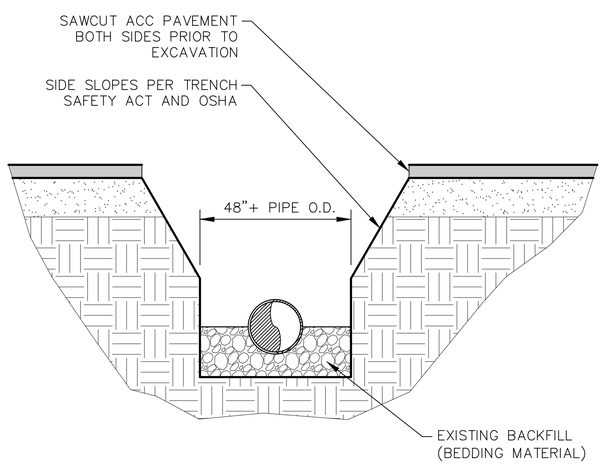
NOTES

1. DOWELS SHALL BE SUPPORTED BY AN APPROVED DEVICE

CONSTRUCTION JOINT

2 C501 CONCRETE JOINT DETAILS

NOT TO SCALE



NOTES:

1. THE CONTRACTOR SHALL LIMIT THE ACC PAVEMENT REMOVAL TO ONLY THAT NECESSARY TO EXPOSE THE WATERMAIN AND PROVIDE PROPER SIDE SLOPES. REMAINING ACC PAVEMENT SHALL NOT BE REMOVED UNTIL THE PIPE BEDDING HAS BEEN REPAIRED AND THE BACKFILLING HAS REACHED AN ELEVATION TO WITHIN 2-FEET OF THE EXISTING, FINISHED GRADE.
2. FOR ESTIMATION PURPOSES THE CONTRACTOR SHALL ASSUME THE WATERMAIN HAS A MINIMUM COVER OF 48-INCHES.
3. THE EXISTING BEDDING MATERIAL SHALL REMAIN IN PLACE UP TO THE PIPE'S SPRINGLINE UNTIL THE CONTRACTOR IS POSITIONED TO REPLACE IT WITH FLOWABLE FILL. THE CONTRACTOR SHALL EXERCISE CAUTION IN REMOVING EXCESSIVE LENGTHS OF BEDDING MATERIAL IN ONE EFFORT SUCH THAT THE PIPE IS INCAPABLE OF MAINTAINING ITS POSITION.
4. BEDDING MATERIAL SHALL BE REMOVED TO A DEPTH OF 6-INCHES MINIMUM BELOW THE PIPE. UPON REMOVAL OF THE BEDDING MATERIAL TO JOINTS AND FITTINGS SHALL BE INSPECTED WITH A REPRESENTATIVE FROM THE GOVERNMENT TO DETERMINE WHICH REPAIRS ARE NECESSARY.

3 C501 EXCAVATION DETAIL

NOT TO SCALE

IF SHEET IS LESS THAN (22" x 34") IT IS A REDUCED PRINT, SCALE REDUCED ACCORDINGLY

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\N1610081\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C500 CONSTRUCTION DETAILS.dwg LAYOUT NAME: C501 PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gondonco

DRAWFORM REVISION: 7 AUGUST 2009

APPR | DATE | DESCRIPTION | SYM

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	AYG	DRW	AYG	CHK	---
DESIGN MANAGER	K. MOOREHEAD				
PROJECT MANAGER	O. HARRIS				
CHIEF ENG/ARCH	J. FRANK				
FIRE PROTECTION	A. KOUCHINSKY				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

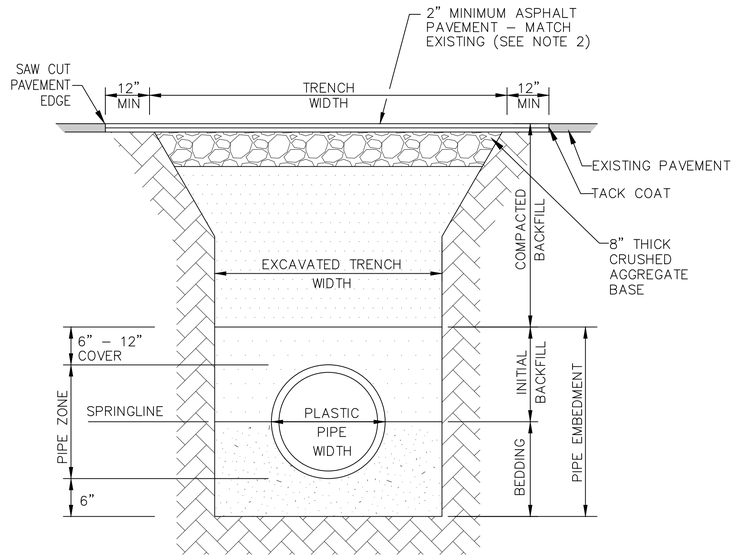
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

CONSTRUCTION DETAILS

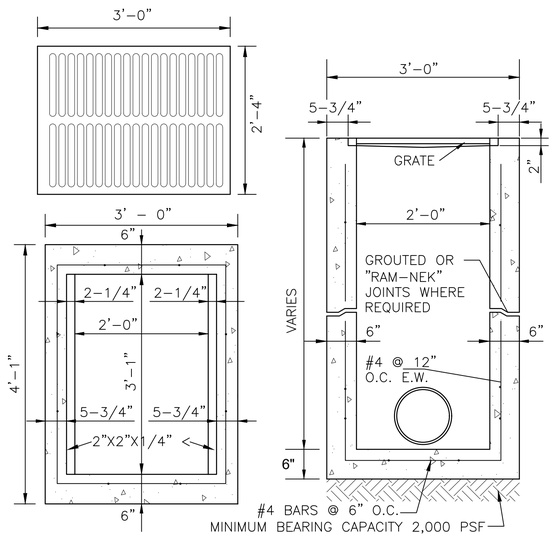
SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

C501



NOTES:
1. PROVIDE BEDDING IN ACCORDANCE WITH SPECIFICATIONS.

1 C510 PAVEMENT REPAIR OVER PIPE TRENCH
NOT TO SCALE

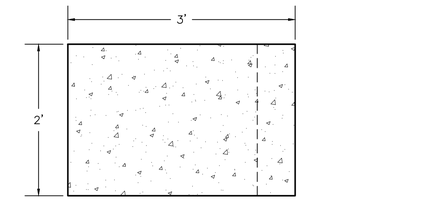


PLAN VIEW SECTION VIEW

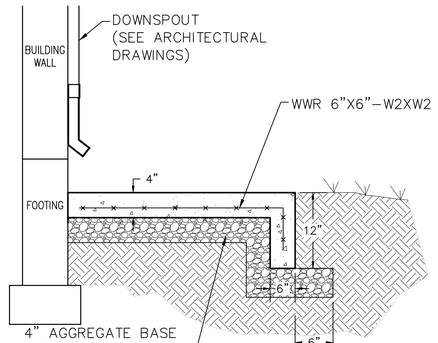
RECOMMENDED MAXIMUM PIPE SIZE:
2'–0" WALL – 18" PIPE
3'–1" WALL – 24" PIPE

NOTES:
1. CONCRETE DESIGN COMPRESSIVE STRENGTH SHALL EQUAL OR EXCEED 4,000 PSI @ 28–DAYS.
2. ALL GRATES TO BE TRAFFIC BEARING RATED HS–20.
3. CONTRACTOR SHALL PLACE 10' WIDE SOD COLLAR AROUND INLETS (NOT IN PAVEMENT).
4. PROVIDE KNOCKOUTS FOR UNDERDRAIN.
5. PIPES SHALL BE FLUSH WITH INSIDE WALL.

2 C510 STORM SEWER TYPE "C" INLET
NOT TO SCALE

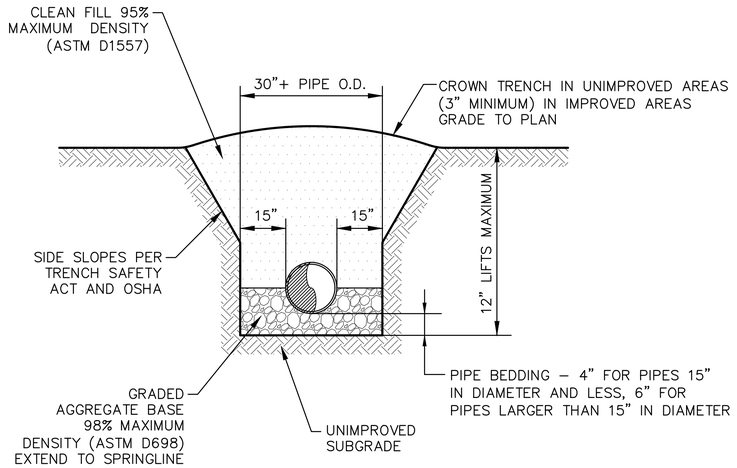


PLAN VIEW

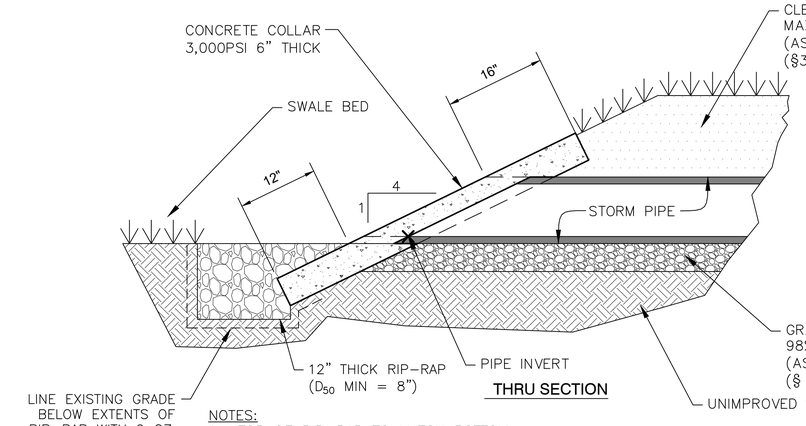


SECTION VIEW

3 C510 CONCRETE SPLASH PAD DETAIL
NOT TO SCALE

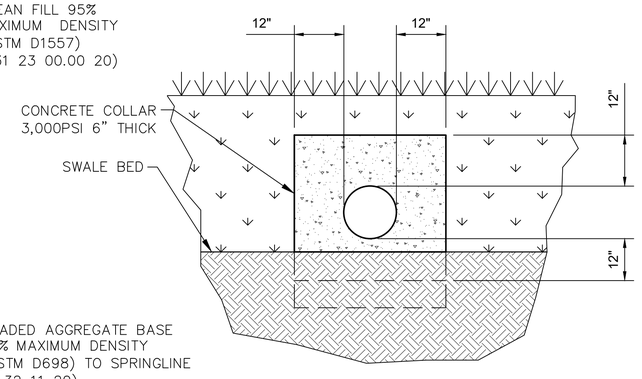


4 C510 TYPE 'A' BEDDING DETAIL
NOT TO SCALE



THRU SECTION

NOTES:
1. TOP OF RIP–RAP TO MATCH BOTTOM OF RE–GRADED DITCH.
2. RIP–RAP TO BE PLACED AS SPECIFIED LOCATIONS IN PLANS.



FRONT VIEW

5 C510 STORM PIPE END COLLAR W/ RIP–RAP APRON DETAIL
NOT TO SCALE

DES	AYG
DRW	AYG
CHK	--
DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	J. FRANK
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY — PANAMA CITY, FLORIDA
MARITIME MINING FACILITY
STORM DRAINAGE DETAILS

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

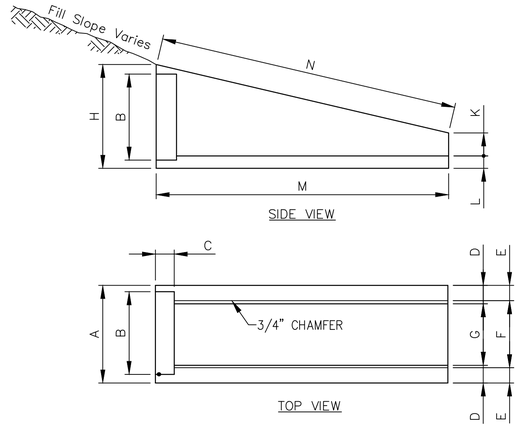
C510

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ACTIVITY
SATISFACTORY TO DATE

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\DBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\P\N1610081\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C510.dwg LAYOUT NAME: C510 STORM DRAINAGE DETAILS PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gandonco



RCP	A	B	C	D	E	F	G	H	J	K	L	M	N
15"–18"	2'–7"	2'–1"	6"	6"	6 3/4"	1'–6"	1'–7"	2'–10"	2'–4"	8"	6"	6'–10"	7'–0"
24"	2'–11"	2'–8"	6"	5"	4 1/2"	1'–11"	2'–0"	3'–6"	3'–1"	7 1/2"	5"	10'–0"	10'–3 1/2"
30"	3'–6"	3'–2"	6"	6"	5 1/2"	2'–5"	2'–6 1/2"	3'–9"	3'–5"	7"	5"	11'–5"	11'–8 1/4"
3'–0"	4'–1"	3'–10"	6"	7"	5 1/2"	2'–9"	3'–0"	4'–6"	4'–0"	6"	6"	14'–0"	14'–4 1/2"

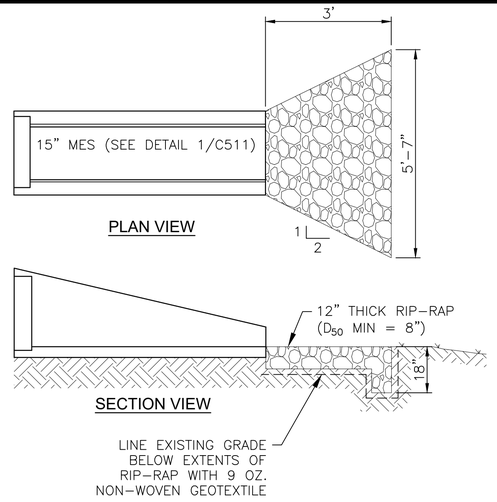
CONCRETE: 4,000 P.S.I.
STEEL: #4 @ 12" E.W., WITH 1 #6 OVER PIPE OPENING. (2" CLEARANCE OVER STEEL, REINF. BARS, 1/2" TOLERANCE).

NOTES

1. END SECTIONS SHALL CONFORM TO STANDARD STRENGTH REINFORCED CONCRETE PIPE OF LIKE DIAMETER AS PER STANDARD SPECIFICATIONS.
2. JOINT BETWEEN END SECTION AND PIPE CULVERT TO BE MADE BY REINFORCED CONCRETE COLLAR OR COLD ADHESIVE PREFORMED PLASTIC GASKET.
3. END SECTIONS TO BE USED ONLY WHEN SPECIFIED ON THE PLANS OR AT LOCATIONS AS DIRECTED BY THE ENGINEER.
4. TOE WALL TO BE CONSTRUCTED WHEN SHOWN ON THE PLANS OR DESIGNATED BY THE ENGINEER.

1 C511 STANDARD MITRED END SECTION (MES) FOR RCP

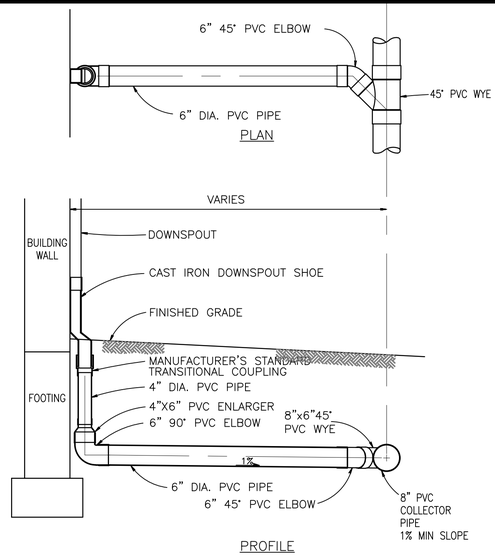
NOT TO SCALE



NOTES:
1. TOP OF RIP–RAP TO MATCH BOTTOM OF RE–GRADED DITCH.
2. RIP–RAP TO BE PLACED AS SPECIFIED LOCATIONS IN PLANS.

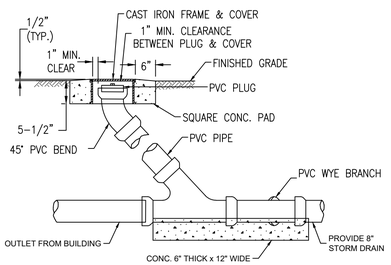
2 C511 RIP–RAP APRON

NOT TO SCALE



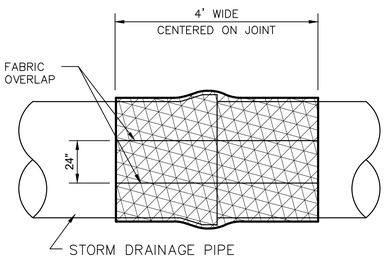
3 C511 ROOF DRAIN CONNECTION DETAIL

NOT TO SCALE



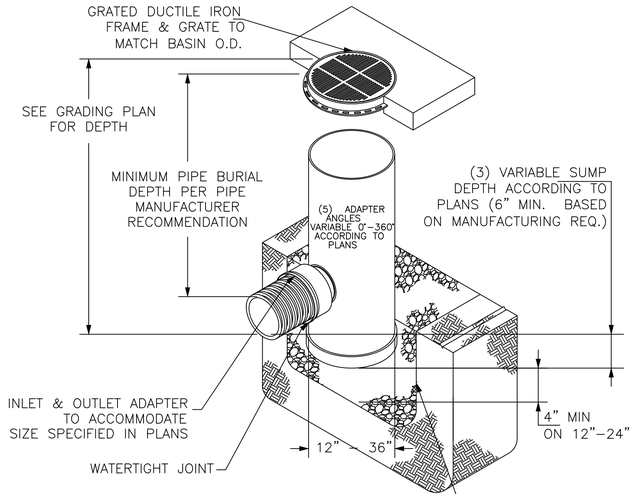
4 C511 ROOF DRAIN CLEANOUT DETAIL

NOT TO SCALE



5 C511 PIPE JOINT WRAP DETAIL

NOT TO SCALE

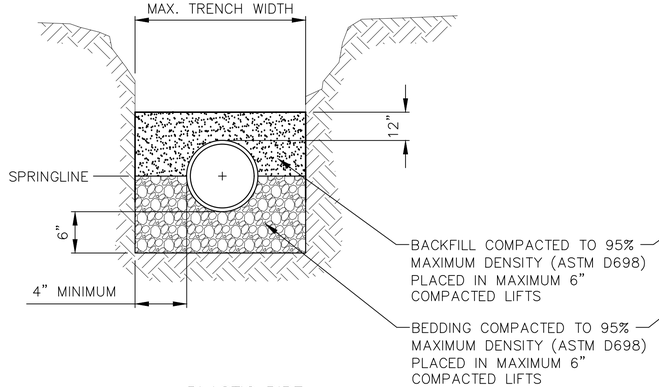


THE BACKFILL MATERIAL SHALL BE CRUSHED STONE OR OTHER GRANULAR MATERIAL MEETING THE REQUIREMENTS OF CLASS I, CLASS II, OR CLASS III MATERIAL AS DEFINED IN ASTM D2321.

NOTES:
1– 12"–30" PEDESTRIAN GRATES SHALL BE DUCTILE IRON PER ASTM A536 GRADE 70–50–05.
2– DRAIN BASIN TO BE CUSTOM MANUFACTURED ACCORDING TO PLAN DETAILS.
3– DRAINAGE CONNECTION STUB JOINT TIGHTNESS SHALL CONFORM TO ASTM D3212 FOR PVC SEWER (4" –36")
4– ADAPTERS CAN BE MOUNTED 0° TO 360°.
5– 12"–24" PEDESTRIAN GRATES SHALL MEET H–10 LOAD RATING.

6 C511 YARD DRAIN BASIN

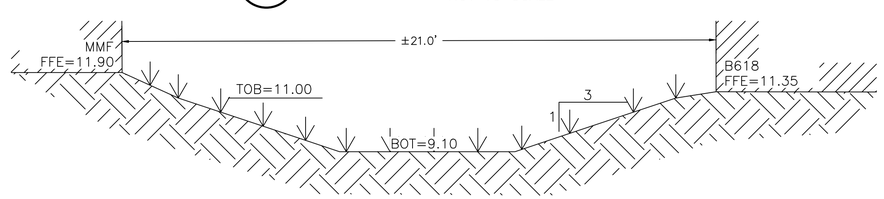
NOT TO SCALE



NOTES:
1) BELL HOLE SHALL BE DUG TO PERMIT THE ENTIRE STRAIGHT BARREL OF THE PIPE TO REST ON THE UNDISTURBED TRENCH BOTTOM. BOULDERS OR LOOSE ROCKS LARGER THAN 1" WILL NOT BE PERMITTED IN BACKFILL UP TO 1 FOOT ABOVE THE TOP OF PIPE.
2) SEE SPECIFICATION SECTION 31 23 00.00 20

7 C511 DRAINAGE PIPE TRENCH DETAIL

NOT TO SCALE



8 C511 SWALE SECTION A–A

NOT TO SCALE

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA
MARITIME MINING FACILITY
STORM DRAINAGE DETAILS

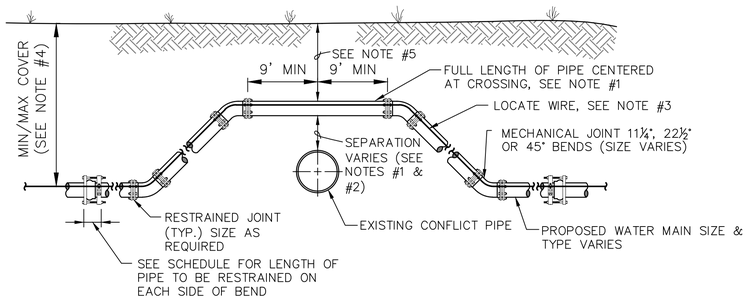
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EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
C511

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES AYG DRW AYG CHK --
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

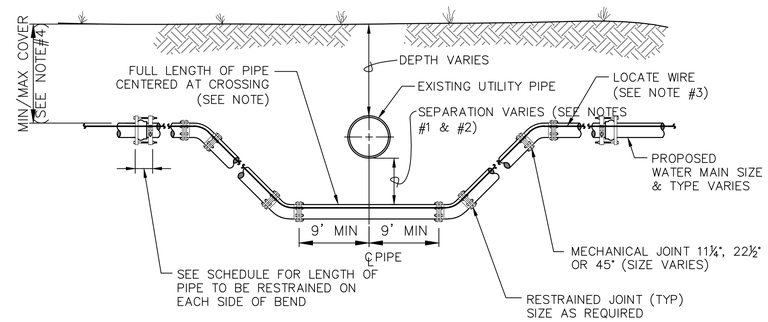
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A/E INFO
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DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\OBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\961008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C510.dwg LAYOUT NAME: C511 STORM DRAINAGE DETAILS PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gandionco



CASE "A" CROSSING



CASE "B" CROSSING

NOTES:

1. THE SOILS BETWEEN THE NEW MAIN AND THE CONFLICT PIPE SHALL BE COMPACTED TO 98% OF THE MAXIMUM DENSITY AS DETERMINED BY THE LABORATORY MODIFIED PROCTOR TEST, ASTM D 1557
2. FOR MINIMUM VERTICAL SEPARATION REQUIREMENTS SEE DETAILS (2/C520 AND 3/C520)
3. THE COVER FOR PIPING LESS THAN 24" SIZE SHALL BE 30" (MIN) IN UNPAVED AREA, 36" (MIN) IN PAVED AREAS AND A MAXIMUM COVER OF 60", UNLESS APPROVED BY JEA. THE COVER FOR PIPING 24" SIZE AND LARGER SHALL BE 36" (MIN) IN PAVED AND UNPAVED AREAS AND A MAXIMUM COVER OF 84", UNLESS APPROVED BY JEA.
4. IN LOCATIONS WHERE WATER/RECLAIM MAINS CROSS UNDER A BOX-CULVERT, OR 36-INCH DIAMETER AND LARGER STORM WATER MAIN, JEA WILL REQUIRE DIP TO BE UTILIZED FOR THE MAIN.
5. IF UTILITY CONFLICT IS LOCATED IN A NON-TRAFFIC AREA (NO TRAFFIC LOADS) AND THE NEW PIPE IS D.I.P., THEN THE MINIMUM COVER MAY BE REDUCED TO 24 INCHES (ONLY IN THE AREA OF THE CONFLICT).

1 C520 PPE CROSSING CONFLICTS DETAIL

NOT TO SCALE

WATER MAIN AND NON-WATER MAIN SEPARATION REQUIREMENTS – NOTES

1. IT IS REQUIRED THAT "WATER MAINS" BE INSTALLED, CLEANED, DISINFECTED AND HAVE A SATISFACTORY BACTERIOLOGICAL SURVEY PERFORMED IN ACCORDANCE WITH THE LATEST APPLICABLE AWWA STANDARDS, CHAPTER 62-555, F.A.C. AND LATEST JEA WATER AND SEWER STANDARDS. FOR THE PURPOSE OF THIS SECTION, THE PHRASE "WATER MAINS" SHALL MEAN MAINS, INCLUDING TREATMENT PLANT PROCESS PIPING, CONVEYING EITHER RAW, PARTIALLY TREATED, OR FINISHED DRINKING WATER; FIRE HYDRANT LEADS; AND SERVICE LINES THAT HAVE AN INSIDE DIAMETER OF THREE (3) INCHES OR GREATER. IN ADDITION, THE PHRASE "RECLAIMED WATER" REFERS TO THE WATER REGULATED UNDER PART III OF CHAPTER 62-610, F.A.C.
2. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST THREE (3) FEET BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER.
3. NEW OR RELOCATED, UNDERGROUND WATER MAINS SHALL BE LAID TO PROVIDE A HORIZONTAL DISTANCE OF AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, BETWEEN THE OUTSIDE OF THE WATER MAIN AND THE OUTSIDE OF ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER, WASTEWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER. THE MINIMUM HORIZONTAL SEPARATION DISTANCE BETWEEN WATER MAINS AND GRAVITY-TYPE SANITARY SEWERS MAY BE REDUCED TO THREE (3) FEET WHERE THE BOTTOM OF THE WATER MAIN IS LAID AT LEAST SIX (6) INCHES ABOVE THE TOP OF THE SEWER (SPECIAL CASE).
4. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED GRAVITY OR VACUUM-TYPE SANITARY SEWER OR STORM SEWER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS AT LEAST SIX (6) INCHES, AND PREFERABLE TWELVE (12) INCHES, ABOVE OR AT LEAST TWELVE (12) INCHES BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
5. NEW OR RELOCATED, UNDERGROUND WATER MAINS CROSSING ANY EXISTING OR PROPOSED PRESSURE-TYPE SANITARY SEWER, WASTEWATER OR STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER SHALL BE LAID SO THE OUTSIDE OF THE WATER MAIN IS A LEAST TWELVE (12) INCHES ABOVE OR BELOW THE OUTSIDE OF THE OTHER PIPELINE. HOWEVER, IT IS PREFERABLE TO LAY THE WATER MAIN ABOVE THE OTHER PIPELINE.
6. AT THE UTILITY CROSSINGS DESCRIBED IN NOTES 4 AND 5 ABOVE, ONE FULL LENGTH OF WATER MAIN PIPE SHALL BE CENTERED ABOVE OR BELOW THE OTHER PIPELINE SO THE WATER MAIN JOINTS WILL BE AS FAR AS POSSIBLE FROM THE OTHER PIPELINE. ALTERNATIVELY, AT SUCH CROSSINGS, THE PIPES SHALL BE ARRANGED SO THAT ALL WATER MAIN JOINTS ARE AT LEAST THREE (3) FEET FROM ALL JOINTS IN VACUUM-TYPE SANITARY SEWERS, STORM SEWERS, STORMWATER FORCE MAINS, OR PIPELINES CONVEYING RECLAIMED WATER, AND AT LEAST SIX (6) FEET FROM ALL JOINTS IN GRAVITY OR PRESSURE-TYPE SANITARY SEWERS, WASTEWATER FORCE MAINS, OR PIPELINE CONVEYING RECLAIMED WATER.
7. NEW OR RELOCATED FIRE HYDRANTS SHALL BE LOCATED SO THAT THE HYDRANTS ARE AT LEAST THREE (3) FEET FROM ANY EXISTING OR PROPOSED STORM SEWER, STORMWATER FORCE MAIN, OR PIPELINE CONVEYING RECLAIMED WATER; AT LEAST THREE (3) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED VACUUM-TYPE SANITARY SEWER; AT LEAST SIX (6) FEET, AND PREFERABLY TEN (10) FEET, FROM ANY EXISTING OR PROPOSED GRAVITY OR PRESSURE-TYPE SANITARY SEWER OR WASTEWATER FORCE MAIN.
8. WHERE AN UNDERGROUND WATER MAIN IS BEING LAID LESS THAN THE REQUIRED MINIMUM HORIZONTAL DISTANCE FROM ANOTHER PIPELINE AND WHERE AN UNDERGROUND WATER MAIN IS CROSSING ANOTHER PIPELINE AND JOINTS IN THE WATER MAIN ARE BEING LOCATED LESS THAN THE REQUIRED MINIMUM DISTANCE FROM JOINTS IN THE OTHER PIPELINE, THE CONTRACTOR SHALL CONSULT THE DESIGN ENGINEER TO OBTAIN APPROVAL OF ANY ALTERNATIVE CONSTRUCTION METHODS, PRIOR TO CONSTRUCTION.

3 C520 NOTES ON SEPARATION REQUIREMENTS

NOT TO SCALE

HORIZONTAL & VERTICAL SEPARATION REQUIREMENTS

PROPOSED UTILITY

CONFLICTING UTILITY	POTABLE WATER			WASTEWATER GRAVITY AND FORCE MAIN			RECLAIMED WATER			VACUUM SEWERS		
	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*	HORIZ.	VERT.	JOINT SPACING*
POTABLE WATER	3' NOTE 1	12"	3' NOTE 2	6' to 10'	12" NOTE 5	6' NOTE 2	3'	12"	6' NOTE 2	3' to 10'	12"	3' NOTE 2
RECLAIMED WATER	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3'	12"	6' NOTE 2	3' NOTE 1	12"	3' NOTE 2
WASTEWATER (GRAVITY AND FORCE MAIN)	6' to 10'	12"	6' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
VACUUM SEWERS	3' to 10'	12"	3' NOTE 2	3' NOTE 1	12"	6"	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
RIGHT OF WAYS	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A	3' NOTE 1	N/A	N/A
PERMANENT STRUCTURES (BUILDINGS, SIGNS, POLES, ETC.)	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A	SEE NOTE 7	N/A	N/A
STORM SEWERS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
GAS	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2
TREES	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A	3'-6' NOTE 6	N/A	N/A
ALL OTHER UTILITIES	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2	3' NOTE 1	12"	3' NOTE 2

NOTES:

1. THIS SEPARATION REQUIREMENT IS TO PROVIDE ACCESSIBILITY FOR CONSTRUCTION AND MAINTENANCE. THREE FEET OF HORIZONTAL SEPARATION IS THE MINIMUM FOR PIPES WITH THREE FEET OF COVER. FOR PIPES INSTALLED AT GREATER DEPTH, PROVIDE AN ADDITIONAL FOOT OF SEPARATION FOR EACH ADDITIONAL FOOT OF DEPTH.
2. THE MINIMUM JOINT SPACING REQUIRED FROM CROSSING FROM OTHER UTILITIES WHILE STILL MAINTAINING MINIMUM VERTICAL SEPARATION.
3. DISTANCES GIVEN ARE FROM OUTSIDE OF PIPE TO OUTSIDE OF PIPE.
4. NO WATER PIPE SHALL PASS THROUGH OR COME INTO CONTACT WITH ANY PART OF SANITARY OR STORM WATER MANHOLE OR STRUCTURES.
5. WATER MAIN SHOULD CROSS ABOVE OTHER PIPES WHENEVER POSSIBLE. WHEN WATER MAIN MUST BE BELOW OTHER UTILITY PIPING, THE MINIMUM SEPARATION SHALL BE 12 INCHES.
6. REFER TO POTABLE WATER PIPING- SECTION 350, III.4.11.
7. SEE SECTION 350, III.4.10 FOR MINIMUM SEPARATION REQUIREMENTS FROM PIPE TO STRUCTURES.

2 C520 SEPARATION REQUIREMENTS

NOT TO SCALE

LENGTH (L) TO BE RESTRAINED

NOMINAL PIPE SIZE (IN.)	HORIZONTAL BENDS				VERTICAL OFFSETS 45° BENDS (SEE NOTE 2)		VALVES OR DEAD ENDS
	90° BENDS L (FT.)	45° BENDS L (FT.)	22.5° BENDS L (FT.)	11.25° BENDS L (FT.)	UPPER L (FT.)	LOWER L (FT.)	L (FT.)
4	21	9	5	3	17	3	47
6	30	13	6	3	23	4	66
8	38	16	8	4	30	6	86

REDUCERS	
SIZE (IN.)	L (FT.)
6x4	34
8x6	36
8x4	62

TEES SEE NOTE 3		
RUN SIZE (IN.)	BRANCH SIZE (IN.)	L (FT.)
4	4	F.O.
4	6 4 < LESS	10 F.O.
8	8 6 < LESS	29 F.O.

F.O. = FITTING ONLY

NOTES:

1. PIPE RESTRAINT ASSUMPTIONS: PVC PIPE, SAFETY FACTOR = 1.5, TEST PRESSURE=150PSI, DEPTH OF COVER=30 INCHES.
2. VERTICAL OFFSETS ARE APPROXIMATELY 3 FEET OF COVER ON TOP AND APPROXIMATELY 8 FEET COVER ON BOTTOM. Lu IS THE RESTRAINED LENGTH FOR THE TOP LEVEL. Li IS THE RESTRAINED LENGTH FOR THE BOTTOM LEVEL.
3. TEES: TOTAL LENGTH BETWEEN FIRST JOINTS OR RESTRAINED LENGTH ON EITHER SIDE OF THE TEE (RUN) SHALL BE A TOTAL DISTANCE OF 30 FEET (MIN.).
4. THE INSTALLATION OF BELL HARNESS RESTRAINTS AT PVC JOINTS SHALL BE COMPLETED PER THE MANUFACTURER'S RECOMMENDATIONS.

4 C520 PVC PIPE RESTRAINT JOINT SCHEDULE

NOT TO SCALE

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES AYG DRW AYG CHK --

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH J. FRANK

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY — PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

UTILITY DETAILS

SCALE: --

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NAVFAC DRAWING NO.

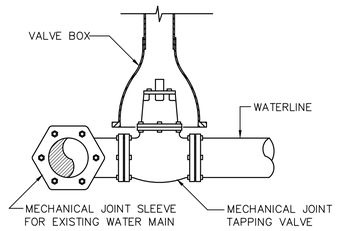
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C520

DRAWFORM REVISION: 7 AUGUST 2009

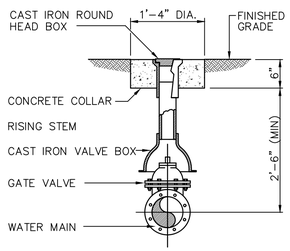
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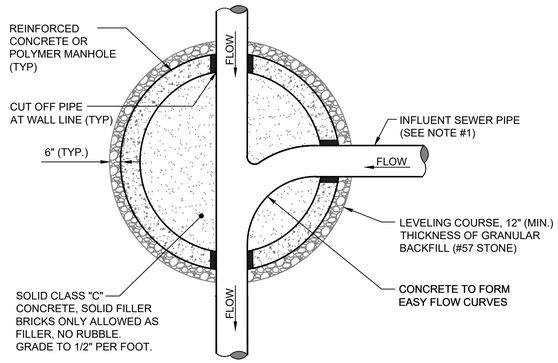


NOTES:
INSTALL THRUST BLOCKS IN ACCORDANCE WITH SPECIFICATIONS

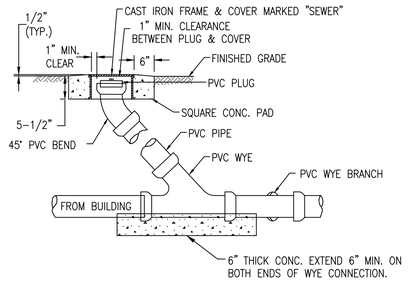
1 C521 TAPPING SLEEVE
NTS



2 C521 VALVE DETAIL
NTS



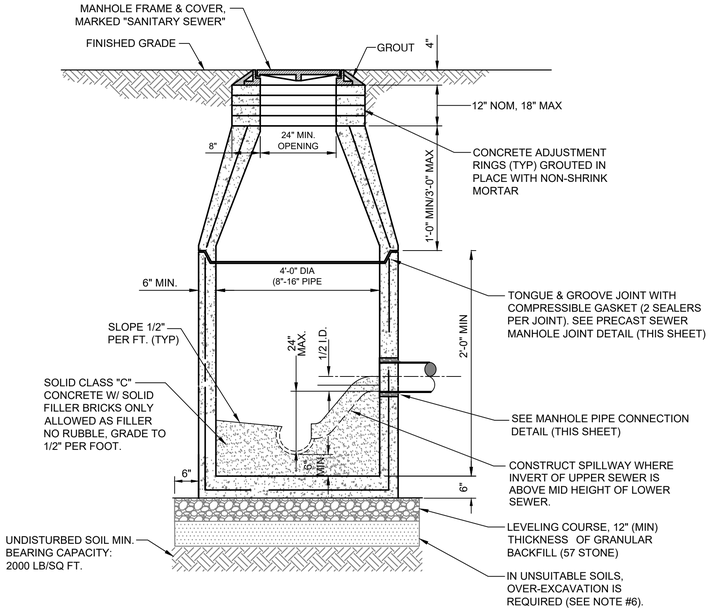
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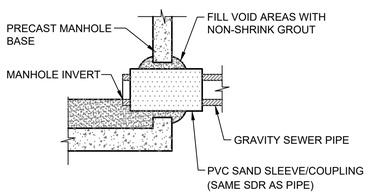
3 C521 SANITARY SEWER CLEAN OUT
NOT TO SCALE

NOTES:

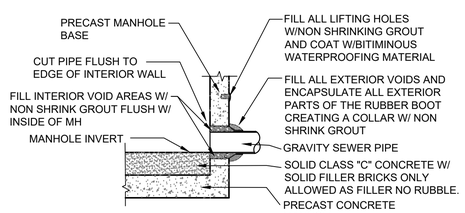
1. PRECAST MANHOLE SECTIONS TO BE MANUFACTURED IN ACCORDANCE WITH THE LATEST EDITIONS OF A.S.T.M. C-478 WITH 4000 LB. CONC., TYPE II CEMENT. ALL LIFTING HOLES AND OUTSIDE INSERTS SHALL BE FILLED WITH NON-SHRINK GROUT AND COATED WITH BITUMINOUS WATERPROOFING MATERIAL.
2. THE INTERIOR AND EXTERIOR OF MANHOLE AND ADJUSTING RINGS SHALL BE GIVEN TWO COATS OF BITUMINOUS WATERPROOFING MATERIAL.
3. IF SPECIALTY LINER IS TO BE INSTALLED ON INSIDE SURFACE OF MANHOLE, THE BITUMINOUS WATERPROOFING MATERIAL SHALL BE OMITTED ON THE INSIDE.
4. JUNCTION MANHOLE (CLOSEST TO WETWELL) SHALL BE 5' DIA WITH SPECIALTY LINER.
5. ALL MANHOLE JOINTS BELOW THE TOP COVER SECTION SHALL INCLUDE A 6" WIDE (MIN) EXTERIOR JOINT TAPE (WITH PRIMER). TAPE ON THE CONE SECTION IS OPTIONAL. SEE THIS SHEET.
6. IN SILTS, CLAY OR HIGHLY ORGANIC SOILS (FINE-GRAINED SOILS INCLUDING SOIL GROUPS ML, CL, OL, MH, CH, OH AND PT) THE SOILS SHALL BE OVER-EXCAVATED AN ADDITIONAL 24" (AT A MIN.) AND BACKFILLED WITH AASHTO CLASS A-3 SOIL (COMPACTED TO 98%, ASTM D1557) OR OVER-EXCAVATE AN ADDITIONAL 12" (AT A MIN.) AND BACKFILL WITH GRANULAR BACKFILL (57 STONE).



4 C521 SANITARY MANHOLE
NOT TO SCALE

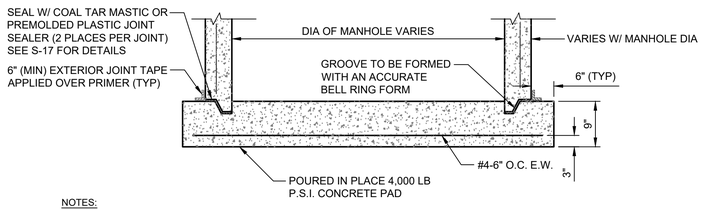


PVC SAND SLEEVE
(FOR EXISTING AND NEW M/H CONSTRUCTION)



NOTES:
RUBBER BOOT, DOUBLE BANDED, 316 S/S CLAMPS, MEETING THE ASTM C923 STANDARD. Kor-N-Seal® I EX SERIES CONNECTOR WITH DOUBLE STAINLESS STEEL BANDS OR EQUAL.

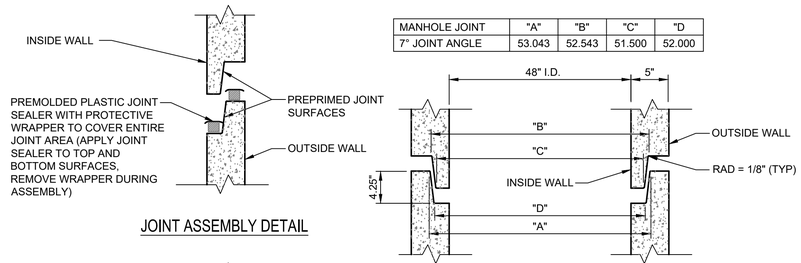
RUBBER BOOT
(FOR NEW M/H CONSTRUCTION ONLY, MAXIMUM DEPTH 15FT)



NOTES:
THE USE OF THE POURED IN PLACE MANHOLE BOTTOM SHALL BE MINIMIZED AND SHALL BE SPECIFICALLY APPROVED BY NSA PANAMA CITY PWD.

MANHOLE BOTTOM

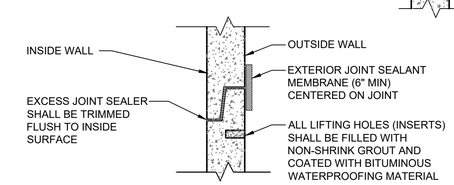
5 C521 MAHOLE PIPE CONNECTION DETAIL
NOT TO SCALE



MANHOLE JOINT	"A"	"B"	"C"	"D
7° JOINT ANGLE	53.043	52.543	51.500	52.000

JOINT ASSEMBLY DETAIL

JOINT CONSTRUCTION DETAIL



COMPLETED JOINT DETAIL

6 C521 PRECAST SEWER MAHOLE JOINT DETAIL
NOT TO SCALE

DES	DRW	CHK
AYG	AYG	--

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH J. FRANK
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL FACILITIES ENGINEERING COMMAND
NSA PANAMA CITY
PANAMA CITY, FLORIDA
MARITIME MINING FACILITY
UTILITY DETAILS

FOR BID ONLY
NOT FOR CONSTRUCTION
A/E INFO

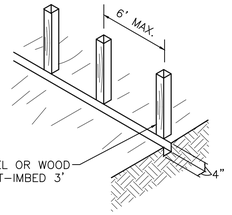
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
C521

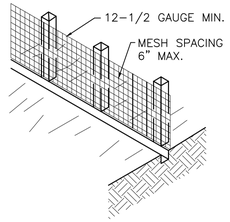
DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\N61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C520 UTILITY DETAILS.dwg LAYOUT NAME: C521 PLOTTED: Friday, May 02, 2025 - 8:19am USER: andre.gandonco

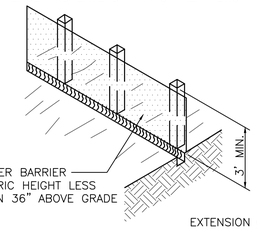
1. SET POSTS AND EXCAVATE A 4" x 4" TRENCH UPSLOPE ALONG THE LINE OF POSTS.



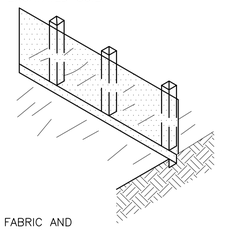
2. STAPLE WIRE FENCING TO THE POSTS.



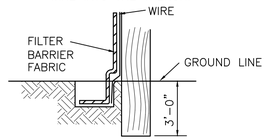
3. ATTACH THE FILTER BARRIER FABRIC TO THE WIRE FENCE AND EXTEND IT INTO THE TRENCH.



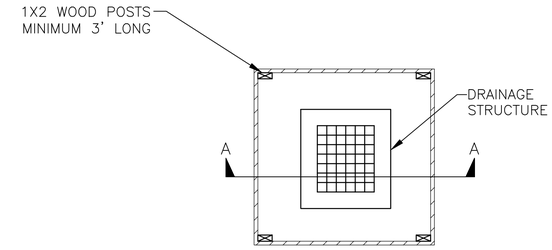
4. BACKFILL AND COMPACT THE EXCAVATED SOIL.



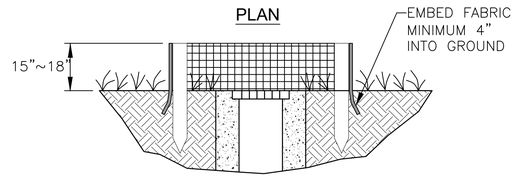
EXTENSION OF FABRIC AND WIRE INTO THE TRENCH.



1 C530 TEMPORARY SEDIMENT FENCE DETAIL
NOT TO SCALE



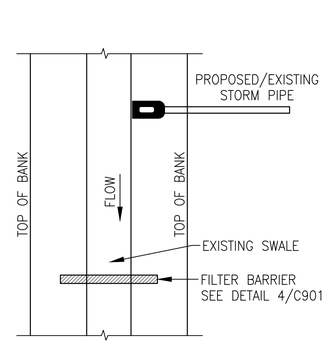
PLAN

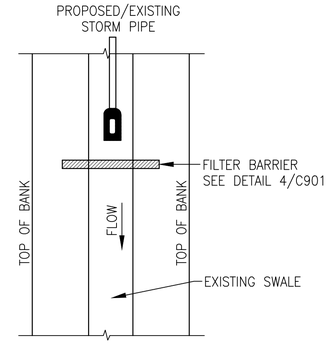


SECTION A-A

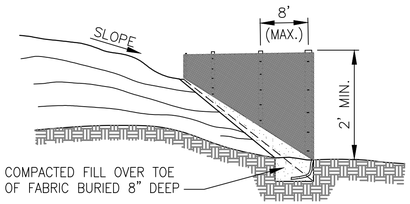
NOTE:
STRAW BALES MAY BE USED IN LIEU OF FABRIC AROUND CATCH BASINS. IF USED, BALES SHALL BE IMBEDDED A MINIMUM OF 4" INTO THE GROUND AND SECURELY STAKED IN PLACE.

2 C530 DRAINAGE INLET PROTECTION DETAIL (TURFED AREAS)
NOT TO SCALE

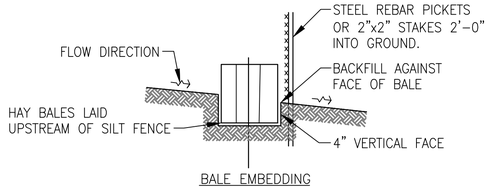




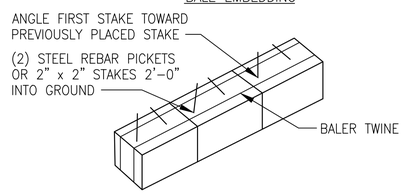
3 C530 SILT BARRIER AT CONNECTION OF STORM PIPE TO EXISTING SWALE
NOT TO SCALE



NOTES:
1. STEEL REBAR PICKETS OR 2" X 2" STAKES 2'–0" INTO GROUND @ 8'o/c. LOCATE POSTS ON DOWNSLOPE SIDE OF FILTER FABRIC.
2. BURY TOE OF FENCE APPROXIMATELY 8" DEEP TO PREVENT UNDERCUTTING.
3. WHEN JOINTS ARE NECESSARY, SECURELY FASTEN THE FABRIC AT A SUPPORT POST WITH OVERLAP TO THE NEXT POST.
4. FILTER FABRIC TO BE NYLON, POLYESTER, PROPYLENE OR ETHYLENE YARN WITH EXTRA STRENGTH – 50LB/LIN. IN. (MINIMUM) – AND WITH A FLOW RATE OF AT LEAST 0.3 GAL./SQ. FT./MINUTE. FABRIC SHOULD CONTAIN ULTRAVIOLET RAY INHIBITORS AND STABILIZERS.

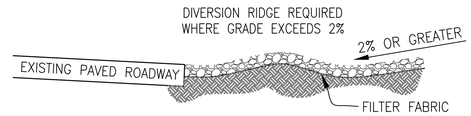


BALE EMBEDDING

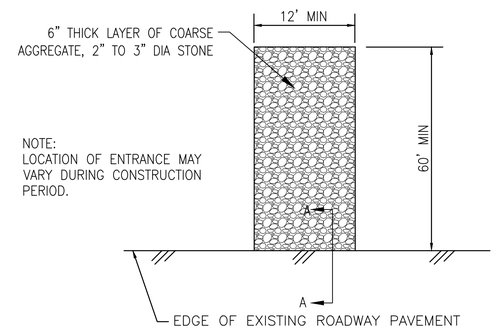


BALE ANCHORING

4 C530 FILTER BARRIER (FB)
NOT TO SCALE



SECTION "A-A"
N.T.S.



NOTE:
LOCATION OF ENTRANCE MAY VARY DURING CONSTRUCTION PERIOD.

5 C530 TEMPORARY CONSTRUCTION ENTRANCE/EXIT
NOT TO SCALE

APPR	DATE	DESCRIPTION	SYM
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NAVFAC

FOR BID ONLY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	AYG	DRW	AYG	CHK	--

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	J. FRANK
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY — PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

EROSION CONTROL NOTES

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

C530

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: P:\CIB\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\H/N61095\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Civil\DWG\C530 EROSION CONTROL.dwg LAYOUT NAME: C530 EROSION AND SEDIMENT CONTROL DETAILS PLOTTED: Friday, May 02, 2025 - 8:19pm USER: andre.gundlovco

GENERAL STRUCTURAL NOTES

1. THESE GENERAL NOTES ARE NOT INTENDED TO REPLACE THE PROJECT SPECIFICATIONS. SEE PROJECT SPECIFICATIONS FOR REQUIREMENTS IN ADDITION TO GENERAL NOTES.
2. THE STRUCTURAL DRAWINGS MUST GOVERN THE WORK FOR ALL STRUCTURAL FEATURES, UNLESS NOTED OTHERWISE.
3. THE METHOD AND FREQUENCY OF ATTACHING MECHANICAL EQUIPMENT UNITS TO THE STRUCTURAL ELEMENTS IS BE SUBJECT TO THE SEOR'S REVIEW AND APPROVAL.
4. ALL STRUCTURAL WORK MUST BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. SEE SPECIFICATION FOR REQUIREMENTS FOR SPECIAL INSPECTIONS.
5. THE STRUCTURAL DRAWINGS AND SPECIFICATIONS REPRESENT THE FINISHED STRUCTURE AND DO NOT INDICATE THE METHOD OR MEANS OF CONSTRUCTION, UNO. SUPERVISE AND DIRECT THE WORK AND BE SOLELY RESPONSIBLE FOR ALL CONSTRUCTION MEANS, METHODS, PROCEDURES, TECHNIQUES, AND SEQUENCE. ALL APPLICABLE SAFETY REGULATIONS MUST BE STRICTLY FOLLOWED.
6. VERIFY ALL EXISTING CONDITIONS AND DIMENSIONS. NOTIFY THE CONTRACTING OFFICER OF ANY AND ALL DISCREPANCIES AND ADDITIONAL INFORMATION BEFORE BEGINNING THE WORK.
7. USE EXTREME CAUTION IN THE DEMOLITION OF THE EXISTING STRUCTURAL ELEMENTS. SUCH DEMOLITION MUST BE PERFORMED IN A MANNER AS TO MAINTAIN THE STRUCTURAL INTEGRITY OF THE EXISTING STRUCTURE TO REMAIN. TEMPORARY SHORING AND BRACING REQUIRED FOR DEMOLITION IS THE RESPONSIBILITY OF THE CONTRACTOR.
8. PREPARE AND SUBMIT A WRITTEN DEMOLITION PLAN, SIGNED AND SEALED BY A PROFESSIONAL ENGINEER, TO THE CONTRACTING OFFICER.
9. REPRODUCTION OF CONTRACT DRAWINGS MUST NOT BE USED AS SHOP DRAWINGS UNDER ANY CIRCUMSTANCE.
10. DO NOT SCALE DIMENSIONS FROM DRAWINGS. REQUEST, FROM THE CONTRACTING OFFICER, NECESSARY DIMENSIONS NOT SHOWN ON THE DRAWINGS.
11. EACH CONTRACTOR RESPONSIBLE FOR THE CONSTRUCTION OF A MAIN WIND OR SEISMIC FORCE RESISTING SYSTEM, DESIGNATED SEISMIC SYSTEM, OR A WIND OR SEISMIC RESISTING COMPONENT LISTED IN THE STATEMENT OF SPECIAL INSPECTIONS, MUST SUBMIT A WRITTEN STATEMENT OF RESPONSIBILITY TO THE CONTRACTING OFFICER PRIOR TO THE COMMENCEMENT OF WORK ON THE SYSTEM OR COMPONENT. THE CONTRACTOR'S STATEMENT OF RESPONSIBILITY MUST CONTAIN ACKNOWLEDGEMENT OF AWARENESS OF THE SPECIAL REQUIREMENTS CONTAINED IN THE STATEMENT OF SPECIAL INSPECTION.
12. VERIFY THE LOCATION OF CHASES, INSERTS, OPENINGS, SLEEVES, FINISHES, DEPRESSIONS, PADS, AND WALL OPENINGS PRIOR TO CONSTRUCTION.
13. DETAILS LABELED "TYPICAL" ON DRAWINGS APPLY TO SITUATIONS OCCURRING ON THE PROJECT THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. SUCH DETAILS APPLY WHETHER OR NOT THE DETAILS ARE REFERENCED AT EACH LOCATION. NOTIFY THE SEOR OF CONFLICTS REGARDING THE APPLICABILITY OF "TYPICAL" DETAILS.
14. DO NOT LOAD THE SLAB-ON-GROUND WITH ERECTION CRANES OR ERECTION EQUIPMENT. THE SLABS HAVE NOT BEEN DESIGNED FOR THIS LOADING. OBTAIN APPROVAL FROM THE SEOR FOR ERECTION EQUIPMENT SUPPORT PLANS FOR SLABS PRIOR TO COMMENCING WORK.
15. DO NOT STORE OR STACK CONSTRUCTION MATERIALS ON FLOORS/ROOFS IN EXCESS OF 80% OF THE DESIGN LIVE LOAD. ENSURE THAT ALL SUB-CONTRATORS ARE INFORMED OF LOADING RESTRICTIONS. AVOID IMPACT WHEN PLACING MATERIALS ON FLOORS OR ROOFS.
16. THE METHOD AND FREQUENCY OF ATTACHING MECHANICAL EQUIPMENT UNITS TO THE STRUCTURAL ELEMENTS ARE SUBJECT TO THE REVIEW AND APPROVAL OF THE SEOR.
17. PROVIDE TEMPORARY BRACING AND SHORING OF THE STRUCTURE AND COMPONENTS UNTIL ALL COMPONENTS ARE ERECTED AND ALL CONNECTIONS ARE FULLY MADE TO ENSURE STABILITY DURING CONSTRUCTION. BRACE ALL WALLS DURING CONSTRUCTION AGAINST WIND AND CONSTRUCTION LOADS. THE STRUCTURE HAS BEEN DESIGNED TO RESIST DESIGN LOADS ONLY AS A COMPLETED STRUCTURE.
18. PRINCIPAL OPENINGS THROUGH THE FRAMING ARE SHOWN ON DRAWINGS. EXAMINE THE ARCHITECTURAL AND MECHANICAL DRAWINGS FOR THE REQUIRED OPENINGS AND PROVIDE FOR REQUIRED OPENINGS, WHETHER SHOWN ON THE STRUCTURAL DRAWINGS OR NOT. VERIFY SIZE AND LOCATION OF OPENINGS WITH THE MECHANICAL DRAWINGS. DEVIATIONS FROM THE OPENINGS SHOWN ON THE STRUCTURAL DRAWINGS MUST BE APPROVED BY THE SEOR PRIOR TO IMPLEMENTATION OF THE CHANGES.
19. ALL STRUCTURAL WORK MUST BE INSPECTED IN ACCORDANCE WITH THE BUILDING CODE AND ALL LOCAL ORDINANCES. SEE SPECIFICATION FOR REQUIREMENTS FOR SPECIAL INSPECTIONS.

REFERENCED STANDARDS

UFC 1-200-01	DoD BUILDING CODE, 09-01-2022 w/ CHANGE 3, 02-26-2024
UFC 3-301-01	STRUCTURAL ENGINEERING, 04-11-2023 w/ CHANGE 1, 10-02-2023
UFC 4-010-01	DoD MINIMUM ANTI-TERRORISM STANDARDS FOR BUILDINGS, 12-12-2018, w/ CHANGE 07-30-2022
IBC 2021	INTERNATIONAL BUILDING CODE, 2021, AS AMENDED BY THE UFCs
ASCE 7-16	AMERICAN SOCIETY OF CIVIL ENGINEERS, MINIMUM DESIGN LOADS AND ASSOCIATED CRITERIA FOR BUILDINGS AND OTHER STRUCTURES.
ACI 318-19	AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
AISC 360-22	SPECIFICATIONS FOR STRUCTURAL STEEL BUILDINGS
AISI S100-16 (R2020 W/S3-23)	NORTH AMERICAN SPECIFICATION FOR THE DESIGN OF COLD-FORMED STEEL STRUCTURAL MEMBERS, 2016 EDITION (REAFFIRMED 2020) WITH SUPPLEMENT 3, 2022 EDITION
AWS D1.1	AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE - STEEL, 2020 EDITION
AWS D1.3/D1.3M	STRUCTURAL WELDING CODE-SHEET STEEL, 2018
AWS D1.4	AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE - REINFORCING STEEL INCLUDING METAL INSERTS AND CONNECTIONS IN REINFORCED CONCRETE CONSTRUCTION, 2011
ANSI/SDI C-2017	STANDARD FOR COMPOSITE STEEL FLOOR DECK – SLABS, 2017
ANSI/SDI QA/QC-2017	STANDARD FOR QUALITY CONTROL AND QUALITY ASSURANCE FOR INSTALLATION OF STEEL DECK
ANSI/SDI T-CD-2017	TEST STANDARD FOR COMPOSITE STEEL DECK – SLABS
ANSI/SDI COSP 2023	SDI CODE OF STANDARD PRACTICE FOR STEEL DECK – NO. COSP23
ANSI/SDI SD-2022	STANDARD FOR STEEL DECK

SUBMITTALS

SUBMIT THE FOLLOWING SHOP DRAWINGS AND CALCULATIONS FOR APPROVAL PRIOR TO FABRICATION & ERECTION:

1. CONCRETE MIX DESIGN
2. STEEL REINFORCEMENT LAYOUT DRAWINGS FOR CONCRETE
4. COLD FORMED STEEL (e.g., LIGHT GAGE STUD FRAMING FOR EXTERIOR WALLS) DETAILS AND DESIGN CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
5. STRUCTURAL STEEL
6. METAL DECKING
7. STAIR & HANDRAIL DESIGN AND CALCULATIONS SIGNED AND SEALED BY A PROFESSIONAL ENGINEER.
9. TESTING LAB RESULTS FOR SOIL DENSITY, CONCRETE COMPRESSIVE STRENGTHS.

FOUNDATIONS

1. THE FOUNDATIONS HAVE BEEN DESIGNED BASED ON THE GEOTECHNICAL REPORT PREPARED BY TERRACON, TELLAHASSEE, FLORIDA AND DATED NOVEMBER 7, 2024. SEE GEOTECHNICAL REPORT FOR DETAILED INSTRUCTIONS REGARDING REMOVAL OF OBJECTIONABLE MATERIALS, FILL MATERIAL, BACKFILLING, DENSIFICATION OF EXISTING SOIL, GROUNDWATER CONTROL, AND TESTING.

   1.1. THE FOUNDATIONS HAVE BEEN DESIGNED FOR THE FOLLOWING NET ALLOWABLE BEARING PRESSURES: SPREAD FOOTINGS - 2500 PSF
2. ADEQUATELY PROTECT FOUNDATION EXCAVATIONS TO PREVENT WATER FROM ACCUMULATING AND STANDING IN THE EXCAVATION BOTTOMS CAUSED BY RAINFALL AND GROUNDWATER. MAINTAIN PROPER SITE DRAINAGE DURING CONSTRUCTION TO ENSURE SURFACE RUN-OFF FLOWS AWAY FROM THE STRUCTURES AND TO PREVENT PONDING OF SURFACE RUN-OFF NEAR THE STRUCTURES.
3. DO NOT PLACE FOUNDATION CONCRETE ON SATURATED SUBGRADES.
4. ENSURE THAT EARTH-FORMED FOUNDATIONS CONFORM TO THE SHAPE, LINES, AND THICKNESSES INDICATED ON THE FOUNDATION PLANS. EXCAVATION WIDTHS MUST BE A MINIMUM OF 4 INCHES GREATER THAN THE DIMENSIONS INDICATED.
5. DO NOT INSTALL FOUNDATIONS UNTIL FOUNDATION WORK HAS BEEN COORDINATED WITH ADJACENT UNDERGROUND UTILITIES AND STRUCTURES. UTILITIES MUST NOT BE PLACED THROUGH OR BELOW FOUNDATIONS WITHOUT THE APPROVAL OF THE STRUCTURAL ENGINEER OF RECORD.
6. ALL EXCAVATIONS WITHIN 5 FEET OF EXISTING STRUCTURES TO REMAIN MUST BE REMOVED BY HAND. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR TAKING ADEQUATE PRECAUTIONS NOT TO DAMAGE EXISTING INFRASTRUCTURE DURING ALL EXCAVATIONS, FILL, AND COMPACTION OPERATIONS.
7. KEEP OPEN EXCAVATIONS DRY. PUMP WATER OUT OF OPEN EXCAVATIONS IF FLOODING OCCURS PRIOR TO CONCRETE PLACEMENT.
8. PROTECT PIPES AND CONDUITS PENETRATING THROUGH WALLS AND SLABS WITH 1/2-INCH EXPANSION JOINT MATERIAL.

CONCRETE

1. ALL CONCRETE CONSTRUCTION MUST BE IN ACCORDANCE WITH THE PROVISIONS OF THE AMERICAN CONCRETE INSTITUTE (ACI) "BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE" (ACI 318).
2. CAST-IN-PLACE CONCRETE MUST HAVE THE FOLLOWING MINIMUM 28-DAY COMPRESSIVE STRENGTHS (f'_c):
   CONTINUOUS WALL FOUNDATIONS ..... 3000 PSI
   ISOLATED COLUMN FOUNDATIONS ..... 3000 PSI
   SLAB-ON-GROUND ..... 4000 PSI
   ELEVATED SLABS ..... 3000 PSI
3. ALL CONCRETE MUST BE NORMAL WEIGHT CONCRETE (144 PCF +) WITH ALL CEMENT CONFORMING TO ASTM C150 TYPE I, II OR ASTM C595 1L. AGGREGATES MUST CONFORM TO ASTM C33. SEE SPECIFICATION SECTION 03 30 00 FOR SUBMITTAL REQUIREMENTS, DESIGN MIX PROPORTIONS, SLUMP LIMITS, AGGREGATES, AND TESTING REQUIREMENTS.
4. GROUT UNDER BASE PLATES SHALL BE HIGH STRENGTH, NON-SHRINK, NON-METALLIC, 5000 PSI MINIMUM, CONFORMING TO ASTM C1107.
5. STEEL REINFORCING MUST CONFORM TO THE FOLLOWING SPECIFICATIONS:
   DEFORMED BAR ..... ASTM A615, GRADE 60
   LOW ALLOY DEFORMED BAR (WELDABLE) ..... ASTM A706, GRADE 60
   WELDED WIRE REINFORCEMENT (PLAIN) ..... ASTM A1064
   DEFORMED BAR ANCHOR ..... ASTM A1064, TYPE C
6. THE FOLLOWING MINIMUM CONCRETE COVER MUST BE PROVIDED FOR REINFORCEMENT, UNLESS NOTED OTHERWISE:
   CONCRETE CAST AGAINST AND PERMANENTLY EXPOSED TO EARTH ..... 3"
   CONCRETE EXPOSED TO EARTH OR WEATHER ..... 2"
   CONCRETE NOT EXPOSED TO WEATHER OR IN CONTACT WITH GROUND:
   SLABS AND WALLS ..... 3/4"
   BEAMS AND COLUMNS ..... 1 1/2"
7. SPLICES IN REINFORCING, WHERE PERMITTED, ARE AS FOLLOWS:
   WELDED WIRE REINFORCEMENT ..... 8"
   ALL OTHERS ..... CLASS "B" TENSION, CASE "1" MINIMUM UNO
8. CLASS "B" CASE "1" TENSION LAP SPLICES ARE AS FOLLOWS:

BAR SIZE	NORMAL WEIGHT CONCRETE			
	f'_c = 3000 PSI		f'_c = 4000 PSI	
	TOP BARS	ALL OTHERS	TOP BARS	ALL OTHERS
#3	28"	22"	24"	19"
#4	37"	29"	32"	25"
#5	47"	36"	40"	31"
#6	56"	43"	48"	37"

9. PROVIDE NECESSARY CONSTRUCTION JOINTS IN MONOLITHIC CONCRETE POURS SO THAT THE QUALITY OF PLACEMENT AND FINISH MEETS THE REQUIREMENTS OF THE PLANS AND SPECIFICATIONS. SUBMIT A PLAN SHOWING THE LOCATION OF ALL CONSTRUCTION JOINTS TO THE STRUCTURAL ENGINEER OF RECORD FOR APPROVAL.
10. INJECTABLE EPOXY ANCHOR ADHESIVE MUST BE USED FOR INSTALLATION OF ALL REINFORCING STEEL DOWELS AND THREADED ANCHORS WHERE DENOTED ON PLAN AS "DRILL AND EPOXY." THE REQUIRED DESIGN STRENGTH CAPACITIES (IN POUNDS; NON-CONCURRENT LOADS) FOR ANCHORS IN CRACKED CONCRETE ARE AS FOLLOWS:

BAR SIZE	EMBEDMENT DEPTH	f'_c = 3000 PSI		f'_c = 4000 PSI	
		TENSION, ϕN_N (LBF)	SHEAR, ϕV_N (LBF)	TENSION, ϕN_N (LBF)	SHEAR, ϕV_N (LBF)
5/8"ø [#5]	4" EMBED	3,345 [N/A]	6,610 [8,930]	3,860 [N/A]	6,610 [8,930]
	6" EMBED	8,075 [7,970]		8,805 [8,200]]	
	8" EMBED	11,405 [10,625]		11,740 [10,935]	
3/4"ø [#6]	4" EMBED	3,965 [N/A]	9,785 [12,670]	4,575 [N/A]	9,785 [12,670]
	7" EMBED	10,615 [10,615]		12,255 [11,810]	
	9" EMBED	16,340 [15,300]		18,205 [15,745]	

EPOXY ANCHOR ROD ..... AISI 1038
STEEL REINFORCING DOWELS ..... ASTM A615 GRADE 60, UNCOATED INSTALL ANCHORS IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS

STRUCTURAL STEEL

1. THE DESIGN, FABRICATION, AND ERECTION OF STRUCTURAL STEEL FOR BUILDINGS AND STRUCTURES SHALL BE IN ACCORDANCE WITH THE SPECIFICATION FOR STRUCTURAL STEEL BUILDINGS, ANSI/AISC 360.
2. THE REQUIRED MATERIAL SPECIFICATION FOR STRUCTURAL STEEL MEMBERS ARE AS FOLLOWS:
   WIDE-FLANGE SHAPES AND TEES ..... ASTM A992
   CHANNELS ..... ASTM A36
   PLATES AND ANGLES ..... ASTM A36, UNO
   HIGH STRENGTH BOLTS ..... ASTM F3125, GRADE A325
   HSS (HOLLOW STRUCTURAL SHAPES) ..... ASTM A1085. Fy=50 KSI (MIN)
   ROUND HSS ..... ASTM A500, GRADE B. Fy=42 KSI
   PIPES ..... ASTM A53, GRADE B. Fy=35 KSI
   ANCHOR RODS W/ NUT AND WASHER ..... ASTM F1554, GRADE 36
   THREADED ROD ..... ASTM A307
   WELDED STUDS ..... ASTM A29
   WELDING ELECTRODES ..... AWS D1.1, E70XX
3. COMPRESSIBLE-WASHER-TYPE DIRECT TENSION INDICATORS OR TWIST-OFF-TYPE TENSION-CONTROL BOLTS CONFORMING TO "RCSC SPECIFICATION FOR STRUCTURAL JOINTS USING HIGH-STRENGTH BOLTS" MUST BE PROVIDED AT ALL BOLTED CONNECTIONS.
4. FOR CONNECTIONS NOT DETAILED AND OTHER CONNECTIONS REQUIRED BY THE ERECTION PROCEDURES, THE FABRICATOR MUST SUBMIT DETAILS AND CALCULATIONS TO THE ENGINEER OF RECORD FOR APPROVAL, PRIOR TO STEEL FABRICATION. THE CALCULATIONS MUST BE PREPARED AND SEALED/STAMPED BY A PROFESSIONAL ENGINEER LICENSED IN THE UNITED STATES. SEE NOTE 6 FOR ADDITIONAL MINIMUM DESIGN CRITERIA FOR SHEAR CONNECTIONS.
5. SHEAR CONNECTIONS MUST BE DESIGNED FOR 50 PERCENT OF THE MAXIMUM TOTAL UNIFORM LOAD AS INDICATED IN THE LOAD TABLES OF PART 3 OF THE AISC "STEEL CONSTRUCTION MANUAL," FOR THE BEAM SIZE, SPAN, AND GRADE OF STEEL SPECIFIED.
6. ALL WELDING MUST BE IN ACCORDANCE WITH THE "STRUCTURAL WELDING CODE," AWS D1.1.
7. WHERE NOTED, HOT DIP GALVANIZE IN ACCORDANCE WITH ASTM A123 AFTER FABRICATION.
8. REFERENCE ARCHITECTURAL/LIFE SAFETY DRAWINGS FOR LOCATIONS WHERE STEEL MEMBERS ARE TO RECEIVE SPRAY-APPLIED FIREPROOFING. DO NOT APPLY SHOP PAINT TO THESE MEMBERS.

METAL DECK

1. THE DESIGN, MANUFACTURE, AND ERECTION OF METAL DECK MUST BE GOVERNED BY ANSI/SDI SD-2022 STANDARD FOR STEEL DECK.
2. ALL STEEL DECK SHALL HAVE A MINIMUM SPECIFIED YIELD STRESS OF 33 KSI.
3. ALL STEEL FLOOR DECK SHALL BE 2 INCH DEEP, 20-GAGE COMPOSITE STEEL DECK CONFORMING TO ASTM A653.
4. ALL STEEL DECK SHALL BE GALVANIZED (G90) AND HAVE A MINIMUM SPECIFIED YIELD STRESS OF 50 KSI.
5. STEEL DECK SHALL BE CONTINUOUS OVER THREE SPANS MINIMUM.
6. DECK CONTRACTOR SHALL COORDINATE OPENING SIZES IN DECK FROM ARCHITECTURAL AND MECHANICAL DRAWINGS.

DESIGN LOADS

1. DEAD LOADS
   A. PRE-ENGINEERED BUILDING ROOF DEAD LOADS
      a. ACTUAL SELF WEIGHT OF ALL BUILDING MATERIALS
         COLLATERAL (SUPERIMPOSED) DEAD LOAD ..... 10 PSF
   B. MEZZANINE
      a. 5" CONC. SLAB OVER 2" COMP. METAL DECK ..... 51 PSF
      b. 2" COMP. METAL DECK ..... 2 PSF
      c. CONCRETE PONDING ..... 7 PSF
      d. FRAMING (BEAMS AND GIRDERS) ..... 5 PSF
      e. COLLATERAL (SUPERIMPOSED) DEAD LOAD ..... 10 PSF
      f. TOTAL DEAD LOAD ..... 75 PSF
   C. SLAB-ON-GROUND 1ST / FLOOR DEAD LOADS
      a. LIGHT-GAGE STUD PARTITION WALL ..... 10 PSF * HT OF WALL
2. LIVE LOADS
   A. ROOF LIVE LOADS (NON-REDUCIBLE) ..... 20 PSF
   B. FLOOR LIVE LOADS
      a. MEZZANINE ..... 150 PSF (NON-REDUCIBLE)
      b. SLAB ON GROUND ..... 250 PSF
3. WIND DESIGN DATA IN ACCORDANCE WITH ASCE 7-16 AND IFC 3-301-01
   A. ULTIMATE DESIGN WIND SPEED, V_{ULT} ..... 136 MPH
   B. RISK CATEGORY II
   C. WIND EXPOSURE CATEGORY C
   D. ENCLOSURE CLASSIFICATION ..... ENCLOSED
   E. INTERNAL PRESSURE COEFFICIENTS ..... +/- 0.18
   F. MEAN ROOF HEIGHT ..... 30'-0"
   G. DESIGN WIND PRESSURES FOR COMP & CLADDING ..... SEE SHEET S002
   H. 10-YEAR MRI WIND SPEED ..... 79 MPH 3-SEC GUST
   I. PROJECT IS LOCATED IN WIND BORNE DEBRIS REGION.
   J. GLAZING IN BUILDINGS MUST BE IMPACT RESISTANT MEETING THE REQUIREMENTS OF THE LARGE MISSILE TEST OF ASTM E1996
4. SEISMIC DESIGN DATA
   A. RISK CATEGORY II
   B. SEISMIC IMPORTANCE FACTOR, I_e 1.0
   C. MAPPED SPECTRAL RESPONSE ACCELERATION PARAMETERS
      a. SHORT PERIODS, S_S ..... 0.067 g
      b. 1 SECOND PERIODS, S_1 ..... 0.049 g
   D. SITE CLASS ..... E
   E. DESIGN SPECTRAL RESPONSE ACCELERATION PARAMETERS
      a. SHORT PERIODS, S_{DS} ..... 0.107 g
      b. 1 SECOND PERIODS, S_{D1} ..... 0.138 g
   F. SEISMIC DESIGN CATEGORY C
5. ROOF SNOW LOAD
   A. GROUND SNOW LOAD, P_g ..... 0 PSF

PRE-ENGINEERED METAL BUILDINGS

1. BUILDING MUST BE CONSTRUCTED IN ACCORDANCE WITH METAL BUILDING MANUFACTURER'S ASSOCIATION (MBMA) CRITERIA.
2. COLLATERAL LOAD: 10 PSF
3. DESIGN FOR HOIST BEAM LOADS: SEE PLAN
4. WIND LOAD AS SPECIFIED IN NOTES ABOVE.
5. DOD MINIMUM ANTITERRORISM FORCES: IN ACCORDANCE WITH UFC 4-010-01. SPECIFICALLY, PART B3.1.2 REGARDING FRAMING AROUND GLAZED OPENINGS.
6. DRIFT OF THE RIGID FRAMES IN BOTH HORIZONTAL FLOOR PLAN DIRECTIONS, AT THE EAVE ELEVATION, SHALL NOT EXCEED H/480 FOR THE 10-YEAR MRI WIND SPEED INDICATED IN THE DESIGN WIND LOAD CRITERIA NOTES.
7. DEFLECTION CRITERIA:
   A. WALL GIRTS:

VERTICAL	HORIZONTAL
L/240 DUE TO SELF-WEIGHT, EXTERIOR WALL PANELS, INTERIOR WALL PANELS, OR DRYWALL AND WALL INSULATION WHERE OCCURS. DEFLECTION SHALL NOT EXCEED 1/2" AT ANY POINT ALONG THE SPAN.	L/240 FOR 42% OF THE STRENGTH LEVEL COMPONENTS AND CLADDING (C&C) DESIGN PRESSURES.

   B. ROOF FRAMING: RIGID FRAME RAFTERS AND PURLINS

ROOF LIVE LOAD (RLL)	WIND LOAD (WL) 42% OF THE STRENGTH LEVEL (C&C) DESIGN PRESSURES	DEAD LOAD + ROOF LIVE LOAD (D + RLL)
L/240	L/240	L/240

   C. OVERHEAD COILING DOORS: LIMIT THE DEFLECTION ABOVE AND ALONG THE SIDES OF OPENINGS TO 1/2" AS TABULATED BELOW

ELEMENT	DEFLECTION	LOADING
HORIZONTAL (HEADER) MEMBER ABOVE DOOR OPENING	VERTICAL	DEAD LOAD
	HORIZONTAL	42% OF C&C WIND LOAD PRESSURES
VERTICAL (JAMB) MEMBER ALONG SIDE DOOR OPENING	HORIZONTAL (OUT OF PLANE)	42% OF C&C WIND LOAD PRESSURES
	HORIZONTAL (PARALLEL TO FLOOR)	CATENARY ACTION DUE TO WIND LOAD BASED ON 10-YEAR MRI WIND SPEED

8. PROVIDE SUPPORT FOR WALLS BY CONTRACTOR AT EAVES AND DESIGN FRAMES FOR WIND LOAD FROM WALLS BY CONTRACTOR. DO NOT USE WIRE ROPE OR CABLE FOR VERTICAL OR HORIZONTAL FRAME BRACING.
9. MINIMUM THICKNESS OF STRUCTURAL ELEMENTS:
   A. HOT ROLLED STRUCTURAL STEEL COLUMNS AND RAFTERS OF RIGID FRAMES, END COLUMNS, AND DOOR JAMBS: 1/4"
   B. HOT ROLLED STRUCTURAL STEEL CHANNELS, ANGLES, PLATES, AND FLAT BARS: 1/4" EXCEPT 1/2" MINIMUM FOR BASE PLATES
   C. COLD FORMED STEEL FOR ROOD PURLINS, ROOVE EAVE STRUT, AND WALL GIRSTS: 16 GAGE (54 MILS.)
10. COLUMN BASES SHALL BE DESIGNED AS "STRUCTURALLY PINNED," NOT RELYING ON FIXITY AT THE FOUNDATION, SUCH THAT NO MOMENT REACTIONS ARE INTRODUCED INTO THE SUPPORTING FOUNDATION ELEMENTS.

