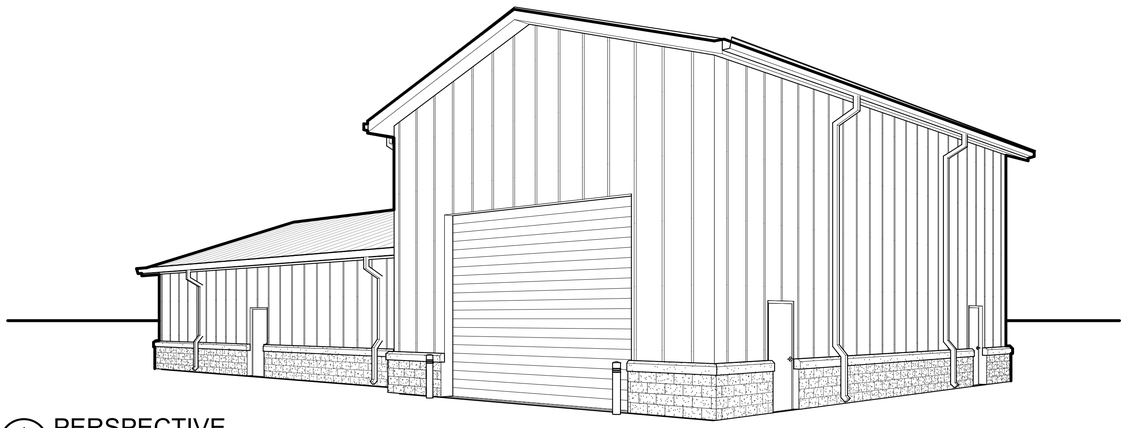
ROCKET OPERATIONS AND MAINTENANCE BUILDING

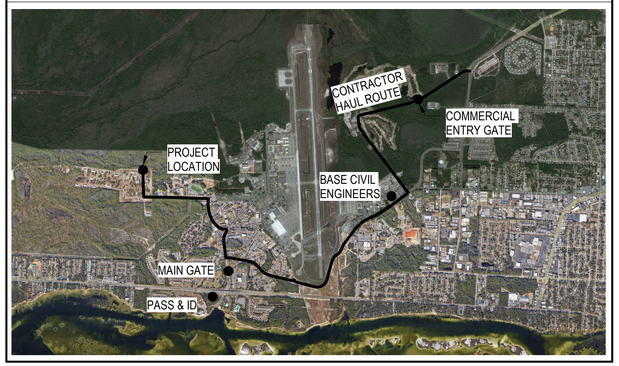
OP 1134972



1 G-001 PERSPECTIVE

LOCATION MAP

VICINITY MAP



REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TITLE SHEET

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: G-001
SHEET NUMBER: 1 OF 88

STATE OF FLORIDA
PHILIP B. MURRAY
REGISTERED ARCHITECT
02/11/2025
AR0014409

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REV #	DATE	DESCRIPTION

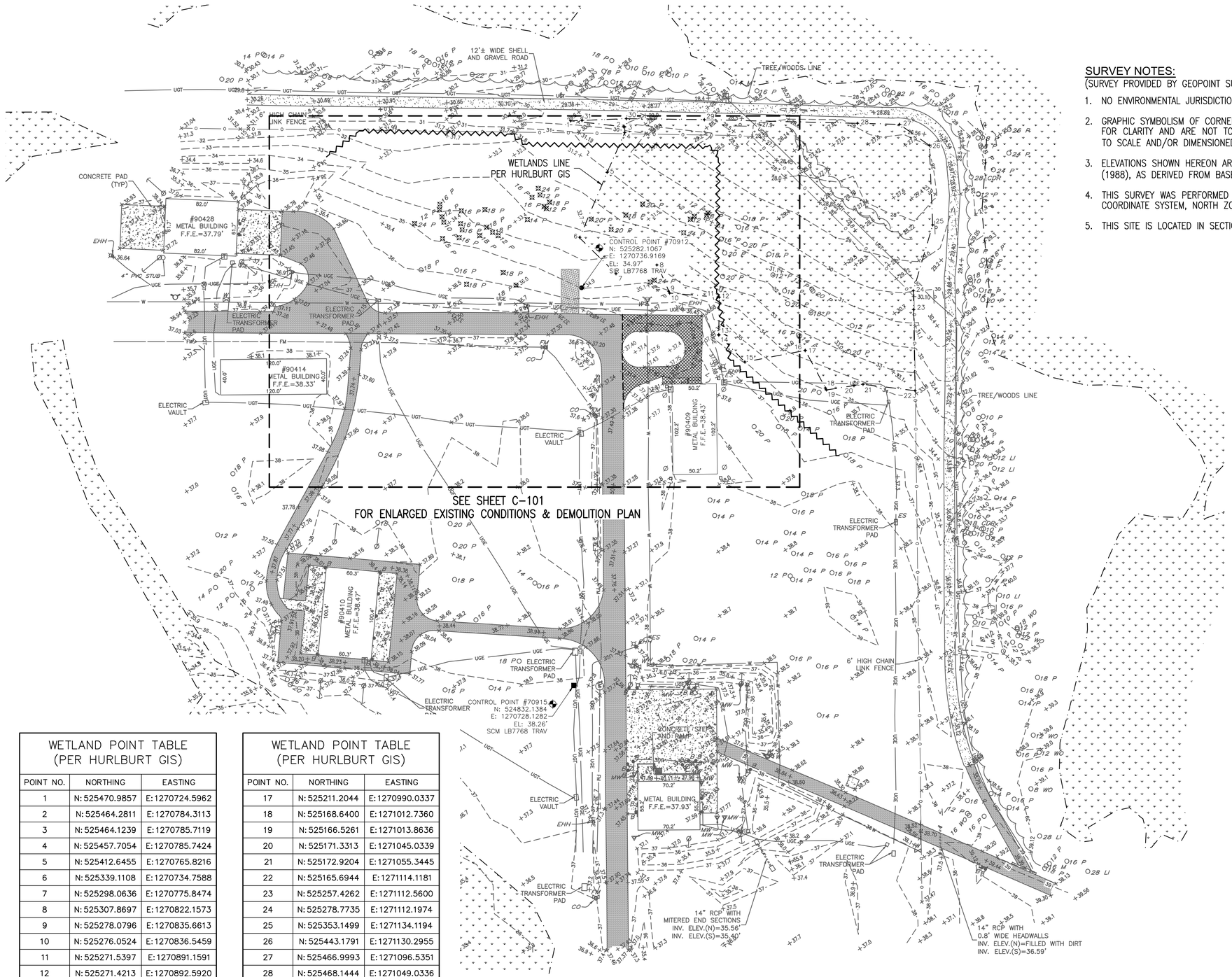
ROCKET OPERATIONS AND MAINTENANCE BUILDING

SHEET INDEX

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

STATE OF FLORIDA
JENNIFER R. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: G-002
SHEET NUMBER: 2 OF 88



0 60' 120'

SURVEY NOTES:

(SURVEY PROVIDED BY GEOPOINT SURVEYING INC.)

1. NO ENVIRONMENTAL JURISDICTION LINES HAVE BEEN DETERMINED BY GEOPOINT SURVEYING, INC.
2. GRAPHIC SYMBOLISM OF CORNER MONUMENTATION, UTILITIES, SIGNS, ETCETERA, ARE EXAGGERATED FOR CLARITY AND ARE NOT TO SCALE. THE CENTER POINT OF WHICH IS ACCURATELY PLOTTED TO SCALE AND/OR DIMENSIONED THERETO.
3. ELEVATIONS SHOWN HEREON ARE IN FEET AND REFERENCE TO NORTH AMERICAN VERTICAL DATUM (1988), AS DERIVED FROM BASE MONUMENTATION.
4. THIS SURVEY WAS PERFORMED IN AND IS DIGITALLY REFERENCED TO THE FLORIDA STATE PLANE COORDINATE SYSTEM, NORTH ZONE, N.A.D. 83 DATUM AS DERIVED FROM BASE MONUMENTATION.
5. THIS SITE IS LOCATED IN SECTION 12, TOWNSHIP 2S, RANGE 25 W. OKALOOSA COUNTY FL.

LEGEND

LS	LICENSED SURVEYOR
LB	LICENSED BUSINESS
INV	INVERT ELEVATION
N:	NORTHING
E:	EASTING
LAT:	LATITUDE
LONG:	LONGITUDE
ELEV.	ELEVATION
SIR	SET 1/2" IRON ROD LB7768 TRAVERSE
SCM	SET CONCRETE MONUMENT LB7768 TRAVERSE
PCP	PLASTIC CORRIGATED PIPE
RCP	REINFORCED CONCRETE PIPE
(TYP)	Typical
	SIGN
	WATER GATE VALVE
	BENCHMARK
ES	ELECTRIC SWITCH BOX
EHH	ELECTRIC HANDHOLE
CO	SANITARY SEWER CLEAN OUT
	GUY ANCHOR
	FIRE HYDRANT
FM	BURIED FORCE MAIN WARNING MARKER
	UTILITY POLE
MW	MONITORING WELL
	CONCRETE
	GRAVEL
	ASPHALT
UGE	UNDERGROUND ELECTRIC
FIB	BURIED FIBER OPTIC
FM	BURIED FORCE MAIN
W	BURIED WATER LINE
UGT	BURIED TELEPHONE LINE
24.8+	SPOT ELEVATION

TREE LEGEND

TREE LOCATION
TREE SIZE (INCHES) AND TYPE
18 P

CDR	CEDAR
WO	WATER OAK
P	LONGLEAF PINE
LI	LIVE OAK
M	MAGNOLIA
	WETLANDS JURISDICTION PER HURLBURT GIS
	REMOVE TREE

WETLAND POINT TABLE (PER HURLBURT GIS)

POINT NO.	NORTHING	EASTING
1	N: 525470.9857	E: 1270724.5962
2	N: 525464.2811	E: 1270784.3113
3	N: 525464.1239	E: 1270785.7119
4	N: 525457.7054	E: 1270785.7424
5	N: 525412.6455	E: 1270765.8216
6	N: 525339.1108	E: 1270734.7588
7	N: 525298.0636	E: 1270775.8474
8	N: 525307.8697	E: 1270822.1573
9	N: 525278.0796	E: 1270835.6613
10	N: 525276.0524	E: 1270836.5459
11	N: 525271.5397	E: 1270891.1591
12	N: 525271.4213	E: 1270892.5920
13	N: 525229.1250	E: 1270892.0871
14	N: 525228.5189	E: 1270892.0797
15	N: 525198.1391	E: 1270921.4686
16	N: 525211.1517	E: 1270989.7565

WETLAND POINT TABLE (PER HURLBURT GIS)

POINT NO.	NORTHING	EASTING
17	N: 525211.2044	E: 1270990.0337
18	N: 525168.6400	E: 1271012.7360
19	N: 525166.5261	E: 1271013.8636
20	N: 525171.3313	E: 1271045.0339
21	N: 525172.9204	E: 1271055.3445
22	N: 525165.6944	E: 1271114.1181
23	N: 525257.4262	E: 1271112.5600
24	N: 525278.7735	E: 1271112.1974
25	N: 525353.1499	E: 1271134.1194
26	N: 525443.1791	E: 1271130.2955
27	N: 525466.9993	E: 1271096.5351
28	N: 525468.1444	E: 1271049.0336
29	N: 525472.3189	E: 1270875.8134
30	N: 525473.4293	E: 1270787.4729
31	N: 525471.4775	E: 1270737.2483

KENNETH C. HORN LICENSED No. 40149 STATE OF FLORIDA PROFESSIONAL ENGINEER
2/13/25

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

EXISTING CONDITIONS & DEMOLITION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-100
SHEET NUMBER: 3 OF 88

0 20' 40'

NOTES:
1. SEE ELECTRICAL AND COMMUNICATIONS DRAWINGS FOR DEMOLITIONS ITEMS.
2. SEE SHEET C-100 FOR WETLAND POINTS.

6' HIGH CHAIN LINK FENCE

A / C-601 SILT FENCE (TYP.)

WETLANDS LINE PER HURLBURT GIS

WETLAND AREA IMPACTS 0.475 ACRES±

REMOVE EX. TREE (TYP.)

E / C-601 TEMPORARY CONSTRUCTION ENTRANCE

CONTROL POINT #70912
N: 525282.1067
E: 1270736.9169
EL: 34.97'
SIR LB7768 TRAV

CLOSE EX VALVE & REMOVE EX. FIRE HYDRANT (SEE SHEET C-301)

SUPPORT & PROTECT EX. UNDERGROUND ELECTRIC AND WATERLINE

REMOVE EX. ASPHALT

EX. ELECTRICAL PANEL AND CONTACTOR TO REMAIN IN OPERATION. (SUPPORT AND PROTECT) (SEE ELECTRICAL PLANS)

A / C-601 SILT FENCE (TYP.)

REMOVE EX. LPS POLE (BY OTHERS)

REMOVE EX. BUILDING STRUCTURE & FOUNDATION IN ITS ENTIRETY (BY OTHERS)

SAWCUT & REMOVE EX. ASPHALT

#90414
METAL BUILDING
F.F.E.=38.33'

ELECTRIC TRANSFORMER PAD

ELECTRIC VAULT

REMOVE EX. COMMUNICATIONS CABLING, CONDUIT TO BE ABANDONED IN PLACE.

ABANDON EX. GROUND ROD FOR LIGHTNING PROTECTION POLE, TYP. OF 4 (BY OTHERS)

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ENLARGED EXISTING CONDITIONS & DEMOLITION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-101
SHEET NUMBER: 4 OF 88

KENNETH C. HORAK
LICENSE
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

0 60' 120'

NOTE: BID OPTION INCLUDES ADDITIONAL CONCRETE PAVEMENT AND CURB.

12'± WIDE SHELL AND GRAVEL ROAD

WETLANDS LINE PER HURLBURT GIS

TREE/WOODS LINE

6' HIGH CHAIN LINK FENCE

BID OPTION

ROCKET OPERATIONS & MAINT. BLDG

CONCRETE PAD (TYP)

#90428 METAL BUILDING F.F.E.=37.79'

426.8'

335.38'

420.62'

#90414 METAL BUILDING F.F.E.=38.33'

#90410 METAL BUILDING F.F.E.=38.47'

ELECTRIC TRANSFORMER PAD

ELECTRIC VAULT

4" PVC STUB

SEE SHEET C-201 FOR ENLARGED SITE PLAN

CONTROL POINT #70915
N: 524832.1384
E: 1270728.1282
EL: 38.26'
SCM LB7768 TRAV

CONCRETE STEPS AND RAMP

METAL BUILDING F.F.E.=37.93'

14" RCP WITH MITERED END SECTIONS
INV. ELEV.(N)=35.56'
INV. ELEV.(S)=35.40'

14" RCP WITH 0.8' WIDE HEADWALLS
INV. ELEV.(N)=FILLED WITH DIRT
INV. ELEV.(S)=36.59'

KENNETH C. HORNE
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

OVERALL SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025

DESIGNED BY: KCH

DRAWN BY: LRR

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: C-200

SHEET NUMBER: 5 OF 88

NOTE: BID OPTION INCLUDES ADDITIONAL CONCRETE PAVEMENT AND CURB.

6' HIGH CHAIN LINK FENCE

2 / C-503 SEGMENTAL BLOCK RETAINING WALL

LIGHTNING PROTECTION MAST (TYP.) SEE SHEET ES102

N: 525436.0703
E: 1270618.6059
TOP INSIDE WALL EDGE

N: 525425.8866
E: 1270875.4995

N: 525432.8613
E: 1270877.5860
TOP INSIDE WALL EDGE

5'
25.47'

N: 525427.8690
E: 1270715.5118

N: 525407.4025
E: 1270715.2582

BID OPTION

R5'

N: 525427.7997
E: 1270882.5237
TOP INSIDE WALL EDGE

5'

LIMITS OF WETLAND IMPACTS
(AREA OF IMPACTS 0.475 AC.)

1 / C-501 CONCRETE PAVING

3 / C-503 FDOT TYPE "F" CURB & GUTTER

N: 525334.1930
E: 1270854.3614

20'

ROCKET OPERATIONS
& MAINT. BLDG
FFE: 38.00
(SEE ARCHITECTURAL PLANS)

20'

1 / C-503 BOLLARDS (TYP. OF 2)

N: 525282.8844
E: 1270853.7256

4 / C-503 CURB TRANSITION

N: 525275.8427
E: 1270880.6408
TOP INSIDE WALL EDGE

N: 525246.1430
E: 1270886.6878
TOP INSIDE WALL EDGE

ELECTRIC TRANSFORMER PAD

#90414
METAL BUILDING
F.F.E.=38.33'

120.0'
40.0'
120.0'

ASPHALT PAVING 2 / C-501

FDOT TYPE "F" CURB & GUTTER 3 / C-503

R50'

CURB TRANSITION 4 / C-503

ELECTRIC VAULT

0 20' 40'

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ENLARGED SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-201
SHEET NUMBER: 6 OF 88

KENNETH C. HORNE
LICENSE No. 40149
STATE OF FLORIDA
PROFESSIONAL ENGINEER

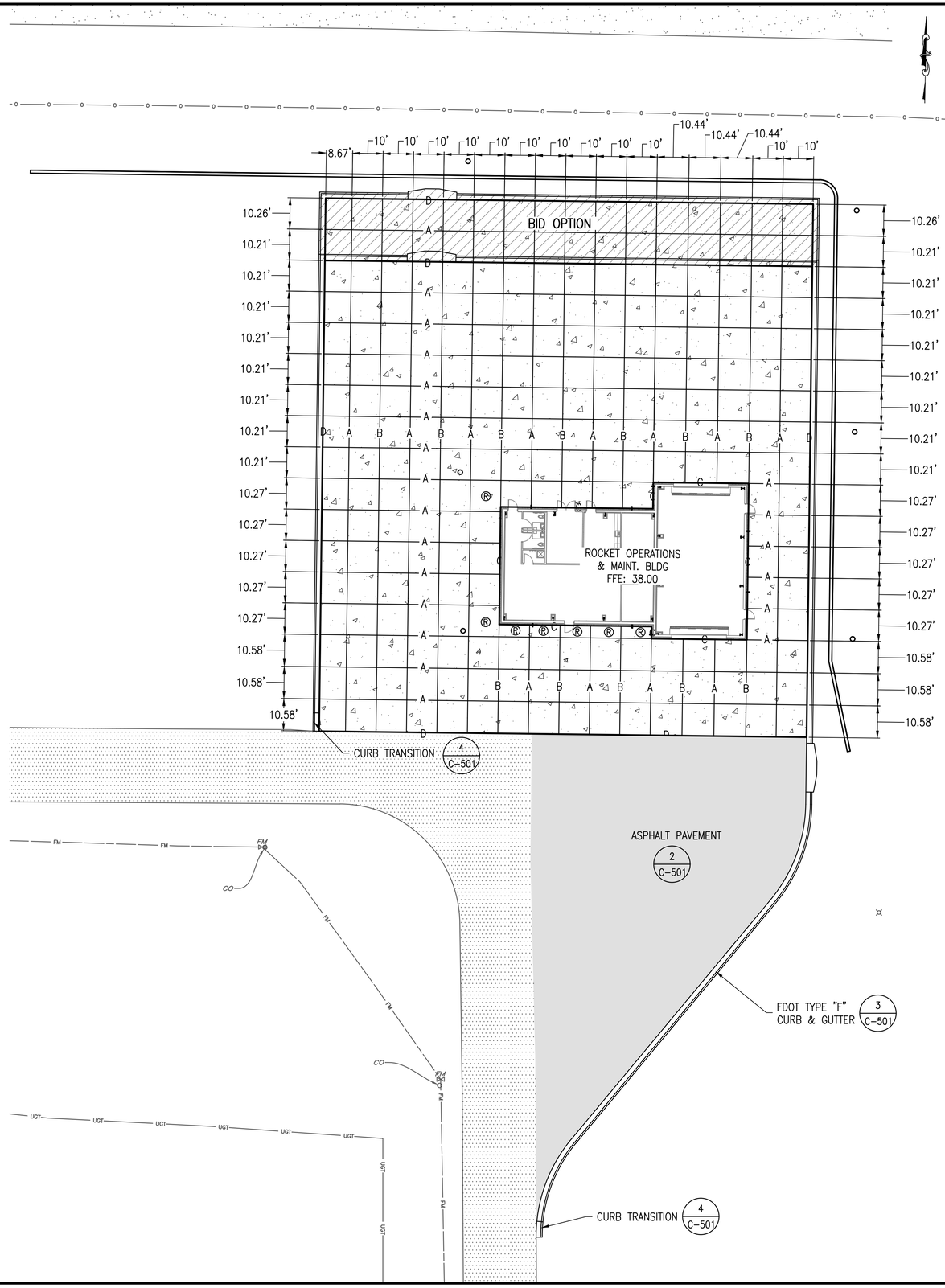
NOTE: BID OPTION INCLUDES ADDITIONAL CONCRETE PAVEMENT AND CURB.

JOINT LEGEND
——A—— TRANSVERSE / LONGITUDINAL CONTRACTION JOINT (5 / C-501)
——B—— DOWELED TRANSVERSE OR LONGITUDINAL CONSTRUCTION JOINT (6 / C-501)
——C—— THICKENED EDGE EXPANSION JOINT (8 / C-501)
——D—— THICKENED EDGE BUTT CONSTRUCTION JOINT (9 / C-501)

NOTES:

1. SEE SHEET C-100 FOR SURVEY CONTROL POINTS, BENCHMARKS AND COORDINATES.
2. TYPE "B" JOINT SHALL BE USED IN PLACE OF TYPE "A" TRAVERSE CONTRACTION JOINT IF CONCRETE PLACEMENT ENDS WITHIN A PAVING LANE.
3. SEE SHEET C-100 FOR SITE LEGEND.
4. SEE SHEETS C-501 & C-502 FOR JOINT DETAILS.

Ⓡ = DENOTES REINFORCED SLABS (SEE REINFORCEMENT NOTES AND DETAIL) 1 / C-502



REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

JOINTING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-202
SHEET NUMBER: 7 OF 88

NOTE: BID OPTION INCLUDES ADDITIONAL CONCRETE PAVEMENT AND CURB.

6' HIGH CHAIN LINK FENCE

LIGHTNING PROTECTION MAST (TYP.) SEE SHEET ES102

BID OPTION

LIGHT POLE (TYP.) SEE SHEET ES103

6" AWWA C900 DR18 WATERLINE

ROCKET OPERATIONS & MAINT. BLDG FFE: 38.00

95 LF OF 4" PVC SANITARY SEWER LATERAL @ 1.0% SLOPE

4" PVC SANITARY SEWER LATERAL @ 1.0% MIN. SLOPE

2 / C-505 CLEAN-OUT INV. 34.73

6" TEE, 6" GATE VALVE

1 / C-504

FIRE HYDRANT ASSEMBLY

2 / C-504

1 / C-506 SANITARY SEWER LIFT STATION TOP EL. 38.25 4" INV. IN 33.00

78 LF OF 4" PVC SANITARY SEWER LATERAL @ 1.0% SLOPE

2 / C-505 CLEAN-OUT INV. 33.78

3 / C-505 CUT & PATCH EX. ASHPALT ROAD AS NECESSARY TO INSTALL 2" PVC FORCEMAIN

6"X1" TAPPING SADDLE & VALVE, 1" SERVICE TUBING, 1" RPZ BFP WITH INSULATED ENCLOSURE, HOSE BIBB.

CONNECT TO EX. 2" FORCEMAIN

CONNECT TO EX.6" VALVE, INSTALL 90° FITTING

6" AWWA C900 DR18 WATERLINE

ELECTRIC TRANSFORMER PAD

ELECTRIC VAULT

#90414 METAL BUILDING F.F.E.=38.33'

120.0' 40.0' 120.0'

0 20' 40'

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ENLARGED UTILITY PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025

DESIGNED BY: KCH

DRAWN BY: LRR

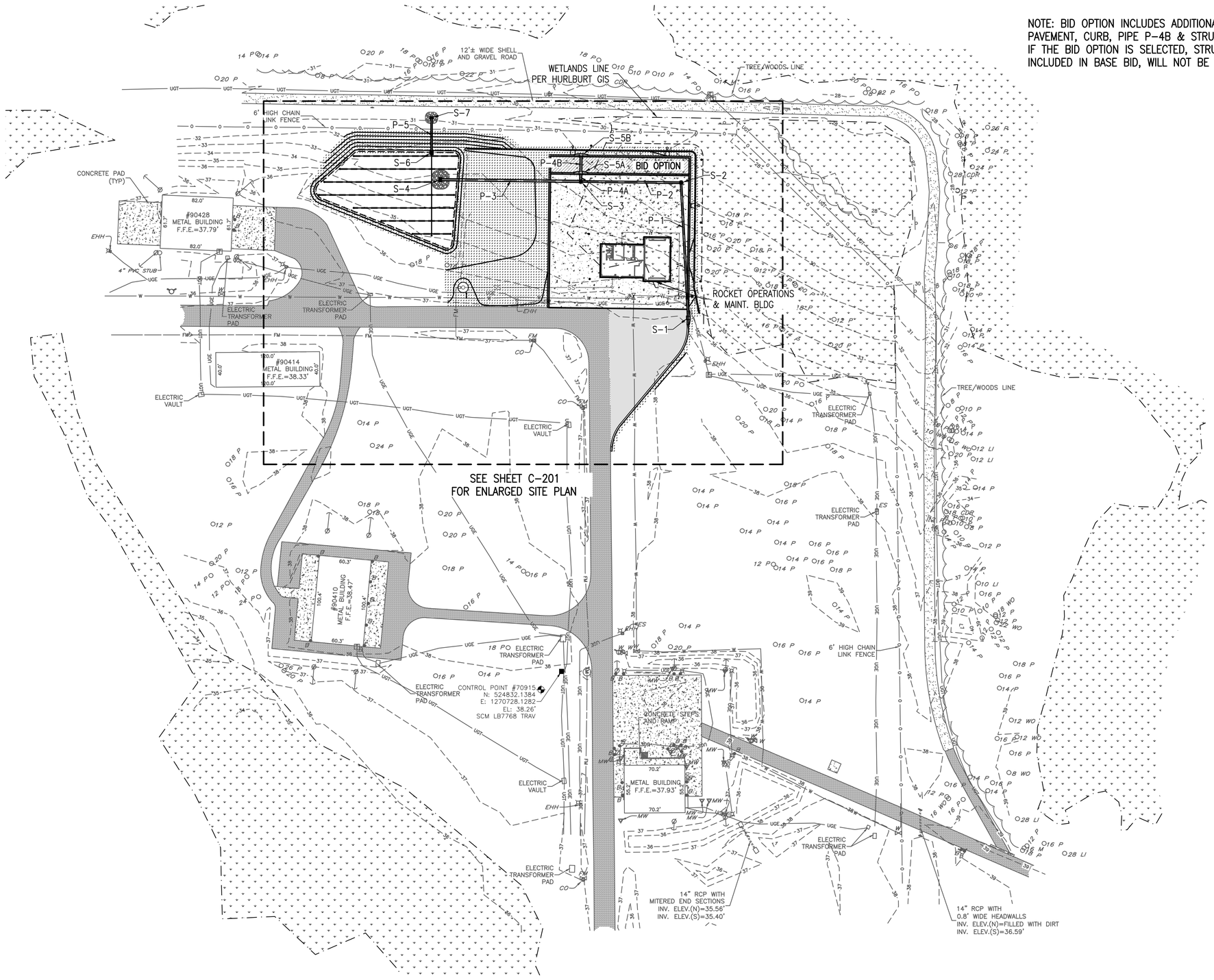
BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: C-301

SHEET NUMBER: 8 OF 88

KENNETH C. HORNE LICENSE No. 40149 2/13/25 STATE OF FLORIDA PROFESSIONAL ENGINEER



STORM STRUCTURE TABLE	
STRUCTURE NAME NORTHING EASTING	DETAILS:
S-1 N:525240.8853 E:1270874.4572	FDOT TYPE 6 CI TOP = 36.83 INV OUT = 32.45 (P-1)
S-2 N:525397.2503 E:1270866.1439	FDOT JB TOP = 37.00 INV IN = 31.67 (P-1) INV OUT = 31.57 (P-2)
S-3 N:525398.6876 E:1270750.1528	FDOT JB TOP = 36.11 INV IN = 30.99 (P-2) INV IN = 30.59 (P-4A) INV OUT = 30.49 (P-3)
S-4 N:525400.6970 E:1270587.9852	FDOT TYPE "D" BUBBLE-UP TOP = 34.50 INV IN = 29.00 (P-3)
S-5A N:525408.2203 E:1270750.2725	FDOT TYPE 6 CI TOP = 36.11 INV IN = 30.82 (P-4B) INV OUT = 30.82 (P-4A)
S-5B N:525428.6868 E:1270750.5261	FDOT TYPE 6 CI TOP = 36.00 INV OUT = 31.32 (P-4B)
S-6 N:525432.2482 E:1270577.7507	FDOT TYPE "E" OVERFLOW TOP = 34.88 INV OUT = 29.50 (P-5)
S-7 N:525472.2482 E:1270577.7507	FDOT TYPE "C" BUBBLE-UP TOP = 32.00 INV IN = 28.00 (P-5)

PIPE TABLE			
NAME	SIZE MATERIAL	LENGTH	SLOPE
P-1	18" RCP	157'	0.50%
P-2	18" RCP	116'	0.50%
P-3	24" RCP	162'	0.92%
P-4A	24" RCP	10'	2.41%
P-4B	24" RCP	20'	2.41%
P-5	15" PVC	40'	3.75%

NOTE: SEE SHEET C-401 AND STORM STRUCTURE DETAILS FOR ADDITIONAL INFORMATION.

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV# | DATE | DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

OVERALL GRADING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025

DESIGNED BY: KCH

DRAWN BY: LRR

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: C-400

SHEET NUMBER: 9 OF 88

NOTE: BID OPTION INCLUDES ADDITIONAL CONCRETE PAVEMENT, CURB, PIPE P-4B & STRUCTURE S-5B. IF THE BID OPTION IS SELECTED, STRUCTURE S-5A INCLUDED IN BASE BID, WILL NOT BE INSTALLED.

H:1"=20' V:1"=4'

RIRAP OVER FILTER FABRIC

REMOVE & REPLACE FENCE AS NECESSARY TO INSTALL STORM PIPE

6' HIGH CHAIN LINK FENCE

S-7
TOP: 32.00
(2)-18"X12" SLOT, INV. 31.00
INV IN: 28.00 P-5

P-5 40 LF OF 15" PVC @ 3.75%

30 LF 6" PERF PVC @ 0.3%

37.00 TW

S-5B
TOP: 36.00
INV OUT: 31.32 P-4B

LIGHTNING PROTECTION MAST (TYP.) SEE SHEET ES102

SEGMENTAL BLOCK RETAINING WALL

37.96 TW

36.75 TW

S-5A
TOP: 36.11
INV IN: 30.82 P-4B
INV OUT: 30.82 P-4A

BID OPTION

LIMITS OF WETLAND IMPACTS (AREA OF IMPACTS 0.475 AC.)

LIGHT POLE (TYP.) SEE SHEET ES103

90 LF 6" PERF PVC @ 0.3%
C.O. INV. 30.28

S-6
TOP: 34.88
INV OUT: 29.50 P-5

INV. 30.01

R12'

C.O. INV. 30.10
28 LF 6" PERF PVC @ 0.3%
C.O. INV. 30.14

RIRAP OVER FILTER FABRIC

P-4B 20 LF OF 24" RCP @ 2.41%

106 LF 6" PERF PVC @ 0.3%
C.O. INV. 30.38

INV. 30.06

P-4A 10 LF OF 24" RCP @ 2.41%

P-3 162 LF OF 24" RCP @ 0.92%

P-2 116 LF OF 18" RCP @ 0.50%

TOP INSIDE 35 CONTOUR POINT STAKING (TYP.)

R16'

C.O. INV. 30.47

124 LF 6" PERF PVC @ 0.3%

INV. 30.10

S-4
TOP: 34.50
(2)-49"x12" SLOT, INV. 33.50
INV IN: 29.00 P-3

S-3
TOP: 36.11
INV IN: 30.99 P-2
INV IN: 30.59 P-4A
INV OUT: 30.49 P-3

S-2
TOP: 37.00
INV IN: 31.67 P-1
INV OUT: 31.57 P-2

C.O. INV. 30.53

128 LF 6" PERF PVC @ 0.3%

INV. 30.15

C.O. INV. 30.23
26 LF 6" PERF PVC @ 0.3%

C.O. INV. 30.47

90 LF 6" PERF PVC @ 0.3%

INV. 30.20

C.O. INV. 30.28
25 LF 6" PERF PVC @ 0.3%

96 LF 8" PVC @ 0.3%

C.O. INV. 30.42

58 LF 6" PERF PVC @ 0.3%

INV. 30.25

C.O. INV. 30.32
24 LF 6" PERF PVC @ 0.3%

C.O. INV. 30.37

22 LF 6" PERF PVC @ 0.3%

C.O. INV. 30.30

C.O. INV. 30.37
22 LF 6" PERF PVC @ 0.3%

P-1 157 LF OF 18" RCP @ 0.50%

ROCKET OPERATIONS & MAINT. BLDG FFE: 38.00

SOD AREA WITH ARGENTINE BAHIA

37.12± M.E.

37.13± M.E.

37.25± M.E.

37.29

37.46

36.95

36.85

36.50

36.45

S-1
TOP: 36.83
INV OUT: 32.45 P-1

36.51

36.00 TW

38.50 TW

38.80 TW

36.67

37.15

37.32

ELECTRIC TRANSFORMER PAD

ELECTRIC VAULT

SHEET ABBREVIATION LEGEND

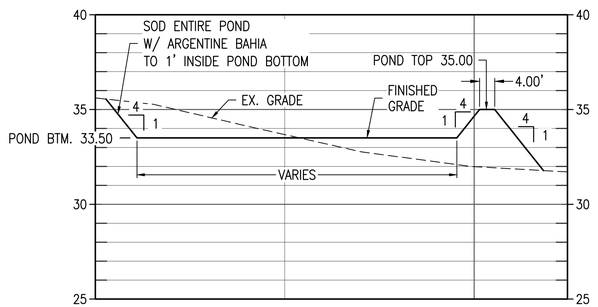
PI	=	POINT OF INTERSECTION
BTM	=	BOTTOM
TW	=	TOP OF WALL
M.E.	=	MATCH EXISTING
INV	=	INVERT
EX.	=	EXISTING

NOTES:

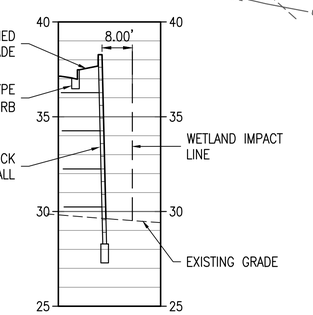
1. SEE SHEET C-400 FOR STRUCTURE AND PIPE TABLE.

POND STAGE STORAGE VOLUME		
ELEVATION (FT)	AREA (SF)	CUMULATIVE VOLUME (CF)
35.00	15385	20881
34.50	14395	13436
34.10	13621	7833
34.00	13430	6480
33.50	12490	0

POND TOP CONTOUR POINT TABLE			
POINT #	NORTHING	EASTING	DESCRIPTION
1	525310.2951	1270606.0043	PI
2	525437.8798	1270616.2128	PI
3	525439.6003	1270488.6937	PI
4	525383.2219	1270423.8660	PI



POND SECTION A



WETLAND IMPACTS SECTION B

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ENLARGED GRADING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025

DESIGNED BY: KCH

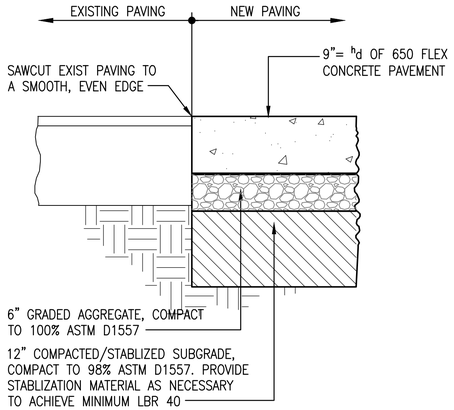
DRAWN BY: LRR

BUILDING NUMBER: 90405

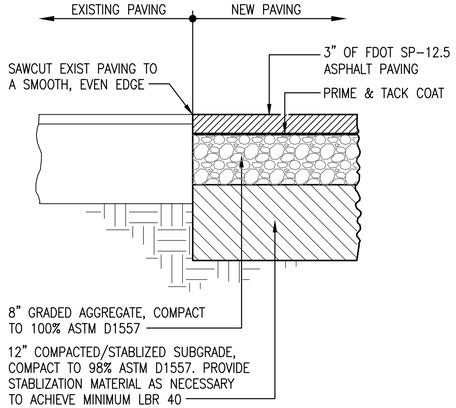
PROJECT NUMBER: OP1134972

SHEET REFERENCE: C-401

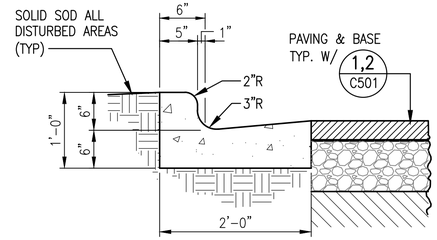
SHEET NUMBER: 10 OF 88



1 C-501 CONCRETE PAVING SECTION
N.T.S.

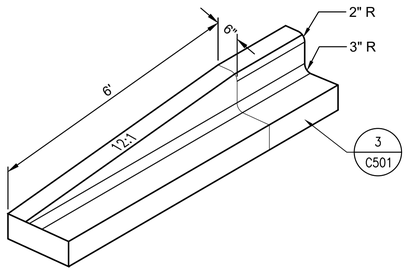


2 C-501 ASPHALT PAVING SECTION
N.T.S.

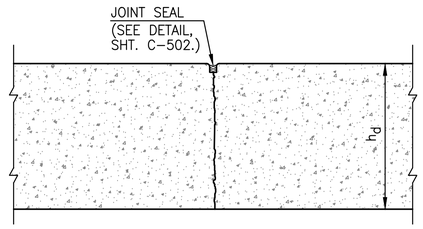


NOTE: WHEN USED ON THE HIGH SIDE OF ROADWAYS, THE CROSS SLOPE OF GUTTER SHALL MATCH THE CROSS OF ADJACENT PAVEMENT AND THE THICKNESS OF LIP SHALL BE 6", UNLESS SHOWN OTHERWISE ON THE PLANS

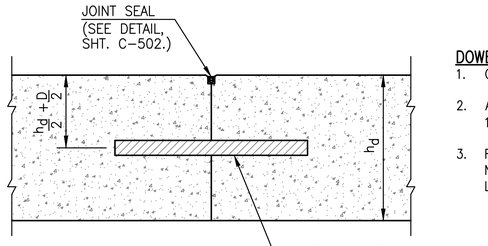
3 C-501 FDOT TYPE "F" CURB & GUTTER
N.T.S.



4 C-501 CURB TRANSITION DETAIL
N.T.S.



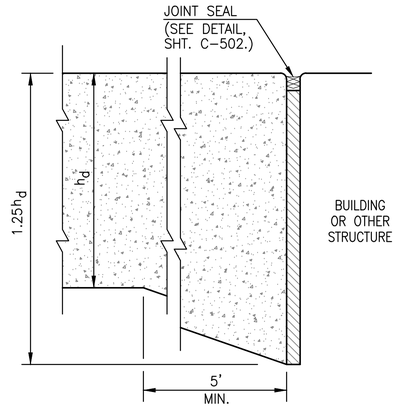
TYPE "A"
5 C-501 TRANSVERSE CONTRACTION JOINT
N.T.S.



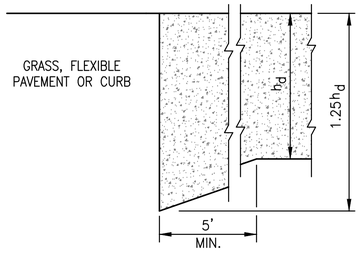
NOTE!
TYPE "B" JOINT SHALL BE USED IN PLACE OF TYPE "A" TRANSVERSE CONTRACTION JOINT IF CONCRETE PLACEMENT ENDS WITHIN A PAVING LANE.

DOWEL NOTES:
1. O.C. = ON CENTER.
2. ALL DOWELS SHALL BE 12" O.C., 12" LONG, 1.0" DIAMETER.
3. FIRST AND LAST DOWEL SHALL BE NO CLOSER THAN 12" FROM JOINT LINES.

TYPE "B"
6 C-501 DOWELED TRANSVERSE OR LONGITUDINAL CONSTRUCTION JOINT
N.T.S.



TYPE "C"
8 C-501 THICKENED EDGE EXPANSION JOINT
N.T.S.



TYPE "D"
9 C-501 THICKENED EDGE BUTT CONSTRUCTION JOINT
N.T.S.

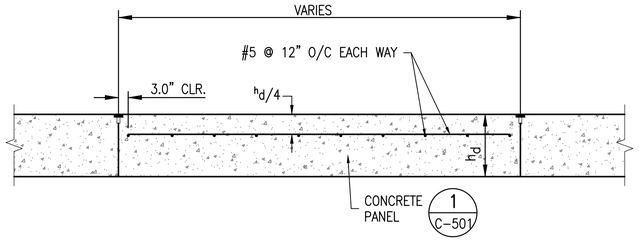
KENNETH C. HORAK
LICENSE
No. 40149
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2/13/25

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING
DETAILS

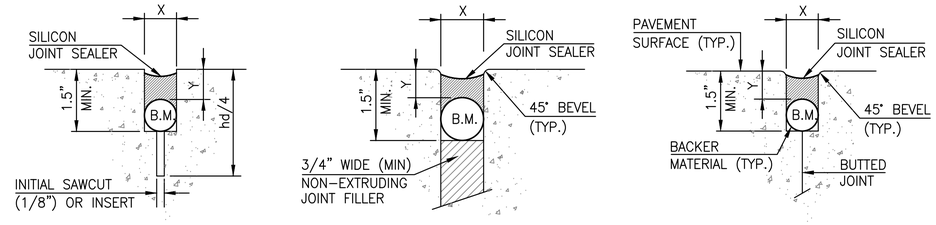
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-501
SHEET NUMBER: 11 OF 88



NOTE:
THIS DETAIL PERTAINS ONLY TO THOSE SLABS DESIGNATED WITH (R) FOR REINFORCEMENT ON JOINT LAYOUT PLANS, ALL OTHER SLABS ARE UN-REINFORCED.

1 C-502 **TYPICAL REINFORCED SLAB DETAIL**
N.T.S.



2 C-502 **SILICON JOINT SEAL DETAILS**
N.T.S.

SILICON JOINT SEALING DATA				
JOINT TYPE	X		Y	
	MAX.	MIN.	MAX.	MIN.
CONTRACTION	5/8"	1/2"	5/16"	1/4"
CONSTRUCTION	5/8"	1/2"	5/16"	1/4"
EXPANSION	1"±1/16"	1"±1/16"	9/16"	7/16"
SLIP	5/8"	1/2"	5/16"	1/4"

* JOINT WIDTH SHALL BE AS INDICATED OR AS PER JOINT SEALANT MANUFACTURER'S RECOMMENDATION FOR SPECIFIED JOINT WIDTHS.

NOTES:

A. SEPARATING TAPE OR NONABSORBENT TAPE REQUIRED TO PREVENT JOINT SEALANT FROM FLOWING INTO SAWCUT, TO SEPARATE NONCOMPATIBLE MATERIALS AND TO PREVENT JOINT SEALANTS FROM BONDING TO BOTTOM OF RESERVOIR.

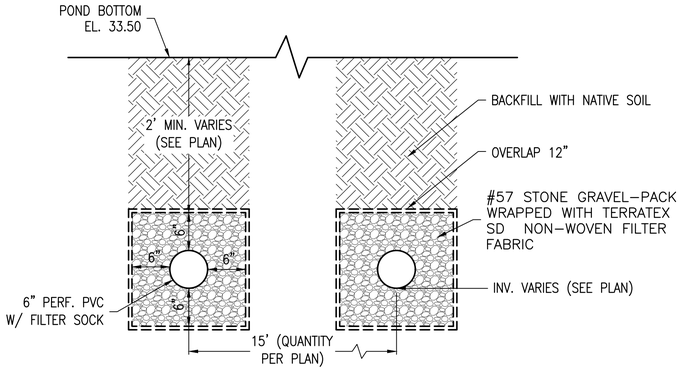
B. PREFORMED FILLER MAY BE FIBERBOARD OR OTHER APPROVED MATERIAL WHICH CAN BE SAWED OR SECTION REMOVED TO FORM SEALANT RESERVOIR.

C. TOP OF SEALANT SHALL BE AT LEAST 1/4" TO 1/16" BELOW TOP OF PAVEMENT. IN AREAS TO BE GROOVED, THE JOINT SEAL SHALL BE RECESSED BELOW THE DEPTH OF THE GROOVES.

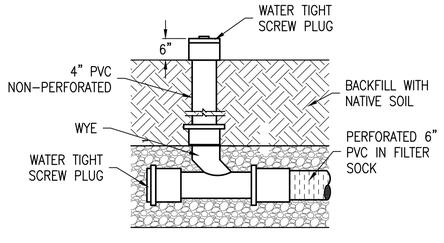
D. ONLY SILICON JOINT SEALANT SHALL BE USED FOR SEALING ALL JOINTS IN PCC PAVEMENT.

CARING OF JOINTS AFTER INITIAL SAW CUTS

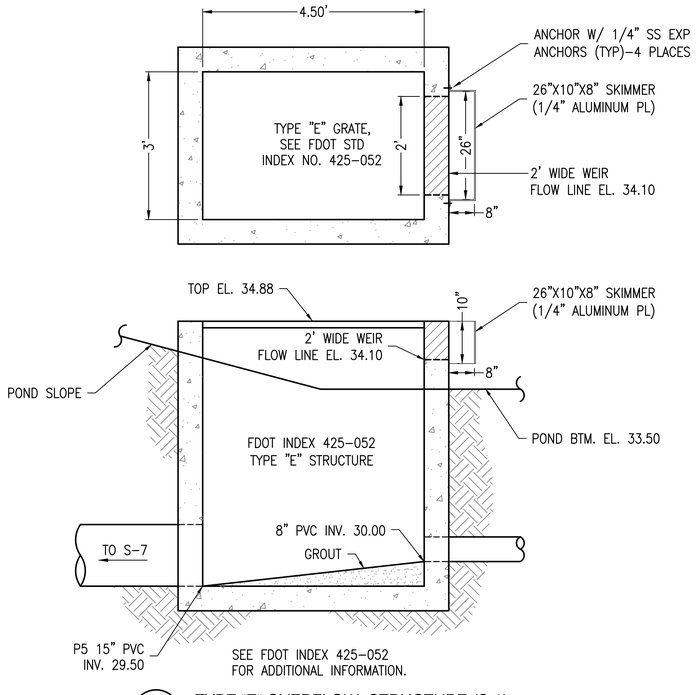
THE SURFACE SHALL BE RESPRAYED WITH CURING COMPOUND AS SOON AS FREE WATER DISAPPEARS. NECESSARY PRECAUTIONS SHALL BE TAKEN TO INSURE THAT THE CONCRETE IS PROPERLY PROTECTED FROM DAMAGE AND CURED AT SAWED JOINTS. THE TOP OF THE JOINT OPENING AND THE JOINT GROOVE AT EXPOSED EDGES SHALL BE TIGHTLY SEALED WITH CORD BACKER ROD BEFORE THE CONCRETE IN THE REGION OF THE JOINT IS RESPRAYED WITH CURING COMPOUND, AND SHALL BE MAINTAINED UNTIL REMOVED IMMEDIATELY BEFORE SAWING THE JOINT SEALANT RESERVOIR.



3 C502 **UNDER DRAIN DETAIL**
N.T.S.



4 C502 **CLEAN-OUT FOR UNDER DRAIN DETAIL**
N.T.S.



5 C502 **TYPE "E" OVERFLOW STRUCTURE (S-6)**
N.T.S.

KENNETH C. HORNE LICENSE No. 40149 STATE OF FLORIDA PROFESSIONAL ENGINEER
2/17/25

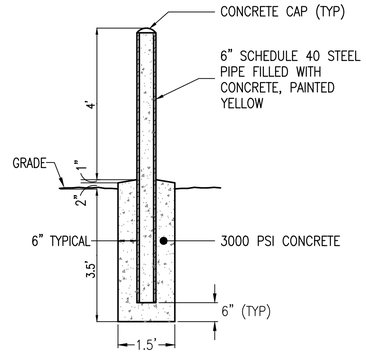
REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

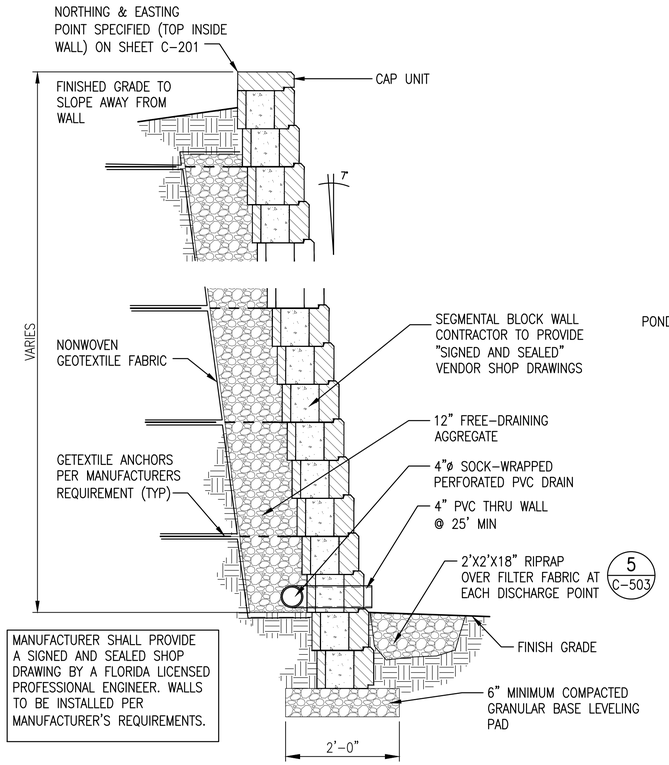
DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

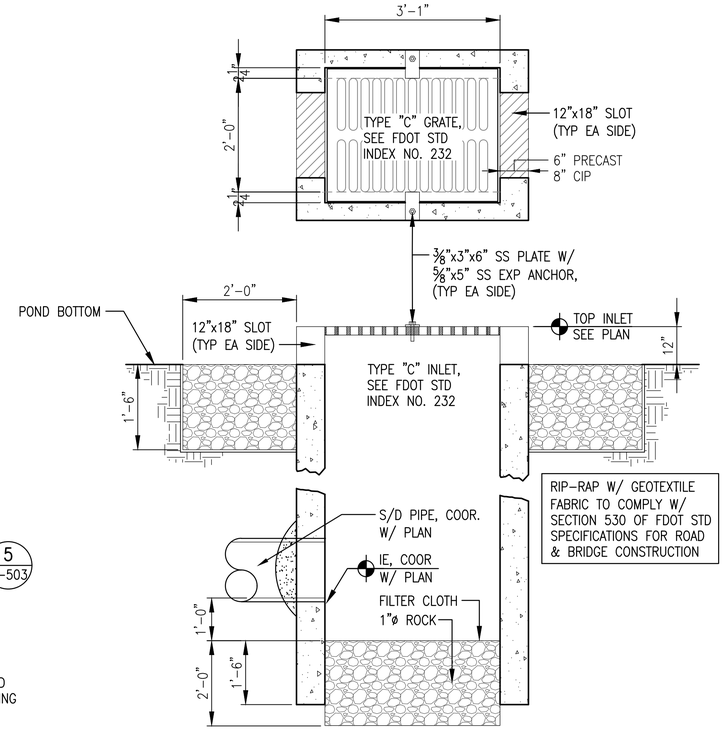
DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-502
SHEET NUMBER: 12 OF 88



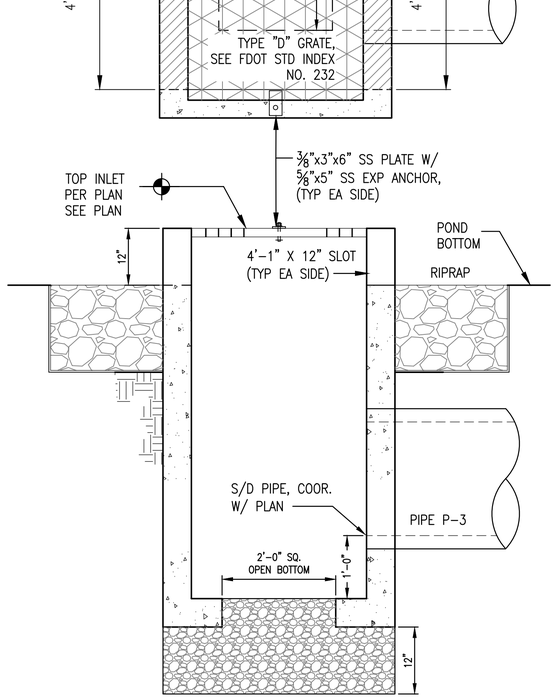
1 C-503 **PIPE BOLLARD DETAIL**
N.T.S.



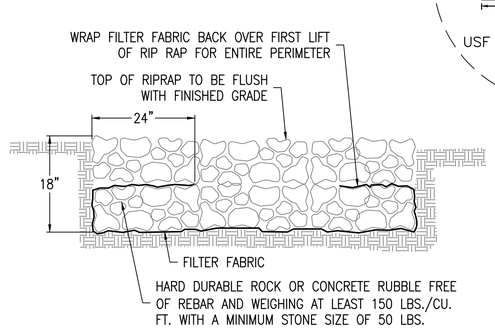
2 C-503 **RETAINING WALL SECTION**
N.T.S.



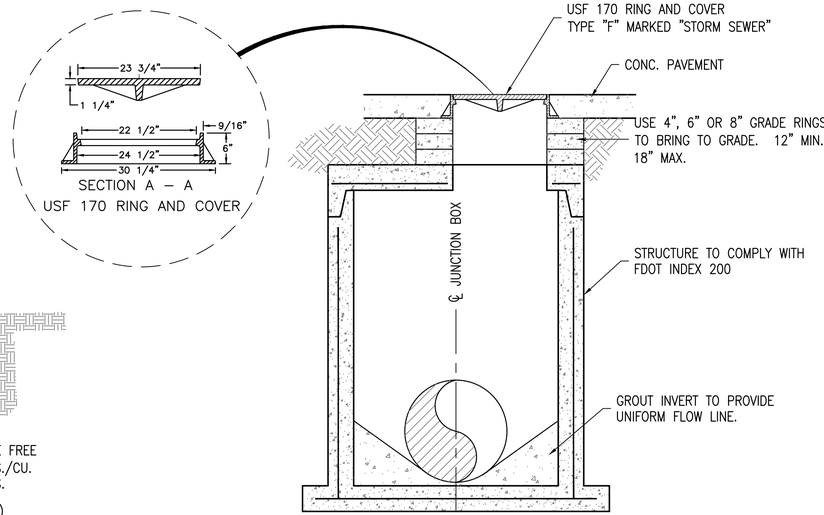
3 C-503 **FDOT TYPE "C" BUBBLE-UP (S-7)**
N.T.S.



4 C-503 **FDOT TYPE "D" BUBBLE-UP (S-4)**
N.T.S.



5 C-503 **RIPRAP DETAIL**
N.T.S.



6 C-503 **FDOT TYPE "P" JUNCTION BOX (S-2 & S-3)**
N.T.S.

KENNETH C. HORN
LICENSE NO.
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

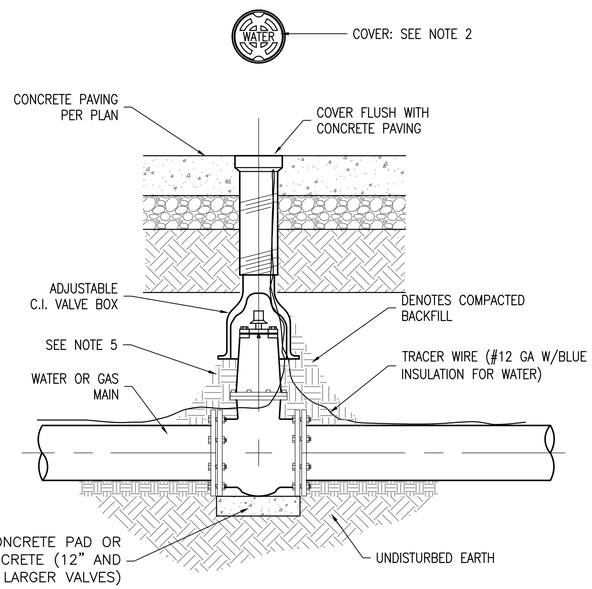
DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-503
SHEET NUMBER: 13 OF 88

NOTES:

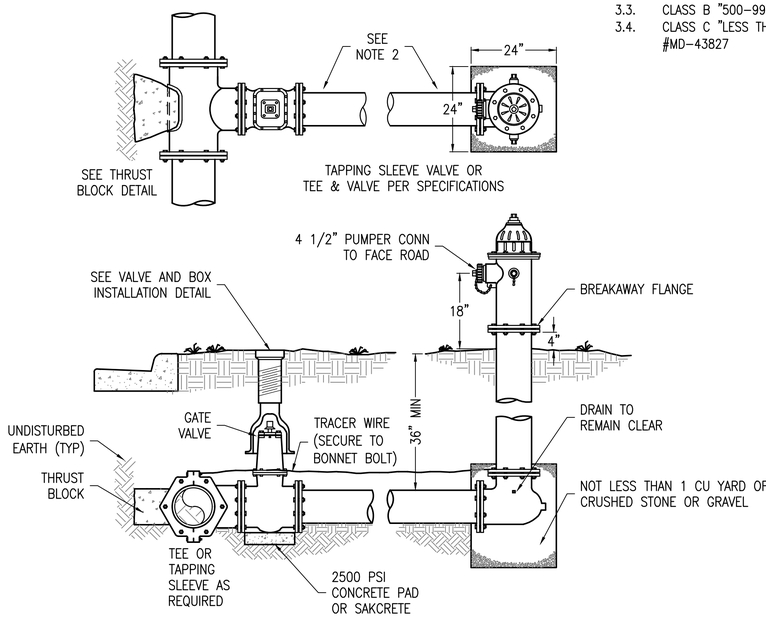
1. VALVE BOX AND BOOT SHALL BE CAST IRON.
2. VALVE COVER SHALL BE MARKED "WATER" OR "GAS" AS APPLICABLE.
3. VALVE BOX TOP SHALL BE FLUSH WITH FINISHED GRADE ASPHALT.
4. GATE VALVE SHALL BE RESILIENT SEAT WITH MECHANICAL JOINT ENDS OR APPROVED EQUAL.
5. EARTH UNDER FLANGE OF VALVE BOX & COLLAR TO BE FIRM AND WELL TAMPED TO ENSURE AGAINST VALVE BOX SETTLING.



1 C-504 TYPICAL VALVE & BOX INSTALLATION SET IN ASPHALT PAVEMENT DETAIL
N.T.S.

NOTES:

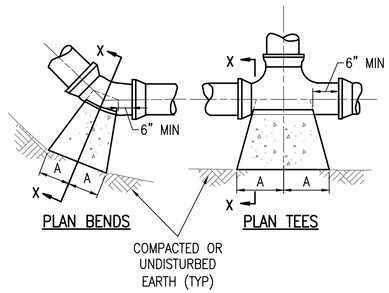
1. CONTRACTOR TO ADJUST FIRE HYDRANT TO FINISHED GRADE.
2. HYDRANT CONNECTORS, D.I.P. SPOOLS WITH MEGALUG JOINT RESTRAINTS, OR APPROVED EQUAL (THRUST BLOCKING NOT REQUIRED.)

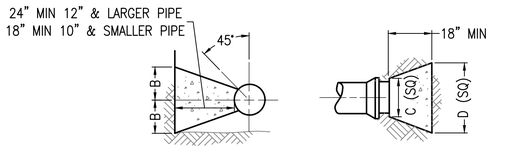


2 C-504 TYPICAL FIRE HYDRANT INSTALLATION DETAIL
N.T.S.

FIRE HYDRANT NOTES:

1. PAINT PER UFC 3-600-01 SECTION 9-3.5.5 AND NFPA 291.
2. HYDRANT BARRELS SHALL BE ENAMEL PAINT.
   2.1. FIRE HYDRANT RED #MD-43827 FOR NON-POTABLE WATER.
   2.2. SAFETY YELLOW #MD-43828 FOR POTABLE WATER.
3. BONNET SHALL BE PAINTED ACCORDING TO FLOW RATE IN ACCORDANCE WITH NFPA 291, PAINT SHALL BE ENAMEL AND COLOR MATCHED AS FOLLOWS:
   3.1. CLASS AA "1500 GPM OR GREATER" SAFETY BLUE #MD-43830
   3.2. CLASS A "1000-1499 GPM" GREEN #MD-43831
   3.3. CLASS B "500-999 GPM" SAFETY ORANGE #MD-43829
   3.4. CLASS C "LESS THAN 500 GPM" FIRE HYDRANT RED #MD-43827





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

3 C-504 THRUST BLOCK DETAIL
N.T.S.

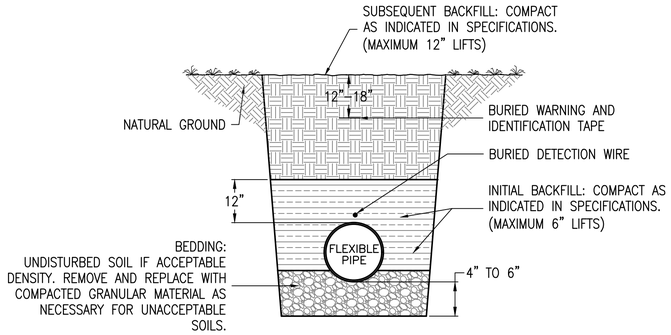
REV#	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

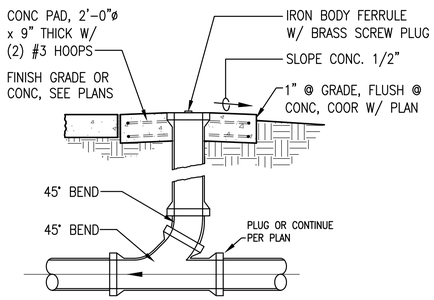
DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

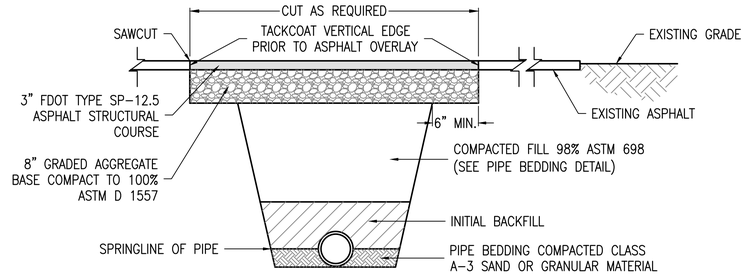
DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-504
SHEET NUMBER: 14 OF 88



1 C-505 **FLEXIBLE PIPE BEDDING DETAIL**
N.T.S.



2 C-505 **CLEAN-OUT DETAIL**
N.T.S.



3 C-505 **ASPHALT CUT & PATCH DETAIL**
N.T.S.

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

DETAILS

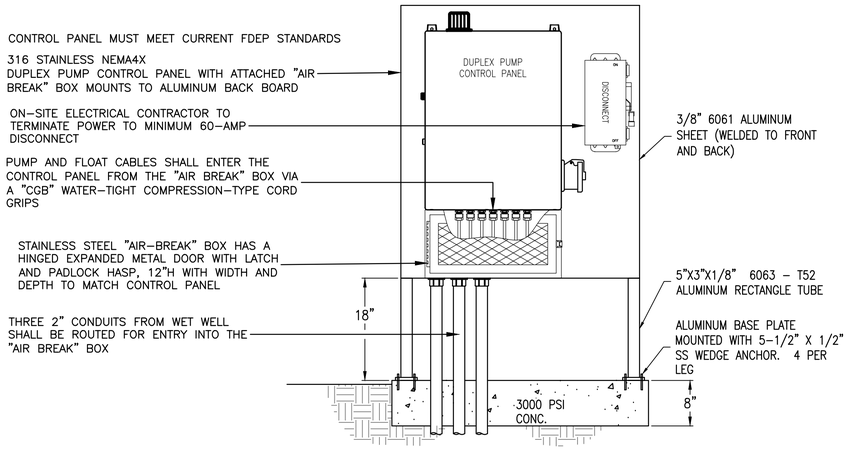
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-505
SHEET NUMBER: 15 OF 88

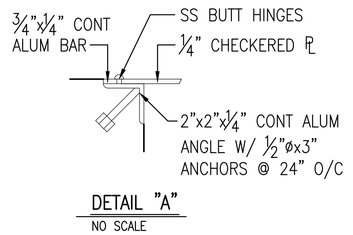
NOTES:

1. CONTROL PANEL SHALL BE MOUNTED IN A NEMA 4X ENCLOSURE AND SHALL INCLUDE: LOCK HASP, CIRCUIT BREAKER, HOA SWITCH, ELAPSED TIME METER AND RUN LIGHT FOR PUMP, TERMINAL STRIP FOR CONNECTING PUMP AND CONTROL WIRES, TRANSFORMER TO PROVIDE 24 VOLT CONTROL CIRCUIT, SURGE/LIGHTENING PROTECTION, PHASE/VOLTAGE MONITOR, GENERATOR RECEPTACLE AND REQUIRED TO HAVE VISUAL AND AUDIBLE ALARM FOR HIGH LEVEL CONDITION WITH 12 VOLT BATTERY BACK-UP.

2. ALL EQUIPMENT SUPPLIED MUST MEET CURRENT FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION (FDEP) STANDARDS.

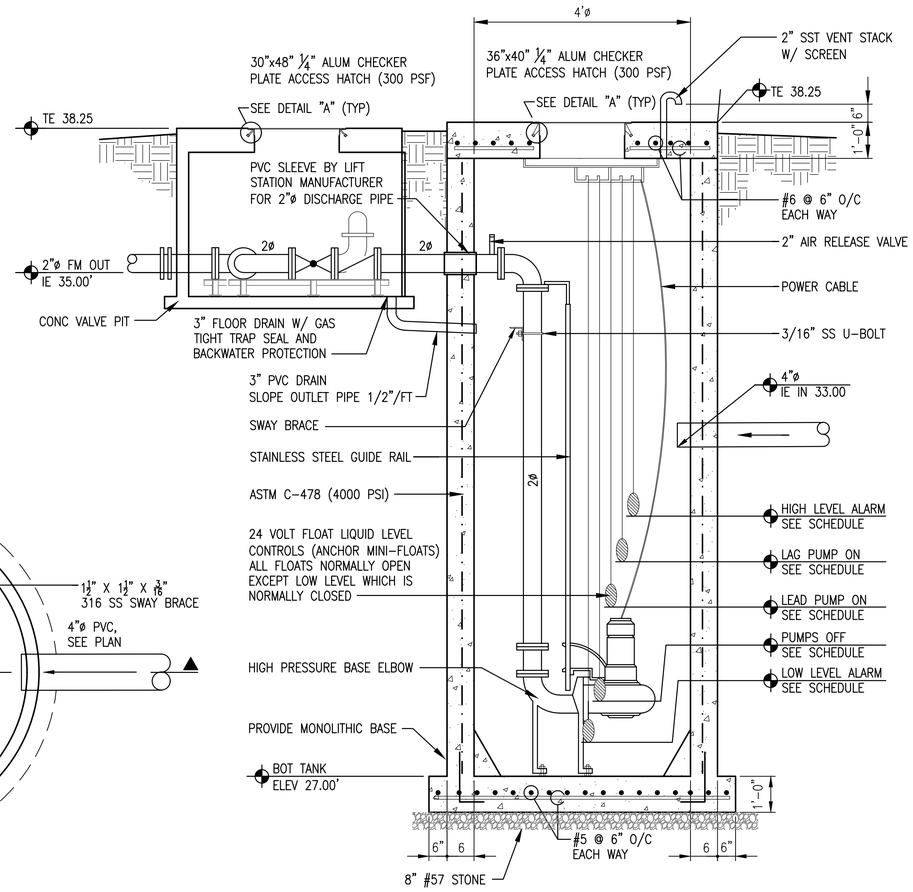


CONTROL PANEL & MOUNTING DETAIL



DETAIL "A"
NO SCALE

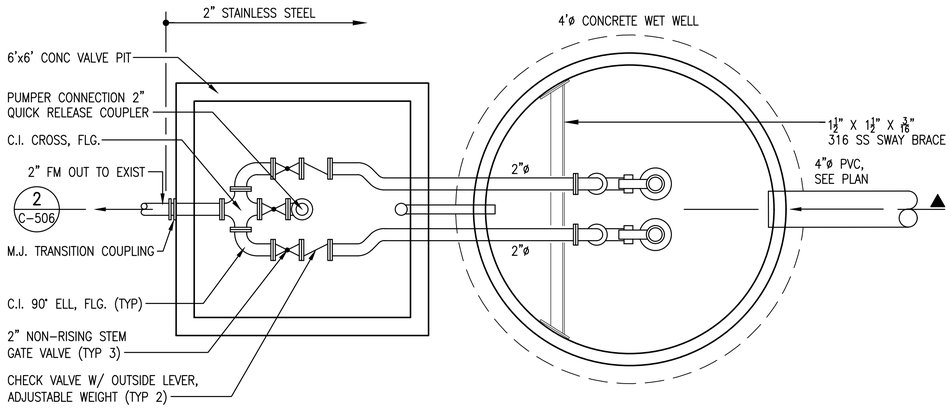
LIFT STATION NOTES:
1. ANTICIPATE DEWATERING FOR WETWELL INSTALLATION.
2. CONTRACTOR WILL SUBMIT DEWATERING PLAN TO CONTRACTING OFFICER'S REPRESENTATIVE FOR APPROVAL.
3. CONTRACTOR WILL SUBMIT SHORING PLAN TO CONTRACTING OFFICER'S REPRESENTATIVE SHOWING COMPLIANCE WITH OSHA SAFETY REQUIREMENTS FOR WORKERS IN EXCAVATIONS.
4. ALL PIPING AND HARDWARE INSIDE LIFT STATION SHALL BE 316 SS.



PUMP CONTROLS	
FLOAT	ELEVATION
HIGH LEVEL ALARM	32.00'
LAG PUMP ON	31.00'
LEAD PUMP ON	30.50'
PUMP OFF	29.50'

GENERAL NOTES:

1. VALVE VAULT SHALL BE SIZED TO PERMIT EASY REMOVAL OF CHECK VALVE SPINDELS WITH MINIMUM CLEARANCES OF 16" FROM VAULT WALL TO PIPE.
2. ALL LOCATIONS WHERE PIPES ENTER OR LEAVE THE WET WELL OR VALVE VAULT SHALL BE MADE WATERTIGHT WITH WALL SLEEVE
3. THERE SHALL BE NO VALVES OR ELECTRICAL JUNCTION BOXES IN WET WELL.
4. WET WELL & VALVE VAULT COVERS SHALL BE ALUMINUM WITH 316 SS HARDWARE. SIZE AS REQUIRED BY PUMP MANUFACTURER. WET WELL AND VALVE VAULT SHALL BE CONCRETE.
5. BASIS FOR DESIGN FOR PUMPS SHALL BE: HOMA GRP 12/3 25 GPM @ 31 TDH.
6. ALL HARDWARE IN WET WELL & VALVE BOX TO BE STAINLESS STEEL.
7. ALL ENCLOSURES SHALL BE NEMA 4X.
8. PUMP, CONTROLS & EQUIPMENT PER SPECIFICATION SECTION 33 32 13.13.
9. CONTRACTOR MAY PROVIDE AN ALTERNATE 4'ø FIBERGLASS WETWELL THAT MEETS SPECIFICATION SECTION 33 32 13.13.



1 C-506 NEW LIFT STATION PLAN
NO SCALE

SEE SPECIFICATION SECTION 33 32 13.13 FOR WET WELL & VALVE PIT DETAILS & ACCESSORIES

2 C-506 LIFT STATION SECTION
NO SCALE

KENNETH C. HORN
LICENSE NO. 40149
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2/13/25

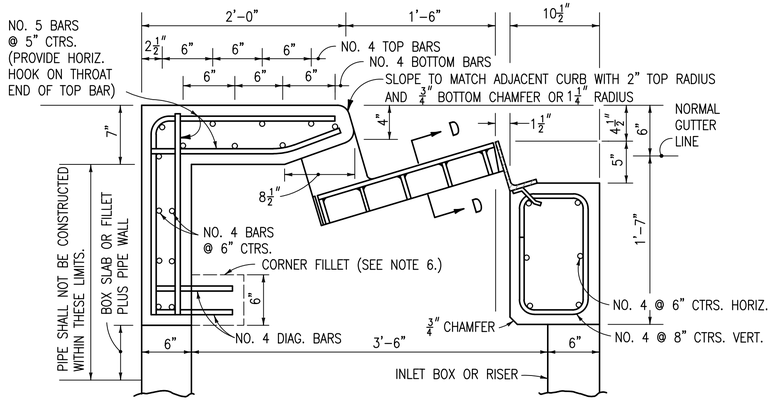
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

DETAILS

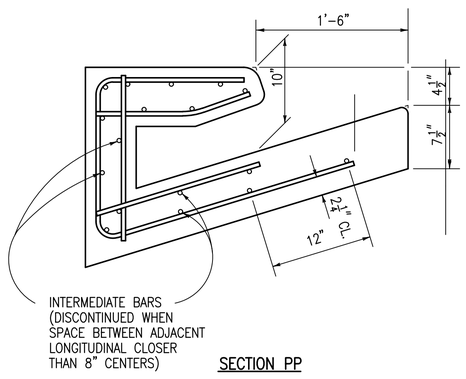
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-506
SHEET NUMBER: 16 OF 88

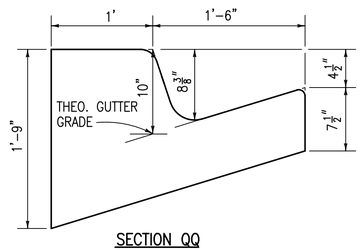


(STEEL COVER SHOWN)

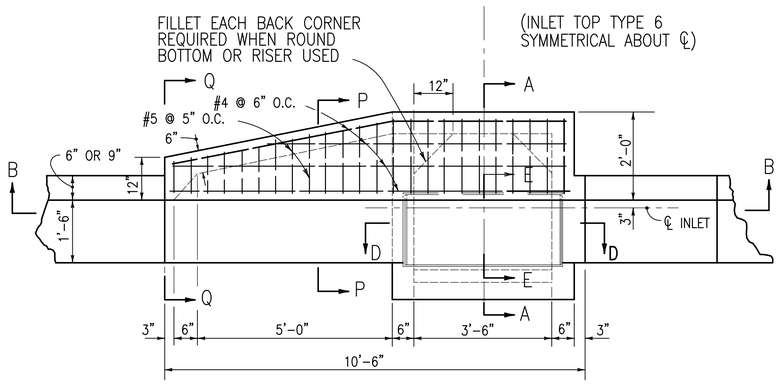
SECTION AA



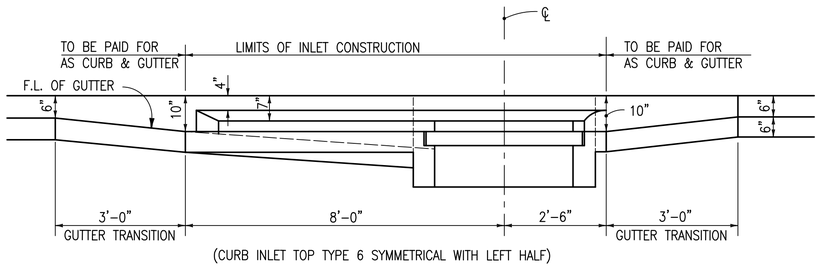
SECTION PP



SECTION QQ

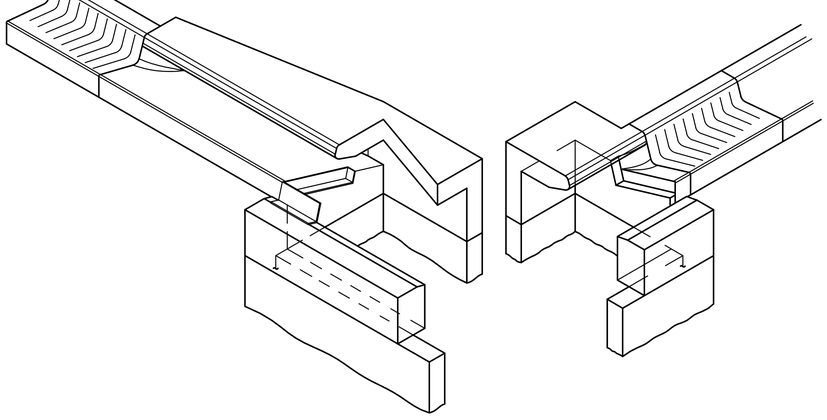


TOP VIEW

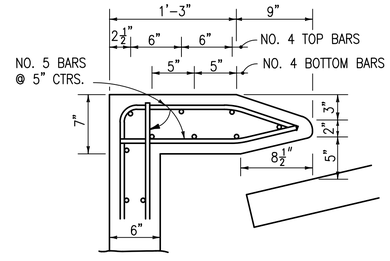


(CURB INLET TOP TYPE 6 SYMMETRICAL WITH LEFT HALF)

SECTION BB



SKETCHS SHOWING FRAME SEAT AND THROAT RECESS



TOP MODIFICATION FOR TYPE E CURB

CURB INLET TOPS

TYPES 5 & 6

GENERAL NOTES:

1. THE FINISHED GRADE AND SLOPE OF THE INLET TOPS ARE TO CONFORM WITH THE FINISHED CROSS SLOPE AND GRADE OF THE PROPOSED SIDEWALK AND/OR PARKWAY.
2. WHEN INLETS ARE TO BE CONSTRUCTED ON A CURVE, REFER TO THE PLANS TO DETERMINE THE RADIUS AND, WHERE NECESSARY, MODIFY THE INLET DETAILS ACCORDINGLY. BEND STEEL WHEN NECESSARY.
3. ALL REINFORCING STEEL SHALL HAVE 1/4" MINIMUM COVER UNLESS OTHERWISE SHOWN. INLET TOPS SHALL BE EITHER CAST-IN-PLACE OR PRECAST CONCRETE.
4. PRECASTING OF THIS INLET TOP WILL BE PERMITTED. PRECAST UNITS SHALL CONFORM TO THE DIMENSIONS SHOWN OR IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. REQUEST FOR SHOP DRAWING APPROVAL SHALL BE DIRECTED TO THE STATE DRAINAGE ENGINEER.
5. CONCRETE MEETING THE REQUIREMENTS OF A.S.T.M. C 478 (4,000 PSI) MAY BE USED IN LIEU OF CLASS II CONCRETE FOR PRECAST UNITS, MANUFACTURED IN PLANTS WHICH ARE UNDER THE STANDARD OPERATING PROCEDURES FOR THE INSPECTION OF PRECAST DRAINAGE PRODUCTS.
6. THE CORNER FILLETS SHOWN FOR RECTANGULAR THROATS ARE NECESSARY ONLY WHEN THROATS ARE TO BE USED IN CONJUNCTION WITH CIRCULAR INLET BOTTOMS OR WHEN USED ON SKEW WITH RECTANGULAR INLET BOXES.
7. FOR INLET BOTTOMS SEE FDOT INDEX 425-010.
8. THESE INLET TOPS ARE DESIGNED FOR USE WITH STANDARD CURB AND GUTTER TYPE E AND TYPE F. LOCATE OUTSIDE OF PEDESTRIAN CROSSWALK WHERE PRACTICAL.
9. SEE FDOT INDEX 425-001 FOR SUPPLEMENTAL DETAILS.
10. ALL STEEL USED FOR FRAME AND COVER SHALL MEET THE REQUIREMENTS OF ASTM A-36.
11. EITHER CAST IRON COVERS OR STEEL COVERS MAY BE USED. IRON COVERS SHALL BE CLASS NO. 30 CASTINGS IN ACCORDANCE WITH ASTM A-48.
12. SEE FDOT INDEX 425-021 FOR ADDITIONAL INFORMATION.

