APPLICABLE CRITERIA

UFC 1-200-01	DOD BUILDING CODE (CHANGE 1, 1 OCT 2020)
UFC 3-600-01	FIRE PROTECTION ENGINEERING FOR FACILITIES (CHANGE 5, 25 SEP 2020)
UFC 4-021-01	DESIGN AND O&M: MASS NOTIFICATION SYSTEMS (CHANGE 1, JANUARY 2010)
IBC	INTERNATIONAL BUILDING CODE, 2018
NFPA 13	STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS, 2019
NFPA 70	NATIONAL ELECTRICAL CODE, 2020
NFPA 72	NATIONAL FIRE ALARM AND SIGNALING CODE, 2019
NFPA 90A	STANDARD FOR THE INSTALLATION OF AIR-CONDITIONING AND VENTILATING SYSTEMS, 2018
NFPA 101	LIFE SAFETY CODE, 2018 (LSC)
ABA	ARCHITECTURAL BARRIERS ACT

USE GROUP/OCCUPANCY

NONSEPARATED OCCUPANCIES (IBC 508.3) / MIXED OCCUPANCIES (LSC 6.1.2)
F-1 (IBC 306.2) / INDUSTRIAL (LSC 6.1.12) - GENERAL PURPOSE (LSC 40.1.2.1.1)
S-1 (IBC 311.2) / STORAGE (LSC 6.1.13) - ORDINARY HAZARD (LSC 42.1.5)
CLIMATE ZONE: A3
ENVIROMENTAL SEVERITY INDEX: C4

FIRE PROTECTION SYSTEMS

WET PIPE SPRINKLER SYSTEM
DRY PIPE SPRINKLER SYSTEM
FIRE ALARM & MASS NOTIFICATION SYSTEM

CONSTRUCTION TYPE

HANGAR AND OSF/SHOP ANNEX — TYPE IIB

BUILDING HEIGHT AND AREA

	GROUP F-1 TYPE IIB	GROUP S-1 TYPE IIB
ALLOWABLE HEIGHT	75 FT 3 STORIES	75 FT 3 STORIES
ACTUAL OSF/SHOP ANNEX HEIGHT	27 FT 1 STORY	27 FT 1 STORY
ALLOWABLE AREA (SF)	UNLIMITED*	UNLIMITED*
ACTUAL OSF/SHOP ANNEX AREA (SF)	4,785	6,321

*SPRINKLERED TWO-STORY BUILDINGS OF GROUPS B, F-1, AND S-1 OCCUPANCIES ARE PERMITTED TO BE OF UNLIMITED AREA WHEN SURROUNDED AND ADJOINED BY PUBLIC WAYS NOT LESS THAN 60-FT (IBC 507.5). WHEN A HANGAR IS CONSTRUCTED IN ACCORDANCE WITH UFC 4-211-01, THE UNLIMITED AREA RESTRICTIONS ARE INCREASED TO THREE STORIES AND IS PERMITTED TO INCLUDE GROUP A-3 OCCUPANICES (UFC 4-211-01 3-3.1.6). TWO BUILDINGS ON THE SAME LOT ARE PERMITTED TO BE CONSIDERED A SINGLE BUILDING WHERE THE HEIGHT OF EACH BUILDING AND THE AGGREGATE BUILDING AREA ARE IN ACCORDANCE WITH THE IBC LIMITATIONS (IBC 503.1.2); THEREFORE, THE HANGAR AND OSF/SHOP ANNEX WILL BE CLASSIFIED AS ONE BUILDING FOR IBC REQUIREMENTS FOR ALLOWABLE HEIGHT AND AREA.

FIRE RESISTANCE RATINGS OF BUILDING ELEMENTS

BUILDING ELEMENT	IBC TYPE IIB
STRUCTURAL FRAME, INCLUDING COLUMNS, GIRDERS, TRUSSES	0-HR
STRUCTURAL FRAME SUPPORTING A ROOF ONLY	0-HR
BEARING WALLS, EXTERIOR	0-HR
BEARING WALLS, INTERIOR	0-HR
NON-BEARING WALLS, EXTERIOR	0-HR
NON-BEARING WALLS, INTERIOR	0-HR
FLOOR CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS	0-HR
ROOF CONSTRUCTION, INCLUDING SUPPORTING BEAMS AND JOISTS	0-HR