OVERHEAD CRANE

1. PROVIDE (1) OVERHEAD TOP-RUNNING SINGLE-GIRDER BRIDGE CRANES UNDER RUNNING TROLLY ON SAME RUNWAY BEAM(S) AT THE LOCATION INDICATED ON PLAN & BASED ON THE FOLLOWING CRANE CRITERIA:
   A. RATED CAPACITY: 6,000 LB
   B. SERVICE TYPE: GENERAL PURPOSE
   C. OPERATING ENVIROMENT TYPE: INDOOR, NON-HAZARDOUS
   D. MIN HOOK HEIGHT: 18'-06" ABOVE FINISH FLOOR
   E. HOIST TYPE: SINGLE HOIST - ELECTRIC POWERED
   F. SERVICE CLASS: D
   G. ANTICIPATED RAIL: 30 LB/YRD
   H. WALKWAYS: N/A
2. CRANES MUST MEET THE FOLLOWING SPECIFICAITON:
   A. 41 22 13.15 - BRIDGE CRANES, OVERHEAD ELECTRIC, UNDER RUNNING TROLLEY
3. COORDINATE WITH SHEET S-701
4. CORDINATE WITH ELECTRICAL DRAWINGS FOR POWER CRITERIA.
5. CRANE PRODUCT DATA MUST BE REVIEWED BY CONTRACTING OFFICER FOR APPROVAL PRIOR TO PURCHASE.

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NAVAL SUPPORT ACTY PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY CIP PROJECT

GENERAL STRUCTURAL NOTES

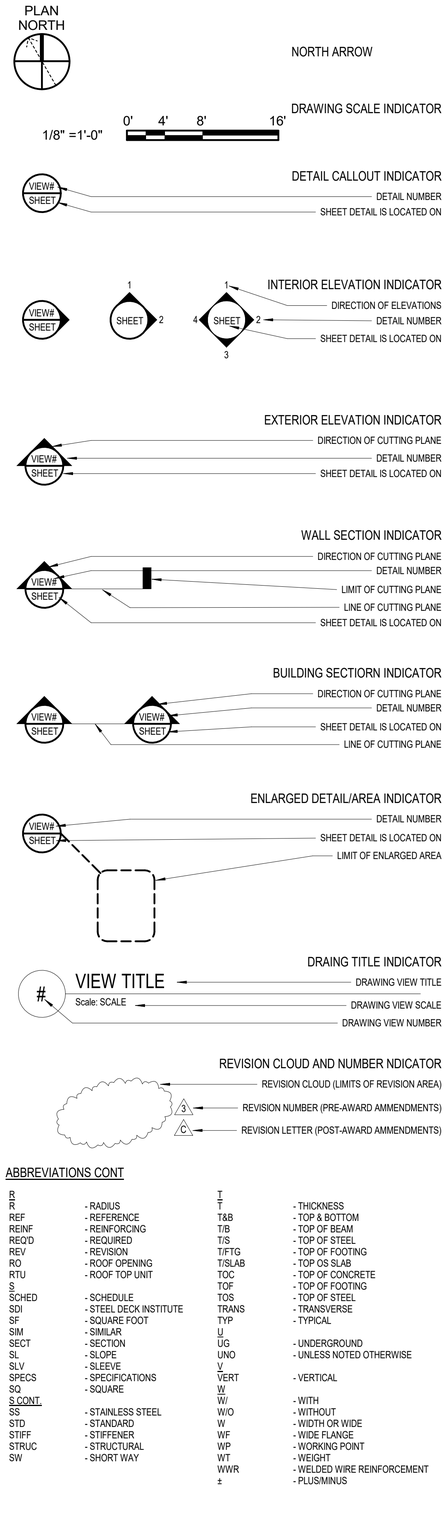
SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

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DRAWFORM REVISION: 7 FEBRUARY 2019

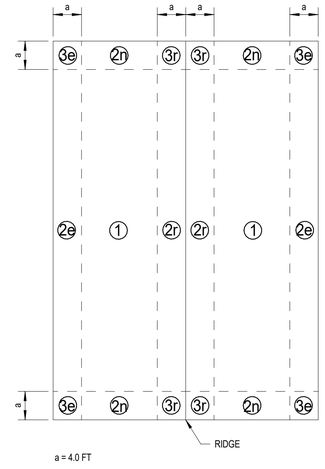
ABBREVIATIONS LEGEND

A	
AB	- ANCHOR BOLT
ACI	- AMERICAN CONCRETE INSTITUTE
AFF	- ABOVE FINISHED FLOOR
AISC	- AMERICAN INSTITUTE OF STEEL CONSTRUCTION
ANSI	- AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	- APPROXIMATE
ARCH	- ARCHITECTURAL
ASTM	- AMERICAN SOCIETY OF TESTING AND MATERIALS
AWS	- AMERICAN WELDING SOCIETY
@	- AT
B	
BFF	- BELOW FINISHED FLOOR
BLDG	- BUILDING
BL	- BLOCK LINTEL
BM	- BEAM
BOS	- BOTTOM OF STEEL
BOT	- BOTTOM
BRG	- BEARING
C	
CIP	- CAST-IN-PLACE
CJ	- CONTRACTION JOINT
CL	- CENTER LINE
CLR	- CLEAR
COL	- COLUMN
CONC	- CONCRETE
CONN	- CONNECTION
CONST	- CONSTRUCTION
CONT	- CONTINUOUS
D	
D	- DEPTH OR DEEP
DBL	- DOUBLE
DBA	- DEFORMED BAR ANCHOR
DE	- DECK EDGE
DIA	- DIAMETER
DIAG	- DIAGONAL
DIM	- DIMENSION
DN	- DOWN
DWL	- DOWEL
DWG	- DRAWING
E	
EA	- EACH
EF	- EACH FACE
EJ	- EXPANSION
EL, ELEV	- ELEVATION
EQ	- EQUAL
EQUIP	- EQUIPMENT
EW	- EACH WAY
EXIST	- EXISTING
EXP	- EXPANSION JOINT
EXT	- EXTERIOR
F	
FDN	- FOUNDATION
FF	- FINISHED FLOOR
FFE	- FINISHED FLOOR ELEVATION
FL, FLR	- FLOOR
FRMG	- FRAMING
FS	- FAR SIDE
FTG	- FOOTING
G	
GA	- GAGE
GALV	- GALVANIZED
GYP BD	- GYPSUM BOARD
H	
HK	- HOOK
HORIZ	- HORIZONTAL
HSA	- HEADED STUD ANCHOR
HSS	- HOLLOW STRUCTURAL SECTION
HT	- HEIGHT
I	
IBC	- INTERNATIONAL BUILDING CODE
IF	- INSIDE FACE
INT	- INTERIOR
INFO	- INFORMATION
ISO	- ISOLATION
J	
JT	- JOINT
K	
KSI	- KIPS PER SQUARE INCH
L	
L	- LENGTH OR LONG
LG	- LONG
LLH	- LONG LEG HORIZONTAL
LLV	- LONG LEG VERTICAL
LONG	- LONGITUDINAL
LW	- LONG WAY
M	
MAX	- MAXIMUM
MC	- MOMENT CONNECTION
MECH	- MECHANICAL
MEZZ	- MEZZANINE
MFR	- MANUFACTURER
MIN	- MINIMUM
MISC	- MISCELLANEOUS
MTL	- METAL
N	
NA	- NOT APPLICABLE
NO	- NUMBER
NS	- NEAR SIDE
NTS	- NOT TO SCALE
O	
OC	- ON CENTER
OD	- OUTSIDE DIAMETER
OH	- OVERHANG
OPP	- OPPOSITE HAND
OPNG	- OPENING
OSL	- OUTSTANDING LEG
P	
PAF	- POWDER ACTUATED FASTENER
PC	- PRECAST
PCF	- POUNDS PER CUBIC FOOT
PEMB	- PRE-ENGINEERED METAL BUILDING
PL	- PLATE
PLF	- POUNDS PER LINEAR FOOT
PNL	- PANEL
PSF	- POUNDS PER SQUARE FOOT
PSI	- POUNDS PER SQUARE INCH
Q	
QTY	- QUANTITY

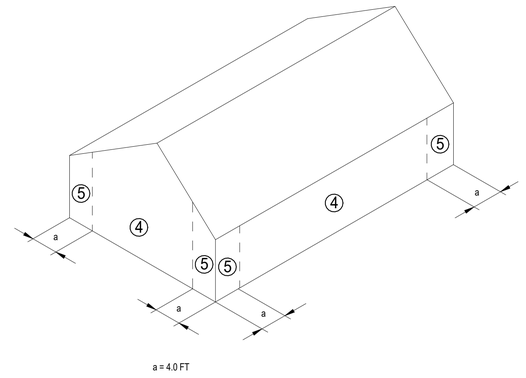


ABBREVIATIONS CONT

R		T	
R	- RADIUS	T	- THICKNESS
REF	- REFERENCE	T&B	- TOP & BOTTOM
REINF	- REINFORCING	T/B	- TOP OF BEAM
REQ'D	- REQUIRED	T/S	- TOP OF STEEL
REV	- REVISION	T/FTG	- TOP OF FOOTING
RO	- ROOF OPENING	T/SLAB	- TOP OS SLAB
RTU	- ROOF TOP UNIT	TOC	- TOP OF CONCRETE
S		TOF	- TOP OF FOOTING
SCHED	- SCHEDULE	TOS	- TOP OF STEEL
SDI	- STEEL DECK INSTITUTE	TRANS	- TRANSVERSE
SF	- SQUARE FOOT	TYP	- TYPICAL
SIM	- SIMILAR	U	
SECT	- SECTION	UG	- UNDERGROUND
SL	- SLOPE	UNO	- UNLESS NOTED OTHERWISE
SLV	- SLEEVE	V	
SPECS	- SPECIFICATIONS	VERT	- VERTICAL
SQ	- SQUARE	W	
S CONT.		W/	- WITH
SS	- STAINLESS STEEL	W/O	- WITHOUT
STD	- STANDARD	W	- WIDTH OR WIDE
STIFF	- STIFFENER	WF	- WIDE FLANGE
STRUC	- STRUCTURAL	WP	- WORKING POINT
SW	- SHORT WAY	WT	- WEIGHT
		WWR	- WELDED WIRE REINFORCEMENT
		±	- PLUS/MINUS



TYPICAL ROOF WIND PRESSURE ZONE DIAGRAM



TYPICAL WALL WIND PRESSURE ZONE DIAGRAM

GROSS DESIGN WIND PRESSURES (PSF) FOR COMPONENTS & CLADDING

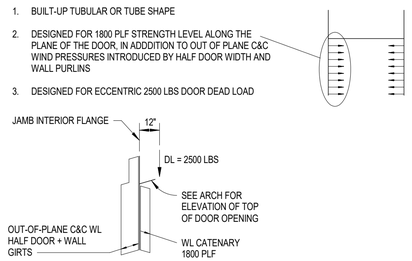
TRIBUTARY AREA (SF)	ROOF				WALLS		
	UPWARD			DOWNWARD	INWARD	OUTWARD	
	ZONES 1 & 2e (PSF)	ZONES 2n, 2r & 3e (PSF)	ZONE 3r (PSF)	ALL ZONES (PSF)	ZONE 4 & 5 (PSF)	ZONE 4 (PSF)	ZONE 5 (PSF)
10	-86.2	-125.7	-149.4	+28.3	+46.6	-50.6	-62.5
50	-52.4	-86.2	-99.7	+21.8	+41.8	-45.7	-52.7
100	-26.9	-69.2	-78.3	+19.0	+39.7	-43.6	-48.5

NOTES:

1. DESIGN WIND PRESSURES NOTED ABOVE ARE UNFACTORED LOADS BASED ON THE ULTIMATE STRENGTH DESIGN METHODOLOGIES OF ASCE 7-16 AND THE ULTIMATE WIND SPEED NOTED HEREIN. PRESSURES HAVE NOT BEEN COMBINED WITH ANY OTHER LOADS.
2. FOR EFFECTIVE WIND AREAS BETWEEN THOSE GIVEN ABOVE. THE PRESSURE MAY BE INTERPOLATED. OTHERWISE,CONSERVATIVELY USE THE PRESSURES ASSOCIATED WITH THE LOWER EFFECTIVE WIND AREA.
3. TYPICALLY, PLUS AND MINUS SIGNS SIGNIFY PRESSURES ACTING TOWARD AND AWAY FROM THE EFFECTIVE WIND AREA FOR EXTERIOR SURFACES, RESPECTIVELY.
4. CANOPIES SHALL BE DESIGNED FOR A PRESSURE OF ±31.0 PSF. PRESSURE IS FOR THE LOADING OF THE UPPER AND LOWER SURFACES, COMBINED.

EACH COLUMN/DOOR JAMBS SHALL BE:

1. BUILT-UP TUBULAR OR TUBE SHAPE
2. DESIGNED FOR 1800 PLF STRENGTH LEVEL ALONG THE PLANE OF THE DOOR, IN ADDDITION TO OUT OF PLANE C&C WIND PRESSURES INTRODUCED BY HALF DOOR WIDTH AND WALL PURLINS
3. DESIGNED FOR ECCENTRIC 2500 LBS DOOR DEAD LOAD



PEMB COLUMN/DOOR JAMBS

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DESIGN MANAGER	K.P. MOOREHEAD
PROJECT MANAGER	O.A. HARRIS
CHIEF ENG/ARCH	K.W. WITTMAN
FIRE PROTECTION	A. DISANTO

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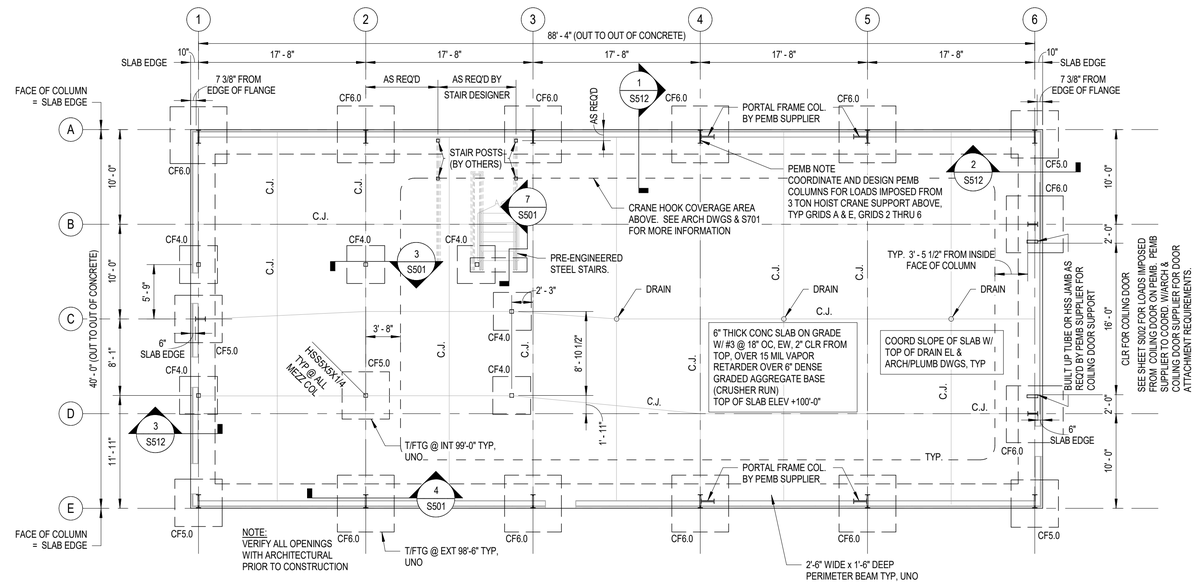
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ABBREVIATIONS AND C & C DESIGN WIND PRESSURES

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SHEET	OF

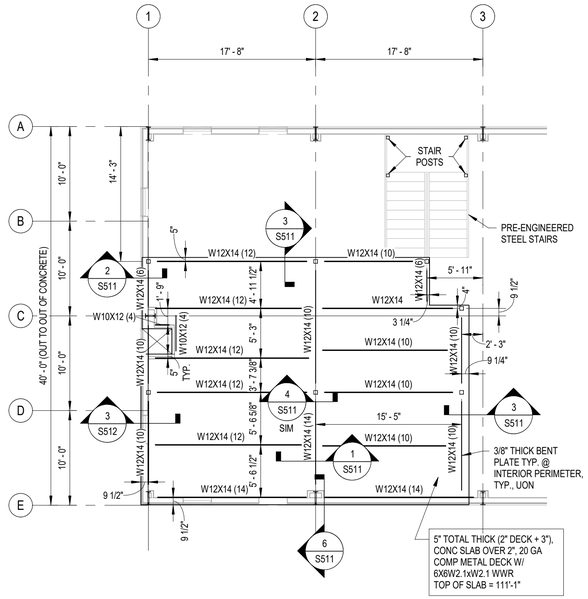
S002

DRAWFORM REVISION: 7 FEBRUARY 2019



1 FOUNDATION PLAN

1/8" = 1'-0"



2 MEZZANINE FLOOR FRAMING PLAN

1/8" = 1'-0"

GENERAL SHEET NOTES

FOUNDATION NOTES

1. SEE S001 & S002 FOR STRUCTURAL DESIGN CRITERIA, GENERAL STRUCTURAL NOTES, AND ABBREVIATION KEY.
2. TOP OF FINISHED FLOOR REFERENCE ELEVATION IS 100'-0". ACTUAL FINISHED FLOOR ELEVATION BASED ON CIVIL DRAWINGS IS 12.0'. SEE CIVIL.

F6.0 — FOOTING DESIGNATION, SEE SCHEDULE ON THIS SHEET

CJ — SLAB CONTRACTION JOINT, SEE

FOUNDATION PLAN NOTES:

1. FOR DESIGN CRITERIA AND GENERAL NOTES, SEE SHEET S001
2. ELEVATIONS ARE BASED ON T/SLAB DATUM EL 100'-0" UNO. SEE CIVIL DWGS FOR ACTUAL ELEVATION.
3. F# DENOTES FOOTING, SEE SCHEDULE THIS SHEET. FOOTINGS ARE CENTERED ON COLUMNS UNO.
4. FOR TYPICAL MEZZANINE COLUMN BASE PLATES, SEE SHEET S501. SEE SHEET S501 AND PEMB DRAWINGS FOR BASE PLATE SIZES AND ANCHOR ROD PLACEMENT INFORMATION.
5. PROVIDE (2)-#4x4'-0" MID SLAB @ ALL RE-ENTRANT CORNERS.
6. SEE DETAIL 10/S501 WHERE PIPE PENETRATES PERIMETER OF BUILDING. SEE MECH, PLUMBING, AND ARCH FOR PIPE LOCATIONS, SIZES AND ELEVATIONS.
7. FOR DIMENSIONS, SECTIONS & ELEVATIONS NOT SHOWN, SEE ARCH.

FRAMING PLAN NOTES:

1. FOR DESIGN CRITERIA AND GENERAL NOTES, SEE SHEET S001.
2. T/FLOOR SLAB EL = 111'- 1".
3. T/FLOOR STEEL EL IS 5" BELOW T/FLOOR SLAB EL. FLOOR SLAB IS 3" NORMAL WEIGHT CONCRETE W/ WWR 6x6 - W2.1xW2.1 ON 2" 20 GAGE GALVANIZED COMPOSITE METAL DECK (5" TOTAL THICKNESS).
4. ( ) DENOTES NUMBER OF 3/4" DIAMETER x 4" LONG SHEAR STUDS REQUIRED. BEAMS NOT INDICATING NUMBER OF SHEAR STUDS REQUIRED SHALL HAVE STUDS PLACED ALONG BEAMS AT A MAX SPACING OF 2'-0" OC. SEE DETAIL 5/S511 FOR STUD PLACEMENT DETAIL.
5. "#K" DENOTES FACTORED BEAM REACTION FOR SIZING BEAM CONNECTION. REACTIONS NOT LISTED ARE LESS THAN 14K OR THE CONNECTION IS AS DETAILED ON THESE DRAWINGS. DESIGN ALL BEAM CONNECTIONS FOR MINIMUM OF 14K FACTORED REACTION.
6. CONCRETE SCREED SUPPORTS SHALL BE PLACED SO AS TO PROVIDE A LEVEL FLOOR WITH THE MINIMUM THICKNESS SPECIFIED.
7. THE GAUGE OF THE METAL FLOOR DECK SHOWN IS THE MINIMUM ALLOWED. THE CONTRACTOR IS RESPONSIBLE FOR PROVIDING AN UNSHORED DECK SYSTEM OR PROVIDING DECK SHORING AS REQUIRED TO AVOID OVER STRESSING THE DECK DURING PLACEMENT OF CONCRETE.
8. FLOOR DECK SHALL HAVE 3 SPANS UNLESS APPROVED BY THE SEOR.
9. CONTRACTOR SHOULD NOTE THAT DECK AND BEAM DEFLECTION WILL INCREASE THE ESTIMATED CONCRETE QUANTITY.
10. ALL EDGE ANGLE / BENT PLATE SHALL BE FULLY WELDED AND GROUND FLUSH WHEN EXPOSED.
11. COORDINATE ALL OPENING SIZES AND EDGE ANGLE LOCATIONS WITH BOTH MECHANICAL AND ARCHITECTURAL.

COLUMN FOOTING SCHEDULE

MARK	DIMENSIONS WIDTH	DIMENSIONS LENGTH	DEPTH	REINFORCING EACH WAY
CF4.0	4' - 0"	4' - 0"	1' - 0"	(4)-#5 BOTTOM
CF5.0	5' - 0"	5' - 0"	1' - 3"	(6)-#5 BOTTOM
CF6.0	6' - 0"	6' - 0"	1' - 6"	(7)-#6 BOTTOM

GRAPHIC SCALE(S)

PLAN NORTH

1/8" = 1' - 0" 0 5' 10' 15' 30'

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FIRE PROTECTION	A. DISANTO

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NAVAL SUPPORT ACTY PANAMA CITY
PANAMA CITY, FL

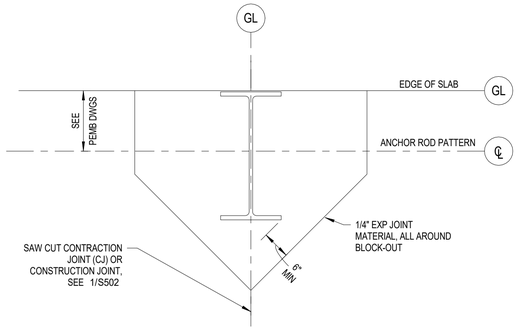
MARITIME MINING FACILITY CIP PROJECT

FOUNDATION & MEZZANINIE FRAMING PLAN

SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

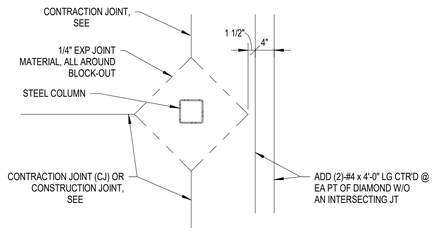
S101

DRAWFORM REVISION: 7 FEBRUARY 2019



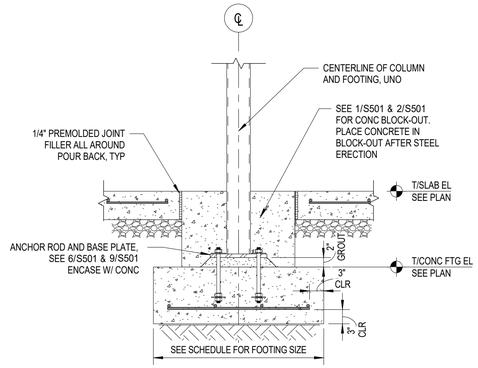
1 TYPICAL EXTERIOR COLUMN BLOCK-OUT

3/4" = 1'-0"



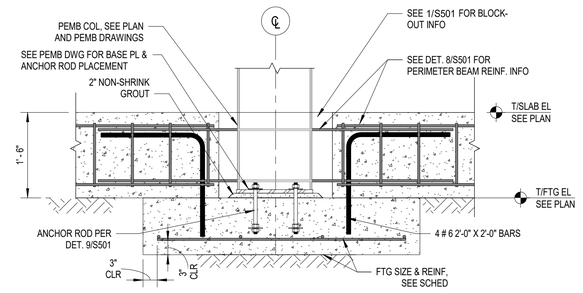
2 TYPICAL INTERIOR COLUMN BLOCK-OUT

NOT TO SCALE



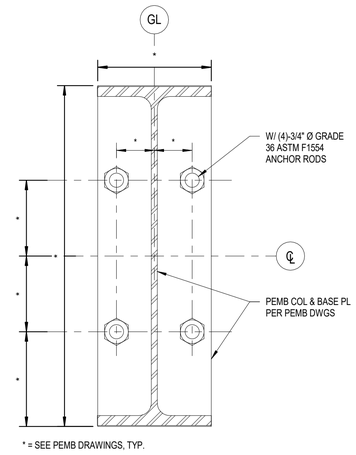
3 TYPICAL MEZZANINE COLUMN FOOTING

3/4" = 1'-0" (S101)



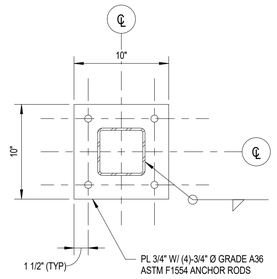
4 TYPICAL PEMB COLUMN FOOTING

NOT TO SCALE (S101)



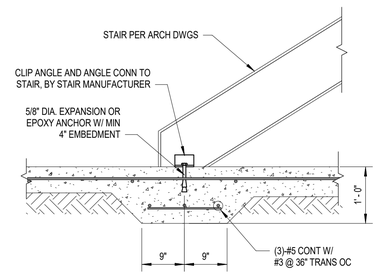
5 TYPICAL PEMB BASE PLATE

3" = 1'-0"



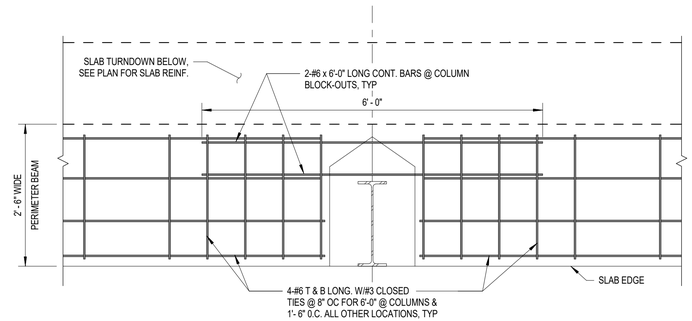
6 TUBE COLUMN BASE PLATE

1 1/2" = 1'-0"



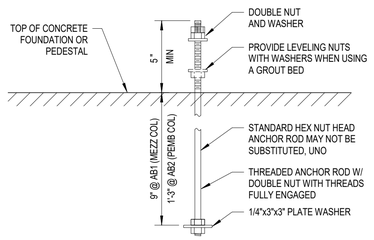
7 THICKENED SLAB @ STAIR

NOT TO SCALE (S101)



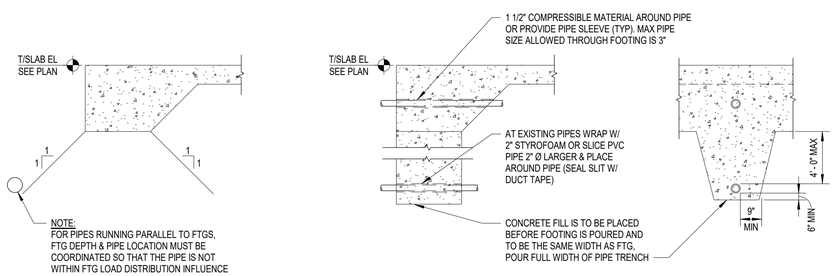
8 PERIMETER BEAM AT COLUMN (PLAN VIEW)

NOT TO SCALE



9 ANCHOR ROD DETAIL

1 1/2" = 1'-0"



NOTE: SLAB & PERIMETER BEAM REINF. NOT SHOWN FOR CLARITY

TYP PIPE PARALLEL TO FOOTING

TYP PIPE PENETRATION AT FOOTING

10 TYPICAL PIPE DETAIL

3/8" = 1'-0"

SYM	DESCRIPTION	DATE	APPR

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DES	JRP	DRW	AG	CHK	JCT

DESIGN MANAGER K.P. MOOREHEAD

PROJECT MANAGER O.A. HARRIS

CHIEF ENG/ARCH K.W. WITTMAN

FIRE PROTECTION A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY CIP PROJECT

FOUNDATION DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

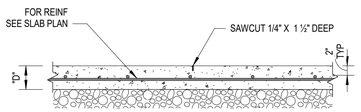
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

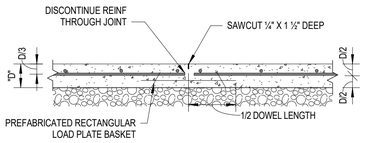
SHEET OF

S501

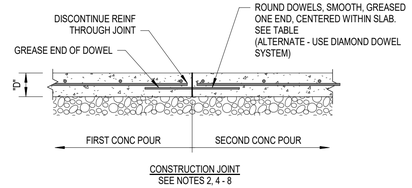
DRAWFORM REVISION: 7 FEBRUARY 2019



CONTRACTION JOINT (CJ)



DOWELED CONTRACTION JOINT (DCJ)
SEE NOTES 1, 4



CONSTRUCTION JOINT
SEE NOTES 2, 4 - 8

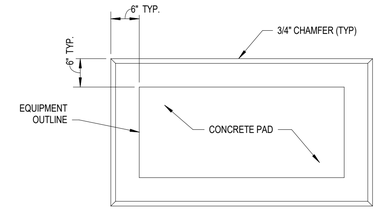
DOWEL SIZE AND SPACING REQUIREMENTS			
"D"	DOWELED CONTRACTION JOINTS (DCJ)	CONSTRUCTION JOINTS	
SLAB DEPTH (IN)	RECTANGULAR (LOAD PLATE BASKET)	ROUND	DIAMOND DOWEL SYSTEM
6 TO 7	3/8" x 2" x 12" @ 24" OC	3/4" DIA x 14" @ 12" OC	1/4" x 4 ½" X 4 ½" @ 24" OC
>7 TO 9	1/2" x 2 ½" x 12" @ 24" OC	1" DIA x 16" @ 12" OC	3/8" x 4 ½" X 4 ½" @ 18" OC
>9 TO 12	3/4" x 2 ½" x 12" @ 24" OC	1 ¼" DIA x 18" @ 12" OC	3/4" x 4 ½" X 4 ½" @ 20" OC

NOTES:

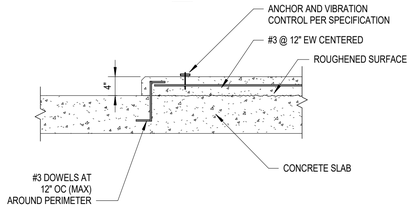
1. DCJ JOINTS TO BE LOCATED ON COLUMN GRID LINES AS SHOWN ON PLANS AND AT NO MORE THAN 60' - 0" OC.
2. CONSTRUCTION JOINTS MAY BE LOCATED AT ANY JOINT SHOWN ON PLAN AND AS DETERMINED BY SLAB CONTRACTOR. SLAB CONTRACTOR TO PROVE SUBMITTAL SHOWING PROPOSED LOCATIONS OF ALL JOINTS AND THE PLACING SEQUENCE.
3. SLAB REINFORCING TO BE CONTINUOUS THROUGH CJ.
4. DISCONTINUE SLAB REINFORCING AT ALL CONSTRUCTION JOINTS AND DCJ.
5. FOR CONSTRUCTION JOINTS, AT SLAB CONTRACTOR'S OPTION, USE ROUND DOWELS OR DIAMOND DOWELS SYSTEM. SEE ABOVE TABLE.
6. ROUND DOWELS NOT UTILIZING "SPEED DOWEL" SYSTEM MUST BE GREASED. DOWEL MUST BE RESET PERPENDICULAR TO THE FORM AFTER CONCRETE PLACEMENT AND PERIODICALLY ROTATED TO BREAK BOND.
7. AT INTERSECTIONS OF CONSTRUCTION JOINTS USING ROUND DOWELS, LOCATE DOWEL 30 INCHES FROM THE JOINT.
8. KEEP DOWEL SUPPORTED AND ALIGNED TO REMAIN PARALLEL IN BOTH HORIZONTAL AND VERTICAL PLANES.

1 SLAB JONT DETAIL

NOT TO SCALE



PLAN



SECTION

NOTE:

SIZE OF PAD TO BE VERIFIED WITH ACTUAL EQUIPMENT PURCHASED. CONTRACTOR SHALL FURNISH ANCHOR BOLTS, ETC. AS REQUIRED TO MAKE A COMPLETE INSTALLATION, TYPICAL FOR ALL PADS NOT SHOWN OTHERWISE.

TYPICAL EQUIPMENT PAD

2 TYPICAL EQUIPMENT PAD

NOT TO SCALE

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CHIEF ENG/ARCH K.W. WITTMAN

FIRE PROTECTION A. DISANTO

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NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY CIP PROJECT

SLAB ON GROUND DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

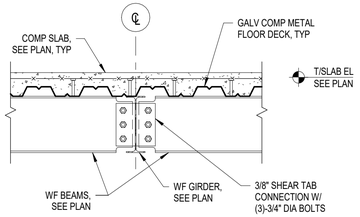
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

S502

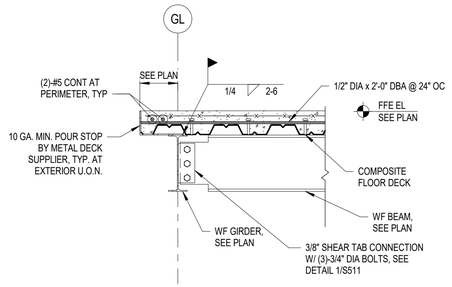
DRAWFORM REVISION: 7 FEBRUARY 2019



NOTE:
#3 WWR SUPPORT BAR NOT SHOWN FOR CLARITY

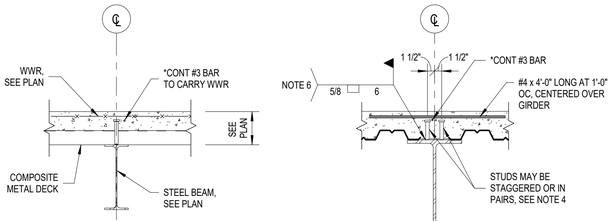
1 TYPICAL FLOOR BEAM TO BEAM CONNECTION

3/4" = 1'-0" (S101)



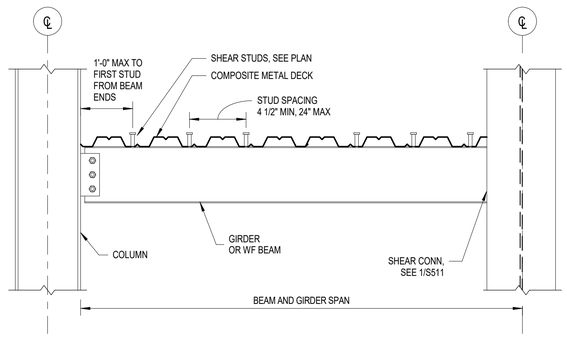
2 TYPICAL FLOOR BEAM TO BEAM @ EXTERIOR

3/4" = 1'-0" (S101)



NOTE:
* #3 BAR SHALL BE SUPPORTED W/ CHAIRS OR WWR MAY BE SUPPORTED ON CONT CHAIRS

BEAM SECTION GIRDER SECTION



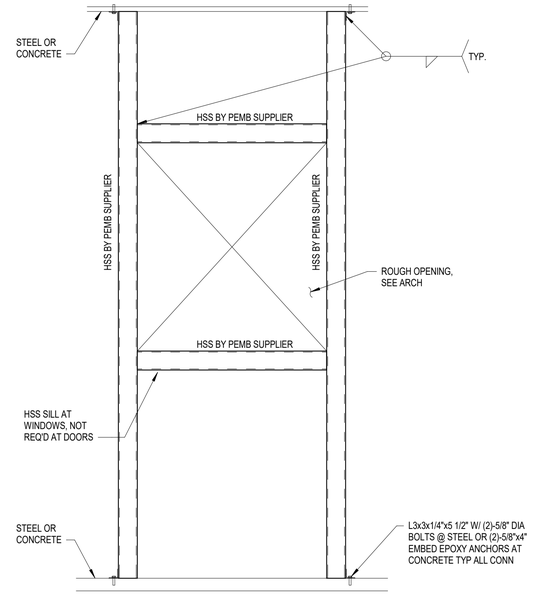
STUD PLACING DIAGRAM
NOTE: ABOVE DIAGRAM SHOWS STUD PLACEMENT FOR ALL BEAMS AND GIRDERS.

TYPICAL COMPOSITE CONSTRUCTION

1. REQUIRED NUMBER OF SHEAR CONNECTORS (SHEAR STUDS) FOR BEAMS AND GIRDERS ARE INDICATED ON THE FRAMING DRAWINGS. PROVIDE ADDITIONAL STUDS AS REQUIRED TO NOT EXCEED MAXIMUM STUD SPACING.
2. AT BEAMS AND GIRDERS, SHEAR STUDS SHALL BE EQUALLY SPACED BETWEEN ENDS.
3. WELDED STUDS ARE APPLIED TO THE TOP FLANGE AND ARE INSTALLED AFTER THE METAL DECK IS IN PLACE (FIELD WELDED).
4. MINIMUM STUD SPACING SHALL BE 4 1/2" OC, PLACE STUDS IN PAIRS ACROSS LENGTH OF GIRDER WHEN REQ'D TO KEEP STUD SPACING EQUAL TO OR GREATER THAN 4 1/2" OC.
5. TOP SURFACE OF BEAM FLANGE TO RECEIVE STUDS SHALL BE LEFT UNPAINTED AND UNPRIMED.
6. WHERE DECK IS INTERRUPTED TO ALLOW STUD PLACEMENT, WELD DECK TO TOP FLANGE WITH 5/8"Ø PUDDLE WELDS @ 6" OC.

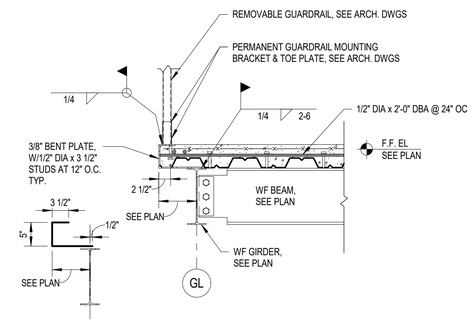
5 COMPOSITE BEAM NOTES

NOT TO SCALE



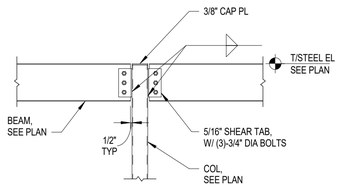
7 TYPICAL GLAZED OPENING & PERSONNEL DOOR FRAMING

NOT TO SCALE



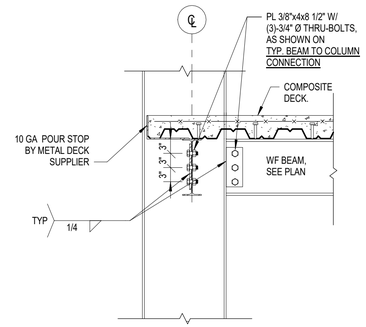
3 SLAB EDGE W/REMOVABLE HANDRAIL

NOT TO SCALE (S101)



4 FLOOR BEAM TO INTERIOR COLUMN CONNECTION

1/2" = 1'-0" (S101)



6 PEMB COLUMN TO MEZZANINE BEAM CONNECTION

NOT TO SCALE (S101)

SYM	DESCRIPTION	DATE	APPR

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DESIGN MANAGER	K.P. MOOREHEAD
PROJECT MANAGER	O.A. HARRIS
CHIEF ENG/ARCH	K.W. WITTMAN
FIRE PROTECTION	A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY CIP PROJECT

FLOOR FRAMING DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

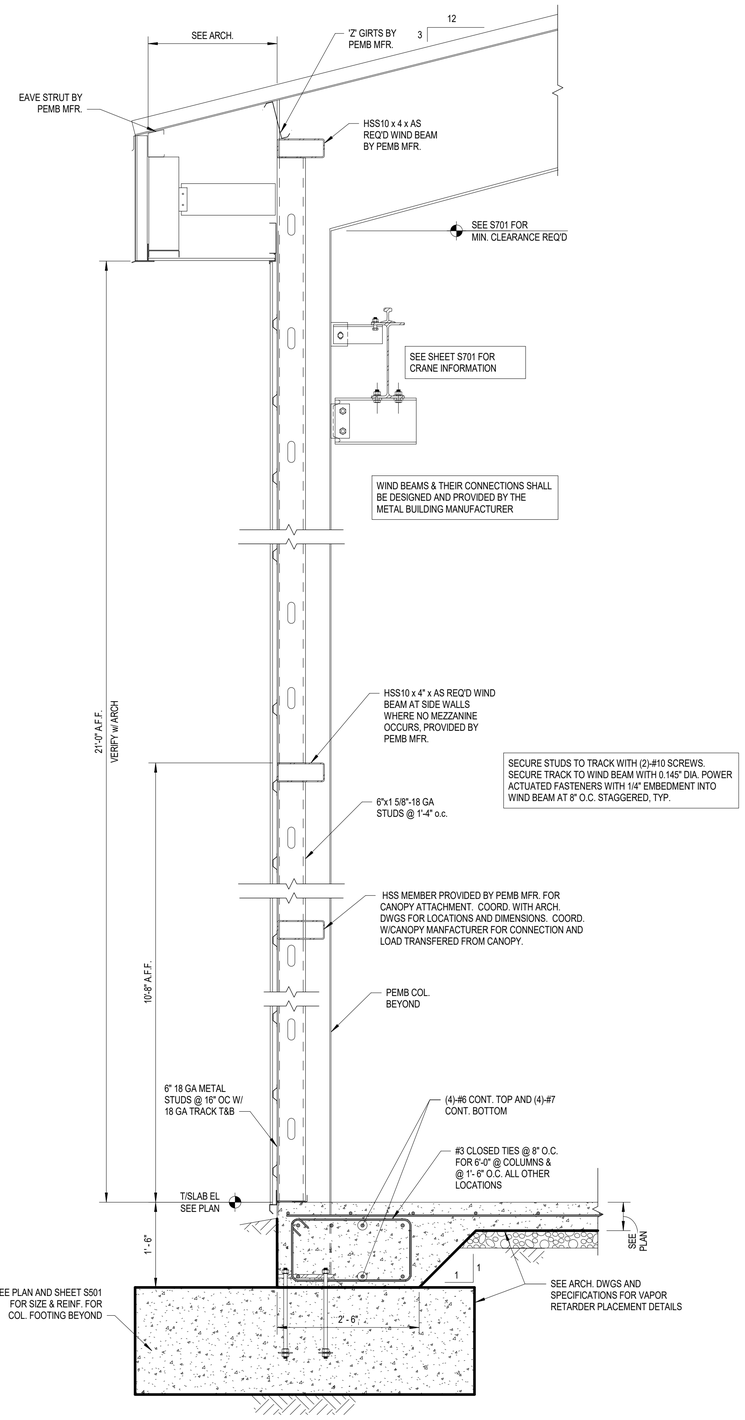
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

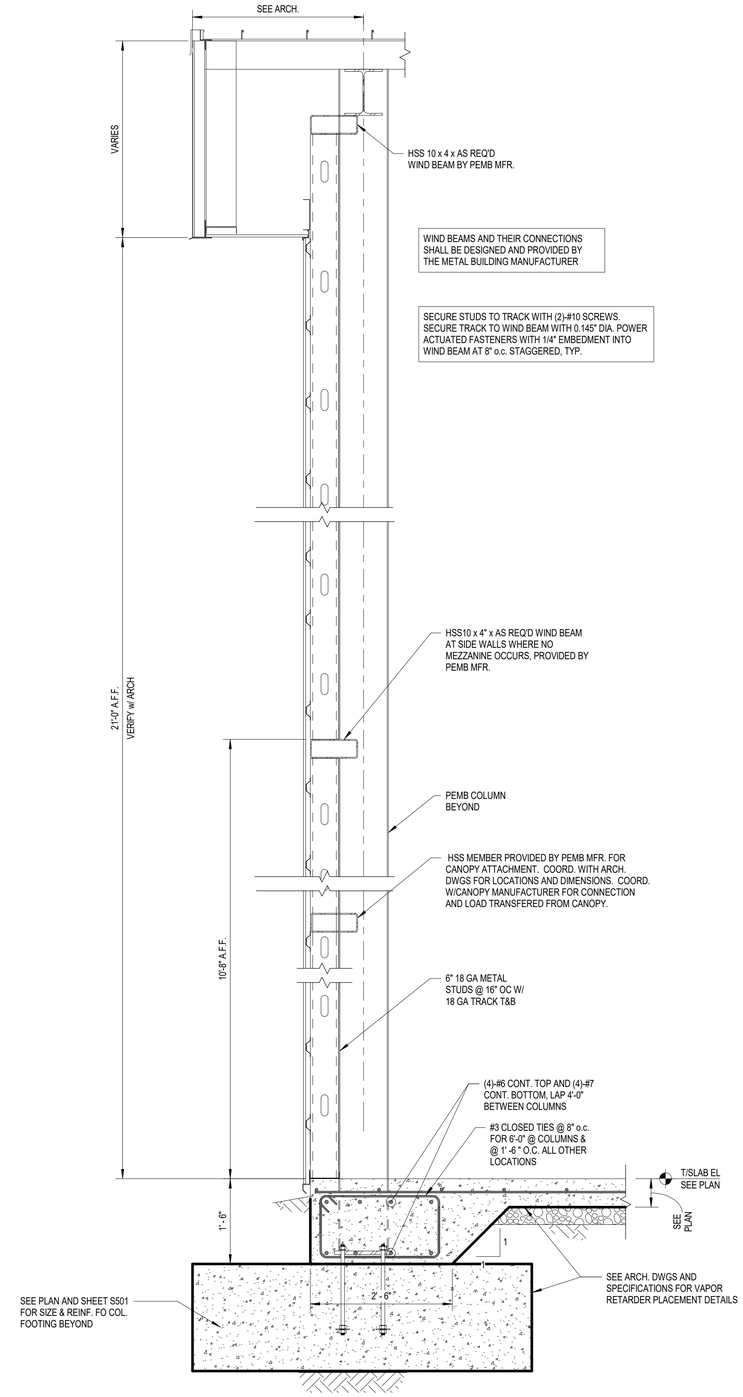
S511

DRAWFORM REVISION: 7 FEBRUARY 2019



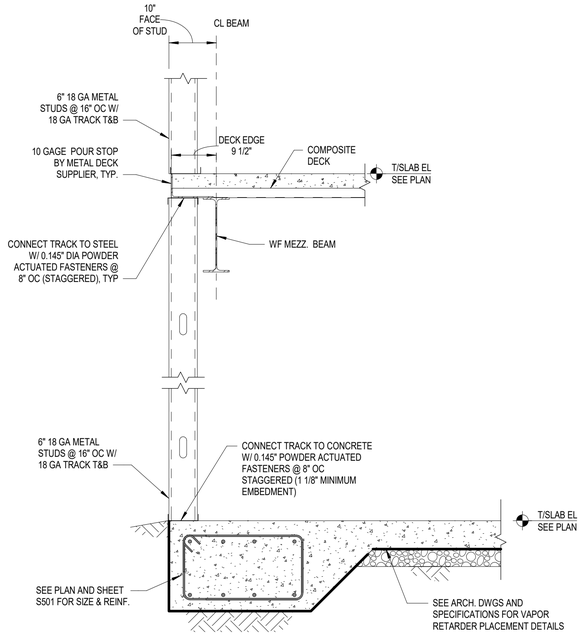
1 SECTION AT STUDS @ EXTERIOR WALL

3/4" = 1'-0" (S101)



2 SECTION AT STUDS @ EXTERIOR WALL

3/4" = 1'-0" (S101)



3 SECTION AT STUDS @ EXTERIOR WALL @ MEZZANINE

3/4" = 1'-0" (S101)

SYM	DESCRIPTION	DATE	APPR

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DESIGN MANAGER	K.P. MOOREHEAD
PROJECT MANAGER	O.A. HARRIS
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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
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PANAMA CITY, FL

MARITIME MINING FACILITY CIP PROJECT

EXTERIOR WALL FOUNDATION AND FRAMING DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

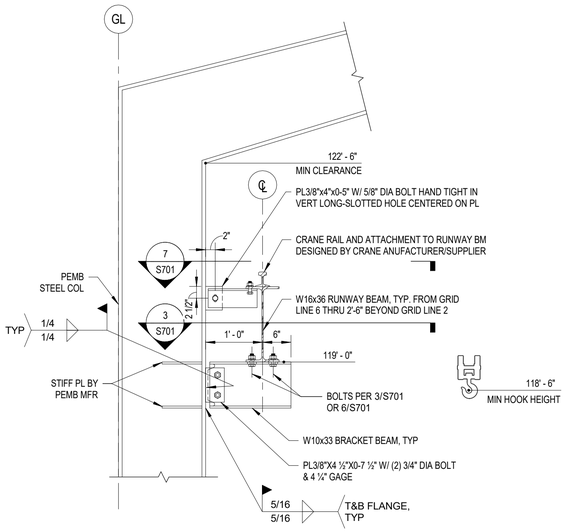
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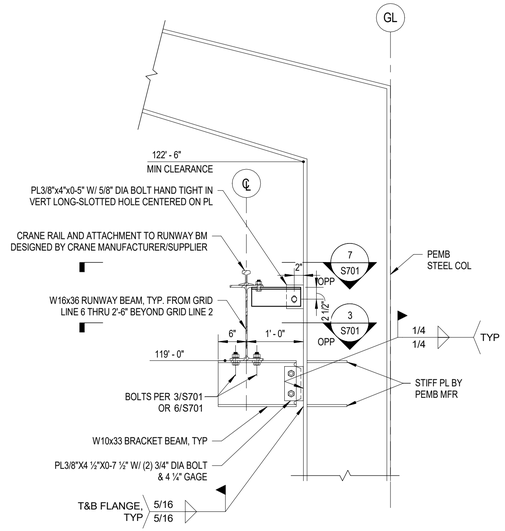
S512

DRAWFORM REVISION: 7 FEBRUARY 2019



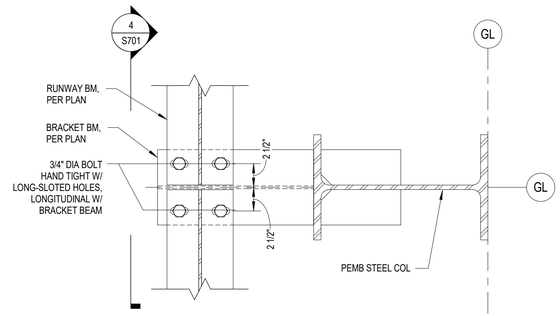
1 SECTION DETAIL

3/4" = 1'-0"



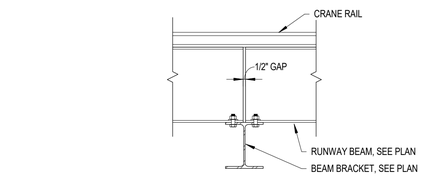
2 SECTION DETAIL

3/4" = 1'-0"



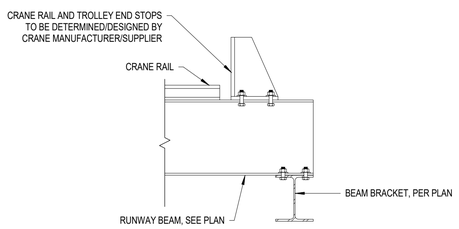
3 PLAN DETAIL

1 1/2" = 1'-0" (S701)



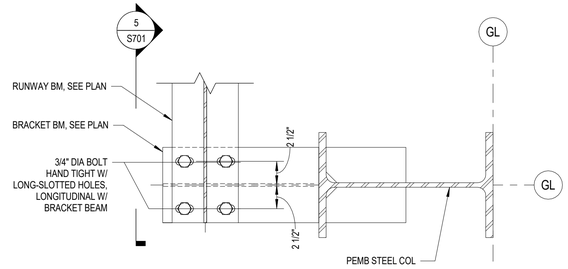
4 SECTION DETAIL

3/4" = 1'-0" (S701)



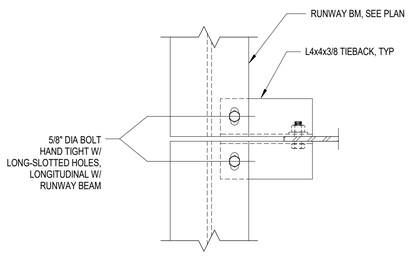
5 SECTION DETAIL

3/4" = 1'-0" (S701)



6 PLAN DETAIL

1 1/2" = 1'-0"



7 PLAN DETAIL

1 1/2" = 1'-0" (S701)

GENERAL SHEET NOTES

1. SEE SHEETS S001 & S002 FOR STRUCTURAL NOTES.
2. SEE SHEET S002 FOR STRUCTURAL ABBREVIATION & SYMBOLS.
3. COORDINATE ALL DIMENSIONS AND FEATURES NOT SHOWN W/ ARCHITECT.
4. GRIDLINES ARE TO CENTERLINE OF COLUMNS & EDGE OF WALLS, UNO.
5. RAILWAY BEAMS ARE PER PLAN, ANTICIPATED RUNWAY RAILS ARE PER S001 CRANE DESIGN CRITERIA. PROVIDE AND INSTALL RUNWAY RAILS, CRANE STOPS AND RAIL CLIPS. RAIL CLIPS MUST BE WELDED TO RUNWAY BM @ 36" OC MAX.
6. ALL RUNWAY RAILS AND BEAMS MUST BE STRAIGHT, PARALLEL, LEVEL AND AT THE SAME ELEVATIONS PER THE TOLERANCE REQUIREMENTS OF CMAA70.
7. CRANE MFR MUST ENSURE THAT THE UTILIZED WHEEL LOADS FROM THE SUPPLIED CRANE MUST NOT EXCEED THOSE SHOWN BELOW.

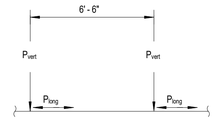
VERTICAL & LONGITUDINAL WHEEL LOAD

$P_{vert,a}$ = 4.42 kip ALLOWABLE VERT WHEEL LOAC W/O IMPACT

$P_{vert,u}$ = 8.14 kip ULTIMATE VERT WHEEL LOAD W/ IMPACT

$P_{long,a}$ = 0.44 kip ALLOWABLE LONG WHEEL LOAD W/O IMPACT

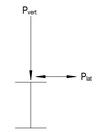
$P_{long,u}$ = 0.71 kip ULTIMATE LONG WHEEL LOAD W/ IMPACT



LATERAL WHEEL LOAD

$P_{lat,a}$ = 0.34 kip ALLOWABLE LAT WHEEL LOAD

$P_{lat,u}$ = 1.05 kip ULTIMATE LAT WHEEL LOAD



GRAPHIC SCALE(S)

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

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

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	JRP	DRW	AG	CHK	JCT

DESIGN MANAGER	K.P. MOOREHEAD
PROJECT MANAGER	O.A. HARRIS
CHIEF ENG/ARCH	K.W. WITTMAN
FIRE PROTECTION	A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
PANAMA CITY, FL
NAVAL SUPPORT ACTY PANAMA CITY
MARITIME MINING FACILITY CIP PROJECT
CRANE DETAILS

SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

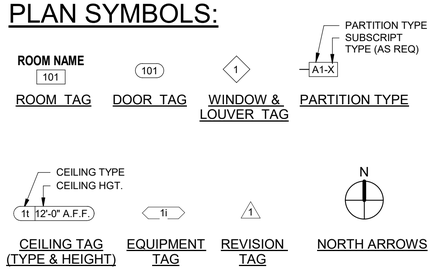
S701

DRAWFORM REVISION: 7 FEBRUARY 2019

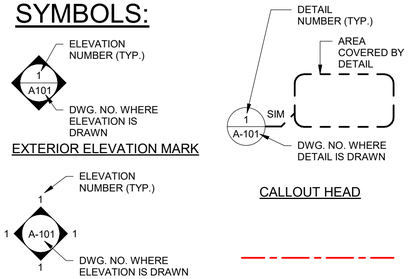
ARCHITECTURAL ABBREVIATIONS

A.F.	ACCESS FLOORING	GA.	GAGE OR GAUGE	RAF	RAISED ACCESS FLOOR
A.F.F.	ABOVE FINISHED FLOOR	GALV.	GALVANIZED	RECEP.	RECEPTIONIST
ACC. DR.	ACCESS DOOR / PANEL	G.B.F.	GYPSUM BOARD FURRING	REF.	REFERENCE
ADAAG	AMERICAN WITH DISABILITIES ACCESSIBILITY GUIDELINES	GFCI	GOVERNMENT FURNISHED CONTRACTOR INSTALLED	REINF.	REINFORCEMENT
				REQ'D.	REQUIRED
ACCESS.	ACCESSORIES	GFGI	GOVERNMENT FURNISHED GOVERNMENT INSTALLED	REV.	REVISIONS / REVISED
ADJ.	ADJUST/ ADJUSTABLE			R.D.	ROOF DRAIN
ACOUST.	ACOUSTICAL	G.L.	GIRT LINE	RH	RIGHT HAND
A.B.	ANCHOR BOLT	G.P.	GLOSSY PAINT	RHR	RIGHT HAND REVERSE
ACT	ACOUSTICAL CEILING TILE	GL.	GLASS	RM.	ROOM
ANOD.	ANODIZED	GOVT.	GOVERNMENT	R.O.	ROUGH OPENING
A.C.	AIR CONDITIONING	GYP.	GYPSUM	RB	RUBBER BASE
AL / ALUM.	ALUMINUM	GYP. BD. (GWB)	GYPSUM BOARD		
&	AND			SC	SEALED CONCRETE
L	ANGLE	HKS	HOOKS	SCW	SOLID CORE WOOD
APP.	APPROVED	HR.	HANDRAIL	SCHED.	SCHEDULE
APPROX.	APPROXIMATE	HDW.	HARDWARE	SECT.	SECTION
ARCH.	ARCHITECTURAL	HGT.	HEIGHT	S.G.P.	SEMI-GLOSS PAINT
@	AT	H.	HIGH	SSK	SERVICE SINK
AT / FP	ANTI TERRORISM / FORCE PROTECTION	H.P.	HIGH POINT	SHT. MET.	SHEET METAL
AVG.	AVERAGE	H.M.	HOLLOW METAL	SIM.	SIMILAR
A.W.I.	ARCHITECTURAL WOODWORK INSTITUTE	HORIZ.	HORIZONTAL	STC	SOUND TRANSMISSION CLASS
		HB	HOSE BIBB	SPEC(S)	SPECIFICATION
B.H.M.I.	BUILDER'S HARDWARE MANUFACTURER'S ASSOCIATION, INC.	H.V.A.C.	HEATING VENTILATION & AIR CONDITIONING	SFRM	SPRAYED FIRE RESISTIVE MATERIAL
				SQ.	SQUARE
BM.	BEAM			ST.	STAIN
BLKG.	BLOCKING	IN.	INCH	S.S.	STAINLESS STEEL
BD.	BOARD	I.D.	INSIDE DIAMETER	STD.	STANDARD
BTM.	BOTTOM	INSUL.	INSULATION	STL.	STEEL
BLDG.	BUILDING	INT.	INTERIOR	STOR.	STORAGE
B.U.R.	BUILT-UP ROOFING			STRUCT.	STRUCTURAL
CR	CARD READER	JAN.	JANITOR	SUSP.	SUSPENDED
CFCI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED	J.C.	JANITOR'S CLOSET		
		JT.	JOINT	TOIL. / TLT	TOILET
CH.	CHANNEL	JST.	JOIST	TEL.	TELEPHONE
CPT.	CARPET			THK.	THICK
CLG.	CEILING	K.P.	KICK PLATE	T'HOLD	THRESHOLD
CLG. HT.	CEILING HEIGHT			TG	TEMPERED GLASS
CTR.	CENTER	LAM.	LAMINATE	T/	TOP OF
	CENTER LINE	LDG.	LANDING	TOB	TOP OF BEAM
C. TO C.	CENTER TO CENTER	LAV.	LAVATORY	TOC	TOP OF CONCRETE
C.T.	CERAMIC TILE	L.H.	LEFT HAND	T/C	TOP OF CURB
CLR.	CLEAR	LHR	LEFT HAND REVERSE	TOS	TOP OF STEEL
C.O.	CLEANOUT	LT.	LIGHT	T/W	TOP OF WALL
CLOS.	CLOSET	LTG.	LIGHTING	TU	TOUCH-UP
CO.	COMPANY	LONG.	LONGITUDINAL	TYP.	TYPICAL
COL.	COLUMN	LVR.	LOUVER		
CONC.	CONCRETE	L.P.	LOW POINT	U.L.	UNDERWRITERS LABORATORIES
CORR.	CORRIDOR			UNFIN	UNFINISHED
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE	MAS.	MASONRY	U.N.O.	UNLESS NOTED OTHERWISE
		M.O.	MASONRY OPENING		
CMU	CONCRETE MASONRY UNIT	MGR.	MANAGER	VERT.	VERTICAL
CONF.	CONFERENCE	MANUF.	MANUFACTURER	VEST.	VESTIBULE
CONST.	CONSTRUCTION	MATL.	MATERIAL	VCT	VINYL COMPOSITION TILE
CONT.	CONTINUOUS	MAX.	MAXIMUM	VCB	VINYL COVE BASE
CONTR.	CONTRACTOR	MECH.	MECHANICAL	V.T.R.	VENT THRU ROOF
C.J.	CONTROL JOINT	MTL.	METAL		
C.Y.	CUBIC YARD	M.W.P.	METAL WALL PANEL	W.	WIDTH
		MIN.	MINIMUM	W/	WITH
DET.	DETAIL	MISC.	MISCELLANEOUS	W.C.	WATER CLOSET
DIA.	DIAMETER			WCO	WALL CLEAN OUT
DIM.	DIMENSION	N.I.C.	NOT IN CONTRACT	WD.	WOOD
DISP.	DISPENSER	NO. (#)	NUMBER	WDW.	WINDOW
DR.	DOOR	NTS	NOT TO SCALE	W.M.P.	WIRE MESH PARTITION
DN.	DOWN	NFPA	NATIONAL FIRE PROTECTION ASSOCIATION	W/O	WITHOUT
D.S.	DOWNSPOUT			W.R.G.B.	WATER RESISTANT GYPSUM BOARD
DESC.	DESCRIPTION			W.S.	WEATHERSTRIPPING
DWG.	DRAWING	O.C.	ON CENTER	W.R.O.	WINDOW ROUGH OPENING
		OFCI	OWNER FURNISHED CONTRACTOR INSTALLED		
EA.	EACH	OFGI	OWNER FURNISHED GOVERNMENT INSTALLED	YD.	YARD
ELEC.	ELECTRICAL OR ELECTRIC	O.H.	OVERHEAD		
EL.	ELEVATION	OPNG.	OPENING		
E.W.C.	ELECTRIC WATER COOLER	O.W.	OPPOSITE HAND		
E.R.D.	EMERGENCY ROOF DRAIN	OPP.	OPPOSITE		
E.P.	EPOXY PAINT	O.D.	OPEN WEB		
ENGR.	ENGINEER	OSHA	OPPOSITE		
EQUIP.	EQUIPMENT	OVHD	OUTSIDE DIAMETER		
EQ.	EQUAL		OCCUPATIONAL SAFETY AND HEALTH ACT		
EXIST.	EXISTING				
EXP.	EXPANSION / EXPOSED				
E.J. (EXP. JT.)	EXPANSION JOINT				
EXP. TO STRUCT.	EXPOSED TO STRUCTURE	PDU	POWER DISTRIBUTION UNIT		
EXT.	EXTERIOR	PT	PAINT		
ETD	ESTIMATED TRAVEL DISTANCE	PR.	PAIR		
		PNL.	PANEL		
FAC.	FACTORY	PART.	PARTITION		
FDC	FIRE DEPARTMENT CONNECTION	PLAS.	PLASTER OR PLASTIC		
FT.	FEET	PL	PLATE		
F.E.	FIRE EXTINGUISHER	PLYWD.	PLYWOOD		
F.E.C.	FIRE EXTINGUISHER CABINET	LBS. OR #	POUNDS		
F.H.C.	FIRE HOSE CABINET	PSF	POUNDS / SQUARE FOOT		
FIN.	FINISH	PSI	POUNDS / SQUARE INCH		
F.P.	FLAT PAINT	P.M.J.F.	PRE-MOLDED JOINT FILLER		
F.F.	FINISHED FLOOR	PRE-FAB.	PREFABRICATED		
FLR.	FLOOR	PP	PUSH PLATE		
F.D.	FLOOR DRAIN				
FLUOR.	FLUORESCENT				
F.O.G.	FACE OF GIRT	Q.T.	QUARRY TILE		
FTG.	FOOTING				
FDN.	FOUNDATION				
FV.	FIELD VERIFY				

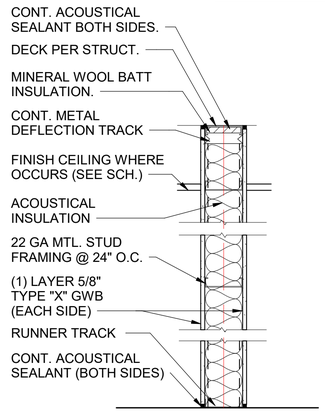
PLAN SYMBOLS:



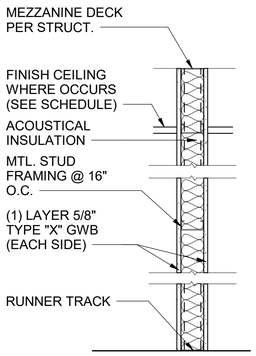
SYMBOLS:



PARTITION TYPES & DETAILS



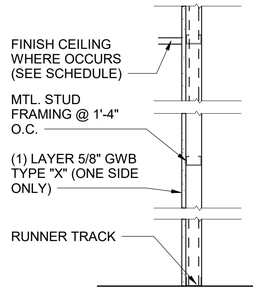
A 6" MTL. STUD PARTITION (STC 51)
SCALE : 1" = 1'-0"



B 3 5/8" MTL. STUD PARTITION
SCALE : 1" = 1'-0"

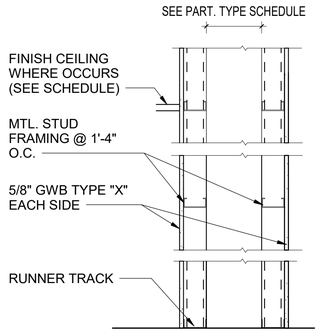
B1 6" MTL. STUD PARTITION
SCALE : 1" = 1'-0"

STC 51 RATED PARTITION - INSTALL GYPSUM WALL BOARD VERTICALLY ON EACH SIDE AND STAGGER GYPSUM BOARD JOINTS. PROVIDE 5 1/2" SOUND ATTENUATION BATT INSULATION. EXTEND WALLS AND SEAL TO THE BOTTOM OF THE MEZZANINE DECK WITH PRE-MANUFACTURED NEOPRENE CLOSURE STRIP OR MINERAL SAFING AND EXPANDING URETHANE FOAM INSULATION. LIMIT PENETRATIONS INTO STC 51 PARTITIONS.

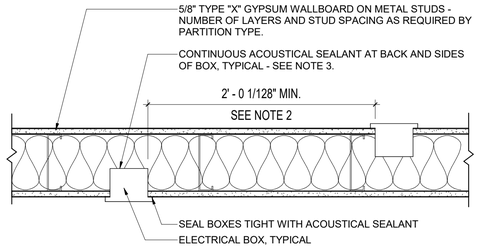


C 2 1/2" MTL. STUD FURRING PARTITION
SCALE : 1" = 1'-0"

FURRING AT COLUMNS TO EXTEND TO THE BOTTOM OF CRANE BEAM



D 3 5/8" MTL. STUD 8 3/4" CHASE PARTITION
SCALE : 1" = 1'-0"



NOTES:

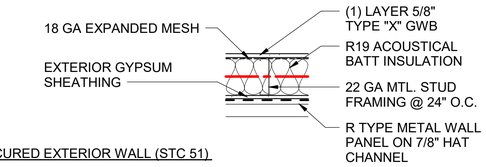
1. WHERE PENETRATIONS, SUCH AS COMMUNICATIONS OUTLETS AND ELECTRICAL OUTLETS OCCUR ON THE OPPOSITE SIDES OF A PARTITION, OFFSET OUTLETS 2'-0" MINIMUM OR BY AT LEAST ONE STUD CAVITY. DO NOT PLACE OUTLETS BACK-TO-BACK.

2. WHERE OUTLET BOXES ON OPPOSITE SIDES OF A PARTITION SHARE THE SAME STUD CAVITY, BOXES SHALL BE SEPARATED BY A MINIMUM DISTANCE EQUAL TO THE DEPTH OF THE STUD CAVITY IN ORDER TO ACCOMMODATE SOUND BATT INSULATION BETWEEN THE BOXES WITHOUT COMPROMISSING THE INSULATION.

3. AT THE PARTITIONS RATED STC-51 OR HIGHER, THE BACKS AND SIDES OF THE OUTLET BOXES SHALL BE ACOUSTICALLY SEALED WITH ACOUSTICAL SEALANT.

GENERAL NOTES:

1. STUD DESIGN CRITERIA: ALL INTERIOR, NON-LOAD BEARING METAL STUDS SHALL BE 25 GAUGE (MIN.) UNLESS OTHERWISE NOTED. PROVIDE 5 PSF MIN. APPLIED LATERAL LOAD, L/240 MAX. DEFLECTION.
2. TYPICAL FLOOR PLAN DIMENSIONS OF PARTITIONS ARE TO FACE OF STUD UNLESS NOTED OTHERWISE.
3. INSTALLATION OF GYPSUM BOARD, BACKER BOARD AND BASE BOARD SHALL CONFORM TO REQUIREMENTS FOR FIRE RATINGS AND ACOUSTICAL RATINGS.
4. PROVIDE WATER RESISTANT TYPE GYPSUM BOARD IN RESTROOMS AND JANITOR CLOSETS. AT AREAS THAT ARE ROOM FINISH SCHEDULE TO RECEIVE CERAMIC OR PORCELAIN TILE FINISH PROVIDE TILE BACKER BOARD.
5. PROVIDE 5/8" GYPSUM BOARD UNLESS OTHERWISE NOTED.
6. METAL STUD GAUGE (IF NOTED) AND UL TEST NUMBERS WILL VARY DEPENDING ON THE MANUFACTURER OF COMPONENTS ACTUALLY USED.
7. INSTALL BLOCKING OR BACKER MATERIAL FOR ATTACHMENT / MOUNTING OF WALL HUNG ITEMS OR EQUIPMENT DESCRIBED IN THE DOCUMENTS.
8. WHEN INSTALLING GYPSUM BOARD, CONTRACTOR SHALL COMPLY WITH REQUIREMENTS OF THE MOST CURRENT EDITION OF THE GYPSUM ASSOCIATION "GA-600" FIRE RESISTANCE DESIGN MANUAL AND THE MOST CURRENT EDITION OF THE UL FIRE RESISTANCE DIRECTORY.
9. PARTITIONS THAT ARE REQUIRED TO EXTEND TO THE DECK OR STRUCTURE ABOVE SHALL HAVE THE GYPSUM BOARD CUT TO FIT WITHIN A 1/4" MAXIMUM TOLERANCE TO THE SHAPE OF THE STRUCTURE. GYPSUM BOARD SHALL BE CONTINUOUSLY SEALED FOR THE FULL DEPTH OF THE GYPSUM BOARD WITH FLEXIBLE SEALANT.
10. GYPSUM BOARD SHALL BE CUT SO THAT THE CLEARANCE BETWEEN METALLIC ELECTRICAL OUTLET BOXES AND THE GYPSUM BOARD DOES NOT EXCEED 1/8".
11. THE BOTTOM OF THE GYPSUM BOARD AT INTERIOR PARTITIONS SHALL BE 1/4" MINIMUM AND 1/2" MAXIMUM ABOVE THE CONCRETE FLOOR SLAB AND SHALL BE SEALED FOR THE FULL DEPTH OF THE GYPSUM BOARD WITH FLEXIBLE SEALANT.
12. ALL ELEMENTS OF ACOUSTIC RATED PARTITIONS SHALL EXTEND TO ROOF STRUCTURE OR FLOOR DECK ABOVE.
13. REFER TO "PARTITION TYPE SUBSCRIPT KEY" FOR SYMBOLS USED TO IDENTIFY ADDITIONAL REQUIREMENTS AND MODIFICATIONS TO BASIC PARTITION TYPES.
14. PARTITION TYPES DESCRIBE GENERAL REQUIREMENTS FOR PARTITIONS. REFER TO THE MANUFACTURER'S SPECIFICATIONS AND REQUIREMENTS OF APPLICABLE TESTING AGENCIES FOR SPECIFICS OF PARTITION CONSTRUCTION.
15. WHERE A CLEAR DIMENSION OR OPENING IS REQUIRED OR NOTED, MEASURE DIMENSION TO FACE OF PARTITION FINISH.
16. REFER TO INTERIOR FINISH SCHEDULE FOR ALL WALL FINISHES.
17. IN ALL STC-RATED PARTITIONS (NON-FIRE RATED), ALL OPENINGS THROUGH THE PARTITION AND ITS ENTIRE PERIMETER, SHALL BE SEALED AIRTIGHT. COMPLETELY SEAL WITH ACOUSTICAL SEALANT (OR SOUND & SMOKE SEALANT) AROUND ALL PENETRATIONS (E.G. ELECTRICAL CONDUITS AND BOXES, PLUMBING & FIRE SPRINKLER PIPING, MECHANICAL DUCTS, ETC.) RECESSED EQUIPMENT (E.G. SEMI RECESSED FIRE EXTINGUISHER CABINETS), PARTITION PERIMETERS, AND INTERSECTIONS WITH DISSIMILAR MATERIALS.
18. TO REDUCE SOUND TRANSMISSION THROUGH STC-RATED PARTITIONS, DO NOT PLACE ELECTRICAL OR COMMUNICATIONS OUTLET BOXES ON OPPOSITE SIDES OF PARTITIONS BACK-TO-BACK. OUTLET BOXES SHALL BE OFFSET BY ONE STUD SPACE WITH A MINIMUM HORIZONTAL SEPARATION DISTANCE OF 24". HOWEVER, WHERE 24" IS NOT POSSIBLE, THE OUTLET BOXES SHALL BE SEPARATED BY A HORIZONTAL DISTANCE NOT LESS THAN THE DEPTH OF THE PARTITION CAVITY WHERE THE CAVITY IS FILLED WITH GLASS FIBER BATTS.
19. PROVIDE BLOCKING FOR GRAB BARS AND ALL TOILET ACCESSORIES.
20. MINIMIZE ALL PENETRATIONS IN SECURED BOUNDARY AREA.



SECURED EXTERIOR WALL (STC 51)

PROVIDE 18 GAUGE EXPANDED MESH ON INTERIOR FACE OF 6" METAL STUDS. SPOT WELD TO STUDS AT 6" O.C. BOTH WAYS. EXTEND FROM SLAB TO BOTTOM OF MEZZANINE DECK.

INSTALL GYPSUM WALL BOARD VERTICALLY AND STAGGER GYPSUM BOARD JOINTS. PROVIDE 5 1/2" SOUND ATTENUATION BATT INSULATION. EXTEND WALLS AND SEAL TO THE BOTTOM OF THE MEZZANINE DECK WITH PRE-MANUFACTURED NEOPRENE CLOSURE STRIP OR MINERAL SAFING AND EXPANDING URETHANE FOAM INSULATION.

