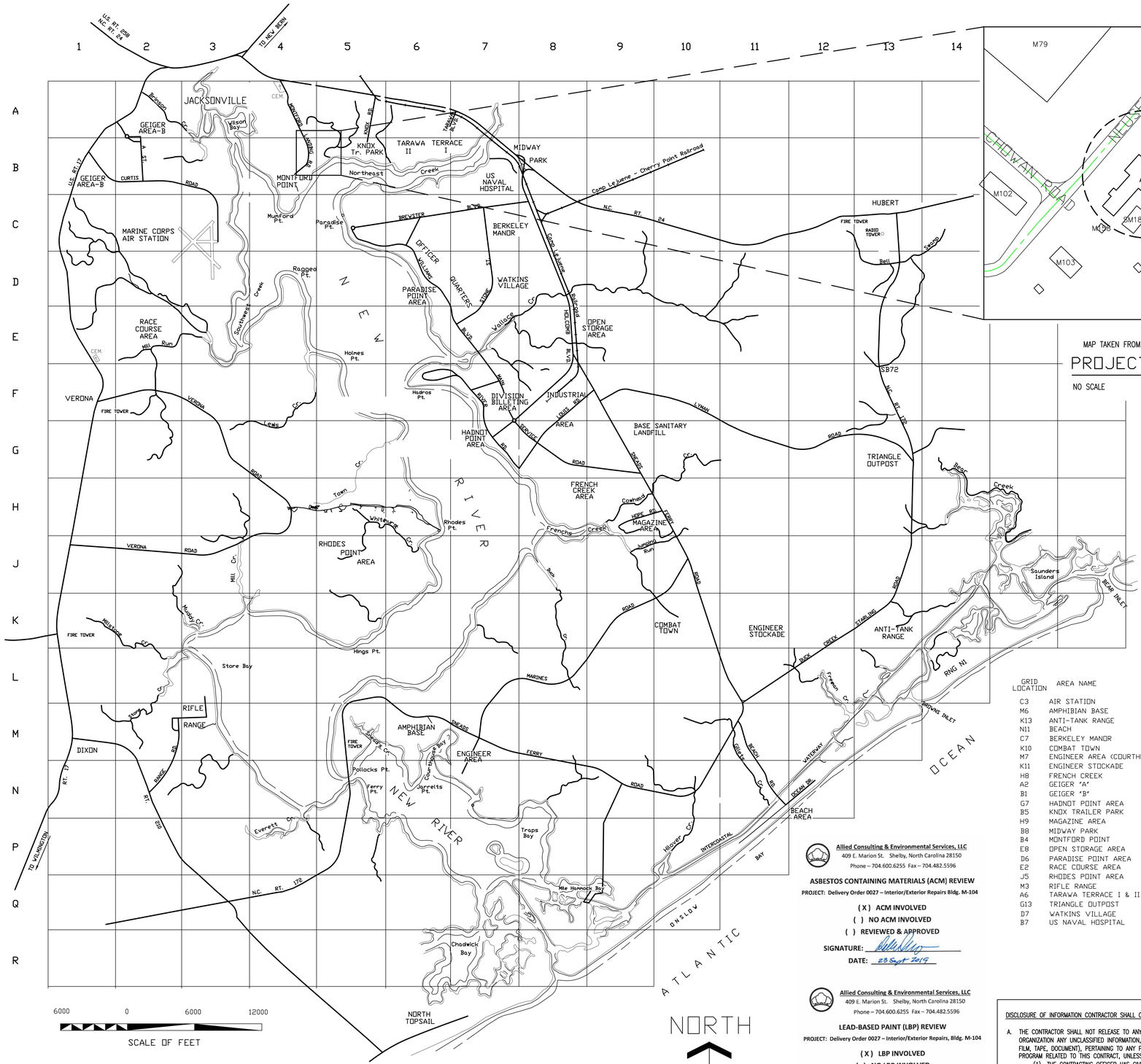
REVISIONS			
SYM.		DATE	APPROVED


JACKSONVILLE
GEIGER AREA-B
GEIGER AREA-B
MARINE CORPS AIR STATION
MONTFORD POINT
KNOX Tr. PARK
TARAWA TERRACE II
TARAWA TERRACE I
US NAVAL HOSPITAL
MIDWAY PARK
BERKELEY MANOR
WATKINS VILLAGE
PARADISE POINT AREA
RACE COURSE AREA
OPEN STORAGE AREA
DIVISION BILLETING AREA
INDUSTRIAL AREA
HADNOT POINT AREA
BASE SANITARY LANDFILL
FRENCH CREEK AREA
MAGAZINE AREA
TRIANGLE OUTPOST
HUBERT
RHODES POINT AREA
COMBAT TOWN
ENGINEER STOCKADE
ANTI-TANK RANGE
RIFLE RANGE
AMPHIBIAN BASE
ENGINEER AREA
BEACH AREA
DIXON
VERONA
NEW RIVER
ATLANTIC OCEAN
Camp Lejeune - Cherry Point Railroad
N.C. RT. 24
N.C. RT. 172
TO NEW BERN
TO WILMINGTON
NORTH TOPSAIL
Mile Hammock Bay
Chadwick Bay
Traps Bay
Everett Cr.
Hadnot Pt.
Holmes Pt.
Ragged Pt.
Paradise Pt.
Montford Pt.
Northeast Creek
Southwest Creek
Mill Run
Wilson Bay
Store Bay
Hings Pt.
Rhodes Pt.
Whitehurst Cr.
Frenchs Creek
Cowhead Run
Jumping Run
Pollocks Pt.
Ferry Pt.
Jarretts Pt.
Courthouse Bay
Freeman Cr.
Saunders Island
Bear Creek
Mill Cr.
Mulkey Cr.
Hillsboro Cr.
Hoover Cr.
Northeast Cr.
Southwest Cr.
Town Creek
Wilson Bay
Mill Run
Bridge Cr.
Everett Cr.
Hoover Cr.
Freeman Cr.
Bear Creek
Jumping Run
Cowhead Run
Frenchs Creek
Northeast Creek
Southwest Creek
Mill Cr.
Mulkey Cr.
Hillsboro Cr.

REVISIONS			
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CODE ANALYSIS:

OCCUPANCY CLASSIFICATION:
ASSEMBLY OCCUPANCY "A–3"
BUSINESS OCCUPANCY "B"

CONSTRUCTION TYPE: V–B NON–RATED COMBUSTIBLE CONSTRUCTION

STRUCTURAL FRAME: 0 HR. RATED

BEARING WALLS: 0 HR. RATED

NON–BEARING WALLS: 0 HR. RATED, INTERIOR
0 HR. RATED, EXTERIOR

FLOOR: 0 HR. RATED

ROOF: 0 HR. RATED

FIRE SUPPRESSION: SPRINKLERED THROUGHOUT

ALLOWABLE AREA (S.F.)	A–3	B
BASE ALLOWABLE	24,000	36,000
OPEN YARD INCREASE (70%)	18,000	27,000
TOTAL/FLOOR:	42,000	63,000

ACTUAL AREA (S.F. ±): 10,783

ALLOWABLE & ACTUAL EGRESS DISTANCES (FT.):

	ALLOWABLE	ACTUAL
TRAVEL DISTANCE	250	113
COMMON PATH	100	31
DEAD END CORRIDOR	20	NA

BUILDING HEIGHT (ACTUAL / ALLOWABLE):
STORIES: 2 / 2 (BASED ON SPRINKLERED V–B CONSTRUCTION)
FEET: 35 ± / 60 (BASED ON SPRINKLERED V–B CONSTRUCTION)

EXITS (ACTUAL/REQUIRED):
GROUND: 13 / 3 (BASED ON 920 OCCUPANTS)

OCCUPANT LOAD:

USE/ROOM	AREA	SF/PERSON	LOAD
AUDITORIUM	4387	7 (NET)	627
BUSINESS	1950	150	13
STAGE	394	15 (NET)	27
CLASSROOM	1732	20	87
LOBBY/FOYER	1151	7 (NET)	165
MECH/ELEC/STOR	449	500	1
		TOTAL	920

NOTE: OCCUPANT LOAD BASED ON BUILDING AREA

EXIT CAPACITY:

(EXITS FROM INDIVIDUAL ROOMS NOT INCLUDED)

1 EXTERIOR DOORS AT 33" EACH

14 EXTERIOR DOOR AT 66"

TOTAL EXIT WIDTH PROVIDED = 957"

TOTAL EXIT WIDTH REQUIRED (920 X 0.2) = 184"

FIRE EXTINGUISHER TABLE

TYPE	RATING	HAZARD	QTY	ROOM #	ROOM NAME
DRY CHEMICAL	4A:80B-C	CLASS A/B/C	1	R126A	STAGE STORAGE
			2	R125	AUDITORIUM
			1	R103	OFFICE AREA
			1	R113	CORRIDOR
			1	R203	ATTIC SPACE
		TOTAL	6		

BASED ON:
2018 NFPA 101 LIFE SAFETY CODE
2015 INTERNATIONAL BUILDING CODE
2018 NFPA 10 PORTABLE FIRE EXTINGUISHER
2020 NFPA 70 NATIONAL ELECTRICAL CODE
2019 NFPA 13 STANDARD FOR THE INSTALLATION OF SPRINKLER SYSTEMS
2019 NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE
2018 NFPA 90A STANDARD FOR THE INSTALLATION OF AIR–CONDITIONING AND VENTILATION SYSTEMS

LEGEND:

- F — FIRE ALARM PULL STATION
- FEC — FIRE EXTINGUISHER CABINET
- FE — FIRE EXTINGUISHER
- SPRINKLER RISER
- S — SMOKE DETECTOR
- FAA — FIRE ALARM ANNUNCIATOR
- FMCP — FIRE ALARM MASS NOTIFICATION PANEL
- LOC — LOCAL OPERATING CONSOLE
- B — WATERFLOW BELL
- DOOR — EGRESS ELEMENT (DOOR, STAIR, ETC.)
- XXX — EGRESS WIDTH (CLEAR)
- XXX — EXIT WIDTH PER PERSON (IN.)
- XXX — CAPACITY (PEOPLE)
- XXX — ACTUAL (PEOPLE)
- TD= XX' — TRAVEL DISTANCE TO AN EXIT
- CP= XX' — COMMON PATH TO POINT WHERE TWO PATHS OF EGRESS AVAILABLE

EXIT SIGNS

- CEILING MOUNT EXIT SIGN
- WALL MOUNT LIGHTED EXIT SIGN
- EMERGENCY LIGHT WITH EXIT SIGN
- EMERGENCY LIGHT
- DIRECTION ARROW
- LIGHTED / SIDE FACE
- 1 HOUR FIRE BARRIER
- 2 HOUR FIRE BARRIER
- SP — SMOKE BARRIER

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

Lovett Consultants
4455 Morris Park Dr.
Suite H
Mint Hill, NC 28227
Ph. 704.545.8383
Fire Protection & Building Code Specialists
NC Firm License No: F–0296

NORTH CAROLINA PROFESSIONAL SEAL 040864 ENGINEER JENNIFER L. LOVETT
06/28/2019

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

SHEET TITLE: LIFE SAFETY NOTES AND LEGEND — LS–1

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	ANP
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60225100
CONST. CONTR. NO. N40085–19–B–0035
SCALE: NOTED | SPEC. 05–19–0035 | SHEET 2 OF 57

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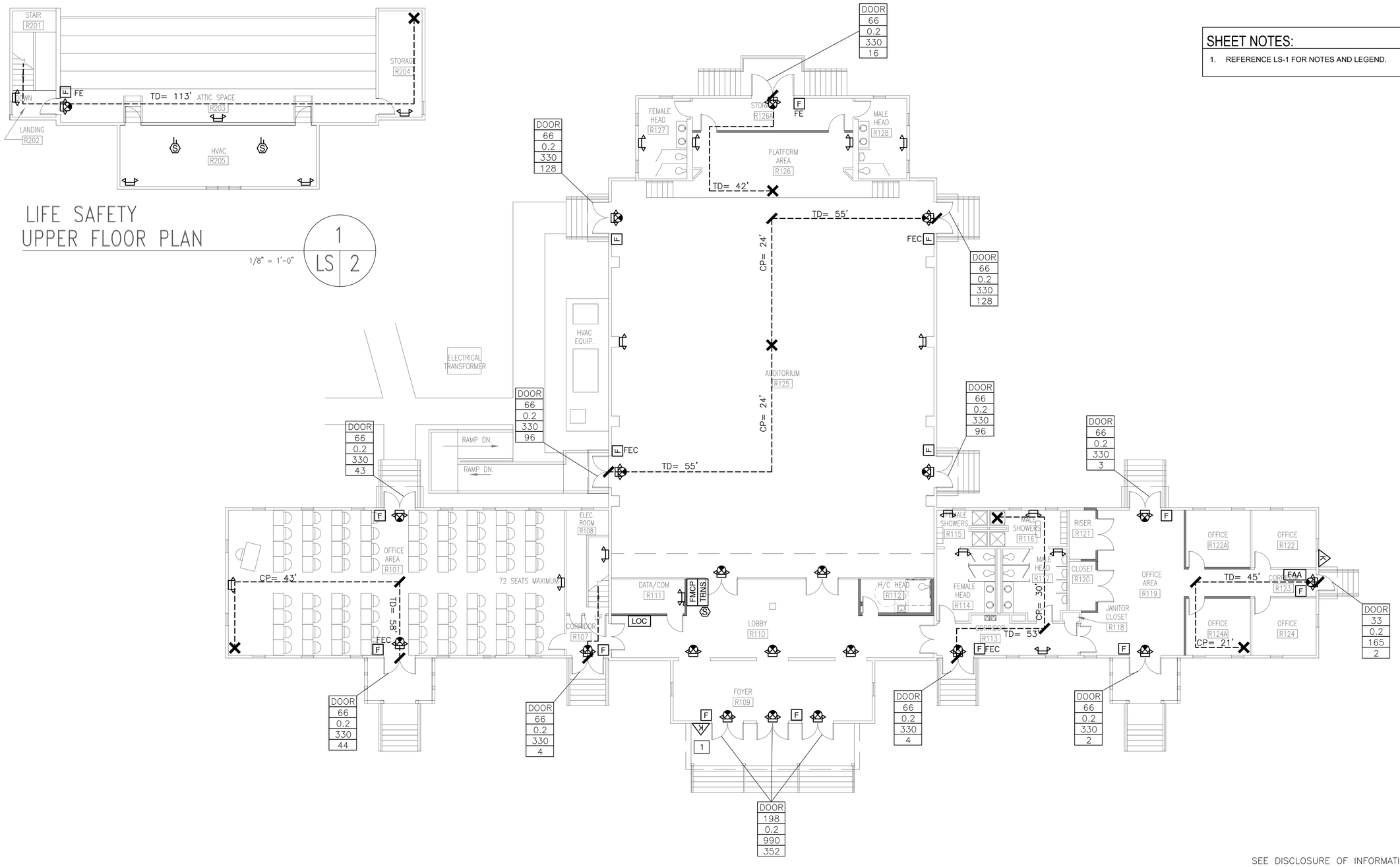
REVISIONS			
SYM.		DATE	APPROVED



SHEET NOTES:

1. REFERENCE LS-1 FOR NOTES AND LEGEND.

LIFE SAFETY UPPER FLOOR PLAN

1/8" = 1'-0"

1 / LS 2

LIFE SAFETY FLOOR PLAN

1/8" = 1'-0"

2 / LS 2

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

Lovett Consultants
4455 Morris Park Dr.
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Fire Protection & Building Code Specialists
NC Firm License No: F-0296

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L LOVETT
06/28/2019

SHEET TITLE: LIFE SAFETY FLOOR PLAN — LS-2

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	ANP
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025101
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 3 OF 57

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ACM ABATEMENT AND LBP REMOVAL NOTES

ACM: REMOVE ACM ENTIRELY. IT IS GOVERNMENT'S INTENT THAT THE BUILDING IS ASBESTOS FREE AT COMPLETION OF PROJECT. DISPOSE OF PROPERLY.

LBP: WHERE WORK IN PROJECT DISTURBS SURFACES WITH LBP OR WHERE ITEMS WITH LBP ARE TO BE REMOVED, TAKE PRECAUTIONS AS SPECIFIED, AS REQUIRED FOR WORKER AND OCCUPANT SAFETY, AND AS REQUIRED BY APPLICABLE REGULATIONS AND AGENCIES HAVING JURISDICTION. ITEMS AND MATERIALS TO BE REMOVED THAT ARE IDENTIFIED TO HAVE LBP SHALL BE REMOVED INTACT OR AS UNITS AND PROPERLY DISPOSED. LBP IN GOOD CONDITION ON SURFACES THAT ARE NOT DISTURBED OR REMOVED MAY REMAIN.

ACM & LBP: INFORMATION SHOWN ON DRAWINGS IS AN INTERPRETATION OF THE TESTING DATA AVAILABLE. QUANTITIES SHOWN MAY VARY FROM REPORT DOCUMENTS. CONTRACTORS ARE REQUIRED TO REVIEW REPORTS PROVIDED AND VERIFY THE CONCLUSIONS SHOWN THEREIN OR TO DRAW THEIR OWN CONCLUSIONS BASED ON THE REPORTS AND THEIR OWN KNOWLEDGE AND EXPERIENCE. NO ADJUSTMENTS WILL BE MADE FOR COSTS THAT COULD HAVE BEEN DETERMINED FROM REPORTS, DRAWINGS, AND OTHER AVAILABLE INFORMATION.

PCB & MERCURY REMOVAL NOTES

REFERENCE ELECTRICAL AND MECHANICAL SHEETS INDICATING REMOVAL OF FLUORESCENT LIGHT FIXTURES AND HEATING THERMOSTATS. THE BALLASTS SHALL BE TREATED AS CONTAINING PCB AND THE LAMPS AS CONTAINING MERCURY. THERMOSTATS SHALL BE TREATED AS CONTAINING MERCURY. BALLASTS, LAMPS, AND THERMOSTATS SHALL BE DISPOSED OF ACCORDING TO SPECIFICATIONS AND BASE ENVIRONMENTAL MANAGEMENT DIVISION GUIDELINES.

GENERAL HAZARDOUS MATERIALS DRAWING NOTE

HAZARDOUS MATERIALS PLANS ARE INTENDED TO PROVIDE A GENERAL SCOPE OF WORK AND ANTICIPATED QUANTITIES. HAZARDOUS MATERIALS PLANS ARE NOT INTENDED TO BE AN ALL INCLUSIVE REPRESENTATION OF THE SCOPE OF HAZARDOUS MATERIALS. REFER TO OTHER DRAWINGS AND REPORTS TO BETTER UNDERSTAND THE BUILDING AND SCOPE OF WORK.

LEAD BASED PAINT SURFACES (LBP) NOTES

THE FOLLOWING SURFACES HAVE BEEN DETERMINED TO HAVE LEAD OR LEAD BASED PAINT (LBP) OR ARE ASSUMED TO CONTAIN LBP BASED ON THE SAMPLE AREAS TESTED. SEE TESTING REPORTS INCLUDED IN PROJECT SPECIFICATIONS.

(A) EXTERIOR PAINT ON PORCH WOOD WALLS, CEILINGS, AND COLUMNS – WHITE
APPROXIMATE QUANTITY = 3 PORCHES

(B) EXTERIOR PAINT ON STEEL DOOR FRAME E123 – WHITE
APPROXIMATE QUANTITY = 1 DOOR FRAME

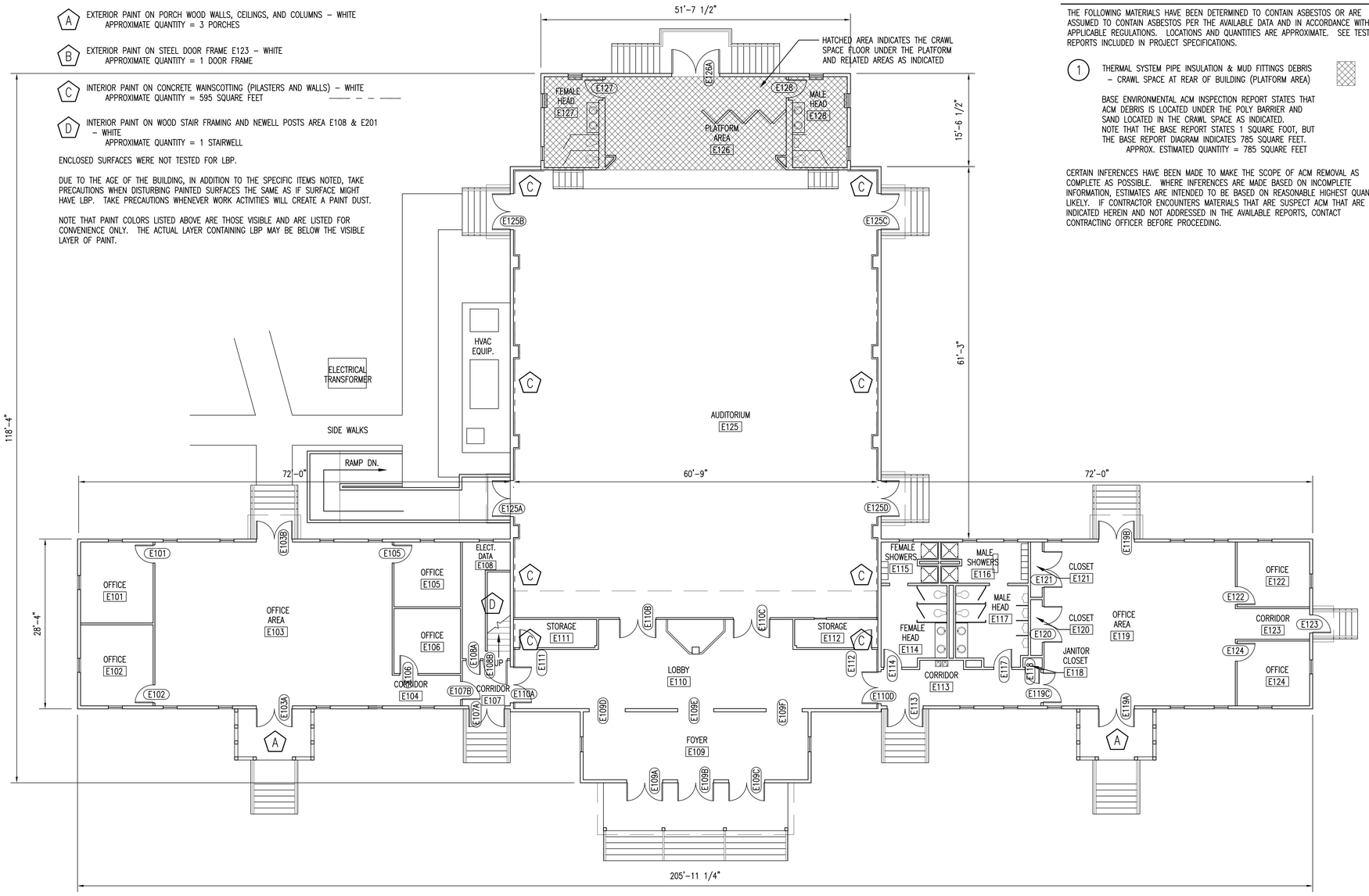
(C) INTERIOR PAINT ON CONCRETE WAINSCOTTING (PILASTERS AND WALLS) – WHITE
APPROXIMATE QUANTITY = 595 SQUARE FEET

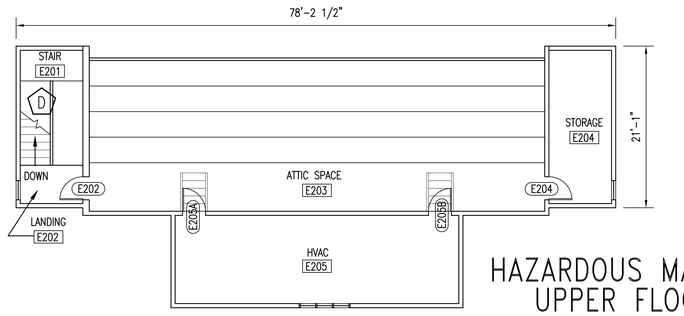
(D) INTERIOR PAINT ON WOOD STAIR FRAMING AND NEWELL POSTS AREA E108 & E201 – WHITE
APPROXIMATE QUANTITY = 1 STAIRWELL

ENCLOSED SURFACES WERE NOT TESTED FOR LBP.

DUE TO THE AGE OF THE BUILDING, IN ADDITION TO THE SPECIFIC ITEMS NOTED, TAKE PRECAUTIONS WHEN DISTURBING PAINTED SURFACES THE SAME AS IF SURFACE MIGHT HAVE LBP. TAKE PRECAUTIONS WHENEVER WORK ACTIVITIES WILL CREATE A PAINT DUST.

NOTE THAT PAINT COLORS LISTED ABOVE ARE THOSE VISIBLE AND ARE LISTED FOR CONVENIENCE ONLY. THE ACTUAL LAYER CONTAINING LBP MAY BE BELOW THE VISIBLE LAYER OF PAINT.





HAZARDOUS MATERIALS UPPER FLOOR PLAN
2 H1 H1
1/8" = 1'-0"

ASBESTOS CONTAINING MATERIALS (ACM) NOTES INDICATED ON PLAN

THE FOLLOWING MATERIALS HAVE BEEN DETERMINED TO CONTAIN ASBESTOS OR ARE ASSUMED TO CONTAIN ASBESTOS PER THE AVAILABLE DATA AND IN ACCORDANCE WITH APPLICABLE REGULATIONS. LOCATIONS AND QUANTITIES ARE APPROXIMATE. SEE TESTING REPORTS INCLUDED IN PROJECT SPECIFICATIONS.

(1) THERMAL SYSTEM PIPE INSULATION & MUD FITTINGS DEBRIS – CRAWL SPACE AT REAR OF BUILDING (PLATFORM AREA)

BASE ENVIRONMENTAL ACM INSPECTION REPORT STATES THAT ACM DEBRIS IS LOCATED UNDER THE POLY BARRIER AND SAND LOCATED IN THE CRAWL SPACE AS INDICATED.
NOTE THAT THE BASE REPORT STATES 1 SQUARE FOOT, BUT THE BASE REPORT DIAGRAM INDICATES 785 SQUARE FEET.
APPROX. ESTIMATED QUANTITY = 785 SQUARE FEET

CERTAIN INFERENCES HAVE BEEN MADE TO MAKE THE SCOPE OF ACM REMOVAL AS COMPLETE AS POSSIBLE. WHERE INFERENCES ARE MADE BASED ON INCOMPLETE INFORMATION, ESTIMATES ARE INTENDED TO BE BASED ON REASONABLE HIGHEST QUANTITY LIKELY. IF CONTRACTOR ENCOUNTERS MATERIALS THAT ARE SUSPECT ACM THAT ARE NOT INDICATED HEREIN AND NOT ADDRESSED IN THE AVAILABLE REPORTS, CONTACT CONTRACTING OFFICER BEFORE PROCEEDING.

HAZARDOUS MATERIALS FLOOR PLAN
1 H1 H1
1/8" = 1'-0"

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

REVISIONS			
SYM.		DATE	APPROVED

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 NORTH CAROLINA SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA AMERICA SHELBY, N.C.

06/28/2019

SHEET TITLE: HAZARDOUS MATERIALS FLOOR PLAN

H-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025102
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 4 OF 57

REVISIONS			
SYM		DATE	APPROVED

CIVIL LEGEND

EXISTING	DESCRIPTION	NEW
	WATER VALVE	
PIV	POST INDICATOR VALVE	PIV
S	SANITARY SEWER MANHOLE	
C	COMMUNICATIONS MANHOLE	
○ CO	SANITARY SEWER CLEANOUT	
□	STORM DRAIN DROP INLET	
○ DCO	STORM DRAIN CLEANOUT	
	FIRE HYDRANT	
TPED	COMMUNICATIONS PEDESTAL	
	UTILITY POLE/POLE WITH LIGHT	
	GUY WIRE	
OHS	OVERHEAD STEAM	
S	SANITARY SEWER (GRAVITY)	
FM	SANITARY FORCE MAIN	
D	STORM SEWER	
W	DOMESTIC/FIRE WATER	
	FIRE WATER	FW
OHE	OVERHEAD ELECTRICAL	
UGE	UNDERGROUND ELECTRICAL	
UGC	UNDERGROUND COMMUNICATIONS	
	CONCRETE	
	ASPHALT	
	GRAVEL	
△	SURVEY CONTROL POINT	⌖ △
× 5.00	SPOT ELEVATIONS	+ XX.XX
	TREE LINE / CLEARING LIMIT	
	SOURCE/DESTINATION UNKNOWN	
	SIGN	
	DEMOLITION ITEMS	

ABBREVIATIONS

APPROX.	APPROXIMATE/APPROXIMATELY
CJ	CONTRACTION JOINT
CL, C/L	CENTER LINE
CF	CUBIC FEET
CONT.	CONTINUOUS
CMP	CORRUGATED METAL PIPE
CONC.	CONCRETE
CPP	CORRUGATED PLASTIC PIPE
CUMM.	CUMULATIVE
DIA, ø	DIAMETER
DI	(STORM DRAIN) DROP INLET
D.I.	DUCTILE IRON (PIPE)
DMH	DRAINAGE MANHOLE
EL=, ELEV	ELEVATION
E:	EASTING
ELEC.	ELECTRIC; ELECTRICAL
ETC.	ET CETERA
EX., EXIST.	EXISTING
FES	FLARED END SECTION
FH	FIRE HYDRANT
HVAC	HEATING, VENTILATION AND AIR CONDITIONING (EQUIPMENT)
INV	INVERT
LF	LINEAR FOOT/FEET
MAG	MAG NAIL (CONTROL)
MAX	MAXIMUM
MIN	MINIMUM
N:	NORTHING
NO./#	NUMBER
PIV	POST INDICATOR VALVE
PVC	POLYVINYL CHLORIDE (PIPE)
RCP	REINFORCED CONCRETE PIPE
SMH	SANITARY SEWER MANHOLE
SF	SQUARE FOOT/FEET
SLT	SILT FENCE
TBM	TEMPORARY BENCHMARK
TYP.	TYPICAL
VOL.	VOLUME
WWF	WELDED WIRE FABRIC
&	AND
@	AT
±	PLUS OR MINUS
%	PERCENT
=	EQUALS

SITE PLAN

SCALE: 1" = 20'

ENLARGED VIEW - NEW WORK AT REAR ENTRANCE

SCALE: 1" = 10'

GENERAL CONSTRUCTION NOTES:

1. THE LOCATION AND DEPTHS OF EXISTING UTILITIES SHOWN ARE APPROXIMATE. THE CONTRACTOR WILL BE RESPONSIBLE FOR SCANNING THE AREA OF WORK TO IDENTIFY TO HIS OWN SATISFACTION THE EXTENT OF UTILITIES PRESENT INCLUDING THE UTILITIES INDICATED TO BE PRESENT, THOSE NOT SHOWN, AND THOSE SHOWN TO BE IN A DIFFERENT LOCATION.
2. PHYSICAL SITE FEATURES OUTSIDE THE AREA OF WORK OR THOSE FEATURES NOT RELEVANT TO THE WORK BEING PERFORMED ARE NOT SHOWN FOR CLARITY.
3. ALL CONCRETE SIDEWALK SURFACES DAMAGED DURING CONSTRUCTION ACTIVITIES MUST BE RESTORED IN ACCORDANCE WITH DETAIL A, SHEET C-2.
4. COMPLETE ALL TRENCH SECTIONS IN ACCORDANCE WITH DETAIL B, SHEET C-2.
5. ALL EXISTING VEGETATED AREAS DISTURBED DURING CONSTRUCTION MUST BE REVEGETATED IN ACCORDANCE WITH THE PROJECT VEGETATION PLAN. SEE DETAIL E, SHEET C-2.

WORK ITEMS:

1. HVAC EQUIPMENT TO BE REPLACED, SEE MECHANICAL PLANS.
2. REMOVE STEAM SUPPORT POLE.
3. SILT FENCE – SEE DETAIL C, SHEET C-2.
4. GRAVEL CONTROL ENTRANCE – SEE DETAIL D, SHEET C-2.
5. REMOVE CONCRETE TO NEAREST JOINT, OR SAW-CUT LINE, AS INDICATED.
6. CONCRETE SIDEWALK – SEE DETAIL G, SHEET C-2.
7. 8"x6" TAPPING SADDLE AND VALVE – SEE DETAIL A, SHEET C-3 AND SPECIFICATIONS.
8. 6" POST INDICATOR AND VALVE – SEE DETAIL B, SHEET C-3 AND SPECIFICATIONS.
9. THRUST BLOCK – SEE DETAIL C, SHEET C-3.
10. BOLLARD (NUMBER AS SHOWN) – SEE DETAIL F, SHEET C-2.
11. HVAC PAD – SEE MECHANICAL PLANS.
12. ROUTE NEW WATER MAIN ABOVE EXISTING UTILITY. PROVIDE 18" MINIMUM VERTICAL SEPARATION.
13. ROUTE NEW WATER MAIN BELOW EXISTING UTILITY. PROVIDE 18" MINIMUM VERTICAL SEPARATION. SEE DETAIL E, SHEET C-3.
14. CONCRETE SIDEWALK REPAIR, APPROXIMATE DIMENSIONS AS INDICATED. REMOVE AND REPLACE TO NEAREST EXISTING JOINT. CONSTRUCT IN ACCORDANCE WITH DETAIL G, SHEET C-2.

SPECIAL NOTE:

1. THE CONTRACTOR SHALL PROVIDE A REDUCED PRESSURE DOUBLE CHECK BACKFLOW ASSEMBLY (RPZ) ON THE FIRE MAIN RISER IN THE MECHANICAL ROOM. THE RPZ SHALL MEET AMERICAN SOCIETY OF SANITARY ENGINEERING (ASSE) STANDARD AND CARRY THE ASSE SEAL OR APPEAR ON THE UNIVERSITY OF CALIFORNIA APPROVED LIST.

DISCLOSURE OF INFORMATION

THE CONTRACTOR SHALL COMPLY AS FOLLOWS:

A. THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF THE MEDIUM (E.G. FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS
   1. THE CONTRACTING OFFICER HAS GIVEN PRIOR WRITTEN APPROVAL; OR
   2. THE INFORMATION IS OTHERWISE IN THE PUBLIC DOMAIN BEFORE THE DATE OF RELEASE.

B. REQUESTS FOR APPROVAL SHALL IDENTIFY THE SPECIFIC INFORMATION TO BE RELEASED, THE MEDIUM TO BE USED, AND THE PURPOSE FOR THE RELEASE. THE CONTRACTOR SHALL SUBMIT ITS REQUEST TO THE CONTRACTING OFFICER AT LEAST 45 DAYS BEFORE THE PROPOSED DATE OF RELEASE.

C. THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT REQUESTS FOR AUTHORIZATION TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

GRAPHIC SCALE: 1" = 10'

GRAPHIC SCALE: 1" = 20'

SITE MAPPING AND SITE DESIGN BY:
AVOLIS ENGINEERING, P.A. AE PROJECT #18063
P.O. BOX 15564
NEW BERN, NC 28561
(252) 633-0088 LICENSE NO. C-0706

NORTH CAROLINA REGISTERED PROFESSIONAL SEAL 15738 ENGINEER JOHN K. AVOLIS

SHEET TITLE: SITE PLAN — C-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

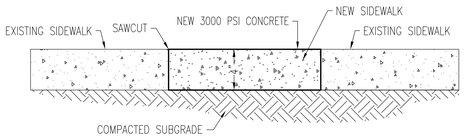
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. J. K. AVOLIS, P.E.
DR. MSP / WFF/
CHK. J. C. AVOLIS, P.E.
SUBMITTED BY:
DESIGN DIR. T. H. BURTON, P.E.
APPROVED: PWO OR OICC DATE
SATISFACTORY TO: DATE

RENOVATION,
BLDG M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60025103
CONSTR. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 05 OF 57

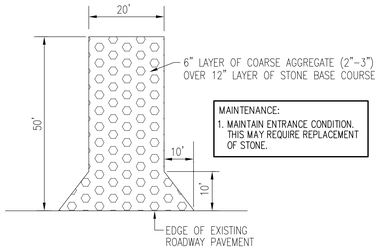
REVISIONS			
SYM		DATE	APPROVED



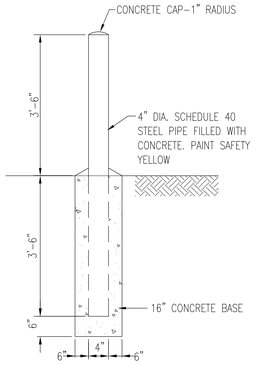
TYPICAL REPAIR OF CONCRETE SIDEWALK CUT

NOTE: REMOVE CONCRETE SIDEWALK AT JOINTS WHEN JOINTS ARE LOCATED WITHIN 5 FEET OF AREA OF WORK. CONCRETE FINISH & JOINT PATTERN SHALL MATCH EXISTING.

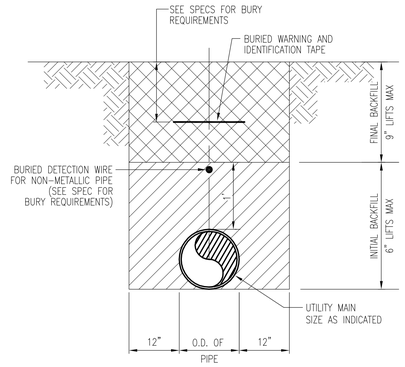
A CONCRETE CUT AND PATCH
NOT TO SCALE



D GRAVEL CONTROL ENTRANCE
NOT TO SCALE

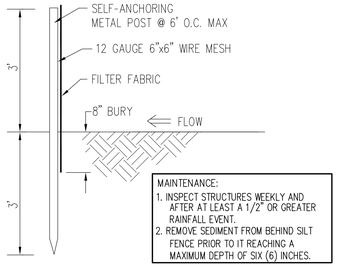


F BOLLARD
NOT TO SCALE



PIPE TRENCH WITHOUT BEDDING

B PIPE TRENCH SECTION
NOT TO SCALE



C SILT FENCE
NOT TO SCALE

TEMPORARY VEGETATIVE SEEDING
(PRIOR TO ESTABLISHING PERMANENT VEGETATION)

AFTER COMPLETION OF GRADING ACTIVITIES AND THE CONSTRUCTION OF SWALES, ALL EXPOSED AREAS SHALL BE SEEDED TO THE FOLLOWING SPECIFICATIONS:

SEED BED

LIME	1-1/2 TON PER ACRE
FERTILIZER	1/2-TON PER ACRE

SEED

RYE GRAIN	50 LBS PER ACRE
TALL FESCUE	100 LBS PER ACRE

SUPPLEMENTAL SEED
MAY THROUGH AUGUST:

CENTIPEDE	5 LBS PER ACRE

PROCEDURE

STRAW MULCH SHALL BE APPLIED AT A RATE WHICH WILL INSURE APPROXIMATELY 75% COVERAGE OF THE SEEDED AREA. THE STRAW AND SOWN SEED WILL BE LIGHTLY DISCED INTO THE BED TO GIVE IT FURTHER RESISTANCE TO BLOWING AND WASHING. THE CONTRACTOR SHALL GUARANTEE A FULL STAND OF GRASS OVER THE ENTIRE DISTURBED AREA. IF NECESSARY THE CONTRACTOR WILL WET DOWN THE AREAS TO ASSIST IN SEED GERMINATION OR AID IN GROWTH IN TIMES OF EXCESSIVELY DRY WEATHER. A STAND OF GRASS WILL BE CONSIDERED ACCEPTABLE WHEN THE ENTIRE STAND OF GRASS IS AT LEAST FOUR INCHES HIGH AND HAS ACHIEVED AT LEAST 95% COVERAGE OF DISTURBED AREAS. RESEEDING WILL BE REQUIRED AS NECESSARY BY THE CONTRACTOR TO OBTAIN THE SPECIFIED STAND OF GRASS.

PERMANENT VEGETATION

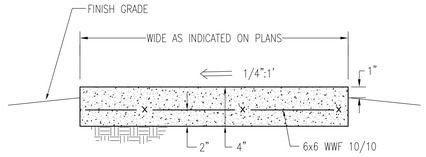
ALL DISTURBED AREAS NOT COVERED WITH BUILDINGS, PAVEMENTS, OR OTHER IMPERMEABLE SURFACES SHALL BE SODDED WITH CENTIPEDE SOLID SOD AS THE FINAL/PERMANENT VEGETATION.

SPECIAL SEEDING NOTE:

ALL DENUDED AREAS WILL, WITHIN 7 CALENDAR DAYS OF COMPLETION OF ANY PHASE OF GRADING OR CEASING OF GRADING ACTIVITIES, BE PLANTED AND PROVIDED WITH TEMPORARY OR PERMANENT GROUND COVER, DEVICES, OR STRUCTURES SUFFICIENT TO RESTRAIN EROSION.

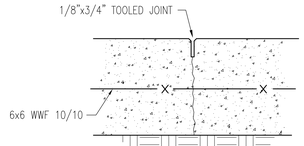
ALL DENUDED AREAS WILL, WITHIN 7 DAYS OF COMPLETION OF CONSTRUCTION, BE PROVIDED PERMANENT GROUND COVER.

E VEGETATION PLAN
NOT TO SCALE



SECTION

NOTES:
1. PROVIDE EXPANSION JOINTS ALONG ALL EXISTING STRUCTURES AND WALKS AND AT 20' INTERVALS ALONG STRAIGHT SECTIONS OF WALK.
2. PROVIDE TOOLED CONSTRUCTION JOINTS AT 5'–0" INTERVALS AND AT ALL CHANGES IN DIRECTION OF WALK. TOOLED CONSTRUCTION JOINTS SHALL BE 1/8" WIDE X 3/4" DEEP.
3. SUBGRADE SHALL BE WETTED IMMEDIATELY PRIOR TO PLACING CONCRETE, OR PROVIDE POLYETHYLENE SHEETING ON GROUND SURFACE BELOW CONCRETE.
4. PROVIDE FLOATED SURFACE WITH LIGHT BROOM FINISH.
5. PROTECT WORK IN PLACE FROM VANDALISM, GRAFFITI, ETC... UNTIL CONCRETE IS SUFFICIENTLY DRY.



CONSTRUCTION JOINT (CJ)

G CONCRETE SIDEWALK
NOT TO SCALE

DISCLOSURE OF INFORMATION

THE CONTRACTOR SHALL COMPLY AS FOLLOWS:

A. THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF THE MEDIUM (E.G. FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS
   1. THE CONTRACTING OFFICER HAS GIVEN PRIOR WRITTEN APPROVAL; OR
   2. THE INFORMATION IS OTHERWISE IN THE PUBLIC DOMAIN BEFORE THE DATE OF RELEASE.

B. REQUESTS FOR APPROVAL SHALL IDENTIFY THE SPECIFIC INFORMATION TO BE RELEASED, THE MEDIUM TO BE USED, AND THE PURPOSE FOR THE RELEASE. THE CONTRACTOR SHALL SUBMIT ITS REQUEST TO THE CONTRACTING OFFICER AT LEAST 45 DAYS BEFORE THE PROPOSED DATE OF RELEASE.