EXTERIOR WALLS

FIRE SEPARATION DISTANCE (FSD)	GROUP F-1	GROUP S-1
FSD < 5 FT	2	2
5 FT ≤ FSD < 10 FT	1	1
FSD ≥ 10 FT	0	0

INTERIOR FIRE RESISTANCE REQUIREMENTS

AREA	REQUIRED SEPARATION
OSF	1-HOUR (UFC 3-600-01 §4-46.5.2)

OCCUPANT LOAD

LOAD FACTORS (LSC TABLE 7.3.1.2):
STORAGE USE (IN OTHER THAN STORAGE AND MERCANTILE OCCUPANCIES) — 500-SF/PERSON
BUSINESS — 150-SF/PERSON

FACILITY	AREA	OCCUPANCY/USE	APPROX. AREA (SF)	OCCUPANT LOAD FACTOR (SF/PERSON)	OCCUPANT LOAD (PERSONS)
OSF	WAREHOUSE	GROUP S-1/STORAGE	6,321	500	13
SHOP ANNEX	0106 COMM	GROUP F-1/STORAGE	157	500	1
	0108 ELEC	GROUP F-1/STORAGE	145	500	1
	0109 MECH	GROUP F-1/STORAGE	309	500	1
	GROSS AREA REMAINING	GROUP F-1/BUSINESS	4,174	150	28
		FACILITY TOTAL	4,785	-	31
		OVERALL TOTAL	11,106	-	45

ARRANGEMENT OF MEANS OF EGRESS

BASED ON LSC TABLE A.7.6:

OCCUPANCY	EXIT ACCESS TRAVEL DISTANCE (FT)	COMMON PATH OF TRAVEL (FT)	DEAD-END CORRIDOR (FT)
INDUSTRIAL - GENERAL	250	100	50
STORAGE - ORDINARY HAZARD	400	100	100

CAPACITY AND NUMBER OF MEANS OF EGRESS

CAPACITY OF MEANS OF EGRESS (LSC TABLE 7.3.3.1):
LEVEL COMPONENTS (WIDTH/PERSON) — 0.2 IN/PERSON
STAIRWAYS (WIDTH/PERSON) — 0.3 IN/PERSON

NUMBER OF MEANS OF EGRESS (LSC 7.4):
1 WHERE AN EXIT CAN BE REACHED WITHIN DISTANCE PERMITTED AS COMMON PATH OF TRAVEL
OTHERWISE 2 FOR AREAS WITH AN OCCUPANT LOAD LESS THAN 500

AREA	REQUIRED EGRESS CAPACITY	AVAILABLE EGRESS CAPACITY	MEANS OF EGRESS REQUIRED	MEANS OF EGRESS PROVIDED
OSF	13	900	2	4
SHOP ANNEX	31	675	2	3

INTERIOR FINISH CLASSIFICATION

MINIMUMS BASED ON LSC TABLE A.10.2.2:

OCCUPANCY	EXITS	EXIT ACCESS CORRIDORS	OTHER
INDUSTRIAL	CLASS C	CLASS C	CLASS C
STORAGE	CLASS C	CLASS C	CLASS C

ADDITIONAL LIFE SAFETY CRITERIA

PROVIDE MEANS OF EGRESS LIGHTING IN ACCORDANCE WITH LSC 7.8 (LSC 42.2.8, 40.2.8). ARTIFICIAL LIGHTING IS REQUIRED AT LOCATIONS AND TIMES NECESSARY TO MAINTAIN ADEQUATE ILLUMINATION (LSC 7.8.1.2.1).

PROVIDE EMERGENCY LIGHTING IN ACCORDANCE WITH LSC 7.9 (LSC 42.2.9, 40.2.9).

PROVIDE SIGNS FOR THE MEANS OF EGRESS IN ACCORDANCE WITH LSC 7.10 (LSC 40.2.10, 42.2.10). SIGNS MUST HAVE LETTERING ON AN OPAQUE BACKGROUND. INTERNALLY ILLUMINATED SIGNS MUST BE LIGHT EMITTING DIODE (LED) TYPE, ELECTROLUMINESCENCE (LEC), OR COLD CATHODE TYPE. INCANDESCENT FIXTURES ARE NOT PERMITTED. RADIOLUMINOUS EXIT SIGNS ARE NOT PERMITTED.