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

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NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

ARCHITECTURAL SYMBOLS, LEGENDS, ABBREVIATIONS AND NOTES

SCALE: AS NOTED

EPROJECT NO.: 1802981

CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

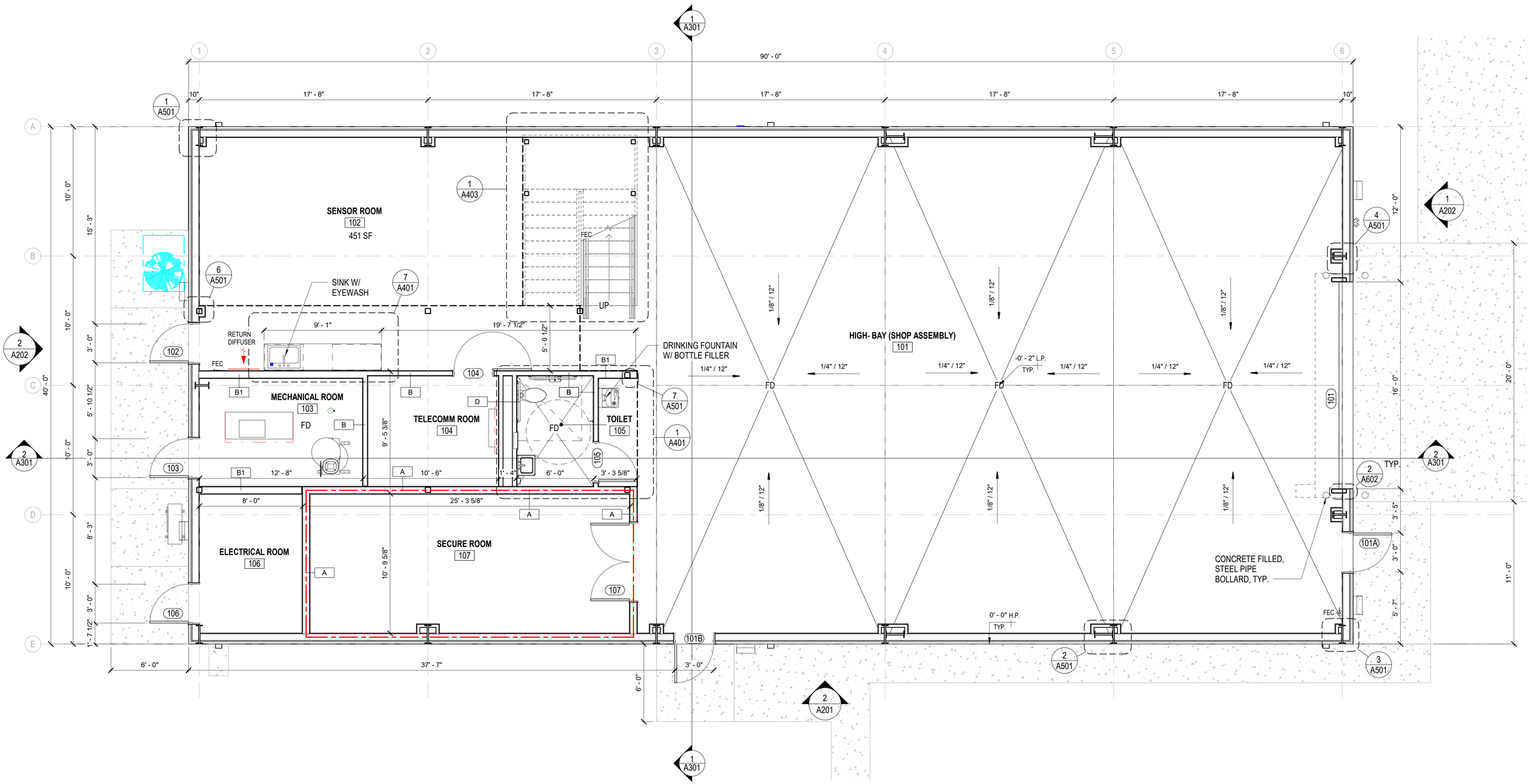
SHEET 0 OF

A001

DRAWFORM REVISION: 18 MARCH 2025

NOTES:

A1-X REFERENCE SHEET A001 FOR PARTITION TYPES



1 FIRST FLOOR PLAN

1/4" = 1'-0"

PLAN NORTH

4 0 4 8

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

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

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NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

FIRST FLOOR PLAN

SCALE: AS NOTED

EPROJECT NO.: 1802981

CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

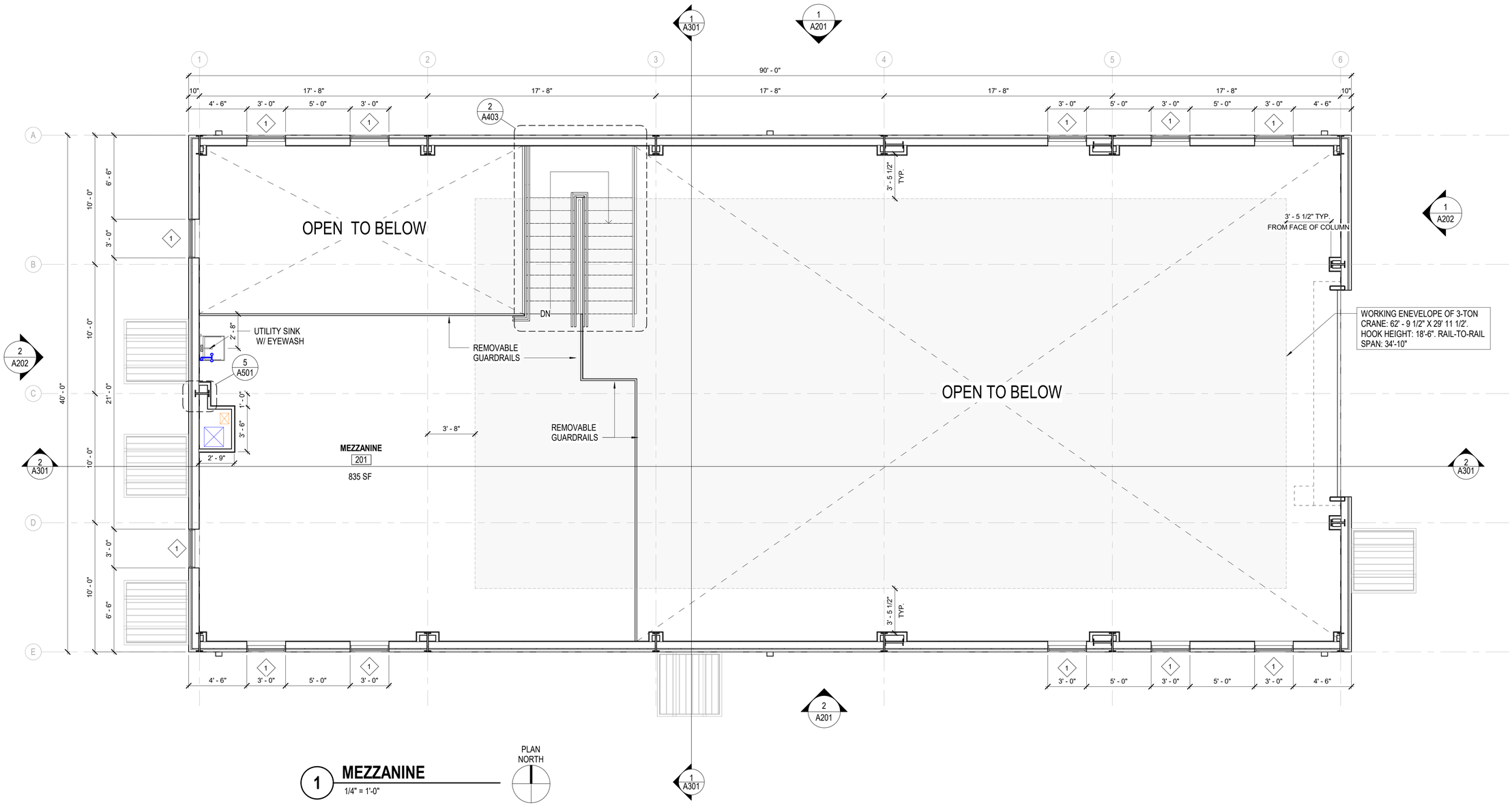
SHEET 0 OF

A101

DRAWFORM REVISION: 18 MARCH 2025

NOTES:

1 WINDOWS - REFERENCE SHEET A601



1 MEZZANINE

1/4" = 1'-0"

PLAN NORTH

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

DES	KM	DRW	KM	CHK	Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

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NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

MEZZANINE FLOOR PLAN

SCALE: AS NOTED

EPROJECT NO.: 1802981

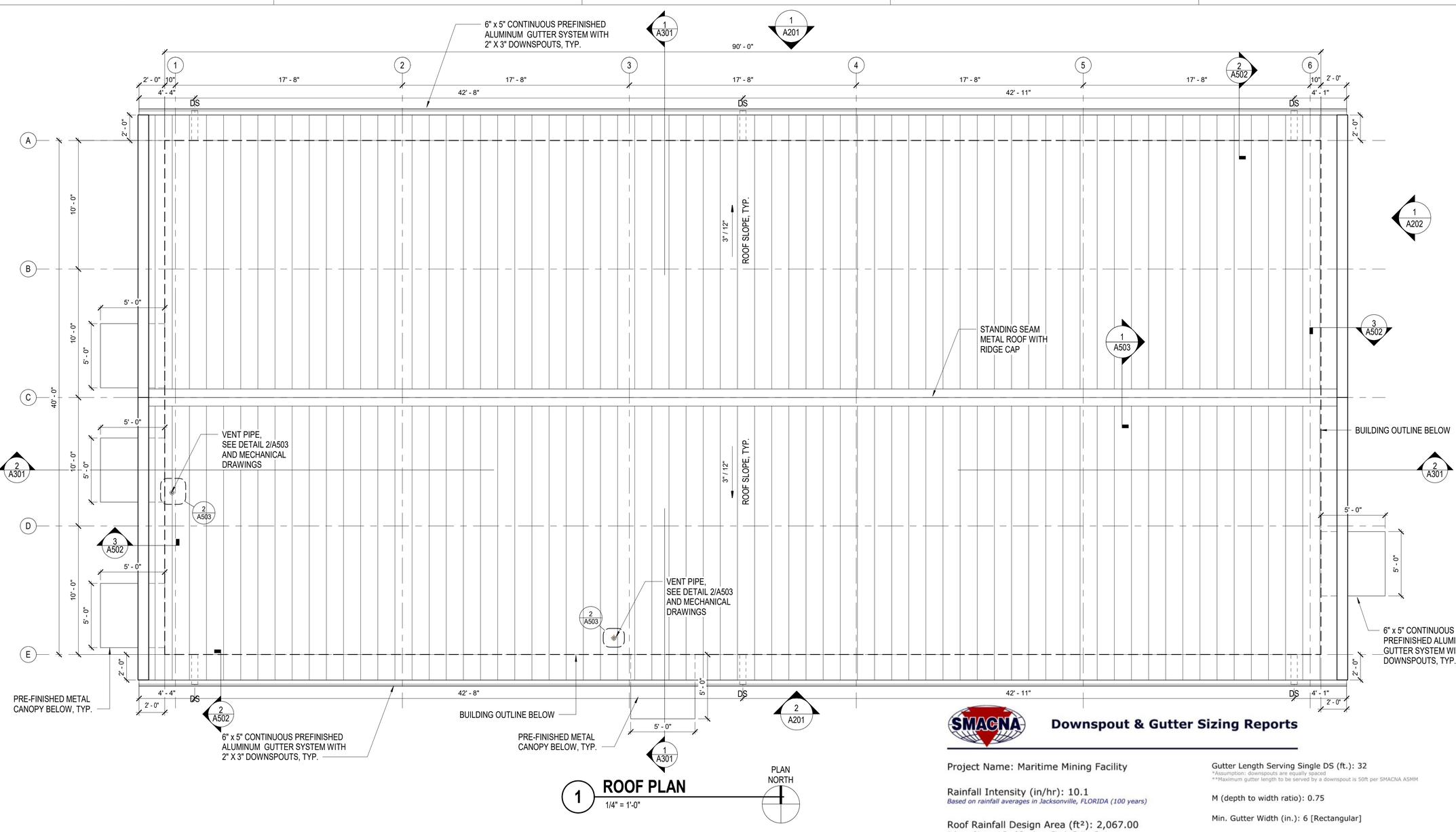
CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET OF

A102

DRAWFORM REVISION: 18 MARCH 2025



SMACNA Downspout & Gutter Sizing Reports

Project Name: Maritime Mining Facility

Rainfall Intensity (in/hr): 10.1
Based on rainfall averages in Jacksonville, FLORIDA (100 years)

Roof Rainfall Design Area (ft²): 2,067.00
* Area of Largest Roof Serving a Single Gutter System
Design Area manually entered by user

Gutter in Lineal Ft: 94
* Length at Largest Roof Serving a Single Gutter System

Gutter Length Serving Single DS (ft.): 32
*Assumption: downspouts are equally spaced
**Maximum gutter length to be served by a downspout is 50ft per SMACNA ASMM

Gutter Length Serving Single DS (ft.): 32
*Assumption: downspouts are equally spaced
**Maximum gutter length to be served by a downspout is 50ft per SMACNA ASMM

M (depth to width ratio): 0.75

Min. Gutter Width (in.): 6 [Rectangular]

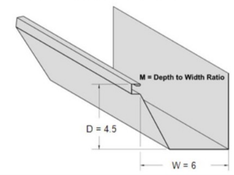
Min. Gutter Depth (in.): 4.5

# of Downspouts: 3

Additional Downspouts: 1
*to reduce size of gutter and downspouts additional downspouts can be added

Min. Area per DS (in²): 5.74

Min. DS Size (in): 2.00 x 3.00 [Plain Rectangular]
*Per Table 1-3 on page 1.4 of SMACNA ASMM



SYM	DESCRIPTION	DATE	APPR

NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer	DRW Author	CHK Checker
DESIGN MANAGER	K. MOOREHEAD	
PROJECT MANAGER	O. HARRIS	
CHIEF ENG/ARCH	H.M KING	
FIRE PROTECTION	A. KOUCHINSKY	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

ROOF PLAN

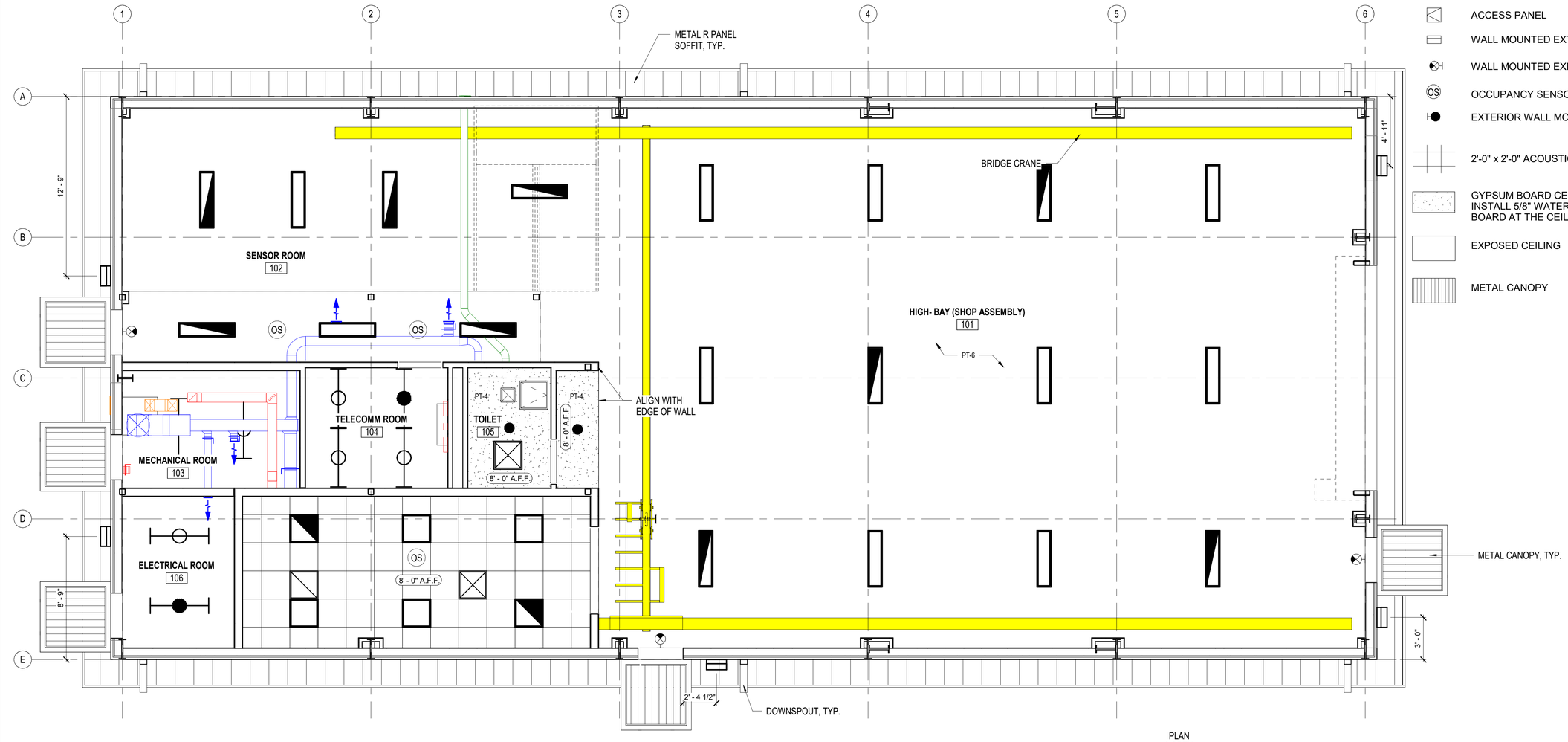
SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	N69450-18-D-0000
NAVFAC DRAWING NO.	
SHEET	OF

A103

DRAWFORM REVISION: 18 MARCH 2025

RCP LEGEND

- DOWNLIGHT- CENTER IN ACOUST. CEILING PANELS, TYP., U.N.O.
- EMERGENCY DOWNLIGHT
- 4' STRIP LIGHT
- EMERGENCY 4' STRIP LIGHT
- PENDANT LIGHT FIXTURE
- EMERGENCY PENDANT LIGHT FIXTURE
- 2' X 2' LIGHT FIXTURE
- EMERGENCY 2' X 2' LIGHT FIXTURE
- 24" X 24" MECH. DIFFUSERS
- 24" X 24" MECH. RETURN AIR GRILLES
- EXHAUST FAN (SEE MECH. DRAWINGS)
- ACCESS PANEL
- WALL MOUNTED EXTERIOR LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- OCCUPANCY SENSOR
- EXTERIOR WALL MOUNTED LIGHT FIXTURE
- 2'-0" x 2'-0" ACOUSTICAL CEILING SYSTEM
- GYPSUM BOARD CEILING INSTALL 5/8" WATER- RESISTANT GYPSUM BOARD AT THE CEILINGS OF RESTROOMS.
- EXPOSED CEILING
- METAL CANOPY



1 FIRST FLOOR REFLECTED CEILING PLAN
1/4" = 1'-0"

PLAN NORTH

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

FIRST FLOOR REFLECTED CEILING PLAN

SCALE: AS NOTED

EPROJECT NO.: 1802981

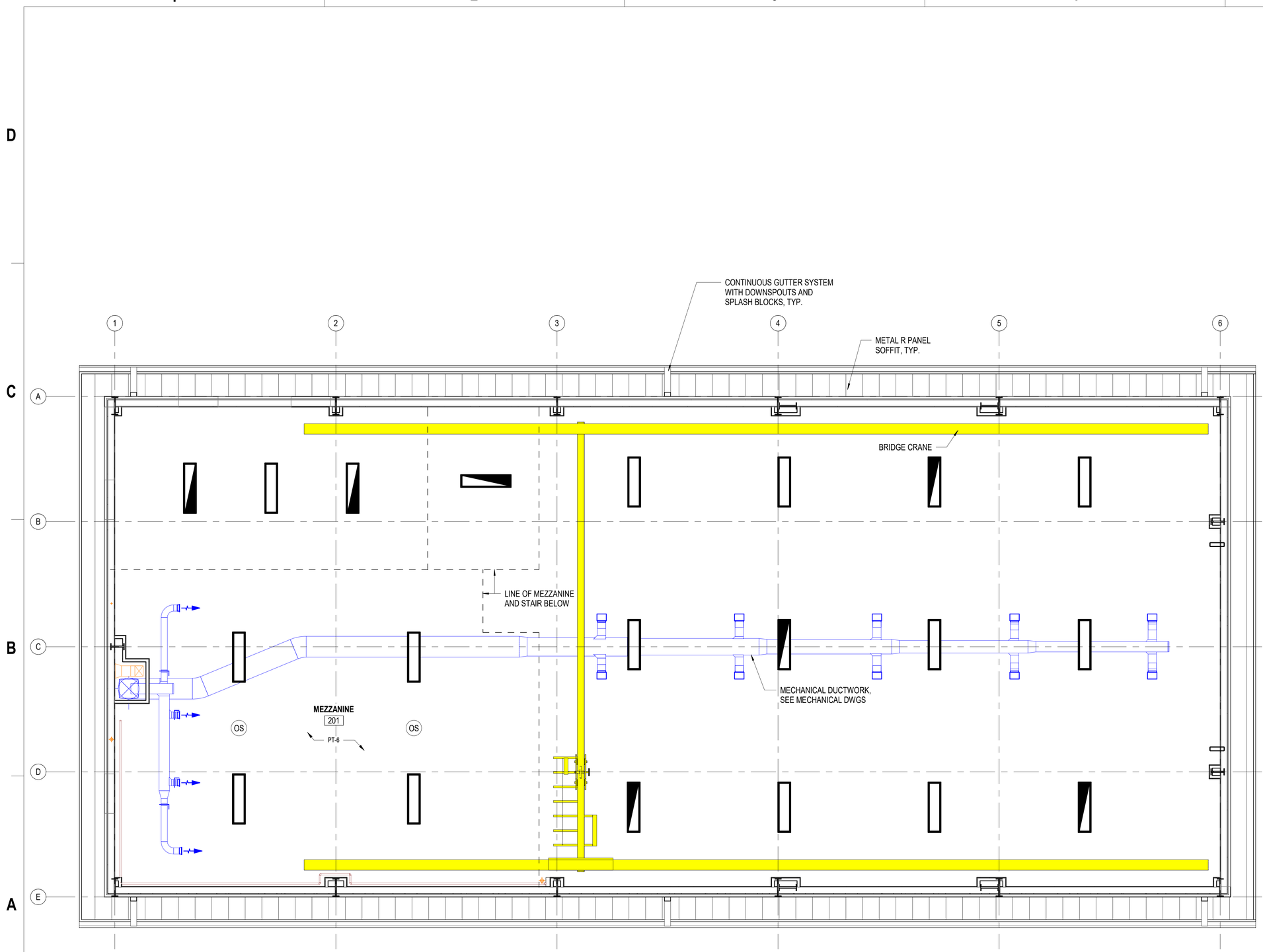
CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET OF

A104

DRAWFORM REVISION: 18 MARCH 2025



RCP LEGEND

- DOWNLIGHT- CENTER IN ACOUST. CEILING PANELS, TYP., U.N.O.
- EMERGENCY DOWNLIGHT
- 4' STRIP LIGHT
- EMERGENCY 4' STRIP LIGHT
- PENDANT LIGHT FIXTURE
- EMERGENCY PENDANT LIGHT FIXTURE
- 2' X 2' LIGHT FIXTURE
- EMERGENCY 2' X 2' LIGHT FIXTURE
- 24" X 24" MECH. DIFFUSERS
- 24" X 24" MECH. RETURN AIR GRILLES
- EXHAUST FAN (SEE MECH. DRAWINGS)
- ACCESS PANEL
- WALL MOUNTED EXTERIOR LIGHT FIXTURE
- WALL MOUNTED EXIT SIGN
- OCCUPANCY SENSOR
- EXTERIOR WALL MOUNTED LIGHT FIXTURE
- 2'-0" x 2'-0" ACOUSTICAL CEILING SYSTEM
- GYPSUM BOARD CEILING INSTALL 5/8" WATER- RESISTANT GYPSUM BOARD AT THE CEILINGS OF RESTROOMS.
- EXPOSED CEILING
- METAL CANOPY

PLAN NORTH

1 MEZZANINE REFLECTED CEILING PLAN

1/4" = 1'-0"

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENGIARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
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MARITIME MINING FACILITY

MEZZANINE FLOOR REFLECTED CEILING PLAN

SCALE: AS NOTED

EPROJECT NO.: 1802981

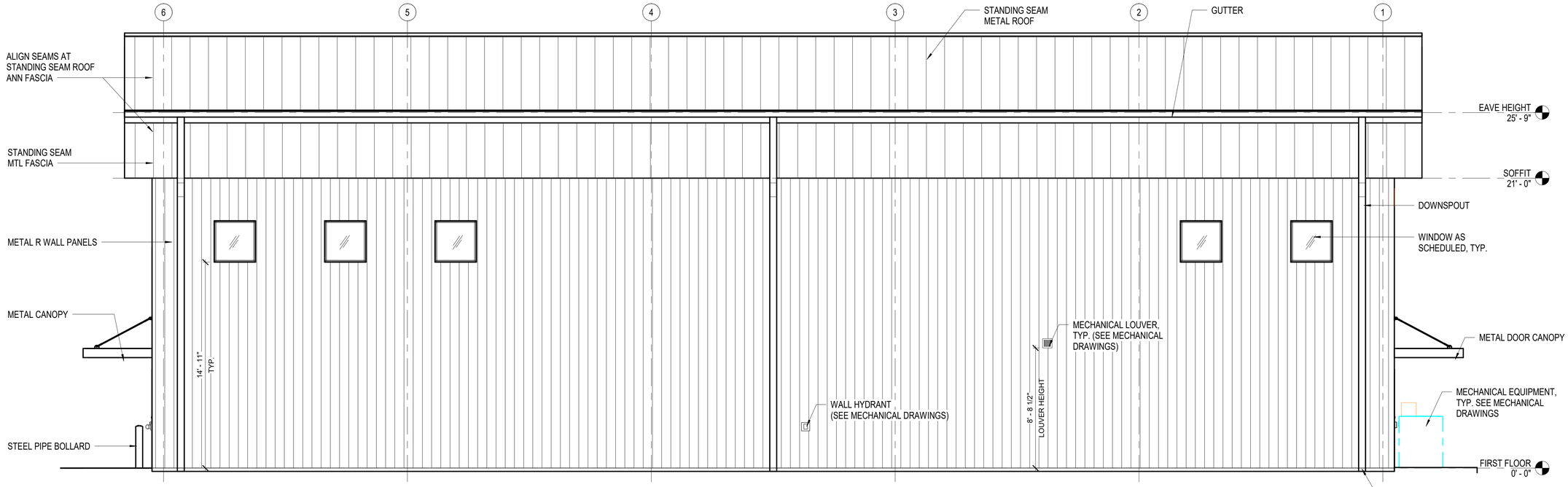
CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET OF

A105

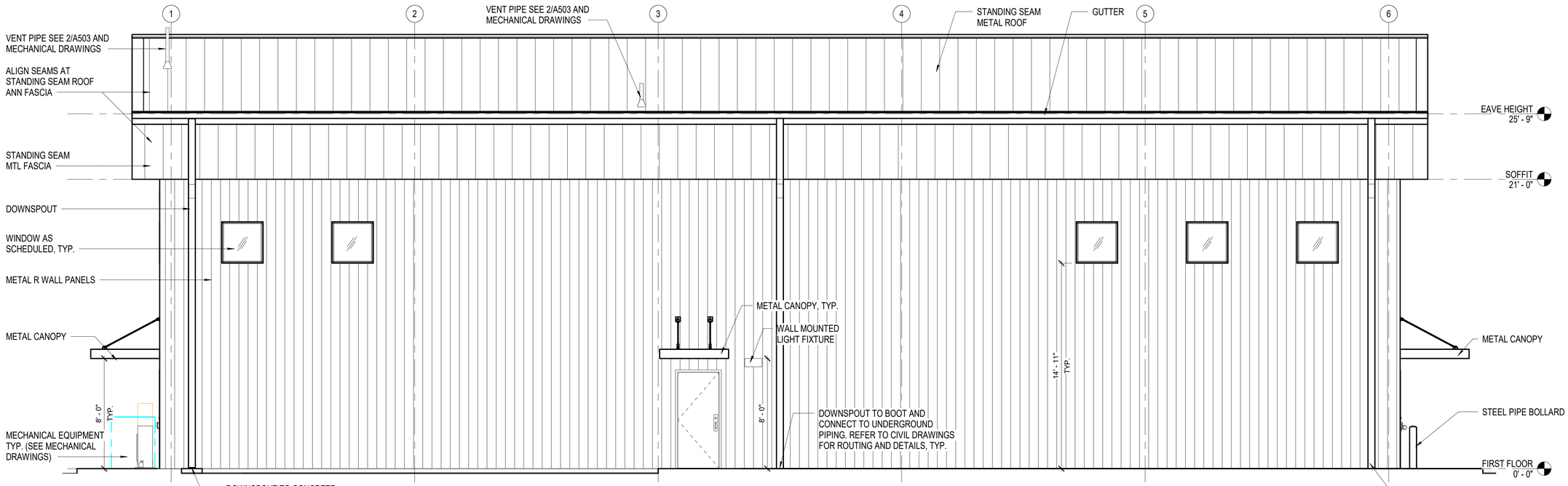
DRAWFORM REVISION: 18 MARCH 2025



1 BLDG ELEVATION - NORTH

1/4" = 1'-0" (A102)

ALL EXTERIOR BUIDLING ELEMENTS TO MATCH THE COLORS OF EXISTING ADJACENT BUILDING #618. SEE EXTERIOR FINISH SCHEDULE ON A202.



2 BLDG ELEVATION - SOUTH

1/4" = 1'-0" (A101)

SYM	DESCRIPTION	DATE	APPR

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FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES Designer	DRW Author	CHK Checker
DESIGN MANAGER	K. MOOREHEAD	
PROJECT MANAGER	O. HARRIS	
CHIEF ENG/ARCH	H.M KING	
FIRE PROTECTION	A. KOUCHINSKY	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
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NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

NORTH AND SOUTH ELEVATIONS

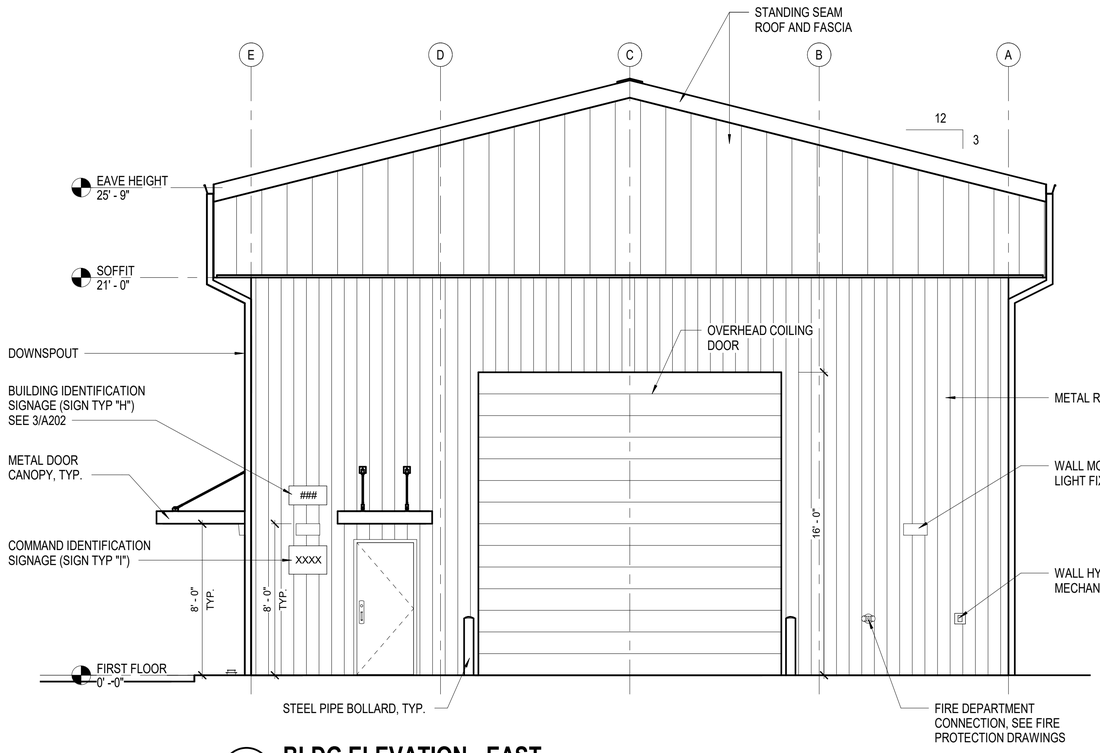
SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.: N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF

A201

DRAWFORM REVISION: 18 MARCH 2025

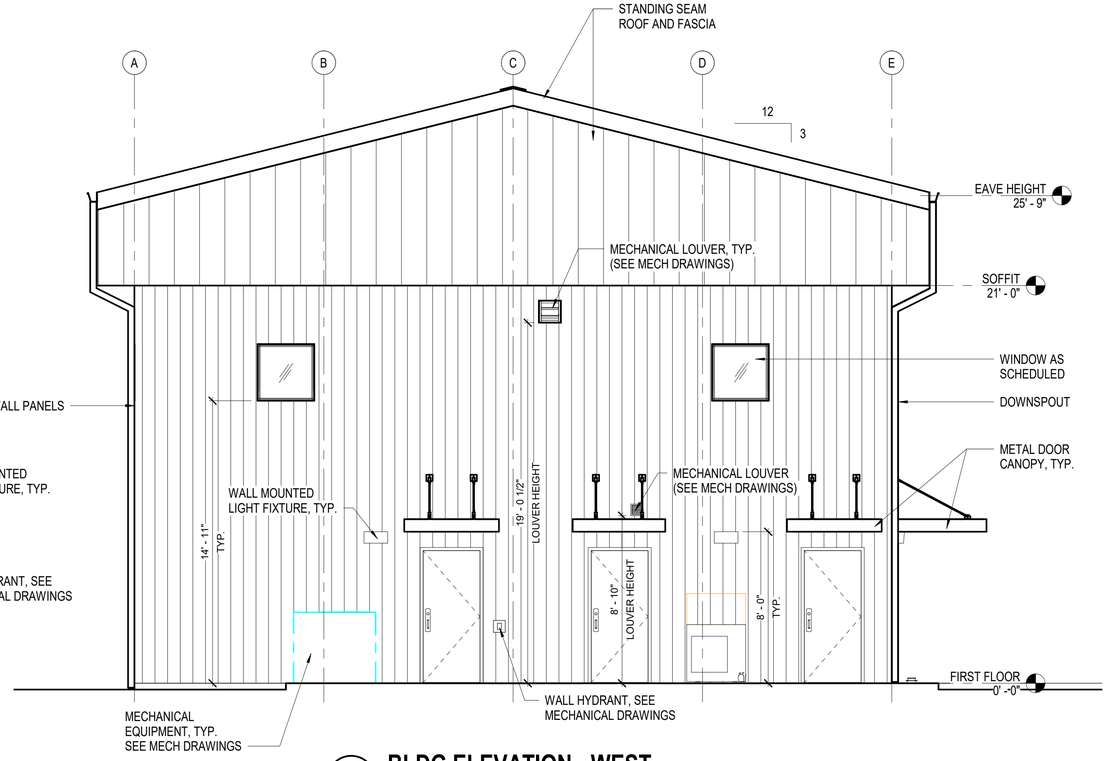
EXTERIOR FINISH SCHEDULE

MATERIAL / ITEM	FINISH (MATCH COLORS TO ADJACENT B618)
STANDING SEAM METAL ROOF	FEDERAL STANDARD 36044 (DARK BROWN)
FASCIA / SOFFIT / TRIM / GUTTER / DOWNSPOUT	FEDERAL STANDARD 36044 (DARK BROWN)
PRE-ENGINEERED METAL WALL PANEL	FEDERAL STANDARD 33727 (TAN)
OVERHEAD COILING DOOR	FEDERAL STANDARD 33727 (TAN)
DOOR TRIM AND CLOSURE PANELS	FEDERAL STANDARD 36044 (DARK BROWN)
PERSONNEL DOOR/FRAME	FEDERAL STANDARD 36044 (DARK BROWN)
LOUVERS	FEDERAL STANDARD 36044 (DARK BROWN)
METAL CANOPY (MATCH FASCIA & TRIM COLOR)	FEDERAL STANDARD 36044 (DARK BROWN)



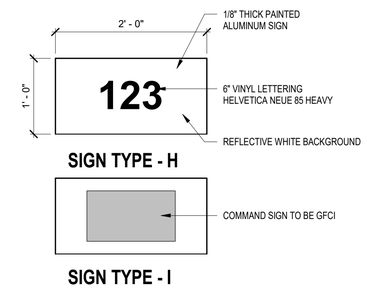
1 BLDG ELEVATION - EAST

1/4" = 1'-0" (A101)



2 BLDG ELEVATION - WEST

1/4" = 1'-0" (A101)



NOTES:

1. REFERENCE THE SIGN POLICY FOR NSA PANAMA CITY.
2. COORDINATE WITH ACTIVITY/CONSTRUCTION MANAGER FOR FINAL SIGN TYPE AND LOCATION
3. FASTEN SIGNS TO BUILDING WALL WITH STAINLESS STEEL OR GALVANIZED HARDWARE IN EACH CORNER PER SIGN AND PEMB MANUFACTURER

3 BUILDING IDENTIFICATION SIGNAGE

1" = 1'-0"

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH H.M KING
FIRE PROTECTION A. KOUCHINSKY

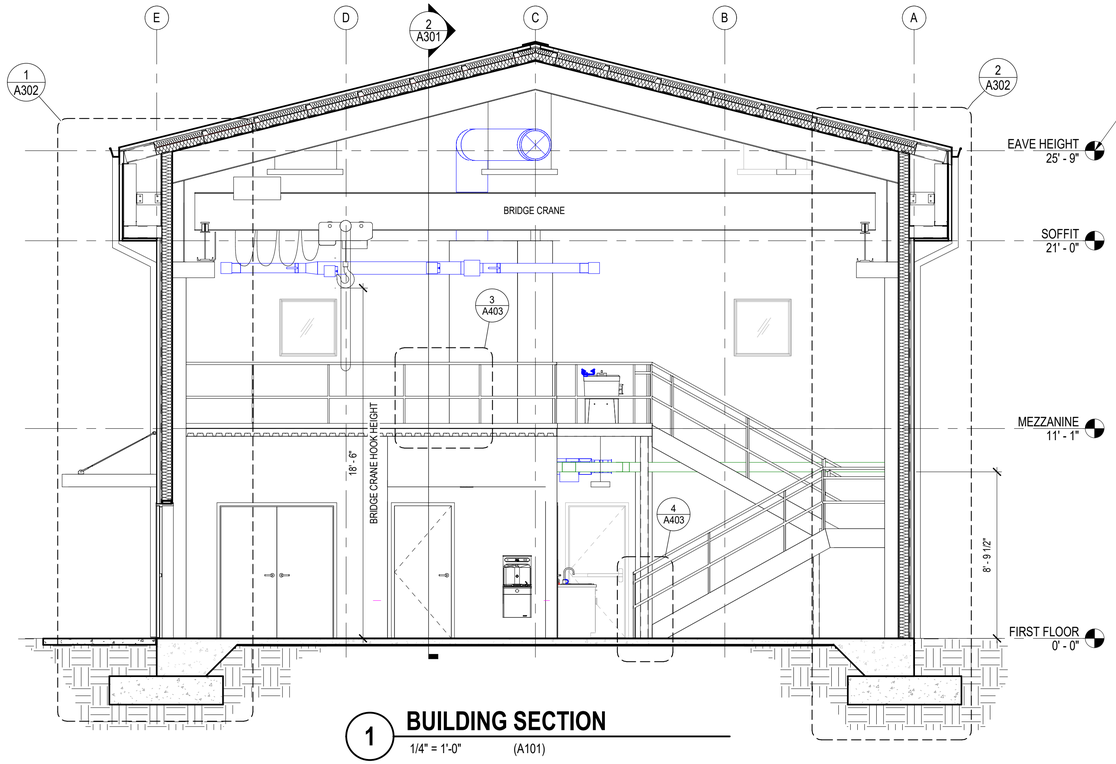
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

EAST AND WEST ELEVATIONS

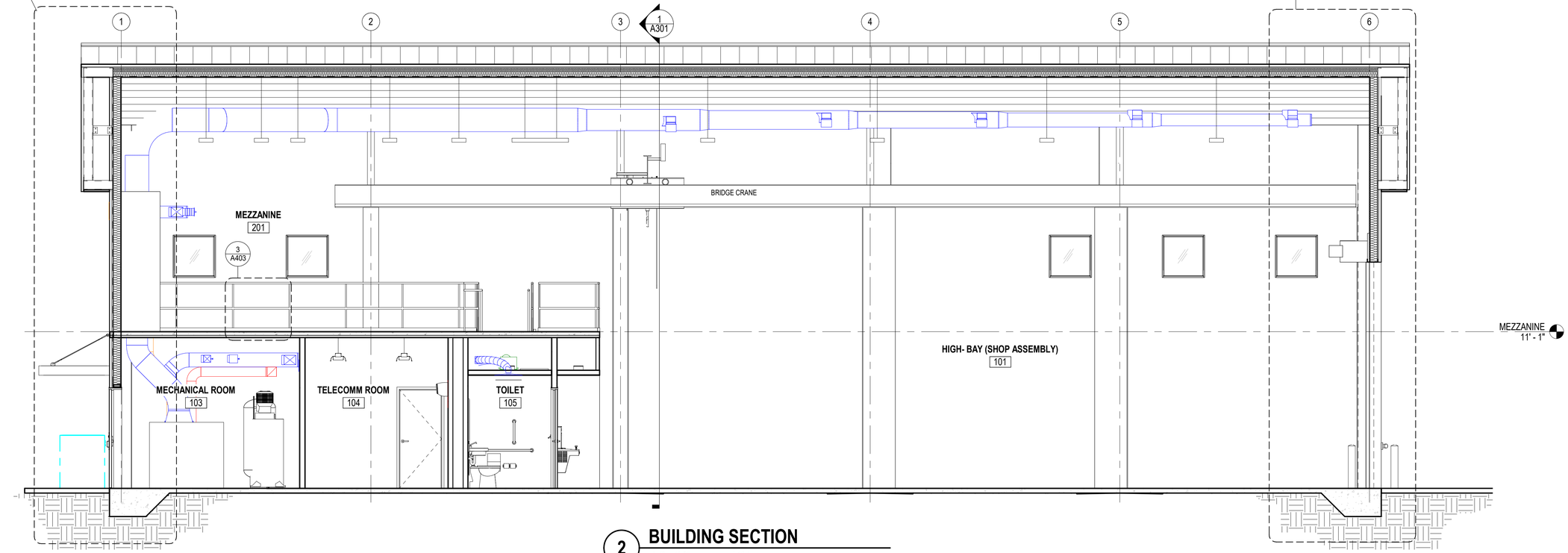
SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO. N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF
A202

DRAWFORM REVISION: 18 MARCH 2025



1 BUILDING SECTION

1/4" = 1'-0" (A101)



2 BUILDING SECTION

1/4" = 1'-0" (A101)

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

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DESIGN MANAGER	K. MOOREHEAD	
PROJECT MANAGER	O. HARRIS	
CHIEF ENG/ARCH	H.M KING	
FIRE PROTECTION	A. KOUCHINSKY	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
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NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

BUILDING SECTIONS

SCALE: AS NOTED

EPROJECT NO.: 1802981

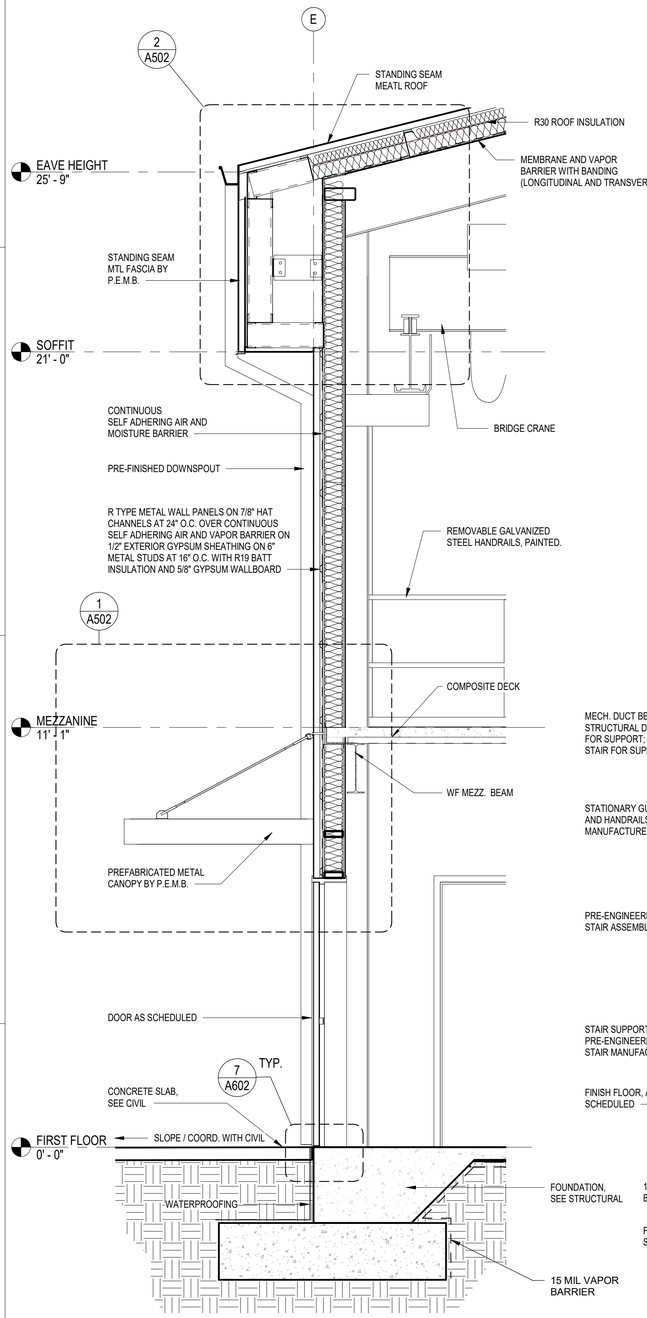
CONSTR. CONTR. NO.: N69450-18-D-0000

NAVFAC DRAWING NO.

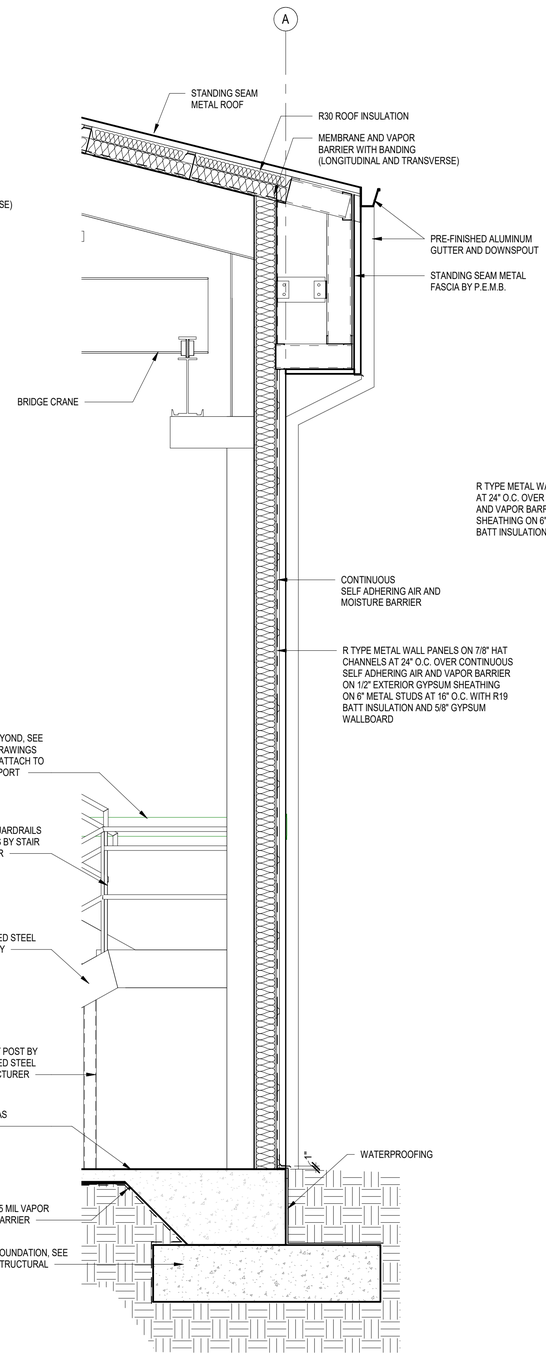
SHEET OF

A301

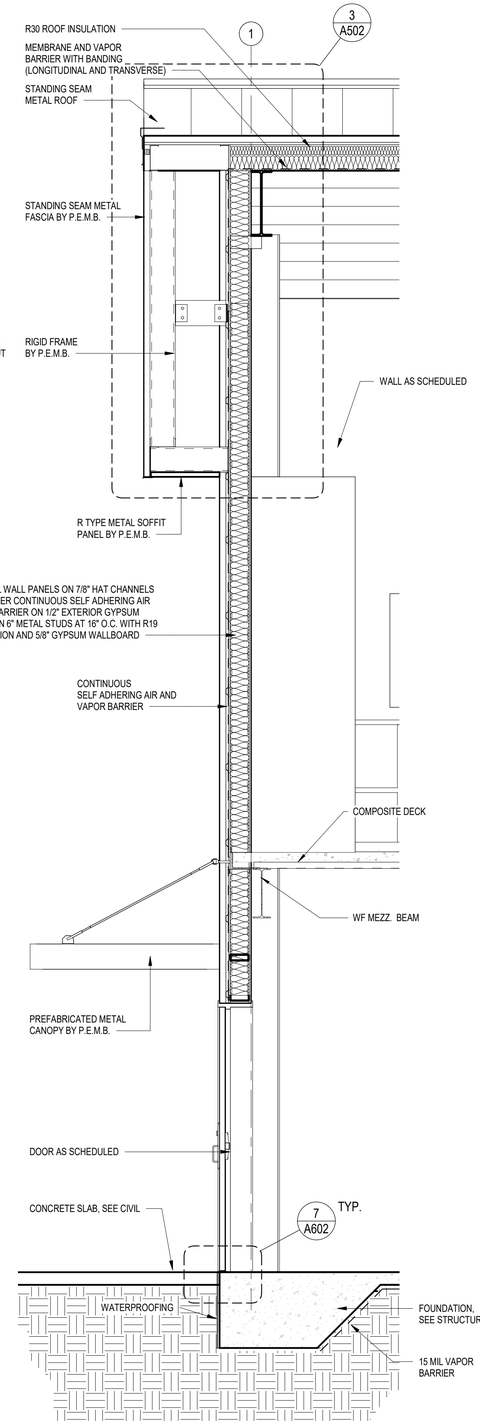
DRAWFORM REVISION: 18 MARCH 2025



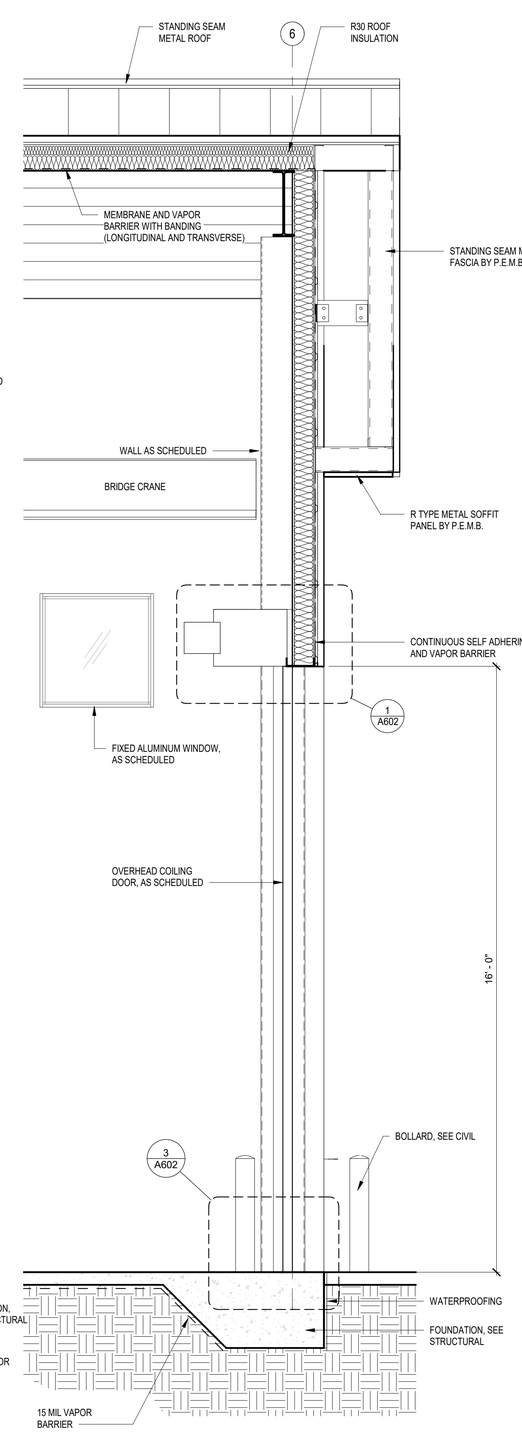
1 **WALL SECTION**
1/2" = 1'-0" (A301)



2 **WALL SECTION**
1/2" = 1'-0" (A301)



3 **WAL SECTION**
1/2" = 1'-0" (A301)



4 **WALL SECTION**
1/2" = 1'-0" (A301)

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	H.M KING
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

WALL SECTIONS

SCALE: AS NOTED

EPROJECT NO.: 1802981

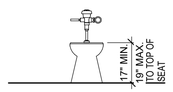
CONSTR. CONTR. NO.
N69450-18-D-0000

NAVFAC DRAWING NO.

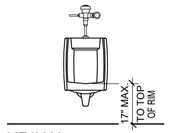
SHEET OF

A302

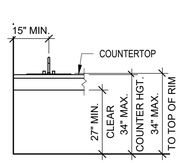
DRAWFORM REVISION: 18 MARCH 2025



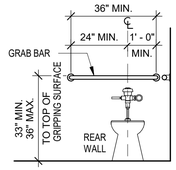
WATER CLOSET
SCALE: 3/8"=1'-0"



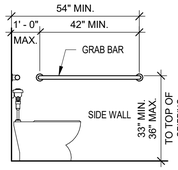
URINAL - ACCESSIBLE
SCALE: 3/8"=1'-0"



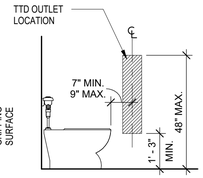
LAVATORY
SCALE: 3/8"=1'-0"



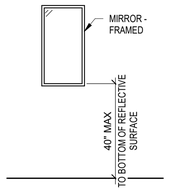
GRAB BAR (36")
SCALE: 3/8"=1'-0"



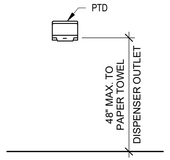
GRAB BAR 42"
SCALE: 3/8"=1'-0"



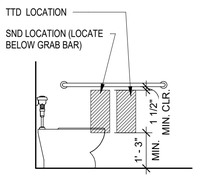
TOILET TISSUE DISPENSER
SCALE: 3/8"=1'-0"



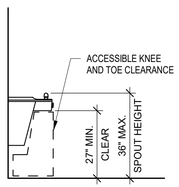
MIRROR - FRAME
SCALE: 3/8"=1'-0"



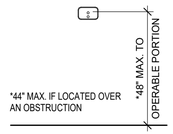
PAPER TOWEL DISPENSER
SCALE: 3/8"=1'-0"



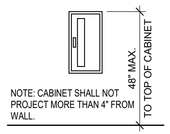
SANITARY NAPKIN DISPOSER
SCALE: 3/8"=1'-0"



DRINKING FOUNTAIN
SCALE: 3/8"=1'-0"

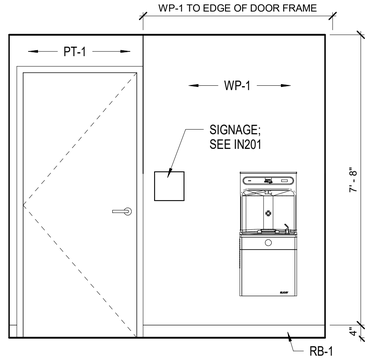


SOAP DISPENSER
SCALE: 3/8"=1'-0"



FIRE VALVE CABINET & FIRE EXTINGUISHER CABINET (F.E.C.)
SCALE: 3/8"=1'-0"

9 ACCESSIBLE MOUNTING HEIGHTS
3/8" = 1'-0"



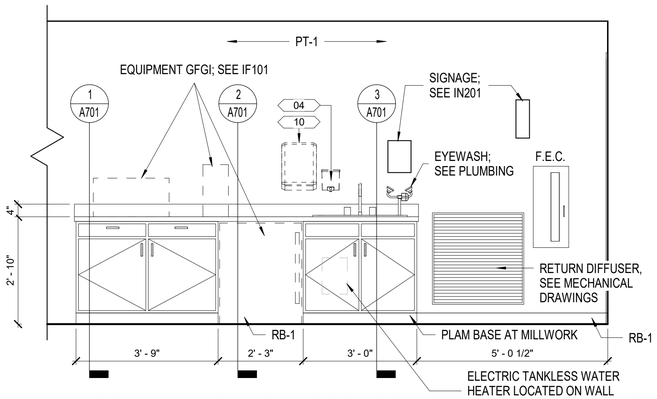
6 INTERIOR ELEVATION - HIGH BAY
1/2" = 1'-0" (A401)

GENERAL SHEET NOTES

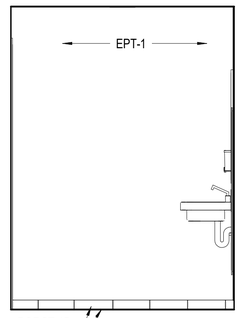
1. REFER TO TOILET ACCESSORY SCHEDULE FOR MATRIX OF RESPONSIBILITY. ITEMS MARKED "CFCI" WILL BE THE RESPONSIBILITY OF THE CONTRACTOR TO PROVIDE AND INSTALL. ITEMS MARKED "GFGI" WILL BE PROVIDED AND INSTALLED BY NSWC. COORDINATE WITH 10 28 13 TOILET ACCESSORIES.
2. FF&E SHOWN ON THIS SHEET IS PROVIDED FOR REFERENCE ONLY. FF&E TO BE PROVIDED AND INSTALLED BY NSWC. COORDINATE WITH IF101 FOR ADDITIONAL INFORMATION REGARDING FF&E
3. REFER TO SHEET IN101 FOR INTERIOR FINISHES.
4. REFER TO SHEET A721 FOR MILLWORK DETAILS.
5. REFER TO SHEET IN201 FOR INTERIOR SIGNAGE.
6. ACCESSIBILITY NOTES:
   - A. THIS SHEET INDICATES TYPICAL AND ACCESSIBLE MOUNTING HEIGHTS AND ADDITIONAL CRITERIA.
   - B. THE ACCESSIBLE CRITERIA INDICATED ON THIS SHEET ARE IN COMPLIANCE THE ABA ACCESSIBILITY STANDARD FOR DEPARTMENT OF DEFENSE FACILITIES
   - C. DETAILS ON THIS SHEET INDICATING ACCESSIBLE REQUIREMENTS ARE MARKED WITH THE "INTERNATIONAL SYMBOL OF ACCESSIBILITY".
   - D. VERIFY MANUFACTURER'S RECOMMENDED ACCESSIBLE MOUNTING LOCATIONS WITH THOSE LISTED ON THIS SHEET.
   - E. "INTERNATIONAL SYMBOL OF ACCESSIBILITY".

TOILET ACCESSORIES LEGEND

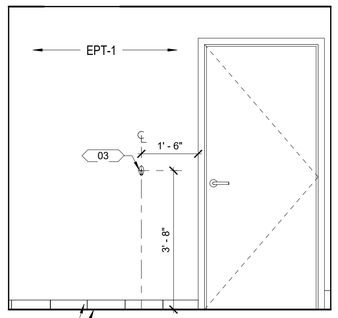
	DESCRIPTION	
01	TOILET TISSUE DISPENSER	GFGI
02	PAPER TOWEL DISPENSER/WASTE	GFGI
03	COAT HOOK	CFCI
04	SOAP DISPENSER	GFGI
05	SANITARY NAPKIN DISPOSAL	GFGI
06	MIRROR 18" x 36"	CFCI
07	HORIZONTAL GRAB BAR 42"	CFCI
08	HORIZONTAL GRAB BAR 36"	CFCI
09	VERTICAL GRAB BAR 18"	CFCI
10	PAPER TOWEL DISPENSER	GFGI



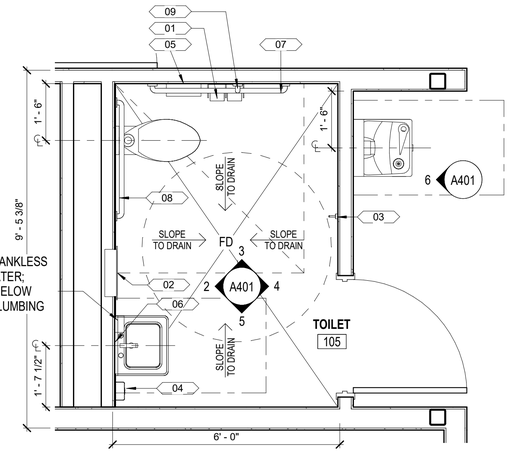
8 INTERIOR ELEVATION - SENSOR ROOM
1/2" = 1'-0" (A401)



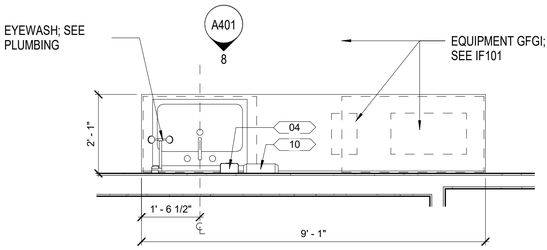
5 INTERIOR ELEVATION - TOILET
1/2" = 1'-0" (A401)



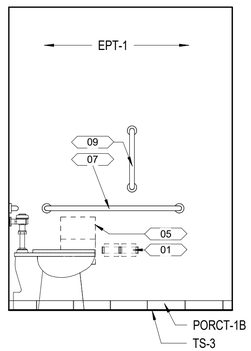
4 INTERIOR ELEVATION - TOILET
1/2" = 1'-0" (A401)



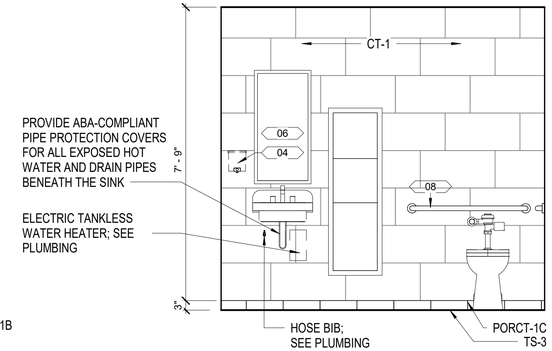
1 ENLARGED PLAN - TOILET
1/2" = 1'-0" (A101)



7 ENLARGED PLAN - SENSOR ROOM
1/2" = 1'-0" (A101)



3 INTERIOR ELEVATION - TOILET
1/2" = 1'-0" (A401)



2 INTERIOR ELEVATION - TOILET
1/2" = 1'-0" (A401)

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

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SYM	DESCRIPTION	DATE	APPR

SEAL

AE INFO

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ACTIVITY

SATISFACTORY TO DATE

DES	EAH	DRW	EAH	CHK	KPM

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH H.M KING
FIRE PROTECTION A. KOUCHINSKY

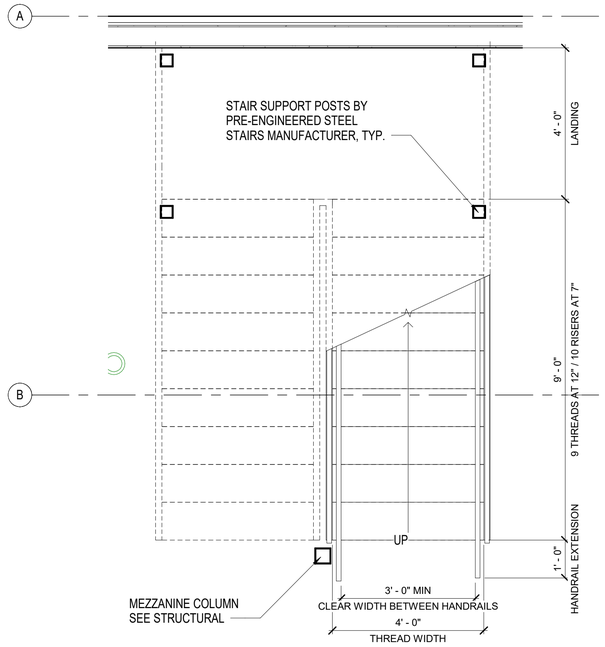
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

ENLARGED PLANS & INTERIOR ELEVATIONS

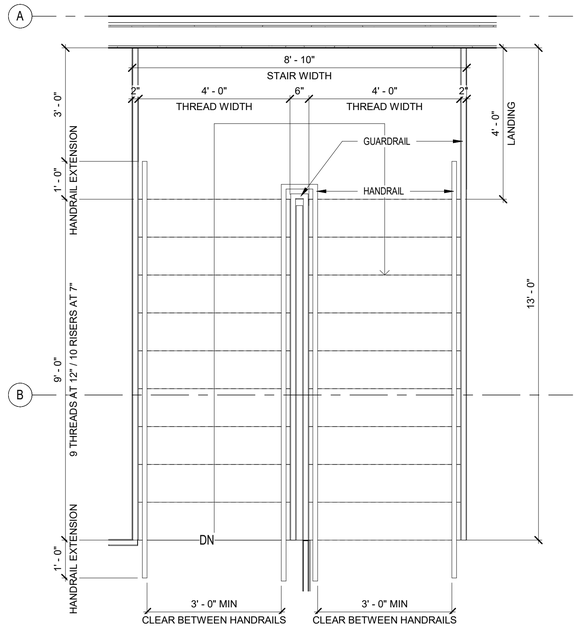
SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO. N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF
A401

DRAWFORM REVISION: 18 MARCH 2025



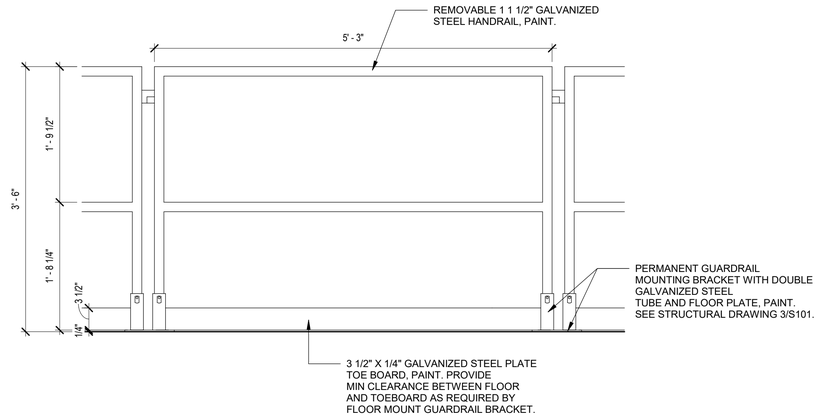
1 FIRST FLOOR ENLARGED STAIR PLAN

1/2" = 1'-0" (A101)



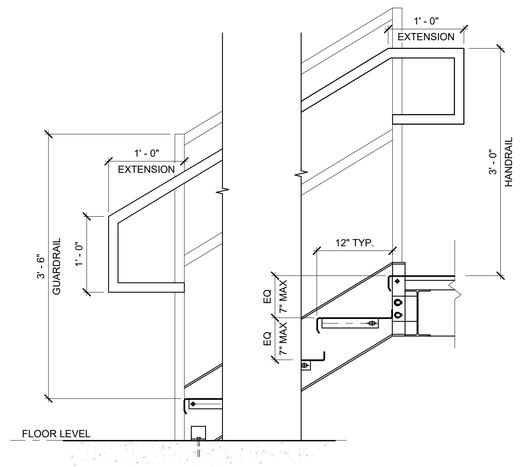
2 MEZZANINE ENLARGED STAIR PLAN

1/2" = 1'-0" (A102)



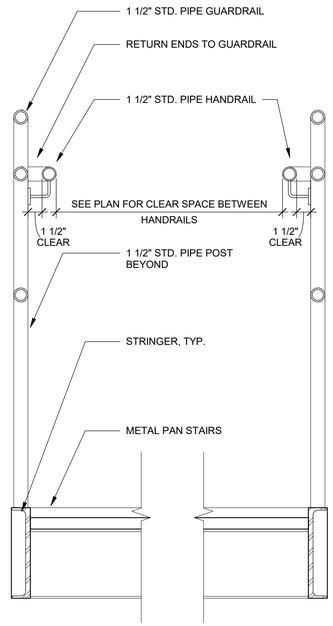
3 MEZZANINE REMOVABLE GUARDRAIL DTL

1" = 1'-0" (A301)



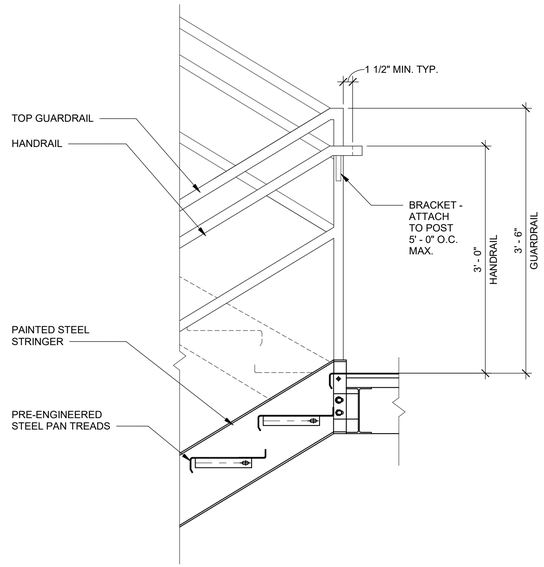
4 STAIR SECTION AT BASE AND LANDING

1" = 1'-0" (A301)



5 GUARDRAIL DETAIL

1 1/2" = 1'-0"



6 STAIR LANDING INTERIOR RAIL DETAIL

1" = 1'-0"

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH H.M KING
FIRE PROTECTION A. KOUCHINSKY

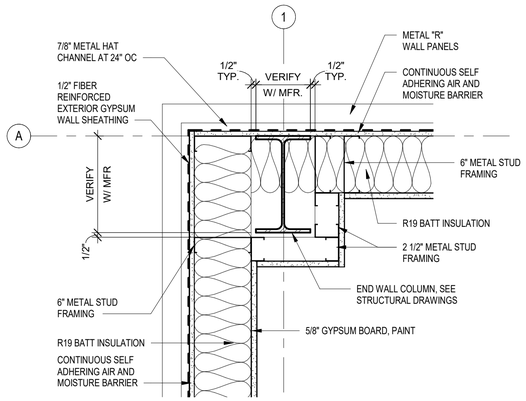
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NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

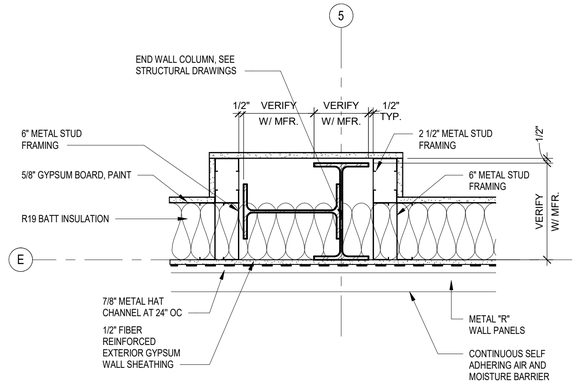
ENLARGED STAIR PLANS & DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO. N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF
A403

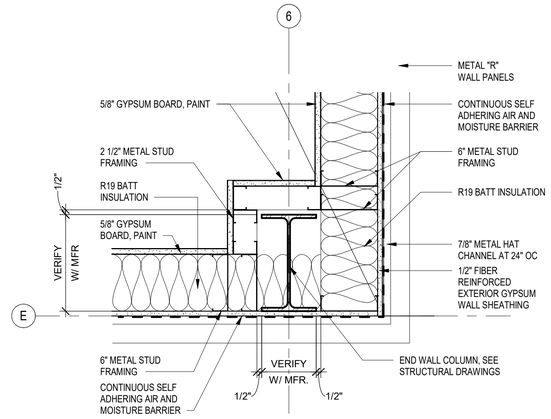
DRAWFORM REVISION: 18 MARCH 2025



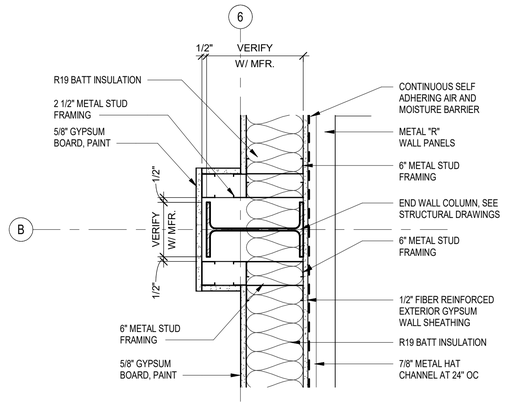
1 COLUMN DETAIL
1 1/2" = 1'-0" (A101)



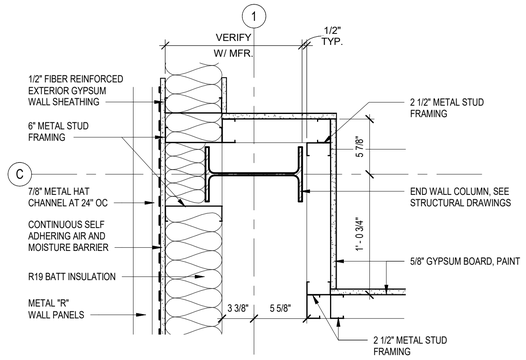
2 COLUMN DETAIL
1 1/2" = 1'-0" (A101)



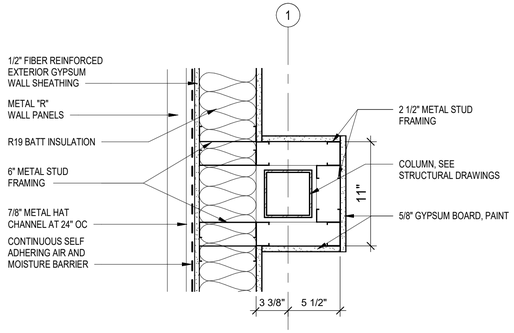
3 COLUMN DETAIL
1 1/2" = 1'-0" (A101)



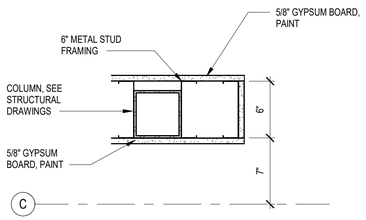
4 COLUMN DETAIL
1 1/2" = 1'-0" (A101)



5 COLUMN DETAIL
1 1/2" = 1'-0" (A102)



6 COLUMN DETAIL
1 1/2" = 1'-0" (A101)



7 COLUMN DETAIL
1 1/2" = 1'-0" (A101)

SYM	DESCRIPTION	DATE	APPR

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer	DRW Author	CHK Checker	
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	H.M KING		
FIRE PROTECTION	A. KOUCHINSKY		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

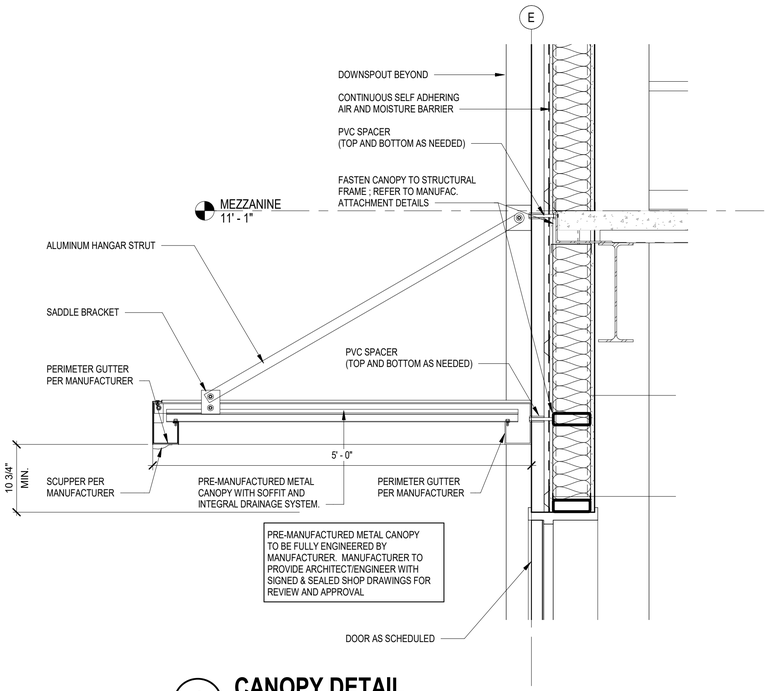
MARITIME MINING FACILITY

PLAN DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO. N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF

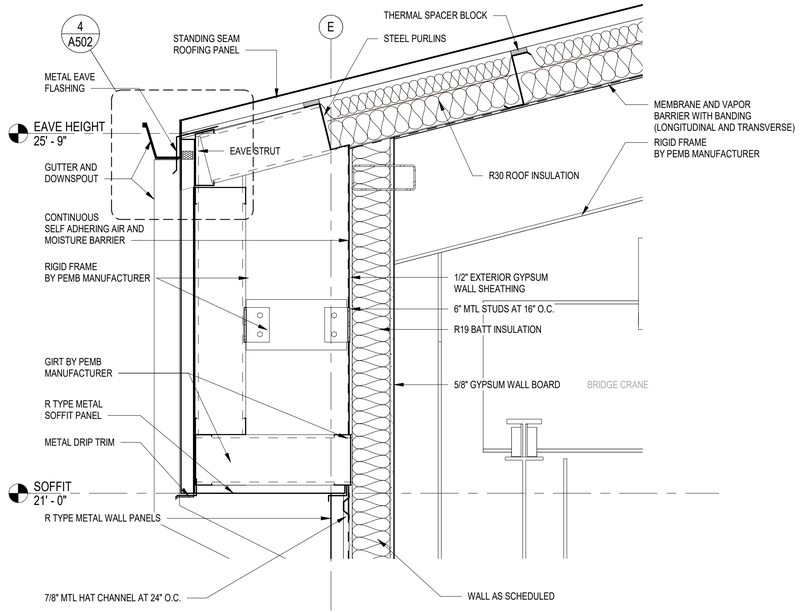
A501

DRAWFORM REVISION: 18 MARCH 2025



1 CANOPY DETAIL

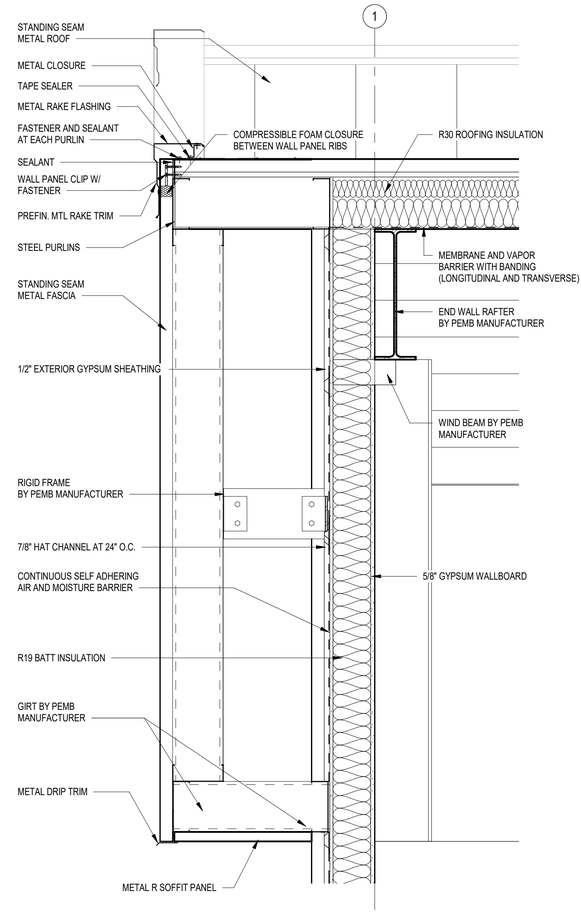
1" = 1'-0" (A302)



2 EAVE DETAIL

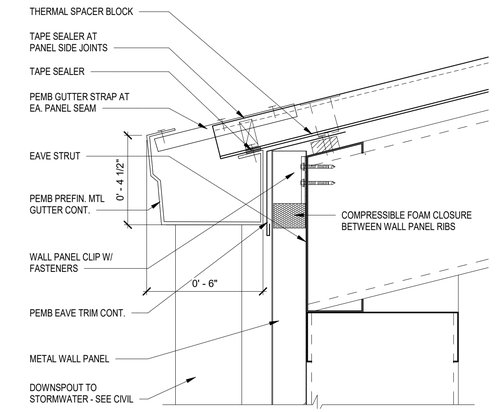
1" = 1'-0" (A103)

NOTE: ADJUST PEMB BUILDING HEIGHT AS REQUIRED TO MEET CRANE ENVELOPE CLEARANCE AND OPERATIONAL HEIGHT. HEIGHT MODIFICATIONS TO BE COORDINATED WITH THE DESIGN TEAM AND REFLECTED IN THE SHOP DRAWINGS.