C. THE CONTRACTOR AGREES TO INCLUDE A SIMILAR REQUIREMENT IN EACH SUBCONTRACT UNDER THIS CONTRACT. SUBCONTRACTORS SHALL SUBMIT REQUESTS FOR AUTHORIZATION TO RELEASE THROUGH THE PRIME CONTRACTOR TO THE CONTRACTING OFFICER.

SITE MAPPING AND SITE DESIGN BY:
AVOLIS ENGINEERING, P.A.
P.O. BOX 1564
NEW BERN, NC 28561
(252) 633-0068
AE PROJECT #18563
LICENSE NO. C-0706

NORTH CAROLINA PROFESSIONAL SEAL 15739 ENGINEER JOHN K. AVOLIS

SHEET TITLE: DETAILS

C-2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

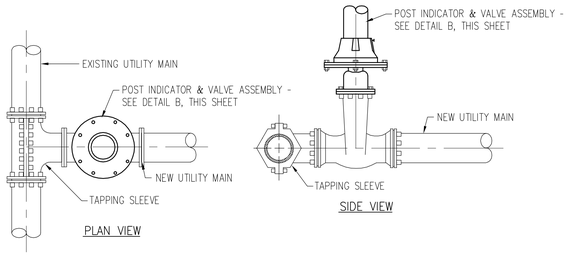
DES. J. K. AVOLIS, P.E.
DR. MSP / WFF/
CHK. J. C. AVOLIS, P.E.
SUBMITTED BY:
DESIGN DIR. T. H. BURTON, P.E.

RENOVATION,
BLDG M104
CAMP LEJEUNE, NORTH CAROLINA

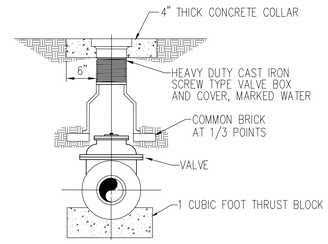
APPROVED: PWO OR OICC DATE
SATISFACTORY TO: DATE

SIZE F | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60025104
CONSTR. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 06 OF 57

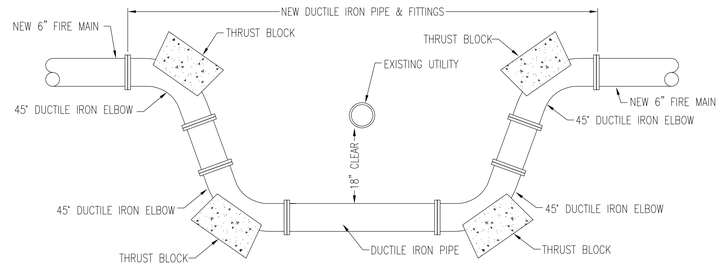
REVISIONS			
SYM		DATE	APPROVED



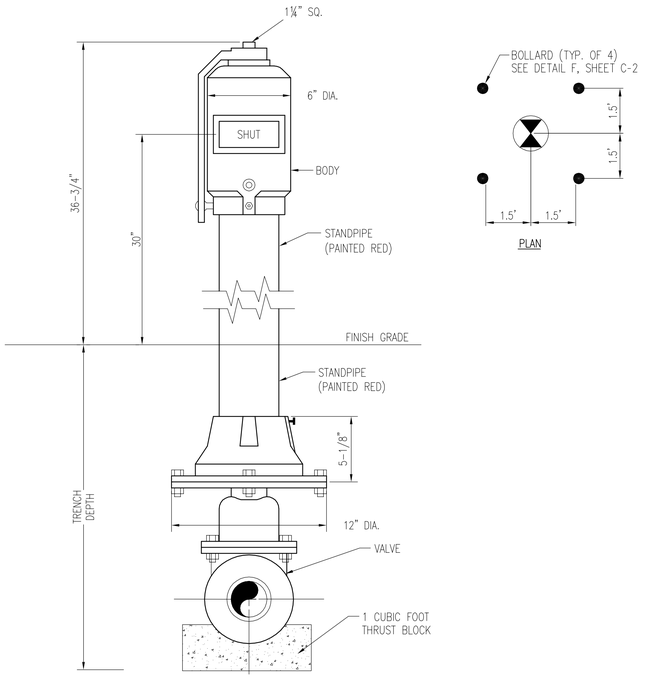
A TAPPING SADDLE
NOT TO SCALE



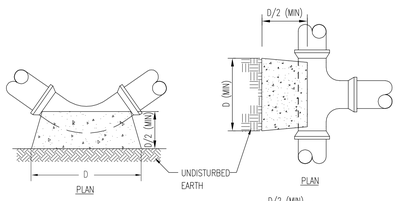
D VALVE AND VALVE BOX
NOT TO SCALE



E UTILITY CROSSING
NOT TO SCALE



B POST INDICATOR AND VALVE
NOT TO SCALE



THRUST BLOCK DIMENSION D (IN FEET)					
NOM. PIPE DIA.	DEAD END	90° BEND	45° BEND	22 1/2° BEND	11 1/4 BEND
4"–6"	2.1	2.3	1.7	1.2	0.8
8"	2.5	2.8	2.2	1.5	1.0

C THRUST BLOCK
NOT TO SCALE

DISCLOSURE OF INFORMATION

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A. THE CONTRACTOR SHALL NOT RELEASE TO ANYONE OUTSIDE THE CONTRACTOR'S ORGANIZATION ANY UNCLASSIFIED INFORMATION, REGARDLESS OF THE MEDIUM (E.G. FILM, TAPE, DOCUMENT), PERTAINING TO ANY PART OF THIS CONTRACT OR ANY PROGRAM RELATED TO THIS CONTRACT, UNLESS

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SITE MAPPING AND SITE DESIGN BY:
AVOLIS ENGINEERING, P.A.
P.O. BOX 15564
NEW BERN, NC 28561
(252) 633-0068
AE PROJECT #18063
LICENSE NO. C-0706

NORTH CAROLINA PROFESSIONAL SEAL 15739 ENGINEER JOHN K. AVOLIS

SHEET TITLE: DETAILS

C-3

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. J. K. AVOLIS, P.E.
DR. MSP / WFF/
CHK. J. C. AVOLIS, P.E.
SUBMITTED BY:
DESIGN DIR. T. H. BURTON, P.E.

RENOVATION,
BLDG M104
CAMP LEJEUNE, NORTH CAROLINA

APPROVED: PWO OR OICC DATE
SATISFACTORY TO: DATE

SIZE F | CODE IDENT. NO 80091 | NAVFAC DRAWING NO. 60025105
CONSTR. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 07 OF 57

GENERAL NOTES:

1. DIMENSIONS ON PLANS ARE APPROXIMATE. VERIFY DIMENSIONS ON JOB.
2. NOTING CONVENTION ON PLANS AND DETAILS: ON PLANS AND DETAILS TITLED AS "EXISTING CONDITIONS," ITEMS SHOWN AND NOTED ARE EXISTING UNLESS SPECIFICALLY INDICATED OTHERWISE. ON PLANS AND DETAILS TITLED AS "NEW" OR "RENOVATED CONDITIONS," ITEMS SHOWN AND NOTED ARE NEW OR ALTERED UNLESS SPECIFICALLY INDICATED OTHERWISE. TO DETERMINE FULL EXTENT OF WORK REQUIRED, COMPARE EXISTING CONDITIONS PLANS AND DETAILS TO NEW OR RENOVATED CONDITIONS PLANS AND DETAILS.
3. THE WORDS "PAINT", "PAINTING", "REPAINT", OR "REFINISH" CARRY WITH THEM THE CONNOTATION THAT SURFACE PREPARATION, PRIMING (OR STAINING) AND NUMBER OF COATS OF PAINT (OR CLEAR FINISH) DESCRIBED IN THE SPECIFICATIONS ARE REQUIRED.
4. PAINT COLORS SHALL BE AS STATED IN THE "INTERIOR COLOR SCHEDULE" INCLUDED IN THESE DRAWINGS. IF COLOR IS NOT STATED, COLOR SHALL BE SAME AS EXISTING. CONTRACTING OFFICER RESERVES THE RIGHT TO MAKE FINAL COLOR SELECTIONS.
5. CAULKING/SEALANT IS REQUIRED AT ALL LOCATIONS PRESENTLY HAVING OR NORMALLY REQUIRING CAULKING/SEALANT INCLUDING BUT NOT NECESSARILY LIMITED TO: DOORS, WINDOWS, LOUVERS, VENTS, AND MASONRY CONTROL AND EXPANSION JOINTS.
6. WHERE NEW WORK IS REQUIRED THAT WILL REPLACE EXISTING MATERIALS THE NEW WORK SHALL MATCH THE EXISTING AS CLOSELY AS POSSIBLE.
7. CONDITIONS, DETAILS, AND AREAS OF WORK SHOWN ON THESE DRAWINGS ARE BASED ON FIELD INVESTIGATIONS AND SHOULD REPRESENT CURRENT CONDITIONS. IF CONDITIONS ARE ENCOUNTERED THAT ARE SIGNIFICANTLY DIFFERENT FROM THOSE SHOWN, IMMEDIATELY NOTIFY CONTRACTING OFFICER OF SUCH CONDITIONS PRIOR TO PROCEEDING WITH WORK IN THE AREA IN QUESTION. MINOR VARIATIONS WITH LITTLE IMPACT ON THE SCOPE OF WORK SHALL NOT BE CONSIDERED SIGNIFICANT.
8. WHERE AN ITEM OR FEATURE IS SHOWN ON DRAWINGS THAT DEPICT EXISTING CONDITIONS, AND SUCH ITEM OR FEATURE IS NOT SHOWN ON DRAWINGS THAT DEPICT NEW OR ALTERED CONDITIONS, IT IS INFERRED THAT THE ITEM OR FEATURE IS TO BE REMOVED AS PART OF THIS WORK AND ALL SURFACES DISTURBED ARE TO BE NEATLY REPAIRED AND PATCHED TO MATCH EXISTING UNLESS INDICATED OTHERWISE. INCLUDE SUCH WORK IN BID PRICE.
9. WHERE AN ITEM OR FEATURE IS TO BE REMOVED THE REQUIREMENT FOR REMOVAL INCLUDES THAT ALL RELATED APPURTENANCES ALSO BE REMOVED UNLESS INDICATED OTHERWISE. FOR EXAMPLE, WHERE AN EXISTING DOOR AND FRAME ARE TO BE REMOVED, THE HARDWARE, THRESHOLD, STOPS, ETC. ARE ALSO TO BE REMOVED.
10. FOR EACH ACTIVITY THAT INVOLVES DISTURBANCE TO AN EXISTING SURFACE OR SURFACES, THE ACTIVITY CARRIES WITH IT THE STIPULATION THAT ALL DISTURBED SURFACES BE NEATLY REPAIRED AND PATCHED TO MATCH EXISTING. FOR EXAMPLE, WHERE INTERIOR PARTITIONS ARE REMOVED IT IS REQUIRED THAT ANY DISTURBED WALL, FLOOR, CEILING, TRIMS, BASE, ETC. THAT REMAINS BE NEATLY REPAIRED AND PATCHED TO MATCH EXISTING.
11. IF EXISTING MATERIALS CANNOT BE REPAIRED AND PATCHED, NEW MATERIALS SHALL BE PROVIDED. WHERE NEW MATERIALS ARE REQUIRED TO BE BUILT INTO THE EXISTING STRUCTURE OR MATERIALS, OR BUILT ADJOINING EXISTING STRUCTURE OR MATERIALS, THE TEXTURE AND FINISH OF THE NEW MATERIAL SHALL MATCH THE EXISTING AND SHALL BE NEATLY BLENDED INTO THE EXISTING. ALIGN NEW MASONRY JOINTING, VERTICAL OR HORIZONTAL LINES, METAL WALL PANELS, ETC. WITH EXISTING.
12. HOLES AND OTHER DAMAGE CAUSED BY TEMPORARY INSTALLATIONS, BARRIERS, ETC. SHALL BE REPAIRED IN A MANNER COMPATIBLE WITH AND EQUAL TO EXISTING CONDITIONS.
13. WHERE NEW WORK IS REQUIRED AND DRAWINGS AND SPECIFICATIONS ARE NOT SPECIFIC AS TO TYPE AND QUALITY OF WORK, PROVIDE TYPE AND QUALITY EQUAL TO OR BETTER THAN CORRESPONDING WORK ON EXISTING BUILDING. IN THE ABSENCE OF ANY CORRESPONDING WORK ON EXISTING BUILDING, PROVIDE FIRST QUALITY INDUSTRY STANDARD COMPATIBLE TO EXISTING BUILDING. CONTRACTING OFFICER SHALL MAKE FINAL DETERMINATION OF WHETHER OR NOT CONTRACTOR'S PROPOSED WORK COMPLIES.
14. GOVERNMENT WILL REMOVE INTERIOR BUILDING CONTENTS. GOVERNMENT WILL MOVE STORAGE UNITS AND EQUIPMENT A MINIMUM OF 10' AWAY FROM EXTERIOR PERIMETER OF BUILDING.

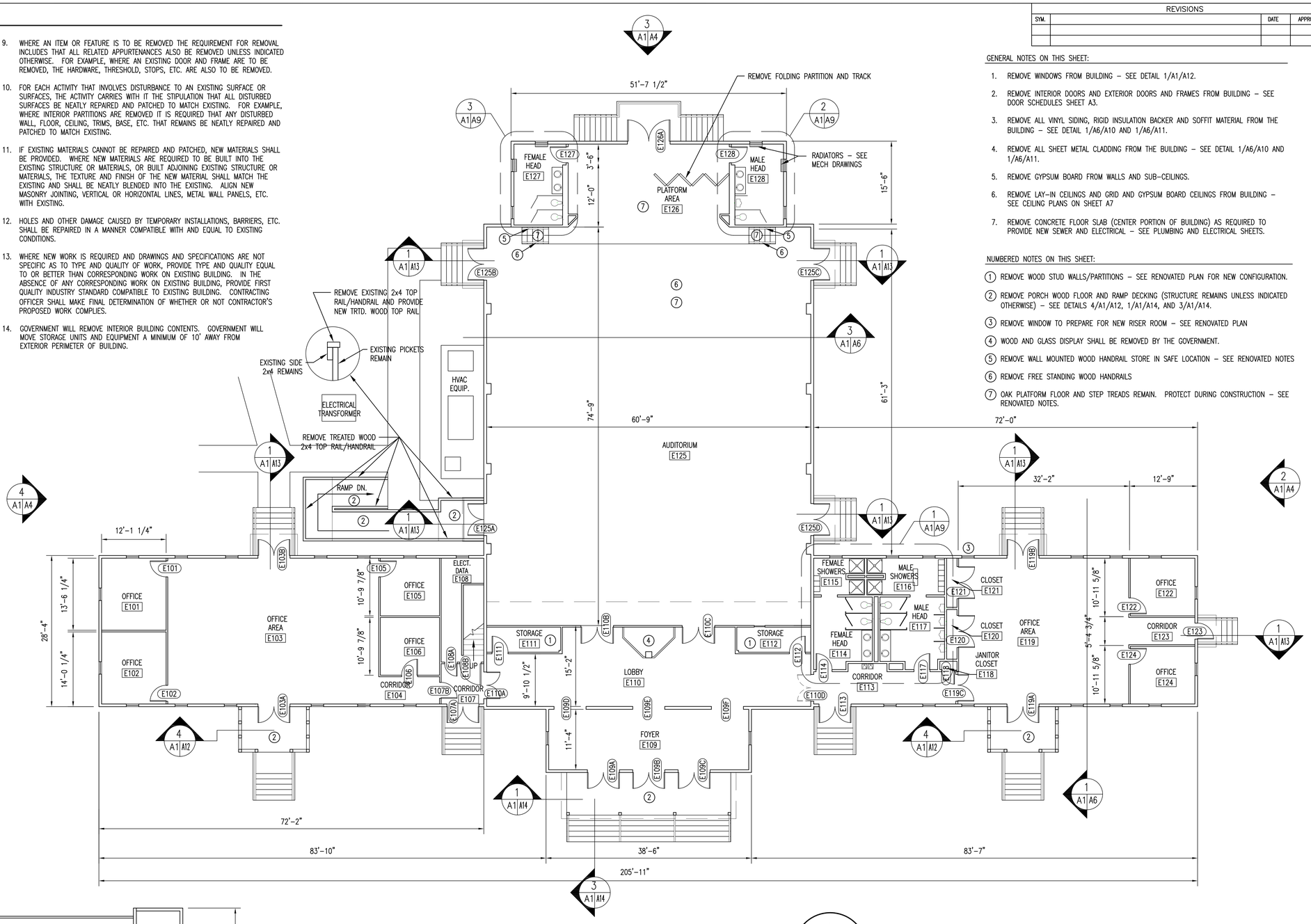
REVISIONS			
SYM.		DATE	APPROVED

GENERAL NOTES ON THIS SHEET:

1. REMOVE WINDOWS FROM BUILDING – SEE DETAIL 1/A1/A12.
2. REMOVE INTERIOR DOORS AND EXTERIOR DOORS AND FRAMES FROM BUILDING – SEE DOOR SCHEDULES SHEET A3.
3. REMOVE ALL VINYL SIDING, RIGID INSULATION BACKER AND SOFFIT MATERIAL FROM THE BUILDING – SEE DETAIL 1/A6/A10 AND 1/A6/A11.
4. REMOVE ALL SHEET METAL CLADDING FROM THE BUILDING – SEE DETAIL 1/A6/A10 AND 1/A6/A11.
5. REMOVE GYPSUM BOARD FROM WALLS AND SUB–CEILINGS.
6. REMOVE LAY–IN CEILINGS AND GRID AND GYPSUM BOARD CEILINGS FROM BUILDING – SEE CEILING PLANS ON SHEET A7
7. REMOVE CONCRETE FLOOR SLAB (CENTER PORTION OF BUILDING) AS REQUIRED TO PROVIDE NEW SEWER AND ELECTRICAL – SEE PLUMBING AND ELECTRICAL SHEETS.

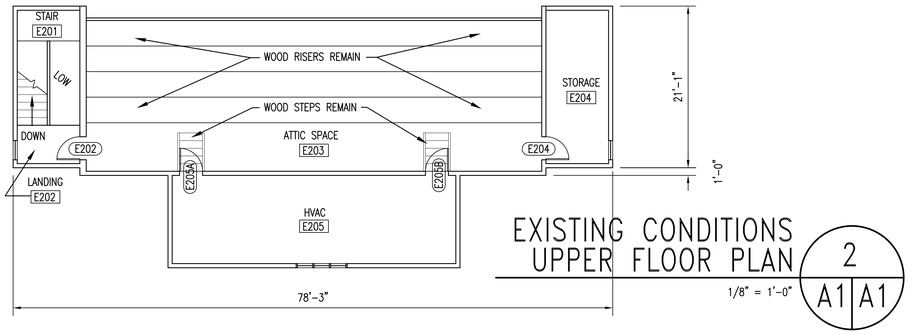
NUMBERED NOTES ON THIS SHEET:

1. REMOVE WOOD STUD WALLS/PARTITIONS – SEE RENOVATED PLAN FOR NEW CONFIGURATION.
2. REMOVE PORCH WOOD FLOOR AND RAMP DECKING (STRUCTURE REMAINS UNLESS INDICATED OTHERWISE) – SEE DETAILS 4/A1/A12, 1/A1/A14, AND 3/A1/A14.
3. REMOVE WINDOW TO PREPARE FOR NEW RISER ROOM – SEE RENOVATED PLAN
4. WOOD AND GLASS DISPLAY SHALL BE REMOVED BY THE GOVERNMENT.
5. REMOVE WALL MOUNTED WOOD HANDRAIL STORE IN SAFE LOCATION – SEE RENOVATED NOTES
6. REMOVE FREE STANDING WOOD HANDRAILS
7. OAK PLATFORM FLOOR AND STEP TREADS REMAIN. PROTECT DURING CONSTRUCTION – SEE RENOVATED NOTES.



EXISTING CONDITIONS FLOOR PLAN

1/8" = 1'–0"



EXISTING CONDITIONS UPPER FLOOR PLAN

1/8" = 1'–0"

1/8" = 1'–0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: EXISTING CONDITIONS PLAN

A–1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	Robert L. Smith, III
DR.	Steven C. Fender
CHK.	Robert L. Smith, III
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	DATE
SATISFACTORY TO:	DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025106
		CONST. CONTR. NO. N40085–19–B–0034
SCALE: NOTED	SPEC. 05–19–0034	SHEET 8 OF 57

REVISIONS			
SYM.		DATE	APPROVED

GENERAL NOTES ON THIS SHEET:

1. PROVIDE WINDOWS – SEE DETAIL 2/A2/A11 AND 4/A2/A11.
2. PROVIDE INTERIOR DOORS AND EXTERIOR DOORS AND FRAMES THROUGHOUT BUILDING – SEE DOOR SCHEDULES SHEET A3.
3. PROVIDE CEMENT FIBER LAP SIDING, RIGID INSULATION BACKER AND SOFFITS – SEE DETAIL 2/A6/A10 AND 4/A6/A10.
4. NEW WALLS INDICATED BY SOLID HATCH SHALL HAVE 3 5/8" STEEL STUDS UNLESS INDICATED OTHERWISE.
5. SOME OF THE WOOD STUDS IN THE EXTERIOR WALLS ARE DETERIORATED. INCLUDE IN PROJECT TO REPLACE 75 2x4 WOOD STUDS WITH NEW FOR FULL HEIGHT OF WALL. CONTRACTOR SHALL INSPECT EXISTING CONDITIONS WITH CONTRACTING OFFICER AND SELECT THE 75 STUDS THAT ARE IN THE WORST CONDITION. IF OTHER WOOD FRAMING MUST BE REPLACED, COORDINATE WITH CONTRACTING OFFICER.
6. PATCH CONCRETE SLAB WHERE NEW SEWER AND ELECTRICAL WORK HAS TAKEN PLACE – SEE PLUMBING AND ELECTRICAL SHEETS. MATCH THICKNESS OF EXISTING CONCRETE. PROVIDE #4 X 12" LONG DOWELS EMBEDDED 6" EACH DIRECTION SPACED AT 48" O.C. STAGGERED ON EACH SIDE OF TRENCH.

NUMBERED NOTES ON THIS SHEET:

(1) PROVIDE NOM. 3 5/8" STEEL STUD WALLS/PARTITIONS, EXCEPT PROVIDE 6" STUDS WHERE NOTED – WALL/PARTITIONS HATCHED SOLID ARE NEW.

(2) PROVIDE MAGNETIC HOLD OPENS ON DOORS R110A AND R110D.

(3) PROVIDE WOOD FRAMING IN-FILL WHERE WINDOW WAS REMOVED.

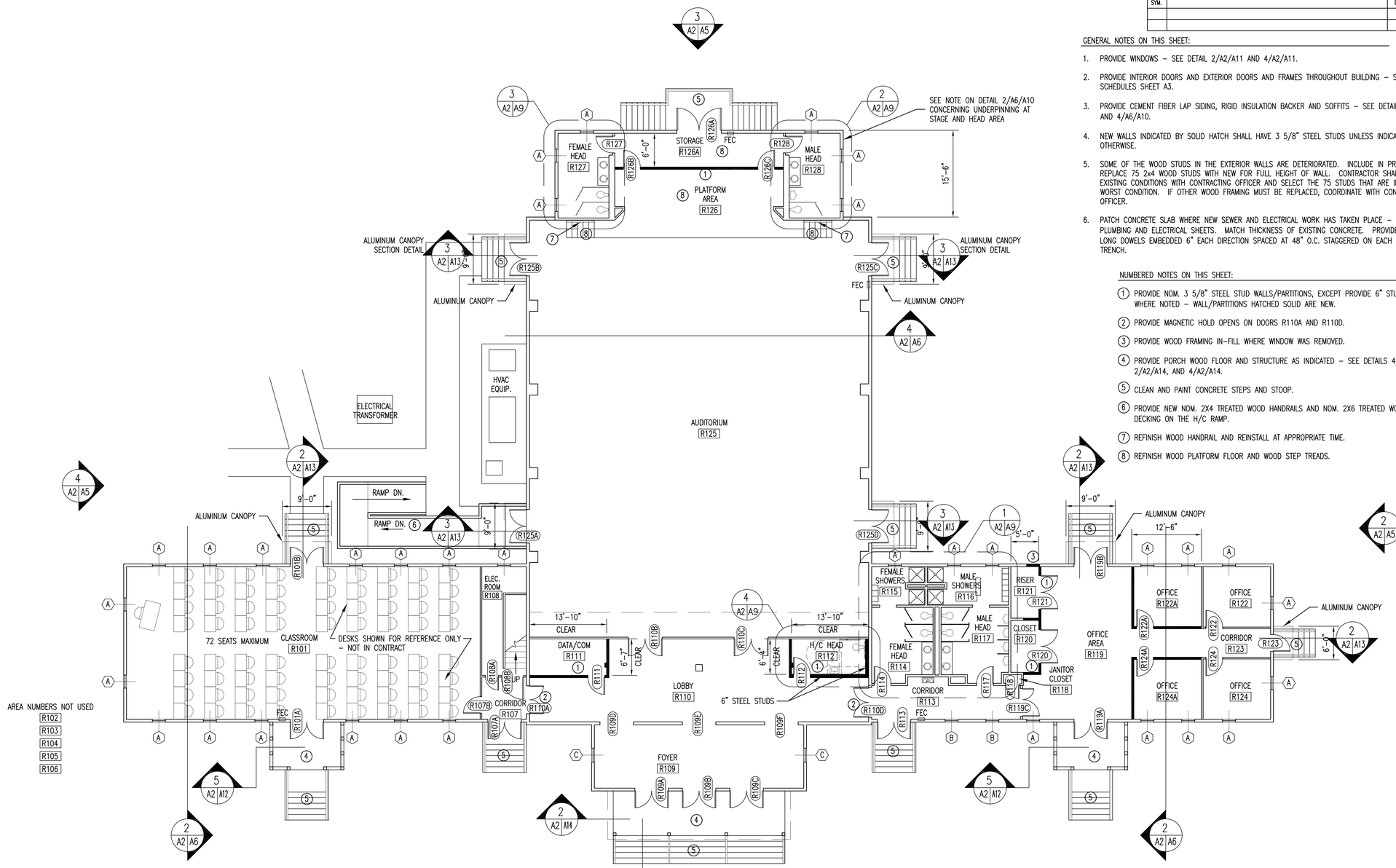
(4) PROVIDE PORCH WOOD FLOOR AND STRUCTURE AS INDICATED – SEE DETAILS 4/A2/A12, 2/A2/A14, AND 4/A2/A14.

(5) CLEAN AND PAINT CONCRETE STEPS AND STOOP.

(6) PROVIDE NEW NOM. 2X4 TREATED WOOD HANDRAILS AND NOM. 2X6 TREATED WOOD DECKING ON THE H/C RAMP.

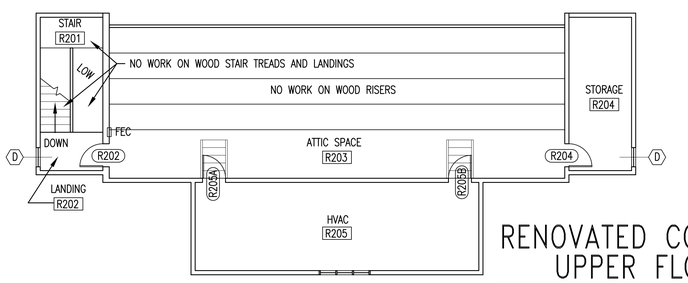
(7) REFINISH WOOD HANDRAIL AND REINSTALL AT APPROPRIATE TIME.

(8) REFINISH WOOD PLATFORM FLOOR AND WOOD STEP TREADS.



RENOVATED CONDITIONS FLOOR PLAN

1/8" = 1'-0"



RENOVATED CONDITIONS UPPER FLOOR PLAN

1/8" = 1'-0"

1/8" = 1'-0"
0 10 20 FEET

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ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: RENOVATED CONDITIONS PLAN

A-2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025107
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 9 OF 57

REVISIONS			
SYM.		DATE	APPROVED

SCHEDULE OF EXISTING DOORS AND FRAMES

(E100) ← SEE THIS SYMBOL ON FLOOR PLAN FOR IDENTIFYING DOOR NUMBER

DOOR NO.	DOOR SIZE	DOOR TYPE	GLASS PANEL	LOUVER OR UC	HDW. NO.	FIRE RATING	MASONRY OPENING WHERE APPLICABLE	FRAME TYPE	FRAME DEPTH	FRAME POSITION	THRESH DETAIL	LINTEL	REMARKS	DOOR NO.
E101	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E101
E102	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E102
E103A	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E103A
E103B	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E103B
E105	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E105
E106	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E106
E107A	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E107A
E107B	3-0 X 7-0	SD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E107B
E108A	2-6 X 7-0	WD	–	–	–	3/4	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E108A
E108B	4-0 X 7-0	WD	–	–	–	1 1/2	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E108B
E109A	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E109A
E109B	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E109B
E109C	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E109C
E109D	PR 3-0 X 7-0	NOTE 2	–	–	–	–	–	–	–	–	–	–	–	E109D
E109E	PR 3-0 X 7-0	NOTE 2	–	–	–	–	–	–	–	–	–	–	–	E109E
E109F	PR 3-0 X 7-0	NOTE 2	–	–	–	–	–	–	–	–	–	–	–	E109F
E110A	PR 2-6 X 7-0	SD	10" X 10"	–	–	3/4	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E110A
E110B	PR 3-0 X 7-0	WD	–	–	–	–	–	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME & HARDWARE COMPLETE	E110B
E110C	PR 3-0 X 7-0	WD	–	–	–	–	–	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E110C
E110D	PR 2-6 X 7-0	NOTE 2	–	–	–	3/4	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E110D
E111	3-0 X 7-0	WD	–	–	–	–	–	SDF	5 3/4"	–	–	–	REMOVE DOOR, FRAME & HARDWARE COMPLETE	E111
E112	3-0 X 7-0	WD	–	–	–	–	–	SDF	5 3/4"	–	–	–	REMOVE DOOR, FRAME & HARDWARE COMPLETE	E112
E113	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E113
E114	3-0 X 7-0	WD	–	18" X 18"	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E114
E117	3-0 X 7-0	WD	–	18" X 18"	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E117
E118	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E118
E119A	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E119A
E119B	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E119B
E119C	PR – NOTE 1	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E119C
E120	PR 3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E120
E121	PR 3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E121
E122	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E122
E123	3-0 X 7-0	SD	4" X 34"	–	–	–	3'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E123
E124	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E124
E125A	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E125A
E125B	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E125B
E125C	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E125C
E125D	PR 3-0 X 7-0	SD	4" X 34"	–	–	–	6'-4" X 7'-2"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E125D
E126A	PR 4-0 X 8-0	SD	–	–	–	–	8'-4" X 8'-4"	SDF	6 3/4"	–	–	–	REMOVE DOOR, FRAME, & HARDWARE COMPLETE	E126
E127	3-0 X 7-0	WD	–	18" X 18"	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E127
E128	3-0 X 7-0	WD	–	18" X 18"	–	–	–	–	–	–	–	–	REMOVE DOOR & HARDWARE COMPLETE	E128
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
E202	3-0 X 7-0	WD	10" X 10"	–	–	–	–	–	–	–	–	–	DOOR, FRAME, & HARDWARE REMAIN	E202
E204	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	DOOR, FRAME, & HARDWARE REMAIN	E204
E205A	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	DOOR, FRAME, & HARDWARE REMAIN	E205A
E205B	3-0 X 7-0	WD	–	–	–	–	–	–	–	–	–	–	DOOR, FRAME, & HARDWARE REMAIN	E205B
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NUMBERED NOTES ON SCHEDULE:.

1. REMOVE UN-EVEN PAIR OF DOORS: 3-0 ACTIVE AND 2-0 INACTIVE X 7-0 TALL.
2. DOORS HAVE BEEN REMOVED.
3. REMOVE STAINED OAK TRIM ON DOOR JAMBS AND HEAD ALONG WITH THREE LOGOED BLOCKS – SEE PHOTO X/XX/XX

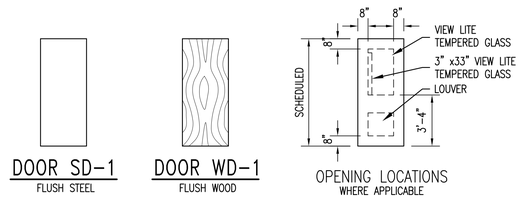
SCHEDULE OF RENOVATED DOORS AND FRAMES

(R100) ← SEE THIS SYMBOL ON FLOOR PLAN FOR IDENTIFYING DOOR NUMBER

DOOR NO.	DOOR SIZE	DOOR TYPE	GLASS PANEL	LOUVER OR UC	HDW. NO.	FIRE RATING	MASONRY OPENING WHERE APPLICABLE	FRAME TYPE	FRAME DEPTH	FRAME POSITION	THRESH DETAIL	LINTEL	REMARKS	DOOR NO.
R101A	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R101A
R101B	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R101B
R107A	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R107A
R107B	3-0 X 7-0	SD-1	–	–	3	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R107B
R108A	2-6 X 7-0	WD-1	–	–	5	1 1/2	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R108A
R108B	4-0 X 7-0	WD-1	–	–	5	1 1/2	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R108B
R109A	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R109A
R109B	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R109B
R109C	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R109C
R109D	PR 3-0 X 7-0	–	–	–	–	–	–	–	–	–	–	–	–	R109D
R109E	PR 3-0 X 7-0	–	–	–	–	–	–	–	–	–	–	–	–	R109E
R109F	PR 3-0 X 7-0	–	–	–	–	–	–	–	–	–	–	–	–	R109F
R110A	PR 2-6 X 7-0	SD-1	3" X 33"	–	8	1 1/2	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE – NOTE 4	R110A
R110B	PR 3-0 X 7-0	WD-1	–	–	7	–	–	SDF-1	7 5/8"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R110B
R110C	PR 3-0 X 7-0	WD-1	–	–	7	–	–	SDF-1	7 5/8"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R110C
R110D	PR 2-6 X 7-0	SD-1	–	–	8	1 1/2	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE – NOTE 4	R110D
R111	3-0 X 7-0	WD-1	–	–	5	–	–	SDF-2	6"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R111
R112	3-0 X 7-0	WD-1	–	–	9	–	–	SDF-2	8 1/2"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R112
R113	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R113
R114	3-0 X 7-0	WD-1	–	UC 3/4"	10	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R114
R117	3-0 X 7-0	WD-1	–	UC 3/4"	10	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R117
R118	3-0 X 7-0	WD-1	–	–	5	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R118
R119A	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R119A
R119B	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R119B
R119C	PR – NOTE 2	WD-1	–	–	11	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R119C
R120	PR 3-0 X 7-0	WD-1	–	–	6	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R120
R121	PR 3-0 X 7-0	WD-1	–	–	6	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R121
R122	3-0 X 7-0	WD-1	–	–	1	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R122
R122A	3-0 X 7-0	WD-1	–	–	1	–	–	SDF-2	6"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R122A
R123	3-0 X 7-0	SD-1	3" X 33"	–	13	–	3'-4" X 7'-2"	SDF-2	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R123
R124	3-0 X 7-0	WD-1	–	–	1	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R124
R124A	3-0 X 7-0	WD-1	–	–	1	–	–	SDF-2	6"	2	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R124A
R125A	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R125A
R125B	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R125B
R125C	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R125C
R125D	PR 3-0 X 7-0	SD-1	3" X 33"	–	4	–	6'-4" X 7'-2"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	R125D
E126A	PR 4-0 X 8-0	SD-1	–	–	4	–	8'-4" X 8'-4"	SDF-1	6 1/2"	1	–	–	PROVIDE DOOR, FRAME, & HARDWARE	E126A
R126B	3-0 X 7-0	WD-1	–	–	12	–	3'-4" X 7'-2"	SDF-2	6"	2			PROVIDE DOOR, FRAME, & HARDWARE	R126B
R126C	3-0 X 7-0	WD-1	–	–	12	–	3'-4" X 7'-2"	SDF-2	6"	2			PROVIDE DOOR, FRAME, & HARDWARE	R126C
R127	3-0 X 7-0	WD-1	–	UC 3/4"	10	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R127
R128	3-0 X 7-0	WD-1	–	UC 3/4"	10	–	–	–	–	–	–	–	PROVIDE DOOR & HARDWARE	R128
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
R202	3-0 X 7-0	–	–	–	5	–	–	–	–	–	–	–	CLEAN AND PAINT EXISTING DOOR AND FRAME	R202
R204	3-0 X 7-0	–	–	–	5	–	–	–	–	–	–	–	CLEAN AND PAINT EXISTING DOOR AND FRAME	R204
R205A	3-0 X 7-0	–	–	–	12	–	–	–	–	–	–	–	CLEAN AND PAINT EXISTING DOOR AND FRAME	R205A
R205B	3-0 X 7-0	–	–	–	12	–	–	–	–	–	–	–	CLEAN AND PAINT EXISTING DOOR AND FRAME	R205B
–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

NUMBERED NOTES ON SCHEDULE:

1. PROVIDE 4" ALUMINUM SADDLE THRESHOLD AT DOOR LOCATIONS WHERE FLOOR FINISHES CHANGE.
2. PROVIDE UN-EVEN PAIR OF DOORS: 3-0 ACTIVE AND 2-0 INACTIVE X 7-0 TALL.
3. PROVIDE 4" ALUMINUM SADDLE THRESH AND HOODED DOOR BOTTOM ON EXTERIOR DOORS.
4. PROVIDE MAGNETIC HOLD OPEN TIED TO FIRE ALARM.
5. EXTERIOR DOORS SHALL BE BLAST RESISTANT AS SPECIFIED IN SECTION 08 11 13 STEEL DOORS AND FRAMES.



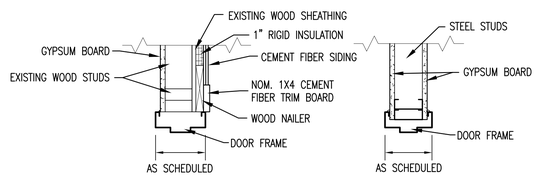
DOOR SD-1
FLUSH STEEL

DOOR WD-1
FLUSH WOOD

OPENING LOCATIONS
WHERE APPLICABLE

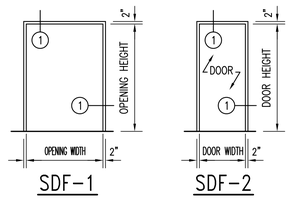
DOOR TYPES

1/4" = 1'-0"



DOOR FRAME POSITIONING DETAILS

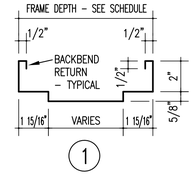
1 1/2" = 1'-0"



DOOR FRAME TYPES

1/4" = 1'-0" SDF = STEEL DOOR FRAME

FIELD VERIFY EXISTING CONDITIONS AND DIMENSIONS.



FRAME SECTIONS

3" = 1'-0" NOTE THAT BACKBEND RETURNS ARE REQUIRED ON ALL FRAMES.

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

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA SHELBY, N.C. CERT. NO. 50153

ROBERT L. SMITH, III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DOOR SCHEDULES

A-3

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025108
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 10 OF 57

EXISTING FINISH SCHEDULE BUILDING M104

100 ← SEE THIS SYMBOL ON FLOOR PLANS FOR CORRESPONDING ROOM NUMBER

ROOM NO.	ROOM NAME	FLOOR: 12" X 12" VCT	FLOOR: "OAK" WOOD FLOOR	FLOOR: UNFINISHED WOOD FLOOR	FLOOR: CONCRETE	BASE: 4" COVED RUBBER	BASE: 6" TWO PIECE WOOD	BASE: NONE	WALL: GYPSUM BOARD	WALL: PAINTED CONCRETE WAINSCOT	CEILING: 24" X 24" ACOUSTICAL TILE	CEILING: GYPSUM BOARD	CEILING HT.	REMARKS	ROOM NO.
														EXISTING CONDITIONS FINISH NOTE: REMOVE EXISTING FINISHES THROUGHOUT THE BUILDING. UNLESS INDICATED OTHERWISE.	
E101	OFFICE	•				•			•		•		9'-11"		E101
E102	OFFICE	•				•			•		•		9'-11"		E102
E103	OFFICE AREA	•				•			•		•		9'-11"		E103
E104	CORRIDOR	•				•			•		•		9'-11"		E104
E105	OFFICE	•				•			•		•		9'-11"		E105
E106	OFFICE	•				•			•		•		9'-11"		E106
E107	CORRIDOR	•				•			•		•		9'-7"		E107
E108	ELECT. @ DATA	•				•			•			•			E108
E109	FOYER	•				•			•		•		8'-6"	REMOVE 3" STAINED, SHAPED WOOD CHAIR RAIL	E109
E110	LOBBY	•				•			•	•	•		8'-1"	REMOVE 3" STAINED, SHAPED WOOD CHAIR RAIL	E110
E111	STORAGE	•				•			•	•	•		8'-1"		E111
E112	STORAGE	•				•			•	•	•		8'-1"		E112
E113	CORRIDOR	•				•			•		•		9'-7"		E113
E114	FEMALE HEAD	•				•			•			•	9'-11"		E114
E115	FEMALE SHOWER	•				•			•			•	9'-11"		E115
E116	MALE SHOWER	•				•			•			•	9'-11"		E116
E117	MALE HEAD	•				•			•			•	9'-11"		E117
E118	JANITORS CLOSET	•				•			•			•	9'-11"		E118
E119	OFFICE AREA	•				•			•		•		9'-5"		E119
E120	CLOSET	•				•			•			•	9'-11"		E120
E121	CLOSET	•				•			•			•	9'-11"		E121
E122	OFFICE	•				•			•		•		9'-5"		E122
E123	CORRIDOR	•				•			•		•		9'-5"		E123
E124	OFFICE	•				•			•		•		9'-5"		E124
E125	AUDITORIUM	•				•			•	•	•		12'-0"	REMOVE 3" STAINED, SHAPED WOOD CHAIR RAIL	E125
E126	PLATFORM AREA		•				•		•		•		8'-9"	WOOD FLOOR REMAINS – SEE RENOVATED SCHEDULE	E126
E127	FEMALE HEAD	•				•			•			•	9'-11"		E127
E128	MALE HEAD	•				•			•			•	9'-11"		E128
E201	STAIR LANDING			•		•			•			•		WOOD FLOOR REMAINS	E201
E202	STAIR LANDING			•		•			•			•		WOOD FLOOR REMAINS	E202
E203	STORAGE			•		•			•		•			WOOD FLOOR REMAINS	E203
E204	STORAGE	•				•			•			•			E204
E205	HVAC				•			•	•			•			E205

RENOVATED FINISH SCHEDULE BUILDING M104

100 ← SEE THIS SYMBOL ON FLOOR PLANS FOR CORRESPONDING ROOM NUMBER

ROOM NO.	ROOM NAME	FLOOR: (LVT) LUXURY VINYL TILE	FLOOR: CARPET	FLOOR: CONCRETE	FLOOR: PLYWOOD – EPOXY PAINT	FLOOR: REFINISH EXISTING HARD WOOD	FLOOR: EXISTING WOOD	BASE: 4" COVED RUBBER	BASE: 6" TWO PIECE HARD WOOD	BASE: NONE	BASE: –	WALL: GYPSUM BOARD	WALL: PAINTED CONCRETE WAINSCOT	WALL: MOISTURE RESISTANT GYP BRD	WALL: –	CEILING: 24" X 24" LAY-IN ACOUSTICAL	CEILING: GYPSUM BOARD	CEILING: OPEN STRUCTURE	CEILING: MOISTURE RESISTANT GYP BRD	CEILING: –	CEILING HT.	REMARKS	ROOM NO.
																						RENOVATED CONDITIONS FINISH NOTE: PROVIDE FINISHES AS INDICATED IN RENOVATED FINISH SCHEDULE. COMPARE EXISTING AND RENOVATED CONDITIONS PLANS FOR NEW WALLS.	
R101	CLASSROOM		•					•				•				•					SEE CEILING PLAN FOR CEILING HEIGHTS		R101
R102	– NOT USED																						R102
R103	– NOT USED																						R103
R104	– NOT USED																						R104
R105	– NOT USED																						R105
R106	– NOT USED	•						•				•				•							R106
R107	CORRIDOR	•						•				•				•							R107
R108	ELECT. ROOM	•						•				•					•	•					R108
R109	FOYER	•						•				•				•							R109
R110	LOBBY	•						•				•	•			•							R110
R111	DATA–COMM			•				•				•	•				•						R111
R112	H/C HEAD	•						•						•		•							R112
R113	CORRIDOR	•						•				•				•							R113
R114	FEMALE HEAD	•						•						•		•							R114
R115	FEMALE SHOWER	•						•						•		•							R115
R116	MALE SHOWER	•						•						•		•							R116
R117	MALE HEAD	•						•						•		•							R117
R118	JANITORS CLOSET	•						•						•		•							R118
R119	OFFICE AREA		•					•				•				•							R119
R120	CLOSET		•					•				•				•							R120
R121	RISER ROOM				•			•						•				•				PAINT PLYWOOD FLOOR	R121
R122	OFFICE		•					•				•				•							R122
R122A	OFFICE		•					•						•				•					R122A
R123	CORRIDOR		•					•				•				•							R123
R124	OFFICE		•					•				•				•							R124
R124A	OFFICE		•					•				•				•							R124A
R125	AUDITORIUM	•						•				•	•			•							R125
R126	PLATFORM AREA					•			•			•				•						REFINISH EXISTING OAK WOOD FLOOR, NATURAL FINISH	R126
R126A	STORAGE	•						•				•				•							R126A
R127	FEMALE HEAD	•						•						•		•							R127
R128	MALE HEAD	•						•						•		•							R128
R201	STAIR LANDING						•	•				•					•						R201
R202	STAIR LANDING						•	•				•					•						R202
R203	STORAGE						•	•				•				•							R203
R204	STORAGE	•						•				•					•						R204
R205	HVAC			•								•					•						R205

GYPSUM BOARD WALLS AND CEILINGS SHALL BE 5/8" TYPE X OR TYPE C BOARD. PROVIDE MOISTURE RESISTANT 5/8" TYPE X OR C WHERE BOARD OCCURS IN HUMID AREAS OR EXTERIOR AREAS, SUCH AS RESTROOMS, SHOWER ROOMS, JANITOR'S CLOSETS, LOADING DOCKS, ETC.