1 C-507 FDOT TYPE 5 & 6 INLET DETAIL (S-1, S-5A & S-5B)

N.T.S.

SEE SHEET C-508 FOR ADDITIONAL FDOT
TYPE 5 & 6 DETAILS & SECTIONS

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

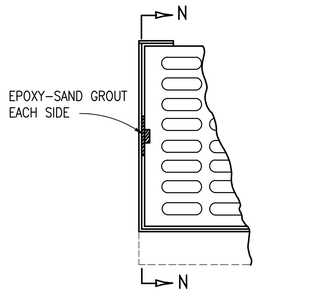
REV#	DATE	DESCRIPTION

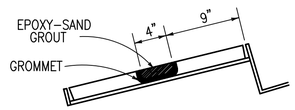
ROCKET OPERATIONS AND MAINTENANCE BUILDING

DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

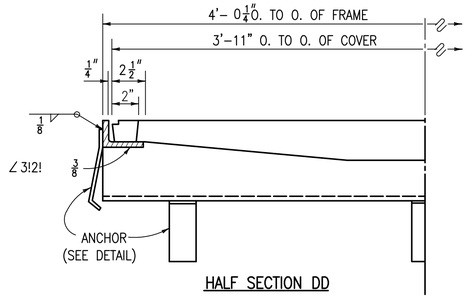
DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-507
SHEET NUMBER: 17 OF 88



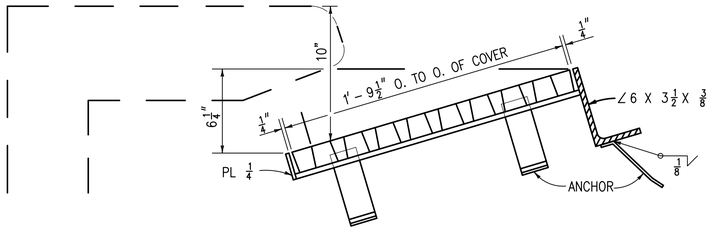


SECTION NN

GROUTING DETAILS

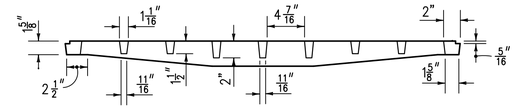


HALF SECTION DD

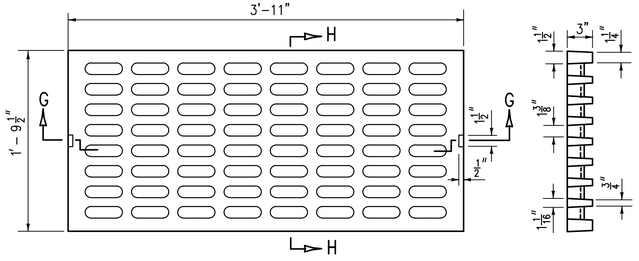


SECTION EE

CAST IRON COVER

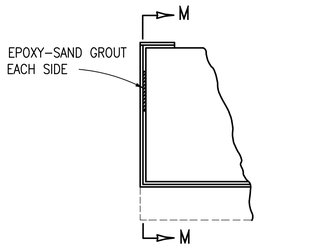


SECTION GG

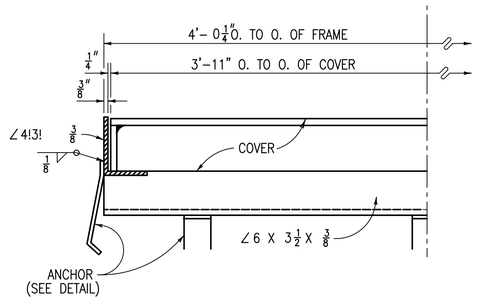


SECTION HH

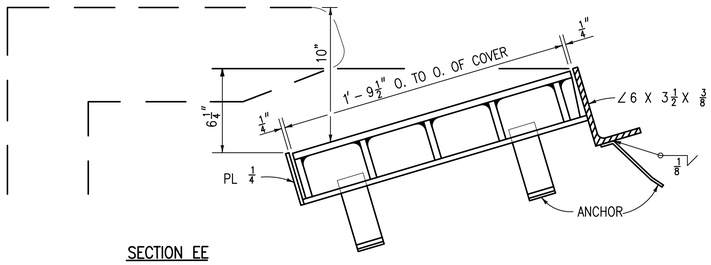
TOP VIEW



TOP VIEW

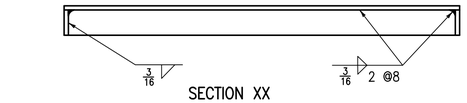


HALF SECTION DD

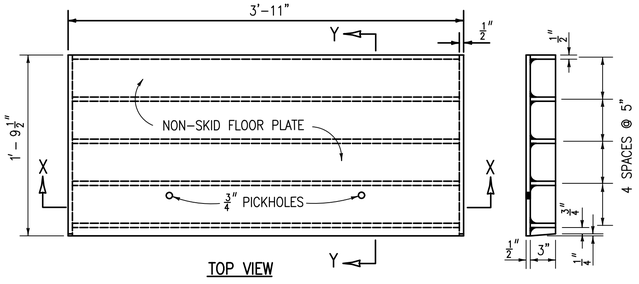


SECTION EE

STEEL COVER

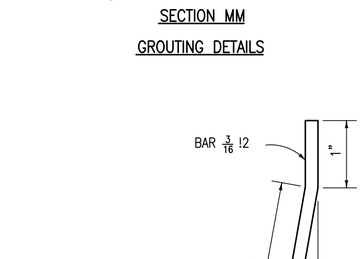


SECTION XX



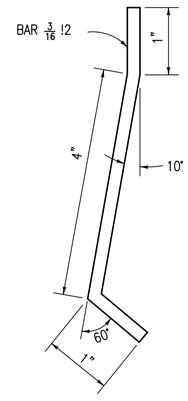
SECTION YY

TOP VIEW

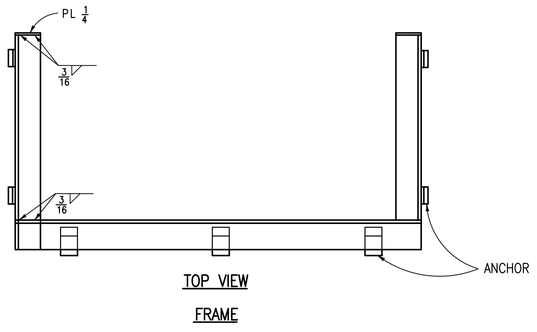


SECTION MM

GROUTING DETAILS



ANCHOR DETAIL



TOP VIEW

FRAME

1 / C-508 FDOT TYPE 5 & 6 INLET DETAIL (S-1, S-5A & S-5B)

N.T.S.

SEE SHEET C-507 FOR ADDITIONAL FDOT TYPE 5 & 6 DETAILS & SECTIONS

KENNETH C. HORN
LICENSED
No. 40149
2/13/25
STATE OF FLORIDA
PROFESSIONAL ENGINEER

ROCKET OPERATIONS AND MAINTENANCE BUILDING

DETAILS

REV #	DATE	DESCRIPTION

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-508
SHEET NUMBER: 18 OF 88

STORMWATER POLLUTION PREVENTION PLAN GENERAL NOTES:

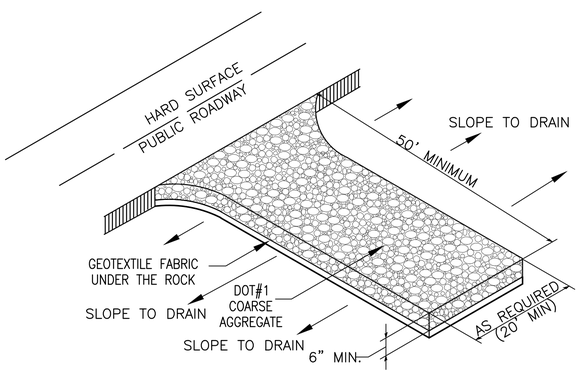
1. EROSION AND SEDIMENT CONTROL PRACTICES TO BE INSTALLED PRIOR TO ANY MAJOR SOIL DISTURBANCE, OR IN THEIR PROPER SEQUENCE, AND MAINTAINED UNTIL PERMANENT PROTECTION IS ESTABLISHED.
2. WORK AND MATERIALS TO BE IN ACCORDANCE WITH THE FDOT "STANDARD SPECIFICATIONS FOR ROAD AND BRIDGE CONSTRUCTION", LATEST EDITION, SECTIONS 104, 570, 575 AND 980 TO 986.
3. SHOULD THE CONTROL OF DUST AT THE SITE BE NECESSARY, THE SITE WILL BE SPRINKLED UNTIL THE SURFACE IS WET, TEMPORARY VEGETATION COVER SHALL BE ESTABLISHED OR MULCH SHALL BE APPLIED IN ACCORDANCE WITH STATE STANDARDS FOR EROSION CONTROL.
4. SOIL WASHED, DROPPED, SPILLED OR TRACKED OUTSIDE THE LIMIT OF DISTURBANCE OR ONTO PUBLIC RIGHTS-OF-WAY WILL BE REMOVED IMMEDIATELY.
5. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY EROSION OR SEDIMENTATION THAT MAY OCCUR BELOW STORMWATER OUTFALLS OR OFF SITE AS A RESULT OF CONSTRUCTION OF THE PROJECT.
6. SOIL STOCKPILES ARE TO BE TEMPORARILY STABILIZED IN ACCORDANCE WITH SOIL EROSION AND SEDIMENT CONTROL NOTE NUMBER 2 (ABOVE).
7. THE SITE SHALL ALWAYS BE GRADED AND MAINTAINED SUCH THAT STORM WATER RUNOFF IS DIVERTED TO SOIL EROSION AND SEDIMENT CONTROL FACILITIES.
8. AREAS USED FOR THE CONTRACTOR'S STAGING, INCLUDING BUT NOT LIMITED TO, TEMPORARY STORAGE OF STOCKPILED MATERIALS (E.G. CRUSHED STONE, QUARRY PROCESS STONE, SELECT FILL, EXCAVATED MATERIALS, ETC.), SHALL BE ENTIRELY PROTECTED BY A SILT FENCE ALONG THE LOW ELEVATION SIDE TO CONTROL SEDIMENT RUNOFF.
9. IF DEWATERING IS NECESSARY, THE CONTRACTOR'S MEANS AND METHODS OF GROUNDWATER DEWATERING SHALL COMPLY WITH REGULATORY REQUIREMENTS FOR THE TEMPORARY DIVERSION OF GROUNDWATER AND ITS DISCHARGE, INCLUDING FDEP CHAPTER 62-621 "GENERAL PERMIT FOR THE DISCHARGE OF PRODUCED GROUNDWATER FROM ANY NON-CONTAMINATED SITE ACTIVITY".

EROSION AND SEDIMENTATION CONTROL NOTES

1. SILT FENCE SHALL BE PLACED IN A SINGLE ROW, LENGTHWISE ON THE CONTOUR, WITH ENDS OF ADJACENT FENCES TIGHTLY ABUTTING ONE ANOTHER PRIOR TO EARTHWORK OPERATIONS.
2. THE SILT FENCE BARRIER SHALL BE ENTRENCHED AND BACK FILLED. A TRENCH SHALL BE EXCAVATED THE LENGTH OF THE PROPOSED BARRIER TO A MINIMUM DEPTH OF 6 INCHES. THE EXCAVATED SOIL SHALL CONFORM TO THE GROUND LEVEL ON THE DOWNHILL SIDE AND SHALL BE BUILT UP TO 4 INCHES AGAINST THE UPHILL SIDE OF THE BARRIER.
3. SILT FENCE BARRIERS SHALL BE SECURELY ANCHORED.
4. SILT FENCE BARRIERS SHALL BE REMOVED WHEN THEY HAVE SERVED THEIR USEFULNESS, BUT NOT BEFORE THE UPSLOPE AREAS HAVE BEEN PERMANENTLY STABILIZED.
5. SILT FENCE BARRIERS SHALL BE INSPECTED IMMEDIATELY AFTER EACH RAINFALL AND AT LEAST DAILY DURING PROLONGED RAINFALL.
6. CLOSE ATTENTION SHALL BE PAID TO THE REPAIR OF DAMAGED SILT FENCE, END RUNS AND UNDERCUTTING BENEATH FENCE.
7. NECESSARY REPAIRS TO SILT FENCE BARRIERS OR REPLACEMENT OF FENCE SHALL BE ACCOMPLISHED PROMPTLY.
8. SEDIMENT DEPOSITS SHOULD BE REMOVED AFTER EACH RAINFALL. THEY MUST BE REMOVED WHEN THE LEVEL OF DEPOSITION REACHES APPROXIMATELY ONE-HALF OF THE HEIGHT OF THE BARRIER.
9. SEDIMENT DEPOSITS REMAINING IN PLACE AFTER THE SILT FENCE BARRIER IS NO LONGER REQUIRED SHALL BE DRESSED TO CONFORM TO THE EXISTING GRADE.

NOTES:

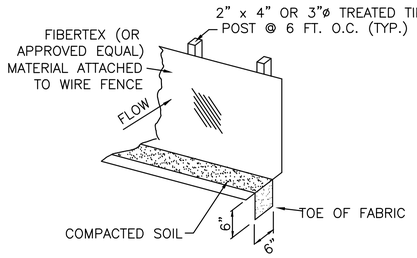
1. THE AREA OF THE CONSTRUCTION ENTRANCE SHALL BE EXCAVATED 6 INCHES DEEP, 50 FEET LONG AND SHALL EXTEND THE FULL WIDTH OF ANY VEHICULAR INGRESS AND EGRESS (MINIMUM 20 FEET) LOCATED ON THE SITE.
2. THE ENTRANCE SHALL BE PROPERLY MAINTAINED FOR THE DURATION OF THE PROJECT TO PREVENT THE TRACKING OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL MAINTENANCE AND REPAIRS SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR.
3. THE ENTRANCE SHALL BE CHECKED ON A DAILY BASIS AND BEFORE & AFTER ANY RAINFALL EVENT FOR ANY DAMAGES. ANY DAMAGES FOUND SHALL BE REMEDIATED BEFORE THE DAYS END AT NO ADDITIONAL COST TO THE GOVERNMENT.
4. THE ENTRANCE SHALL BE PROPERLY GRADED TO PREVENT THE FLOW OF SEDIMENT ONTO PUBLIC RIGHT-OF-WAY. ALL MATERIALS SPILLED, DROPPED, WASHED OR TRACKED FROM VEHICLES ONTO ROADWAYS OR INTO STORM DRAINS SHALL BE REMOVED IMMEDIATELY.
5. MEASURES SHALL BE TAKEN TO PREVENT VEHICULAR TRAFFIC FROM BYPASSING THE CONSTRUCTION ENTRANCE DURING INGRESS AND EGRESS.



E C-601 TEMPORARY CONSTRUCTION ENTRANCE
N.T.S.

NPDES NOTES:

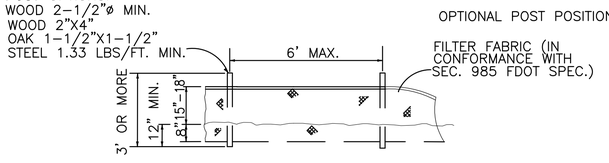
1. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR CONTROL OF ALL EROSION AND SEDIMENTATION.
2. ALL DISTURBED AREAS WHICH ARE NOT PAVED SHALL BE SODDED WITH ARGENTINE BAHIA. SODDING SHALL BE WATERED, FERTILIZED UNTIL WELL ESTABLISHED BUT NO LESS THAN FOUR WEEKS FROM DATE OF PLACEMENT.
3. THE CONTRACTOR SHALL SUBMIT THE NPDES NOI TO THE FLORIDA DEPARTMENT OF ENVIRONMENTAL PROTECTION FOR USE OF THE GENERIC PERMIT FOR STORMWATER DISCHARGE FROM LARGE AND SMALL CONSTRUCTION ACTIVITIES. THE CONTRACTOR SHALL ACT AS THE "OPERATOR" FOR THE PERMIT AND ABIDE BY ALL REQUIREMENTS THEREOF, INCLUDING DEVELOPMENT OF A STORMWATER POLLUTION PREVENTION PLAN FOR THE PROJECT AND PERFORMANCE OF REQUIRED INSPECTIONS BY A CERTIFIED INSPECTOR.
4. THE CONTRACTOR SHALL INSTALL PRIOR TO COMMENCEMENT OF CONSTRUCTION AND MAINTAIN THROUGHOUT CONSTRUCTION THOSE SEDIMENT AND EROSION CONTROL FEATURES DEPICTED IN THE CONTRACT DOCUMENTS AND AS REQUIRED FOR COMPLIANCE WITH THE NPDES GENERIC PERMIT.



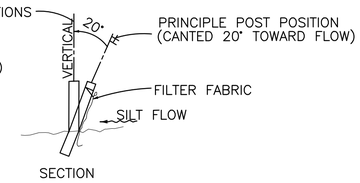
(SEE DETAIL B & C THIS SHEET)

A C-601 SILT FENCE DETAIL
N.T.S.

POST OPTIONS:
WOOD 2-1/2"ø MIN.
WOOD 2"X4"
OAK 1-1/2"X1-1/2"
STEEL 1.33 LBS/FT. MIN.



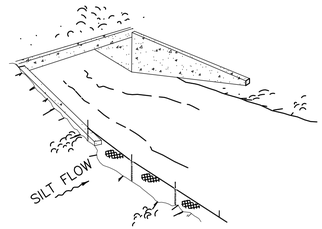
ELEVATION



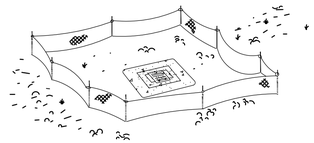
SECTION

B C-601 TYPE III SILT FENCE
N.T.S.

TYPE III SILT FENCE



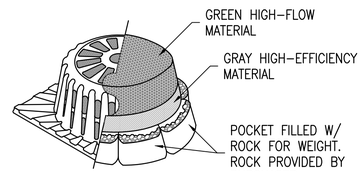
TYPE III SILT FENCE



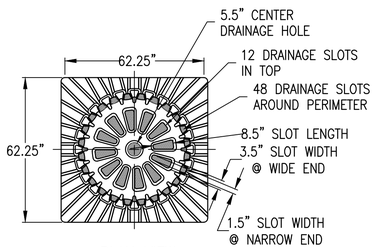
TYPE III SILT FENCE
PROTECTION AROUND DITCH BOTTOM INLETS.

DO NOT DEPLOY IN A MANNER THAT SILT FENCES WILL ACT AS A DAM ACROSS PERMANENT FLOWING WATERCOURSES. SILT FENCES ARE TO BE USED AT UPLAND LOCATIONS AND TURBIDITY BARRIERS USED AT PERMANENT BODIES OF WATER.

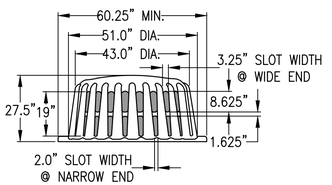
C C-601 SILT FENCE APPLICATIONS
N.T.S.



ISOMETRIC VIEW
SHOWN WITH ROADWAY PROJECTS FILTER HAT



PLAN VIEW



ELEVATION VIEW
(ROUND OR SQUARE ACCEPTABLE)

D C-601 INLET PROTECTION
N.T.S.

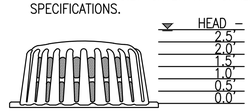
FILTER OPTIONS
FILTER HAT IS AVAILABLE IN THREE OPTIONS:
1) ALL HIGH-FLOW MATERIAL
2) ALL HIGH-EFFICIENCY MATERIAL
3) HIGH-FLOW MATERIAL ON TOP HALF OF HAT, HIGH-EFFICIENCY MATERIAL ON BOTTOM HALF (THIS FILTER COVER IS RECOMMENDED FOR ALL ROADWAY PROJECTS.)

IT IS THE PURCHASERS RESPONSIBILITY TO PURCHASE APPROPRIATE FILTER HAT. PURCHASER SHALL PROVIDE ROCK FOR FILTER POCKETS.

FILTER HAT INSTALLATION
FILTER HAT SLIDES DIRECTLY OVER FILTER FRAME. TO KEEP FILTER FRAME IN PLACE OVER STORM STRUCTURE, ROCK POCKETS ARE SEWN DIRECTLY INTO FILTER HAT MATERIAL. EVERY FILTER HAT COMES IN ONE PIECE FOR EASY INSTALLATION.

MAINTENANCE
ALL TEMPORARY EROSION, SEDIMENTATION, & POLLUTION CONTROL PRACTICES SHOULD BE INSPECTED DAILY. CONTRACTOR SHALL REMOVE SEDIMENT AND DISPOSE OF IN A PROPER MANNER. INSPECT S-200A DAILY FOR CUTS, ABRASIONS, AND PROPER INSTALLATION. REPLACE OR REPOSITION AS NECESSARY.

SPECIFICATIONS
FILTER FABRIC SILT-SAVER HAT SHALL BE BASED ON DESIGN PROFESSIONAL'S SPECIFICATIONS.



FRAME & FILTER DISCHARGE ANALYSIS					
HEAD (FT)	EQUATION USED	OPENING AREA (SF)	FRAME FLOW (CFS)	FILTER AREA (SF)	FILTERED FLOW (CFS)
0.5	O	2.1	7	6	2
1.0	O	3.9	19	12	3
1.5	O	7.0	41	18	5
2.0	O	8.0	54	24	7
2.5	O	9.2	70	30	9
3.0	O	9.2	77	—	77

DUE TO NARROW SLOT, A TRANSITION WILL OCCUR BETWEEN WEIR AND ORIFICE CONDITIONS. ORIFICE FLOW WILL PROVIDE A MORE CONSERVATIVE ESTIMATE OF FLOW, THEREFORE THE LESSER OF THE ORIFICE AND WEIR FLOWS WILL BE USED FOR EACH STAGE CALCULATION.

FILTER MATERIAL ALLOWS 129 gpm/SF OR 0.29cfs/SF
ORIFICE EQUATION (O) = Q=0.6A(2gh)^0.5
P = FEET PERIMETER
h = HEAD IN FEET
Q = CAPACITY IN cfs
A = FREE OPEN AREA OF FRAME
g = 32.2 FEET-PER-SECOND/SECOND

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING
STORMWATER POLLUTION PREVENTION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB. 2025
DESIGNED BY: KCH
DRAWN BY: LRR
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: C-601
SHEET NUMBER: 19 OF 88

STRUCTURAL - GENERAL NOTES

1. TO THE BEST OF OUR KNOWLEDGE, THE STRUCTURAL PLANS AND SPECIFICATIONS COMPLY WITH THE APPLICABLE REQUIREMENTS OF THE FOLLOWING GOVERNING DESIGN CODES:
   - A. ACI 318-19: AMERICAN CONCRETE INSTITUTE, BUILDING CODE REQUIREMENTS FOR STRUCTURAL CONCRETE
   - B. AISC 341-16 MANUAL: AMERICAN INSTITUTE OF STEEL CONSTRUCTION, MANUAL OF STEEL CONSTRUCTION
   - C. AISI S100 MANUAL: AMERICAN IRON AND STEEL INSTITUTE, COLD-FORMED STEEL DESIGN MANUAL
   - D. ASCE 7-16: MINIMUM DESIGN LOADS FOR BUILDINGS AND OTHER STRUCTURES
   - E. AWS D1.1/D1.1M 2018: AMERICAN WELDING SOCIETY, STRUCTURAL WELDING CODE
   - F. IBC 2021: INTERNATIONAL BUILDING CODE
   - G. UFC 1-200-01: UNIFIED FACILITIES CRITERIA (UFC), DOD BUILDING CODE, SEPTEMBER 1, 2022, W/ CHANGE 2, JUNE 12, 2023
   - H. UFC 3-301-01: UNIFIED FACILITIES CRITERIA (UFC), STRUCTURAL ENGINEERING APRIL 11, 2023, W/ CHANGE 2, SEPTEMBER 4, 2024
   - I. UFC 4-010-01 UNIFIED FACILITIES CRITERIA (UFC), DOD MINIMUM ANTITERRORISM STANDARDS FOR BUILDINGS, DECEMBER 12, 2018, W/ CHANGE 3, MAY 24, 2024
   - J. UFC 4-420-01 AMMUNITIONS AND EXPLOSIVES STORAGE MAGAZINES, MAY 1, 2015, W/CHANGE 1 OCTOBER 12, 2022
   - K. AIR FORCE MUNITIONS FACILITIES STANDARDS GUIDE
   - L. DOD 6055.09-M DOD AMMUNITIONS AND EXPLOSIVES SAFETY STANDARDS
   - M. AFM 32-1084 FACILITIES REQUIREMENTS
   - N. AFMAN 91-201 EXPLOSIVES SAFETY STANDARDS AND AIR FORCE MUNITIONS FACILITIES GUIDE.
2. THE STRUCTURAL DOCUMENTS ARE TO BE USED IN CONJUNCTION WITH THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL. USE THESE NOTES IN CONJUNCTION WITH THE PROJECT SPECIFICATIONS. IF A CONFLICT EXISTS, THE MORE STRINGENT GOVERNS.
3. SEE PROJECT SPECIFICATIONS FOR TESTING.
4. THE CONTRACTOR SHALL REVIEW ALL CONTRACT DOCUMENTS; INCLUDING DIMENSIONS, AND SITE CONDITIONS AND COORDINATE WITH FIELD DIMENSIONS AND PROJECT SHOP DRAWINGS PRIOR TO CONSTRUCTION. ANY AND ALL DISCREPANCIES SHALL BE SUBMITTED IN WRITING TO CONTRACTING OFFICER. DO NOT MODIFY OR CHANGE THE SIZE OR DIMENSIONS OF STRUCTURAL MEMBERS WITHOUT WRITTEN INSTRUCTIONS FROM THE CONTRACTING OFFICER.
5. IT SHALL BE THE RESPONSIBILITY OF THE SUBCONTRACTOR TO LOCATE ANY AND ALL EXISTING UTILITIES WHETHER SHOWN HEREON OR NOT, AND TO PROTECT EXISTING FACILITIES, STRUCTURES AND UTILITY LINES FROM ALL DAMAGE. EACH CONTRACTOR SHALL PROTECT HIS WORK, ADJACENT PROPERTY AND THE PUBLIC. EACH CONTRACTOR IS SOLELY RESPONSIBLE FOR DAMAGE OR INJURY DUE TO HIS ACT OR NEGLECT.
6. WHERE A CONSTRUCTION DETAIL IS NOT SHOWN OR NOTED, THE DETAIL SHALL BE THE SAME AS FOR OTHER SIMILAR WORK. DETAILS LABELED "TYPICAL DETAILS" ON THE DRAWINGS APPLY TO ALL SITUATIONS THAT ARE THE SAME OR SIMILAR TO THOSE SPECIFICALLY DETAILED. ANY QUESTIONS REGARDING APPLICABILITY OF TYPICAL DETAILS SHALL BE RESOLVED BY THE ARCHITECT / ENGINEER.
7. DESIGN LOAD CRITERIA:
   - A. BUILDING RISK CATEGORY. IV
   - B. GRAVITY LOADS:
     - a. SLAB ON GRADE (U.N.O.) . . . . . 150 PSF
     - b. ROOF LIVE LOAD . . . . . 20 PSF (REDUCIBLE)
     - c. ROOF DEAD LOAD . . . . . 20 PSF
     - d. ROOF COLLATERAL LOAD. . . . . 3 PSF
   - C. WIND LOADS:
     - a. ULTIMATE DESIGN WIND SPEED . . . . . 165 MPH
     - b. NOMINAL DESIGN WIND SPEED . . . . . 128 MPH
     - c. WIND EXPOSURE CATEGORY. C
     - d. INTERNAL PRESSURE COEFFICIENT . . . . . 0.18 (ENCLOSED)
8. THE SPECIALTY ENGINEER, DEFINED AS - A PROFESSIONAL ENGINEER, LICENSED IN THE STATE WHERE THE PROJECT IS LOCATED, WHO PERFORMS SPECIALTY STRUCTURAL ENGINEERING SERVICES FOR SELECTED SPECIALTY-ENGINEERED ELEMENTS IDENTIFIED IN THE CONTRACT DOCUMENTS, AND WHO HAS EXPERIENCE AND TRAINING IN THE SPECIALTY. DOCUMENTS SIGNED AND SEALED BY THE SPECIALTY ENGINEER SHALL BE COMPLETED BY OR UNDER THE DIRECT SUPERVISION OF THE SPECIALTY ENGINEER. AT MINIMUM METAL BUILDING SYSTEMS, FALL PROTECTION SYSTEM(S) FOR ROOF ACCESS, ETC AND THEIR ATTACHMENTS TO THE STRUCTURE SHALL BE DESIGNED BY A SPECIALTY ENGINEER TO CONFORM TO ALL LOADING REQUIREMENTS INCLUDING WIND AND IMPACT RESISTANCE.
9. DO NOT SCALE THE DRAWINGS, USE DIMENSIONS SHOWN ON PLAN IN CONJUNCTION WITH CONTRACTOR FIELD VERIFIED INFORMATION. IF A CONFLICT EXISTS, NOTIFY THE CONTRACTING OFFICER IMMEDIATELY IN WRITING THROUGH REQUEST FOR INFORMATION "RFI" FOR RESOLUTION OF ANY AND ALL CONFLICTS.

SHOP DRAWING SUBMITTALS

1. THE REVIEW OF SUBMITTALS AND/ OR SHOP DRAWINGS DONE BY THE CONTRACTING OFFICER AND/ OR STRUCTURAL ENGINEER DOES NOT RELIEVE THE CONTRACTOR OF THE RESPONSIBILITY TO REVIEW AND CHECK SHOP DRAWINGS BEFORE SUBMITTAL TO THE STRUCTURAL ENGINEER. THE REVIEW BY THE STRUCTURAL ENGINEER IS FOR GENERAL CONFORMANCE ONLY.
2. THE CONTRACTOR IS SOLELY RESPONSIBLE FOR ANY AND ALL ERRORS AND OMISSIONS ASSOCIATED WITH THE PREPARATION OF ALL SHOP DRAWINGS IN RELATIONSHIP TO THE CONSTRUCTION DOCUMENTS.
3. ALL MODIFICATIONS MADE FOR SUBMITTALS THAT ARE RE-SUBMITTED SHALL CLEARLY NOTE ALL CHANGES.
4. REPRODUCING THE CONTRACT DOCUMENTS FOR USE AS SHOP DRAWINGS IS NOT ALLOWED, AND SHOP DRAWINGS WILL BE RETURNED WITHOUT APPROVAL.
5. GENERAL SHOP DRAWING REQUIREMENTS:
   - A. SUBMIT SHOP DRAWINGS AND ANY OTHER SPECIAL INFORMATION NECESSARY FOR PROPER FABRICATION, ERECTION, AND PLACEMENT OF STRUCTURAL FABRICATIONS. INCLUDE PLANS, ELEVATIONS, AND SECTIONS. CLEARLY SHOW ANCHORAGES, CONNECTIONS, AND ACCESSORY ITEMS. THE DETAILER MUST INTERPRET THE CONTRACT DOCUMENTS AND CLEARLY CONVEY THIS INTERPRETATION TO THE FIELD IN THE FORM OF PLACING OR ERECTION DRAWINGS.
   - B. CONCRETE REINFORCING DETAILER- PROVIDE PLACING DRAWINGS FOR FABRICATION AND PLACING OF REINFORCING STEEL. THESE DRAWINGS SHALL INCLUDE, BUT ARE NOT LIMITED TO THE FOLLOWING: BAR LISTS, SCHEDULES, BENDING DETAILS, PLACING DETAILS, PLACING PLANS, AND PLACING ELEVATIONS.
     - a. CLEARLY SHOW FOUNDATION REINFORCING. INDICATE BAR LENGTHS, LOCATION AND SPLICES OF CONTINUOUS BARS, AND BAR SUPPORTS. CLEARLY SHOW LOCATIONS OF ALL DOWELS ON PLAN. INDICATE FOOTING STEP LOCATIONS AND PROVIDE DETAILS.

SPECIALTY ENGINEER SHOP DRAWING SUBMITTALS

1. SPECIALTY ENGINEER:
   - A. SHALL BE AN EMPLOYEE OR OFFICER OF A FABRICATOR, AN EMPLOYEE OR OFFICER OF AN ENTITY SUPPLYING COMPONENTS TO A FABRICATOR, OR AN INDEPENDENT CONSULTANT RETAINED BY THE FABRICATOR OR HIS SUPPLIER.
2. THE FOLLOWING SYSTEMS AND COMPONENTS AS A MINIMUM REQUIRE FABRICATION AND ERECTION DRAWINGS WITH INPUT BY A SPECIALTY ENGINEER, BUT ARE NOT LIMITED TO: WINDOW SYSTEMS, STOREFRONT SYSTEM, ROOF SYSTEMS (INCLUDING PRE-ENGINEERED TRUSSES AND ATTACHMENTS, PRE-ENGINEERED STAIRS, AND LOUVERS.
3. THE SPECIALTY ENGINEER OR MANUFACTURER SHALL DESIGN, PROVIDE, AND INSTALL THEIR COMPONENTS AND THE COMPONENT CONNECTIONS TO THE PRIMARY STRUCTURE PER THE CRITERIA STATED IN THESE NOTES OR THE CURRENT GOVERNING BUILDING CODES, WHICHEVER IS MORE STRINGENT.
4. SUBMITTALS SHALL CLEARLY IDENTIFY THE SPECIFIC PROJECT AND APPLICABLE CODES, LIST THE DESIGN CRITERIA, AND SHOW ALL DETAILS AND PLANS NECESSARY FOR PROPER FABRICATION AND INSTALLATION. CALCULATIONS AND SHOP DRAWINGS SHALL IDENTIFY SPECIFIC PRODUCT UTILIZED. GENERIC PRODUCTS WILL NOT BE ACCEPTED.
5. SHOP DRAWINGS AND CALCULATIONS REQUIRE THE SEAL, DATE AND SIGNATURE OF THE SPECIALTY ENGINEER. COMPUTER PRINTOUTS ARE AN ACCEPTABLE SUBSTITUTE FOR MANUAL COMPUTATIONS PROVIDED THEY ARE ACCOMPANIED BY SUFFICIENT DESCRIPTIVE INFORMATION TO PERMIT THEIR PROPER EVALUATION. SUCH DESCRIPTIVE INFORMATION SHALL BEAR THE SEAL AND SIGNATURE OF THE SPECIALTY ENGINEER AS AN INDICATION THAT HE HAS ACCEPTED RESPONSIBILITY FOR THE RESULTS.
6. REVIEW BY THE STRUCTURAL ENGINEER OF RECORD OF SUBMITTALS IS LIMITED TO VERIFYING THE FOLLOWING
   - A. THAT THE SPECIFIED STRUCTURAL SUBMITTALS HAVE BEEN FURNISHED.
   - B. THAT THE STRUCTURAL SUBMITTALS HAVE BEEN SIGNED AND SEALED BY THE SPECIALTY ENGINEER.
   - C. THAT THE SPECIALTY ENGINEER HAS UNDERSTOOD THE DESIGN INTENT AND HAS USED THE SPECIFIED STRUCTURAL CRITERIA. (NO DETAILED CHECK OF CALCULATIONS WILL BE MADE.)
   - D. THAT THE CONFIGURATION SET FORTH IN THE STRUCTURAL SUBMITTALS IS CONSISTENT WITH THE CONTRACT DOCUMENTS. (NO DETAILED CHECK OF DIMENSIONS OR QUANTITIES WILL BE MADE.)
7. SUBMITTALS NOT MEETING THE ABOVE REQUIREMENTS WILL BE RETURNED TO THE CONTRACTOR AS INCOMPLETE. THE CONTRACTOR SHALL BE RESPONSIBLE FOR ANY DELAYS WHICH MAY RESULT.
8. IN ADDITION TO SUBMITTALS REQUIRED BY THE PROJECT SPECIFICATIONS AND CONSTRUCTION DOCUMENTS, THE FOLLOWING "STRUCTURAL SUBMITTALS" ARE REQUIRED FOR REVIEW BY THE STRUCTURAL ENGINEER OF RECORD.
   - A. METAL BUILDING: DESIGN CALCULATIONS AND FABRICATION AND ERECTION DRAWINGS.
   - B. CONCRETE WORK: CONCRETE MIX DESIGNS AND REBAR SHOP DRAWINGS.
   - C. FALL PROTECTION SYSTEM
9. ALL STRUCTURAL SUBMITTALS SHALL BE PREPARED BY THE SPECIALTY ENGINEER.
10. DRAWINGS PREPARED SOLELY AS A GUIDE FOR ERECTION AND INSTALLATION AND CATALOG INFORMATION WILL NOT REQUIRE AN ENGINEERS SEAL; HOWEVER, THEY SHALL BEAR THE ENGINEERS SIGNATURE AND AN INDICATION THAT THE WORK WAS CHECKED.

TENSION DEVELOPMENT AND LAP SPLICE LENGTHS FOR BARS IN WALLS, SLABS AND FOOTINGS (ACI 25.4.2.3)

BAR SIZE	CONCRETE COVER = 0.75 IN.		CONCRETE COVER = 1.5 IN.		CONCRETE COVER = 2.0 IN.		CONCRETE COVER = 3.0 IN.	
	TOP	OTHER	TOP	OTHER	TOP	OTHER	TOP	OTHER
#4	28	22	23	17	23	17	23	17
#5	41	32	28	22	28	22	28	22
#6	56	43	34	26	34	26	34	26

SHALLOW FOUNDATION REQ'S

1. GEOTECHNICAL REPORT - FOUNDATION DESIGN CRITERIA WAS TAKEN FROM RECOMMENDATIONS SET FORTH IN GEOTECHNICAL REPORT BY UES, PROJECT NO. 1730.2400021.0000, DATED JUNE 25, 2024. FOUNDATION DESIGN SHALL BE BASED ON A MAXIMUM ALLOWABLE SOIL BEARING CAPACITY OF 2500 PSF FOR FOOTINGS. RECOMMENDATIONS IN THIS REPORT SHALL BE FOLLOWED. CONSULT SOILS REPORT FOR FOUNDATION PREPARATION AND EXCAVATION INFORMATION.
2. IF BEARING SOIL IS DISTURBED DURING FOUNDATION PREPARATION, THE CONTRACTOR SHALL RECOMPACT TO REQUIRED DENSITY, AS DEFINED BY THE GEOTECHNICAL ENGINEER.
3. ALL WALLS AND COLUMNS SHALL BE CENTERED ON THE FOOTINGS U.N.O.
4. ALL EXCAVATIONS SHALL MEET THE REQUIREMENTS OF OSHA, CONTRACTOR TO EXERCISE CAUTION WHEN EXCAVATING ADJACENT TO EXISTING FOUNDATIONS.
5. THE CONTRACTOR IS RESPONSIBLE FOR THE DISPOSAL OF ALL ACCUMULATED WATER FROM EXCAVATIONS AND DEWATERING OPERATIONS IN SUCH A WAY AS NOT TO CAUSE INCONVENIENCE TO THE WORK AND DAMAGE TO THE STRUCTURAL ELEMENTS.

SLAB ON GRADE NOTES

1. ENSURE THAT REINFORCEMENT IS LOCATED IN SLAB CORRECTLY BY CHAIRING REINFORCING ADEQUATELY DURING CONCRETE PLACEMENT.
2. PROVIDE MINIMUM 15 MIL VAPOR BARRIER UNDER SLAB.
3. PROVIDE POROUS DRAINAGE LAYER UNDER INTERIOR PORTIONS OF SLAB ON GRADE. DRAINAGE LAYER SHALL CONSIST OF CLEAN, FREE-DRAINAGE PEA GRAVEL, CRUSHED STONE, OR COARSE SAND. THIS DRAINAGE LAYER SHALL CONSIST OF NATURAL SAND WITH A MAXIMUM 50% PASSING THE NO. 50 SIEVE AND 5% PASSING A NO. 200 SIEVE AS MINIMUM. SEE PROJECT GEOTECHNICAL REPORT FOR GUIDELINES. THE CONTRACTOR SHALL COORDINATE THESE REQUIREMENTS WITH THE GEOTECHNICAL ENGINEER OF RECORD PRIOR TO FOUNDATION PREPARATION.
4. PLACE CRACK CONTROL JOINTS USING A MAXIMUM 2:1 LENGTH TO WIDTH RATIO WITH 20'-0" MAXIMUM SPACING, UNLESS LOCATED ON PLANS. PLACE MANDATORY CONSTRUCTION JOINTS AS SHOWN.

STRUCTURAL CONCRETE

1. ALL CAST-IN-PLACE CONCRETE WORK SHALL BE IN ACCORDANCE WITH ACI 318-19 AND ACI 301, EXCEPT AS MODIFIED BY THE PROJECT CONSTRUCTION DOCUMENTS. ALL CONCRETE WORK SHALL BE PERFORMED IN ACCORDANCE WITH SPECIFICATION SECTION 03 30 00.
2. ALL CONCRETE SHALL MEET THE PROJECT SPECIFICATIONS AND SHALL DEVELOP COMPRESSIVE STRENGTHS AS FOLLOWS (28 DAY STRENGTH):
   - A. NORMAL WEIGHT CONCRETE (145 PCF)
   - B. FOUNDATION & SLABS ON GRADE . . . . . 3500 PSI
   - C. ALL OTHER CONCRETE . . . . . 4000 PSI

   PROVIDE CURRENT (MAX. 1 YEAR OLD) STATISTICAL DATA FOR EACH CONCRETE MIX SUBMITTED IN ACCORDANCE WITH ACI 318-19.
3. SPACING BARS FOR CONCRETE SHALL HAVE A MINIMUM YIELD STRENGTH OF 60,000 PSI AND MEET THE REQUIREMENTS OF ASTM A-615. FOR PLACEMENT OF REINFORCING CONFORM TO ACI-301, ACI-315, ACI-318, AND CRSI "MANUAL OF STANDARD PRACTICE". ALL REINFORCING SHALL BE ACCURATELY PLACED, RIGIDLY SUPPORTED, AND FIRMLY TIED IN PLACE WITH BAR SUPPORTS AND SPACERS IN ACCORDANCE WITH THE ABOVE REQUIREMENTS. PROVIDE CLASS "B" LAP SPLICE FOR CONTINUOUS BARS. USE THE FOLLOWING COVER:
   - A. CONCRETE COVER REQUIREMENTS FOR REINFORCEMENT, U.N.O.:
     - a. CONCRETE CAST AGAINST EARTH. . . . . 3"
     - b. CONCRETE POURED IN FORMS BUT EXPOSED TO WEATHER OR EARTH:
       - #5 REINFORCEMENT AND SMALLER . . . . . 1 1/2"
       - REINFORCEMENT LARGER THAN #5 . . . . . 2"
       - WELDED WIRE FABRIC . . 1" FROM TOP OF SLAB
     - c. CONCRETE POURED IN FORMS BUT NOT EXPOSED TO WEATHER OR EARTH.
       - #11 REINFORCEMENT AND SMALLER. . . . . 3/4"
4. USE PLAIN, COLD-DRAWN ELECTRICALLY-WELDED STEEL WIRE FABRIC CONFORMING TO ASTM A-185. SUPPLY IN FLAT SHEETS ONLY (NOT ROLLED). LAP SPLICES SHALL BE TWICE THE SPACING OF THE CROSS WIRES PLUS TWO (2) INCHES.
5. NO CONDUIT PLACED IN CONCRETE SLAB SHALL HAVE AN OUTSIDE DIAMETER GREATER THAN 1/3 THE THICKNESS OF THE SLAB. NO CONDUIT SHALL BE EMBED IN A SLAB THAT IS LESS THAN 4" THICK. MINIMUM CLEAR DISTANCE SHALL BE IN ACCORDANCE WITH ACI 318.
6. ALL REINFORCING BARS, ANCHOR BOLTS, DOWELS AND OTHER CONCRETE INSERTS SHALL BE SECURED ADEQUATELY IN POSITION PRIOR TO PLACEMENT OF CONCRETE. CONTRACTOR SHALL USE TEMPLATES TO INSURE ACCURATE PLACEMENT OF ANCHOR BOLTS, DOWELS, ETC.
7. ALL CONCRETE SHALL BE CONSOLIDATED BY USE OF A MECHANICAL VIBRATOR OR OTHER MEANS APPROVED BY THE ENGINEER.
8. CONCRETE SHALL COMPLY WITH ALL THE REQUIREMENTS OF ASTM STANDARD C94 FOR MEASURING, MIXING, TRANSPORTING, ETC. CONCRETE TICKETS SHALL BE TIME STAMPED WHEN CONCRETE IS BATCHED. CONCRETE SHALL BE PLACED IN ITS FINAL POSITION WITHIN 90 MINUTES AFTER ADDITION OF BATCH WATER. CONCRETE SHALL BE DISCARDED IF THE FOREGOING ELAPSED TIME IS EXCEEDED.

MISC. STEEL NOTES

1. OTHER MISCELLANEOUS STEEL NOT SHOWN ON THE STRUCTURAL DOCUMENTS MAY BE IDENTIFIED IN THE ARCHITECTURAL AND/ OR MECHANICAL DRAWINGS. ALL OTHER MISCELLANEOUS SHAPES SHALL BE AT MINIMUM A36 STRUCTURAL STEEL, U.N.O.
2. EDGE ANGLES, CLIP ANGLES, PLATES, BARS AND OTHER MISCELLANEOUS ROLLED SHAPES SHALL BE ASTM A36 STRUCTURAL STEEL, U.N.O.

PRE-ENGINEERED METAL BUILDING

1. THE METAL BUILDING SHALL BE DESIGNED AND INSTALLED ACCORDING TO THE LATEST METAL BUILDING STRUCTURAL CODE(S) AND SPECIFICATION REQUIREMENTS.
2. THE M.B.M. SHALL PROVIDE CALCULATIONS WHICH ARE SIGNED AND SEALED BY A PROFESSIONAL ENGINEER IN THE STATE OF FLORIDA OR AS ACCEPTED BY THE GOVERNMENT. THIS REGISTERED ENGINEER SHALL BE RESPONSIBLE FOR ALL COMPONENTS RELATED THE SUPERSTRUCTURE.
3. CALCULATIONS PROVIDED TO THE EOR FOR REVIEW SHALL INCLUDE DEFLECTION AND CAMBER REQUIREMENTS, DEAD LOADS, LIVE LOADS, AND ALL SUPERIMPOSED LOADS. TOTAL BUILDING DRIFT SHALL NOT EXCEED H/100. TOTAL DEFLECTION OF WIND BEAMS AND SOFFIT PANELS SHALL NOT EXCEED L/120 FOR SHEET ROCK AND L/180 FOR METAL PANELS. ANY MEMBER SUPPORTING MASONRY OR BRICK SHALL NOT EXCEED L/600.
4. PROVIDE SUPPORT FOR ALL WALLS BY CONTRACTOR AT EAVES AND DESIGN FRAMES FOR WIND LOAD INDUCED BY WALLS ACCORDING THE WIND LOADS PROVIDED. THIS SHALL BE PROVIDED BY THE MBM SPECIALTY ENGINEER.

DONALD J McCARTHY LICENSE No. 71644 STATE OF FLORIDA PROFESSIONAL ENGINEER

McCarthy ENGINEERING
FL. CA LICENSE NUMBER #29241
216 E. Government St.
Pensacola, FL 32502
P: (850) 475-1268 F: (850) 502-4210

MEI project: 2023-162

REV #	DATE	DESCRIPTION

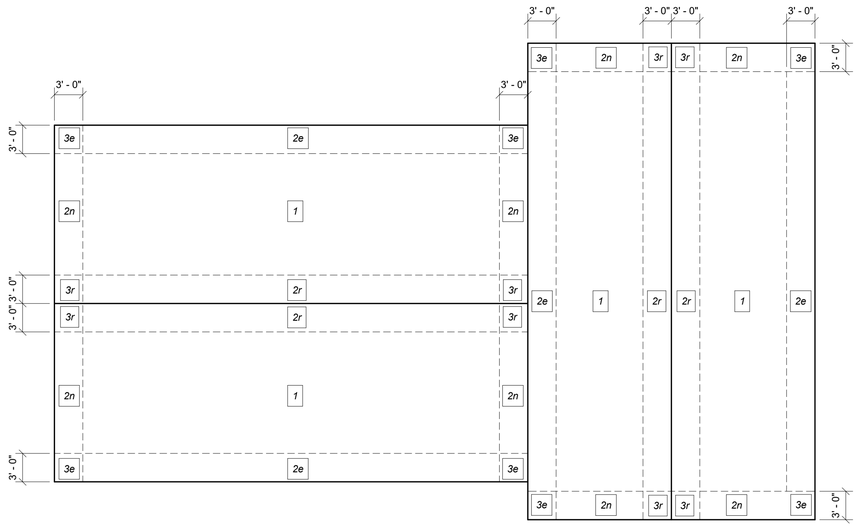
ROCKET OPERATIONS AND MAINTENANCE BUILDING

GENERAL NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

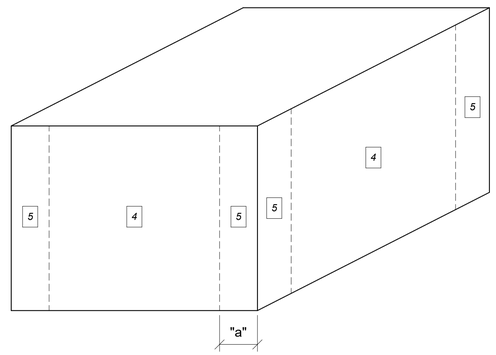
DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-001
SHEET NUMBER: 20 OF 88

ROOF WIND PRESSURE DIAGRAM



WALL WIND PRESSURE DIAGRAM

NOTE: a=4'-0"



COMPONENTS AND CLADDING WIND

NOTE: a = 3'-0" INTERNAL PRESSURE COEFFICIENT = +/-0.18

ZONE (SEE FIGURE)	WIND PRESSURE (+) / SUCTION (-) IN POUNDS PER SF							
	EFFECTIVE WIND AREA (FEET SQUARE)							
	10		20		50		100	
	+	-	+	-	+	-	+	-
ROOF ZONE 1	39.9	-121.7	36.0	-121.7	30.7	-74.0	26.8	-38.0
ROOF ZONE 2e								
ROOF ZONE 2n		-177.5		-153.5		-121.7		-97.6
ROOF ZONE 2r								
ROOF ZONE 3e								
ROOF ZONE 3r		-211.0		-180.7		-140.8		-110.5
WALL ZONE 4	65.9	-71.4	62.9	-68.5	59.0	-64.6	56.0	-61.6
WALL ZONE 5		-88.2		-82.3		-74.4		-68.5

NOTES:
1. POSITIVE SIGN INDICATES THAT THE PRESSURE IS ACTING TOWARDS THE SURFACE. NEGATIVE SIGN INDICATES THAT THE PRESSURE IS ACTING AWAY FROM THE STRUCTURE.
2. THE WIND LOADS SHOWN HAVE BEEN CALCULATED PER INTERNATIONAL BUILDING CODE 2021 AND ASCE 7-16. LINEAR INTERPOLATION MAY BE APPLIED FOR LOADING AREAS BETWEEN THE PROVIDED. LOADS SHOWN ARE ULTIMATE LOADS AND MAY BE FACTORED BY 0.6 WHEN APPLICABLE TO REDUCE TO ASD LOADING PRESSURES.

MAIN WIND FORCE RESISTING WIND LOAD

INTERNAL PRESSURE COEFFICIENT = +/-0.0

MAIN WIND FORCE RESISTING SYSTEM PRESSURES		
WIND VELOCITY	ROOF ENCLOSED	WALL ENCLOSED
(MPH)	(PSF)	(PSF)
165	-53.0	-61.0

NOTES:
1. POSITIVE SIGN INDICATES THAT THE PRESSURE IS ACTING TOWARDS THE SURFACE. NEGATIVE SIGN INDICATES THAT THE PRESSURE IS ACTING AWAY FROM THE STRUCTURE.
2. THE WIND LOADS SHOWN HAVE BEEN CALCULATED PER INTERNATIONAL BUILDING CODE 2021 AND ASCE 7-16. LINEAR INTERPOLATION MAY BE APPLIED FOR LOADING AREAS BETWEEN THE PROVIDED. LOADS SHOWN ARE ULTIMATE LOADS AND MAY BE FACTORED BY 0.6 WHEN APPLICABLE TO REDUCE TO ASD LOADING PRESSURES.

DONALD J McCARTHY LICENSE No. 71644 STATE OF FLORIDA PROFESSIONAL ENGINEER
2-13-25

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MEI project: 2023-162

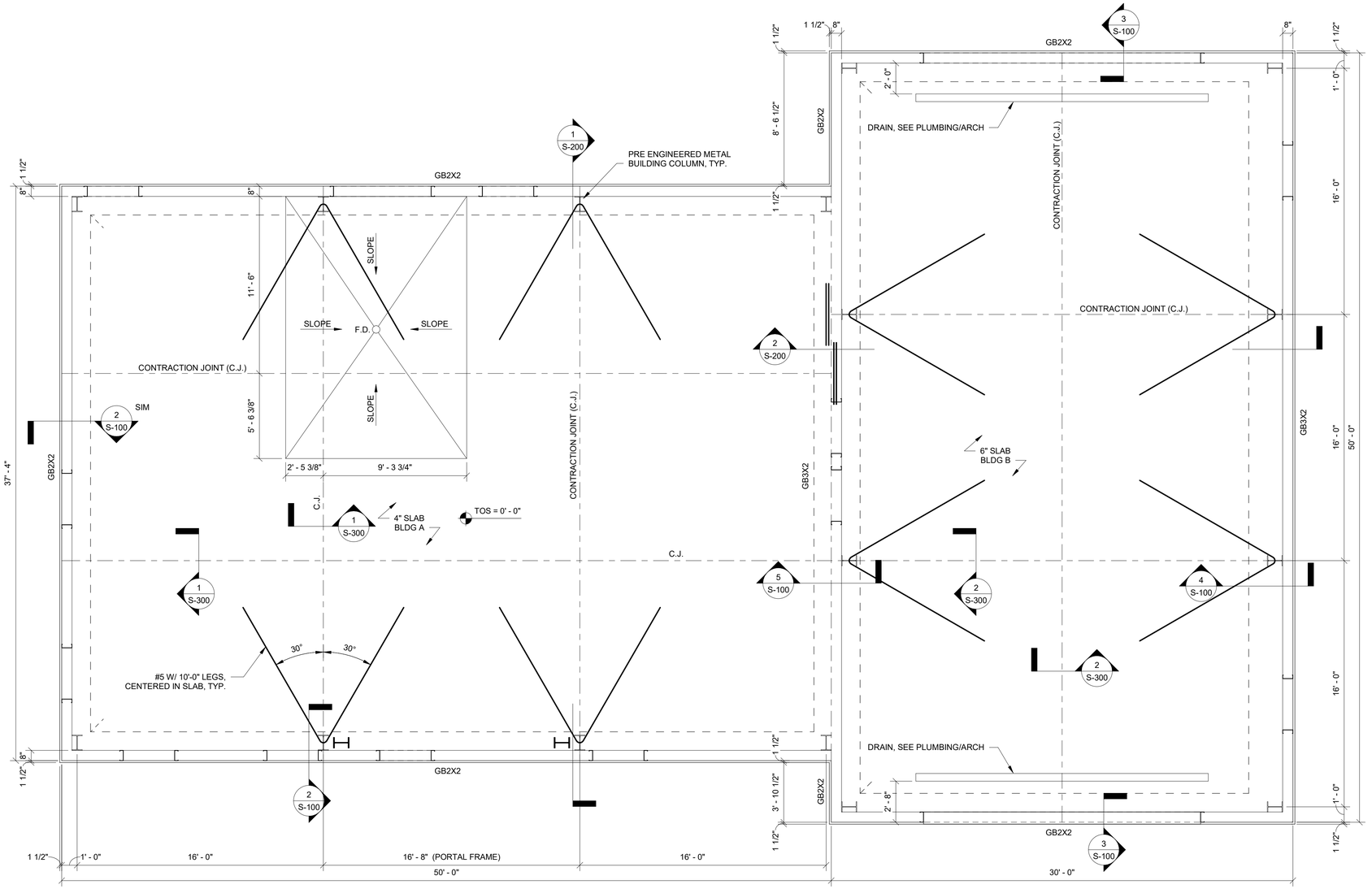
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

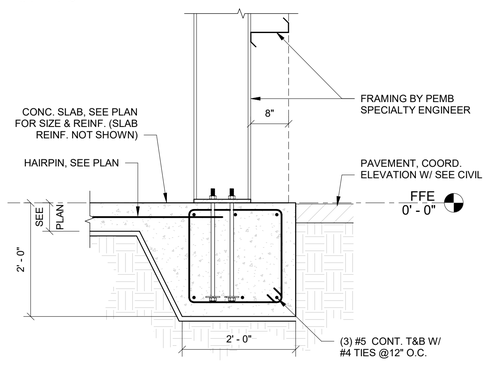
WIND PRESSURES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

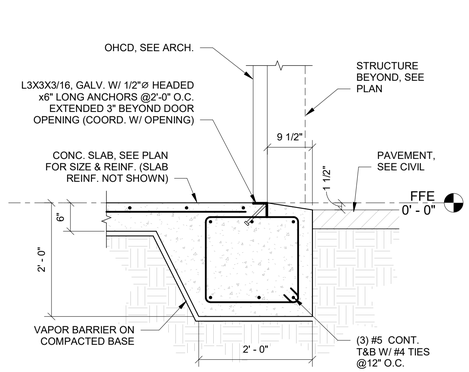
DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-002
SHEET NUMBER: 21 OF 88



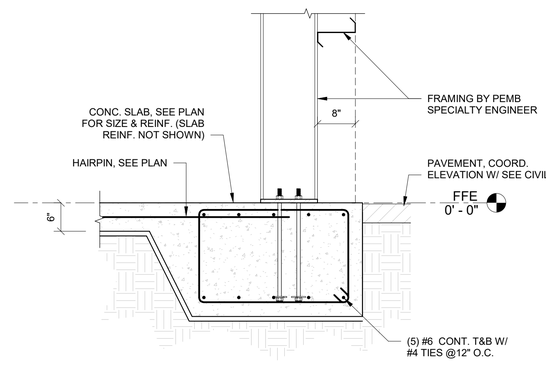
1 FOUNDATION PLAN (BASE BID)
1/4" = 1'-0"



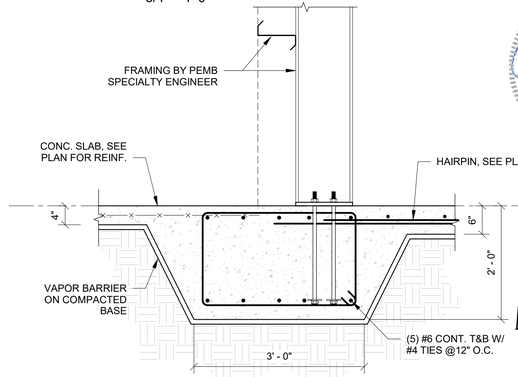
2 GB2X2 SECTION (BASE BID)
3/4" = 1'-0"



3 GB2X2 SECTION @OHCD (BASE BID)
3/4" = 1'-0"



4 GB3X2 SECTION (BASE BID)
3/4" = 1'-0"



5 GB3X2 (INTERIOR) SECTION (BASE BID)
3/4" = 1'-0"

6 GB3X2 SECTION ALT (BID OPTION #1)
3/4" = 1'-0"

FOUNDATION PLAN NOTES

1. VERIFY LOCATIONS AND DIMENSIONS OF RECESSED AREAS WITH ARCHITECTURAL DRAWINGS.
2. FOR DIMENSIONS NOT SHOWN, REFER TO ARCHITECTURAL DRAWINGS. VERIFY OPENING DIMENSIONS W/ ARCH.
3. FOR ANCHOR ROD DETAILS RE: STRUCTURAL DETAILS
4. 4" CONCRETE SLAB-ON-GRADE SHALL BE REINFORCED WITH 4X4 W2.9XW2.9 W.W.F.
5. 6" CONCRETE SLAB-ON-GRADE SHALL BE REINFORCED WITH #4 @12" O.C. E.W.
6. SEE GENERAL NOTES FOR CONTRACTION JOINT REQUIREMENTS AND TYPICAL LOCATIONS AS REQUIRED.
7. SEE PLUMBING & ARCHITECTURAL DRAWINGS FOR DRAINS AND SLOPES.
8. F.D. = FLOOR DRAIN (SEE PLUMBING / ARCH)

BLDG	MAX. UPLIFT	MAX. DOWN
A	-11.7K	8.3K
B	-15.3K	7.9K

* NOTIFY CONTRACTING IF REACTIONS ARE GREATER THAN SHOWN

THE CONTRACTOR SHALL VERIFY ALL CONCRETE DIMENSIONS WITH THE FINAL METAL BUILDING DRAWINGS BEFORE PLACEMENT OF CONCRETE THIS INCLUDES BUT IS NOT LIMITED TO THE FOLLOWING ITEMS:

1. **METAL BUILDING COLUMN LOCATIONS, INCLUDING ANCHOR BOLT LOCATIONS.**
2. **METAL BUILDING PURLIN LOCATIONS RELATIVE TO SLAB EDGE.**
3. **WALL PANEL LOCATIONS AND COORDINATION WITH NOTCHED SLAB RECESS FOR FLUSH PANEL MOUNTING.**
4. **SUBMIT FINAL REACTION DRAWINGS TO THE E.O.R. FOR REVIEW AND COMPLIANCE WITH THE FOUNDATION AS SHOWN PRIOR TO CASTING FOUNDATIONS.**

DETAIL NOTES:

1. IF BID OPTION #1 IS SELECTED BY THE GOVERNMENT, PROVIDE ADDITIONAL 6" LEDGE TO ALL FOUNDATIONS AS SHOWN. GB3X2 WILL BE 3'-6" WIDE IN TOTAL WIDTH. CONTRACTOR TO COORDINATE.

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MEI project: 2023-162

REV #	DATE	DESCRIPTION

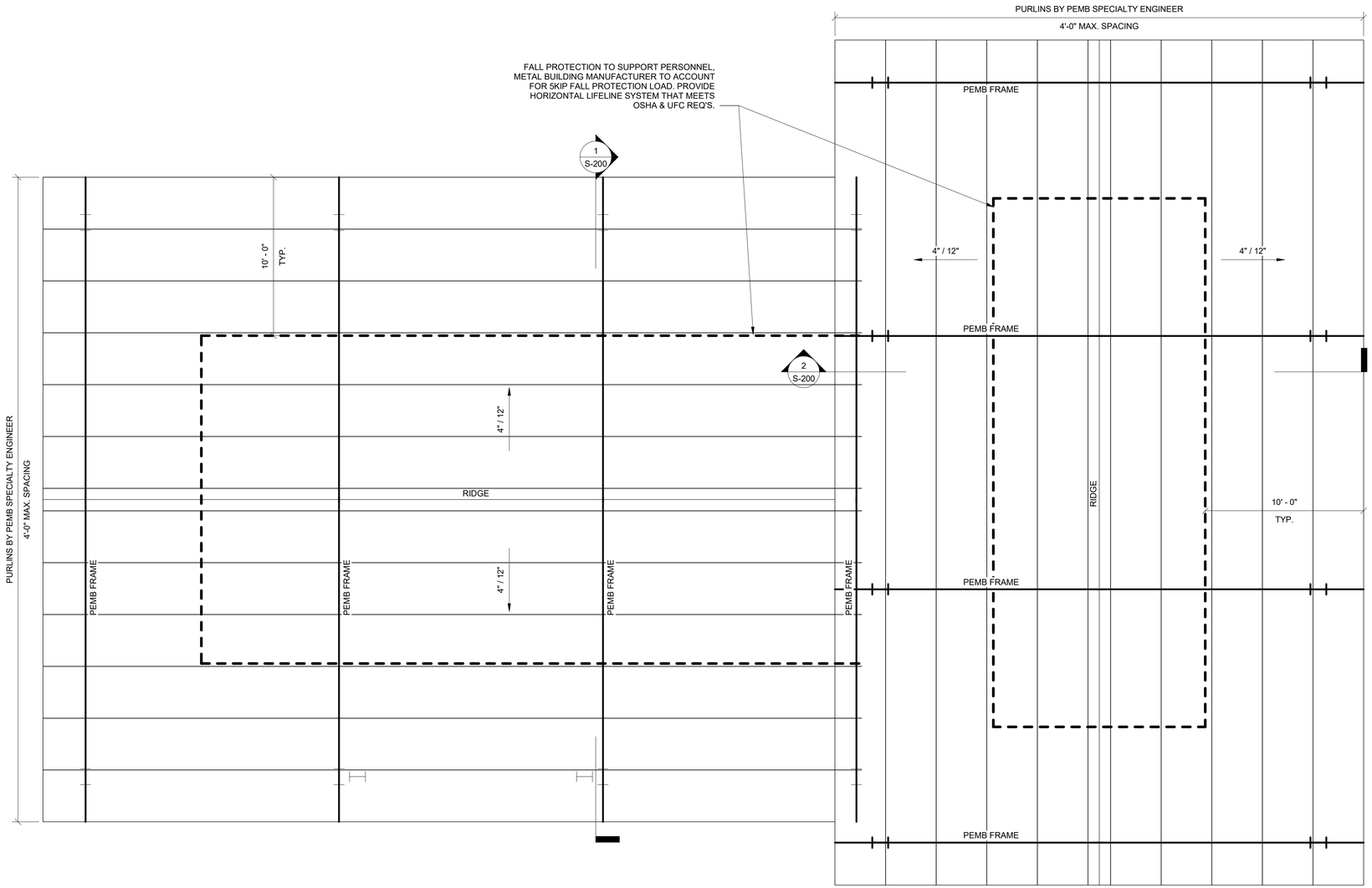
ROCKET OPERATIONS AND MAINTENANCE BUILDING

FOUNDATION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-100
SHEET NUMBER: 22 OF 88



1 ROOF FRAMING PLAN
1/4" = 1'-0"

ROOF FRAMING PLAN NOTES

1. COORDINATE ALL ROOF PENETRATIONS WITH MECHANICAL AND ARCHITECTURAL DRAWINGS.
2. SPECIALTY ENGINEER TO PROVIDE UPLIFT BRACING AS REQUIRED.

FALL PROTECTION NOTES

1. ROOF TYPE - METAL ROOF PANEL
2. ROOF PITCH 4" PER 1'-0"
3. ALL FALL PROTECTION SYSTEMS SHOWN ARE PRELIMINARY ONLY. METAL BUILDING MANUFACTURER SHALL COORDINATE FALL PROTECTION LOADS WITH THE STRUCTURE.
4. FINAL ARRANGEMENT, CONNECTIONS, ETC. SHALL BE COORDINATED BY THE FALL PROTECTION ENGINEER AND CONTRACTOR.
5. FALL PROTECTION SYSTEM SHALL CONSIST OF A HORIZONTAL LIFELINE SYSTEM ATTACHED DIRECTLY TO THE ROOF SYSTEM. THE FALL PROTECTION ENGINEER SHALL PROVIDE A COMPLETE SYSTEM.

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ROOF FRAMING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DONALD J McCARTHY
LICENSE
No. 71644
STATE OF
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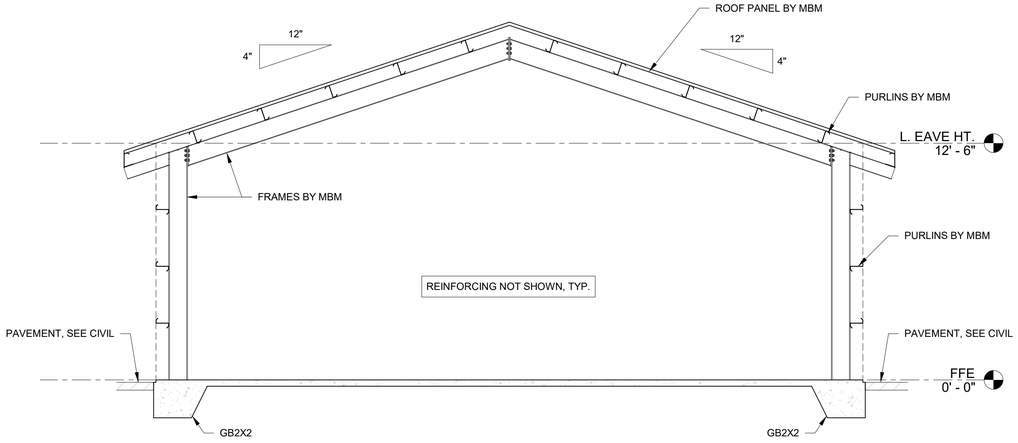
McCarthy ENGINEERING
FL CA LICENSE NUMBER #29241
216 E. Government St.
Pensacola, FL 32502
P: (850) 475-1268 F: (850) 322-4210
MEI project: 2023-162

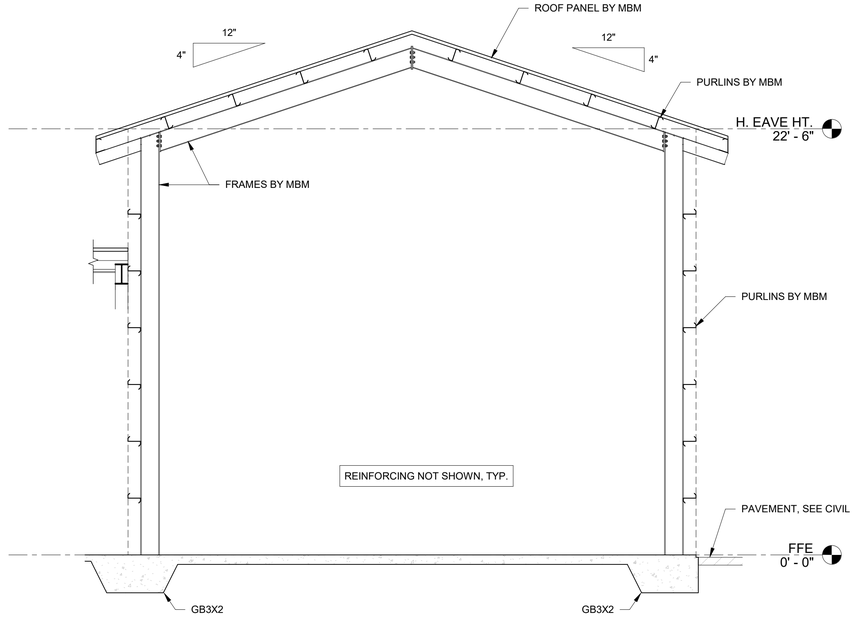
DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-110
SHEET NUMBER: 23 OF 88

SHEET NOTES:

1. REINFORCEMENT NOT SHOWN IN FOUNDATION ON ELEVATIONS. SEE PLANS AND DETAILS FOR REINFORCEMENT REQUIREMENTS.
2. CONTRACTOR TO COORDINATE METAL BUILDING WITH FOUNDATION DESIGN.



1 STRUCTURAL SECTION NO. 1
1/4" = 1'-0"



2 STRUCTURAL SECTION NO. 2
1/4" = 1'-0"

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MEI project: 2023-162

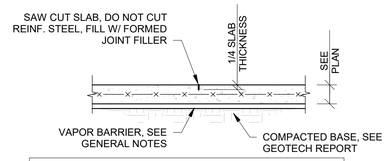
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

BUILDING SECTIONS

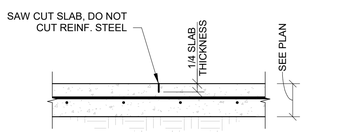
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-200
SHEET NUMBER: 24 OF 88



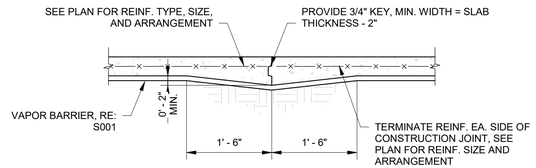
NOTES:
1. IN LIEU OF CONTRACTION JOINT CONTRACTOR MAY USE CONSTRUCTION JOINT, CONTRACTOR'S OPTION.

1 CONTRACTION JOINT (4" SLAB)
3/4" = 1'-0"

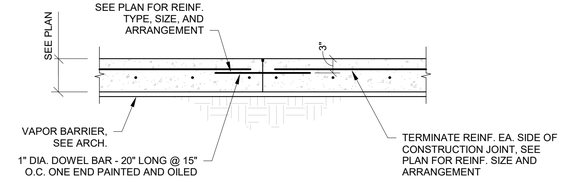


NOTES:
1. IN LIEU OF CONTRACTION JOINT CONTRACTOR MAY USE CONSTRUCTION JOINT, CONTRACTOR'S OPTION.