3 SOFFIT DETAIL

1" = 1'-0" (A103)



4 METAL ROOF & GUTTER DETAIL

3" = 1'-0" (A502)

SYM	DESCRIPTION	DATE	APPR

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A/E INFO

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES Designer	DRW Author	CHK Checker

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	H.M KING
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

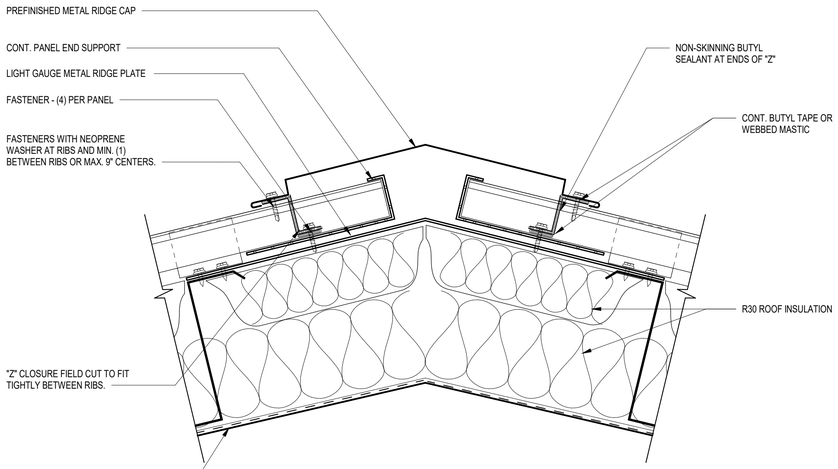
MARITIME MINING FACILITY

ARCHITECTURAL DETAILS

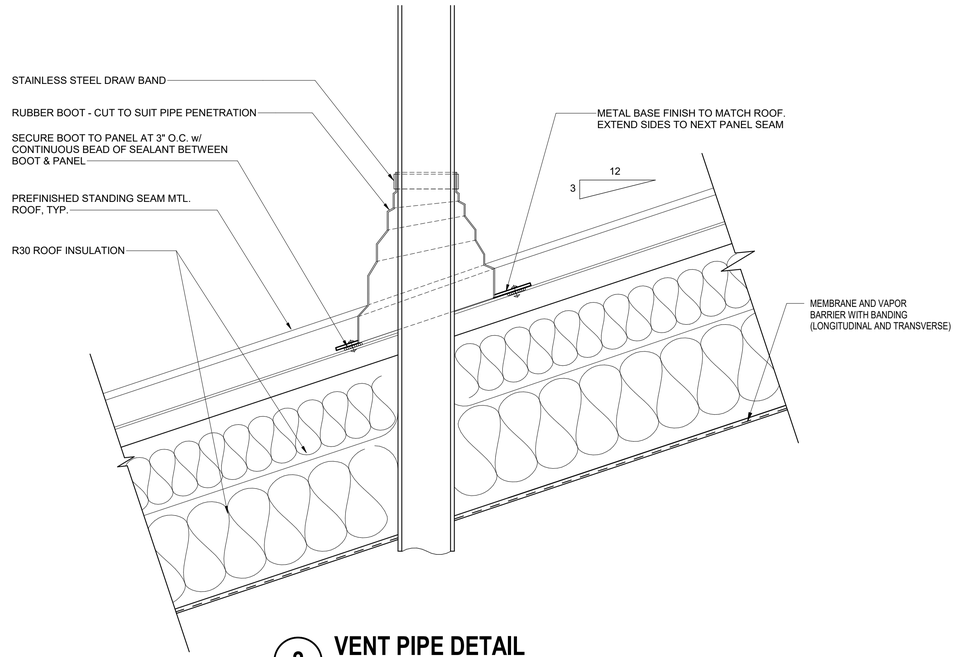
SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	N69450-18-D-0000
NAVFAC DRAWING NO.	
SHEET	OF

A502

DRAWFORM REVISION: 18 MARCH 2025



1 RIDGE CAP DETAIL
3" = 1'-0" (A103)



2 VENT PIPE DETAIL
3" = 1'-0" (A103)

SYM	DESCRIPTION	DATE	APPR

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SATISFACTORY TO DATE

DES Designer | DRW Author | CHK Checker

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M KING

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

ROOF DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

CONSTR. CONTR. NO.
N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET OF

A503

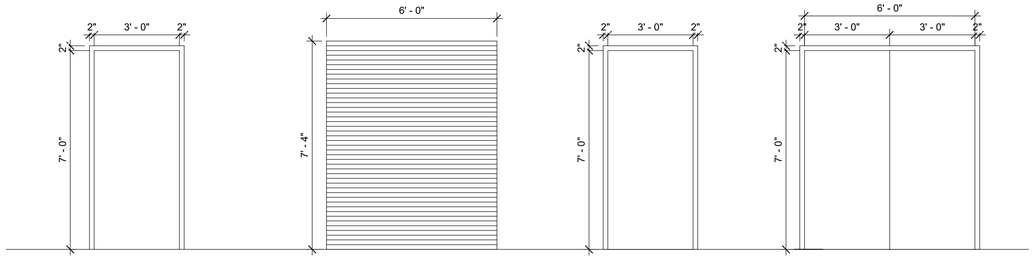
DRAWFORM REVISION: 18 MARCH 2025

DOOR SCHEDULE

DOOR						FRAME				HARDWARE GROUP	REMARKS
Mark	Width	Height	Thickness	Mat.	Type	Mat.	Head	Jamb	STC Rating		
101	16' - 0"	16' - 0"	2"	STL	B	STL	1/A602	2/A602		HW-6	2,
101A	3' - 0"	7' - 0"	1 3/4"	HM	A	HM	3/A601	5/A601		HW-1	1, 2
101B	3' - 0"	7' - 0"	1 3/4"	HM	A	HM	3/A601	5/A601		HW-1	1, 2
102	3' - 0"	7' - 0"	1 3/4"	HM	A	HM	3/A601	5/A601		HW-1A	2
103	3' - 0"	7' - 0"	1 3/4"	HM	A	HM	3/A601	5/A601		HW-5	2
104	3' - 0"	7' - 0"	1 3/4"	HM	C	HM	2/A601	4/A601		HW-3	
105	3' - 0"	7' - 0"	1 3/4"	HM	C	HM	2/A601	4/A601		HW-2	
106	3' - 0"	7' - 0"	1 3/4"	HM	A	HM	3/A601	5/A601		HW-5	2
107	6' - 0"	7' - 0"	1 3/4"	HM	D	HM	2/A601	4/A601	50	HW-4	1,2, 3

REMARKS

1. PROVIDE REQUIREMENTS FOR A CARD READER. SEE TELECOMMUNICATION DRAWINGS, SHEET T101
   FOR ADDITIONAL INFORMATION AND SHEET T501 FOR ACCESS CONTROL DOOR DETAILS. CARD READER SWIPE OUT ACCESS IS NOT REQUIRED.
2. ALL EXTERIOR DOORS AND FRAMES ARE TO BE INSULATED.
3. STC RATED DOOR AND FRAME. ALL DOORS WITH STC RATING TO BE BUILT IN ACCORDANCE TO SPECIFICATION SECTION 08 34 73.
   FOR ALL STC RATED DOORS AND FRAMES, PROVIDE ACOUSTICAL DOOR PANEL AND SEALS. PROVIDE REMOVABLE ASTRAGAL ON DOUBLE DOOR ASSEMBLY AS REQUIRED TO ACHIEVE STC 50 RATING.



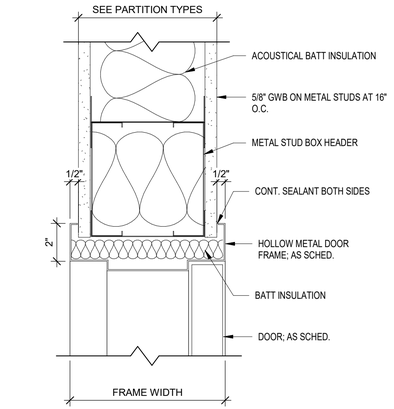
TYPE A — EXTERIOR HOLLOW METAL DOOR- INSULATED HOLLOW METAL FRAME

TYPE B — EXTERIOR INSULATED OVERHEAD COILING DOOR STEEL FRAME

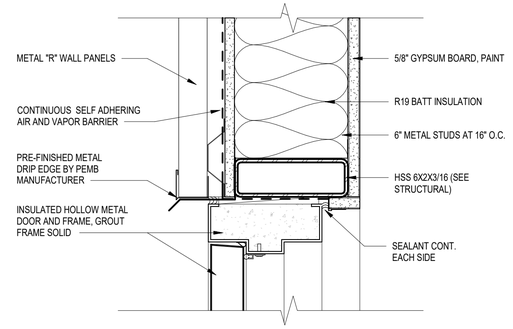
TYPE C — INTERIOR HOLLOW METAL DOOR AND FRAME

TYPE D — INTERIOR HOLLOW METAL DOOR AND FRAME

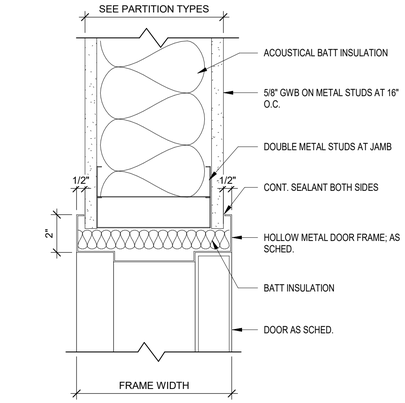
1 DOOR AND FRAME TYPES
3/8" = 1'-0"



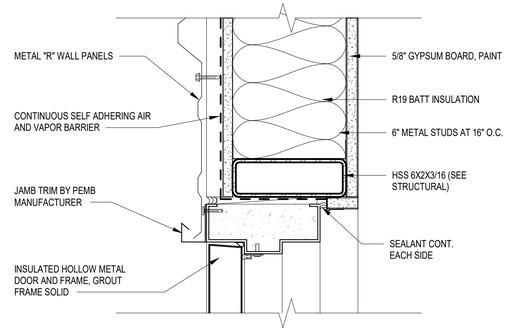
2 INT DOOR HEAD
3" = 1'-0"



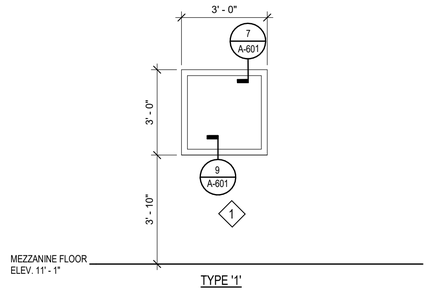
3 EXT DOOR HEAD
3" = 1'-0"



4 INT DOOR JAMB
3" = 1'-0"



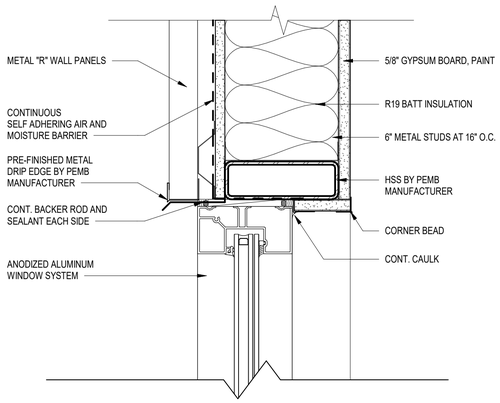
5 EXT DOOR JAMB
3" = 1'-0"



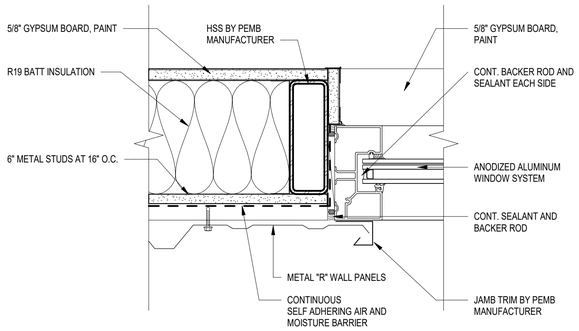
TYPE '1'

FIXED ALUMINUM
W/ 1" INSULATED GLAZING
IMPACT RESISTANT

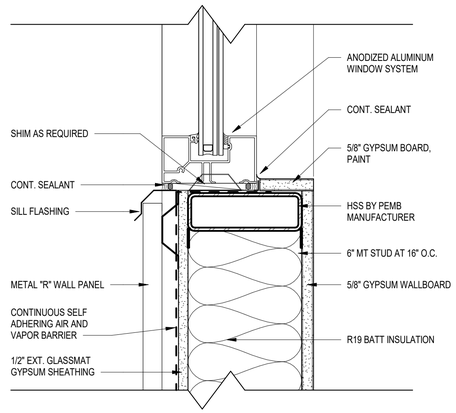
6 EXTERIOR WINDOW TYPES
3/8" = 1'-0"



7 WINDOW HEAD DETAIL
3" = 1'-0"



8 WINDOW JAMB DETAIL
3" = 1'-0"



9 WINDOW SILL DETAIL
3" = 1'-0"

SYM	DESCRIPTION	DATE	APPR

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A/E INFO

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ACTIVITY

SATISFACTORY TO DATE

DES Designer	DRW Author	CHK Checker

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	H.M KING
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

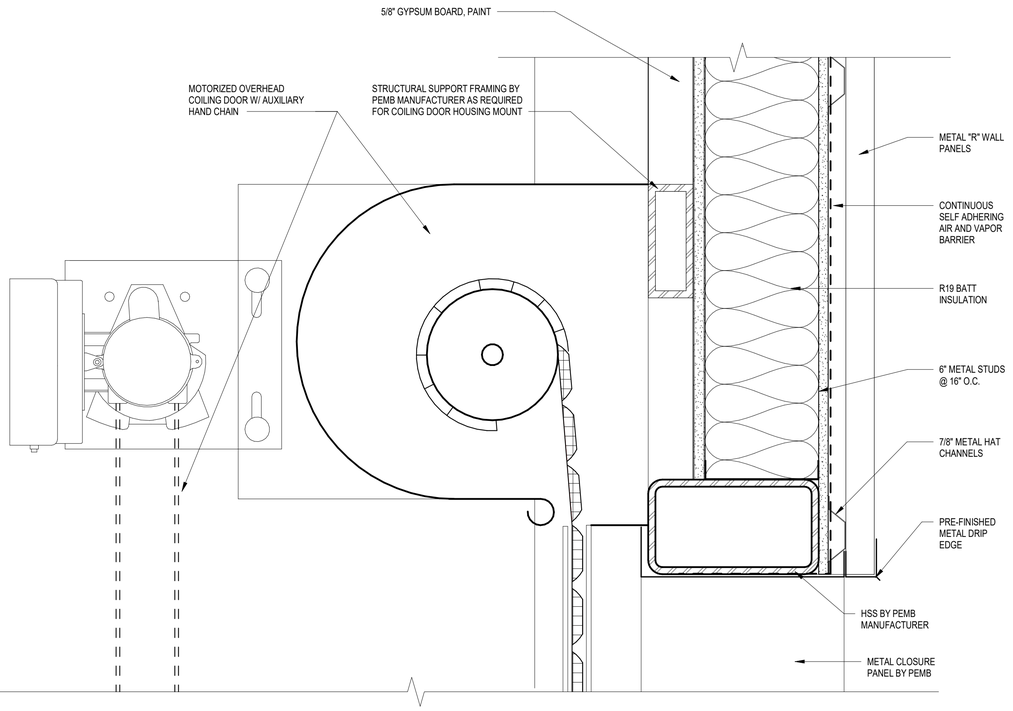
MARITIME MINING FACILITY

DOOR SCHEDULE, WINDOW TYPES, AND DETAILS

SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	N69450-18-D-0000
NAVFAC DRAWING NO.	
SHEET	OF

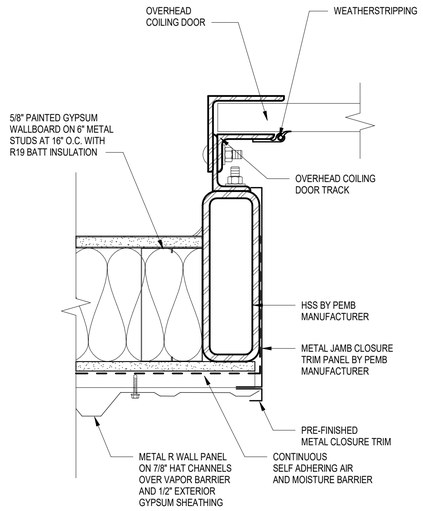
A601

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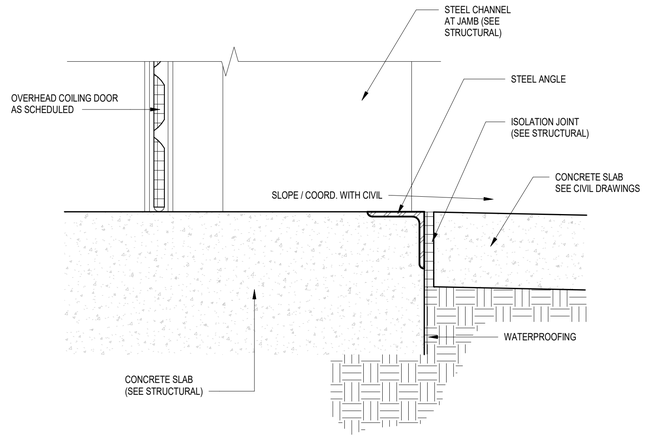
1 OVERHEAD COILING DOOR HEAD DETAIL

3" = 1'-0" (A302)



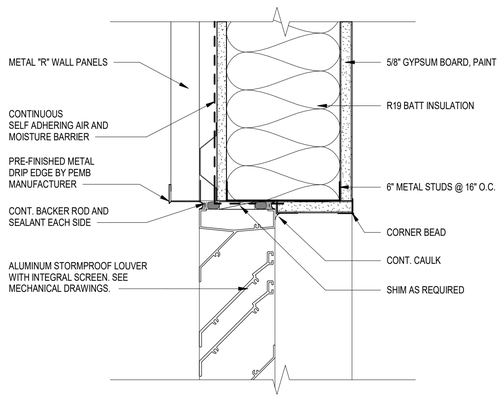
2 OVERHEAD COILING DOOR JAMB DETAIL

3" = 1'-0" (A101)



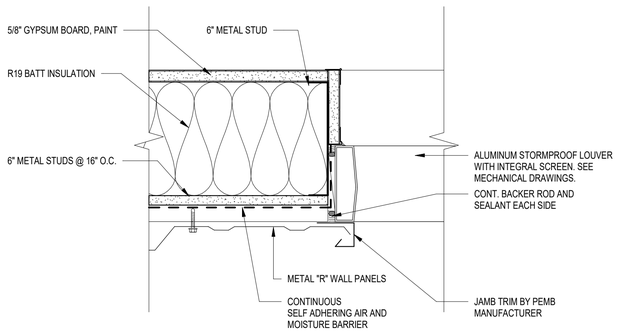
3 OVERHEAD COILING DOOR SILL DETAIL

3" = 1'-0" (A302)



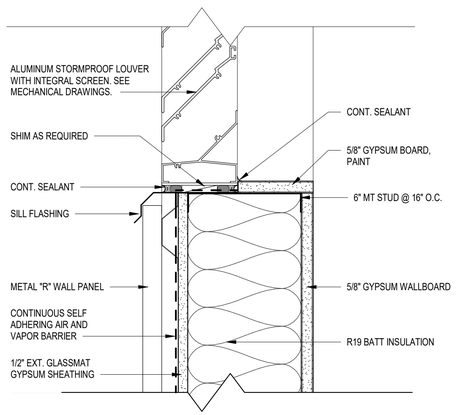
4 LOUVER HEAD DETAIL

3" = 1'-0"



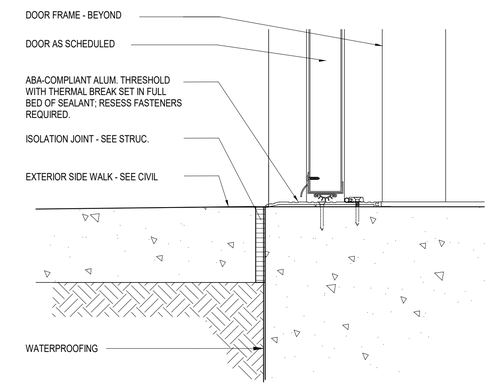
5 LOUVER JAMB DETAIL

3" = 1'-0"



6 LOUVER SILL DETAIL

3" = 1'-0"



7 DOOR THRESHOLD - TYP.

3" = 1'-0" (A302)

SYM	DESCRIPTION	DATE	APPR

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	DJK	DRW	JOE	CHK	KJB

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	H.M KING
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

OVERHEAD DOOR AND LOUVER DETAILS

SCALE: AS NOTED

EPROJECT NO.: 1802981

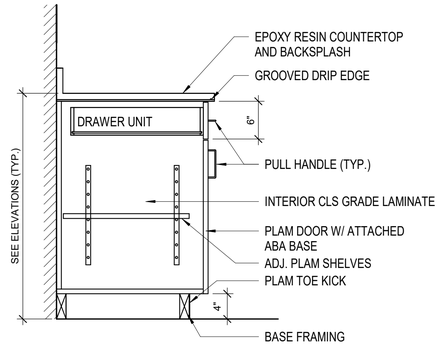
CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

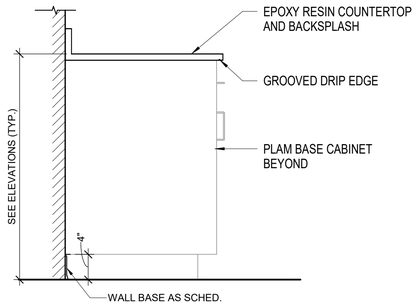
SHEET OF

A602

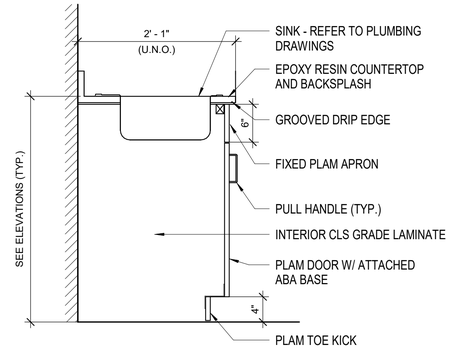
DRAWFORM REVISION: 18 MARCH 2025



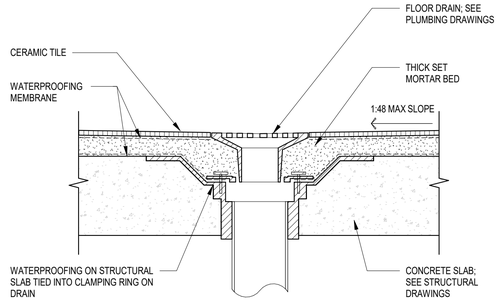
1 BASE CABINET
1" = 1'-0" (A401)



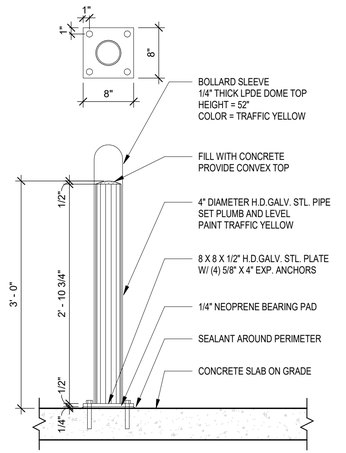
2 OPENING AT BASE CABINET
1" = 1'-0" (A401)



3 SINK BASE CABINET
1" = 1'-0" (A401)



4 BATHROOM FLOOR DRAIN DETAIL
3" = 1'-0"



5 INTERIOR BOLLARD DETAIL
1" = 1'-0"

APPR	DATE	SYM	DESCRIPTION

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PROJECT MANAGER	O. HARRIS	
CHIEF ENG/ARCH	H.M KING	
FIRE PROTECTION	A. KOUCHINSKY	

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTIVITY, PANAMA CITY, FL

MARITIME MINING FACILITY

MILLWORK & INTERIOR DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.: N69450-18-D-0000
NAVFAC DRAWING NO.:
SHEET OF
A701

DRAWFORM REVISION: 18 MARCH 2025

FINISH SCHEDULE

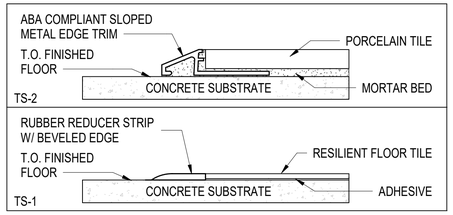
SPACE		FLOORING		WALLS				CEILING	
ROOM NO.	ROOM NAME	FINISH	BASE	NORTH	EAST	SOUTH	WEST	FINISH	REMARKS
FIRST FLOOR									
101	HIGH-BAY (SHOP ASSEMBLY)	SC-1	RB-1	PT-1/ WP-1	PT-1	PT-1/ WP-1	PT-1/WP-1	PT-6	CEILING EXPOSED TO STRUCTURE
102	SENSOR ROOM	SC-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-6	CEILING EXPOSED TO STRUCTURE
103	MECHANICAL ROOM	SC-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-6	CEILING EXPOSED TO STRUCTURE
104	TELECOMM ROOM	SDF-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-6	CEILING EXPOSED TO STRUCTURE
105	TOILET	PORC T-1	PORC T-1B/ PORC T-1C	EPT-1	EPT-1	EPT-1	CT-1	GYP/PT-4	
106	ELECTRICAL ROOM	SC-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-6	CEILING EXPOSED TO STRUCTURE
107	SECURE ROOM	SDF-1	RB-1	PT-1	PT-1	PT-1	PT-2	ACT-1	
MEZZANINE FLOOR									
201	MEZZANINE	SDF-1	RB-1	PT-1	PT-1	PT-1	PT-1	PT-6	CEILING EXPOSED TO STRUCTURE

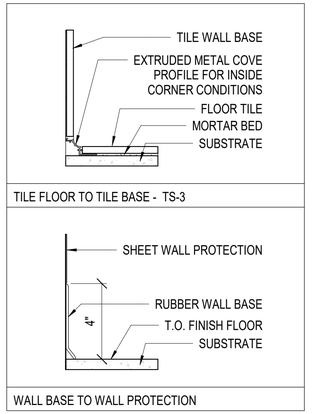
FINISH LEGEND

FINISH TAG	FINISH	MANUFACTURER	STYLE / TYPE	COLOR	REMARKS
CEILINGS					
ACT-1	ACOUSTIC CEILING TILE	ARMSTRONG	ULTIMA 1911	WHITE	TEGULAR EDGE; SMOOTH TEXTURE FINISH; PROVIDE 15/16" GRID WHITE
COUNTERTOPS					
ER-1	EPOXY RESI N	DURACON	1" THICK	GRAPHITE; 1/8" MACHINED BEVEL EDGE	COUNTERTOPS
INTERIOR PAINT & COATINGS					
EPT-1	RESTROOM WALL PAINT	SHERWIN WILLIAMS	SW 9152	LET IT RAIN	WALL PAINT AT TOILET 105 ONLY; EPOXY
PT-1	GENERAL WALL PAINT	SHERWIN WILLIAMS	SW 6070	HERON PLUME	EGGSHELL
PT-2	ACCENT WALL PAINT	SHERWIN WILLIAMS	SW 9176	DRESS BLUES	EGGSHELL
PT-3	INTERIOR DOOR AND FRAME PAINT	SHERWIN WILLIAMS	SW 6004	MINK	SEMI-GLOSS
PT-4	RESTROOM CEILING PAINT	SHERWIN WILLIAMS	SW 7007	CEILING BRIGHT WHITE	FLAT
PT-5	STAIR AND RAILING PAINT	SHERWIN WILLIAMS	SW 7076	CYBERSPACE	SEMI-GLOSS
PT-6	EXPOSED CEILING PAINT	SHERWIN WILLIAMS	SW 6070	HERON PLUME	FLAT
SC-1	SEALED CONCRETE	H&C	CLEARPROTECT EPOXY	CLEAR; MATTE	CONCRETE FLOOR SEALER
PLASTIC LAMINATE					
PL-1	PLASTIC LAMINATE	FORMICA	927-SP	FOLKSTONE	RUN PATTERN VERTICALLY
RESILIENT FLOORING & ACCESSORIES					
RB-1	RUBBER BASE	TARKETT	TYPE TP COVE; 4" HIGH	BURNT UMBER 63	JOB FORMED CORNERS
SDF-1	STATIC DISSIPATIVE FLOORING	STATIC SMART	NORTHLAND SERIES	WAINWRIGHT	GROUND TO GROUND BUS BAR; SEE ELECTRICAL DRAWINGS
TILING					
CT-1	CERAMIC TILE	DALTILE	COMPOSITION; 12" X 24"	GESSO MATTE CP02	STAGGER IN THIRDS. TILE INSTALLATION TO BEGIN AT DRAIN AND RADIATE TO WALLS. TILE TO BE SCORED TO ACCOMMODATE SLOPING. DETAIL OF TILE SCORING TO BE REVIEWED DURING SUBMITTAL.
GR-1	GROUT	CUSTOM BUILDING PRODUCTS	EPOXY; 1/8" JOINT	ASH #642	FOR USE WITH CT-1
GR-2	GROUT	CUSTOM BUILDING PRODUCTS	EPOXY; 1/8" JOINT	NATURAL GRAY #09	FOR USE WITH PORC-1, PORC-1B, AND PORC-1C
PORC-1	PORCELAIN TILE	DALTILE	PORTFOLIO; 12" X 24"	IRON GREY PF06 MATTE	STAGGER 1/3 OFFSET
PORC-1B	PORCELAIN TILE BASE	DALTILE	PORTFOLIO; 3" X 12" BULLNOSE	IRON GREY PF06 MATTE	BULLNOSE TILE BASE
PORC-1C	PORCELAIN TILE BASE	DALTILE	PORTFOLIO; 3" X 12" CUT TILE	IRON GREY PF06 MATTE	CUT TILE BASE AT TILED WALLS
TRANSITION STRIP					
TS-1	REDUCER	TARKETT	ABA COMPLIANT	BURNT UMBER 63	RESILIENT TO CONCRETE
TS-2	SLOPED EDGE PROTECTION	SCHLUTER	RENO-U	SATIN ANNODIZED	TILE TO CONCRETE
TS-3	COVE	SCHLUTER	DILEX-AHK	SATIN ANNODIZED	TILE FLOORING TO TILE BASE
WALL PROTECTION					
CG-1	CORNER GUARD	INPRO	HIGH IMPACT RIGID VINYL CORNER GUARD; 3" WING; FULL HEIGHT	FEATHER 0238	
CG-2	CORNER GUARD	INPRO	HIGH IMPACT RIGID VINYL CORNER GUARD; 3" WING; 48" HIGH	FEATHER 0238	
WP-1	WALL PROTECTION SHEET	INPRO	RIGID SHEET ; 0.60" THICKNESS	FEATHER 0238	PROVIDE FULL HEIGHT BEHIND WATER COOLER; U.O.N. HEIGHT IN OTHER AREAS TO BE 52" TO T.O. SHEET (48" SHEET MOUNTED ABOVE WALL BASE)

FINISH SCHEDULE NOTES

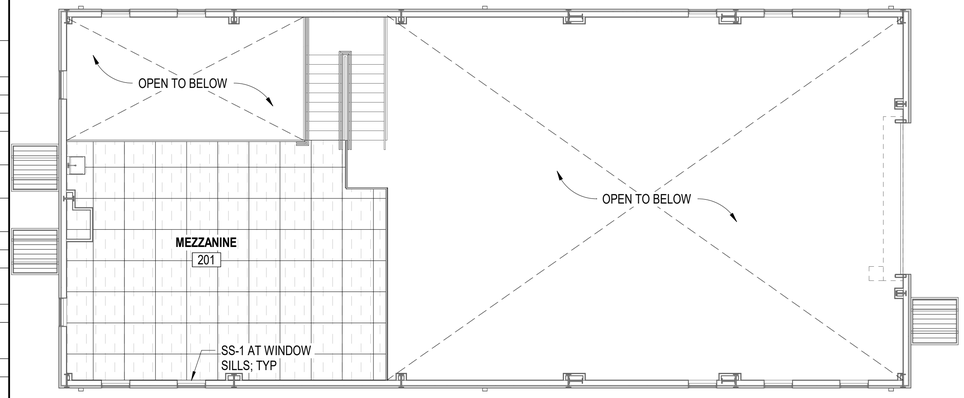
1 INTERIOR DOORS AND FRAMES SHALL BE PAINTED PT-3
2 WHERE WP-1 IS INDICATED IN PLAN, INSTALL 48" SHEET DIRECTLY ABOVE WALL BASE. TO OF WP-1 TO BE 52" AFF.
3 INSTALL PORC T-2 TO (7) FULL TILES WHERE WALLS ARE INDICATED TO RECEIVE TILE AND EPOXY PAINT. SEE INTERIOR ELEVATIONS FOR TILE PATTERN
4 ALL EXPOSED STRUCTURAL ELEMENTS, INCLUDING BUT NOT LIMITED TO PRIMARY AND SECONDARY FRAMING MEMBERS AS WELL AS EXPOSED MECHANICAL, ELECTRICAL, AND PLUMBING ELEMENTS (INCLUDING CONDUITS, PIPING, SUPPORTS, AND HANGERS) SHALL BE PAINTED TO PROVIDE A UNIFORM, FINISHED APPEARANCE. ALL COMPONENTS OF THE FIRE SPRINKLER SYSTEM SHALL BE PAINTED PER FIRE PROTECTION REQUIREMENTS AND CODES.



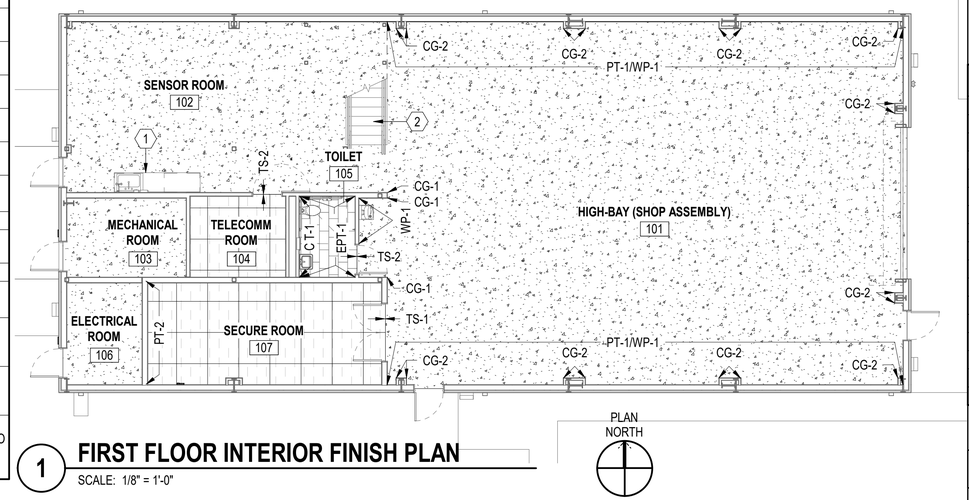


4 FLOOR TRANSITION DETAILS
SCALE: NOT TO SCALE

3 WALL TRANSITION DETAILS
SCALE: NOT TO SCALE



2 MEZZANINE INTERIOR FINISH PLAN
SCALE: 1/8" = 1'-0"



1 FIRST FLOOR INTERIOR FINISH PLAN
SCALE: 1/8" = 1'-0"

GENERAL SHEET NOTES

1 FOR QUESTIONS REGARDING INTERIOR DESIGN DRAWINGS AND SPECIFICATIONS CONTACT: NAVFAC OFFICE IN CHARGE OF CONSTRUCTION (OICC).
2 FINISHES INDICATED ARE THE APPROVED BASIS OF DESIGN TO CONVEY COLOR, PATTERN, TEXTURE AND SALIENT CHARACTERISTICS ONLY. THE LISTING OF MANUFACTURER INFORMATION IS NOT INTENDED TO LIMIT THE SELECTION OF PRODUCTS PROVIDED BY OTHER MANUFACTURERS. PRODUCTS MEETING THESE CRITERIA WILL BE CONSIDERED AND MUST BE REVIEWED BY THE NAVFAC INTERIOR DESIGNER OF RECORD (IDOR) AND APPROVED BY THE CONTRACTING OFFICER.
3 FINISH ITEMS ARE NOT TO BE SUBSTITUTED DUE TO ORDERING LEAD TIMES. IT IS THE CONTRACTOR'S RESPONSIBILITY TO ORDER ALL MATERIALS IN TIME TO AVOID DELAYS.
4 COORDINATE THERMOSTAT LOCATION WITH MECHANICAL DRAWINGS AND CONSTRUCTION MANAGER. INSTALL THERMOSTATS NEAR A CORNER OF THE ROOM OR BY LIGHT SWITCHES. DO NOT INSTALL THERMOSTATS IN THE CENTER OF A WALL.
5 SPRAY PAINT ELECTRICAL PANELS, ACCESS PANELS, AND EXPANSION JOINTS TO MATCH THE ADJACENT WALL COLOR. PANELS PAINTED BY BRUSH ARE NOT ACCEPTABLE.
6 TRANSITIONS MUST MEET ABA GUIDELINES.
7 TRANSITIONS OCCURRING UNDER DOORS MUST BE CENTERED UNDER DOOR.
8 ROOMS IDENTIFIED TO RECEIVE TILE ON WALLS, FLOOR MUST INCLUDE METAL TRANSITIONS ON ALL OUTSIDE, AND INSIDE CORNERS AS WELL AS THE INTERSECTION BETWEEN THE FLOOR AND WALL TILE FOR A COMPLETE INSTALLATION.
9 PROVIDE CORNER GUARDS (CG-1) ON ALL OUTSIDE CORNERS. CORNER GUARDS SHOULD NOT BE USED ON CMU WALLS OR MANUFACTURED STONE WALLS.
10 ALIGN ALL PORCELAIN WALL AND FLOOR TILE. TILE TO BE CENTERED ON EACH WALL. REFER TO INTERIOR ELEVATIONS FOR WALL TILE PATTERN.

KEYNOTES

1 CABINETS TO BE PL-1 WITH ER-1 COUNTERTOP
2 PAINT INTERIOR METAL STAIR PT-5

FLOORING LEGEND

PORC T-1 PORCELAIN TILE WITH PTB-1 BASE

SC-1 SEALED CONCRETE

SDF-1 STATIC DISSIPATIVE FLOORING

FINISH TAG LEGEND

ABBREVIATION	DESCRIPTION
ACT	ACOUSTIC CEILING TILE
EPT	EPOXY PAINT
ER	EPOXY RESIN COUNTER
EXP	EXPOSED CEILING
GR	GROUT
PL	PLASTIC LAMINATE
PORC T	PORCELAIN TILE
PT	PAINT
PTB	PORCELAIN TILE BASE
RB	RUBBER BASE
SC	SOLID CONCRETE
SDT	STATIC DISSIPATIVE TILE
SVT	SOLID VINYL TILE
TS	TRANSITION
WP	WALL PROTECTION SHEET

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

SYM	DESCRIPTION	DATE	APPR

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DES	EAH	DRW	EAH	CHK	KPM

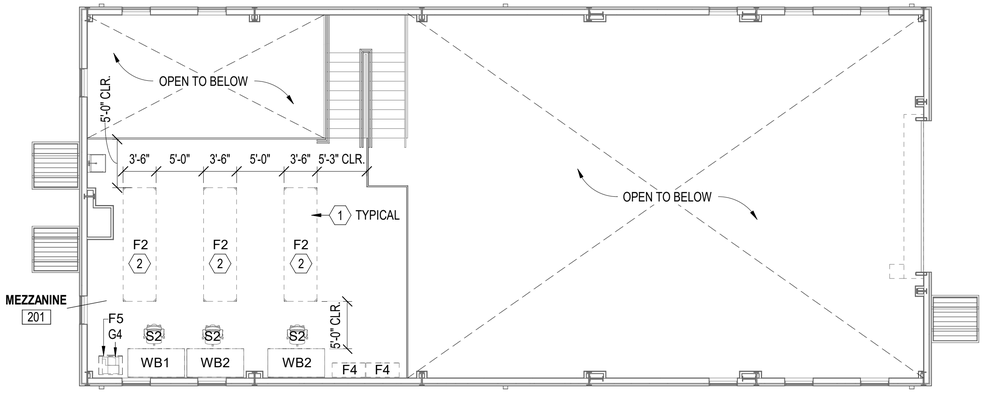
DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	H.M. KING
FIRE PROTECTION	A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY; PANAMA CITY, FL
NAVSEA
MARITIME MINING FACILITY
INTERIOR FINISH PLANS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.: N69450-18-D-0000
NAVFAC DRAWING NO.

SHEET 0 OF
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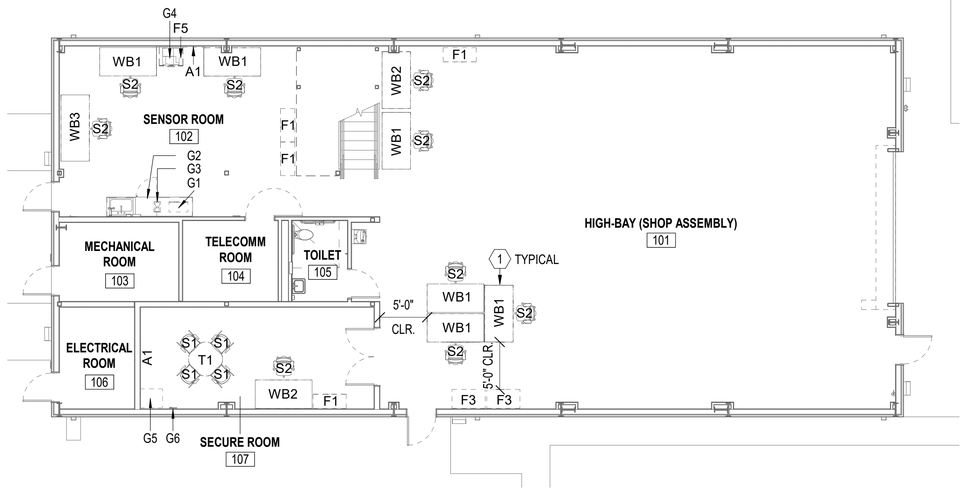
DRAWFORM REVISION: 18 MARCH 2025



2 MEZZANINE FF&E PLAN (FOR REF. ONLY)

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

PLAN NORTH



1 FIRST FLOOR FF&E PLAN (FOR REF. ONLY)

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

PLAN NORTH

GENERAL SHEET NOTES

1. ALL FURNITURE, FIXURES, AND EQUIPMENT (FF&E) INDICATED ARE PROVIDED FOR COORDINATION PURPOSES ONLY. FURNITURE PROCURMENT AND INSTALLATION IS THE RESPONSIBILITY OF NSWC.
2. DIMENSIONS SHOWN ON FF&E PLANS ARE FOR REFERENCE ONLY TO INDICATE CLEARANCES FOR EGRESS.

KEYNOTES

1. ALL FF&E IS PROVIDED AND INSTALLED BY NSWC. SHOWN FOR REFERENCE ONLY FOR COORDINATION PURPOSES.
2. HEAVY DUTY METAL SHELVING TO BE SECURED TO FLOOR SLAB; TYP. DIMENSIONS SHOWN FOR REFERENCE ONLY.

FF&E SCHEDULE (GFGI)

TAG	DESCRIPTION	QTY	REMARKS
ACCESSORIES			
A1	GLASS MARKER BOARD (48" X 60")	2	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
EQUIPMENT			
G1	MICROWAVE	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
G2	UNDERCOUNTER REFRIGERATOR	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
G3	COFFEE MACHINE	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
G4	DESKTOP PRINTER/COPIER	2	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
G5	SHREDDER (SECURE)	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
G6	PHONE (SECURE)	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
SEATING			
S1	SIDE CHAIR	4	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
S2	TASK CHAIR	12	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
STORAGE			
F1	FULL HEIGHT METAL STORAGE CABINET (42" WIDE)	5	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
F2	HEAVY DUTY METAL STORAGE SHELVING	3	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
F3	DRAWER CABINET	2	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
F4	HAZMAT STORAGE CABINET	2	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
F5	LATERAL FILE STORAGE 2-TIER (24" DEEP)	2	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
TABLES			
T1	SMALL CONFERENCE/CAFE TABLE	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
WORKBENCH			
WB1	WORK BENCH - H FRAME WITH WOOD TOP	7	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
WB2	WORK BENCH - C FRAME WITH STEEL TOP	4	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY
WB3	WORK BENCH - WITH DRAWER PEDESTALS	1	PROVIDED AND INSTALLED BY NSWC; SHOWN FOR REFERENCE ONLY

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

SYM	DESCRIPTION	DATE	APPR

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AVE INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES EAH | DRW EAH | CHK KPM

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH H.M. KING

FIRE PROTECTION A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY, PANAMA CITY, FL
NAVSEA

MARITIME MINING FACILITY

FF&E PLANS (FOR REFERENCE ONLY)

SCALE: AS NOTED

EPROJECT NO.: 1802981

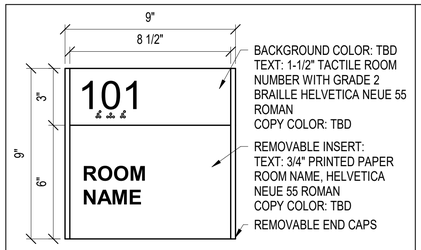
CONSTR. CONTR. NO. N69450-18-D-0000

NAVFAC DRAWING NO.

SHEET 0 OF

IN201

DRAWFORM REVISION: 18 MARCH 2025

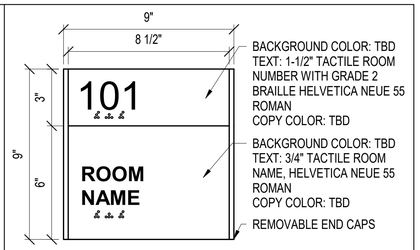


BACKGROUND COLOR: TBD
TEXT: 1-1/2" TACTILE ROOM NUMBER WITH GRADE 2 BRAILLE HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

REMOVABLE INSERT:
TEXT: 3/4" PRINTED PAPER ROOM NAME, HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

REMOVABLE END CAPS

A ROOM IDENTIFICATION SIGN WITH INSERT

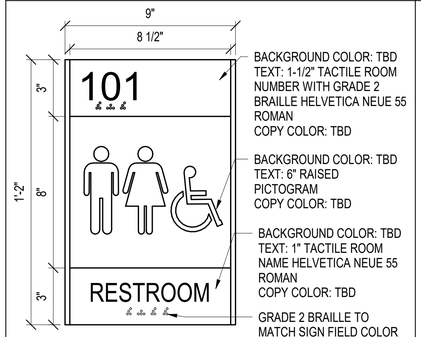


BACKGROUND COLOR: TBD
TEXT: 1-1/2" TACTILE ROOM NUMBER WITH GRADE 2 BRAILLE HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

BACKGROUND COLOR: TBD
TEXT: 3/4" TACTILE ROOM NAME, HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

REMOVABLE END CAPS

B ROOM IDENTIFICATION SIGN



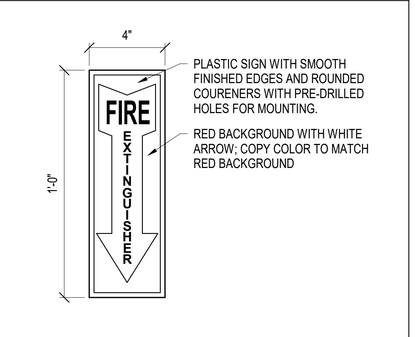
BACKGROUND COLOR: TBD
TEXT: 1-1/2" TACTILE ROOM NUMBER WITH GRADE 2 BRAILLE HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

BACKGROUND COLOR: TBD
TEXT: 6" RAISED PICTOGRAM
COPY COLOR: TBD

BACKGROUND COLOR: TBD
TEXT: 1" TACTILE ROOM NAME HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

GRADE 2 BRAILLE TO MATCH SIGN FIELD COLOR

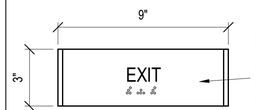
C ROOM IDENTIFICATION SIGN RESTROOM



PLASTIC SIGN WITH SMOOTH FINISHED EDGES AND ROUNDED COURENERS WITH PRE-DRILLED HOLES FOR MOUNTING.

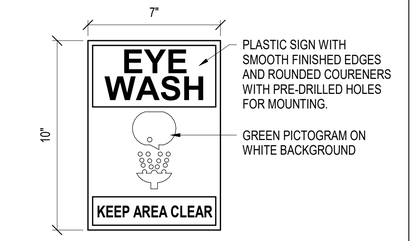
RED BACKGROUND WITH WHITE ARROW; COPY COLOR TO MATCH RED BACKGROUND

E FIRE EXTINGUISHER LOCATION SIGN



BACKGROUND COLOR: TBD
TEXT: 3/4" TACTILE MESSAGE WITH GRADE 2 BRAILLE HELVETICA NEUE 55 ROMAN
COPY COLOR: TBD

D EXIT IDENTIFICATION



PLASTIC SIGN WITH SMOOTH FINISHED EDGES AND ROUNDED COURENERS WITH PRE-DRILLED HOLES FOR MOUNTING.

GREEN PICTOGRAM ON WHITE BACKGROUND

F EYE WASH IDENTIFICATION

4 ROOM SIGNAGE ELEVATIONS

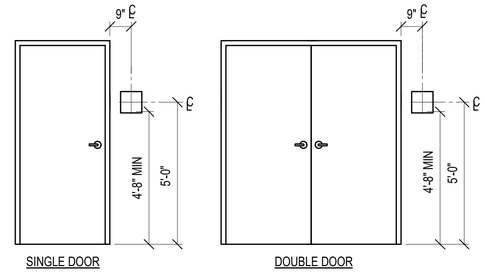
SCALE: 3" = 1'-0"



SIGNAGE BASIS OF DESIGN - THIS IS TO BE REFERENCED AND FINALIZED DURING SUBMITTAL.
SUBMITTAL TO BE APPROVED BY IDOR PRIOR TO ORDER AND FABRICATION.

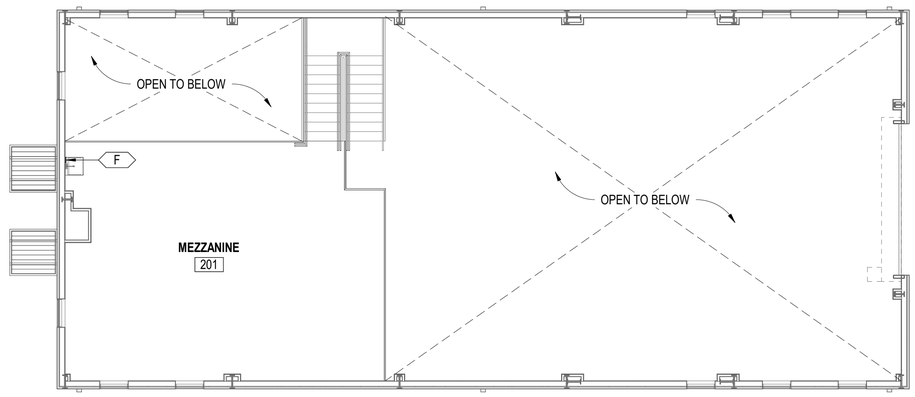
5 SIGNAGE BASIS OF DESIGN

SCALE: 3" = 1'-0"



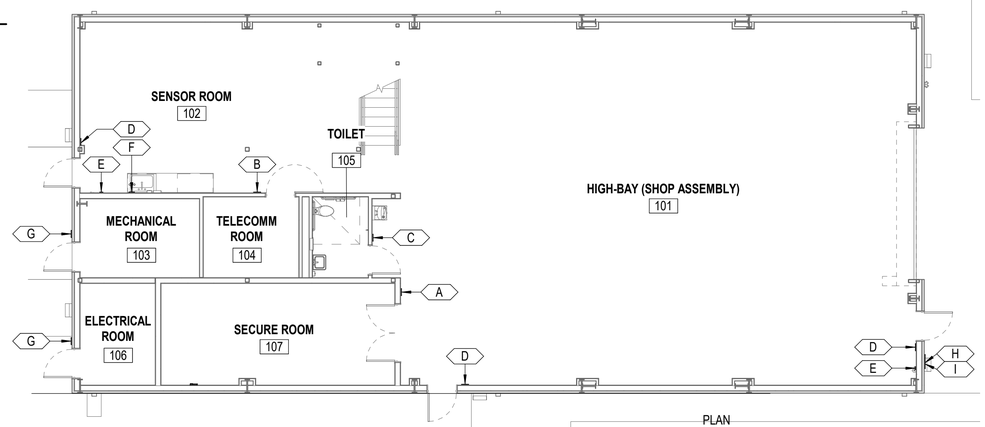
3 SIGNAGE MOUNTING ELEVATIONS

SCALE: 3/8" = 1'-0"



2 MEZZANINE INTERIOR SIGNAGE PLAN

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



1 FIRST FLOOR INTERIOR SIGNAGE PLAN

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

GENERAL SHEET NOTES

1. REFER TO THE SPECIFICATIONS FOR INTERIOR AND EXTERIOR SIGNAGE REQUIREMENTS
2. CONTRACTOR SHALL VERIFY ROOM NUMBERS, NAMES AND OTHER TEXT WITH GOVERNMENT AND USERS PRIOR TO FABRICATION.
3. CHANGABLE INSERTS SHALL INCLUDE PRINTED ROOM NAMES AT TIME OF INSTALLATION UNLESS DIRECTED OTHERWISE BY END USER. PRINT FILES SHALL BE TURNED OVER TO THE BASE FOR FUTURE REVISIONS.
4. SIGNAGE TO COMPLY WITH ARCHITECTURAL BARRIERS ACCESSIBILITY STANDARDS (ABAAS) AND LIFE SAFETY REQUIRED BT NFPA 101.
5. SIGNAGE TO COMPLY WITH UFC 3-120-01 AND BASE STANDARDS
6. MOUNT SIGN 9" FROM EDGE OF FRAME TO CENTER OF TACTILE CHARACTERS
   - A. FOR SINGLE DOORS, MOUNT SIGN ON STRIKE SIDE OF DOOR
   - B. FOR DOUBLE DOORS, MOUNT SIGN ON RIGHT HANDLE SIDE
   - C. WHERE THERE IS INSUFFICIENT WALL SPACE FOR THE TYPICAL MOUNTING LOCATION, MOUNT THE SIGN AT THE NEAREST ADJACENT WALL
7. BASIS OF DESIGN FOR SIGNS A-E IS 2/90 SIGNAGE SYSTEMS ESSENTIALS COLLECTION, WITH EDGE RAIL. FINISHES TO BE FROM STANDARD COLORS, WHITE COPY ON DARK BLUE COLOR BACKGROUND. SIGNAGE SHOWN IS THE APPROVED BASIS OF DESIGN TO CONVEY COLOR, PATTERN, TEXTURE AND SALIENT CHARACTERISTICS ONLY. THE LISTING OF MANUFACTURER INFORMATION IS NOT INTENDED TO LIMIT THE SELECTION OF PRODUCTS PROVIDED BY OTHER MANUFACTURERS. PRODUCTS MEETING THESE CRITERIA WILL BE CONSIDERED AND MUST BE REVIEWED BY THE NAVFAC INTERIOR DESIGNER OF RECORD (IDOR) AND APPROVED BY THE CONTRACTING OFFICER.

SIGN SCHEDULE

ROOM LOCATION NO.	ROOM LOCATION NAME	SIGN TYPE	REMARKS
101	HIGH-BAY (SHOP ASSEMBLY)	D, E, F,	SEE SIGNANGE PLAN FOR QTY AND LOCATIONS WITHIN ROOM
102	SENSOR ROOM	D	
103	MECHANICAL ROOM	G	EXTERIOR ROOM SIGN
104	TELECOMM ROOM	B	
105	TOILET	C	
106	ELECTRICAL ROOM	G	EXTERIOR ROOM SIGN
107	SECURE ROOM	A	
201	MEZZANINE	F	

EXTERIOR BUILDING IDENTIFICATION: PROVIDE SIGN TYPES "H" AND "I" FOR BUILDING MOUNTED IDENTIFICATION SIGNS. COORDINATE WITH EXTERIOR SIGNAGE SPECIFICATIONS. LOCATIONS TO BE COORDINATED WITH ARCHITECT AND ACTIVITY FOR APPROVAL PRIOR TO INSTALLATION.

GRAPHIC SCALE(S)

1/8" = 1' - 0" 0 5' 10' 15' 30'

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	EAH	DRW	EAH	CHK	KPM

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENGIARCH H.M. KING
FIRE PROTECTION A. DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVFAC SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NAVAL SUPPORT ACTY, PANAMA CITY, FL
NAVSEA

MARITIME MINING FACILITY

SIGNAGE PLAN & DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO. N69450-18-D-0000
NAVFAC DRAWING NO.
SHEET OF
IN301

DRAWFORM REVISION: 18 MARCH 2025

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23 APRIL 2025

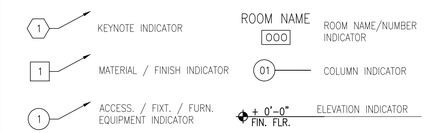
ABBREVIATIONS LEGEND

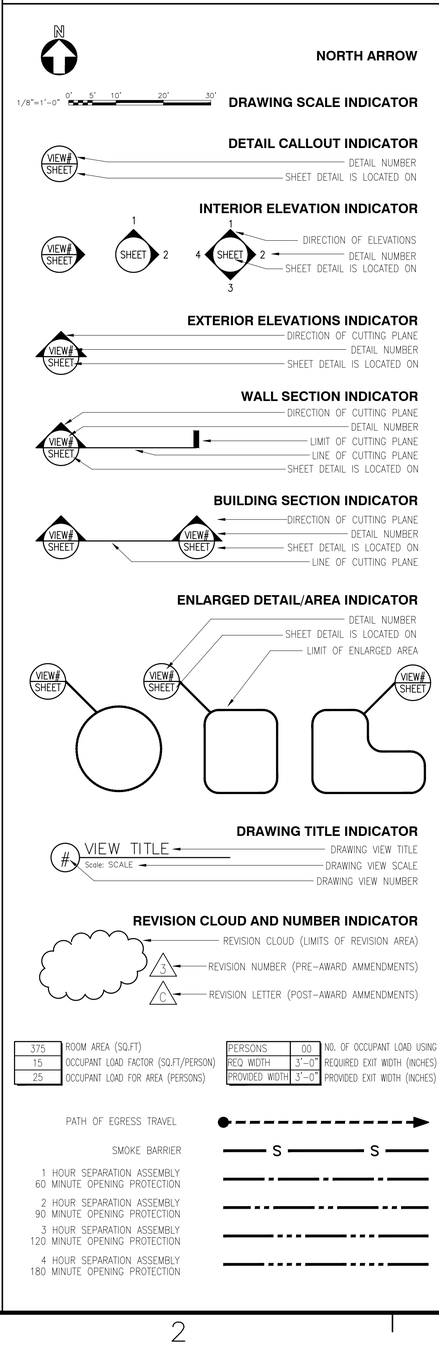
NOT TO SCALE

A		H	
AB	–ANCHOR BOLT	HDCP	–HANDICAP
AC	–ABOVE CEILING	HDR	–HEADER
ACS	–ACCESS CONTROL SYSTEM	HDW	–HARDWARE
ACS FLR	–ACCESS FLOOR	HORIZ	–HORIZONTAL
ACS PNL	–ACCESS PANEL	HVAC	–HEATING, VENTILATING, AND AIR CONDITIONING
ACT	–ACOUSTIC CEILING TILE		
ADJ	–ADJUSTABLE or ADJACENT	HW	–HOT WATER
ADMIN	–ADMINISTRATION		
AFF	–ABOVE FINISH FLOOR	I	
AHJ	–AUTHORITY HAVING JURISDICTION	IC	–INTERCOMMUNICATION
ALT	–ALTERNATE	ID	–INSIDE DIAMETER
ALM	–ALARM	IDS	–INTRUSION DETECTION SYSTEM
ALUM	–ALUMINUM		
ANN	–ANNUNCIATOR	IMS	–INFORMATION MANAGEMENT SYSTEM
ANSI	–AMERICAN NATIONAL STANDARDS INSTITUTE	INSUL	–INSULATION
APPROX	–APPROXIMATE	INT	–INTERIOR
ARA	–AREA OF RESCUE ASSISTANCE		
ARCH	–ARCHITECTURAL or ARCHITECT	J	
ASTM	–AMERICAN SOCIETY FOR TESTING AND MATERIALS	J–BOX	–JUNCTION BOX
AUTO	–AUTOMATIC	K	
		KO	–KNOCK OUT
B		L	
BLDG	–BUILDING	LAV	–LAVATORY
BLW	–BELOW	LCF	–LINEAR CEILING DIFFUSER
BM	–BEAM	LIN	–LINEAR
BMS	–BUILDING MANAGEMENT SYSTEM	LOC	–LOCATION
BRG	–BEARING	LTG	–LIGHTING
		LVR	–LOUVER
C		M	
C	–CEILING MOUNTED	MAN	–MANUAL
CAB	–CABINET	MATL	–MATERIAL
CAP	–CAPACITY	MAX	–MAXIMUM
CCTV	–CLOSED CIRCUIT TELEVISION	MECH	–MECHANICAL
CD	–CANDELA	MFR	–MANUFACTURER
CL	–CENTER LINE	MIN	–MINIMUM
CL	–CLASS	MISC	–MISCELLANEOUS
CLG	–CEILING	MTD	–MOUNTED
CLR	–CLEAR		
CM	–CONSTRUCTION MANAGER	N	
CMU	–CONCRETE MASONRY UNIT	NA	–NOT APPLICABLE
COL	–COLUMN	NAC	–NOTIFICATION APPLIANCE CIRCUIT EXTENDER
CONC	–CONCRETE		
CONSTR	–CONSTRUCTION	NDU	–NETWORK DISPLAY UNIT
COR	–CORRIDOR	NEC	–NATIONAL ELECTRICAL CODE
COTR	–CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE	NEMA	–NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
CTR	–CENTER	NIC	–NOT IN CONTRACT
		NO	–NUMBER
D		NPS	–NATIONAL PIPE THREAD
DC	–DOOR CONTACT	NPU	–NETWORK PROCESSING UNIT
DEMO	–DEMOLITION	NTS	–NOT TO SCALE
DEPT	–DEPARTMENT		
DET	–DETECTOR	O	
DGP	–DATA GATHERING PANEL	OC	–ON CENTER
DIA	–DIAMETER	OD	–OUTSIDE DIAMETER
DIFF	–DIFFUSER		
DIM	–DIMENSION	P	
DIST PNL	–DISTRIBUTION PANEL	PAP	–PRE ACTION PANEL
DIV	–DIVISION	PB	–PUSH BUTTON
DPDT	–DOUBLE POLE DOUBLE THROW	PNL	–PANEL
DPS	–DEPARTMENT OF PUBLIC SAFETY	PR	–PAIR
		PRESS	–PRESSURE
DR	–DOOR	PVC	–POLYVINYL CHLORIDE
E		R	
EA	–EACH	R	–RISER
EL	–ELEVATION	REC	–RECESSED
ELEC	–ELECTRIC	REQD	–REQUIRED
ELEV	–ELEVATION	REV	–REVISION
EMER	–EMERGENCY		
EMT	–ELECTRICAL METALLIC TUBING	S	
ENCL	–ENCLOSURE	SAPF	–SPECIAL ACCESS PROGRAM FACILITY
ENTR	–ENTRANCE		
EOL	–END OF LINE	SCHED	–SCHEDULE
EPO	–EMERGENCY POWER OFF	SCC	–STATUS COMMAND CENTER
EPRF	–EXPLOSION PROOF	SCIF	–SENSITIVE COMPARTMENTED INFORMATION FACILITY
EQ	–EQUAL		
EQIP	–EQUIPMENT	SDMPR	–SMOKE DAMPER
EXIST	–EXISTING	SECT	–SECTION
EXT	–EXTERIOR	SF	–SQUARE FOOT
F		SIM	–SIMILAR
FA	–FIRE ALARM	SLC	–SIGNAL LINE CIRCUIT
FAA	–FIRE ALARM ANNUNCIATOR	SMK	–SMOKE
FACP	–FIRE ALARM CONTROL PANEL	SMS	–SECURITY MANAGEMENT SYSTEM
FATC	–FIRE ALARM TERMINATING CABINET	SP	–STANDPIPE
FB	–FIRE BLANKET	SPEC	–SPECIFICATION
FCC	–FIRE COMMAND CENTER	STD	–STANDARD
FCTN	–FOUNDATION	SUPV	–SUPERVISORY
FDV	–FIRE DEPARTMENT VALVE	SUSP	–SUSPEND
FE	–FIRE EXTINGUISHER	SW	–SWITCH
FH	–FIRE HOSE		
FHC	–FIRE HOSE CABINET	T	
FHP	–FULL HEIGHT PARTITION	T	–TREAD
FLL	–FLOW LINE	TBD	–TO BE DETERMINED
FLR	–FLOOR	TYP	–TYPICAL
FLEX	–FLEXIBLE		
FLG	–FLANGE	U	
FLUOR	–FLUORESCENT	UFC	–UNIFIED FACILITIES CRITERIA
FO	–FIBER OPTIC	UL	–UNDERWRITERS LABORATORY
FP	–FIREPROOF	UNO	–UNLESS NOTED OTHERWISE
FRMG	–FRAMING	UON	–UNLESS OTHERWISE NOTED
FSD	–FIRE SMOKE FAMPER		
FT	–FOOT or FEET	W	
FTR	–FIRE ALARM TRANSPONDER	W	–WIDE
FUT	–FUTURE	W/	–WITH
G		W/O	–WITHOUT
GA	–GAUGE	WH	–WALL HYDRANT
GALV	–GALVANIZED		
GC	–GENERAL CONTRACTOR		
GEN	–GENERATOR		
GWB	–GYPSUM WALL BOARD		

SYMBOLS LEGEND

SCALE: 1/8" = 1'–0"



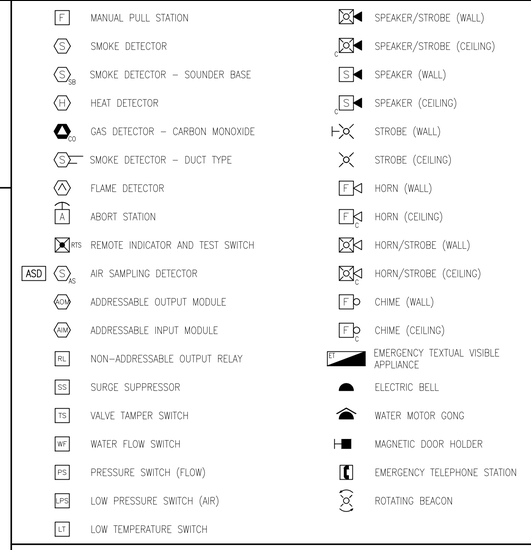


375	ROOM AREA (SQ.FT)
15	OCCUPANT LOAD FACTOR (SQ.FT/PERSON)
25	OCCUPANT LOAD FOR AREA (PERSONS)

PERSONS	00	NO. OF OCCUPANT LOAD USING EXIT
REQ WIDTH	3'–0"	REQUIRED EXIT WIDTH (INCHES)
PROVIDED WIDTH	3'–0"	PROVIDED EXIT WIDTH (INCHES)

FA SYMBOLS LEGEND

SCALE: 1/8" = 1'–0"



FIRE ALARM AND MASS NOTIFICATION SYSTEM CONTROL PANELS

FACU	FIRE ALARM CONTROL UNIT	RSFACU	RELEASING SERVICE FIRE ALARM CONTROL UNIT
ACU	AUTONOMOUS CONTROL UNIT	DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
FAC	FIRE ALARM COMMUNICATOR	NAC	NOTIFICATION CIRCUIT POWER BOOSTER/EXTENDER PANEL
FAA	ANNUNCIATOR PANEL	FATC	FIRE ALARM TERMINAL CABINET
LOC	LOCAL OPERATOR CONSOLE	BATT	BATTERY CABINET
MNS	MASS NOTIFICATION SYSTEM INTERFACE	AMP	AMPLIFIER
	GROUND	XXX	OTHER
	ANTENNA	XX	OTHER

FIRE ALARM GENERAL NOTES

NOT TO SCALE

FIRE ALARM SYSTEM SCOPE

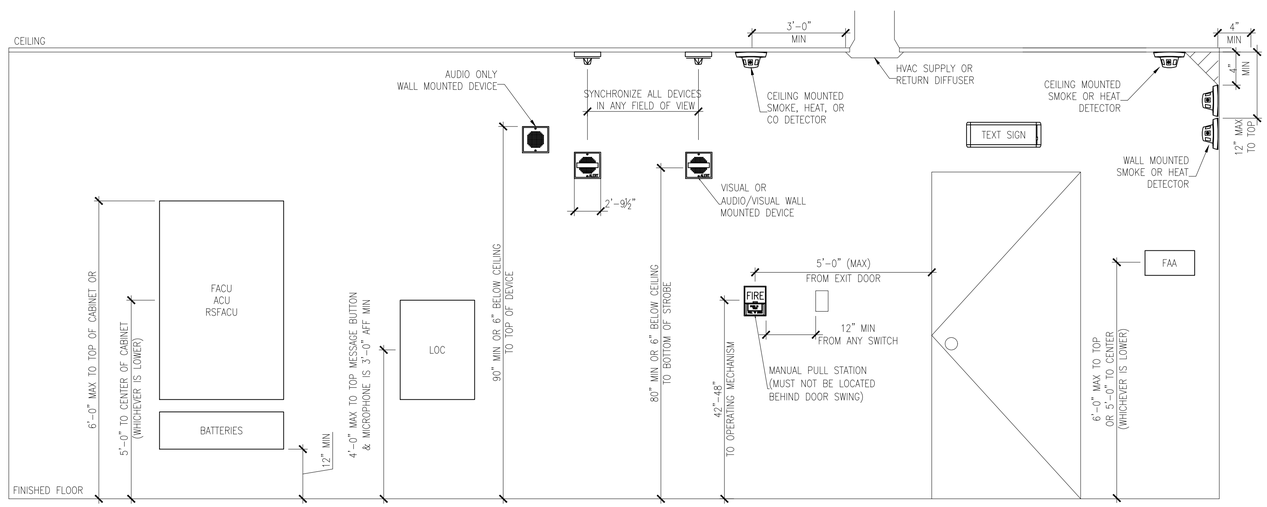
PROVIDE A COMPLETE ELECTRICALLY SUPERVISED, ADDRESSABLE INTELLIGENT, MANUAL AND AUTOMATIC FIRE ALARM DETECTION SYSTEM THROUGHOUT THE FACILITY. THE SYSTEM SHALL BE HORN STROBE TYPE SYSTEM. THE FIRE REPORTING SYSTEM SHALL BE COMPATIBLE WITH THE EXISTING BASE FIRE REPORTING SYSTEM. THE SYSTEM SHALL INCLUDE ALL WIRING, RACEWAY, PULL BOXES, TERMINAL CABINETS, OUTLET AND MOUNTING BOCES, CONTROL EQUIPMENT, ALARM AND SUPERVISORY SIGNALS, INITIATING DEVICES, ALARM NOTIFICATION APPLIANCES AND ALL OTHER NECESSARY EQUIPMENT A COMPLETE AND USABLE SYSTEM.

FIRE ALARM SYSTEM NOTES:

1. BEFORE PROCEEDING WITH MATERIAL ORDERING OR SYSTEM INSTALLATION, THE CONTRACTOR SHALL VERIFY ALL MEASUREMENTS AND FIELD CONDITIONS THAT AFFECT THE WORK. BEFORE PROCEEDING WITH THE INSTALLATION BRING ANY DISCREPANCIES TO THE ATTENTION OF THE CONTRACTING OFFICER.
2. CONTRACTOR SHALL BE RESPONSIBLE FOR AVOIDING ALL CONFLICTS WITH LIGHT FIXTURES, HVAC DIFFUSERS, GRILLS, DUCTS, AND OTHER PIPING OR OTHER OBSTRUCTIONS ENCOUNTERED. COORDINATE ALL WORK WITH FIELD CONDITIONS.
3. INSTALL ALL FIRE SYSTEM COMPONENTS IN ACCORDANCE WITH NFPA 72 AND NFPA 70 REQUIREMENTS, MANUFACTURER'S RECOMMENDATIONS, PROJECT NARRATIVE, AND SPECIFICATIONS
4. DRAWINGS INDICATE GENERAL LOCATIONS AND QUANTITIES OF FIRE ALARM SYSTEM COMPONENTS. EXACT LOCATIONS AND QUANTITIES SHALL BE DETERMINED BY THE FIRE ALARM SUB CONTRACTOR TO MEET CONTRACT REQUIREMENTS. NOTIFICATION APPLIANCES, INITIATING DEVICES, AND OTHER FIRE ALARM SYSTEM COMPONENTS SHALL BE LOCATED TO MEET CONTRACT REQUIREMENTS AND PROVIDE A CODE COMPLIANT AND USABLE SYSTEM.
5. A SET OF APPROVED FIRE ALARM SHOP DRAWINGS SHALL BE ON SITE AT ALL TIMES, AND ALL VARIATIONS SHALL BE CLEARLY INDICATED FOR RECORD DRAWINGS.
6. ANY SMOKE DETECTORS INSTALLED BEFORE THE BUILDING IS CLEANED AND ACCEPTED SHALL BE COVERED TO PROTECT FROM DUST. ANY FALSE ALARMS DUE TO DIRT CONTAMINATED HEADS SHALL BE THE RESPONSIBILITY OF THE FIRE ALARM INSTALLER.
7. MAINTAIN A MAXIMUM 40% CONDUIT FILL RATIO PER NATIONAL ELECTRICAL CODE, NFPA 70 REQUIREMENTS.
8. ALL FIRE ALARM WIRING SHALL BE INSTALLED IN RIGID METALLIC CONDUIT OR INTERMEDIATE METALLIC CONDUIT. ONLY SYSTEM WIRING OF SAME VOLTAGE MAY BE RUN IN THE SAME CONDUIT. MINIMUM CONDUIT SIZE SHALL BE 3/4 INCH. RUN ALL CONDUIT IN THE VERTICAL OR HORIZONTAL PLANE, AND MAKE TURNS AT 90 DEGREE ANGLES.
9. ALL CONDUIT SHALL BE RUN CONCEALED TO THE MAXIMUM EXTENT PRACTICAL.
10. IN FINISHED AREAS, CONDUIT SHALL BE INSTALLED AS UNOBTRUSIVELY AS POSSIBLE, AS CLOSE AS POSSIBLE TO FLOOR / CEILING ASSEMBLIES AND PARALLEL AND AT RIGHT ANGLES TO STRUCTURAL STEEL OR CONCRETE MEMBERS. CONDUIT AND JUNCTION BOXES SHALL BE PAINTED RED OR TO MATCH SURROUNDING FINISH WITH .75 INCH RED BANDS EVERY TEN FEET AND AT EACH SIDE OF FLOOR, WALL, OR OTHER PENETRATIONS. LABEL ALL JUNCTION BOXES INSIDE "FIRE ALARM".
11. PAINT ALL JUNCTION BOXES AND CONDUIT RED IN UNFINISHED AREAS.
12. ALL SIGNALING LINE AND INITIATING DEVICE CIRCUITS MUST BE A MINIMUM OF 16 GAUGE WIRE.
13. ALL CONDUCTORS MUST BE PULLED SPLICE FREE, WHERE SPLICES ARE UNAVOIDABLE, CONNECTIONS SHALL BE MADE WITH INSULATED BARRIER TYPE TERMINAL STRIPS AT JUNCTION BOXES (UNAVOIDABLE SPLICES DO NOT INCLUDE WIRE PULLS CUT TO SHORT OR CONDUCTORS BROKEN DURING PULLING.) THE USE OF WIRE NUTS, CRIMPED CONNECTIONS, OR TWISTING OF CONDUCTORS IS PROHIBITED. ALL DEVICES MUST HAVE SCREW TERMINALS FOR CONNECTIONS.
14. LOCATE FIRE ALARM RADIO TRANSCEIVER ADJACENT TO THE FIRE ALARM CONTROL PANEL LOCATION.
15. PROVIDE NOTIFICATION DEVICES TO PROVIDE A MINIMUM SOUND LEVEL 15BdB ABOVE AMBIENT SOUND LEVEL IN ALL SPACES, AMBIENT SOUND LEVEL SHALL BE DETERMINED BY NFPA 72 OR ACTUAL AMBIENT SOUND LEVEL, WHICHEVER IS GREATER.
16. MOUNT ALL VISUAL NOTIFICATION DEVICES TO ACHIEVE MAXIMUM VISIBILITY, INSURE VISUAL NOTIFICATION DEVICES ARE NOT OBSTRUCTED BY OTHER BUILDING DEVICES.
17. ALL AUDIBLE / VISUAL NOTIFICATION DEVICES SHALL BE WHITE, WITH RED FACTORY APPLIED LETTERING THAT SHALL READ "FIRE". ALL VISUAL NOTIFICATION DEVICES IN A COMMON VIEW SHALL BE SYNCHRONIZED.LOWS IN ACCORDANCE WITH NFPA 72.
18. A KNOX–BOX SHALL BE PROVIDED. THE KNOX–BOX SHALL MATCH CURRENT STATION STANDARD AND BE EQUIPPED WITH A TAMPED SWITCH. THE CONTRACTOR SHALL COORDINATE THE LOCATIONS FOR KNOX–BOX UNITS WITH THE STATION FIRE DEPARTMENT DURING DESIGN.
19. "PROVIDE" SHALL MEAN CONTRACTOR SHALL FURNISH AND INSTALL COMPLETE AND READY FOR INTENDED USE.