SEE INTERIOR CONDITIONS NEW COLOR SCHEDULE ON THIS SHEET FOR MORE FINISH INFORMATION.

REVISIONS			
SYM.		DATE	APPROVED



EXISTING ELEVATION 1 / A1|A4

1/4" = 1'-0"

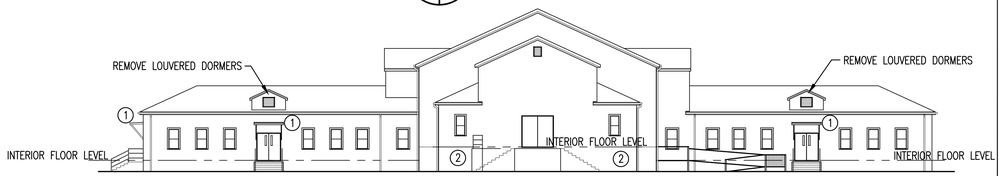


NUMBERED NOTES ON EXISTING ELEVATIONS:

1. REMOVE WOOD AWNING.
2. CLEAN AND PREPARE CONCRETE FOUNDATION WALL FOR PAINTING

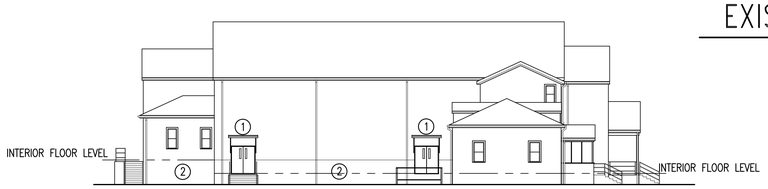
EXISTING ELEVATION 2 / A1|A4

1/4" = 1'-0"



EXISTING ELEVATION 3 / A1|A4

1/4" = 1'-0"



EXISTING ELEVATION 4 / A1|A4

1/4" = 1'-0"

NEW CONDITIONS INTERIOR COLOR SCHEDULE BLDG M101

UNLESS NOTED AS "NO CHANGE" PROVIDE NEW FINISH OR FINISH WORK AS SCHEDULED.

COLORS INDICATED IN THIS SCHEDULE ARE BASED ON BASE "COOL PALETTE". EQUAL MANUFACTURERS TO THOSE SCHEDULED ARE ACCEPTABLE.

FLOOR

LVT – LUXURY VINYL TILE
ARMSTRONG, PARALLEL, OYSTER, 20 MIL: J6210 18" X 18" TILE

PAINTED PLYWOOD
SHERWIN WILLIAMS, EPOXY, SW7664, STEELY GRAY

CARPET
TANDUS CENTIVA, AFTERMATH II 03026, CHAMBRAY 23511

WOOD PLATFORM FLOOR AND TREADS (REFINISH)
NATURAL CLEAR FINISH

BASE

4" COVED RUBBER
JOHNSONITE, TA4 GATEWAY

WOOD PLATFORM BASE (NEW)
WOOD SAME AS PLATFORM FLOOR, NATURAL CLEAR FINISH

WALLS

PAINT GYPSUM BOARD WALLS
WALL – S–W, REPOSE GRAY (SW 7015)
WOOD TRIM – S–W, ICE CUBE (SW 6252) (SEMI GLOSS)

WINDOW TREATMENTS
AWARD BLINDS – SIGNATURE BLACKOUT VINYLE ROLLER SHADES – PEWTER. CURVED FASCIA – ALUMINUM

CEILING

GYP BOARD (PAINT)
S–W, PEARLY WHITE (7009) (EGGSHELL)

ACOUSTICAL LAY–IN
ARMSTRONG, CORTEGA, MEDIUM TEXTURE

TOILET PARTITIONS
GLOBAL PARTITIONS, FOLKSTONE GREY 9400

WOOD DOORS
CLEAR FINISH

STEEL DOORS & FRAMES

INTERIOR, AND INTERIOR PORTION OF EXTERIOR, DOORS AND FRAMES
FRAMES/TRIM – S–W, ICE CUBE (SW 6252) (SEMI GLOSS)

CASEWORK LAMINATE

MALE AND FEMALE HEAD
TOP – DUPONT, CORIAN, SERENE SAGE
BODY – WILSONART, DOVE GREY, D92–60 MATTE FINISH

EXTERIOR COLOR SELECTIONS BY BASE ARCHITECT.

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

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 SHELBY, N.C. NORTH CAROLINA

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 SHELBY, N.C. NORTH CAROLINA

06/28/2019

SHEET TITLE:
FINISH SCHEDULES & EXIST. ELEVATIONS

A–4

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025109
CONST. CONTR. NO. N40085–19–B–0034
SCALE: NOTED | SPEC. 05–19–0034 | SHEET 11 OF 57

REVISIONS			
SYM.		DATE	APPROVED



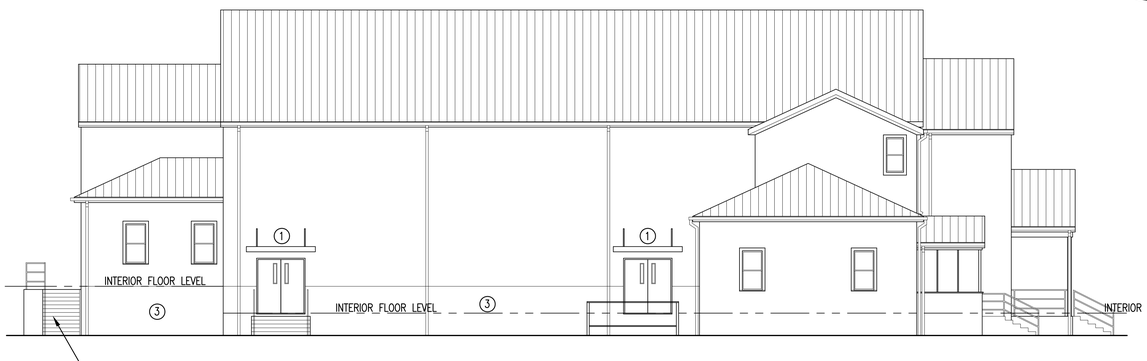
RENOVATED ELEVATION 1
1/8" = 1'-0"

GENERAL NOTES ON THIS SHEET:

1. REMOVE WINDOWS FROM BUILDING AND PROVIDE NEW – SEE WINDOW DETAILS ON SHEET A12
2. REMOVE EXTERIOR DOORS AND FRAMES FROM BUILDING AND PROVIDE NEW – SEE DOOR SCHEDULES SHEET A3.
3. REMOVE ALL VINYL SIDING AND RIGID INSULATION BACKER FROM THE BUILDING AND PROVIDE NEW – SEE DETAILS ON SHEET A10 AND A11.
4. REMOVE SHINGLES AND UNDERLAYMENT (DOWN TO WOOD ROOF DECK) AND PROVIDE METAL ROOF SYSTEM – SEE DETAILS ON SHEET A10 AND A11.
5. REMOVE WALL LOUVERS – INFILL WITH TYPICAL EXTERIOR WALL SYSTEM – SEE MECHANICAL DRAWINGS FOR LOCATIONS OF NEW HVAC LOUVERS.
6. PAINT ALL EXISTING EXTERIOR PAINTED MATERIALS THAT REMAIN. PAINT NEW MATERIALS THAT ARE NOT PRE-FINISHED BY MANUFACTURER.

NUMBERED NOTES ON THIS SHEET:

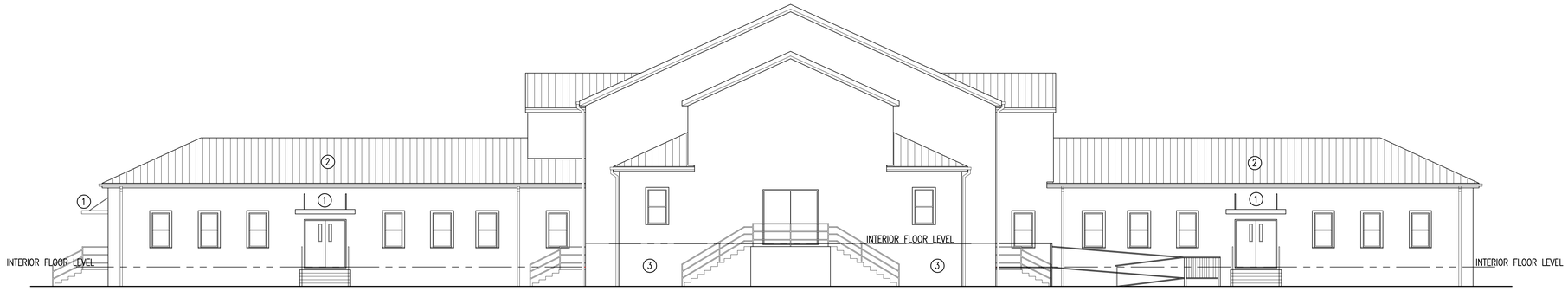
(1) PROVIDE ALUMINUM AWNING.
(2) PROVIDE ROOF DECK INFILL WHERE LOUVERED DORMERS WERE REMOVED
(3) PAINT CONCRETE FOUNDATION WALL, COLOR TO MATCH UPPER WALL



RENOVATED ELEVATION 4
1/8" = 1'-0"



RENOVATED ELEVATION 2
1/8" = 1'-0"



RENOVATED ELEVATION 3
1/8" = 1'-0"

1/16" = 1'-0"
0 10 20 30 FEET

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH, III REGISTERED ARCHITECT NORTH CAROLINA 8102 SHELBY, N.C.
06/28/2019

SHEET TITLE: RENOVATED ELEVATIONS — A-5

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

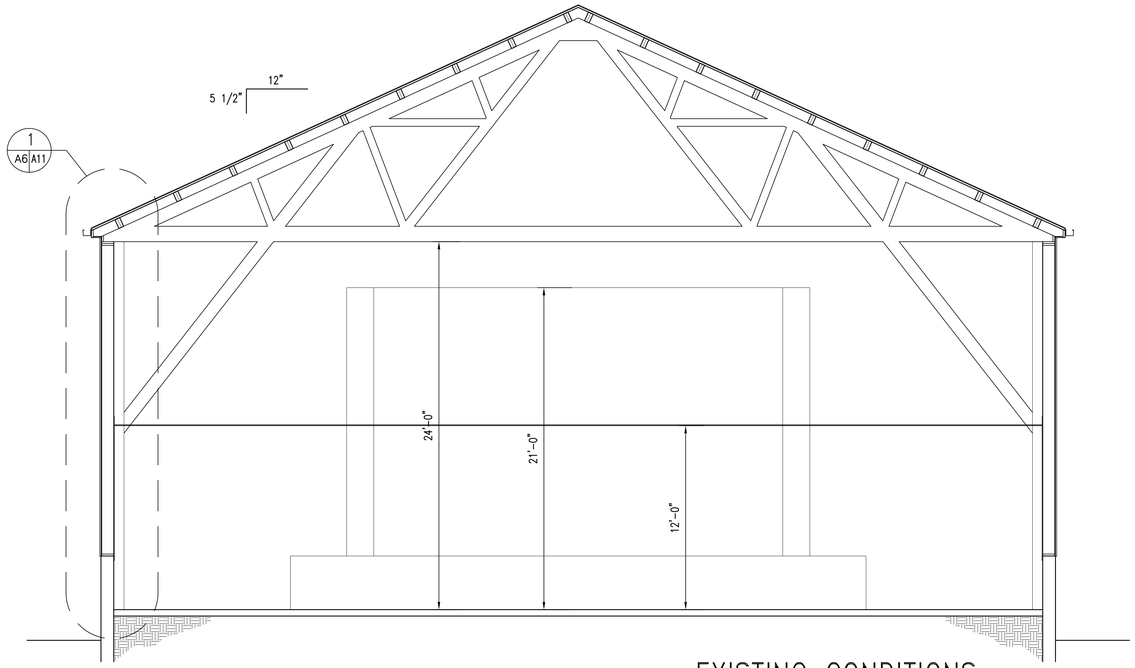
DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

APPROVED: DATE
SATISFACTORY TO: DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025110
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 12 OF 57

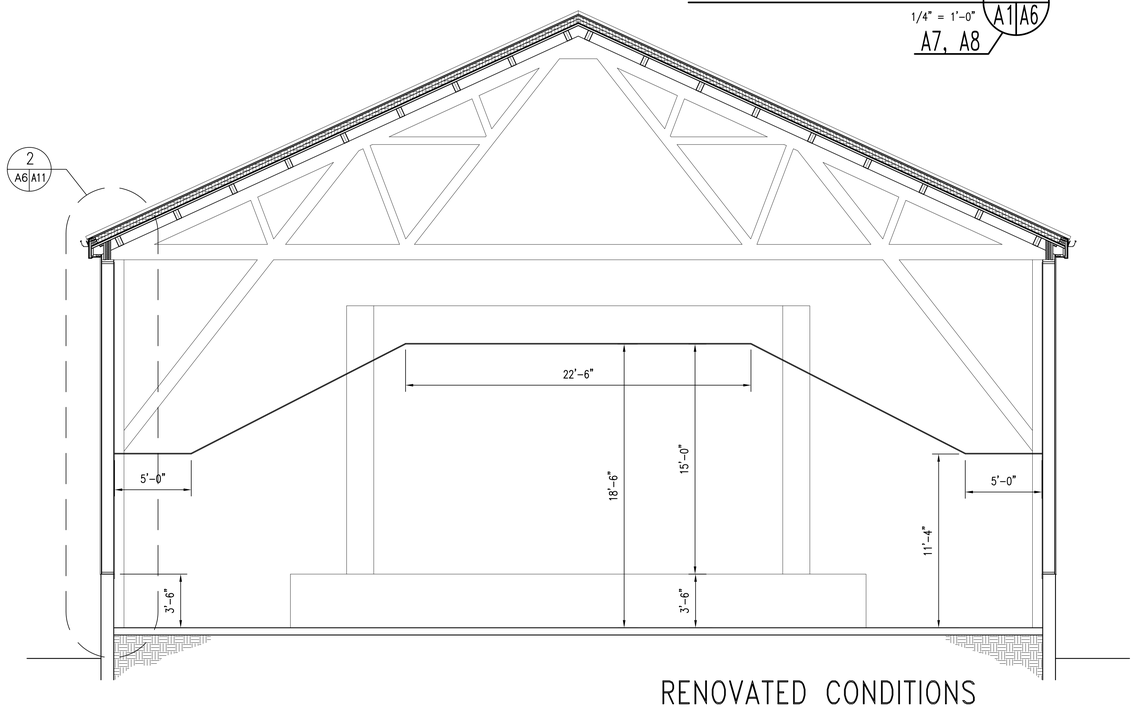
REVISIONS			
SYM.		DATE	APPROVED



EXISTING CONDITIONS
BUILDING SECTION 3 A1 A6

1/4" = 1'-0"

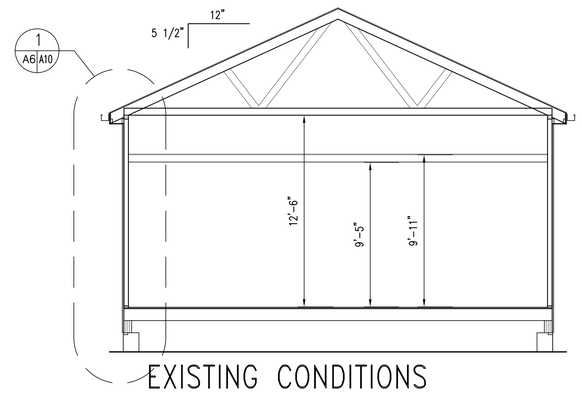
A7, A8



RENOVATED CONDITIONS
BUILDING SECTION 4 A2 A6

1/4" = 1'-0"

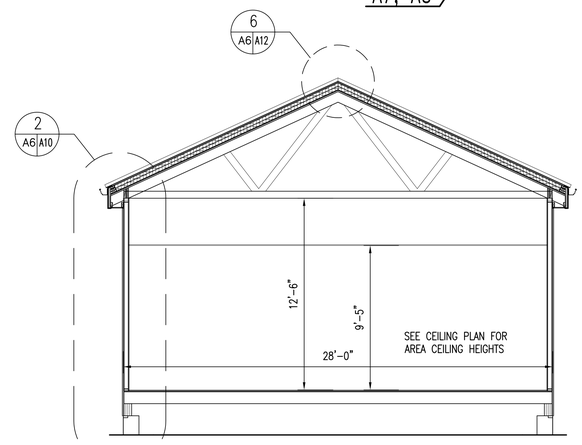
A7, A8



EXISTING CONDITIONS
BUILDING SECTION 1 A1 A6

1/4" = 1'-0"

A7, A8



RENOVATED CONDITIONS
BUILDING SECTION 2 A2 A6

1/4" = 1'-0"

A7, A8

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

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

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA SHELBY, N.C. CERT. NO. 50153

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: BUILDING SECTIONS

A-6

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

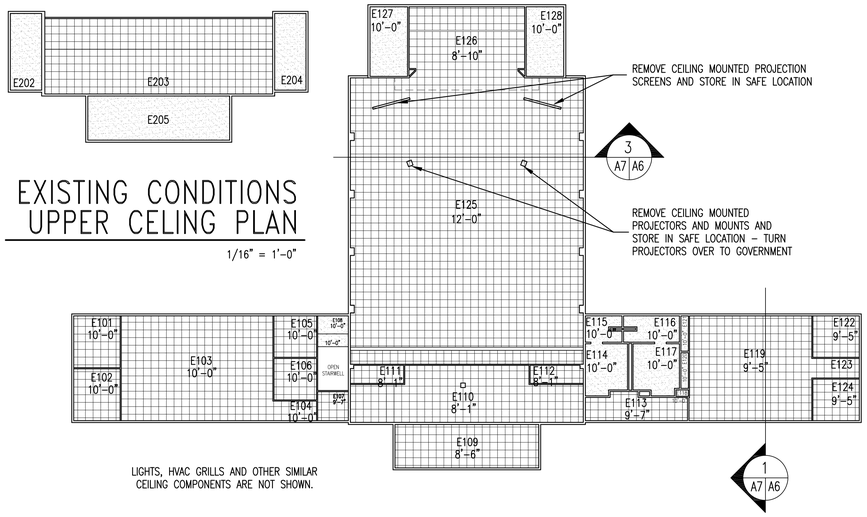
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	Robert L. Smith, III
DR.	Steven C. Fender
CHK.	Robert L. Smith, III
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	DATE
SATISFACTORY TO:	DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025111
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 13 OF 57

REVISIONS			
SYM.		DATE	APPROVED



LIGHTS, HVAC GRILLS AND OTHER SIMILAR CEILING COMPONENTS ARE NOT SHOWN.

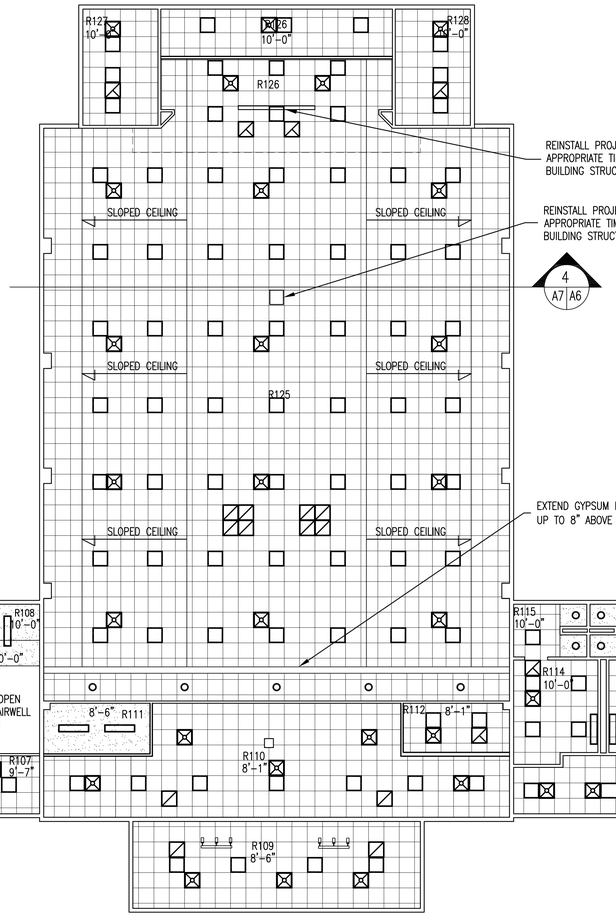
EXISTING CONDITIONS UPPER CELING PLAN

1/16" = 1'-0"

EXISTING CONDITIONS CEILING PLAN

1/16" = 1'-0"

1 / A7 | A7



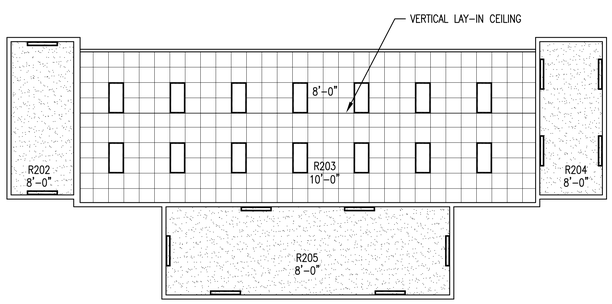
AREA NUMBERS NOT USED

R102
R103
R104
R105
R106

RENOVATED CONDITIONS CEILING PLAN

1/8" = 1'-0"

2 / A7 | A7



RENOVATED CONDITIONS UPPER CELING PLAN

1/8" = 1'-0"

EXISTING CONDITIONS CEILING PLAN LEGEND

- 2' x 2" LAY-IN TILE CEILING GRID
- GYPSUM BOARD
- OPEN TO STRUCTURE
- LIGHT FIXTURES SEE ELECT. DWGS.
- HVAC AND EXHAUST GRILLES SEE MECH. DRAWINGS

CEILING PLAN LEGEND

THE CEILING PLANS ARE INTENDED TO SHOW MAJOR CEILING COMPONENTS FOR COORDINATION OF ALL TRADES. NOT ALL CEILING COMPONENTS ARE SHOWN NOR DO ALL THE COMPONENTS SHOWN ON THE LEGEND NECESSARILY OCCUR ON THIS PROJECT. SEE ALL DRAWINGS FOR COMPONENTS THAT OCCUR ON THE CEILINGS.

N

1/8" = 1'-0"
0 10 20 FEET

GENERAL NOTES CONCERNING THIS SHEET:

1. REMOVE EXISTING LAY-IN AND GYPSUM BOARD CEILINGS COMPLETE. AND PROVIDE NEW AS INDICATED.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH, III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: CEILING PLANS

A-7

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

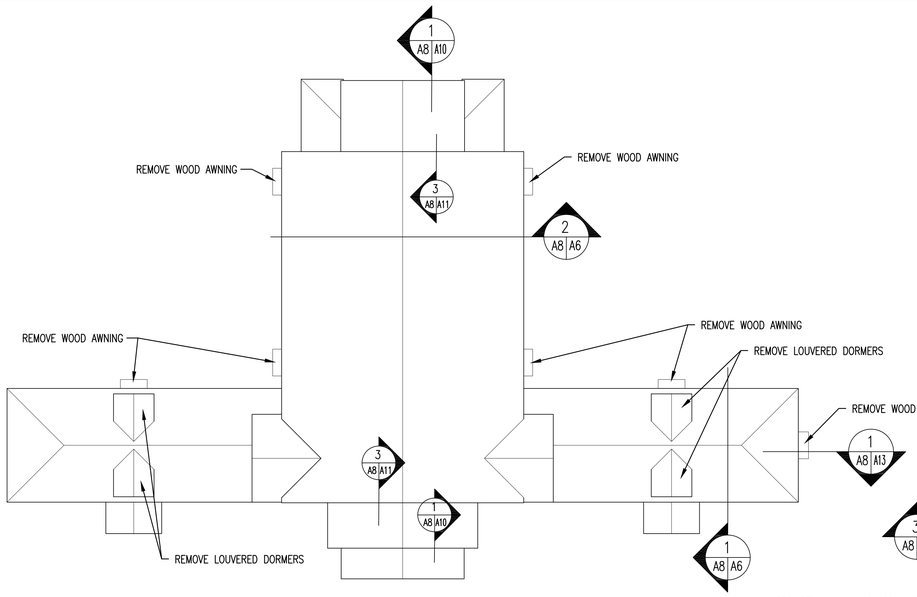
DEPARTMENT OF THE NAVY
NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

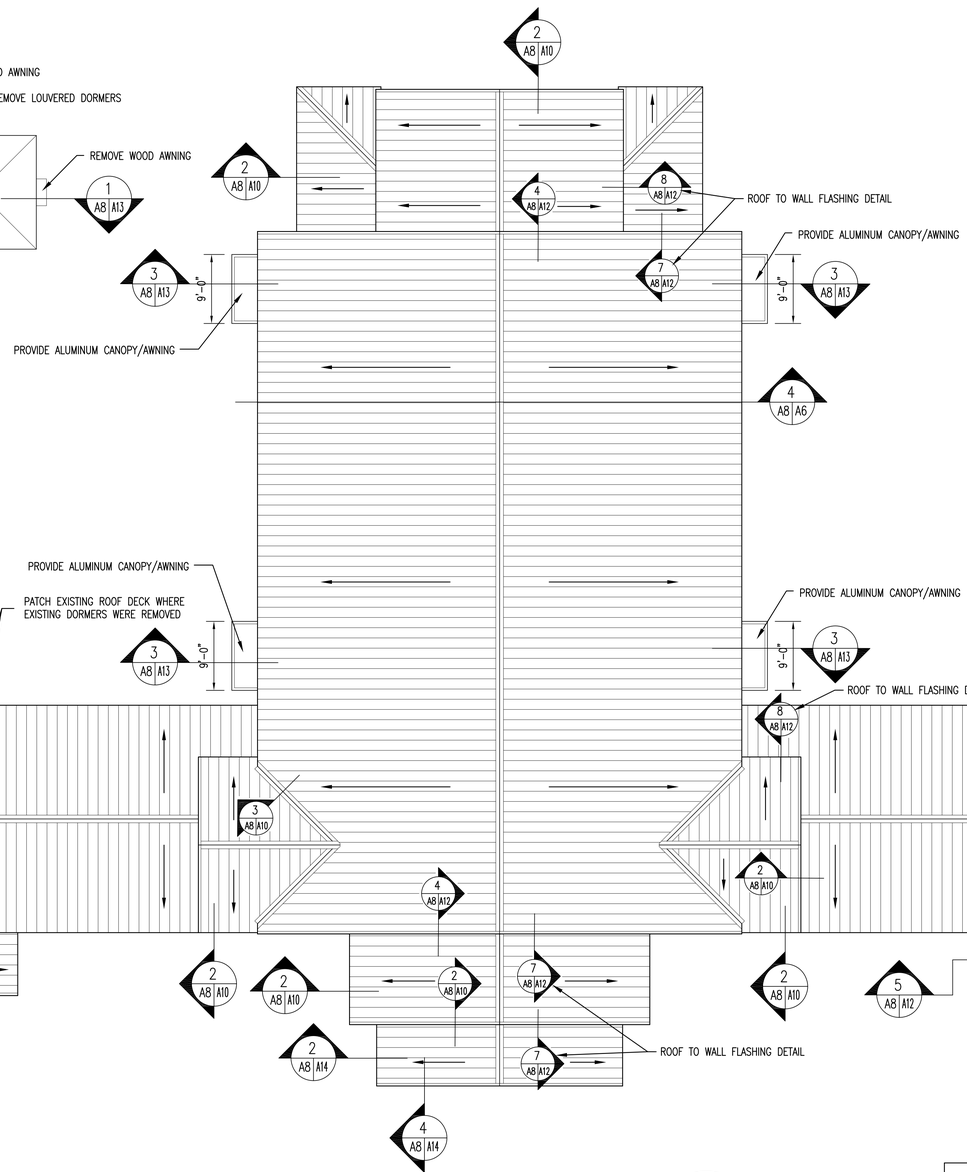
SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025112
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 14 OF 57

REVISIONS			
SYM.		DATE	APPROVED



EXISTING CONDITIONS ROOF PLAN

1/16" = 1'-0"



RENOVATED CONDITIONS ROOF PLAN

1/8" = 1'-0"

GENERAL NOTES ON THIS SHEET:

1. REMOVE EXISTING SHINGLES AND ROOF UNDERLAYMENT.
4. CONTRACTOR SHALL INCLUDE TO REPLACE 1000 S.F. OF EXISTING DETERIORATED ROOF DECK.
5. PROVIDE NEW STANDING SEAM METAL ROOF SYSTEM AND INSULATION OVER NEW PLYWOOD DECKING. SEE SECTION 2/A8/A10.
6. ROOF IS 5 1/2 IN 12 PITCH UNLESS INDICATED OTHERWISE.

N

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 NORTH CAROLINA SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: ROOF PLANS — A-8

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

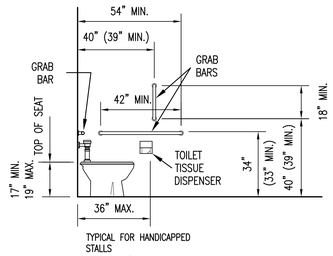
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

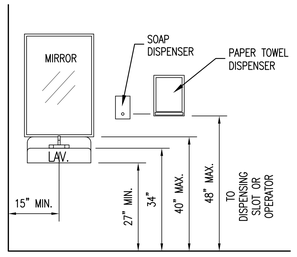
RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025113
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 15 OF 57

REVISIONS			
SYM.		DATE	APPROVED



H/C TOILET DETAIL

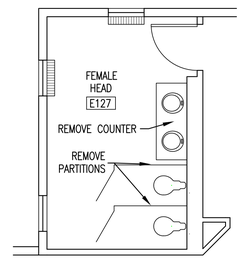


VERIFY LOCATION OF ITEMS ON PLAN

TOILET ACCESSORY MOUNTING HEIGHTS

NOT TO SCALE

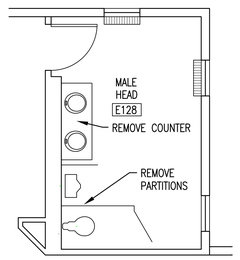
DETAIL @ H/C LAVATORY



NOTE: REMOVE EXISTING PLUMBING FIXTURES AND PROVIDE NEW – SEE PLUMBING DRAWINGS.

EXISTING FEMALE HEAD 3 A1 A9

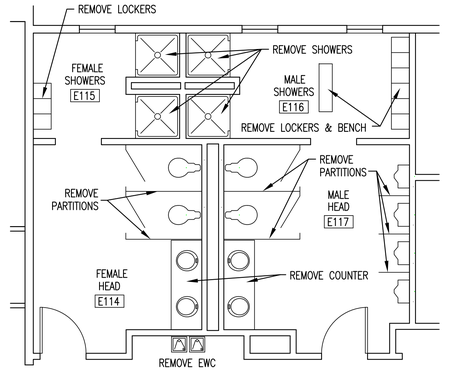
1/4" = 1'-0"



NOTE: REMOVE EXISTING PLUMBING FIXTURES AND PROVIDE NEW – SEE PLUMBING DRAWINGS.

EXISTING MALE HEAD 2 A1 A9

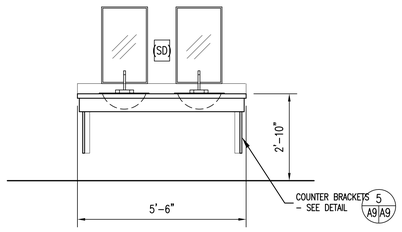
1/4" = 1'-0"



NOTE: REMOVE EXISTING PLUMBING FIXTURES AND PROVIDE NEW – SEE PLUMBING DRAWINGS.

EXISTING HEAD PLAN 1 A1 A9

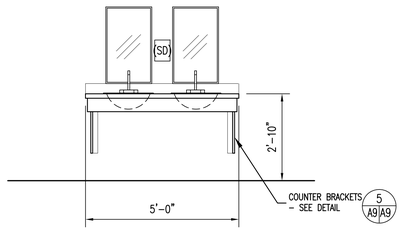
1/4" = 1'-0"



ELEVATION 7 A9 A9

1/2" = 1'-0"

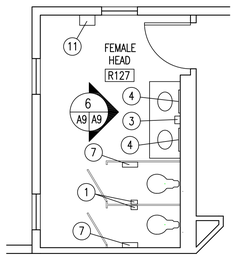
CASEWORK FROM AREA R109 SHOWN ABOVE, CASEWORK IN AREA R107 SIMILAR – SEE PLAN 2/A2/A9 FOR LENGTH



ELEVATION 6 A9 A9

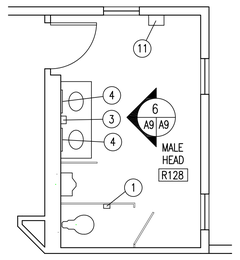
1/2" = 1'-0"

CASEWORK FROM AREA R109 SHOWN ABOVE, CASEWORK IN AREA R107 SIMILAR – SEE PLAN 2/A2/A9 FOR LENGTH



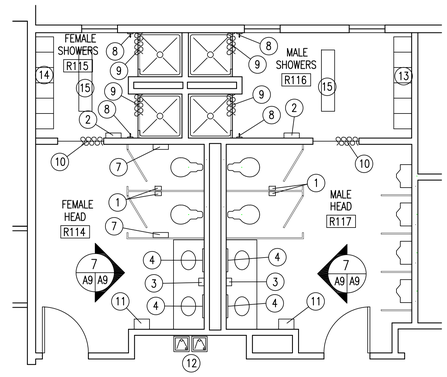
RENOVATED FEMALE HEAD 3 A2 A9

1/4" = 1'-0"



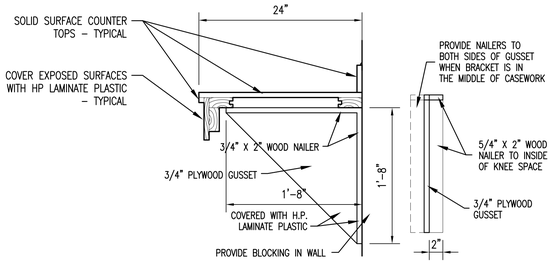
RENOVATED MALE HEAD 2 A2 A9

1/4" = 1'-0"



RENOVATED HEAD PLAN 1 A2 A9

1/4" = 1'-0"



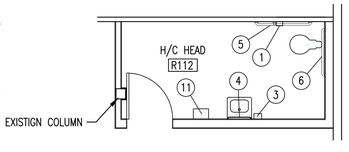
WOOD BRACKET DETAIL 5 A9 A9

NOT TO SCALE

TOILET ACCESSORIES:

(1) TOILET PAPER DISPENSER	(5) 42" & 18" GRAB BARS	(9) SHOWER CURTAIN AND ROD	(13) DOUBLE TIER FLOOR MOUNTED LOCKERS (DTW-2)
(2) PAPER TOWEL DISPENSER	(6) 36" GRAB BAR	(10) PRIVACY CURTAIN AND CEILING TRACK	(14) SINGLE TIER FLOOR MOUNTED LOCKERS (STW-2)
(3) SOAP DISPENSER	(7) SANITARY NAPKIN DISPOSER	(11) ELECTRIC HAND DRYER	(15) 4' LONG RECYCLED PLASTIC BENCHES (MOVEABLE)
(4) 24" x 36" MIRROR	(8) TOWEL HOOK	(12) HI/LOW EWC WITH BOTTLE FILLER	

TOILET ACCESSORIES SHOWN ON DRAWINGS ARE TO INDICATE LOCATIONS AND ITEMS REQUIRED. SIZES OF TOILET ACCESSORIES SHOWN MAY OR MAY NOT MATCH ITEMS SPECIFIED TO BE PROVIDED.