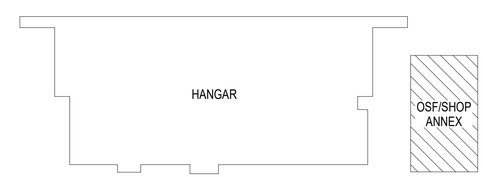
FIRE EXTINGUISHERS ARE NOT REQUIRED IN APPLICABLE OCCUPANCIES (LSC).

LIFE SAFETY LEGEND

X = REQUIRED EGRESS CAPACITY (PERSONS)
Y = PROVIDED EGRESS CAPACITY (PERSONS)

XXXX — ROOM AREA (SF)
XXXX — OCCUPANT FACTOR (SF/PERSON)
XXXX — NUMBER OF OCCUPANTS (PERSONS)

TD = XXFT — TRAVEL PATH AND DISTANCE
CP = XXFT — COMMON PATH OF TRAVEL
SMOKE PARTITION
1-HOUR FIRE BARRIER
FMCP — FIRE ALARM MASS NOTIFICATION CONTROL PANEL
POINT OF CONNECTION TO EXISTING



LIFE SAFETY REQUIREMENTS ON THIS SHEET ARE FOR THE SHADED FACILITY ONLY (OSF/SHOP ANNEX). FOR LIFE SAFETY REQUIREMENTS FOR THE HANGAR, SEE SHEET GC001.

A4 IBC BUILDING AREA KEYPLAN
NOT TO SCALE

NOTE:
IF THIS DRAWING IS LESS THAN 34" X 22"
IT IS A REDUCED SIZE DRAWING

JENSEN HUGHES
Advancing the Science of Safety

SYM	DESCRIPTION	DATE	APPR
	MOD P00006 AND MOD P00007	10/2025	
	MOD P00005	05/2023	

NAVFAC

COMMONWEALTH OF VIRGINIA
ALISON WAKELIN
Lic. No. 037705
11/13/2023
PROFESSIONAL ENGINEER
SEAL

BAMFORTH ENGINEERS & ARCHITECTS
A/E INFO

APPROVED
FOR COMMANDER NAVFAC
ACTIVITY: Approved by J. Scott Roberts, Asset Management Branch Head & Supervisory Facility Planner, PWD Beaufort, SC via email.
SATISFACTORY TO — DATE 12/15/2022
DES ROP | DRW AHE | CHK APF
PM/DM KTB / RLH
BRANCH MANAGER DSN
CHIEF ENG/ARCH EJA
FP ENGINEER DSN

DEPARTMENT OF THE NAVY
DC CORE
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND
NAVAL FACILITIES ENGINEERING SYSTEMS COMMAND ~ MID-ATLANTIC
NORFOLK, VA
MCAS BEAUFORT
P-475 AIRCRAFT MAINTENANCE HANGAR - BEAUFORT, SC
VOLUME 3 (OSF OPTION)
OSF / SHOP ANNEX - LIFE SAFETY NOTES AND LEGEND

SCALE: As indicated
EPROJECT NO.: 1363603
CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12860105
SHEET 904 OF 1412
OGC001
DRAWFORM REVISION: 25 AUGUST 2020