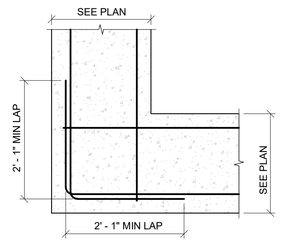
2 CONTRACTION JOINT (6" SLAB)
3/4" = 1'-0"



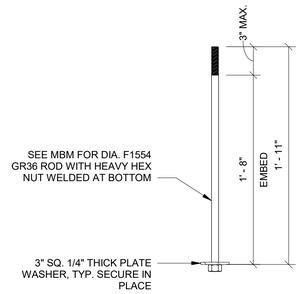
3 CONSTRUCTION JOINT
3/4" = 1'-0"



4 DOWELED CONSTRUCTION JOINT
3/4" = 1'-0"



5 FOUNDATION REINF. @ CORNER
3/4" = 1'-0"



6 ANCHOR BOLT DETAIL
1 1/2" = 1'-0"

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MEI project: 2023-162

REV #	DATE	DESCRIPTION

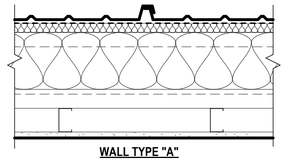
ROCKET OPERATIONS AND MAINTENANCE BUILDING

CONCRETE DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DJM
DRAWN BY: WEH
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: S-300
SHEET NUMBER: 25 OF 88

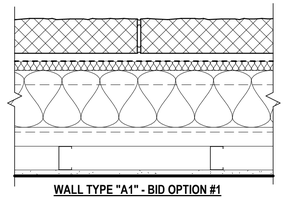
WALL TYPES



WALL TYPE "A"

- PRE FINISHED METAL WALL PANEL BY MFGR.
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE
- 2 1/2" GALVANIZED METAL STUDS AT 16" O.C.
- 5/8" TYPE "X" GYPSUM WALLBOARD

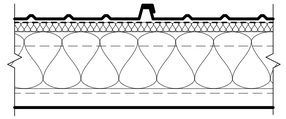
NOTE: TRANSITION TO WALL TYPE "A1" BELOW 3'-4" A.F.F. TERMINATE ADMIN SIDE STUD AND GYPSUM 6" ABOVE CEILING, TYP.



WALL TYPE "A1" - BID OPTION #1

- 4" SPLIT FACE MASONRY VENEER
- AIR SPACE
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE
- 2 1/2" GALVANIZED METAL STUDS AT 16" O.C.
- 5/8" TYPE "X" GYPSUM WALLBOARD

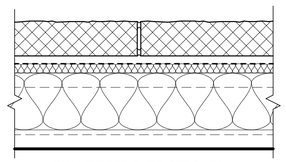
NOTE: TRANSITION TO WALL TYPE "A" ABOVE 3'-4" A.F.F.



WALL TYPE "B"

- PRE FINISHED METAL WALL PANEL BY MFGR.
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE

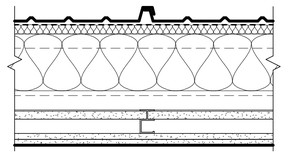
NOTE: TRANSITION TO WALL TYPE "B1" BELOW 3'-4" A.F.F.



WALL TYPE "B1" - BID OPTION #1

- 4" SPLIT FACE MASONRY VENEER
- AIR SPACE
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE

NOTE: TRANSITION TO WALL TYPE "B" ABOVE 3'-4" A.F.F.

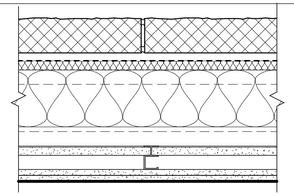


WALL TYPE "C"

2-HR FIRE RATED (UL U415 SYSTEM B)

- PRE FINISHED METAL WALL PANEL BY MFGR.
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE
- 1" TYPE "X" GYPSUM LINER PANEL
- 2 1/2" SHAFTWALL STUDS, 20GA AT 20" O.C.
- 2 LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: TRANSITION TO WALL TYPE "C1" BELOW 3'-4" A.F.F. EXTEND SHAFT WALL ASSEMBLY ON BAY SIDE TO DECK ABOVE AND SEAL WITH FIRE CAULK.

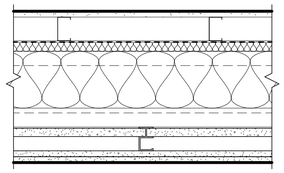


WALL TYPE "C1" - BID OPTION #1

2-HR FIRE RATED (UL U415 SYSTEM B)

- 4" SPLIT FACE MASONRY VENEER
- AIR SPACE
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE
- 1" TYPE "X" GYPSUM LINER PANEL
- 2 1/2" SHAFTWALL STUDS, 20GA AT 20" O.C.
- 2 LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: TRANSITION TO WALL TYPE "C" ABOVE 3'-4" A.F.F.

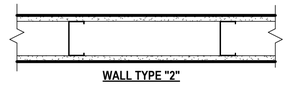


WALL TYPE "1"

2-HR FIRE RATED (UL U415 SYSTEM B)

- 5/8" TYPE "X" GYPSUM WALLBOARD
- 2 1/2" GALVANIZED METAL STUDS AT 16" O.C.
- R-11 BATT INSULATION W/ VAPAR RETARDER
- 8" STEEL GIRT, SEE STRUCTURAL
- R-25 BATT INSULATION W/ FINYL FACE
- 1" TYPE "X" GYPSUM LINER PANEL
- 2 1/2" SHAFTWALL STUDS, 20GA AT 20" O.C.
- 2 LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: TRANSITION TO WALL TYPE "A" ABOVE ROOF, SEE DETAIL.
TERMINATE ADMIN SIDE STUD AND GYPSUM 6" ABOVE CEILING, TYP.
EXTEND SHAFT WALL ASSEMBLY ON BAY SIDE TO DECK ABOVE AND SEAL WITH FIRE CAULK.



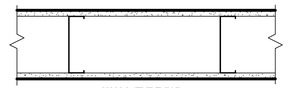
WALL TYPE "2"

- 5/8" TYPE "X" GYPSUM WALLBOARD
- 3 5/8" GALVANIZED METAL STUDS AT 16" O.C.
- 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: EXTEND TO DECK ABOVE.

WALL TYPE "2A"

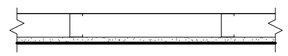
NOTE: SAME AS WALL TYPE "2" BUT EXTEND TO 6" ABOVE CEILING.



WALL TYPE "3"

- 5/8" TYPE "X" GYPSUM WALLBOARD
- 6" GALVANIZED METAL STUDS AT 16" O.C.
- 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: EXTEND TO DECK ABOVE.



WALL TYPE "4"

- 2 1/2" GALVANIZED METAL STUDS AT 16" O.C.
- 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: TERMINATE 6" ABOVE CEILING, TYP.

WALL TYPE "5"

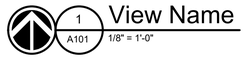
2-HR FIRE RATED (UL U415 SYSTEM B)

- 1" TYPE "X" GYPSUM LINER PANEL
- 2 1/2" SHAFTWALL STUDS, 20GA AT 20" O.C.
- 2 LAYERS OF 5/8" TYPE "X" GYPSUM WALLBOARD

NOTE: EXTEND SHAFT WALL ASSEMBLY ON BAY SIDE TO DECK ABOVE AND SEAL WITH FIRE CAULK. THIS IS TO WRAP AROUND PEMB RIGID FRAME.

GRAPHIC SYMBOL LEGEND

DRAWING TITLE



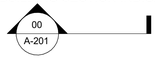
DETAIL CALLOUT

DETAIL INDICATOR FOR SMALL CONDITIONS

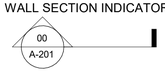
ELEVATION INDICATOR, EXTERIOR

ELEVATION INDICATOR, INTERIOR, MULTIPLE VIEW

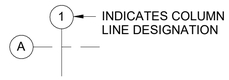
BUILDING SECTION INDICATOR



WALL SECTION INDICATOR



COLUMN LINE INDICATORS



SPACE IDENTIFICATION

ROOM NAME

888A

SHEET NOTES

1

PARTITION TYPE INDICATOR

A1

CEILING HEIGHT INDICATOR

9' - 0"

WINDOW INDICATOR

1

TOILET ACCESSORY TAG

A

ELEVATION INDICATOR

0'-0" = 93.25
FIRST FLOOR

DRAWING REVISION INDICATOR

1

SCOPE INDICATORS:

EXISTING CONSTRUCTION TO REMAIN

EXISTING CONSTRUCTION TO BE REMOVED

NEW CONSTRUCTION

GENERAL NOTES

1. REFER TO CIVIL DRAWINGS FOR DEMOLITION OF EXISTING BUILDING 90409.
2. SEE DOCUMENTS FOR THE FUTURE MUNITIONS ASSEMBLY CONVEYOR PAD PROJECT (MAC) F0R ADDITIONAL IMFORMATION.

ABBREVIATIONS

&	AND
@	AT
L	ANGLE
A/C	AIR CONDITION
ACT	ACOUSTICAL CEILING TILE
ADJ	ADJACENT, ADJOINING, ADJUSTABLE
AFF	ABOVE FINISHED FLOOR
ALT	ALTERNATE
ALUM	ALUMINUM
ARCH	ARCHITECT(URAL)
AUTO	AUTOMATIC
BD	BOARD
BLDG	BUILDING
BM	BEAM, BENCH MARK
BOT	BOTTOM
BRG	BEARING
BRG PL	BEARING PLATE
BUR	BUILT-UP ROOFING
C	CHANNEL
CAB	CABINET
CB	CATCH BASIN
CEM	CEMENT
CF/CI	CONTRACTOR FURNISHED CONTRACTOR INSTALLED
CF/GI	CONTRACTOR FURNISHED/ GOVERNMENT INSTALLED
CI	CAST IRON
CID	COMPREHENSIVE INTERIOR DESIGN PACKAGE
CIP	CAST-IN-PLACE, CAST IRON PIPE
CJ	CONSTRUCTION JOINT/CONTROL JOINT CENTER LINE, CLASS, CLOSE
CL	CEILING
CLG	CLEAR, COLOR, COOLER
CLR	CENTIMETER(S)
CM	CONCRETE MASONRY UNIT
CMU	CARPET
CPT	COLUMN
COL	CONCRETE
CONC	CONDITION
COND	CONSTRUCTION
CONSTR	CONTINUE, CONTINUOUS
CONT	CONTRACT, CONTRACTOR
CONTR	CONTRACTING OFFICER'S
COR	REPRESENTATIVE CORRIDOR
CORR	CONTRACTING OFFICER
COTR	TECHNICAL REPRESENTATIVE
CU FT	CUBIC FEET CUBIC YARD
CU YD	DRYER
D	DETAIL
DET	DRINKING FOUNTAIN
DF	DIAMETER
DIA	DIMENSION
DIM	DIVISION, DIVIDE
DIV	DOWNSPOUT
DS	DISHWASHER
DW	DRAWING
DWG	EAST
E	EACH FACE
EF	ELEVATION
EL	ELECTRIC(AL)
ELEC	ELEVATOR
ELEV	EQUAL
EQ	EQUIPMENT
EQUIP	EMERGENCY SHOWER
EMER SHR	EYE WASH STATION
EWS	ELECTRIC WATER COOLER
EWC	EXHAUST
EXH	EXISTING
EXIST	EXTERIOR
EXT	
FAX	FACSIMILE
FA	FIRE ALARM
FD	FLOOR DRAIN
FDTN	FOUNDATION
FE	FIRE EXTINGUISHER
FEC	FIRE EXTINGUISHER CABINET
FF EL	FINISH FLOOR ELEVATION
FIN GR	FINISH GRADE
FLR	FLOOR
FP	FIREPROOF
FT	FEET, FOOT
FTG	FOOTING
FRZ	FREEZER
GA	GAGE
GALV	GALVANIZED IRON
GB	GRAB BAR
GC	GENERAL CONTRACTOR
GF/GI	GOVERNMENT FURNISHED/ GOVERNMENT INSTALLED
GF/CI	GOVERNMENT FURNISHED/ CONTRACTOR INSTALLED
GL	GLASS
GLZ	GLAZING
GMS	GALVANIZED METAL STUD
GDR	GUARDRAIL
GR LN	GRADE LINE
GYP BD	GYPSUM BOARD
HB	HOSE BIBB
HC	HANDICAP, HOLLOW CORE
HDBD	HARDBOARD
HDW	HARDWARE
HM	HOLLOW METAL
HORIZ	HORIZONTAL
HNDRL	HANDRAIL
HT	HEIGHT
HVAC	HEATING/VENTILATING/AIR COND
IBC	INTERNATIONAL BUILDING CODE
ID	INSIDE DIAMETER
INCL	INCLUDED
INSUL	INSULATION
INT	INTERIOR
INV	INVERT
INV EL	INVERT ELEVATION
JS	JANITOR SINK
KIT	KITCHEN
LAM	LAMINATE
LAV	LAVATORY
LH	LEFT HAND
M	METER
MAX	MAXIMUM
MECH	MECHANICAL
MFR	MANUFACTURER
MH	MANHOLE
MIN	MINIMUM
MISC	MISCELLANEOUS
MM	MILLIMETER
MS	MOP SINK
MT	MOUNT
MTD	MOUNTED
MTG	MOUNTING
MTL	METAL
MW	MICROWAVE
MULL	MULLION
N	NORTH
NAT	NATURAL
NIC	NOT IN CONTRACT
NOM	NOMINAL
NTS	NOT TO SCALE
OC	ON CENTER
OD	OUTSIDE DIAMETER
OF/OI	OWNER FURNISH/ OWNER INSTALLED
OF/CI	OWNER FURNISH/ CONTRACTOR INSTALLED
OH	OVERHANG, OVERHEAD
OH DR	OVERHEAD (COILING) DOOR
OPNG	OPENING
OPP	OPPOSITE
PCF	POUNDS PER CUBIC FOOT
PCC	PRECAST CONCRETE
PL	PROPERTY LINE
PLAM	PLASTIC LAMINATE
PLYWD	PLYWOOD
PRKG	PARKING
PSF	POUNDS PER SQUARE FOOT
PSI	POUNDS PER SQUARE INCH
PT	PRESSURE TREATED
PVC	POLYVINYL CHLORIDE
QT	QUARRY TILE
R	RADIUS, RANGE, RISER
RA	RETURN AIR
RCP	REFLECTED CEILING PLAN
RD	ROOF DRAIN
REBAR	REINFORCING STEEL BARS
REF	REFERENCE, REFRIGERATOR
REG	REGISTER
REINF	REINFORCE
RET	RETURN
REV	REVISION
RFCP	REINFORCED CONCRETE PIPE
RFG	ROOFING
RH	RIGHT HAND
RM	ROOM
ROW	RIGHT OF WAY
S	SOUTH
SC	SOLID CORE
SCHED	SCHEDULE
SD	STORM DRAIN
SECT	SECTION
SF	SQUARE FOOT(FEET)
SHT	SHEET
SIM	SIMILAR
SPEC	SPECIFICATION
SPKR	SPEAKER
SQ	SQUARE
SS	SERVICE SINK
SST	STAINLESS STEEL
STA	STATION
STC	SOUND TRANSMISSION CLASS
STD	STANDARD
STOR	STORAGE
STRUCT	STRUCTURAL
SUSP	SUSPEND
SYMM	SYMMETRICAL
SYS	SYSTEM
T&B	TOP AND BOTTOM
T&G	TONGUE AND GROOVE
TE	TOP ELEVATION
TEL	TELEPHONE
THK	THICKNESS
TOC	TOP OF CONCRETE
TOP	TOP OF PAVEMENT
TOS	TOP OF SLAB, TOP OF STEEL
TV	TELEVISION
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VERT	VERTICAL
VCT	VINYL COMPOSITION TILE
VTR	VENT THROUGH ROOF
W	WASHER, WEST, WIDE
W/	WITH
W/O	WITHOUT
WB	WOOD BASE
WC	WATER CLOSET
WD	WOOD
WH	WATER HEATER
WP	WATERPROOFING
WSCT	WAINSCOT
WWR	WELDED WIRE REINFORCEMENT

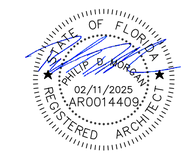
REV #	DATE	DESCRIPTION

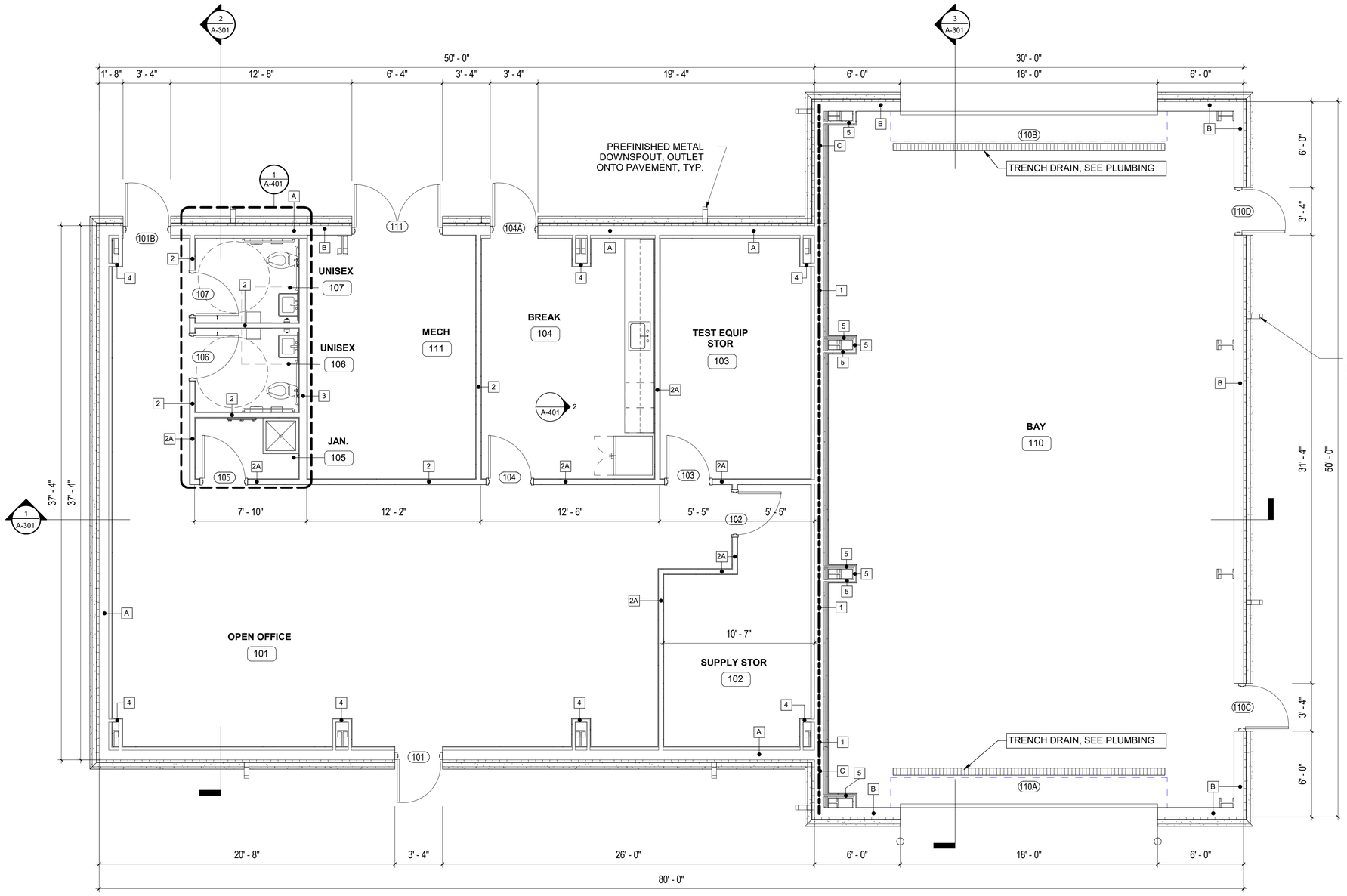
ROCKET OPERATIONS AND MAINTENANCE BUILDING

LEGEND, NOTES, AND ABBREVIATIONS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-001
SHEET NUMBER: 26 OF 88





GRAPHIC LEGEND

ROOM 101	ROOM NAME AND NUMBER DESIGNATION
	NEW WALL CONSTRUCTION
A	WALL TYPE
101	NEW DOOR & DOOR NUMBER
1	KEYNOTES
	2 HOUR FIRE RATED WALL

1 A-101 GROUND FLOOR PLAN
1/4" = 1'-0"

TEXAS OF FLORIDA
PHILIP B. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"
SCALE:1/4" = 1'-0"

REV #	DATE	DESCRIPTION

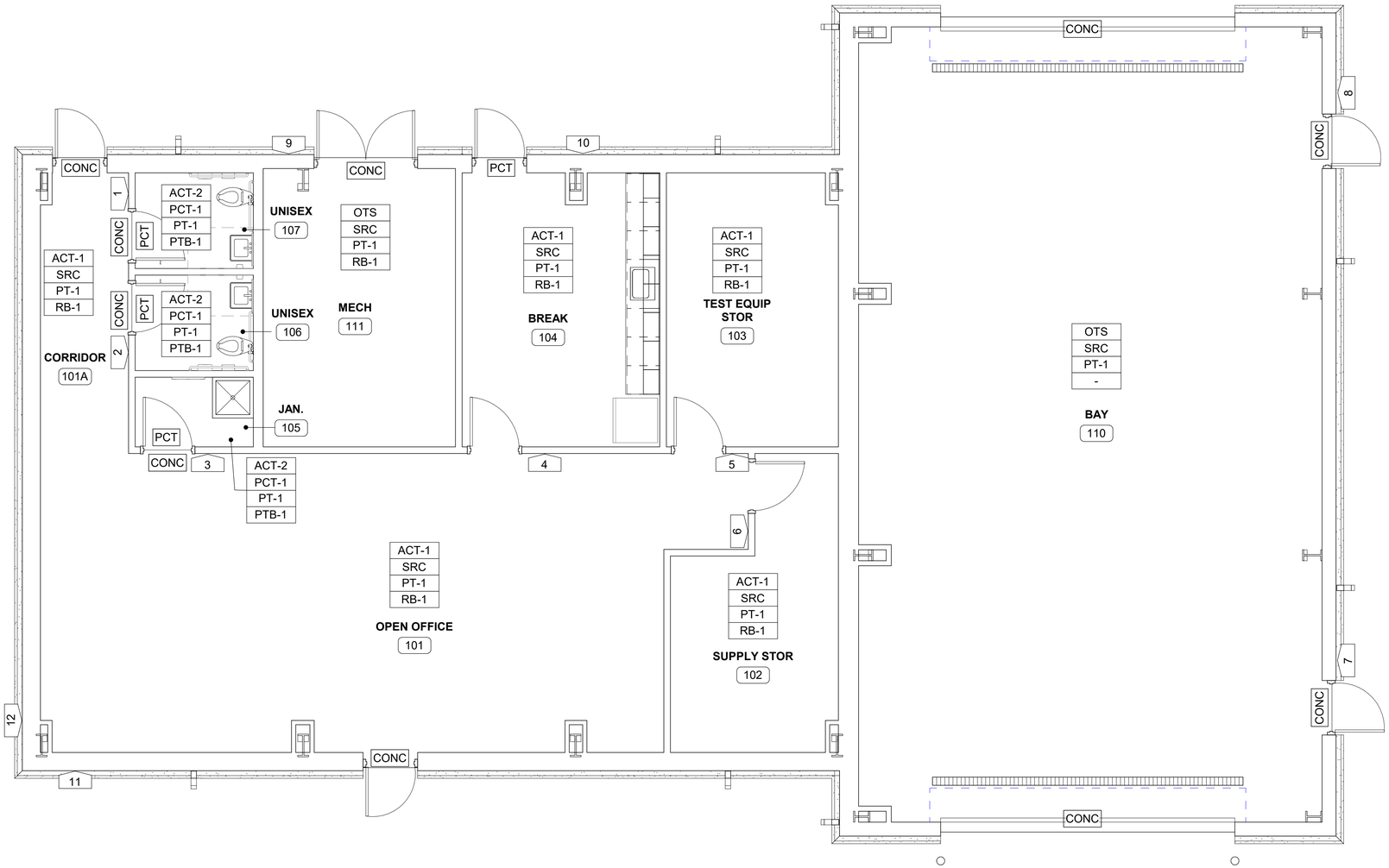
ROCKET OPERATIONS AND MAINTENANCE BUILDING

FLOOR PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-101
SHEET NUMBER: 27 OF 88



1 A-102 FLOOR FINISH AND SIGNAGE PLAN

1/4" = 1'-0"

GRAPHIC LEGEND

ROOM NAME 888A	SPACE IDENTIFICATION
1	KEYNOTES
LVT / CPT	FLOOR FINISH TRANSITION STRIP
ACT-1 CONC PT-1 RB-1	SPACE FINISH IDENTIFICATION
1	SIGNAGE IDENTIFICATION

GENERAL NOTES

1. ALUMINUM TRANSITION STRIPS BY SCHLUTER OR EQUIVALENT TO BE INSTALLED AT ALL FLOORING TRANSITIONS.
2. PRODUCT DESCRIPTION AND DISCLAIMER: MANUFACTURER STOCK NUMBERS AND SALIENT PRODUCT CHARACTERISTICS ARE LISTED FOR REFERENCE AND COLOR IDENTIFICATION PURPOSED ONLY. THE LISTING OF MANUFACTURER INFORMATION IS NOT INTENDED TO LIMIT THE SELECTION OF MATCHING.
3. ALL ELECTRONICS - INCLUDING COPIERS, PRINTERS, SHREDDERS, TV MONITORS, PLOTTERS,ETC. - SHALL BE PROVIDED/INSTALLED BY THE GOVERNMENT - GFGI.
4. CONTRACTOR TO ENSURE CLEARANCES OF FLOORING PRIOR TO HANGING/INSTALLING NEW DOORS.

STATE OF FLORIDA
PHILIP R. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"

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

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

FLOOR FINISH AND SIGNAGE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: CM

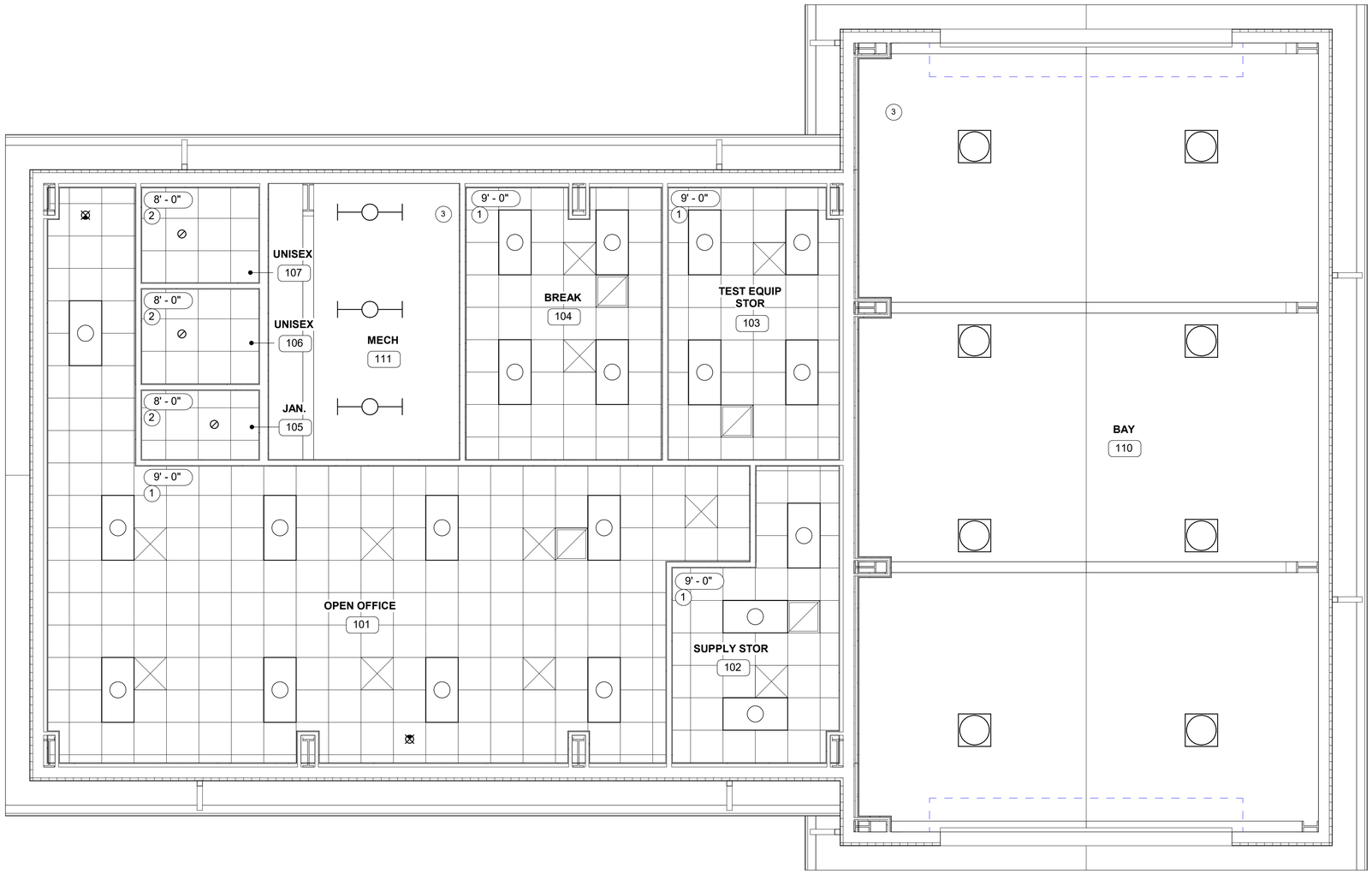
DRAWN BY: KW

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: A-102

SHEET NUMBER: 28 OF 88



1 A-111 FIRST FLOOR REFLECTED CEILING PLAN

1/4" = 1'-0"

GRAPHIC LEGEND

9' - 0"	CEILING HEIGHT INDICATOR
ROOM NAME 888A	SPACE IDENTIFICATION
1	KEYNOTES
1	2' X 2' SUSPENDED ACOUSTICAL TILE LAY-IN CEILING WITH GRID
2	2' X 2' SUSPENDED ACOUSTICAL TILE LAY-IN CEILING WITH GRID (MOISTURE RESISTANT)
3	OPEN TO STRUCTURE ABOVE (PAINTED)
	24 x 48 RECESSED GRID LIGHT FIXTURE, SEE ELECTRICAL
	RECESSED DOWNLIGHT, SEE ELECTRICAL
	SUSPENDED HIGH BAY LIGHT FIXTURE, SEE ELECTRICAL
	SUSPENDED LIGHT FIXTURE, SEE ELECTRICAL
	SUPPLY AIR GRILLE, SEE MECHANICAL
	RETURN AIR GRILLE, SEE MECHANICAL

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

REFLECTED CEILING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

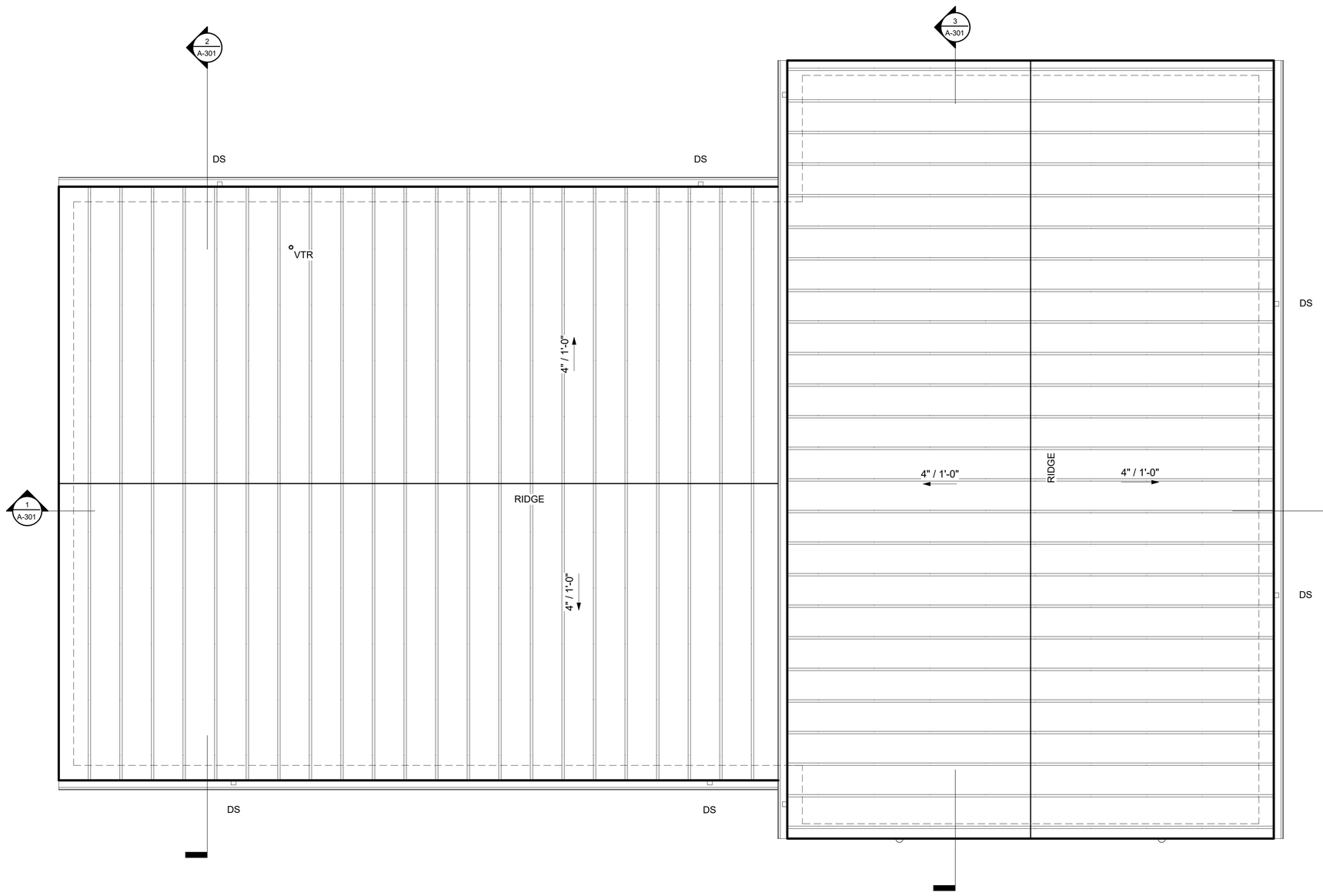
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

STATE OF FLORIDA
PHILIP M. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"

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

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-111
SHEET NUMBER: 29 OF 88



1 A-121 ROOF PLAN
1/4" = 1'-0"

GRAPHIC LEGEND

	PREFINISHED STANDING SEAM METAL ROOF, PANEL PROFILE WILL BE PROVIDED VIA SHOP DRAWINGS
4" / 1'-0"	INDICATES ROOF SLOPE
∘ VTR	VENT THRU ROOF, SEE 4/A-502
	INDICATED BUILDING ENVELOPE BELOW
▫ DS	PREFINISHED METAL DOWNSPOUT, SIZED PER METAL BUILDING MFER

NOTE: GUTTERS ARE SIZED PER METAL BUILDING MFER.

STATE OF FLORIDA
PHILIP B. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"
SCALE:1/4" = 1'-0"

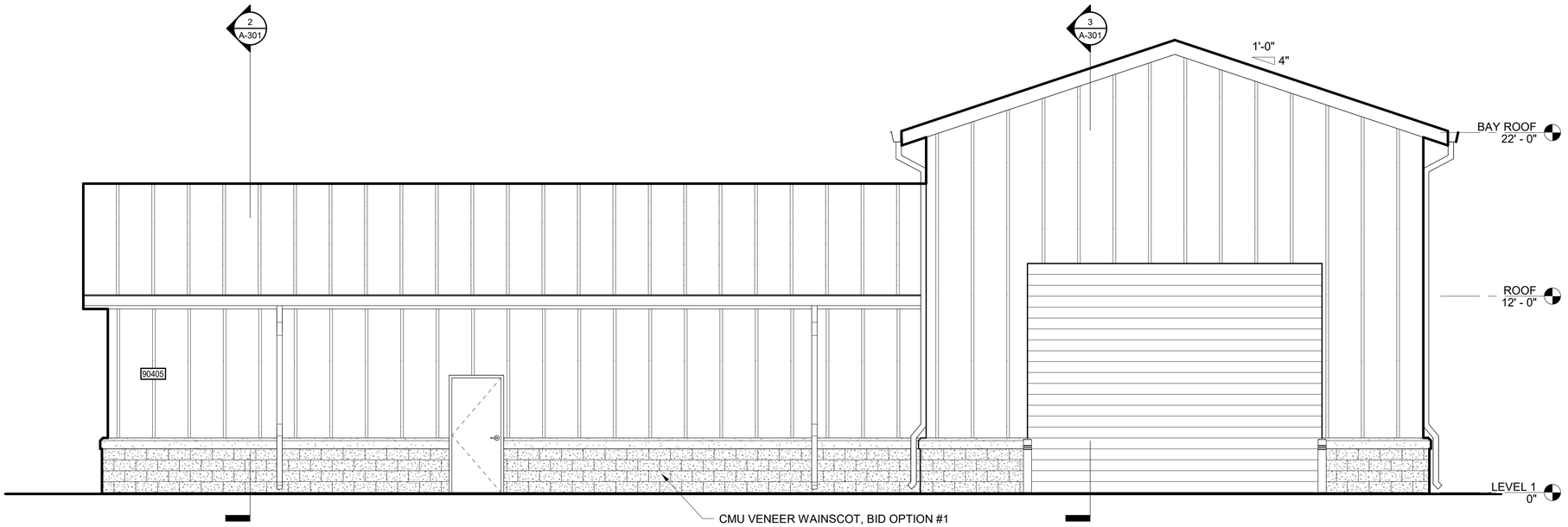
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

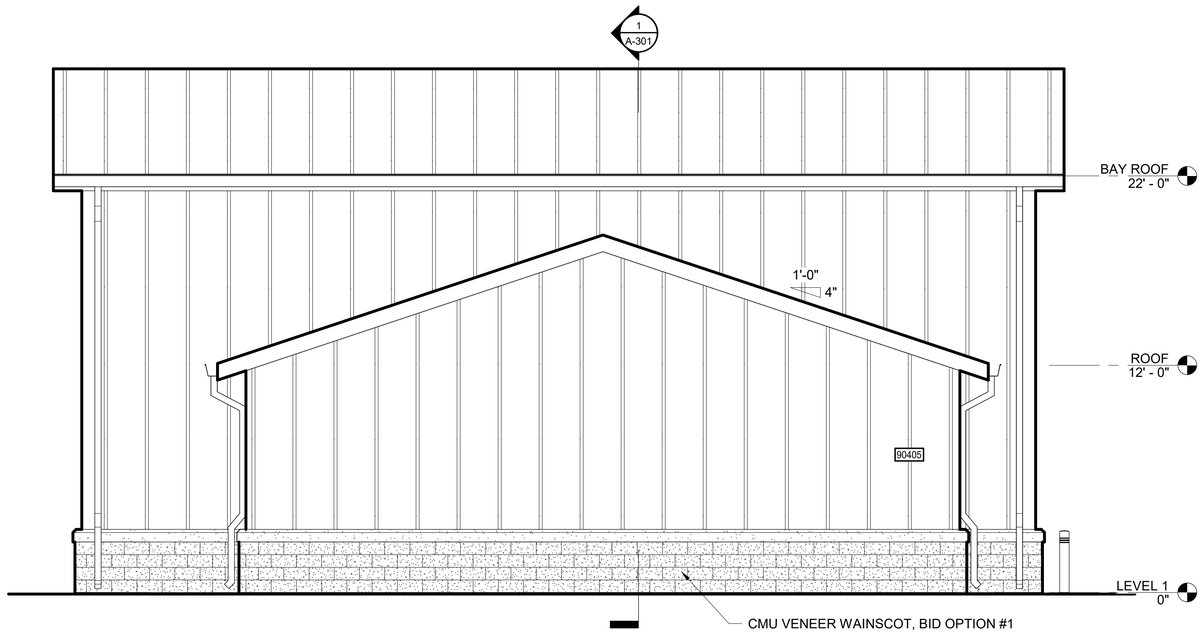
ROOF PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-121
SHEET NUMBER: 30 OF 88



1 A-201 FRONT (SOUTH) ELEVATION
1/4" = 1'-0"



2 A-201 LEFT (WEST) ELEVATION
1/4" = 1'-0"

STATE OF FLORIDA
PHILIP M. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"
SCALE:1/4" = 1'-0"

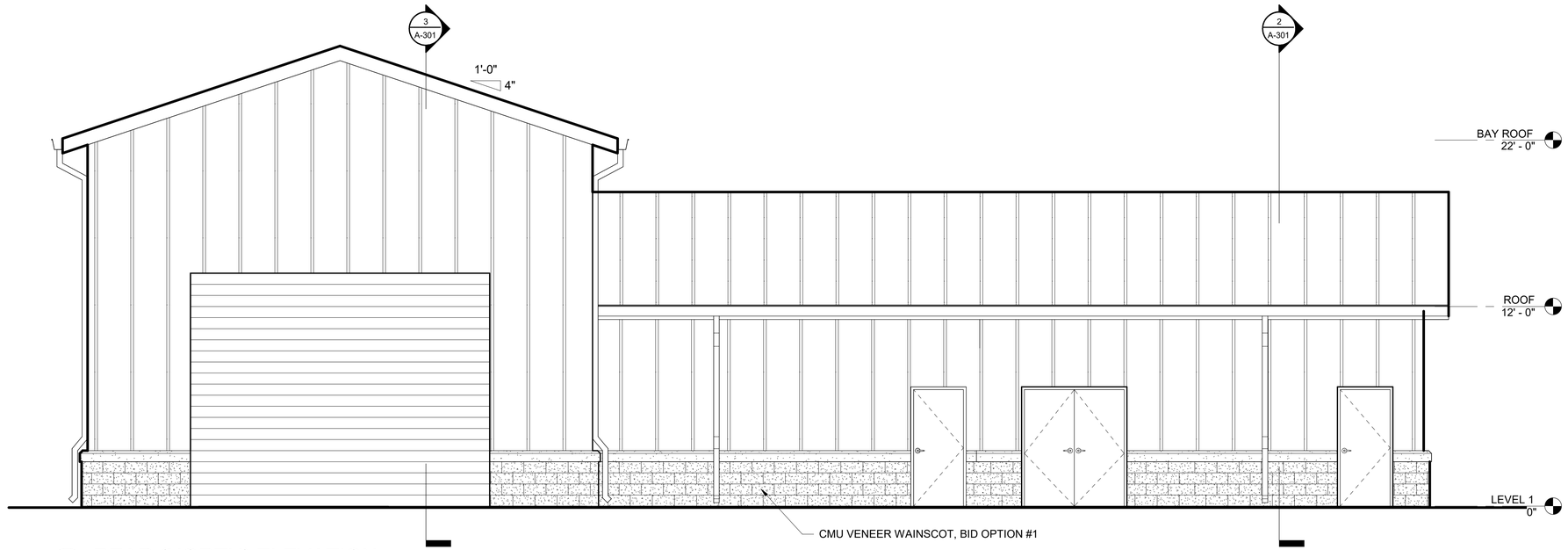
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

BUILDING ELEVATIONS

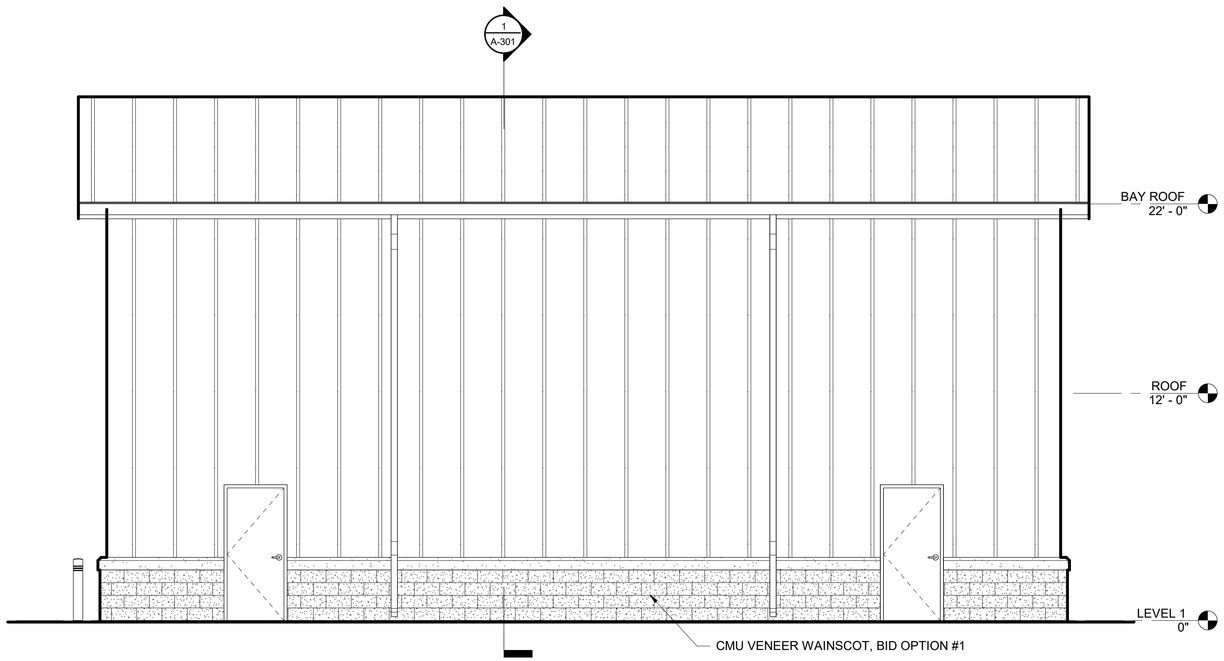
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-201
SHEET NUMBER: 31 OF 88



1 A-202 REAR (NORTH) ELEVATION

1/4" = 1'-0"



2 A-202 RIGHT (EAST) ELEVATION

1/4" = 1'-0"

STATE OF FLORIDA
PHILIP M. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"

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

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

BUILDING ELEVATIONS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: CM

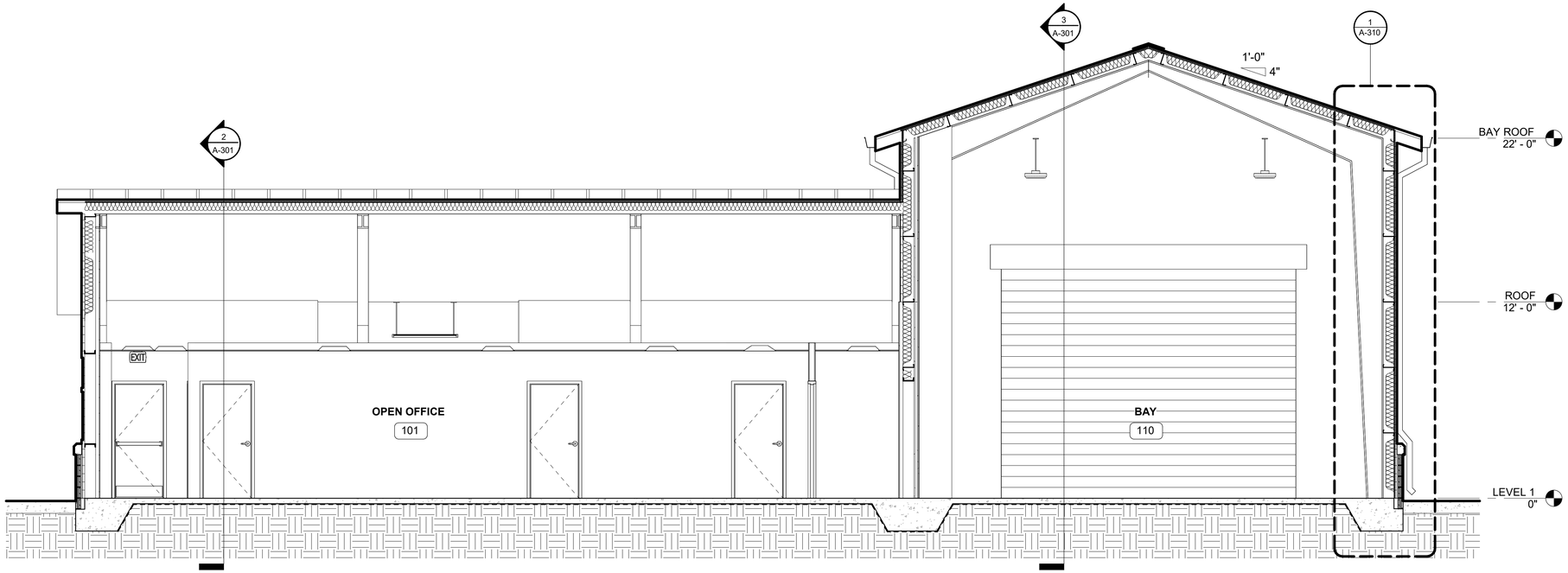
DRAWN BY: KW

BUILDING NUMBER: 90405

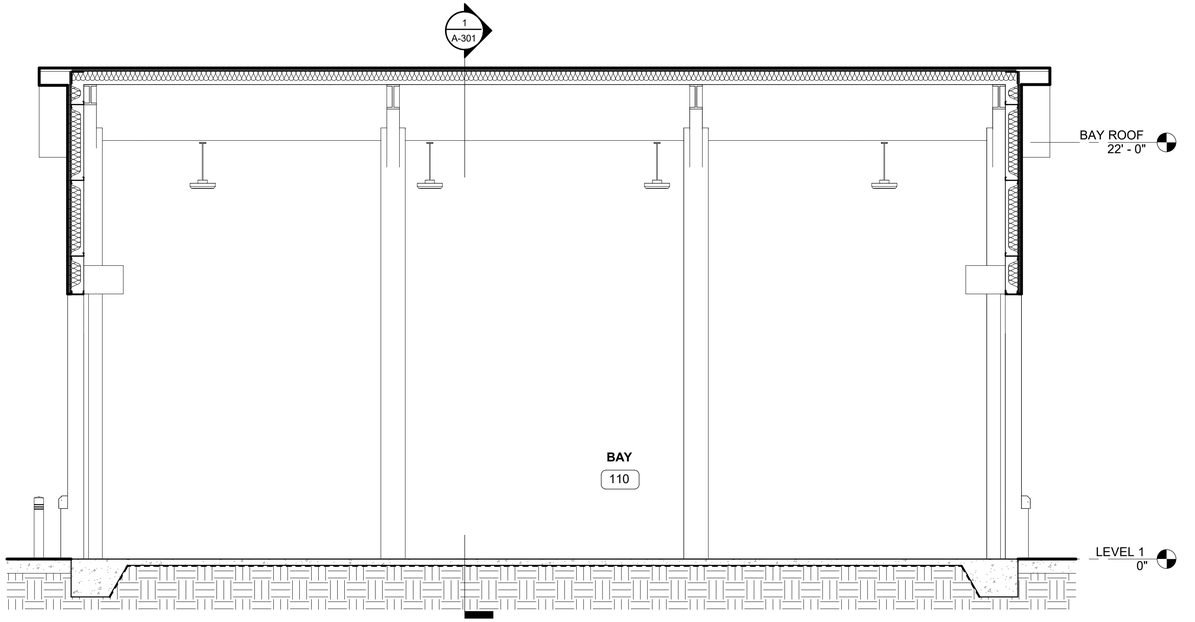
PROJECT NUMBER: OP1134972

SHEET REFERENCE: A-202

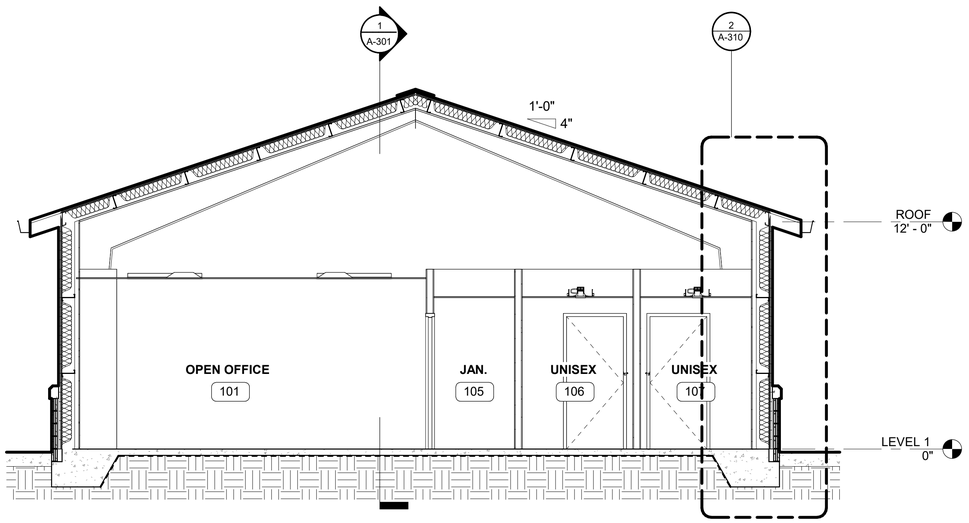
SHEET NUMBER: 32 OF 88



1 A-301 **BUILDING SECTION**
1/4" = 1'-0"



3 A-301 **BUILDING SECTION**
1/4" = 1'-0"



2 A-301 **BUILDING SECTION**
1/4" = 1'-0"

STATE OF FLORIDA
PHILIP B. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

0" 2' - 0" 4' - 0" 8' - 0"
SCALE:1/4" = 1'-0"

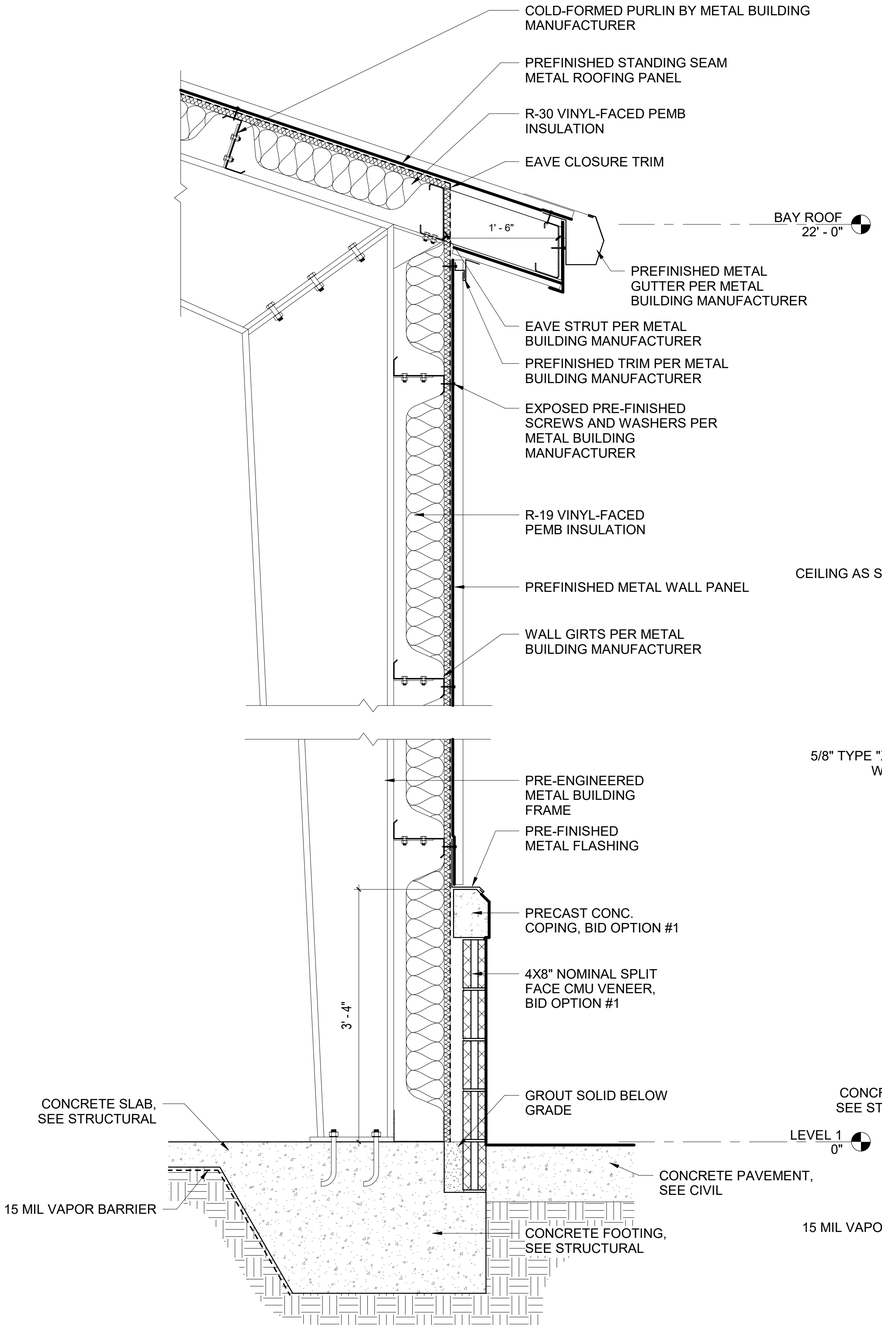
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

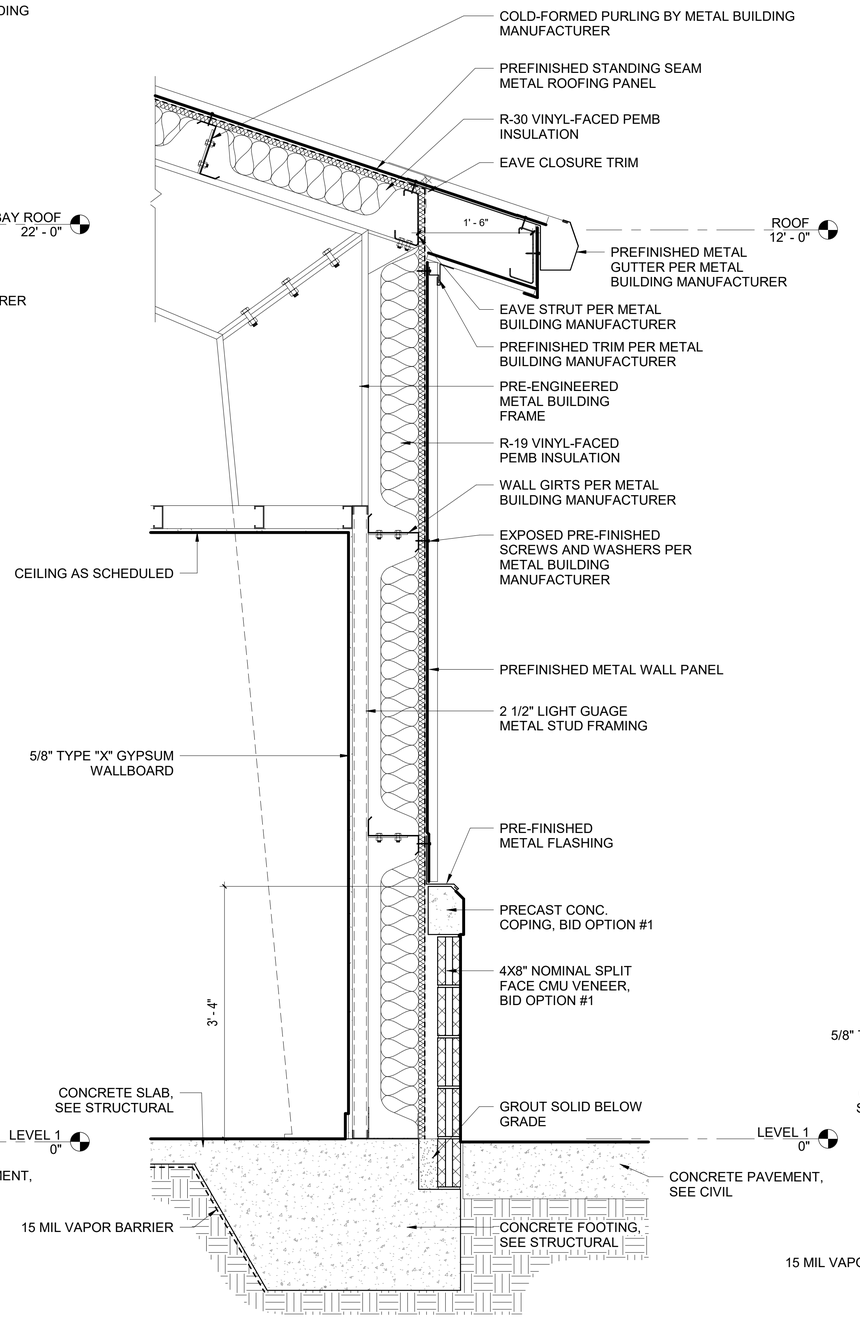
BUILDING SECTIONS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

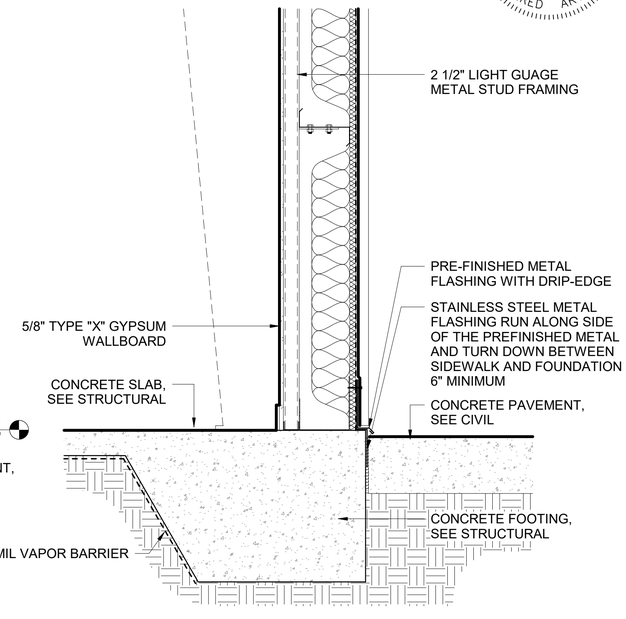
DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-301
SHEET NUMBER: 33 OF 88



1 A-310 WALL SECTION
1" = 1'-0"



2 A-310 WALL SECTION
1" = 1'-0"



3 A-310 BASE BID FOUNDATION WALL DETAIL
1" = 1'-0"

0" 6" 1' - 0" 2' - 0"
SCALE:1" = 1'-0"

STATE OF FLORIDA
PHILIP D. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

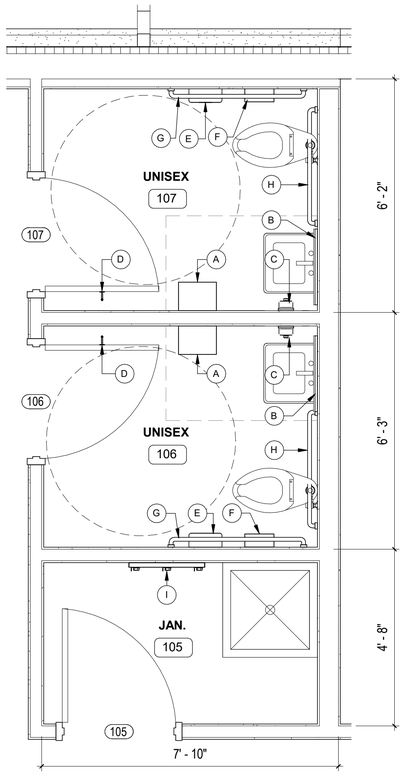
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

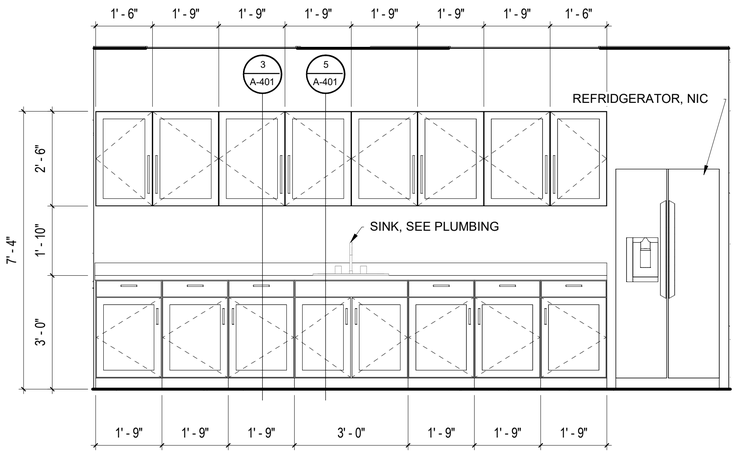
WALL SECTIONS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

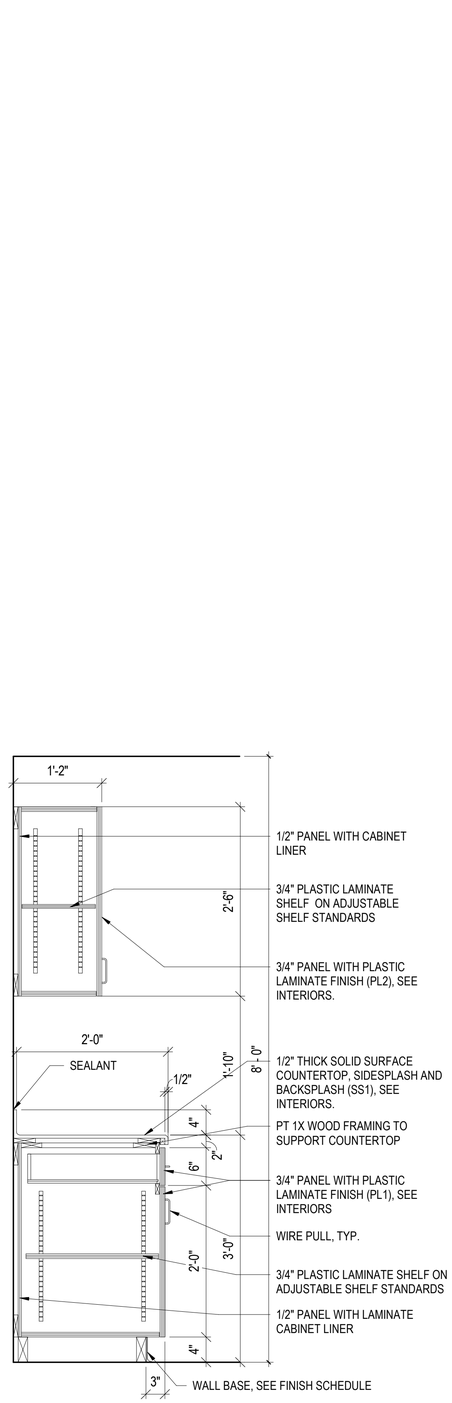
DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-310
SHEET NUMBER: 34 OF 88



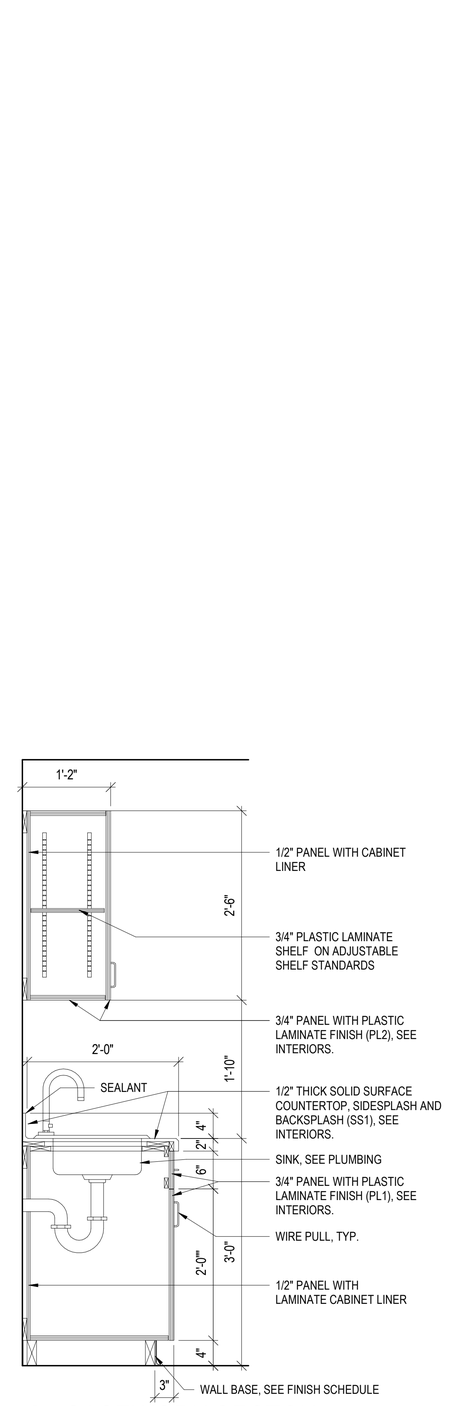
1 A-401 ENLARGED RESTROOM PLAN
1/2" = 1'-0"



2 A-401 CASEWORK ELEVATION
1/2" = 1'-0"

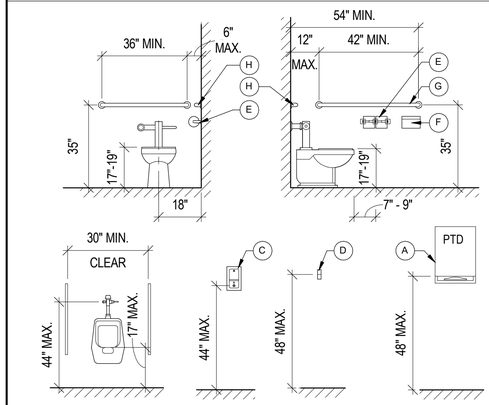


3 A-401 CASEWORK SECTION
1" = 1'-0"



5 A-401 CASEWORK SECTON
1" = 1'-0"

TYPICAL MOUNTING HEIGHTS



ACCESSORY SCHEDULE

MARK	ITEM/DESCRIPTION	ABBREV.
A	WALL MOUNTED PAPER TOWEL DISPENSER (ROLL TYPE, BATTERY POWERED MOTION SENSOR)	PTD
B	MIRROR (24" X 36")	MG
C	WALL MOUNTED SOAP DISPENSER	SD
D	WARDROBE HOOK	WH
E	JUMBO TOILET TISSUE DISPENSER	TTDJ
F	SANITARY NAPKIN DISPOSER	SND
G	GRAB BAR (42")	GB1
H	GRAB BAR (36")	GB2
I	MOP HOLDER	MH

REV # | DATE | DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ENLARGED VIEWS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

STATE OF FLORIDA
PHILIP R. MORGAN
02/11/2025
AR0014409
REGISTERED ARCHITECT

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-401
SHEET NUMBER: 35 OF 88

0" 6" 1' - 0" 2' - 0"
SCALE:1" = 1'-0"

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

DOOR SCHEDULE

DOOR NO	DOOR WIDTH	DOOR HEIGHT	DOOR THICK	DOOR TYPE	DOOR MATERIAL	DOOR GLAZING	FRAME TYPE	FRAME MATERIAL	DETAIL HEAD	DETAIL JAMB	DETAIL SILL	FIRE RATING	STC RATING	HARDWARE	COMMENTS
101	3' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-		
101B	3' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-	4.0	
102	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	7/A-602	8/A-602	-	-	-	6.0	
103	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	7/A-602	8/A-602	-	-	-	6.0	
104	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-	8.0	
104A	3' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-		
105	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	7/A-602	8/A-602	-	-	-	7.0	
106	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	7/A-602	8/A-602	-	-	-	9.0	
107	3' - 0"	7' - 0"	1 3/4"	1	HM	-	1	HM	7/A-602	8/A-602	-	-	-	9.0	
110A	18' - 0"	14' - 0"	3"	3	OHCD	-	-	HM	1/A-602	2/A-602	3/A-602	-		10.0	
110B	18' - 0"	14' - 0"	3"	3	OHCD	-	-	HM	1/A-602	2/A-602	3/A-602	-		10.0	
110C	3' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-	5.0	
110D	3' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-	-	5.0	
111	6' - 0"	7' - 0"	1 3/4"	2	IHM	-	1	HM	4/A-602	5/A-602	6/A-602	-		3.0	

MATERIAL LEGEND

FLOORING

SRC — SLIP RESISTANT - SEALED CONCRETE
SHERWIN WILLIAMS
RESUFLOR PERFORMANCE HTS
SAND TEXTURED URETHANE TOPCOAT

PCT — PORCELAIN TILE
PCT-1 CROSSVILE
PATTERN: OWEN STONE
COLOR: BUNNY OST02
SIZE: 24" X 24" INSTALLED 45 DEG.

WALL BASE

RB — RUBBER WALL BASE
RB-1 ROPPE
PATTERN: TRADITIONAL
COLOR: 123 CHARCOAL
SIZE: 4"

PTB — PORCELAIN TILE BASE
LVT-1 CROSSVILLE
PATTERN: OWENS STONE
COLOR: BUNNY OST02
SIZE: 6" X 12" COVE

WALLS

PT — PAINT
PT-01 SHERWIN WILLIAMS
COLOR: 7672 KNITTING NEEDLES

CEILING

ACT — ACOUSTICAL CEILING TILE
ACT-1 ARMSTRONG
PATTERN: CALLA HIGH NRC
COLOR: WHITE #2848
SIZE: 24" X 24", SQUARE TEGULAR
SUSPENSION: 9/16" SUPREAFINE XL

ACT-2 ARMSTRONG CERAMAGUARD
PATTERN: CALLA HIGH NRC
COLOR: WHITE #2848
SIZE: 24" X 24", SQUARE TEGULAR
SUSPENSION: 9/16" SUPREAFINE XL

MILLWORK

PT — DOOR FRAMES
RB-1 SHERWIN WILLIAMS
COLOR: SW7673 PEWTER CAST EPOXY

SS — SOLID SURFACE
SS-1 HI-MACS
COLOR: L017 KAMET
RESTROOMS

PL — PLASTIC LAMINATE
PL-1 WILSONART
COLOR: SHADOW ZEPHYR 4857-60
BREAKROOM

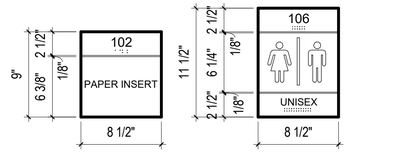
FINISH SCHEDULE

ROOM NO.	ROOM NAME	BASE	FLOOR	WALLS	ACCENT WALL	CEILING	REMARKS
101	OPEN OFFICE	RB-1	SRC	PT-1		ACT-1	
101A	CORRIDOR	RB-1	SRC	PT-1		ACT-1	
102	SUPPLY STOR	RB-1	SRC	PT-1		ACT-1	
103	TEST EQUIP STOR	RB-1	SRC	PT-1		ACT-1	
104	BREAK	RB-1	SRC	PT-1		ACT-1	
105	JAN.	PTB-1	PCT-1	PT-1		ACT-2	
106	UNISEX	PTB-1	PCT-1	PT-1		ACT-2	
107	UNISEX	PTB-1	PCT-1	PT-1		ACT-2	
110	BAY	-	SRC	PT-1		OTS	
111	MECH	RB-1	SRC	PT-1		OTS	

SIGNAGE SCHEDULE

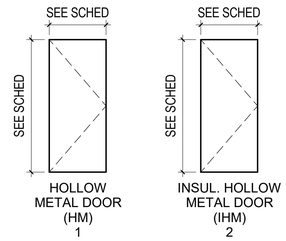
SIGN NUMBER	HEADER-PERMANENT COPY BRAILLE	SIGN TYPE	FIRST LINE COPY	SECOND LINE COPY	REMARKS
1	107	B	UNISEX TOILET	GRAPHICS	MOUNTING TYPE 1
2	106	B	UNISEX TOILET	GRAPHICS	MOUNTING TYPE 1
3	105	B	JANITOR		MOUNTING TYPE 1
4	104	A	BREAK ROOM		MOUNTING TYPE 1
5	103	A	TEST EQUIP STOR.		MOUNTING TYPE 1
6	102	A	SUPPLY STOR.		MOUNTING TYPE 1
7	110	C	BAY		EXTERIOR
8	110	C	BAY		EXTERIOR
9	111	C	MECHANICAL		EXTERIOR
10	104	C	BREAK ROOM		EXTERIOR
11		E	90405		EXTERIOR
12		E	90405		EXTERIOR

SIGN TYPES

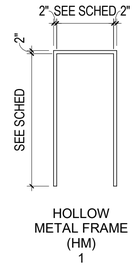


1. PAINTED FINISH FOR THE BACKGROUND OF THE MESSAGE PANELS SHALL BE AMS-STD 20095 WITH WHITE VINYL MESSAGES.
2. ALL SIGNAGE SHALL COMPLY WITH UFC 3-120-01 AIR FORCE SIGN STANDARDS.
3. SIGN COPY SHALL BE CONFIRMED WITH THE USER AND BASE REPRESENTATIVE PRIOR TO ORDERING.
4. COLOR PER HURLBERT STANDARDS.