H/C ACCESSIBLE HEAD PLAN 4 A2 A9

1/4" = 1'-0"

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

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION SHELBY, N.C. NORTH CAROLINA CERT. NO. 50153

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: ENLARGED TOILET PLANS — A-9

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	Robert L. Smith, III
DR.	Steven C. Fender
CHK.	Robert L. Smith, III
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	DATE
SATISFACTORY TO:	DATE

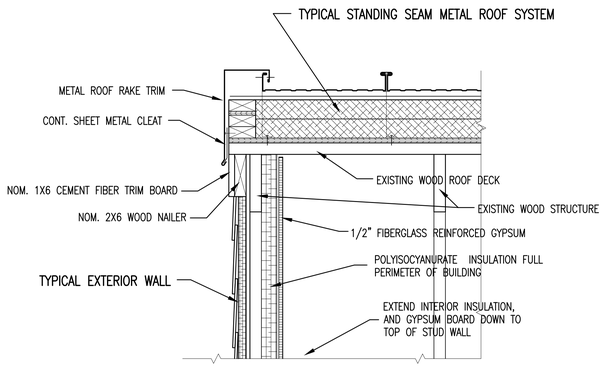
RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025114

CONST. CONTR. NO. N40085-19-B-0034

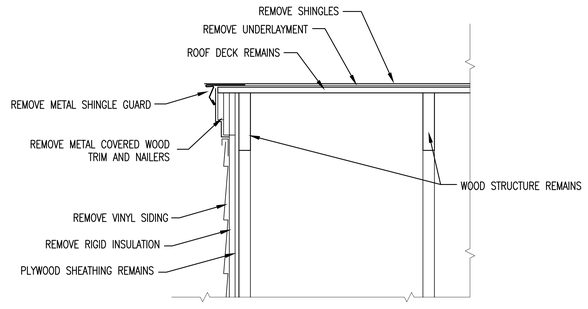
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 16 OF 57

REVISIONS			
SYM.		DATE	APPROVED



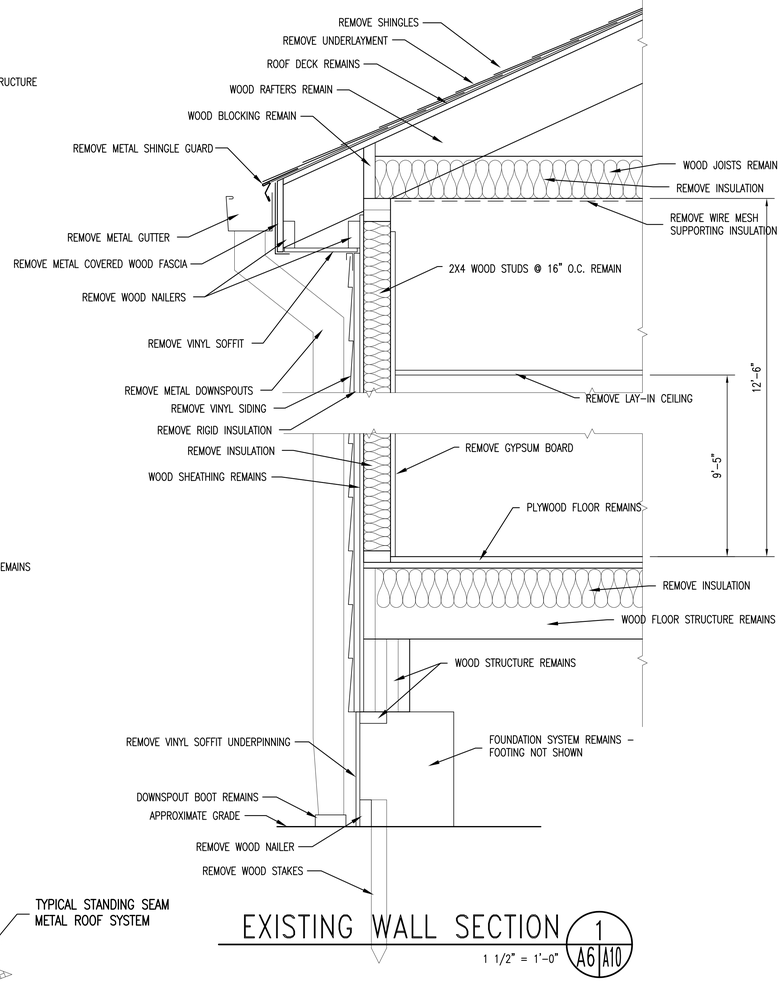
RENOVATED RAKE SECTION 2 / A8 | A10

1 1/2" = 1'-0"



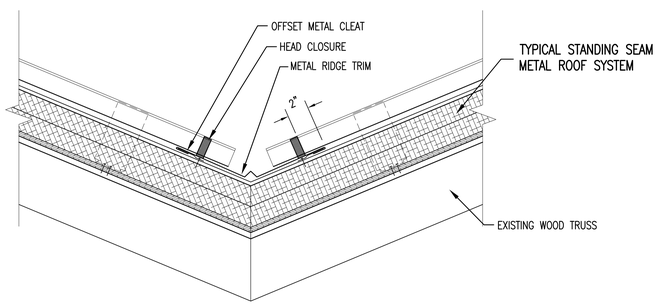
EXISTING RAKE SECTION 1 / A8 | A10

1 1/2" = 1'-0"



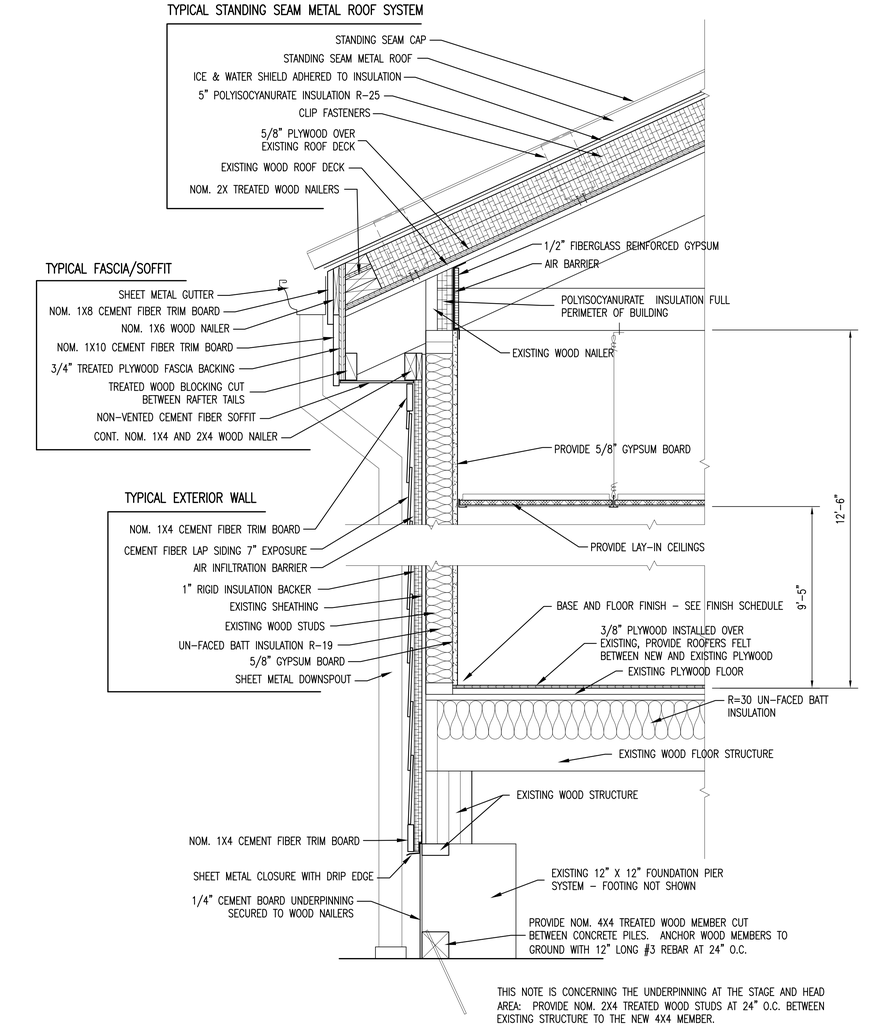
EXISTING WALL SECTION 1 / A6 | A10

1 1/2" = 1'-0"



RENOVATED VALLEY DETAIL SECTION 3 / A8 | A10

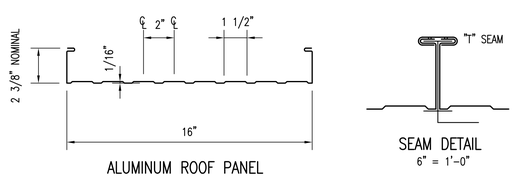
1 1/2" = 1'-0"



RENOVATED WALL SECTION 2 / A6 | A10

1 1/2" = 1'-0"

A8



STANDING SEAM METAL ROOF SYSTEM AND ROOF COMPONENT CONFIGURATIONS 4 / A10 | A10

3" = 1'-0"

3" = 1'-0" INCHES (0, 3, 6, 12)

1 1/2" = 1'-0" FEET (0, 1, 2)

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DETAIL SECTIONS

A-10

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

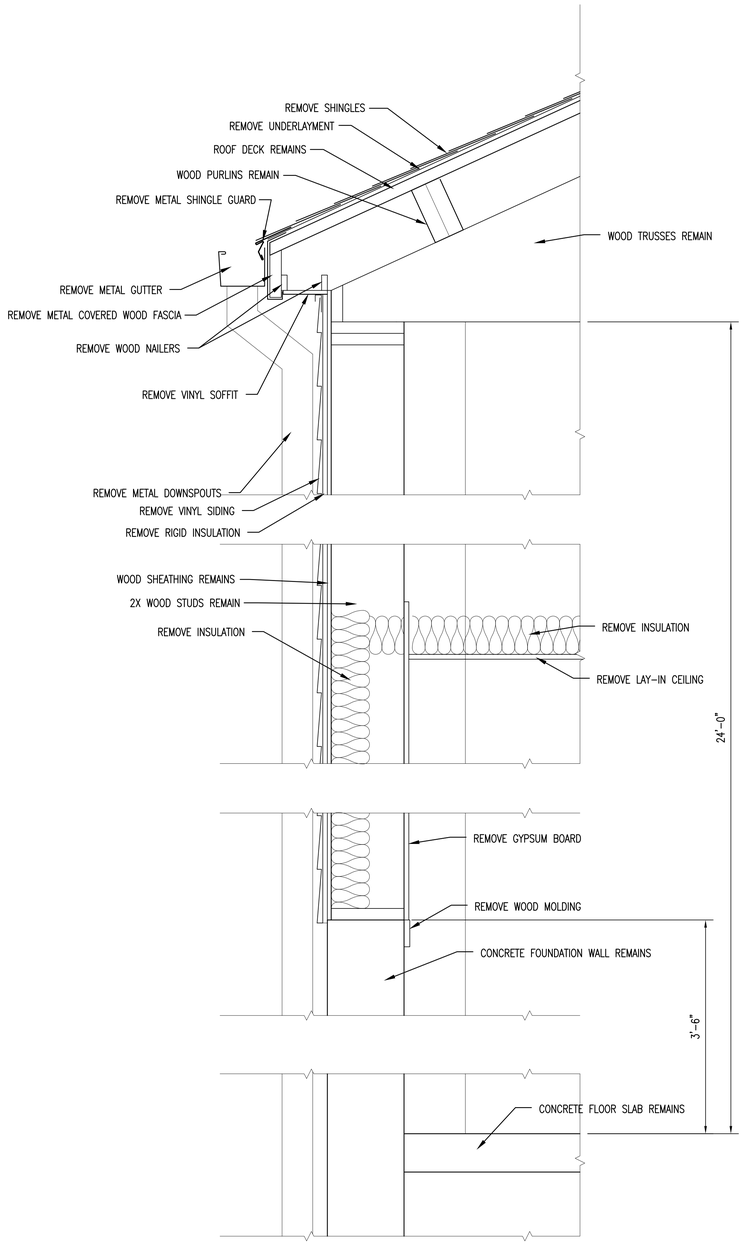
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

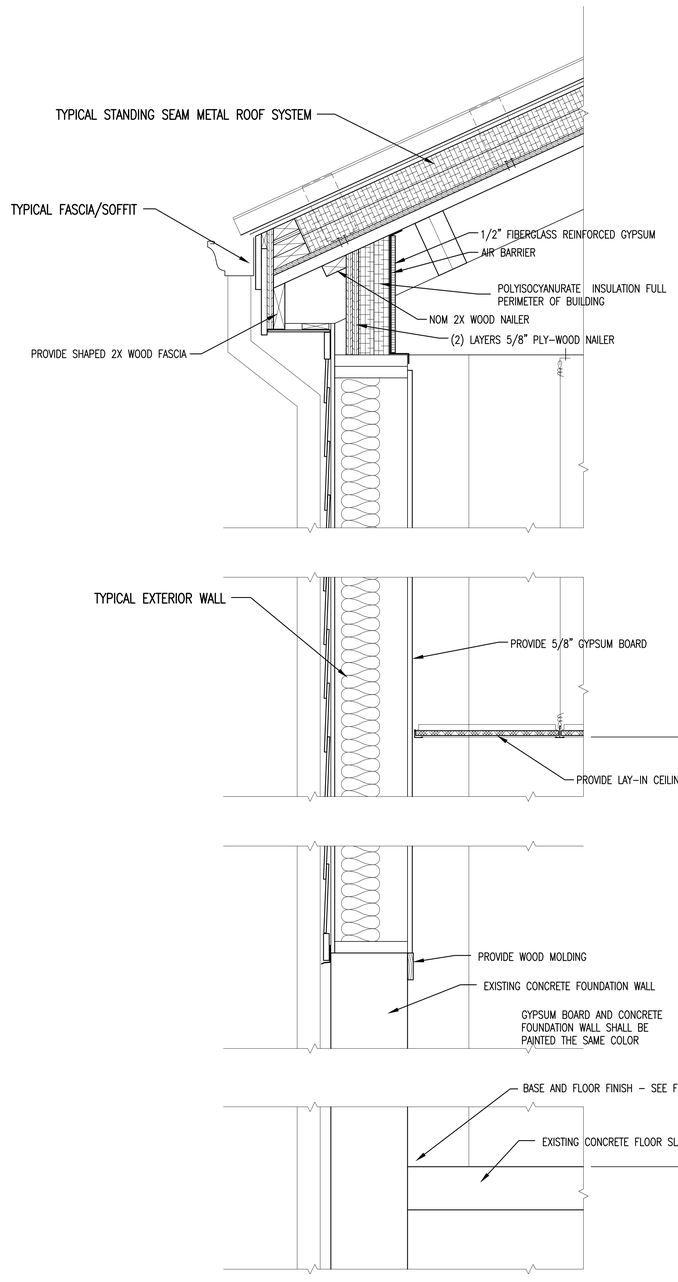
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
E1	80091	60025115
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 17 OF 57

REVISIONS			
SYM.		DATE	APPROVED



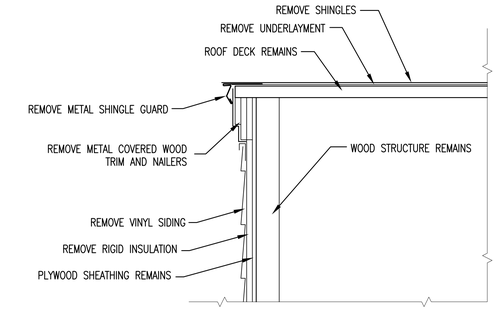
EXISTING WALL SECTION 1 (A6|A11)

1 1/2" = 1'-0"



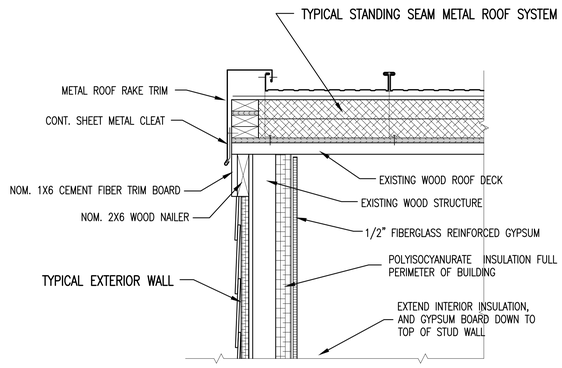
RENOVATED WALL SECTION 2 (A6|A11)

1 1/2" = 1'-0"



EXISTING RAKE SECTION 3 (A8|A11)

1 1/2" = 1'-0"



RENOVATED RAKE SECTION 4 (A8|A11)

1 1/2" = 1'-0"

3" = 1'-0" — 0, 3, 6, 12 INCHES

1 1/2" = 1'-0" — 0, 1, 2 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 NORTH CAROLINA SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DETAIL SECTIONS — A-11

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	Robert L. Smith, III
DR.	Steven C. Fender
CHK.	Robert L. Smith, III
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	DATE
SATISFACTORY TO:	DATE

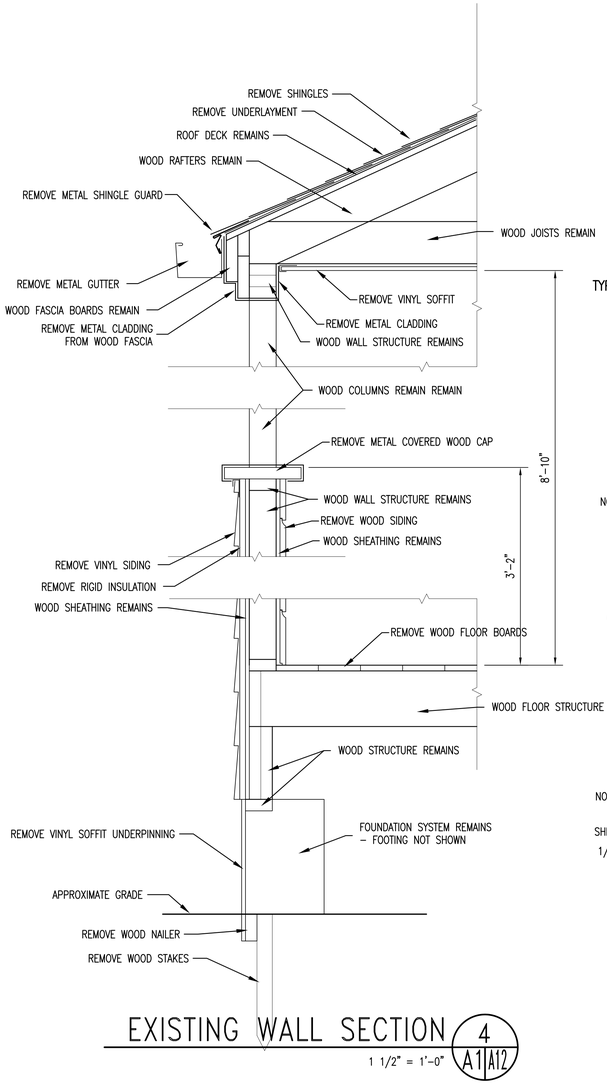
RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
E1	80091	60025116

CONST. CONTR. NO. N40085-19-B-0034

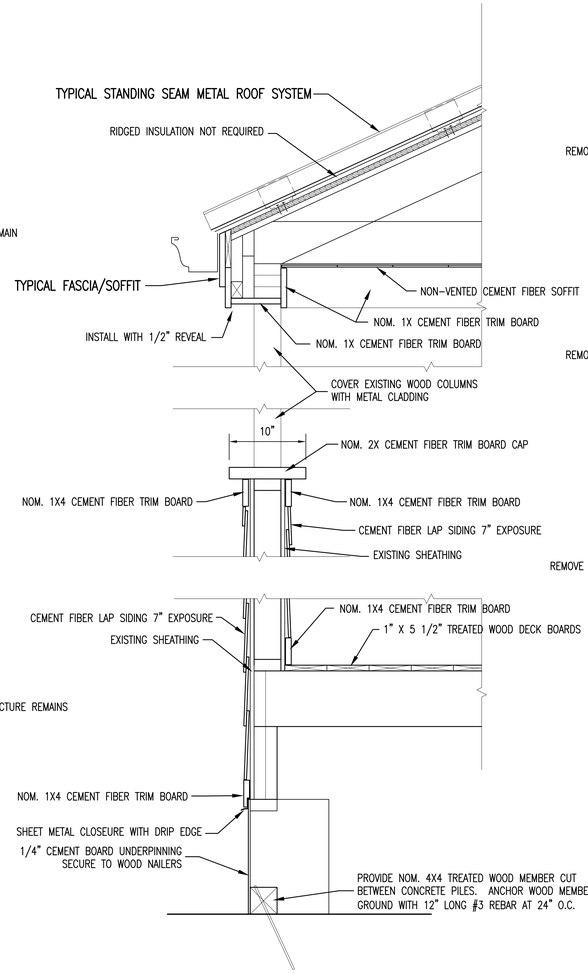
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 18 OF 57

REVISIONS			
SYM.		DATE	APPROVED



EXISTING WALL SECTION 4

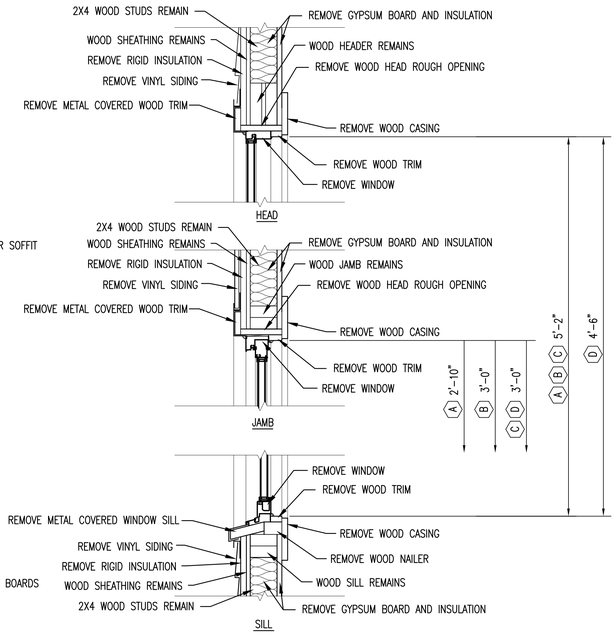
1 1/2" = 1'-0" — A1 | A12



RENOVATED WALL SECTION 5

1 1/2" = 1'-0" — A2 | A12

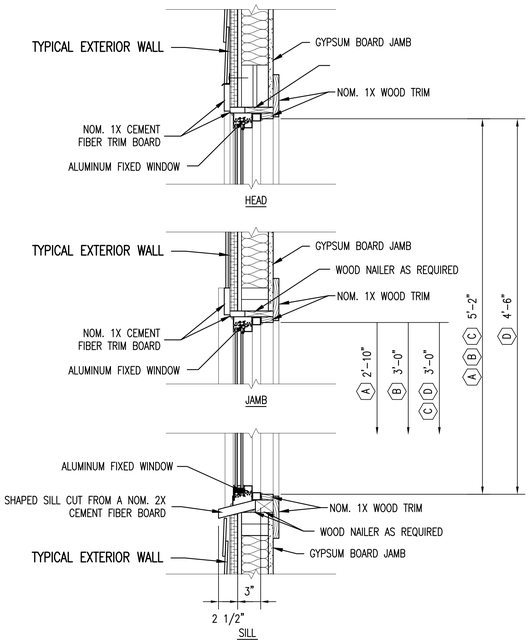
A8



NOTES SAME AS DETAIL 1/A5/A8 UNLESS INDICATED OTHERWISE

EXISTING WINDOW DETAIL 1

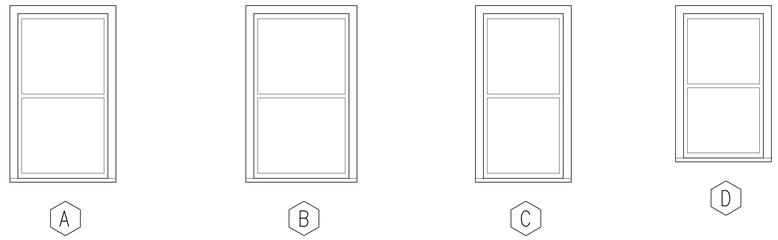
FILED VERIFY EXISTING OPENINGS — 1 1/2" = 1'-0" — A1 | A12



NOTES SAME AS DETAIL 2/A5/A8 UNLESS INDICATED OTHERWISE

RENOVATED WINDOW DETAIL 2

SEE RENOVATED WINDOW ELEVATIONS 3/A9/A9 — 1 1/2" = 1'-0" — A2 | A12

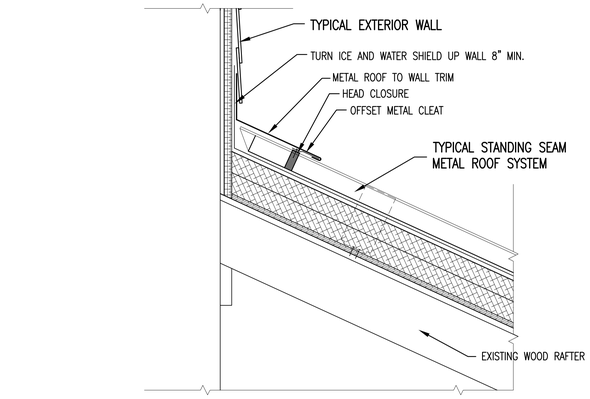


FIXED ALUMINUM FRAME WINDOWS
FRAME CONFIGURATION SHALL BE SIMILAR IN APPEARANCE TO DDOUBLE HUNG WINDOWS
FIELD VERIFY EXISTING WINDOW ROUGH OPENINGS

RENOVATED WINDOW ELEVATIONS 3

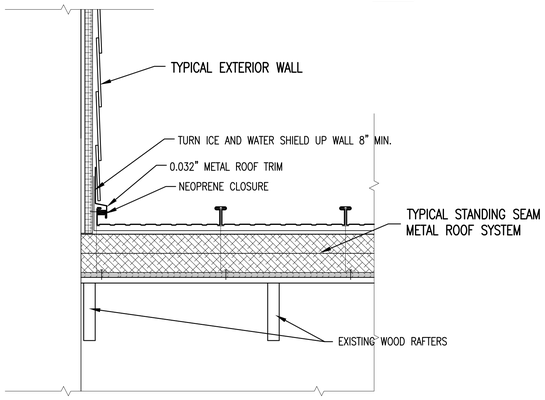
PROVIDE BLAST RESISTANT DOUBLE PANE INSULATED GLAZING.
PROVIDE OBSCURE GLASS IN WINDOWS AT TOILET AND SHOWER ROOMS.

1/2" = 1'-0" — A12 | A13



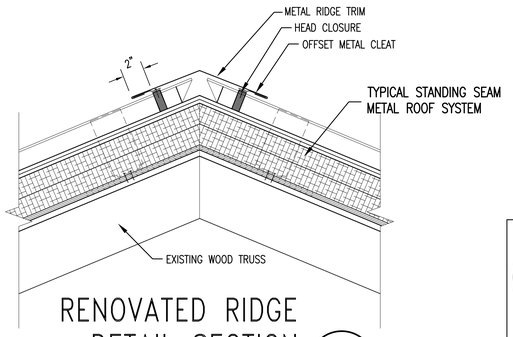
RENOVATED WALL SECTION 8

ROOF TO WALL DETAIL — 1 1/2" = 1'-0" — A8 | A12



RENOVATED WALL SECTION 7

ROOF TO WALL DETAIL — 1 1/2" = 1'-0" — A8 | A12



RENOVATED RIDGE DETAIL SECTION 6

1 1/2" = 1'-0" — A6 | A12

1/4" = 1'-0" (0, 5, 10 FEET) — 1 1/2" = 1'-0" (0, 1, 2 FEET)

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DETAIL SECTIONS — A-12

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

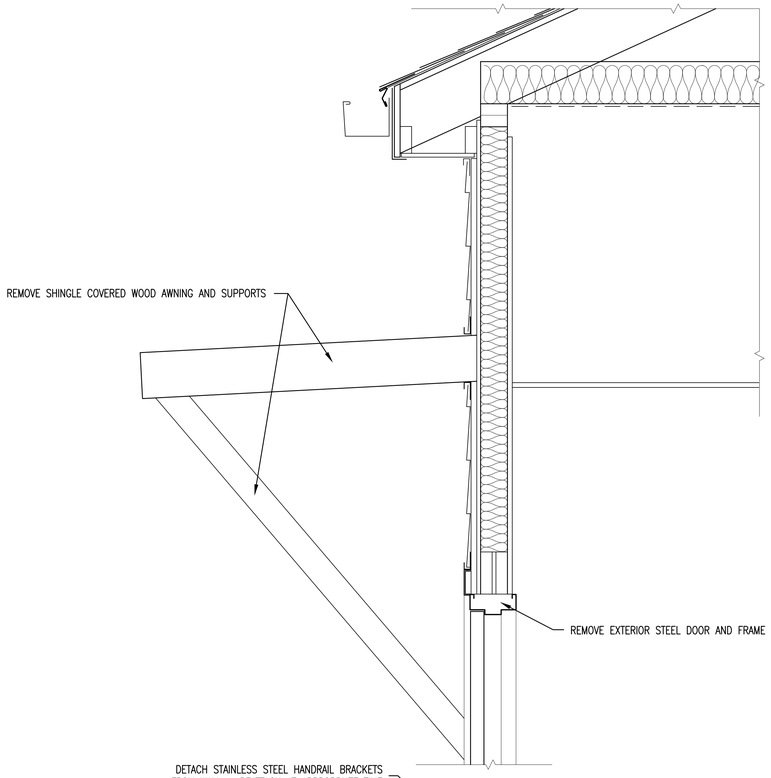
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE E1 | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025117
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 19 OF 57

REVISIONS			
SYM.		DATE	APPROVED

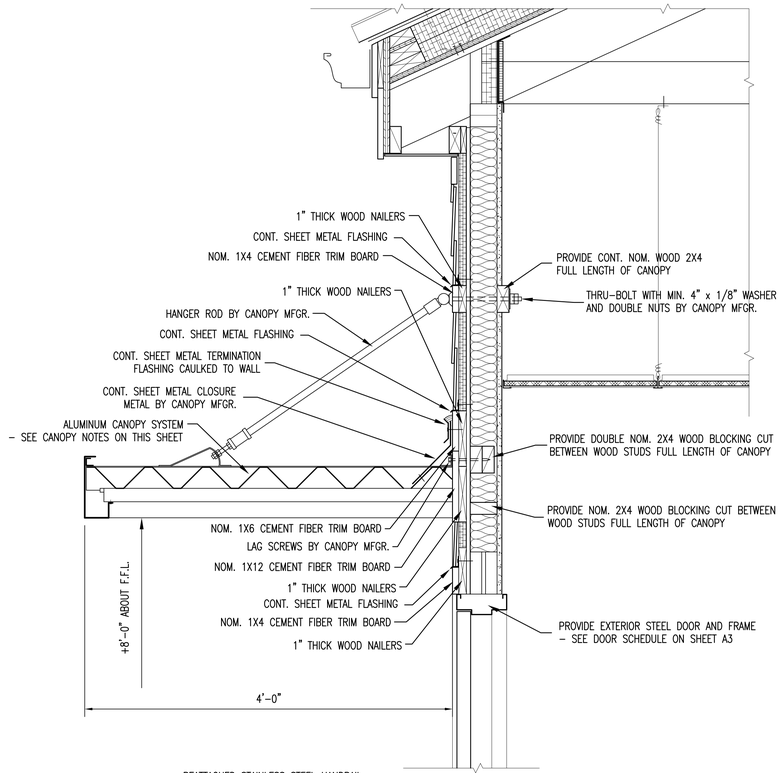


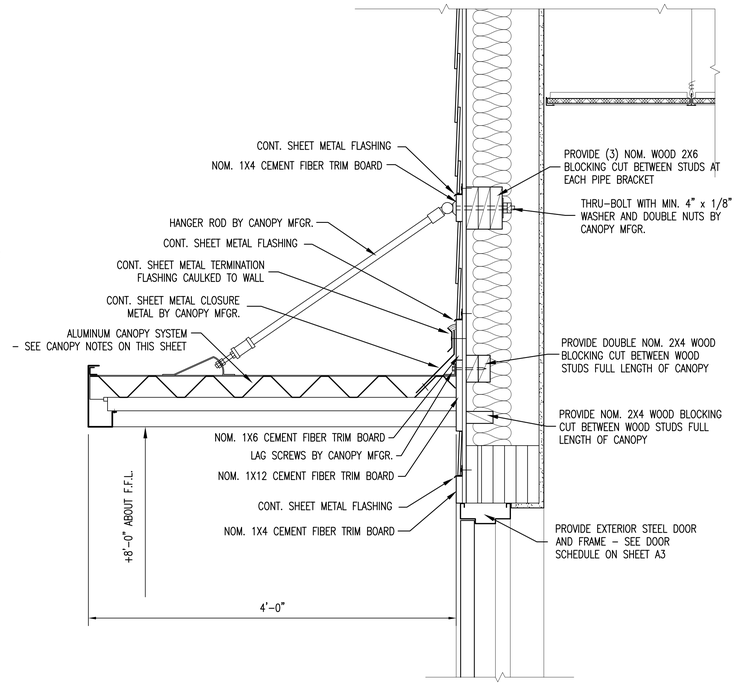
NOTES SAME AS DETAIL 1/A6/A10 UNLESS INDICATED OTHERWISE

EXISTING WALL SECTION

1 1/2" = 1'–0"

1 A1|A13 → A8





NOTES SAME AS DETAIL 2/A6/A10 UNLESS INDICATED OTHERWISE

CANOPY SECTION DETAIL

1 1/2" = 1'–0"

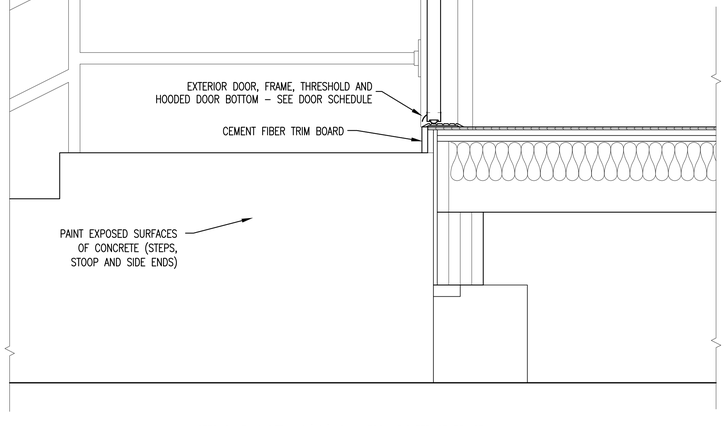
3 A2|A13 → A8

ALUMINUM HANGER ROD CANOPY NOTES:

GENERAL: BASIS OF DESIGN IS THE "MAPES LUMISHADE" HANGER ROD CANOPIES. EQUAL CANOPIES BY OTHER REPUTABLE MANUFACTURERS ARE ACCEPTABLE. MANUFACTURER SHALL DESIGN CANOPY IN ACCORDANCE WITH CURRENT BUILDING CODE AND WIND LOADS. DESIGN FOR MINIMUM LIVE LOAD OF 25 PSF. SHOP DRAWINGS SHALL BE SIGNED, SEALED AND DATED BY A NC REGISTERED ENGINEER.

PRODUCT: PROVIDE 0.032" ROLL FORMED ALUMINUM DECKING AND STYLE "J" EXTRUDED ALUMINUM FASCIA. INCLUDE ADJUSTABLE HANGER RODS, ANCHORS, FASTENERS, TRIMS, CLOSURES, AND INCIDENTALS REQUIRED FOR A COMPLETE, WATERTIGHT INSTALLATION. FINISH ON EXPOSED PORTIONS OF CANOPY SHALL BE BAKED ON ENAMEL. COLOR TO BE SELECTED FROM MANUFACTURER'S STANDARD SELECTION, STANDARD SELECTIONS MUST INCLUDE SAME COLORS AS PROVIDED FOR STANDING SEAM ALUMINUM ROOF SYSTEM.

INSTALLATION: INSTAL IN ACCORDANCE WITH APPROVED SHOP DRAWINGS. INSTALL AL MEMBERS STRAIGHT AND TRUE. INSURE LEVEL, PROPER ALIGNMENT OF CANOPY. AFTER ALL WORK IS INSTALLED, GO OVER ENTIRE INSTALLATION AND TOUCH UP NICKS, SCRATCHES, RAW EDGES, ETC. OF METAL.



NOTES SAME AS DETAIL 2/A6/A10 UNLESS INDICATED OTHERWISE

RENOVATED WALL SECTION

1 1/2" = 1'–0"

2 A2|A13 → A8

1/4" = 1'–0" FEET 0 5 10

1 1/2" = 1'–0" FEET 0 1 2

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 NORTH CAROLINA SHELBY, N.C.

ROBERT L. SMITH, III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DETAIL SECTIONS

A–13

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

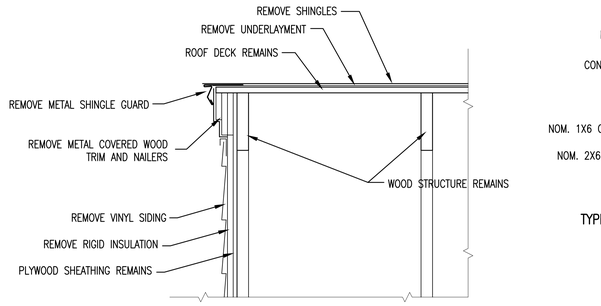
APPROVED: DATE
SATISFACTORY TO: DATE

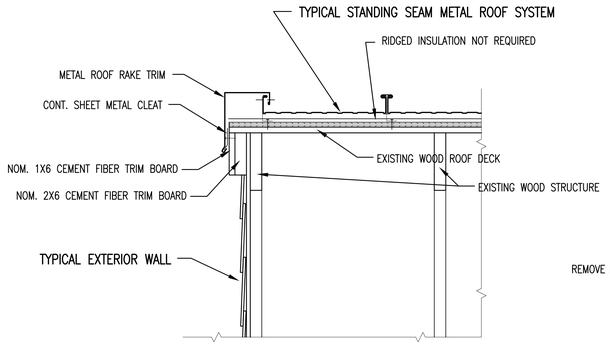
SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
E1	80091	60025118

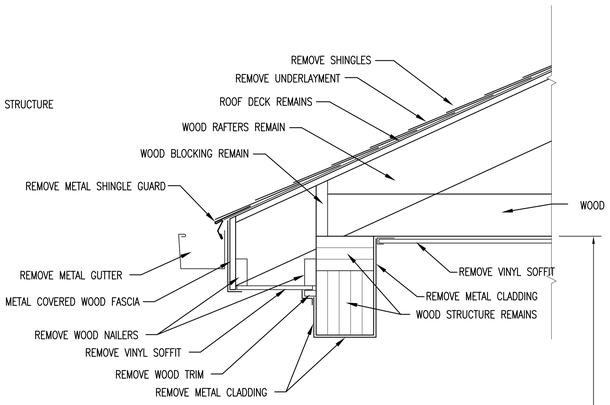
CONST. CONTR. NO. N40085–19–B–0034

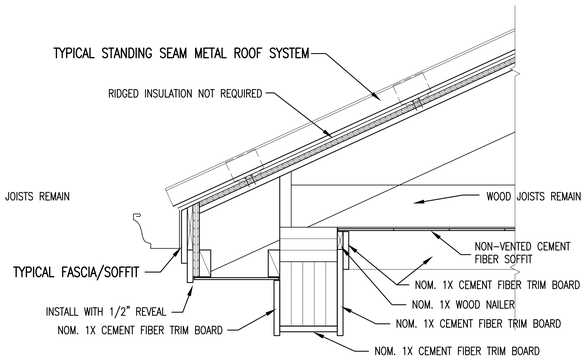
SCALE: NOTED | SPEC. 05–19–0034 | SHEET 20 OF 57

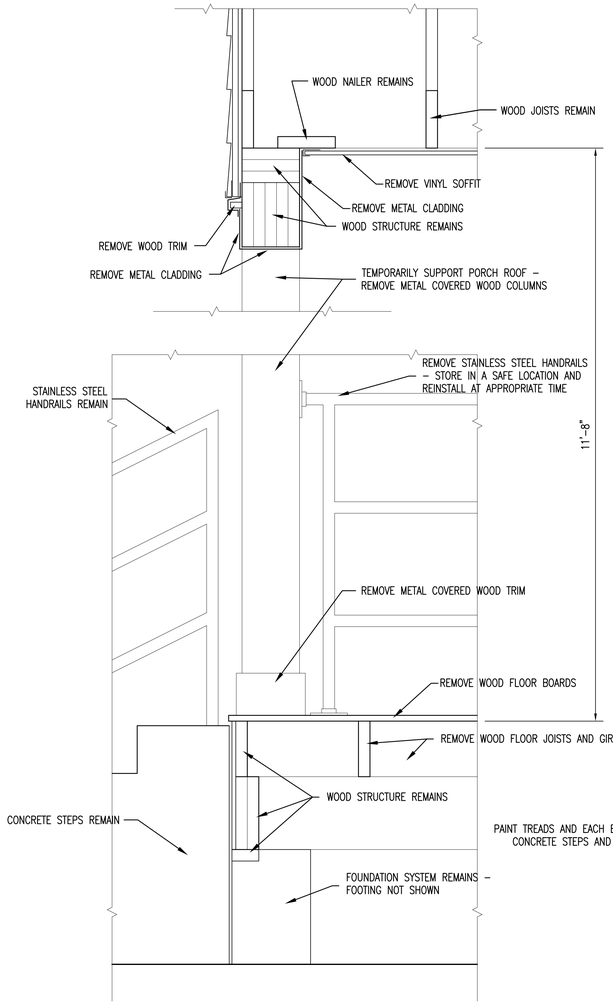
REVISIONS			
SYM.		DATE	APPROVED





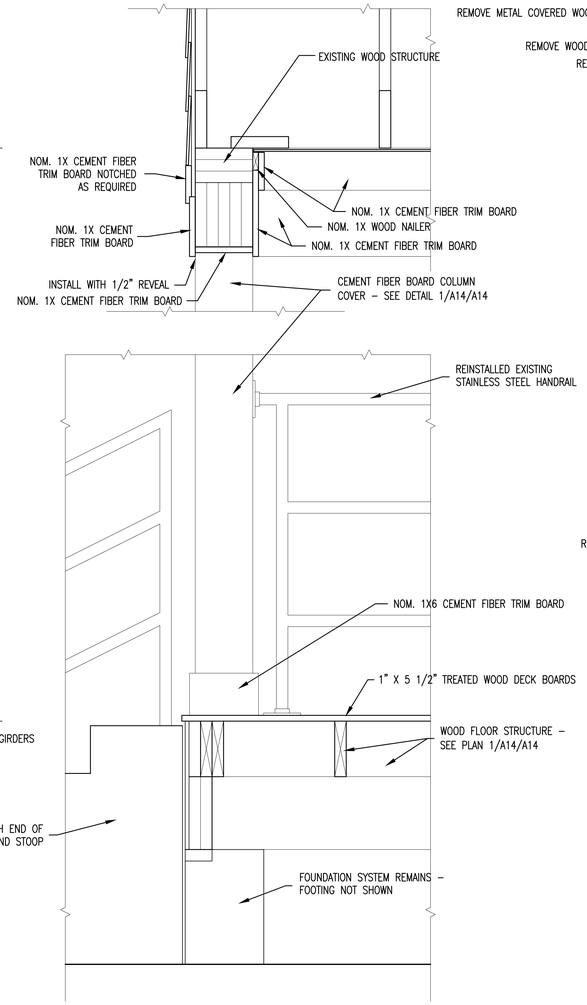






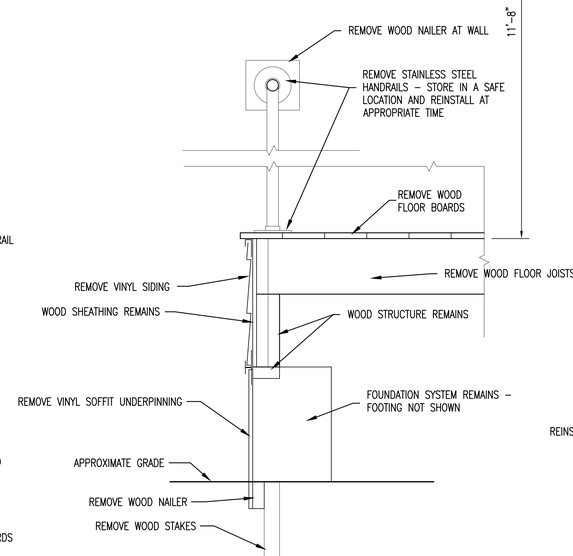
EXISTING RAKE SECTION 3 / A1|A14

1 1/2" = 1'-0"



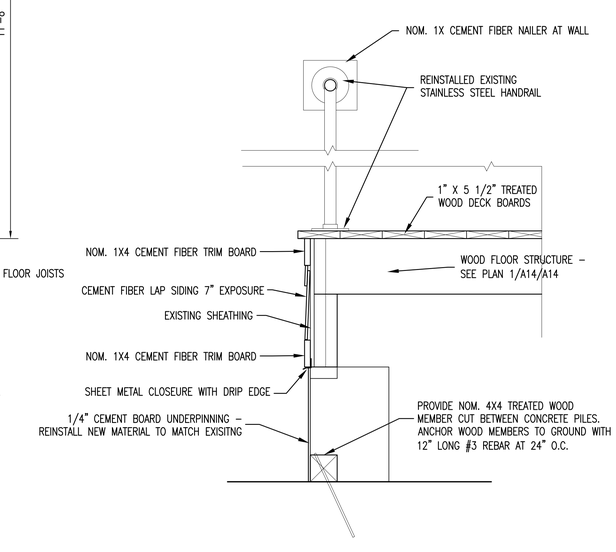
RENOVATED RAKE SECTION 4 / A2|A14 / A8

1 1/2" = 1'-0"



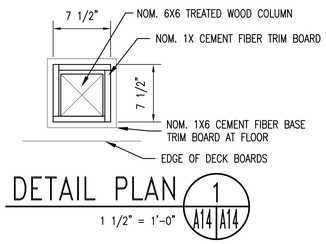
EXISTING WALL SECTION 1 / A1|A14

1 1/2" = 1'-0"



RENOVATED WALL SECTION 2 / A2|A14 / A8

1 1/2" = 1'-0"



DETAIL PLAN 1 / A14|A14

1 1/2" = 1'-0"