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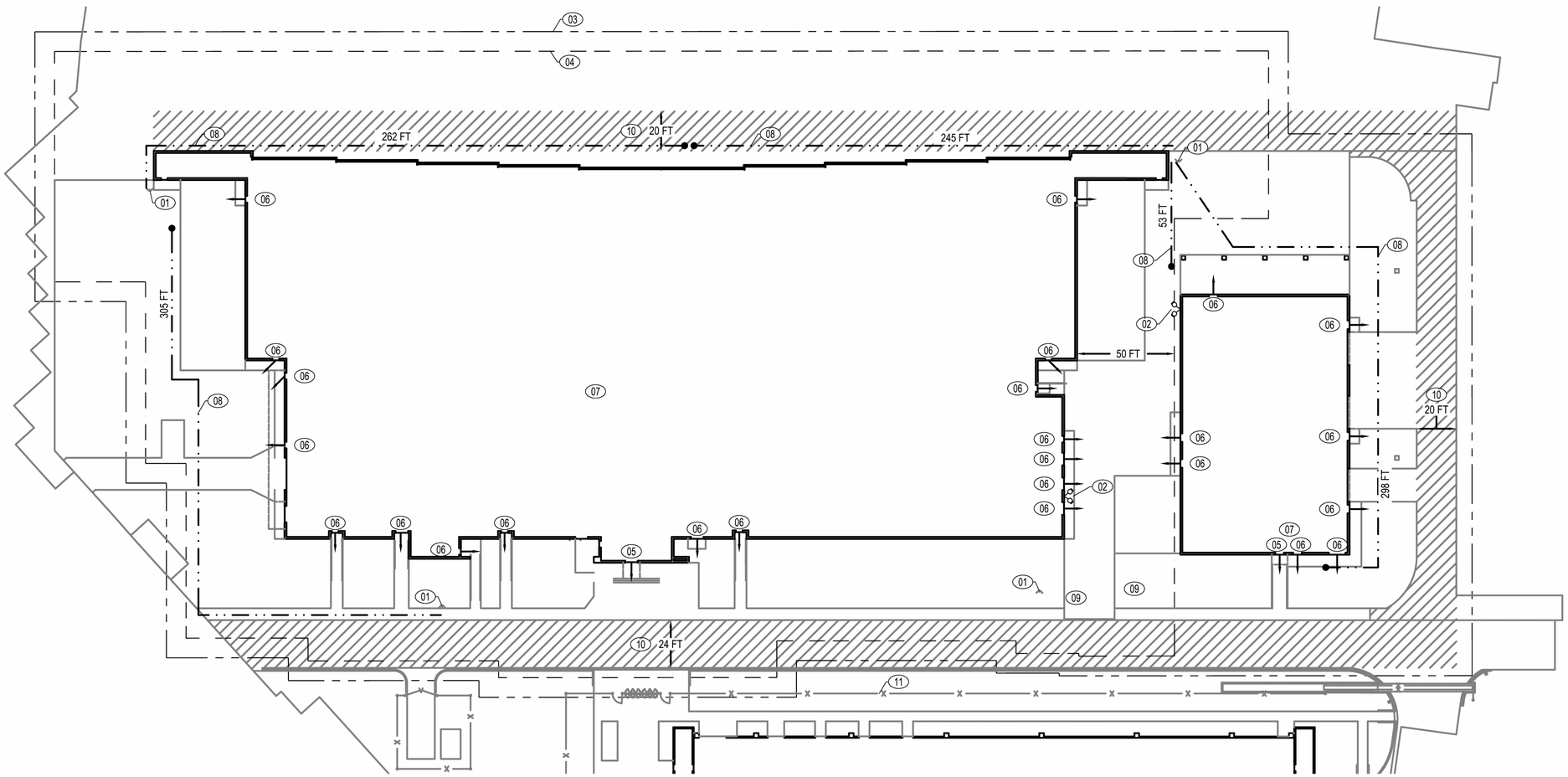
NOTES:

KEY NOTES (00)

1. FIRE HYDRANT
2. FIRE DEPARTMENT CONNECTION
3. MINIMUM 60-FT YARD FOR UNLIMITED BUILDING AREA (IBC)
4. MINIMUM 50-FT HANGAR CLEAR SPACE (NFPA 409)
5. MAIN ENTRANCE/EXIT DISCHARGE
6. EXIT DISCHARGE
7. FIRE ALARM/MASS NOTIFICATION SYSTEM CONTROL PANEL
8. FIRE HOSE LAY
9. POST INDICATOR VALVE
10. FIRE ACCESS LANE
11. LEVEL 2 SECURITY FENCE