DOOR ELEVATIONS



DOOR FRAME ELEVATIONS



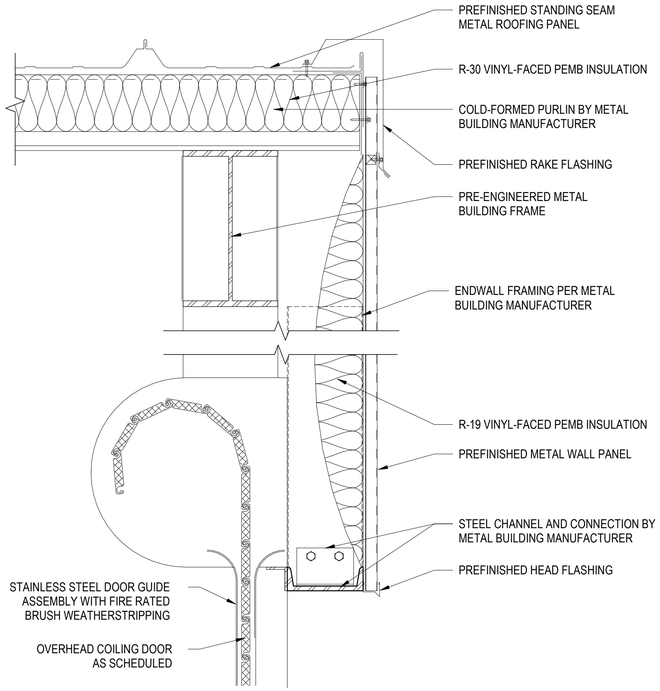
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

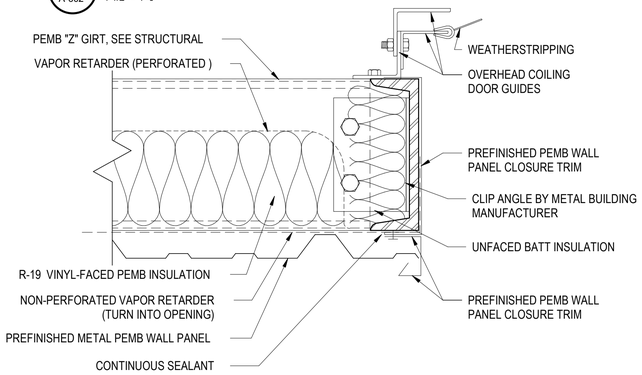
SCHEDULES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

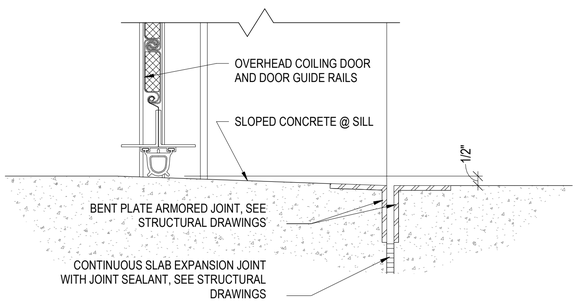
DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-601
SHEET NUMBER: 36 OF 88



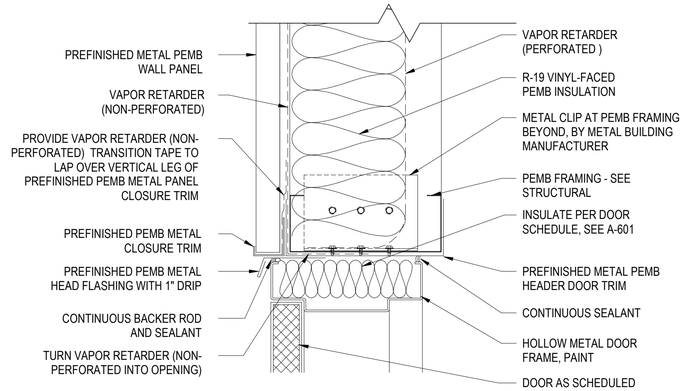
1 A-602 OHCD HEAD/RAKE DETAIL
1 1/2" = 1'-0"



2 A-602 OCHD JAMB DETAIL
3" = 1'-0"

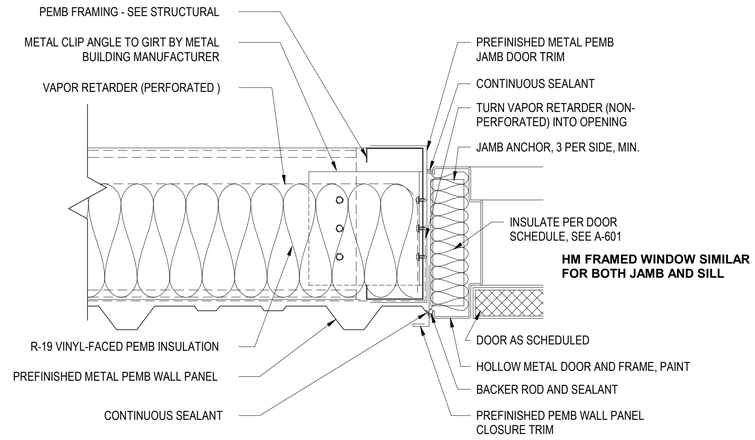


3 A-602 OHCD SILL DETAIL - EXTERIOR
3" = 1'-0"

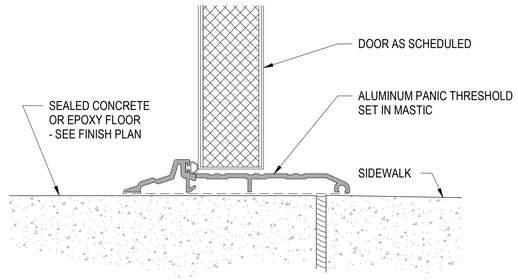


HM FRAMED WINDOW SIMILAR

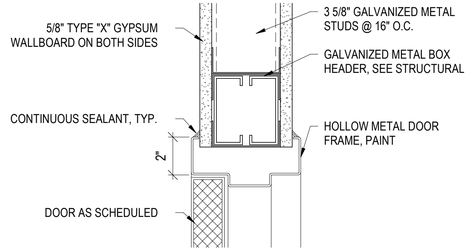
4 A-602 EXTERIOR DOOR HEAD DETAIL
3" = 1'-0"



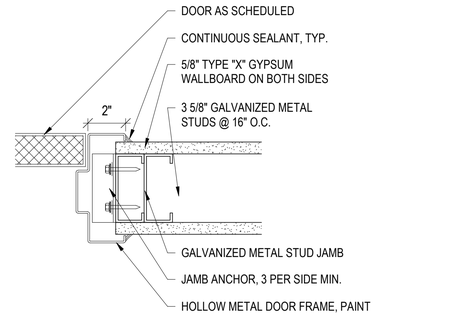
5 A-602 EXTERIOR DOOR JAMB DETAIL
3" = 1'-0"



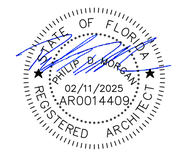
6 A-602 DOOR THRESHOLD DETAIL - EXTERIOR
6" = 1'-0"



7 A-602 INTERIOR DOOR HEAD DETAIL
3" = 1'-0"



8 A-602 INTERIOR DOOR JAMB DETAIL
3" = 1'-0"



0" 4" 8" 1' - 4"
SCALE:1 1/2" = 1'-0"

0" 2" 4" 8"
SCALE:3" = 1'-0"

0" 1" 2" 4"
SCALE:6" = 1'-0"

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

OPENING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: CM
DRAWN BY: KW
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: A-602
SHEET NUMBER: 37 OF 88

CODE COMPLIANCE SUMMARY

A. DESIGN CRITERIA AND REFERENCES:

- UNIFIED FACILITIES CRITERIA (UFC) 1-200-01 DOD BUILDING CODE (GENERAL BUILDING REQUIREMENTS), 01 SEPTEMBER 2022, CHANGE 4, (17 DECEMBER 2024)
- UNIFIED FACILITIES CRITERIA (UFC) 3-600-01, DESIGN: FIRE PROTECTION ENGINEERING FOR FACILITIES, 8 AUGUST 2016, CHANGE 6 (06 MAY 2021)
- INTERNATIONAL BUILDING CODE (IBC), 2024, FOR CONSTRUCTION TYPE AND FIRE RESISTANCE RATING, OCCUPANCY SEPARATION, ALLOWABLE FLOOR AREA, BUILDING HEIGHT LIMITATIONS AND BUILDING SEPARATION DISTANCE REQUIREMENTS, EXCEPT AS MODIFIED BY UFC 3-600-01
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 1, FIRE CODE, 2024
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 10, STANDARD FOR PORTABLE FIRE EXTINGUISHERS, 2025
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 13, STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2025
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 24, STANDARD FOR THE INSTALLATION OF PRIVATE FIRE SERVICE MAINS AND THEIR APPURTENANCES, 2025
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 70, NATIONAL ELECTRICAL CODE, 2023
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 72, NATIONAL FIRE ALARM AND SIGNALING CODE, 2025
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 90A, STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS, 2024
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 101, LIFE SAFETY CODE, 2024, FOR SEPARATION FROM HAZARDS, BUILDING EGRESS AND LIFE SAFETY AND APPLICABLE CRITERIA IN UFC 3-600-01
- NATIONAL FIRE PROTECTION ASSOCIATION (NFPA) 291, RECOMMENDED PRACTICE FOR WATER FLOW TESTING AND MARKING OF HYDRANTS, 2025 EDITION
- DESR 6055.09_AFMAN 91-201 DEPARTMENT OF THE AIR FORCE GUIDANCE MEMORANDUM TO DEFENSE EXPLOSIVES SAFETY REGULATION 6055.09 AIR FORCE MANUAL 91-201, EXPLOSIVES SAFETY STANDARDS

B. SUMMARY:

THIS PROJECT INCLUDES THE DESIGN OF A NEW 3,200SQFT ROCKET MUNITIONS OPERATIONS AND MAINTENANCE BUILDING (R&BB) AT HURLBURT FIELD AFB, FL. BUILDING WILL BE A SINGLE BAY FACILITY USED FOR THE MANUFACTURE, PROCESSING, HANDLING, LOADING, AND ASSEMBLING OF ROCKETS. FIRE PROTECTION WILL BE PROVIDED FOR THE FACILITY AS REQUIRED BY THE APPLICABLE CODES AND STANDARDS. ALL WORK SHALL BE DONE IN ACCORDANCE WITH THE CODES AND STANDARDS OUTLINED IN THIS DESIGN ANALYSIS.

C. SPECIAL USE ANALYSIS:

THIS FACILITY IS CONSIDERED AN EXPLOSIVE OPERATING FACILITY FOR ROCKETS AND AGM-114/HELLFIRE MISSILES. FIRE PROTECTION IS REQUIRED TO BE PROVIDED PER UFC 3-600-01 SECTION 4-5 AMMUNITION AND EXPLOSIVES FACILITIES. THE FOLLOWING IS AN ANALYSIS BASED ON SECTION 4-5 OF UFC 3-600-01.

1. CRITERIA: FIRE PROTECTION FOR AMMUNITION AND EXPLOSIVE FACILITIES SHALL COMPLY WITH THE REQUIREMENTS OF UFC 3-600-01 AND DESR 6055.09_AFMAN 91-201. IN THE ABSENCE OF SPECIFIC GUIDANCE IN THIS UFC, DESR 6055.09, OR THE SERVICE REGULATIONS FOLLOW THE APPLICABLE REQUIREMENTS OF THE IBC FOR GROUP H OCCUPANCIES.
2. MATERIAL AND HAZARD DIVISION: THE FACILITY USER IDENTIFIED THAT THE FOLLOWING ASSETS WILL BE STORED IN THE FACILITY:
   - 1.1/ STORAGE COMPATIBILITY GROUP D & E
   - 1.4/ STORAGE COMPATIBILITY GROUP G
   - 1.3/ STORAGE COMPATIBILITY GROUP C
3. MAXIMUM EXPECTED QUANTITIES OF AMMUNITION AND EXPLOSIVES: THE FACILITY USER NOTED THAT THE AMOUNT OF *NEW OR ASSETS THAT WILL BE STORED IN THE FACILITY WILL BE IN COMPLIANCE WITH THE ALLOWABLE DESIGNATED *NEW LIMITS THAT ARE ASSIGNED TO THE FACILITY.

   *NOTE: "NEW" IS THE TOTAL WEIGHT OF ALL EXPLOSIVES SUBSTANCES (I.E., HEW, PROPELLANT WEIGHT, AND PYROTECHNIC WEIGHT) IN THE AE, EXPRESSED IN LBS. "NEW" IS USED FOR TRANSPORTATION PURPOSES.
4. TOXIC AND/OR HAZARDOUS MATERIAL TYPES: THE FACILITY USER IDENTIFIED NO TOXIC OR HAZARDOUS MATERIALS WILL BE STORED OR HANDLED WITHIN THE FACILITY.
5. ELECTRICAL CLASSIFICATION FOR AREAS: SEE ELECTRICAL ENGINEERING DESIGN.
6. SEE LIFE SAFETY PLANS FOR LOCATION OF ANTICIPATED AMMUNITION AND EXPLOSIVES CONTENT AND PROCESSES.
7. EGRESS REQUIREMENTS MUST MEET THE APPLICABLE NFPA 101 REQUIREMENTS FOR HIGH HAZARD INDUSTRIAL OR STORAGE OCCUPANCIES EXCEPT AS MODIFIED IN UFC 3-600-01.
8. FIRE SUPPRESSION: COMPLETE WET PIPE AUTOMATIC SPRINKLER PROTECTION SHALL BE PROVIDED. AUTOMATIC SPRINKLER SYSTEMS MUST BE PROTECTED FROM MOVEMENT IN ACCORDANCE WITH NFPA 13 FOR PROTECTION OF PIPING WHERE SUBJECT TO EARTHQUAKES, REGARDLESS OF SEISMIC DESIGN CATEGORY. AREAS CONTAINING AMMUNITION AND EXPLOSIVES MUST MEET OR EXCEED THE DESIGN REQUIREMENTS FOR ORDINARY HAZARD.

NOTE: GOVERNMENT HAS PERFORMED AN ASSESSMENT AND DIRECTED THE DOR THAT THIS FACILITY DOES NOT REQUIRE ANY FIRE SUPPRESSION SYSTEMS (HIGH SPEED, PRE-PRIMED DELUGE, ULTRA HIGH SPEED DELUGE, ETC.) IN ADDITION TO THE WET PIPE SPRINKLER SYSTEM.

D. BUILDING CODE ANALYSIS SUMMARY

1. CONSTRUCTION TYPE – (IBC TABLE 601):TYPE IIB
2. IBC OCCUPANCY TYPE: HIGH-HAZARD GROUP H-1 (IBC SECTION 307)

   NOTE, UFC 3-600-01 4-5.4.3 STATES THAT SUPPORTING SPACES NECESSARY TO PROVIDE DIRECT SUPPORT FOR THE AMMUNITION AND EXPLOSIVES OPERATION AND THE PERSONNEL THAT DIRECTLY WORK WITH THE EXPLOSIVES OPERATIONS ARE PERMITTED TO BE ATTACHED TO THE H-1 OR H-2 STRUCTURE.
3. ALLOWABLE HEIGHT – (IBC TABLES 504.3 AND 504.4, SPRINKLERED PER NFPA 13):

   ALLOWABLE: 55 FEET (1 STORIES)

   PROVIDED: 29 FEET (1 STORY)
4. ALLOWABLE FLOOR AREA – (IBC TABLE 506.2, SPRINKLERED):

   ALLOWABLE AREA: 7,000 SF (PER FLOOR)

   PROVIDED AREA: 3,200 SF
5. SEPARATION: 2HOUR FIRE BARRIER REQUIRED BETWEEN H-1 BAY AND SUPPORTING GROUP B OCCUPANCY.

   NOTE: UFC 3-600-01 4-5.4.3 STATES THE FIRE RATED SEPARATION FOR H-1 OCCUPANCIES FROM SUPPORTING SPACES MUST NOT BE LESS THAN THE REQUIRED SEPARATION OF H-2 OCCUPANCIES FROM OTHER OCCUPANCIES
6. FIRE SEPARATION DISTANCE: 75 FEET SETBACK (UFC 3-600-01 4.5.4.4/IBC 415.6.4.1)
7. FIRE RESISTANCE REQUIREMENTS (IBC TABLES 601)

- EXTERIOR BEARING WALLS:

  REQUIRED: NONE

  PROVIDED: NONE
- INTERIOR BEARING WALLS:

  REQUIRED: NONE

  PROVIDED: NONE
- STRUCTURAL FRAME:

  REQUIRED: NONE

  PROVIDED: NONE
- FLOORS AND FLOOR/CEILINGS:

  REQUIRED: NONE

  PROVIDED: NONE
- ROOF AND ROOF/CEILING:

  REQUIRED: NONE

  PROVIDED: NONE
- SHAFTS:

  REQUIRED: 1-HOUR FIRE RESISTANCE RATING

  PROVIDED: NO SHAFTS PROVIDED (SINGLE STORY)

E. LIFE SAFETY CODE ANALYSIS SUMMARY

1. NFPA 101 OCCUPANCY CLASSIFICATION: HIGH HAZARD INDUSTRIAL (NFPA 101 CHAPTER 40)
2. HAZARD OF CONTENTS CLASSIFICATION (NFPA 101 6.2.2): HIGH HAZARD CONTENTS
3. CONSTRUCTION TYPE: TYPE II (000)
4. OCCUPANT LOAD: THE CALCULATED OCCUPANT LOADS ARE SHOWN ON THE LIFE SAFETY PLANS AND ARE BASED ON THE OCCUPANT LOAD FACTORS FROM NFPA 101 TABLE 7.3.1.2 AND UFC 3-600-01 TABLE 10-1. THE OCCUPANT LOAD FACTORS USED ARE SHOWN BELOW:

- MECHANICAL, ELECTRICAL, OTHER BUILDING EQUIPMENT SPACES 500SF/PERSON GROSS
- STORAGE USE 500SF/PERSON GROSS
- BUSINESS USE (OFFICES) 150SF/PERSON GROSS

5. MEANS OF EGRESS REQUIREMENTS AND COMPONENTS (SEE LIFE SAFETY DRAWINGS FOR EGRESS REQUIREMENTS)

- DOOR HARDWARE: PANIC HARDWARE OR FIRE EXIT HARDWARE (NFPA 101 7.11.7)
- DOOR SWING: DOORS SERVING HIGH-HAZARD CONTENT AREAS SHALL SWING IN THE DIRECTION OF EGRESS TRAVEL.
- ILLUMINATION OF MEANS OF EGRESS: MEANS OF EGRESS SHALL COMPLY WITH NFPA 101 40.2.8/7.8. SEE ELECTRICAL DESIGN DRAWINGS.
- EMERGENCY LIGHTING: ALL MEANS OF EGRESS, INCLUDING EXIT ACCESS CORRIDORS AND EXIT DISCHARGE, WILL BE PROVIDED WITH EMERGENCY LIGHTING VIA BATTERY BACKUP. EMERGENCY LIGHTING WILL ALSO BE PROVIDED IN THE MECHANICAL ROOMS VIA BATTERY BACKUP. EMERGENCY LIGHTING WILL BE PROVIDED FOR A MINIMUM OF 1½ HOURS IN THE EVENT OF INTERNAL POWER FAILURE. EMERGENCY LIGHTING SHALL BE IN ACCORDANCE WITH NFPA 101 7.9.
- MARKING OF MEANS OF EGRESS: EXIT SIGNS SHALL BE LED TYPE WITH BATTERY BACKUP AND SHALL BE PROVIDED AT ALL NEW EXITS. EXIT SIGNS SHALL ALSO BE PROVIDED WHEREVER THE LOCATION OF THE EXIT IS NOT READILY APPARENT. EXIT SIGN ILLUMINATION SHALL BE PROVIDED FOR A MINIMUM OF 1½ HOURS IN THE EVENT OF INTERNAL POWER FAILURE. ALL MARKING OF EXITS WILL BE IN ACCORDANCE WITH NFPA 101 7.10. EXIT SIGNS SHALL BE PROVIDED WITH RED LETTERING.

6. PROTECTION (NFPA 101 40.3):

- SUPPRESSION: ALL HIGH-HAZARD INDUSTRIAL OCCUPANCIES, OPERATIONS, OR PROCESSES SHALL HAVE APPROVED, SUPERVISED AUTOMATIC EXTINGUISHING SYSTEMS IN ACCORDANCE WITH SECTION 9.7
- PROTECTION OF VERTICAL OPENINGS: NOT APPLICABLE (SINGLE STORY).
- INTERIOR FINISH (NFPA 101 40 .3.3):

  INTERIOR FINISH SHALL COMPLY WITH NFPA 101 AS FOLLOWS:

  EXIT ENCLOSURES: CLASS A OR B

  EXIT ACCESS CORRIDORS: CLASS A OR B

  ROOMS AND ENCLOSED SPACES: CLASS A, B, OR C

  FLOOR FINISH: CLASS I OR II

7. PORTABLE FIRE EXTINGUISHERS: IN ACCORDANCE WITH UFC 3-600-01 SECTION 9-17.1, GENERAL PURPOSE PORTABLE FIRE EXTINGUISHERS MUST BE PROVIDED WHERE REQUIRED BY NFPA 101. FOR EVERY BUSINESS OCCUPANCY, PORTABLE FIRE EXTINGUISHERS ARE REQUIRED PER NFPA 101 SECTION 38.3.5. PORTABLE FIRE EXTINGUISHERS SHALL BE PROVIDED AND INSTALLED IN ACCORDANCE WITH NFPA 10.

F. WATER SUPPLY (UFC 3-600-01)

- FIRE SPRINKLER WATER SUPPLY/FIRE WATER DEMAND: A NEW 6" FIRE SERVICE LATERAL WILL BE PROVIDED TO SUPPLY THE NEW AUTOMATIC SPRINKLER SYSTEM. A 6" GATE VALVE IS PROVIDED AFTER THE CONNECTION OF THE SERVICE LATERAL IN ACCORDANCE WITH NFPA 24. A NEW FIRE SPRINKLER SYSTEM BACKFLOW PREVENTER WILL BE PROVIDED IN THE MECHANICAL ROOM.
- FIRE FLOW: THE CALCULATED FIRE FLOW PER NFPA 1 AND UFC 3-600-01 IS 1,000 GPM FOR 2 HOURS.
- AVAILABLE WATER SUPPLY: AT THE TIME OF HYDRANT FLOW TESTING, IT WAS CONCLUDED THAT WATER WAS NOT FLOWING BETWEEN HYDRANTS 5-17 AND 5-18. BASE CIVIL ENGINEERING, WATER OPERATIONS, USACE, AND CONTRACTING ARE RESPONSIBLE FOR REPAIRING THIS ISSUE PRIOR TO THIS PROJECT BEING CONSTRUCTED. THE PRELIMINARY WATERFLOW TEST RESULTS ARE PROVIDED TO SHOW THAT THE AVAILABLE WATER SUPPLY IS CAPABLE OF MEETING THE SYSTEM DEMAND.
- FIRE HYDRANT LOCATIONS: ONE OF THE EXISTING HYDRANTS WILL BE RELOCATED TO ALLOW THE BUILDING TO BE CONSTRUCTED. THE LOCATIONS OF THE HYDRANT WILL COMPLY WITH UFC 3-600-01 AND NFPA 1. ALL PARTS OF THE FACILITY EXTERIOR ARE LOCATED WITHIN 350FT OF A HYDRANT. THERE IS A HYDRANT LOCATED WITHIN 150FT OF THE NEW FDC.

G. AUTOMATIC SPRINKLER SYSTEMS

THE NEW BUILDING WILL BE PROVIDED WITH AN AUTOMATIC WET PIPE SPRINKLER SYSTEM DESIGNED AND INSTALLED IN ACCORDANCE WITH UFC 3-600-01 AND NFPA 13.

AREAS CLASSIFIED AS LIGHT HAZARD SHALL BE HYDRAULICALLY DESIGNED TO DISCHARGE A MINIMUM OF 0.1 GPM/SQUARE FOOT OVER THE HYDRAULICALLY MOST DEMANDING 1,500 SQUARE FEET OF FLOOR AREA. THE HYDRAULIC CALCULATIONS SHALL INCLUDE A HOSE STREAM OF 250GPM. SPRINKLERS PROTECTING LIGHT HAZARD CLASSIFICATIONS SHALL BE QUICK-RESPONSE TYPE WITH AN ORDINARY TEMPERATURE RATING AND HAVE A MINIMUM K-FACTOR OF 5.6. THE MAXIMUM PROTECTION AREA PER SPRINKLER SHALL BE 225 SQFT WITH A MAXIMUM LINEAR SPACING OF 15FT.

AREAS CLASSIFIED AS ORDINARY HAZARD SHALL BE HYDRAULICALLY DESIGNED TO DISCHARGE A MINIMUM OF 0.2 GPM/SQUARE FOOT OVER THE HYDRAULICALLY MOST DEMANDING 2,500 SQUARE FEET OF FLOOR AREA. THE HYDRAULIC CALCULATIONS SHALL INCLUDE A HOSE STREAM OF 250GPM. SPRINKLERS PROTECTING ORDINARY HAZARD CLASSIFICATIONS SHALL BE QUICK-RESPONSE TYPE WITH AN ORDINARY TEMPERATURE RATING AND HAVE A MINIMUM K-FACTOR OF 8.0. THE MAXIMUM PROTECTION AREA PER SPRINKLER SHALL BE 130 SQFT WITH A MAXIMUM LINEAR SPACING OF 15FT.

THE UFC 3-600-01 HAZARD CLASSIFICATION FOR EACH SPACE ARE SHOWN ON THE FIRE SPRINKLER DRAWINGS.

FIRE DEPARTMENT CONNECTION: A NEW PROJECTING TYPE FIRE DEPARTMENT CONNECTION WILL BE INSTALLED AT THE FACILITY.

POST INDICATOR VALVES (PIV): A NONINDICATING VALVE IN AN APPROVED ROADWAY BOX IS BEING PROVIDED IN ACCORDANCE WITH NFPA 24.

H. STANDPIPE

NOT APPLICABLE. A STANDPIPE IS NOT REQUIRED FOR THIS FACILITY.

I. FIRE DETECTION

SPOT-TYPE SMOKE DETECTORS SHALL BE PROVIDED ABOVE ALL CONTROL UNITS AND NAC EXTENDER PANELS.

J. FIRE ALARM SYSTEM

A NEW FIRE ALARM SYSTEM WILL BE PROVIDED IN COMPLIANCE WITH UFC 3-600-01, NFPA 70, AND NFPA 72. INITIATING DEVICES WILL CONSIST OF SPOT-TYPE SMOKE DETECTION (ABOVE ALL NEW CONTROL UNITS AND NAC EXTENDER PANELS) AND MANUAL PULL STATIONS AT EACH EXIT.

K. SMOKE MANAGEMENT AND CONTROL METHODS.

NOT APPLICABLE. NO SMOKE CONTROL SYSTEMS ARE USED IN THIS DESIGN.

L. FIRE ALARM REPORTING SYSTEM

ALL ALARM, TROUBLE, AND SUPERVISORY SIGNALS ARE SHALL BE TRANSMITTED TO THE BASE FIRE DEPARTMENT VIA A NEW MONACO BT XF RADIO TRANSCEIVER.

M. SECURITY AND ANTITERRORISM REQUIREMENTS

THE NEW FACILITY IS CONSIDERED LOW-OCCUPANCY AND DOES NOT PASS THE THRESHOLD FOR ANTITERRORISM REQUIREMENTS.

N. FIRE DEPARTMENT ACCESS.

FIRE DEPARTMENT ACCESS SHALL BE PROVIDED WITHIN 33FT OF AN EXTERIOR DOOR.

O. CFPE APPROVED EQUIVALENCIES

NOT APPLICABLE. NO EQUIVALENCIES ARE USED IN THIS DESIGN.

P. HOST NATION CRITERIA

NOT APPLICABLE.

Q. PERFORMANCE VERIFICATION AND TESTING PLAN

VERIFICATION OF COMPLIANT INSTALLATION SHALL BE PERFORMED BY THE CONTRACTOR'S QFPE AS REQUIRED IN DIVISION 21 AND 28. ALL TESTING OF FIRE PROTECTION SYSTEMS SHALL COMPLY WITH THE APPLICABLE CODE/STANDARD AND CONTRACT DRAWINGS AND SPECIFICATIONS.

ELLIJAH KIMMIG
LICENSE
No. 90730
02/13/2025
STATE OF FLORIDA
PROFESSIONAL ENGINEER

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

CODE COMPLIANCE SUMMARY

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: F-001
SHEET NUMBER: 38 OF 88

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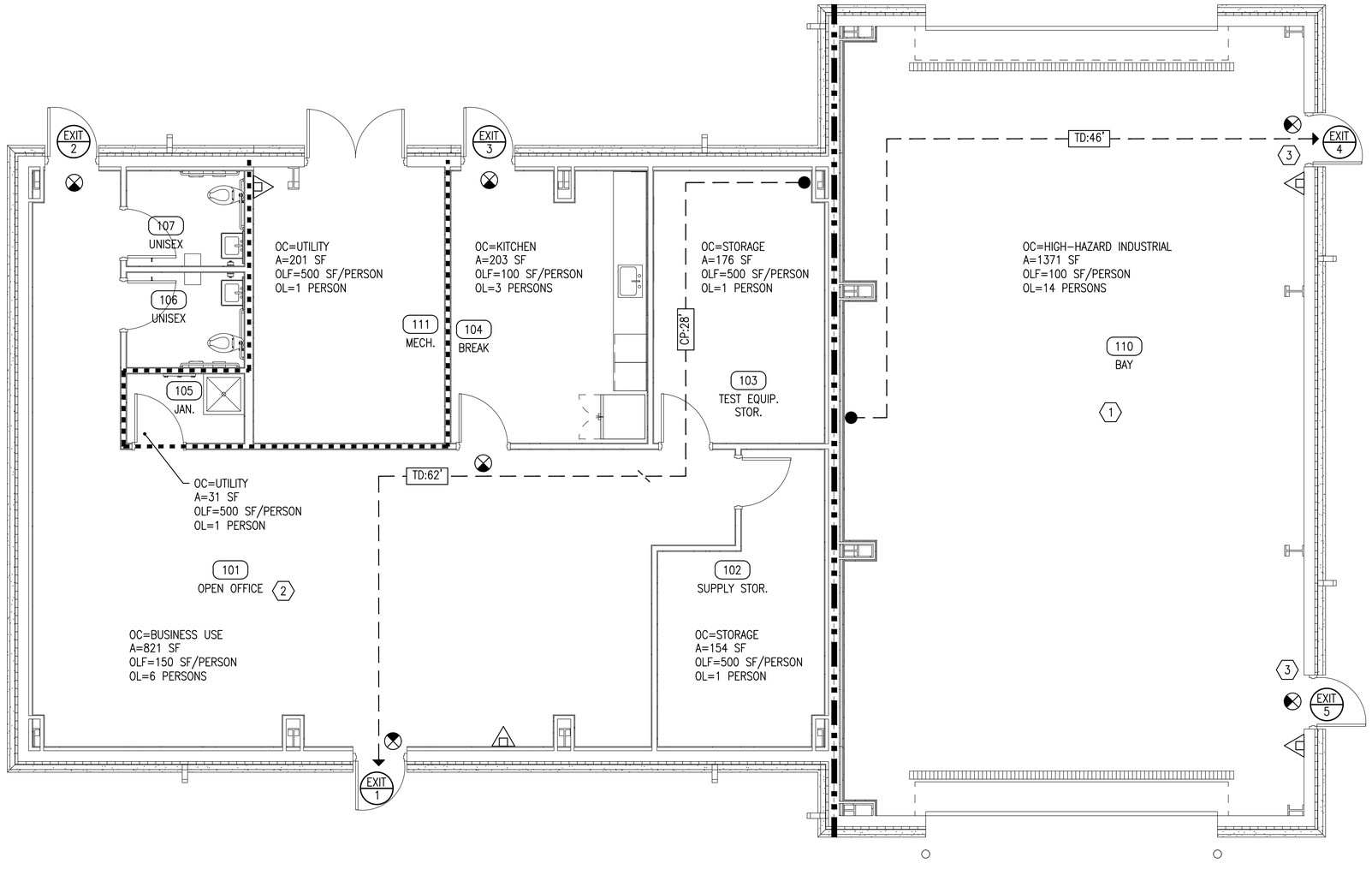
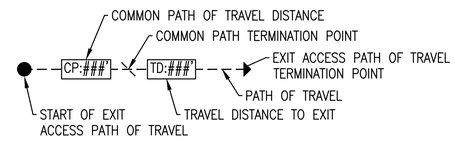


LIFE SAFETY PLAN
SCALE: 1/4" = 1'-0"

SUPPORTING SPACES PERMITTED INCLUDE CONTROL SPACES; DESK SPACE FOR THE WORKERS WHOSE DUTIES REQUIRE DIRECT ACCESS TO THE AMMUNITION AND EXPLOSIVES AS A PART OF THEIR DAILY DUTIES; SMALL BREAK ROOMS; REQUIRED LABORATORY SPACE; SMALL CONFERENCE ROOMS NEEDED FOR SAFETY BRIEFINGS AND SIMILAR ACTIVITIES; TOILET ROOMS, SHOWERS, AND LOCKER ROOMS, AS WELL AS MECHANICAL, ELECTRICAL, AND SIMILAR SPACES. FIRST LINE SUPERVISORS AND QUALITY CONTROL STAFF MAY BE CONSIDERED AS REQUIRING DIRECT ACCESS AS PART OF THEIR DAILY DUTIES. DESK SPACE MUST NOT BE PROVIDED FOR ANY PERSONNEL WHO DO NOT REQUIRE DIRECT ACCESS TO THE AMMUNITION AND EXPLOSIVES IN THE FACILITY AS A PART OF THEIR REGULAR DUTIES. CONFERENCE ROOMS AND BREAK ROOMS MUST BE SIZED TO ONLY SUPPORT EXPLOSIVES PERSONNEL REGULARLY WORKING IN THE BUILDING AND MUST NOT BE LARGE ENOUGH TO BE CONSIDERED AN ASSEMBLY OCCUPANCY. INDIVIDUAL TOILET ROOMS DO NOT REQUIRE RATED SEPARATION.

5' 0 5'
SCALE: 1/4" = 1'-0"

LIFE SAFETY LEGEND



EXIT SIGN WITH DIRECTION OF TRAVEL INDICATED

PORTABLE FIRE EXTINGUISHER 3-A:40-B:C. MOUNT ON WALL BRACKET.

2-HOUR FIRE BARRIER

SMOKE PARTITION

OC=OCCUPANCY CLASS
A=AREA
OLF=OCCUPANT LOAD FACTOR
OL=OCCUPANT LOAD

KEYNOTES

1. AE MATERIAL AND HAZARD DIVISION: THE FACILITY USER IDENTIFIED THAT THE FOLLOWING ASSETS WILL BE STORED IN THE FACILITY:
   1.1/ STORAGE COMPATIBILITY GROUP D & E
   1.4/ STORAGE COMPATIBILITY GROUP G
   1.3/ STORAGE COMPATIBILITY GROUP C
2. SUPPORTING SPACES NECESSARY TO PROVIDE DIRECT SUPPORT FOR THE AMMUNITION AND EXPLOSIVES OPERATION AND THE PERSONNEL THAT DIRECTLY WORK WITH THE EXPLOSIVES OPERATIONS ARE PERMITTED TO BE ATTACHED TO THE BAY.
3. PROVIDE PANIC HARDWARE OR FIRE EXIT HARDWARE.

MEANS OF EGRESS PROVISIONS

BAY – HIGH HAZARD INDUSTRIAL OCCUPANCY
- NUMBER OF EXITS (NFPA 7.11.4):
  REQUIRED: 2
  PROVIDED: 2
- LEVEL SURFACES EGRESS MINIMUM WIDTH (NFPA 101, SECTION 7.3.4):
  REQUIRED: 36 INCHES
  PROVIDED: >36 INCHES
- COMMON PATH OF TRAVEL (NFPA 101, SECTION 40.2.5.1):
  REQUIRED: PROHIBITED
  PROVIDED: N/A
- DEAD-END CORRIDORS (NFPA 101, SECTION 40.2.5.1):
  REQUIRED: PROHIBITED
  PROVIDED: N/A
- TRAVEL DISTANCE (NFPA 101, SECTION 40.2.6.1):
  REQUIRED: 75 FEET
  PROVIDED: 46 FEET

SUPPORT SPACES – NEW BUSINESS OCCUPANCY
- NUMBER OF EXITS (NFPA 38.2.4.3):
  REQUIRED: 2
  PROVIDED: 2
- LEVEL SURFACES EGRESS MINIMUM WIDTH (NFPA 101, SECTION 7.3.4):
  REQUIRED: 36 INCHES.
  PROVIDED: 64 INCHES.
- COMMON PATH OF TRAVEL (NFPA 101, SECTION 38.2.5.2.1):
  REQUIRED: 100 FEET
  PROVIDED: 28 FEET
- DEAD-END CORRIDORS (NFPA 101, SECTION 38.2.5.3):
  REQUIRED: 50 FEET
  PROVIDED: N/A
- TRAVEL DISTANCE (NFPA 101, SECTION 38.2.6.3):
  REQUIRED: 300 FEET
  PROVIDED: 62 FEET

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09/13/2025

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(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING
LIFE SAFETY PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: F-101
SHEET NUMBER: 39 OF 88

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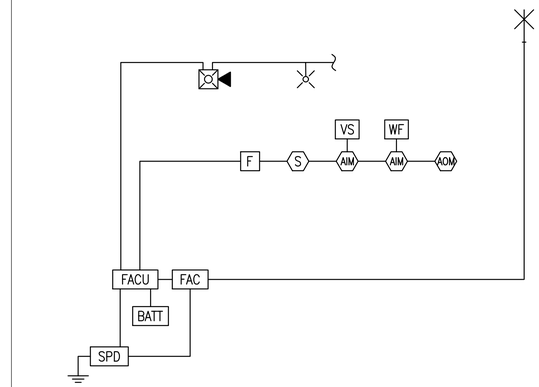
FIRE ALARM GENERAL NOTES

1. THE FIRE ALARM CONTRACTOR SHALL PERFORM WORK AS OUTLINED BELOW AND AS SHOWN IN THE CONTRACT DRAWINGS AND SPECIFICATIONS. THE CONTRACTOR SHALL PROVIDE AND INSTALL A COMPLETE WORKING FIRE ALARM AND DETECTION SYSTEM IN THE ROCKET OPERATIONS AND MAINTENANCE BUILDING. THE NEW SYSTEM AND ALL WORK SHALL BE IN COMPLIANCE WITH NFPA 13, NFPA 72, UFC 3-600-01, AND THE CONTRACT DRAWINGS AND SPECIFICATIONS.
2. THE CONTRACTOR SHALL RETAIN A REGISTERED FIRE PROTECTION ENGINEER (AS DEFINED BY UFC 3-600-01) TO BE THE QUALIFIED FIRE PROTECTION ENGINEER (QFPE) FOR THE CONSTRUCTION PROJECT. THE QFPE MUST REVIEW AND SIGN AND SEAL DRAWINGS, CUTSHEETS, AND CALCULATIONS PRIOR TO SUBMITTING TO THE GOVERNMENT FOR REVIEW. THE QFPE SHALL PROVIDE ALL INSPECTIONS AND INTERFACE WITH THE AHJ AS REQUIRED FOR A COMPLETE INSTALLATION.
3. THESE DRAWINGS DEPICT GENERAL LOCATIONS OF LIFE SAFETY EQUIPMENT & FIELD DEVICES. EXACT ROUTING OF CONDUITS TO BE DETERMINED IN THE FIELD BY THE INSTALLING CONTRACTOR TO SUIT CONDITIONS. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
4. CONTRACTOR IS RESPONSIBLE FOR MAKING AND OBTAINING APPROVAL FOR ALL NECESSARY ADJUSTMENT IN CIRCUITING AS REQUIRED TO ACCOMMODATE THE RELOCATION OF EQUIPMENT AND/OR DEVICES WHICH ARE AFFECTED BY ANY AUTHORIZED CHANGE. ALL CHANGES SHALL BE CLEARLY INDICATED ON THE RECORD DRAWINGS.
5. A SET OF APPROVED FIRE ALARM SHOP DRAWINGS SHALL BE AT THE JOB SITE AND SHALL BE USED FOR INSTALLATION.
6. THE ELECTRICAL CONTRACTOR SHALL PROVIDE POWER CIRCUIT TO THE FACU. THE POWER CIRCUIT TO THE FACU AND TO THE FIRE ALARM POWER SUPPLIES 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 CONTROL." THE LOCATION OF THE CIRCUIT DISCONNECT MEANS (CIRCUIT BREAKER) SHALL BE PERMANENTLY IDENTIFIED AT THE FIRE ALARM/MASS NOTIFICATION SYSTEM CONTROL UNIT.
7. THE CONTRACTOR WILL MAINTAIN ALL AREAS OF THE BUILDING IN A NEAT AND WORKMAN LIKE MANNER.
8. ANY SMOKE DETECTOR 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.
9. THE FIRE ALARM INSTALLER WILL MAINTAIN THE FIRE RESISTANCE INTEGRITY OF ALL WALL, CEILING, AND ROOF ASSEMBLIES ANY TIME THAT WORK IS NOT ACTIVELY BEING PERFORMED.
10. INSTALLATION OF DEVICES SHALL BE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS. POWER LIMITED AND NON-POWER LIMITED FIELD WIRING MUST BE INSTALLED WITHIN THE FACU ENCLOSURE IN ACCORDANCE WITH MANUFACTURER'S INSTRUCTIONS AND NEC.
11. ALL WIRING SHALL BE INSTALLED ACCORDING TO NFPA 70 (NEC).
12. FIRE ALARM CIRCUITS SHALL BE IDENTIFIED IN ACCORDANCE WITH APPROPRIATE SECTION OF NEC 760. MARK ALL FIRE ALARM WIRES IN ACCORDANCE WITH NEC 760 SECTIONS FOR POWER LIMITED AND NON-POWER LIMITED WIRE.
13. ALL WIRING, INCLUDING SHIELDS MUST BE DRY AND FREE OF SHORTS AND GROUNDS.
14. ALL SHIELDED WIRE MUST HAVE SHIELD CONTINUITY AT FULL LENGTH OF THE WIRE AND TERMINATE IAW THE MANUFACTURER'S INSTRUCTION.
15. 120VAC IS NOT PERMITTED IN THE SAME CONDUIT WITH LOW VOLTAGE WIRING. ONLY SYSTEM WIRING CAN BE RUN IN THE SAME CONDUIT.
16. INSTALL SMOKE DETECTION ABOVE ALL CONTROL PANELS TO INCLUDE NAC EXTENDER PANELS.
17. MONITORING MODULES FOR SINGLE SERVICE. DUAL INPUT NOT PERMITTED.
18. ALL CONDUIT TO BE NEW AND PROVIDED WITH A FACTORY APPLIED RED FINISH.
19. ALL SLC/IDC CONDUCTORS SHALL BE SOLID COPPER.
20. ALL FIRE ALARM CIRCUITS SHALL BE INSTALLED IN 3/4" MINIMUM CONDUIT.
21. ALL FIRE ALARM CIRCUITS SHALL BE TERMINATED ON TERMINAL STRIPS. WIRE NUTS ARE PROHIBITED. ALL SIGNALING LINE CIRCUITS (SLC) AND NOTIFICATION APPLIANCE CIRCUITS (NAC) ENTERING THE BUILDING AND AT THE FIRE ALARM UNIT SHALL BE PROVIDED WITH SUITABLE SURGE PROTECTIVE DEVICE (SEE SPECIFICATIONS)
22. PRE-GOVERNMENT & FINAL GOVERNMENT ACCEPTANCE TESTING SHALL BE COORDINATED WITH HURLBURT FIELD AFB PROJECT INSPECTOR, CONTRACTING OFFICER, AND FIRE DEPARTMENT. THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER 30 DAYS BEFORE PRE-GOVERNMENT & FINAL GOVERNMENT ACCEPTANCE TEST ARE TO BE CONDUCTED. THE FINAL GOVERNMENT ACCEPTANCE TEST SHALL BE IN ACCORDANCE WITH THE APPROVED TESTS PROCEDURES IN THE PRESENCE OF THE CONTRACTING OFFICER. THE CONTRACTOR SHALL FURNISH ALL INSTRUMENTS AND PERSONNEL REQUIRED FOR THE TESTS.
23. ALL FIRE ALARM CIRCUITS SHALL BE CLASS "B".

FIRE ALARM LEGEND

FACU	FIRE ALARM CONTROL UNIT
FAC	FIRE ALARM TRANSCEIVER
SPD	SURGE PROTECTIVE DEVICE
S	PHOTOELECTRIC SMOKE DETECTOR
F	MANUAL PULL STATION
AIM	ADDRESSABLE INPUT MONITOR MODULE
AOM	ADDRESSABLE OUTPUT MODULE
WF	WATERFLOW SWITCH
VS	VALVE TAMPER SWITCH
	COMBINATION HORN/STROBE – MARKED "ALERT"
	STROBE, WALL MOUNT – MARKED "ALERT"
	TRANSCEIVER ANTENNA
WP	WEATHERPROOF DEVICE



FA RISER DIAGRAM

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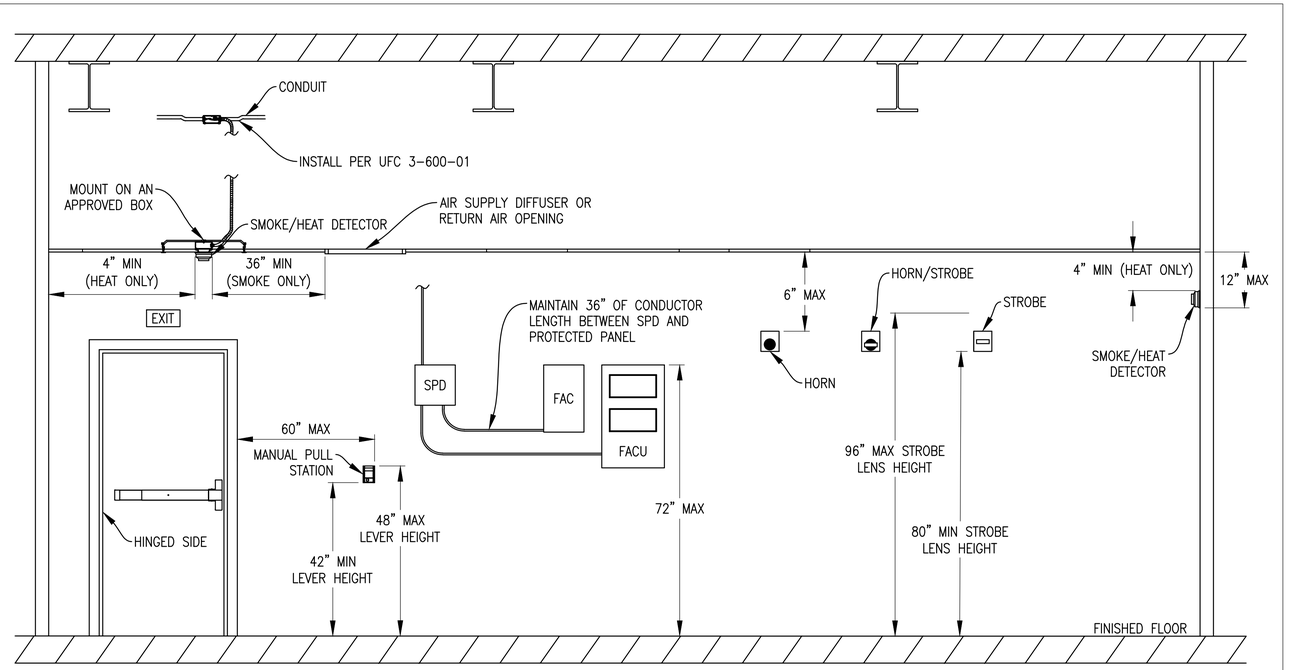

FA MOUNTING HEIGHT DETAIL

SCALE:
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ELIJAH KIMMIG LICENSE No. 90730 STATE OF FLORIDA PROFESSIONAL ENGINEER 02/13/2025

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

FIRE ALARM GENERAL NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FA001
SHEET NUMBER: 40 OF 88

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NOTES:

1. THE FINAL FIRE ALARM FUNCTIONS LISTED IN THE INPUT/OUTPUT MATRIX SHALL BE VERIFIED AND APPROVED BY THE CONTRACTOR'S QFPE AND BY THE GOVERNMENT BEFORE PROGRAMMING. THE FINAL INPUT/OUTPUT MATRIX SHALL BE PROVIDED ON THE CONTRACTOR'S FIRE ALARM SHOP DRAWINGS.
2. SEE PRELIMINARY TRANSCEIVER ZONE SCHEDULE ON THIS SHEET.

SYSTEM INPUTS		① SYSTEM OUTPUTS											
		CONTROL UNIT ANNUNCIATION			LOCAL NOTIFICATION		OUTPUT TO TRANSCEIVER					AUXILIARY FUNCTIONS	
		INITIATE AUDIO-VISUAL ALARM INDICATION	INITIATE AUDIO-VISUAL SUPERVISORY INDICATION	INITIATE AUDIO-VISUAL TROUBLE INDICATION	ACTIVATE NOTIFICATION APPLIANCES		TRANSMIT FIRE ALARM SIGNAL TO RECEIVING STATION ②	TRANSMIT SUPERVISORY SIGNAL TO RECEIVING STATION ②	TRANSMIT TROUBLE SIGNAL TO RECEIVING STATION ②			SHUTDOWN HIGH VOLUME LOW SPEED FANS	
		A	B	C	D	E	F	G	H	I	J	K	
1	MANUAL PULL STATION	●			●		●				●		1
2	SMOKE DETECTOR	●			●		●				●		2
3	SPRINKLER WATERFLOW	●			●		●				●		3
4	SPRINKLER CONTROL VALVE TAMPER		●					●					4
5	ANY TROUBLE CONDITION (OPENS, SHORTS OR GROUNDS)			●					●				5
6	LOSS OF A/C POWER			●					●				6
		A	B	C	D	E	F	G	H	I	J	K	

FIRE ALARM
SEQUENCE OF OPERATIONS MATRIX

PRELIMINARY
TRANSCEIVER ZONE SCHEDULE

ZONE	OUTPUT
Z1	PULL STATIONS – ALARM
Z2	SMOKE DETECTORS – ALARM
Z4	SPRINKLER WATERFLOW – ALARM
Z5	GENERAL SUPERVISORY
Z6	GENERAL TROUBLE

TRANSCEIVER NOTES:
- THIS ZONES LISTED IN THE ZONE TRANSCEIVER SCHEDULE ARE PRELIMINARY AND SHALL BE APPROVED BY THE BASE FIRE ALARM SHOPS BEFORE PROGRAMMING.
- ALARM ZONES SHALL BE ZONED BY DEVICE TYPE.

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REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

FA MATRIX AND SCHEDULE

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FA002
SHEET NUMBER: 41 OF 88

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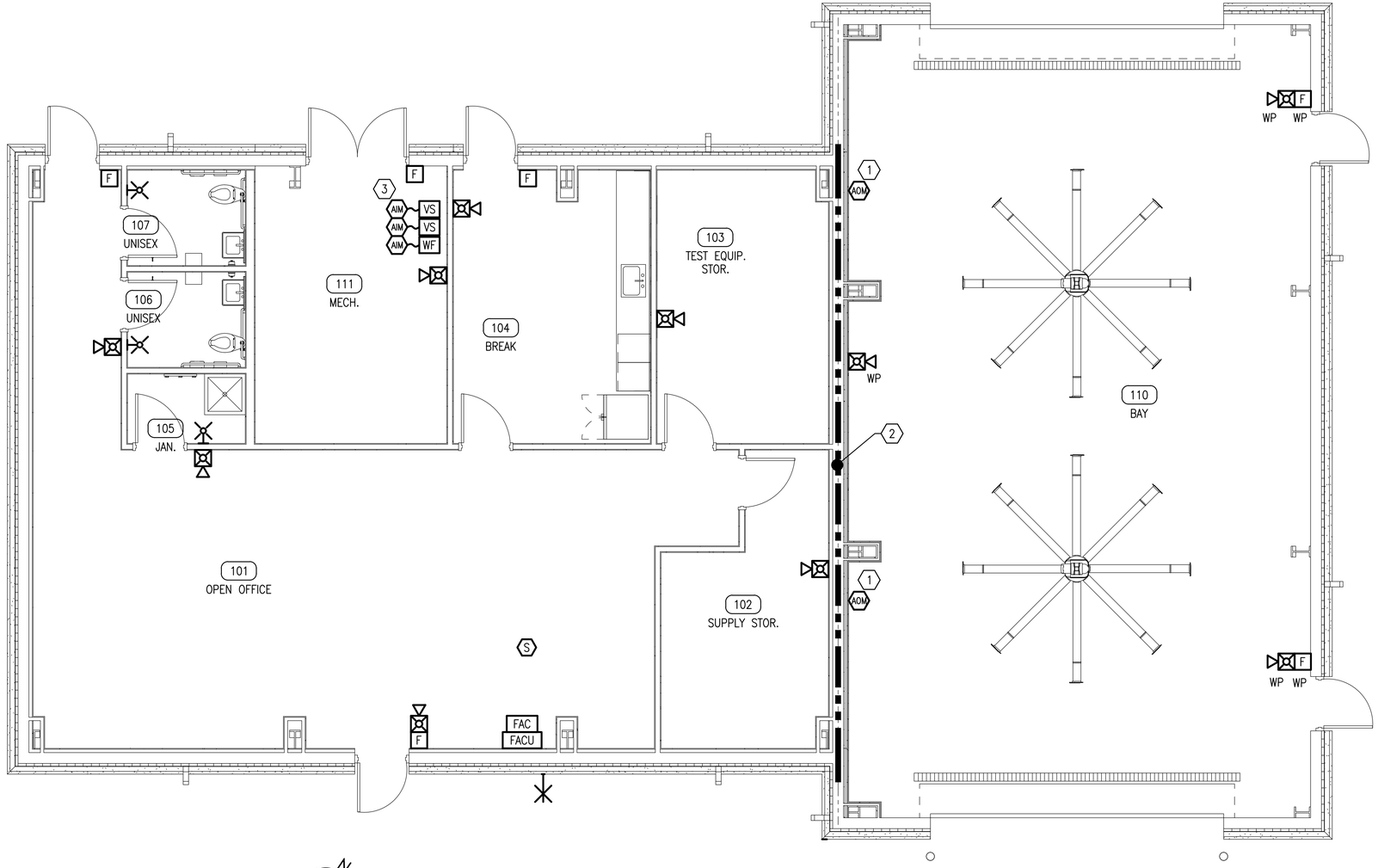
SHEET NOTES

1. SHUTDOWN RELAY FOR HIGH VOLUME LOW SPEED FAN AS OUTPUT FOR GENERAL FIRE ALARM ACTIVATION. FAN SHOWN FOR REFERENCE. SEE E-101 FOR FAN CONTROLLER LOCATION. INSTALL IN ACCORDANCE WITH MANUFACTURER'S RECOMMENDATION.
2. 2-HOUR FIRE RATED WALL. PROVIDE LISTED FIRESTOP SYSTEMS FOR ALL PENETRATIONS THROUGH THIS BARRIER.
3. LOCATION OF FIRE SPRINKLER RISER. MONITOR ALL CONTROL VALVES AND WATERFLOW SWITCHES. COORDINATE WITH SPRINKLER CONTRACTOR FOR CONNECTION TO EQUIPMENT.



FIRE ALARM PLAN
SCALE: 1/4" = 1'-0"

5' 0 5'
SCALE: 1/4" = 1'-0"

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FLORIDA
PROFESSIONAL ENGINEER
2/13/2025

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

FIRE ALARM PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FA101
SHEET NUMBER: 42 OF 88

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FIRE SPRINKLER GENERAL NOTES

1. CONTRACTOR SHALL FURNISH AND INSTALL A NEW AUTOMATIC WET PIPE FIRE SPRINKLER SYSTEM THROUGHOUT THE BUILDING. THE ALL WORK AND THE NEW WET PIPE SYSTEMS SHALL BE IN COMPLIANCE WITH UFC 3-600-01, NFPA 13, CONTRACT DRAWINGS, AND THE SPECIFICATIONS. THE SYSTEM SHALL BE COMPLETE TO PROVIDE ALL NECESSARY EQUIPMENT TO SERVE ALL AREAS INDICATED ON THE DRAWINGS.
2. THE CONTRACTOR SHALL RETAIN A REGISTERED FIRE PROTECTION ENGINEER (AS DEFINED BY UFC 3-600-01) TO BE THE QUALIFIED FIRE PROTECTION ENGINEER (QFPE) FOR THE CONSTRUCTION PROJECT. THE QFPE MUST REVIEW AND SIGN AND SEAL DRAWINGS, CUTSHEETS, AND CALCULATIONS PRIOR TO SUBMITTING TO THE GOVERNMENT FOR REVIEW. THE QFPE SHALL PROVIDE ALL INSPECTIONS AND INTERFACE WITH THE AHJ AS REQUIRED FOR A COMPLETE INSTALLATION.
3. ALL FIRE PROTECTION SYSTEM CONTROL VALVE SUPERVISORY SWITCHES, FLOW SWITCHES AND PRESSURE SWITCHES SHALL BE PROVIDED BY THE SPRINKLER CONTRACTOR. WIRING TO VALVE SUPERVISORY SWITCHES, WATER FLOW SWITCHES, AND PRESSURE SWITCHES SHALL BE PROVIDED BY THE FIRE ALARM CONTRACTOR. ALL ELECTRICAL DEVICES FOR THE FIRE PROTECTION SYSTEM SHALL BE COMPATIBLE WITH THE FIRE ALARM SYSTEM.
4. PIPING SHALL BE INSTALLED AS REQUIRED TO ALLOW ALL PORTIONS OF THE SYSTEM CAN BE DRAINED BACK THROUGH VALVES IN ACCORDANCE WITH NFPA 13.
5. SPRINKLER PIPE SHALL NOT BE SUSPENDED FROM DUCT HANGERS. HANGERS SHALL BE IN ACCORDANCE WITH NFPA 13. SEISMIC BRACING IS REQUIRED FOR THIS FACILITY, CONTRACTOR SHALL USE A MINIMUM SEISMIC COEFFICIENT OF 0.5. SEE SPECIFICATIONS AND STRUCTURAL DETAILS.
6. HYDRAULIC CALCULATIONS SHALL BE BASED ON A FIRE HYDRANT FLOW TEST PERFORMED BY THE SPRINKLER CONTRACTOR. FIRE HYDRANT FLOW TEST SHALL BE IAW NFPA-291 AND UFC 3-600-01. CONTRACTOR SHALL CONSIDER AVAILABLE FLOW AND PRESSURE WHEN DESIGNING THE SPRINKLER SYSTEM.
7. ALL FIRE SPRINKLER PIPING SHALL BE SCHEDULE 40, BLACK STEEL. SCHEDULE 10 PIPING SHALL NOT BE USED FOR ANY FIRE SUPPRESSION/EXTINGUISHING SYSTEM PIPING WHATSOEVER. ALL SPRINKLER PIPING 2.5" AND OVER SHALL BE WELDED, FLANGED, OR GROOVED CONNECTIONS. ALL PIPING SMALLER THAN 2.5" SHALL BE THREADED.
8. QUICK RESPONSE SPRINKLERS SHALL BE USED THROUGHOUT, EXCEPT IN ROOMS OR AREAS FOR WHICH QUICK RESPONSE SPRINKLERS ARE NOT LISTED, OR WHERE THEIR USE HAS BEEN SPECIFICALLY PROHIBITED BY NFPA-13 OR THE AUTHORITY HAVING JURISDICTION.
9. INSPECTOR'S TEST, AUXILIARY DRAIN, AND MAIN DRAIN VALVES SHALL BE READILY ACCESSIBLE WITHOUT THE USE OF A LADDER AND SHALL NOT BE INSTALLED ANY HIGHER THAN 72" FROM THE FLOOR. INSPECTOR'S TEST, AUXILIARY DRAIN, AND MAIN DRAIN VALVES SHALL DISCHARGE ONTO A SPLASH BLOCK ON THE EXTERIOR OF THE BUILDING.
10. ALL DRAIN PIPING SHALL BE INSTALLED WITH SLOPE SO THAT THEY DRAIN COMPLETELY WITH NO WATER TRAPPING POINTS OR BELLIES WHATSOEVER. ALL INSPECTORS TEST VALVES SHALL BE TEST AND DRAIN VALVES. THE INSPECTORS TEST SHALL HAVE AN ORIFICE GIVING A FLOW EQUAL TO OR LESS THAN ONE SPRINKLER OF A TYPE HAVING THE SMALLEST K-FACTOR INSTALLED ON THE SYSTEM.
11. HYDRAULIC DESIGN PLATES AND GENERAL INFORMATION SIGNS SHALL BE INSTALLED PER NFPA 13 AND ENGRAVED SO THE MARKINGS WILL BE PERMANENT.
12. ALL CHECK VALVES OVER 2" SHALL HAVE A COVER PLATE FOR MAINTENANCE WITHOUT REMOVING THE CHECK VALVE ASSEMBLY FROM THE PIPING SYSTEM.
13. ALL FIRE WALL PENETRATIONS SHALL BE MADE WITH UL APPROVED FIRE STOPPING SYSTEMS LISTED TO MAINTAIN THE FIRE RATING OF THE WALLS IN WHICH THEY ARE INSTALLED.
14. FIRE DEPARTMENT CONNECTION FOR THE SPRINKLER SYSTEM SHALL BE PROVIDED WITH NAME PLATES PERMANENTLY ATTACHED TO IDENTIFY THE SYSTEM TYPE AND BUILDING SERVED, IN ACCORDANCE WITH APPLICABLE REQUIREMENTS OF NFPA 13.

FIRE SPRINKLER LEGEND/ABBREVIATIONS

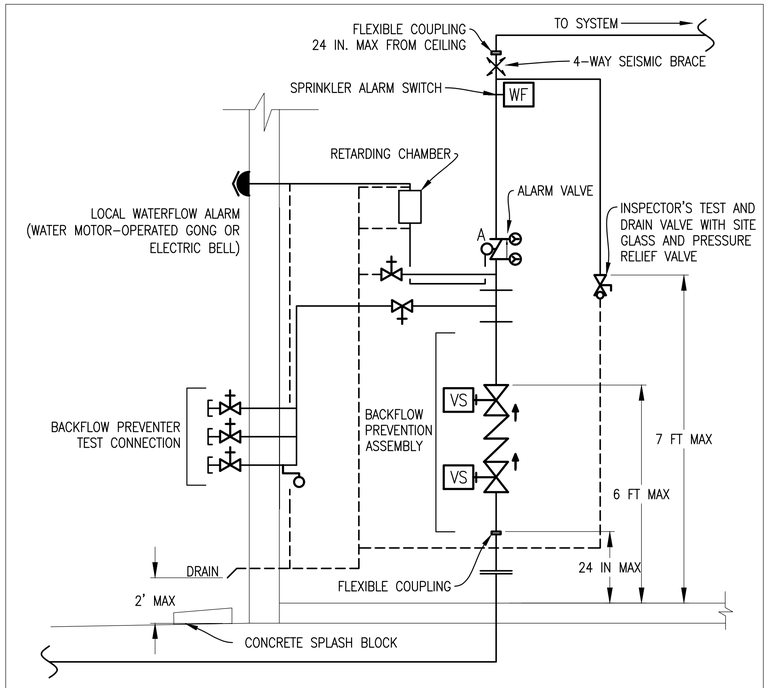
	WET RISER
	FIRE DEPARTMENT CONNECTION
	WATER MOTOR GONG/ELECTRIC BELL
	PIPE ELBOW UP OR DOWN
	PIPE TEE UP OR DOWN
	POST INDICATING VALVE
	PRESSURE GAUGE
	HYDRANT

AFF	ABOVE FINISHED FLOOR
FA	FIRE ALARM
FDC	FIRE DEPARTMENT CONNECTION
FT	FEET
GPM	GALLONS PER MINUTE
IAW	IN ACCORDANCE WITH
N/A	NOT APPLICABLE
NTS	NOT TO SCALE
OS&Y	OUTSIDE SCREW & YOKE
PIV	POST INDICATOR VALVE
PSI	POUNDS PER SQUARE INCH
SP	STATIC PRESSURE
SPEC	SPECIFICATION
SQ.FT.	SQUARE FEET

AIR VENTING NOTES

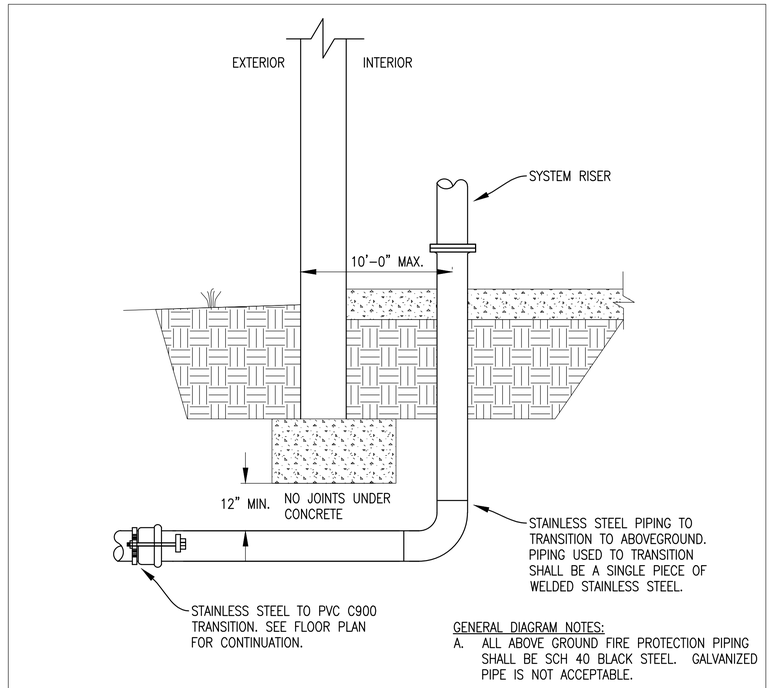
PROVIDE AUTOMATIC AIR VENTS AT HIGH POINTS IN THE SYSTEM TO VENT AIR FROM THE SYSTEM. DESIGN THE SPRINKLER SYSTEM TO REDUCE THE QUANTITY OF AUTOMATIC AIR VENTS SUCH AS CONNECTING BRANCHLINES OR PROVIDING A CROSS-MAIN AT THE PEAK. THE FOLLOWING VENTING CRITERIA SHALL BE IMPLEMENTED:

A. INSTALL ONE AUTOMATIC AIR VENT AT THE END OF FEED MAINS.
B. INSTALL ONE MANUAL AIR VENT AT THE END OF THE SYSTEM REMOTE BRANCHLINE. BRANCHLINES MAY BE CONNECTED TOGETHER AT THE HIGH POINT WITH THE VENT DRAIN AT THE HIGH END. THE CONNECTING PIPE AND VENTING DRAIN SHALL BE A MINIMUM OF 1" DIAMETER.
   NOTE: THE INTENT OF THE MANUAL AIR VENT VALVE IS TO ALLOW AIR TO BE PURGED DURING FILLING OF THE SYSTEM AND AS AN AIR INLET DURING DRAINING OF SYSTEM.
C. ALL AIR VENT PIPE CONNECTIONS TO THE SYSTEM SHALL BE LOCATED OFF THE TOP OF HORIZONTAL PIPING AT A HIGH POINT IN THE SYSTEM.
D. THE AIR VENT PIPING SHALL BE ROUTED TO DISCHARGE TO A SPLASH BLOCK OUTSIDE OF THE BUILDING.
E. MANUAL AIR VENT VALVES SHALL BE LOCATED IN AN ACCESSIBLE LOCATION NO HIGH THAN 72 INCHES ABOVE THE FLOOR.
F. FIRE SPRINKLER SYSTEM SHOP DRAWINGS SHALL INCLUDE ISOMETRIC DRAWINGS OF PIPING SYSTEM OR SHALL INDICATE ELEVATIONS OF PIPING AND SLOPE ON PLAN VIEW TO SHOW SYSTEM HIGH POINTS AND LOW POINTS. ALL MANUAL AIR VENTS, AUTOMATIC AIR VENTS, AND AUXILIARY DRAINS SHALL BE SHOWN ON THE SHOP DRAWINGS.



FIRE RISER DETAIL

SCALE: NOT TO SCALE



FIRE WATER LEAD-IN DETAIL - THROUGH SLAB

SCALE: NOT TO SCALE

GENERAL DIAGRAM NOTES:
A. ALL ABOVE GROUND FIRE PROTECTION PIPING SHALL BE SCH 40 BLACK STEEL. GALVANIZED PIPE IS NOT ACCEPTABLE.

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ELIJAH KIMMIG LICENSE No. 90750 STATE OF FLORIDA PROFESSIONAL ENGINEER 02/13/2025

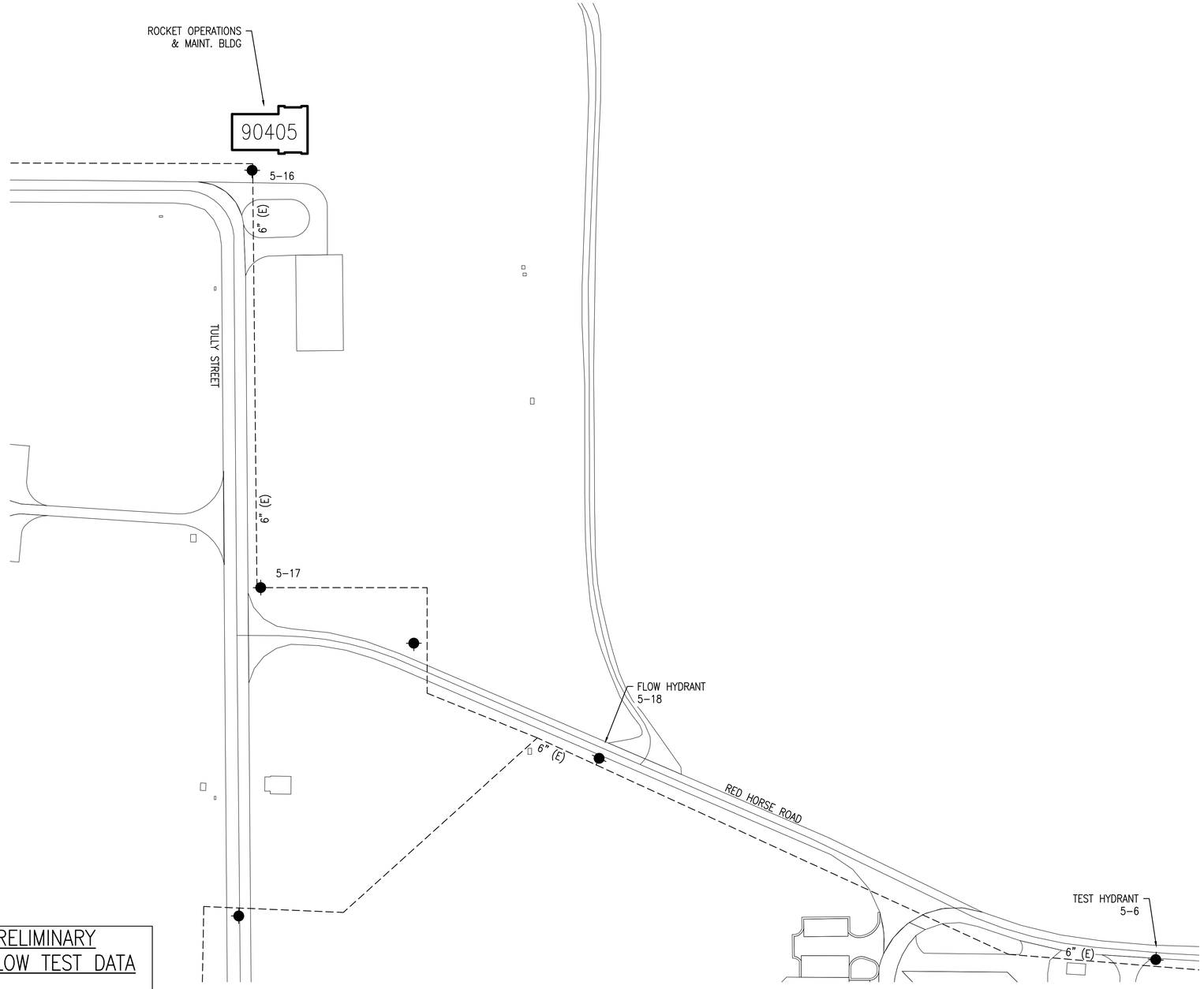
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

FIRE SPRINKLER GENERAL NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FX001
SHEET NUMBER: 43 OF 88



HYDRANT FLOW TEST SITE PLAN
SCALE: 1/4" = 1'-0"

PRELIMINARY
FLOW TEST DATA

DATE: 2/5/2025
TIME: 11:55 AM
STATIC PRESSURE: 55 PSI
RESIDUAL PRESSURE: 45 PSI
WATER FLOW: 920 GPM

NOTE: AT THE TIME OF TESTING, MULTIPLE HYDRANT FLOW TESTS WERE PERFORMED AND IT WAS CONCLUDED THAT WATER WAS NOT FLOWING BETWEEN HYDRANTS 5-17 AND 5-18. BASE CIVIL ENGINEERING, WATER OPERATIONS, USACE, AND CONTRACTING ARE RESPONSIBLE FOR REPAIRING THIS ISSUE PRIOR TO THIS PROJECT BEING CONSTRUCTED. THE PRELIMINARY WATERFLOW TEST RESULTS ARE PROVIDED TO SHOW THE THE AVAILABLE WATER SUPPLY IS CAPABLE OF MEETING THE SYSTEM DEMAND. THE SPRINKLER CONTRACTOR SHALL PERFORM A HYDRANT FLOW TEST UNDER THE DIRECTION OF THE QFPE AND USE THE RESULTS AS THE BASIS OF THE AVAILABLE WATER SUPPLY FOR THEIR HYDRAULIC CALCULATIONS. IF THE CONTRACTOR'S HYDRANT FLOW TEST RESULTS SHOW THE AVAILABLE WATER SUPPLY IS LOWER THAN THE PRELIMINARY FLOW TEST RESULTS, THE SPRINKLER CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IN WRITING IMMEDIATELY BEFORE PROVIDING SPRINKLER DESIGN SUBMITTALS.

ELIJAH KIMMING
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No. 90730
STATE OF
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02/13/2025

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ROCKET OPERATIONS AND MAINTENANCE BUILDING

FIRE SPRINKLER SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FX002
SHEET NUMBER: 44 OF 88

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HYDRAULIC DESIGN CRITERIA

CONTRACTOR SHALL HYDRAULICALLY DESIGN THE SYSTEM USING THE MINIMUM DENSITY AND REMOTE AREA SHOWN BELOW. THE MINIMUM PIPE SIZE FOR BRANCH LINES IN GRIDDED SYSTEMS SHALL BE 1 1/4-INCH. HYDRAULIC CALCULATIONS SHALL BE IN ACCORDANCE WITH THE AREA/DENSITY METHOD OF NFPA 13. HYDRAULIC CALCULATIONS FOR THE SPRINKLER SYSTEMS SHALL BE BASED ON THE CONTRACTORS FIRE HYDRANT FLOW TEST.