1/4" = 1'-0" — 0 — 5 — 10 FEET

1 1/2" = 1'-0" — 0 — 1 — 2 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

TALLEY & SMITH ARCHITECTURE, INC. REGISTERED ARCHITECTURAL CORPORATION CERT. NO. 50153 SHELBY, NORTH CAROLINA

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE: DETAIL SECTIONS — A-14

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

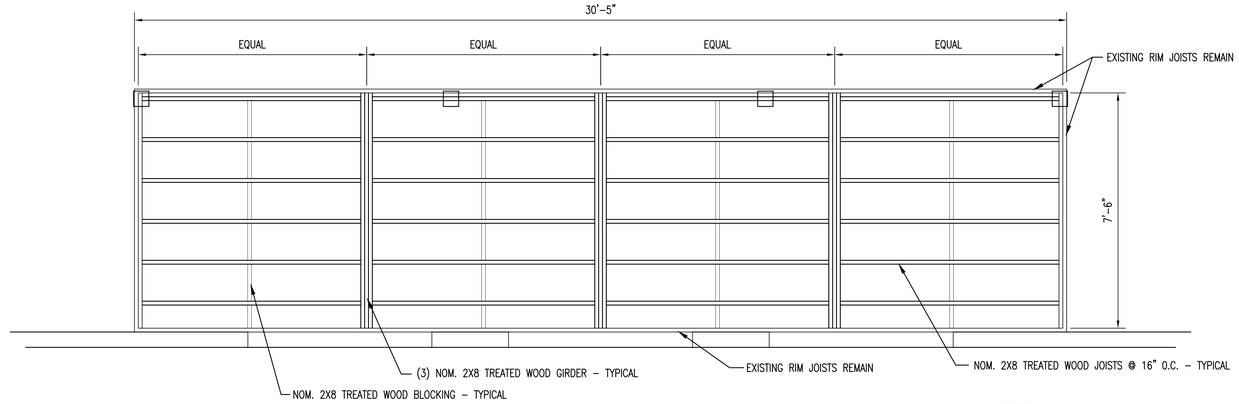
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE E1 | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025119
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 21 OF 57

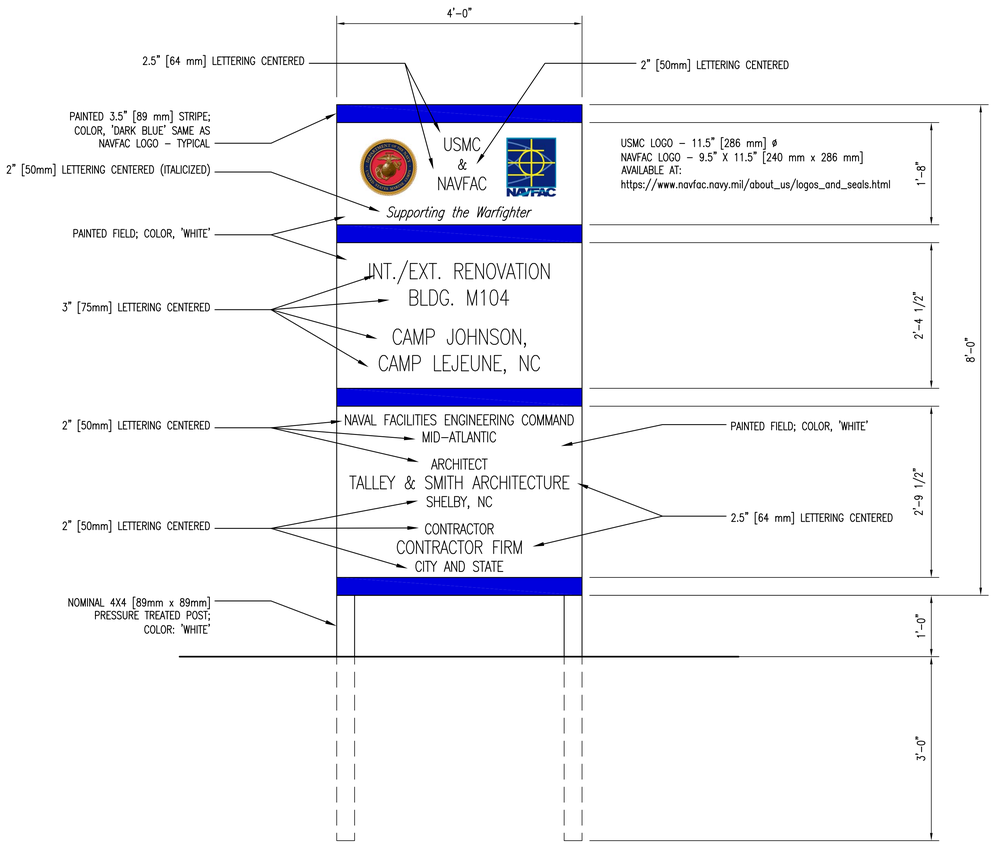
REVISIONS			
SYM.		DATE	APPROVED



RENOVATED PORCH FRAMING PLAN

1/8" = 1'-0"

1 / A2 | A15

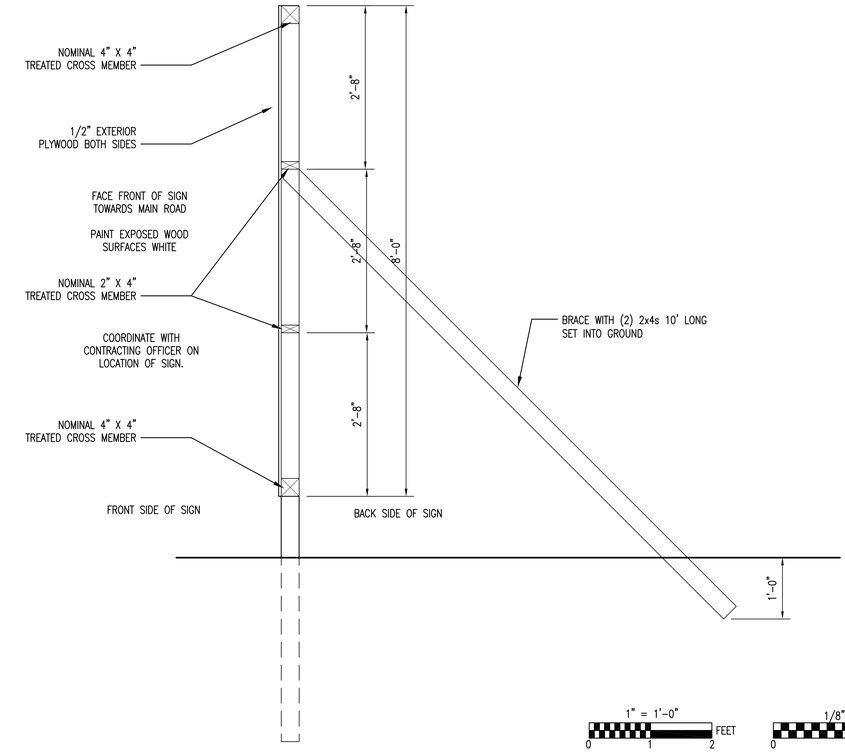


LOCATE SIGN AT SITE SO THAT IT IS READILY READABLE FROM THE MAIN ROAD. ENSURE THAT SIGN DOES NOT BLOCK VIEW OF TRAFFIT ENTERING MAIN RAOD. COORDINATE LOCATION WITH CONTRACTING OFFICER.

PROJECT INDENTIFICATION SIGN

1" = 1'-0"

2 / A12 | A12



SECTION

1" = 1'-0"
0 1 2 FEET

1/8" = 1'-0"
0 10 20 FEET

TALLEY & SMITH ARCHITECTURE INC. REGISTERED ARCHITECTURAL CORPORATION NORTH CAROLINA CERT. NO. 50153 SHELBY, N.C.

ROBERT L. SMITH III REGISTERED ARCHITECT 8102 NORTH CAROLINA SHELBY, N.C.

06/28/2019

SHEET TITLE:
PORCH FRAMING & PROJECT SIGN

A–15

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. Robert L. Smith, III
DR. Steven C. Fender
CHK. Robert L. Smith, III
SUBMITTED BY:
DESIGN DIR.
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION, BLDG. M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025120

CONST. CONTR. NO. N40085–19–B–0034

SCALE: NOTED | SPEC. 05–19–0034 | SHEET 22 OF 57

REVISIONS			
SYM.		DATE	APPROVED

GENERAL:

1. REFER TO FA-4 FOR DETAIL DIAGRAMS AND SEQUENCE OF OPERATIONS MATRIX.
2. THE LAYOUT SHOWN, IS TO CONVEY THE DESIGN INTENT. THE FINAL SYSTEM LAYOUT SHALL BE COMPLETED BY THE SUBCONTRACTOR IN ACCORDANCE WITH LISTED DESIGN CRITERIA
3. SUBCONTRACTOR RESPONSIBLE FOR SPEAKER LAYOUT PROVIDING THE REQUIRED CIS OF 0.7.

DESIGN CRITERIA - FIRE ALARM/MASS NOTIFICATION SYS.

THE SYSTEM SHALL COMPLY WITH THE FOLLOWING CODES AND STANDARDS.

1. NFPA 70 NATIONAL ELECTRICAL CODE - 2020 ED.
2. NFPA 72 NATIONAL FIRE ALARM AND SIGNALING CODE - 2019 ED.
3. NFPA 101 LIFE SAFETY CODE - 2018 ED.
4. UFC 1-200-01 GENERAL BUILDING REQUIREMENTS WITH CHANGE 2, 1 NOV 18.
5. UFC 3-600-01 DESIGN: FIRE PROTECTION ENGINEERING FOR FACILITIES WITH CHANGE 3, 10 MAY 19.
6. UFC 3-520-01 INTERIOR ELECTRICAL SYSTEM WITH CHANGE 1, 20 MARCH 19.
7. UFC 4-021-01 DESIGN AND O&M: MASS NOTIFICATION SYSTEMS WITH CHANGE 1, 1 JAN 10.

DEMOLITION NOTES:

1. REMOVE EXISTING FIRE ALARM SYSTEM COMPLETE, REMOVE JUNCTION BOXES, AND ASSOCIATED WIRING.
2. REMOVE ABANDONED CONDUIT WHERE NOT EMBEDDED IN MASONRY WALLS OR CONCRETE SLABS.
3. FIELD VERIFY EXISTING CONDITIONS THAT MAY AFFECT THE SYSTEM OPERATION, INSTALLATION, OR COMPLIANCE WITH THE DESIGN DRAWINGS AND NOTIFY THE CONTRACTING OFFICER PRIOR TO BEGINNING WORK.
4. DAMAGE CAUSED BY DEMOLITION MUST BE REPAIRED (I.E. CEILING TILE, WALL FINISHES, SCREW HOLES, HOLES LEFT FROM CONDUIT, DEVICE/EQUIPMENT REMOVAL, ETC).

CONTROL PANEL:

1. THE FIRE ALARM /MASS NOTIFICATION CONTROL PANEL (FMCP) SHALL BE A SITE PROGRAMMABLE ADDRESSABLE SYSTEM WITH VOICE EVACUATION.
2. THE FMCP SHALL BE LOCATED IN AN YEAR-ROUND ENVIRONMENTALLY CONDITIONED SPACE AND SEMI-RECESSED WHEN IN A FINISHED SPACE.
3. THE FMCP SHALL HAVE AN 80 CHARACTER (MIN.) LCD ALPHANUMERIC DISPLAY AND A 400 EVENT NON-VOLATILE HISTORY LOG MEMORY
4. CABINETS/PANELS (CONTROL, BATTERY, LOC, POWER BOOSTER, ETC.) SHALL BE SEMI-RECESSED PANEL WHEN LOCATED IN A FINISHED SPACE.
5. ALL CONTROL FUNCTIONS SHALL BE ACCESSIBLE ONLY BY USER CODE OR SECURED BEHIND A LOCKED CABINET.

INTERFACE/CONTROLS:

1. MONITORING MODULES AND CONTROL MODULES/RELAYS SHALL BE ADDRESSABLE AND LOCATED WITHIN 36" OF THE SPECIFIC DEVICE OR EQUIPMENT IT CONTROLS OR MONITORS.
2. PROVIDE EACH TAMPER SWITCH WITH A SEPARATE ADDRESS.
3. CLEARLY LABEL EACH ADDRESSABLE DEVICE AND CIRCUIT WITH A TYPED PRINTABLE LABEL AFFIXED TO EACH DEVICE.

POWER/BATTERIES:

1. PRIMARY AC POWER TO THE SYSTEM SHALL BE FED FROM A DEDICATED CIRCUIT WITH A RED CIRCUIT BREAKER AND A LOCK OPEN DEVICE.
2. SECONDARY POWER SHALL BE BY RECHARGEABLE BATTERIES SIZED TO OPERATE THE SYSTEM FOR EITHER 48 HRS IN STANDBY MODE WITH AN ADDITIONAL 15 MIN IN ALARM OR 60 MIN FULL ALARM IMMEDIATELY AFTER LOSS OF PRIMARY POWER, WHICHEVER IS GREATER.
3. THE SYSTEM SHALL INCLUDE FULLY AUTOMATIC, SOLID STATE BATTERY CHARGER(S) UTILIZING A TRICKLE-CHARGE OR A FLOAT-CHARGE. THE CHARGER(S) SHALL HAVE THE CAPACITY TO RECHARGE BATTERIES TO 95% OF FULL CHARGE WITHIN 48 HOURS.
4. THE BATTERIES WITH CHARGER(S) SHALL BE HOUSED IN THE FMCP CABINET OR AN ADJACENT BATTERY CABINET THAT IS LOCKED WITH THE SAME KEY AS THE FMCP.
5. PRIMARY POWER TO THE MASS NOTIFICATION TRANSCEIVER SHALL BE FED BY A DEDICATED CIRCUIT WITH A RED CIRCUIT BREAKER AND LOCK OPEN DEVICE. CIRCUIT TO BE LOCATED IN THE SAME ELECTRICAL PANEL AS THE FMCP CIRCUIT.

INITIATING CIRCUITS (SLC):

1. THE INITIATING CIRCUITS SHALL BE CLASS "B".
2. ALL SMOKE DETECTORS CONNECTED TO THE FMCP SHALL HAVE AN ADJUSTABLE ALARM VERIFICATION FEATURE, INITIALLY SET AT 20 SECONDS.
3. ALL SMOKE DETECTORS SHALL BE PHOTO-ELECTRIC UNLESS NOTED OTHERWISE.
4. MANUAL PULL STATIONS SHALL BE ADDRESSABLE DOUBLE ACTION TYPE WITH MECHANICAL RESET FEATURES. IF RESET BY KEY, IT SHALL BE THE SAME AS REQUIRED FOR THE FMCP.
5. EACH TAMPER SWITCH SHALL HAVE A SEPARATE ADDRESS.

NOTIFICATION CIRCUITS (NAC):

1. THE NOTIFICATION CIRCUITS SHALL BE A CLASS "B".
2. THE AUDIBLE ALARM NOTIFICATION SHALL BE BY VOICE EVACUATION SYSTEM. SPEAKERS SHALL HAVE MANUALLY SELECTABLE MULTI/VARIABLE WATTAGE, 0.25 TO 1.0 WATTS IN 0.25 WATT INCREMENTS. INITIAL SETTING TO BE AT 0.50 WATTS.
3. VOICE MESSAGES SHALL BE FEMALE, AND UTILIZE THE INSTALLATION'S STANDARD SIGNALS AND MESSAGES. MESSAGES SHALL BE APPROVED BY THE SERVING FIRE DEPARTMENT OR AHJ.
4. THE NUMBER AND PLACEMENT OF SPEAKER(S) TO BE SUFFICIENT TO PROVIDE 0.70 (CIS SCORE) AUDIBILITY RATING WITHIN THE AREA WITH ALL DOORS, FIRE SHUTTERS, MOVABLE PARTITIONS, AND SIMILAR DEVICES CLOSED.
5. VISUAL NOTIFICATION SHALL BE PROVIDED IN ALL NORMALLY OCCUPIED, PUBLIC, AND COMMON USE AREAS. OFFICES WITH FOUR OR MORE WORK STATIONS SHALL HAVE VISUAL NOTIFICATION.
6. VISUAL NOTIFICATION SHALL BE PROVIDED IN ALL NORMALLY UNOCCUPIED AREAS GREATER THAN 900 SQ. FT. SUCH AS MECH., ELECTRICAL, STORAGE, COMMUNICATIONS, JANITORS ROOMS, AND SIMILAR SPACES.
7. STROBES SHALL HAVE MANUALLY SELECTABLE CANDELA RATINGS, 15 TO 110 CANDELA. CANDELA RATING SHALL BE BASED ON LOCATION AND QUANTITY IN A ROOM IN ACCORDANCE WITH NFPA 72.
8. VISIBLE NOTIFICATION APPLIANCES SHALL HAVE A CLEAR LENS IN A WHITE HOUSING MARKED "ALERT" IN RED.

WIRING, CONDUIT:

1. ALL CONDUCTORS TO BE RUN IN 3/4" MINIMUM RIGID METAL CONDUIT (EMT). PROVIDE CONDUIT SIZES, QUANTITIES, AND CONFIGURATION IN ACCORDANCE WITH LISTED DESIGN CRITERIA AND APPROVED SHOP DRAWINGS.
2. ALL CONDUCTORS SHALL BE EITHER STRANDED OR SOLID COPPER. 18 AWG MIN FOR SLC AND 16 AWG MIN. FOR NAC CIRCUITS
3. ALL CONDUIT, WIRES, AND CABLES IN FINISHED SPACES SHALL BE CONCEALED IN WALLS, CEILING, AND SIMILAR SPACES.
4. ALL CONDUCTORS TO RUN SPLICE FREE FROM DEVICE TO DEVICE. WIRE NUTS, CRIMPED CONNECTORS, OR TWISTING OF CONDUCTORS IS PROHIBITED.
5. RUN ALL WIRING TO AND WITHIN THE CONTROL PANELS IN THE VERTICAL OR HORIZONTAL PLANE, MAKE ALL TURNS AT 90 DEGREES ANGLES, AND TIGHTLY BUNDLED AND WRAPPED. IDENTIFY ALL CONDUCTORS INDIVIDUALLY WITH PERMANENT PRINTED LABELS AFFIXED WITH SHRINK WRAP.
6. DEVICE CONNECTIONS SHALL BE THE DEVICE SCREW TERMINALS OR TERMINAL STRIPS MOUNTED WITHIN THE JUNCTION BOX.
7. ALL CONDUIT, JUNCTION/BACK BOXES, COVERS, AND COUPLINGS ARE TO BE FACTORY PAINTED RED IN UNFINISHED AREAS (E.G. ABOVE CEILINGS, IN MECHANICAL ROOMS, ETC).
8. IN FINISHED SPACES, ALL CONDUIT, JUNCTION/BACK BOXES, COVERS AND COUPLINGS ARE PERMITTED TO BE PAINTED TO MATCH ROOM FINISH. THE INSIDE COVER OF JUNCTION BOXES TO BE IDENTIFIED AS "FIRE ALARM". CONDUIT TO HAVE 3/4" RED BANDS EVERY 20 FT AND BOTH SIDES OF ALL FLOORS, WALLS, AND CEILING PENETRATIONS.
9. PROVIDE A SURGE SUPPRESSOR (SPD) ON ALL SLC AND NAC CIRCUIT THAT LEAVE OR ENTER THE FACILITY'S EXTERIOR ENCLOSURE (EXCLUDING WALL MOUNTED DEVICES) (EG. ELECTRIC BELL OR SPEAKER). LOCATE SPD AT FIRST CONNECTION CLOSEST TO WHERE CIRCUIT ENTERS OR LEAVES THE FACILITY, PRIOR TO THE DEVICE.
10. 120 VAC CIRCUITS TO CONTROL PANELS, SUBPANELS, TRANSMITTERS, AMPLIFIER PANELS, AND BOOSTER PANELS SHALL BE EQUIPPED WITH SPD. THE SPD SHALL BE LOCATED IN AN ADJACENT HINGED TERMINAL BOX.

LOCAL OPERATING CONSOLES (LOC):

1. PROVIDE A SEPARATE LOC NEAR THE BUILDING'S MAIN ENTRANCE, EXCEPT IN A LOCKED ROOM OR CLOSET. ONLY 1 LOC IS NEEDED, IN ADDITION TO THE ACU.
2. PROVIDE A SINGLE MUSHROOM TYPE EMERGENCY SHUTOFF SWITCH THAT IS A DIFFERENT COLOR THAN FIRE ALARM PULL STATIONS.
3. LOC SHALL BE IN A SMALL, SEMI-RECESSED WALL MOUNTED ENCLOSURE IN AN AREA WITH HEATING AND VENTILATION.
4. PROVIDE SIGNAGE ON THE OUTSIDE OF THE ENCLOSED LOC.

LEGEND

F	MANUAL PULL STATION
S	SMOKE DETECTOR
S	IN DUCT SMOKE DETECTOR
FS	FLOW SWITCH MONITORING MODULE
TS	TAMPER SWITCH MONITORING MODULE
#	SPEAKER STROBE; # INDICATES CANDELA RATING
#	WALL MOUNT STROBE; # INDICATES CANDELA RATING
	SPEAKER
K	FIRE DEPARTMENT KNOX BOX
FACP	FIRE ALARM CONTROL PANEL
FMCP	FIRE ALARM/MASS NOTIFICATION CONTROL PANEL
TRNS	MASS NOTIFICATION TRANSCEIVER
LOC	LOCAL OPERATING CONSOLE
FAA	FIRE ALARM ANNUNCIATOR
MIC	MICROPHONE
RTS	REMOTE TEST STATION
CM	CONTROL MODULE
EOL	END OF LINE RESISTOR
DACT	DIGITAL ALARM COMMUNICATOR TRANSMITTER
S/P	SURGE PROTECTOR
EMT	EMT BOX

SUBSCRIPTS

(WP) WEATHERPROOF

(CM) CEILING MOUNT

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

Lovett Consultants
4455 Morris Park Dr.
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Mint Hill, NC 28227
Ph. 704.545.8383
Fire Protection & Building Code Specialists
NC Firm License No: F-0296

NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: FIRE ALARM NOTES AND LEGEND

FA-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	MEW
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025121
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 23 OF 57

11/1/2019 11:26:47 AM

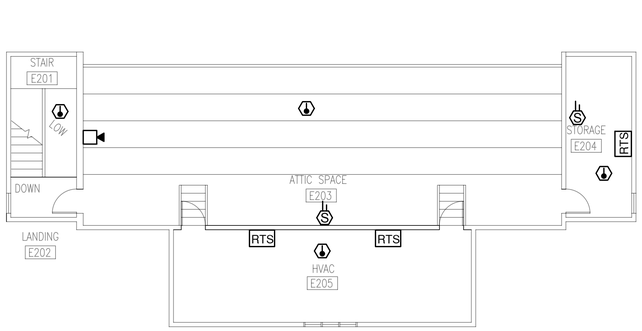
REVISIONS			
SYM.		DATE	APPROVED

SHEET NOTES:

1. REFERENCE FA-1 FOR NOTES AND LEGEND.
2. ALL DEVICES SHOWN ARE EXISTING, TO BE DEMOLISHED.

KEY NOTES:

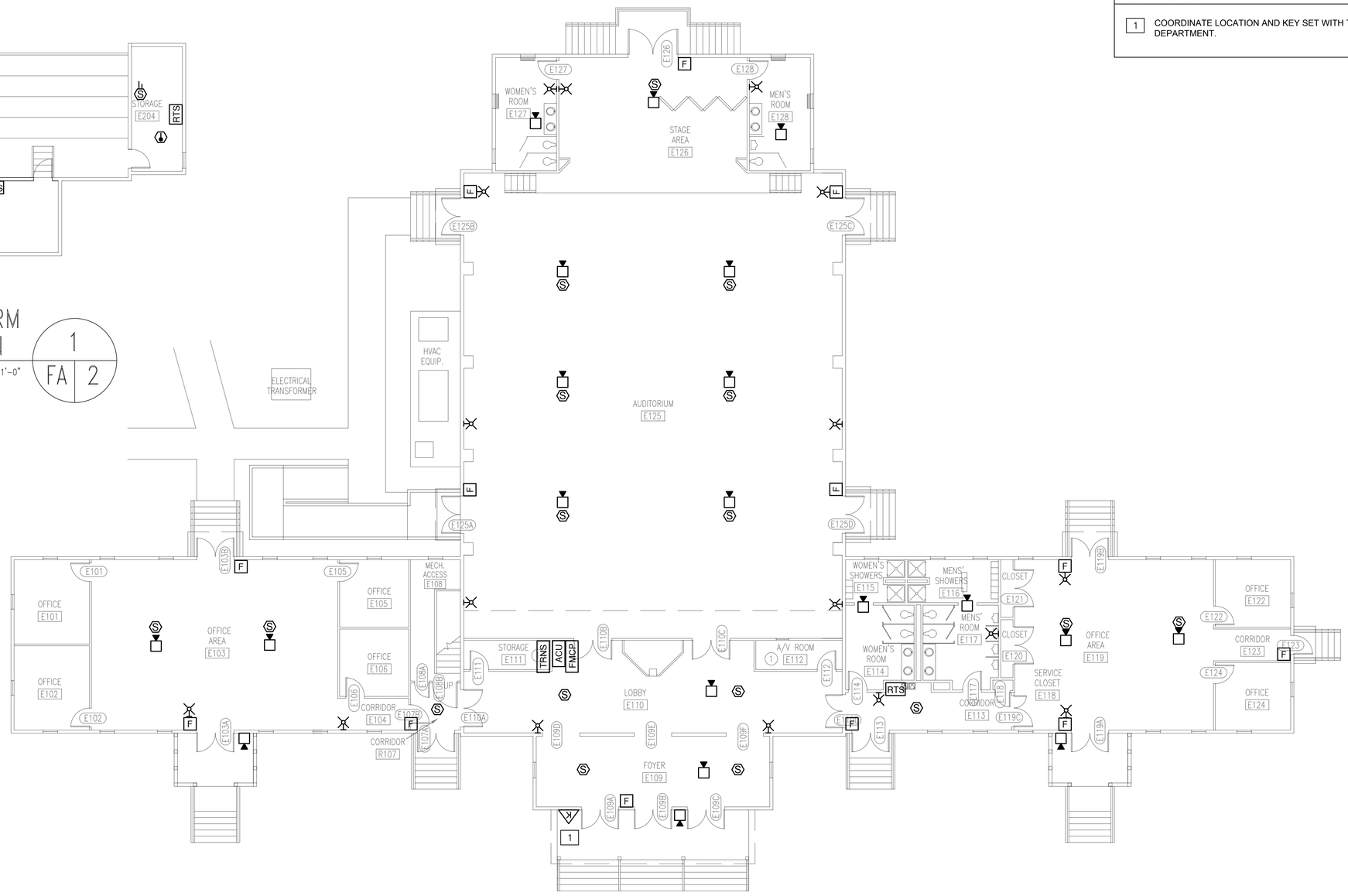
1 COORDINATE LOCATION AND KEY SET WITH THE RESPONDING FIRE DEPARTMENT.



EXISTING FIRE ALARM UPPER FLOOR PLAN

1/8" = 1'-0"

1 FA 2



EXISTING FIRE ALARM LOWER FLOOR PLAN

1/8" = 1'-0"

2 FA 2

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: EXISTING FIRE ALARM FLOOR PLAN — FA–2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	MEW
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025122
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 24 OF 57

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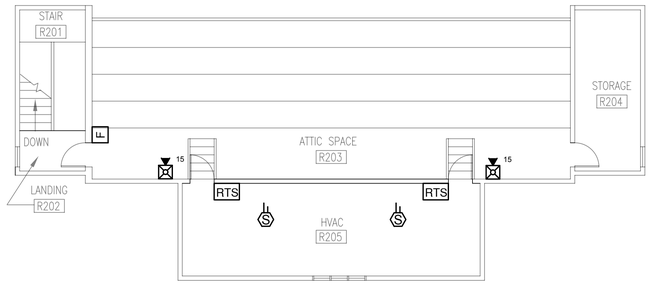
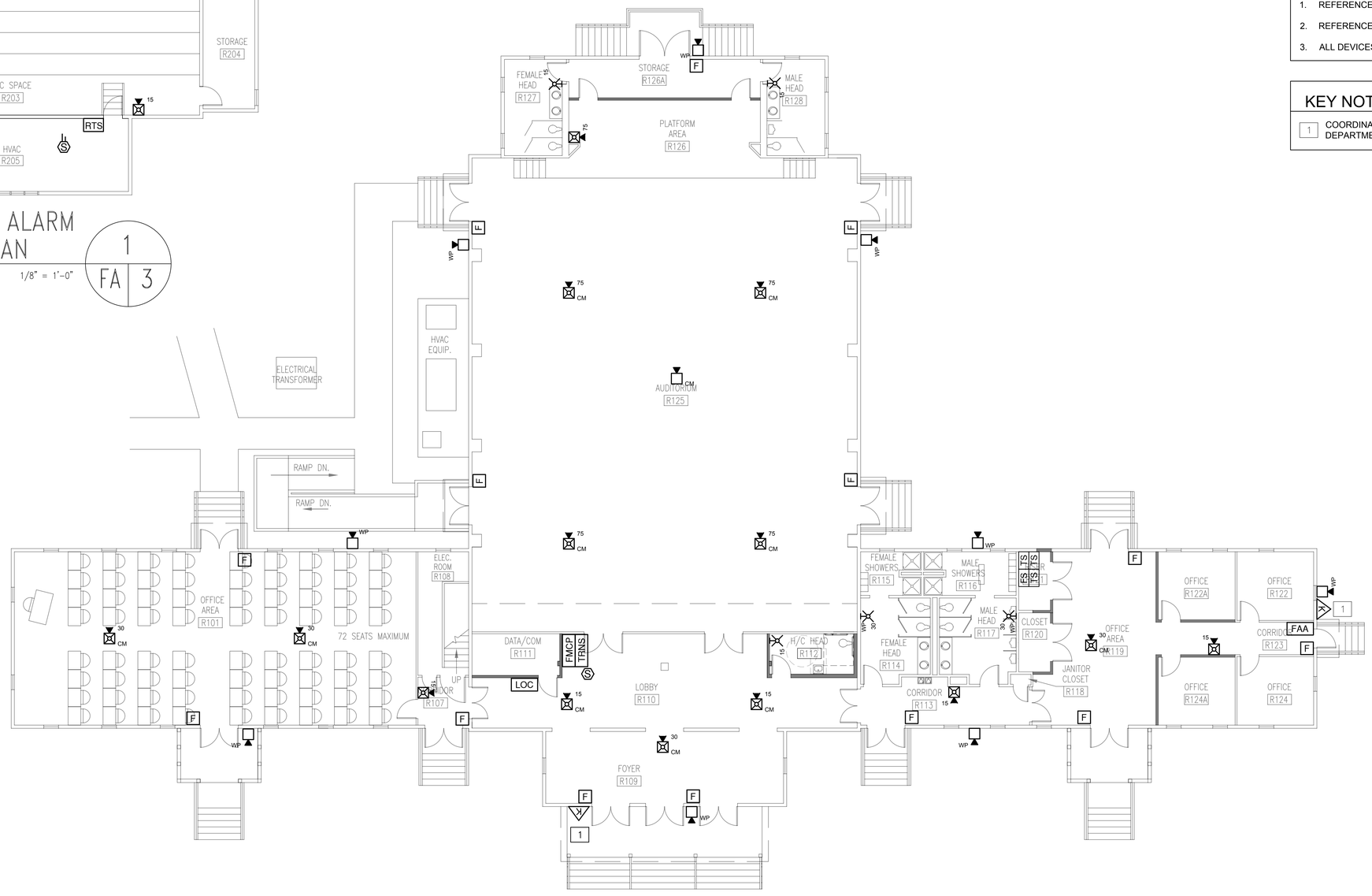
REVISIONS			
SYM.		DATE	APPROVED



RENOVATED FIRE ALARM UPPER FLOOR PLAN

1/8" = 1'-0"

1 / FA 3



RENOVATED FIRE ALARM LOWER FLOOR PLAN

1/8" = 1'-0"

2 / FA 3

SHEET NOTES:

1. REFERENCE FA-1 FOR NOTES AND LEGEND.
2. REFERENCE FA-4 FOR DETAILS AND DIAGRAMS.
3. ALL DEVICES SHOWN ARE NEW, UNLESS NOTED OTHERWISE.

KEY NOTES:

1. COORDINATE LOCATION AND KEY SET WITH THE RESPONDING FIRE DEPARTMENT.

N

1/8" = 1'-0"
0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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Fire Protection & Building Code Specialists
NC Firm License No: P-0286

NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: RENOVATED FIRE ALARM FLOOR PLAN — FA-3

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	ANP
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	6025123
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 25 OF 57

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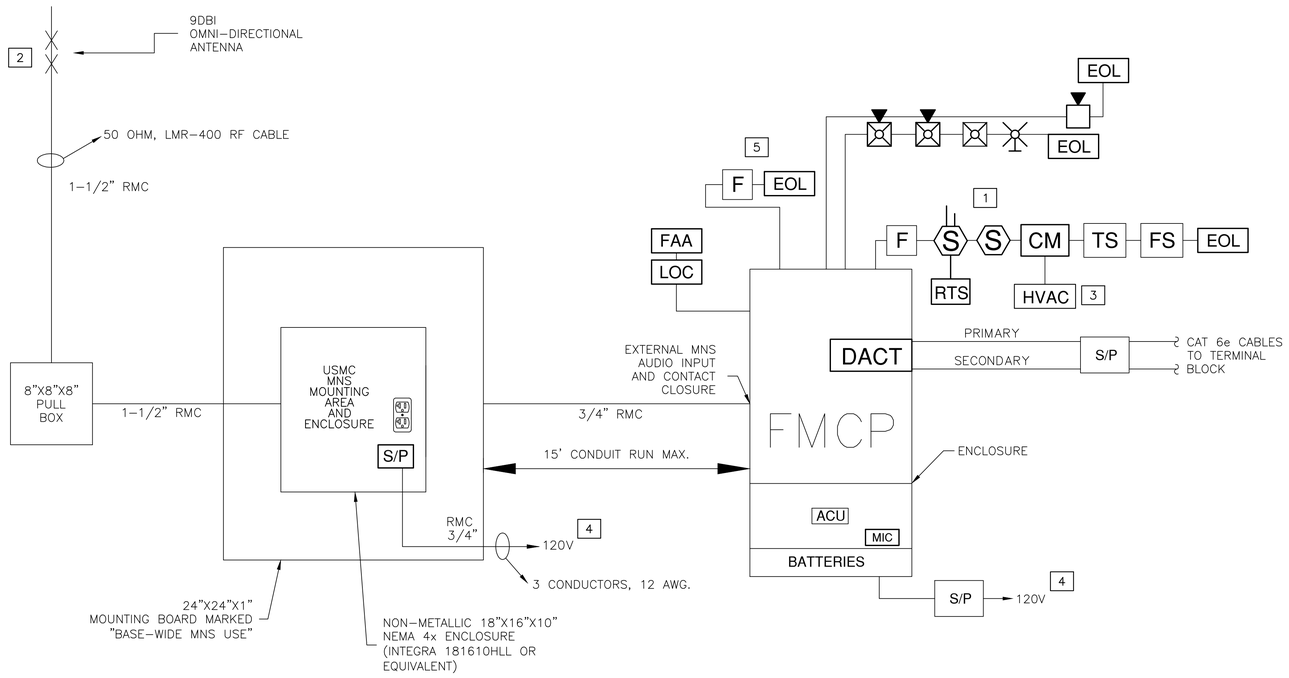
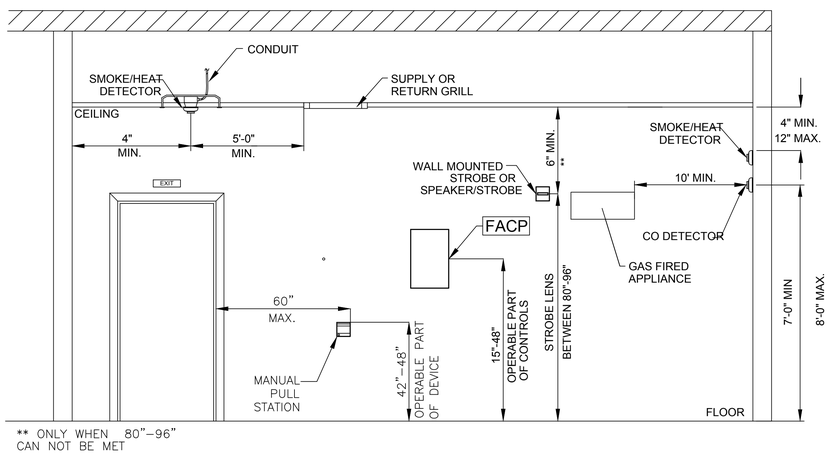
REVISIONS			
SYM.		DATE	APPROVED



RISER DETAIL

NTS

1



MOUNTING HEIGHTS

NTS

3

SHEET NOTES:

1. REFERENCE FA-1 FOR NOTES AND LEGEND.
2. REFERENCE FA-3 FOR FIRE ALARM FLOOR PLAN.

KEY NOTES:

1. SEE FLOOR PLAN FOR EXACT NUMBER AND LOCATION OF DEVICES.
2. 4 FEET ABOVE THE APEX OF THE ROOFLINE WITH A UL LISTED WEATHERHEAD
3. TO INITIATE HVAC SHUTDOWN.
4. CIRCUITS PROVIDED W/ RED BREAKERS, LOCK OPEN DEVICE AND FED FROM THE SAME ELECTRICAL PANEL.
5. SEPARATE SLC CIRCUIT THAT WILL NOT BE PLACED ON TEST MODE

ACTION TO BE INITIATED / ACTION DEVICE INITIATED	ACTUATE AUDIBLE & VISUAL ALARM SIGNAL INDICATOR & ALARM @ FMCP	ACTUATE AUDIBLE & VISUAL SUPERVISORY SIGNAL INDICATOR & ALARM @FMCP	ACTUATE AUDIBLE & VISUAL TROUBLE SIGNAL INDICATOR & ALARM @ FMCP	DISPLAY / PRINT CHANGE OF STATUS ON FMCP	TRANSMIT SIGNAL TO MONITORING STATION	ACTUATE FIRE ALARM AUDIBLE MESSAGE	ACTIVATE ALERT VISUAL APPLIANCES	INITIATE SHUTDOWN OF ASSOCIATED AHU	OVERRIDE / SILENCE BUILDING PA SYSTEM / MUSIC / TVS	OVERRIDE PRE-RECORDED DIGITIZED VOICE MESSAGE	OVERRIDE FIRE ALARM AUDIBLE SIGNALS	BROADCAST MNS AUDIBLE MESSAGE	OVERRIDE LOCAL OPERATING STATION
MANUAL PULL STATION	X			X	X	X	X		X				
GENERAL SMOKE DETECTOR	X			X	X	X	X		X				
DUCT SMOKE DETECTOR		X		X	X			X					
WATERFLOW SWITCH	X			X	X	X	X		X				
TAMPER SWITCH		X		X	X								
FIRE ALARM AC POWER FAILURE			X	X	X								
FIRE ALARM SYS LOW BATTERY			X	X	X								
OPEN CIRCUIT/GROUND FAULT			X	X	X								
NOTIFICATION APPLIANCE SHORT			X	X	X								
FIRE ALARM LIVE VOICE MESSAGE	X			X	X	X	X		X	X			
MNS LIVE VOICE MESSAGE		X		X	X		X		X	X	X	X	
MNS AUTONOMOUS CONTROL UNIT		X		X	X		X		X		X	X	X
LOCAL OPERATING CONSOLE		X		X	X		X		X		X	X	

OPERATIONAL MATRIX

NTS

2

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

Lovett Consultants
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Fire Protection & Building Code Specialists
NC Firm License No: P-0296

NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: FIRE ALARM DETAILS

FA-4

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	MEW
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025124
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 26 OF 57

11/1/2019 11:27:12 AM

REVISIONS			
SYM.		DATE	APPROVED

GENERAL NOTES:

1. SPRINKLER SYSTEMS TO BE INSTALLED COMPLETE AND OPERATIVE THROUGHOUT THE BUILDING IN ACCORDANCE WITH UFC 3-600-01, CHANGE 3, AND NFPA 13.
2. FIELD VERIFY JOB CONDITIONS AND VERIFY ALL MEASUREMENTS, DISTANCES, ELEVATIONS, CLEARANCES, PIPE SIZES, ETC. THAT MAY AFFECT THE SYSTEM INSTALLATION OR COMPLIANCE WITH NFPA 13, AND NOTIFY THE CONTRACTING OFFICER PRIOR TO BEGINNING WORK.
3. FINAL SPRINKLER PLACEMENT, PIPE ROUTING, AND QUANTITY SHALL BE COORDINATED BETWEEN SPRINKLER CONTRACTOR AND GENERAL CONTRACTOR. PIPE ROUTING SHOWN IS SUGGESTED. FINAL ROUTING TO BE SHOWN AND APPROVED THROUGH THE SHOP DRAWINGS.
4. ARCHITECTURAL, CIVIL, STRUCTURAL, MECHANICAL, AND ELECTRICAL BACKGROUND INFORMATION SHOWN IS FOR COORDINATION PURPOSES ONLY. REFER TO THE PROPER DRAWINGS FOR EXACT LOCATIONS, SIZES, AND QUANTITIES OF OTHER TRADES' WORK.
5. LOCATION OF TEST CONNECTIONS AND DRAINS SHALL MEET NFPA 13 AND LOCAL CODES.
6. ALL VALVES SHALL BE READILY ACCESSIBLE FOR OPERATION.
7. PIPE TO BE SCHEDULE 40 BLACK STEEL FOR PIPES 2" AND SMALLER; AND PIPING LARGER THAN 2" MUST BE A MINIMUM OF SCHEDULE 10.
8. PROVIDE PROTECTION VIA SIDEWALL SPRINKLERS FOR COVERED PORCHES GREATER THAN 4 FOOT IN DEPTH.
9. ALL AREAS MUST BE DESIGNED FOR LIGHT HAZARD UNLESS OTHERWISE INDICATED.
10. PROVIDE SPRINKLER PROTECTION IN THE CONCEALED COMBUSTIBLE SPACES ABOVE THE DROP CEILINGS.
11. ALL AREAS MUST BE CLIMATE CONTROLLED TO BE MAINTAINED AT OR ABOVE 40 DEGREES FAHRENHEIT.

PIPE HANGER NOTES:

1. PIPES LARGER THAN 4 IN. RUNNING PARALLEL TO BAR JOISTS SHALL BE HUNG FROM TRAPEZE HANGERS SUPPORTED NEARLY EQUALLY BY JOISTS.
2. ONLY ONE PIPE SHALL BE SUPPORTED FROM A SINGLE TRAPEZE HANGER UNLESS OTHERWISE APPROVED IN WRITING BY THE STRUCTURAL ENGINEER OF RECORD.
3. HANGERS WITH MORE THAN 150 POUNDS OF LOAD SHOULD BE ATTACHED TO THE BAR JOIST AT A PANEL POINT.

TELECOM, MECHANICAL AND ELECTRICAL ROOM NOTES:

1. SPRINKLER PIPING SUPPLY LINES SHALL NOT RUN THROUGH TELECOM, MECHANICAL, OR ELECTRICAL ROOMS.
2. SPRINKLER PIPING SHALL NOT RUN DIRECTLY ABOVE ELECTRICAL PANELS, TRANSFORMERS OR SWITCHGEAR.
3. UTILIZE SIDEWALL SPRINKLERS ABOVE ENTRY DOORS WHERE PRACTICAL.
4. PROVIDE HEAD GUARD ON ALL SPRINKLERS IN THESE AREAS.