03
04
08
262 FT
10
20 FT
08
245 FT
01
06
06
53 FT
08
08
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06
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305 FT
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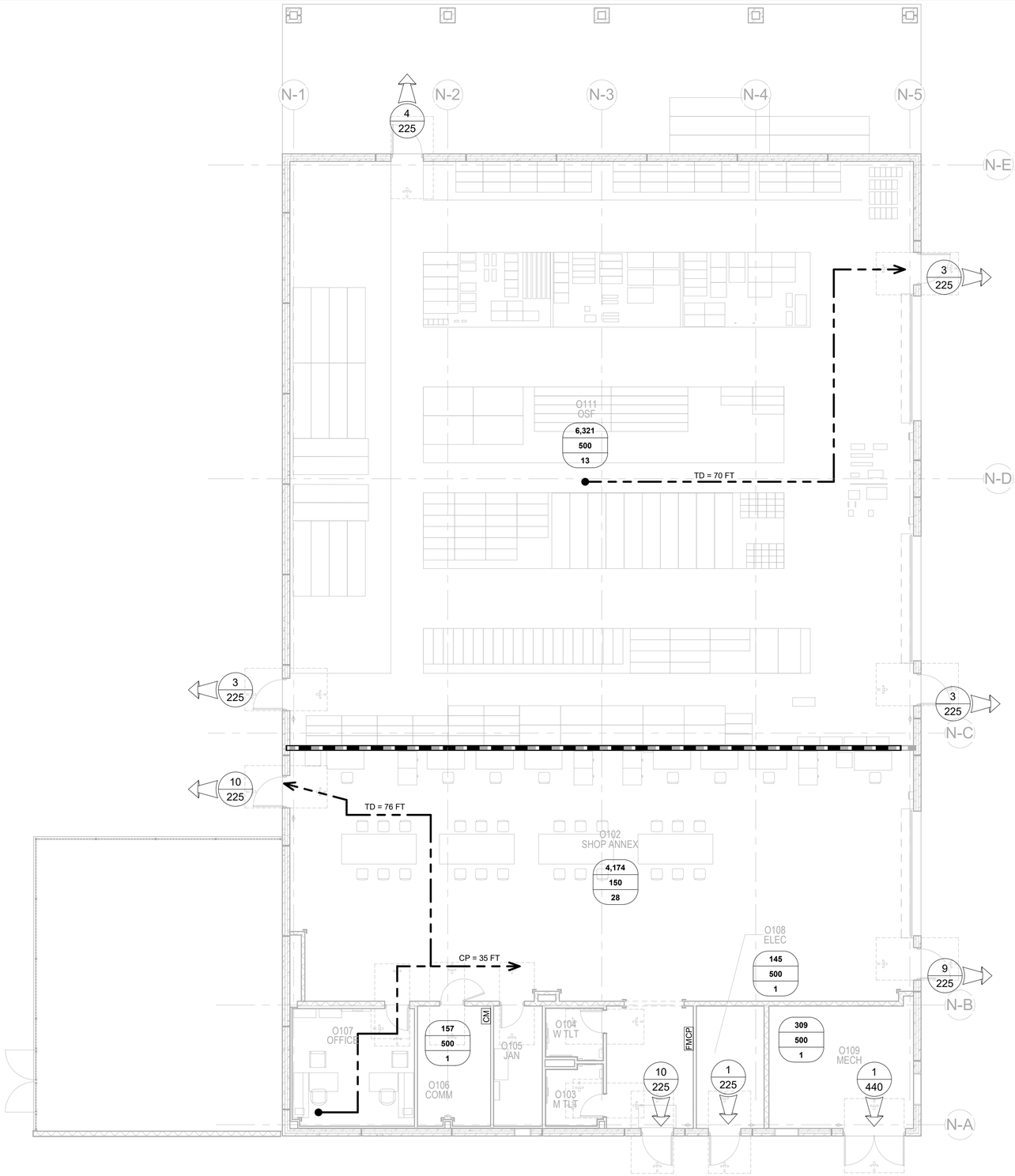
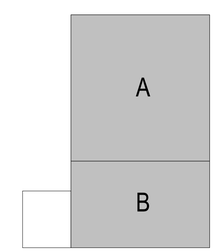
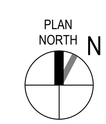


A1 OSF / SHOP ANNEX - LIFE SAFETY PLAN - OVERALL

1/8" = 1'-0"



KEYPLAN



0 5' 10' 20' 30'

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

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P-475 AIRCRAFT MAINTENANCE HANGAR - BEAUFORT, SC
VOLUME 3 (OSF OPTION)

OSF / SHOP ANNEX - LIFE SAFETY PLAN - OVERALL

SCALE: 1/8" = 1'-0"
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CONSTR. CONTR. NO.
NAVFAC DRAWING NO. 12860107
SHEET 906 OF 1412

OGC101

DRAWFORM REVISION: 25 AUGUST 2020

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