TYPICAL FIRE ALARM MOUNTING HEIGHTS

NOT TO SCALE



APPR | DATE | DESCRIPTION | SYM

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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	JR	DRW	JR
CHK	AMF		
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	K. WITTMAN		
FIRE PROTECTION	A. DISANTO		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

FIRE ALARM GENERAL NOTES

SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

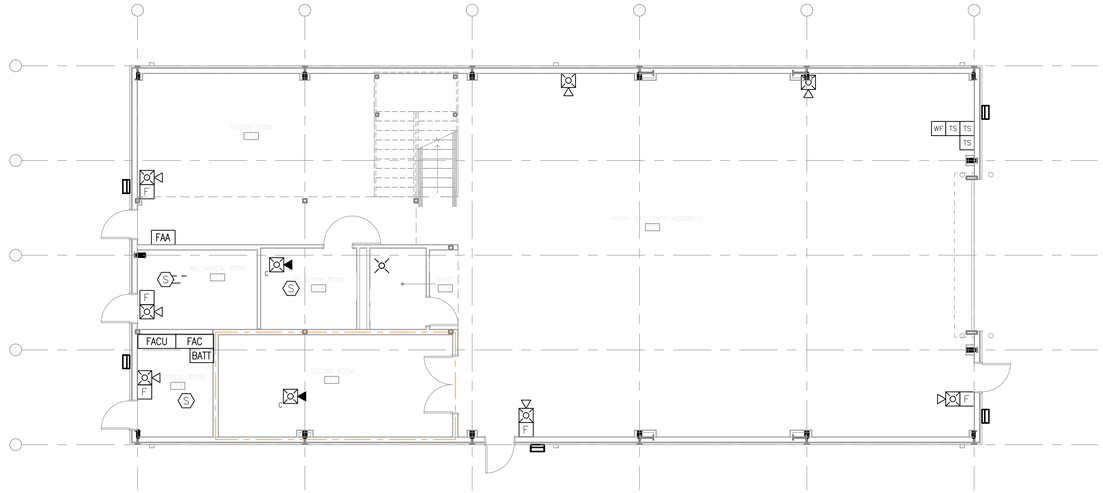
FA001

DRAWFORM REVISION: 7 AUGUST 2009

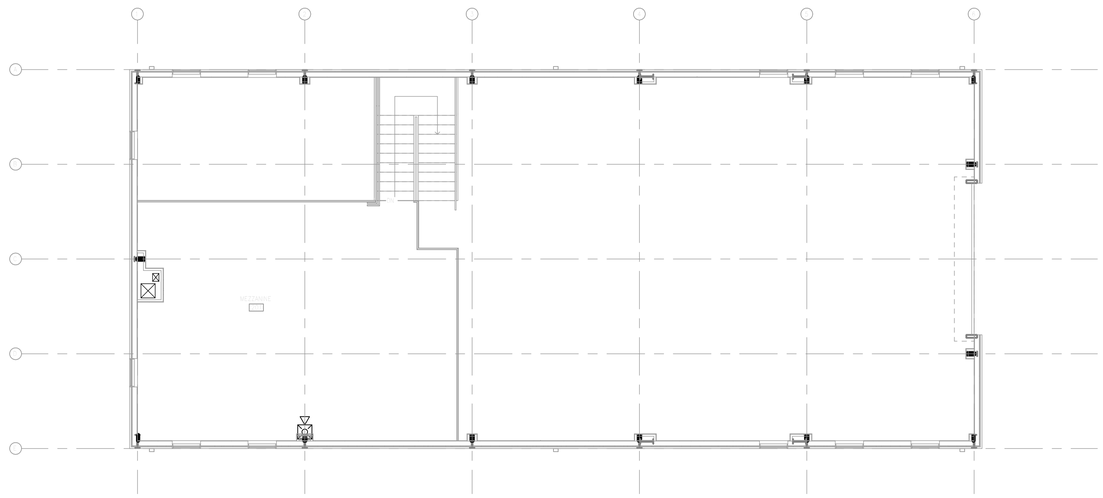
FILE NAME: \\MEDJAXSFS101.ndsusers.nads.navy.mil\CS0208$\NAVFAC_JAXS_164A\CIVIL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\HVAC\1809\MARITIME MINING FACILITY CIP PROJECT–1802981\Working Technical Files\Fire Protection\DWG\FA001 Fire Alarm General Notes.dwg LAYOUT NAME: FA001 FIRE ALARM GENERAL NOTES PLOTTED: Thursday, May 01, 2025 – 3:44pm USER: jesse.rodok

SHEET FORMAT IS 22" X 34". IF PRINTED SHEET IS NOT 22" X 34", THEN IT IS NOT TO SCALE

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1 FIRE ALARM DETAIL – FIRST FLOOR
Scale: 1/8" = 1'–0"



2 FIRE ALARM DETAIL – MEZZANINE
Scale: 1/8" = 1'–0"

PLAN NORTH

GENERAL SHEET NOTES

FIRE ALARM SYSTEM NOTES:

1. ALL NOTIFICATION DEVICE CIRCUITS SHALL BE CLASS B AS DEFINED BY NFPA 72.
2. ALL INITIATING DEVICE CIRCUITS SHALL BE CLASS B AS DEFINED BY NFPA 72.
3. ALL SIGNALING LINE CIRCUITS SHALL BE CLASS B AS DEFINED BY NFPA 72.
4. ALL FIRE ALARM PANELS AND UNITS SHALL BE PROVIDED IN YEAR ROUND CONDITIONED SPACES. ALL FIRE ALARM PANELS SHALL BE INSTALLED A MAXIMUM OF 5 FEET ABOVE FINISHED FLOOR, MEASURED TO CENTERLINE OF THE PANEL.
5. SECONDARY POWER SUPPLY SHALL BE SIZED TO PROVIDE 48 HOURS OF STANDBY TIME AND AN ADDITIONAL 15 MINUTES OF ALARM TIME.
6. POWER CIRCUITS FOR FIRE ALARM CONTROL PANEL AND FIRE ALARM SYSTEM POWER SHALL BE ON A DEDICATED 120V, 20A BRANCH CIRCUIT BREAKER, AND SHALL HAVE A RED MARKING, LOCK–ON PROVISION AND SHALL BE IDENTIFIED AS "FIRE ALARM CIRCUIT". THE LOCATION OF THE CIRCUIT BREAKER SHALL BE PERMANENTLY IDENTIFIED WITH A METAL ENGRAVED SIGN APPLIED TO THE FRONT OF THE FIRE ALARM CONTROL PANEL.
7. PROVIDE ADDRESSABLE DOUBLE ACTION PULL STATIONS AT EACH EXTERIOR DOOR, INCLUDING MECHANICAL ROOMS, ELECTRIC ROOMS, AND OTHER ROOMS AS SHOWN ON DRAWINGS. MANUAL PULL STATIONS SHALL NOT NEED GLASS RODS.
8. SEAL ALL PENETRATIONS THROUGH FIRE RATED BARRIERS WITH UL LISTED THROUGH PENETRATION FIRE STOP SYSTEM, PROVIDING A FIRE RATING EQUAL OR GREATER THAN THE FIRE RATED BARRIER.
9. ALL FIRE ALARM SYSTEM WIRING SHALL BE SOLID COPPER. ALL FIRE ALARM CIRCUITS SHALL BE PULLED SPLICE FREE, WHERE CONNECTIONS ARE UNAVOIDABLE CONNECTIONS SHALL BE MADE WITH THERMALLY INSULTED SCREW TYPE TERMINAL STRIPS.
10. ALL FIRE ALARM CIRCUITS SHALL HAVE A MINIMUM OF 25% SPARE CAPACITY.
11. VISUAL DEVICES ARE REQUIRED IN ALL PUBLIC USE AREAS, COMMON USE AREAS, AND EMPLOYEE WORK AREAS TO INCLUDE OFFICE SUITES AND AREAS INTENDED TO HAVE MORE THAN ONE DESK/ OCCUPANT.

SYMBOL LEGEND

F	MANUAL PULL STATION	S	DUCT SMOKE DETECTOR
TS	VALVE TAMPER SWITCH		HORN/STROBE
WF	WATER FLOW SWITCH		HORN/STROBE (CEILING)
SS	SURGE SUPPRESSOR	FACU	FIRE ALARM CONTROL UNIT
AM	ADDRESSABLE INPUT MODULE	FAC	FIRE ALARM COMMUNICATOR
RL	ADDRESSABLE OUTPUT RELAY	BATT	BATTERY CABINET
S	SMOKE DETECTOR		ANTENNA

GRAPHIC SCALE

1/8"=1'–0" 0' 5' 10' 20' 30'

SYM	DESCRIPTION	DATE	APPR

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	JR	DRW	JR	CHK	AMD
DESIGN MANAGER	K. MOOREHEAD				
PROJECT MANAGER	O. HARRIS				
CHIEF ENG/ARCH	K. WITTMAN				
FIRE PROTECTION	A. DISANTO				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

FIRE ALARM BUILDING PLAN

SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

FA101

DRAWFORM REVISION: 7 AUGUST 2009

FILE NAME: \\NEAJAXSFS101v.nodisusea.nods.navy.mil\CS0209$\NAVFAC_JAXS_FAAA\CIB\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH(NE1008)\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\FA002 Fire Alarm Building Plan.dwg LAYOUT NAME: FA002 FIRE ALARM BUILDING PLAN PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.nodak

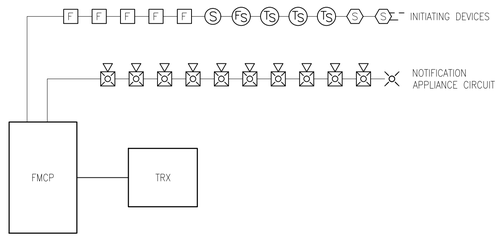
SHEET FORMAT IS 22" X 34". IF PRINTED SHEET IS NOT 22" X 34", THEN IT IS NOT TO SCALE

FIRE ALARM INPUT		A: ACTIVATE FIRE ALARM AUDIBLE EVACUATION THROUGHOUT BUILDING	B: ACTIVATE VISUAL STROBES THROUGHOUT BUILDING	C: ALARM CONDITION AT FMCP	D: SUPERVISORY CONDITION AT FMCP	E: TROUBLE CONDITION AT FMCP	F: TRANSMIT ALARM TYPE SIGNAL TO REMOTE STATION	G: TRANSMIT SUPERVISORY TYPE SIGNAL TO REMOTE	H: TRANSMIT TROUBLE TYPE SIGNAL TO REMOTE	I: SHUT DOWN RESPECTIVE AIR HANDLING UNIT
MANUAL PULL STATION	1	●	●	●			●			
AUTOMATIC SPRINKLER SYSTEM WATER FLOW SWITCH	2	●	●	●			●			
AUTOMATIC SPRINKLER SYSTEM TAMPER SWITCH	3				●			●		
AREA SMOKE DETECTOR	4	●	●	●			●			
DUCT SMOKE DETECTOR ACTIVATION	6	●	●		●			●		●
FACU CIRCUIT FAULT (OPEN, GROUND, SHORT)	7	●	●			●			●	
OTHER TROUBLE CONDITION	8	●	●			●			●	

1 FIRE ALARM MATRIX
Scale: N.T.S.

TRANSMITTER ZONE	SIGNAL
MANUAL PULL STATION	ALARM
SPRINKLER SYSTEM WATER FLOW	ALARM
SMOKE DETECTOR	ALARM
DUCT SMOKE DETECTOR	SUPERVISORY
SPRINKLER TAMPER SWITCH	SUPERVISORY
GENERAL TROUBLE	TROUBLE

2 TRANSMITTER ZONES
Scale: N.T.S.



NOTE: NOT ALL WIRE, DEVICES, AND REQUIRED EQUIPMENT SHOWN ON RISER DIAGRAM

3 RISER DIAGRAM
Scale: N.T.S.

APPR | DATE | DESCRIPTION | SYM

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	JR	DRW	JR	CHK	AMD
DESIGN MANAGER	K. MOOREHEAD				
PROJECT MANAGER	O. HARRIS				
CHIEF ENG/ARCH	K. WITTMAN				
FIRE PROTECTION	A. DISANTO				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

FIRE ALARM DETAILS

SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

FA501

FILE NAME: \\MEDJAXSFS101v.ndfsusea.ndds.navy.mil\CS020$\NAVFAC_JAXS_16A\CIBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\1802981\Working Technical Files\Fire Protection\DWG\FA501 FIRE ALARM DETAILS.dwg LAYOUT NAME: FA501 FIRE ALARM DETAILS PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodak

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23 APRIL 2025

ABBREVIATIONS LEGEND
NOT TO SCALE

A	
AB	–ANCHOR BOLT
AC	–ABOVE CEILING
ACS	–ACCESS CONTROL SYSTEM
ACS FLR	–ACCESS FLOOR
ACS PNL	–ACCESS PANEL
ACT	–ACOUSTIC CEILING TILE
ADJ	–ADJUSTABLE or ADJACENT
ADMIN	–ADMINISTRATION
AFF	–ABOVE FINISH FLOOR
AHJ	–AUTHORITY HAVING JURISDICTION
ALT	–ALTERNATE
ALM	–ALARM
ALUM	–ALUMINUM
ANN	–ANNUNCIATOR
ANSI	–AMERICAN NATIONAL STANDARDS INSTITUTE
APPROX	–APPROXIMATE
ARA	–AREA OF RESCUE ASSISTANCE
ARCH	–ARCHITECTURAL or ARCHITECT
ASTM	–AMERICAN SOCIETY FOR TESTING AND MATERIALS
AUTO	–AUTOMATIC
B	
BLDG	–BUILDING
BLW	–BELOW
BM	–BEAM
BMS	–BUILDING MANAGEMENT SYSTEM
BRG	–BEARING
C	
C	–CEILING MOUNTED
CAB	–CABINET
CAP	–CAPACITY
CCTV	–CLOSED CIRCUIT TELEVISION
CD	–CANDELA
CL	–CENTER LINE
CL	–CLASS
CLG	–CEILING
CLR	–CLEAR
CM	–CONSTRUCTION MANAGER
CMU	–CONCRETE MASONRY UNIT
COL	–COLUMN
CONC	–CONCRETE
CONSTR	–CONSTRUCTION
COR	–CORRIDOR
COTR	–CONTRACTING OFFICERS TECHNICAL REPRESENTATIVE
CTR	–CENTER
D	
DC	–DOOR CONTACT
DEMO	–DEMOLITION
DEPT	–DEPARTMENT
DET	–DETECTOR
DGP	–DATA GATHERING PANEL
DIA	–DIAMETER
DIFF	–DIFFUSER
DIM	–DIMENSION
DIST PNL	–DISTRIBUTION PANEL
DIV	–DIVISION
DPDT	–DOUBLE POLE DOUBLE THROW
DPS	–DEPARTMENT OF PUBLIC SAFETY
DR	–DOOR
E	
EA	–EACH
EL	–ELEVATION
ELEC	–ELECTRIC
ELEV	–ELEVATION
EMER	–EMERGENCY
EMT	–ELECTRICAL METALLIC TUBING
ENCL	–ENCLOSURE
ENTR	–ENTRANCE
EOL	–END OF LINE
EPO	–EMERGENCY POWER OFF
EPRF	–EXPLOSION PROOF
EQ	–EQUAL
EQIP	–EQUIPMENT
EXIST	–EXISTING
EXT	–EXTERIOR
F	
FA	–FIRE ALARM
FAA	–FIRE ALARM ANNUNCIATOR
FACP	–FIRE ALARM CONTROL PANEL
FATC	–FIRE ALARM TERMINATING CABINET
FB	–FIRE BLANKET
FCC	–FIRE COMMAND CENTER
FCTN	–FOUNDATION
FDV	–FIRE DEPARTMENT VALVE
FE	–FIRE EXTINGUISHER
FH	–FIRE HOSE
FHC	–FIRE HOSE CABINET
FHP	–FULL HEIGHT PARTITION
FLL	–FLOW LINE
FLR	–FLOOR
FLEX	–FLEXIBLE
FLG	–FLANGE
FLUOR	–FLUORESCENT
FO	–FIBER OPTIC
FP	–FIREPROOF
FRMG	–FRAMING
FSD	–FIRE SMOKE DAMPER
FT	–FOOT or FEET
FTR	–FIRE ALARM TRANSPONDER
FUT	–FUTURE
G	
GA	–GAUGE
GALV	–GALVANIZED
GC	–GENERAL CONTRACTOR
GEN	–GENERATOR
GWB	–GYPSUM WALL BOARD
H	
HDCP	–HANDICAP
HDR	–HEADER
HDW	–HARDWARE
HORIZ	–HORIZONTAL
HVAC	–HEATING, VENTILATING, AND AIR CONDITIONING
HW	–HOT WATER
I	
IC	–INTERCOMMUNICATION
ID	–INSIDE DIAMETER
IDS	–INTRUSION DETECTION SYSTEM
IMS	–INFORMATION MANAGEMENT SYSTEM
INSUL	–INSULATION
INT	–INTERIOR
J	
J-BOX	–JUNCTION BOX
K	
KO	–KNOCK OUT
L	
LAV	–LAVATORY
LCF	–LINEAR CEILING DIFFUSER
LIN	–LINEAR
LOC	–LOCATION
LTG	–LIGHTING
LVR	–LOUVER
M	
MAN	–MANUAL
MATL	–MATERIAL
MAX	–MAXIMUM
MECH	–MECHANICAL
MFR	–MANUFACTURER
MIN	–MINIMUM
MISC	–MISCELLANEOUS
MTD	–MOUNTED
N	
NA	–NOT APPLICABLE
NAC	–NOTIFICATION APPLIANCE CIRCUIT EXTENDER
NDU	–NETWORK DISPLAY UNIT
NEC	–NATIONAL ELECTRICAL CODE
NEMA	–NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NIC	–NOT IN CONTRACT
NO	–NUMBER
NPS	–NATIONAL PIPE THREAD
NPU	–NETWORK PROCESSING UNIT
NTS	–NOT TO SCALE
O	
OC	–ON CENTER
OD	–OUTSIDE DIAMETER
P	
PAP	–PRE ACTION PANEL
PB	–PUSH BUTTON
PNL	–PANEL
PR	–PAIR
PRESS	–PRESSURE
PVC	–POLYVINYL CHLORIDE
R	
R	–RISER
REC	–RECESSED
REQD	–REQUIRED
REV	–REVISION
S	
SAPF	–SPECIAL ACCESS PROGRAM FACILITY
SCHED	–SCHEDULE
SCC	–STATUS COMMAND CENTER
SCIF	–SENSITIVE COMPARTMENTED INFORMATION FACILITY
SDMPR	–SMOKE DAMPER
SECT	–SECTION
SF	–SQUARE FOOT
SIM	–SIMILAR
SLC	–SIGNAL LINE CIRCUIT
SMK	–SMOKE
SMS	–SECURITY MANAGEMENT SYSTEM
SP	–STANDPIPE
SPEC	–SPECIFICATION
STD	–STANDARD
SUPV	–SUPERVISORY
SUSP	–SUSPEND
SW	–SWITCH
T	
T	–TREAD
TBD	–TO BE DETERMINED
TYP	–TYPICAL
U	
UFC	–UNIFIED FACILITIES CRITERIA
UL	–UNDERWRITERS LABORATORY
UNO	–UNLESS NOTED OTHERWISE
UON	–UNLESS OTHERWISE NOTED
W	
W	–WIDE
W/	–WITH
W/O	–WITHOUT
WH	–WALL HYDRANT

1 VIEW TITLE
Scale: SCALE

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

1 KEYNOTE INDICATOR

ROOM NAME
OOO
ROOM NAME/NUMBER INDICATOR

1 MATERIAL / FINISH INDICATOR

01 COLUMN INDICATOR

1 ACCESS. / FIXT. / FURN. EQUIPMENT INDICATOR

+ 0'-0" FIN. FLR. ELEVATION INDICATOR

NORTH ARROW

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

DETAIL CALLOUT INDICATOR
VIEW# / SHEET
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON

INTERIOR ELEVATION INDICATOR
VIEW# / SHEET
1 / SHEET / 2
4 / SHEET / 2 / 3
DIRECTION OF ELEVATIONS
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON

EXTERIOR ELEVATIONS INDICATOR
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON

WALL SECTION INDICATOR
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
LIMIT OF CUTTING PLANE
LINE OF CUTTING PLANE
SHEET DETAIL IS LOCATED ON

BUILDING SECTION INDICATOR
VIEW# / SHEET
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON
LINE OF CUTTING PLANE

ENLARGED DETAIL/AREA INDICATOR
VIEW# / SHEET
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON
LIMIT OF ENLARGED AREA

DRAWING TITLE INDICATOR
VIEW TITLE
Scale: SCALE
DRAWING VIEW TITLE
DRAWING VIEW SCALE
DRAWING VIEW NUMBER

REVISION CLOUD AND NUMBER INDICATOR
REVISION CLOUD (LIMITS OF REVISION AREA)
3 REVISION NUMBER (PRE-AWARD AMMENDMENTS)
C REVISION LETTER (POST-AWARD AMMENDMENTS)

375	ROOM AREA (SQ.FT)	PERSONS 0	NO. OF OCCUPANT LOAD USING EXIT
15	OCCUPANT LOAD FACTOR (SQ.FT/PERSON)	REQ WIDTH 3'-0"	REQUIRED EXIT WIDTH (INCHES)
25	OCCUPANT LOAD FOR AREA (PERSONS)	PROVIDED WIDTH 0"	PROVIDED EXIT WIDTH (INCHES)

PATH OF EGRESS TRAVEL
SMOKE BARRIER S S
1 HOUR SEPARATION ASSEMBLY 60 MINUTE OPENING PROTECTION
2 HOUR SEPARATION ASSEMBLY 90 MINUTE OPENING PROTECTION
3 HOUR SEPARATION ASSEMBLY 120 MINUTE OPENING PROTECTION
4 HOUR SEPARATION ASSEMBLY 180 MINUTE OPENING PROTECTION

FIRE SUPPRESSION SYMBOLS
SCALE: 1/8" = 1'-0"

FIRE SUPPRESSION SYMBOLS

- RISER
- WET-PIPE RISER
- DRY-PIPE RISER
- PREACTION RISER (NON/SINGLE/DOUBLE)
- FIRE DEPARTMENT CONNECTION
- FIRE DEPARTMENT CONNECTION YARD STYLE
- TEST HEADER WALL MOUNTED
- TEST HEADER YARD STYLE
- BACKFLOW PREVENTER DOUBLE CHECK
- BACKFLOW PREVENTER REDUCED PRESSURE
- FIRE HYDRANT
- POST INDICATOR VALVE
- CHECK VALVE
- OUTSIDE SCREW & YOKE VALVE (OS&Y)
- BUTTERFLY VALVE

FIRE SUPPRESSION GENERAL NOTES
NOT TO SCALE

FIRE SUPPRESSION GENERAL NOTES:

1. THE INTENT, AND EXTENT OF THESE SYSTEMS DESIGNS IS AS ILLUSTRATED, BUT IS DIAGRAMMATIC ONLY. THE SPRINKLER CONTRACTOR SHALL VISIT THE JOB SITE AND BECOME FAMILIAR WITH THE EXISTING CONDITIONS AND NOTIFY THE ENGINEER OF ANY DISCREPANCIES OUTSIDE THIS DESIGN PRIOR TO BID, FABRICATION, AND INSTALLATION.
2. ANY ADDITIONAL OFFSETS OR FITTINGS REQUIRED FOR PROPER INSTALLATION AND COORDINATION WITH OTHER TRADES, AND/OR TO MAINTAIN PROPER CLEARANCES SHALL BE PROVIDED FOR A COMPLETE AND WORKING SYSTEM.
3. NOT ALL PIPING, VALVES, AND APPARATUS ARE SHOWN ON THE PLANS. REFER TO THE PLAN AND DETAILS FOR ADDITIONAL INFORMATION.
4. ADHERE TO AND OBTAIN ALL PERMITS, LICENSES, AND GOVERNMENT REQUIREMENTS.
5. CONTRACTOR SHALL SUBMIT COMPLETE SHOP DRAWINGS WITH HYDRAULIC CALCULATIONS AND MATERIAL SPECIFICATIONS FOR REVIEW PRIOR TO COMMENCING FABRICATION AND INSTALLATION.
6. ALL CONTROL VALVES ON THE FIRE PROTECTION SYSTEM SHALL BE ELECTRONICALLY SUPERVISED BY THE FIRE ALARM SYSTEM AND BY THE BASE FIRE DEPARTMENT PER NFPA 13. THE TYPE AND EXACT LOCATIONS OF FLOW AND SUPERVISORY SWITCHES SHALL BE ACCOMPLISHED BETWEEN DIFFERENT RESPONSIBLE TRADES. PROTECTED PREMISES ALARM SYSTEMS, SUPERVISION AND WIRING SHALL BE PROVIDED UNDER THE ELECTRICAL DIVISION.
7. DO NOT SCALE PLANS FOR THE PURPOSES OF DIMENSIONS.
8. FIRE STOP ALL PENETRATIONS OF SMOKE/FIRE PARTITIONS. FIRE STOPPING SHALL BE OF U.L. LISTED ASSEMBLY. SEE LIFE SAFETY PLANS FOR LOCATIONS OF FIRE RATED WALLS.
9. PROVIDE A MEANS TO FORWARD FLOW TEST THE BACKFLOW PREVENTER VALVE DIRECTLY TO THE OUTSIDE.
10. THE SPRINKLER SYSTEM SHALL BE HYDROSTATICALLY TESTED FOR TWO (2) HOURS AT 200 PSI PER NFPA 13. ANY PORTIONS OF THE SYSTEM WITH A NORMAL WORKING PRESSURE OF 150 PSI SHALL BE TESTED AT 50 PSI ABOVE MAXIMUM SYSTEM PRESSURE.
11. THE SPRINKLER SYSTEMS SHALL BE DESIGNED FOR A MAXIMUM WORKING PRESSURE OF 175 PSI PER NFPA 13.
12. THE SYSTEM SHALL BE PROVIDED WITH FLUSHING CONNECTIONS PER NFPA 13.
13. ALL SPRINKLER PIPING AND FITTINGS SHALL BE SO INSTALLED SO THE THAT SYSTEM CAN BE DRAINED PER NFPA 13.
14. AN INSPECTOR'S TEST CONNECTION SHALL BE PROVIDED SO THAT THE WATER FLOW SWITCH CAN BE TESTED PER NFPA 13. CONNECTIONS SHALL BE LOCATED IN AN ACCESSIBLE LOCATION AND DISCHARGE TO AN APPROVED LOCATION.
15. ALL VALVES SHALL HAVE A PERMANENTLY AFFIXED SIGN INDICATING THE FUNCTION AND SECURED TO THE VALVE WITH SUITABLE CHAIN PER NFPA 13.
16. PROVIDE A PERMANENTLY ATTACHED HYDRAULIC NAMEPLATE STATING THE REQUIRED DESIGN CRITERIA FOR EACH DESIGNED SYSTEM PER NFPA 13. CANNOT BE HANDWRITTEN.
17. THE PIPE HANGAR MATERIAL, SPACING, AND METHOD OF ATTACHMENT SHALL BE PER NFPA 13, AND MANUFACTURER'S REQUIREMENTS.
18. MAINTAIN A MINIMUM 18 INCH CLEARANCE BELOW SPRINKLER DEFLECTORS AND ANY PERMANENT OR TEMPORARY OBSTRUCTIONS PER NFPA 13.
19. AT LEAST SIX (6) SPARE SPRINKLER HEADS OF EACH TYPE, TEMPERATURE, AND ORIFICE SIZE USED THROUGHOUT THE SYSTEM, TO INCLUDE A SPECIAL WRENCH FOR EACH SPRINKLER HEAD, SHALL BE KEPT IN A CABINET WHERE THE AMBIENT TEMPERATURE WILL AT NO TIME EXCEED 100 DEGREES FAHRENHEIT PER NFPA 13.
20. NAVFAC ASSUMES NO RESPONSIBILITY FOR THE WATER SUPPLY AND CANNOT GUARANTEE THAT THE RESULTS WILL REMAIN VALID FOR ANY LENGTH OF TIME.
21. THE FIRE SPRINKLER CONTRACTOR SHALL PROVIDE TO THE OWNER ALL LITERATURE AND INSTRUCTIONS PROVIDED BY THE MANUFACTURER THAT DESCRIBE PROPER OPERATION AND MAINTENANCE OF ANY EQUIPMENT AND DEVICES INSTALLED, AS WELL AS A COPY OF NFPA 25, "STANDARD FOR THE INSPECTION, TESTING, AND MAINTENANCE OF WATER-BASED FIRE PROTECTION SYSTEMS" PER NFPA 13.
22. FIRE SPRINKLER PIPING IN UNFINISHED AREAS AND ALSO STORAGE AREAS SHALL BE PRIMED WITH TWO COATS OF RED ALKYD FLOSS ENAMEL, WITH A MINIMUM DRY THICKNESS OF .025MM 1.0 MIL. FIRE SPRINKLER PIPING IN FINISHED AREAS SHALL BE PROVIDED WITH 2 INCH WIDE RED BANDS OF SELF-ADHERING RED PLASTIC BANDS SPACED AT MINIMUM OF 20 FOOT INTERVALS.
23. THE FIRE SPRINKLER CONTRACTOR SHALL INSTALL SYSTEM PIPING AND COMPONENTS IN A WORKMANSHIP LIKE MANNER. CHANGES IN INSTALLATION AS A RESULT OF POOR CRAFTSMANSHIP SHALL BE AS DIRECTED BY THE ARCHITECT AND SHALL BE AT NO ADDITIONAL COST TO THE OWNER.

SCOPE OF WORK:

SCOPE OF WORK SHALL INCLUDE:

1. INSTALLATION OF AN AUTOMATIC WET-PIPE FIRE SPRINKLER SYSTEM THROUGHOUT THE BUILDING.

DESIGN CRITERIA:

1. DESIGN AND INSTALL IN ACCORDANCE WITH UFC 3-600-01, NFPA 13, PROJECT SPECIFICATIONS, AND PROJECT NARRATIVE.
2. LIGHT HAZARD AREAS ARE HYDRAULICALLY CALCULATED AT A DENSITY OF .10 GPM / SQ.FT OVER A REMOTE AREA OF 1,500 SQ.FT. A REDUCTION FOR QUICK RESPONSE IS NOT PERMISSIBLE.
3. ORDINARY HAZARD AREAS ARE HYDRAULICALLY CALCULATED AT A DENSITY OF .20 GPM / SQ.FT OVER A REMOTE ARE OF 2,500 SQ.FT. A REDUCTION FOR QUICK RESPONSE IS NOT PERMISSIBLE.
4. SYSTEM AREA OF OPERATION SHALL BE INCREASED BY 30% WITHOUT REVISING THE DENSITY DUE TO THE SLOPED CEILING HAVING A PITCH EXCEEDING 2 IN 12.

FX – FIRE SUPPRESSION TOOLS
SCALE: 1/8" = 1'-0"

HAZARD CLASSIFICATIONS

LIGHT HAZARD DESIGN CRITERIA – MAXIMUM SPRINKLER SPACING OF 225 SF PER SPRINKLER AND 15 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 5.6.

ORDINARY HAZARD DESIGN AREA – MAXIMUM SPRINKLER SPACING OF 130 SF PER SPRINKLER AND 15 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 8.0.

EXTRA HAZARD DESIGN AREA – MAXIMUM SPRINKLER SPACING OF 100 SF PER SPRINKLER AND 12 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 11.2.

SPRINKLER DESIGN DEMAND

HAZARD CLASSIFICATION	SYSTEM TYPE	DESIGN DENSITY (GPM/SF)	DESIGN AREA (SF)	HOSE DEMAND (GPM)	CEILING HEIGHT
LIGHT HAZARD	WET	0.10	1,500	250	< 30 FT
ORDINARY HAZARD	WET	0.20	2,500	250	< 30 FT
EXTRA HAZARD	WET	0.30	2,500	500	< 30 FT

BASED UPON UFC 3-600-01, TABLE 9-3

FLOW TEST DATA

TEST DATE: 07/23/2024
TEST BY:
TEST HYDRANT: 62 — FLOW HYDRANT: 63

STATIC PRESSURE (PSI)	RESIDUAL PRESSURE (PSI)	OUTLET SIZE / (#)	2.5 IN / (x1)	FLOW (GPM)
75	62	COEFFICIENT	0.9	1233
		PITOT PRESSURE (PSI)	54	

APPR	
DATE	
DESCRIPTION	
SYM	

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A/E INFO
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES	JR	DRW	JR
CHK	AMD		
DESIGN MANAGER	K. MOOREHEAD		
PROJECT MANAGER	O. HARRIS		
CHIEF ENG/ARCH	K. WITTMAN		
FIRE PROTECTION	A. DISANTO		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FL
MARITIME MINING FACILITY
FIRE SPRINKLER GENERAL NOTES

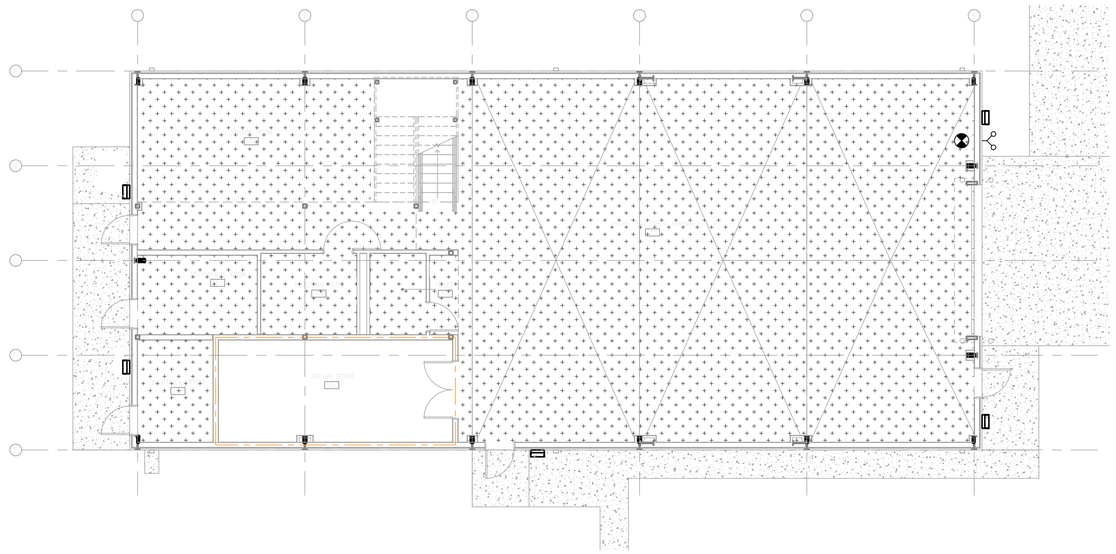
SCALE: AS SHOWN
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
FX001

DRAWFORM REVISION: 7 AUGUST 2009

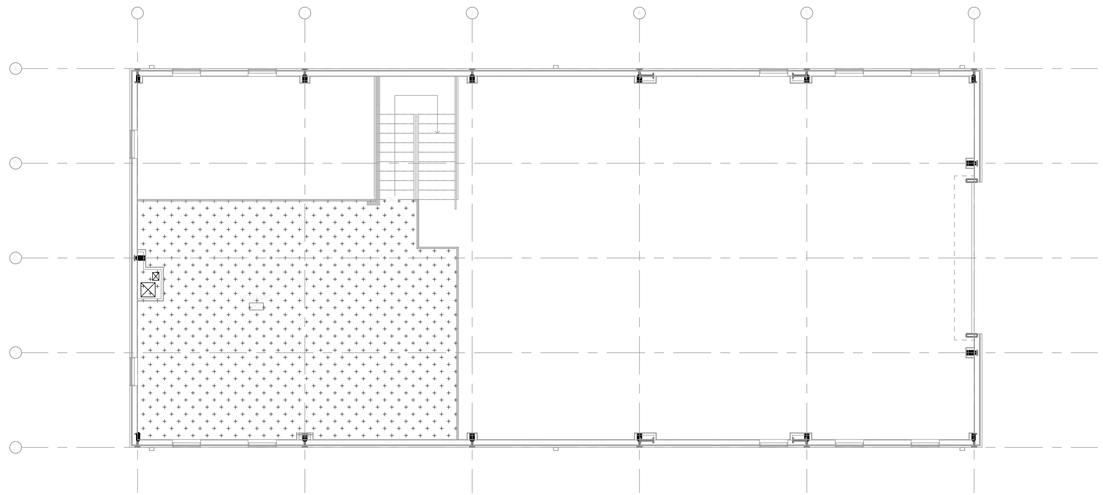
FILE NAME: \\MEDJAXSFS101\v.ndbuseo.nods.navy.mil\CS002$\NAVFAC_JAXS_16A\CIBL\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\Hjh161008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\FX001 Fire Sprinkler General Notes.dwg LAYOUT NAME: FX001 FIRE SPRINKLER GENERAL NOTES PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodak

SHEET FORMAT IS 22" X 34". IF PRINTED SHEET IS NOT 22" X 34", THEN IT IS NOT TO SCALE

FILE NAME: \\WEAAKSFS101v.ndsusves.nods.navy.mil\Q5028$\NAVFAC_JAXS_FEAA\CIB\Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\NE1008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\FX002 Fire Sprinkler Building Plan.dwg LAYOUT NAME: FX002 FIRE SPRINKLER BUILDING PLAN PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jrosenkodak



1 FIRE PROTECTION DETAIL – FIRST FLOOR
Scale: 1/8" = 1'–0"



2 FIRE PROTECTION DETAIL – MEZZANINE
Scale: 1/8" = 1'–0"

N
PLAN NORTH

GENERAL SHEET NOTES

LIMIT PENETRATIONS INTO SECURE ROOM. ONLY PENETRATIONS THAT SERVICE THE SECURE ROOM SHALL BE PERMITTED.

SYMBOL LEGEND

HAZARD CLASSIFICATIONS

LIGHT HAZARD DESIGN CRITERIA – MAXIMUM SPRINKLER SPACING OF 225 SF PER SPRINKLER AND 15 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 5.6.

ORDINARY HAZARD DESIGN AREA – MAXIMUM SPRINKLER SPACING OF 130 SF PER SPRINKLER AND 15 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 8.0.

EXTRA HAZARD DESIGN AREA – MAXIMUM SPRINKLER SPACING OF 100 SF PER SPRINKLER AND 12 FT BETWEEN SPRINKLERS HEADS. MINIMUM SPRINKLER K-FACTOR: 11.2.

- RISER
- WET–PIPE RISER
- FIRE DEPARTMENT CONNECTION
- FIRE HYDRANT
- BACKFLOW PREVENTER DOUBLE CHECK
- CHECK VALVE
- OS&Y VALVE

GRAPHIC SCALE

1/8"=1'–0" 0' 5' 10' 20' 30'

SYM	DESCRIPTION	DATE	APPR

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CHIEF ENG/ARCH	K. WITTMAN				
FIRE PROTECTION	A. DISANTO				

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NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

FIRE SPRINKLER BUILDING PLAN

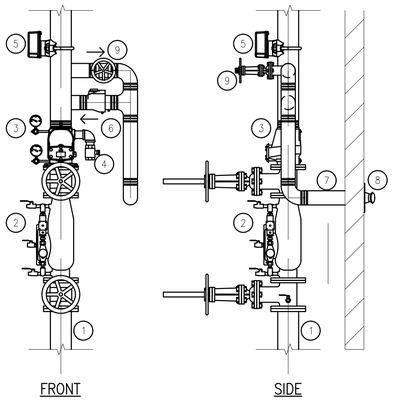
SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

FX101

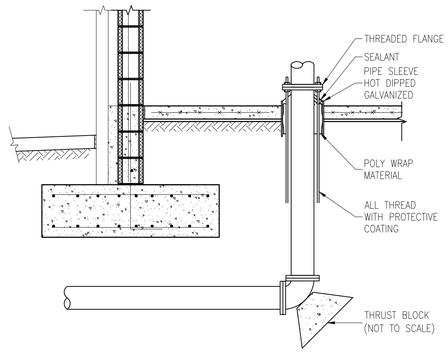
DRAWFORM REVISION: 7 AUGUST 2009

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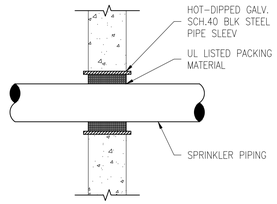
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23 APRIL 2025



1 RISER DETAIL
Scale: N.T.S.



2 INCOMING SUPPLY DETAIL
Scale: N.T.S.



3 SPRINKLER PENETRATION DETAIL
Scale: N.T.S.

KEYNOTES

1	EXISTING STUB-UP
2	DOUBLE CHECK DETECTOR ASSEMBLY BACKFLOW PREVENTER
3	RISER CHECK VALVE
4	DRAIN PIPING
5	FLOW SWITCH
6	CHECK VALVE
7	FDC INLET PIPING
8	FIRE DEPARTMENT CONNECTION
9	FORWARD FLOW TEST VALVE

Nominal Pipe Size

	½	1	1 ¼	1 ½	2	2 ½	3	3 ½	4	5	6	8
Steel Pipe exc threaded lightwall	NA	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
Threaded lightwall steel pipe	NA	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	12'-0"	NA	NA	NA	NA	NA
Copper tube	8'-0"	8'-0"	10'-0"	10'-0"	12'-0"	12'-0"	12'-0"	15'-0"	15'-0"	15'-0"	15'-0"	15'-0"
CPVC	5'-6"	6'-0"	6'-6"	7'-0"	8'-0"	9'-0"	10'-0"	NA	NA	NA	NA	NA
Ductile-Iron Pipe	NA	NA	NA	NA	NA	NA	15'-0"	NA	15'-0"	NA	15'-0"	15'-0"

4 HANGAR SPACING SCHEDULE
Scale: N.T.S.

APPR | DATE | DESCRIPTION | SYM

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NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FL

MARITIME MINING FACILITY

FIRE SUPPRESSION DETAILS

SCALE:	AS SHOWN
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

FX501

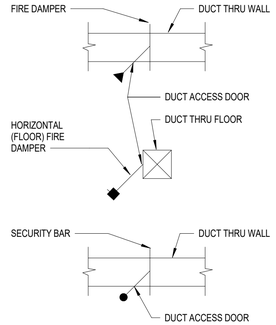
FILE NAME: \\NAEAAKSFS101v.ndsusses.nods.navy.mil\CS020$\NAVFAC_JAXS_1\AA\CIB\1 Project_Files\FLORIDA\NAVAL SUPPORT ACTY PANAMA CITY\PH\N61008\MARITIME MINING FACILITY CIP PROJECT-1802981\Working Technical Files\Fire Protection\DWG\FX501 FIRE SUPPRESSION DETAILS.dwg LAYOUT NAME: FX501 FIRE SUPPRESSION DETAILS PLOTTED: Thursday, May 01, 2025 - 3:44pm USER: jesse.rodak

SHEET FORMAT IS 22" X 34". IF PRINTED SHEET IS NOT 22" X 34", THEN IT IS NOT TO SCALE

MECHANICAL LEGEND

- THERMOSTAT
- HUMIDITY SENSOR
- AIR TERMINAL TAG WITH AIR FLOW (CFM) — 150
- EMERGENCY HVAC SYSTEM SHUTOFF SWITCH — $
- SPACE CO2 SENSOR / DDC POINT TAG — XXX
- 12"x10" RECTANGULAR DUCT DIMENSIONS (INCHES)
- 12"Ø ROUND DUCT DIMENSION
- FLEXIBLE ROUND DUCT (5'-0" MAX LENGTH)
- DOWNWARD DIRECTION OF SLOPED PIPING
- SUPPLY DUCT, SUPPLY DUCT DOWN/UP
- RETURN DUCT, RETURN DUCT DOWN/UP
- 2-WAY VALVE
- 3-WAY VALVE
- AUTOMATIC BALANCING VALVE
- BALL VALVE
- BUTTERFLY VALVE
- CHECK VALVE
- DRAIN VALVE
- GATE VALVE
- GLOBE VALVE
- MANUAL FLOW CONTROL BALANCING VALVE
- PRESSURE REDUCING VALVE
- RELIEF VALVE
- SOLENOID VALVE
- SQAURE HEAD BALANCING VALVE
- TEMPERATURE PRESSURE RELIEF VALVE
- BACKFLOW PREVENTER
- AUTOMATIC AIR VENT
- ECCENTRIC REDUCER
- FLANGE
- MANUAL AIR VENT
- PIPE CAP
- PIPE DOWN
- SUCTION REDUCER
- PIPE UP
- PRESSURE GAUGE WITH SHUTOFF COCK
- STEAM TRAP
- STRAINER WITH BLOWDOWN VALVE
- THERMOMETER
- UNION
- VACUUM BREAKER
- WYE STRAINER
- DPS — DIFFERENTIAL PRESSURE SENSOR (DUCTWORK)
- NEW WORK NOTE TAG
- DEMOLITION NOTE TAG
- POINT OF CONNECTION TAG
- POINT OF DISCONNECTION TAG
- * — POINT SUPPLIED BY UNIT MANUFACTURER
- AVERAGING TEMPERATURE SENSOR

- VERTICAL (WALL) FIRE DAMPER
- HORIZONTAL (CEILING) FIRE DAMPER
- AD — ACCESS DOOR (AD), ACCESS PANEL (AP)
- VOLUME DAMPER
- EXHAUST AIR (NEG.) DUCT SECTION
- VRF CEILING CASSETTE
- VRF CEILING CASSETTE DUCTED
- VRF DUCTED FAN COIL UNIT
- VENT THRU FLOOR/ ROOF
- RISE IN DUCT (POINT IS HIGH)



- TEE WITH TURNING VANES

DETAIL/SECTION TITLE	DETAIL CALLOUT SYMBOL	SECTION CUT SYMBOL
SECTION, DETAIL OR ELEVATION IDENTIFICATION MARK SECTION, DETAIL OR ELEVATION TITLE XX / X-XXX PLATE NUMBER WHERE SECTION, DETAIL OR ELEVATION IS TAKEN	DETAIL NUMBER PLATE NUMBER WHERE DETAIL IS DRAWN XX / X-XXX	SECTION LETTER PLATE NUMBER WHERE SECTION IS DRAWN XX / X-XXX VIEW SECTION

MECHANICAL PIPING LEGEND

- (NAME) — PIPING TO BE REMOVED
- CWR — CONDENSER WATER RETURN PIPING
- CWS — CONDENSER WATER SUPPLY PIPING
- CHWR — CHILLED WATER RETURN PIPING
- CHWS — CHILLED WATER SUPPLY PIPING
- CND — CONDENSATE DRAIN PIPING
- DCW — DOMESTIC COLD WATER PIPING
- DHW — DOMESTIC HOT WATER PIPING
- DTR — DUAL TEMPERATURE RETURN PIPING
- DTS — DUAL TEMPERATURE SUPPLY PIPING
- G — NATURAL GAS PIPING
- HG — HOT GAS BYPASS PIPING
- HPS — HIGH PRESSURE STEAM PIPING
- HWR — HOT WATER RETURN PIPING
- HWS — HOT WATER SUPPLY PIPING
- LPC — LOW PRESSURE CONDENSATE PIPING
- LPS — LOW PRESSURE STEAM PIPING
- RL — REFRIGERANT LIQUID PIPING
- RS — REFRIGERANT SUCTION PIPING
- VAC — VACUUM (AIR)

MECHANICAL ABBREVIATIONS

A/C	AIR CONDITIONING
AC	ABOVE CEILING
AD	ACCESS DOOR
AFD	ACCESS FLOOR DIFFUSER
AFF	ABOVE FINISHED FLOOR
AFMS	AIRFLOW MEASURING AND CONTROL STATION
AHU	AIR HANDLING UNIT
AI	ANALOG INPUT
AL	ACOUSTIC LINING (DUCTWORK)
AO	ANALOG OUTPUT
AP	ACCESS PANEL
APD	AIR PRESSURE DROP
AS	AIR SEPARATOR
ATFP	ANTI-TERRORISM FORCE PROTECTION
AV	ANALOG VALVE
B	BOILER
BAS	BUILDING AUTOMATIC SYSTEM (DDC)
BD	BALANCING DAMPER
BDD	BACKDRAFT DAMPER (DUCTWORK)
BG	BELOW GROUND
BHP	BRAKE HORSEPOWER
BI	BINARY INPUT
BO	BINARY OUTPUT
BOD	BOTTOM OF DUCT
BR	BASEBOARD RADIATOR
BTUH	BRITISH THERMAL UNITS PER HOUR
BV	BINARY VALUE
C	COMMON
CC	CEILING CASSETTE / COOLING COIL
CD	CEILING DIFFUSER
CER	CEILING EXHAUST REGISTER
CFM	CUBIC FEET PER MINUTE
CFT	CHEMICAL FEED TANK
CH	CHILLER
CHR	CHILLED WATER RETURN
CHS	CHILLED WATER SUPPLY
CLG	CEILING
CND	CONDENSER
COP	COEFFICIENT OF PERFORMANCE
COV	CHANGE OF VALUE
CRAHU	COMPUTER ROOM HANDLING UNIT
CRG	CEILING RETURN GRILLE
CSD	CEILING SUPPLY DIFFUSER
CT	COOLING TOWER
CTG	CEILING TRANSER GRILLE
CU	CONDENSING UNIT
CUH	CABINET UNIT HEATER
Cv	LOSS COEFFICIENT
CW	CHILLED WATER
DB	DRY BULB
DCW	DOMESTIC COLD WATER (POTABLE)
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREE
DIA	DIAMETER
DOAS	DEDICATED OUTSIDE AIR UNIT
DW	DOUBLEWALL (DUCTWORK)
DWGS	DRAWINGS
DX	DIRECT EXPANSION
EA	EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EC	ELECTRIONICALLY COMMUTATED (MOTOR) / ELECTRIC HEAT COIL
EER	ENERGY EFFICENCY RATIO
EF	EXHAUST FAN
EFF	EFFECTIVENESS / EFFICIENCY

MECHANICAL ABBREVIATIONS

ERV	ENERGY RECOVERY VENTILATOR
ESP	EXTERNAL STATIC PRESSURE
ESS	EMERGENCY SHUTOFF SWITCH
EWH	ELECTRIC WATER HEATER
EWT	ENTERING WATER TEMPERATURE
EX	EXISTING
F	FAHRENHEIT
FCU	FAN COIL UNIT
FD	FIRE DAMPER
FT	FEET
FT WG	FEET WATER GAUGE
G	NATURAL GAS
GH	GRAVITY HOOD
GPM	GALLONS PER MINUTE
GRH	GRAVITY ROOF HOOD
HC	HEAT COIL (DX)
HGRH	HOT GAS REHEAT
HHWS	HOT HEATING WATER SYSTEM
HP	HEAT PUMP, HORSEPOWER
HR	HOUR / HEAT RECOVERY
HT	HEIGHT
HW	HOT WATER
HX	HEAT EXCHANGER
IAW	IN ACCORDANCE WITH
IBS	IN BEAM SPACE
IC	IN CEILING
IDU	INDOOR UNIT
IN.	INCH
IWG	INCHES WATER GAUGE
KW	KILOWATT
LBS	POUNDS
LV	LOUVER
LWT	LEAVING WATER TEMPERATURE
MAU	MAKE-UP AIR UNIT
MAX	MAXIMUM
MBH	1,000 BTUH
MCA	MAXIMUM CIRCUIT AMPS
MD	MOTOR OPERATED DAMPER
MIN	MINIMUM
NC	NORMALLY CLOSED, NOISE CRITERIA
NO	NUMBER, NORMALLY OPEN
NP	NOT PROVIDED
OA	OUTSIDE AIR
OAU	OUTSIDE AIR UNIT
OCC	OCCUPANCY
ODU	OUTDOOR UNIT
OF	ON FLOOR
OG	ON GRADE
OH	OPPOSITE HAND
OR	ON ROOF
OW	ON WALL
PA	PRIMARY AIR (VAV TERMINAL)
PH	PHASE
PRV	POWER ROOF VENTILATOR
PSIG	POUNDS PER SQUARE INCH GAUGE
PTP	PRESSURE/TEMPERATURE TEST PORT
QTY	QUANTITY
RA	RETURN AIR
RC-X	REHEAT COIL - NUMBER
RD	ROOF DRAIN
RH	RELATIVE HUMIDITY
RL	REFRIGERANT LIQUID
RS	REFRIGERANT SUCTION
SA	SUPPLY AIR
SAT	SUPPLY AIR TEMPERATURE
SD	STORM DRAIN
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SF-X	SUPPLY FAN - NUMBER
SIM	SIMILAR
SP	STATIC PRESSURE
SQ	SQUARE
SQFT	SQUARE FEET
TC	THRU CEILING
TF	THRU FLOOR
TR	THRU ROOF
TYP.	TYPICAL
UH	UNIT HEATER
UOI	UNLESS OTHERWISE INDICATED
UON	UNLESS OTHERWISE NOTED
V	VOLTS
VAV	VARIABLE AIR VOLUME
VFD	VARIABLE FREQUENCY DRIVE
VWV	VARIABLE WATER VOLUME
W	WIDTH
WB	WET BULB
WC	WATER COLUMN (PRESSURE)
WH	WALL HOOD
WL	WALL LOUVER
WMS	WIRE MESH SCREEN
WPD	WATER PRESSURE DROP
°	DEGREES
Ø	DIAMETER
Φ	OVAL

GENERAL MECHANICAL NOTES

1. THESE GENERAL MECHANICAL NOTES APPLY TO ALL MECHANICAL DRAWINGS IN THIS SET. SHEET SPECIFIC NOTES ARE INDICATED ON EACH SHEET UNDER GENERAL SHEET NOTES.
2. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE MECHANICAL SYSTEMS AS INDICATED ON THE DRAWINGS, AS SPECIFIED, AND AS REQUIRED BY CODE AND APPLICABLE UFCs.
3. INSTALL ALL MECHANICAL EQUIPMENT AND APPURTENANCES IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS, CONTRACT DOCUMENTS, APPLICABLE CODES, REGULATIONS, AND APPLICABLE UFCs.
4. TESTING AND BALANCING (TAB): TAB ALL EQUIPMENT AND DUCTWORK; 2-SEASONS. SEE SECTION 23 05 93 FOR COMPLETE REQUIREMENTS.
5. MECHANICAL EQUIPMENT, WHICH IS PROVIDED WITH MANUFACTURER'S INSTALLED CONTROLS, SHALL BE STARTED UP BY THE MANUFACTURER'S REPRESENTATIVE IN CONJUNCTION WITH THE CONTROLS CONTRACTOR (NOT MECHANICAL CONTRACTOR). TRAINING AND MANUALS FOR THE MANUFACTURER'S INSTALLED CONTROLS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER'S REPRESENTATIVE. CONTROLS CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH MANUFACTURER'S REPRESENTATIVE FOR THE COMMUNICATION OF THE DDC SYSTEM TO THE MANUFACTURER'S INSTALLED CONTROLS.
6. CONCEAL ALL DUCTWORK AND PIPING ABOVE SUSPENDED CEILINGS AND IN WALLS, UNLESS OTHERWISE NOTED.
7. PROVIDE VIBRATION ISOLATORS FOR ALL MECHANICAL EQUIPMENT AND PIPING TO PREVENT TRANSMISSION OF VIBRATION TO BUILDING STRUCTURE.
8. PROVIDE ACCESS PANELS IN WALLS AND CEILINGS, WHERE REQUIRED, TO SERVE FIRE DAMPERS, VALVES, SMOKE DETECTORS, AND OTHER CONCEALED MECHANICAL EQUIPMENT THAT REQUIRES ROUTINE MAINTENANCE. ACCESS PANELS SHALL BE SIZED AS REQUIRED TO ALLOW WORKING CLEARANCE FOR DUCT ACCESS DOORS.
9. ALL 90 DEGREE RECTANGULAR MITERED DUCT ELBOWS IN SUPPLY AND RETURN DUCTWORK SHALL HAVE TURNING VANES. PROVIDE AN ACCESS DOOR UPSTREAM OF ELBOW FOR TURNING VANE INSPECTION AND CLEANING.
10. PROVIDE PIPE SLEEVES FOR ALL PIPING PENETRATIONS THRU WALLS AND FLOORS. EACH PIPE SHALL BE SEPARATELY SLEEVED. PROVIDE CONTINUOUS SEALANT JOINT AROUND PIPE SLEEVE, BOTH SIDES OF WALL, WATERTIGHT.
11. ALL OPENINGS IN FIRE WALLS DUE TO DUCTWORK, PIPING, CONDUIT, ETC., SHALL BE FIRE STOPPED.
12. PROVIDE P-TRAPS IN CONDENSATE DRAIN PIPING AT EACH COOLING COIL UNLESS THE UNIT IS EQUIPPED WITH AN INTERNAL TRAP.
13. CONDENSATE DRAIN PIPING CLEANOUTS SHALL BE INSTALLED AT EACH CHANGE IN DIRECTION GREATER THAN 45 DEGREES. WHERE MORE THAN ONE CHANGE OF DIRECTION OCCURS IN A RUN OF PIPING, ONLY ONE CLEANOUT SHALL BE REQUIRED FOR EACH 40 FEET OF DEVELOPED LENGTH. COMBINATION WYE AND 1/8 BENDS SHALL BE USED IN LIEU OF TEES. UNLESS OTHERWISE INDICATED ALL CONDENSATE LINES SHALL SLOPE DOWNWARD AND BE GRAVITY FED.
14. MOUNT THERMOSTATS 48 INCHES ABOVE THE FINISHED FLOOR AND RECESSED, FLUSH WITH WALL SURFACE, WHERE POSSIBLE UNLESS OTHERWISE NOTED. SEE ELECTRICAL DRAWINGS FOR COORDINATION WITH LIGHT SWITCHES.

DESIGN CONDITIONS

	SUMMER		WINTER	
	DB (°F)	WB (°F) / RH	DB (°F)	WB (°F) / RH
OUTDOOR AMBIENT	90	79	28	-
ELEC / MECH	80	50%	65	-
OFFICES / SHOP ASSEMBLY	78	50%	68	-
TELECOM ROOM	78	50%	68	-

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PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

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NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY

MECHANICAL LEGEND, ABREVIATIONS AND NOTES

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
M001

VENTILATION CALCULATIONS AHU-1

NAME	AREA IN S.F. (Az)	OUTSIDE AIR REQUIRED PER ASHRAE 62.1 2016			CALCULATIONS				VENT REQUIRED		EXHAUST					
											EXHAUST PER AREA		EXHAUST PER FIXTURE			TOTAL EXHAUST
		CFM / PERSON (Rp)	CFM / AREA (Ra)	PEOPLE / 1000 S.F.	POPULATION (Pz)	CFM / PERSON (Rp*Pz)	CFM / AREA (Ra*Az)	CFM / SPACE (Vbz)	EFFECTIVENESS (Ez)	VENT (Voz)	CFM PER S.F.	EXHAUST CFM	PER FIXTURE CFM	NUMBER OF FIXTURES	FIXTURE EXHAUST	
103 MECHANICAL ROOM	86	---	0.06	---	---	---	5	5	1	5	---	---	---	---	---	---
104 TELECOMM ROOM	86	---	---	---	---	---	---	0	---	---	---	---	---	---	---	---
106 ELECTRICAL ROOM	87	---	0.06	---	---	---	5	5	1	5	---	---	---	---	---	---
105 TOILET	50	---	0.06	---	---	---	3	3	1	3	---	---	50	1	50	50
102 SENSOR LAB	449	5	0.06	5	2	10	27	37	1	37	---	---	---	---	---	---
101 HIGH-BAY (SHOP ASSEMBLY)	2265	5	0.06	5	2	10	138	148	1	148	---	---	---	---	---	---
107 SECURE ROOM	264	5	0.06	5	2	10	16.4	26	1	26	---	---	---	---	---	---
201 MEZZANINE	822	5	0.06	5	2	10	67.08	77	1	77	---	---	---	---	---	---
TOTAL SF: 4175 S.F.				PEOPLE COUNT: 8		UNCORRECTED VENT: 301 CFM			TOTAL VENT REQUIRED: 310 CFM					TOTAL EXHAUST: 50 CFM		

DX AIR HANDLING UNIT SCHEDULE

MARK	CFM	OUTDOOR AIR FLOW (CFM)	COOLING COIL							HEATING PERFORMANCE		ELECTRICAL						WEIGHT (LBS)
			TOTAL COOLING CAPACITY	SENSIBLE COOLING CAPACITY	LATENT CAPACITY	EAT DB	EAT WB	LAT DB	LAT WB	HEAT PUMP CAPACITY	AUXILIARY ELECTRIC HEAT CAPACITY	PHASE	HERTZ	VOLTAGE	MCA (AMPS)	MOP	FLA	
AHU-1	3,200	310	117,070 Btu/h	86,630 Btu/h	30,550 Btu/h	91.0	73.0	52.0	52.0	113,960 Btu/h	51,080 Btu/h	3	60	208	54.0	60.0	6.8	442

NOTES:

1. PROVIDE MANUFACTURER ROUTING OF REFRIGERANT LINES, AND SIZE PIPES AS PER MANUFACTURER'S GUIDELINES AND APPROVAL.
2. PROVIDE DRAIN PAN LEVEL SENSOR. SENSOR SHALL SHUT FOWN INDOOR UNIT WHEN HIGH CONDENSATE LEVEL IS SENSED.

DX CONDENSING UNIT SCHEDULE

MARK	SERVICE	NOMINAL CAPACITY (TONS)	NO. COMPRESSORS	REFRIGERANT TYPE	EER	ELECTRICAL		
						V/PH/HZ	MCA	MOP
CU-1	AHU-1	10	1	R-410a	11.3	208-230/3/60	45.0	70.0

NOTES:

1. PROVIDE MANUFACTURER ROUTING OF REFRIGERANT LINES, AND SIZE PIPES AS PER MANUFACTURER'S GUIDELINES AND APPROVAL.

LOUVER SCHEDULE

MARK	SERVICE	AIRFLOW	NOMINAL SIZE (IN)	MAX. FACE VELOCITY (FT/MIN)	MINIMUM FREE AREA (SQ FT)	PRESSURE DROP (MAX INCHES WG.)	NOTES
L-1	OUTDOOR AIR	310	14x14	500	1	0.08	ALL
L-2	RESTROOM EXHAUST	50	6x6	700	0.5	0.08	1
L-3	RELIEF AIR	100	6x6	500	0.5	0.08	1

NOTES:

1. COORDINATE LOUVER COLOR WITH ARCHITECT.
2. INTAKE LOUVER TO BE HURRICANE RATED, HIGH WIND-DRIVEN RAIN RESISTANT WITH DRAINABLE HEAD MEMBER AND VERTICAL RAIN RESISTANT BLADES.
3. PROVIDE MOTORIZED DAMPER FOR INTAKE LOUVER.

DUCTLESS SPLIT-SYSTEM - INDOOR UNIT

MARK	CFM	COOLING COIL			SEER	ELECTRICAL				NOTES
		TOTAL CAPACITY (BTUH)	EAT DB (°F)	EAT WB (°F)		V	PH	FLA	MCA	
IDU-1	400	12,000	95.0	75.0	21	208	1	0.2	1.0	ALL

NOTES:

1. PROVIDE DRAIN PAN LEVEL SENSOR. SENSOR MUST SHUT DOWN INDOOR UNIT WHEN HIGH CONDENSATE LEVEL IS SENSED.
2. PROVIDE MANUFACTURER EXACT ROUTING OF REFRIGERANT LINES, AND SIZE PIPES AS PER MANUFACTURER'S GUIDELINES AND APPROVAL.
3. ADHERE TO MANUFACTURER'S INSTRUCTIONS AND GUIDELINES.
4. PROVIDE 120V CONDENSATE PUMP WITH RESERVOIR AND SENSOR BY UNIT MANUFACTURER. COORDINATE WITH ELECTRICAL.

DUCTLESS SPLIT-SYSTEM SCHEDULE- OUTDOOR UNIT

MARK	SERVICE	REFRIGERANT TYPE	SEER	ELECTRICAL DATA				WEIGHT (LBS)
				V	PH	MCA	MOCP	
OU-1	IDU-1, TELECOMM ROOM	R-410a	21	208	1	11	28	92

DIFFUSERS, REGISTERS, AND GRILLES SCHEDULE

MARK	DESCRIPTION	MAX. APD (IN. WC)	FACE SIZE WxH(IN)	MAX. ALLOWED N.C.
A	LAY-IN DIFFUSER	0.10	24x24	20
B	SIDEWALL SUPPLY	0.10	8x8	30
C	SIDEWALL SUPPLY	0.10	6x6	30
E	LAY-IN RETURN GRILLE	0.10	24x24	20
F	RETURN GRILLE	0.09	28x28	25

EXHAUST FAN SCHEDULE

MARK	LOCATION	SERVICE	TYPE	CFM	ESP (IN.WG)	FAN DATA	ELECTRICAL DATA				REMARKS
						RPM	W	V	PH	Hz	
EF-1	105 TOILET	RESTROOM	CEILING MOUNTED	50	0.5	700	20.0	120	1	60	ALL

NOTES:

1. INTERLOCK WITH OCCUPANCY SENSOR

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES ANM | DRW ANM | CHK JW

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH L. GUTHRIE

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY

MECHANICAL SCHEDULES

SCALE: AS NOTED

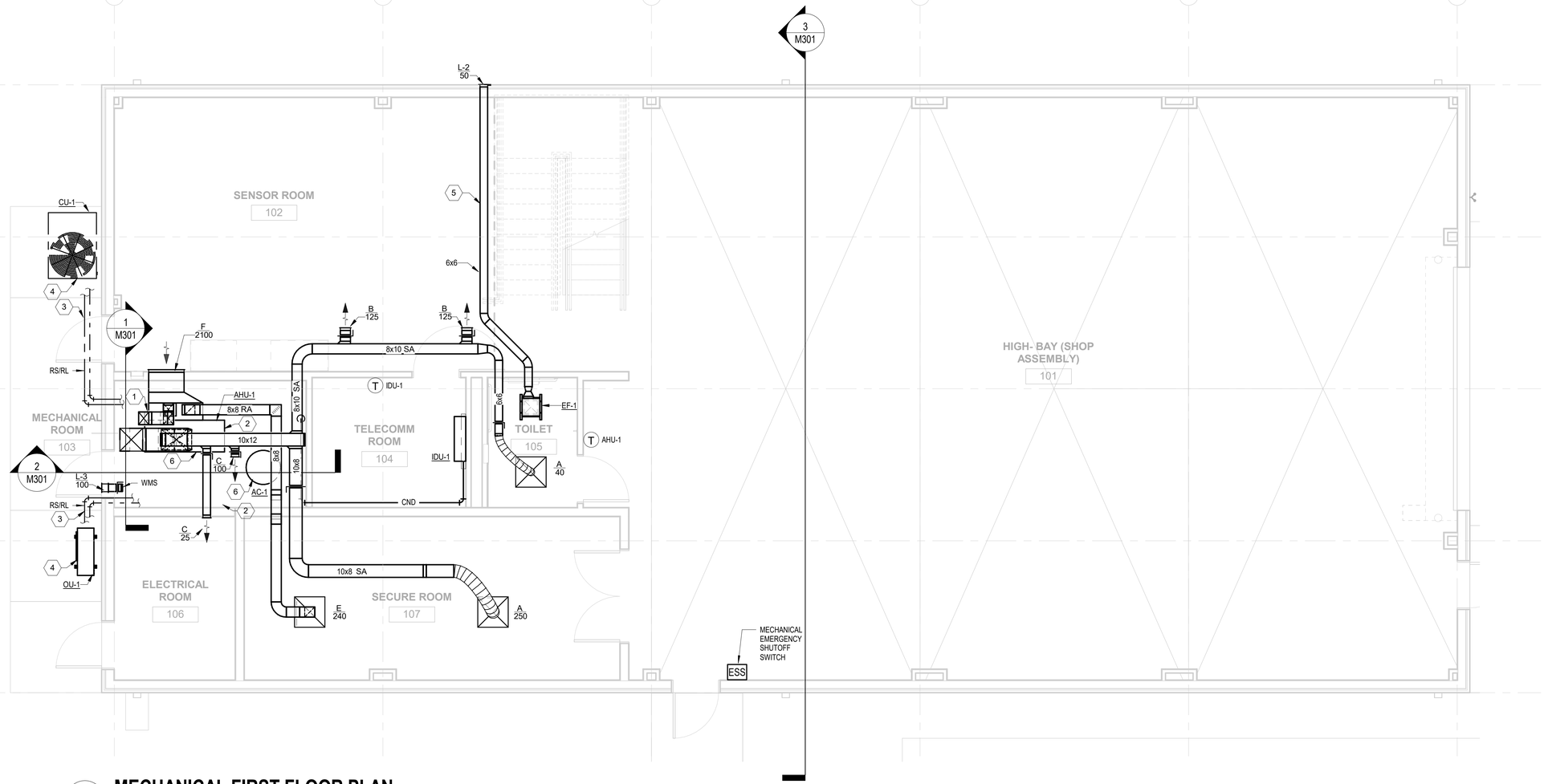
EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

M002



1 MECHANICAL FIRST FLOOR PLAN

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

GENERAL NOTES

1. PROVIDE MANUAL VOLUME DAMPERS IN ALL RUN-OUTS TO DIFFUSERS, AT ALL BRANCH TAKE-OFFS FROM MAIN SUPPLY DUCT, AND IN ALL OTHER AREAS AS REQUIRED TO PROVIDE PROPER SYSTEM BALANCING.
2. ALL SUPPLY AIR DUCT RUN-OUTS TO DIFFUSERS AND VAV BOXES SHALL BE SIZED TO MATCH DIFFUSER NECK SIZE OR VAV BOX INLET SIZE UNLESS OTHERWISE INDICATED.
3. PLAN DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT ILLUSTRATE ALL SPECIFIC DUCT TAKE-OFF CONFIGURATIONS, TAPS, ETC. REFER TO PROJECT SPECIFICATIONS AND DUCTWORK DETAILS FOR SPECIFIC REQUIREMENTS. LOCATE ALL DUCTWORK AND EQUIPMENT SO AS TO CLEAR ALL OBSTACLES.
4. ALL EQUIPMENT SHALL BE INSTALLED WITH MANUFACTURER'S REQUIRED ACCESS SPACE BETWEEN UNIT AND FULL HEIGHT WALLS AND OTHER OBSTRUCTIONS.
5. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
6. COORDINATE ALL HVAC INSTALLATIONS WITH ALL APPLICABLE TRADES.
7. VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START OF INSTALLATION OF ALL MECHANICAL EQUIPMENT. CONSTRUCTION DISCREPANCIES TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER FOR A RESOLUTION.
8. COORDINATE ALL REQUIRED CONDUIT, PIPING AND CHASES FOR GOVERNMENT FURNISHED GOVERMENT INSTALLED EQUIPMENT WITH THE GOVERNMENT.

(#) NEW WORK NOTES

1. ROUTE SUPPLY AND OUTSIDE AIR DUCTWORK UP TO MEZZANINE LEVEL, COORDINATE WITH STRUCTURAL.
2. ROUTE CONDENSATE PIPING DOWN TO FLOOR DRAIN.
3. PROVIDE INSULATED RS/RL LINES FASTENED ALONG EXTERIOR WALL. VERIFY FINAL DIAMETER WITH APPROVED MANUFACTURER, AND INSTALL IN ACCORDANCE WITH MANUFACTURER INSTRUCTION.
4. COORDINATE CLEARANCES WITH MANUFACTURER RECOMMENDATIONS. COORDINATE WITH CIVIL TO PROVIDE ACCURATELY PLACED CONCRETE EQUIPMENT PADS.
5. PROVIDE WELDED AND PAINTED 1-1/2" X 1-1/2" X 1/8" ANGLE BRACKET. ATTACH TO STAIRCASE TO PROVIDE SUPPORT FOR EXHAUST DUCT. ENSURE DUCT HANGERS DO NOT CONFLICT WITH OVERHEAD CRANE.
6. PROVIDE 4" TALL HOUSE KEEPING PAD WITH CHAMFERED EDGES EXTENDING 6" BEYOND UNIT.

PLAN NORTH

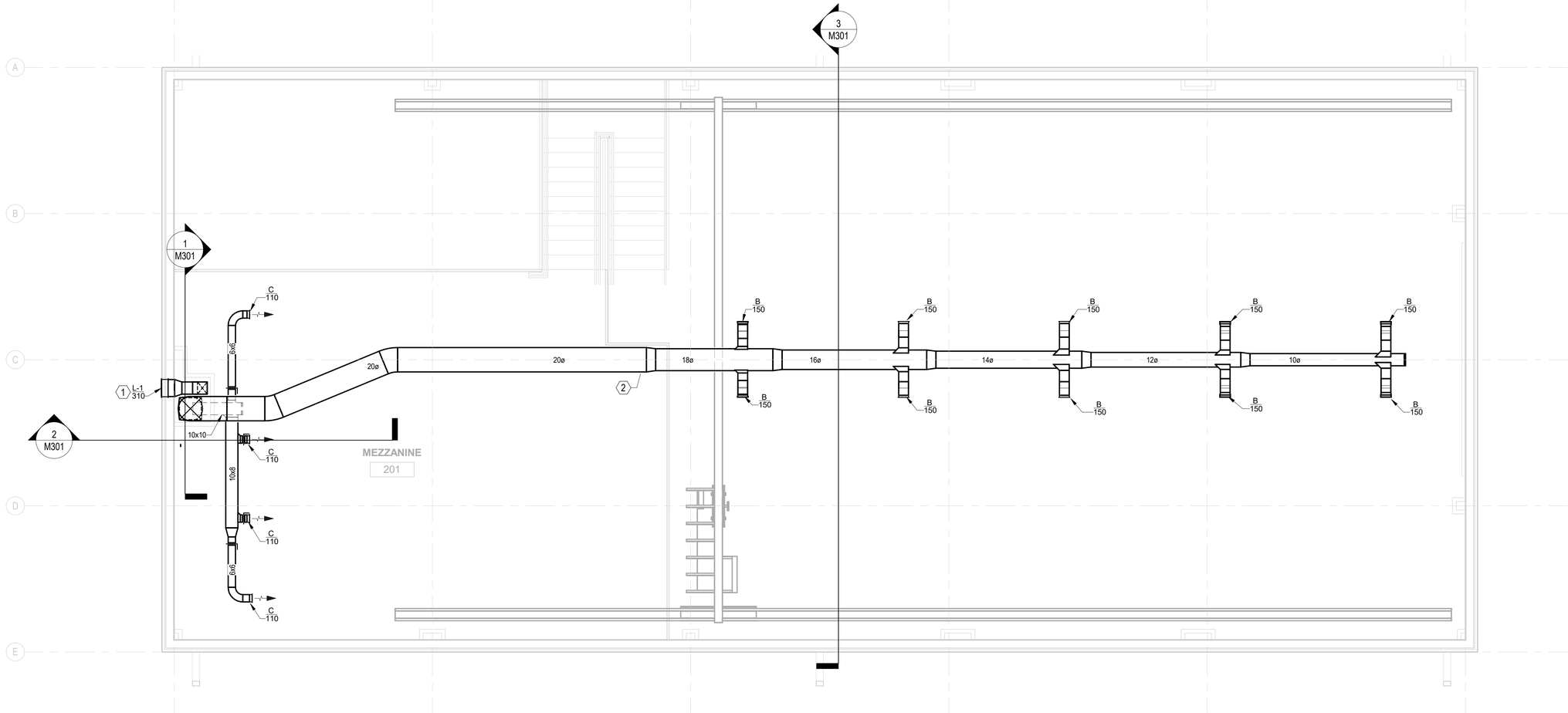
SYM	DESCRIPTION	DATE	APPR

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NOT FOR CONSTRUCTION

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES ANM | DRW ANM | CHK JW
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
MECHANICAL FIRST FLOOR PLAN

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
MH101



1 MECHANICAL MEZZANINE FLOOR PLAN

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

GENERAL NOTES

1 PROVIDE MANUAL VOLUME DAMPERS IN ALL RUN-OUTS TO DIFFUSERS, AT ALL BRANCH TAKE-OFFS FROM MAIN SUPPLY DUCT, AND IN ALL OTHER AREAS AS REQUIRED TO PROVIDE PROPER SYSTEM BALANCING.
2 ALL SUPPLY AIR DUCT RUN-OUTS TO DIFFUSERS AND VAV BOXES SHALL BE SIZED TO MATCH DIFFUSER NECK SIZE OR VAV BOX INLET SIZE UNLESS OTHERWISE INDICATED.
3 PLAN DRAWINGS ARE DIAGRAMMATIC IN NATURE AND DO NOT ILLUSTRATE ALL SPECIFIC DUCT TAKE-OFF CONFIGURATIONS, TAPS, ETC. REFER TO PROJECT SPECIFICATIONS AND DUCTWORK DETAILS FOR SPECIFIC REQUIREMENTS. LOCATE ALL DUCTWORK AND EQUIPMENT SO AS TO CLEAR ALL OBSTACLES.
4 ALL EQUIPMENT SHALL BE INSTALLED WITH MANUFACTURER'S REQUIRED ACCESS SPACE BETWEEN UNIT AND FULL HEIGHT WALLS AND OTHER OBSTRUCTIONS.
5 ALL WORK TO BE PERFORMED IN ACCORDANCE WITH APPLICABLE FEDERAL, STATE, AND LOCAL CODES.
6 COORDINATE ALL HVAC INSTALLATIONS WITH ALL APPLICABLE TRADES.
7 VERIFY ALL DIMENSIONS AND CONDITIONS PRIOR TO THE START OF INSTALLATION OF ALL MECHANICAL EQUIPMENT. CONSTRUCTION DISCREPANCIES TO BE BROUGHT TO THE IMMEDIATE ATTENTION OF THE CONTRACTING OFFICER FOR A RESOLUTION.
8 COORDINATE ALL REQUIRED CONDUIT, PIPING AND CHASES FOR GOVERNMENT FURNISHED GOVERMENT INSTALLED EQUIPMENT WITH THE GOVERNMENT.

(#) NEW WORK NOTES

1 INSTALL NEW INTAKE LOUVER TO SUPPLY REQUIRED VENTILATION AIR TO AIR HANDLER.
2 ROUTE SUPPLY DUCTWORK HIGH, TIGHT TO STRUCTURE. COORDINATE CLEARANCES WITH CRANE.