SPRINKLERS

PENDANTS: SEMI-RECESSED & PENDENT

FINISH: CHROME OR WHITE

TEMP: ORDINARY

K: 5.6 (LIGHT HAZARD) OR 8.0 (ORDINARY HAZARD)

UPRIGHTS:

FINISH: BRONZE

TEMP: ORDINARY

K: 5.6 (LIGHT HAZARD) OR 8.0 (ORDINARY HAZARD)

ESCUTCHEON: 2 PIECE METAL - LISTED W/SPRINKLER

FINISH: TO MATCH SPRINKLER

PROTRUSION FROM SURFACE: 3/4" MAX.

SPRINKLERS NEAR A HEAT SOURCE (UNIT HEATER, DIFFUSER, STEAM MAINS, SKYLIGHT, ETC) SHALL HAVE TEMPERATURE RATING IN ACCORDANCE WITH NFPA 13.

EXTENDED COVERAGE SPRINKLERS ARE NOT PERMITTED

DESIGN CRITERIA - DENSITY/AREA METHOD

THE SYSTEM SHALL COMPLY WITH UFC 3-600-01, CHANGE 3.

OFFICE AND PUBLIC AREAS, RESTROOMS, AND CORRIDORS (LIGHT HAZARD WET PIPE SPRINKLER SYSTEMS):

DENSITY: 0.10 GPM/SQ. FT.

OPERATING AREA: 1,500 SQ. FT.

MAXIMUM AREA PER SPRINKLER HEAD: 225 SQ. FT.

MAXIMUM SPACING BETWEEN HEADS: 15 FT.

HOSE STREAM ALLOWANCE: 250 GPM

AUDITORIUM, STAGE AREA, STORAGE ROOM, EQUIPMENT ROOM, MECHANICAL/ELECTRICAL ROOM, AND JANITORS CLOSET (ORDINARY HAZARD WET PIPE SPRINKLER SYSTEMS):

DENSITY: 0.20 GPM/SQ. F.T

OPERATING AREA: 2,500 SQ. FT.

MAXIMUM AREA PER SPRINKLER HEAD: 130 SQ. FT.

MAXIMUM SPACING BETWEEN HEADS: 12 FT.

HOSE STREAM ALLOWANCE: 250 GPM

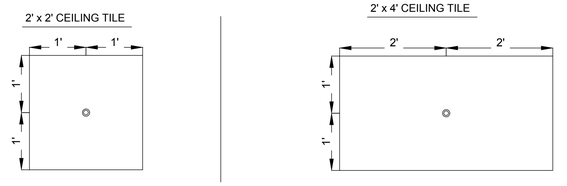
WATER FLOW TEST

04.05.19	AT 1337 HOURS
STATIC:	61 PSI
RESIDUAL:	55 PSI
FLOWING:	1125.9 GPM
LOCATION:	HYDRANT # 8-43-6

PREFORMED BY: LOVETT CONSULTANTS

PERFORM AN INDEPENDENT WATER FLOW TEST IN ACCORDANCE WITH NFPA 291, ON WHICH TO BASE THE FINAL SHOP DRAWING DESIGN, AND VERIFY CONSISTENCY OF SYSTEM.

SPRINKLER LOCATIONS



NOTE:
1. SPRINKLERS SHALL BE POSITIONED AS SHOWN; OR POSITIONED NO CLOSER THAN 6" TO CEILING GRID. HOWEVER, WHEN MORE THAN ONE SPRINKLER IS WITHIN A ROOM, THEN ALL THE SPRINKLERS IN THE ROW SHALL BE LINED UP IN THE SAME DIRECTION.
2. HARD CEILINGS: LOCATE SPRINKLERS IN ACCORDANCE WITH THE ENGINEERING DRAWINGS WHEN INDICATED. SPRINKLERS SHALL BE IN LINE WITH LIGHT FIXTURES, HVAC GRILLS, AND OTHER SPRINKLERS. COORDINATE CLOSELY WITH THE ELECTRICAL AND MECHANICAL CONTRACTOR.
3. UNFINISHED AREAS: LOCATE SPRINKLERS AS SHOWN ON THE ENGINEERING DRAWINGS, WHEN INDICATED.

LEGEND

- SPRINKLER RISER ASSEMBLY
- 30-DEGREE 5" STORZ CONNECTION
- UPRIGHT SPRINKLER
- PENDENT SPRINKLER
- TEST HEADER OUTLETS

LINETYPES

— FW (U) — UNDERGROUND FIRE MAIN

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: FIRE PROTECTION NOTES AND LEGEND — FP-1

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

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DR.	MEW
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025125
		CONST. CONTR. NO. N40085-19-B-0035
SCALE: NOTED	SPEC. 05-19-0035	SHEET 27 OF 57

11/1/2019 11:26:27 AM

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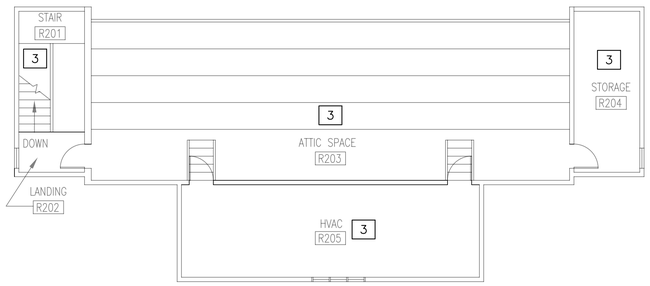
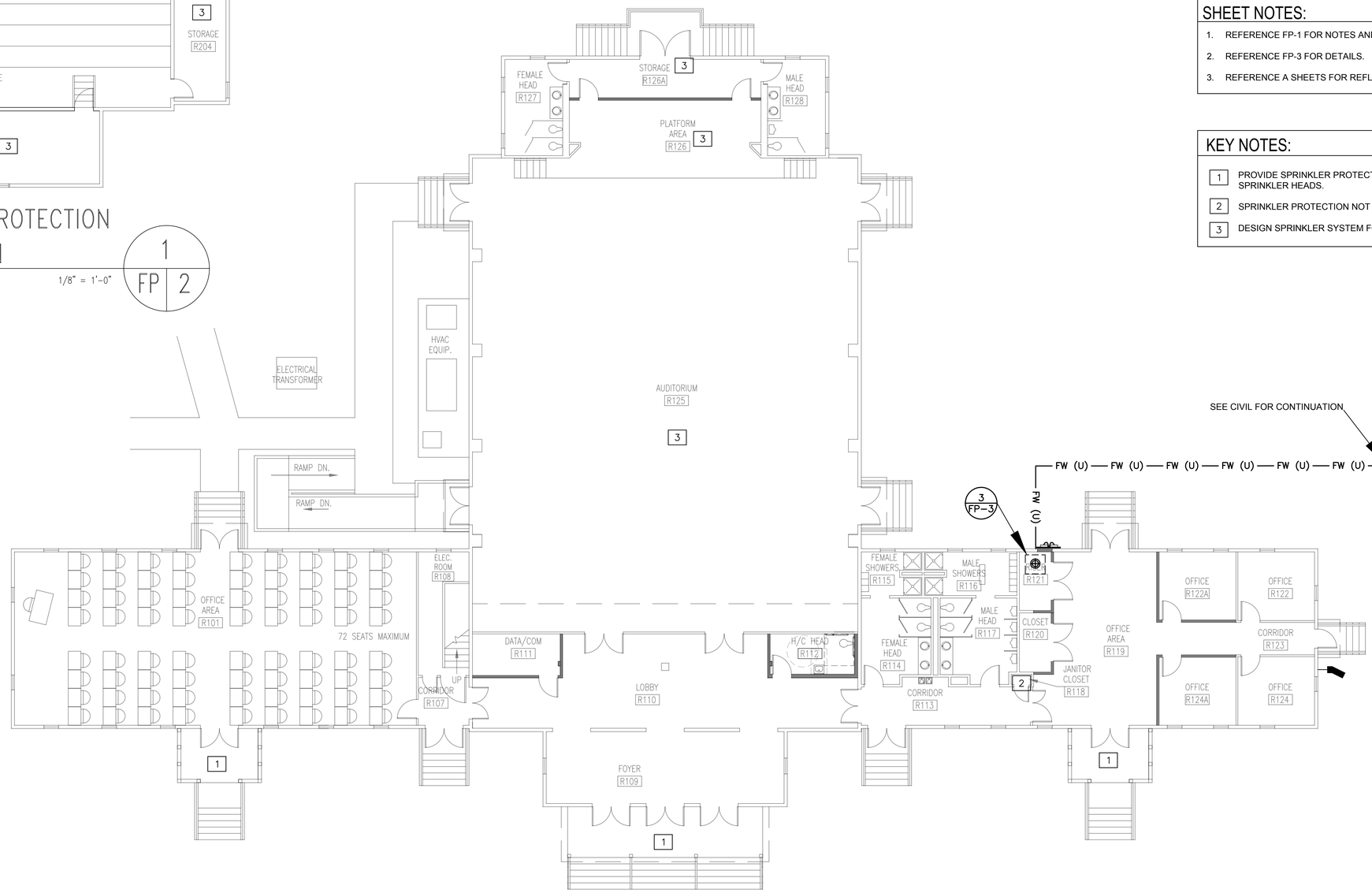


RENOVATED FIRE PROTECTION UPPER FLOOR PLAN

1/8" = 1'-0"

1 / FP 2



RENOVATED FIRE PROTECTION LOWER FLOOR PLAN

1/8" = 1'-0"

2 / FP 2

SHEET NOTES:

1. REFERENCE FP-1 FOR NOTES AND LEGEND.
2. REFERENCE FP-3 FOR DETAILS.
3. REFERENCE A SHEETS FOR REFLECTED CEILING PLAN.

KEY NOTES:

1	PROVIDE SPRINKLER PROTECTION WITH DRY SIDEWALL SPRINKLER HEADS.
2	SPRINKLER PROTECTION NOT REQUIRED PER NFPA 13.
3	DESIGN SPRINKLER SYSTEM FOR ORDINARY HAZARD IN THIS AREA.

N

1/8" = 1'-0"

0 10 20 FEET

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: RENOVATED FIRE PROTECTION FLOOR PLAN | FP-2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	MEW
CHK.	JLL
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DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025126

CONST. CONTR. NO. N40085-19-B-0035

SCALE: NOTED | SPEC. 05-19-0035 | SHEET 28 OF 57

11/1/2019 11:26:34 AM

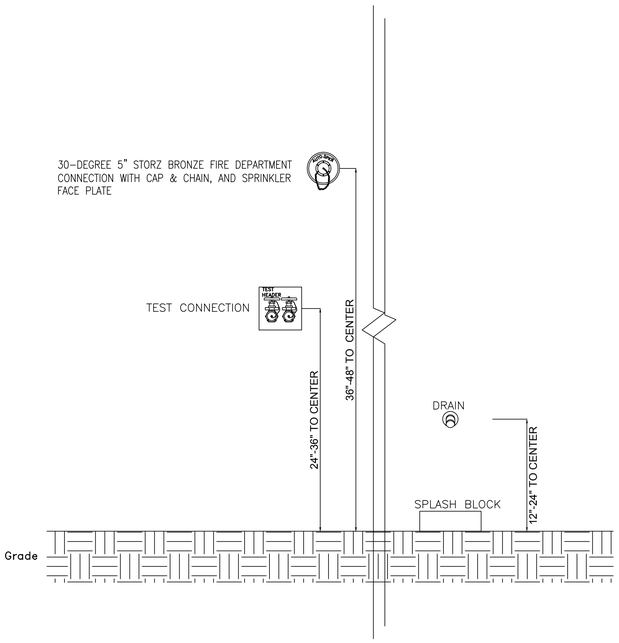
REVISIONS			
SYM.		DATE	APPROVED

SHEET NOTES:

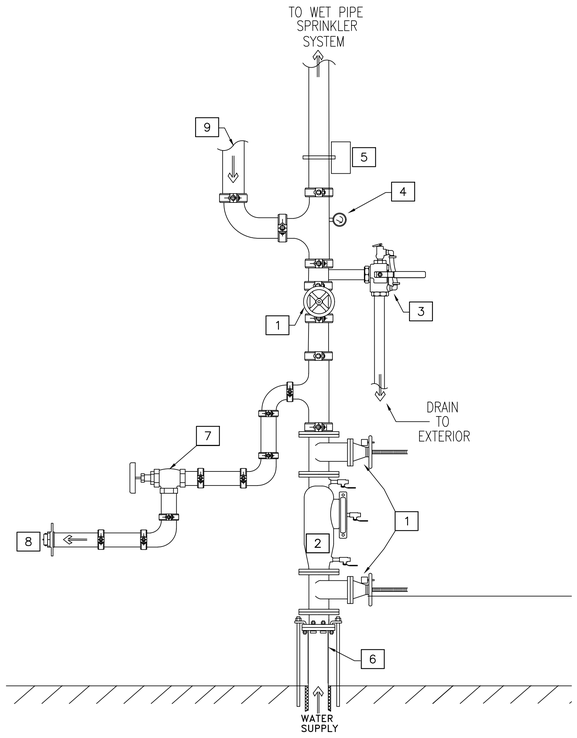
1. REFERENCE FP-1 FOR NOTES AND LEGEND.
2. REFERENCE FP-2 FOR FIRE PROTECTION FLOOR PLAN.

KEY NOTES:

1	OS&Y VALVE W/TAMPER SWITCH.
2	RPZ BACKFLOW PREVENTER.
3	TEST AND DRAIN ASSEMBLY W/RELIEF VALVE.
4	PRESSURE GAUGE.
5	WATER FLOW SWITCH.
6	6" DUCTILE IRON FLANGED FEEDER PIPE.
7	TWO 2-1/2" ANGLE VALVES.
8	TEST HEADER OUTLETS W/ CAP & CHAIN.
9	TO 30-DEGREE 5" STORZ FIRE DEPARTMENT CONNECTION WITH CHECK VALVE.

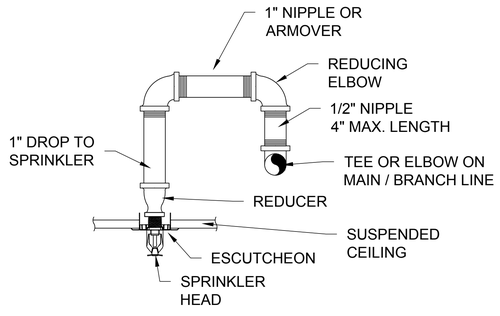


MOUNTING HEIGHTS — NTS — 1



Riser trim to be complete and in accordance with NFPA 13 and the valve manufacturer's instructions.

RISER DIAGRAM — NTS — 3 / FP 2



PENDENT SPRINKLER ARMOVER — NTS — 2

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

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NORTH CAROLINA PROFESSIONAL SEAL 040804 ENGINEER JENNIFER L. LOVETT
06/28/2019

SHEET TITLE: FIRE PROTECTION DETAILS — FP–3

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	GMM
DR.	MEW
CHK.	JLL
SUBMITTED BY:	
DESIGN DIR.	
APPROVED:	
SATISFACTORY TO:	

RENOVATE BUILDING M104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	6025127
		CONST. CONTR. NO. N40085–19–B–0035

SCALE: NOTED — SPEC. 05–19–0035 — SHEET 29 OF 57

11/1/2019 11:26:41 AM

PLUMBING FIXTURE SCHEDULE

DRAWING CODE	FIXTURE	PIPE SIZE			
		DCW	DHW	WASTE	VENT
WC1	FLUSH VALVE WATER CLOSET	1"	-	4"	2"
WC2	FLUSH VALVE WATER CLOSET, ADA	1"	-	4"	2"
UR1	FLUSH VALVE URINAL	3/4"	-	2"	2"
LAV1	COUNTERTOP LAVATORY	1/2"	1/2"	2"	2"
LAV2	WALL HUNG LAVATORY, ADA	1/2"	1/2"	2"	2"
SH1	SHOWER	1/2"	1/2"	-	-
EWC1	WATER COOLER	1/2"	-	2"	2"
EWH1	ELECTRIC WATER HEATER, 120 GAL., 18KW, 208V/3PH/60HZ	1-1/4"	1-1/4"	-	-
WH1	WALL HYDRANT	3/4"	-	-	-
CP1	IN-LINE WET ROTOR, LEAD FREE BRONZE BODY, 3-SPEED, 115/1/60, 125W. BUILT IN THERMAL PROTECTION. 10GPM@10'TDH	-	3/4"	-	-
MX1	THERMOSTATIC MIXING VALVE	1"	1"	-	-
BFP	BACKFLOW PREVENTER	3"	-	-	-
FD1	FLOOR DRAIN	-	-	2"	-

PLUMBING ABBREVIATIONS

(X)	EXISTING
ADA	AMERICANS WITH DISABILITIES ACT
BRZ.	BRONZE
C.I.	CAST IRON
CO	CLEANOUT
CONC.	CONCRETE
DCW	DOMESTIC COLD WATER
DHW	DOMESTIC HOT WATER
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
GA.	GAUGE
GAL.	GALLON
GCO	GRADE CLEANOUT
GPF	GALLONS PER FLUSH
GPH	GALLONS PER HOUR
GPM	GALLONS PER MINUTE
HB	HOSE BIBB
INCL.	INCLUDED
LAV	LAVATORY
MS	MOP SERVICE BASIN
NKL.	NICKEL
NON SIMULT.	NON SIMULTANEOUS
O.F.L.C.	OPEN FRONT LESS COVER
OB	OUTLET BOX
OC	ON CENTER
PRESS. BAL.	PRESSURE BALANCED
RCVY.	RECOVERY
SA	WATER HAMMER ARRESTOR
SH	SHOWER
SK	SINK
SLD.	SLIDE
SS	STAINLESS STEEL
TDH	TOTAL DYNAMIC HEAD
UR	URINAL
V	VENT
VB	VACUUM BREAKER
VC	VITREOUS CHINA
VR	VANDAL RESISTANT
VTR	VENT THROUGH ROOF
W	WASTE
WC	WATER CLOSET
WCO	WALL CLEANOUT
WH	WALL HYDRANT

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

PLUMBING LEGEND

	DOMESTIC COLD WATER PIPING
	DOMESTIC HOT WATER CIRCULATION PIPING
	DOMESTIC HOT WATER PIPING
	GAS PIPING (NAT. OR LP)
	SANITARY VENT PIPING
	SANITARY WASTE PIPING
	BACKFLOW PREVENTION DEVICE
	BALL VALVE
	CHECK VALVE
	CIRCULATION PUMP
FCO	FLOOR CLEANOUT
FD	FLOOR DRAIN
FS	FLOOR SINK
	GATE VALVE IN RISER
GCO	GRADE CLEANOUT
HB	HOSE BIBB
	PIPE ELBOW
	PIPE ELBOW DOWN
	PIPE ELBOW UP
	PIPE TEE
	PIPE TEE DOWN
1	DEMOLITION KEYED NOTE TAG
1	NEW WORK KEYED NOTE
	POINT OF CONNECTION - NEW TO EXISTING
WCO	WALL CLEANOUT
WH	WALL HYDRANT
"A"	WATER HAMMER ARRESTOR

NOTE: ALL ITEMS LISTED IN THIS SCHEDULE MAY NOT BE USED IN PROJECT

PLUMBING LOADS

WASTE (DRAINAGE FIXTURE UNITS)	56.5
WATER	75 GPM

REVISIONS			
SYM.		DATE	APPROVED

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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Wilmington, NC 28401
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Fax: 910.791.5266
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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: PLUMBING LEGEND ABBREIVATIONS, SCHEDULES — P-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JBS
DR. JBS
CHK. TOG
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

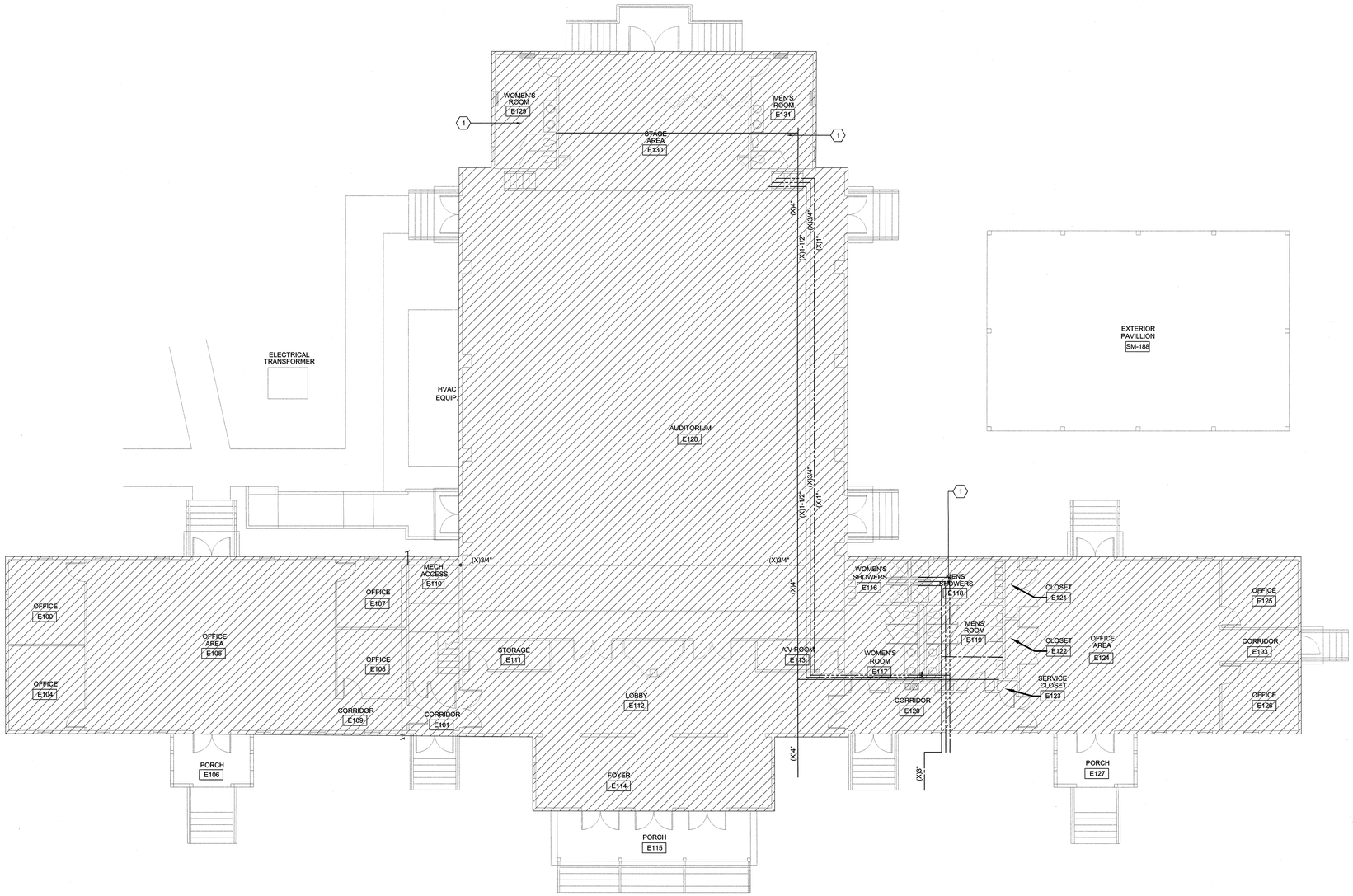
RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025128
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 30 OF 57

REVISIONS			
SYM.		DATE	APPROVED

DEMOLITION KEYED NOTES

1. REMOVE ALL PLUMBING FIXTURES INCLUDING WASTE, VENT AND DOMESTIC WATER PIPING AND ALL ACCESSORIES IN ENTIRETY. RECYCLE SCRAP METAL AS PART OF DEMOLITION AND DECONSTRUCTION OPERATIONS.



1 **FIRST FLOOR DEMOLITION PLAN**
1/8" = 1'-0"

PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: PLUMBING DEMOLITION PLAN

P-2

TALLEY & SMITH ARCHITECTURE INC.
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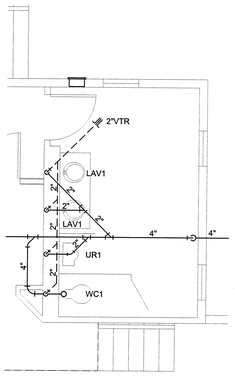
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

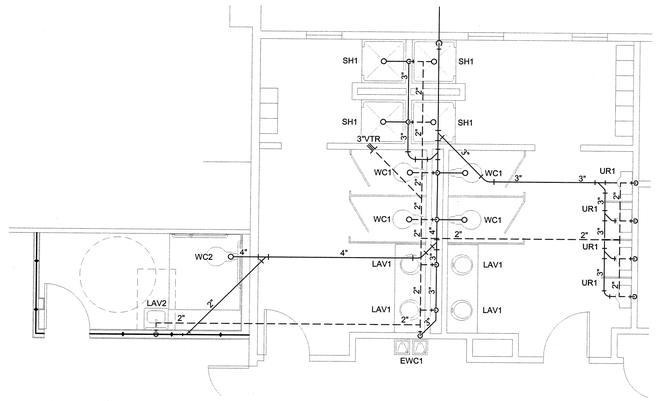
DES.	JBS
DR.	JBS
CHK.	TOG
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025129
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 31 OF 57

REVISIONS			
SYM.		DATE	APPROVED

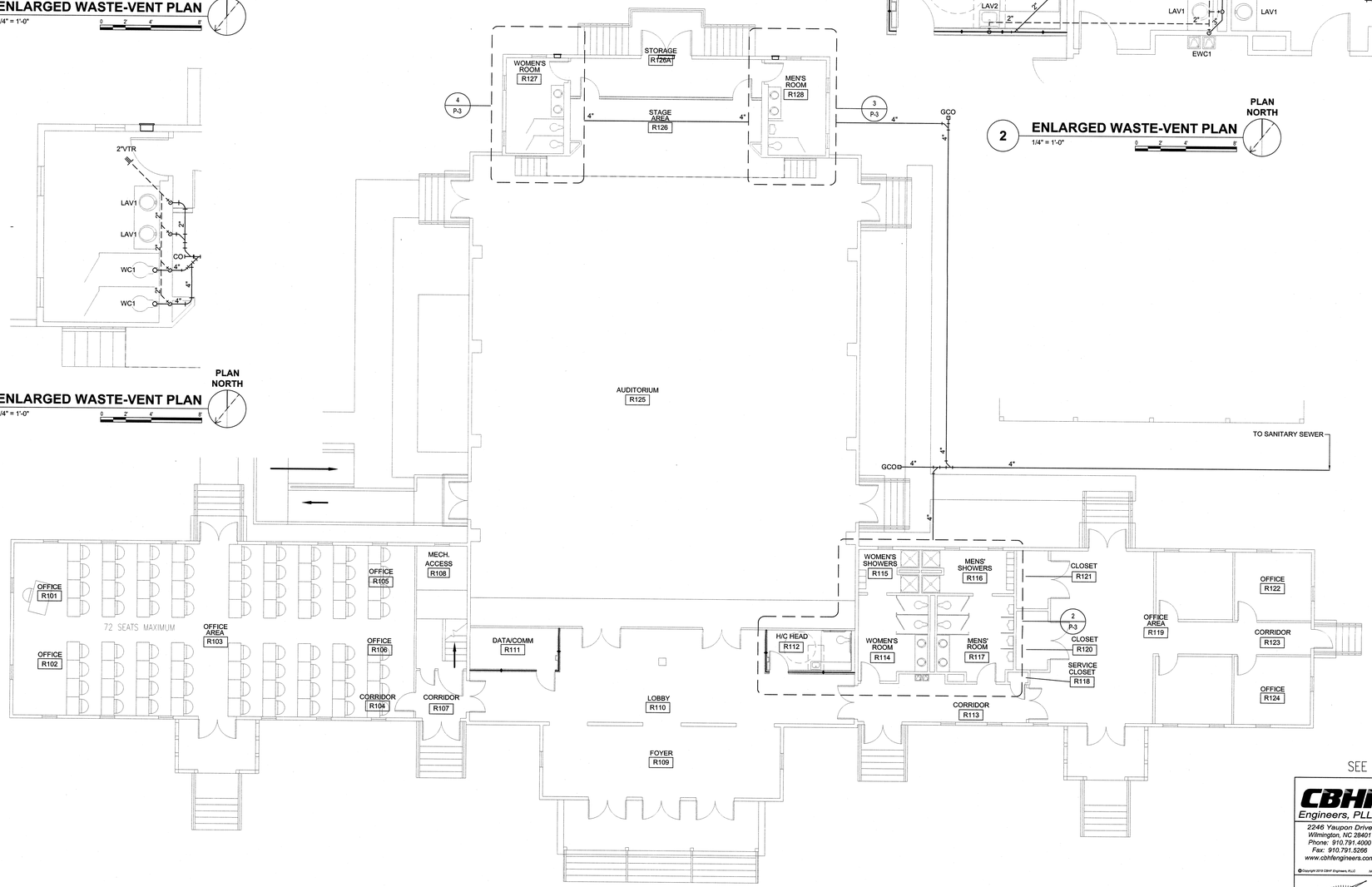


3 ENLARGED WASTE-VENT PLAN
1/4" = 1'-0"
PLAN NORTH



2 ENLARGED WASTE-VENT PLAN
1/4" = 1'-0"
PLAN NORTH

4 ENLARGED WASTE-VENT PLAN
1/4" = 1'-0"
PLAN NORTH



1 FIRST FLOOR WASTE-VENT PLAN
1/8" = 1'-0"
PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

CBHF Engineers, PLLC
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SHEET TITLE: PLUMBING WASTE-VENT FLOOR PLAN

P-3

TALLEY & SMITH ARCHITECTURE INC.
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409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

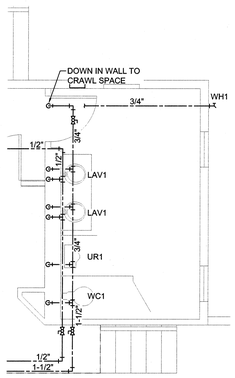
DES. JBS
DR. JBS
CHK. TOG
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025130
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 32 OF 57

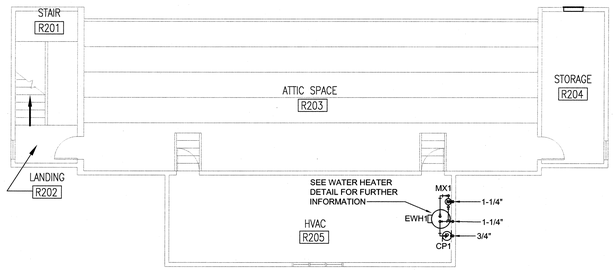
NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

REVISIONS			
SYM.		DATE	APPROVED



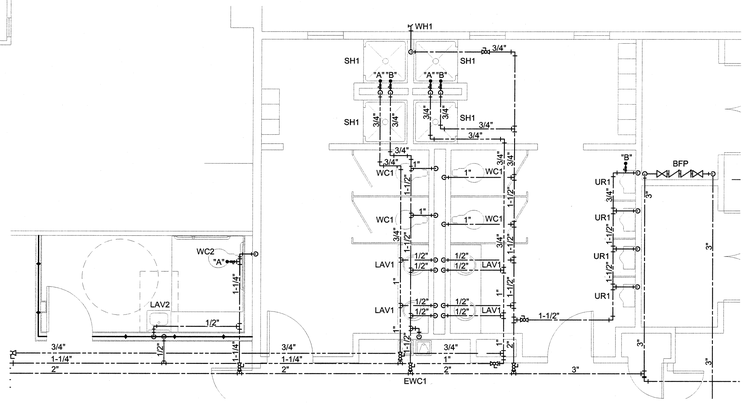
4 ENLARGED DOMESTIC WATER PLAN
1/4" = 1'-0"

PLAN NORTH



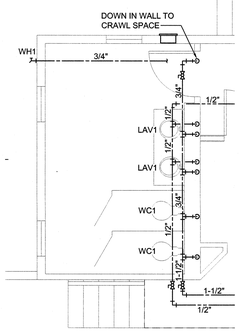
2 MEZZANINE DOMESTIC WATER PLAN
1/8" = 1'-0"

PLAN NORTH



5 ENLARGED DOMESTIC WATER PLAN
1/4" = 1'-0"

PLAN NORTH



3 ENLARGED DOMESTIC WATER PLAN
1/4" = 1'-0"

PLAN NORTH

1 FIRST FLOOR DOMESTIC WATER PLAN
1/8" = 1'-0"

PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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SHEET TITLE:
PLUMBING
DOMESTIC WATER FLOOR PLAN

P-4

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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JBS
DR. JBS
CHK. TOG
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE

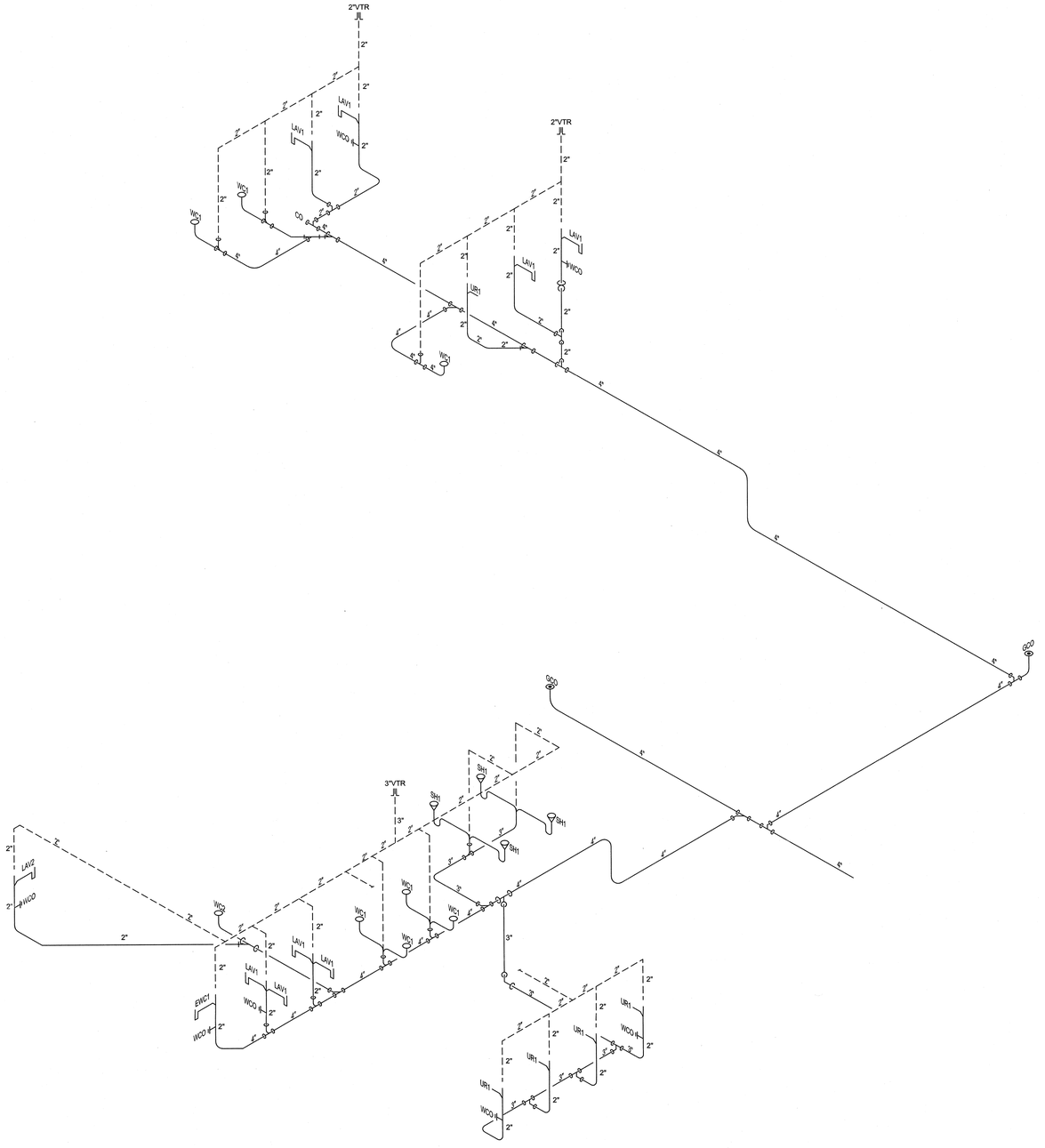
RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

APPROVED: DATE:
SATISFACTORY TO: DATE:

NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025131
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 33 OF 57

REVISIONS			
SYM.		DATE	APPROVED



1 WASTE-VENT RISER DIAGRAM
NOT TO SCALE

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SHEET TITLE: PLUMBING
WASTE-VENT RISER DIAGRAM

P-5

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RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. CRADY
05/28/2019

APPROVED: DATE
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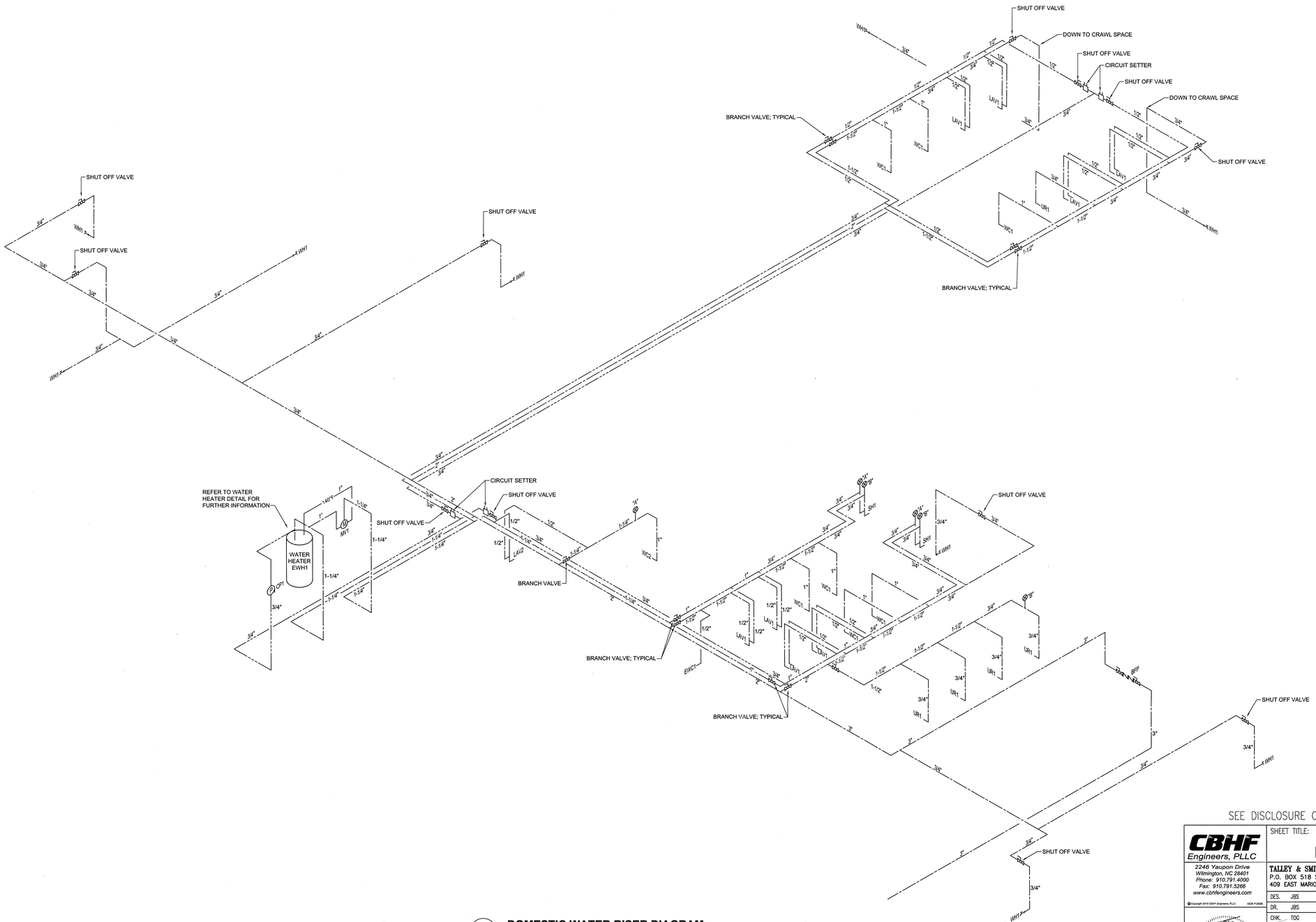
SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025132
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 34 OF 57

REVISIONS			
SYM.		DATE	APPROVED



1 DOMESTIC WATER RISER DIAGRAM
NOT TO SCALE

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SHEET TITLE: PLUMBING
DOMESTIC WATER RISER DIAGRAM

P-6

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DEPARTMENT OF THE NAVY
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06/28/2019

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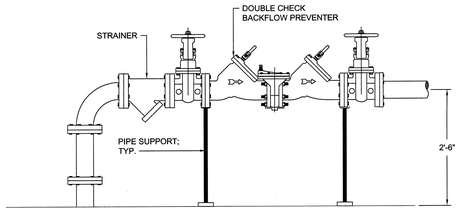
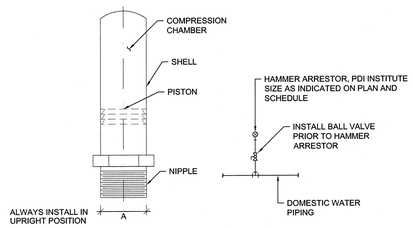
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 35 OF 57

REVISIONS			
SYM.		DATE	APPROVED

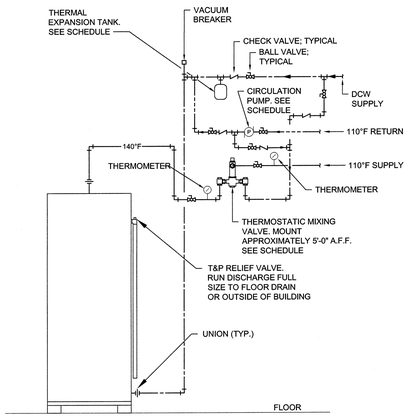


1 WATER SERVICE ENTRANCE DETAIL
NOT TO SCALE

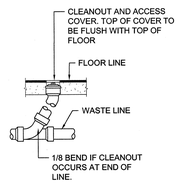


JOSAM NO.	P.D.I. SYMBOL	FIXTURE UNIT RATING	A SIZE
7501-S	A	1-11	1/2
7502-S	B	12-32	3/4
7503-S	C	33-60	1
7504-S	D	61-113	1 1/4
7505-S	E	114-154	1 1/2
7506-S	F	155-330	2

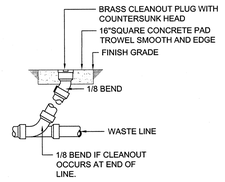
2 WATER HAMMER ARRESTOR DETAIL
NOT TO SCALE



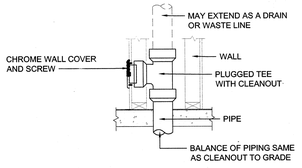
3 WATER HEATER DETAIL
NOT TO SCALE



FLOOR CLEANOUT (FCO)



GRADE CLEANOUT (GCO)



NOTE: CLEANOUT TO BE FLUSH WITH FINISHED WALL.