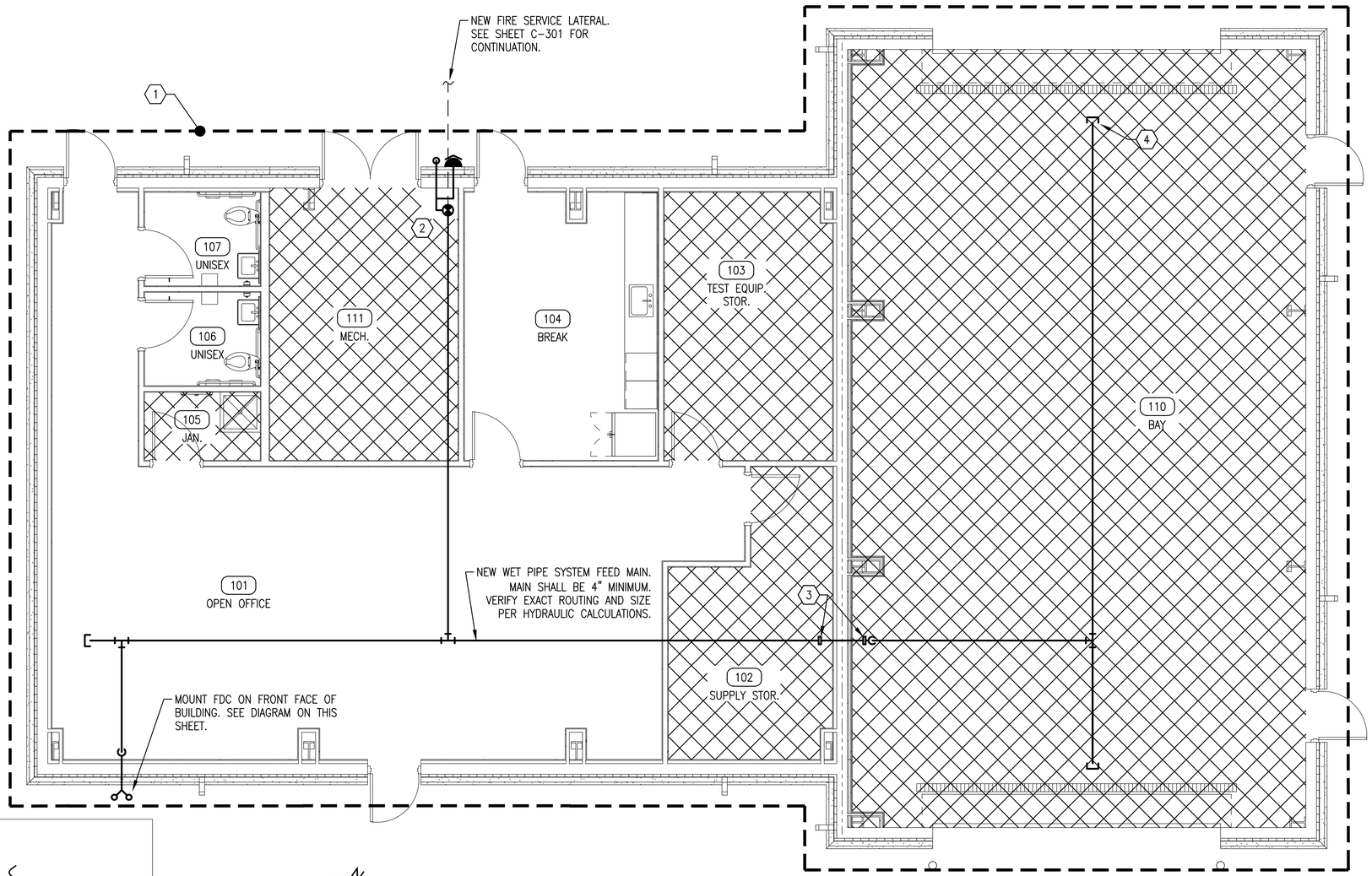
UFC-3-600-01 – LIGHT HAZARD
REMOTE AREA: 1500 SQ.FT.
MAXIMUM AREA PER SPRINKLER: 225 SQ.FT.
MINIMUM WATER FLOW DENSITY: 0.1 GPM/SQ.FT.
MINIMUM K-FACTOR: 5.6

UFC-3-600-01 – ORDINARY HAZARD
REMOTE AREA: 2500 SQ.FT.
MAXIMUM AREA PER SPRINKLER: 130 SQ.FT.
MINIMUM WATER FLOW DENSITY: 0.2 GPM/SQ.FT.
MINIMUM K-FACTOR: 8.0

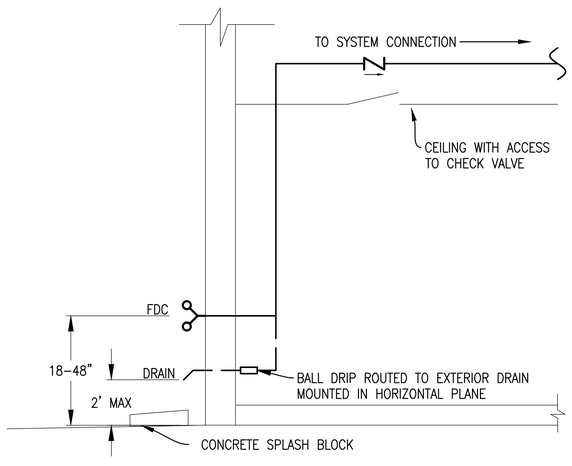
UFC-3-600-01 HOSE STREAM ALLOWANCE
INSIDE HOSE: 0 GPM
OUTSIDE HOSE: 250 GPM

SHEET NOTES

1. CONTRACTOR SHALL PROVIDE A COMPLETE NEW WET PIPE SPRINKLER SYSTEM IN THE ENTIRE BUILDING. THE NEW WET PIPE SPRINKLER SYSTEM SHALL BE PROVIDED IN COMPLIANCE WITH NFPA 13, UFC 3-600-01 AND THE AUTHORITY HAVING JURISDICTION.
2. SPRINKLER RISER TO BE LOCATED WITHIN MECHANICAL ROOM AS SHOWN. PROVIDE ALL REQUIRED CLEARANCES. SEE RISER DIAGRAM AND LEAD IN DETAIL ON FX001 FOR REQUIREMENTS.
3. PROVIDE FLEXIBLE COUPLINGS WITHIN 1 FT OF EACH SIDE OF WALL TO SUBSTITUTE REQUIRED SEISMIC CLEARANCES. PROVIDE LISTED FIRESTOP SYSTEMS FOR PENETRATIONS IN THIS WALL.
4. PROVIDE MANUAL AIR VENT AT HIGH POINT OF SYSTEM. SEE AIR VENTING NOTES ON FX001.



FIRE SPRINKLER PLAN
SCALE: 1/4" = 1'-0"



FIRE DEPARTMENT CONNECTION DETAIL

SCALE: NOT TO SCALE

THIS FACILITY IS CONSIDERED AN "AMMUNITION AND EXPLOSIVES FACILITIES." PER UFC 3-600-01, THE AUTOMATIC SPRINKLER SYSTEM IN THIS FACILITY SHALL BE PROTECTED FROM MOVEMENT IAW THE INSTALLATION REQUIREMENTS FOR SEISMIC PROTECTION IN NFPA 13 OR ASCE 7. SEISMIC BRACING SHALL INCLUDE LATERAL AND LONGITUDINAL BRACING, RESTRAINT, AND CLEARANCES. CONTRACTOR SHALL USE A MINIMUM SEISMIC COEFFICIENT (Cp) OF 0.5.

5' 0 5'
SCALE: 1/4" = 1'-0"

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1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
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DATE: 13 FEB 2025
DESIGNED BY: EK
DRAWN BY: DAK
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: FX101
SHEET NUMBER: 45 OF 88

GENERAL NOTES

1. THE CONTRACTOR MUST MAKE OFFSETS AND MINOR ADJUSTMENTS AS REQUIRED FOR SYSTEM INSTALLATION.
2. THE PIPING SYSTEM MUST BE FLUSHED UNTIL CLEAN BEFORE EQUIPMENT IS CONNECTED.
3. PIPING SHOWN ON DRAWINGS IS DIAGRAMMATIC. ARRANGE IN A NEAT AND ORDERLY MANNER.
4. COORDINATION WITH ALL TRADES IS REQUIRED FOR INSTALLATION IN AREA WHERE SPACE LIMITS EXIST.
5. ISOLATION VALVES SHOULD BE PROVIDED ON ALL WATER BRANCH LINES FROM MAINS TO EQUIPMENT, HOSE BIBBS, AND RISER TAKE-OFFS FROM MAIN.
6. THE CONTRACTOR MUST NOT CUT ANY STRUCTURAL MEMBERS OF THE BUILDING WITHOUT WRITTEN CONSENT FROM OWNER.
7. THESE CONTRACT DRAWINGS SHOW GENERAL SIZE AND APPROXIMATE LOCATION OF EXISTING LINES AND ARE INTENDED TO SHOW THE GENERAL ARRANGEMENTS OF THE UTILITY SYSTEM. THE CONTRACTOR MUST FIELD VERIFY ALL UTILITY CONNECTIONS FOR SIZE, LOCATION, DEPTH, AND INSTALL ALL SYSTEMS IN ACCORDANCE WITH CONDITIONS FOUND PRIOR TO BEGINNING INSTALLATION. ANY PART OF PLUMBING SYSTEM INSTALLED INCORRECTLY DUE TO NOT VERIFYING MUST BE REMOVED AND CORRECTLY INSTALLED AT THE EXPENSE OF THE CONTRACTOR.
8. THE PLUMBING SYSTEM MUST BE COORDINATED WITH ALL OTHER TRADES.
9. THE PLUMBING SYSTEM MUST BE IN ACCORDANCE WITH UFC 3-420-01 AND IPC-2021.
10. ALL EQUIPMENT INSTALLED MUST BE IN ACCORDANCE WITH THE ARCHITECTURAL DRAWINGS.
11. ALL PENETRATIONS OF FIRE WALLS, CEILINGS, FLOORS, ETC. FOR PLUMBING PIPING MUST BE UL APPROVED FIRE STOPS AND MUST BE INSTALLED AS RECOMMENDED BY MANUFACTURER. THE CONTRACTOR MUST HAVE MANUFACTURER SHOP DRAWINGS ON THE JOB SITE PERTAINING TO ALL PENETRATIONS.
12. PROVIDE SEALANT AROUND ALL PENETRATIONS THROUGH FIRE RATED FLOORS AND WALLS SO AS TO MAINTAIN INTEGRITY OF THE BARRIER.
13. DAMAGE TO EXISTING WALLS, CEILINGS, AND FLOORS MUST BE PATCHED AND REFINISHED TO MATCH EXISTING AFTER EQUIPMENT IS REMOVED.
14. COORDINATE ALL PIPING WITH DUCTWORK SHOP DRAWINGS, ROUTE PIPING AS REQUIRED TO AVOID CONFLICTS.
15. ALL PIPING PASSING THROUGH MASONRY WALLS MUST HAVE A SLEEVE.
16. SEE ELEVATIONS ON ARCHITECTURAL DRAWINGS FOR PLUMBING FIXTURE MOUNTING HEIGHT.
17. ADHERE TO STANDARD PRACTICE WITH HOT WATER ON THE LEFT AND COLD WATER ON THE RIGHT SIDE OF PLUMBING FIXTURES OR ANY SIMILAR ITEM REQUIRING WATER CONNECTIONS.
18. COLD WATER METERS 2" AND SMALLER MUST BE POSITIVE DISPLACEMENT TPE CONFORMING TO AWWA C700. THE WATER METER MUST BE A TURBINE-TYPE WITH ADVANCED METER READING CAPABILITIES. THE METER MUST HAVE A PULSE GENERATOR, REMOTE READOUT REGISTER, AND ALL NECESSARY WIRING AND ACCESSORIES.
19. VALVES 2-1/2" AND SMALLER MUST BE BRONZE WITH THREAEDED BODIES AND SOLDER-TYPE CONNECTIONS FOR TUBING.
20. PROVIDE 1" MINERAL FIBER INSULATION ON HOT WATER PIPING. PROVIDE 1.5" CELLULAR GLASS OR 1" FLEXIBLE ELASTOMERIC CELLULAR INSULATION ON COLD WATER PIPING. PROVIDE A VAPOR BARRIER ON ALL COLD WATER PIPING. MINIMUM PIPE INSULATION THICKNESS AND PERFORMANCE MUST BE IN ACCORDANCE WITH ASHRAE 90.1, AND SPEC SECTION 23 07 00 TABLE 2.
21. WASTE PIPING MUST BE PVC-DWV ABOVE AND BELOW GROUND.
22. PROVIDE PIPE HANGERS AND SUPPORTS CONFORMING TO MSS SP-58. SUPPORT PIPING SYSTEMS IN BUILDINGS WITH PIPE HOOKS, METAL PIPE STRAPS, BANDS, OR HANGERS SUITABLE FOR THE SIZE OF PIPING OR TUBING. DO NOT SUPPORT ANY PIPING SYSTEM BY OTHER PIPING. IN SUPPORTING MULTIPLE PIPE RUNS ON A TYPICAL BASE MEMBER, USE A CLIP OR CLAMP WHERE EACH PIPE CROSSES THE BASE SUPPORT MEMBER. SPACING OF THESE BASE SUPPORT MEMBERS IS NOT TO EXCEED THE HANGER AND SUPPORT SPACING REQUIRED FOR ANY OF THE INDIVIDUAL LINES IN THE MULTIPLE PIPE RUN. RIGIDLY CONNECT THE CLIPS OR CLAMPS TO THE TYPICAL BASE MEMBER. PROVIDE A CLEARANCE OF $\frac{1}{8}$" BETWEEN THE PIPE AND CLIP OR CLAMP FOR ALL PIPING THAT MAY BE SUBJECT TO THERMAL EXPANSION. RUN ABOVE GROUND PIPING AS STRAIGHT AS PRACTICABLE ALONG THE ALIGNMENT AND ELEVATION INDICATED, WITH MINIMUM JOINTS, AND SEPARATELY SUPPORTED FROM OTHER PIPINJG SYSTEMS AND EQUIPMENT. INSTALL EXPOSED HORIZONTAL PIPING NO FURTHER THAN 6" FROM THE NEAREST PARALLEL WALL AND AT AN ELEVATION THAT PREVENTS STANDING, SITTING, OR PLACING OBJECTS ON THE PIPING.
23. PIPES PASSING THROUGH CONCRETE OR MASONRY WALLS OR CONCRETE FLOORS OR ROOFS WITH PIPE SLEEVES FITTED INTO PLACE AT THE TIME OF CONSTRUCTION. DO NOT INSTALL SLEEVES IN STRUCTURAL MEMBERS EXCEPT WHERE INDICATED OR APPROVED. EXTEND EACH SLEEVE THROUGH ITS RESPECTIVE WALL, FLOOR, OR ROOF, AND CUT FLUSH WITH EACH SURFACE, EXCEPT ON MECHANICAL ROOM FLOORS. EXTEND SLEEVES IN MECHANICAL ROOM FLOORS ABOVE GRADE AT LEAST 4" ABOVE THE FINISHED FLOOR. UNLESS OTHERWISE INDICATED, USE SLEEVES LARGE ENOUGH TO PROVIDE A MINIMUM CLEARANCE OF $\frac{1}{4}$" AROUND THE PIPE. PROVIDE STEEL SLEEVES FOR BEARING WALLS, WATERPROOFING MEMBRANE FLOORS, AND WET AREAS. PROVIDE SLEEVES IN NONBEARING WALLS OR FOUNDATIONS OF STEEL PIE, GALVANIZED SHEET METAL WITH LOCK-TYPE LONGITUDINAL SEAM, OR MOISTURE-RESISTANT FIBER OR PLASTIC. FOR PENETRATIONS OF FIREWALLS, FIRE PARTITIONS , AND FLOORS THAT ARE NOT ON GRADE, SEAL THE ANNULAR SPACE BETWEEN THE PIPE AND SLEEVE WITH AN APPROVED FIRE-STOPPING MATERIAL AND SEALANT.
24. PIPES NOT PASSING THROUGH MASONRY OR CONCRETE MUST BE 26 GAUGE GALVANIZED STEEL SHEET OR PVC PLASTIC PIPE SLEEVE.
25. IDENTIFICATION FOR ABOVEGROUND PIPING: MIL-STD-101 FOR LEGENDS AND TYPE AND SIZE OF CHARACTERS. FOR PIPES $\frac{3}{4}$" O.D. AND LARGER, PROVIDE PRINTED LEGENDS TO IDENTIFY THE PIPES' CONTENTS AND ARROWS TO SHOW FLOW DIRECTION--COLOR CODE LABEL BACKGROUNDS TO SIGNIFY HAZARD LEVELS. MAKE LABELS OF PLASTIC SHEETS WITH PRESSURE-SENSITIVE ADHESIVE SUITABLE FOR THE INTENDED APPLICATION. FOR PIPES SMALLER THAN $\frac{3}{4}$" O.D., PROVIDE BRASS IDENTIFICATION TAGS 1-1/2" IN DIAMETER WITH LEGENDS IN DEPRESSED BLACK-FILLED CHARACTERS. PROVIDE COLOR CODE MARKING OF PIPING AS SPECIFIED IN SECTION 09 90 00 PAINTS AND COATINGS, CONFORMING TO ASME A13.1
26. SANITARY VENTS THAT EXTEND THROUGH THE ROOF MUST BE FLASHED WATERTIGHT AND EXTEND A MINIMUM OF 12" ABOVE THE ROOF AND MUST BE COORDINATED WITH THE ROOFING CONTRACTOR. PROVIDE "DEKTITE" SEALS AT ALL ROOF PENETRATIONS. PROVIDE U.L. APPROVED PENETRATIONS AT FIREWALLS, FLOORS, AND ROOF ASSEMBLIES.
27. ALL FLOOR DRAIN P-TRAPS MUST BE DEEP SEAL TYPE AND HAVE TRAP SEAL PROTECTION. THE TYPE OF TRAP SEAL PROTECTION MUST BE AS INDICATED ON PLUMBING PLANS OR AS APPROVED BY LOCAL CODE OFFICIALS.
28. PROVIDE ALL CONDENSATE DRAIN PIPING FROM AIR CONDITIONING EQUIPMENT WITH P-TRAPS. PROPERLY SLOPE THE DRAIN LINE TO THE NEAREST APPROVED DRAIN FIXTURE, AND INSULATE THE HORIZONTAL PORTIONS OF THE CONDENSATE DRAIN LINE. INSULATE THE P-TRAP OF THE DRAINAGE FIXTURE THAT RECEIVES THE CONDENSATE DRAINAGE. PROVIDE A MINIMUM 6" AIR GAP BETWEEN DRAINAGE FIXTURE OPENINGS AND TEND OF CONDENSATE DRAIN PIPING.
29. PROVIDE AN ANTI-SIPHON DEVICE ON ALL HOSE END CONNECTION FAUCETS AND HOSE BIBBS.
30. DOMESTIC HOT WATER TO MAINTAIN A MINIMUM OF 140°F. PROVIDE A THERMOSTATIC MIXING VALVE TO REDUCE THE WATER SUPPLY TEMPERATURE TO THE FACILITY FIXTURES TO A MAXIMUM OF 120°F AND REDUCE TEMPERATURE AT FIXTURE TO THE MAXIMUM 110°F, EXCLUDING SYSTEMS REQUIRING HIGHER TEMPERATURES (DISH WASHING). PROVIDE MASTER MIXING VALVE TEMPERATURE CONTROL TO LOWER THE TEMPERATURE TO 131°F IMMEDIATELY DOWNSTREAM OF THE DOMESTIC HOT WATER HEATER IN ACCORDANCE WITH ASSE 1017.
31. ALL NEW DOMESTIC WATER PIPING MUST BE COPPER TYPE L.
32. DIELECTRIC UNIONS MUST BE USED AT THE CONNECTIONS BETWEEN PIPING OF DISSIMILAR METALS.
33. ALL SUSPENDED EQUIPMENT AND PIPING MUST BE SEISMICALLY BRACED.

PLUMBING ABBREVIATIONS

AFF	ABOVE FINISHED FLOOR		
CO	CLEANOUT	HB	HOSE BIBB
CW	COLD WATER	HW	HOT WATER
FCO	FLOOR CLEANOUT	N	NEW
FD	FLOOR DRAIN	VTR	VENT THROUGH ROOF
DN	DOWN	W	WASTE
DOR	DESIGNER OF RECORD	WH	WALL HYDRANT

PLUMBING LEGEND

- ELECTRIC WATER HEATER
- FULL PORT BALL VALVE
- PIPE DOWN
- WALL HYDRANT
- V.T.R. — VENT THROUGH ROOF
- NEW VENT PIPING
- NEW WASTE PIPING
- NEW HOT WATER PIPING
- NEW COLD WATER PIPING

GREGORY DAMIAN PETERSON — LICENSED — No. 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 2/13/25

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PLUMBING NOTES, ABBREVIATIONS, AND LEGEND

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

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DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-001
SHEET NUMBER: 46 OF 88

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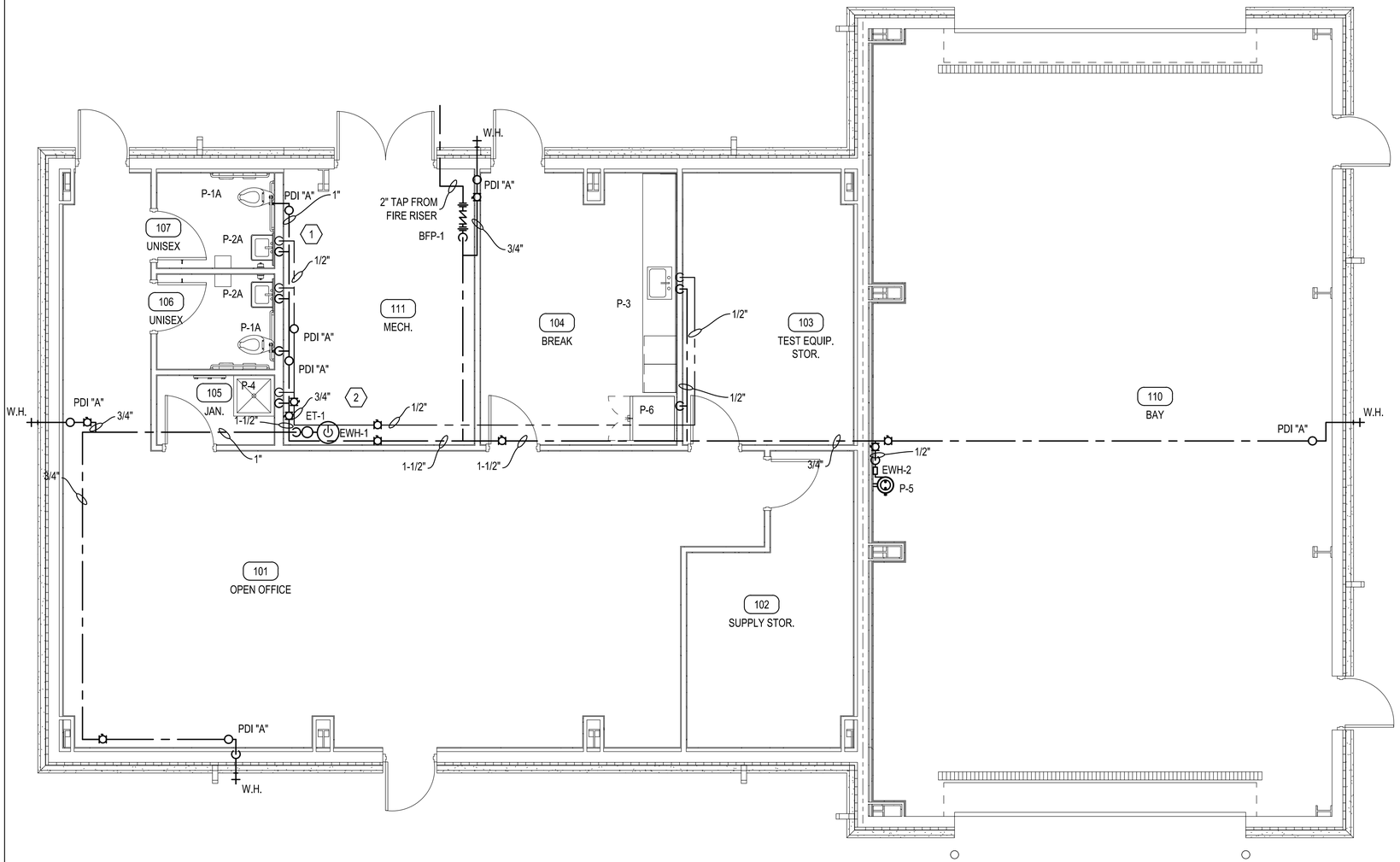

OVERALL FLOOR PLAN - PRESSURE PIPING NEW WORK

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

KEYNOTES

1. DOMESTIC COLD AND HOT WATER LINES DEPICTED OFFSET FROM MECHANICAL ROOM WALL FOR CLARITY. WATER PIPING MUST NOT BE INSTALLED ABOVE ELECTRICAL EQUIPMENT.
2. PIPE WATER DRAIN LINE FROM WATER HEATER DRAIN PAN TO MECHANICAL ROOM FLOOR DRAIN. SEE TANK TYPE WATER HEATER CONNECTION DETAIL.

GRAPHIC SCALE(S)

5' 0 5'

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

GREGORY DAMIAN STEPHENSON — LICENSE NO. 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 2/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PLUMBING PRESSURE PIPING NEW WORK FLOOR PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-101
SHEET NUMBER: 47 OF 88

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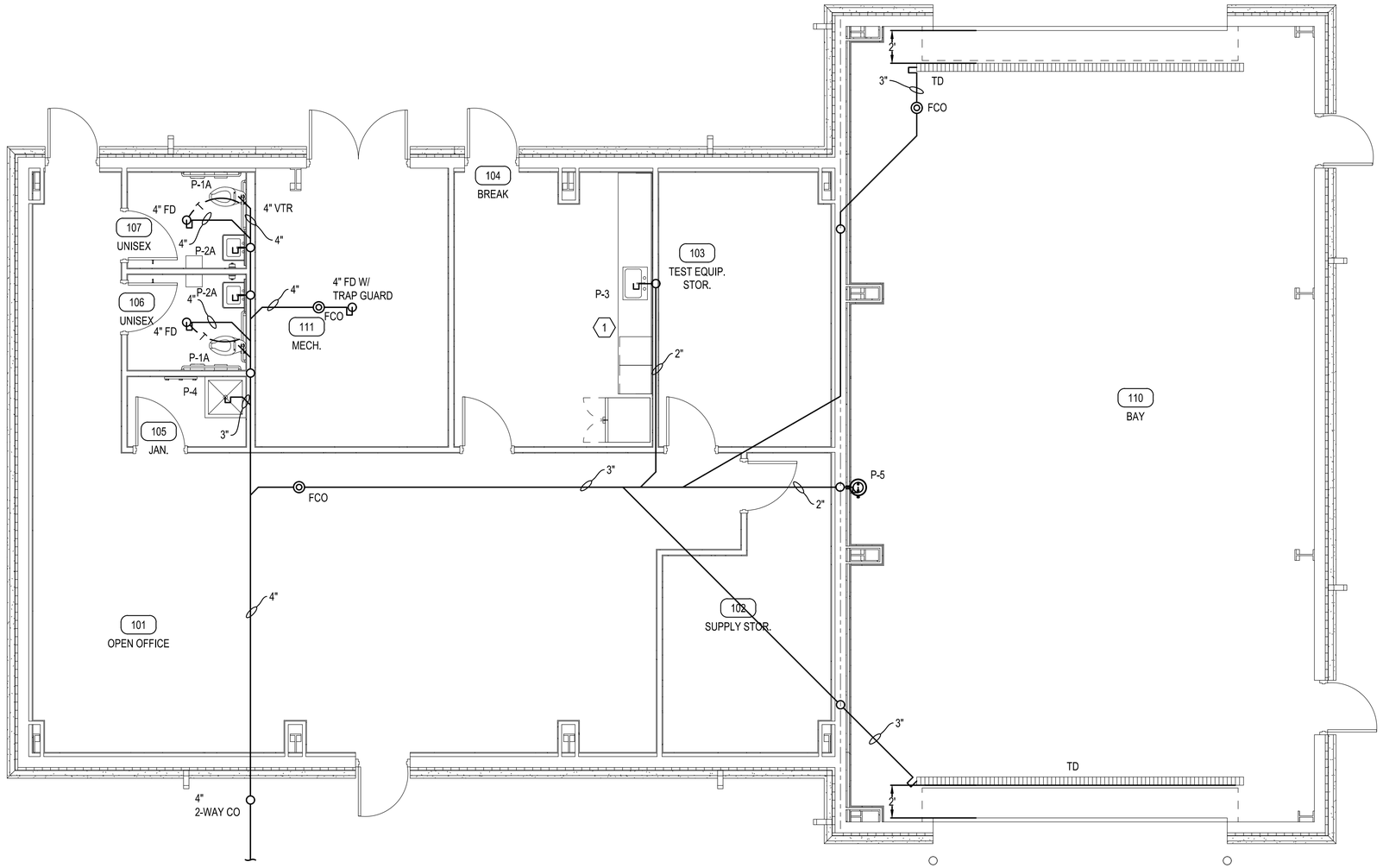

OVERALL FLOOR PLAN - WASTE PIPING NEW WORK

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

KEYNOTES

GRAPHIC SCALE(S)

5' 0 5'

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

GREGORY DAMIAN JOHNSON — 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 2/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PLUMBING WASTE PIPING NEW WORK FLOOR PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-102
SHEET NUMBER: 48 OF 88

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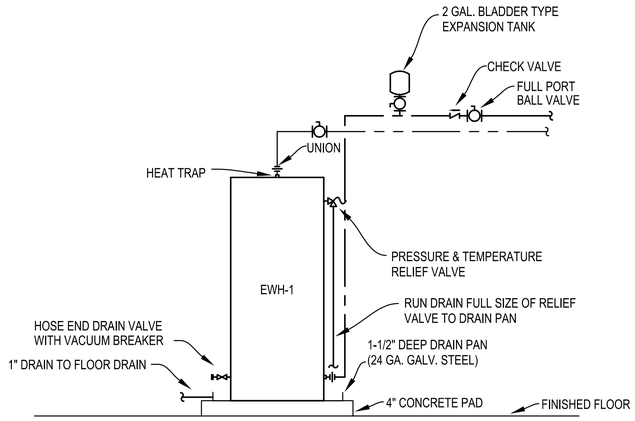
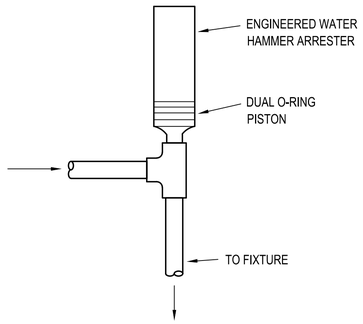
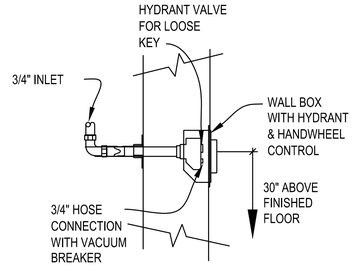


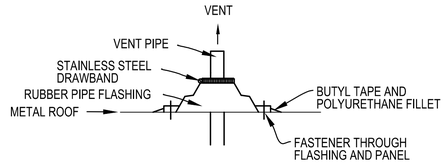
1 TANK TYPE WATER HEATER CONNECTION DETAIL
NOT TO SCALE



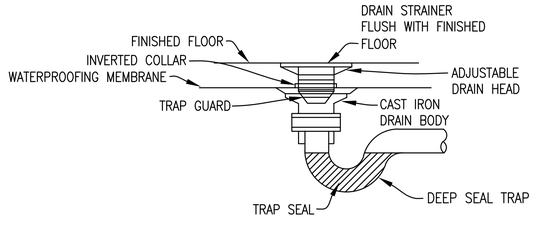
2 WATER HAMMER ARRESTOR DETAIL
NOT TO SCALE



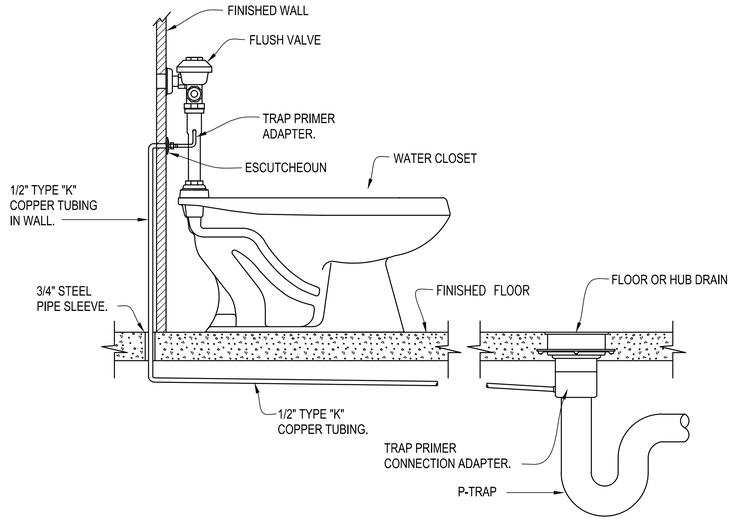
3 WALL HYDRANT DETAIL
NOT TO SCALE



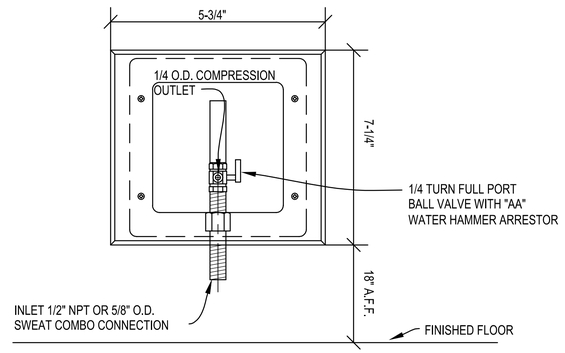
4 VENT THRU ROOF DETAIL
NOT TO SCALE



5 FLOOR DRAIN W/ TRAP GUARD DETAIL
NOT TO SCALE



6 TRAP PRIMER INSTALLATION DETAIL
NOT TO SCALE



7 ICE MAKER VALVE BOX DETAIL
NOT TO SCALE

GREGORY DAMIAN PETERSON
LICENSED
No. 34088
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2/10/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PLUMBING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-501
SHEET NUMBER: 49 OF 88

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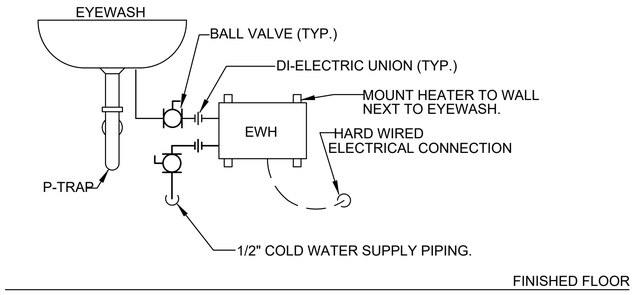
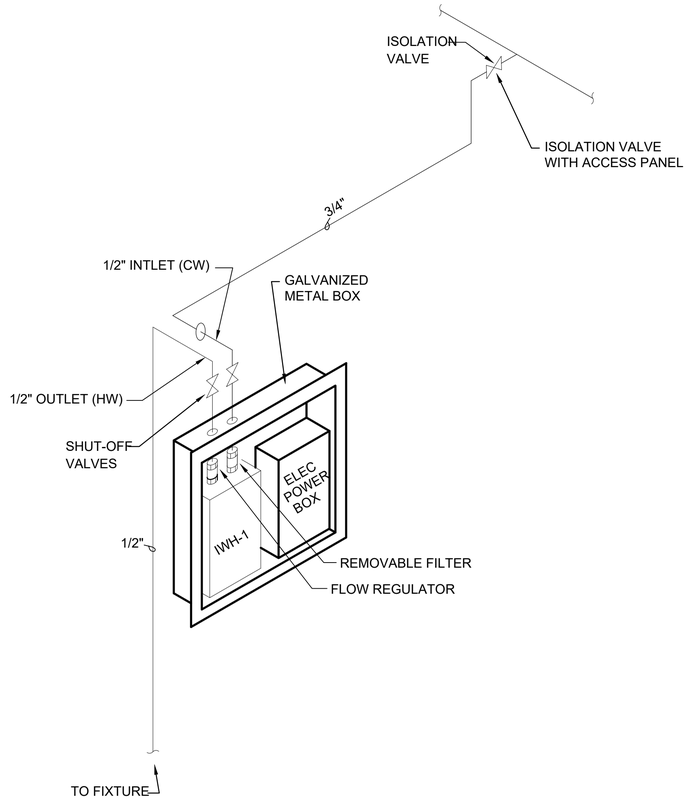


8 EYE WASH INSTALLATION DETAIL
NOT TO SCALE



9 INSTANTANEOUS WATER HEATER
NOT TO SCALE

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PLUMBING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-502
SHEET NUMBER: 50 OF 88

GREGORY DAMIAN PETERSON
LICENSE
No. 34088
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2/12/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

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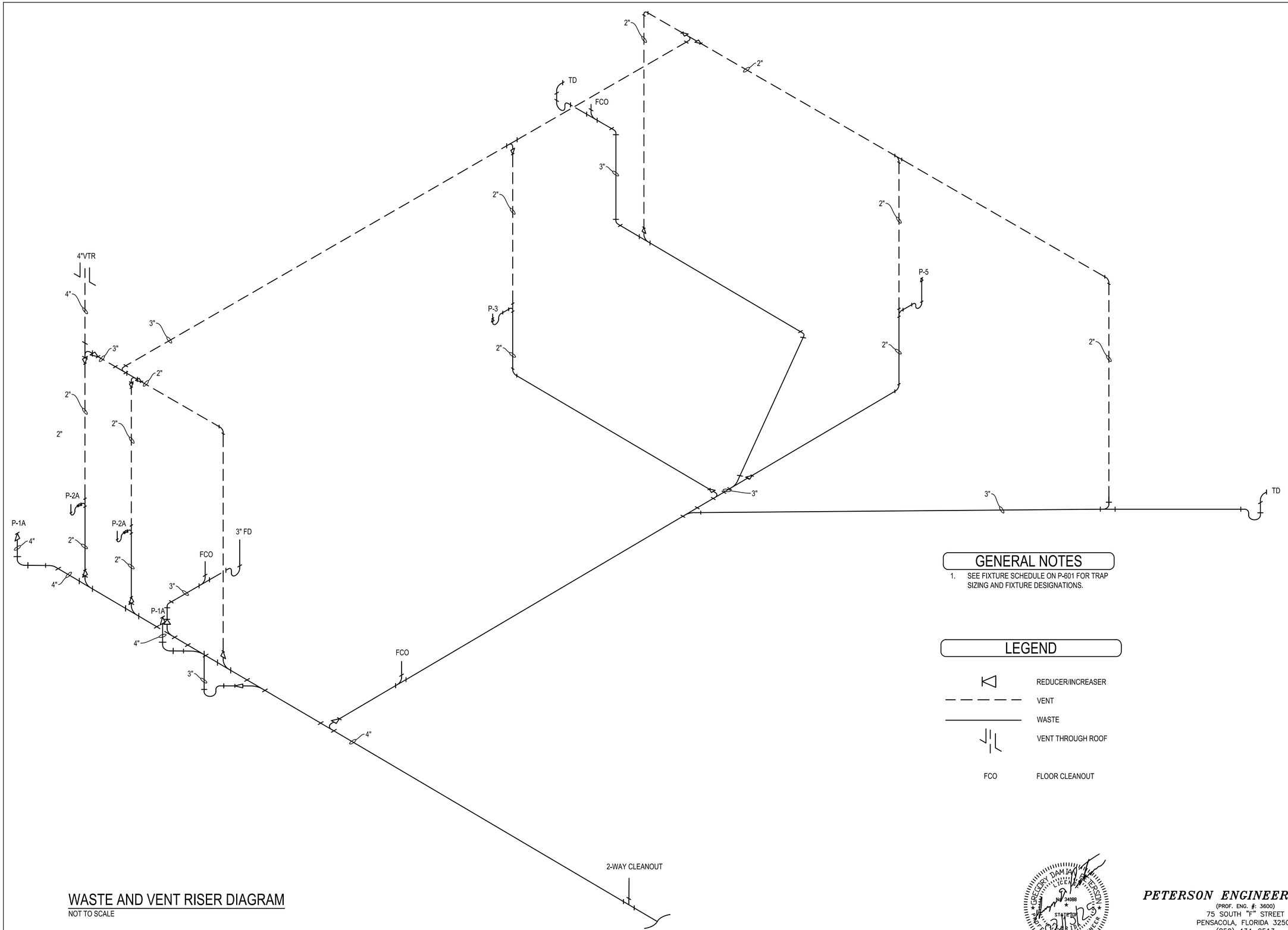

WASTE AND VENT RISER DIAGRAM

NOT TO SCALE

GENERAL NOTES

1. SEE FIXTURE SCHEDULE ON P-601 FOR TRAP SIZING AND FIXTURE DESIGNATIONS.

LEGEND

	REDUCER/INCREASER
	VENT
	WASTE
	VENT THROUGH ROOF
FCO	FLOOR CLEANOUT

GREGORY DAMIAN JACKSON — LICENSE NO. 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 02/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
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PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

WASTE RISER

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:	13 FEB 2025
DESIGNED BY:	SCJ
DRAWN BY:	SCM
BUILDING NUMBER:	90405
PROJECT NUMBER:	OP1134972
SHEET REFERENCE:	P-503
SHEET NUMBER:	51 OF 88

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WATER HAMMER ARRESTOR SCHEDULE

MARK	FIXTURE UNIT RATING	CONN. SIZE INCHES	REMARKS
PDI-A	1-11	1/2"	UNITS SHALL BE PDI RATED AND APPROVED

PLUMBING FIXTURE CONNECTION SCHEDULE

MARK	FIXTURE	CONNECTIONS			MANUFACTURER & MODEL NO.	DESCRIPTION
		WASTE	CW	HW		
P1	WATER CLOSET	4"	1"	--	KOHLER K-4406 KOHLER K-4731-SC ZURN Z6000AV-HET	FLOOR MTD., ELONG. BOWL, 1-1/2" TOP SPUD. ELONGATED, OPEN FRONT SEAT W/ COVER W/ SELF-SUSTAINING CHECK HINGE. 1.28 GPF, 1-1/2" TOP SPUD. PROVIDE TRAP PRIMER VALVE AS REQUIRED.
P1A	WATER CLOSET (ADA)	4"	1"	--	KOHLER K-4405 KOHLER K-4731-SC ZURN Z6000AV-HET	FLOOR MTD., ELONG. BOWL, 1-1/2" TOP SPUD, ADA HEIGHT. ELONGATED, OPEN FRONT SEAT/LESS COVER W/ SELF-SUSTAINING CHECK HINGE. 1.28 GPF, 1-1/2" TOP SPUD. PROVIDE TRAP PRIMER VALVE AS REQUIRED.
P2A	LAVATORY (ADA)	1 1/4"	1/2"	1/2"	KOHLER K-1728-0 DELTA 24T2643-0.5 GPM ZURN Z8700LC-PC ZURN ZH8820-XL-LR-Q-PC ZURN Z1231	19"x17", VITREOUS CHINA, WALL HUNG, 4" CENTERS. LAVATORY FAUCET W/ SINGLE LEVER HANDLE SWIVEL, GOOSENECK SPOUT AND GRID DRAIN. 1 1/4", 17 GAUGE P-TRAP. BRAIDED STEEL SUPPLY CONNECTORS W/ QUARTER-TURN ANGLE STOPS W/ LOOSE TEE-KEY HANDLE. STEEL SUPPORT, CONCEALED ARM LAVATORY CARRIER.
P3	SINK	1 1/2"	1/2"	1/2"	ELKAY LRAD3321-5-1/2" ELKAY LKF3001CR INSINKERATOR BADGER 5 ELKAY LK35 ZURN Z8751 ZURN Z8702LC-PC ZURN ZH8820-XL-LR-Q-PC	33"X21", STAINLESS STEEL, DOUBLE COMPARTMENT, SELF-RIMMING, 5-1/2" DEEP COMPARTMENTS. SINGLE HANDLE FAUCET W/ ARC SWIVEL SPOUT, 1.5 GPM FLOW RESTRICTOR AND SPRAY. 1/2 HORSEPOWER, 120 V, 1Ø, 60 Hz, 6.3 AMPS, 1725 RPM GARBAGE DISPOSAL. BASKET STRAINER/DRAIN. 1-1/2", 17 GAUGE CONTINUOUS WASTE. 1 1/2", 17 GAUGE P-TRAP. BRAIDED STEEL SUPPLY CONNECTOR W/ QUARTER-TURN ANGLE STOPS W/ LOOSE TEE-KEY HANDLE.
P4	MOP SINK	3"	1/2"	1/2"	FIAT TSB 2424 FIAT 830-AA FIAT 832-AA FIAT MSG2424	24"x24", TERRAZZO, FLOOR MTD., MOP SERVICE BASIN W/ STAINLESS STEEL CURB CAPS. SERVICE SINK FAUCET W/ WALL BRACE, VAC. BRKR. AND INTEGRAL STOPS. HOSE & HOSE BRACKET; MOP HANGER STAINLESS STEEL WALL GUARD. PROVIDE (2) 24" LONG.
P5	EMERGENCY EYEWASH	1 1/4"	--	1-1/4"	BRADLEY S19314EAP BRADLEY S19-320B	GALV. STEEL PIPE, FLOOR MOUNTED, DUAL SPRAY HEADS W/ DUST COVERS, DRENCH HOSE W/ VB, SIDE MOUNTED CONTROL HANDLE, FOOT PEDAL CONTROL, PLASTIC SHOWERHEAD. 85°F TEPID WATER SUPPLY. ELECTRIC LIGHT AND ALARM HORN W/ 120V/24V TRANSFORMER AND FLOW SWITCH.
P6	ICE MAKER VALVE BOX	--	1/2"	--	OATEY MODEL 39140	WALL RECESSED
FD	FLOOR DRAIN	4"	--	--	ZURN ZN-415	PROVIDE WITH TRAP PRIMERS UNLESS OTHERWISE NOTED, PIPE SIZE TO BE 4" WITH NEO-LOC. 6" BRONZE TYPE "B" STRAINER.
TD	TRENCH DRAIN	--	3"	--	ZURN Z886-HD	MODULAR FLOOR DRAIN W/ 80" CHANNEL SECTIONS WITH 6-3/4" WIDE REVEAL AND 4" THROAT. DIN EN1433 CLASS C RATED DUCTILE IRON SLOTTED GRATE W/ 3" END OUTLET.
WH	WALL HYDRANT	--	3/4"	--	WOODFORD MODEL 68	EXTERIOR FREEZE PROOF W/ COVER, BRASS, VAC. BRKR, LOOSE TEE KEY, MOUNT PER CODE

NOTES:
1. PLUMBING FIXTURE COLOR SHALL BE SELECTED BY ARCHITECT.
2. ALL TOILET ROOM ACCESSORIES AND GRAB BAR REQUIREMENTS SHALL BE AS SELECTED BY ARCHITECT.

BACKFLOW PREVENTER SCHEDULE - BASIS OF DESIGN

NUMBER	LINE SIZE, IN.	GPM	MAX. PRESSURE DROP	REMARKS *
BFP-1	2"	60	10#	HORIZIONTAL TYPE WITH SHUTOFF VALVES

* REDUCED PRESSURE TYPE

EXPANSION TANK SCHEDULE

MARK	TYPE	VOLUME ACCEPTANCE	VOLUME	AIR CHARGE	MAX. WORKING PRESSURE	BASIS OF DESIGN	
						MAKE	MODEL
ET-1	VERTICAL	0.9 GAL	2.0 GAL	SYSTEM PRESSURE	150 PSI	AMTROL	ST-5

WATER HEATER SCHEDULE

MARK		EWH-1	EWH-2
CAPACITY (GALS.)		25	TANKLESS
NO. ELEMENTS		2	1
K.W. PER ELEMENT		3.0	2.4
ELECTRICAL DATA	VOLTS	208	120
	PHASE	3	1
	HERTZ	60	60
BASIS OF DESIGN	MAKE	AO SMITH	EEMAX
	MODEL	DSE-5-3	TEF024V120

GREGORY DAMIAN PETERSON LICENSE 34088 STATE OF FLORIDA PROFESSIONAL ENGINEER 02/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PLUMBING SCHEDULES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: P-601
SHEET NUMBER: 52 OF 88

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GENERAL NOTES

1. THE CONTRACTOR MUST FIELD VERIFY ALL DIMENSIONS BEFORE ANY DUCTWORK OR PIPING IS FABRICATED.
2. THE CONTRACTOR MUST MAKE OFFSETS AND MINOR ADJUSTMENTS AS REQUIRED FOR SYSTEM INSTALLATIONS.
3. COORDINATION WITH ALL TRADES IS REQUIRED FOR ALL WORK UNDER THSI CONTRACT.
4. THE CONTRACTOR MUST NOT CUT ANY STRUCTURAL MEMBERS OF THE BUILDING WITHOUT WRITTEN CONSENT FROM THE GOVERNMENT.
5. THE CONTRACTOR MUST VISIT THE JOB SITE TO STUDY DETAILS OF THE WORK, WORKING CONDITIONS, AND VERIFY CONDITIONS IN THE FIELD.
6. VERIFY COLLAR SIZES ON ALL EQUIPMENT INLETS AND OUTLETS AND TRANSITION DUCTWORK AS NECESSARY.
7. EXTERNALLY INSULATE TRANSITIONS AT EQUIPMENT CONNECTIONS.
8. INSTALL ALL EQUIPMENT AND DUCTWORK SUCH THAT MANUFACTURERS RECOMMENDED CLEARANCES ARE MET FOR ALL ACCESS PANELS, MOTORS, FANS, BELTS, FILTERS, AND INTAKES.
9. ALL DUCTWORK MUST BE GALVANIZED METAL CONSTRUCTION.
10. SEAL ALL DUCT PENETRATIONS OF WALLS AIRTIGHT, REGARDLESS OF WHETHER WALLS ARE FIRE RATED OR NOT.
11. ALL SUPPLY AIR DUCTWORK (EXCEPT TAKEOFFS TO SUPPLY AIR DIFFUSERS) MUST BE LOW PRESSURE ROUND, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A, EXTERNALLY INSULATED, DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
12. ALL RETURN DUCTWORK MUST BE LOW PRESSURE RECTANGULAR, SMACNA STATIC PRESSURE CLASS 1" W.G., SEAL CLASS A. DUCT SIZES INDICATED ARE INSIDE CLEAR DIMENSIONS.
13. EXHAUST AIR DUCTWORK MUST BE LOW PRESSURE RECTANGULAR SMACNA STATIC PRESSURE CLASS 2" W.G., SEAL CLASS A, INSULATION NOT REQUIRED.
14. AVOID ROUTING DUCTWORK OVER LIGHTS WHEREVER POSSIBLE. MAINTAIN MINIMUM 6" CLEARANCE BETWEEN DUCT INSULATION TO TOP OF LIGHTS.
15. HVAC DRAWINGS ARE DIAGRAMMATIC AND INDICATIVE OF WORK TO BE FURNISHED AND INSTALLED UNDER THIS CONTRACT. PREFER TO ARCHITECTURAL AND STRUCTURAL DRAWINGS FOR DETAILED DIMENSION REQUIREMENTS.
16. THE CONTRACTOR MUST BE RESPONSIBLE FOR COORDINATING WORK OF ALL SUBCONTRACTORS TO AVOID INTERFERENCES.
17. SUPPORTS AND HANGERS FOR DUCTWORK AND PIPING MUST PRESENT A NEAT AND ORDERLY APPEARANCE.
18. DETAILS ARE FOR TYPICAL INSTALLATION. THE MANUFACTURER'S INSTALLATION GUIDELINES SUPERCEDE DETAILS IF THERE IS A CONFLICT.
19. COORDINATE LOCATIONS FOR SUPPLY AND RETURN AIR DEVICES WITH SPRINKLER HEAD LOCATIONS. SPRINKLER HEADS TAKE PRECEDENCE. SHIFT SUPPLY AND RETURN AIR DEVICES AS NEEDED TO AVOID CONFLICT.
20. ALL SUSPENDED EQUIPMENT, DUCTWORK, AND PIPING MUST BE SEISMICALLY BRACED.

MECHANICAL ABBREVIATIONS

ACT	ACOUSTICAL CEILING TILE
AD	ACCESS DOOR
AHU	AIR HANDLING UNIT
BOD	BOTTOM OF DUCT
CFM	CUBIC FEET PER MINUTE
°F	DEGREE FAHRENHEIT
EA	EACH
EF	EXHAUST FAN
EXH	EXHAUST
KW	KILOWATT
MAX	MAXIMUM
MBH	1000 BTU/H
MIN	MINIMUM
MVD	MANUAL VOLUME DAMPER
OA	OUTSIDE AIR
OC	ON CENTER
OCEW	ON CENTER EACH WAY
Ø	ROUND
RA	RETURN AIR
RAG	RETURN AIR GRILL
RAR	RETURN AIR REGISTER
SA	SUPPLY AIR
SCR	SILICON CONTROLLED RECTIFIER
SWS	SIDEWALL SUPPLY GRILLE
W/	WITH

MECHANICAL LEGEND


ELBOW WITH TURNING VANES

THERMOSTAT

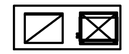

30° DUCT TRANSITION


RETURN AIR GRILLE


EXHAUST AIR GRILLE


NEW SUPPLY DUCT


EXHAUST DUCT UP


NEW AIR HANDLER AND RETURN AIR PLENUM


SIDEWALL SUPPLY GRILLE


HEAT PUMP OUTDOOR UNIT


CEILING EXHAUST FAN


SIDEWALL RETURN GRILLE


ROUND TAKEOFF WITH MVD

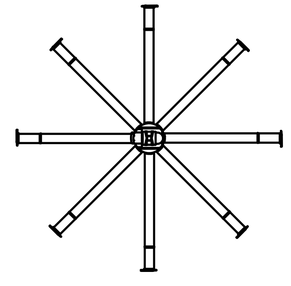

FLEXIBLE DUCTWORK

CEILING MOUNTED SUPPLY DIFFUSER


CEILING MOUNTED RETURN AIR GRILLE


IN-LINE EXHAUST FAN


UNIT HEATER


CIRCULATING FAN

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

MECHANICAL GENERAL NOTES, LEGEND, AND ABBREVIATIONS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-001
SHEET NUMBER: 53 OF 88

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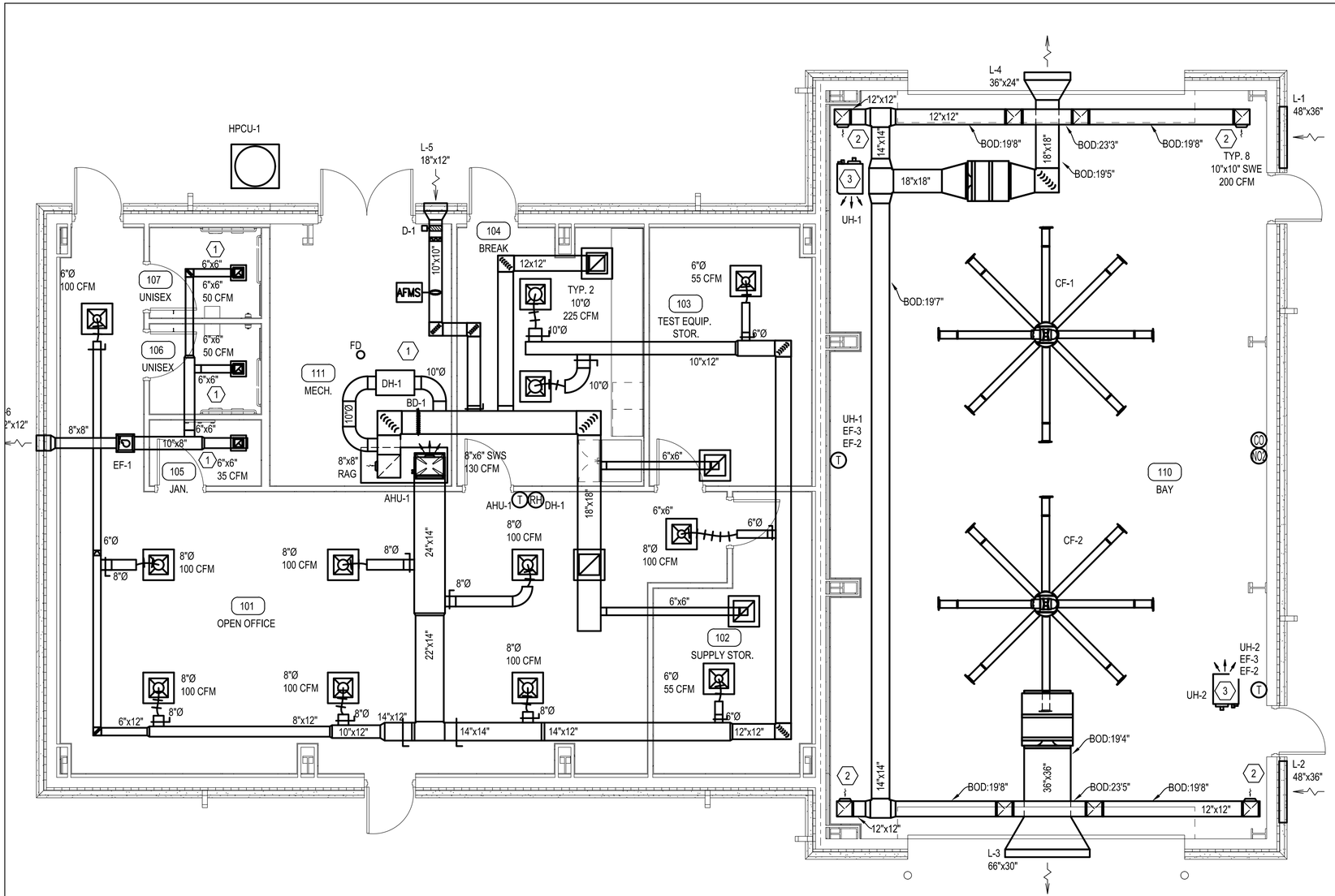

KEYNOTES

1. PROVIDE GRILLES WITH OPERABLE DAMPER ACCESSORY IN AREAS WITH HARD CEILINGS.
2. INSTALL 10"x10" EXHAUST GRILLES IN HI-LOW CONFIGURATION WITH ONE GRILLE 2' AFF, AND ONE GRILLE 12' AFF.
3. INSTALL BAY HEATERS AT 10' AFF.

MECHANICAL NEW WORK FLOOR PLAN

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

GRAPHIC SCALE(S)

5' 0 5'

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

GREGORY DAMIAN PETERSON — 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 2/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
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PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

MECHANICAL NEW WORK FLOOR PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-101
SHEET NUMBER: 54 OF 88

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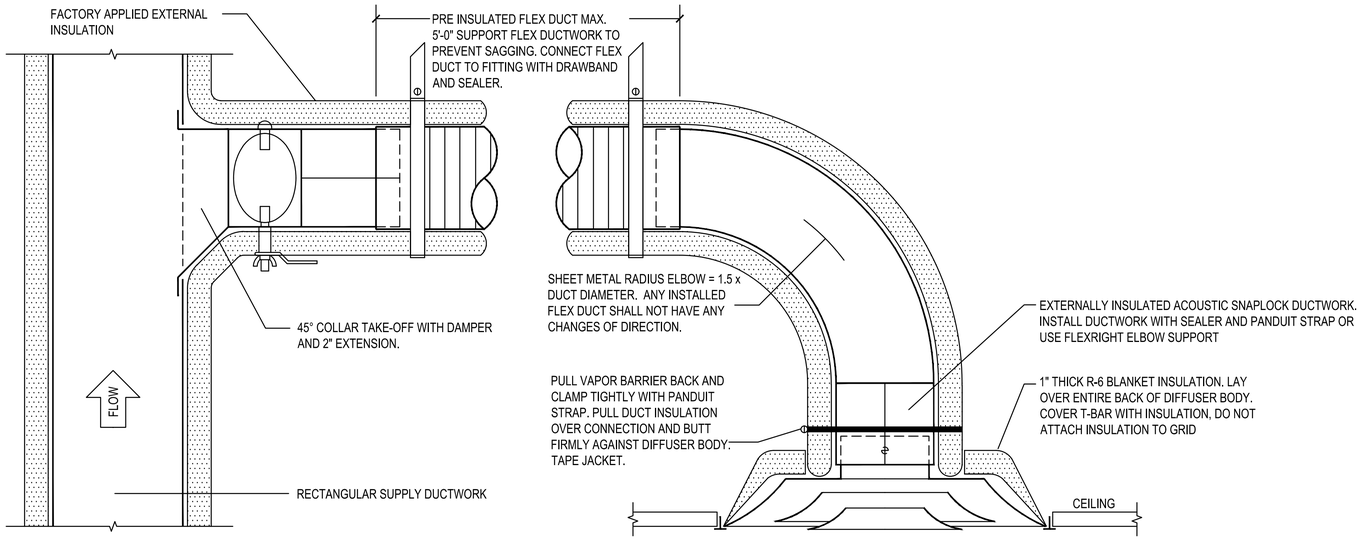
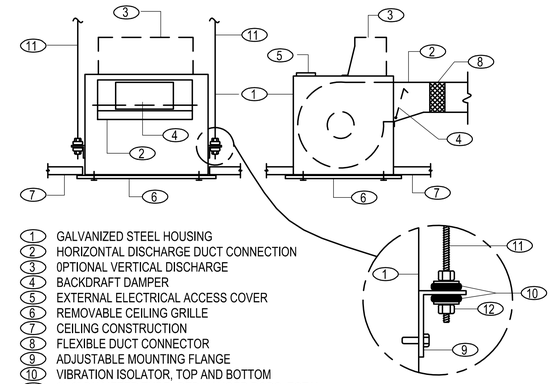


1 ROUND DUCT TAKEOFF TO DIFFUSER DETAIL
NOT TO SCALE



2 CEILING EXHAUST FAN DETAIL
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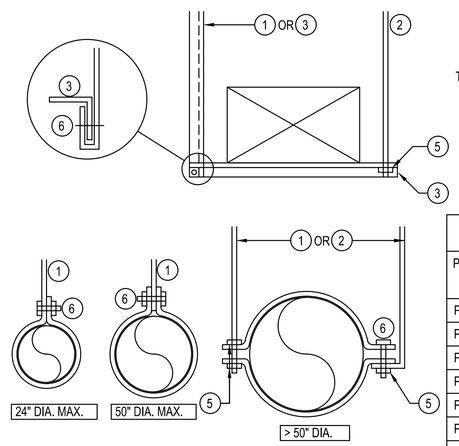
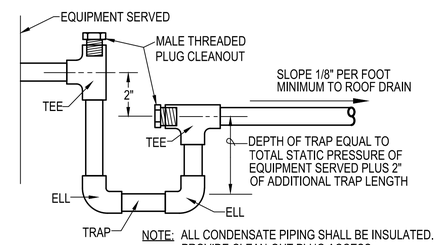


RECTANGULAR DUCT HANGERS MIN. SIZE								
PERIMETER/2	10FT SPACING		8FT SPACING		5FT SPACING		4FT SPACING	
	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD	STRAP	WIRE/ROD
P/2 = 30"	1"x22 GA.	0.135"	1"x22 GA.	0.135"	1"x22 GA.	0.135"	1"x22 GA.	0.135"
P/2 = 72"	1"x18 GA.	3/8"	1"x20 GA.	1/4"	1"x22 GA.	1/4"	1"x22 GA.	1/4"
P/2 = 96"	1"x16 GA.	3/8"	1"x18 GA.	3/8"	1"x20 GA.	3/8"	1"x22 GA.	1/4"
P/2 = 120"	1.5"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x18 GA.	3/8"	1"x20 GA.	1/4"
P/2 = 168"	1.5"x16 GA.	1/2"	1.5"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x18 GA.	3/8"
P/2 = 192"	-	1/2"	1.5"x16 GA.	1/2"	1"x16 GA.	3/8"	1"x16 GA.	3/8"
P/2 > 193"	SPECIAL ANALYSIS REQUIRED							

REFERENCE TO SMACNA HVAC DUCT CONSTRUCTION STANDARDS

3 TYPICAL LOW PRESSURE DUCT HANGER DETAIL
NOT TO SCALE



4 TYPICAL CONDENSATE DRAIN DETAIL
NOT TO SCALE

GREGORY DAMIAN PETERSON LICENSE NO. 34088 STATE OF FLORIDA PROFESSIONAL ENGINEER
2/10/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
75 SOUTH "F" STREET
PENSACOLA, FLORIDA 32502
(850) 434-0513
PEI JOB #23053

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING
MECHANICAL DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-501
SHEET NUMBER: 55 OF 88

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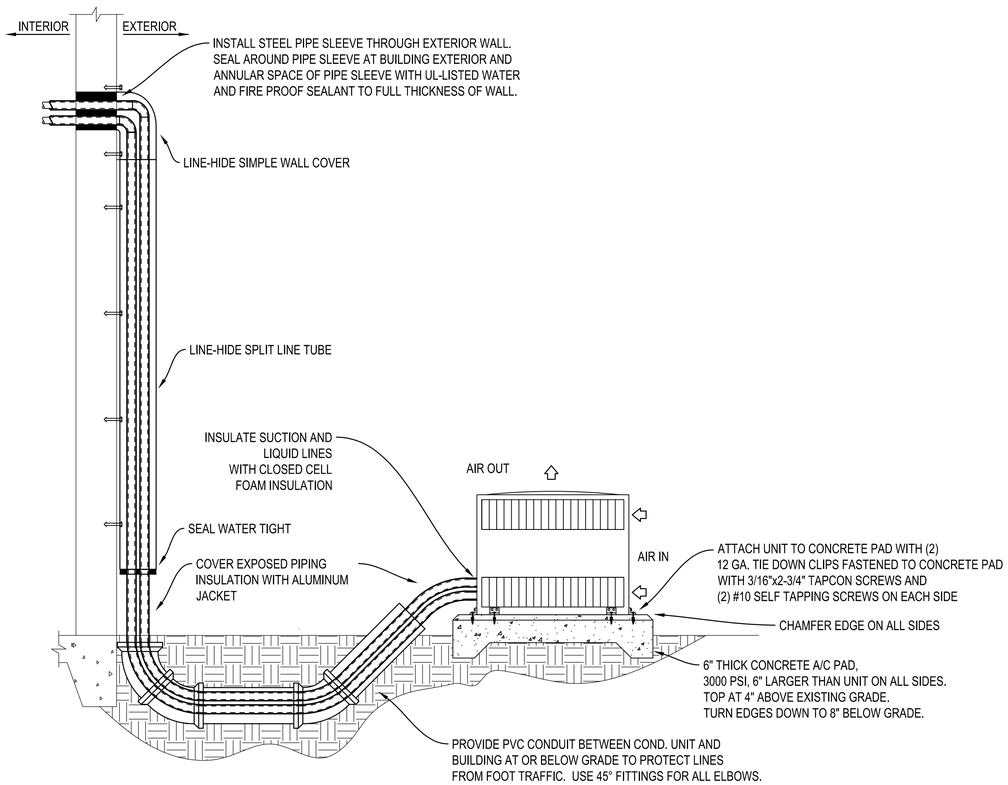
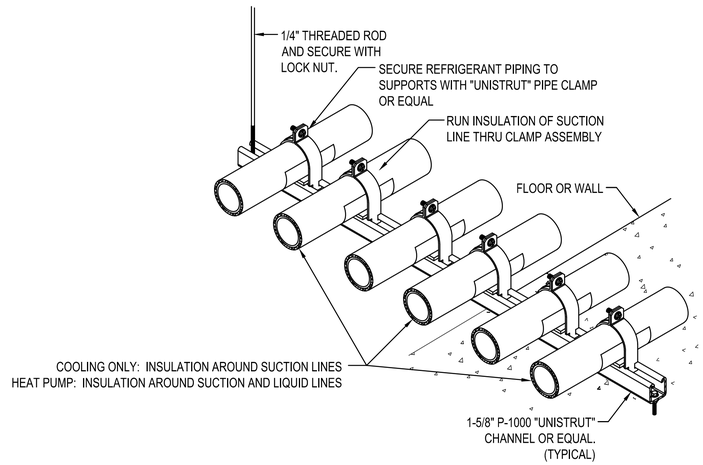


5 TYPICAL CONDENSING UNIT DETAIL
NOT TO SCALE



6 REFRIGERANT PIPE SUPPORT DETAIL
NOT TO SCALE

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

MECHANICAL DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-502
SHEET NUMBER: 56 OF 88

GREGORY DAMIAN PETERSON — LICENSE NO. 34088 — STATE OF FLORIDA — PROFESSIONAL ENGINEER — 02/13/25

PETERSON ENGINEERING INC.
(PROF. ENG. #: 3600)
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SPLIT SYSTEM DIRECT EXPANSION AIR HANDLING UNIT SCHEDULE

MARK	TYPE	FAN DATA									DIRECT EXPANSION COOLING COIL DATA								HEATING DESIGN CONDITIONS			UNIT FILTER TYPE		BASIS OF DESIGN	REMARKS
		TOTAL AIR CFM	OUTSIDE AIR CFM	EXTERNAL STATIC PRESSURE INCHES H Q	NO. OF FANS	MOTOR DATA					MAX. FACE VEL FPM	NOMINAL COOLING CAP. MBTU/HR	SENSIBLE COOLING CAP. MBTU/HR	ENTERING AIR TEMP.		LEAVING AIR TEMP.		REFRIGERANT TYPE	TOTAL MBTU/HR	AMBIENT °F	AUX. ELEC. HEAT TOTAL (KW)	MAX FACE VELOCITY	EFFICIENCY		
						HP	VOLTS	PHASE	HERTZ	TYPE				°Fdb	°Fwb	°Fdb	°Fwb								
AHU-1	VDT	1,490	260	1.0"	1	0.75	208-230	1	60	PREMIUM	500	54.2	40.0	76.9	63.8	51.8	50.7	454B	23	17	7.2 KW	500	MERV 13	TRANE TEM6B0C60H51	1,2,3,4,6

SPLIT AND PACKAGED UNIT GENERAL NOTES: VDT - VERTICAL DRAW THRU

1. EXTERNAL STATIC DOES NOT INCLUDE PRESSURE DROP THROUGH CASING COILS, FILTERS, AND FILTER HOUSINGS.
2. MANUFACTURER TO INCLUDE .6" STATIC PRESSURE FOR EACH FILTER SECTION TO ACCOUNT FOR DIRTY FILTERS.
3. TRAP CONDENSATE FROM UNITS AND PIPE TO DRAIN OR DRY WELL WITH TRAP.
4. PROVIDE UNIT MOUNTED DIFFERENTIAL PRESSURE GAUGES AND PRESSURE SWITCHES FOR FILTER DPs.
5. ALL DIRECT EXPANSION COILS SHALL BE PROVIDED A FACTORY CORROSION RESISTANT COATING DESIGNED FOR THE LIFE CYCLE OF THE COILS.
6. PROVIDE SINGLE SOURCE POWER CONNECTION CONSTRUCTED ACCORDING TO N.E.C REGULATIONS AND SHALL CARRY THE U.L.508 LISTING.

HEAT PUMP - OUTDOOR UNIT SCHEDULE

MARK	DESIGN COOLING		DESIGN HEATING		REF TYPE	NUMBER OF REF. CIRCUITS	COMPRESSORS/FANS		ELECTRICAL					BASIS OF DESIGN	REMARKS
	NOMINAL MBTU/HR	AMBIENT °F	TOTAL MBTU/HR	AMBIENT °F			# OF COMP/FAN	# OF STAGES	VOLTS	PHASE	Hz	MCA	MOP		
HPCU-1	60	95	35.8	17	410A	1	1 / 1	2	208	1	60	35	60	TRANE 4TWR6060	1,2,3

NOTES:
1. FURNISH DISCONNECT.
2. ALL DIRECT EXPANSION COILS SHALL BE PROVIDED A FACTORY CORROSION RESISTANT COATING DESIGNED FOR THE LIFE CYCLE OF THE COILS.
3. PROVIDE 6" CONCRETE PAD. THE PAD SHALL EXTEND 6" BEYOND EQUIPMENT. SEE DETAIL.
4. BASIS OF DESIGN: TRANE 4TWR56060

FAN SCHEDULE

MARK	TYPE	DRIVE	PERFORMANCE DATA				ELECTRICAL				MANUFACTURER MODEL	CONTROL
			AIR FLOW CFM	E.S.P. IN. H Q	MAX. RPM	MAX. SONES	MAX. HP/WATTS	VOLTS	PHASE	Hz		
EF-1	IN-LINE	DD	220	0.375	1,380	5.5	103 W	115	1	60	COOK GN-188	INTERLOCK
EF-2	IN-LINE	DD	1,600	0.375	1,725	3.8	3/4 HP	208	3	60	COOK 210SQNH17V(VF2)	T'STAT
EF-3	IN-LINE	DD	4,400	0.375	1,725	6.3	1 HP	208	3	60	COOK 270SQN17D(VF)	T'STAT

FAN SCHEDULE LEGEND:

DD - DIRECT DRIVE
EF - EXHAUST FAN
ESP - EXTERNAL STATIC PRESSURE

FAN GENERAL NOTES:

1. PROVIDE ALL FANS WITH A GRAVITY BACK DRAFT DAMPER.
2. ALL DIRECT DRIVE FANS WIT MOTORS LESS THAN $\frac{1}{2}$ HP SHALL BE PROVIDED WITH AN ADJUSTABLE SOLID STATE SPEED CONTROLLER.
3. PROVIDE ALL FANS WITH NEMA 3R DISCONNECT.
4. PROVIDE ALL FANS WITH VIBRATION ISOLATORS.

LOUVER SCHEDULE

MARK	LOUVER/DAMPER SIZE (W x H)	FREE AREA	AIR FLOW CFM	MAX. FACE VEL FPM	MAX. PRESSURE DROP	MANUFACTURER (OR EQUIVELENT)	MODEL	NOTES
L-1	48"x36"	57%	3,000	550	.05"	RUSKIN	ELF6375DXD	INTERLOCK DAMPERS WITH EF-4 AND EF-5; SEE NOTES 1,2,3
L-2	48"x36"	57%	3,000	550	.05"	RUSKIN	ELF6375DXD	INTERLOCK DAMPERS WITH EF-4 AND EF-5; SEE NOTES 1,2,3
L-3	66"x30"	57%	4,400	600	.05"	RUSKIN	ELF6375DXD	SEE NOTES 1,3
L-4	36"x24"	57%	1,600	600	.05"	RUSKIN	ELF6375DXD	SEE NOTES 1,3
L-5	18"x12"	57%	200	550	.05"	RUSKIN	ELF6375DXD	INTERLOCK DAMPER WITH AHU-1; SEE NOTES 1,2,3
L-6	12"x12"	57%	220	600	.05"	RUSKIN	ELF6375DXD	SEE NOTES 1,3

LOUVER GENERAL NOTES:

1. PROVIDE INSECT SCREEN AIR INTAKE LOUVERS.
2. PROVIDE LOUVERS WITH MOTOR CONTROLLED 2-POSITION DAMPERS.
3. LOUVERS SHALL BE AMCA 550 CERTIFIED.

GRILLE/REGISTER/DIFFUSER SCHEDULE

MARK	TYPE	USE	MOUNTING TYPE	CORE SIZE	MAX NC	BASIS OF DESIGN	REMARKS
SWG	SINGLE DEFLECTION BLADES IN SHORT DIMENSION, 3/4" BLADE SPACING.	SUPPLY	DUCT	SEE PLAN	20	PRICE 610	(1)
RAG	SINGLE DEFLECTION BLADES IN LONG DIMENSION, 3/4" BLADE SPACING, 35° FIXED DEFLECTION	RETURN	SURFACE	SEE PLAN	20	PRICE 80	(1)

NOTES:

(1) ALUMINUM CONSTRUCTION

DAMPER SCHEDULE

MARK	AMCA LEAKAGE CLASS	BLADE ORIENTATION	LOCATION	SIZE	MANUFACTURER	MODEL No.
D-1	1A	ROUND	OA INTAKE	10"Ø	RUSKIN	CDR-25

NOTES:
1. PROVIDE WITH 24V ACTUATOR.
2. 2 POSITION DAMPER.