PLAN NORTH

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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SEAL

A/E INFO

APPROVED

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ACTIVITY

SATISFACTORY TO DATE

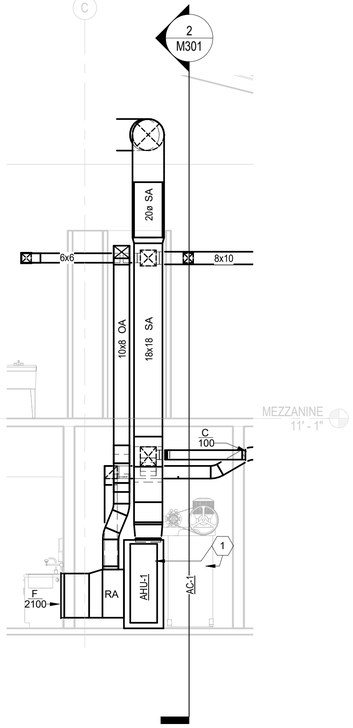
DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
MECHANICAL MEZZANINE FLOOR PLAN

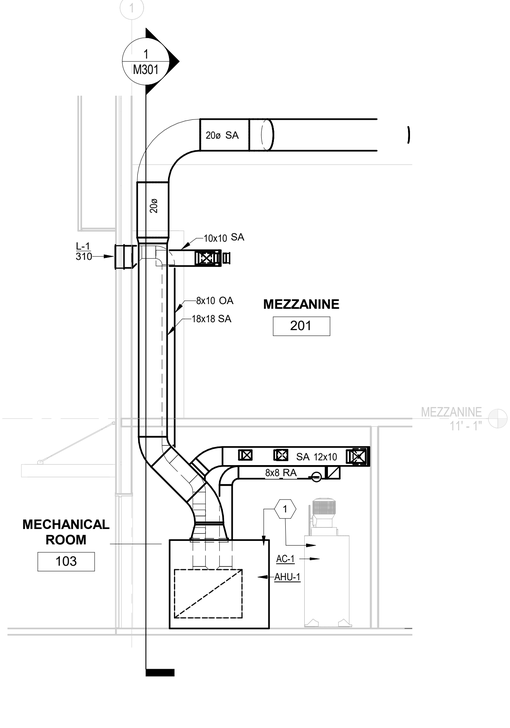
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CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

MH102



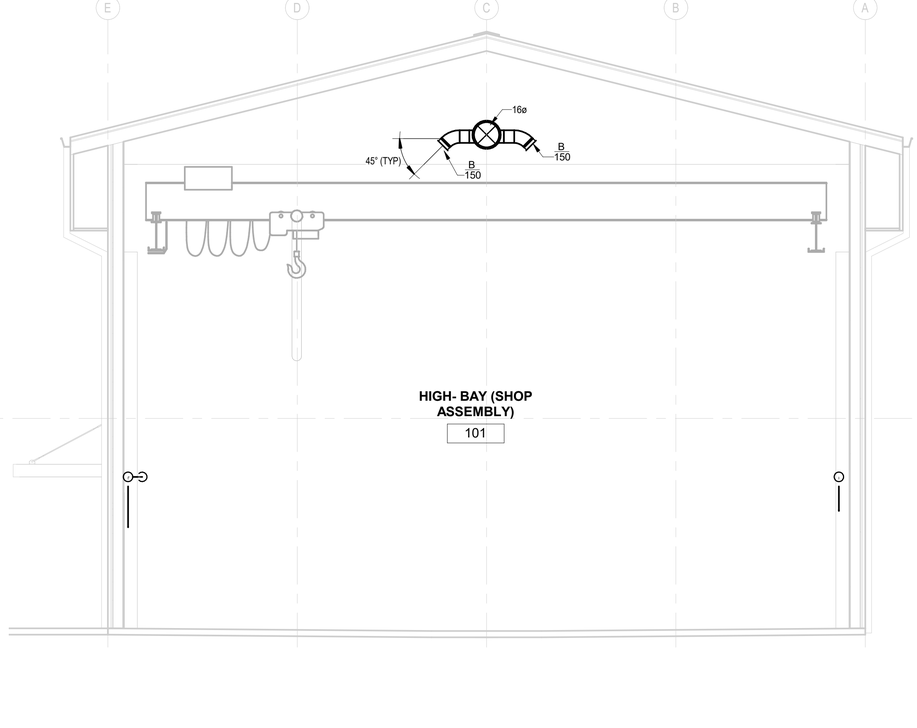
1 ENLARGED PLAN - MECHANICAL ROOM

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



2 ENLARGED PLAN - MECHANICAL ROOM AHU-1

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



3 HIGH-BAY (SHOP ASSEMBLY) SUPPLY DUCTWORK SECTION

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

#	NEW WORK NOTE
1	PROVIDE 4" TALL HOUSE KEEPING PAD WITH CHAMFERED EDGES EXTENDING 6" BEYOND UNIT.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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ACTIVITY

SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
MECHANICAL SECTIONS

SCALE: AS NOTED

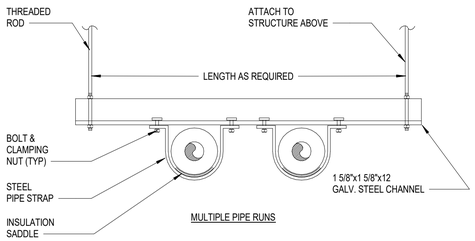
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CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

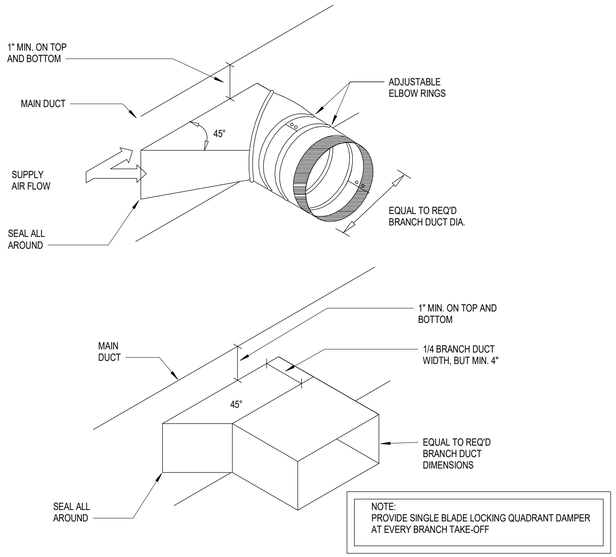
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M301



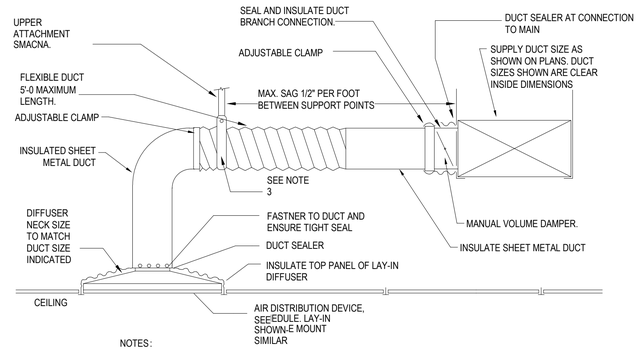
1 PIPE SUPPORT - DETAIL

SCALE: NOT TO SCALE



2 BRANCH DUCT TAKEOFF - DETAIL

SCALE: NOT TO SCALE

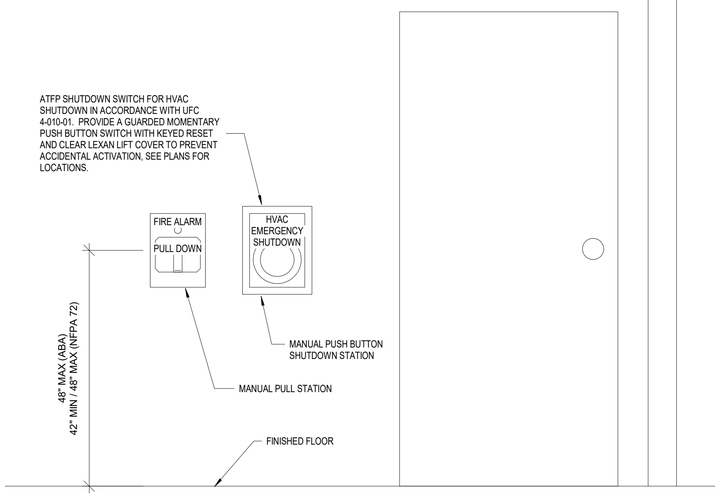


NOTES:

1. FLEXIBLE DUCTS SHALL BE ONE-PIECE AND SHALL NOT BE SPLICED TOGETHER.
2. EXTEND FLEXIBLE DUCT INSULATION TO DUCT/DIFFUSER PANEL INSULATION AND SEAL WITH MASTIC.
3. MINIMUM 1" WIDE 22 GA. GALVANIZED STRAP HANGER WITH HEMMED EDGES PER SMACNA DUCT MANUAL, FIGURE 3-10.
4. FLEXIBLE AIR DUCT SHALL BE FULLY EXTENDED AND NOT COMPRESSED. ELBOW RADIUS SHALL NOT BE LESS THAN R/D = 1.0.
5. SEAL ALL DUCT CONNECTIONS, COLLARS, AND FLANGES. INSULATE ALL DUCT CONNECTIONS, COLLARS,AND FLANGES. SEAL INSULATION SEAMS WITH MASTIC.

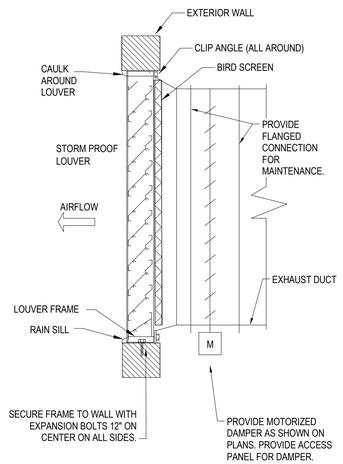
3 FLEXIBLE DUCT - DETAIL

SCALE: NOT TO SCALE



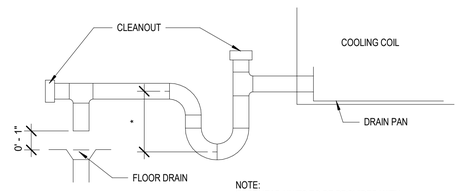
4 HVAC EMERGENCY SHUTDOWN - DETAIL

SCALE: NOT TO SCALE



5 LOUVER - DETAIL

SCALE: NOT TO SCALE



NOTE:
OVERHEAD UNITS TO BE PROVIDED WITH CONDENSATE PUMP IN LIEU OF P-TRAP AND GRAVITY DRAIN

* DEPTH OF TRAP TO MATCH MANUFACTURER'S RECOMMENDATIONS

6 CONDENSATE DRAIN AND TRAP - DETAIL

SCALE: NOT TO SCALE

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

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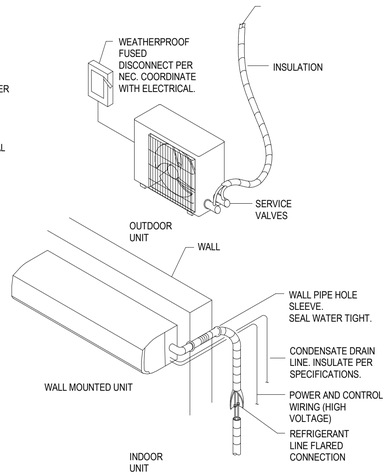
DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER K. MOOREHEAD
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FIRE PROTECTION A. KOUCHINSKY

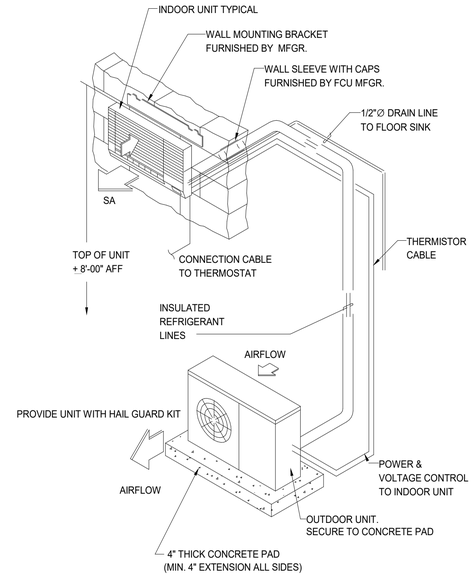
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
MECHANICAL DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
M501

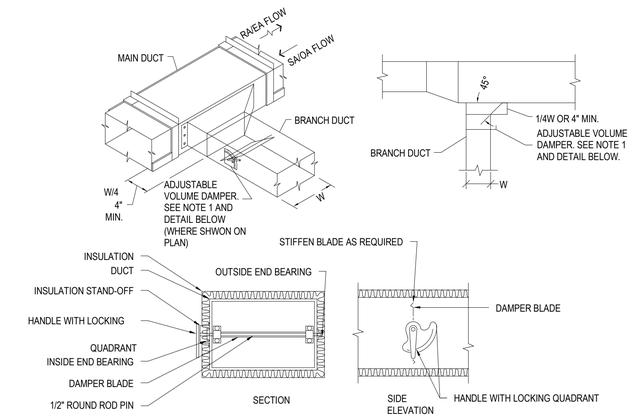
NOTES:
1. MOUNT UNIT PER MANUFACTURER SPECIFICATIONS AND MINIMUM INSTALLATION
2. INSTALL ACCORDING TO ALL APPLICABLE NATIONAL AND LOCAL ELECTRICAL, MECHANICAL AND BUILDING
3. CONDENSATE LINE AND POWER LINE SHOWN OFFSET FOR CLARITY.



1 DUCTLESS SPLIT SYSTEM - DETAIL
SCALE: NOT TO SCALE

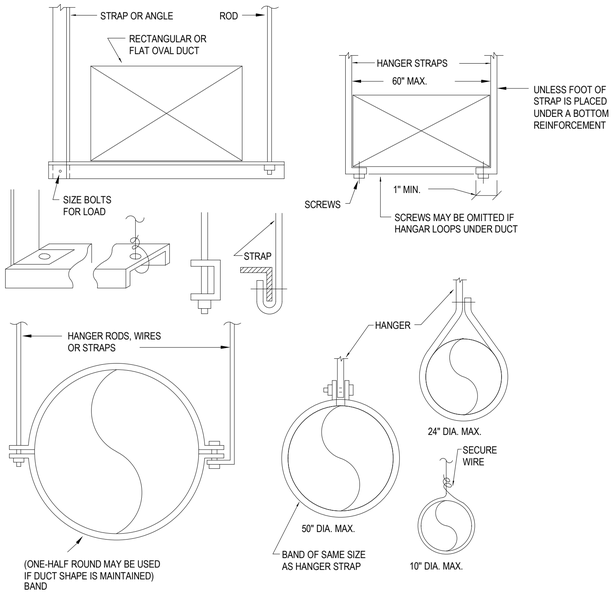


2 DUCTLESS SPLIT DOOR UNIT - DETAIL
SCALE: NOT TO SCALE



NOTES:
1. PROVIDE ADJUSTABLE VOLUME DAMPER WITH POSITIONING LEVER, EXTESION SECTION (INSULATED DUCT ONLY) AND LOCKING WING NUT. VOLUME DAMPER SHALL BE SINGLE BLADE OR MULTI-BLADE DEPENDING ON DUCT SIZE.
2. DELETE INSULATION STAND-OFF ON DUCTWORK WITHOUT EXTERIOR INSULATION.
3. DETAIL SHOWS SINGLE BLADE DAMPER. DAMPER INSTALLATION SHALL BE SIMILAR FOR MULTI-BLADE DAMPERS & ROUND DAMPERS.

3 BRANCH DUCT TAKEOFF - DETAIL
SCALE: NOT TO SCALE



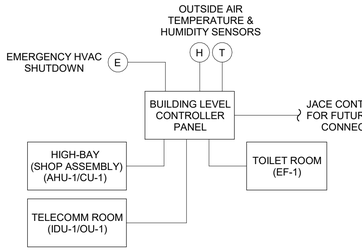
4 DUCT SUPPORT - DETAIL
SCALE: NOT TO SCALE

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APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE
DES ANM DRW ANM CHK JW
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENGR/ICH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
MECHANICAL DETAILS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
M502



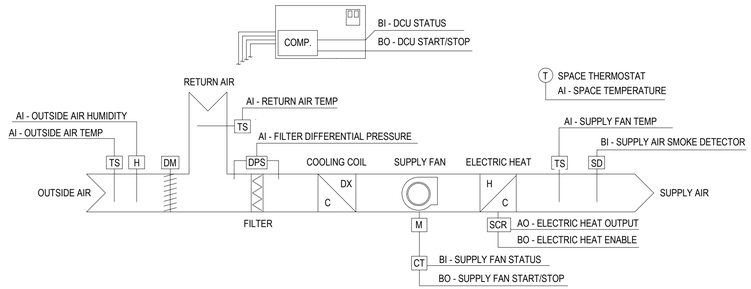
GENERAL
THE HVAC SYSTEM WILL BE MONITORED, ENABLED/DISABLED AND CONTROLLED THROUGH THE FACILITY ENERGY MANAGEMENT SYSTEM (EMS). THE EMS WILL COMMUNICATE TO ALL AHU CONTROLLERS IN OCCUPIED, UNOCCUPIED, OPTIMAL START, NIGHT SETBACK HEAT/COOL, DAY WARM-UP, AND TIMED OVERRIDE COMMANDS. IF COMMUNICATION IS LOST WITH THE BAS, OR BAS IS NOT PRESENT, MORNING WARM-UP, DAY WARM-UP, AND MORNING COOL-DOWN WILL BE DISABLED AND THE AHU'S CONTROLLERS SHALL CONTROL TO THE DEFAULT SETTINGS INSTALLED AT COMMISSIONING/START-UP.

HVAC EMERGENCY SHUTDOWN SWITCH
A 24 VAC WET CONTACT INPUT MUST BE USED TO SHUTDOWN THE HVAC UNITS IMMEDIATELY UPON ACTIVATION. ACTIVATION OF SWITCH WILL ALSO CLOSE INTAKE DAMPER. SWITCH OPERATION MUST BE IN COMPLIANCE WITH UFC 4-010-01. EMERGENCY SHUTDOWN SWITCH IS LOCATED IN THE HIGH-BAY SHOP AREA. REFER TO MH101.

OCCUPIED / UNOCCUPIED MODES
OCCUPIED MODE IS DESINED AS MONDAY THROUGH FRIDAY, 7:00 AM - 5:00 PM (ADJ). UNOCCUPIED MODE IS DEFINED AS ALL OTHER TIMES.

1 NEW DDC SYSTEM ARCHITECTURE

SCALE: NOT TO SCALE



2 AIR HANDLING UNIT CONTROL SCHEMATIC & SEQUENCE

SCALE: NOT TO SCALE

SYSTEM SEQUENCE OF OPERATION:

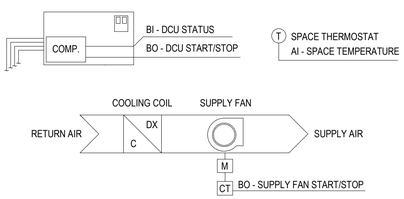
OCCUPIED MODE:
THE SUPPLY FAN WILL RUN CONTINUOUSLY AND THE OUTSIDE AIR DAMPER WILL OPEN TO MAINTAIN VENTILATION REQUIREMENTS. THE DX COOLING AND ELECTRIC HEAT WILL STAGE TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. OCCUPIED COOLING SETPOINT IS 74 F. OCCUPIED HEATING SETPOINT IS 68 F.

UNOCCUPIED MODE:
WHEN THE SPACE TEMPERATURE IS BELOW UNOCCUPIED HEATING SETPOINT OF 55 (ADJ), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL REAMIN CLOSED AND HEATING ENABLED. WHEN THE AVERAGE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT PLUS 2 F (ADJ), THE SUPPLY FAN WILL STOP AND HEATING WILL BE DISABLED.

WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT OF 85 F (ADJ), THE SUPPLY FAN WILL START, THE OUTSIDE AIR DAMPER WILL REMAIN CLOSED AND THE HT DX COOLING ENABLED. WHEN THE AVERAGE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS 2 F (ADJ), THE SUPPLY FAN WILL STOP AND THE DX COOLING WILL BE DISABLED.

OCCUPIED BYPASS:
THE BAS WILL MONITOR THE STATUS OF THE "OVERRIDE" BUTTONS OF THE SPACE TEMPERATURE SENSOR. WHEN AN OCCUPIED BYPASS REQUEST IS RECEIVED FROM A SPACE SENSOR, THE UNIT WILL TRANSITION FROM ITS CURRENT OCCUPANCE MODE TO OCCUPIED BYPASS MODE AND THE UNIT WILL MAINTAIN THE SPACE TEMPERATURE TO THE OCCUPIED SETPOINTS (ADJ).

AIR HANDLING UNIT POINTS LIST								
	HARDWARE POINTS				SOFTWARE POINTS			
POINT NAME	AI	AO	BI	BO	SCHED	TREND	ALARM	GRAPHIC
FAN STATUS			X			X		X
FAN START/STOP				X	X			
OUTSIDE AIR TEMPERATURE	X							X
OUTSIDE AIR HUMIDITY	X							
OUTSIDE AIR DAMPER OPEN/CLOSE			X	X	X			X
FILTER DIFFERENTIAL PRESSURE	X						X	
SUPPLY FAN TEMPERATURE	X					X		X
SUPPLY AIR SMOKE DETECTOR			X				X	X
ELECTRIC HEAT OUTPUT		X						
ELECTRIC HEAT ENABLE				X				
SPACE TEMPERATURE	X					X		X
DCU STATUS			X					
DCU START/STOP				X				
RETURN AIR TEMPERATURE	X					X		X



SYSTEM SEQUENCE OF OPERATION:

THE DUCTLESS SPLIT SYSTEM LOCAL CONTROLLER WILL START/STOP THE INDOOR UNIT AND OUTDOOR CONDENSING UNIT TO MAINTAIN SPACE COOLING SETPOINT (74 F) AT ALL TIMES. THE SYSTEM WILL BE MONITORED THROUGH THE BUILDING LEVEL CONTROLLER.

TEMPERATURE SETPOINTS ARE USER ADJUSTABLE. AN INDEPENDENT WALL-MOUNTED TEMPERATURE SENSOR WILL MONITOR ROOM TEMPERATURE AND SEND AN ALARM TO THE DDC PANEL IF ROOM TEMPERATURE RISES ABOVE 85 F FOR TELECOMM ROOM. DDC WILL MONITOR INDOOR AND OUTDOOR UNIT STATUS.

SPLIT SYSTEM POINTS LIST									
	HARDWARE POINTS				SOFTWARE POINTS				
POINT NAME	AI	AO	BI	BO	SCHED	TREND	LOOP	ALARM	GRAPHIC
FAN START/STOP				X			X		
SPACE TEMPERATURE	X					X		X	
DCU STATUS			X						
DCU START/STOP				X					

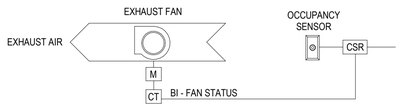
3 TELECOMM ROOM SPLIT SYSTEM CONTROL SCHEMATIC & SEQUENCE

SCALE: NOT TO SCALE

EXHAUST SYSTEM SEQUENCE OF OPERATION:

RUN CONDITIONS - CONTINUOUS:
THE FAN WILL RUN CONTINUOUSLY WHEN THE RESTROOM LIGHTS ARE ON AND WILL BE DISABLED WHEN RESTROOM LIGHTS ARE OFF.

FAN:
FAN STATUS:
THE CONTROLLER WILL MONITOR THE FAN STATUS.



EXHAUST FAN POINTS LIST								
	HARDWARE POINTS				SOFTWARE POINTS			
POINT NAME	AI	AO	BI	BO	SCHED	TREND	ALARM	GRAPHIC
FAN STATUS			X			X		X

4 RESTROOM EXHAUST FAN CONTROL SCHEMATIC & SEQUENCE

SCALE: NOT TO SCALE



1. PROVIDE MUSHROOM BUTTON TYPE SWITCH WHERE INDICATED ON MH101.
2. PRESSING THE SWITCH WILL CAUSE ALL HVAC FANS TO DE-ENERGIZE AND ALL OUTDOOR AIR DAMPERS TO CLOSE WITHIN 30 SECONDS.
3. CLEARLY LABEL SHUTDOWN SWITCHES "EMERGENCY VENTILATION SHUTDOWN". SWITCHES WILL BE BLUE IN COLOR.

EMERGENCY HVAC SHUTDOWN DDC POINTS LIST					
INPUT					
	POINT #	POINT DESCRIPTION	TREND	ALARM	GRAPHIC
BINARY	BI1			X	X

5 EMERGENCY HVAC SHUTDOWN CONTROLS

SCALE: NOT TO SCALE

GENERAL NOTES - CONTROLS

1. CONTROL DIAGRAMS ARE DIAGRAMMATIC AND DO NOT INDICATE ALL CONTROLLERS, RELAYS, CONTACTORS, ETC. CONTRACTOR SHALL PROVIDE ALL CONTROLLERS, RELAYS, CONTACTORS, CONDUIT, WIRE, ETC. NECESSARY TO PROVIDE A COMPLETE BAS. ALL TEMPERATURES STATED HEREIN ARE IN DEGREES FAHRENHEIT. ALL CONTROL SET POINTS, TIMES, DIFFERENTIALS, AND THROTTLING RANGES SHALL BE FULLY ADJUSTABLE THRU THE DDC GRAPHICS PACKAGE.
2. BAS OWNER AND DDC POC FOR PROJECT IS NSA PANAMA CITY PUBLIC WORKS DEPARTMENT.
3. SYSTEM SHOULD HAVE THE CAPABILITY TO CONNECT TO EXISTING UMCS, BUT WILL NOT CONNECT AT THIS TIME. CONTROLS CONTRACTOR MUST PROVIDE A DDC CONTROL SYSTEM (HARDWARE AND SOFTWARE) SIMILAR AND COMPATIBLE FOR INTERFACE WITH EXISTING SYSTEMS IN BUILDING 618.
4. MECHANICAL EQUIPMENT WHICH IS PROVIDED WITH MANUFACTURER'S INSTALLED CONTROLS SHALL BE STARTED UP BY MANUFACTURER'S REPRESENTATIVE IN CONJUNCTION WITH CONTROLS CONTRACTOR (NOT MECHANICAL CONTRACTOR). TRAINING AND MANUALS FOR THE MANUFACTURER'S INSTALLED CONTROLS SHALL BE PROVIDED BY THE EQUIPMENT MANUFACTURER'S REPRESENTATIVE. CONTROLS CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH MANUFACTURER'S REPRESENTATIVE FOR COMMUNICATION OF DDC SYSTEM TO THE MANUFACTURER'S INSTALLED CONTROLS.
5. MOUNT ROOM WALL THERMOSTATS AND CO2 SENSORS 48" AFF OR AT SAME HEIGHT IF ADJACENT TO SPACE LIGHT SWITCH AT SPACE ENTRY DOOR. FLOOR PLANS INDICATE APPROXIMATE LOCATIONS.
6. PROVIDE BUILDING OPTIMAL START CAPABILITY FOR MORNING WARM-UP/COOL-DOWN MODE. AFTER SET-BACK, STAGE-ON ("SOFT-START") ALL HVAC EQUIPMENT TO MINIMIZE ELECTRICAL SYSTEM DEMAND. BUILDING OCCUPANCY SCHEDULE SHALL BE AS INDICATED: MONDAY - FRIDAY, 7:00 AM - 5:00 PM.
7. CONTROLS CONTRACTOR IS RESPONSIBLE FOR COORDINATING WITH BAS OWNER FOR CORRECT DDC POINT NAMING CONVENTIONS. DISPLAY ALL GRAPHIC FLOOR PLANS, EQUIPMENT GRAPHICS, DDC LADDER DIAGRAMS, AND SEQUENCE OF OPERATIONS GRAPHIC PAGES. PROVIDE ALL ALARMING, TREND SERVICES, SCHEDULES AND OTHER BACNET SERVICES AS DESCRIBED IN SPECIFICATION SECTION 23 09 23.02.

CONTROL LEGEND

AMS	AIRFLOW MEASURING STATION	MD	MOISTURE DETECTOR
C02	CARBON DIOXIDE SENSOR	OS	OCCUPANCY SENSOR
CR	CURRENT RELAY	S	ON/OFF SWITCH
CSR	CURRENT SENSOR RELAY	PS	POSITION SWITCH
CT	CURRENT TRANSDUCER	PT	PRESSURE TRANSMITTER
DM	DAMPER ACTUATOR	R	RELAY
DPS	DIFFERENTIAL PRESSURE SENSOR	SD	SMOKE DETECTOR
DS	DISCONNECT SWITCH	SL	STATIC PRESSURE LIMIT SENSOR
ESS	EMERGENCY SHUTOFF SWITCH	SS	SMART SWITCH
FM	FLOW METER	TS	TEMPERATURE SENSOR
FS	FLOW SWITCH	T	THERMOSTAT
GM	GATEWAY MODULE	UC	UNIT CONTROLLER
HS	HUMIDITY SENSOR	VFD	VARIABLE FREQUENCY DRIVE
LL	LOW LIMIT (FREEZESTAT)	WS	WALL SWITCH
M	MOTOR	WL	WATER LEVEL SENSOR

SYM	DESCRIPTION	DATE	APPR

NAVFAC

FOR BID ONLY
NOT FOR CONSTRUCTION

SEAL

AE INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
Panama City, FL
NSA PANAMA CITY
MARITIME MINING FACILITY
MECHANICAL CONTROLS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
M801

PLUMBING ABBREVIATIONS LEGEND

A

ABS	ABSOLUTE
ABV	ABOVE
ACH	AIR CHANGES PER HOUR
AD	ACCESS DOOR
ADJ	ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
ALT	ALTITUDE
AMB	AMBIENT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AP	ACCESS PANEL
APPROX	APPROXIMATE
ARF	ABOVE RAISED FLOOR

B

B	BOILER
BB	BASEBOARD HEATERS
BDD	BACKDRAFT DAMPER
B/F	BELOW FLOOR
BHP	BRAKE HORSEPOWER
BMS	BUILDING MANAGEMENT SYSTEM
BOD	BOTTOM OF DUCT
BOF	BOTTOM OF FAN
BOL	BOTTOM OF LOUVER
BOP	BOTTOM OF PIPE
BOS	BOTTOM OF STEEL
BTUH	BRITISH THERMAL UNIT PER HOUR

C

C	CELSIUS
CD	CONDENSATE DRAIN LINE
CFH	CUBIC FEET PER HOUR
CFM	CUBIC FEET PER MINUTE
CH	CHILLER
CHP	CHILLED WATER PUMP
CHS	CHILLED WATER SUPPLY
CHR	CHILLED WATER RETURN
CL	CENTER LINE
CLG	CEILING
CM	CENTIMETERS
CMU	CONCRETE MASONRY UNIT
CO	CLEANOUT
COOG	CLEANOUT ON GRADE
COL	COLUMN
CONN	CONNECT
CONT	CONTINUED
CP	CONTROL PANEL
CU	CUBIC FEET

D

DAC	DUCTLESS SPLIT INDOOR UNIT
DB	DRY BULB
db	DECIBLES
DCU	DUCTLESS SPLIT OUTDOOR UNIT
DDC	DIRECT DIGITAL CONTROL
DEG	DEGREES
DIA	DIAMETER
DN	DOWN
DWG	DRAWING
DX	DIRECT EXPANSION

E

(E)	EXISTING MATERIAL OR EQUIPMENT
EA	EACH / EXHAUST AIR
EAT	ENTERING AIR TEMPERATURE
EF	EXHAUST FAN
EL	ELEVATION
ELEC	ELECTRICAL / ELECTRIC
EQ	EQUIVALENT
ET	EXPANSION TANK
EWC	ELECTRIC WATER COOLER
EWS	EMERGENCY EYEWASH/SHOWER

F

F	FAHRENHEIT
FA	FIRE ALARM
FC	FLEXIBLE CONNECTOIN
FCO	FLOOR CLEANOUT
FCU	FAN COIL UNIT
FD	FIRE DAMPER/FLOOR DRAIN
FL	FLOOR
FLA	FULL LOAD AMPERES
FLD	FLOOR DRAIN
FOB	FLAT ON BOTTOM
FPB	FAN POWERED VARIABLE AIR VOLUME BOX
FPM	FEET PER MINUTE
FPS	FEET PER SECOND
FS	FLOOR SINK
FSD	FIRE/SMOKE DAMPER
FSK	FOIL SCRIM KRAFT
FT	FEET OR FOOT
FTG	FOOTING

G

GA	GAGE OR GAUGE
GAL	GALLON
GALV	GALVANIZED
GBD	GRAVITY BACKDRAFT DAMPER
GDH	GAS DUCT HEATER
GPD	GALLONS PER DAY
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
GPU	GALLONS PER USE
GUH	GAS UNIT HEATER
GW	GREASE WASTE

H

HB	HOSE BIB
HOA	HAND-OFF-AUTOMATIC SWITCH
HP	HORSEPOWER
HPU	HEAT PUMP UNIT
HR	HOUR
HWP	HOT WATER PUMP
HWS	HOT WATER SUPPLY
HWR	HOT WATER RETURN
HX	HEAT EXCHANGER

I

ID	INSIDE DIAMETER
I.E.	INVERT ELEVATION
IN.	INCHES
WG.	WATER GAUGE
INV	INVERT

K

KG	KILOGRAMS
KPA	KILO PASCAL
KW	KILOWATTS

L

L	LOUVER
LAT	LEAVING AIR TEMPERATURE
LBS	POUNDS
LBS/HR	POUNDS PER HOUR
LD	LINEAR DIFFUSER
LG	LENGTH
LIQ	LIQUID
L/S	LITERS PER SECOND
LWT	LEAVING WATER TEMPERATURE

M

MAX	MAXIMUM
MBH	BTU PER HOUR (THOUSAND)
MCA	MINIMUM CIRCUIT AMPS
MCC	MOTOR CONTROL CENTER
MD	MOTORIZED DAMPER
MECH	MECHANICAL
MEZZ	MEZZANINE
MIN	MINIMUM
MISC	MISCELLANEOUS
M	METERS
MM	MILLIMETERS

N

NC	NOISE CRITERIA
N.C.	NORMALLY CLOSED
NEG	NEGATIVE
NIC	NOT IN CONTRACT
NO.	NUMBER
N.O.	NORMALLY OPEN
NOM	NOMINAL
NTS	NOT TO SCALE

P

P	PUMP
PA	PASCAL
PD	PRESSURE DROP (FEET OF WATER)
PDI	PLUMBING DRAINAGE INSTITUTE
PH	PHASE
POC	POINT OF CONNECTION
POS	POSITIVE
PRI	PRIMARY
PSI	PRESSURE
PVC	POUNDS PER SQUARE INCH POLYVINYL CHLORIDE

Q

QTY	QUANTITY

R

RA	RETURN AIR
RAD	REFRIGERATED AIR DRYER
RD	ROOF DRAIN
REF	REFERENCE
REL. A	RELIEF AIR
RH	RELATIVE HUMIDITY
RHC	REHEAT COIL
RI	ROOF INTAKE
RL	REFRIGERANT LIQUID/RAIN LEADER
RO	ROOF OPENING
RPM	REVOLUTIONS PER MINUTE
RS	REFRIGERANT SUCTION

S

SA	SUPPLY AIR
SCH	SCHEDULE
SD	SMOKE DETECTOR
SH	SHOWER
SKD	SMOKE DAMPER
SEER	SEASONAL ENERGY EFFICIENCY RATIO
SENS	SENSIBLE
SQFT	SQUARE FEET
SF	SUPPLY FAN
	STATIC PRESSURE (INCHES OF WATER)
SPEC	SPECIFICATION
SOV	SHUTT-OFF VALVE
SRD	SECONDARY ROOF DRAIN
SS	STAINLESS STEEL/SOIL STACK
ST	STORM DRAIN
STL	STEEL

T

TBD	TO BE DETERMINED
TEMP	TEMPERATURE
TOD	TOP OF DUCT
TOF	TOP OF FAN
TOL	TOP OF LOUVER
TOS	TOP OF STRUCTURE
TOT	TOTAL
TP	TOTAL PRESSURE / TRAP PRIMER
TSP	TOTAL STATIC PRESSURE
T-STAT	THERMOSTAT
TUP	TILT-UP
TYP	PANEL TYPICAL
T&P	TEMPERATURE & PRESSURE

U

UON U/F	UNLESS OTHERWISE NOTED
U/G	UNDERFLOOR UNDERGROUND

V

V	VOLT / VENT
VAV	VARIABLE AIR VOLUME
VEL	VELOCITY
VFD	VARIABLE FREQUENCY DRIVE
VOL	VOLUME
VTR	VENT THROUGH ROOF

W

W	WASTE
WB	WET BULB
WCO	WALL CLEANOUT
WG	WATER GUAGE
WH	WALL HYDRANT
WHA	WATER HAMPER ARRESTOR
WO	WALL OPENING
WPD	WATER PRESSURE DROP
WS	WASTE STACK
WSHP	WATER SOURCE HEAT PUMP
W/TP	WITH TRAP PRIMER
W/W	WATTS WITH
W/O	WITH OUT

SYMBOLS LEGEND

KEYNOTE INDICATOR

MATERIAL / FINISH INDICATOR

ACCESS. / FIXT. / FURN. EQUIPMENT INDICATOR

ROOM NAME
000
ROOM NAME/NUMBER INDICATOR

01
COLUMN INDICATOR

+ 0'-0"
FIN.FLR.
ELEVATION INDICATOR

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

N
NORTH ARROW

SHEET
SHEET DETAIL IS LOCATED ON

NEW TO EXISTING

EXTERIOR ELEVATIONS INDICATOR
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON

WALL SECTION INDICATOR
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
LIMIT OF CUTTING PLANE
LINE OF CUTTING PLANE
SHEET DETAIL IS LOCATED ON

BUILDING SECTION INDICATOR
VIEW# / SHEET
DIRECTION OF CUTTING PLANE
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON
LINE OF CUTTING PLANE

ENLARGED DETAIL/AREA INDICATOR
VIEW# / SHEET
DETAIL NUMBER
SHEET DETAIL IS LOCATED ON
LIMIT OF ENLARGED AREA

DRAWING TITLE INDICATOR
VIEW TITLE
Scale: SCALE
DRAWING VIEW TITLE
DRAWING VIEW SCALE
DRAWING VIEW NUMBER

REVISION CLOUD AND NUMBER INDICATOR
REVISION CLOUD (LIMITS OF REVISION AREA)
1 REVISION NUMBER (PRE-AWARD AMMENDMENTS)
A REVISION LETTER (POST-AWARD AMMENDMENTS)

PLUMBING LINETYPE LEGEND

PLUMBING

VENT
SANITARY
GAS
DOMESTIC COLD WATER
HOT WATER RETURN
HOT WATER
STORM DRAIN BELOW FLOOR/GRADE
STORM DRAIN BELOW FLOOR/GRADE

PLUMBING SYMBOLS LEGEND

FITTINGS

FITTING: SUPPLY OUT
FITTING: UNION
FITTING: TEE
FITTING: TEE SINGLE SWEEP
FITTING: TEE SIDE OUT UP
FITTING: TEE SIDE OUT DOWN
FITTING: ECCENTRIC STRAIGHT INVERTED REDUCER
FITTING: ECCENTRIC STRAIGHT CROWN REDUCER
FITTING: CONCENTRIC REDUCER
FITTING: EXPANSION JOINT
FITTING: ELBOW TURN UP
FITTING: ELBOW TURN DOWN
FITTING: ELBOW DSC
FITTING: ELBOW DBL BRANCH
FITTING 90° BASE
FITTING: 90° ELBOW
FITTING: 45° ELBOW
FITTING: CROSS

PIPING

FITTING: TEE OUTLET UP
FITTING: TEE OUTLET DOWN
FITTING: TEE DISCONNECT
THMPC
THLPRS
THHSC
THHRB
THERM W
THERMOMETER
TANK
SLEEVE
PUMP
FITTING: ELBOW STRT
FITTING: ELBOW LONG RADIUS
FITTING: ELBOW USC
PUMP SUCTION DIFF
PRESSURE SWITCH
HANGING SP
HANGING ROD
PRESSURE GUAGE
GUAGE
FLOW SWITCH
FLEX CONNECTION
RISE
DROP
FITTING: BUSHING
FITTING: BOTTOM CONN.
FITTING: TOP CONN.
CAP
BALL JOINT
ANCHOR IMMED
ALIGN GUIDE
AIR VENT
MANUAL AIR VENT
AIR SEPARATOR
HUMIDISTAT
HUMIDY SENSOR
PIPING: STRAIN ELBOW
PIPING: STRAIN

VALVES

VALVE: TPR
VALVE: SWING SC
VALVE: SWING GATE
VALVE: STSC
VALVE: SSC
VALVE: SQUARE HD COCK
VALVE: SOLN
VALVE: SOL
VALVE: SNAP
VALVE: SFSC
VALVE: SCP
VALVE: SCE
VALVE: RELIEF
VALVE: QUICK OPEN
VALVE: PRESSURE REDUCER
VALVE: PRED
VALVE: PMTD
VALVE: PLUG
VALVE: NEEDLE
VALVE: MTR
VALVE: MOLS
VALVE: MOGS
VALVE: MNNS
VALVE: MANUAL
VALVE: MAGS
VALVE: HGSC
VALVE: HGLS
VALVE: HASC
VALVE: GSP
VALVE: GLSE
VALVE: GLAM
VALVE: GATE
VALVE: GATE ANGLE
VALVE: GAMC
VALVE: FLSC
VALVE: DISCONNECT
VALVE: CWR
VALVE: CHECK SPRING
VALVE: BUTTERFLY
VALVE: BALL VALVE AHOS
VALVE: ANGLE
VALVE: 3 WAY
VALVE: 3 WAY PRESSURE
VALVE: 3 WAY MOTORIZED

PLUMBING GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, SPECIFIED AND AS REQUIRED BY CODE AND APPLICABLE UFC'S.
2. CUT OPENINGS, AS REQUIRED, IN EXISTING CONSTRUCTION FOR THE INSTALLATION OF PIPING AND EQUIPMENT. PATCH AND REPAIR ALL HOLES FROM REMOVAL OF PIPING AND/OR EQUIPMENT TO MATCH ADJACENT CONSTRUCTION. OPENINGS IN EXISTING CONCRETE MASONRY CONSTRUCTION SHALL BE SAW- CUT.
3. ALL PLUMBING WORK SHALL BE INSTALLED TO AVOID INTERFERENCE WITH ELECTRICAL AND MECHANICAL EQUIPMENT AND STRUCTURAL FRAMING.
4. BEFORE COMMENCEMENT OF WORK, CONTRACTOR SHALL VERIFY THE EXACT LOCATIONS, ELEVATIONS AND CHARACTERISTICS OF ALL UTILITIES AND PIPING. CONTRACTOR SHALL ALSO NOTIFY THE ARCHITECT/ENGINEER OF ANY DISCREPANCIES.
5. COORDINATE WITH ARCHITECTURAL DRAWINGS PRIOR TO ROUGHING-IN PLUMBING FIXTURES. FIXTURES SHALL BE LOCATED AS DETAILED ON THE ARCHITECTURAL DRAWINGS.
6. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES PRIOR TO FABRICATION AND INSTALLATION TO PREVENT CONFLICTS. NOTIFY CONTRACTING OFFICER WHERE CONFLICTS ARE DISCOVERED PRIOR TO CONSTRUCTION AND BEFORE BEGINNING WORK IN THOSE AREAS. ALL CONFLICTS THAT ARISE DUE TO LACK OF COORDINATION SHALL BE RECTIFIED BY THE CONTRACTOR AT NO COST TO THE GOVERNMENT.
7. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
8. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPING SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED, IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED. ALL PIPING SHALL BE RUN TO AVOID CONFLICT WITH OTHER TRADES.
9. LAYOUT OF PIPING IS DIAGRAMMATIC. RUN ALL PIPING CONCEALED ABOVE CEILING OR IN WALLS OR CHASES UNLESS OTHERWISE NOTED. RUN ALL EXPOSED PIPING, AS NOTED, HIGH AS POSSIBLE, UNLESS OTHERWISE NOTED. ALLOW FOR RISES, DROPS, AND OFFSETS AS REQUIRED.
10. MAKE PROPER HOT AND COLD WATER, HOT WATER RECIRCULATING, WASTE, VENT, AND GAS, ETC PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCHES, FITTINGS AND CONNECTIONS MAY NOT BE SHOWN.
11. ALL WASTE AND VENT PIPING 3" TO 6" IS TO SLOPE AT A MINIMUM OF 1/8" PER FOOT UNLESS INDICATED OTHERWISE.
12. ALL VENT PIPING SHALL BE ATTACHED TO WALL NO FURTHER THAN 3'-0" AWAY.
13. PROVIDE ADDITIONAL ATTACHMENT TO WALL FOR ALL FLOOR STANDING SINKS.
14. ELECTRICAL OUTLETS SHALL BE INSTALLED BEHIND ELECTRIC WATER COOLERS (NOT EXPOSED).
15. FCO'S SHALL BE INSTALLED FLUSH TO FINISHED FLOOR.
16. ALL FLOOR DRAINS LOCATED IN TOILET ROOMS, MECHANICAL ROOMS AND OTHER LOCATIONS NOT SUBJECT TO PERIODIC WASHDOWN SHALL BE PROVIDED WITH TRAP PRIMERS.
17. FLOOR DRAIN LINE SIZE AND VENTING SHALL BE IN ACCORDANCE WITH PLUMBING CODE HAVING JURISDICTION, COMBINATION WASTE AND VENT SYSTEM.
18. ALL FLOOR DRAINS SHALL BE INSTALLED FLUSH WITH FINISHED FLOOR. PLUMBING CONTRACTOR SHALL EXAMINE ARCHITECTURAL AND STRUCTURAL DRAWINGS TO DETERMINE THE EXACT TYPE OF FLOOR FINISH AND MAKE ALLOWANCE DURING THE INSTALLATION. IF ANY DRAIN IS NOT FOUND TO BE FLUSH WITH THE FINISHED FLOOR OR PARALLEL TO THE WALLS THE PLUMBING CONTRACTOR WILL BE REQUIRED TO REMOVE SUCH DRAIN AND RE-INSTALL AT NO COST.
19. ALL PIPING SHALL BE LOCATED WITHIN STUD WALLS AND OTHER WALL CONSTRUCTION THAT MAY BE USED TO ENCLOSE THE PIPING. NO PIPING IS TO BE LOCATED IN MASONRY WALLS. PIPING SHOWN ON THE DRAWINGS MAY NOT REFLECT THIS INSTALLATION METHOD.
20. ALL PLUMBING FIXTURE VENTS SHALL TERMINATE A MINIMUM OF 12 INCHES FROM ANY VERTICAL SURFACE AND 10'-0" FROM ANY OUTSIDE AIR INTAKES.
21. PROVIDE WATER HAMMER ARRESTORS FOR FLUSH VALVE FIXTURES AND WHERE QUICK CLOSING VALVES ARE INSTALLED IN ACCORDANCE WITH PLUMBING DRAINAGE INSTITUTE STANDARDS OR RECOMMENDATIONS. THIS INCLUDES ALL SENSOR OPERATED FAUCETS.
22. ALL PIPE SUPPORT SYSTEMS SHALL NOT CRUSH THE INSULATION WHEN RESTING UPON THE SUPPORT. THE USE OF PIPE SADDLES IS NECESSARY WHEN THE WEIGHT OF PIPE EXCEEDS THE WEIGHT SUPPORT LIMIT OF THE INSULATION.
23. PIPE SIZES MAY BE SHOWN FOR SAME PIPE ON MORE THAN ONE PLAN. IN CASE OF PIPE SIZE DISCREPANCY THE LARGER PIPE SIZE SHALL BE CONSIDERED CORRECT DURING THE BIDDING AND DURING CONSTRUCTION UNLESS SPECIFICALLY APPROVED BY THE ARCHITECT/ENGINEER OTHERWISE.
24. PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
25. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE.
26. PROVIDE DEEP SEAL TRAPS WITH TRAP GUARD (TO PREVENT SEWER GAS BACKUP) FOR ALL FLOOR DRAINS.
27. PLASTIC PIPE SHALL NOT BE INSTALLED IN RETURN AIR PLENUMS.
28. WHERE APPLICABLE, MATERIALS AND EQUIPMENT SHALL HAVE STAMPS OR SEALS OF AHRI, ASME, UL, OR ASTM. THE CONTRACTOR SHALL MAKE TESTS FOR ACCEPTANCE AND APPROVAL BY CODE AND THE REQUIREMENTS OF APPLICABLE REGULATORY AGENCIES. REQUIRED TESTS SHALL BE PERFORMED IN THE PRESENCE OF THE GOVERNMENT UNLESS OTHERWISE WAIVED IN WRITING.
29. ALL DROPS ARE TO BE CONSIDERED 1/2" DROPS UNLESS OTHERWISE NOTED.
30. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH PLUMBING DRAWING OF THIS SET. GENERAL NOTES SPECIFIC TO INDIVIDUAL PLUMBING DRAWINGS WILL BE SHOWN ON THE RESPECTIVE PLUMBING DRAWING.

SYM	DESCRIPTION	DATE	APPR

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ACTIVITY

SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENGIARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY

GENERAL NOTES, SYMBOLS AND LEGENDS

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
P001

PLUMBING FIXTURE SCHEDULE

SYMBOL	FIXTURE	C W	H W	DRAIN	VENT	# COUNT
CO	FLOOR CLEANOUT			4"	2"	2
COOG	FLOOR CLEANOUT			4"	2"	1
EEW-1	SWING-DOWN EYE/FACE WASH UNIT	1/2"				2
EWC-1	ELECTRIC WATER COOLER (ADA COMPLIANT) WITH BOTTLE FILL STATION.	1/2"		1 1/4"	1 1/4"	1
FD-1	FLOOR DRAIN (COATED, CAST IRON BODY, DOUBLE DRAINAGE FLANGE, WEEP HOLES, BOTTOM OUTLET, 1/2" TRAP PRIMER CONNECTION, AND 6x6 SQUARE ADJUSTABLE POLISHED NICKEL GRATE).			2"	2"	2
FD-2	FLOOR DRAIN (COATED, CAST IRON BODY, DOUBLE DRAINAGE FLANGE, WEEP HOLES, BOTTOM OUTLET, 1/2" ELECTRONIC TRAP PRIMER CONNECTION.)			3"	2"	3
HB-1	HOSE BIBB, 3/4IN BRASS CONSTRUCTION, VACUUM BREAKER-BACKFLOW PREVENTER, ASSE 1052.	3/4"				1
LAV-1	LAVATORY, VITREOUS CHINA UNDERMOUNT, MANUAL CENTERSET FAUCET (CHROME FINISH), 0.5 GPM. ADA COMPLIANT.	1/2"	1/2"	1 1/4"	1 1/4"	1
SK-1	UNDERMOUNT, 24x22 INCH SINGLE COMPARTMENT 20 GAUGE STAINLESS STEEL SINK, 1.8 GPM ADA COMPLIANT FAUCET WITH GOOSENECK SWING SPOUT	1/2"	1/2"	1 1/2"	1 1/2"	2
TP-1	TRAP PRIMER VALVE, AUTOMATIC, PRESSURE-ACTIVATED VALVE	1/2"				2
TP-2	TRAP PRIMER VALVE, MINI-PRIME ELECTRONIC FLOOR DRAIN TRAP PRIMER W/NEMA1 BOX, 115V	1/2"				1
WC-1	HET WATER CLOSET, WALL MOUNTED, WALL OUTLET, VITREOUS CHINA, ELONGATED, MANUAL FLUSH VALVE, 1.28 GPF, PROVIDE W/TRAP PRIMER CONNECTION WHERE SHOWN ON PLANS. WATERSENSE LABELED.	1"		4"	2"	1
WH-1	WALL HYDRANT. RECESSED BOX WITH FLUSH COVER STAMPED 'WATER', NON-FREEZE, AUTOMATIC DRAINING WITH INTEGRAL VACUUM BREAKER-BACKFLOW PREVENTER. BRONZE CASING AND BRONZE INTERIOR PARTS. 3/4IN HOSE CONNECTION.	3/4"				3

NOTES:

1. PROVIDE BRANCH LINE REDUCER FITTINGS TO ALL FIXTURE CW & HW INLETS, WHERE REQUIRED.
2. PROVIDE WATER HAMMER ARRESTORS WHERE SHOWN ON PLANS OR RISERS.
3. SIZES SHOWN ON PLANS FOR FLOOR DRAINS AND CLEANOUTS IS FOR OUTLET SIZE.
4. PROVIDE SHUTOFF VALVES ON COLD AND HOT WATER SUPPLY TO EACH FIXTURE.
5. LAV-1: PROVIDE FAUCET ONLY. LAVATORY BOWL WILL BE INTEGRAL TO COUNTERTOP AND PROVIDED UNDER DIVISION 06 (SPECIFICATION 06 61 16).
6. PROVIDE ALL TRAP PRIMERS WITH INTEGRAL VACUUM BREAKER.

ELECTRIC TANKLESS WATER HEATER SCHEDULE

SYMBOL	COUNT	TYPE	DESIGN FLOW RATE (GPM)	MAXIMUM OPERATING PRESSURE (PSI)	ELECTICAL DATA		
					WATTS	AMPS	VOLTS/PH/HZ
EWH-1	1	TANKLESS - ELECTRIC	0.5	150	3000	25	120/1/60
EWH-2	2	TANKLESS - ELECTRIC	1.8	150	10100	49	208/1/60

NOTES:

1. UNIT SHALL BE UL LISTED.
2. ELEMENT SHALL BE REPLACEABLE CARTRIDGE INSERT.
3. HEATER SHALL MEET ANSI/NSF 372.
4. UNIT SHALL BE PROVIDED WITH HIGH TEMPERATURE LIMIT SWITCH.
5. UNIT SHALL BE OF THE THERMOSTATIC TYPE.
6. COORDINATE POWER AND DISCONNECT REQUIREMENTS WITH ELECTRICAL DRAWINGS.

AIR COMPRESSOR SCHEDULE

SYMBOL	DESCRIPTION	LOCATION	OPERATING PRESSURE (PSI)	AIR FLOW RATE (SCFM)	SHUT OFF PRESSURE (PSI)	ELECTRICAL DATA			
						VOLTAGE	PHASE	HERTZ	MOTOR HP
AC-1	VERTICAL TANK	MECHANICAL ROOM	100	35	125	208	3	60	10

BACKFLOW PREVENTER SCHEDULE

TAG	DESCRIPTION	CONNECTION SIZE (IN)	SERVES	DESIGN FLOW (GPM)	MAX FLOW (GPM)	MAX PRESSURE DROP (PSI)	MAX RATED WORKING PRESSURE (PSI)	REMARKS
BFP-1	REDUCED PRESSURE	1.5	DOMESTIC WATER	70	175	10	175	SEE NOTES

NOTES:

1. PROVIDE WITH INLET AND OUTLET SHUTOFF VALVES.
2. PROVIDE WITH THREADED CONNECTIONS.

SYM	DESCRIPTION	DATE	APPR

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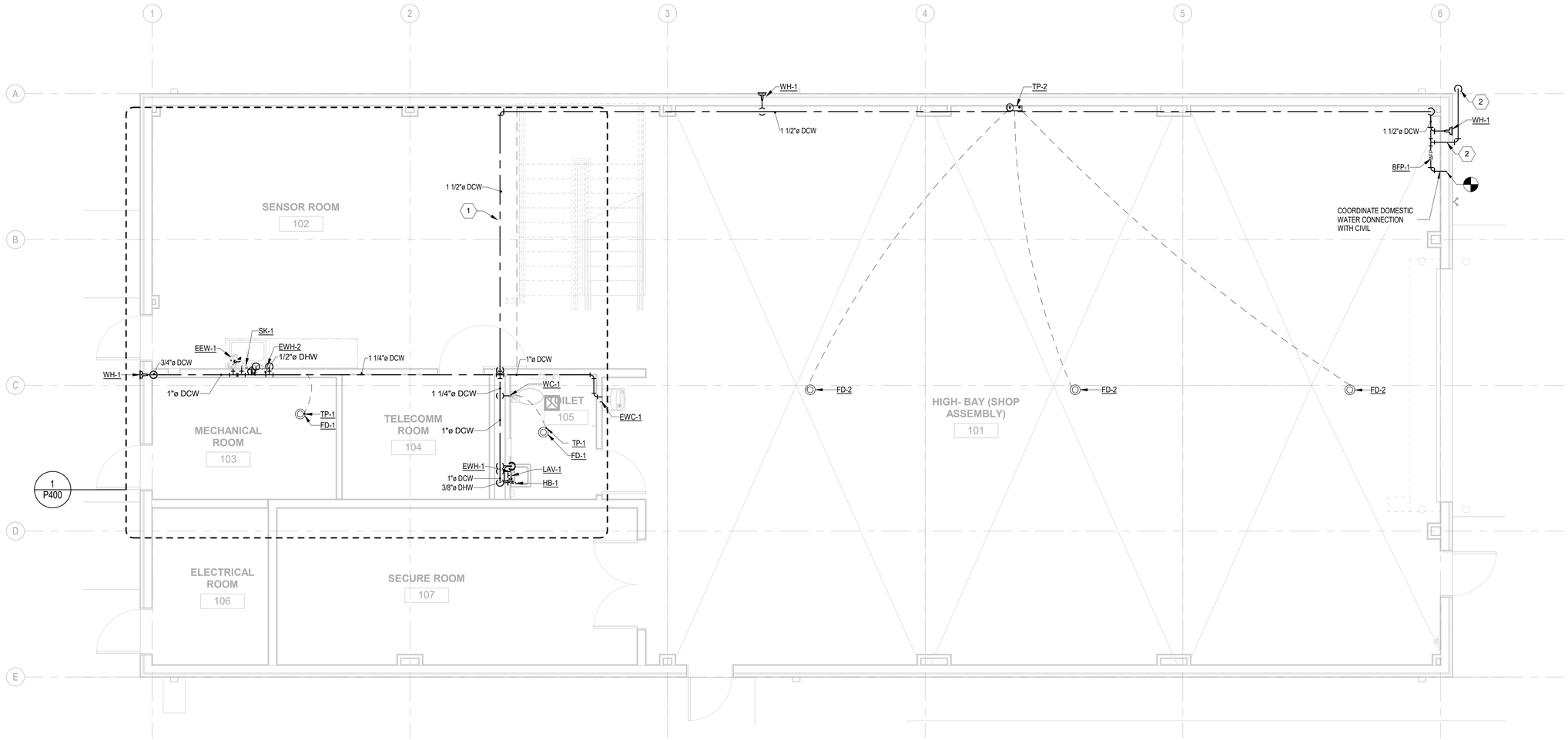
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND ~ SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
Panama City, FL
MARITIME MINING FACILITY
NSA PANAMA CITY

PLUMBING SCHEDULES

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

P011



1 DOMESTIC WATER - PLUMBING OVERALL FLOOR PLAN

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

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, SPECIFIED AND AS REQUIRED BY CODE AND APPLICABLE UFC'S.
2. FIELD VERIFY ALL EXISTING CONDITIONS, PRIOR TO BEGINNING WORK. EXISTING PIPE AND EQUIPMENT SIZES AND LOCATIONS ARE BASED ON AS-BUILT DRAWINGS AND ARE NOTED FOR THE CONVENIENCE OF THE CONTRACTOR ONLY AND ARE NOT WARRANTED TO BE CORRECT.
3. THE CONTRACTOR SHALL COORDINATE HIS WORK WITH OTHER TRADES PRIOR TO FABRICATION AND INSTALLATION TO PREVENT CONFLICTS. NOTIFY CONTRACTING OFFICER WHERE CONFLICTS ARE DISCOVERED PRIOR TO CONSTRUCTION AND BEFORE BEGINNING WORK IN THOSE AREAS. ALL CONFLICTS THAT ARISE DUE TO LACK OF COORDINATION SHALL BE RECTIFIED BY THE CONTRACTOR AT NO COST TO THE GOVERNMENT.
4. INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS.
5. SLOPES AND INVERT ELEVATIONS OF ALL INTERIOR PIPING SHALL BE ESTABLISHED BEFORE ANY PIPING IS INSTALLED, IN ORDER THAT PROPER SLOPES WILL BE MAINTAINED. ALL PIPING SHALL BE RUN TO AVOID CONFLICT WITH OTHER TRADES.
6. LAYOUT OF PIPING IS DIAGRAMMATIC. RUN ALL PIPING CONCEALED ABOVE CEILING OR IN WALLS OR CHASES UNLESS OTHERWISE NOTED. RUN ALL EXPOSED PIPING, AS NOTED, HIGH AS POSSIBLE, UNLESS OTHERWISE NOTED. ALLOW FOR RISES, DROPS, AND OFFSETS AS REQUIRED.
7. MAKE PROPER HOT AND COLD WATER, HOT WATER RECIRCULATING, WASTE, VENT, AND GAS, ETC PIPING CONNECTIONS TO ALL FIXTURES AND EQUIPMENT EVEN THOUGH ALL BRANCHES, FITTINGS AND CONNECTIONS MAY NOT BE SHOWN.
8. PROVIDE ALL PLUMBING FIXTURES AND EQUIPMENT WITH ACCESSIBLE STOPS.
9. ALL CLEANOUTS SHALL BE FULL SIZE OF PIPE.
10. PROVIDE DEEP SEAL TRAPS WITH TRAP GUARD (TO PREVENT SEWER GAS BACKUP) FOR ALL FLOOR DRAINS.
11. GENERAL NOTES ON THIS DRAWING ARE APPLICABLE TO EACH PLUMBING DRAWING OF THIS SET. GENERAL NOTES SPECIFIC TO INDIVIDUAL PLUMBING DRAWINGS WILL BE SHOWN ON THE RESPECTIVE PLUMBING DRAWING.

NEW WORK NOTES

1 PROVIDE WELDED AND PAINTED 1-1/2" X 1-1/2" X 1/8" ANGLE BRACKET. ATTACH TO STAIRCASE TO PROVIDE SUPPORT FOR PIPE. ENSURE PIPE HANGERS DO NOT CONFLICT WITH OVERHEAD CRANE.
2. PIPE RELIEF TO EXTERIOR AND COORDINATE WITH CIVIL TO TIE INTO ROOF DRAIN LINE. TERMINATE WITH ELBOW TURNED DOWN AND S.S. BUGSCREEN.

SYM	DESCRIPTION	DATE	APPR

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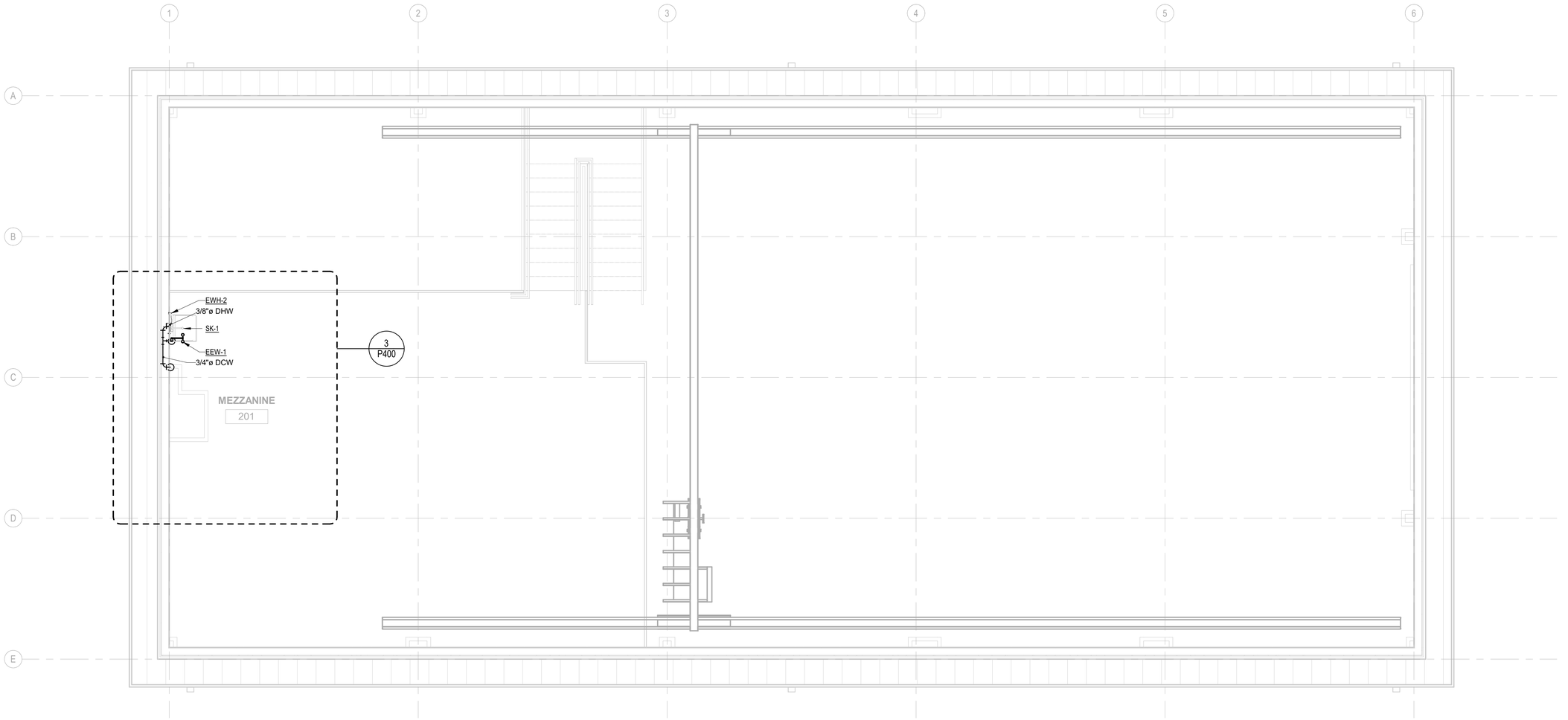
SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
DOMESTIC WATER - OVERALL FLOOR PLAN

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
P101



1 DOMESTIC WATER - OVERALL MEZZANINE FLOOR PLAN

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

GENERAL NOTES

1. PROVIDE ALL MATERIALS AND EQUIPMENT AND PERFORM ALL LABOR REQUIRED TO INSTALL COMPLETE AND OPERABLE PLUMBING SYSTEMS AS INDICATED ON THE DRAWINGS, SPECIFIED AND AS REQUIRED BY CODE AND APPLICABLE UFC'S.
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NEW WORK NOTES

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SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
DOMESTIC WATER - OVERALL MEZZANINE FLOOR PLAN

SCALE: AS NOTED

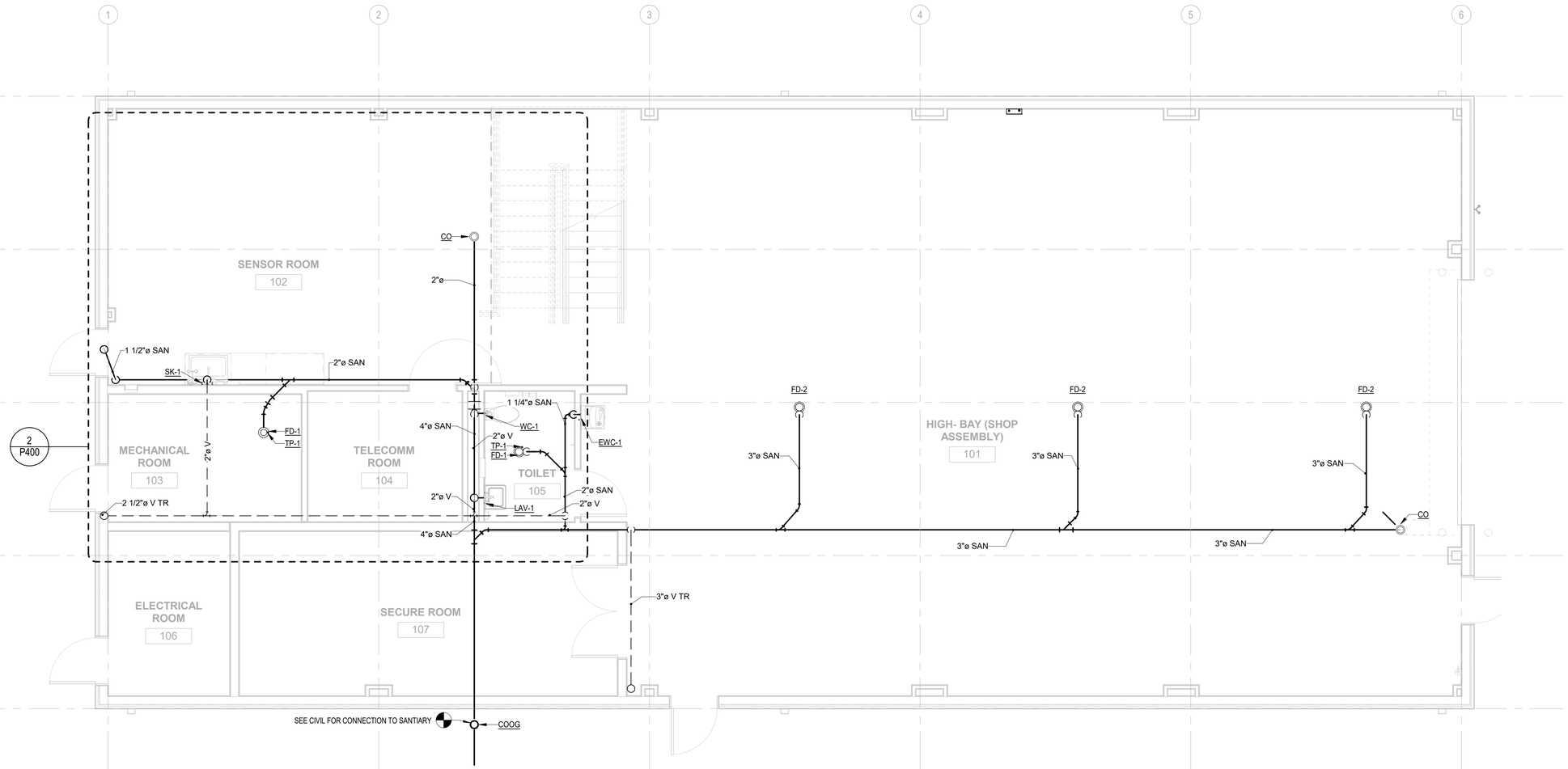
EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

P102



1 SANITARY WASTE & VENT - PLUMBING OVERALL FLOOR PLAN

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

GENERAL NOTES

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DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
Panama City, FL
MARITIME MINING FACILITY
NSA PANAMA CITY
SANITARY WASTE & VENT - OVERALL FLOOR PLAN

SCALE: AS NOTED

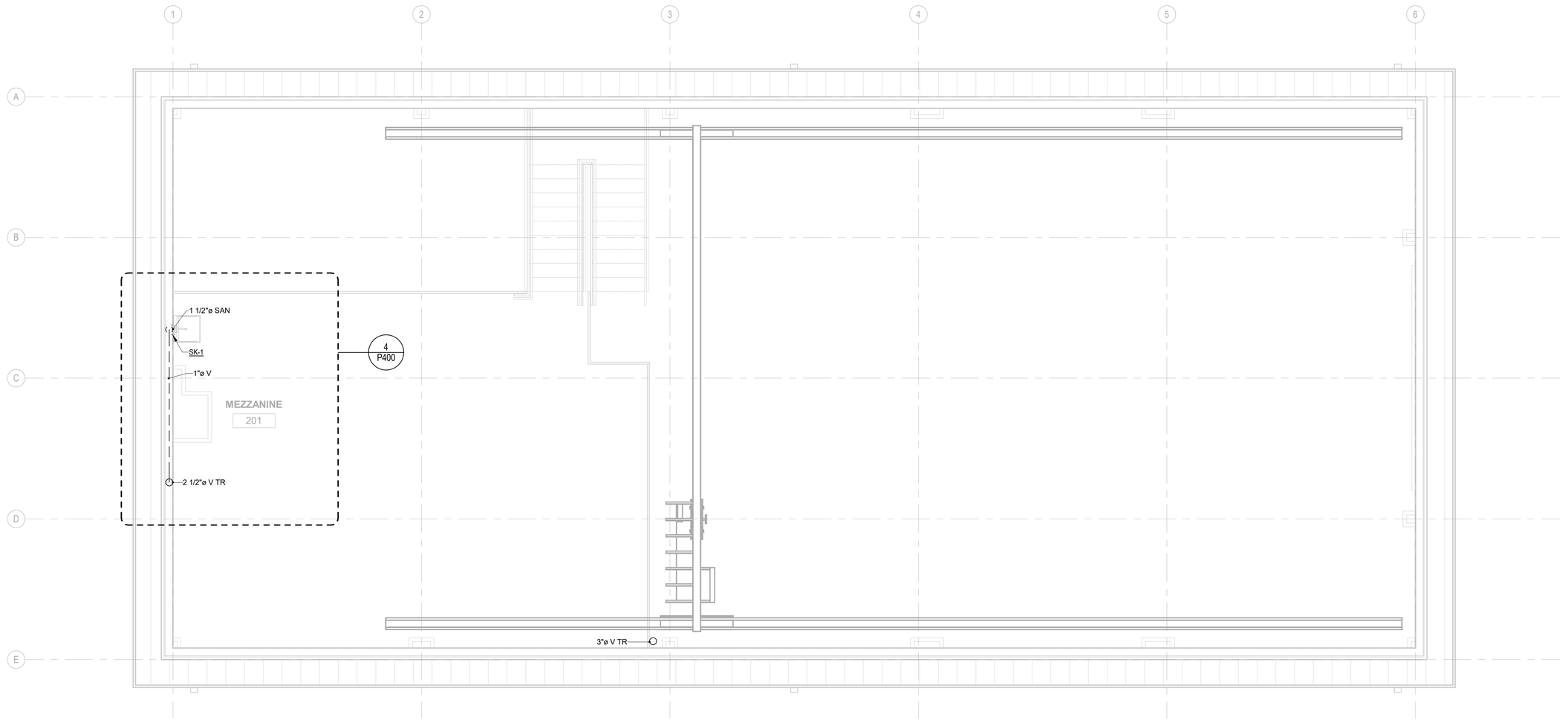
EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

P103



1 SANITARY WASTE & VENT - OVERALL MEZZANINE FLOOR PLAN

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

GENERAL NOTES

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NEW WORK NOTES

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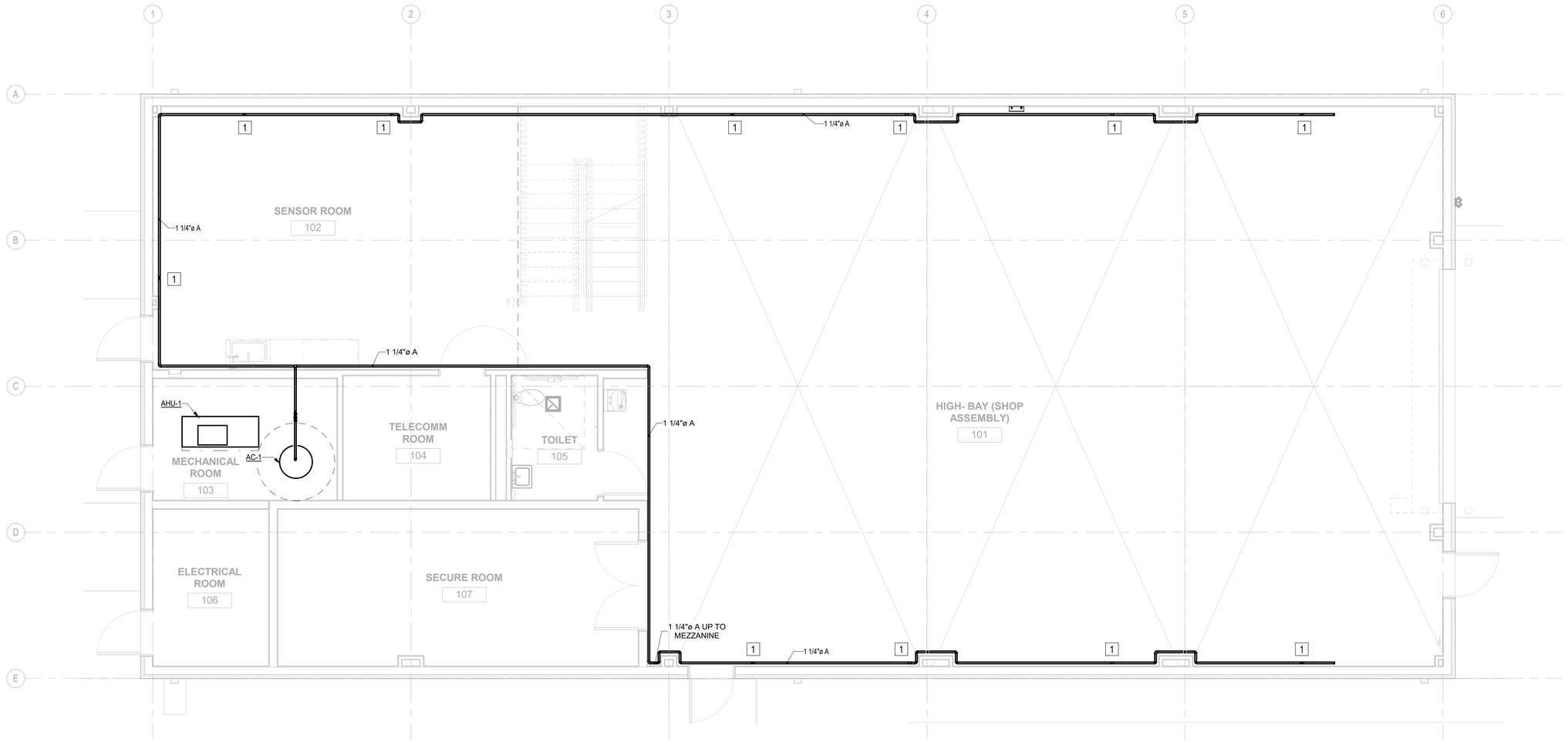
DES	ANM	DRW	ANM	CHK	JW

DESIGN MANAGER	K. MOOREHEAD
PROJECT MANAGER	O. HARRIS
CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
SANITARY WASTE & VENT - OVERALL MEZZANINE FLOOR PLAN

SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

P104



1 COMPRESSED AIR - FIRST FLOOR PLAN

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

GENERAL NOTES

1. PLUMBING SYSTEMS AND EQUIPMENT SHOWN ON THIS DRAWING ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WORK BETWEEN DISCIPLINES TO DETERMINE FINAL LOCATION OF SERVICES.

NEW WORK NOTES

1 1/2" COMPRESSED AIR DROP. PROVIDE QUICK CONNECT TYPE FITTING 4' ABOVE FINISHED FLOOR AT ALL COMPRESSED AIR DROPS. EACH DROP MUST BE PROVIDED WITH FILTER/MOISTURE SEPARATOR, PRESSURE GAUGE, AIR PRESSURE REGULATOR, AND 50' HOSE REEL.

SYM | DESCRIPTION | DATE | APPR

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ACTIVITY

SATISFACTORY TO DATE

DES Designer | DRW Author | CHK JW

DESIGN MANAGER K. MOOREHEAD

PROJECT MANAGER O. HARRIS

CHIEF ENG/ARCH L. GUTHRIE

FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
MARITIME MINING FACILITY
Panama City, FL

COMPRESSED AIR - OVERALL FLOOR PLAN

SCALE: AS NOTED

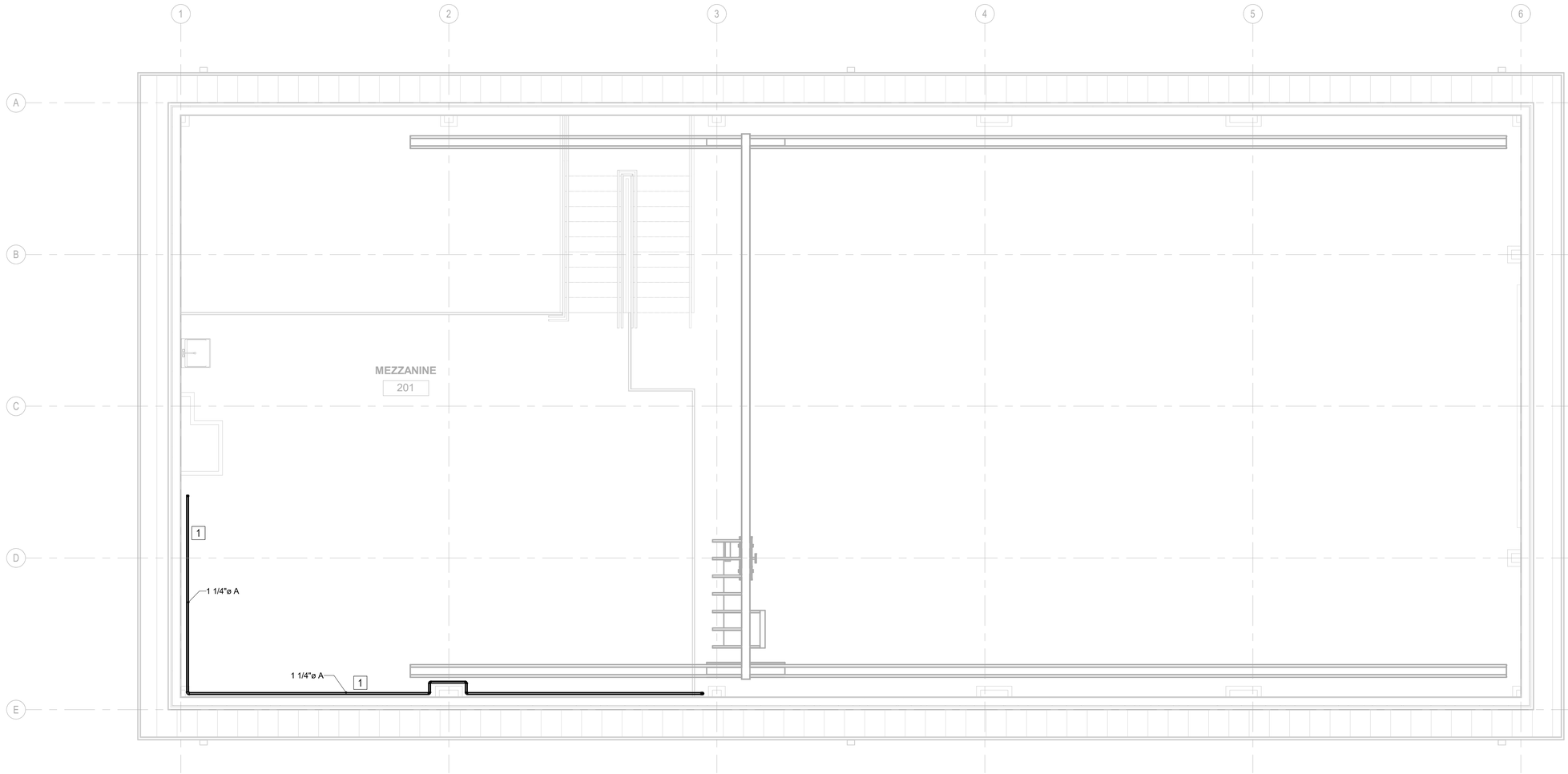
EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

P105



1 MEZZANINE FLOOR PLAN - COMPRESSED AIR

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

GENERAL NOTES

1. PLUMBING SYSTEMS AND EQUIPMENT SHOWN ON THIS DRAWING ARE APPROXIMATE. CONTRACTOR SHALL COORDINATE WORK BETWEEN DISCIPLINES TO DETERMINE FINAL LOCATION OF SERVICES.