WALL CLEANOUT (WCO)

4 CLEANOUT DETAILS
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: PLUMBING DETAILS

P-7

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
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RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025134
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 36 OF 57

ABBREVIATIONS

TERM	ABBREVIATION	TERM	ABBREVIATION
ABOVE FINISHED FLOOR	AFF	INCH OF WATER GAUGE	INWG
ABOVE GROUND	AG	INDOOR UNIT	IDU
ABOVE SEA LEVEL	ASL	IRON PIPE SIZE	IPS
ACROSS THE LINE	ACL	KILOVOLT-AMP	KVA
AIR ADMITTANCE VALVE	AAV	KILOWATT	KW
AIR CONDITION(-ING, -ED)	AIR COND	KILOWATT HOUR	KWH
AIR-HANDLING UNIT	AHU OR AH	LEAVING AIR TEMPERATURE	LAT
AIR FLOW MEASURING STATION	AFMA	LEAVING WATER TEMPERATURE	LWT
AMBIENT	AMB	LENGTH	LG
AMPERE (AMP, AMPS)	AMP	LINEAR FEET	LF
ANALOG INPUT	AI	MAXIMUM	MAX
ANALOG OUTPUT	AO	MAXIMUM OVERCURRENT PROTECTION	MOCP
AND	&	MEDIUM-PRESSURE STEAM	MPS
APPARATUS DEW POINT	ADP	MILES PER HOUR	MPH
APPROXIMATE	APPROX	MINIMUM	MIN.
ARCHITECT	ARCH	MINIMUM CIRCUIT AMPERES	MCA
ATMOSPHERE	ATM	MINUTE	MIN
AVERAGE	AVG	MANUFACTURER	MFR
BRAKE HORSEPOWER	BHP	MOTOR CONTROL CENTER	MCC
BROWN & SHARPE WIRE GAGE	B&S	NOISE CRITERIA	NC
BRITISH THERMAL UNIT	BTU	NON-STANDARD PART LOAD	NPLV
BRITISH THERMAL UNIT PER HOUR	BTUH	NORMALLY OPEN	NO
1000 BRITISH THERMAL UNIT	MBH	NORMALLY CLOSED	NC
BUILDING	BLDG	NOT APPLICABLE	N/A
BUILDING AUTOMATION SYSTEM	BAS	NOT IN CONTRACT	N I C
CELSIUS	°C	NOT TO SCALE	NTS
CHILLED WATER RETURN	CHWR	NUMBER	NO
CHILLED WATER SUPPLY	CHWS	ON CENTER	OC
COEFFICIENT, VALVE FLOW	CV	OUNCE	OZ
COEFFICIENT OF PERFORMANCE FACTOR	COP	OUTDOOR UNIT	ODU
COMPRESSOR	COMP	OUTSIDE AIR	OA
CONCRETE	CONC	PACKAGE UNIT	PU
CONDENS(-ER, -ING, -ATION)	COND	PACKAGE TERMINAL AIR CONDITIONER	PTAC
CONNECTION	CONN	PARTS PER MILLION	PPM
CONTINUATION	CONT	PERCENT	%
COOLING LOAD	CLG LOAD	PHASE	PH
CUBIC FEET	CU FT	POUNDS	LBS
CUBIC INCH	CU IN	POUNDS PER SQUARE FOOT	PSF
CUBIC FEET PER MINUTE	CFM	POWER VENTILATOR	PV
CFM, STANDARD CONDITIONS	SCFM	PRESSURE	PRESS
DECIBEL	DB	PRESSURE REDUCING VALVE	PRV
DEGREE	DEG OR °	PRESSURE SAFETY VALVE	PSV
DEDICATED OUTDOOR AIR SYSTEM	DOAS	PUMPED CONDENSATE	PC
DEGREES FAHRENHEIT	DEG. F	QUANTITY	QTY
DETAIL	DET	RATED LOAD AMPS	RLA
DEW-POINT TEMPERATURE	DPT	RECIRCULATE	RECIRC
DIAMETER	DIA	REDUCED PRESSURE BACKFLOW PREVENTER	RPZ
DIAMETER, INSIDE	ID	REFRIGERANT (12, 22, ETC.)	R22, R410
DIAMETER, OUTSIDE	OD	REFRIGERANT LIQUID	RL
DIFFERENCE OR DELTA	DIFF	REFRIGERANT SUCTION	RS
DIGITAL INPUT	DI	REQUIRED	REQD OR REQ'D
DIGITAL OUTPUT	DO	RELATIVE HUMIDITY	RH
DOMESTIC HOT WATER	DHW	RETURN AIR	RA
DOMESTIC HOT WATER RECIRCULATION	DHWR	REVOLUTIONS PER MINUTE	RPM
DRY-BULB TEMPERATURE	DBT	REVOLUTIONS PER SECOND	RPS
DUCTLESS SPLIT SYSTEM AIR HANDLER	DAH	ROOF VENTILATOR	RV
DUCTLESS SPLIT SYSTEM HEAT PUMP	DHP	ROOF TOP UNIT	RTU
ENERGY EFFICIENCY RATING	ERR	SAFETY FACTOR	SF
EFFICIENCY	EFF	SEASONAL ENERGY EFFICIENCY RATIO	SEER
ELECTRIC UNIT HEATER	EUH	SECOND	S
ELEVATION	EL	SHADING COEFFICIENT	SC
ENTERING	ENT	SPECIFICATION	SPEC
ENTERING WATER TEMPERATURE	EWT	SQUARE	SQ
ENTERING AIR TEMPERATURE	EAT	STANDARD	STD
EXISTING	(X)	STATIC PRESSURE	SP
EXTERNAL AMBIENT TEMPERATURE	EAT	SUPPLY	SPLY
EXTERNAL STATIC PRESSURE	ESP	SUPPLY AIR	SA
EXHAUST AIR	EA	TEMPERATURE	TEMP
EXHAUST FAN	EF	TEMPERATURE DIFFERENCE	TD
FACE VELOCITY	FVEL	THERMOSTAT	T STAT
FAHRENHEIT	°F	TONS OF REFRIGERATION	TONS
FEET PER MINUTE	FPM	TO BE DETERMINED	TBD
FEET PER SECOND	FPS	TOP OF STEEL	TOS
FLOOR	FLR	TOTAL DYNAMIC HEAD	TDH
FOOT OR FEET	FT	TYPICAL	TYP
FULL LOAD AMPS	FLA	U-FACTOR	U
GAGE OR GAUGE	GA	UNDER GROUND	UG
GALLONS	GAL	UNLESS OTHERWISE NOTED	UON
GALLONS PER HOUR	GPH	UNIT HEATER - ELECTRIC	UH
GALLONS PER MINUTE	GPM	VARIABLE AIR VOLUME	VAV
GALLONS PER DAY	GPD	VARIABLE FREQUENCY DRIVE	VFD
GAS UNIT HEATER	GUH	VELOCITY	VEL
GRAINS	GR	VENTILATION, VENT	VENT
HEAD	HD	VENT THRU ROOF	VTR
HEAT EXCHANGER	HX	VERTICAL	VERT
HEATING AND VENTILATION UNIT	HV	VOLT	V
HEATING, VENTILATION AND AIR CONDITIONING	HVAC	VOLT AMPERE	VA
HEIGHT	HGT	VOLUME	VOL
HERTZ	HZ	WATER PRESSURE DROP	WPD
HIGH DENSITY POLYPROPYLENE	HDPE	WATER GAUGE	WG
HIGH-PRESSURE STEAM	HPS	WATT	W
HORSEPOWER, HEAT PUMP	HP	WATT-HOUR	WH
HOT WATER COIL	HWC	WITH	W/
HOUR(S)	HR	WEIGHT	WT
HUMIDITY, RELATIVE	RH	WET BULB	WB
INTEGRATED PART LOAD VALUES	IPLV	YARD	YD
INCH	IN.	YEAR	YR

NOTE: ALL ABBREVIATIONS MAY NOT BE USED IN PROJECT.

MECHANICAL LEGEND

- (E) — EMERGENCY SHUTOFF FOR ATFP
- (T) — TEMPERATURE SENSOR
- (TH) — TEMPERATURE/HUMIDITY SENSOR
- (D) — DUCT SMOKE DETECTOR
- INDICATES TO DEMOLISH
- GM — GAS METER
- GAS SHUTOFF VALVE
- EXTENT OF DEMOLITION
- POINT OF CONNECTION
- DIFFUSER/ REGISTER/ GRILLE NO. AS SHOWN ON PLAN AND SCHEDULE
- S,R,T,E
- AIRFLOW, CFM
- AH# — AIR HANDLING UNIT NUMBER
- HP# — HEAT PUMP UNIT NUMBER
- DOAS# — DEDICATED OUTDOOR AIR SYSTEM UNIT NUMBER
- PV# — POWER VENTILATOR NUMBER
- EF# — EXHAUST FAN UNIT NUMBER
- L# — LOUVER NUMBER
- VOLUME DAMPER

MECHANICAL DEMOLITION NOTES

1. THE MECHANICAL CONTRACTOR SHALL REVIEW THE DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL EQUIPMENT, DUCTWORK, SUPPORTS, CONTROLS, ACCESSORIES, ETC..., AND MECHANICAL ITEMS MADE OBSOLETE BY THESE ALTERATIONS AS SHOWN IN THE MECHANICAL DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY MECHANICAL WORK AS REQUIRED BY THE CONSTRUCTION.
2. PREPARE A DEMOLITION PLAN AND SUBMIT PROPOSED DEMOLITION, AND REMOVAL PROCEDURES FOR APPROVAL BEFORE WORK IS STARTED. PLAN SHALL BE APPROVED BY CONTRACTING OFFICER PRIOR TO WORK BEGINNING. DO NOT BEGIN DEMOLITION UNTIL AUTHORIZATION IS RECEIVED FROM THE CONTRACTING OFFICER.
3. BEFORE BEGINNING ANY DEMOLITION WORK, SURVEY THE SITE AND EXAMINE THE DRAWINGS AND SPECIFICATIONS TO DETERMINE THE EXTENT OF THE WORK. RECORD EXISTING CONDITIONS IN THE PRESENCE OF THE CONTRACTING OFFICER SHOWING THE CONDITION OF STRUCTURES AND OTHER FACILITIES ADJACENT TO AREAS OF ALTERATION OR REMOVAL. PHOTOGRAPHS SIZED 4 INCH WILL BE ACCEPTABLE AS A RECORD OF EXISTING CONDITIONS. INCLUDE IN THE RECORD THE ELEVATION OF THE TOP OF FOUNDATION WALLS, FINISH FLOOR ELEVATIONS, POSSIBLE CONFLICTING ELECTRICAL CONDUITS, PLUMBING LINES, ALARMS SYSTEMS, THE LOCATION AND EXTENT OF EXISTING CRACKS AND OTHER DAMAGE AND DESCRIPTION OF SURFACE CONDITIONS THAT EXIST PRIOR TO BEFORE STARTING WORK. IT IS THE CONTRACTOR'S RESPONSIBILITY TO VERIFY AND DOCUMENT ALL REQUIRED OUTAGES WHICH WILL BE REQUIRED DURING THE COURSE OF WORK, AND TO NOTE THESE OUTAGES ON THE RECORD DOCUMENT. SUBMIT SURVEY RESULTS.
4. EXCEPT FOR SALVAGED ITEMS, AND FOR MATERIALS OR EQUIPMENT SCHEDULED FOR SALVAGE, ALL MATERIALS AND EQUIPMENT REMOVED AND NOT REUSED OR SALVAGED, SHALL BECOME THE PROPERTY OF THE CONTRACTOR AND SHALL BE REMOVED FROM GOVERNMENT PROPERTY. TITLE TO MATERIALS RESULTING FROM DEMOLITION AND DECONSTRUCTION, AND MATERIALS AND EQUIPMENT TO BE REMOVED, IS VESTED IN THE CONTRACTOR UPON APPROVAL BY THE CONTRACTING OFFICER OF THE CONTRACTOR'S DEMOLITION, DECONSTRUCTION, AND REMOVAL PROCEDURES, AND AUTHORIZATION BY THE CONTRACTING OFFICER TO BEGIN DEMOLITION AND DECONSTRUCTION. THE GOVERNMENT WILL NOT BE RESPONSIBLE FOR THE CONDITION OR LOSS OF, OR DAMAGE TO, SUCH PROPERTY AFTER CONTRACT AWARD. SHOWING FOR SALE OR SELLING MATERIALS AND EQUIPMENT ON SITE IS PROHIBITED.
5. THESE DRAWINGS ARE COMPILED BY THE ENGINEER FROM THE OWNER'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL DUCTWORK, EQUIPMENT LOCATIONS, DIMENSIONS AND ALL FIELD CONDITIONS AFFECTING HIS WORK.
6. WHERE MECHANICAL SYSTEMS PASS THROUGH THE DEMOLITION AREAS TO SERVE OTHER PORTIONS OF THE PREMISES, THEY SHALL REMAIN OR BE SUITABLY RELOCATED AND THE SYSTEM RESTORED TO NORMAL OPERATION, ADVISE THE CONTRACTING OFFICER IMMEDIATELY IF SUCH CONDITIONS ARE UNCOVERED BEFORE PROCEEDING WITH ADDITIONAL WORK.
7. DO NOT INTERRUPT EXISTING UTILITIES SERVING OCCUPIED OR USED FACILITIES, EXCEPT WHEN AUTHORIZED IN WRITING BY THE CONTRACTING OFFICER. DO NOT INTERRUPT EXISTING UTILITIES SERVING FACILITIES OCCUPIED AND USED BY THE GOVERNMENT EXCEPT WHEN APPROVED IN WRITING AND THEN ONLY AFTER TEMPORARY UTILITY SERVICES HAVE BEEN APPROVED AND PROVIDED. DO NOT BEGIN DEMOLITION OR DECONSTRUCTION WORK UNTIL ALL UTILITY DISCONNECTIONS HAVE BEEN MADE. SHUT OFF AND CAP UTILITIES FOR FUTURE USE, AS INDICATED. TEMPORARY SERVICES INCLUDING BUILDING HEAT AND HEATING OF DOMESTIC WATER SHALL BE REQUIRED WHEN ANY INTERRUPTION OF SUCH SERVICES EXCEEDS 12 HOURS EXCEPT WHEN AUTHORIZED IN WRITING BY THE CONTRACTOR OFFICER.

MECHANICAL GENERAL NOTES

1. SCOPE OF WORK: THESE DRAWINGS AND ACCOMPANYING SPECIFICATIONS DESCRIBE THE SCOPE OF WORK REQUIRED FOR PROJECT MECHANICAL HEATING, VENTILATING AND AIR CONDITIONING SYSTEMS. CONTRACTOR SHALL PROVIDE ALL LABOR AND MATERIAL REQUIRED FOR COMPLETE, FULLY FUNCTIONING MECHANICAL SYSTEMS COMPLYING WITH THE INTENT OF THE DRAWINGS AND SPECIFICATIONS.
2. DRAWINGS: DRAWINGS ARE DIAGRAMMATIC AND MAY NOT COMPLETELY DESCRIBE EVERY DETAIL OF THE INSTALLATION. HOWEVER, CONTRACTOR IS RESPONSIBLE FOR FURNISHING COMPLETE SYSTEMS INCLUDING ALL REQUIRED EQUIPMENT AND ACCESSORIES TO OBTAIN FULLY FUNCTIONING HVAC SYSTEMS.
3. MANUFACTURER'S RECOMMENDATIONS - INSTALL ALL EQUIPMENT IN STRICT ACCORDANCE WITH MANUFACTURER'S RECOMMENDATIONS.
4. WORKMANSHIP - UTILIZE SKILLED MECHANICS TO OBTAIN A HIGH QUALITY PROFESSIONAL FINISH INSTALLATION WHEN COMPLETED. WORK OF UNACCEPTABLE QUALITY SHALL BE REMOVED AND REWORKED AT NO ADDITIONAL COST. CONTRACTING OFFICER SHALL BE THE JUDGE OF WORKMANSHIP AND THEIR OPINION WILL BE FINAL. IN ADDITION, ANY EXISTING CONSTRUCTION DAMAGED BY THE CONTRACTOR SHALL BE REPAIRED OR REPLACED TO THE SATISFACTION OF THE CONTRACTING OFFICER BY THE CONTRACTOR AT NO ADDITIONAL COST.
5. SUPERVISION: PROVIDE SKILLED SUPERINTENDENTS TO SUPERVISE THE WORK FROM THE BEGINNING TO COMPLETION AND FINAL INSPECTION.
6. PROGRESS OF WORK: PERFORM WORK IN ACCORDANCE WITH SCHEDULE AND REQUIREMENTS OF THE OWNER. UNDER NO CIRCUMSTANCES SHALL THIS CONTRACTOR DELAY THE OVERALL PROJECT SCHEDULE.
7. COORDINATION: COORDINATE MECHANICAL WORK WITH THE WORK OF OTHER TRADES. LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE UNLESS SPECIFICALLY DIMENSIONED. LAYOUT MECHANICAL WORK SO AS NOT TO INTERFERE WITH THE WORK OF OTHER TRADES. VERIFY ACTUAL BUILDING STRUCTURE PRIOR TO DUCT FABRICATION AND ADJUST ARRANGEMENT AS REQUIRED. INCLUDE ALL OFFSETS IN DUCTS, FITTINGS, PIPING, ETC. AS REQUIRED TO PROPERLY INSTALL EQUIPMENT.
8. EQUIPMENT LOCATIONS: DETERMINE EXACT EQUIPMENT AND MATERIALS LOCATIONS TO PROVIDE BEST ARRANGEMENT AND TO FACILITATE PROPER MAINTENANCE AND SERVICING OF EQUIPMENT.
9. LISTING AND LABELING: ALL EQUIPMENT SHALL BE LABELED OR LISTED BY UL OR OTHER APPROVED TESTING AGENCY WHERE REQUIRED.
10. CLEANUP: REMOVE ALL DEBRIS GENERATED IN THE ACCOMPLISHMENT OF WORK UNDER THIS PROJECT. CLEAN, REPLACE OR REPAIR ALL SURFACES SOILED OR DAMAGED DURING THE COURSE OF THE WORK. REMOVE DEBRIS DAILY SO TO MAINTAIN SAFE WORKING CONDITIONS.
11. DEMOLISH EXISTING EQUIPMENT PADS AS REQUIRED TO ACCOMMODATE NEW EQUIPMENT LAYOUT.

REVISIONS			
SYM.		DATE	APPROVED

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: MECHANICAL NOTES, ABBREVIATIONS AND LEGEND — M-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

DES.	WTB
DR.	WTB
CHK.	TOG
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025135

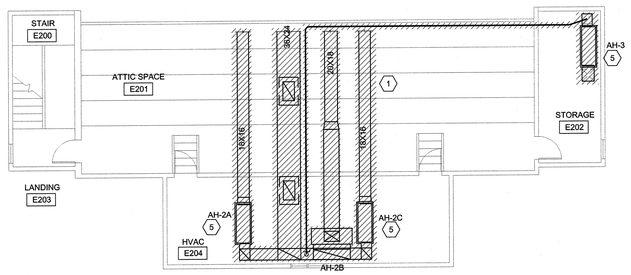
CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 37 OF 57

REVISIONS			
SYM.		DATE	APPROVED

MECHANICAL DEMOLITION KEYED NOTES

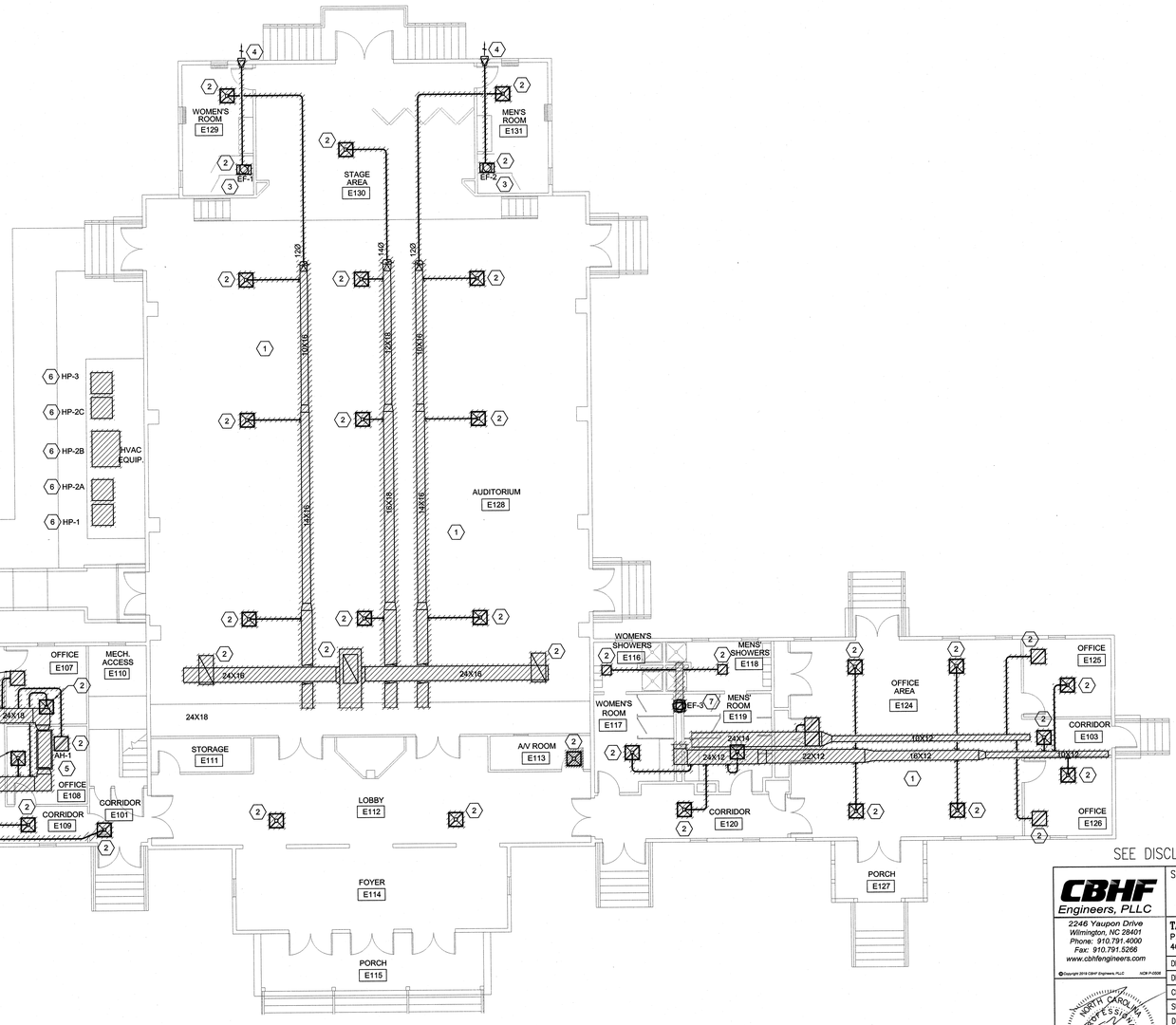
1. REMOVE AND DISPOSE OF EXISTING DUCT.
2. REMOVE AND DISPOSE OF EXISTING DIFFUSERS.
3. REMOVE AND DISPOSE OF EXISTING EXHAUST FANS.
4. REMOVE AND DISPOSE OF EXISTING EHAUST LOUVER.
5. REMOVE AND DISPOSE OF THE HVAC SYSTEM IN ITS ENTIRETY, INCLUDING BUT NOT LIMITED TO, EQUIPMENT, DUCTWORK, INSULATION, FLEXIBLE DUCTWORK, AIR DISTRIBUTION, LOUVERS, HANGERS, SUPPORTS AND CONTROLS.
6. REMOVE AND DISPOSE OF ALL CONDENSING UNITS, REFRIGERANT PIPING, CONTROLS.
7. REMOVE AND DISPOSE OF EXISTING EXHAUST FAN AND ROOF HOOD, INCLUDING, BUT NOT LIMITED TO, DUCTWORK, HANGERS, INSULATION, CONTROLS AND ETC.



2 MECHANICAL MEZZANINE DEMOLITION PLAN

1/8" = 1'-0"

PLAN NORTH



1 MECHANICAL DEMOLITION PLAN

NOT TO SCALE

PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY

06/28/2019

SHEET TITLE: MECHANICAL DEMOLITION PLAN

M-2

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

DES.	WTB
DR.	WTB
CHK.	TOG
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025136

CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 38 OF 57

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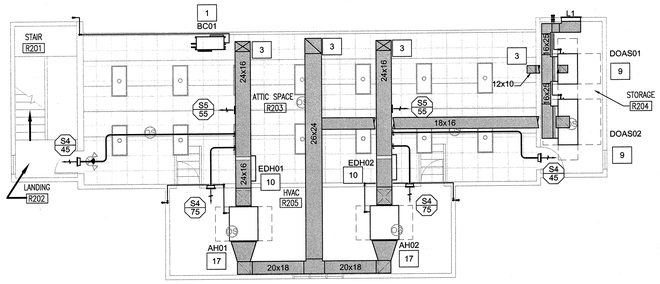
MECHANICAL KEYED NOTES

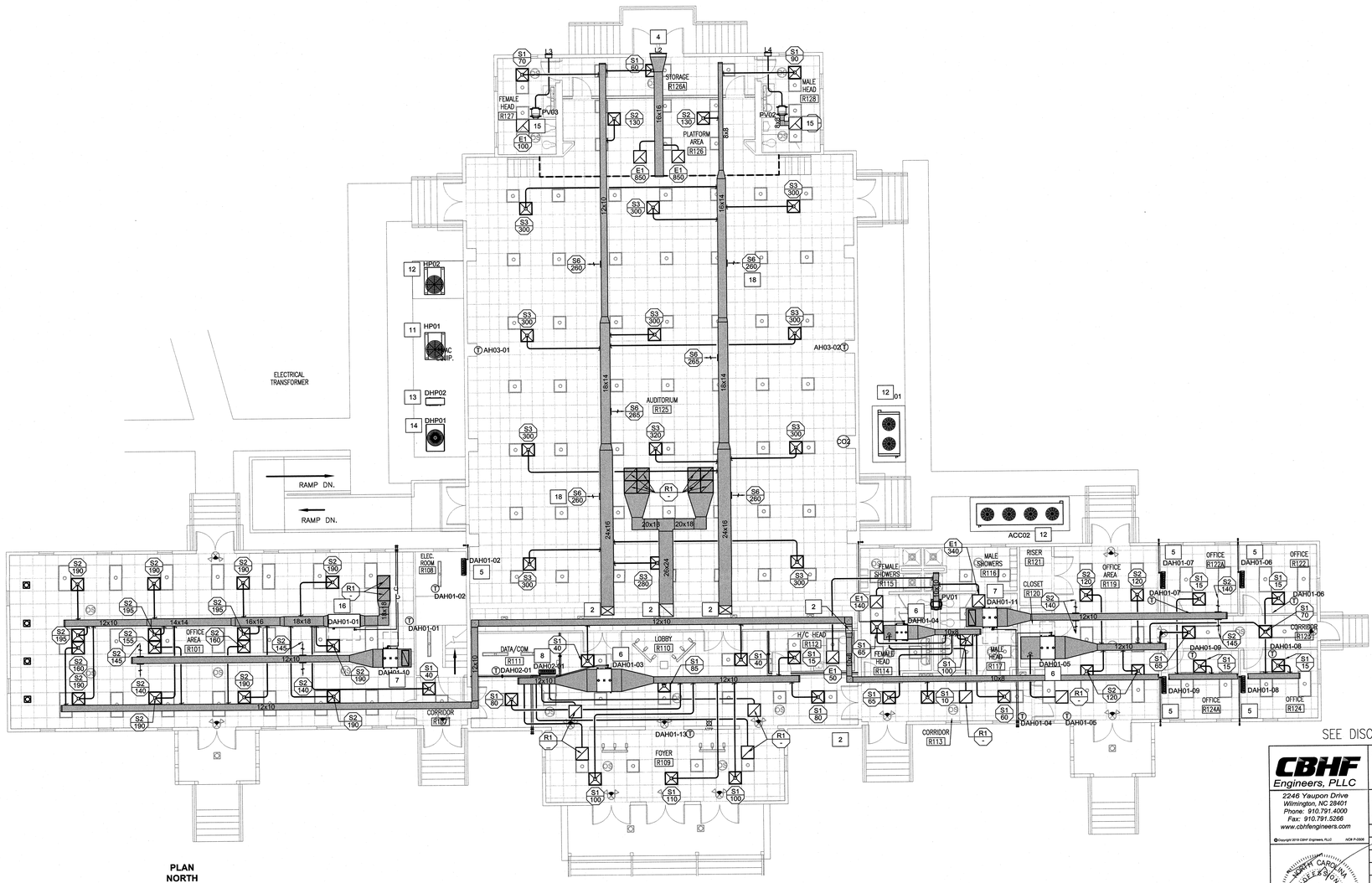
1. INSTALL BRANCH CONTROLLER WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO ASSOCIATED AIR HANDLING UNITS. ROUTE CONDENSATE PIPING TO EXTERIOR OF BUILDING AND SPILL TO GRADE
2. ROUTE DUCTWORK UP TO MEZZANINE ABOVE. REFER TO 2/M-3 FOR CONTINUATION.
3. ROUTE DUCTWORK DOWN TO ABOVE AUDITORIUM CEILING. REFER TO 1/M-3 FOR CONTINUATION.
4. INSTALL LOUVER WITH RELIEF DAMPER IN EXTERIOR WALL.
5. INSTALL AIR HANDLER HIGH ON WALL WHILE MAINTANING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO BRANCH CONTROLLER BC01. ROUTE CONDENSATE TO EXTERIOIR OF BUILDING AND SPILL TO GRADE.
6. SUSPEND AIR HANDLER FROM STRUCTURE IN ATTIC WHILE MAINTANING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO BRANCH CONTROLLER BC01. ROUTE CONDENSATE TO EXTERIOIR OF BUILDING AND SPILL TO GRADE.
7. SUSPEND AIR HANDLER FROM STRUCTURE IN ATTIC WHILE MAINTANING MANUFACTURERS RECOMMENDED CLEARANCES. ATTACH TEMPERATURE SENSOR TO AIR HANDLING UNIT. ROUTE REFRIGERANT PIPING TO BRANCH CONTROLLER BC01. ROUTE CONDENSATE TO EXTERIOIR OF BUILDING AND SPILL TO GRADE. UNIT SHALL CONDITION ATTIC SPACE.
8. INSTALL INDOOR MINI-SPLIT UNIT HIGH ON WALL WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARNACES. ROUTE REFRIGERANT PIPING TO ASSOCIATED OUTDOOR UNIT. ROUTE CONDENSATE PIPING TO EXTERIOR OF BUILDING AND SPILL TO GRADE.
9. INSTALL NEW DOAS UNIT ACCORDING TO MANUFACTURERS RECOMMENDATIONS AND MAINTAIN SERVICE CLEARANCES. ROUTE REFRIGERANT PIPING TO ASSOCATED OUTDOOR UNIT.
10. INSTALL NEW ELECTRIC DUCT HEATER ACCORDING TO MANUFACTURERS RECOMMENDATIONS.
11. INSTALL OUTDOOR UNIT ON EXISTING CONCRETE PAD IN THE GENERAL LOCATION SHOWN ON PLANS WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT.
12. INSTALL OUTDOOR UNIT ON NEW CONCRETE PAD IN THE GENERAL LOCATION SHOWN ON PLANS WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT.
13. INSTALL OUTDOOR MINI-SPLIT UNIT ON EXISTING CONCRETE PAD IN GENERAL LOCATION SHOWN ON PLANS WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO ASSOCIATED INDOOR UNIT.
14. INSTALL OUTDOOR UNIT ON EXISTING CONCRETE PAD IN THE GENERAL LOCATION SHOWN ON PLANS WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRGERANT PIPING TO BC01.
15. SUSPEND POWER VENTALATOR FROM STRUCTURE IN ATTIC WHILE MAINTAINING MANUFACTURERS RECOMMENDED CLEARANCES.
16. INSTALL AIR HANDLER IN HORIZONTAL POSITION WHILE MAINTANING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE REFRIGERANT PIPING TO BRANCH CONTROLLER BC01. ROUTE CONDENSATE TO EXTERIOIR OF BUILDING AND SPILL TO GRADE.
17. INSTALL AIR HANDLER WHILE MAINTANING MANUFACTURERS RECOMMENDED CLEARANCES. ROUTE CONDENSATE TO EXTERIOIR OF BUILDING AND SPILL TO GRADE.
18. SIDE WALL DIFFUSER FOR CONDITIONING ATTIC SPACE. (TYP)



2 MECHANICAL MEZZANINE FLOOR PLAN

1/8" = 1'-0"

PLAN NORTH



1 MECHANICAL FLOOR PLAN

1/8" = 1'-0"

PLAN NORTH

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NORTH CAROLINA PROFESSIONAL ENGINEER TROY D. GRADY SEAL 043801

06/28/2019

SHEET TITLE: MECHANICAL FLOOR PLAN

M-3

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

DES.	WTB
DR.	WTB
CHK.	TOG
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025137

CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 39 OF 57

REVISIONS			
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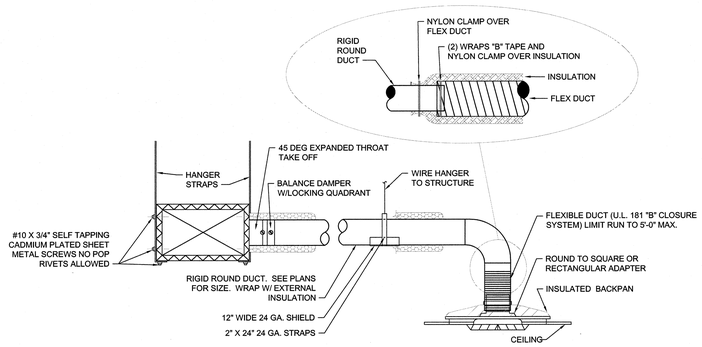
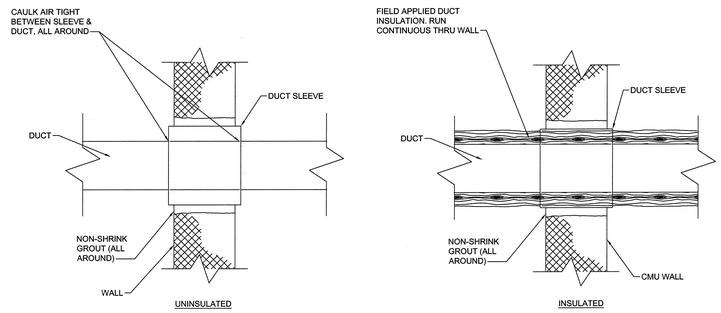
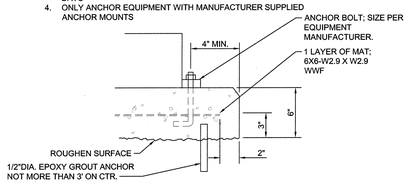


1 **TYPICAL DIFFUSER CONNECTION DETAIL**
NOT TO SCALE



2 **DUCT PENETRATION DETAIL (TYPICAL)**
NOT TO SCALE

NOTE:
1. MESH SHALL BE FURNISHED IN SHEETS.
2. ALL PAD EDGES SHALL BE CHAMFERED.
3. CONCRETE COMPRESSIVE STRENGTH SHALL BE 3,000 PSI AT 28 DAYS
4. ONLY ANCHOR EQUIPMENT WITH MANUFACTURER SUPPLIED ANCHOR MOUNTS



3 **EQUIPMENT PAD DETAIL**
NOT TO SCALE

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: MECHANICAL DETAILS

M-4

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. WTB
DR. WTB
CHK. TOG
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025138
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 40 OF 57

REVISIONS			
SYM.		DATE	APPROVED

SPLIT SYSTEM DEDICATED OUTSIDE AIR UNIT SCHEDULE

DRAWING CODE (IDU /ODU)	SYSTEM TYPE	OUTSIDE AIR FAN		DX COOLING				HOT GAS REHEAT			ELECTRICAL									NOTES	ACCESSORIES
		OUTSIDE AIR (CFM)	ESP (IN H2O)	TOT CAP (MBH)	SENS CAP (MBH)	LAT (°F DB)	LAT (°F WB)	CAP (MBH)	EAT (°F)	LAT (°F)	ELECTRIC HEAT (KW)	INDOOR UNIT (V/PH/HZ)	MCA (AMPS)	MOCP(AMPS)	WEIGHT (LBS)	OUTDOOR UNIT (V/PH/HZ)	MCA (AMPS)	MOCP(AMPS)	WEIGHT (LBS)		
DOAS01 / ACC01	HEAT PUMP	715	0.75	65.7	33	49.8	49.8	15.4	49.8	69.8	12.5	208/3/60	42.6	45	777	208/3/60	6.3	15	400	1,2,3,4,6	A,B,C,D,E,F,G,H
DOAS02 / ACC02	HEAT PUMP	1,980	1.50	173.6	87.7	50.8	50.8	42.8	50.7	70.7	35.0	208/3/60	121.9	125.0	1256.0	208/3/60	11.9	15.0	935	1,2,3,5,6	A,B,C,D,E,F,G,H

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.
2. OUTDOOR DESIGN CONDITIONS: 91.0F / 77.0F 1%DB/MCWB AND 140 GRAINS/LB WITH AN 84.0F MCDB COOLING/DEHUMIDIFYING CONDITIONS. 26.0F 99% AND 22.0F 99.6% HEATING CONDITIONS. EQUIPMENT SELECTION SHALL MEET ALL CONDITIONS.
3. EFFICIENCY RATED IN ACCORDANCE WITH ANSI/AHRI STANDARD 340/360.
4. CONTROLS CONTRACTOR SHALL PROVIDE ON/OFF SIGNAL TO UNIT BASED ON OCCUPANCY SCHEDULE.
5. CONTROLS CONTRACTOR SHALL PROVIDE ON/OFF SIGNAL TO UNIT BASED DEMAND CONTROL VENTILATION.
6. FIELD INSTALL THE FOLLOWING MONITORING SENSORS: OUTSIDE AIR TEMPERATURE AND HUMIDITY, SUPPLY AIR TEMPERATURE AND HUMIDITY, RETURN AIR TEMPERATURE, SUPPLY FAN STATUS AND EXHAUST FAN STATUS. SENSORS SHALL BE SUPPLIED AND INSTALLED BY CONTROLS CONTRACTOR.

ACCESSORIES:
A. INSULATED FLOOR AND DRAIN PAN.
B. OA DAMPER WITH MOTOR ACTUATOR.
C. SINGLE POINT ELECTRICAL CONNECTION.
D. MODULATING HOT GAS REHEAT.
E. FILTERS: OUTDOOR INTAKE-2" MERV 8
F. HOT GAS BYPASS WITH MANUAL SHUTOFF VALVE.
G. SCR CONTROLLED ELECTRIC HEAT.
H. INTERFACE FOR CONNECTION TO EXISTING CFCC BMS.

VRF SPLIT SYSTEM SCHEDULE

DRAWING CODE (INDOOR)	DRAWING CODE (OUTDOOR)	BRANCH CONTROLLER	DEDICATED OUTDOOR AIR SYSTEM	CONFIGURATION	INDOOR UNIT		OUTDOOR UNIT		MIN EER	MIN COP	INDOOR UNIT					OUTDOOR UNIT				NOTES	ACCESSORIES
					NOMINAL COOLING CAPACITY (MBH)	NOMINAL HEATING CAPACITY (MBH)	NOMINAL COOLING CAPACITY (MBH)	NOMINAL HEATING CAPACITY (MBH)			FAN SA MIN-MAX (CFM)	ELECTRICAL VOLTAGE (V/PH/HZ)	MCA (AMPS)	MOCP (AMPS)	WEIGHT (LBS)	ELECTRICAL VOLTAGE (V/PH/HZ)	MCA (AMPS)	MOCP (AMPS)	WEIGHT (LBS)		
DAH01-01	DHP01	BCC01	DOAS01	MULTI-POSITION AIR HANDLER	54.0	60.0	144.0	160.0	11.0	3.4	1040-1485	208/1/60	5.63	15	172	208/3/60	52	80	646	1,2,3,4,5	A,B,C,D,E,
DAH01-02				WALL MOUNT	6.0	6.7					170-210	208/1/60	0.19	15	22					1,2,3,4,5	A,B,C,D,E,H
DAH01-03				HORIZONTAL DUCTED - MEDIUM STATIC	18.0	20.0					424-600	208/1/60	1.56	15	58					1,2,3,4,5	A,B,C,D,E,F,G
DAH01-04				HORIZONTAL DUCTED - MEDIUM STATIC	12.0	13.5					265-371	208/1/60	1.2	15	49					1,2,3,4,5	A,B,C,D,E,F,G
DAH01-05				HORIZONTAL DUCTED - MEDIUM STATIC	18.0	20.0					424-600	208/1/60	1.56	15	58					1,2,3,4,5	A,B,C,D,E,F,G
DAH01-06				WALL MOUNT	6.0	6.7					170-210	208/1/60	0.19	15	22					1,2,3,4,5	A,B,C,D,E,H
DAH01-07				WALL MOUNT	6.0	6.7					170-210	208/1/60	0.19	15	22					1,2,3,4,5	A,B,C,D,E,H
DAH01-08				WALL MOUNT	6.0	6.7					170-210	208/1/60	0.19	15	22					1,2,3,4,5	A,B,C,D,E,H
DAH01-09				WALL MOUNT	6.0	6.7					170-210	208/1/60	0.19	15	22					1,2,3,4,5	A,B,C,D,E,H
DAH01-10				HORIZONTAL DUCTED - MEDIUM STATIC	15.0	17.0					353-494	208/1/60	1.45	15	58					1,2,3,4,5	A,B,C,D,E,F,G
DAH01-11				HORIZONTAL DUCTED - MEDIUM STATIC	15.0	17.0					353-494	208/1/60	1.45	15	58					1,2,3,4,5	A,B,C,D,E,F,G

NOTES:
1. REFER TO SPECIFICATION 23 81 28.00 22 VARIABLE REFRIGERANT FLOW (VRF) AIR CONDITIONING AND HEAT PUMP EQUIPMENT FOR FURTHER INFORMATION.
2. MAXIMUM COOLING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 80/67°F (DB), OUTDOOR OF 95°F (WB)
3. MAXIMUM HEATING CAPACITIES ARE BASED ON INDOOR COIL EAT OF 70°F (DB), OUTDOOR OF 23°F (WB)
4. PROVIDE CENTRAL CONTROLLER AND DDC SYSTEM INTERFACE
5. REFER TO SCHEMATIC PIPING/CONTROL DIAGRAM ON MECHANICAL DRAWINGS FOR INDICATION OF REQUIRED INDOOR UNIT REMOTE CONTROLLERS, SYSTEM CONTROLLERS, AND INTEGRATION DEVICES.