ELECTRIC UNIT HEATER SCHEDULE

MARK	HEATING CAPACITY KW RATING	CFM	TYPE	LOUVERS	MAX. RLA	ELECTRICAL DATA			REMARKS
						VOLTS	PHASE	Hz	
UH-1	15 KW	1,215	SUSPENDED	ADJUSTABLE	26.8 A	208	3	60	1,2,3,4,5
UH-2	15 KW	1,215	SUSPENDED	ADJUSTABLE	26.8 A	208	3	60	1,2,3,4,5

ELECTRIC UNIT HEATER GENERAL NOTES:
1. ALL ELECTRIC UNIT HEATERS SHALL BE A PROPELLER FAN UNIT, COMPLETELY FACTORY ASSEMBLED, AND FACTORY WIRED.
2. PROVIDE WITH SCR HEATING CONTROL.
2. PROVIDE UNIT WITH SINGLE POLE SINGLE STAGE FIELD MOUNTED ADJUSTABLE THERMOSTAT.
3. UNIT SHALL COME WITH TRANSFORMERS, RELAYS, AND SAFETIES.
4. PROVIDE UNITS WITH VIBRATION ISOLATORS.
5. UNIT MANUFACTURER: REZNOR MODEL: EUH

CIRCULATION FAN SCHEDULE

MARK	FAN DIAMETER	ELECTRICAL DATA		BASIS OF DESIGN		NOTES
		MOTOR HP	MOTOR V/PH/HZ	MAKE	MODEL	
CF-1	14'-0"	1.5	200-240/1/60	BIG ASS FANS	POWERFOIL X3.0	1,2
CF-2	14'-0"	1.5	200-240/1/60	BIG ASS FANS	POWERFOIL X3.0	1,2

1. PROVIDE WITH SPEED CONTROL.
2. PROVIDE WITH WALL MOUNTED ON/OFF SWITCH.

PACKAGE DEHUMIDIFICATION UNIT SCHEDULE

MARK	AIR DATA		DESIGN CONDITIONS			ELECTRICAL				FILTER TYPE	UNIT EQUAL TO HEALTHY CLIMATE MODEL #
	TOTAL AIR CFM	E.S.P. IN H_2O	TOTAL CAPACITY	ENTERING AIR COND.	DISCHARGE TEMP RISE	VOLTS	PHASE	Hz	UNIT AMPS		
DH-1	310	0.0	130PPD	50°F-104°F	10°F-30°F	120	1	60	10.4	WASHABLE MERV 8	HCWHD4-130

NOTES:
1. DEHUM-1 SHALL BE PROVIDED WITH FACTORY CONTROLS AND MANUFACTURER'S COMPATIBLE HUMIDISTAT.
2. ROUTE INSULATED CONDENSATE DRAIN LINES (1" MIN.) TO FLOOR DRAIN IN MECHANICAL ROOM.

GREGORY DAMIAN PETERSON LICENSE 34088 STATE OF FLORIDA PROFESSIONAL ENGINEER

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(850) 434-0513
PEI JOB #23053

REV # | DATE | DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING
MECHANICAL SCHEDULES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-601
SHEET NUMBER: 57 OF 88

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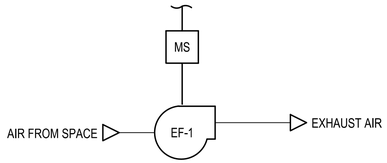
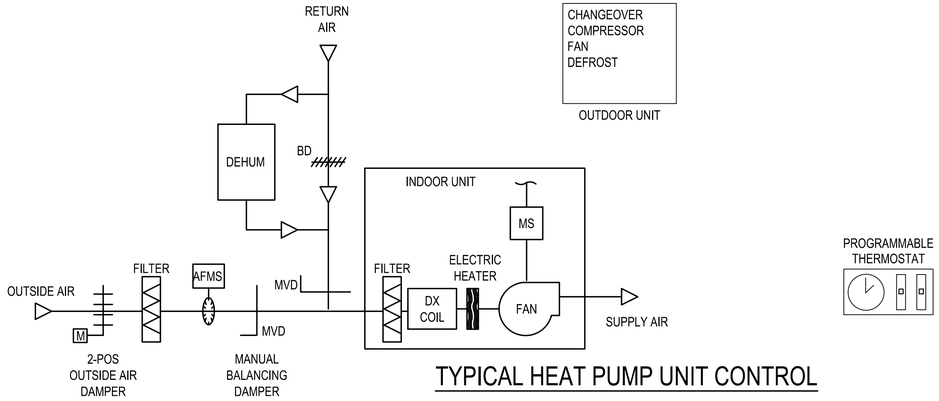


BATHROOM EXHAUST FAN SEQUENCE OF OPERATION

BATHROOM EXHAUST FAN SHALL BE INTERLOCKED WITH OUTSIDE AIR DAMPER AND AIR HANDLING UNIT BLOWER SUCH THAT WHEN THE OUTSIDE AIR DAMPER IS OPEN AND THE AIR HANDLER BLOWER IS ENABLED, THE BATHROOM EXHAUST FAN SHALL ENABLE. IF BOTH CONDITIONS ARE NOT MET, BATHROOM EXHAUST FAN SHALL BE DISABLED.



PROGRAMMABLE THERMOSTAT

TYPICAL HEAT PUMP UNIT CONTROL

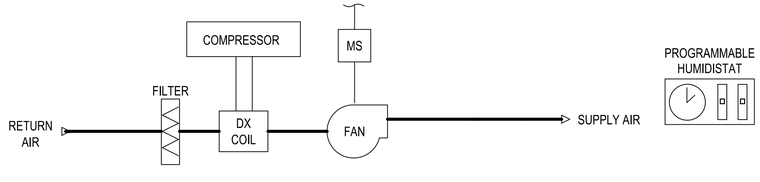
HEAT PUMP SEQUENCE OF OPERATION

OCCUPIED MODE: DURING THE SET OCCUPIED TIME FRAME, THE AIR HANDLING UNIT CONTROLLER SHALL OPEN THE OUTSIDE AIR DAMPER TO SUPPLY OUTSIDE AIR TO THE SPACE AND CONTROL SPACE CONDITIONS TO MEET OCCUPIED SETPOINTS.
EF-1 SHALL BE ENABLED AND DISABLED BY SAME OCCUPANCY SCHEDULE.

SPACE COOLING: THE INDOOR UNIT'S FAN SHALL BE STARTED BY THE PROGRAMMABLE THERMOSTAT ACCORDING TO ITS OCCUPIED/UNOCCUPIED SCHEDULE AS PROGRAMMED INTO THE THERMOSTAT. WHEN ROOM TEMPERATURE RISES ABOVE THE COOLING SET POINT THE OUTDOOR UNIT SHALL ACTIVATE THE REVERSING VALVE AND STAGE BOTH COMPRESSORS AND VARY INDOOR UNIT BLOWER SPEED AS NEEDED TO SATISFY SPACE COOLING REQUIREMENTS.

SPACE HEATING: WHEN ROOM TEMPERATURE FALLS BELOW THE HEATING SET POINT, THE UNIT SHALL ACTIVATE THE OUTDOOR UNIT COMPRESSOR AND REVERSING VALVE AND VARY INDOOR UNIT BLOWER SPEED AS NEEDED TO SATISFY SPACE HEATING REQUIREMENTS. AUXILIARY ELECTRIC HEAT SHALL ENABLE IF HEAT PUMP CANNOT MAINTAIN SPACE HEATING SETPOINT.

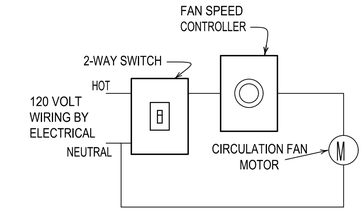
UNOCCUPIED MODE: UNIT SHALL CLOSE THE OUTSIDE AIR DAMPER AND CONTROL SPACE CONDITIONS TO UNOCCUPIED SETPOINTS.



PACKAGE DEHUMIDIFICATION UNIT CONTROL

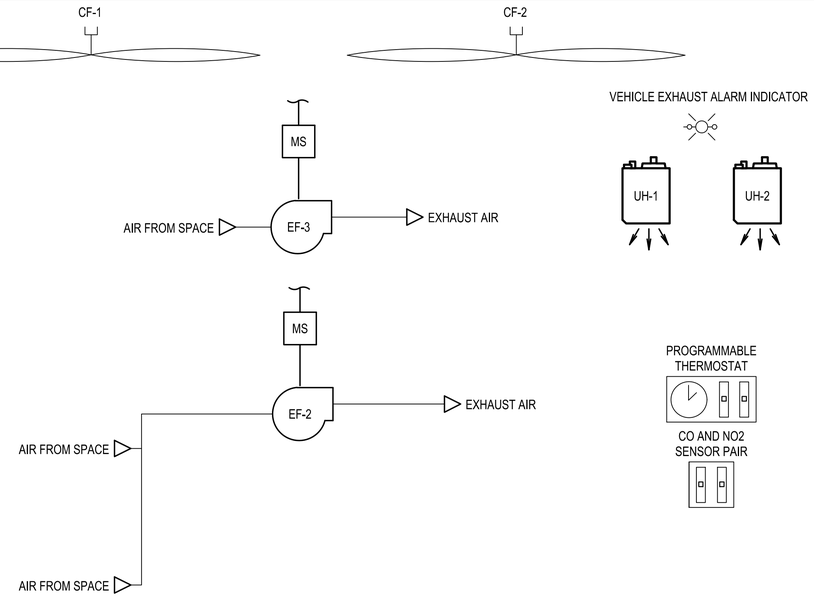
SEQUENCE OF OPERATION

PACKAGE DEHUMIDIFICATION UNIT SHALL BE CONTROLLED BY THE MANUFACTURER'S PROGRAMMABLE HUMIDISTAT SCHEDULED FOR 24/7 OCCUPANCY. WHEN ROOM RELATIVE HUMIDITY (RH) RISES ABOVE THE RH SET POINT THE UNIT SHALL CYCLE UNDER IT'S OWN CONTROLS AS NEEDED TO SATISFY SPACE RH REQUIREMENTS. WHEN ROOM TEMPERATURE FALLS BELOW THE MINIMUM RH SET POINT, THE UNIT SHALL BE OFF.



CIRCULATION FAN WIRING DIAGRAM

NOTE:
1. SWITCH AND FAN SPEED CONTROLLER SHALL BE PROVIDED 1. BY CONTRACTOR AND SHALL BE INSTALLED ACCORDING TO THE MANUFACTURER'S PRINTED INSTRUCTIONS.
2. FAN SPEED CONTROLLER SHALL BE OF SOLID STATE CONSTRUCTION AND SHALL PROVIDE MANUAL CONTROL OF FAN SPEED.



BAY AREA HEATING AND VENTILATION CONTROL

BAY HEATING AND VENTILATION

EXHAUST FANS AND UNIT HEATERS SHALL BE CONTROLLED SUBJECT TO A THERMOSTAT AND A CO/NO2 SENSOR PAIR LOCATED IN THE BAY AREA

EF-2 SHALL OPERATE CONTINUOUSLY BASED ON OCCUPANCY SCHEDULE TO PROVIDE VENTILATION TO THE BAY AREA.

UPON A RISE IN SPACE TEMPERATURE TO 72°F SENSED AT THE LOCAL THERMOSTAT, EF-2 SHALL DISABLE AND EF-3 SHALL ENABLE.

EF-3 SHALL DISABLE AND EF-2 SHALL ENABLE UPON A DROP IN SPACE TEMPERATURE BELOW 70°F

UH-1 AND UH-2 SHALL BE CONTROLLED BY A THERMOSTAT IN THE BAY AREA. UPON A DROP IN SPACE TEMPERATURE BELOW 68°F, ASSOCIATED UNIT HEATER SHALL ENABLE UNTIL ACHIEVING A SPACE TEMPERATURE OF 70°F, AFTER WHICH THEY SHALL DISABLE.

EMERGENCY OPERATION

VEHICLE EXHAUST SEQUENCE OF OPERATION SHALL TAKE PRIORITY OVER NORMAL VENTILATION SEQUENCE OF OPERATION. SPACE CARBON MONOXIDE (C0) AND NITROGEN DIOXIDE (N02) SHALL BE MONITORED CONTINUOUSLY. SEE PLANS FOR LOCATIONS OF SENSORS.

IF ANY ONE OF THE EIGHT SENSORS C0 LEVELS ARE ABOVE 25PPM, THE EXHAUST SYSTEM SHALL ENERGIZE EF-3 AND A LOCAL VISUAL ALARM WILL BE ACTIVATED. NO ALARM SHALL BE SENT TO A REMOTE LOCATION VIA FIRE ALARM CONTROL PANEL OVER MONACO AT THIS TIME.

IF THE BAY SENSORS NO_2 LEVELS ARE ABOVE 0.5PPM, THE EXHAUST SYSTEM SHALL ENERGIZE EF-3 AND A LOCAL VISUAL ALARM WILL BE ACTIVATED. NO ALARM SHALL BE SENT TO A REMOTE LOCATION VIA FIRE ALARM CONTROL PANEL OVER MONACO AT THIS TIME. SENSOR SHALL MONITOR NO_2 LEVELS UNTIL THE LEVEL FALLS BELOW 0.3 PPM ADJUSTABLE (ADJ) AT WHICH TIME THE BAY EXHAUST FANS WILL REVERT BACK TO THE NORMAL EXHAUST SYSTEM SEQUENCE OF OPERATIONS.

HVLS FAN OPERATION

HVLS FANS SHALL OPERATE BASED ON A MANUAL SWITCH AND USER OPERABLE SPEED CONTROLS. EACH FAN SHALL HAVE THEIR OWN SWITCH AND SPEED CONTROLLER.

ALL HVLS FANS SHALL OPERATE IF EITHER THE CO OR NO_2 LEVELS ARE AB0VE ACCEPTABLE LEVELS AS INDICATED ABOVE.

TEST AND BALANCE

THE BUILDING WILL HAVE ALL DOORS CLOSED FOR ALL MEASUREMENTS.

PETERSON ENGINEERING INC.
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PEI JOB #23053

ROCKET OPERATIONS AND MAINTENANCE BUILDING
MECHANICAL SEQUENCES OF OPERATION

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

REV #	DATE	DESCRIPTION

DATE: 13 FEB 2025
DESIGNED BY: SCJ
DRAWN BY: SCM
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: M-701
SHEET NUMBER: 58 OF 88

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ELECTRICAL GENERAL NOTES:

1. INFORMATION SHOWN ON ONE SHEET IN THE CONSTRUCTION SET AND NOT SHOWN ON AN ASSOCIATED SHEET SHALL NOT ALLOW THE INFORMATION TO BE OMITTED FROM THE PROJECT.A RFI SHALL BE SUBMITTED FOR CLARIFICATION IF THERE ARE ANY DISCREPANCIES. COORDINATING WITH THE ENTIRE SET OF CONSTRUCTION DRAWINGS IS REQUIRED FOR A COMPLETE BUILDING INSTALLATION.
2. RECEPTACLES, SWITCHES, COVERPLATES, AND LIGHT FIXTURE FINISHES COLOR SHALL BE SELECTED BY THE ARCHITECT.
3. LOCATION OF LIGHTING FIXTURES, DISCONNECT SWITCHES, ETC. FOR MECHANICAL EQUIPMENT/ROOM SHALL BE COORDINATED WITH FINAL MECHANICAL PLANS.
4. EQUIPMENT LOCATION TO PROVIDE NATIONAL ELECTRIC CODE REQUIRED WORKING SPACE AND DEDICATED ELECTRICAL SPACE PER NEC ART. 110. FINAL CONNECTION TO ALL MOTORS HALL BE WITH LIQUID TIGHT FLEXIBLE METALLIC CONDUIT.
5. ALL EXIT AND EMERGENCY FIXTURES SHALL BE CONNECTED TO LIGHT CIRCUIT AHEAD OF LOCAL SWITCH.
6. ALL PANELBOARDS, BACKBOARDS, TERMINAL CABINETS, DISCONNECTS, ETC SHALL HAVE CUSTOM ENGRAVED MICARTA NAMEPLATE MECHANICALLY AFFIXED IDENTIFYING SYSTEM.
7. COORDINATE ALL WORK WITH OTHER TRADES PRIOR TO INSTALLATION. REFER TO PROJECT DRAWINGS FOR ALL EQUIPMENT SIZES AND LOCATIONS WHICH ARE FURNISHED BY OTHERS AND CONNECTED TO ELECTRICAL. OBTAIN AND REVIEW THE MECHANICAL, PLUMBING, AND OTHER DISCIPLINE EQUIPMENT SUBMITTALS PRIOR TO SUBMITTING THE ELECTRICAL SUBMITTALS. ANY ELECTRICAL EQUIPMENT, CONDUIT, AND WIRE SIZE CHANGES RESULTING FROM THIS REVIEW SHALL ALSO BE SUBMITTED FOR APPROVAL. THE CONTRACTOR SHALL MAKE ALL EFFORTS TO COORDINATE EQUIPMENT ELECTRICAL REQUIREMENTS PRIOR TO INSTALLING ANY DEVICES, WIRE, OR CONDUIT. THE MANUFACTURERS RECOMMENDED INSTALLATION REQUIREMENTS SHALL SUPERCEDE THE INFORMATION SHOWN ON THE DRAWINGS SO AS TO MAINTAIN THE EQUIPMENT WARRANTIES.
8. FURNISH ALL EQUIPMENT AND LABOR, PERFORM ALL LABOR WITH SUPERVISION, BEAR ALL EXPENSES, AS NECESSARY FOR THE SATISFACTORY COMPLETION OF ALL WORK READY FOR OPERATION.
9. COMPLY WITH ALL CODE, LAWS, AND ORDINANCES APPLICABLE TO ELECTRICAL WORK, UNITED FACILITIES CRITERIA AND THE NATIONAL ELECTRIC CODE.
10. OBTAIN ALL PERMITS REQUIRED BY LOCAL ORDINANCES. OBTAIN ARCHITECTS APPROVAL OF ALL LIGHT FIXTURES, SWITCHES, RECEPTACLES, PANELBOARDS, ETC. PRIOR TO PURCHASING.
11. THE GENERAL CONTRACTOR SHALL NOTIFY THE ARCHITECT IMMEDIATELY OF ANY CONFLICTS/DISCREPANCIES BETWEEN DISCIPLINES BEFORE ORDERING EQUIPMENT/MATERIALS.
12. INSTALL OCCUPANCY SENSORS AND ACCESSORIES PER MANUFACTURER'S RECOMMENDATIONS.
13. ELECTRICAL CONTRACTOR SHALL FIRESTOP ALL PENETRATIONS OF FLOORS, WALLS, AND CEILINGS WHERE THE PENETRATION IS RATED. FIRESTOP SHALL HAVE A MINIMUM RATING OF THE ADJACENT RATED SURFACE. ALL FIRESTOP SHALL BE INSTALLED ACCORDING TO THE MANUFACTURERS RECOMMENDATIONS ALL PENETRATIONS SHALL BE MADE IN A NEAT LIKE MANNER AND SHALL BE FINISHED TO MATCH THE CONSTRUCTION OF THE ADJACENT SURFACE. COORDINATE ALL FIRE PENETRATION REQUIREMENTS WITH ARCHITECTURAL PENETRATION DETAILS.
14. ALL CONDUCTORS INDICATED ON PLAN SHALL BE COPPER. LIGHTNING PROTECTION CONDUCTORS SHALL BE AS INDICATED.
15. ALL ELECTRICAL OUTLETS WITHIN 6 FEET OF A WATER SOURCE MUST BE GFCI PROTECTED.
16. ALL DISCONNECTS SHALL BE HEAVY-DUTY TYPE.
17. ALL LOW VOLTAGE CABLING NOT INSTALLED IN CONDUIT SHALL BE PLENUM RATED.
18. USE OF PLUG-IN CIRCUIT BREAKERS IS NOT ALLOWED.
19. PROVIDE A TYPED PANELBOARD DIRECTORY FOR ALL ELECTRICAL PANELS.
20. GENERAL/ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL CONTRACTOR FOR EQUIPMENT VOLTAGES. THE EQUIPMENT SHALL BE PROVIDED IN THE HIGHEST VOLTAGE AND PHASE AVAILABLE UNLESS SHOWN DIFFERENTLY ON THE ELECTRICAL DRAWINGS. NOTIFY THE ARCHITECT AND ELECTRICAL ENGINEER IMMEDIATELY OF ANY CONFLICTS PRIOR TO ORDERING EQUIPMENT AND INSTALLING INFRASTRUCTURE.
21. MINIMUM HORIZONTAL SPACING BETWEEN RECEPTACLES ON OPPOSITE SIDES OF THE SAME FIRE/SMAKE RATED WALL SHALL BE 24 INCHES. PLAN DRAWINGS MAY NOT REFLECT THIS REQUIRED SEPARATION. IN 1 OR 2 HOUR SMOKE WALLS A MAXIMUM OF 16 SQ. INCHES OF OPENINGS IS ALLOWED PER 100 SQ FEET OF WALL.
22. ALL RECESSED FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF CEILING GRID.
23. EQUIPMENT UNDER OTHER SECTIONS - THE ELECTRICAL CONTRACTOR SHALL COORDINATE WITH THE OTHER DISCIPLINES. ALL PUMPS, CONTROLS, EQUIPMENT, ETC. SHALL BE COORDINATED FOR CONDUIT, WIRING, AND CIRCUITING. THE ELECTRICAL DRAWINGS ARE ONLY ONE AREA IN THE TOTAL SET OF DOCUMENTS WHERE EQUIPMENT IS MENTIONED. THE ELECTRICAL CONTRACTOR IS RESPONSIBLE FOR LOOKING THROUGH THE ENTIRE SET OF DRAWINGS AND COORDINATING. ANY DISCREPANCIES SHALL BE SUBMITTED TO ARCHITECT/ENGINEER FOR APPROVAL.
24. LOCATE ALL GFCI RECEPTACLES IN ACCESSIBLE LOCATIONS.
25. ALL ELECTRICAL WORK AND MATERIALS USED IN THIS PROJECT SHALL BE NEW, UNDERWRITERS' LABORATORIES (UL) LISTED AND LABELED, AND SHALL BE FURNISHED AND INSTALLED BY THE CONTRACTOR UNLESS NOTED OTHERWISE.
26. CONDUIT ROUTINGS AND DEVICE/EQUIPMENT LOCATIONS SHOWN ARE DIAGRAMMATIC ONLY, CONTRACTOR SHALL FIELD ROUTE AND LOCATE AS REQUIRED. CONDUIT ROUTINGS SHALL BE PARALLEL OR PERPENDICULAR TO BUILDING LINES.
27. THE CONDUIT SYSTEMS UTILIZED SHALL BE AS FOLLOWS:
    - A. BELOW GRADE - PVC SCHEDULE 40
    - B. TRANSITIONS FROM BELOW GRADE (WHICH SHALL INCLUDE AN 'RGS' FACTORY 90 DEGREE ELBOW) TO ABOVE GRADE AND/OR THROUGH SLAB - RIGID GALVANIZED STEEL (RGS)
    - C. INTERIOR OF BUILDING CONDUITS - ELECTRICAL METALLIC TUBING (EMT) UNLESS NOTED OTHERWISE
    - D. EXTERIOR OF BUILDING EXPOSED ABOVE FINISHED GRADE - RIGID GALVANIZED STEEL (RGS) UNLESS NOTED OTHERWISE
    - E. FINAL 36" OF CONDUIT CONNECTED TO MOTORS AND DRY TYPE TRANSFORMERS - LIQUID TIGHT FLEXIBLE CONDUIT (LFMC)
28. ALL NEW CONDUITS RUN UNDERGROUND SHALL HAVE A MINIMUM BURIAL DEPTH OF 36" UNLESS NOTED OTHERWISE.
29. NEW CONDUITS LEAVING OR ENTERING BUILDING SHALL BE SEALED PER NEC TO PREVENT ENTRANCE OF MOISTURE.

ELECTRICAL LEGEND

CEILING OUTLETS

- RECESSED 2' X 4' LED FIXTURE
- RECESSED 2' X 4' LED FIXTURE WITH EMERGENCY DRIVER
- SURFACE OR PENDANT MOUNTED 1' X 4' LED FIXTURE
- SURFACE OR PENDANT MOUNTED 1' X 4' LED FIXTURE WITH EMERGENCY DRIVER
- LED HIGH-BAY FIXTURE
- LED HIGH-BAY FIXTURE WITH EMERGENCY DRIVER
- (J) JUNCTION BOX
- CEILING RECESSED MOUNTED DOWNLIGHT FIXTURE
- CEILING SURFACE MOUNTED EXIT LIGHT; PROVIDE DIRECTION ARROW AS INDICATED
- (BL) ROTATING BEACON TYPE BLUE LIGHT; STROBE TYPES ARE NOT ACCEPTABLE

WALL OUTLETS (ALL DEVICES SHALL BE MOUNTED NO LESS THAN 18" TO BOTTOM OF DEVICE)

- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- WP DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFCI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE; PROVIDE WEATHERPROOF BOX FOR RECEPTACLE
- G DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFCI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- G DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, GFCI, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 6" ABOVE COUNTER
- QUADRAPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 18" A.F.F. UNLESS NOTED OTHERWISE
- DUPLEX RECEPTACLE - 20 AMP, 125 VOLT, 2 POLE, 3 WIRE GROUNDED TYPE, NEMA 5-20R. MOUNT 72" A.F.F. TO C/L ADJACENT TO TELEVISION OUTLET
- (J) JUNCTION BOX WITH BLANK SCREW COVER AND FLEXIBLE CONDUIT CONNECTION
- 'BL' WALL MOUNTED ROTATING BEACON TYPE BLUE LIGHT; STROBE TYPES ARE NOT ACCEPTABLE
- WALL MOUNTED LED LIGHT FIXTURE
- HP 12" X 12" COPPER GROUND HAND PLATE MOUNT 48" ABOVE FINISHED FLOOR
- (G) OVERHEAD STATIC GROUND REEL WITH 50' GROUND CONDUCTOR
- OVER HEAD COILING DOOR CONTROLLER; INSTALL LOW VOLTAGE CONDUCTORS CONCEALED IN 3/4" CONDUIT TO MOTORIZED DOOR MOTOR; INSTALL PER MANUFACTURER'S RECOMMENDATIONS.
- SIMPLEX RECEPTACLE FSL4 TYPE RATED 30A, 120V/208Y, 3 PHASE 4 WIRE + GROUND 400HZ

MISCELLANEOUS

A.F.F.	ABOVE FINISH FLOOR
WP	WEATHERPROOF
U.N.O.	UNLESS NOTED OTHERWISE
G	GROUND FAULT CIRCUIT INTERRUPTER
C	CONDUIT GND GROUND
GND	GROUND

BRANCH CIRCUITING

- RUN CONCEALED UNDER FLOOR
- RUN SURFACE MOUNTED UNLESS NOTED OTHERWISE
- LA-1 HOMERUN TO PANEL. ANY CIRCUIT WITHOUT FURTHER IDENTIFICATION INDICATES 2 #12, 1 #12 GROUND - 3/4" C; 3 #12, 1 #12 GROUND - 3/4" C; 4 #12, 1 #12 GROUND - 3/4" C; ETC. AS PER NEC. LETTERS AND NUMERALS INDICATE PANEL AND CIRCUIT NUMBER.
- LIQUID-TIGHT FLEXIBLE CONDUIT CONNECTION

PANELS AND POWER

- ELECTRICAL PANELBOARD
- NON-FUSIBLE DISCONNECT SWITCH; XX/YY/ZZ WHERE X INDICATES AMPERAGE, Y INDICATES # OF POLES, AND Z INDICATES NEMA RATING
- T DRY TYPE TRANSFORMER
- 2' LONG X 4" TALL X 1/4" THICK CONTINUOUS GROUND BUSBAR. INSTALL #3/0 BONDING CONDUCTOR TO MAIN SYSTEM GROUND BAR.

WALL SWITCHES (UNLESS OTHERWISE NOTED, MOUNT 48" A.F.F.)

$	A.C. TYPE, SINGLE POLE, 20 AMP, 120/277 VOLT
$LV	LOW VOLTAGE SWITCH WITH ON/OFF/50% PRESET BUTTONS
$3	A.C. TYPE, 3-WAY, 20 AMP, 120/277 VOLT
$4	A.C. TYPE, 4-WAY, 20 AMP, 120/277 VOLT
$M	MOTOR RATED TOGGLE SWITCH, 30 AMP, 120/277 VOLT
$BL	BLUE LIGHTS SWITCH
$D	DIMMING LIGHT SWITCH
$OS	WALL MOUNTED OCCUPANCY SENSOR; DUAL TECHNOLOGY
(OS)	360 DEGREE CEILING MOUNTED OCCUPANCY SENSOR WITH POWER PACK RELAY; DUAL TECHNOLOGY

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ELECTRICAL LEGEND, GENERAL NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: DMB

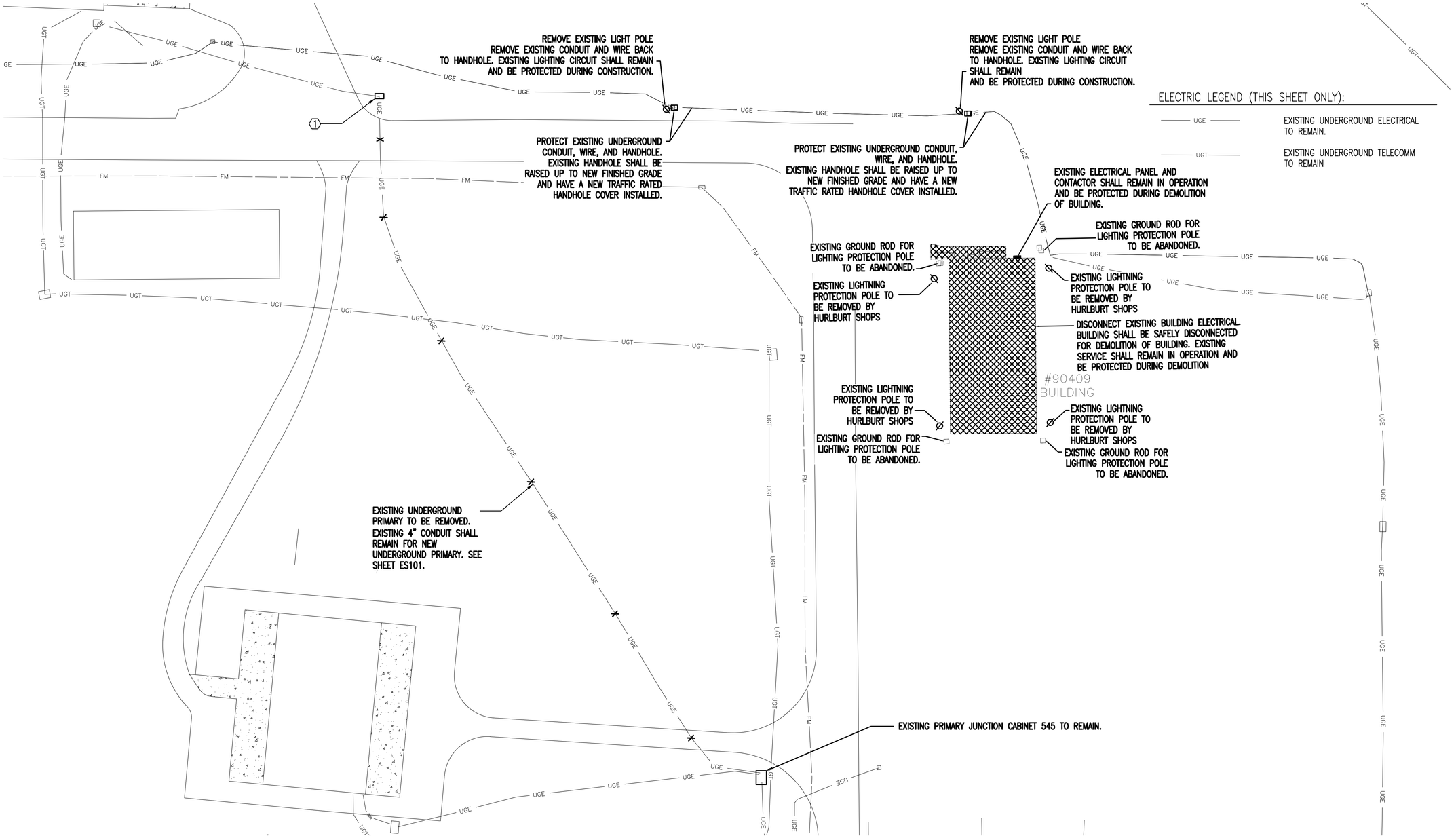
DRAWN BY: DCC

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: E-001

SHEET NUMBER: 59 OF 88



KEYNOTES:

1. EXISTING PJC 899 TO BE REMOVED. EXISTING SINGLE PHASE PRIMARY CONNECTION SHALL REMAIN AND BE PROTECTED DURING CONSTRUCTION. EXISTING PJC SHALL NOT BE REMOVED UNTIL NEW PJC CAN BE IMMEDIATELY INSTALLED. THE CONTRACTOR SHALL ENSURE ALL MATERIALS ARE ON SITE AND PERFORM WORK PHASING TO MINIMIZE DOWNTIME. COORDINATE POWER SHUTDOWN WITH HURLBURT EXTERIOR ELECTRICAL SHOP AND USERS A MINIMUM OF TWO WEEKS PRIOR TO WORK.

N

ELECTRICAL SITE DEMOLITION PLAN

SCALE: 1" = 30'

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF FLORIDA
PROFESSIONAL ENGINEER

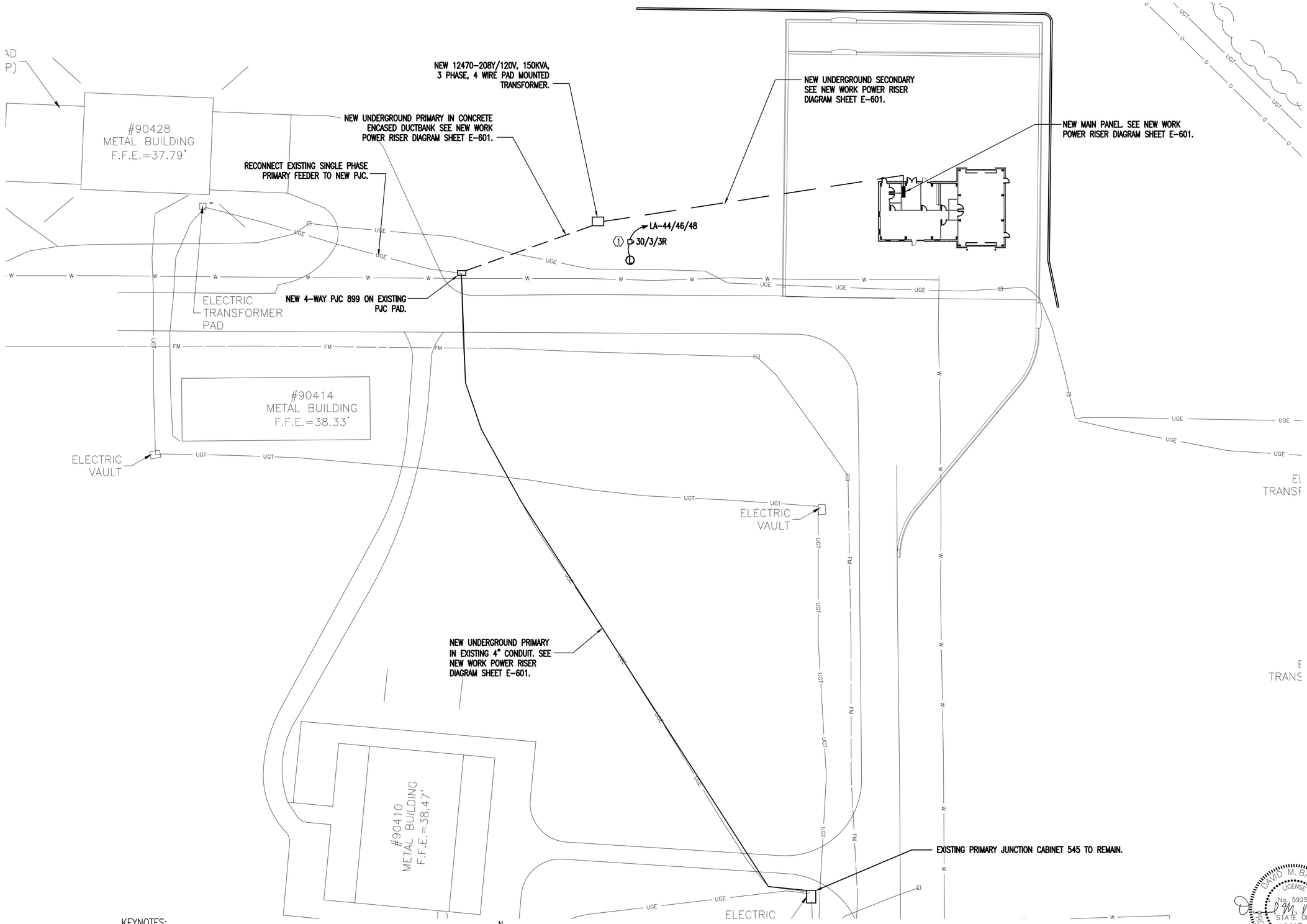
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ELECTRICAL SITE DEMOLITION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: ED101
SHEET NUMBER: 60 OF 88



KEYNOTES:

1. MOUNT DISCONNECT 3' ABOVE GRADE. SEE DISCONNECT MOUNTING DETAIL SHEET E-504.

N

NEW WORK ELECTRICAL SITE PLAN

SCALE: 1" = 30'

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

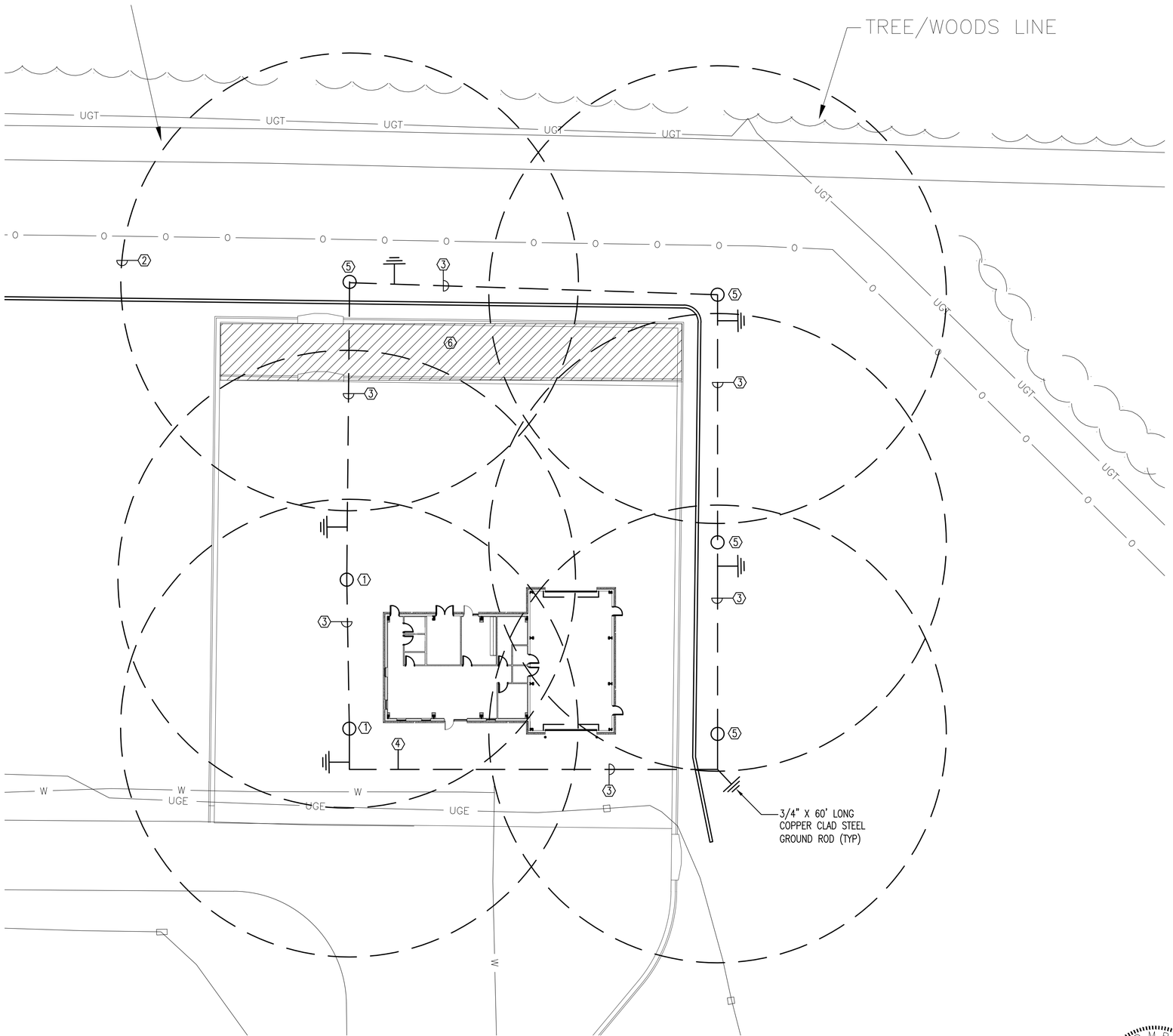
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK ELECTRICAL SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE:	13 FEB 2025
DESIGNED BY:	DMB
DRAWN BY:	DCC
BUILDING NUMBER:	90405
PROJECT NUMBER:	OP1134972
SHEET REFERENCE:	ES101
SHEET NUMBER:	61 OF 88



KEYNOTES:

1. NEW 40' TALL LIGHTNING PROTECTION MAST WITH 2' AIR TERMINAL MOUNTED ON TOP
2. CATENARY SYSTEM ZONE OF PROTECTION 80'RADIUS (TYPICAL)
3. NEW #4/0 AWG CU LIGHTNING PROTECTION COUNTERPOISE
4. CONNECT TO BUILDING MAIN SERVICE GROUND BUS BAR.
5. NEW 50' TALL LIGHTNING PROTECTION MAST WITH 2' AIR TERMINAL MOUNTED ON TOP
6. ADDITIONAL CONCRETE PAD INSTALLED AS PART OF BID OPTION.

N

NEW WORK CATENARY LIGHTNING PROTECTION PLAN

SCALE: 1" = 20'

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF
FLORIDA
PROFESSIONAL ENGINEER

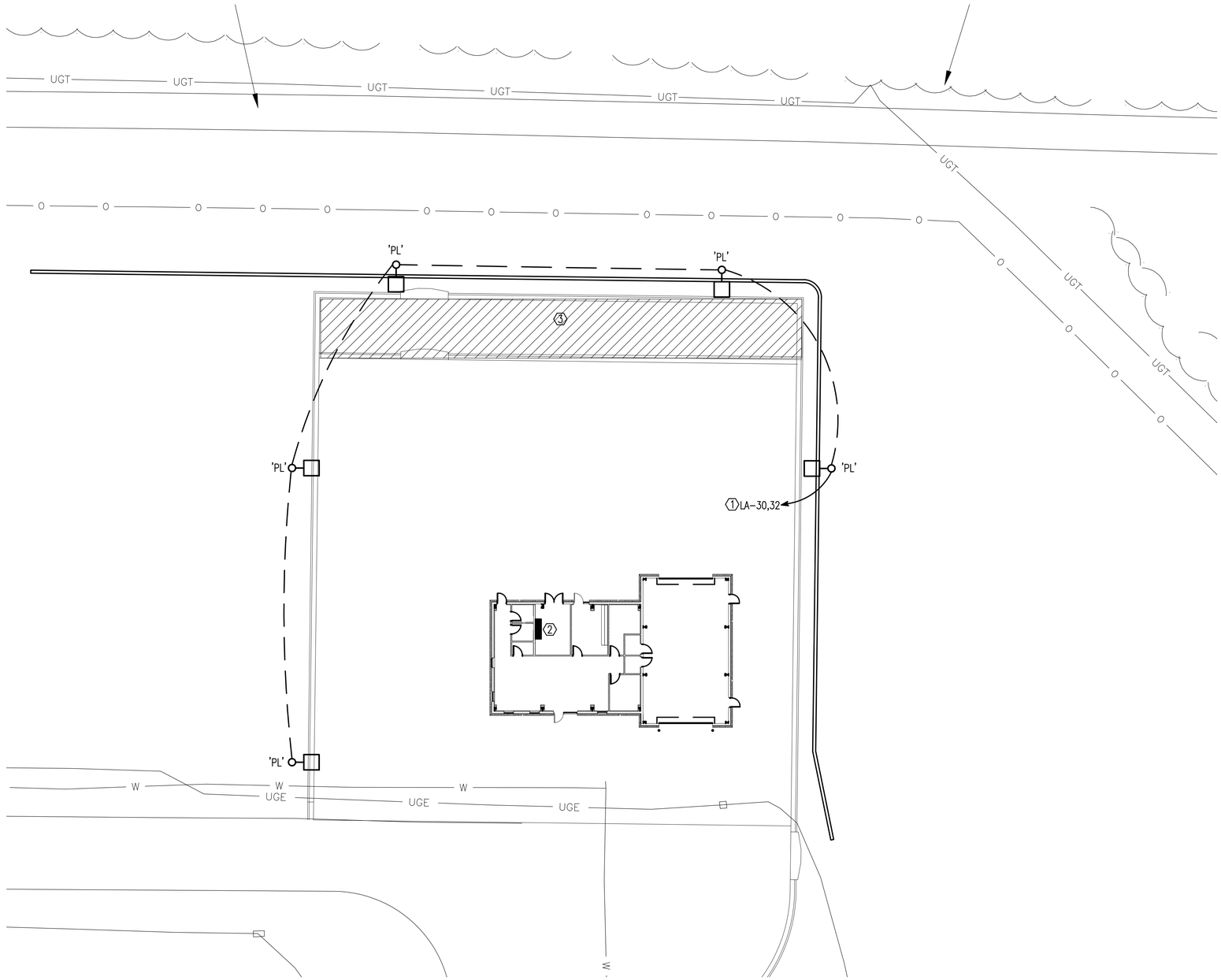
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK CATENARY LIGHTNING PROTECTION PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: ES102
SHEET NUMBER: 62 OF 88



N

NEW WORK SITE LIGHTING PLAN

SCALE: 1" = 20'

KEYNOTES:

1. INSTALL 2#10, 1#10 GND IN 3/4"C TO LAST DEVICE IN CIRCUIT. INSTALL CIRCUIT THROUGH LIGHTING CONTACTOR.
2. PANEL LA
3. ADDITIONAL CONCRETE PAD INSTALLED AS PART OF BID OPTION.

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF FLORIDA
PROFESSIONAL ENGINEER
2/13/25

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK SITE LIGHTING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: DMB

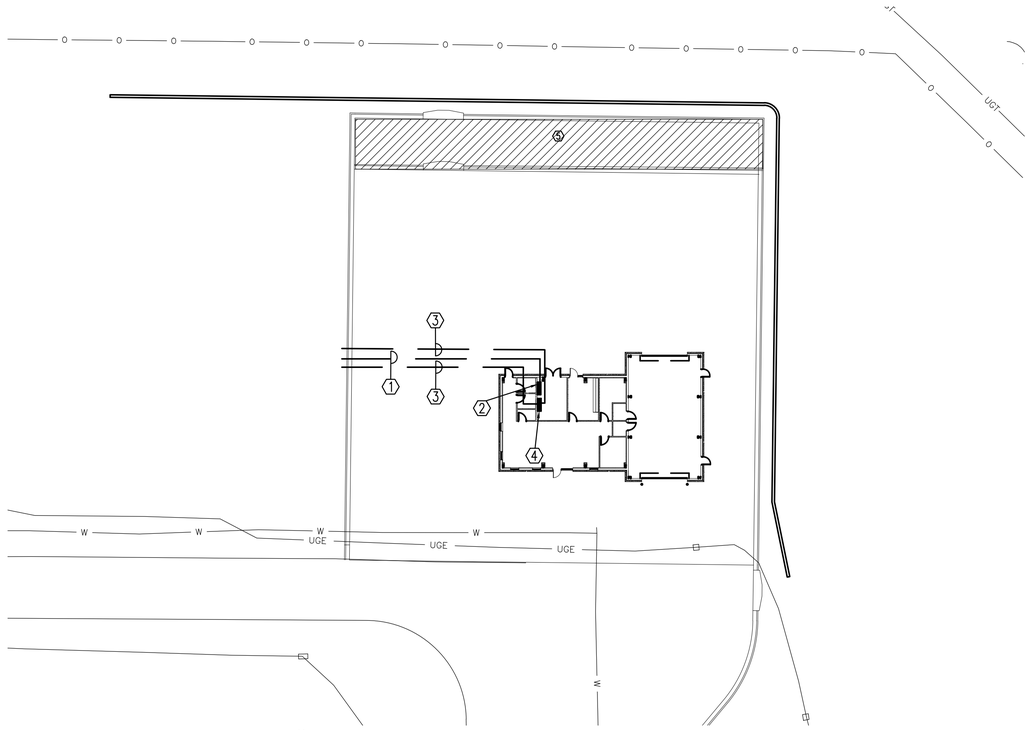
DRAWN BY: DCC

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: ES103

SHEET NUMBER: 63 OF 88



N

NEW WORK ELECTRICAL SITE PLAN

SCALE: 1" = 30'

KEYNOTES:

1. NEW UNDERGROUND 2"C TO PANEL 'MP'. STUB UP AND MARK 4' BEYOND END OF PAVING.
2. ROCKET OPS MAIN PANEL 'MP'.
3. NEW UNDERGROUND 1 1/2" PVC CONDUIT TO PANEL '400HZ'. STUB UP AND MARK 4' BEYOND END OF PAVING.
4. 400HZ PANEL '400HZ'.
5. ADDITIONAL CONCRETE PAD INSTALLED AS PART OF BID OPTION.

DAVID M. BAGWELL
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No. 59251
STATE OF
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PROFESSIONAL ENGINEER
2/13/25

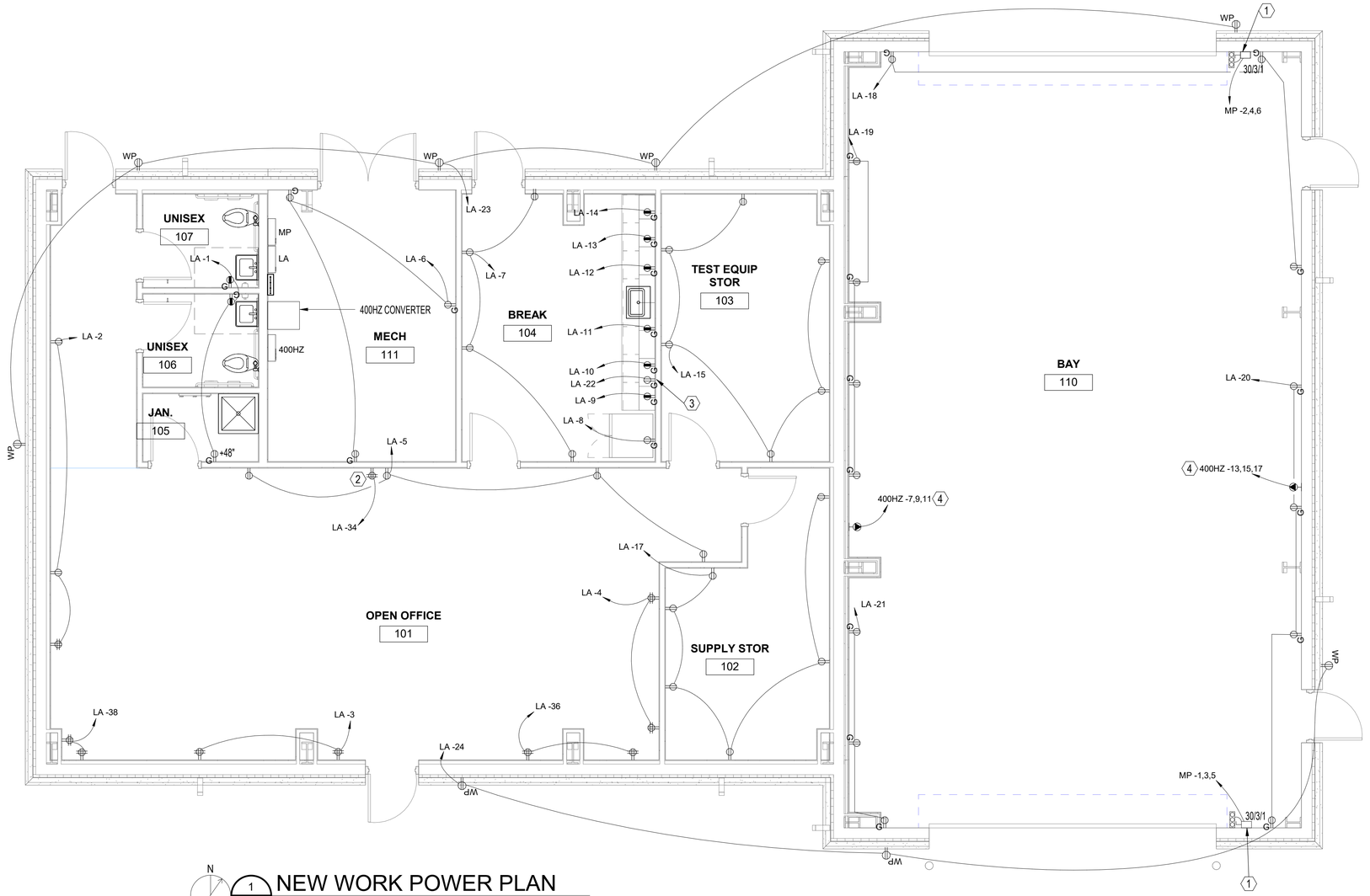
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK ELECTRICAL SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: ES104
SHEET NUMBER: 64 OF 88



N

1 E-100

NEW WORK POWER PLAN

1/4" = 1'-0"

BAY RECEPTACLE NOTE:
RECEPTACLES IN BAY SHALL BE MOUNTED AT 48" AFF.

KEYNOTES:

1. COORDINATE EXACT VOLTAGE AND PHASE REQUIREMENTS OF NEW OVERHEAD DOOR PRIOR TO ORDERING PANEL AND ROUGHING-IN. ADJUST BREAKER AND WIRE SIZE AS REQUIRED TO MATCH OVERHEAD DOOR BEING PROVIDED. CONNECT CIRCUIT TO OVERHEAD DOOR CONTROLLERAS REQUIRED BY THE MANUFACTURER. CONTROLLER SHALL BE MOUNTED AT 48" AFF.
2. INSTALL RECEPTACLE ON DEDICATED 120V CIRCUIT IN LOWER PART OF LOCKABLE COMMUNICATIONS CABINET. COORDINATE MOUNTING HEIGHT AND LOCATION OF RECEPTACLE WITH COMMUNICATIONS CABINET.
3. RECEPTACLE FOR DISHWASHER. COORDINATE MOUNTING HEIGHT AND LOCATION OF RECEPTACLE WITH EQUIPMENT FURNISHED. RECEPTACLE SHALL BE ACCESSIBLE.
4. 4#10,1#10 GND IN 3/4" ALUMINUM CONDUIT

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

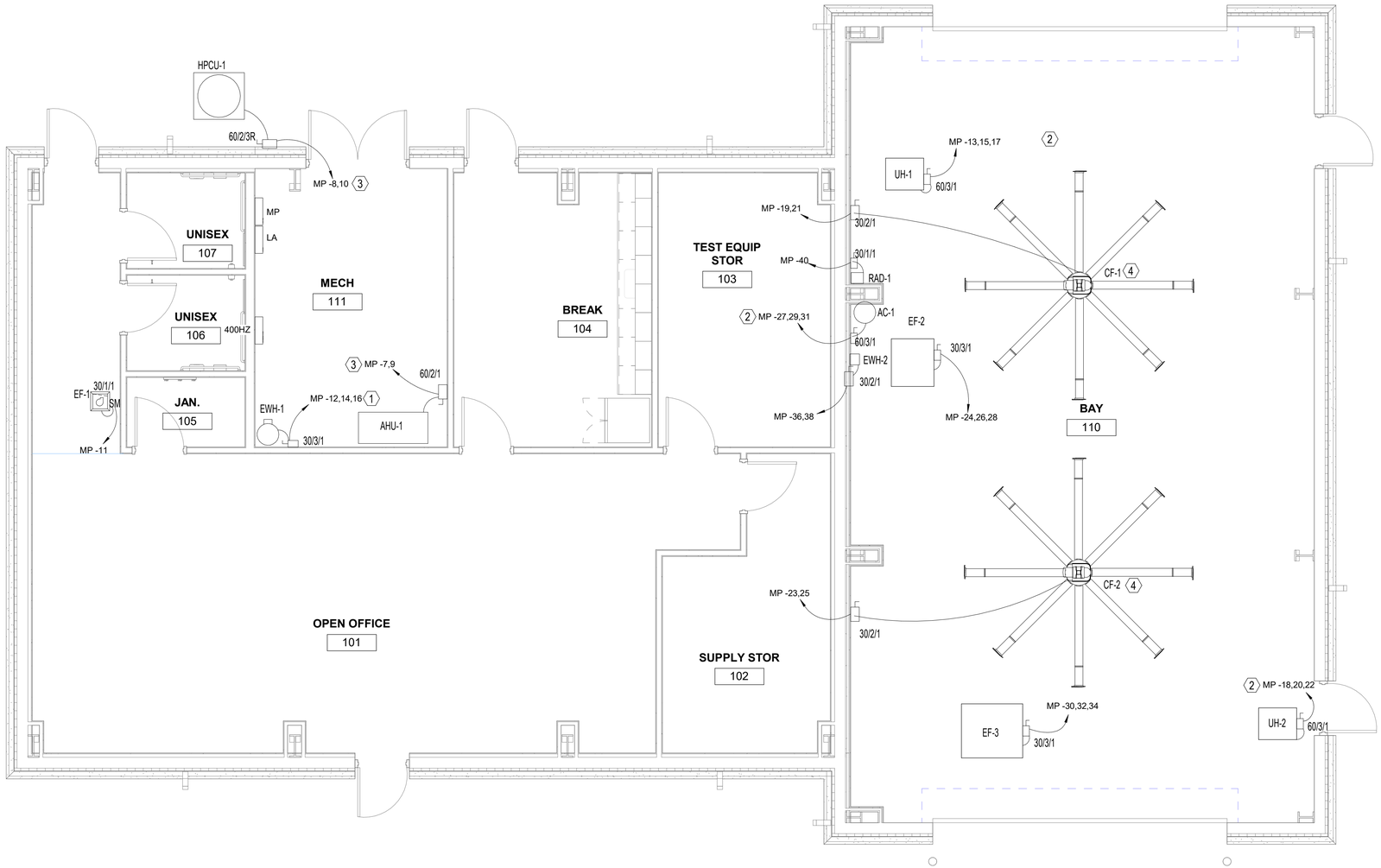
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK POWER PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-100
SHEET NUMBER: 65 OF 88



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1
E-101

NEW WORK MECHANICAL POWER PLAN

1/4" = 1'-0"

KEYNOTES:

1. 3#10, 1#10 GND IN 3/4"C
2. 3#4, 1#10 GND IN 1 1/4"C
3. 2#4, 1#10 GND IN 1"C
4. FAN SHALL BE PROVIDED WITH SPEED CONTROL AND WALL MOUNTED ON/OFF SWITCH. COORDINATE LOCATIONS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH-IN.

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF FLORIDA
PROFESSIONAL ENGINEER

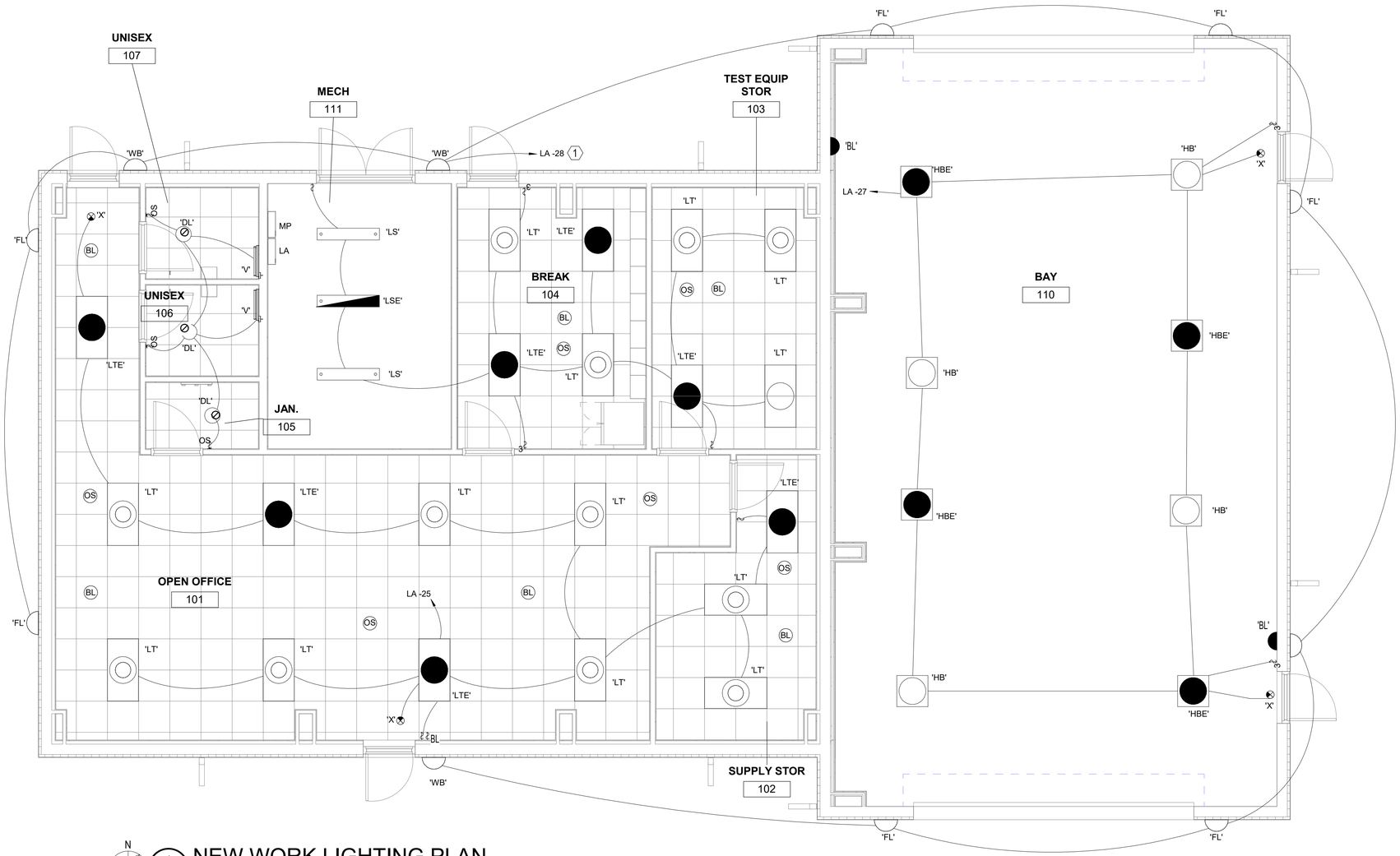
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK MECHANICAL POWER PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-101
SHEET NUMBER: 66 OF 88



N

1 E-102

NEW WORK LIGHTING PLAN

1/4" = 1'-0"

BLUE LIGHTS NOTE:

ALL SENSITIVE SPACES SHALL HAVE ROTATING BLUE LED INDICATOR LIGHTS VISIBLE FROM ALL PORTIONS OF ROOM. BLUE LIGHTS SHOWN ON THIS PLAN SHALL BE CIRCUITED TO LA-29 WITH 2#10, 1#10 GND IN 3/4"C TO LAST DEVICE ON CIRCUIT.

KEYNOTES:

1. ROUTE CIRCUIT THROUGH LIGHTING CONTACTOR

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER 2/13/25

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK LIGHTING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: DMB

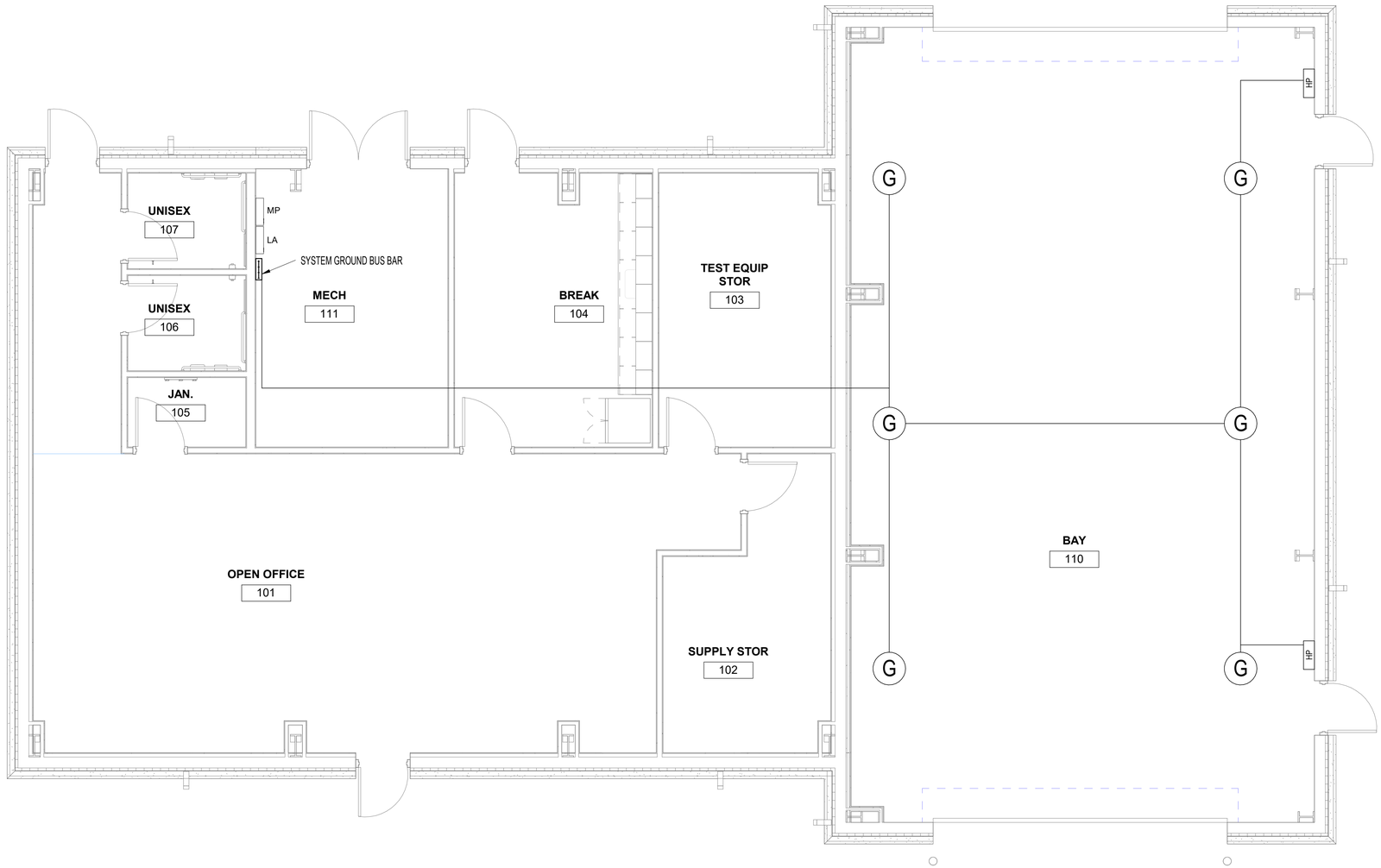
DRAWN BY: DCC

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: E-102

SHEET NUMBER: 67 OF 88



N

1 / E-103

NEW WORK GROUNDING PLAN

1/4" = 1'-0"

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK GROUNDING PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE: 13 FEB 2025

DESIGNED BY: DMB

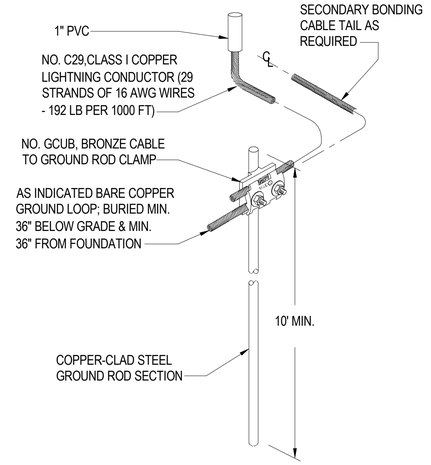
DRAWN BY: DCC

BUILDING NUMBER: 90405

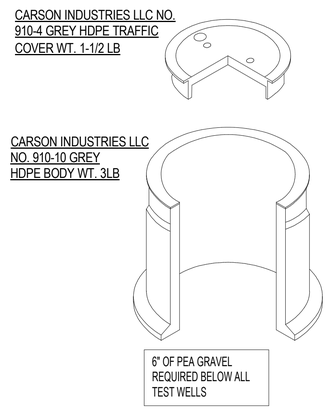
PROJECT NUMBER: OP1134972

SHEET REFERENCE: E-103

SHEET NUMBER: 68 OF 88



GROUND ROD DETAIL
TOP MIN. 12" BELOW GRADE



TYP. TEST WELL
AT EACH GROUND ROD LOCATION

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

LIGHTNING PROTECTION DETAILS

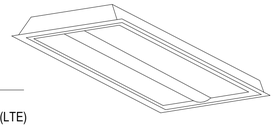
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF FLORIDA
PROFESSIONAL ENGINEER

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-301
SHEET NUMBER: 69 OF 88

FEATURES

LAMP TYPE: LED
SHIELDING: .125' THICK ACRYLIC PRISMATIC LENS



PROFILE: 6000 LUMENS (LT)
WITH EMERGENCY UNIT BATTERY PACK (LTE)

NOM. DIMENSIONS (24" W X 4' L X 6" D)

GENERAL DESCRIPTION

HOUSING: COLD ROLLED STEEL, FLANGE TO COORDINATE WITH CEILING; EXTRUDED ALUMINUM LENS FRAME, HINGED REMOVAL AND SPRING-LOADED CATCHES

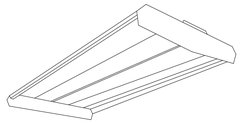
REFLECTORS: HIGH REFLECTANCE GLOSS WHITE

ELECTRICAL: 120/277 VOLT DRIVER (SEE LIGHTING FIXTURE SCHEDULE)

RECESSED 2'x4' MARK 'LT', 'LTE'
LED DIRECT/INDIRECT

FEATURES

LAMP TYPE: LED
SHIELDING: NONE



PROFILE: 20000 LUMENS (HB)
WITH EMERGENCY UNIT BATTERY PACK (HBE)

NOM. DIMENSIONS (14" W X 2' L X 4 1/2" D)

GENERAL DESCRIPTION

HOUSING: STEEL/ALUMINUM CONSTRUCTION

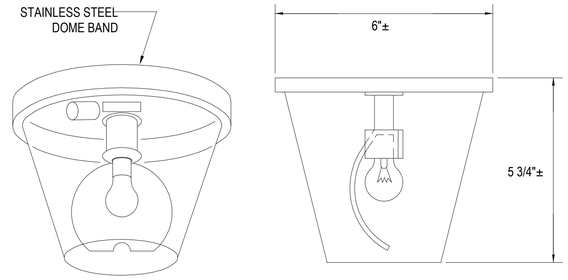
MOUNTING: CEILING PENDANT

LENS: CLEAR POLYCARBONATE LENS

ELECTRICAL: 120/277 VOLT DRIVER

LED PENDANT MOUNTED
HIGH BAY MARK 'HB' & 'HBE'

NOT TO SCALE



FEATURES

LAMP TYPE: SINGLE CONTACT BULB
MOUNTING: UNIVERSAL
SHIELDING: BLUE, SHATTER-RESISTANT ACRYLIC DOME

GENERAL DESCRIPTION

HOUSING: HIGHLY POLISHED STAINLESS STEEL REFLECTOR ROTATES AROUND LAMP

ELECTRICAL: 120 VOLT

MOUNTING: SURFACE MOUNT ON CEILING; SURFACE MOUNT ON WALL 8' A.F.F.

OTHER: 50 CANDLEPOWER, SINGLE CONTACT BULB FOR 120V OPERATION.

NOTE: LED FLASHING TYPE IS NOT ALLOWED. MUST BE ROTATING BEACON TYPE.

BLUE LIGHT FIXTURE MARK 'BL'

FEATURES

LAMP TYPE: LED
MOUNTING: UNIVERSAL
TYPE 'X' IS WALL MOUNTED ABOVE DOOR
TYPE 'XC' IS CEILING MOUNTED
SHIELDING: FLAT SHEET ACRYLIC
LETTERS: RED

NOM. DIMENSIONS (11 3/8" W X 7 7/8" H X 1 3/4" D)

GENERAL DESCRIPTION

HOUSING: DIE-CAST ALUMINUM. WHITE FINISH. HARDWARE FINISH TO MATCH HOUSING FINISH. 152 mm (6') H LETTERS WITH 19 mm (3/4') STROKE. DIRECTIONAL ARROWS AS REQUIRED.

ELECTRICAL: 120/277 VOLTS WITH BACKUP BATTERY

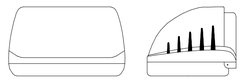
FINISH: WHITE

OTHER: MINIMUM BRIGHTNESS 20 CD/SQ METER ON FACE OF SIGN. SELF-TEST DIAGNOSTICS

LED STENCIL FACE EXIT SIGN MARK 'X'

FEATURES

LAMP TYPE: LED
SHIELDING: FLAT GLASS



PROFILE: 3800 LUMENS (WB)

NOM. DIMENSIONS (16" W X 6" L X 12 1/8" D)

GENERAL DESCRIPTION

HOUSING: DECORATIVE DIE CAST ALUMINUM HOUSING AND DOOR. POWDER PAINT DARK BRONZE FINISH FULL CUTOFF.

MOUNTING: WALL MOUNT 10' A.F.F. UNLESS NOTED OTHERWISE

ELECTRICAL: 120/277 VOLT DRIVER (SEE LIGHTING FIXTURE SCHEDULE)

OTHER: EMERGENCY BATTERY PROVIDING 90 MINUTES AT 615 LUMENS

LED WALL PACK MARK 'WB'

FEATURES

LAMP TYPE: LED
SHIELDING: FLAT GLASS

PROFILE: 6000 LUMENS (FL)

NOM. DIMENSIONS (8" W X 12" L X 3 1/4" D)

GENERAL DESCRIPTION

HOUSING: SEALED, DIE CAST HOUSING WITH STAINLESS STEEL FASTENERS

MOUNTING: WALL MOUNT EXTERIOR FIXTURE SHALL BE ANGLED AT 45 DEGREES

ELECTRICAL: 120/277 VOLT DRIVER (SEE LIGHTING FIXTURE SCHEDULE)

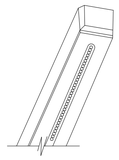
LED FLOODLIGHT MARK 'FL'

FEATURES

LAMP TYPE: LED

OPTIONS

PROFILE: 3000 LUMENS (LS)
WITH EMERGENCY UNIT BATTERY PACK (LSE)



NOM. DIMENSIONS (5" W X 4" H X 4' L)

GENERAL DESCRIPTION

HOUSING: DIE-FORMED COLD ROLLED STEEL, DESIGNED FOR INDIVIDUAL OR CONTINUOUS ROW MOUNTING

REFLECTORS: GLOSS WHITE

MOUNTING: SUSPENDED 8' A.F.F.