NEW WORK NOTES

1 1/2" COMPRESSED AIR DROP. PROVIDE QUICK CONNECT TYPE FITTING 4' ABOVE FINISHED FLOOR AT ALL COMPRESSED AIR DROPS. EACH DROP MUST BE PROVIDED WITH FILTER/MOISTURE SEPARATOR, PRESSURE GAUGE, AIR PRESSURE REGULATOR, AND 50' HOSE REEL.

SYM	DESCRIPTION	DATE	APPR

NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	ANM	DRW	ANM	CHK	JW

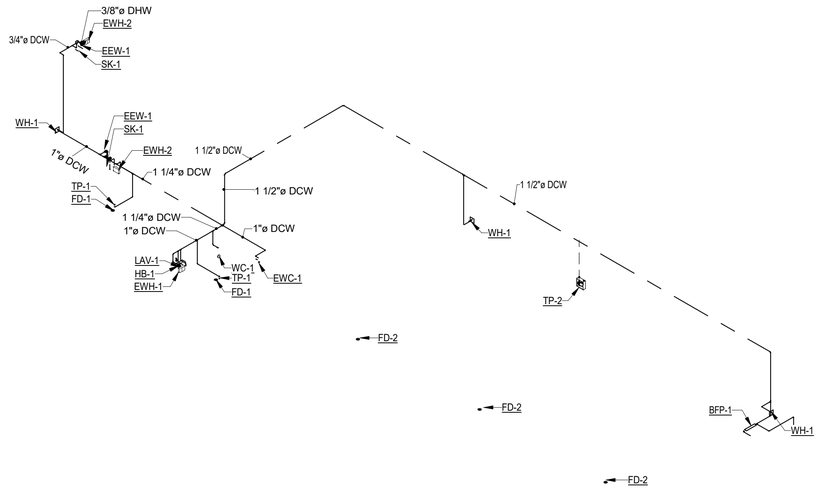
DESIGN MANAGER K. MOOREHEAD
PROJECT MANAGER O. HARRIS
CHIEF ENG/ARCH L. GUTHRIE
FIRE PROTECTION A. KOUCHINSKY

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY

COMPRESSED AIR - OVERALL MEZZANINE FLOOR PLAN

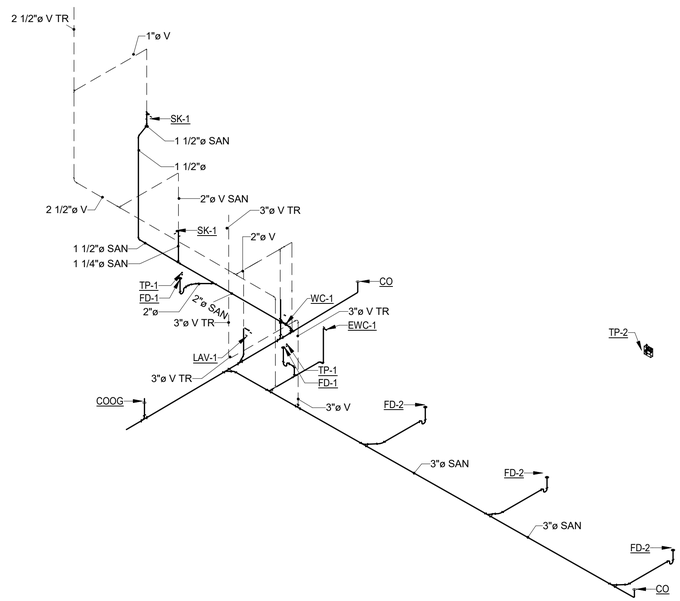
SCALE: AS NOTED
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

P106



1 DOMESTIC WATER - RISER DIAGRAM

SCALE: NOT TO SCALE



2 SANITARY WASTE & VENT - RISER DIAGRAM

SCALE: NOT TO SCALE

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ACTIVITY

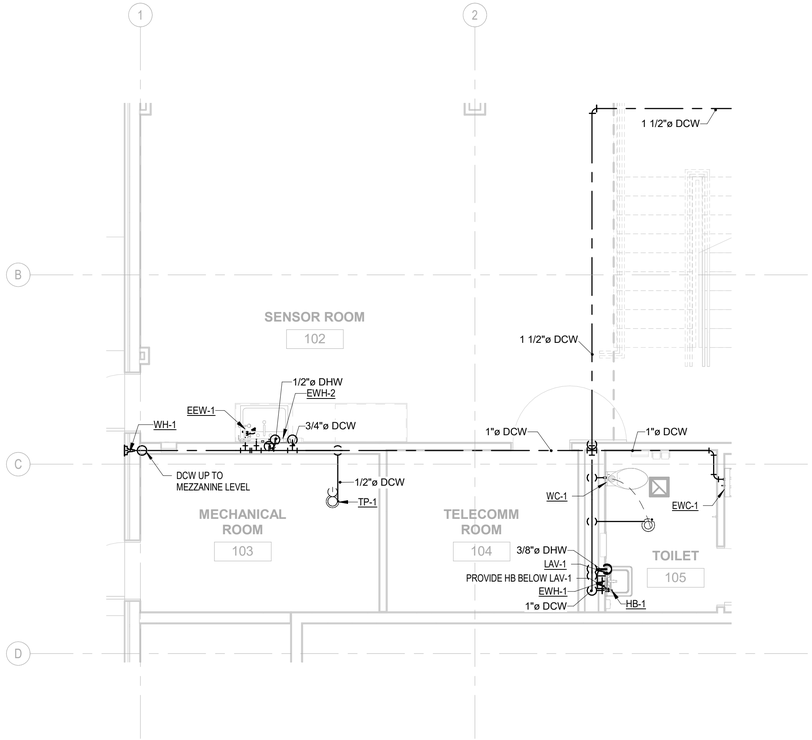
SATISFACTORY TO DATE

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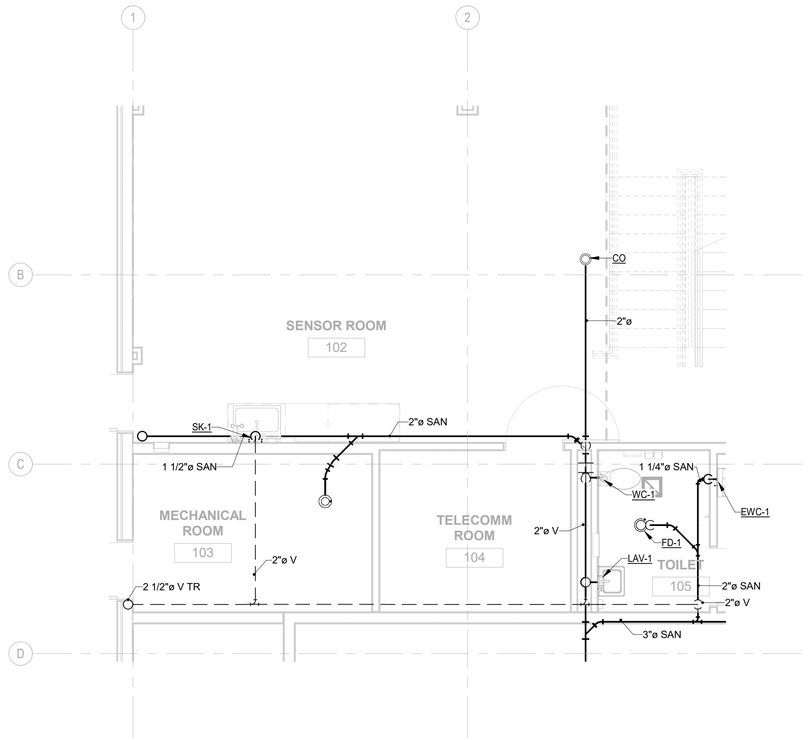
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
Panama City, FL
MARITIME MINING FACILITY
NSA PANAMA CITY
RISER DIAGRAMS

SCALE: AS NOTED
EPROJECT NO.: 1802981
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P107



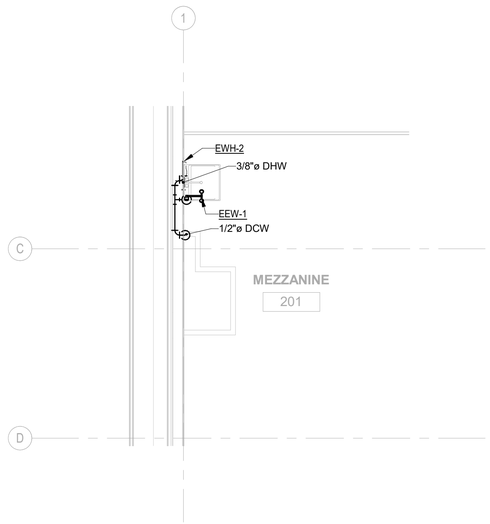
1 DOMESTIC WATER - ENLARGED FIRST FLOOR PLAN

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



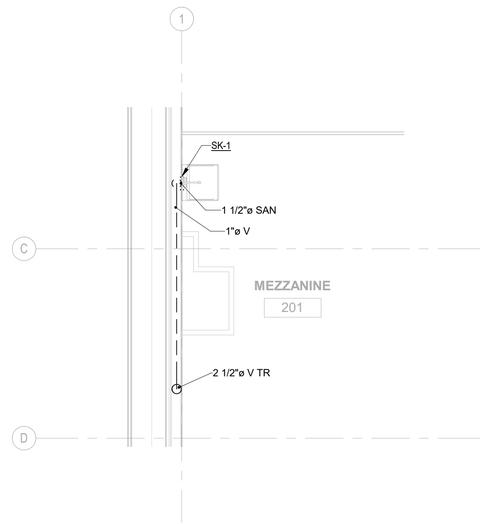
2 SANITARY WASTE & VENT - ENLARGED FIRST FLOOR PLAN

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



3 DOMESTIC WATER - ENLARGED MEZZANINE FLOOR PLAN

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



4 SANITARY WASTE & VENT - ENLARGED MEZZANINE FLOOR PLAN

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

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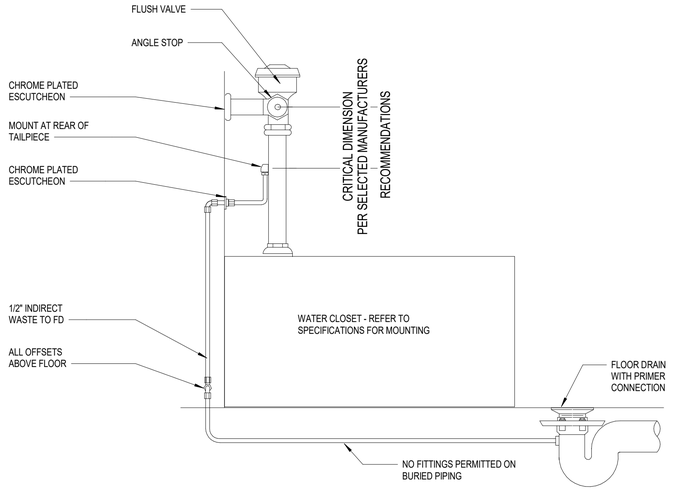
SATISFACTORY TO DATE

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CHIEF ENG/ARCH	L. GUTHRIE
FIRE PROTECTION	A. KOUCHINSKY

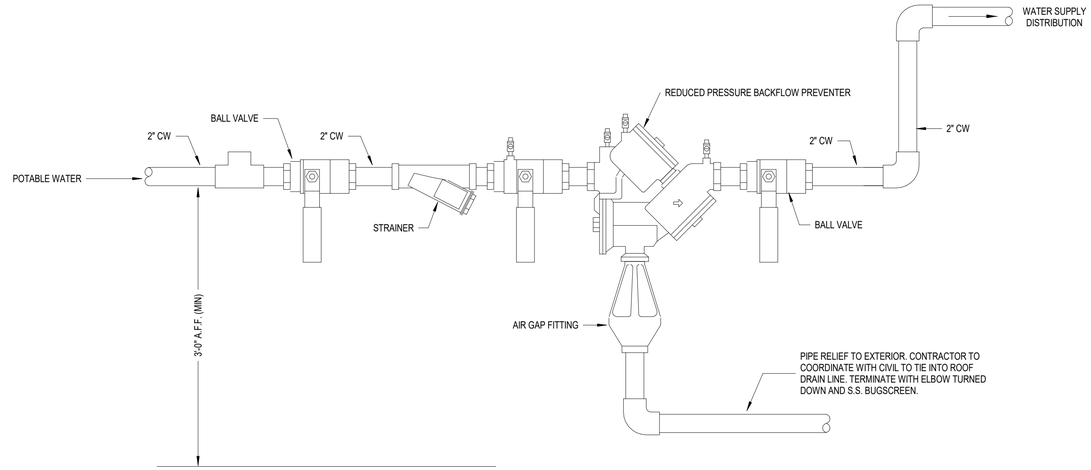
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
Panama City, FL
MARITIME MINING FACILITY
PLUMBING ENLARGED

SCALE: AS NOTED
EPROJECT NO.: 1802981
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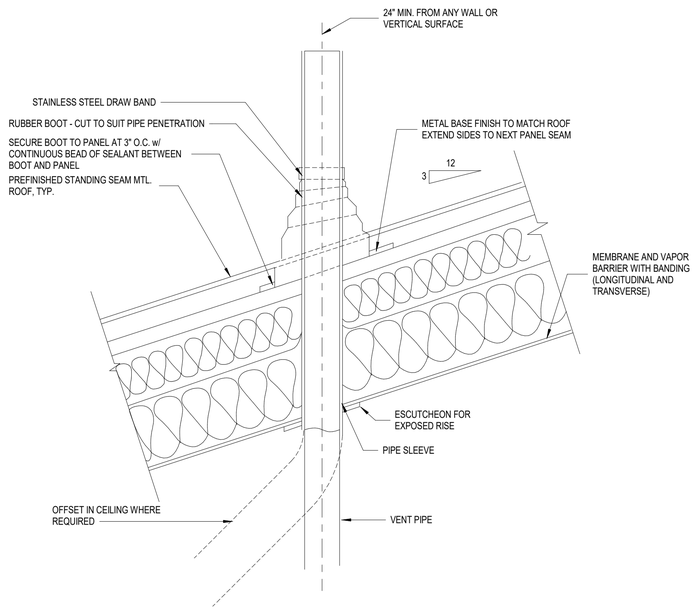
1 FLUSH VALVE MOUNTED TRAP PRIMER DETAIL

SCALE: NOT TO SCALE



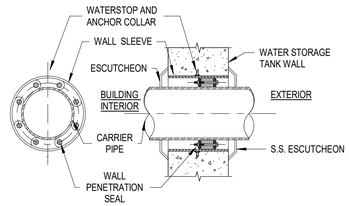
2 BACKFLOW PREVENTER DETAIL

SCALE: NOT TO SCALE



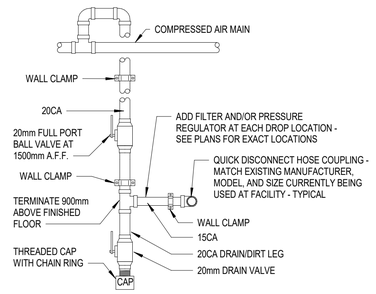
3 VENT THRU ROOF DETAIL

SCALE: NOT TO SCALE



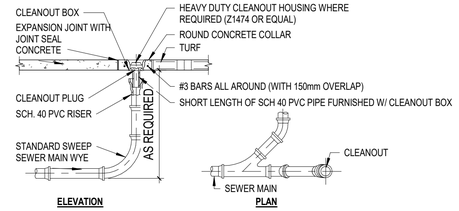
4 EXTERIOR WALL PENETRATION DETAIL

SCALE: NOT TO SCALE



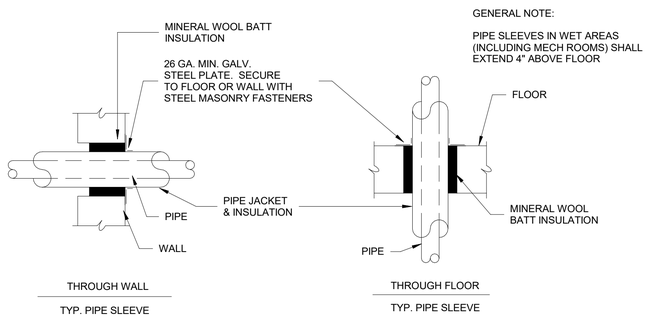
5 COMPRESSED AIR DROP DETAIL

SCALE: NOT TO SCALE



6 EXTERIOR CLEANOUT DETAIL

SCALE: NOT TO SCALE



7 TYPICAL PIPE SLEEVE DETAIL

SCALE: NOT TO SCALE

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DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND – SOUTHEAST
NSA PANAMA CITY
NAVAL AIR STATION JACKSONVILLE
Panama City, FL
MARITIME MINING FACILITY
PLUMBING DETAILS

SCALE:	AS NOTED
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P501

ELECTRICAL SYMBOLS LEGEND
SCALE: 1/8" = 1'-0"

MOUNTING HEIGHT IS FROM FINISHED FLOOR TO CENTERLINE OF DEVICE OR OUTLET.
EXACT MOUNTING HEIGHTS ARE MEANT TO BE "UNLESS OTHERWISE NOTED."
HEIGHT MAY VARY TO COINCIDE WITH BUILDING CONSTRUCTION

GENERAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION
W-X,Y,Z	CONDUIT AND CONDUCTORS | = HOT | = NEUTRAL ⅄ = ISOLATED GROUND ⅄ = HOMERUN NO HASH MARKS INDICATE TWO CONDUCTORS PLUS GROUND, 3 HASH MARKS INDICATE THREE CONDUCTORS PLUS GROUND, ETC. GREATER THAN NO 12 AWG ARE NOTED ON THE SHEETS. ALL CIRCUITS CONTAIN GROUND PER NEC. ARROW HEAD INDICATES HOME RUN TO PANEL W, CIRCUITS X,Y, AND Z
	CONDUIT CONCEALED IN WALL OR ABOVE CEILING
	CONDUIT CONCEALED IN SLAB, IN GROUND OR UNDERFLOOR
	CONDUIT EXPOSED
	CONDUIT CAPPED
	CONDUIT UP/DOWN
	CONNECTION TO GROUND ROD
	GROUNDING BUSBAR

SITE PLAN SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
OE	OVERHEAD ELECTRICAL LINE	
UGE	UNDERGROUND ELECTRICAL LINE	
OT	OVERHEAD TELEPHONE LINE	
UGT	UNDERGROUND TELEPHONE LINE	
OF	OVERHEAD FIBER OPTIC LINE	
UGF	UNDERGROUND FIBER OPTIC LINE	
OC	OVERHEAD CATV LINE	
UGC	UNDERGROUND CATV LINE	
	LIGHTING – POLE MOUNTED. SEE LIGHTING FIXTURE SCHEDULE	
	LIGHTING – BOLLARD. SEE LIGHTING FIXTURE SCHEDULE	
	LIGHTING – FLOOR LIGHT. SEE LIGHTING FIXTURE SCHEDULE	
	TELECOMMUNICATIONS HANDHOLE – SIZE AS NOTED ON DRAWINGS	
	TELECOMMUNICATIONS MANHOLE – SEE DETAIL SHEETS	
	PRIMARY POWER HANDHOLE – SIZE AS NOTED ON DRAWINGS	
	PRIMARY POWER MANHOLE – SEE DETAIL SHEETS	
	PAD MOUNTED UTILITY TRANSFORMER – SEE DETAIL SHEETS	

GROUNDING & LIGHTNING PROTECTION SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	LIGHTNING PROTECTION – STANDING AIR TERMINAL	
	GROUND ROD IN WELL (GROUND WELL)	
	GROUND ROD	
	DOWN CONDUCTOR	
	GROUNDING CONDUCTOR; EXPOSED ON ROOF, BURIED ON GROUND	
G	GROUND RING (COUNTERPOISE); CONCEALED	

INTRUSION DETECTION & ACCESS CONTROL SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
ACP	ACCESS CONTROL PANEL	
IDP	INTRUSION DETECTION SYSTEM PANEL	
BCP	BMS CONTACT PANEL	
	SECURITY CAMERA – WITH PAN/TILT/ZOOM FUNCTIONS	
	SECURITY CAMERA – WITHOUT PAN/TILT/ZOOM FUNCTIONS	
	SECURITY/INTRUSION DETECTION SYSTEM KEY PAD	
	SECURITY/INTRUSION DETECTION SYSTEM CARD READER	
	REQUEST FOR EXIT PUSHBUTTON	
	DOOR CONTACTS	
	PIR	

LIGHTING SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	WP PHOTOCELL – SEE SPECIFICATIONS	ABOVE ROOF
	WALL MOUNTED LIGHTING FIXTURE SEE SCHEDULE	AS NOTED
	EMERGENCY LIGHTING FIXTURE – WALL MOUNTED SEE SCHEDULE	AS NOTED
	2' X 4' LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	2' X 4' EMERGENCY LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	2' X 2' LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	2' X 2' EMERGENCY LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	1' X 4' LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	1' X 4' EMERGENCY LIGHTING FIXTURE – SEE SCHEDULE	AS NOTED
	DOWNLIGHT – SEE SCHEDULE	AS NOTED
	WALL WASH LIGHT FIXTURE – SEE SCHEDULE	AS NOTED
	EMERGENCY LIGHTING FIXTURE	AS NOTED
	EXIT SIGN – DARKENED SECTION(S) OF SYMBOLS INDICATE FACES. ARROWS INDICATE DIRECTIONAL CHEVRONS	AS NOTED
S	S.P.S.T. LIGHTING SWITCH	48" A.F.F.
S3	THREE-WAY LIGHTING SWITCH	48" A.F.F.
S4	FOUR-WAY LIGHTING SWITCH	48" A.F.F.
SD	DIMMER SWITCH	48" A.F.F.
SO	OCCUPANCY SENSOR	48" A.F.F.
SM	MOMENTARY SWITCH	48" A.F.F.
SP	SWITCH WITH PILOT LIGHT	48" A.F.F.
ST	TIMER SWITCH	48" A.F.F.
	WALL MOUNTED OCCUPANCY SENSOR	AS NOTED
	WALL MOUNTED VACANCY SENSOR	AS NOTED
	WALL MOUNTED VACANCY SENSOR	AS NOTED
	CEILING MOUNTED OCCUPANCY SENSOR	CEILING
	CEILING MOUNTED VACANCY SENSOR	CEILING
	CEILING MOUNTED VACANCY SENSOR	CEILING
R	RELAY PACK FOR LIGHTING CONTROLS	ABOVE CEILING
PP	POWER PACK FOR LIGHTING CONTROLS	ABOVE CEILING
	PUSHBUTTON FOR OVERRIDE OF AUTOMATIC LIGHTING CONTROLS	48" A.F.F.

POWER SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
	DUPLEX RECEPTACLE OUTLET	18" A.F.F.
	QUAD RECEPTACLE OUTLET	18" A.F.F.
GFCI	GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE	18" A.F.F.
GFCI WP	WEATHER PROOF GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE	18" A.F.F.
	RECEPTACLE SWITCHED PER ASHRAE 90.1	18" A.F.F.
RP	RELAY PACK FOR RECEPTACLES SWITCHED PER ASHRAE 90.1	ABOVE CEILING
	SPECIAL RECEPTACLE. SEE PLANS FOR MORE INFORMATION.	AS NOTED
C	CLOCK RECEPTACLE	AS NOTED
	FLOOR MOUNTED DUPLEX RECEPTACLE	FLOOR
	FLOOR MOUNTED QUAD RECEPTACLE OUTLET	FLOOR
GFCI	FLOOR MOUNTED GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE.	FLOOR
GFCI WP	FLOOR MOUNTED WEATHER PROOF GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE	FLOOR
	FLOOR MOUNTED SPECIAL RECEPTACLE. SEE PLANS FOR MORE INFORMATION.	FLOOR
	CEILING MOUNTED DUPLEX RECEPTACLE	CEILING
	CEILING MOUNTED QUAD RECEPTACLE OUTLET	CEILING
GFCI	CEILING MOUNTED GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE	CEILING
GFCI WP	CEILING MOUNTED WEATHER PROOF GROUND FAULT CURRENT INTERRUPTER TYPE RECEPTACLE	CEILING
	CEILING MOUNTED SPECIAL RECEPTACLE. SEE PLANS FOR MORE INFORMATION.	CEILING
	CEILING MOUNTED JUNCTION BOX WITH COVERPLATE	CEILING
	WALL MOUNTED JUNCTION BOX WITH COVERPLATE	18" AFF
	PANELBOARD 208Y/120V – UON	
	PANELBOARD 480Y/277V	
T	TRANSFORMER – SIZE AS NOTED	
30/1/NF/3R	DISCONNECT SWITCH – WW/X/YY/ZZ SWITCH FRAME SIZE/ POLES / FUSE SIZE / NEMA RATING	
1/1/NF/3R	COMBINATION MOTOR STARTER/DISCONNECT SWITCH, SURFACE MOUNTED – NEMA SIZE/ POLES / FUSE SIZE / NEMA RATING	
	VARIABLE FREQUENCY DRIVE	
M	MOTOR	
S	MOTOR RATED SWITCH – 2-POLE, 20A (WITH OVERLOADS)	AS NOTED
	AUTOMATIC DOOR PUSH PLATE	48" AFF
EPO	EPO – EMERGENCY POWER OFF	

TELECOMMUNICATIONS SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
EPO	EPO – EMERGENCY POWER OFF FOR TELECOMMUNICATIONS EQUIPMENT	48" A.F.F.
CATV	WALL MOUNTED CATV OUTLET. SEE DETAIL SHEETS.	AS NOTED
D	CEILING MOUNTED DATA OUTLET. SEE DETAIL SHEETS.	CEILING
V	CEILING MOUNTED VOICE OUTLET. SEE DETAIL SHEETS.	CEILING
D/V	CEILING MOUNTED COMBINATION VOICE/DATA OUTLET. SEE DETAIL SHEETS.	CEILING
D	FLOOR MOUNTED DATA OUTLET. SEE DETAIL SHEETS.	FLOOR
V	FLOOR MOUNTED VOICE OUTLET. SEE DETAIL SHEETS.	FLOOR
D/V	FLOOR MOUNTED COMBINATION VOICE/DATA OUTLET. SEE DETAIL SHEETS.	FLOOR
D	WALL MOUNTED DATA OUTLET. SEE DETAIL SHEETS.	18" A.F.F. UON
V	WALL MOUNTED VOICE OUTLET. SEE DETAIL SHEETS.	18" A.F.F. UON
D/V	WALL MOUNTED COMBINATION VOICE/DATA OUTLET. SEE DETAIL SHEETS.	18" A.F.F. UON
	WALL MOUNTED SPEAKER	AS NOTED
	CEILING MOUNTED SPEAKER	CEILING
	WALL MOUNTED MICROPHONE JACK	
	TELECOMMUNICATIONS BACKBOARD	
	CABLE TRAY – SLOTTED BOTOM – SIZE AS NOTED.	
	CABLE TRAY – LADDER TYPE – SIZE AS NOTED.	

MEDICAL SYMBOLS LEGEND

SYMBOL	DESCRIPTION	MOUNTING HEIGHT
NCMS	NURSE CALL MASTER STATION – MOUNTED ON NURSE'S COUNTER TOP UNLESS OTHERWISE NOTED	AS NOTED
NCT	NURSE CALL TERMINAL CABINET	AS NOTED
SPS	SINGLE PATIENT STATION	AS NOTED
CB	CODE BLUE STATION	AS NOTED
B	BED INTERFACE OUTLET STATION	AS NOTED
D	INFANT DISTRESS CODE STATION	AS NOTED
DAJS	DEVICE ALARM JACK STATION	AS NOTED
EPC	EMERGENCY PULL CORD STATION	AS NOTED
EPB	EMERGENCY PUSH BUTTON STATION	AS NOTED
SS	STAFF STATION	AS NOTED
SSA	STAFF STATION WITH ASSIST CALL BUTTON	AS NOTED
D	DURESS PUSH BUTTON STATION	AS NOTED
	NURSE CALL INDICATOR LIGHT	AS NOTED
	X-RAY IN USE LIGHT	AS NOTED
	PUBLIC ADDRESS SPEAKER – WALL MOUNTED	AS NOTED
	PUBLIC ADDRESS SPEAKER – CEILING MOUNTED	CEILING

SCHEMATIC SYMBOLS LEGEND

SYMBOL	DESCRIPTION
	CONTROL CIRCUIT PROTECTION FUSE (IDENTIFY FUSE RATING)
	HORN, HOWLER, SIREN, LOUDSPEAKER. FACES. ARROWS INDICATE DIRECTIONAL CHEVRONS
	BELL
	BUZZER
	CONTROL RELAY COIL (IDENTIFY RELAY PER SCHEM. LINE NUMBER)
TDO	TIMER RELAY COIL, TDO – TIME DELAY AFTER COIL DE-ENERGIZED TDC – TIME DELAY AFTER COIL ENERGIZED
	SOLENOID VALVE COIL
	CONTROL RELAY CONTACTS, NORMALLY OPEN
	CONTROL RELAY CONTACTS, NORMALLY CLOSED
TC	TIMER CONTACTS, TIME DELAY AFTER COIL ENERGIZED, NORMALLY OPEN
TO	TIMER CONTACTS, TIME DELAY AFTER COIL ENERGIZED, NORMALLY CLOSED
TO	TIMER CONTACTS, TIME DELAY AFTER COIL ENERGIZED, NORMALLY OPEN
TC	TIMER CONTACTS, TIME DELAY AFTER COIL ENERGIZED, NORMALLY CLOSED
	FLOW ACTUATED SWITCH (FLOW SWITCH) CLOSING ON INCREASE FLOW (N.O.)
	FLOW ACTUATED SWITCH (FLOW SWITCH) OPENING ON INCREASE FLOW (N.C.)
	FOOT OPERATED SWITCH, OPENS BY FOOT PRESSURE
	FOOT OPERATED SWITCH, CLOSES BY FOOT PRESSURE
	LIMIT SWITCH DIRECT ACTUATED SPRING RETURN NORMALLY OPEN
	LIMIT SWITCH DIRECT ACTUATED SPRING RETURN NORMALLY OPEN – HELD CLOSED
	LIMIT SWITCH DIRECT ACTUATED SPRING RETURN NORMALLY CLOSED
	LIMIT SWITCH DIRECT ACTUATED SPRING RETURN NORMALLY CLOSED – HELD OPEN
	LIQUID LEVEL ACTUATED SWITCH (FLOAT SWITCH) CLOSING ON RISING LEVEL (N.O.)
	LIQUID LEVEL ACTUATED SWITCH (FLOAT SWITCH) OPENING ON RISING LEVEL (N.C.)
	PRESSURE OR VACUUM ACTUATED SWITCH, CLOSING ON RISING PRESSURE (N.O.)
	PRESSURE OR VACUUM ACTUATED SWITCH, OPENING ON RISING PRESSURE (N.C.)
	PUSHBUTTON, MOMENTARY OR SPRING RETURN, SINGLE CIRCUIT
	PUSHBUTTON, MOMENTARY OR SPRING RETURN, DOUBLE CIRCUIT
	MUSHROOM-HEAD PUSHBUTTON, MOMENTARY OR SPRING RETURN, SINGLE CIRCUIT
	WOBBLE STICK
	TEMPERATURE ACTUATED SWITCH (THERMOSTAT) CLOSING ON RISING TEMPERATUR (N.O.)
	TEMPERATURE ACTUATED SWITCH (THERMOSTAT) OPENING ON RISING TEMPERATUR (N.C.)
	OPEN SWITCH WITH TIME DELAY CLOSING (TDC) FEATURE. THE POINT OF ARROW INDICATES DIRECTION OF THE SWITCH IN WHICH CONTACT ACTION IS DELAYED. (TYPICAL FOR TIME DELAY SWITCHES)
	CLOSED SWITCH WITH TIME DELAY OPENING (TDO) FEATURE
	OPEN SWITCH WITH TIME DELAY OPENING (TDO) FEATURE
	CLOSED SWITCH WITH TIME DELAY CLOSING (TDC) FEATURE
	TWO POSITION SELECTOR SWITCH, X-CONTACT CLOSED.
	THREE POSITION SELECTOR SWITCH, X-CONTACT CLOSED.
	THREE POSITION SELECTOR SWITCH, HAND-OFF-AUTO
A	INSTRUMENT METER, IDENTIFY METER TYPE: A – AMMETER, AH – AMPERE HOUR, mA – MILLAMMETER, PF – POWER FACTOR, V – VOLTMETER, VAR – VARMETER, VARH – VARHOUR, W –WATTMETER, WH – WATTHOUR
R	PILOT LIGHT, IDENTIFY COLOR: R – RED, A – AMBER, B – BLUE, G – GREEN, C – CLEAR, W – WHITE
R	PILOT LIGHT PUSH-TO-TEST, IDENTIFY COLOR: R – RED, A – AMBER, B – BLUE, G – GREEN, C – CLEAR, W – WHITE
	TERMINAL LOCATED IN MOTOR STARTER
	TERMINAL LOCATED AT CONTROL BOX
	TERMINAL LOCATED AT FACP
	DEVICE LOCATED AT MOTOR STARTER
	DEVICE LOCATED NEAR MOTOR
	DEVICE LOCATED AT FIELD
	DEVICE LOCATED AT CONTROL BOX

LIGHTING SWITCH NUMBERING
SCALE: NTS

THREE WAY SWITCH → S3X → FIXTURE BEING CONTROLLED

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

- DEMOLITION KEYNOTE INDICATOR
- NEW MATERIAL INDICATOR
- EQUIPMENT INDICATOR
- + 0'-0" FIN. FLR. — ELEVATION INDICATOR
- ROOM NAME — ROOM NAME/NUMBER INDICATOR
- BREAK LINE INDICATOR
- COLUMN INDICATOR
- NORTH ARROW
- DRAWING SCALE INDICATOR — 1/8"=1'-0" 0' 5' 10' 20' 30'

DETAIL CALLOUT INDICATOR
VIEW# / SHEET — DETAIL NUMBER; SHEET DETAIL IS LOCATED ON

INTERIOR ELEVATION INDICATOR
VIEW# / SHEET; 1 / SHEET 2; 1 / 4 SHEET 2 / 3 — DIRECTION OF ELEVATIONS; DETAIL NUMBER; SHEET DETAIL IS LOCATED ON

EXTERIOR ELEVATIONS INDICATOR
VIEW# / SHEET — DIRECTION OF CUTTING PLANE; DETAIL NUMBER; SHEET DETAIL IS LOCATED ON

WALL SECTION INDICATOR
VIEW# / SHEET — DIRECTION OF CUTTING PLANE; DETAIL NUMBER; LIMIT OF CUTTING PLANE; LINE OF CUTTING PLANE; SHEET DETAIL IS LOCATED ON

BUILDING SECTION INDICATOR
VIEW# / SHEET — VIEW# / SHEET — DIRECTION OF CUTTING PLANE; DETAIL NUMBER; SHEET DETAIL IS LOCATED ON; LINE OF CUTTING PLANE

ENLARGED DETAIL/AREA INDICATOR
VIEW# / SHEET — DETAIL NUMBER; SHEET DETAIL IS LOCATED ON; LIMIT OF ENLARGED AREA

DRAWING TITLE INDICATOR
VIEW TITLE — DRAWING VIEW TITLE
Scale: SCALE — DRAWING VIEW SCALE
DRAWING VIEW NUMBER

REVISION CLOUD AND NUMBER INDICATOR
REVISION CLOUD (LIMITS OF REVISION AREA)
3 — REVISION NUMBER (PRE-AWARD AMMENDMENTS)
C — REVISION LETTER (POST-AWARD AMMENDMENTS)

PANELBOARD NUMBERING
SCALE: NTS

LP 1 A-1

PANEL PURPOSE
PP – POWER
LP – LIGHTING
E** – EMERGENCY PREFIX
LS** – LIFE SAFETY PREFIX

FOR CIRCUITRY INCLUDE BREAKER NUMBER
1
2
3
4
5
ETC

PANEL LOCATED ON FLOOR NUMBER
1 – FIRST
2 – SECOND
3 – THIRD
ETC

SEQUENCE PANEL NUMBER PER FLR
A – FIRST
B – SECOND
C – THIRD
ETC

APPR	DATE	DESCRIPTION	SYM
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NAVFAC

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A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES	LOR	DRW	LOR
CHK	MC		
DESIGN MANAGER	K.MOOREHEAD		
PROJECT MANAGER	O.HARRIS		
CHIEF ENG/ARCH	M.CONTESTABILE		
FIRE PROTECTION	A.DISANTO		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELEC ABBREVIATIONS AND SYMBOLS LEGEND

SCALE:	AS NOTED
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

E001

FILE NAME: P:\CIBL\project_files\FLORIDA\naval support actv panama city\fy16\1608\maritime mining facility (cp project--1802981\working technical files\electrical\dwg final\DWG\E001 ELEC ABBREVIATIONS AND SYMBOLS LEGEND.dwg LAYOUT NAME: E001 ELEC ABBREVIATIONS AND SYMBOLS LEGEND PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz

ELECTRICAL GENERAL NOTES

1. ALL ELECTRICAL WORK IS NEW, UNLESS OTHERWISE NOTED (UON), AND SHALL BE INSTALLED IN ACCORDANCE WITH THE LATEST EDITION OF THE NEC, NFPA, OSHA IN EFFECT AT THE START OF THE CONTRACT AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY ELECTRICAL EQUIPMENT AND CONNECTIONS INCLUDING CONTROL WIRING IN CONDUIT SYSTEM TO OTHER DISCIPLINES' EQUIPMENT AS INDICATED/AS REQUIRED FOR A COMPLETE, FUNCTIONAL ELECTRICAL CONTROL SYSTEM. FOR CLARITY, NOT ALL FINAL CONNECTION AND/OR WIRING ARE SHOWN ON THE DRAWINGS.
2. ALL MATERIAL SHALL BE NEW AND SHALL CONFORM TO THE STANDARDS OF THE UNDERWRITER'S LABORATORIES, INC., AND THE NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION.
3. DRAWINGS ARE DIAGRAMMATIC ONLY AND INDICATE ONLY THE GENERAL ARRANGEMENT. SEE ARCHITECTURAL DRAWINGS FOR EXACT DIMENSIONS.
4. DRAWINGS ARE DIAGRAMMATIC AND DO NOT SHOW ALL OFFSETS, BENDS, ELBOWS, JUNCTION BOXES, WIRE TROUGHS, PULL BOXES OR OTHER REQUIRED ELEMENTS FOR PROPER INSTALLATION OF THE WORK. ALL NECESSARY MATERIALS NEEDED TO FULFILL THE PROJECT REQUIREMENTS SHALL BE PROVIDED AT NO ADDITIONAL COST TO THE GOVERNMENT. SIZES SHALL BE PER APPLICABLE CODES.
5. ELECTRICAL WORK SHALL BE COORDINATED WITH ALL DISCIPLINES. COORDINATE WITH ARCHITECTURAL, FIRE PROTECTION AND MECHANICAL CONTRACT DOCUMENTS IN TERMS OF EQUIPMENT COMPATIBILITY AND MOUNTING ARRANGEMENT PRIOR TO INSTALLATION. PROVIDE COORDINATION DRAWINGS AS SPECIFIED IN THE SPECIFICATIONS.
6. THE LOCATIONS OF SWITCHES, PANELS AND OTHER EQUIPMENT ARE APPROXIMATE. COORDINATE AND INSTALL THESE ITEMS SO AS TO ELIMINATE INTERFERENCE WITH DUCTS, PIPES AND ALL OTHER EQUIPMENT. ADJUST MOUNTING HEIGHTS AND PROVIDE APPROPRIATE MOUNTING HARDWARE AS REQUIRED.
7. PROVIDE WIRING AND CONDUIT SIMILAR TO EXISTING INSTALLATION WHERE THE RELOCATED/REINSTALLED AND NEW ELECTRICAL EQUIPMENT REQUIRE ADDITIONAL ROUTING FOR RECONNECTIONS TO EXISTING CIRCUITS.
8. PROVIDE ACCESS DOORS FOR ALL CONCEALED CONDITIONS IN WALL, CEILINGS AND CHASESS TO ALLOW MAINTENANCE ACCESS. ALL DOORS MUST MEET THE UL RATING IN RELATED AREAS OF CONSTRUCTION, AND CODE ACCESS CLEARANCE REQUIREMENTS.
9. PROVIDE EQUIPMENT GROUNDING TO ALL CIRCUITS, SIZED AS PER NEC, AND AS SHOWN ON THE DRAWINGS.
10. COMPLY WITH NFPAS, UFC, OTHER APPLICABLE CODES AND AUTHORITY HAVING JURISDICTION OR AS SHOWN ON THE DRAWINGS FOR MOUNTING HEIGHTS OF ALL ELECTRICAL EQUIPMENT AND DEVICES. MAINTAIN MINIMUM WORKING CLEARANCES REQUIRED BY NEC, UNLESS APPROVED IN WRITING.
11. DO NOT DISTURB ANY WIRING WHOSE ORIGIN, FUNCTION OR UTILITY ARE UNKNOWN WITHOUT PRIOR APPROVAL FROM THE COR. FIELD VERIFY ALL CIRCUITS BEING IMPACTED PRIOR TO THE START OF WORK.
12. MOUNT ALL WIRING DEVICES RECESSED ON WALL IN FINISHED AREAS AND SURFACE IN MECHANICAL/ELECTRICAL EQUIPMENT ROOMS, UON.
13. PROVIDE OVER CURRENT PROTECTION DEVICES SIMILAR TO EXISTING INSTALLATION IN TERMS OF AIC RATINGS AND CHARACTERISTICS WHEN MODIFICATIONS TO PANELS, ETC ARE REQUIRED.
14. DETERMINE ROUTING FOR WIRING AND CABLING BASED ON A COMPLETE FIELD INSPECTION AND COORDINATION DRAWINGS. ADVISE THE COR OF AREAS THAT PRESENT ROUTING PROBLEMS INCLUDING INACCESSIBLE CEILING AREAS OR UNUSUAL CEILING CONSTRUCTIONS. COORDINATE ROUTING WITH COR AND OBTAIN WRITTEN APPROVAL PRIOR TO START OF ROUTING WORK.
15. NOTIFY THE COR IF A CONDITION PREVENTS THE INTENT OF THESE PLANS.
16. REFER TO ALL CONTRACT DOCUMENT WORK FOR POSSIBLE INTERFERENCES BEFORE BID IS MADE. NO ALLOWANCE SHALL SUBSEQUENTLY BE MADE BY THE CONTRACTOR FOR REASON OF THIS FAILURE TO HAVE MADE SUCH EXAMINATIONS OR OF ANY ERROR ON HIS PART.
17. FOLLOW MANUFACTURER'S WRITTEN INSTRUCTIONS FOR INSTALLATIONS, UNLESS INDICATED OR SPECIFIED OTHERWISE. ADVISE THE COR AND OBTAIN WRITTEN DIRECTION FROM THE COR IF CONFLICTS EXIST BETWEEN MANUFACTURERS REQUIREMENTS AND CONTRACT DOCUMENTS PRIOR TO THE START OF THE AFFECTED WORK.
18. CONDUCTORS/CONDUIT SIZES LABELED FOR EACH BRANCH CIRCUIT/FEEDER RUN SHALL BE CONSIDERED THE SAME FOR ALL DOWNSTREAM RUNS UNTIL THE SIZES ARE CHANGED OR TERMINATED.
19. CONTRACTOR SHALL MAKE ALL ELECTRICAL POWER CONNECTIONS TO HVAC, PLUMBING, AND OTHER EQUIPMENT AS REQUIRED.
20. A COMPLETE GROUNDING SYSTEM SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH ARTICLE 250 OF THE NEC, AND AS SHOWN ON THE DRAWINGS.
21. ALL WIRING SHALL BE INSTALLED IN RGS, IMC, OR EMT, UON. EMT SHALL NOT BE USED IN OR UNDER CONCRETE SLABS, OR IN MASONRY WALLS. USE SCHEDULE 40 PVC BELOW GRADE WHERE NOT SUBJECT TO PHYSICAL DAMAGE OR BELOW FLOOR SLAB. MINIMUM SIZE CONDUIT ABOVE GROUND 3/4" AND BELOW GROUND 1" UNLESS NOTED OTHERWISE.
22. ALL RACEWAYS (EXCEPT THOSE BELOW SLAB OR GRADE) SHALL BE INSTALLED PARALLEL OR PERPENDICULAR TO BUILDING LINES.
23. CONDUCTORS SHALL BE COPPER, RATED AT NOT LESS THAN 600 VOLTS. MINIMUM SIZE SHALL BE #12 AWG UON ON THE DRAWINGS. ALL WIRE #8 AND LARGER SHALL BE STRANDED. ALL CONDUCTORS #10 AND SMALLER SHALL BE SOLID, UNLESS OTHERWISE NOTED.
24. BRANCH CIRCUIT CONDUCTORS SHALL BE TYPE THHN OR THWN AS REQUIRED.
25. ALL SPARE CONDUITS SHOULD BE CAPPED AT EACH END AND PROVIDED WITH A PULLWIRE.
26. NO WIRING DEVICES OR OUTLET BOXES SHALL BE INSTALLED BACK TO BACK ON THE SAME WALL.
27. IF NECESSARY, CONTRACTOR SHALL INCREASE CIRCUIT CONDUCTORS BY ONE WIRE SIZE TO COMPENSATE FOR VOLTAGE DROP. THE FOLLOWING IS A SUGGESTED GUIDE. IN NO CASE SHALL VOLTAGE DROP EXCEED NEC REQUIREMENTS. ANY RELEVANT WIRE SIZE INCREASE SHALL BE PROVIDED WITH SUPPORTED VOLTAGE DROP CALCULATIONS.

CIRCUIT	MAXIMUM CIRCUIT LENGTH	NORMAL WIRE SIZED	INCREASED WIRE SIZED TO
15A, 20A – 120V, 1PH	65'	#12	#10
20A – 208V, 1PH	120'	#12	#10
20A – 277V, 1PH	150'	#12	#10

28. PROVIDE A TYPED DIRECTORY IN ALL PANELBOARDS CLEARLY DESCRIBING THE LOCATION OF AND TYPE OF LOAD BEING SERVED FOR ALL CIRCUITS.
29. PROVIDE ENGRAVED PHENOLIC NAMEPLATES FOR ALL SWITCHBOARDS, SWITCHGEAR, PANELBOARDS AND TRANSFER SWITCHES, DISCONNECT SWITCHES, COLORS AS PROVIDED IN THE SPECIFICATIONS.
    - MACHINE LABEL ALL RECEPTACLES AND SWITCHES INSTALLED WITH THE PANELBOARD DESIGNATION AND CIRCUIT NUMBER SUPPLYING THE DEVICE.
    - LABEL ALL JUNCTION BOXES TO INDICATE PANEL AND CIRCUIT NUMBERS CONTAINED IN JUNCTION BOX.
    - JUNCTION BOXES MAY BE LABELED USING BLACK MARKER IF JUNCTION BOX IS LOCATED ABOVE SUSPENDED CEILING, BELOW RAISED DECK OR IS EXPOSED INSIDE A DEDICATED ELECTRICAL, MECHANICAL OR TELECOMMUNICATION ROOM.
30. VERIFY ALL REQUIREMENTS AND COORDINATE EXACT LOCATION OF INCOMING ELECTRICAL SERVICE WITH LOCAL POWER UTILITY PRIOR TO PROJECT START-UP. NOTIFY ENGINEER OF ANY CHANGES AS MAY BE REQUIRED.
31. THE CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTING ALL ELECTRICAL EQUIPMENT FROM FOREIGN MATERIAL DURING CONSTRUCTION (PAINT, SPACKLE, ETC).
32. PENETRATIONS OF FIRE-RATED PARTITIONS, WALLS OR FLOORS, BY DATA AND COMMUNICATION WIRING OR CABLE SHALL BE THROUGH MODULAR, RE-ENTERABLE FIRESTOPPING DEVICE(S) CONTAINING SELF SEALING INTUMESCENT INSERTS AND MAINTAIN AN AIR LEAKAGE RATING OF <5 CFM/SF (MEASURED AT AMBIENT AIR TEMPERATURE AND 205 DEGREES C (400 DEGREES F)) AT 0 TO 100 PERCENT VISUAL FILL PER SECTION 07 84 00.
33. IN REQUIRED FIRE RATED WALLS AND PARTITIONS, OPENINGS FOR INSTALLATION OF BOXES THAT ARE GREATER THAN 16 SQUARE INCHES SHALL BE PROTECTED IN ACCORDANCE WITH NFPA 101 AND 221. COORDINATE CLOSELY WITH THE GENERAL CONTRACTOR TO INSURE THAT THE INTEGRITY OF THE U.L. RATING UP TO 4"PENETRATIONS OF 3 & 4 HOUR CONC. OR BLOCK WALLS & FLOORS – UL #CBJ1020.
34. PROVIDE FIRESTOP PROTECTION AT NEW PIPING AND CONDUITS PENETRATING FIRE RATED CONSTRUCTION. SEAL VOIDS BETWEEN SLEEVES AND BUILDING CONSTRUCTION WITH JOINT SEALANTS. MAKE ALLOWANCES FOR AND COORDINATE THE WORK WITH INSTALLATION OF FIRESTOPPING, CONDUIT INSULATION AND WATERPROOFING, AS APPLICABLE. SEAL EACH ANNULAR SPACE BETWEEN CONDUITS OR CABLE AND BUILDING SURFACES. THE CONTRACTOR SHALL BE RESPONSIBLE FOR DETERMINING THE NUMBER OF PENETRANTS, LOCATION AND THE TYPE OF CONSTRUCTION BEING PENETRATED AND PROVIDE THE APPROPRIATE SEALANT AND/OR FIRESTOPPING.
35. WHERE A HOME RUN IS SHOWN THE CIRCUIT SHALL BE INSTALLED IN A DEDICATED CONDUIT, DO NOT COMBINE WITH OTHER CIRCUITS. WHERE A CIRCUIT HOMERUN IS NOT SHOWN, THE CONTRACTOR SHALL COMBINE CIRCUITS AS FOLLOWS:
    - A MAXIMUM OF THREE 20A BRANCH CIRCUITS MAY BE COMBINED IN A COMMON HOMERUN WITH SEPARATE NEUTRALS FOR A MAXIMUM OF TOTAL OF SIX CURRENT CARRYING CONDUCTORS.
    - ALL BRANCH CIRCUITS LARGER THAN 20A SHALL BE SEPARATE HOMERUNS TO THE PANEL.
36. ALL RACEWAYS SHALL BE CONCEALED UNLESS OTHERWISE NOTED AND THAT THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS ASSOCIATED WITH CONCEALING RACEWAYS AFTER (INITIAL) BLOCK CONSTRUCTION.

ELECTRICAL GENERAL NOTES, CONTINUED

37. ALL TERMINALS, SPLICING CONNECTORS, LUGS, ETC. SHALL BE IDENTIFIED FOR USE WITH THE MATERIAL (CU/AL) OF THE CONDUCTOR AND SHALL BE PROPERLY INSTALLED.
38. CARE MUST BE TAKEN WHEN WORKING WITH AMI METERS. METERS INDICATED TO BE RELOCATED SHALL BE REMOVED, STORED AS NECESSARY AND REINSTALLED. RELOCATION OF AMI METER INCLUDES ALL OF THE METERING INSTALLATION SUCH AS CT'S, ANTENNAS, RADIO CABINETS, ETC. REINSTALLED METERING SHALL BE VERIFIED AS FUNCTIONING CORRECTLY AFTER REINSTALLATION.
39. THE WORD "PROVIDE" MEANS TO PROVIDE AND INSTALL UNLESS NOTED OTHERWISE.
40. PROVIDE CIRCUIT BREAKERS AS FOLLOWS:
    - SIZE CIRCUIT BREAKER INTERRUPTING RATINGS BASED ON THE AVAILABLE SHORT CIRCUIT CURRENT; HOWEVER, DO NOT SELECT CIRCUIT BREAKERS LESS THAN 10KA SYMMETRICAL INTERRUPTING RATING FOR 240V AND BELOW, 14KA SYMMETRICAL INTERRUPTING RATING FOR 480V APPLICATIONS.
    - DO NOT USE SERIES-COMBINATION RATED BREAKERS
    - FOR SWITCHGEAR AND SWITCHBOARDS PROVIDE ELECTRONIC TRIP CIRCUIT BREAKERS.
    - UTILIZE ELECTRONIC TRIP CIRCUIT BREAKERS WITH LSI OR LSG (ACCORDINGLY) RATING TO THE GREATEST EXTENT POSSIBLE TO ALLOW FOR CLOSER COORDINATION OF THE DISTRIBUTION SYSTEM.
    - WHEN REQUIRED FOR COORDINATION BETWEEN BRANCH BREAKER TO UPSTREAM BREAKER, AND MAIN BREAKER PROVIDE ELECTRONIC TRIP CIRCUIT

CIRCUIT BREAKER FRAME SIZE (AMPS)	CIRCUIT BREAKER TRIP SIZE (AMPS)
250 (THERMAL MAGNETIC TYPE)	100-150
400	150-300
600	300-450
800	450-700
1000	800
1200	1000
1600	1200
2000	1600
3000	2000-2500
4000	2500-3000

41. THIS SHEET IS A STANDARD SHEET. CERTAIN SYMBOLS AND ABBREVIATIONS INDICATED ON THIS SHEET MAY NOT APPEAR ON THE DRAWINGS.

ELECTRICAL DEMOLITION NOTES

1. WHERE EQUIPMENT IS DEMOLISHED, REMOVE ALL ASSOCIATED BRANCH CIRCUITRY FEEDER/CONDUIT SYSTEM BACK TO SOURCE WHICH IS DEFINED AS SWITCHBOARD, PANELS, OR PULL/JUNCTION/OUTLET BOXES ETC. FROM WHICH THE CIRCUITS ARE SERVING OTHER UNDISTURBED EQUIPMENT, UON.
2. DUE TO LARGE NUMBER OF EXISTING ELECTRICAL SYSTEM, EQUIPMENT/DEVICES AND FOR CLARITY PURPOSES, NOT ALL OTHER NON-ELECTRICAL EQUIPMENT OR ALL ITEMS SUCH AS CONDUITS, JUNCTION BOXES, PULL BOXES, WIRE TROUGHS, WIREWAYS, RACEWAYS, DETAILED CONNECTIONS, EQUIPMENT PADS, ETC. ASSOCIATED WITH DEMOLISHED ELECTRICAL EQUIPMENT ARE SHOWN. REMOVE ALL ITEMS RELATED TO DEMOLISHED ELECTRICAL EQUIPMENT AND LEAVE OTHER ETR SYSTEM EQUIPMENT INTACT.
3. REMOVE ALL HARDWARE UTILIZED FOR SUPPORT OF DEMOLISHED ELECTRICAL EQUIPMENT AND FEEDERS, INCLUDING BUT NOT LIMITED TO CHANNELS, INSERTS, STUDS, THREADED RODS, HANGERS, STRAPS, CLAMPS, ETC. IN ADDITION, REMOVE ALL UNUSED/ABANDONED ELECTRICAL CONDUITS, WIRES, DEVICES, ETC. WITHIN THE AREA OF WORK UNDER THIS PROJECT, UON. CUT BELOW THE FLOORS/WALLS AND CAP ALL EMBEDDED CONDUITS. PATCH DAMAGED FLOORS/WALLS TO MATCH ADJACENT FINISHES. REFINISH ABANDONED OUTLETS/HOLES ON WALLS WITH MATERIAL SIMILAR TO EXISTING, PROVIDE COVER PLATE IF OUTLETS SERVE ETR CIRCUITS.
4. MAINTAIN ALL EXISTING CIRCUITS, CONDUITS, TRAYS AND FEEDERS PASSING THROUGH AND SERVING UNDISTURBED AREAS. RESTORE THESE ITEMS TO MAINTAIN CONTINUITY WHERE INTERRUPTED BY DEMOLITION. REROUTE/RELOCATE THESE ITEMS AS NECESSARY TO ELIMINATE INTERFERENCE AND TO FACILITATE THE INSTALLATION OF NEW WORK AT NO ADDITIONAL COST.
5. TURN OVER ALL APPLICABLE ELECTRICAL EQUIPMENT INDICATED TO BE SALVAGED TO THE COR, IF NOT FOR REUSE. MATERIALS DESIGNATED AS SALVAGE FOR REUSE AND DAMAGED BY THE CONTRACTOR SHALL BE REPLACED AT NO ADDITIONAL COST.
6. PROVIDE ALL DEMOLITION WORK NECESSARY TO INSTALL NEW WORK. REROUTE AND RECONNECT CIRCUITS THAT WILL REMAIN IN USE BUT INTERFERE WITH NEW CONSTRUCTION.
7. EXERCISE CARE IN REMOVING DEMOLISHED ITEMS AND REPAIR ANY DAMAGE TO EXISTING FINISHES AND EQUIPMENT.
8. REPAIR AND SEAL ALL CONDUIT PENETRATIONS OF WALLS, SLABS, ROOF AND STRUCTURE RESULTING FROM THE DEMOLITION WORK. MATCH EXISTING WALL STRUCTURE AND FINISH DETAILS.
9. VERIFY THE EXISTING POWER DISTRIBUTION SYSTEM AND ALL COMMUNICATIONS SYSTEMS PRIOR TO EXECUTION OF THE DEMOLITION WORK. DOCUMENT AND TAG ALL FEEDER/BRANCH CIRCUITS AT EXISTING SWITCHBOARD/PANELBOARDS ETC. AS REQUIRED FOR THE NEW WORK/RECONNECTION.
10. PROVIDE TAGS AND LABEL ON ALL CIRCUITS AND EQUIPMENT TO REMAIN IN SERVICE.
11. IF THE EXISTING EQUIPMENT FEEDS OTHER AREA, INVESTIGATE AND TRACE CIRCUITS TO REFEED FROM OTHER PANELBOARDS, IF DISTURBED.
12. REMOVE ALL CONTROL AND OTHER WIRING CONDUITS ASSOCIATED WITH THE EQUIPMENT REMOVAL.
13. DISCONNECT AND REMOVE ALL INTERIOR ELECTRICAL EQUIPMENT DELIVERING POWER TO AND THROUGHOUT THE BUILDING, TO MAKE THE BUILDING SAFE FOR INTERIOR DEMOLITION. THIS SHALL BE INCLUSIVE OF, BUT NOT LIMITED TO, SWITCHBOARDS, PANELBOARDS, ETC., WHETHER SHOWN ON THIS DRAWING OR OTHERWISE.
14. COORDINATE ELECTRICAL DEMOLITION WORK WITH ARCHITECTURAL, MECHANICAL, PLUMBING DRAWINGS FOR EXACT SCOPE OF DEMOLITION WORK AS IT PERTAINS TO THE REMODELEING.
15. THE ELECTRICAL CONTRACTOR SHALL CONSULT WITH COR TO DETERMINE IF THE FOLLOWING ITEMS SHALL BE RETAINED BY THE GOVERNMENTS; THE ELECTRICAL CONTRACTOR SHALL DISCONNECT, REMOVE AND TURN OVER ALL RETAINED ITEMS TO THE COR, AT AN APPROVED LOCATION:
    - PANELBOARDS AND CIRCUIT BREAKERS
    - SPECIAL LIGHTING FIXTURES
    - TELECOMMUNICATIONS SYSTEM COMPONENTS
    - SIGNAL SYSTEM COMPONENTS
16. SERVICES PASSING THROUGH AREAS OF REMODELING SHALL BE MAINTAINED THROUGHOUT THE CONSTRUCTION PERIOD. CIRCUITS SERVING AREAS ADJACENT TO THE CONSTRUCTION AREA, THAT ARE MODIFIED AS PART OF THE REMODELING PROJECT, SHALL BE RE-CIRCUITED AS PART OF THE PROJECT.
17. CONDUIT RUN IN THE EXISTING CONCRETE SLAB SHALL BE SAW-CUT OFF AS IT ENTERS THE SLAB AND THEN SEALED TO PREVENT MOISTURE ACCESS.
18. PROVIDE TEMPORARY AND/OR MODIFY EXISTING POWER, LIGHTING, FIRE ALARM, TELECOMMUNICATIONS AND OTHER SERVICES AS REQUIRED FOR CONSTRUCTION PERIOD INTERIM LIFE SAFETY MEASURES.
19. REMOVE ALL ABANDONED TELECOMMUNICATION CABLING AS REQUIRED BY NEC.
20. WHERE EQUIPMENT IS RETAINED AND AFFECTED BY DEMOLITION, REMOVE PART OF THE WIRING/CONDUIT CONNECTIONS UP TO A POINT FOR RECONNECTION. PROVIDE A JUNCTION BOX FOR RECONNECTIONS UNDER NEW WORK.
21. FOR EXISTING FEEDERS/BRANCH CIRCUITS LABELED UNKNOWN ON SCHEDULES, INVESTIGATE AND TRACE TO PROPERLY LABEL THEM ON FINAL SCHEDULES PROVIDED ON EQUIPMENT.

ELECTRICAL ABBREVIATIONS LEGEND

A	AMPERE	MLO	MAIN LUGS ONLY
ACT	ABOVE COUNTER TOP	MOD	MOTOR OPERATED DAMPER
AC	ALTERNATING CURRENT	MSB	MAIN SWITCH BOARD
ADA	AMERICANS W/DISABILITIES ACT	MSG	MAIN SWITCH GEAR
AF	AMP FRAME, AMP FUSE	MTD	MOUNTED
AFF	ABOVE FINISHED FLOOR	NE	NORMAL EMERGENCY
AGC	AUTOMATIC GAIN CONTROL	NEC	NATIONAL ELECTRICAL CODE
AHU	AIR HANDLING UNIT	NEUT	NEUTRAL
ALT	ALTERNATE	NF	NON FUSED
APPROX	APPROXIMATELY	NFS	NON FUSED SWITCH
AT	AMP TRIP OR AMP TAP	NIC	NOT IN CONTRACT
@	AT	NTS	NOT TO SCALE
ATC	AUTOMATIC TEMPERATURE CONTROL	OC	ON CENTER
ATS	AUTOMATIC TRANSFER SWITCH	OH	OVERHEAD
AUX	AUXILIARY	OHD	OVERHEAD DOOR
AWG	AMERICAN WIRE GAGE	P	POLE(S) OR PILOT
BMS	BUILDING MANAGEMENT SYSTEM	PB	PULLBOX
C	CONDUIT	PC	PLUMBING CONTRACTOR
CATV	COMMUNITY ANTENNA TELEVISION SYSTEM	PL	PILOT LIGHT
CB	CIRCUIT BREAKER	PNL	PANELBOARD
CCTV	CLOSED CIRCUIT TV	PP	POWER PANEL
CEF	CEILING EXHAUST FAN	PRV	POWER ROOF VENTILATOR
CKT	CIRCUIT	PVC	POLYVINYL CHLORIDE
℄	CENTERLINE	R	RELAY
CLF	CURRENT LIMITING FUSE	RECP	RECEPTACLE
CLG	CEILING	REQ'D	REQUIRED
CS	CONTROL SWITCH	REV	REVISION
CT	CURRENT TRANSFORMER	RGS	RIGID GALVANIZED STEEL
CU	COPPER	RTU	ROOF TOP UNIT
CUH	CABINET UNIT HEATER	SEC	SECONDARY
DIA	DIAMETER	SMR	SURFACE MOUNTED RACEWAY
DC	DIRECT CURRENT	SPECS	SPECIFICATIONS
DN	DOWN	ST	SHUNT TRIP
DWG	DRAWING	STR	STARTER
EA	EACH	SW	SWITCH
EC	ELECTRICAL CONTRACTOR	SWBD	SWITCHBOARD
EF	EXHAUST FAN	SWGR	SWITCHGEAR
ELU	EMERGENCY LIGHTING UNIT	TEL	TELEPHONE
EM	EMERGENCY	TEMP	TEMPORARY
EMT	ELECTRICAL METALLIC TUBING	TERM	TERMINAL
EPO	EMERGENCY POWER OFF	TV	TELEVISION
EX	EXISTING (EXIST)	TP	TWISTED PAIR
EWC	ELECTRIC WATER COOLER	TSP	TWISTED SHIELDED PAIR
FA	FIRE ALARM / FEEDER AMPLIFIER	TYP	TYPICAL
FCU	FAN COIL UNIT	UG	UNDERGROUND
FDR	FEEDER	UHF	ULTRA HIGH FREQUENCY
FS	FUSIBLE SWITCH	UON	UNLESS OTHERWISE NOTED
FU	FUSE	UPS	UNINTERRUPTIBLE POWER SUPPLY
GC	GENERAL CONTRACTOR	UV	UNIT VENTILATOR
GEN	GENERATOR		VOLT
GFI	GROUND FAULT INTERRUPTER	VERT	VERTICAL
GRD	GROUND	VFD	VARIABLE FREQUENCY DRIVE
HC	HEATING CONTRACTOR	VHF	VERY HIGH FREQUENCY
HID	HIGH INTENSITY DISCHARGE		WIRE
HP	HORSEPOWER	W/	WITH
HPS	HIGH PRESSURE SODIUM	WP	WEATHERPROOF
HUH	HORIZONTAL UNIT HEATER	XFMR	TRANSFORMER
HZ	FREQUENCY IN CYCLES PER SECOND	XP	EXPLOSION PROOF
JB	JUNCTION BOX		
KCMIL	THOUSAND CIRCULAR MILS		
KV	KILOVOLT		
KVA	KILOVOLT AMPERES		
KVAR	KILOVAR		
KW	KILOWATT		
KWH	KILOWATT HOURS		
LAN	LOCAL AREA NETWORK		
MAX	MAXIMUM		
MC	MECHANICAL CONTRACTOR or METAL CLAD CABLE		
MCB	MAIN CIRCUIT BREAKER		
MCM	THOUSAND CIRCULAR MILS		
MDP	MAIN DISTRIBUTION PANEL		
MDS	MAIN DISTRIBUTION SWITCHBOARD		
MCC	MOTOR CONTROL CENTER		
MH	MANHOLE OR METAL HALIDE		
MIC	MICROPHONE		
MIN	MINIMUM		
MISC	MISCELLANEOUS		

APPR	DATE	DESCRIPTION	CTM
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NAVFAC

FOR BID ONLY
NOT FOR CONSTRUCTION

SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

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SATISFACTORY TO DATE .

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER K.MOOREHEAD
PROJECT MANAGER O.HARRIS
CHIEF ENG/ARCH M.CONTESTABILE
FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELECTRICAL GENERAL NOTES

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

E002

FILE NAME: P:\CBL\project_files\FLORIDA\naval support actv panama city\h\h61008\maritime mining facility cip project--1802981\working technical files\electrical\dwg final\DWG\E002 ELECTRICAL GENERAL NOTES.dwg LAYOUT NAME: E002 ELECTRICAL GENERAL NOTES PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz

FILE NAME: P:\ORD\project_files\FLORIDA\naval support octy panama city\hlr61008\maritime mining facility cip project-1802981\working technical files\electrical\dwg final\DWG\EDS101 ELECTRICAL SITE-DEMO.dwg LAYOUT NAME: EDS101 ELECTRICAL SITE-DEMO PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz

MANHOLE #1E

DEMO EXISTING ELECTRICAL DUCTBANK

SW-04

SW-05

STORAGE

SKYLARK ROAD

MARITIME MINING FACILITY

B-436

B-618

MATCHLINE SEE SHEET EDS101/2

1 ELECTRICAL SITE – DEMO
Scale: 3/32" = 1'-0"

PLAN NORTH

GENERAL NOTES

BEFORE DEMOLITION OF THE EXISTING POWER, COMMUNICATIONS AND CATV CABLES INSIDE THE HATCH AREA (REFER TO SHEET C200) CONTRACTOR SHALL:

1. FIELD VERIFY END TO END SERVICE.
2. VERIFY IF THE EXISTING INFRASTRUCTURE IS IN SERVICE OR ABANDONED.
3. VERIFY THE ENTIRE ROUTE OF THE CABLE(S) INCLUDING MANHOLES, HANDHOLES, AND DUCTBANKS.
4. IF THE CABLES IN SERVICE HAVE CONFLICTS WITH THE NEW CONSTRUCTION, THEY SHALL BE RELOCATED OUT OF THE CONSTRUCTION AREA.
5. MEDIUM VOLTAGE CONDUCTOR SHALL BE REPLACED FROM SW-05 TO JB-582. CONCRETE DUCTBANK SHALL BE REPLACED WHERE INDICATED IN THIS DRAWING.
6. COORDINATE WITH CIVIL TRADES PRIOR TO ANY EXCAVATIONS.

MATCHLINE SEE SHEET EDS101/1

MANHOLE #2E

JB-582

2 ELECTRICAL SITE – DEMO
Scale: 3/32" = 1'-0"

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

APPR	DATE	DESCRIPTION	CTM
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NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES LOR DRW LOR CHK MC

DESIGN MANAGER K.MOOREHEAD

PROJECT MANAGER O.HARRIS

CHIEF ENG/ARCH M.CONTESTABILE

FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELECTRICAL SITE-DEMO

SCALE: --

EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

EDS101

FILE NAME: P:\CIBE_project_files\FLORIDA\naval support actv panama city\fy16\1008\maritime mining facility cip project-1802981\working technical files\electrical\dwg files\DWG\ES101 ELECTRICAL SITE - NEW.dwg LAYOUT NAME: ES101 ELECTRICAL SITE - NEW PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz

MANHOLE #1E

(1) 5" PVC SCH.40, 3#2/0 @15kV & 1#4/0 GND @ 600V, &
(1) 5" PVC SCH.40 SPARE CONDUIT, CONCRETE ENCASED DUCTBANK

UGE

E501

SW-04

SW-05

STORAGE

MARITIME MINING FACILITY

SKYLARK ROAD

B-436

B-618

30in

2
E501

FRONT

(2)3" PVC SCH.40

NEW 12.47KV TO
208/120V, 150 KVA
TRANSFORMER

(2)5" PVC SCH.40

REPLACE UP TO JB-582

MATCHLINE SEE
SHEET ES101/2

1 ELECTRICAL SITE – NEW
Scale: 3/32" = 1'-0"

MATCHLINE SEE
SHEET ES101/1

MANHOLE #2E

JB-582

2 ELECTRICAL SITE – NEW
Scale: 3/32" = 1'-0"

PLAN
NORTH

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

GENERAL NOTES

1. CONTRACTOR WILL PROVIDE NEW PRIMARY CONCRETE ENCLOSED DUCTBANKS FROM MANHOLE#1E TO MANHOLE #2E AND FROM EXISTING B618 TRANSFORMER TO NEW BUILDING TRANSFORMER.
2. CONTRACTOR WILL PROVIDE NEW SECONDARY CONCRETE ENCLOSED DUCTBANKS FOR NEW TRANSFORMER.
3. CONTRACTOR WILL PROVIDE NEW PAD MOUNTED TRANSFORMER AND AMI METER.
4. MEDIUM VOLTAGE CONDUCTORS SHALL BE REPLACED FROM SW-05 TO JB-582.
5. COORDINATE WITH CIVIL TRADES PRIOR TO ANY EXCAVATIONS.
6. SEE PAGE E601 FOR CONDUCTOR SIZES UON IN THIS PAGE.
7. SEE TRANSFORMER SPECIFICATIONS FOR TRANSFORMER CONCRETE PAD REQUIREMENTS.

SYM	DESCRIPTION	DATE	APPR
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER	K.MOOREHEAD
PROJECT MANAGER	O.HARRIS
CHIEF ENG/ARCH	M.CONTESTABILE
FIRE PROTECTION	A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

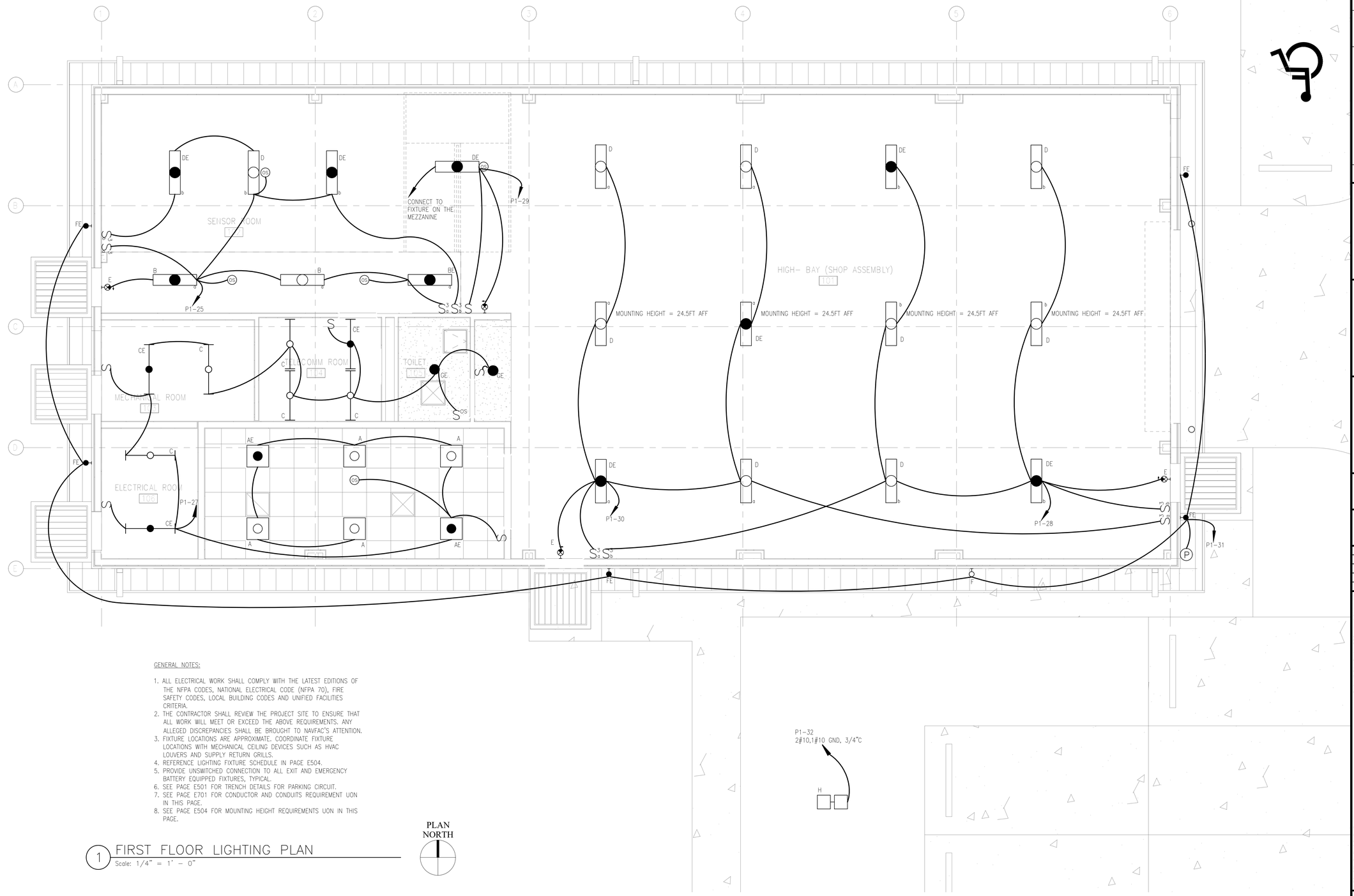
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELECTRICAL SITE – NEW

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

ES101



GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE NFPA CODES, NATIONAL ELECTRICAL CODE (NFPA 70), FIRE SAFETY CODES, LOCAL BUILDING CODES AND UNIFIED FACILITIES CRITERIA.
2. THE CONTRACTOR SHALL REVIEW THE PROJECT SITE TO ENSURE THAT ALL WORK WILL MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES SHALL BE BROUGHT TO NAVFAC'S ATTENTION.
3. FIXTURE LOCATIONS ARE APPROXIMATE. COORDINATE FIXTURE LOCATIONS WITH MECHANICAL CEILING DEVICES SUCH AS HVAC LOUVERS AND SUPPLY RETURN GRILLS.
4. REFERENCE LIGHTING FIXTURE SCHEDULE IN PAGE E504.
5. PROVIDE UNSWITCHED CONNECTION TO ALL EXIT AND EMERGENCY BATTERY EQUIPPED FIXTURES, TYPICAL.
6. SEE PAGE E501 FOR TRENCH DETAILS FOR PARKING CIRCUIT.
7. SEE PAGE E701 FOR CONDUCTOR AND CONDUITS REQUIREMENT UON IN THIS PAGE.
8. SEE PAGE E504 FOR MOUNTING HEIGHT REQUIREMENTS UON IN THIS PAGE.

PLAN NORTH

1 FIRST FLOOR LIGHTING PLAN

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

APPR	DATE	DESCRIPTION	CYM
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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES LOR DRW LOR CHK MC

DESIGN MANAGER K.MOOREHEAD

PROJECT MANAGER O.HARRIS

CHIEF ENG/ARCH M.CONTESTABILE

FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

FIRST FLOOR LIGHTING PLAN

SCALE: --

EPROJECT NO.: 1802981

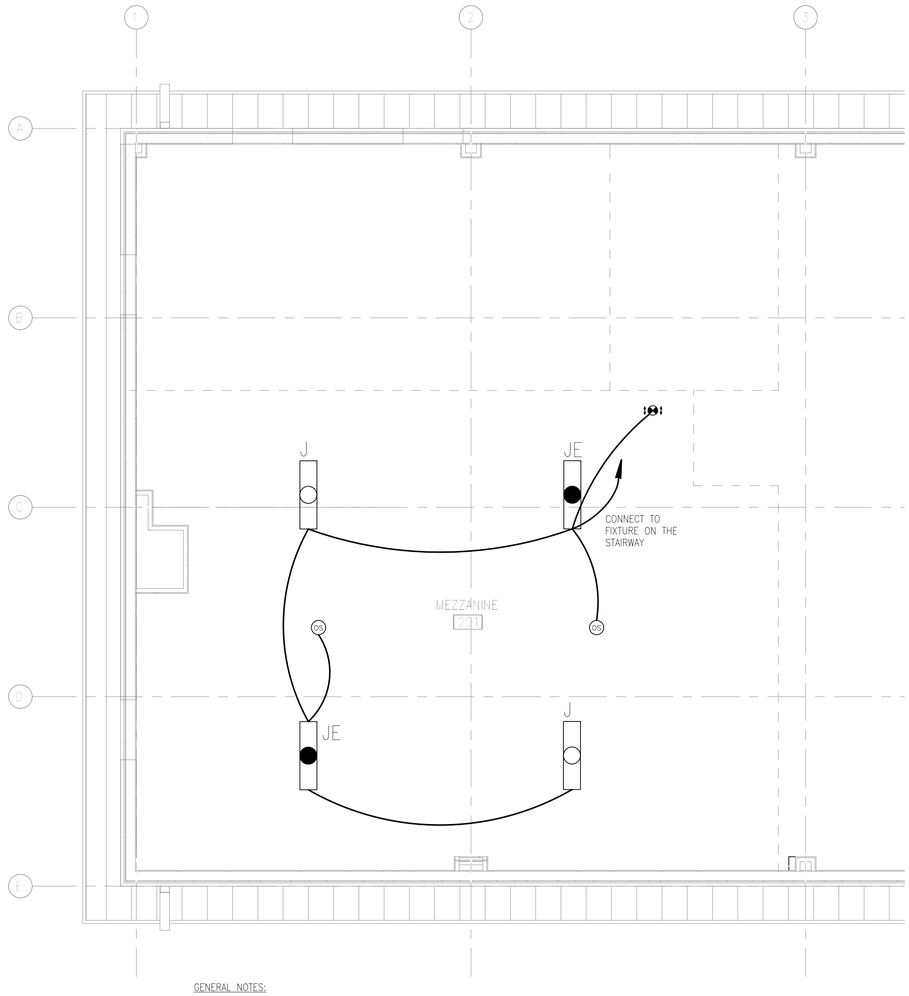
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

EL101

FILE NAME: P:\ORB\project_files\FLORIDA\naval support octy panama city\hi\61080\maritime mining facility cip project-1802981\working technical files\electrical\dwg files\DWG\EL101 FIRST FLOOR LIGHTING PLAN.dwg LAYOUT NAME: EL101 FIRST FLOOR LIGHTING PLAN - PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.o.ortiz



GENERAL NOTES:

1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE NFPA CODES, NATIONAL ELECTRICAL CODE (NFPA 70), FIRE SAFETY CODES, LOCAL BUILDING CODES AND UNIFIED FACILITIES CRITERIA.
2. THE CONTRACTOR SHALL REVIEW THE PROJECT SITE TO ENSURE THAT ALL WORK WILL MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES SHALL BE BROUGHT TO NAVFAC'S ATTENTION.
3. FIXTURE LOCATIONS ARE APPROXIMATE. COORDINATE FIXTURE LOCATIONS WITH MECHANICAL CEILING DEVICES SUCH AS HVAC LOUVERS AND SUPPLY RETURN GRILLS.
4. REFERENCE LIGHTING FIXTURE SCHEDULE IN SH E504.
5. PROVIDE UNSWITCHED CONNECTION TO ALL EXIT AND EMERGENCY BATTERY EQUIPPED FIXTURES, TYPICAL.
6. SEE PAGE E701 FOR CONDUCTOR AND CONDUITS REQUIREMENT UON IN THIS PAGE.
7. SEE PAGE E504 FOR MOUNTING HEIGHT REQUIREMENTS.