ELECTRICAL: 120/277 VOLT DRIVER

FINISH: WHITE ENAMEL OR POLYESTER POWDER COAT

LENSED LED STRIP LIGHT MARK 'LS' & 'LSE'

FEATURES

LAMP TYPE: LED

PROFILE: 2000 LUMENS (V)

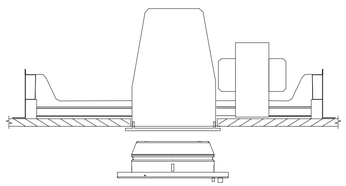
NOM. DIMENSIONS (6" W X 2' L X 3 3/4" D)

GENERAL DESCRIPTION

MOUNTING: SURFACE ON WALL ABOVE MIRROR

ELECTRICAL: 120/277 VOLT DRIVER (SEE LIGHTING FIXTURE SCHEDULE)

WALL MOUNTED LED FIXTURE MARK 'v'



FEATURES:
LAMP TYPE: LED

PROFILE: 1500 LUMENS (DL)

NOM. DIMENSIONS 6" DIAMETER

GENERAL DESCRIPTION:
HOUSING: 6" DOWNLIGHT

MOUNTING: CEILING RECESSED

ELECTRICAL: 120/277 VOLT DRIVER

OTHER: UL LISTED FOR WET LOCATION

RECESSED LED DOWNLIGHT MARK 'DL'

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

LIGHTING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-501
SHEET NUMBER: 70 OF 88

LIGHTING FIXTURE SCHEDULE

CONTRACT DRAWING FIXTURE MARK	LAMP TYPE	FIXTURE MAX. WATT	FIXTURE VOLT	FIXTURE DESCRIPTION	NOTE NUMBER
BL	LED	20	120V	CEILING SURFACE; MOUNTED AT WALL MOUNTED LOCATIONS 8'A.F.F. ROTATING BEACON TYPE LED, MINIMUM 650 LUMENS	
DL	LED	40	UNV(120/277)	6" LED DOWNLIGHT, 1,500 LUMENS MINIMUM	
FL	LED	50	UNV(120/277)	ADJUSTABLE LED WALL FIXTURE, WET LOCTAION LISTED, 6,000 LUMENS MINIMUM, MOUNT 17' A.F.F.	
HB	LED	330	UNV(120/277)	SUSPENDED HIGH BAY FIXTURE, 20,000 LUMENS MINIMUM, MOUNT FIXTURE 18' A.F.F.	
HBE	LED	330	UNV(120/277)	SUSPENDED HIGH BAY FIXTURE, 20,000 LUMENS MINIMUM, WITH 20 WATT EMERGENCY BATTERY BACKUP LED DRIVER, MOUNT FIXTURE 18' A.F.F.	1 3
LT	LED	55	UNV(120/277)	2'x4' RECESSED DIRECT/INDIRECT FIXTURE, 6000 LUMENS MINIMUM	
LTE	LED	55	UNV(120/277)	2'x4' RECESSED DIRECT/INDIRECT FIXTURE, 6000 LUMENS MINIMUM, WITH 10 WATT EMERGENCY BATTERY BACKUP LED DRIVER	1 2
LS	LED	40	UNV(120/277)	LED STRIP LIGHT, 3,000 LUMENS MINIMUM, MOUNT 15' A.F.F.	
LSE	LED	40	UNV(120/277)	LED STRIP LIGHT, 3,000 LUMENS MINIMUM, WITH 10 WATT EMERGENCY BATTERY BACKUP LED DRIVER, MOUNT 15' A.F.F.	1 2
V	LED	25	UNV(120/277)	DECORATIVE VANITY LIGHTWALL MOUNTED ABOVE MIRROR, MINIMUM 2,000 LUMENS	
WB	LED	40	UNV(120/277)	LED WALL FIXTURE, UL WET LOCATION, 3800 LUMENS MINIMUM, WITH 10 WATT EMERGENCY BATTERY BACKUP LED DRIVER, MOUNT 10' A.F.F. UNLESS NOTED OTHERWISE	1 2
X	LED	5	UNV(120/277)	LED EXIT LIGHT CEILING MOUNTED WITH BATTERY BACKUP,WITH 10 WATT EMERGENCY BATTERY BACKUP LED DRIVER	2

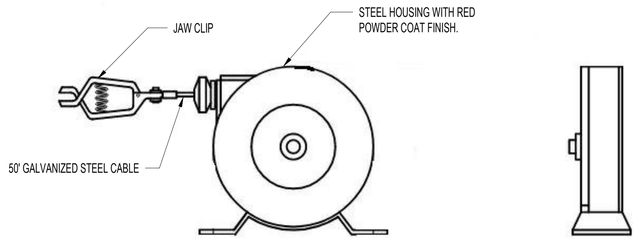
1. PROVIDE WITH BATTERY BACK UP. CONNECT SUCH THAT FIXTURE IS CONTROLLED BY SWITCH BUT LOSS OF POWER SHALL CAUSE BATTERY/LAMPS TO ENERGIZE REGARDLESS OF SWITCH POSITION
2. PROVIDE 10W EMERGENCY LED DRIVER AND BATTERY BACKUP.
3. PROVIDE 20W EMERGENCY LED DRIVER AND BATTERY BACKUP.

ROOM TYPE	LIGHTING CONTROLS SEQUENCE OF OPERATIONS SEQUENCE OF OPERATIONS
CORRIDOR	1. AUTOMATIC ON TO FULL DESIGN LIGHTING POWER WHEN OCCUPANT ACTIVITY IS SENSED. 2. AUTOMATICALLY REDUCE LIGHT OUTPUT BY AT LEAST 50% WHEN NO OCCUPANT ACTIVITY IS DETECTED.
LOUNGE/BREAK AREAS	1. MANUAL ON; OR AUTOMATIC ON(TO 50% DESIGN LIGHTING POWER) COMBINED WITH MANUAL ON SWITCHING WHEN OCCUPANT ENTERS ROOM. 2. MANUAL CONTROL DEVICE TO INDEPENDENTLY CONTROL GENERAL LIGHTING AT 50% OF POWER, 100% OF POWER, AND ALL OFF. 3. AUTOMATIC OFF WITHIN 15 MINUTES OF NO OCCUPANT ACTIVITY.
STORAGE ROOM	1. MANUAL ON; OR AUTOMATIC ON(TO 50% DESIGN LIGHTING POWER) COMBINED WITH MANUAL ON SWITCHING WHEN OCCUPANT ENTERS ROOM. 2. AUTOMATIC OFF WITHIN 15 MINUTES OF NO OCCUPANT.
MECHANICAL/ ELECTRICAL ROOMS	1. MANUAL ON 2. MANUAL OFF
RESTROOMS	1. AUTOMATIC ON TO FULL DESIGN LIGHTING POWER WHEN OCCUPANT ACTIVITY IS SENSED 2. AUTOMATIC OFF WITHIN 15 MINUTES OF NO OCCUPANT.
OPEN OFFICES	1. AUTOMATIC ON TO 50% OF FULL LIGHT OUTPUT WHEN OCCUPANT ACTIVITY IS SENSED 2. MANUAL CONTROL DEVICE TO INDEPENDENTLY CONTROL GENERAL LIGHTING AT 50% OF POWER, 100% OF POWER, AND ALL OFF. 3. AUTOMATIC OFF WITHIN 15 MINUTES OF NO OCCUPANT ACTIVITY

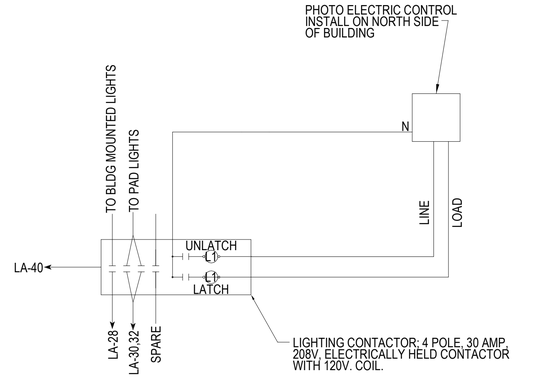
** LIGHTING CONTROLS SHALL BE IN ACCORDANCE WITH UFC 3-530-01
** ALL OCCUPANCY SENSORS IN SECURE AREAS MUST BE HARDWIRED AND CANNOT HAVE WIRELESS CAPABILITIES.
** MULTIPLE VACANCY/OCCUPANCY SENSORS SERVING A COMMON AREA SHALL BE WIRED TOGETHER SO ANY ONE SENSOR CONTROLS ALL THE LIGHTING IN THE COMMON AREA.

LIGHTING CONTROL SEQUENCE NOTES

CONTRACTOR TO ENGAGE THE MANUFACTURER TO PROVIDE FULL SHOP DRAWINGS THAT INCLUDE WIRING(BOTH LOW VOLTAGE, 120/208, AND 277/480), CONTROLS AND LIGHT FIXTURES. INSTALL PER THE MANUFACTURER SHOP DRAWINGS.



4 / E-502 STATIC GROUND REEL DETAIL
1/8" = 1'-0"



EXTERIOR LIGHTING CONTROL DIAGRAM
NOT TO SCALE

DAVID M. BASWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

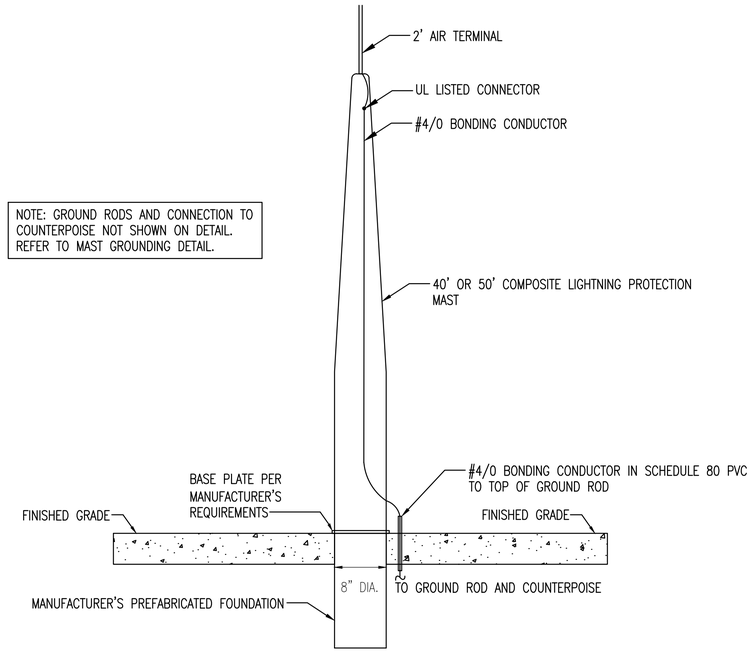
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

LIGHTING CONTROLS, SCHEDULE

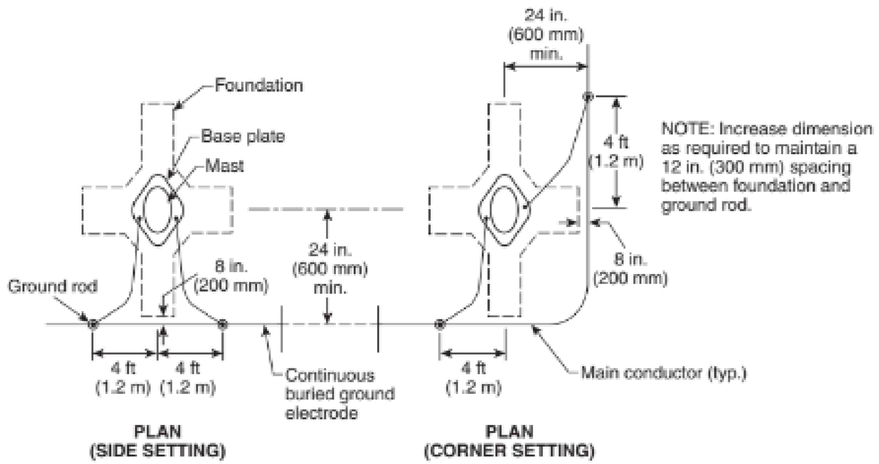
AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-502
SHEET NUMBER: 71 OF 88



CATENARY MAST INSTALLED ON PAD DETAIL

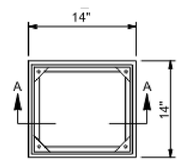
NOT TO SCALE



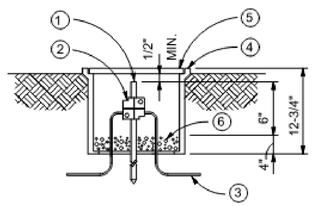
CATENARY MAST GROUNDING DETAIL

NOT TO SCALE

NOTE: GROUND ROD SHALL BE 3/4" X 60' LONG COPPER CLAD STEEL.



TOP VIEW - (COVER REMOVED)



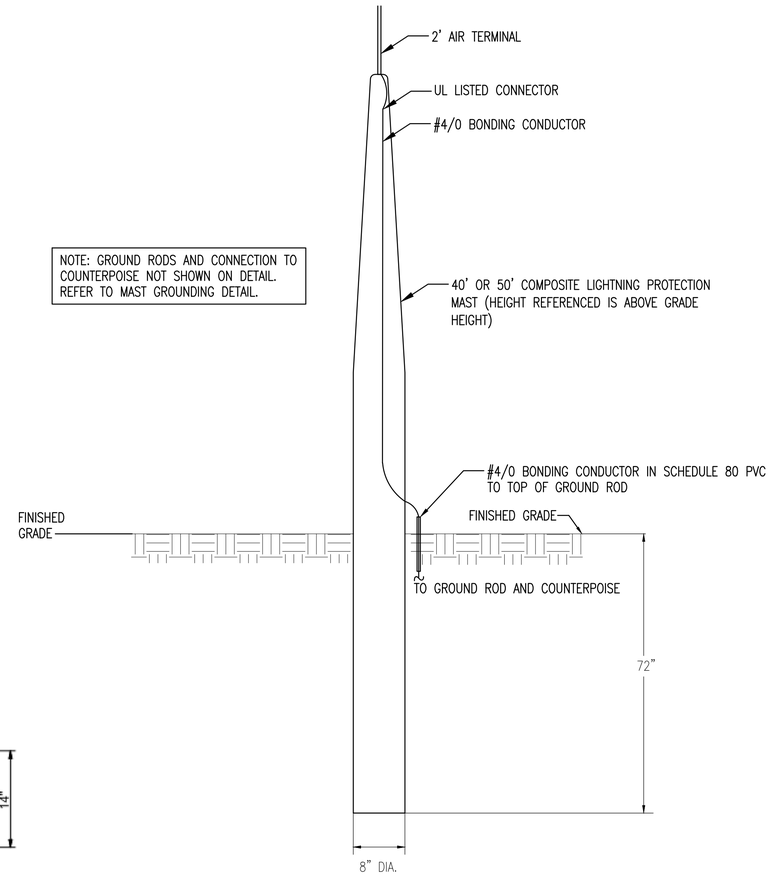
SECTION A-A

MATERIAL LIST

1	GROUND ROD	4	POLYMER CONCRETE FIBERGLASS REINFORCED BOX
2	GROUND CLAMP	5	COVER FOR ABOVE BOX
3	TO BUILDING COUNTERPOISE	6	GRAVEL OR CRUSHED STONE

GROUND ROD TEST WELL DETAIL

NOT TO SCALE



CATENARY MAST DIRECT BURY DETAIL

NOT TO SCALE

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ELECTRICAL DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER 13 FEB 25

DATE: 13 FEB 2025

DESIGNED BY: DMB

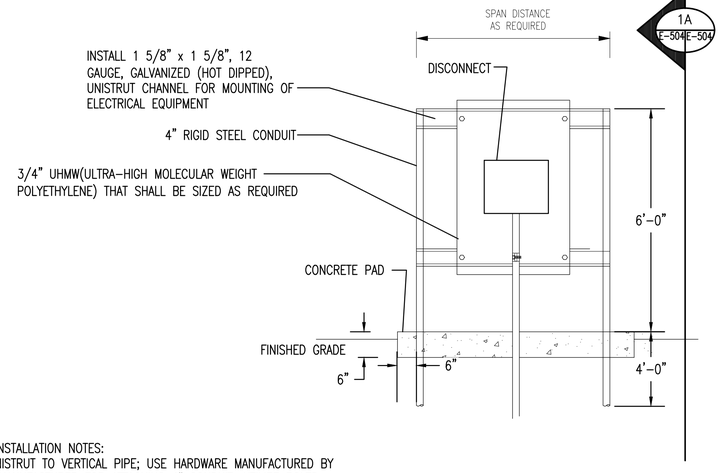
DRAWN BY: DCC

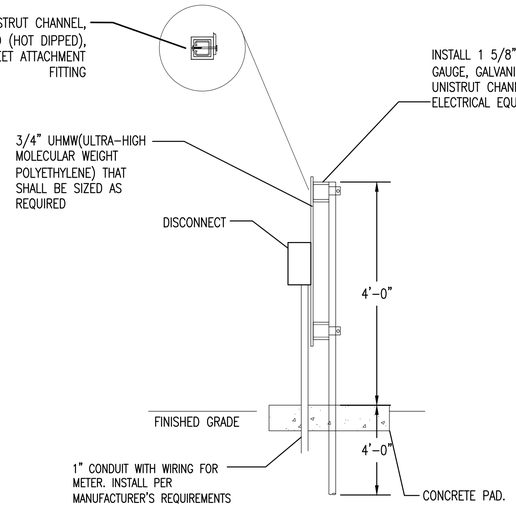
BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: E-503

SHEET NUMBER: 72 OF 88





METER DETAIL INSTALLATION NOTES:

1. FASTEN UNISTRUT TO VERTICAL PIPE; USE HARDWARE MANUFACTURED BY UNISTRUT MANUFACTURER FOR ATTACHING 4" CONDUIT. UTILIZE BOLTS, NUTS, AND WASHERS AS REQUIRED.
2. FASTEN BACKBOARD TO UNISTRUT; USE HARDWARE MANUFACTURED BY UNISTRUT MANUFACTURER FOR ATTACHING BACKBOARD. UTILIZE BOLTS, NUTS, AND WASHERS AS REQUIRED.
3. FASTEN METER TO BACKBOARD; PROVIDE A MINIMUM OF 4 BOLTS, NUTS, AND WASHERS FOR FASTENING TO BACKBOARD. BOLT SIZES TO MATCH HOLES PROVIDED BY MANUFACTURER OF METER CAN.
4. FASTEN METER CONDUIT TO UNISTRUT. USE HARDWARE MANUFACTURED BY UNISTRUT MANUFACTURER FOR ATTACHING 1" CONDUIT. UTILIZE BOLTS, NUTS, AND WASHERS AS REQUIRED.
5. PROVIDE 6" PAD THICKNESS. 4" OF PAD TO BE BELOW GRADE.
6. COORDINATE DISTANCE OF PAD FROM TRANSFORMER WITH BASE ELECTRICAL SHOP.

DISCONNECT MOUNTING DETAIL

NOT TO SCALE

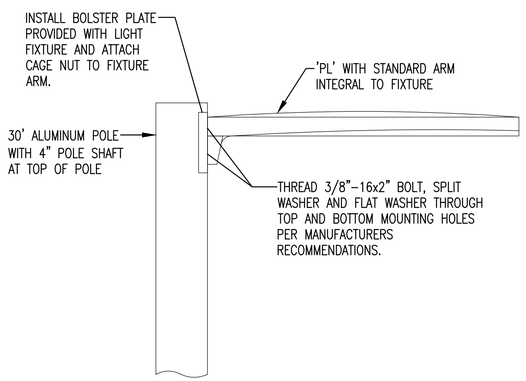
1A
E-503 503

ELEVATION

NOT TO SCALE

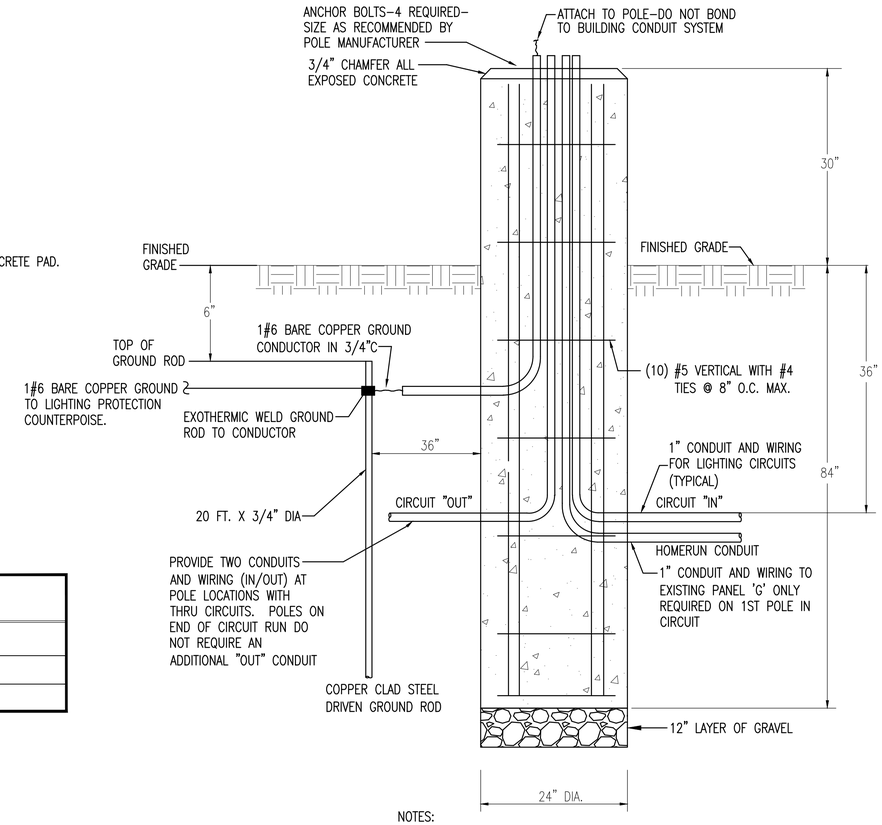
PARKING LOT LIGHTING FIXTURE SCHEDULE					
MARK	VOLTS	AMPS	LAMPS TYPE	MOUNTING	REMARKS
PL	208	1.4	LED	REFER TO NOTE #1	LOW PROFILE LED POLE LIGHT, TYPE 4 DISTRIBUTION, 4000K, NOMINAL 14000 LUMENS
POLE	–	–	–	–	30' TAPERED ROUND ALUMINUM POLE

NOTE #1: REFER TO 'FIXTURE TO POLE MOUNTING DETAIL' THIS SHEET.



1 FIXTURE TO POLE MOUNTING DETAIL

NOT TO SCALE



NOTES:

- INSTALL CONCRETE POLE BASE ACCORDING TO MANUFACTURER'S RECOMMENDATIONS
- VERIFY BOLT CIRCLE PATTERN WITH MANUFACTURER
- ALL CONDUITS SHOWN IN DETAIL ARE PVC SCHEDULE 40
- DETAIL SHOWS CAST IN PLACE REQUIREMENTS. PRECAST POLE BASES MAY BE USED IN LIEU OF CAST IN PLACE BUT THE PRECAST MANUFACTURER MUST PROVIDE STRUCTURAL ENGINEER SIGNED/SEALED DRAWINGS FOR GOVERNMENT APPROVAL PRIOR TO ORDERING AND INSTALLING.

2 LIGHTING POLE BASE DETAIL

NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

ELECTRICAL DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: DMB

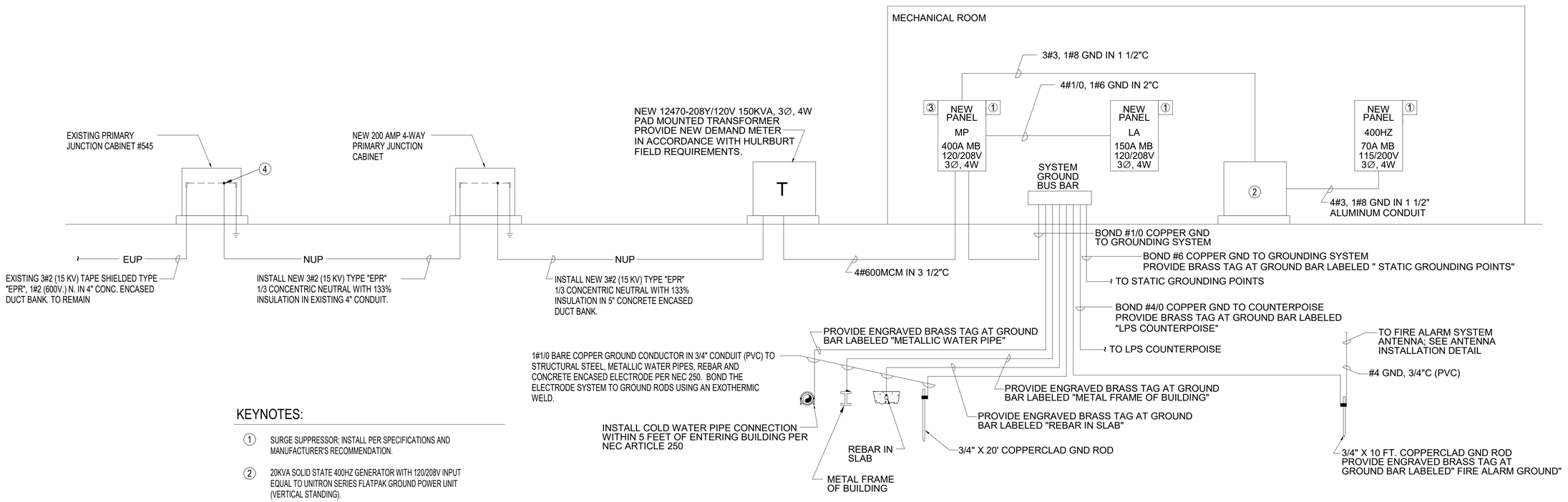
DRAWN BY: DCC

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: E-504

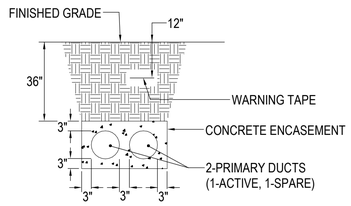
SHEET NUMBER: 73 OF 88



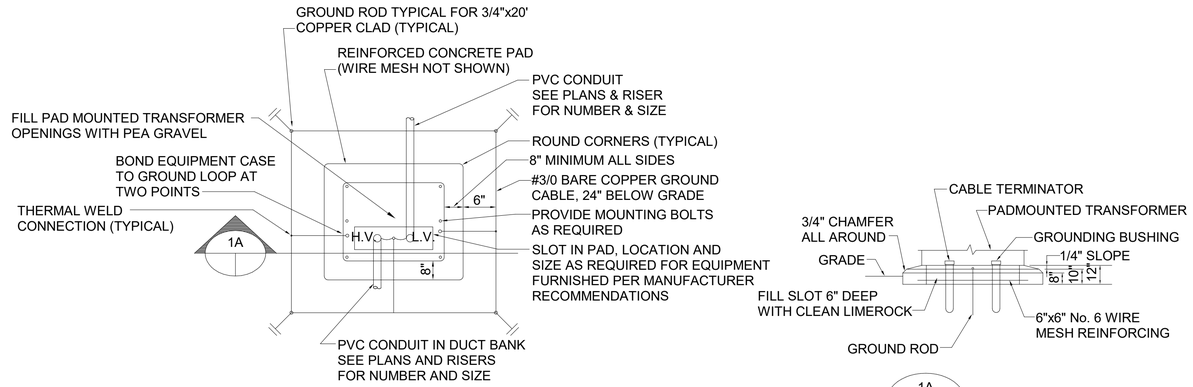
KEYNOTES:

1. SURGE SUPPRESSOR; INSTALL PER SPECIFICATIONS AND MANUFACTURER'S RECOMMENDATION.
2. 20KVA SOLID STATE 400HZ GENERATOR WITH 120/208V INPUT EQUAL TO UNITRON SERIES FLATPAK GROUND POWER UNIT (VERTICAL STANDING).
3. ELECTRICAL METER, BASIS OF DESIGN PM8000
4. INSTALL (3) THREE 600 AMP TO 200 AMP ELBOW ADAPTER

1 E-601 — NEW WORK POWER RISER DIAGRAM
1/8" = 1'-0"



2 E-601 — PRIMARY DUCT BANK DETAIL
1/8" = 1'-0"



NOTE: ALL GROUND CONNECTIONS SHALL BE NONREVERSIBLE COMPRESSION TYPE

3 E-601 — PAD MOUNT TRANSFORMER DETAIL
1/8" = 1'-0"

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

NEW WORK POWER RISER DIAGRAM

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-601
SHEET NUMBER: 74 OF 88

Branch Panel: MP

Location: MECH 111
Supply From: PAD MOUNT TRANSFORMER
Mounting: Surface
Enclosure: NEMA 1 Indoor

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MAIN BREAKER
Mains Rating: 400 A
MCB Rating: 400 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				1.5	1.5								2
3	Power BAY 110	20 A	3			1.5	1.5			3	20 A	BAY ROLL UP DOOR SOUTH	4
5								1.5	1.5				6
7	AHU-1 MECH 111	60 A	2	4.4	3								8
9						4.4	3			2	60 A	HPCU-1	10
11	EF-1	20 A	1					0.1	2				12
13	UH-1	60 A	3	5	2					3	25 A	EWH-1	14
15						5	2						16
17								5	5				18
19	CF-1	20 A	2	1.2	5					3	60 A	UH-2	20
21						1.2	5						22
23	CF-2	20 A	2					1.2	0.73				24
25				1.2	0.73					3	20 A	EF-2	26
27	AC-1	50 A	3			0	0.73						28
29								0	0.83				30
31				0	0.83					3	20 A	EF-3	32
33	SPARE	20 A	1			0	0.83						34
35	SPARE	20 A	1					0	1.2				36
37	SPARE	20 A	1	0	1.2					2	20 A	EWH-2	38
39	SPARE	20 A	1			0	0			1	20 A	RAD-1	40
41	SPARE	20 A	1					0	0				42
43	FUTURE PANEL OP	100 A	3	0	0					3	70 A	400HZ GENERATOR	44
45						0	0						46
47								0	--	1	--	SPACE ONLY	48
49	PANEL LA	150 A	3	6.66	0								50
51						5.1	0			3	30 A	SURGE SUPPRESSOR	52
53								6.6	0				54
			Total Load:	34.22 kVA		30.26 kVA		25.66 kVA					
			Total Amps:	291.05 A		258.08 A		213.85 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	550 VA	125.00%	688 VA		
Power	71786 VA	100.00%	71786 VA	**Total Conn. Load:**	90143 VA
Lighting	2168 VA	125.00%	2710 VA	**Total Est. Demand:**	88802 VA
Receptacle	14040 VA	85.61%	12020 VA	**Total Conn. Current:**	250 A
Spare	1600 VA	100.00%	1600 VA	**Total Est. Demand Current:**	246 A

Notes:

Branch Panel: LA

Location: MECH 111
Supply From: PANEL MP
Mounting: Surface
Enclosure: NEMA 1 Indoor

Volts: 120/208 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 22,000
Mains Type: MAIN BREAKER
Mains Rating: 150 A
MCB Rating: 150A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1	Receptacle Room 107, 106, 105	20 A	1	0.54	0.72					1	20 A	Receptacle OPEN OFFICE 101	2
3	Receptacle OPEN OFFICE 101	20 A	1			0.72	0.72			1	20 A	Receptacle OPEN OFFICE 101	4
5	Receptacle OPEN OFFICE 101	20 A	1					0.72	0.54	1	20 A	Receptacle MECH 111	6
7	Receptacle BREAK 104	20 A	1	0.72	0.18					1	20 A	Receptacle BREAK 104 FRIDGE	8
9	Receptacle BREAK 104	20 A	1			0.18	0.18			1	20 A	Receptacle BREAK 104	10
11	Receptacle BREAK 104	20 A	1					0.18	0.18	1	20 A	Receptacle BREAK 104	12
13	Receptacle BREAK 104	20 A	1	0.18	0.18					1	20 A	Receptacle BREAK 104	14
15	Receptacle TEST EQUIP STOR 103	20 A	1			1.08							16
17	Receptacle SUPPLY STOR 102	20 A	1					1.08	0.54	1	20 A	Receptacle BAY 110	18
19	Receptacle BAY 110	20 A	1	0.72	0.72					1	20 A	Receptacle BAY 110	20
21	Receptacle BAY 110	20 A	1			0.54	0.18			1	20 A	Receptacle BREAK 104 DISHWASHER	22
23	Receptacle	20 A	1					0.9	0.54	1	20 A	Receptacle	24
25	Room 101, 102	20 A	1	0.77	1.01					1	20 A	Lighting Room 105, 106, 107, 104, 103	26
27	Lighting Room 110	20 A	1			0.39	0.55			1	20 A	BLDG MOUNTED LIGHTS	28
29	BLUE LIGHTS	20 A	1					0	1	2	20 A	PARKING LOT LIGHTING	30
31	SPARE	20 A	1	0	0								32
33	SPARE	20 A	1			0	0.36			1	20 A	Receptacle OPEN OFFICE 101	34
35	SPARE	20 A	1					0	0.72	1	20 A	Receptacle OPEN OFFICE 101	36
37	SPARE	20 A	1	0	0.72					1	20 A	Receptacle OPEN OFFICE 101	38
39	SPARE	20 A	1			0	0			1	20 A	LIGHTING CONTACTOR	40
41	SPARE	20 A	1					0	--	1	--	SPACE ONLY	42
43	SPARE	20 A	1	0	0.2					3	20 A	LIFT STATION	44
45	SPARE	20 A	1			0	0.2						46
47	SPACE ONLY	--	1					--	0.2				48
49	SPACE ONLY	--	1	--	0					3	30 A	SURGE SUPPRESSOR	50
51	SPACE ONLY	--	1			--	0						52
53	SPACE ONLY	--	1					--	0				54
			Total Load:	6.66 kVA		5.1 kVA		6.6 kVA					
			Total Amps:	57.39 A		42.5 A		56.92 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Other	550 VA	125.00%	688 VA		
Lighting	2168 VA	125.00%	2710 VA	**Total Conn. Load:**	18357 VA
Receptacle	14040 VA	85.61%	12020 VA	**Total Est. Demand:**	17016 VA
Spare	1600 VA	100.00%	1600 VA	**Total Conn. Current:**	51 A
				Total Est. Demand Current:	47 A

Notes:

Branch Panel: 400HZ

Location: MECH 111
Supply From: 400HZ GENERATOR
Mounting: SURFACE
Enclosure: NEMA 1 Indoor

Volts: 115/200 Wye
Phases: 3
Wires: 4

A.I.C. Rating: 10,000
Mains Type: MAIN BREAKER
Mains Rating: 70 A
MCB Rating: 70 A

Notes:

CKT	Circuit Description	Trip	Poles	A		B		C		Poles	Trip	Circuit Description	CKT
1				0	0								2
3	FUTURE 30A PLUG	30 A	3			0	0			3	30 A	FUTURE 30A PLUG	4
5								0	0				6
7	400HZ PLUG IN BAY	30 A	3	2.16	--					1	--	SPACE ONLY	8
9						2.16	--			1	--	SPACE ONLY	10
11								2.16	--	1	--	SPACE ONLY	12
13	400HZ PLUG IN BAY	30 A	3	2.16	0								14
15						2.16	0			3	30 A	SURGE SUPPRESSOR	16
17								2.16	0				18
			Total Load:	4.32 kVA		4.32 kVA		4.32 kVA					
			Total Amps:	36 A		36 A		36 A					

Legend:

Load Classification	Connected Load	Demand Factor	Estimated Demand	Panel Totals	
Power	12960 VA	100.00%	12960 VA		
				Total Conn. Load:	12960 VA
				Total Est. Demand:	12960 VA
				Total Conn. Current:	36 A
				Total Est. Demand Current:	36 A

Notes:

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

PANEL SCHEDULES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: DMB
DRAWN BY: DCC
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: E-602
SHEET NUMBER: 75 OF 88

TELECOMMUNICATIONS LEGEND

GENERAL TELECOMMUNICATIONS:

TYPICAL WALL MOUNTED DATA OUTLET WITH FACEPLATE MOUNTED @ 18" AFF, FROM THE CENTER OF THE OUTLET, UNO. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

SUBSCRIPTS INDICATES THE FOLLOWING:

W - WALL MOUNTED AT 48" AFF FROM THE TOP OF THE OUTLET.

DDC - 1" CONDUIT HOMERUN FROM SERVING TR. PROVIDE (1) HORIZONTAL CABLE FROM SERVING TELECOMMUNICATION EQUIPMENT WITH 48" OF SLACK NEATLY COILED AND TERMINATED INTO A 2 PORT BISCUIT JACK WITHIN THE DIRECT DIGITAL CONTROL PANEL. COORDINATE EXACT LOCATION AND REQUIREMENTS WITH MECHANICAL CONTRACTOR PRIOR TO ROUGH- IN. FINAL CONNECTION TO EQUIPMENT DONE BY MECHANICAL CONTRACTOR.

TAG INDICATES THE FOLLOWING (THIS LIST INDICATES EACH NETWORK DESIGNATION FOR CLARITY. TAGS ON DRAWINGS WILL HAVE THE NETWORKS COMBINED INTO ONE TAG.:

B# - "B" INDICATES THE NETWORK DESIGNATION FOR "BLUE NETWORK" AND THE "#" INDICATES THE NUMBER OF JACKS WITHIN THE FACEPLATE. REFER TO RISER DIAGRAM FOR CABLE, CONNECTOR REQUIREMENTS AND COLOR.

XXXX ##" x ##" CABLE TRAY. CONTRACTOR SHALL COORDINATE THE ROUTING WITH OTHER DISCIPLINES PRIOR TO ANY EQUIPMENT BEING INSTALLED THIS IS TO INCLUDE OTHER DISCIPLINES EQUIPMENT. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS. HATCHING INDICATES THAT CABLE TRAY IS STACKED. TAG INDICATES THE FOLLOWING:

##" x ##" = TRAY SIZE

WAP GOVERNMENT FURNISHED, GOVERNMENT INSTALLED CEILING MOUNTED WIRELESS ACCESS POINT MOUNTED TO THE CEILING. PROVIDE (2) HORIZONTAL CABLES TO EACH LOCATION. TO DETAILS AND RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

WAP GOVERNMENT FURNISHED, GOVERNMENT INSTALLED WALL MOUNTED WIRELESS ACCESS POINT MOUNTED TO THE WALL. PROVIDE (2) HORIZONTAL CABLES TO EACH LOCATION. TO DETAILS AND RISER DIAGRAMS FOR ADDITIONAL REQUIREMENTS. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

MD GOVERNMENT FURNISHED, GOVERNMENT INSTALLED WALL MOUNTED MOTION DETECTOR. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

HSS GOVERNMENT FURNISHED, GOVERNMENT INSTALLED HIGH SECURITY SWITCH. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

KP GOVERNMENT FURNISHED, GOVERNMENT INSTALLED KEY PAD. REFER TO DETAILS FOR ADDITIONAL REQUIREMENTS.

IDS GOVERENMENT FURNISHED, GOVERNMENT INSTALLED INTRUSION DETECTION PANEL. MOUNT PANEL 5'-0" AFF.

DEVICE INSTALLATION NOTE:
ALL DEVICES AND PATHWAYS SHALL BE INSTALLED EXPOSED ON SECURITY WALLS FOR SECURE AREAS. IF SECURITY WALL HAS FRANGIBLE WALL THEN DEVICES AND PATHWAYS SHALL BE INSTALLED CONCEALED IN THE FRANGIBLE PORTION OF THE WALL ASSEMBLY.

ACS/IDS NOTE:
ACS AND IDS SYSTEMS ARE CONDUIT, POWER, AND JUNCTION BOX ROUGH-IN ONLY. THE GOVERNMENT WIILL PROVIDE AND INSTALL THESE SYSTEMS (WIRING, DEVICES, AND EQUIPMENT) THROUGH A SEPARATE CONTRACT.

GENERAL NOTES

1. ALL PENETRATIONS THRU FIRE RATED WALLS, CEILINGS, FLOORS, PARTITIONS, ETC SHALL BE FIRE STOPPED TO THE LATEST CODES, STANDARDS AND THE AUTHORITY HAVING JURISDICTION. COORDINATE WITH ARCHITECTURAL.
2. ALL EXTERIOR PENETRATIONS SHALL BE SEALED IN A NEAT/CLEAN MANNER AND SHALL HAVE A WATER TIGHT SEAL.
3. ALL CONDUITS AND INNERDUCT CELL SHALL BE PROVIDED WITH PULL STRING REGARDLESS IF CABLE IS INSTALLED OR NOT.
4. FINAL LOCATION OF **ALL DEVICES** SHALL BE COORDINATED WITH OWNER/USER PRIOR TO ROUGH-IN.
5. ALL CONDUIT ENDS SHALL BE FREE OF BURRS,SHARP EDGES AND PROVIDED WITH INSULATED GROUNDING BUSHINGS AND GROUNDED BACK TO THE TELECOMMUNICATINS GROUNDING BUSBAR SERVING THE SPACE.
6. NO CABLE TRAYS SHALL NOT PENETRATE WALLS. FOR LOCATIONS THAT CABLE TRAYS ARE PENETRATING WALLS THAT ARE NOT IDENTIFIED IN THE DETAILS. PROVIDE (1) 4" CONDUIT SLEEVE FOR EVERY 4" OF CABLE TRAY. EXAMPLE: A 12" CABLE TRAY SHALL RECEIVE (3) 4" CONDUIT SLEEVES. CONDUITS SHALL BE SUPPORTED WITH A HANGER SYSTEM ON EACH SIDE OF THE PENETRATION.

IMPORTANT NOTE

1. THE ILLISTRATION OF THE DESIGN WITHIN THIS PACKAGE DOES NOT INCLUDE DIMENSIONS / ELEVATIONS OF CONDUITS, PULL BOXES, CABLE TRAYS, ETC. THE DETAILS AND ISOMETRICS INCLUDED WITHIN THIS PACKAGE IS TO ILLISTRATE THE INTENT AND SHOULD NOT BE USED FOR SHOP DRAWINGS. IT IS THE RESPONSIBLITY OF THE CONTRACTOR TO REFER TO MANUFACTURER CUT SHEETS AND ENSURE THEY HAVE THE LATEST MANUFACTURER CUT SHEETS FOR GETTING DIMENSIONS / ELEVATIONS OF ALL CONDUITS, PULL BOXES, CABLE TRAYS, ETC. DURING THE DURATION OF CONSTRUCTION.

ABBREVIATIONS

AW	ABOVE WORK-SURFACE
AFF	ABOVE FINISH FLOOR
A.O.	ACCREDITING OFFICIAL
ADA	AMERICANS WITH DISABILITIES ACT
ANSI	AMERICAN NATIONAL STANDARDS INSTITUTE
AWG	AMERICAN WIRE GAUGE
AA	APPROVING AUTHORITY
ARCH	ARCHITECTURAL
AHJ	AUTHORITY HAVING JURISDICTION
BBC	BONDING BACKBONE CONDUCTOR
BAS	BUILDING AUTOMATION SYSTEM
CT	CABLE TRAY
CAT 3	CATEGORY 3
CAT 5E	CATEGORY 5 ENHANCED
CAT 6	CATEGORY 6
CAT 6A	CATEGORY 6 AUGMENTED
CO	COMMUNICATIONS OUTLET
CATV	COMMUNITY ANTENNA TELEVISION
C	CONDUIT
CP	CONSOLIDATION POINT
CFCI	CONTRACTOR FURNISHED, CONTRACTOR INSTALLED
CFGI	CONTRACTOR FURNISHED, GOVERNMENT INSTALLED
COTR	CONTRACTING OFFICER'S TECHNICAL REPRESENTATIVE
DDC	DIRECT DIGITAL CONTROLS
DEMARC	DEMARCATION
ELEC	ELECTRICAL
EMI	ELECTROMAGNETIC INTERFERENCE
EMCS	ENERGY MANAGEMENT CONTROL SYSTEM
EMT	ELECTRICAL METALLIC TUBING
FCC	FEDERAL COMMUNICATIONS COMMISSION
FO	FIBER OPTIC
GFCI	GOVERNMENT FURNISHED, CONTRACTOR INSTALLED
GFGI	GOVERNMENT FURNISHED, GOVERNMENT INSTALLED
HH	HANDHOLE
IAW	IN ACCORDANCE WITH
LAN	LOCAL AREA NETWORK
MTR	MAIN TELECOMMUNICATIONS ROOM
MH	MAINTENANCE HOLE
MAX	MAXIMUM
um	MICRON / MICROMETER
MIN	MINIMUM
MUTOA	MULTI-USER TELECOMMUNICATIONS OUTLET ASSEMBLY
MM	MULTIMODE
NEMA	NATIONAL ELECTRICAL MANUFACTURERS ASSOCIATION
NEC	NATIONAL ELECTRICAL CODE
NESC	NATIONAL ELECTRICAL SAFETY CODE
NFPA	NATIONAL FIRE PROTECTION ASSOCIATION
NIPRNET	UNCLASSIFIED INTERNET PROTOCOL ROUTER NETWORK
N/A	NOT APPLICABLE
NIC	NOT IN CONTRACT
OSP	OUTSIDE PLANT
PR	PAIR
PP	PATCH PANEL
PVC	POLYVINYL CHLORIDE
PB	PULL BOX
PBB	PRIMARY BONDING BUSBAR
PBX	PRIVATE BRANCH EXCHANGE
PDS	PROTECTED DISTRIBUTION SYSTEM
RMU	RACK MOUNTED UNIT
RM	ROOM
R/I	ROUGH-IN
ScTP	SCREENED TWISTED-PAIR
SIPRNet	SECRET INTERNET PROTOCOL ROUTER NETWORK
SBB	SECONDARY BONDING BUSBAR
SVTC	SECURED VIDEO TELECONFERENCE
STP	SHIELDED TWISTED-PAIR
SM	SINGLEMODE
SF	SURFACE MOUNT
STR	STRANDS
TBB	TELECOMMUNICATIONS BONDING BACKBONE
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR
TER	TELECOMMUNICATIONS EQUIPMENT ROOM
TR	TELECOMMUNICATIONS ROOM
TIA	TELECOMMUNICATIONS INDUSTRY ASSOCIATION
UL	UNDERWRITERS LABORATORIES INC
UPS	UNINTERRUPTIBLE POWER SUPPLY
UTP	UNSHIELDED TWISTED-PAIR
TYP	TYPICAL
UNO	UNLESS NOTED OTHERWISE
VTC	VIDEO TELECONFERENCE
VoIP	VOICE OVER INTERNET PROTOCOL
VoSIP	VOICE OVER SECRET INTERNET PROTOCOL

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER
Digitally signed by David M. Bagwell
2/13/25

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM LEGEND

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-001
SHEET NUMBER: 76 OF 88

INSIDE PLANT GENERAL NOTES:

GENERAL:
THE TELECOMMUNICATIONS DRAWINGS PROVIDED ARE DIAGRAMMATIC AND SHOW THE GENERAL LOCATION OF ALL REQUIRED DEVICES; SUCH AS OUTLETS, RACEWAYS, EQUIPMENT, AND APPURTENANCES. THEY DO NOT SHOW ALL NECESSARY OFFSETS, JUNCTION BOXES, CABLE/LADDER TRAY TRANSITIONS, CONDUIT SLEEVES/PENETRATIONS, AND ADJUSTMENTS NECESSARY BY COORDINATION WITH OTHER TRADES IN THE FIELD.

TELECOMMUNICATION CONTRACTOR'S SCOPE OF WORK:
TELECOMMUNICATION'S CONTRACTOR SHALL BE RESPONSIBLE FOR ENTIRE STRUCTURED CABLING SYSTEM ELEMENTS DEFINED IN THIS SCOPE OF WORK. THIS INCLUDES A COMPLETE INSTALLATION OF ALL PASSIVE INFRASTRUCTURE ELEMENTS SUCH AS OUTLETS, JACKS, CABLING, CABINETS, RACKS. BACKBOARDS, LADDER TRAY (LIMITED TO TELECOM ROOMS), TELECOM EQUIPMENT ROOM/CABINET BONDING, TERMINATIONS, TESTING,
LABELING, WARRANTIES, AND ALL REQUIRED CLOSE-OUT DOCUMENTS. THE TELECOMMUNICATIONS CONTRACTOR SHALL UNDERSTAND THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS PRIOR TO BID, AND WILL INCLUDE IN SCOPE OF WORK ALL REQUIREMENTS NECESSARY TO ENSURE A FULLY FUNCTIONAL SYSTEM.

COORDINATION:
WITH OTHER TRADES EXAMINE AND REVIEW THE DOCUMENTS OF ALL DIVISIONS IN ORDER TO COORDINATE THE INSTALLATION OF WORK. USE
DIMENSIONED DRAWINGS TO VERIFY THE SPACE NECESSARY FOR LOCATING OUTLETS, RACEWAYS, AND EQUIPMENT. USE FIELD MEASUREMENTS TO VERIFY DIMENSIONS WHERE AREAS ARE CONGESTED, AND EXACT LOCATION IS CRITICAL TO ENSURE PROPER INSTALLATION. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO; VERIFYING THE LOCATION AND SIZE OF OPENINGS/PENETRATIONS IN FLOORS, WALLS, PARTITIONS, CEILINGS, AND ROOFS WITH THE INSTALLING TRADES; ALLOCATION OF SPACE WITH OTHER TRADES, INSTALLING WORK IN CHASES, SHAFTS, CEILING INTERSTITIAL SPACES, AND EQUIPMENT SPACES; AND THE PHASING OF INSTALLATION WORK WITH THAT OF OTHER TRADES. INSTALLATION SHALL CONFORM WITH NFPA 70 "NATIONAL ELECTRICAL CODE," ANSI/TIA, UFC 3-580-01, AND UFC 4-010-06 (UNO).

CABLING INSTALLATION:
ALL CABLING ROUTED IN SLAB, BELOW VAPOR BARRIER OR BELOW GRADE, SHALL BE U.L. LISTED FOR WET LOCATIONS THAT COMPLIES WITH UFC
3-580-01 AND NFPA 70 (NEC): PART V, 725.3(L), 110.11, 300.5(B), 300.6, AND 310.10(G). DO NOT USE PLENUM OR RISER RATED CABLE, GEL-FILLED OSP, AND UNLISTED CABLES IN SUCH AN ENVIRONMENT. FOR IN-FLOOR CONDUIT SYSTEMS, PROVIDE HOME RUNS BACK TO THE TR SERVING THAT AREA.
USE A FILL RATIO OF 40 PERCENT FOR CONDUIT SIZING. DO NOT INSTALL MORE THAN FOUR, FOUR-PAIR CABLES IN A 1 INCH (27 MM) CONDUIT.
PROVIDE PULL STRING IN ALL EMPTY CONDUITS AND INNERDUCT. PULL STRING TO BE RATED FOR 200LBS IN ALL CONDUITS.
TELECOMMUNICATIONS FACEPLATES SHALL MATCH ELECTRICAL SWITCH AND RECEPTACLE PLATE FINISHES. PROVIDE COVER PLATES FOR ALL UNUSED J-BOX LOCATIONS.
LABEL ALL CABLES WITHIN 4 INCHES OF EACH TERMINATION. PROVIDE 12 INCHES SERVICE LOOP AT THE WORK AREA END OF EACH HORIZONTAL CABLE. INSTALL VELCRO CABLE TIES TO ALL CABLE BUNDLES IN CABLE TRAY, NON-CONTINUOUS SUPPORTS, RACK WIRE MANAGEMENT, D-RINGS AND OTHER SUPPORT MEANS. BUNDLE ALL DIFFERENTIATING NETWORK CABLING SEPARATELY. BALANCED TWISTED-PAIR CABLING SHALL BE SEPARATED FROM FLUORESCENT LAMPS AND ASSOCIATED FIXTURES BY A MINIMUM OF 5 IN.

NON-CONTINUOUS CABLE SUPPORTS (WHEN SPECIFIED):
SUPPORTS MUST NOT EXCEED 20 CABLES OR 50 PERCENT OF THE FILL CAPACITY, WHICHEVER IS LESS; INTERVALS NOT TO EXCEED 5 FT.

CABLING INSTALLATION IN CABLE TRAYS:
A MINIMUM OF 12 IN ACCESS HEADROOM SHALL BE PROVIDED AND MAINTAINED ABOVE A CABLE TRAY SYSTEM OR CABLE RUNWAY. A MINIMUM OF 3 IN CLEAR VERTICAL SPACE SHALL BE AVAILABLE ABOVE ACCESSIBLE CEILING, BELOW THE CABLE TRAY. THE MAXIMUM FILL OF ANY CABLE TRAY SHALL NOT EXCEED 25% (UNO), ALLOWING FACILITY USERS AN ADDITIONAL 25% SPARE CAPACITY. THE MAXIMUM FILL DEPTH OF ANY CABLE TRAY SHALL NOT EXCEED 6 IN.

MAIN TELECOM ROOM (MTR) / TELECOM ROOMS (TRs):
CONTRACTOR SHALL COORDINATE WITH GENERAL CONTRACTOR TO ENSURE TELECOM ROOMS ARE DIMENSIONALLY CONSTRUCTED AS DESIGNED. THIS INCLUDES USING FIELD MEASUREMENTS TO VERIFY ROOM DIMENSIONS, CONDUIT LOCATIONS (PRIOR TO CONCRETE POUR), WALL PENETRATIONS, AND DEVICE PLACEMENT. INSTALL BACKBOARDS IN ACCORDANCE WITH TIA-569-D. BACKBOARDS MUST BE FIRE-RETARDANT TREATED WOOD, BEARING THE MANUFACTURER'S STAMP. IF PAINTED, THE MANUFACTURER'S FIRE RATED STAMP MUST REMAIN VISIBLE. INSTALL FLOOR MOUNTED EQUIPMENT RACKS / CABINETS LOCATED AT OR NEAR THE CENTER OF THE TELECOMMUNICATION ROOM. MAINTAIN A MINIMUM OF 36 INCHES SPACE BOTH IN FRONT AND IN BACK OF THE RACK, MEASURED FROM THE EQUIPMENT, AND A MINIMUM SIDE CLEARANCE OF 24 INCHES ON AT LEAST ONE END OF THE RACK OR ROW OF ADJACENT RACKS IS REQUIRED. PROVIDE 25% SPARE CAPACITY WITHIN EACH UTILIZED RACK.

FURNITURE/MILLWORK:
ENSURE THAT THE CABLE IS PROTECTED AT ALL TRANSITION POINTS, AND THAT METALLIC SEPARATION IS PROVIDED BETWEEN TELECOMMUNICATION AND POWER WIRING IN THE UTILITY COLUMNS AND SYSTEMS FURNITURE TRACK IN ACCORDANCE WITH TIA-569-D AND NFPA 70.

INSIDE PLANT CONTRACTOR COORDINATION NOTE:

ELECTRICAL GENERAL NOTES - FACILITY INFRASTRUCTURE:

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE INTERIOR ROUGH-IN AND SUPPORT SYSTEM NECESSARY FOR THE COMPLETE STRUCTURED CABLING SYSTEM DEFINED IN THIS SCOPE OF WORK. THIS INCLUDES A COMPLETE INSTALLATION OF ALL REQUIRED PATHWAYS INCLUDING: CABLE TRAY (EXCLUDES TRAY IN MTR/TR), CONDUIT, BACK BOXES, JUNCTION BOXES, FLOOR BOXES, BLOCKING, GROUNDING CONDUCTORS AND BUSBARS, FIRESTOPPING, POWER, AND ANY OTHER NECESSARY APPURTENANCES. THE ELECTRICAL CONTRACTOR SHALL UNDERSTAND THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS PRIOR TO BID, AND WILL INCLUDE IN SCOPE OF WORK ALL REQUIREMENTS NECESSARY TO SUPPORT THE TELECOMMUNICATIONS SYSTEM TO COORDINATE AND ENSURE A FULLY FUNCTIONAL SYSTEM.

COORDINATION WITH OTHER TRADES:

EXAMINE AND REVIEW THE DOCUMENTS OF ALL DIVISIONS IN ORDER TO COORDINATE THE INSTALLATION OF WORK. USE DIMENSIONED DRAWINGS TO VERIFY THE SPACE NECESSARY FOR LOCATING OUTLETS, RACEWAYS, AND EQUIPMENT. USE FIELD MEASUREMENTS TO VERIFY DIMENSIONS WHERE AREAS ARE CONGESTED, AND EXACT LOCATION IS CRITICAL TO ENSURE PROPER INSTALLATION. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFYING THE LOCATION AND SIZE OF OPENINGS/PENETRATIONS IN FLOORS, WALLS, PARTITIONS, CEILINGS, AND ROOFS WITH THE INSTALLING TRADES; ALLOCATION OF SPACE WITH OTHER TRADES, INSTALLING WORK IN CHASES, SHAFTS, CEILING INTERSTITIAL SPACES, AND EQUIPMENT SPACES; AND THE PHASING OF INSTALLATION WORK WITH THAT OF OTHER TRADES. INSTALLATION SHALL CONFORM WITH NFPA 70 "NATIONAL ELECTRICAL CODE," ANSI/TIA, UFC 3-580-01, AND ELECTRICAL SPECIFICATIONS (UNO).

CONDUIT:

INSTALL ELECTRICAL METALLIC TUBING (EMT) CONDUIT FROM THE CABLE BACKBONE DISTRIBUTION SYSTEM, WHETHER CABLE TRAY OR ENCLOSED DUCT, TO EACH OUTLET (UNO).PROVIDE A MINIMUM OF 1 INCH EMT CONDUIT FOR STANDARD OUTLETS. WHEN CABLE TRAY OR ENCLOSED DUCT IS NOT USED, INSTALL INDIVIDUAL CONDUITS FROM THE MTR/TR TO EACH OUTLET. CONDUITS HAVE BEEN SIZED BASED ON THE NFPA, AS WELL AS ANSI/TIA 569. WHERE INSTALLATIONS VARY, INCREASE CONDUITS SIZES ACCORDING TO MAXIMUM NUMBER OF CABLES BASED ON ALLOWABLE FILL RATIO OF 40%. FOR IN-SLAB TELECOM DEVICES, WITH CONDUIT SYSTEMS LOCATED BELOW VAPOR BARRIER OR BELOW GRADE, PROVIDE HOME RUNS BACK TO THE MTR/TR SERVING THAT AREA. METALLIC PATHWAYS 3 FT OR GREATER IN LENGTH SHALL COMPLY WITH THE BONDING REQUIREMENTS OF ANSI/TIA-607. FOR CONDUITS WITH AN INTERNAL DIAMETER OF 2 IN OR LESS, THE INSIDE RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 6 TIMES THE INTERNAL DIAMETER. FOR CONDUITS WITH AN INTERNAL DIAMETER OF MORE THAN 2 IN, THE INSIDE RADIUS OF A BEND IN CONDUIT SHALL BE AT LEAST 10 TIMES THE INTERNAL DIAMETER. BENDS IN THE CONDUIT SHALL NOT CONTAIN ANY KINKS OR OTHER DISCONTINUITIES THAT MAY HAVE A DETRIMENTAL EFFECT ON THE CABLE SHEATH DURING CABLE PULLING OPERATIONS. CONDUITS SHALL BE REAMED TO ELIMINATE SHARP EDGES. METALLIC CONDUIT SHALL BE TERMINATED WITH AN INSULATED BUSHING. DO NOT USE FLEXIBLE METAL CONDUIT FOR TELECOMMUNICATIONS WIRING EXCEPT WHEN INSTALLING ACCESS FLOOR BOXES IN AN ACCESS FLOOR, WHERE THE ACCESS FLOOR BOX MAY BE RELOCATED WITHIN A SPECIFIED SERVICE AREA. IN THIS CASE THE LENGTH OF THE FLEXIBLE METAL CONDUIT MUST NOT EXCEED A LENGTH OF 20 FEET (6 M) FOR EACH RUN PER TIA-569-D. ALL PENETRATIONS SHALL BE SEALED WITH AN APPROVED SEALANT OR U.L. LISTED PENETRATION DEVICE THAT WILL MAINTAIN THE FIRE, SMOKE AND WATERPROOF OR OTHER APPLICABLE RATINGS OF THE TYPE OF CONSTRUCTION BEING PENETRATED. SEE ARCHITECTURAL DRAWINGS FOR PENETRATION REQUIREMENTS. UNLESS NOTED OTHERWISE, ALL CONDUITS SHALL BE INSTALLED CONCEALED UNDER FLOOR SLABS, ABOVE THE CEILING AND WITHIN THE FINISHED WALLS. ALL OUTLET BOXES SHALL BE INSTALLED FLUSH MOUNTED WITHIN FINISHED WALLS, CEILINGS OR FLOORS. SURFACE MOUNTED RACEWAY AND OUTLET BOXES SHALL NOT BE PERMITTED ON FINISHED WALLS, CEILINGS OR FLOORS EXCEPT AS INDICATED ON THE DRAWINGS. WHEN SURFACE MOUNT RACEWAYS ARE INDICATED, PROVIDE RACEWAY TO EMT TRANSITIONAL ADAPTER AT ALL ACCESSIBLE CEILINGS. ABOVE ACCESSIBLE CEILING, ROUTE EMT TO SERVING CABLE TRAY OR SERVING MTR/TR.
PULL ROPE SHALL BE INSTALLED IN ALL CONDUITS. PULL ROPE SHALL HAVE A MINIMUM 600LB TENSILE STRENGTH FOR ALL TELECOMMUNICATIONS CONDUITS.

WORK AREA OUTLETS:

INSTALL DOUBLE GANG ELECTRICAL BOXES, MINIMUM STANDARD SIZE 4-11/16 INCHES SQUARE AND 2-1/8 INCHES DEEP WITH APPROPRIATELY SIZED PLASTER RING FOR CONNECTION OF SINGLE GANG OR DOUBLE GANG FACEPLATE. INSTALL OUTLET BOX FOR RECESS MOUNTING WITH THE FACEPLATE FLUSH WITH THE WALL SURFACE, AT THE SAME HEIGHT AS THE ELECTRICAL OUTLETS. DO NOT PUT OUTLET BOXES IN SAME STUD CAVITY WHERE BOXES ARE ON EACH SIDE OF STC RATED WALLS.

POWER:

INSTALL A QUADRUPLEX ELECTRICAL OUTLET WITHIN 6 INCHES OF ALL WORK AREA OUTLETS TO SERVE TELECOMMUNICATIONS LOADS ASSOCIATED WITH THAT OUTLET.

TELECOM GROUNDING / BONDING:

INSTALL ALL REQUIRED TELECOM GROUNDING / BONDING PER ANSI/TIA 607, ELECTRICAL SPECIFICATIONS, TELECOM GROUNDING DETAILS / NOTES (UNO).

BLOCKING AND SUPPORT HARDWARE:

INSTALL ALL MOUNTS AND SUPPORT HARDWARE FOR TELECOM SYSTEMS; INCLUDING, UNISTRUT, ALL- THREAD OR THREADED RODS, BLOCKING, SUPPORT CABLES, ETC.

CABLE TRAYS:

THE MAXIMUM FILL OF ANY CABLE TRAY SHALL NOT EXCEED 25%, ALLOWING FACILITY USERS AN ADDITIONAL 25% SPARE CAPACITY, FOR A MAXIMUM 50% FILL RATIO (UNO). THE MAXIMUM FILL DEPTH OF ANY CABLE TRAY SHALL NOT EXCEED 6 IN.
THE SPAN FOR CABLE SUPPORT SYSTEMS SHALL BE DETERMINED IN ACCORDANCE WITH THE MANUFACTURER'S MAXIMUM RECOMMENDED LOAD CAPACITY FOR A GIVEN SPAN. THESE SYSTEMS MAY BE
SUPPORTED BY THREE BASIC METHODS:
- CANTILEVER BRACKETS FROM A WALL;
- TRAPEZE OR INDIVIDUAL ROD SUPPORTS FROM ABOVE;
- OR FROM BELOW.

CABLE TRAY SUPPORTS SHALL BE LOCATED WHERE PRACTICAL SO THAT CONNECTIONS BETWEEN SECTIONS OF THE TRAY FALL BETWEEN THE SUPPORT POINT AND ONE-QUARTER THE DISTANCE OF THE SPAN. A SUPPORT SHALL BE PLACED WITHIN 24 IN ON EACH SIDE OF ANY CONNECTION TO A BEND, TEE, OR CROSS. A MINIMUM OF 12 IN ACCESS HEADROOM SHALL BE PROVIDED AND MAINTAINED ABOVE A CABLE TRAY SYSTEM OR CABLE RUNWAY. INSTALL CABLE TRAY WITH SWEEPING RADIAL TURNS. DO NOT INSTALL WITH HARD 90° TURNS. BOND CABLE TRAY PER ANSI/TIA 607, AND GROUNDING DETAILS / NOTES.

PULL BOXES:

PULL BOXES SHALL BE READILY ACCESSIBLE. PULL BOXES SHALL NOT BE PLACED IN A FIXED FALSE CEILING SPACE UNLESS IMMEDIATELY ABOVE A SUITABLY MARKED ACCESS PANEL. A PULL BOX SHALL BE PLACED IN A CONDUIT RUN WHERE:
- THE LENGTH IS OVER 100 FT;
- THERE ARE MORE THAN TWO 90º BENDS, OR EQUIVALENT;
- OR THERE IS A REVERSE (U-SHAPED) BEND IN THE RUN.

PULL BOXES SHALL BE PLACED IN A STRAIGHT SECTION OF CONDUIT. THEY SHALL NOT BE USED IN LIEU OF A BEND. THE CORRESPONDING CONDUIT ENDS SHALL BE ALIGNED WITH EACH OTHER. WHERE A PULL BOX IS REQUIRED WITH CONDUITS SMALLER THAN 1-1/4", AN OUTLET BOX MAY BE USED AS A PULL BOX. IF THE PULL BOX IS COMPRISED OF METALLIC COMPONENTS, IT SHALL BE BONDED TO GROUND.

DAVID M. BAGWELL
LICENSE
No. 59251
STATE OF FLORIDA
PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM GENERAL NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-002
SHEET NUMBER: 77 OF 88

OUTSIDE PLANT GENERAL NOTES

GENERAL:
THE TELECOMMUNICATIONS SITE DRAWINGS PROVIDED ARE DIAGRAMMATIC AND SHOW THE GENERAL LOCATION OF ALL REQUIRED OSP DEVICES; SUCH AS MANHOLES / HANDHOLES, UNDERGROUND PATHWAYS, FACILITY PENETRATIONS, CABLING, EQUIPMENT, AND APPURTENANCES. THEY DO NOT SHOW ALL NECESSARY OFFSETS, FITTINGS, CONDUIT SLEEVES, DETAILED PENETRATIONS, AND ADJUSTMENTS NECESSARY BY COORDINATION WITH OTHER TRADES. THE CONTRACTOR SHALL UNDERSTAND THE FULL INTENT OF THE DRAWINGS AND SPECIFICATIONS PRIOR TO BID, AND WILL INCLUDE IN SCOPE OF WORK ALL REQUIREMENTS NECESSARY TO ENSURE A FULLY FUNCTIONAL SYSTEM.

UNDERGROUND CONDUIT SYSTEMS, TRADE SIZE 4" ID DUCTS.
COMPOSITION. THE DUCTS SHALL BE CORROSION RESISTANT AND 4-INCH INSIDE DIAMETER (I.D.) ROUND OR METRIC EQUIVALENT UNLESS OTHERWISE SPECIFIED BY THE GOVERNMENT. THE DUCTS SHALL BE MADE OF EPC-80-PVC (SCHEDULE 80) IAW NEMA TC-2 UNLESS OTHERWISE SPECIFIED BY THE GOVERNMENT. THE DUCTS SHALL BE APPROPRIATELY LABELED INDICATING THE COMPOSITION MATERIAL. DUCTS SHALL HAVE A SLEEVE OR BELL END TYPE COUPLING AND SHALL BE WATERTIGHT WHEN ASSEMBLED.

INSTALLATION. INSTALLATION OF UNDERGROUND CONDUITS/DUCTS SHALL BE IAW RUS BULLETIN 1751F-643; RUS BULLETIN 1753F-151; AND T.O. 31W3-10-22. DUCTS ACROSS ROADS, SIDEWALKS, PARKING AREAS, OR AREAS TO BE PAVED, ETC. SHALL BE INSTALLED A MINIMUM OF 36" BELOW GRADE AND SHOULD MAINTAIN A 36" BELOW GRADE. IN MAINTENANCE HOLES WITH KNOCKOUTS, DUCTS SHALL START AT THE BOTTOM KNOCKOUT, ALLOWING FOR UPWARD EXPANSION IN THE MAINTENANCE HOLES. ALL DUCTS NOT INSTALLED ACROSS ROADS, SIDEWALKS, PARKING AREAS, OR AREAS TO BE PAVED, ETC. SHALL HAVE A MINIMUM OF 36 INCHES GROUND COVER, BUT SHOULD MAINTAIN A 36" BELOW GRADE, WHERE POSSIBLE. THE CONTRACTOR SHALL PROVIDE OTHER PROTECTIVE MEASURES, CONCRETE CAP, ETC., IN THOSE AREAS WHERE THE MINIMUM GROUND COVER CANNOT BE ACHIEVED. GRADING OF DUCTS SHALL BE ACCOMPLISHED IAW RUS BULLETIN 1751F-643. MAINTENANCE HOLE PENETRATIONS WILL BE PATCHED WITH CONCRETE SO THAT DIRT WILL NOT ENTER THE MAINTENANCE HOLE.

BENDS AND SEALING.
ALL BENDS BETWEEN MAINTENANCE HOLES SHALL BE A MINIMUM 40-FOOT RADIUS WITH THE SUM OF BENDS IN ALL DIRECTIONS NOT EXCEEDING A TOTAL OF 90 DEGREES. ONLY ONE 90-DEGREE BEND SHALL BE ALLOWED BETWEEN MAINTENANCE HOLES. DUCTS SHALL HAVE BELL ENDS AND ENTER A MAINTENANCE HOLES PERPENDICULAR TO THE SURFACE OF THE WALL THROUGH WHICH IT IS ENTERING. ALL DUCTS/INNER DUCTS ENTERING MAINTENANCE HOLES MUST BE SEALED. UNIVERSAL DUCT PLUGS OR REMOVABLE PUTTY SEALANTS MAY BE USED. UPON COMPLETION OF CONDUIT SECTIONS, A TEST MANDREL ¼" (6.4MM) SMALLER THAN THE INSIDE DIAMETER OF THE CONDUIT SHALL BE PULLED THROUGH TWO DIAGONALLY OPPOSITE DUCTS TO ENSURE PROPER ALIGNMENT. IN ADDITION, ALL DUCTS SHALL BE CLEARED OF LOOSE MATERIALS SUCH AS CONCRETE, MUD, DIRT, STONES, ETC.

PULL ROPE/INNER DUCT.
ALL VACANT DUCTS SHALL BE PROVIDED WITH A WATERPROOF CORROSION RESISTANT PULL ROPE/ MULE TAPE FOR FUTURE CABLE INSTALLATION. THE PULL ROPE /MULE TAPE SHALL EXTEND INTO THE MAINTENANCE HOLE AND BE SECURED TO THE CABLE RACK OR PULLING IRON, ETC. PROVIDE THREE (3) 3"-3-CELL GEO-TEXTILE FLEXIBLE TYPE INNER DUCTS WITH MULE TAPE (MAXCELL OR EQUIVALENT) IN ONE DUCT OF FOUR DUCTS INSTALLED BETWEEN EACH PAIR OF MAINTENANCE HOLES WHEN 4" DUCT IS REQUIRED. PULL ALL INNER DUCT SIMULTANEOUSLY THROUGH DUCT AND FLAT TO AVOID WRAPPING OF INNER DUCT. LEAVE THREE FEET OF INNER DUCT EXPOSED IN THE MAINTENANCE HOLE FOR EACH INNER DUCT PROVIDED AND SECURE MULE TAPE TO CABLE RACK OR PULLING IRON, ETC. ALL CABLES SHALL BE RUN THROUGH INNER DUCT. WHEN A VACANT DUCT IS USED THE DUCT MUST BE POPULATED WITH 3 EACH 3", 3-CELL MAXCELLS INSTALLED AS DESCRIBED ABOVE.

SPACERS AND TRACER WIRE.
ALONG THE LENGTH OF THE DUCT RUN, IF THE DUCTS ARE INSTALLED BY TRENCHING, SPACERS SHALL BE PLACED AT AN INTERVAL OF FOUR (4) SPACERS PER 20 FEET AND CABLE WARNING TAPE SHALL BE BURIED ONE (1) FOOT BELOW THE SURFACE AND SHALL FOLLOW THE DUCT ROUTE. THE TAPE SHALL BE A MINIMUM OF THREE INCHES WIDE AND ORANGE IN COLOR WITH THE APPROPRIATE WARNING MESSAGE. AT LEAST ONE DUCT WILL HAVE TRACER WIRE OR BE OTHERWISE LOCATABLE FROM THE SURFACE.

ENTRANCE CONDUITS INTO EXISTING MAINTENANCE HOLES.
WHEN NEW ENTRANCE CONDUITS/DUCTS OR SLEEVES ARE REQUIRED, THE CONTRACTOR SHALL BORE AND INSTALL THE NECESSARY HOLES AND INSTALL THE DUCTS OR SLEEVES, IF KNOCKOUT DOESN'T EXIST. PENETRATION SHALL NOT BE IN SUCH A LOCATION THROUGH THE WALL AS TO BLOCK USE OF EXISTING DUCTS IN THE MAINTENANCE HOLE. NEW DUCTS WILL BE A MINIMUM OF 18 INCHES FROM EITHER THE MAINTENANCE HOLE FLOOR OR CEILING, IF PRACTICAL. THE MINIMUM BENDING RADIUS FOR ENTRY CONDUIT/DUCTS SHALL BE NO LESS THAN 10 TIMES THE INSIDE DIAMETER OF THE CONDUIT. DUCTS AND OPENINGS AROUND DUCTS SHALL BE SEALED TO PREVENT MOISTURE, DIRT, SAND, ETC. FROM ENTERING THE MAINTENANCE HOLE.

ENTRANCE CONDUITS INTO FACILITIES.
NEW FACILITIES SHOULD HAVE OUTSIDE PLANT CONDUITS THAT ENTER THE FACILITY THROUGH THE FACILITY FOUNDATION AND INTO AN APPROPRIATELY SIZED TELECOMMUNICATIONS ENTRANCE ROOM IAW UNIFIED FACILITIES CRITERION (UFC). PROVIDE ADDITIONAL PATHWAY BETWEEN TELECOMMUNICATION ENTRANCE COMMUNICATIONS ROOMS AND ANY ADDITIONAL COMMUNICATIONS ROOMS IAW UFC REQUIREMENTS. EXISTING FACILITIES MAY REQUIRE THE USE OF AN APPROPRIATELY SIZED BOX OUTSIDE THE FACILITY WHEN TRANSITIONING OUTSIDE PLANT CABLE PATHWAY TO FACILITY INFRASTRUCTURE. THE BOX THAT TRANSITIONS BETWEEN THE OUTSIDE PLANT CONDUIT AND FACILITY CONDUIT SHOULD BE SIZED APPROPRIATELY TO ACCOMMODATE THE REQUIRED CABLE AND MADE OF CORROSION RESISTANT MATERIALS OR PAINTED TO BE CORROSION RESISTANT. THE FACILITY CONDUIT SHOULD EXTEND FROM THE OUTSIDE BOX TO THE COMMUNICATIONS ROOM OR COMMUNICATIONS EQUIPMENT RACK.

CONDUIT BENDS OR SWEEPS.
WHERE A BEND OR SWEEP IS PLACED IN PVC NONMETALLIC DUCT BANK BETWEEN MAINTENANCE HOLES, THE DUCT BANK MUST BE ENCASED IN CONCRETE WITH A MINIMUM COMPRESSIVE STRENGTH OF 17,225 KILOPASCAL (KPA) [2500 POUNDS PER SQUARE INCH (PSI)].

UTILITY SEPARATION.
WHEN COMMUNICATIONS DUCTS CROSS EITHER POWER DUCT OR BURIED POWER CABLE, MAINTAIN A MINIMUM SEPARATION OF 3 INCHES OF CONCRETE OR 12 INCHES OF WELL-TAMPED EARTH BETWEEN THE TWO OR 12 INCHES OF WELL TAMPED EARTH WHEN PARALLEL; FOR PIPES (E.G., GAS, WATER, OIL) MAINTAIN 6 INCHES WHEN CROSSING OR 12 INCHES WHEN PARALLEL.

TELECOMMUNICATIONS CONTRACTOR SCOPE OF WORK:
TELECOMMUNICATIONS CONTRACTOR SHALL BE RESPONSIBLE FOR ENTIRE OUTSIDE PLANT CABLING SYSTEM ELEMENTS DEFINED IN THE SITE PLANS, ASSOCIATED DETAILS, DIAGRAMS, AND SPECIFICATIONS. THIS INCLUDES A COMPLETE INSTALLATION OF ALL PASSIVE INFRASTRUCTURE ELEMENTS INCLUDING, BUT NOT LIMITED TO: CABLING, SPLICE CASES, LABELING TAGS, ATTACHMENT HARDWARE, BONDING, TERMINATIONS, TESTING, LABEING, WARRANTIES, AND ALL REQUIRED CLOSE-OUT DOCUMENTS.

COORDINATION WITH OTHER TRADES:
EXAMINE AND REVIEW THE DOCUMENTS OF ALL DIVISIONS IN ORDER TO COORDINATE THE INSTALLATION OF WORK USE DIMENSIONED DRAWINGS TO VERIFY THE SPACE NECESSARY FOR LOCATING DUCTBANKS, MANHOLES, HANDHOLES, AND EQUIPMENT. USE FIELD MEASUREMENTS TO VERIFY DIMENSIONS WHERE AREAS ARE CONGESTED, AND EXACT LOCATION IS CRITICAL TO ENSURE PROPER INSTALLATION. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFYING THE LOCATION OF TELECOM SYSTEMS, WITH EXISTING UTILITIES AND/OR OTHER INSTALLING SYSTEM TRADES; ALLOCATION OF SPACE WITH OTHER TRADES; AND THE PHASING OF INSTALLATION WORK WITH THAT OF OTHER TRADES. INSTALLATION SHALL CONFORM WITH ANSI STANDARD C2 "NATIONAL ELECTRICAL SAFETY CODE: (NESC), NFPA 70 "NATIONAL ELECTRICAL CODE," ANSI/TIA. UFC 3-580-01, UFC 4-010-06, AND ELECTRICAL SPECIFICATIONS (UNO).

OUTISDE PLANT FIBER:
OUTSIDE PLAN OPTICAL FIBER CABLES SHALL COMPLY WITH THE TESTING AND TEST METHODS REQUIREMENTS IN TIA 472D000-B/ICE S-87-640 FOR ITS CABLE DESIGN. OUTSIDE PLANT FIBER SHALL BE SINGLEMODE CONTAINING A NOMINAL CORE DIAMETER OF 8.3 MICRONS AND CLADDING DIAMETER OF 125 MICRONS (UNO). OUTDOOR CABLE SHALL HAVE A MINIMUM PULL STRENGTH OF 2670 N (600 LBF). OUTDOOR OPTICAL FIBER CABLES SHALL BE ALL DIELECTRIC, SUPPORTING A BEND RADIUS OF 15 TIMES THE CABLE OUTSIDE DIAMETER WHEN NO SUBJECT TO TENSILE LOAD, AND 20 TIMES THE CABLE OUTSIDE DIAMETER WHEN SUBJECT TO TENSILE LOADING UP TO THE CABLE'S RATED LIMIT.

OUTSIDE PLANT CONTRACTOR COORDINATION NOTE:

ELECTRICAL GENERAL NOTES - OUTSIDE PLANT (OSP):

ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR THE ENTIRE EXTERIOR SITE PATHWAYS AND SUPPORT SYSTEM NECESSARY FOR THE COMPLETE TELECOM OUTSIDE PLANT CABLING SYSTEM DEFINED IN THE SITE PLANS, ASSOCIATED DETAILS, DIAGRAMS, AND SPECIFICATIONS. THIS INCLUDES A COMPLETE INSTALLATION OF ALL REQUIRED PATHWAYS INCLUDING, BUT NOT LIMITED TO: UNDERGROUND DUCTBANKS, VAULTS, MANHOLES, HANDHOLES, PULL BOXES, REQUIRED DIRECTIONAL BORING / DRILLING, GROUNDING / BONDING, CONDUIT SLEEVES, POWER, AND ANY OTHER NECESSARY APPURTENANCES.

COORDINATION WITH OTHER TRADES:

WITH OTHER TRADES EXAMINE AND REVIEW THE DOCUMENTS OF ALL DIVISIONS IN ORDER TO COORDINATE THE INSTALLATION OF WORK. USE DIMENSIONED DRAWINGS TO VERIFY THE SPACE NECESSARY FOR LOCATING DUCTBANKS, MANHOLES, HANDHOLES, AND EQUIPMENT. USE FIELD MEASUREMENTS TO VERIFY DIMENSIONS WHERE AREAS ARE CONGESTED, AND EXACT LOCATION IS CRITICAL TO ENSURE PROPER INSTALLATION. COORDINATION SHALL INCLUDE, BUT NOT BE LIMITED TO, VERIFYING THE LOCATION OF TELECOM SYSTEMS, WITH EXISTING UTILITIES AND/OR OTHER INSTALLING SYSTEM TRADES; ALLOCATION OF SPACE WITH OTHER TRADES; AND THE PHASING OF INSTALLATION WORK WITH THAT OF OTHER TRADES.INSTALLATION SHALL CONFORM WITH ANSI STANDARD C2 "NATIONAL ELECTRICAL SAFETY CODE" (NESC), NFPA 70 "NATIONAL ELECTRICAL CODE," ANSI/TIA, UFC 3-580-01, AND ELECTRICAL SPECIFICATIONS (UNO).

UNDERGROUND ENTRANCE:

ENTRANCE CONDUITS SHALL PASS BELOW FOOTERS OR THROUGH THE BUILDING FOUNDATION WALL; THE FOOTER PORTION OF THE FOUNDATION SHALL NOT BE CUT. GALVANIZED RSC SLEEVES SHALL BE PLACED WHERE THE ENTRANCE CONDUITS PASS THROUGH FOUNDATION WALLS. ANNULAR SPACES BETWEEN THE CONDUITS AND FLOORS / WALLS SHALL BE SEALED TO PREVENT WATER INTRUSION AND SHALL BE FIRE STOPPED AS REQUIRED BY THE NATIONAL ELECTRICAL CODE AND LOCAL CODES. CONDUITS SHALL EXTEND ABOVE THE FINISHED FLOOR OR BELOW THE CEILING TO AID IN PULLING CABLES. ENTRANCE CONDUITS SHALL BE PLUGGED OR SEALED. SCHEDULE 40 AND SCHEDULE 80 RIGID NONMETALLIC CONDUIT SHALL MEET NEMA STANDARD TC-2.

DRAIN SLOPE:

UNDERGROUND CONDUIT SHOULD BE INSTALLED SUCH THAT A SLOPE EXISTS AT ALL POINTS OF THE RUN TO ALLOW DRAINAGE AND PREVENT THE ACCUMULATION OF WATER. A DRAIN SLOPE OF NO LESS THAN 10 MM PER METER (.125 IN PER FOOT) IS DESIRABLE WHEN EXTENDING CONDUIT AWAY FROM BUILDING STRUCTURES. WHERE CONDUIT EXTENDS BETWEEN MAINTENANCE HOLES, A SLOPE OF 10 MM PER METER (.125 IN PER FOOT) SHOULD EXTEND FROM THE MIDDLE OF THE SPAN TO EACH MAINTENANCE HOLE.

DUCT PLUGS:

DUCTS SHALL BE SEALED TO RESIST LIQUID AND GAS INFILTRATION AT ALL NEW INSTALLATIONS AT MAINTENANCE HOLES AND BUILDING ENTRANCE POINT LOCATIONS.

WARNING TAPE:

ALL WARNING TAPE SHALL BE POLYETHYLENE (PE) PLASTIC TAPE, A MINIMUM WIDTH OF 6 INCHES IAW THE APWA UNIFORM COLOR CODE, AND IMPRINTED WITH THE WORDS "WARNING - TELECOMMUNICATION CABLE BELOW" AT NOT MORE THAN 48-INCH INTERVALS. MINIMUM THICKNESS OF THE TAPE SHALL BE 0.10 MM (0.004 IN). TAPE SHALL HAVE A MINIMUM STRENGTH OF 1750 POUNDS PER SQUARE INCH (PSI) LENGTHWISE AND 1500 PSI CROSSWISE. TAPE SHALL BE MANUFACTURED WITH AN INTEGRAL #8 TRACER WIRE.

DETECTABLE WARNING TAPE INSTALLATION:

DETECTABLE WARNING TAPE SHALL BE INSTALLED 18 IN ABOVE ALL NEW NON-METALLIC CONDUIT, AND IT SHALL NOT EXCEED THE MANUFACTURER'S RECOMMENDED DEPTH BELOW GRADE.

LENGTHS BETWEEN PULLING POINTS:

THE SECTION LENGTH OF CONDUIT SHALL NOT EXCEED 400 FT BETWEEN PULLING POINTS (UNO).

BENDS:

WHERE BENDS ARE REQUIRED, MANUFACTURED BENDS SHOULD BE USED WHENEVER POSSIBLE. BENDS MADE MANUALLY SHALL NOT REDUCE THE INTERNAL DIAMETER OF THE CONDUIT. ALL BENDS SHALL BE RADIAL SWEEPS. DURING INSTALLATION, THE MINIMUM BENDING RADIUS FOR FOC SHALL BE NO LESS THAN 20 TIMES THE OUTSIDE DIAMETER OF THE FOC, OR AS SPECIFIED BY THE CABLE MANUFACTURER. AFTER INSTALLATION, IT SHALL BE NO LESS THAN 15 TIMES THE CABLE DIAMETER.

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER
Digitally signed by David M. Bagwell
2025.02.13

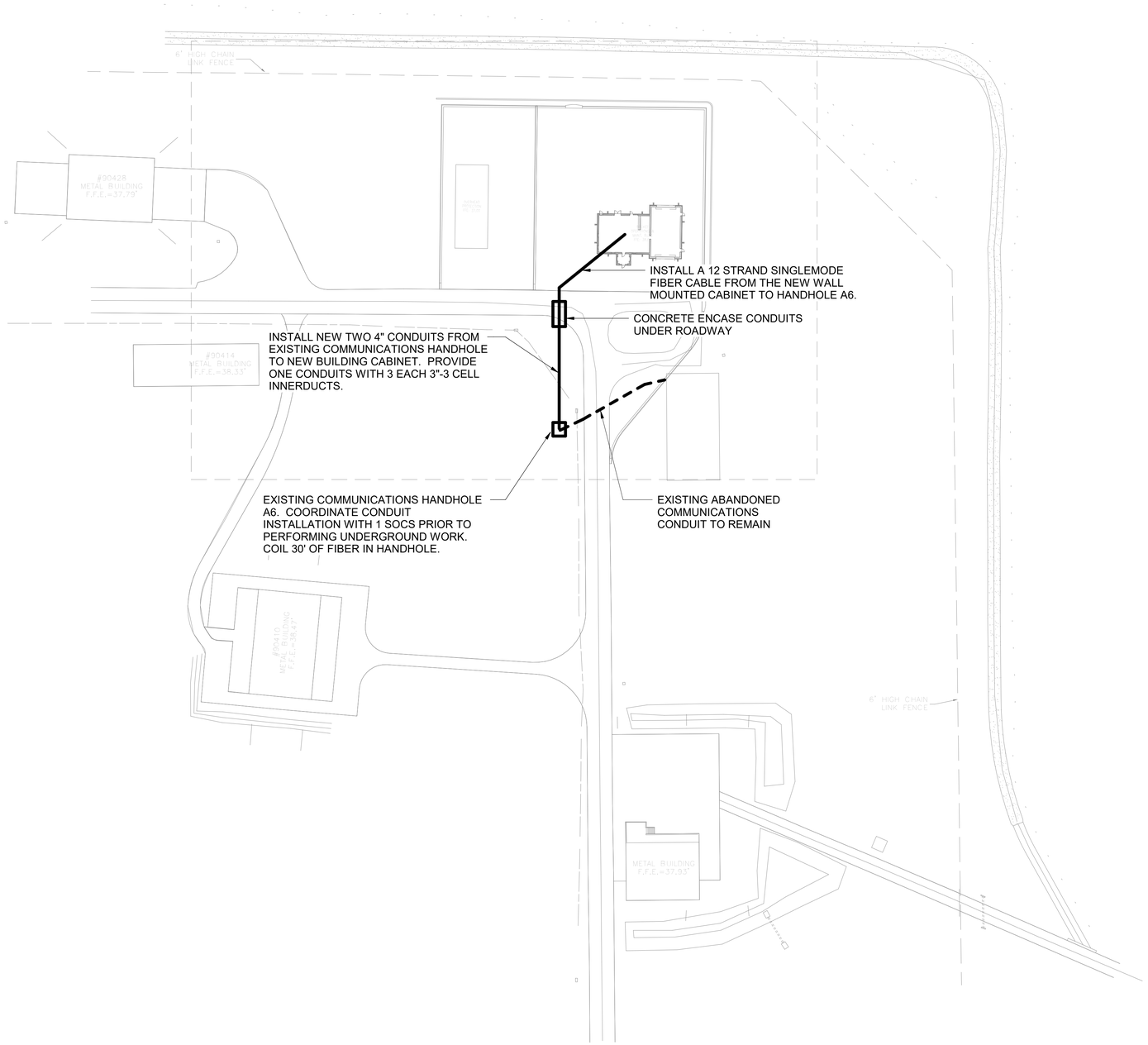
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM OSP NOTES

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-003
SHEET NUMBER: 78 OF 88



1 T-011 TELECOM SITE PLAN
1" = 60'-0"

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER
13 FEB 2025

0" 30' - 0" 60' - 0" 120' - 0"
SCALE:1'-0" = 60'-0"

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM SITE PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
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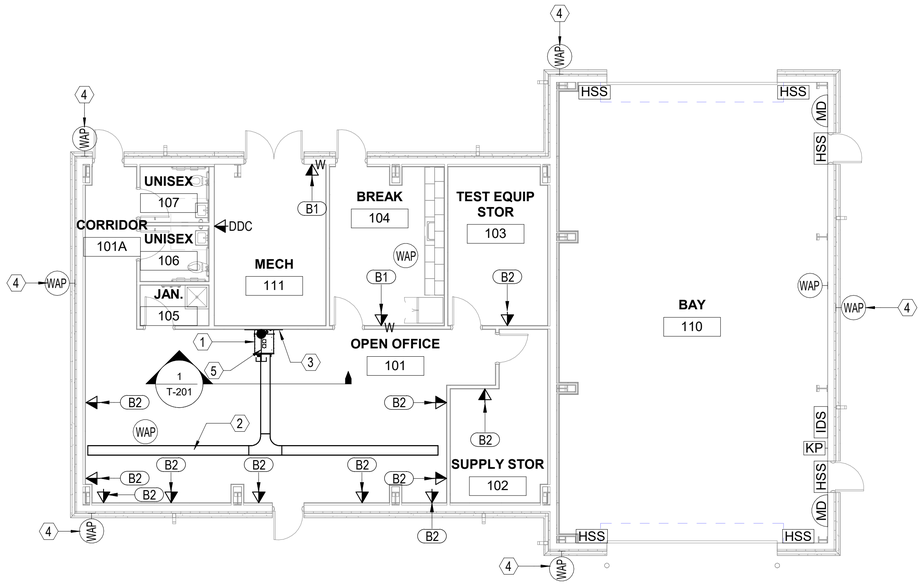


1 T-111 TELECOM GROUND FLOOR PLAN

1/8" = 1'-0"

SHEET NOTES

1. WALL MOUNTED COMMUNICATIONS CABINET EQUAL TO HUBBELL HSQ24S26. MOUNT CABINET ON PLYWOOD BACKBOARD.
2. 12" CABLE TRAY ABOVE ACCESS CEILING FOR HORIZONTAL CABLE ROUTING.
3. PROVIDE 3/4" AC INTERIOR GRADE FIRE RETARDANT TREATED PLYWOOD (BY MANUFACTURING PROCESS) PAINTED WITH (2) COATS OF GREY FIRE RETARDANT PAINT. THE MANUFACTURERED FIRE RATED STAMP SHALL REMAIN CLEARLY VISIBLE AFTER APPLING FIRE RETARDANT PAINT TO THE PLYWOOD. PROVIDE ADDITIONAL LABEL INDICATING PAINT MANUFACTURER, DATE PAINTED, UL LISTING AND NAME OF INSTALLER. PERMANENTLY FASTEN PLYWOOD BACKBOARD TO WALL BY MEANS OF WALL ANCHORS UTILIZING STAINLESS STEEL HARDWARE WITH A FLAT HEAD BOLT. FINISHED INSTALLATION SHALL BE FLUSH. DRYWALL SCREWS OR ANY OTHER SCREW TYPES SHALL NOT BE ACCEPTABLE, TYP.
4. INSTALL WAP OUTLET IN NEMA 3R ENCLOSURE MOUNTED AT 9'-0" AFF.
5. PROVIDE `(1) 4" CONDUIT FROM CABINET TO ABOVE CEILING CABLE TRAY.

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

0" 4' - 0" 8' - 0" 16' - 0"

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

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM GROUND FLOOR PLAN

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: TBG

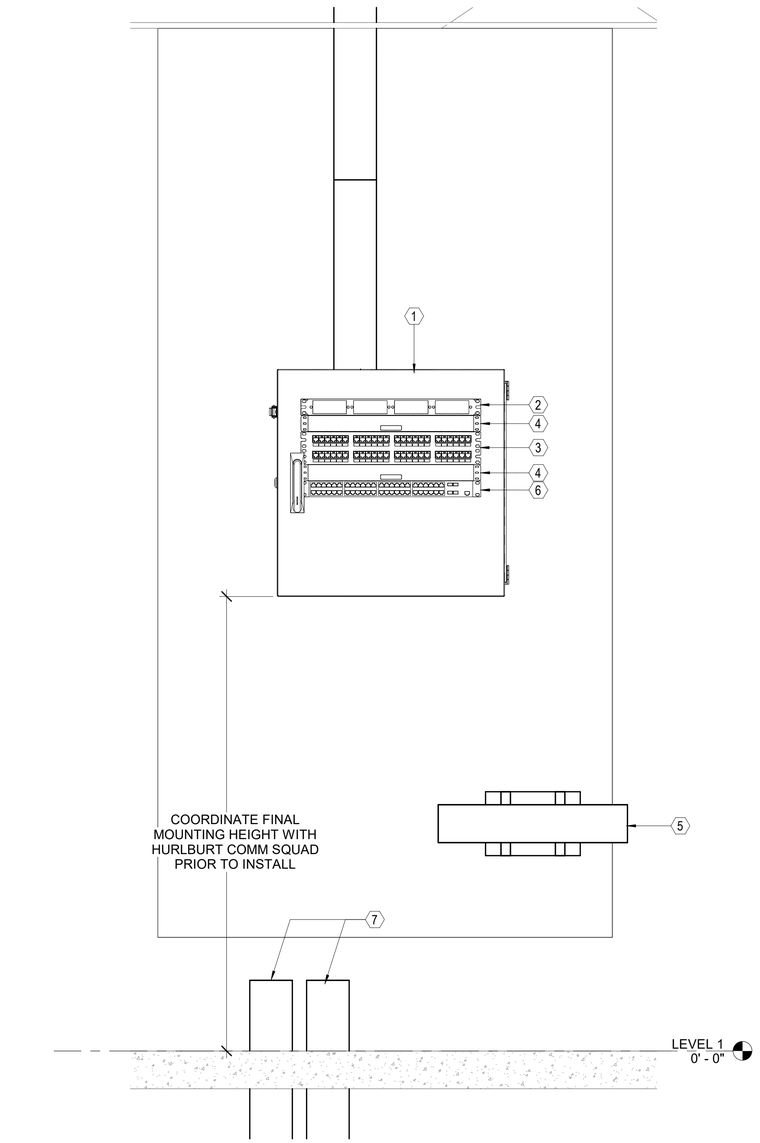
DRAWN BY: TBG

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: T-111

SHEET NUMBER: 80 OF 88



1 / T-201 BLUE NETWORK CABINET ELEVATION

1 1/2" = 1'-0"

SHEET NOTES

1. WALL MOUNTED COMMUNICATIONS CABINET EQUAL TO HUBBELL HSQ24S26. MOUNT CABINET ON PLYWOOD BACKBOARD.
2. 1RU FIBER LIU PATCH PANEL. CAPACITY OF ACCOMMODATING UPTO 96 STRANDS OF FIBER.
3. 2RU 48 PORT PATCH PANEL. PROVIDE QUANTITY AS REQUIRED PLUS 25% SPARE CAPACITY.
4. 1RU HORIZONTAL CABLE MANAGER. PROVIDE QUANTITY AS REQUIRED
5. TELECOMMUNICATIONS PRIMARY GROUNDING BUSBAR (PPB). REFER TO DETAIL FOR ADDTIONAL REQUIIREMENTS. PBB SHALL BE 12" LONG.
6. GFGI NETWORK SWITCH.
7. (2) 4" SERVICE ENTRANCE OSP CONDUITS. REFER TO SITE PLAN AND SITE DETAILS.

GENERAL NOTES

1. PROVIDE BLANK FILLER PLATES IN ALL UNUSED RACK SPACES.
2. ALL CABINETS AND EQUIPMENT SHALL BE LABELED PER TIA-606.
3. CONTRACTOR TO COORDINATE WITH HURLBURT CS PRIOR TO MAKING UP RACK/CABINET CONFIGURATION. ADJUST CONFIGURATION PER HURLBURT CS DIRECTION.

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

RACK ELEVATIONS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: TBG

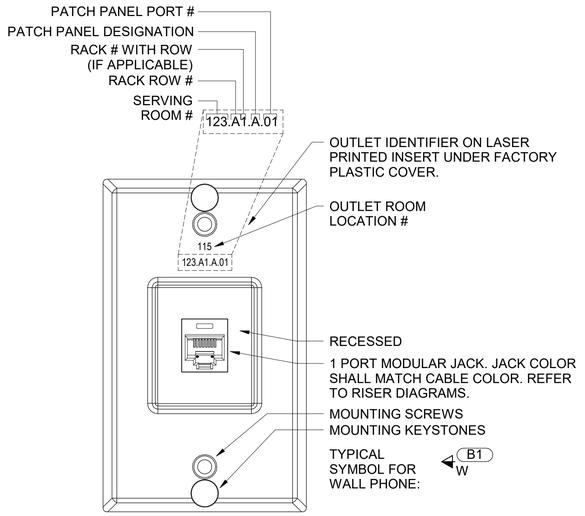
DRAWN BY: TBG

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

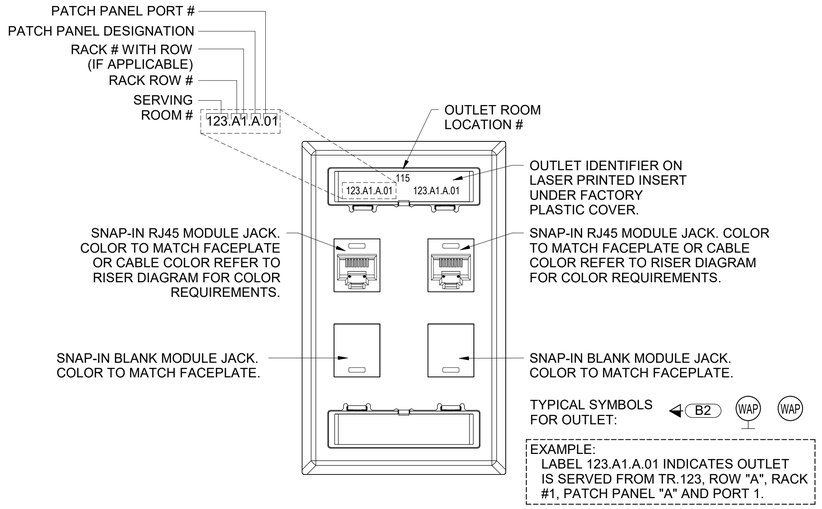
SHEET REFERENCE: T-201

SHEET NUMBER: 81 OF 88



1 T-501 TELECOM WALL PHONE FACEPLATE DETAIL

NOT TO SCALE

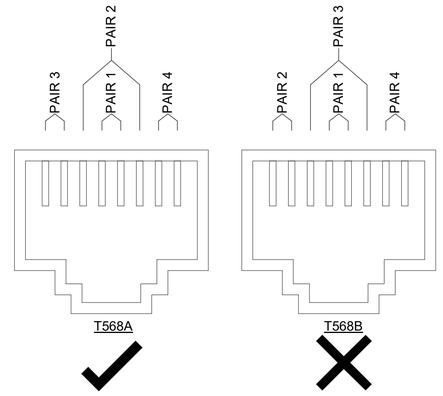


FACEPLATE NOTE NOTES:

1. FACEPLATES SHOWN HERE ARE GENERALIZED TO ILLUSTRATE THE TYPE OF CONNECTORS UTILIZED THROUGHOUT THE PROJECT. CONTRACTOR SHALL REFER TO EACH OUTLET LOCATION ON THE FLOOR PLANS FOR REQUIRED NETWORK JACKS AT EACH OUTLET LOCATION.

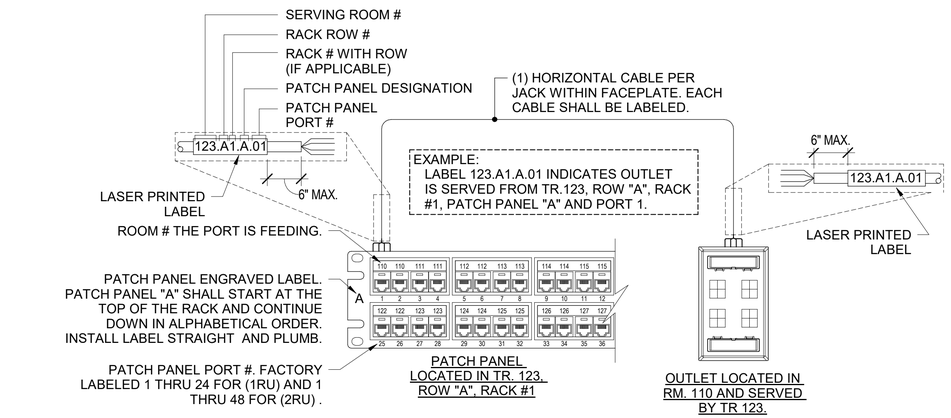
2 T-501 TELECOM FACEPLATE DETAIL - B2 & WAP

NOT TO SCALE



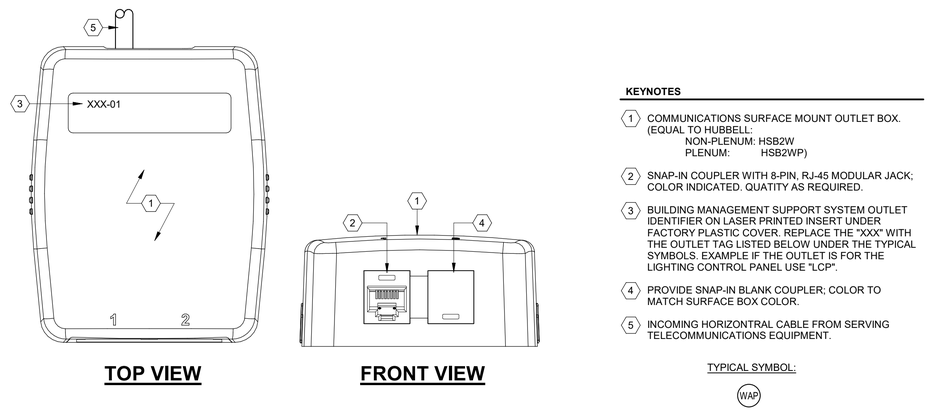
4 T-501 TELECOM WIRING TERMINATION STYLE DETAIL

NOT TO SCALE



3 T-501 TELECOM PATCH PANEL / WIRE LABELING DETAIL

NOT TO SCALE



TOP VIEW

FRONT VIEW

KEYNOTES

1. COMMUNICATIONS SURFACE MOUNT OUTLET BOX. (EQUAL TO HUBBELL:
   NON-PLENUM: HSB2W
   PLENUM: HSB2WP)
2. SNAP-IN COUPLER WITH 8-PIN, RJ-45 MODULAR JACK; COLOR INDICATED. QUATITY AS REQUIRED.
3. BUILDING MANAGEMENT SUPPORT SYSTEM OUTLET IDENTIFIER ON LASER PRINTED INSERT UNDER FACTORY PLASTIC COVER. REPLACE THE "XXX" WITH THE OUTLET TAG LISTED BELOW UNDER THE TYPICAL SYMBOLS. EXAMPLE IF THE OUTLET IS FOR THE LIGHTING CONTROL PANEL USE "LCP".
4. PROVIDE SNAP-IN BLANK COUPLER; COLOR TO MATCH SURFACE BOX COLOR.
5. INCOMING HORIZONTRAL CABLE FROM SERVING TELECOMMUNICATIONS EQUIPMENT.

TYPICAL SYMBOL:

WAP

5 T-501 TELECOM BISCUIT JACK DETAIL

NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM FACEPLATE DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: TBG

DRAWN BY: TBG

BUILDING NUMBER: 90405

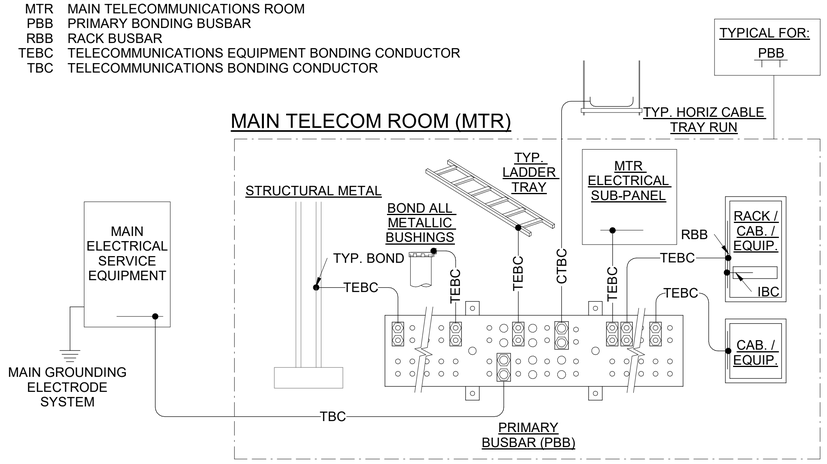
PROJECT NUMBER: OP1134972

SHEET REFERENCE: T-501

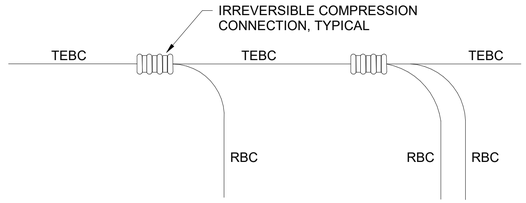
SHEET NUMBER: 82 OF 88

TELECOM GROUNDING LEGEND:

CTBC	CABLE TRAY BONDING CONDUCTOR
IBC	INDIVIDUAL BONDING CONDUCTOR
MTR	MAIN TELECOMMUNICATIONS ROOM
PBB	PRIMARY BONDING BUSBAR
RBB	RACK BUSBAR
TEBC	TELECOMMUNICATIONS EQUIPMENT BONDING CONDUCTOR
TBC	TELECOMMUNICATIONS BONDING CONDUCTOR



BONDING CONDUCTOR SIZING CRITERIA	
TBC LINEAR LENGTH (FEET)	TBC CONDUCTOR SIZE (AWG)
LESS THAN 13	6
14 - 20	4
21 - 26	3
27 - 33	2
34 - 41	1
42 - 52	1/0
53 - 66	2/0
67 - 84	3/0
85 - 105	4/0
106 - 125	250 kcmil
126 - 150	300 kcmil
151 - 175	350 kcmil
176 - 250	500 kcmil
251 - 300	600 kcmil
GREATER THAN 301	750 kcmil
INFO BASED ON ANSI/TIA-607-C	

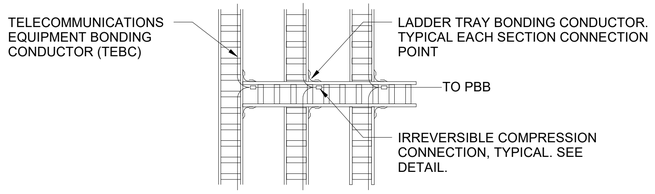


2 T-502 TELECOM IRREVERSIBLE COMPRESSION CONNECTION DETAIL
NOT TO SCALE

TELECOM GROUNDING NOTES:

1. PROVIDE TELECOMMUNICATIONS COPPER GROUNDING BUSBARS SUITABLE FOR INDOOR INSTALLATION IN ACCORDANCE WITH TIA-607. BUSBARS MUST BE MADE OF COPPER, OR COPPER ALLOYS HAVING A MINIMUM OF 95% CONDUCTIVITY WHEN ANNEALED AS SPECIFIED BY THE INTERNATIONAL ANNEALED COPPER STANDARD (IACS) AND LISTED BY A NATIONALLY RECOGNIZED TESTING LABORATORY.
2. ALL BUSBARS MUST BE PRE-DRILLED, PROVIDED WITH HOLES FOR USE WITH STANDARD SIZED LUGS; BUSBARS MUST BE CLEANED, WITH AN ANTI-OXIDANT APPLIED PRIOR TO FASTENING CONNECTORS.
3. FROM PBB BUSBAR LOCATION, RUN CONDUCTOR TO BUILDING SERVICE GROUND IN EMT CONDUIT.
4. ALL BONDING CONDUCTORS SHALL HAVE A GREEN JACKET. WHERE BARE CONDUCTORS ARE SPECIFIED, THEY SHALL BE SUPPORTED BY STANDOFF INSULATORS AT INTERVALS NO GREATER THAN 2 FT OR BE CONTAINED IN ELECTRICAL NONMETALLIC TUBING (ENT). BARE BONDING CONDUCTORS SHALL NOT BE IN CONTACT WITH METALLIC SURFACES OR OTHER CONDUCTORS THAT ARE NOT PART OF THE TELECOMMUNICATIONS BONDING SYSTEM.
5. BOND EACH CONDUIT AND CONDUIT SUPPORT STRUTS IN MTR WITH 6 AWG BONDING CONDUCTOR.
6. PRIMARY BUSBAR - PBB (AKA TMGB): HAVE DIMENSIONS OF 6.35 MM (0.25 IN) THICK X 100 MM (4 IN) WIDE AND SIZED IN ACCORDANCE WITH THE IMMEDIATE APPLICATION REQUIREMENTS AND WITH CONSIDERATION OF FUTURE GROWTH.
7. BONDS TO THE PBB: WHEN THE OUTSIDE PLANT CABLES IN THE TELECOMMUNICATIONS ENTRANCE ROOM OR SPACE INCORPORATE A CABLE SHIELD ISOLATION GAP, THE CABLE SHIELD ON THE BUILDING SIDE OF THE GAP SHALL BE BONDED TO THE PBB. ALL METALLIC PATHWAYS FOR TELECOMMUNICATIONS CABLING LOCATED WITHIN THE SAME ROOM OR SPACE AS THE PBB SHALL BE BONDED TO THE PBB. HOWEVER FOR METALLIC PATHWAYS CONTAINING BONDING CONDUCTORS WHERE THE PATHWAY IS BONDED TO THE BONDING CONDUCTOR, NO ADDITIONAL BOND TO THE PBB IS REQUIRED.
8. CONNECTIONS TO THE PBB: THE CONNECTIONS OF THE TBC TO THE PBB SHALL UTILIZE EXOTHERMIC WELDING, LISTED COMPRESSION TWO-HOLE LUGS, OR LISTED EXOTHERMIC TWO-HOLE LUGS. THE CONNECTION OF CONDUCTORS FOR BONDING TELECOMMUNICATIONS EQUIPMENT AND TELECOMMUNICATIONS PATHWAYS TO THE PBB SHALL UTILIZE EXOTHERMIC WELDING, LISTED COMPRESSION TWO-HOLE LUGS, OR LISTED EXOTHERMIC TWO-HOLE LUGS.
9. RACK BONDING BUSBAR (RBB): SHALL HAVE A MINIMUM CROSS-SECTIONAL AREA EQUAL TO A 6 AWG WIRE, AND BE LISTED. EQUIPMENT CONTAINING METALLIC PARTS AND PATCH PANELS FOR SHIELDED CABLING IN CABINETS AND RACKS SHALL BE BONDED TO THE TELECOMMUNICATIONS BONDING SYSTEM IN ACCORDANCE WITH THE MANUFACTURER INSTRUCTIONS. WHERE INSTRUCTIONS ARE NOT GIVEN, ALL BONDING CONDUCTORS THAT CONNECT THESE INSTALLED PRODUCTS SHALL BE A MINIMUM SIZED CONDUCTOR OF 12 AWG. BOND ALL RACKS WITH 4 AWG CONDUCTOR; ROUTE CONDUCTOR ALONG RACK REAR AND IN CABLE RUNWAY TO GROUNDING BUSBAR.
10. CABLE TRAY / METALLIC PATHWAYS: ALL METALLIC TELECOMMUNICATIONS PATHWAYS SHALL BE BONDED TO THE PBB. ADDITIONALLY, CABLE TRAY SECTIONS SHALL BE BONDED TOGETHER, AND TO THE PBB. BOND TRAYS TOGETHER BY CONNECTOR PLATES OF AN IDENTICAL TYPE AS THE CABLE TRAY SECTIONS. PROVIDE NO. 2 AWG BARE COPPER WIRE THROUGHOUT CABLE TRAY SYSTEM, AND BOND TO EACH SECTION, EXCEPT USE NO. 1/0 ALUMINUM WIRE IF CABLE TRAY IS ALUMINUM. TERMINATE CABLE TRAYS 10 INCHES FROM BOTH SIDES OF SMOKE AND FIRE PARTITIONS. INSTALL CONDUCTORS RUN THROUGH SMOKE AND FIRE PARTITIONS IN 103 MM 4 INCH RIGID STEEL CONDUITS WITH GROUNDING BUSHINGS, EXTENDING 305 MM 12 INCHES BEYOND EACH SIDE OF PARTITIONS. SEAL CONDUIT ON BOTH ENDS TO MAINTAIN SMOKE AND FIRE RATINGS OF PARTITIONS.
11. BUILDING STRUCTURAL METAL: WHERE STRUCTURAL METAL IS ACCESSIBLE AND IN THE SAME ROOM AS THE PBB, THE PBB SHALL BE BONDED TO STRUCTURAL METAL USING A MINIMUM SIZED CONDUCTOR OF 6 AWG.
12. RUN CONDUCTOR FROM BUSBAR LOCATION TO BUILDING SERVICE GROUND IN EMT CONDUIT. PROVIDE INSULATED GROUNDING BUSHING - AT CONDUIT ENDS AND GROUND PER NEC. GROUNDING TO BUILDING STRUCTURE, CONDUITS, UTILITY PIPING, OR ELECTRICAL SUBPANELS IN LIEU OF BONDING TO BUILDING MAIN ELECTRICAL SERVICE GROUND IS NOT ACCEPTABLE.
13. GROUNDING TAGS SHALL BE LABELED PER TIA / ANSI 607-D, 7.9 & TIA / ANSI 606-D, 5.1.16.

1 T-502 TELECOM GROUNDING / BONDING
NOT TO SCALE



NOTE: DO NOT INSTALL GROUND WIRE IN TRAY.

3 T-502 TELECOM LADDER TRAY GROUNDING / BONDING CONNECTION DETAIL
NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

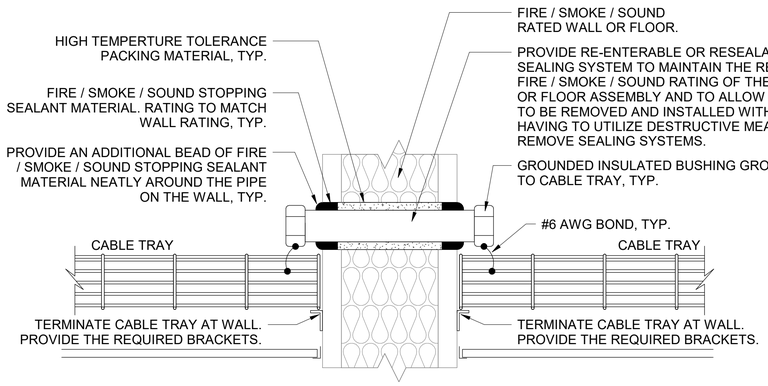
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM GROUNDING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

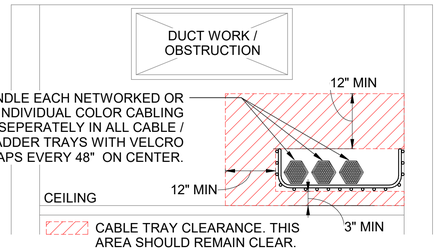
DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-502
SHEET NUMBER: 83 OF 88



NOTE:
1. REFER TO ARCHITECTURAL FOR FIRE / SMOKE / SOUND RATED WALLS AND FLOORS.
2. PROVIDE (1) 4" CONDUIT SLEEVE FOR EVERY 4" OF CABLE TRAY. EXAMPLE: A 12" CABLE TRAY SHALL RECEIVE (3) 4" CONDUIT SLEEVES.
3. ALL FIRE STOPS SHALL ADHERE TO NATIONAL CODES, LOCAL CODES AND/OR AHJ.
4. ASSEMBLY SHALL MAINTAIN TO SAME RATING AS THE WALL. COORDINATE WITH ARCHITECTURAL.
5. THIS ASSEMBLY DETAIL IS NOT TO JUST BE USE FOR SLEEVES BUT ALSO USED FOR CONTINOUS CONDUIT RUNS THRU FIRE, SMOKE AND SOUND RATED WALLS OR FLOORS.

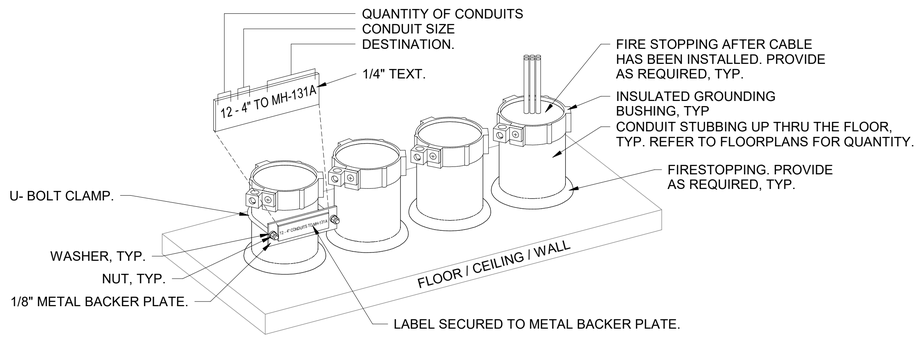
1 T-503 TELECOM FIRE / SMOKE / SOUND RATED PENETRATION DETAIL

NOT TO SCALE



3 T-503 TELECOM CABLE TRAY CLEARANCE DETAIL

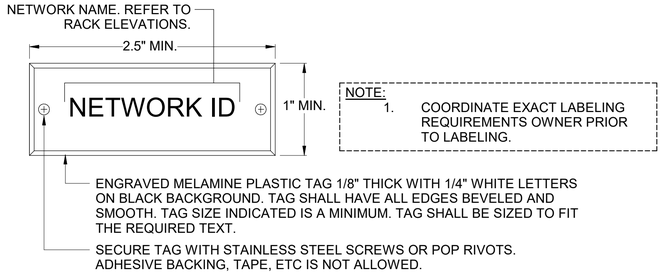
NOT TO SCALE



NOTES:
1. THE U-BOLT CLAMP SHALL BE TIGHTEN DOWN TO THE CONDUIT ENOUGH TO HAVE A TIGHT FIT BUT NOT SO TIGHT THAT IT JEOPARDIZES THE INTEGRITY OF THE CONDUIT.
2. EACH GROUP OF CONDUITS THAT SHARE THE SAME CONDUIT SIZE AND DESTINATIONS SHALL HAVE THEIR OWN LABEL. DO NOT PUT MULTIPLE GROUPS OR MULTIPLE SIZE CONDUITS ON THE SAME LABEL. LABELING SHALL START AND BE READ FROM LEFT TO RIGHT.
3. LABEL SHALL BE ORIENTATED BASE ON THE CONDUIT PENETRATION. LABELS SHALL MAINTAIN THE LEFT TO RIGHT ORIENTATION.
4. ENGRAVED PLASTIC TAG WITH 1/4" BLACK LETTERS ON WHITE BACKGROUND. TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. SECURE TAG WITH STAINLESS STEEL SCREWS OR POP RIVETS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED.

5 T-503 TELECOM CONDUIT LABELING DETAIL

NOT TO SCALE



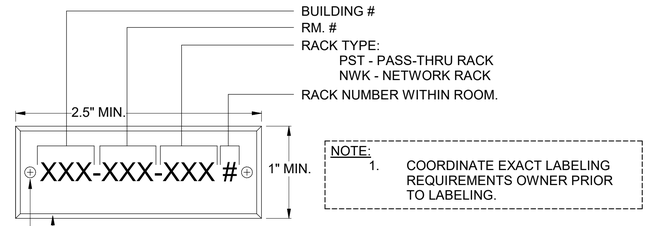
NOTE:
1. COORDINATE EXACT LABELING REQUIREMENTS OWNER PRIOR TO LABELING.

ENGRAVED MELAMINE PLASTIC TAG 1/8" THICK WITH 1/4" WHITE LETTERS ON BLACK BACKGROUND. TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. TAG SIZE INDICATED IS A MINIMUM. TAG SHALL BE SIZED TO FIT THE REQUIRED TEXT.

SECURE TAG WITH STAINLESS STEEL SCREWS OR POP RIVOTS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED.

4 T-503 TELECOM NETWORK INDENTIFICATION LABEL DETAIL

1/8" = 1'-0"



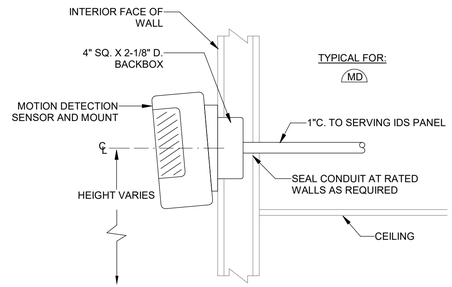
NOTE:
1. COORDINATE EXACT LABELING REQUIREMENTS OWNER PRIOR TO LABELING.

ENGRAVED MELAMINE PLASTIC TAG 1/8" THICK WITH 1/4" WHITE LETTERS ON BLACK BACKGROUND. TAG SHALL HAVE ALL EDGES BEVELED AND SMOOTH. TAG SIZE INDICATED IS A MINIMUM. TAG SHALL BE SIZED TO FIT THE REQUIRED TEXT.

SECURE TAG WITH STAINLESS STEEL SCREWS OR POP RIVOTS. ADHESIVE BACKING, TAPE, ETC IS NOT ALLOWED.

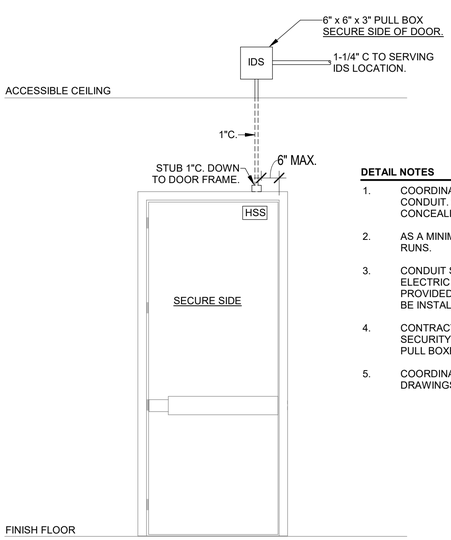
2 T-503 TELECOM RACK INDENTIFICATION LABEL DETAIL

1/8" = 1'-0"



6 T-503 MOTION DETECTION SENSOR MOUNTING DETAIL - WALL

NOT TO SCALE



DETAIL NOTES

1. COORDINATE WITH SECURITY OFFICER PRIOR TO INSTALLATION OF ANY CONDUIT. SECURITY OFFICER TO MAKE FINAL DETERMINATION ON CONCEALING VS SURFACE MOUNTING CONDUITS.
2. AS A MINIMUM, PROVIDE PULL BOX EVERY 100' OF INTERIOR CONDUIT RUNS.
3. CONDUIT SOLUTIONS ARE SHOWN FOR BOTH ELECTRIC LOCKS AND ELECTRIC STRIKES. CONTRACTOR SHALL FINALIZE WHICH IS BEING PROVIDED PRIOR TO ROUGH-IN AS ONLY ONE SOLUTION IS REQUIRED TO BE INSTALLED.
4. CONTRACTOR SHALL COORDINATE EXACT PULL BOX LOCATIONS WITH SECURITY VENDOR SHOP DRAWINGS PRIOR TO ROUGH-IN TO ENSURE PULL BOXES DO NOT EXCEED EQUIPMENT WHIP LIMITATIONS.
5. COORDINATE EXACT PULL BOX LOCATIONS WITH SECURITY VENDOR SHOP DRAWINGS PRIOR TO ROUGH-IN.

7 T-503 CONTROLLED SINGLE DOOR DETAIL - HIGH SECURITY SENSOR

NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER
1/13/25

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM LABELING AND PATHWAY DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: TBG

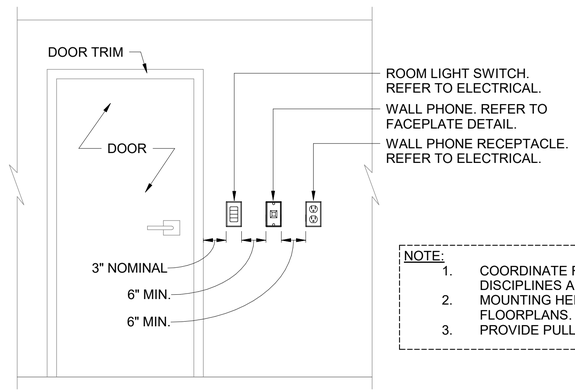
DRAWN BY: TBG

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: T-503

SHEET NUMBER: 84 OF 88

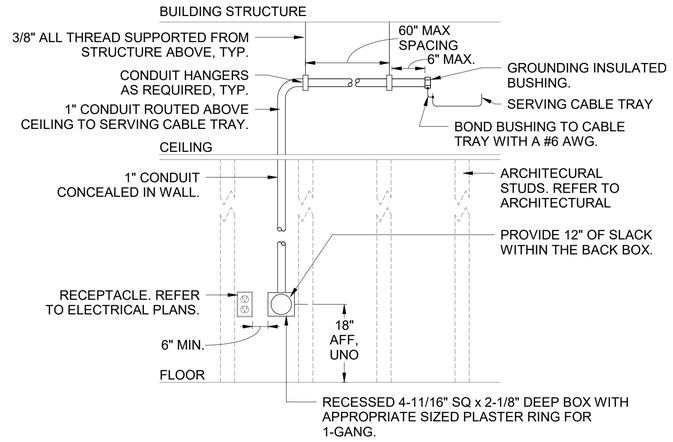


NOTE:
1. COORDINATE FINAL LOCATION WITH OTHER DISCIPLINES AND OWNER PRIOR TO ROUGH-IN.
2. MOUNTING HEIGHTS MAY VARY. REFER TO FLOORPLANS.
3. PROVIDE PULL STRINGS WITHIN CONDUITS.

1 TELECOM WALL PHONE MOUNTING DETAIL

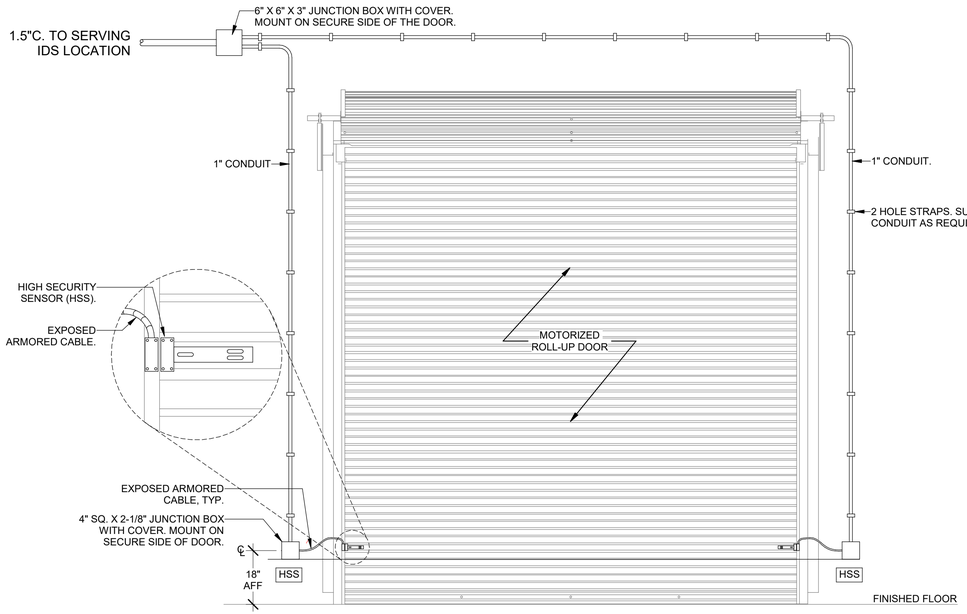
T-504 NOT TO SCALE

NOTE:
1. COORDINATE FINAL LOCATION WITH OTHER DISCIPLINES AND OWNER PRIOR TO ROUGH-IN.
2. MOUNTING HEIGHTS MAY VARY. REFER TO FLOORPLANS.
3. PROVIDE PULL STRINGS WITHIN CONDUITS.



2 TELECOM DATA OUTLET MOUNTING DETAIL - TYPICAL

T-504 NOT TO SCALE

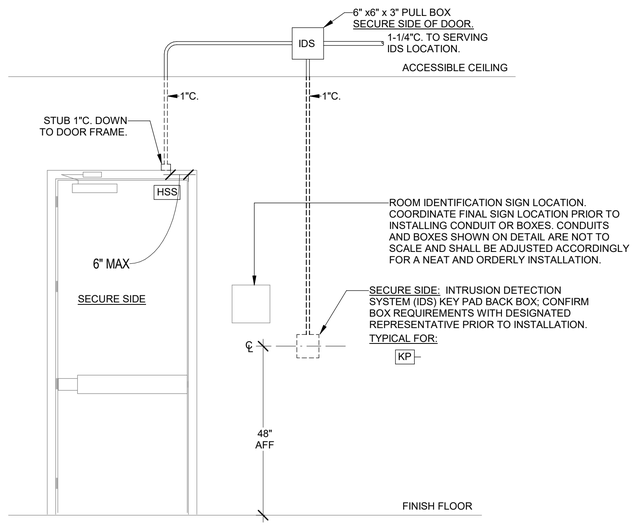


DETAIL NOTES

1. ALL NOTED PULL BOXES ARE LOCATED ON SECURE SIDE OF DOOR.
2. AS A MINIMUM, PROVIDE PULLBOX EVERY 100' OF INTERIOR CONDUIT RUNS.
3. DEVICES SHALL BE SURFACE MOUNTED.
4. CONTRACTOR SHALL COORDINATE EXACT PULL BOX LOCATIONS WITH SECURITY VENDOR SHOP DRAWINGS PRIOR TO ROUGH-IN TO ENSURE PULL BOXES DO NOT EXCEED EQUIPMENT WHIP LIMITATIONS.

3 CONTROLLED ROLL-UP DOOR - HIGH SECUIRTY SENSOR

T-504 NOT TO SCALE



DETAIL NOTES

1. COORDINATE WITH SECURITY OFFICER PRIOR TO INSTALLATION OF ANY CONDUIT. SECURITY OFFICER TO MAKE FINAL DETERMINATION ON CONCEALING VS SURFACE MOUNTING CONDUITS.
2. ALL NOTED ACCESSIBLE PULL BOXES AND BACK BOXES ARE LOCATED ON SECURE SIDE OF DOOR, UNO.
3. AS A MINIMUM, PROVIDE PULLBOX EVERY 100' OF INTERIOR CONDUIT RUNS.
4. CONDUIT SOLUTIONS ARE SHOWN FOR BOTH ELECTRIC LOCKS AND ELECTRIC STRIKES. CONTRACTOR SHALL FINALIZE WHICH IS BEING PROVIDED PRIOR TO ROUGH-IN AS ONLY ONE SOLUTION IS REQUIRED TO BE INSTALLED.
5. CONTRACTOR SHALL COORDINATE EXACT PULL BOX LOCATIONS WITH SECURITY VENDOR SHOP DRAWINGS PRIOR TO ROUGH-IN TO ENSURE PULL BOXES DO NOT EXCEED EQUIPMENT WHIP LIMITATIONS.
6. COORDINATE EXACT PULL BOX LOCATIONS WITH SECURITY VENDOR SHOP DRAWINGS PRIOR TO ROUGH-IN.

4 CONTROLLED SINGLE DOOR DETAIL - KEY PAD / HIGH SECURITY SENSOR

T-504 NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

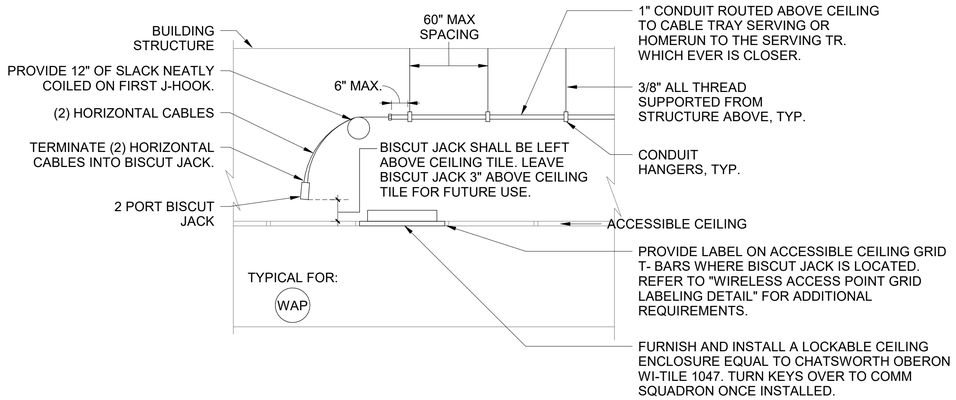
REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM MOUNTING DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-504
SHEET NUMBER: 85 OF 88



NOTE:
1. COORDINATE FINAL LOCATION WITH OWNER AND OTHER DISCIPLINES PRIOR TO ROUGH-IN.
2. PROVIDE PULL STRINGS WITHIN CONDUITS.
3. ALL CONDUITS SHALL TERMINATE AT THE CABLE TRAY WITH GROUNDING INSULATED BUSHINGS.

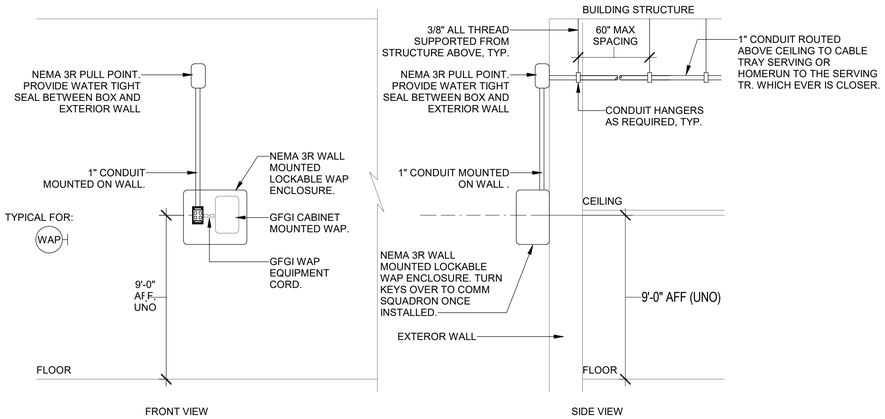
1 T-505 TELECOM WIRELESS ACCESS POINT DETAIL - CEILING

NOT TO SCALE

NOTE:
1. COORDINATE FINAL LOCATION WITH OWNER AND OTHER DISCIPLINES PRIOR TO ROUGH-IN.
2. PROVIDE PULL STRINGS WITHIN CONDUITS.
3. WIRELESS ACCESS POINTS LOCATED IN AREAS WITH RAISED FLOORS, CONDUITS SHALL BE ROUTED TO THE NEAREST WALL, ROUTED DOWN THE WALL (CONCEALED) TO BELOW THE RAISED FLOOR, ROUTED TO THE CABLE TRAY SERVING THAT CLASSIFICATION.
4. ALL CONDUITS SHALL TERMINATE AT THE CABLE TRAY WITH GROUNDING INSULATED BUSHINGS.
5. MOUNTING HEIGHT MAY VARY. REFER TO FLOORPLANS.

3 T-505 TELECOM WIRELESS ACCESS POINT DETAIL - WALL

NOT TO SCALE



NOTE:
1. COORDINATE FINAL LOCATION WITH OWNER AND OTHER DISCIPLINES PRIOR TO ROUGH-IN.
2. PROVIDE PULL STRINGS WITHIN CONDUITS.
3. ALL CONDUITS SHALL TERMINATE AT THE CABLE TRAY WITH GROUNDING INSULATED BUSHINGS.

4 T-505 TELECOM WIRELESS ACCESS POINT DETAIL - EXTERIOR WALL

NOT TO SCALE

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM WIRELESS ACCESS DETAILS

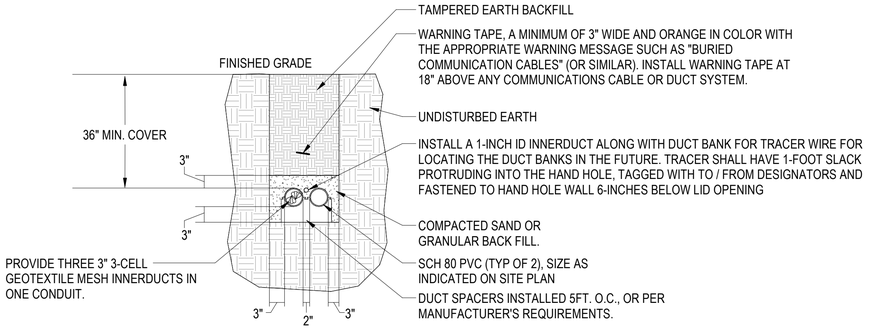
AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

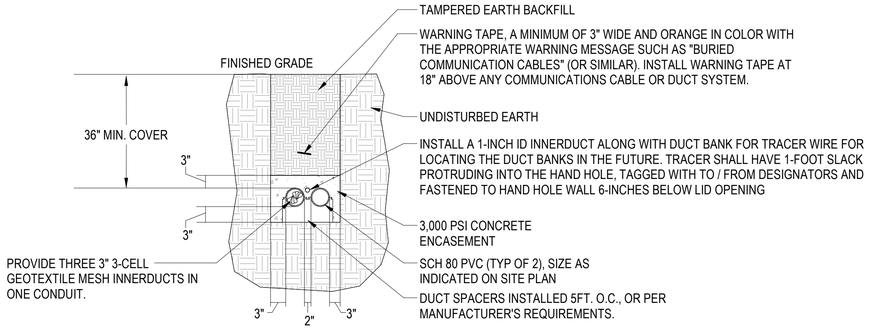
DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

DATE:	13 FEB 2025
DESIGNED BY:	TBG
DRAWN BY:	TBG
BUILDING NUMBER:	90405
PROJECT NUMBER:	OP1134972
SHEET REFERENCE:	T-505
SHEET NUMBER:	86 OF 88



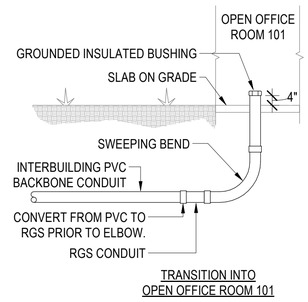
1 T-506 — 2 WAY UNDERGROUND TELECOM DUCT DETAIL

NOT TO SCALE



2 T-506 — 2 WAY CONCRETE ENCASED UNDERGROUND TELECOM DUCT DETAIL

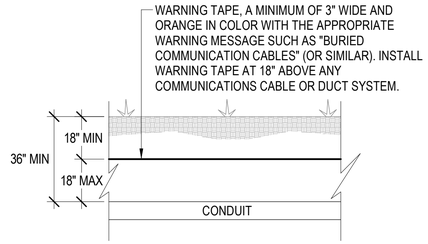
NOT TO SCALE



▭ = PROVIDE TWO COATS OF BITUMASTIC OR EQUAL. COATING SHALL BE APPLIED PER THE MANUFACTURERS RECOMMENDATIONS AND REQUIREMENTS.

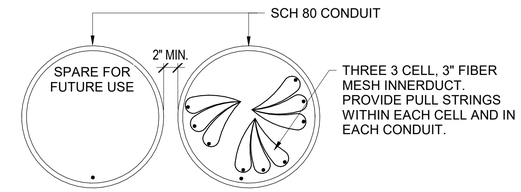
3 T-506 — BELOW GRADE TRANSITION DETAIL

NOT TO SCALE



4 T-506 — BURIED CONDUIT DETAIL

NOT TO SCALE



PULL TAPE SHALL HAVE A MINIMUM BREAKING STRENGTH OF: 1200 LBS.

5 T-506 — RACEWAY DETAIL - (2) 4" CONDUITS

NOT TO SCALE

DAVID M. BAGWELL LICENSE No. 59251 STATE OF FLORIDA PROFESSIONAL ENGINEER

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

TELECOM SITE DETAILS

AIR FORCE SPECIAL OPERATIONS COMMAND

1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON

HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025

DESIGNED BY: TBG

DRAWN BY: TBG

BUILDING NUMBER: 90405

PROJECT NUMBER: OP1134972

SHEET REFERENCE: T-506

SHEET NUMBER: 87 OF 88

RISER DIAGRAM COMPONENTS LEGEND

RACK MOUNTED FIBER LIU. PROVIDE QUANTITY OF FIBER ADATPER PANELS AS REQUIRED. REFER TO RACK ELEVATIONS FOR ADDITIONAL REQUIREMENTS.

GFGI NETWORKING EQUIPMENT.

HORIZONTAL PATCH PANEL FOR (PERMANENT LINK) CABLING. PROVIDE QUANTITY AS REQUIRED. REFER TO RACK ELEVATIONS FOR ADDITIONAL REQUIREMENTS.

RJ45 CONNECTOR

LC CONNECTOR

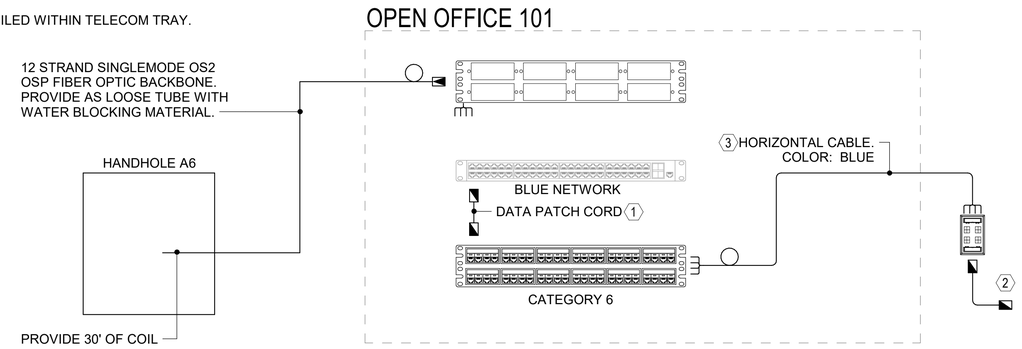
COPPER HARD TERMINATION.

CONTINUATION SYMBOL.

WORKSTATION OUTLET.

(#) KEY NOTE.

10' OF SLACK NEATLY COILED WITHIN TELECOM TRAY.



1 T-601 BLUE NETWORK RISER
1/8" = 1'-0"

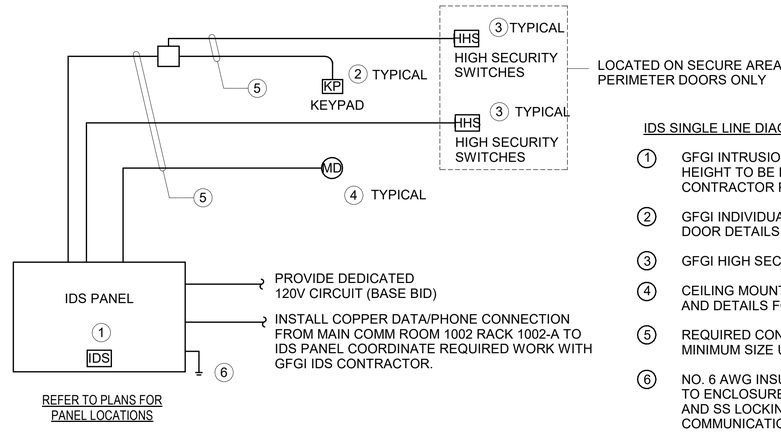
NOTE: DEVICES SHOWN ON DIAGRAM ARE FOR REFERENCE ONLY, REFER TO FLOOR PLANS FOR ACTUAL DEVICE LOCATIONS AND QUANTITIES. CONTRACTOR TO PROVIDE CONDUITS WITH PULLSTRING, DEVICE BOXES/ROUGH-IN, AND ELECTRICAL CIRCUITS TO EQUIPMENT. CONTRACTOR SHALL PROVISION INFRASTRUCTURE FOR A GOVERNMENT CONTRACTOR UNDER A SEPARATE CONTRACT TO INSTALL A TURN KEY SOLUTION. GOVERNMENT TO PROVIDE EQUIPMENT, WIRING, DEVICES, AND LOCAL BATTERY BACKUP POWER. THE DIAGRAM SHOWN IS TYPICAL FOR ONE SECURE ZONE.

INTRUSION DETECTION SYSTEM ROUGH-IN REQUIREMENTS:

1. THE CONTRACTOR SHALL OBTAIN VENDOR SHOP DRAWINGS PRIOR TO INSTALLING CONDUIT AND BOXES FOR ALL DEVICES TO ENSURE THE CORRECT BOXES AND LOCATIONS ARE COORDINATED.
2. CONDUIT SHALL BE 1" EMT MINIMUM. PROVIDE PULLSTRING IN EMPTY CONDUITS.
3. DEVICE BOXES SHALL BE 4-11/16" SQUARE BY 2-1/8" OR OCTAGONAL TYPE. EXACT TYPE OF BOX SHALL BE COORDINATED WITH VENDOR PRIOR TO ORDERING MATERIALS.
4. DEVICE BOXES SHALL BE COORDINATED WITH GOVERNMENT PRIOR TO ORDERING TO ENSURE SPECIFIC REQUIREMENTS ARE BEING PROVIDED.

NOTES:

1. INTRUSION DETECTION SYSTEM SHALL HAVE END-TO-END CONDUIT FROM DEVICE TO JUNCTION BOX AND FROM JUNCTION BOX TO PANEL FOR TAMPER PROTECTION. CABLE TRAY OR OTHER OPEN SYSTEMS ARE NOT PERMITTED TO BE USED TO CONVEY SIGNAL CABLE.
2. CONTRACTOR SHALL COORDINATE EXACT LOCATION OF INTRUSION DETECTION EQUIPMENT WITH GOVERNMENT PRIOR TO ROUGH-IN.



2 T-601 INTRUSION DETECTION SYSTEM (IDS) SINGLE LINE DIAGRAM
NOT TO SCALE

SHEET NOTES

1. COPPER PATCH CORD; 24 AWG 4-PAIR PRE-MANUFACTURED, FACTORY TERMINATED AND TESTED. PROVIDE QUANTITY AS REQUIRED, PLUS 25% SPARE. PATCH CORD TYPE TO MATCH SERVING DEVICES. COORDINATE FINAL PATCH CORD PATCH CORD REQUIREMENTS WITH GOVERNMENT TECHNICAL REPRESENTATIVE (UNO). PRIOR TO ORDERING.
2. 24 AWG 4-PAIR WORKSTATON EQUIPMENT CORD, PLENUM RATED. PROVIDE (1) CABLE PER JACK, UNO. CABLE TYPE: CATEGORY 6, COLOR: BLUE, CABLE SHIELDING: UTP. COORDINATE FINAL WORKSTATION EQUIPMENT CORD REQUIREMENTS WITH GOVERNMENT TECHNICAL REPRESENTATIVE (UNO). PRIOR TO ORDERING.
3. 24 AWG 4-PAIR CATEGORY 6 UTP HORIZONTAL COPPER CABLE, PLENUM RATED. PROVIDE (1) CABLE PER JACK. COORDINATE FINAL HORIZONTAL COPPER CABLING REQUIREMENTS WITH GOVERNMENT TECHNICAL REPRESENTATIVE (UNO). PRIOR TO ORDERING.

GENERAL NOTES

1. ALL EXTERIOR CABLES ENTERING THE BUILDING SHALL HAVE A WATER BLOCKING MATERIAL TO THE CABLE.
2. ALL EXTERIOR CABLES ENTERING THE BUILDING SHALL BE CONNECTED TO A SURGE PROTECTION DEVICE IN THE TR MOUNTED IN A NEMA 1 ENCLOSURE.
3. RISER DIAGRAMS ARE FOR DIAGRAMATIC PURPOSES ONLY AND DOES NOT REFLEX ACTUAL DATA OUTLET/COAX OUTLET COUNTS. CONTRACTOR SHALL REFER TO FLOORPLANS TO GET ACTUAL COUNTS.
4. THE CONTRACTOR SHALL CONFIRM **ALL** CABLING REQUIREMENTS (INCLUDING NETWORK TYPES, CABLE TYPES, JACK/JACKET COLORS, AND ANY SPECIAL KEYING REQUIREMENTS) WITH OWNER PRIOR TO ORDERING CABLE.
5. NO HORIZONTAL CATEGORY COPPER CABLE (PERMENANT LINK) SHALL EXCEED 295' IN LENGTH INCLUDING SLACK. HORIZONTAL CABLING SHALL BE ROUTED WITHIN THE HORIZONTAL PATHWAY DISTRIBUTION SYSTEM (CABLE TRAY AND CONDUIT PATHWAYS SERVING THE CLASSIFICATION). IF THE PERMENANT LINK EXCEEDS THE 295' IN LENGTH AT TESTING IT SHALL BE RE ROUTED UTILIZING THE HORIZONTAL PATHWAY DISTRIBUTION SYSTEM (CABLE TRAY AND CONDUIT PATHWAYS SERVING THE CLASSIFICATION) AT THE CONTRACTORS EXPENSE.
6. ALL MODULAR JACKS FOR HORIZONTAL COPPER PATCH PANELS SHALL BE THE SAME COLOR AS THE HORIZONTALCABLE. REFER TO "HORIZONTAL CABLE MATRIX" FOR ADDITIONAL REQUIREMENTS.
7. ALL FIBER PATCH PANELS SHALL BE PROVIDED WITH THE FOLLOWING:
   - HINGED, SWING DOWN FRONT DOOR
   - SLIDE OUT TILT DOWN DRAWER
   - INTEGRAL CABLE MANAGEMENT
   - BEND RADIUS CONTROL
   - TIA-606-A COMPATIABLE LABELING

IDS SINGLE LINE DIAGRAM KEY NOTES:

1. GFGI INTRUSION DETECTION SYSTEM PANEL. EXACT LOCATION AND MOUNTING HEIGHT TO BE DETERMINED BY GFGI CONTRACTOR. COORDINATE WITH GFGI CONTRACTOR PRIOR TO INSTALLATION OF CONDUIT.
2. GFGI INDIVIDUAL ZONE IDS KEYPAD, SEE FLOOR PLANS FOR LOCATIONS AND DOOR DETAILS FOR ROUGH-IN REQ'S.
3. GFGI HIGH SECURITY SWITCHES LOCATED ON SCIF PERIMETER DOOR.
4. CEILING MOUNTED GFGI MOTION DETECTOR, SEE FLOOR PLANS FOR LOCATIONS AND DETAILS FOR ROUGH-IN REQUIREMENTS.
5. REQUIRED CONDUIT PATHWAYS, REFER TO DETAILS. 3/4" CONDUIT SHALL BE MINIMUM SIZE UTILIZED.
6. NO. 6 AWG INSULATED (GREEN) SOLID COPPER GROUNDING CONDUCTOR, BOND TO ENCLOSURE FACTORY GROUNDING POST WITH ONE HOLE COMPRESSION LUG AND SS LOCKING NUT. ELECTRICAL CONTRACTOR RUN IN CONDUIT AND BOND TO COMMUNICATIONS SYSTEM AND ELECTRICAL SERVICE GROUND.

REV #	DATE	DESCRIPTION

ROCKET OPERATIONS AND MAINTENANCE BUILDING

RISER DIAGRAM

AIR FORCE SPECIAL OPERATIONS COMMAND
1 SPECIAL OPERATIONS CIVIL ENGINEER SQUADRON
HURLBURT FIELD, FLORIDA

DATE: 13 FEB 2025
DESIGNED BY: TBG
DRAWN BY: TBG
BUILDING NUMBER: 90405
PROJECT NUMBER: OP1134972
SHEET REFERENCE: T-601
SHEET NUMBER: 88 OF 88