1 SECOND FLOOR – LIGHTING PLAN
Scale: 1/4" = 1'-0"

PLAN NORTH

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

								APPR
								DATE
								DESCRIPTION
								CTM

NAVFAC

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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER	K.MOOREHEAD
PROJECT MANAGER	O.HARRIS
CHIEF ENG/ARCH	M.CONTESTABILE
FIRE PROTECTION	A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

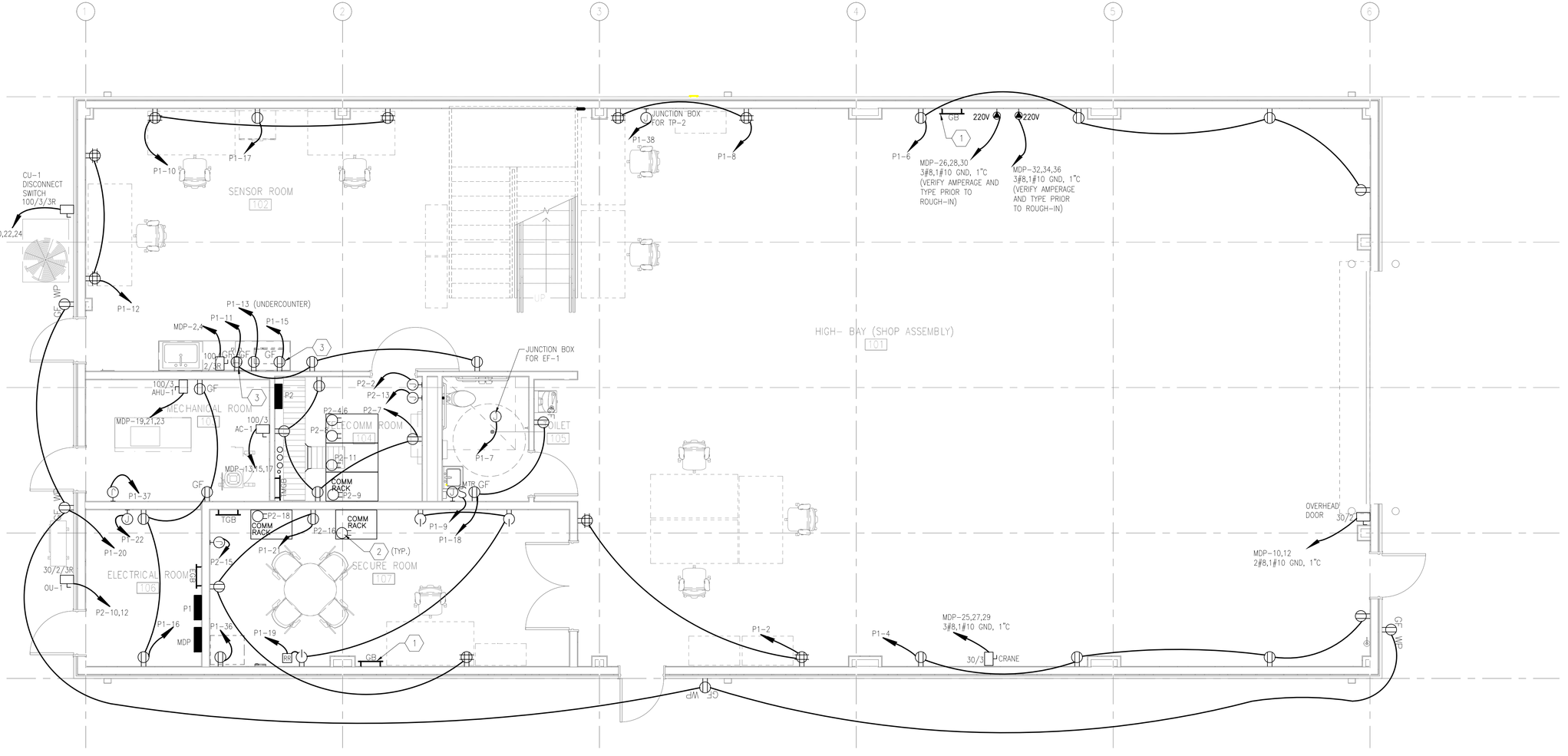
MARITIME MINING FACILITY

SECOND FLOOR LIGHTING PLAN

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

EL102

FILE NAME: P:\CRL\project_files\FLORIDA\navsl support cnty panama city\hl\fr61008\maritime mining facility cip project-1802981\working technical files\electrical\dwg final\DWG\EL102 SECOND FLOOR LIGHTING PLAN.dwg LAYOUT NAME: EL102 SECOND FLOOR LIGHTING PLAN PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz



GENERAL NOTES:
1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE NFPA CODES, NATIONAL ELECTRICAL CODE (NFPA 70), FIRE SAFETY CODES, LOCAL BUILDING CODES AND UNIFIED FACILITIES CRITERIA.
2. THE CONTRACTOR SHALL REVIEW THE PROJECT SITE TO ENSURE THAT ALL WORK WILL MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES SHALL BE BROUGHT TO NAVFAC'S ATTENTION.
3. SEE ELECTRICAL DETAILS IN PAGES E501–E504.
4. PROVIDE LOCKABLE DISCONNECT SWITCHES FOR HVAC UNITS.
5. SEE PAGE E701 FOR CONDUCTOR AND CONDUITS REQUIREMENT UON IN THIS PAGE.
6. PROVIDE 120V, 20A DUPLEX RECEPTACLE FOR IDS IF REQUIRED.

(#) KEY NOTES:
1. PROVIDE 1/0 AWG STRANDED BARE CU CONNECTION TO COUNTERPOISE (EXOTHERMICALLY WELDED).
2. SPECIAL (TWIST–LOCK TYPE) RECEPTACLES FOR TELECOMM RACKS. RECEPTACLE SHALL BE NEMA CONFIGURED AND COMPATIBLE WITH POWER STRIP CONNECTORS LOCATED IN THE RACKS. INSTALL RECEPTACLE ABOVE THE RACKS.
3. RECEPTACLE TO BE MOUNTED 12" ABOVE THE COUNTER.

1 FIRST FLOOR POWER PLAN
Scale: 1/4" = 1' – 0"

PLAN NORTH

1/4"=1'–0" 1' 0' 1' 5' 10' 15'

							APPR
							DATE
							DESCRIPTION
							CTM

NAVFAC

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SEAL

A/E INFO
APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC
DESIGN MANAGER	K.MOOREHEAD				
PROJECT MANAGER	O.HARRIS				
CHIEF ENG/ARCH	M.CONTESTABILE				
FIRE PROTECTION	A.DISANTO				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

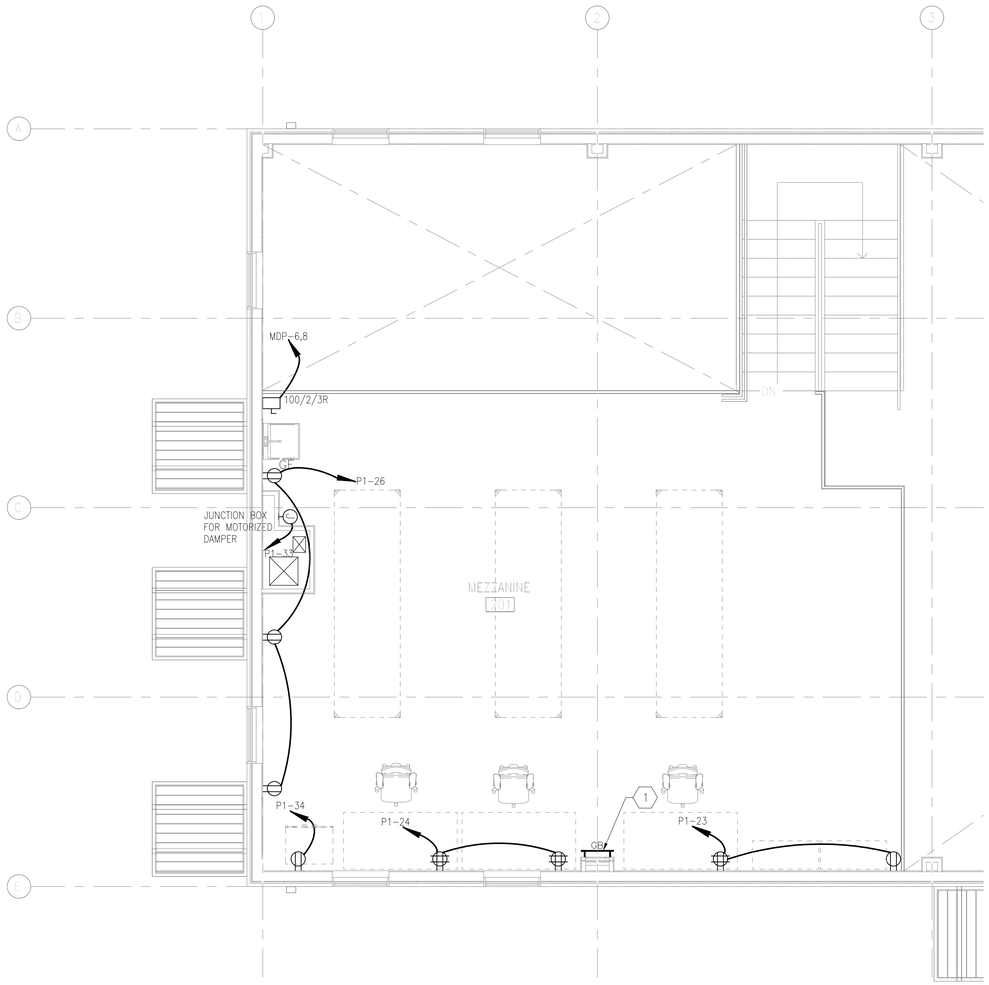
MARITIME MINING FACILITY

FIRST FLOOR POWER PLAN

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

EP101

FILE NAME: P:\CRB\project_files\FLORIDA\naval support acty panama city\hlr61008\maritime mining facility cip project–1802981\working technical files\electrical\dwg final\DWG\EP101 FIRST FLOOR POWER PLAN.dwg LAYOUT NAME: EP101 FIRST FLOOR POWER PLAN PLOTTED: Monday, April 28, 2025 – 3:41pm USER: leonardo.cortiz



GENERAL NOTES:
1. ALL ELECTRICAL WORK SHALL COMPLY WITH THE LATEST EDITIONS OF THE NFPA CODES, NATIONAL ELECTRICAL CODE (NFPA 70), FIRE SAFETY CODES, LOCAL BUILDING CODES AND UNIFIED FACILITIES CRITERIA.
2. THE CONTRACTOR SHALL REVIEW THE PROJECT SITE TO ENSURE THAT ALL WORK WILL MEET OR EXCEED THE ABOVE REQUIREMENTS. ANY ALLEGED DISCREPANCIES SHALL BE BROUGHT TO NAVFAC'S ATTENTION.
3. REFERENCE ELECTRICAL DETAILS IN SH E501-E504.
4. PROVIDE LOCKABLE DISCONNECT SWITCHES FOR HVAC UNITS.
5. SEE PAGE E701 FOR CONDUCTOR AND CONDUITS REQUIREMENT.

(1) KEY NOTES:
1. PROVIDE 1/0 AWG STRANDED BARE CU CONNECTION TO COUNTERPOISE (EXOTHERMICALLY WELDED).

1 SECOND FLOOR POWER PLAN
Scale: 1/4" = 1' - 0"

PLAN NORTH

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

NO.	DESCRIPTION	DATE	APPR
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NAVFAC

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NOT FOR CONSTRUCTION

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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC
DESIGN MANAGER	K.MOOREHEAD				
PROJECT MANAGER	O.HARRIS				
CHIEF ENG/ARCH	M.CONTESTABILE				
FIRE PROTECTION	A.DISANTO				

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

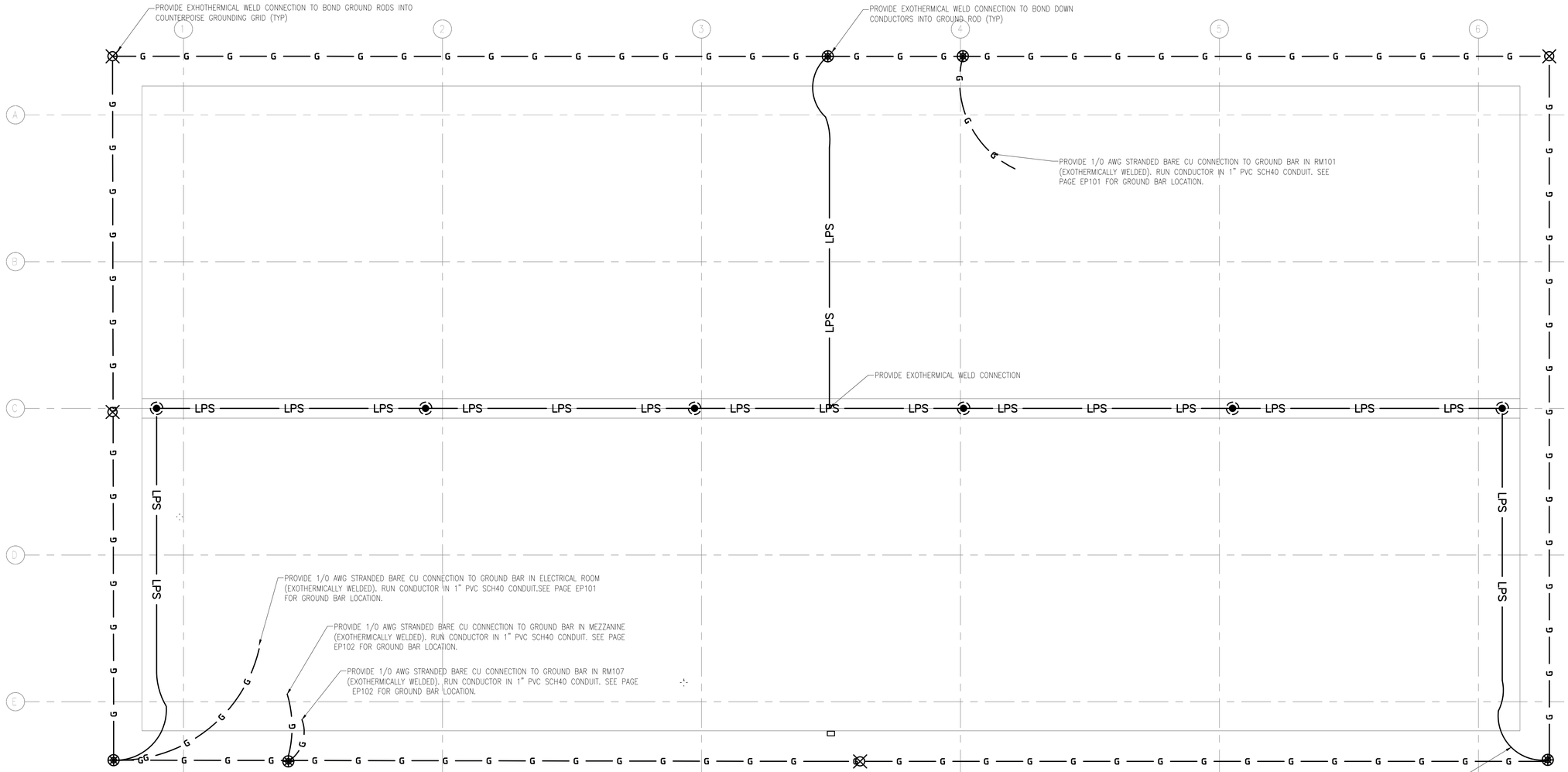
MARITIME MINING FACILITY

SECOND FLOOR POWER PLAN

SCALE:	--
EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

EP102

FILE NAME: P:\OBL\project_files\FLORIDA\naval support actv panama city\ph1\61008\maritime mining facility cip project-1802981\working technical files\electrical\dwg final\DWG\EP102 SECOND FLOOR POWER PLAN.dwg LAYOUT NAME: EP102 SECOND FLOOR POWER PLAN PLOTTED: Monday, April 28, 2025 - 3:41pm USER: leonardo.a.ortiz



GENERAL NOTES:

1. GROUND RING MUST BE 2/0 BARE COPPER, BURIED 30" BELOW FINISHED GRADE (BFG). IT SHALL BE INSTALLED NO LESS THAN 3' FROM THE STRUCTURE FOUNDATION OR FOOTING.
2. USE 24" AIR TERMINALS.
3. ALL UNDERGROUND CONNECTIONS MUST BE CADWELD.
4. CONNECT TO SERVICE ENTRANCE GROUND BAR AT ONLY 1 LOCATION.
5. LIGHTNING PROTECTION SYSTEM MUST BE UL96 MASTER LABELED BY CONTRACTOR.
6. SEE ARCHITECTURAL SHEETS FOR BUILDING ELEVATIONS AND HEIGHTS.
7. AIR TERMINALS MUST BE PLACED AT MAXIMUM SPACING OF EVERY 20'.
8. NO BEND OF CONDUCTOR MUST FORM A FINAL INCLUDED ANGLE OF LESS THAN 90 DEGREES NOR MUST IT HAVE A RADIUS BEND OF LESS THAN 8".
9. ALUMINUM SHALL NOT BE USED WITHIN 18" OF THE POINT WHERE THE LIGHTNING PROTECTION SYSTEM COMES INTO CONTACT WITH THE EARTH. TRANSITION MUST BE WITH A UL APPROVED Cu/Al CONNECTOR. SPLICE ALUMINUM CONDUCTORS TO COPPER DOWN CONDUCTORS BELOW ROOF EDGE USING UL LISTED CU/AL CONNECTIONS. CABLES TRANSITION MUST BE ACCESSIBLE. PROVIDE EXOTHERMIC WELD FOR CONNECTION TO GROUNDING COUNTERPOISE.
10. LPS ROOF CONDUCTOR MUST BE MINIMUM A24, CLASS I ALUMINUM LIGHTNING CONDUCTOR.
11. BOND ALL DOWNSPOUTS AND GUTTERS.
12. ANY OBJECT ON ROOF NOT SHOWN ON DRAWING BUT STILL REQUIRING GROUNDING MUST BE BONDED TO THE LIGHTNING PROTECTION SYSTEM IN ACCORDANCE WITH NFPA 780.
13. BOND THE PERIMETER STEEL COLUMN TO THE GROUND RING EVERY 100' WITH ONE #1/0 AWG MINIMUM COPPER.
14. PROVIDE CERTIFICATION FROM A COMMERCIAL THIRD-PARTY INSPECTION ENTITY WHOSE SOLE WORK IS LIGHTING PROTECTION. INSPECTION ENTITY CANNOT BE INSTALLER OR SYSTEM DESIGNER.
15. SEE PAGE E505 FOR DETAILS.

PLAN NORTH

1 LIGHTNING PROTECTION PLAN
Scale: 1/4" = 1' - 0"

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

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ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER	K.MOOREHEAD
PROJECT MANAGER	O.HARRIS
CHIEF ENG/ARCH	M.CONTESTABILE
FIRE PROTECTION	A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

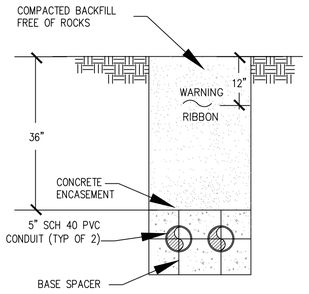
MARITIME MINING FACILITY

LIGHTNING PROTECTION

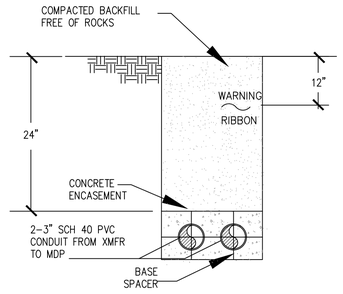
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EPROJECT NO.:	1802981
CONSTR. CONTR. NO.	
NAVFAC DRAWING NO.	
SHEET	OF

ELP101

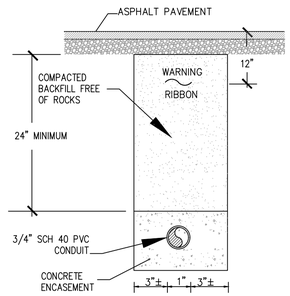
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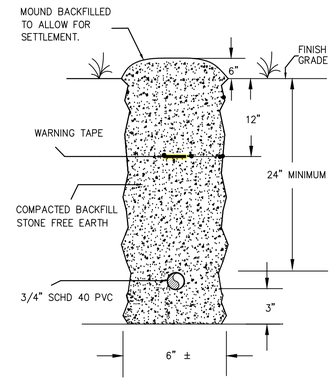
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Scale: NOT TO SCALE



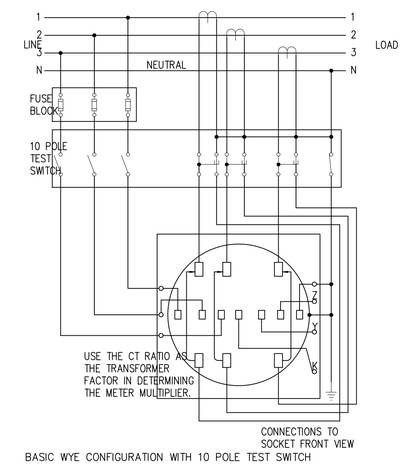
2 SECONDARY DETAIL
Scale: NOT TO SCALE



3 PAVED AREA LIGHTING TRENCH DETAILS
Scale: NOT TO SCALE

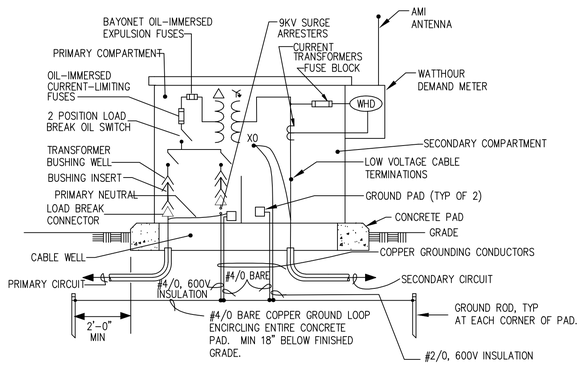


4 UNPAVED AREA LIGHTING TRENCH DETAILS
Scale: NOT TO SCALE

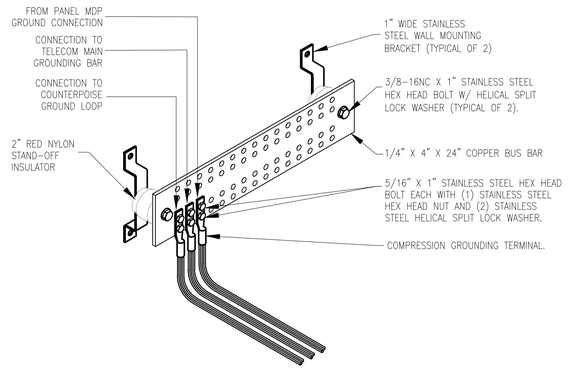


BASIC WYE CONFIGURATION WITH 10 POLE TEST SWITCH
SEE SPECIFICATION 26 27 14.00 20 ELECTRICITY METERING

5 FORM 9S METER SOCKET DETAIL
Scale: NOT TO SCALE



6 PAD-MOUNTED TRANSFORMER DETAIL
Scale: NOT TO SCALE



7 MAIN GROUNDING BAR
Scale: NOT TO SCALE

NO.	DESCRIPTION	DATE	APPR
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FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES LOR | DRW LOR | CHK MC

DESIGN MANAGER K.MOOREHEAD

PROJECT MANAGER O.HARRIS

CHIEF ENG/ARCH M.CONTESTABILE

FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELECTRICAL DETAILS

SCALE: --

EPROJECT NO.: 1802981

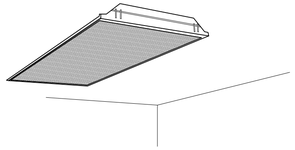
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

E501

FILE NAME: P:\OBL\project_files\FLORIDA\naval support octy panama city\jh\61080\maritime mining facility cip project--1802981\working technical files\electrical\dwg final\DWG\E501 ELECTRICAL DETAILS.dwg LAYOUT NAME: E501 ELECTRICAL DETAILS PLOTTED: Monday, April 28, 2025 - 3:42pm USER: leonardo.a.ortiz



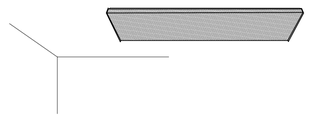
NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD ROLLED STEEL. SIZE AS INDICATED IN LUMINAIRE SCHEDULE.
2. OPTICS - ACRYLIC OR POLYCARBONATE LENS AS INDICATED IN LUMINAIRE SCHEDULE.
3. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 100 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
5. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT, DLC QUALIFIED. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - RECESSED IN HARD OR ACOUSTICAL TILE CEILING.
7. OPTIONS - EDGE-LIT LENS, PRISMATIC LENS. EMERGENCY BATTERY BACK-UP, INTEGRAL OCCUPANCY/VACANCY SENSOR, VARIOUS SIZE AND OUTPUT OPTIONS, SURFACE-MOUNTING KIT.

FLAT LENS LED LUMINAIRE

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-2



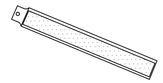
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LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY; ENDCAPS SAME MATERIAL AS HOUSING, SECURED TABS, SCREWS, OR RIVETS. SIZE AS INDICATED IN LUMINAIRE SCHEDULE.
2. OPTICS - ACRYLIC OR POLYCARBONATE LENS AS INDICATED IN LUMINAIRE SCHEDULE.
3. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 110 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
5. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT, DLC QUALIFIED. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - SURFACE MOUNTED.
7. OPTIONS - EMERGENCY BATTERY BACK-UP, INTEGRAL OCCUPANCY/VACANCY SENSOR, VARIOUS SIZE AND OUTPUT OPTIONS.

SURFACE LED WRAPAROUND

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-3



LUMINAIRE REQUIREMENTS:

1. HOUSING - COMPACT DESIGN CHANNEL AND COVER ARE FORMED FROM CODE-GAUGE COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY AND SPECULAR ALUMINUM OR HIGHLY REFLECTIVE PAINTED STEEL REFLECTORS. OPTIONAL LENGTHS OF 4FT OR 8FT.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH-REFLECTANCE, WHITE POLYESTER POWDER COAT, PAINTED AFTER FABRICATION.
3. LIGHT SOURCE - SOLID STATE LEDS WITH MINIMUM 50K HOURS RATED LIFE AT L70, 3500K CCT UON, MINIMUM 80 CRI, MAXIMUM 4-STEP MCADAM ELLIPSE BINNING TOLERANCE FOR COLOR CONSISTENCY, AND MINIMUM EFFICACY OF 100 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, < 20% TOTAL HARMONIC DISTORTION. ON-OFF CONTROL, STEP-DIMMABLE OR FULLY DIMMABLE AS INDICATED.
5. CERTIFICATION - UL 1598, DAMP LOCATION, DLC QUALIFIED, AND ROHS COMPLIANT. COMPLIES WITH LM79, LM80 AND TM21 TESTING STANDARDS. UL 924 WHEN EQUIPPED WITH EMERGENCY BATTERY BACK-UP.
6. MOUNTING - SURFACE ON CEILING OR SUSPENDED.
7. OPTIONS - WIRE GUARD, CHAIN, STEM OR SWIVEL STEM HANGERS.
8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LED INDUSTRIAL STRIP

REVISED: APRIL 2016 | LIGHTING PLATE: NL-5

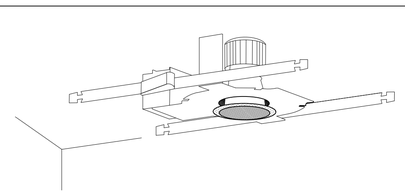


LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-FORMED, COLD-ROLLED STEEL, WITH REINFORCEMENT RIBS FOR RIGIDITY AND SPECULAR ALUMINUM OR HIGHLY-REFLECTIVE PAINTED STEEL REFLECTORS. OPTIONAL LENGTHS OF 4FT OR 8FT.
2. FINISH - MULTI-STAGE PHOSPHATE BONDING TREATMENT FINISHED WITH HIGH-REFLECTANCE, WHITE POLYESTER POWDER COAT, PAINTED AFTER FABRICATION.
3. LIGHT SOURCE - SOLID STATE LEDS WITH MINIMUM 50K HOURS RATED LIFE AT L70, 3500K CCT UON, MINIMUM 80 CRI, MAXIMUM 4-STEP MCADAM ELLIPSE BINNING TOLERANCE FOR COLOR CONSISTENCY, AND MINIMUM EFFICACY OF 100 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, < 20% TOTAL HARMONIC DISTORTION. ON-OFF CONTROL, STEP-DIMMABLE OR FULLY DIMMABLE AS INDICATED.
5. CERTIFICATION - UL 1598, DAMP LOCATION, DLC QUALIFIED, AND ROHS COMPLIANT. COMPLIES WITH LM79, LM80 AND TM21 TESTING STANDARDS. UL 924 WHEN EQUIPPED WITH EMERGENCY BATTERY BACK-UP.
6. MOUNTING - SURFACE ON CEILING OR SUSPENDED.
7. OPTIONS - WIRE GUARD, CHAIN, STEM OR SWIVEL STEM HANGERS.
8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LED LOW BAY INDUSTRIAL

REVISED: APRIL 2016 | LIGHTING PLATE: NL-7



NOTE: THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LUMINAIRE REQUIREMENTS:

1. HOUSING - COLD-ROLLED STEEL OR DIE CAST ALUMINUM, WITH HEAT SINK. APERTURE SIZE AND SHAPE AS INDICATED IN LUMINAIRE SCHEDULE.
2. LIGHT SOURCE - SOLID STATE LEDS, 3500K CCT UON, MINIMUM 80 CRI UON, AND MINIMUM EFFICACY OF 70 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
3. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, AND < 20% THD. ON/OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE.
4. CERTIFICATION - UL LISTED FOR DRY OR DAMP LOCATION, ROHS COMPLIANT. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
5. MOUNTING - RECESSED IN HARD OR ACOUSTICAL TILE CEILING. PROVIDE T-BAR HANGERS FOR INSTALLATION IN ACOUSTICAL TILE CEILINGS OR TABS WHEN MOUNTING IN HARD CEILINGS.
6. OPTIONS - EMERGENCY BATTERY BACK-UP, VARIOUS ACRYLIC OR POLYCARBONATE LENSES, REFLECTORS, LOUVERS AND TRIMS. VARIOUS BEAM ANGLES. IC RATED HOUSING.

FIXED RECESSED DOWNLIGHT

REVISED: NOVEMBER 2020 | LIGHTING PLATE: NL-12

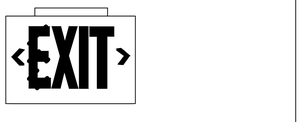


LUMINAIRE REQUIREMENTS:

1. CONSTRUCTION - LIGHTWEIGHT ALUMINUM HEAT SINK DESIGNED TO PERFORM AT WARM AMBIENT TEMPERATURES.
2. REFLECTOR - FEATURE PRECISION-FORMED OPTICS TO ACHIEVE NARROW AND MEDIUM DISTRIBUTION. SEMI-DIFFUSE LENS TO PROVIDE GLARE CONTROL AND LED PROTECTION.
3. LIGHT SOURCE - SOLID STATE LEDS WITH MINIMUM 60K HOURS RATED LIFE AT L80, 4000K CCT UON, MINIMUM 80 CRI, MAXIMUM 4-STEP MCADAM ELLIPSE BINNING TOLERANCE FOR COLOR CONSISTENCY, AND MINIMUM EFFICACY OF 90 LUMENS/WATT. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DRIVER WITH MINIMUM 0.9 PF, OPERATING VOLTAGE OF 120-277V, THERMAL MANAGEMENT, < 20% TOTAL HARMONIC DISTORTION. ON-OFF CONTROL, STEP-DIMMABLE OR FULLY DIMMABLE AS INDICATED.
5. CERTIFICATION - UL 1598, DAMP LOCATION, DLC QUALIFIED, AND ROHS COMPLIANT. COMPLIES WITH LM79, LM80 AND TM21 TESTING STANDARDS. UL 924 WHEN EQUIPPED WITH EMERGENCY BATTERY BACK-UP.
6. MOUNTING - SUITABLE FOR SUSPENSION BY CHAIN, CABLE, SURFACE-MOUNTING BRACKET, HOOK MONOPOINT OR SINGLE PENDANT MONOPOINT.
7. OPTIONS - EMERGENCY BATTERY BACK-UP, TWIST-LOCK PLUG ON HOOK AND CORD MODELS, SAFETY CABLE OR CHAIN, INTEGRAL PHOTOCELL, WIRE GUARD.
8. THIS SKETCH IS A NON-PROPRIETARY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS. IT IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER OR PREFERENCE.

LED HIGH BAY INDUSTRIAL

REVISED: JUNE 2017 | LIGHTING PLATE: NL-21

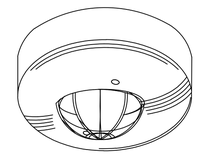


LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-CAST ALUMINUM OR HIGH-IMPACT, UV-STABILIZED, INJECTION-MOLDED THERMOPLASTIC. IMPACT RESISTANT. SINGLE OR DOUBLE-FACED AS INDICATED.
2. FINISH (ON CAST ALUMINUM HOUSING ONLY) - TEXTURED POWDER COAT FINISH OPTIONS INCLUDE WHITE, WHITE WITH BRUSHED ALUMINUM FACE, BLACK, OR BLACK WITH BRUSHED ALUMINUM FACE.
3. LETTERS/CHEVRONS - MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. PROVIDE CHEVRONS AS INDICATED EITHER LEFT, RIGHT OR BOTH DIRECTIONS AS INDICATED. CHEVRONS PUNCHED OUT THROUGH HOUSING AS REQUIRED.
4. EMERGENCY PACK - SOLID-STATE, CONSTANT-CURRENT TYPE BATTERY CHARGER WITH MAINTENANCE-FREE, NICKEL-CADMIUM BATTERY, AC-ON INDICATOR LAMP AND TEST SWITCH.
5. MOUNTING - UNIVERSAL MOUNTING KIT FOR CEILING, WALL OR END-OF-FIXTURE MOUNTING.
6. ILLUMINATION - PROVIDED BY RED, GREEN OR WHITE HIGH-OUTPUT LEDS INSIDE OF FIXTURE HOUSING. PROVIDE POLYSTYRENE DIFFUSER IN COLOR INDICATED WITH FREQUENCY-MATCHED SILKSCREEN COATING FOR MAXIMUM LED LIGHT OUTPUT.
7. CERTIFICATION - UL LISTED AND CERTIFIED FOR DAMP LOCATIONS.

LED EXIT SIGN

REVISED: AUGUST 2004 | LIGHTING PLATE: NL-63



FEATURES

PATTERN: 360 DEGREES
COVERAGE: 46-186 SQ M (500-2000 SF)
TIME DELAY: ADJUSTABLE FROM 15 SECONDS TO 15 MINUTES

OPTIONS

PATTERN: CORRIDOR

NOM. DIMENSIONS 4.75" DIA. X 1.25" D

GENERAL DESCRIPTION

HOUSING: IMPACT RESISTANT INJECTION MOLDED ABS
MOUNTING: CEILING BETWEEN 2440-3050 mm (8-11') H
ELECTRICAL: 24 VOLT DC (FROM POWER PACK), 120 OR 277 VOLT AC COMPATIBLE WITH LED FIXTURES FOR EXTENDED LIFE
FINISH: WHITE

CEILING MOUNTED INFRARED AND ULTRASONIC OCCUPANCY SENSOR

REVISED: AUGUST 2004 | TYPE: S1

NO.	DESCRIPTION	DATE	APPR
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SEAL

A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER K.MOOREHEAD
PROJECT MANAGER O.HARRIS
CHIEF ENG/ARCH M.CONTESTABILE
FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

LIGHTING DETAILS

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

E502

FILE NAME: P:\CBL\project_files\FLORIDA\naval support acty panama city\fy16\61008\maritime mining facility cip project--1802981\working technical files\electrical\dwg final\DWG\E502 ELECTRICAL DETAILS.dwg LAYOUT NAME: E502 LIGHTING DETAILS PLOTTED: Monday, April 28, 2025 - 3:42pm USER: leonardo.o.ortiz

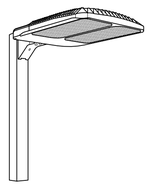


LUMINAIRE REQUIREMENTS

1. HOUSING – DIE-CAST OR EXTRUDED ALUMINUM WITH INTEGRAL PASSIVE COOLING MECHANISM. HEAT SINK SHALL BE INCORPORATED DIRECTLY INTO HOUSING OR DRIVER COMPARTMENT TO ENSURE MAXIMUM HEAT TRANSFER AND DISSIPATION.
2.
3. FINISH – MULTI-STAGE PRE-TREATMENT, FINISHED WITH BAKED-ON POLYESTER POWDER COAT. FINISH SHALL PASS 2500 HOUR SALT SPRAY TEST PER ASTM B117. STANDARD FINISH IS DARK BRONZE, WITH OTHER CUSTOM COLORS AVAILABLE.
4. POWER SUPPLY/LED DRIVER – CLASS 1 DRIVER SHALL OPERATE AT 277 VOLTS, 60 HZ, WITH OTHER VOLTAGES OPTIONAL; POWER FACTOR GREATER THAN 0.9 AND THD LESS THAN 20% AT FULL LOAD. MINIMUM EFFICACY SHALL BE 60 LM/W AT MAXIMUM 600mA OPERATING CURRENT.
5. LED OPTICAL ASSEMBLY – PRECISION MOLDED ACRYLIC LENS PROVIDED FOR MULTIPLE HIGH-POWERED LEDS PRODUCING NEMA TYPE III DISTRIBUTION OR AS OTHERWISE INDICATED. BUG UPLIGHT RATING OF U0, WITH GLARE RATING AS DETERMINED BY LIGHTING ZONE INSTALLED. MINIMUM COLOR RENDERING INDEX (CRI) SHALL BE 80 FOR CORRELATED COLOR TEMPERATURE (CCT) OF 3000-4500°K.
6. CERTIFICATION – UL AND/OR ETL LISTED FOR DAMP OR WET LOCATIONS AS INDICATED, AND RoHS COMPLIANT.
7. OPTIONS – VARIOUS LUMEN OUTPUT RATING AS INDICATED, PHOTOCELL, AND 0-10 VOLT DIMMING DRIVER. UL 924 WHEN EQUIPPED WITH EMERGENCY BATTERY BACK-UP.
8. OTHER – THE ABOVE SKETCH IS A NON-PROPRIETY GRAPHIC REPRESENTATION OF A LUMINAIRE THAT MAY MEET THE SPECIFICATION REQUIREMENTS AND IS NOT INTENDED TO INDICATE A CERTAIN MANUFACTURER'S PREFERENCE. ALL DIMENSIONS ARE NOMINAL AND VARY PER MANUFACTURER.

WALL-MOUNTED LED

REVISED: JULY 2012 | LIGHTING PLATE: XL-1



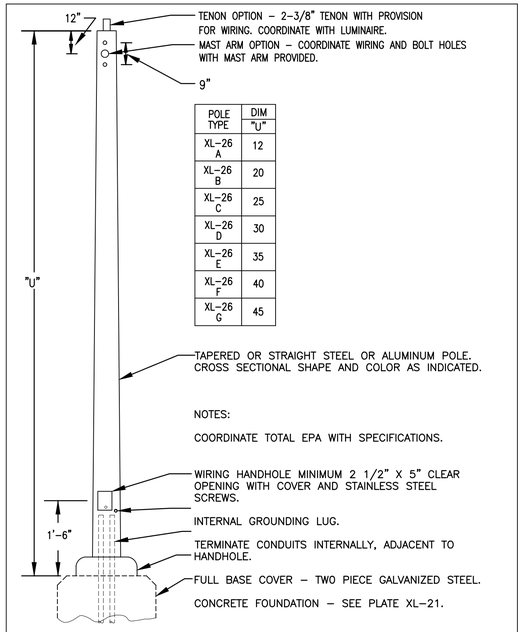
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LUMINAIRE REQUIREMENTS:

1. HOUSING - DIE-CAST ALUMINUM HOUSING WITH POWDER COAT FINISH.
2. OPTICS - INJECTION MOLDED OPTICS WITH TYPE I, II, III, IV, OR V DISTRIBUTIONS. BUG UPLIGHT RATING OF U0, WITH GLARE RATING AS DETERMINED BY LIGHTING ZONE INSTALLED.
3. LIGHT SOURCE - SOLID STATE LEDS, 3000K CCT UON, MINIMUM 70 CRI UON, AND MINIMUM EFFICACY OF 100 LUMENS/WATT UON. INITIAL LUMEN OUTPUT AS INDICATED IN LUMINAIRE SCHEDULE.
4. DRIVER - REPLACEABLE, INTEGRAL, HIGH-EFFICIENCY DIMMABLE DRIVER WITH THERMAL MANAGEMENT. ON-OFF CONTROL AND FULLY DIMMABLE DOWN TO 10% MINIMUM OR AS INDICATED IN LUMINAIRE SCHEDULE. MEETS ELEVATED 10KV/10KA REQUIREMENTS PER IEEE.
5. CERTIFICATION - UL LISTED FOR WET LOCATION, ROHS COMPLIANT. COMPLIES WITH IES LM79, LM80 AND TM21 TESTING STANDARDS.
6. MOUNTING - ARM-MOUNTED ON POLE.
7. OPTIONS - MOUNTING ARM LENGTH, LIGHT DISTRIBUTION, HOUSE-SIDE SHIELD, PHOTOCELL, INTEGRAL MOTION SENSOR, AND ANSI 7-PIN RECEPTACLE.

LED PARKING LOT LUMINAIRE

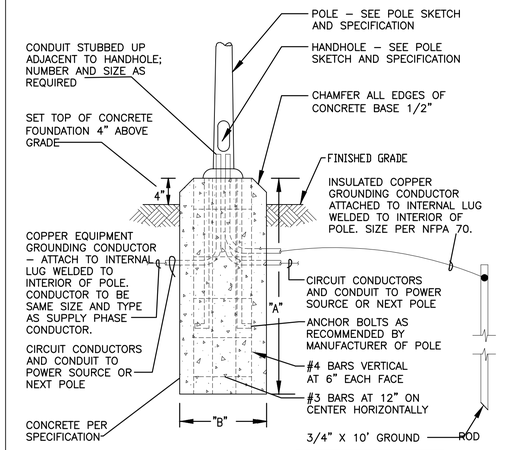
REVISED: NOVEMBER 2020 | LIGHTING PLATE: XL-5



POLE TYPE	DIM "U"
XL-26 A	12
XL-26 B	20
XL-26 C	25
XL-26 D	30
XL-26 E	35
XL-26 F	40
XL-26 G	45

ANCHOR BASE STEEL/ALUMINUM POLE

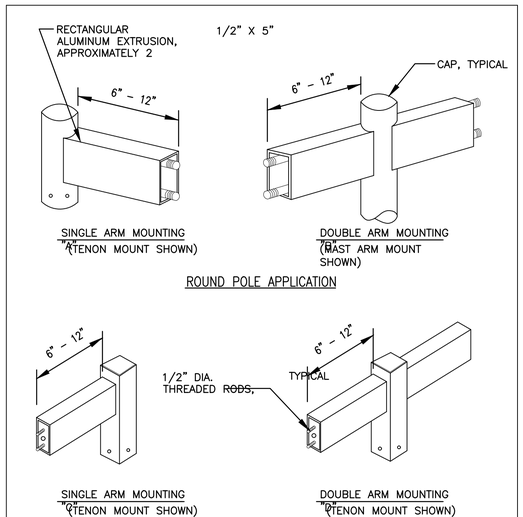
REVISED: NOVEMBER 2020 | LUMINAIRE PLATE: XL-19



POLE HEIGHT	A	B
8'-12'	36"	12"
13'-20'	42"	16"
21'-30'	72"	24"
31'-40'	78"	30"

ANCHOR BASE POLE FOUNDATION

REVISED: NOVEMBER 2020 | LUMINAIRE PLATE: XL-21



NOTES: 1. ALL FASTENERS SHALL BE CONCEALED.

2. ALL ARMS ARE AVAILABLE IN TENON OR MAST ARM MOUNTING; SPECIFY TYPE DESIRED.

LUMINAIRE MOUNTING ARM DETAILS

REVISED: NOVEMBER 2020 | LUMINAIRE PLATE: XL-23

APPR	DATE	DESCRIPTION	CTM
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A/E INFO

APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER	K.MOOREHEAD
PROJECT MANAGER	O.HARRIS
CHIEF ENG/ARCH	M.CONTESTABILE
FIRE PROTECTION	A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

LIGHTING DETAILS

SCALE: --

EPROJECT NO.: 1802981

CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

E503

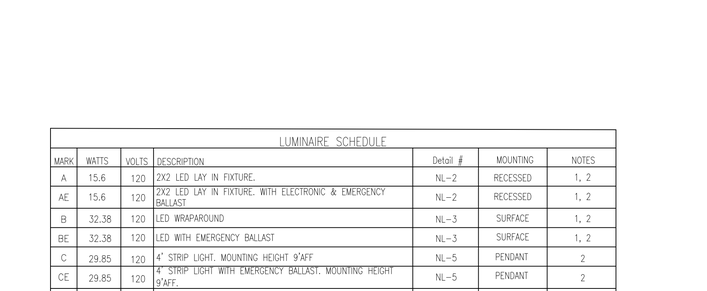
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LAYOUT NAME: E503 LIGHTING DETAILS PLOTTED: Monday, April 28, 2025 - 3:42pm USER: leonardo.ortiz

LUMINAIRE SCHEDULE						
MARK	WATTS	VOLTS	DESCRIPTION	Detail #	MOUNTING	NOTES
A	15.6	120	2X2 LED LAY IN FIXTURE.	NL-2	RECESSED	1, 2
AE	15.6	120	2X2 LED LAY IN FIXTURE. WITH ELECTRONIC & EMERGENCY BALLAST	NL-2	RECESSED	1, 2
B	32.38	120	LED WRAPAROUND	NL-3	SURFACE	1, 2
BE	32.38	120	LED WITH EMERGENCY BALLAST	NL-3	SURFACE	1, 2
C	29.85	120	4' STRIP LIGHT. MOUNTING HEIGHT 9'AFF	NL-5	PENDANT	2
CE	29.85	120	4' STRIP LIGHT WITH EMERGENCY BALLAST. MOUNTING HEIGHT 9'AFF.	NL-5	PENDANT	2
D	128.16	120	EFFICIENT HIGH BAY BAY FIXTURE. MOUNTING HEIGHT 25'AFF.	NL-21	PENDANT	1, 2, 3
DE	128.16	120	EFFICIENT HIGH BAY FIXTURE WITH EMERGENCY BALLAST. MOUNTING HEIGHT 25'AFF.	NL-21	PENDANT	1, 2, 3
E		120	EXIT SIGN	NL-63	WALL/SURFACE	5
F	22.46	120	LED EXTERIOR MOUNT WALL PACK LUMINAIRE, VANDAL RESISTANT POLYCARBONATE LENS. MOUNTING HEIGHT 8' AFF (TOP OF FIXTURE).	XL-1	WALL MOUNT	2
FE	22.46	120	LED EXTERIOR MOUNT WALL PACK LUMINAIRE, VANDAL RESISTANT POLYCARBONATE LENS. MOUNTING HEIGHT 8' AFF. EMERGENCY BALLAST	XL-1	WALL MOUNT	2
G	13.08	120	DOWNLIGHT - DAMP LOCATION	NL-12	RECESSED	1, 2
GE	13.08	120	DOWNLIGHT - DAMP LOCATION WITH EMERGENCY BALLAST	NL-12	RECESSED	1, 2
H	50.9	120	EXTERIOR LED POLE-MOUNTED AREA LUMINAIRE. MOUNTING HEIGHT 23' AFG.	XL-5,19,21,23	POLE	4
J	85.52	120	EFFICIENT LOW BAY BAY FIXTURE. MOUNTING HEIGHT 14' AFF.	NL-7	PENDANT	1, 2, 3
JE	85.52	120	EFFICIENT LOW BAY FIXTURE WITH EMERGENCY BALLAST. MOUNTING HEIGHT 14' AFF.	NL-7	PENDANT	1, 2, 3

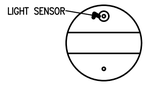
LUMINAIRE SCHEDULE NOTES:

1. PROVIDE CONNECTION FROM SWITCH TO LUMINAIRE THROUGH IDENTIFIED OCCUPANCY SENSOR ON PLANS, AS APPLICABLE.
2. THE CONTRACTOR SHALL VERIFY CEILING TYPES AND INSTALLATION REQUIREMENTS PRIOR TO ORDERING LIGHT FIXTURES.
3. HIGH BAY AND MEZZANINE LUMINAIRES SHALL BE MOUNTED ABOVE THE HEIGHT OF THE CRANE.
4. PROVIDE LUMINAIRE WITH PHOTOCELL AND BUILT-IN SPD.
5. PROVIDE LUMINAIRE WITH SELF DIAGNOSTIC AND SELF TESTING.

LIGHTING CONTROL SHEDULE		
ROOM #	ON	OFF
101 (HIGH-BAY (SHOP ASSEMBLY))	MANUAL	AUTO - DIM TO 50% AFTER 20MINS
102 (SENSOR ROOM)	MANUAL	AUTO - 20 MINS
102 (SINK AREA)	MANUAL	AUTO - 20 MINS
103 (MECHANICAL ROOM)	MANUAL	MANUAL
104 (TELECOMM ROOM)	MANUAL	MANUAL
105 (TOILET)	MANUAL	AUTO - 20 MINS
106 (ELECTRICAL ROOM)	MANUAL	MANUAL
107 (SECURE ROOM)	MANUAL	AUTO - 20 MINS
WATER FOUNTAIN AREA	MANUAL	MANUAL
STAIRS	MANUAL	AUTO - DIM TO 50% AFTER 20MINS
201 (MEZZANINE)	MANUAL	AUTO - DIM TO 50% AFTER 20MINS
EXTERIOR	AUTO	AUTO - BASED ON DAYLIGHT
PARKING	AUTO	AUTO - BASED ON DAYLIGHT

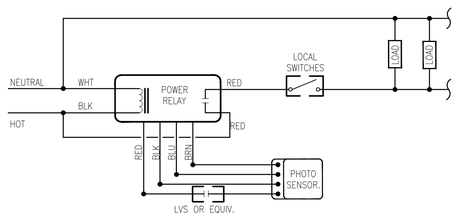


1 OCCUPANCY SENSOR CONNECTION DETAIL
Scale: NOT TO SCALE



PHOTOSENSOR

1. ADJUSTABLE LIGHTING INTENSITY.
2. CEILING MOUNTING
3. 12 - 24 VDC FROM POWER PACK



2 LIGHT SAVING SYSTEM SENSOR CONNECTION DETAIL
Scale: NOT TO SCALE

APPR	DATE	DESCRIPTION	CTM
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ACTIVITY

SATISFACTORY TO DATE

DES	LOR	DRW	LOR	CHK	MC

DESIGN MANAGER K.MOOREHEAD
PROJECT MANAGER O.HARRIS
CHIEF ENG/ARCH M.CONTESTABILE
FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

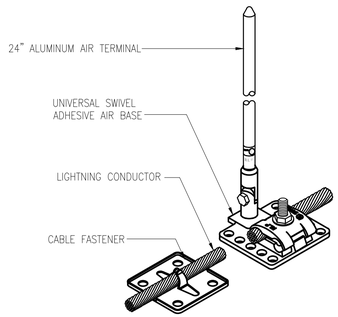
MARITIME MINING FACILITY

LIGHTING DETAILS

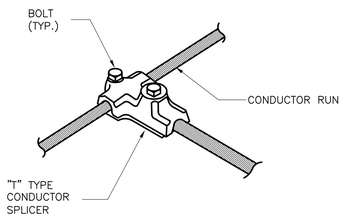
SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

E504

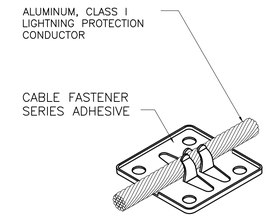
FILE NAME: P:\CRL\project_files\FLORIDA\navd support city panama city\fy16\1608\maritime mining facility cip project-1802981\working technical files\electrical\dwg final\DWG\E504 ELECTRICAL DETAILS.dwg LAYOUT NAME: E504 LIGHTING DETAILS PLOTTED: Monday, April 28, 2025 - 3:42pm USER: leonardo.o.ortiz



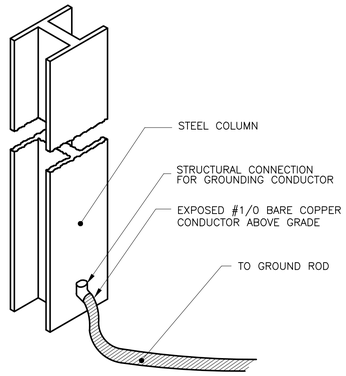
1 AIR TERMINAL DETAIL
Scale: NOT TO SCALE



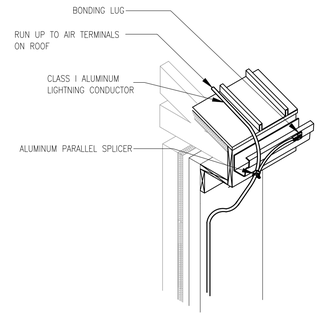
2 LPS "T" SPLICER
Scale: NOT TO SCALE



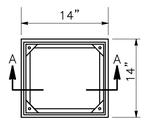
3 CABLE FASTENER
Scale: NOT TO SCALE



4 COLUMN CONNECTION DETAIL
Scale: NOT TO SCALE



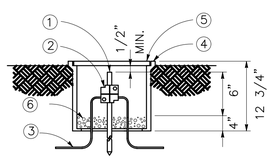
5 DOWN CONDUCTOR DETAIL
Scale: NOT TO SCALE



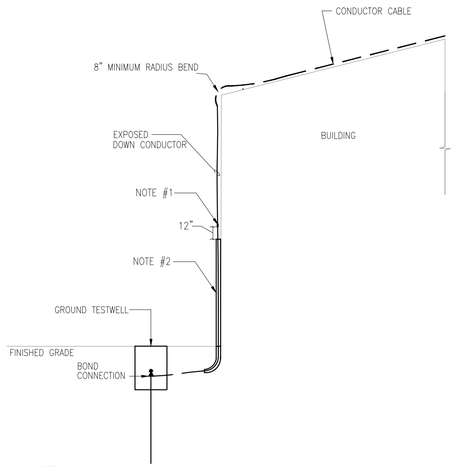
TOP VIEW (COVER REMOVED)

MATERIAL LIST

1. GROUND ROD
2. GROUND CLAMP
3. GROUNDING CONDUCTOR #2/0 COPPER
4. POLYMER CONCRETE FIBERGLASS REINFORCED BOX
5. COVER FOR ABOVE BOX
6. GRAVEL OR CRUSHED STONE



6 GROUND WELL INSTALLATION DETAIL
Scale: NOT TO SCALE



NOTES:

1. PROVIDE ALUMINUM TO COPPER (BIMETALLIC) CONNECTOR.
2. PROVIDE PROTECTION FOR DOWN CONDUCTORS TO A MINIMUM OF 6'-0" ABOVE FINISHED GRADE, 1-1/2" SCHEDULE 80 PVC CONDUIT MINIMUM.

7 DOWN CONDUCTOR DETAIL
Scale: NOT TO SCALE

--	--	--	--	--	--	--	--	APPR
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DESIGN MANAGER K.MOOREHEAD

PROJECT MANAGER O.HARRIS

CHIEF ENG/ARCH M.CONTESTABILE

FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY

PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

LIGHTNING PROTECTION DETAILS

SCALE: --

EPROJECT NO.: 1802981

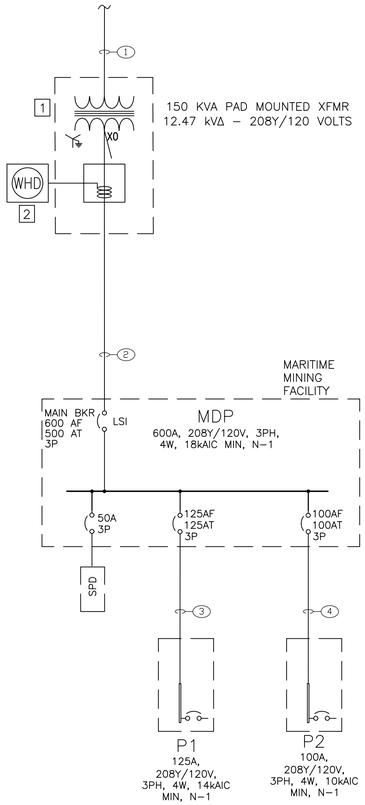
CONSTR. CONTR. NO.

NAVFAC DRAWING NO.

SHEET OF

E505

FILE NAME: P:\CIBL\project_files\FLORIDA\naval support octy panama city\ph1610081\maritime mining facility cip project--1802981\working technical files\electrical\dwg final\DWG\E505 LIGHTNING PROTECTION DETAILS.dwg LAYOUT NAME: E505 LIGHTNING PROTECTION DETAILS PLOTTED: Monday, April 28, 2025 - 3:58pm USER: leonardo.a.ortiz

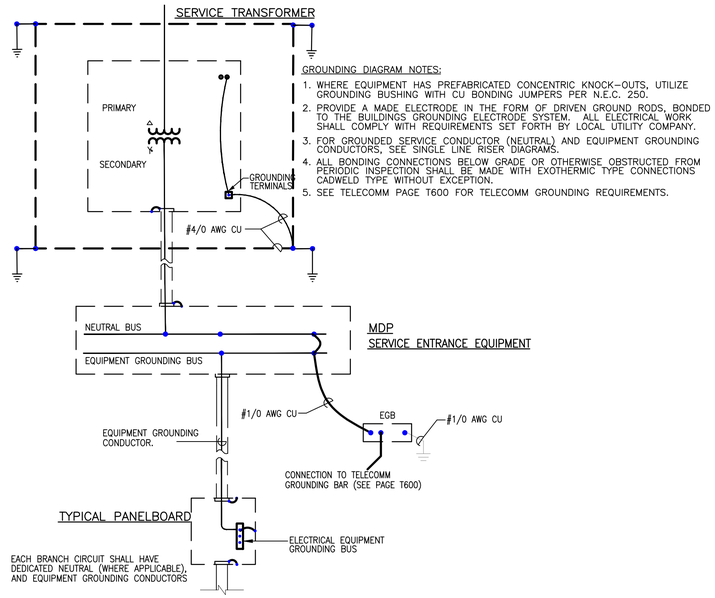


1 SINGLE LINE DIAGRAM
Scale: NOT TO SCALE

KEYED NOTES

1. PAD MOUNTED TRANSFORMER: 150 KVA, 12.47KV DELTA – 208/120 GROUNDED WYE VOLTS, 3 PHASE, 95 KV BIL WITH (2) 2–1/2% TAPS ABOVE AND (2) 2–1/2% TAPS BELOW RATED VOLTAGE (SET TAPS TO BE –5%), DEAD FRONT LESS–FLAMMABLE LIQUID–INSULATED TRANSFORMER AND WILL INCORPORATE OIL–IMMERSED BAY–O–NET FUSES IN SERIES WITH OIL–IMMERSED CURRENT LIMITING FUSES FOR TRANSFORMER PRIMARY OVER–CURRENT PROTECTION, AND AN OIL–IMMERSED LOOP–FEED, LOAD–BREAK SWITCH. PROVIDE STAINLESS STEEL ENCLOSURE.
2. PROVIDE AMI ELECTRIC POWER METER. METER SHALL BE CONNECTED TO BASE METERING SYSTEM THROUGH RADIO SYSTEM TO BE PROVIDED BY CONTRACTOR.

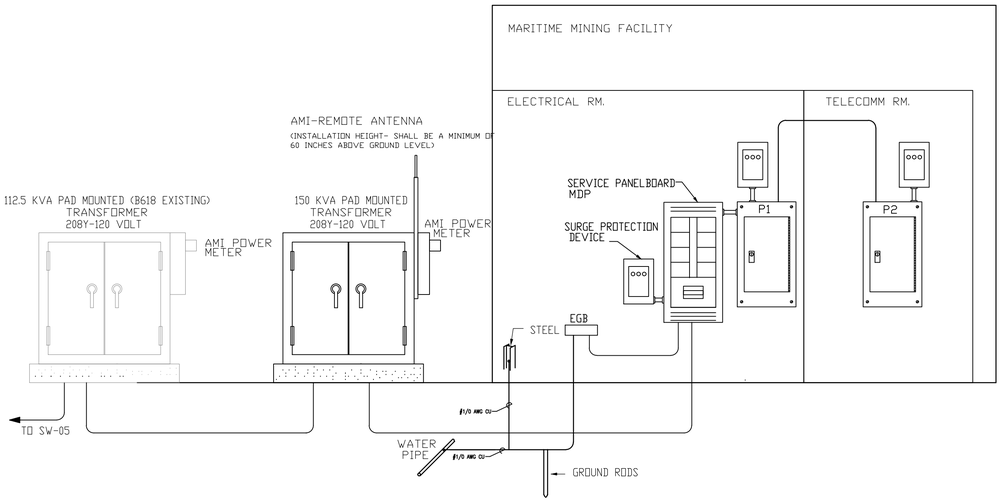
(—)	CONDUIT AND WIRE SIZES
1	ONE 5–INCH CONDUIT, 3 #1/0 @ 15KV & 1 #4/0 GND @ 600V, PROVIDE ONE 5–INCH SPARE CONDUIT
2	TWO SETS OF 3–INCH CONDUIT, CONTAINING (4) 250 KCMIL
3	ONE 1–1/2–INCH CONDUIT, 4 #1, 1 #6 GND
4	ONE 1–1/4–INCH CONDUIT, 4 #2, 1 #8 GND



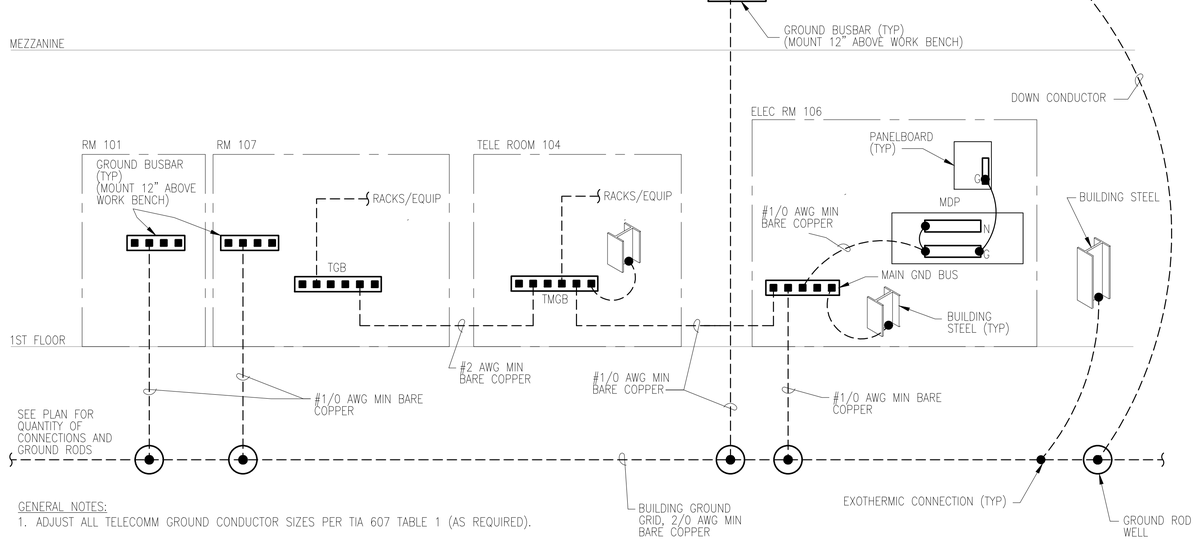
GROUNDING DIAGRAM NOTES:

1. WHERE EQUIPMENT HAS PREFABRICATED CONCENTRIC KNOCK–OUTS, UTILIZE GROUNDING BUSHING WITH CU BONDING JUMPERS PER N.E.C. 250.
2. PROVIDE A MADE ELECTRODE IN THE FORM OF DRIVEN GROUND RODS, BONDED TO THE BUILDINGS GROUNDING ELECTRODE SYSTEM. ALL ELECTRICAL WORK SHALL COMPLY WITH REQUIREMENTS SET FORTH BY LOCAL UTILITY COMPANY.
3. FOR GROUNDED SERVICE CONDUCTOR (NEUTRAL) AND EQUIPMENT GROUNDING CONDUCTORS, SEE SINGLE LINE RISER DIAGRAMS.
4. ALL BONDING CONNECTIONS BELOW GRADE OR OTHERWISE OBSTRUCTED FROM PERIODIC INSPECTION SHALL BE MADE WITH EXOTHERMIC TYPE CONNECTIONS CADWELD TYPE WITHOUT EXCEPTION.
5. SEE TELECOMM PAGE T600 FOR TELECOMM GROUNDING REQUIREMENTS.

2 GROUNDING DIAGRAM
Scale: NOT TO SCALE



3 POWER RISER DIAGRAM
Scale: NOT TO SCALE



GENERAL NOTES:
1. ADJUST ALL TELECOMM GROUND CONDUCTOR SIZES PER TIA 607 TABLE 1 (AS REQUIRED).

4 GROUNDING RISER DIAGRAM
Scale: NOT TO SCALE

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FIRE PROTECTION A.DISANTO

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE
NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

SINGLE LINE DIAGRAM AND RISERS

SCALE: —
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF
E601

FILE NAME: P:\ORL\project_files\FLORIDA\naval support acty panama city\fy18\61008\maritime mining facility cip project–1802981\working technical files\electrical\dwg files\DWG\E601 SINGLE LINE DIAGRAM AND RISERS.dwg LAYOUT NAME: E601 SINGLE LINE DIAGRAM AND RISERS PLOTTED: Monday, April 28, 2025 – 3:58pm USER: leonardo.a.ortiz

MDP

VOLTAGE: 208/120 VOLTS, 3 PH, 4W
BUSSING: 600 A CU
MAINS: 600 A MCB
INCOMING: BOTTOM

ENCLOSURE: NEMA 1
MOUNTING: SURFACE
BRACING: 18 KAIC. SYM.
GROUND BAR

LOCATION: ELECTRICAL RM
LOAD PER PHASE

DESCRIPTION	POLE	NOTE	COND.	WIRE	GND	TRIP	CKT	ØA	ØB	ØC	CKT	TRIP	GND	WIRE	COND.	NOTE	POLE	DESCRIPTION
SPD	3	--	1	6	10	50	1	-- 5.1			2	70	8	4	1-1/4	--	2	RM102 EWH
							3		-- 5.1		4							
							5			-- 5.1	6	70	8	4	1-1/4	--	2	RM201 EWH
PANEL P1	3	--	1-1/2	1	6	125	7	6.8 5.1			8					--		
							9		10.6 1.2		10	20	12	12	1/2	--	2	DOOR MOTOR
							11			10.6 1.2	12					--		
AIR COMPRESSOR	3	--	1-1/4	3	8	80	13	3.7 3.3			14					--		
							15		3.7 5.5		16	100	8	2	1-1/4	--	3	PANEL P2
							17			3.7 5.4	18							
AHU-1	3	--	1	6	10	60	19	6.5 5.4			20					--		
							21		6.5 5.4		22	70	8	4	1-1/4	--	3	CU-1
							23			6.5 5.4	24							
CRANE	3	--	1/2	12	12	20	25	2.0 1.4			26							
							27		2.0 1.4		28	30	10	10	1/2	--	3	208V RECEPTACLE
							29			2.0 1.4	30							
SPACE	1	--	--	--	--		31	-- 1.4			32							
SPACE	1	--	--	--	--		33		-- 1.4		34	30	10	10	1/2	--	3	208V RECEPTACLE
SPACE	1	--	--	--	--		35			-- 1.4	36							
SPACE	1	--	--	--	--		37	-- --			38		--	--	--	--	1	SPACE
SPACE	1	--	--	--	--		39		-- --		40		--	--	--	--	1	SPACE
SPACE	1	--	--	--	--		41			-- --	42		--	--	--	--	1	SPACE

	ØA	ØB	ØC
TOTAL KVA PER PHASE	41	43	43
TOTAL CONNECTED KVA	126.2		
TOTAL CONNECTED AMP	350.6		

	CONN LOAD	DEM FACT	DEM LOAD
LIGHTING LOAD	4.0	1.0	4.0
RECEPT LOAD	20.6	NEC	15.3
HVAC LOAD	61.8	1.0	61.8
EQUIPMENT LOAD	36.1	1.0	36.1
KITCHEN LOAD	2.5	0.65	1.6
TOTAL LOAD	125.0		119 KVA
DEMAND AMPS			330 A

NOTES:
1. INDICATES LOCK-ON ATTACHMENT FOR BREAKER, BREAKER COLORED RED
2. PROVIDE 'HACR' RATED BREAKERS FOR HVAC EQUIPMENT.
3. ALL SINGLE POLE BREAKERS SHALL BE 'SWD' RATED.
4. INDICATES GFCI BREAKERS.

P1

VOLTAGE: 208/120 VOLTS, 3 PH, 4W
BUSSING: 125 A CU
MAINS: MLO
INCOMING: BOTTOM

ENCLOSURE: NEMA 1
MOUNTING: SURFACE
BRACING: 14 KAIC. SYM.
GROUND BAR

LOCATION: ELECTRICAL RM
LOAD PER PHASE

DESCRIPTION	POLE	NOTE	COND.	WIRE	GND	TRIP	CKT	ØA	ØB	ØC	CKT	TRIP	GND	WIRE	COND.	NOTE	POLE	DESCRIPTION
SPD	3	--	1/2	12	12	20	1	-- 1.4			2	20	12	12	1/2	--	1	RECP RM 101
							3		-- 0.8		4	20	12	12	1/2	--	1	RECP RM 101
							5			-- 0.8	6	20	12	12	1/2	--	1	RECP RM 101
EF-1	1	--	1/2	10	10	30	7	0.1 1.4			8	20	12	12	1/2	--	1	RECP RM 101
RM 105 EWH	1	--	3/4	8	10	35	9		3.0 1.4		10	20	12	12	1/2	--	1	RECP RM 102
RECP RM 102	1	--	1/2	12	12	20	11			0.9 1.4	12	20	12	12	1/2	--	1	RECP RM 102
RM 102/Refrigerator	1	--	1/2	12	12	20	13	0.8 --			14		--	--	--	--	1	SPACE
RM 102/Microwave	1	--	1/2	12	12	20	15		1.0 0.8		16	20	12	12	1/2	--	1	RECP RM 103& 106
RM 102/Printer	1	--	1/2	12	12	20	17			0.7 0.8	18	20	12	12	1/2	--	1	RECP RM 105 & FTN
RECP RM 107	1	--	1/2	12	12	20	19	0.4 0.8			20	20	12	12	1/2	--	1	RECP EXTERIOR
RECP RM 107	1	--	1/2	12	12	20	21		1.1 0.2		22	20	12	12	1/2	--	1	FACP
RECP RM 201	1	--	1/2	12	12	20	23			0.9 1.4	24	20	12	12	1/2	--	1	RECP RM 201
LIGHTS-102	1	--	1/2	12	12	20	25	0.6 0.6			26	20	12	12	1/2	--	1	RECP RM 201
LIGHTS-103 TO 107	1	--	1/2	12	12	20	27		0.4 1.0		28	20	12	12	1/2	--	1	LIGHTS-101
LIGHTS-201 , STAIRS	1	--	1/2	12	12	20	29			0.6 1.0	30	20	12	12	1/2	--	1	LIGHTS-101
LIGHTS-EXTERIOR	1	--	1/2	12	12	20	31	0.2 0.2			32	20	12	12	1/2	--	1	LIGHTS-PARKING
MOTORIZED DAMPER	1	--	1/2	12	12	20	33		0.2 0.7		34	20	12	12	1/2	--	1	RM 201 PRINTER
SPARE	1	--	--	--	--	20	35			-- 2.1	36	20	12	12	1/2	--	1	SHREDDER
HVAC CONTROL	1	--	1/2	12	12	20	37	0.2 0.1			38	15	12	12	1/2	--	1	TP-2
SPACE	1	--	--	--	--		39		-- --		40		--	--	--	--	1	SPACE
SPACE	1	--	--	--	--		41			-- --	42		--	--	--	--	1	SPACE

	ØA	ØB	ØC
TOTAL KVA PER PHASE	7	11	11
TOTAL CONNECTED KVA	28.0		
TOTAL CONNECTED AMP	77.7		

	CONN LOAD	DEM FACT	DEM LOAD
LIGHTING LOAD	4.0	1.0	4.0
RECEPT LOAD	14.2	NEC	12.1
HVAC LOAD	3.3	1.0	3.3
EQUIPMENT LOAD	4.0	1.0	4.0
KITCHEN LOAD	2.5	0.65	1.6
TOTAL LOAD	28.0		25 KVA
DEMAND AMPS			69 A

NOTES:
1. INDICATES LOCK-ON ATTACHMENT FOR BREAKER, BREAKER COLORED RED
2. PROVIDE 'HACR' RATED BREAKERS FOR HVAC EQUIPMENT.
3. ALL SINGLE POLE BREAKERS SHALL BE 'SWD' RATED.
4. INDICATES GFCI BREAKERS.

P2

VOLTAGE: 208/120 VOLTS, 3 PH, 4W
BUSSING: 100 A CU
MAINS: 100 A MCB
INCOMING: TOP

ENCLOSURE: NEMA 1
MOUNTING: SURFACE
BRACING: 10 KAIC. SYM.
GROUND BAR

LOCATION: ELECTRICAL RM
LOAD PER PHASE

DESCRIPTION	POLE	NOTE	COND.	WIRE	GND	TRIP	CKT	ØA	ØB	ØC	CKT	TRIP	GND	WIRE	COND.	NOTE	POLE	DESCRIPTION
SPD	3	--	1/2	12	12	20	1	-- 0.4			2	20	12	12	1/2	--	1	ACP
							3		-- 1.4		4	30	10	10	1/2	--	2	NMCI DATA RACK 208V
							5			-- 1.4	6					--		
RM 104 RECEPTACLES	1	--	1/2	12	12	20	7	0.8 2.0			8	30	10	10	1/2	--	1	NMCI DATA RACK 120V
RTD&E DATA RACK 120V	1	--	1/2	12	12	20	9		1.4 1.2		10	30	10	10	1/2	--	2	OU-1
DATA RACK 120V	1	--	1/2	12	12	20	11			1.4 1.2	12					--		
IDS Panel RM104	1	--	1/2	12	12	20	13	0.1 --			14		--	--	--	--	1	SPARE
IDS Panel RM107	1	--	1/2	12	12	20	15		0.1 1.4		16	30	10	10	1/2	--	1	RM 107 DATA RACK NMC
SPARE	1	--	--	--	--		17			-- 1.4	18	20	12	12	1/2	--	1	M 107 DATA RACK SDRE
SPARE	1	--	--	--	--		19	-- --			20		--	--	--	--	1	SPACE
SPACE	1	--	--	--	--		21		-- --		22		--	--	--	--	1	SPACE
SPACE	1	--	--	--	--		23			-- --	24		--	--	--	--	1	SPACE

	ØA	ØB	ØC
TOTAL KVA PER PHASE	3	6	5
TOTAL CONNECTED KVA	14.2		
TOTAL CONNECTED AMP	39.5		

	CONN LOAD	DEM FACT	DEM LOAD
LIGHTING LOAD	--	1.0	--
RECEPT LOAD	6.4	NEC	6.4
HVAC LOAD	2.4	1.0	2.4
EQUIPMENT LOAD	5.4	1.0	5.4
KITCHEN LOAD	--	0.65	--
TOTAL LOAD	14.2		14 KVA
DEMAND AMPS			39 A

NOTES:
1. INDICATES LOCK-ON ATTACHMENT FOR BREAKER, BREAKER COLORED RED
2. PROVIDE 'HACR' RATED BREAKERS FOR HVAC EQUIPMENT.
3. ALL SINGLE POLE BREAKERS SHALL BE 'SWD' RATED.
4. INDICATES GFCI BREAKERS.

APPR | DATE | DESCRIPTION | SYM

NAVFAC

FOR BID ONLY
NOT FOR CONSTRUCTION
SEAL

A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY
.
SATISFACTORY TO DATE .

DES	LOR	DRW LOR	CHK MC
DESIGN MANAGER	K.MOOREHEAD		
PROJECT MANAGER	G.HARRIS		
CHIEF ENG/ARCH	M.CONTESTABILE		
FIRE PROTECTION	A.DISANTO		

DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND SOUTHEAST
NAVAL FACILITIES ENGINEERING COMMAND
NAVAL AIR STATION JACKSONVILLE

NSA PANAMA CITY
PANAMA CITY, FLORIDA

MARITIME MINING FACILITY

ELECTRICAL SCHEDULES

SCALE: --
EPROJECT NO.: 1802981
CONSTR. CONTR. NO.
NAVFAC DRAWING NO.
SHEET OF

E701

FILE NAME: P:\CIBL\project_files\FLORIDA\naval support acty panama city\ph1\61008\maritime mining facility cip project--1802981\working technical files\electrical\dwg final\DWG\E701 ELECTRICAL SCHEDULES.dwg LAYOUT NAME: E701 ELECTRICAL SCHEDULES PLOTTED: Monday, April 28, 2025 - 3:42pm USER: leonardo.o.ortiz