ACCESSORIES:
A. BUILT-IN CONDENSATE LIFT MECHANISM
B. MANUFACTURER'S SEACOAST PROTECTION PASSING ASTM B117 90 3000 HOUR SALT SPRAY RESISTANCE TEST AS INSTALLED.
C. CONCRETE MOUNTING PAD.
D. HAIL GUARD ON OUTDOOR UNIT.
E. WIRED WALL-MOUNTED REMOTE CONTROLLER WITH VANDAL PROOF ENCLOSURE.
F. PROVIDE BLUE DIAMOND MAXIBLUE CONDENSATE PUMP AND RESERVOIR OR EQUAL WITH CAPACITY OF 3.7 GAL/HR AT 16.5 FT OF HEAD. INTERLOCK TO SHUTDON UNIT.
G. PROVIDE FILTER BOX FOR HORIZONTAL DUCTED UNITS.
H. PROVIDE ASPEN MINI WHITE CONDENSATE PUMP AND RESERVOIR OR EQUAL WITH CAPACITY OF 1.6 GAL/HR AT 33 FT OF HEAD. INTERLOCK TO SHUTDOWN UNIT.

SPLIT SYSTEM SCHEDULE

DRAWING CODE (IDU/ODU)	SYSTEM TYPE	COOLING (AHRI STANDARD)			HEATING (AHRI STANDARD)		INDOOR UNIT		ELECTRICAL						WEIGHT (LBS.)		NOTES	ACCESSORIES
		TOTAL (MBH)	SENSIBLE (MBH)	EFFICIENCY	TOTAL (MBH)	EFFICIENCY	SUPPLY AIRFLOW (CFM)	ESP (IN. WG.)	AUX HEAT CAP (KW)	INDOOR UNIT (V/PH/HZ)	(MCA)	(MOCP)	OUTDOOR UNIT (V/PH/HZ)	(MCA)	(MOCP)	INDOOR UNIT	OUTDOOR UNIT		
AH01/HP01	HEAT PUMP	91.0	62.4	EER 11.2	82.0	COP 3.3	3000	0.75	N/A	208/3/60	7.0	15	208/3/60	33.0	45	360	470	1,2,3,4,5	A,B,C,D,F,G,H
AH02/HP02	HEAT PUMP	91.0	62.3	EER 11.2	82.0	COP 3.3	3000	0.75	N/A	208/3/60	7.0	15	208/3/60	33.0	45	360	470	1,2,3,4,5	A,B,C,D,E,F,G,H

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.
2. 2-STAGE/DUAL CIRCUIT UNIT.
3. FILTER VELOCITY NOT TO EXCEED 350 FPM.
4. HEAT PUMP COILS TO BE COATED FOR EXPOSURE TO ASTM B117-90 3000 HOUR SALT SPRAY RESISTANCE TEST WITH NO DEGRADATION.
5. MECHANICAL CONTRACTOR SHALL INSTALL DUCT SMOKE DETECTOR PROVIDED BY FIRE ALARM CONTRACTOR.

ACCESSORIES:
A. HAIL-/VANDAL-PROOF COIL GUARD FOR OUTDOOR UNIT
B. BACNET MSTP DDC SYSTEM INTERFACE
C. RETURN AIR PLENUM WITH INTEGRAL FILTER RACK
D. REMOVABLE DRAIN PAN WITH FLOAT SWITCH INTERLOCKED WITH POWER SUPPLY
E. CONCRETE SUPPORT PAD FOR OUTDOOR UNIT
F. SINGLE POINT POWER SUPPLY
G. PHASE MONITOR FOR 3-PHASE EQUIPMENT
H. SINGLE ZONE VAV WITH VARIABLE FREQUENCY DRIVE ON MOTOR

LOUVER SCHEDULE

DRAWING CODE	TYPE	FRAME	DESCRIPTION	MATERIAL	LOUVER DEPTH (IN.)	SIZE (W x H) (IN.)	SERVICE	AIRFLOW (CFM)	PERFORMANCE RATINGS FREE AREA (SF)	PERFORMANCE RATINGS S.P. LOSS (IN.H20)	NOTES	ACCESSORIES
L1	FIXED	CHANNEL	HORIZONTAL, DRAINABLE-BLADE	ALUMINUM	6	30 X 30	INTAKE	2500	3.18	0.1	1,2	A
L2	FIXED	CHANNEL	HORIZONTAL, DRAINABLE-BLADE	ALUMINUM	6	30 X 30	EXHAUST	1700	3.18	0.1	1,2	A
L3	FIXED	CHANNEL	HORIZONTAL, DRAINABLE-BLADE	ALUMINUM	6	12 X 12	EXHAUST	100	0.31	0.1	1,2	A
L4	FIXED	CHANNEL	HORIZONTAL, DRAINABLE-BLADE	ALUMINUM	6	12 X 12	EXHAUST	100	0.31	0.1	1,2	A

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.
2. FINISH AS SELECTED BY ARCHITECT FROM MANUFACTURER'S FULL RANGE OF COLOR AND GLOSS.

ACCESSORIES:
A. BIRD SCREEN

POWER VENTILATOR SCHEDULE

DRAWING CODE	FAN TYPE	SERVICE	CAPACITIES					ELECTRICAL				SONES	WEIGHT (LBS.)	NOTES	ACCESSORIES
			AIRFLOW (CFM)	ESP (IN. WG.)	DRIVE ARRANGEMENT	FAN RPM	MOTOR RPM	MOTOR TYPE	MOTOR SIZE (HP)	V/PH/HZ	MCA	MOCP				
PV01	CENTRIFUGAL ROOF VENTILATORS	EXHAUST	530	0.25	DIRECT	1725	1725	ECM	0.10	115/1/60	2	15	6	34	1	A,B,C
PV02	IN-LINE CENTRIFUGAL FANS	EXHAUST	100	0.25	DIRECT	1725	1725	ECM	0.066	115/1/60	1	15	2.8	43	1	A,B
PV03	IN-LINE CENTRIFUGAL FANS	EXHAUST	100	0.25	DIRECT	1725	1725	ECM	0.066	115/1/60	1	15	2.8	43	1	A,B

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.

ACCESSORIES:
A. BIRDSCREEN.
B. MOTORIZED DAMPER.
C. ROOF CURB AND SEAL

DUCTLESS SPLIT SYSTEM SCHEDULE

DRAWING CODE (IDU / ODU)	ARI COOLING 80/67/95 TOTAL (MBH)	ARI COOLING 80/67/95 MIN. (MBH)	ARI HEATING 70/47 TOTAL (MBH)	MIN SEER	MIN HSPF	INDOOR UNIT FAN SA MIN-MAX (CFM)	INDOOR UNIT ELECTRICAL VOLTAGE (V/PH/HZ)	INDOOR UNIT ELECTRICAL MCA (AMPS)	INDOOR UNIT WEIGHT (LBS)	OUTDOOR UNIT ELECTRICAL VOLTAGE (V/PH/HZ)	OUTDOOR UNIT ELECTRICAL MCA (AMPS)	OUTDOOR UNIT ELECTRICAL MOCP (AMPS)	OUTDOOR UNIT WEIGHT (LBS)	REFRIGERANT PIPING MAXIMUM LENGTH (FT.)	REFRIGERANT PIPING MAXIMUM HEIGHT DIFFERENTIAL (FT.)	NOTES	ACCESSORIES
DAH02-01 / DHP02	12.0	1.5	14.4	23.1	12.5	145-399	208/1/60	1	22	208/1/60	9	15	81	65	40	1	A,B,C,D

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.

ACCESSORIES:
A. ELECTRICAL CONTRACTOR TO PROVIDE CONDUIT AND CONDUCTOR FROM OUTDOOR UNIT TO INDOOR UNIT.
B. HEAT PUMP COILS TO BE COATED FOR EXPOSURE TO ASTM B117-90 3000 HOUR SALT SPRAY RESISTANCE TEST WITH NO DEGRADATION.
C. PROVIDE BACNET DDC CONTROL SYSTEM INTERFACE
D. PROVIDE ASPEN MINI WHITE CONDENSATE PUMP AND RESERVOIR OR EQUAL WITH CAPACITY OF 1.6 GAL/HR AT 33 FT OF HEAD. INTERLOCK TO SHUTDOWN UNIT.

BRANCH CIRCUIT CONTROLLER SCHEDULE

DRAWING CODE	POWER INPUT (RATED) COOLING (kw)	POWER INPUT (RATED) HEATING (kw)	ELECTRICAL VOLTAGE (V/PH/HZ)	ELECTRICAL MCA (A)	ELECTRICAL MOCP (A)	WEIGHT (LBS)	NOTES	ACCESSORIES
BC01	0.198	0.106	208/1/60	1.57	15	133	1,2	A

NOTES:
1. REFER TO SPECIFICATION 23 81 28.00 22 VARIABLE REFRIGERANT FLOW (VRF) AIR CONDITIONING AND HEAT PUMP EQUIPMENT FOR FURTHER INFORMATION.
2. PROVIDE GRAVITY DRAIN CONDENSATE PIPING AS INDICATED.

ACCESSORIES:
A. SUCTION AND LIQUID LINES SERVICE ISOLATION VALVES FOR ALL PORTS.

ELECTRIC DUCT HEATER SCHEDULE

DRAWING CODE	KW	HEATER DIMENSIONS HEIGHT (IN)	HEATER DIMENSIONS WIDTH (IN)	STEPS	AIR SIDE FLOW RATE (CFM)	AIR SIDE STATIC PRESSURE DROP (IN. WG.)	ELECTRICAL VOLTAGE (V/PH/HZ)	ELECTRICAL MCA (AMPS)	ELECTRICAL MOCP (AMPS)	NOTES	ACCESSORIES
EDH01	33.4	16.0	24.0	SCR	3,000	_	230/3/60	104.8	130	1,2,3	A - K
EDH02	33.4	16.0	24.0	SCR	3,000	_	230/3/60	104.8	130	1,2,3	A - K

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.
2. OPEN COIL SLIP-IN DUCT SIZE.
3. POSITIVE PRESSURE SYSTEM.

ACCESSORIES:
A. SCR CONTROL WITH DUCT MOUNTED DISCHARGE AIR TEMPERATURE SENSOR.
B. CONTROL TRANSFORMER CLASS 2 - 24V.
C. DISCONNECTING CONTACTOR.
D. MAGNETIC CONTACTOR.
E. UNFUSED DOOR INTERLOCKING DISCONNECT.
F. 100% SCR CONTROLLER.
G. INSULATED CONTROL PANEL.
H. STAINLESS STEEL TERMINALS.
I. HINGED COVER.
J. AIRFLOW SWITCH.
K. UL LISTED.

DIFFUSERS, REGISTERS AND GRILLES SCHEDULE

DRAWING CODE	TYPE	SERVICE	NECK SIZE (IN.)	MODULE SIZE (IN.)	MATERIAL	FINISH	MOUNTING	NOTES	ACCESSORIES
S1	SQUARE CEILING DIFFUSER	SUPPLY	6Ø	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S2	SQUARE CEILING DIFFUSER	SUPPLY	8Ø	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S3	SQUARE CEILING DIFFUSER	SUPPLY	10Ø	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	A
S4	FIXED FACE GRILLE	SUPPLY	6Ø	8 X 12	ALUMINUM	WHITE	WALL SURFACE	1,2	A,B
S5	FIXED FACE GRILLE	SUPPLY	_	10 x 4	ALUMINUM	WHITE	DUCT SURFACE	1,2	A,B
S6	FIXED FACE GRILLE	SUPPLY	_	12 x 6	ALUMINUM	WHITE	DUCT SURFACE	1,2	A,B
R1	SQUARE CEILING DIFFUSER	RETURN	20 X 20	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	
R2	FIXED FACE GRILLE	RETURN	_	30 X 14	ALUMINUM	WHITE	DUCT SURFACE	1,2	
E1	FIXED FACE GRILLE	EXHAUST	20 X 20	24 X 24	ALUMINUM	WHITE	T-BAR	1,2	

NOTES:
1. REFER TO SPECIFICATION SECTION 23 73 33 - HEATING, VENTILATION, AND COOLING SYSTEM FOR FURTHER REQUIREMENTS.
2. DUCT BRANCH CONNECTION SIZE TO BE EQUAL TO THE NECK SIZE OF DIFFUSER UNLESS NOTED OTHERWISE ON PLANS.

ACCESSORIES:
A. VOLUME DAMPER.
B. CONCEALED MOUNTING BRACKET.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRASSY 06/28/2019

SHEET TITLE: MECHANICAL SCHEDULES

M-5

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

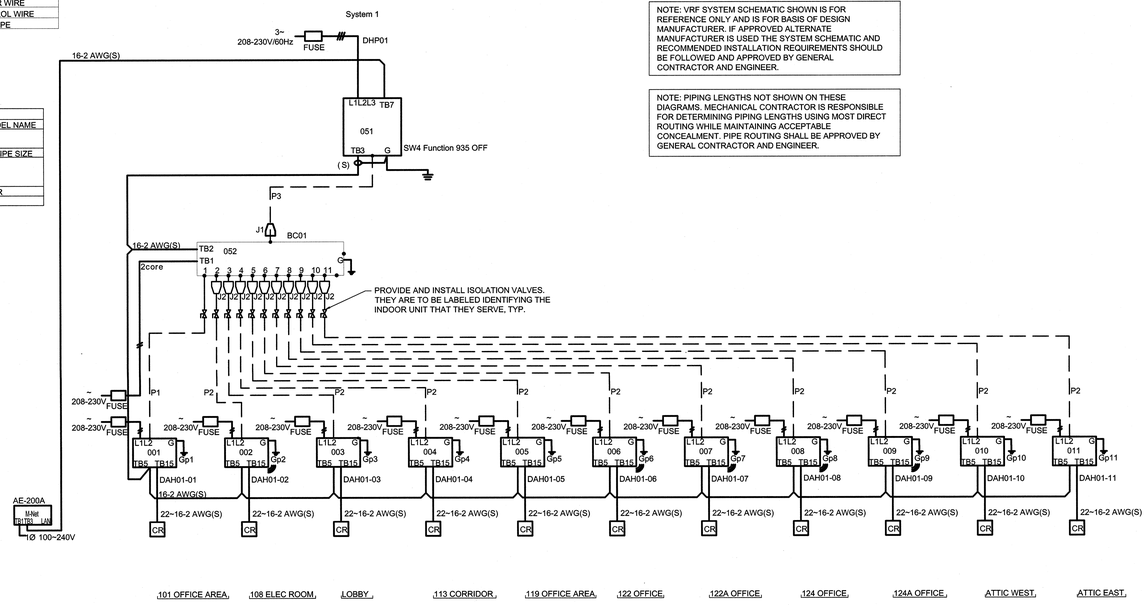
DES. WTB	
DR. WTB	
CHK. TOC	
SUBMITTED BY:	
DESIGN DIR. T H BURTON, PE	
APPROVED: DATE	
SATISFACTORY TO: DATE	

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025139
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 41 OF 57

REVISIONS			
SYM.		DATE	APPROVED

DIAGRAM SYMBOL LEGEND	
DISPLAY	DESCRIPTION
—//—	POWER WIRE
———	CONTROL WIRE
———	REF. PIPE

PIPING AND CONTROLS	
SYMBOL	BRANCH PIPE MODEL NAME
J1	CMY-R302S-G1
J2	Reducer
SYMBOL	LIQUID PIPE/GAS PIPE SIZE
P1	3/8 / 5/8
P2	1/4 / 1/2
P3	/ 7/8 , / 1-1/8
SYMBOL	MODEL NUMBER
CR	PAC-YT53CRAU-J



NOTE: VRF SYSTEM SCHEMATIC SHOWN IS FOR REFERENCE ONLY AND IS FOR BASIS OF DESIGN MANUFACTURER. IF APPROVED ALTERNATE MANUFACTURER IS USED THE SYSTEM SCHEMATIC AND RECOMMENDED INSTALLATION REQUIREMENTS SHOULD BE FOLLOWED AND APPROVED BY GENERAL CONTRACTOR AND ENGINEER.

NOTE: PIPING LENGTHS NOT SHOWN ON THESE DIAGRAMS. MECHANICAL CONTRACTOR IS RESPONSIBLE FOR DETERMINING PIPING LENGTHS USING MOST DIRECT ROUTING WHILE MAINTAINING ACCEPTABLE CONCEALMENT. PIPE ROUTING SHALL BE APPROVED BY GENERAL CONTRACTOR AND ENGINEER.

VRF SYSTEM

DESCRIPTION: SPLIT SYSTEM, VARIABLE REFRIGERANT HEAT RECOVERY SYSTEM CONSISTING OF MULTIPLE INDOOR AIR HANDLERS WITH MULTIPLE SPEED AIR VOLUME, UNDER CONTROL OF DDC SYSTEM. EACH INDOOR UNIT MAY BE IN HEATING OR COOLING MODE INDEPENDENT OF THE OTHER INDOOR UNITS.

HEAT PUMP INDOOR AIR HANDLER

EACH INDOOR UNIT SHALL BE SCHEDULED ON BY THE BMS SYSTEM AT THE OCCUPIED TIMES DEFINED BY THE OWNER.

THE INDOOR UNITS SHALL BE SET TO AUTO MODE DURING OCCUPIED TIMES. DURING UNOCCUPIED TIMES THE INDOOR UNITS SHALL BE SET TO HEAT OR COOL BASED ON OUTSIDE AIR ENTHALPY CONDITIONS.

THE BMS SHALL SET THE OCCUPIED AND UNOCCUPIED TEMPERATURE SET-POINTS. BMS SHALL GLOBALLY SET THIS AS A SINGLE HEATING/COOLING SET POINT, WITH AN AMBIENT RESET, 70F AT 50F AMBIENT, AND 76F AT 80F AMBIENT, LINEAR IN BETWEEN.

DURING UNOCCUPIED TIMES THE BMS SHALL SEND THE OFF COMMAND TO THE INDOOR UNIT AT THE START OF UNOCCUPIED TIMES AND EVERY TWO HOURS THEREAFTER TO REINFORCE THE SETBACK CONDITIONS. THE BMS SHALL MONITOR THE ROOM TEMPERATURE AT THE REMOTE CONTROLLER IN THE SPACE AND COMMAND THE UNIT ON IF THE OWNER SPECIFIED UNOCCUPIED LIMITS ARE EXCEED. THE BMS SHALL SEND THE COOL MODE COMMAND WHEN THE TEMPERATURE UPPER LIMIT IS EXCEEDED OR THE HEAT MODE COMMAND WHEN THE TEMPERATURE LOWER LIMIT IS EXCEEDED. THE BMS SHALL SEND THE TEMPERATURE UPPER OR LOWER LIMIT AS THE SPACE TEMPERATURE SET-POINT DURING UNOCCUPIED TIME.

VRF SYSTEM INDOOR AIR HANDLER POINTS LIST

	SOFTWARE POINTS			ALARMS		
INDOOR UNIT CONTROL POINT DESCRIPTION	NETWORK VARIABLE INPUT	NETWORK VARIABLE OUTPUT	DISPLAY	HIGH LIMIT	LOW LIMIT	ABNORMALITY
ON/OFF	x					
SET MODE	x					
SET TEMPERATURE	x		x			
MODE STATE		x	x			
ROOM TEMPERATURE		x	x	x	x	
FAN SPEED STATE		x	x			
INDOOR UNIT NOTIFY		x	x			
ERROR CODE		x	x			x

1 **DHP / DAH SYSTEM SCHEMATIC**
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 043801 TROY O. GRADY
06/28/2019

SHEET TITLE: MECHANICAL SCHEMATIC AND CONTROLS — M-6

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DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. WTB
DR. WTB
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SUBMITTED BY:
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APPROVED: DATE
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RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025140
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 42 OF 57

REVISIONS			
SYM.		DATE	APPROVED

DEDICATED OUTDOOR AIR SYSTEM CONTROL SEQUENCE

SYSTEM DESCRIPTION: SPLIT SYSTEM DEDICATED OUTDOOR AIR UNIT WITH MODULATING DX COOLING CAPACITY, HOT GAS REHEAT, AND MODULATING SCR ELECTRIC HEAT.

UNIT START/STOP CONTROL: START/STOP UNIT BASED ON (1) USER-DEFINED "ON/OFF" SCHEDULE.

SETPOINTS SHALL BE AS FOLLOWS UNLESS MODIFIED BY USER:

SUPPLY AIR TEMPERATURE:	73ºF (ADJ)
OUTDOOR AIR DEWPOINT TEMPERATURE:	50ºF (ADJ)
DX COIL LEAVING AIR TEMPERATURE:	50ºF (ADJ)

EMERGENCY SHUTDOWN:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL. EMERGENCY SHUTDOWN TO BE A HARDWIRE INTERLOCK.

CONDENSATE SHUTDOWN: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN CONDENSATE OVERFLOW SIGNAL. CONDENSATE SHUTDOWN TO BE A HARDWIRE INTERLOCK.

FREEZE PROTECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS. FREEZE STAT TO BE A HARDWIRE INTERLOCK.

OUTSIDE AIR DAMPER:
THE OUTSIDE AIR DAMPER SHALL OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS. THE SUPPLY FAN SHALL START ONLY AFTER THE DAMPER STATUS HAS PROVEN THE DAMPER IS OPEN. THE OUTSIDE AIR DAMPER SHALL CLOSE 4 SEC. (ADJ.) AFTER THE SUPPLY FAN STOPS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- OUTSIDE AIR DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
- OUTSIDE AIR DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME, UNLESS SHUTDOWN ON SAFETIES.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.

TEMPERATURE AND HUMIDITY CONTROL:

SUPPLY AIR TEMPERATURE CONTROL: A TEMPERATURE CONTROL PROGRAM RAMPS UP AND DOWN HEATING/COOLING DEMAND VALUES BY USING THE SUPPLY AIR TEMPERATURE CONTROL SET-POINT AND COMPARING IT WITH A SUPPLY AIR TEMPERATURE SENSOR. THE SUPPLY AIR TEMPERATURE CONTROL SET-POINT IS DETERMINED BY THE ADJUSTABLE SUPPLY AIR TEMPERATURE SETPOINT AND ANY APPLICABLE RESET.

DEHUMIDIFICATION: IF THE OUTSIDE AIR DEW-POINT EXCEEDS THE OUTSIDE AIR DEW-POINT SETPOINT AND THE OUTSIDE AIR TEMPERATURE EXCEEDS THE SUPPLY AIR TEMPERATURE SETPOINT, THEN THE UNIT WILL ENTER DEHUMIDIFICATION MODE. THE UNIT CONTROLLER WILL MODULATE COOLING CAPACITY TO MAINTAIN THE DX COIL LEAVING AIR TEMPERATURE SETPOINT AND MODULATE THE HOT GAS REHEAT VALVE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

COOLING: IF THE SUPPLY AIR TEMPERATURE EXCEEDS THE SUPPLY AIR TEMPERATURE SETPOINT, THE UNIT WILL ENABLE THE COMPRESSORS AND MODULATE CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

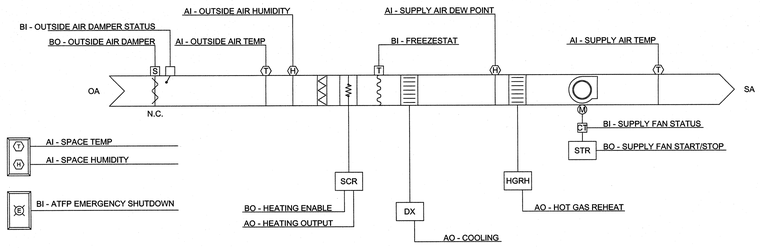
HEATING: IF SUPPLY AIR TEMPERATURE IS LESS THAN THE SUPPLY AIR TEMPERATURE SETPOINT, THE UNIT WILL ENABLE THE SCR ELECTRIC HEAT AND MODULATE CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 85°F (ADJ.).
- LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

HARDWIRE INTERLOCK DAMPER AND PROVING SWITCH

DEDICATED OUTSIDE AIR SYSTEM POINTS LIST

INDOOR UNIT CONTROL POINT DESCRIPTION	SOFTWARE POINTS		FUNCTIONS			ALARMS		
	NETWORK VARIABLE INPUT	NETWORK VARIABLE OUTPUT	SCHEDULE	TREND	DISPLAY	HIGH LIMIT	LOW LIMIT	ABNORMALITY
ON/OFF	x		x	x	x			
OUTSDIE AIR DAMPER		x		x	x			
OUTSDIE AIR DAMPER STATUS		x		x	x			x
CONDENSATE OVERFLOW	x				x	x		
FREEZESTAT	x				x		x	
SUPPLY AIR TEMPERATURE	x			x	x	x	x	
SUPPLY AIR DEWPOINT	x			x	x	x		
OUTSIDE AIR TEMPERATURE	x			x	x			
OUTSIDE AIR DEWPOINT	x			x	x			
ON/OFF STATUS		x		x	x			x
SUPPLY FAN STATUS		x			x			x
COOLING DEMAND		x		x	x			
HOT GAS REHEAT DEMAND		x		x	x			
HEATING DEMAND		x		x	x			



1 **DOAS01 CONTROL DETAIL**
NOT TO SCALE

DEDICATED OUTDOOR AIR SYSTEM CONTROL SEQUENCE

SYSTEM DESCRIPTION: SPLIT SYSTEM DEDICATED OUTDOOR AIR UNIT WITH MODULATING DX COOLING CAPACITY, HOT GAS REHEAT, AND MODULATING SCR ELECTRIC HEAT.

UNIT START/STOP CONTROL: START/STOP UNIT BASED ON DEMAND CONTROL. WHEN SPACE CO2 EXCEEDS THE CO2 SETPOINT, THE UNIT SHALL RUN.

SETPOINTS SHALL BE AS FOLLOWS UNLESS MODIFIED BY USER:

SUPPLY AIR TEMPERATURE:	73ºF (ADJ)
OUTDOOR AIR DEWPOINT TEMPERATURE:	50ºF (ADJ)
DX COIL LEAVING AIR TEMPERATURE:	50ºF (ADJ)
CO2:	750 PPM (ADJ)

EMERGENCY SHUTDOWN:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL. EMERGENCY SHUTOFF TO BE A HARDWIRE INTERLOCK.

CONDENSATE SHUTDOWN: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN CONDENSATE OVERFLOW SIGNAL. CONDENSATE SHUTDOWN TO BE A HARDWIRE INTERLOCK.

FREEZE PROTECTION:
THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING A FREEZESTAT STATUS. FREEZE STAT TO BE A HARDWIRE INTERLOCK.

OUTSIDE AIR DAMPER:
THE OUTSIDE AIR DAMPER SHALL OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS. THE SUPPLY FAN SHALL START ONLY AFTER THE DAMPER STATUS HAS PROVEN THE DAMPER IS OPEN. THE OUTSIDE AIR DAMPER SHALL CLOSE 4 SEC. (ADJ.) AFTER THE SUPPLY FAN STOPS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- OUTSIDE AIR DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
- OUTSIDE AIR DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

SUPPLY FAN:
THE SUPPLY FAN SHALL RUN ANYTIME THE UNIT IS COMMANDED TO RUN. TO PREVENT SHORT CYCLING, THE SUPPLY FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME, UNLESS SHUTDOWN ON SAFETIES.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- SUPPLY FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.

TEMPERATURE AND HUMIDITY CONTROL:

SUPPLY AIR TEMPERATURE CONTROL: A TEMPERATURE CONTROL PROGRAM RAMPS UP AND DOWN HEATING/COOLING DEMAND VALUES BY USING THE SUPPLY AIR TEMPERATURE CONTROL SET-POINT AND COMPARING IT WITH A SUPPLY AIR TEMPERATURE SENSOR. THE SUPPLY AIR TEMPERATURE CONTROL SET-POINT IS DETERMINED BY THE ADJUSTABLE SUPPLY AIR TEMPERATURE SETPOINT AND ANY APPLICABLE RESET.

DEHUMIDIFICATION: IF THE OUTSIDE AIR DEW-POINT EXCEEDS THE OUTSIDE AIR DEW-POINT SETPOINT AND THE OUTSIDE AIR TEMPERATURE EXCEEDS THE SUPPLY AIR TEMPERATURE SETPOINT, THEN THE UNIT WILL ENTER DEHUMIDIFICATION MODE. THE UNIT CONTROLLER WILL MODULATE COOLING CAPACITY TO MAINTAIN THE DX COIL LEAVING AIR TEMPERATURE SETPOINT AND MODULATE THE HOT GAS REHEAT VALVE TO MAINTAIN THE SUPPLY AIR TEMPERATURE SETPOINT.

COOLING: IF THE SUPPLY AIR TEMPERATURE EXCEEDS THE SUPPLY AIR TEMPERATURE SETPOINT, THE UNIT WILL ENABLE THE COMPRESSORS AND MODULATE CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

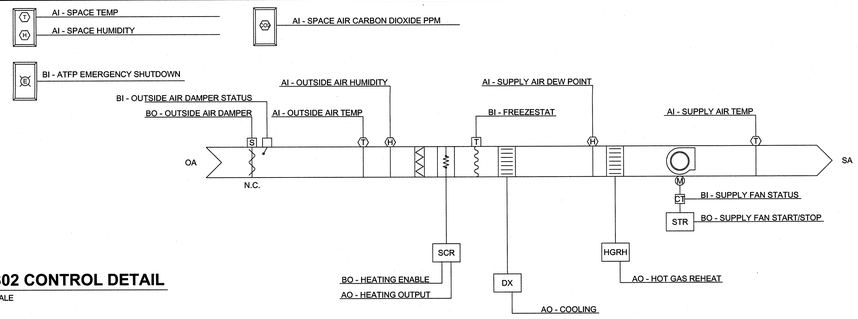
HEATING: IF SUPPLY AIR TEMPERATURE IS LESS THAN THE SUPPLY AIR TEMPERATURE SETPOINT, THE UNIT WILL ENABLE THE SCR ELECTRIC HEAT AND MODULATE CAPACITY TO MAINTAIN SUPPLY AIR TEMPERATURE SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- HIGH SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS GREATER THAN 85°F (ADJ.).
- LOW SUPPLY AIR TEMP: IF THE SUPPLY AIR TEMPERATURE IS LESS THAN 45°F (ADJ.).

HARDWIRE INTERLOCK DAMPER AND PROVING SWITCH.

DEDICATED OUTSIDE AIR SYSTEM POINTS LIST

INDOOR UNIT CONTROL POINT DESCRIPTION	SOFTWARE POINTS		FUNCTIONS			ALARMS		
	NETWORK VARIABLE INPUT	NETWORK VARIABLE OUTPUT	SCHEDULE	TREND	DISPLAY	HIGH LIMIT	LOW LIMIT	ABNORMALITY
ON/OFF	x		x	x	x			
OUTSDIE AIR DAMPER		x		x	x			
OUTSDIE AIR DAMPER STATUS		x		x	x			x
CONDENSATE OVERFLOW	x				x	x		
FREEZESTAT	x				x		x	
SUPPLY AIR TEMPERATURE	x			x	x	x	x	
SUPPLY AIR DEWPOINT	x			x	x	x		
OUTSIDE AIR TEMPERATURE	x			x	x			
OUTSIDE AIR DEWPOINT	x			x	x			
CARBON DIOXIDE SENSOR	x			x	x	x		x
ON/OFF STATUS		x		x	x			
SUPPLY FAN STATUS		x			x			x
COOLING DEMAND		x		x	x			
HOT GAS REHEAT DEMAND		x		x	x			
HEATING DEMAND		x		x	x			



2 **DOAS02 CONTROL DETAIL**
NOT TO SCALE

POWER VENTILATOR SEQUENCE OF OPERATION

POWER VENTILATOR - ON/OFF

RUN CONDITIONS - SCHEDULED:
THE FAN SHALL RUN ACCORDING TO A USER DEFINABLE SCHEDULE.

FAN:
THE FAN SHALL HAVE A USER DEFINABLE (ADJ.) MINIMUM RUNTIME.

EXHAUST AIR DAMPER:
THE EXHAUST AIR DAMPER SHALL OPEN ANYTIME THE UNIT RUNS AND SHALL CLOSE ANYTIME THE UNIT STOPS. THE EXHAUST AIR DAMPER SHALL CLOSE 30 SEC (ADJ.) AFTER THE FAN STOPS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
- DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

DAMPER STATUS:
THE FAN SHALL BE ENABLED AFTER THE DAMPER STATUS HAS PROVEN.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- DAMPER FAILURE: COMMANDED OPEN, BUT THE STATUS IS CLOSED.
- DAMPER IN HAND: COMMANDED CLOSED, BUT THE STATUS IS OPEN.

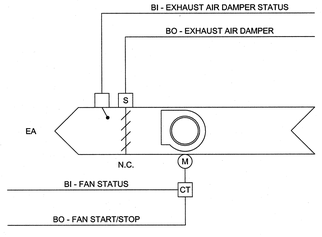
FAN STATUS:
THE CONTROLLER SHALL MONITOR THE FAN STATUS.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
- FAN FAILURE: COMMANDED ON, BUT THE STATUS IS OFF.
- FAN IN HAND: COMMANDED OFF, BUT THE STATUS IS ON.
- FAN RUNTIME EXCEEDED: FAN STATUS RUNTIME EXCEEDS A USER DEFINABLE LIMIT (ADJ.).

HARDWIRE INTERLOCK DAMPER AND PROVING SWITCH WITH FAN MOTOR.

POWER VENTILATOR POINTS LIST

POINT NAME	HARDWARE POINTS				SOFTWARE POINTS						
	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
EXHAUST AIR DAMPER STATUS			X						X		X
FAN STATUS			X						X		X
EXHAUST AIR DAMPER				X					X		X
FAN START/STOP				X					X		X
SCHEDULE								X			
EXHAUST AIR DAMPER FAILURE										X	
EXHAUST AIR DAMPER IN HAND										X	
FAN FAILURE										X	
FAN IN HAND										X	
FAN RUNTIME EXCEEDED										X	



3 **EXHAUST FAN CONTROLS**
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: MECHANICAL CONTROLS

M-7

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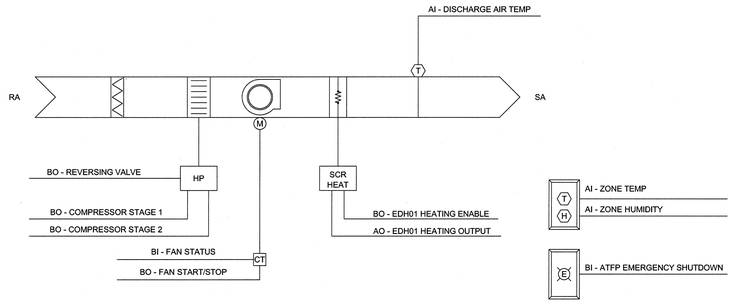
DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

DES.	WTB
DR.	WTB
CHK.	TOG
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025141
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 43 OF 57

REVISIONS			
SYM.		DATE	APPROVED



SEQUENCE OF OPERATIONS

SYSTEM DESCRIPTION: SPLIT SYSTEM HEAT PUMP WITH SCR ELECTRIC DUCT HEATER. SYSTEM CONSISTS OF SINGLE SPEED SPEED AIR VOLUME, TWO STAGES OF COOLING CAPACITY, TWO STAGES OF HEATING CAPACITY (DX AND SCR ELECTRIC), AND NO ECONOMIZER CYCLE, CONTROLLED BY BAS.

BUILDING AUTOMATION SYSTEM INTERFACE: THE BUILDING AUTOMATION SYSTEM (BAS) SHALL SEND THE CONTROLLER OCCUPIED BYPASS, MORNING WARM-UP / PRE-COOL, OCCUPIED / UNOCCUPIED AND HEAT / COOL MODES. IF A BAS COMMUNICATION IS LOST, THE CONTROLLER SHALL OPERATE USING DEFAULT MODES AND SETPOINTS.

EMERGENCY SHUTDOWN: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN EMERGENCY SHUTDOWN SIGNAL. EMERGENCY SHUTDOWN TO BE A HARDWIRE INTERLOCK.

CONDENSATE SHUTDOWN: THE UNIT SHALL SHUT DOWN AND GENERATE AN ALARM UPON RECEIVING AN CONDENSATE OVERFLOW SIGNAL. CONDENSATE SHUTDOWN TO BE A HARDWIRE INTERLOCK.

RUN CONDITIONS - SCHEDULED: THE UNIT SHALL RUN ACCORDING TO A USER DEFINABLE TIME SCHEDULE IN THE FOLLOWING

OCCUPIED MODE SETPOINT:
- A 75°F (ADJ.) SETPOINT WHEN OUTSIDE AIR TEMPERATURE IS GREATER THAN 80°F
- A 70°F (ADJ.) SETPOINT WHEN OUTSIDE AIR TEMPERATURE IS LESS THAN 50°F
- SETPOINT SHALL RESET LINEARLY WHEN OUTSIDE AIR TEMPERATURE IS BETWEEN 50°F AND 80°F

UNOCCUPIED MODE (NIGHT SETBACK) SETPOINT:
- A 80°F (ADJ.) COOLING SETPOINT.
- A 60°F (ADJ.) HEATING SETPOINT.

ALARMS SHALL BE PROVIDED AS FOLLOWS:
HIGH ZONE TEMP: IF THE ZONE TEMPERATURE IS GREATER THAN THE COOLING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).
LOW ZONE TEMP: IF THE ZONE TEMPERATURE IS LESS THAN THE HEATING SETPOINT BY A USER DEFINABLE AMOUNT (ADJ.).

ZONE SETPOINT ADJUST: THE OCCUPANT SHALL BE ABLE TO ADJUST THE ZONE TEMPERATURE SETPOINT +/-3°F AT THE ZONE SENSOR.

ZONE UNOCCUPIED OVERRIDE: A TIMED LOCAL OVERRIDE CONTROL SHALL ALLOW AN OCCUPANT TO OVERRIDE THE SCHEDULE AND PLACE THE UNIT INTO AN OCCUPIED MODE FOR AN ADJUSTABLE PERIOD OF TIME. AT THE EXPIRATION OF THIS TIME, CONTROL OF THE UNIT SHALL AUTOMATICALLY RETURN TO THE SCHEDULE.

OCCUPIED MODE: DURING OCCUPIED PERIODS, THE SUPPLY FAN SHALL RUN CONTINUOUSLY. THE DX COOLING, DX HEATING AND SCR ELECTRIC HEAT SHALL STAGE TO MAINTAIN THE OCCUPIED SPACE TEMPERATURE SETPOINT.

UNOCCUPIED MODE: WHEN THE SPACE TEMPERATURE IS BELOW THE UNOCCUPIED HEATING SETPOINT THE SUPPLY FAN SHALL START, THE DX HEATING SHALL BE ENABLED. IF DX HEATING IS UNABLE TO MAINTAIN SETPOINT, SCR ELECTRIC HEAT SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE RISES ABOVE THE UNOCCUPIED HEATING SETPOINT PLUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP AND THE HEAT SHALL BE DISABLED.

WHEN THE SPACE TEMPERATURE IS ABOVE THE UNOCCUPIED COOLING SETPOINT THE SUPPLY FAN SHALL START, THE DX COOLING SHALL BE ENABLED. WHEN THE SPACE TEMPERATURE FALLS BELOW THE UNOCCUPIED COOLING SETPOINT MINUS THE UNOCCUPIED DIFFERENTIAL OF 4.0 DEG. F (ADJ.) THE SUPPLY FAN SHALL STOP AND THE DX COOLING SHALL BE DISABLED.

OPTIMAL START: THE BAS SHALL MONITOR THE SCHEDULED OCCUPIED TIME, OCCUPIED SPACE SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL START OCCURS.

MORNING WARM-UP MODE: DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS BELOW THE OCCUPIED HEATING SETPOINT A MORNING WARM-UP MODE SHALL BE ACTIVATED. WHEN MORNING WARM-UP IS INITIATED THE UNIT SHALL ENABLE THE HEATING AND SUPPLY FAN. WHEN THE SPACE TEMPERATURE REACHES THE OCCUPIED HEATING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

PRE-COOL MODE: DURING OPTIMAL START, IF THE SPACE TEMPERATURE IS ABOVE THE OCCUPIED COOLING SETPOINT, PRE-COOL MODE SHALL BE ACTIVATED. WHEN PRE-COOL IS INITIATED THE UNIT SHALL ENABLE THE FAN. WHEN THE SPACE TEMPERATURE REACHES OCCUPIED COOLING SETPOINT (ADJ.), THE UNIT SHALL TRANSITION TO THE OCCUPIED MODE.

OPTIMAL STOP: THE BAS SHALL MONITOR THE SCHEDULED UNOCCUPIED TIME, OCCUPIED SETPOINTS AND SPACE TEMPERATURE TO CALCULATE WHEN THE OPTIMAL STOP OCCURS. WHEN THE OPTIMAL STOP MODE IS ACTIVE THE UNIT CONTROLLER SHALL MAINTAIN THE SPACE TEMPERATURE TO THE SPACE TEMPERATURE OFFSET SETPOINT.

COOLING MODE: THE UNIT CONTROLLER SHALL USE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR COOLING. WHEN THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT, THE UNIT CONTROLLER SHALL STAGE THE DX COOLING AS REQUIRED TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. THE COMPRESSOR SHALL ENERGIZE AFTER ITS MINIMUM OFF TIME HAS EXPIRED. ONCE THE SPACE TEMPERATURE FALLS BELOW THE SETPOINT THE COMPRESSOR SHALL BE DEACTIVATED.

HEATING MODE: THE UNIT CONTROLLER SHALL USE THE SPACE TEMPERATURE AND SPACE TEMPERATURE SETPOINT TO DETERMINE WHEN TO INITIATE REQUESTS FOR HEAT. WHEN THE SPACE TEMPERATURE DROPS BELOW THE SETPOINT, THE UNIT CONTROLLER SHALL ENABLE DX HEATING TO MAINTAIN TEMPERATURE SETPOINT. IF SETPOINT CANNOT BE MAINTAINED, ENABLE SCR ELECTRIC HEATING TO MAINTAIN THE SPACE TEMPERATURE SETPOINT. ONCE THE SPACE TEMPERATURE RISES ABOVE THE SETPOINT THE HEATING SHALL BE DISABLED.

DEHUMIDIFICATION MODE: IF THE SPACE RELATIVE HUMIDITY IS GREATER THAN 55% (ADJ.), THE SUPPLY FAN SHALL BE ENABLED, THE COMPRESSORS SHALL BE ENABLED AND THE SCR ELECTRIC HEATER SHALL BE ENABLED AND SHALL MODULATE TO MAINTAIN A LEAVING AIR TEMPERATURE EQUAL TO THE OCCUPIED SPACE TEMPERATURE SETPOINT. THE MODE SHALL TERMINATE WHEN THE SPACE RELATIVE HUMIDITY FALLS BELOW THE RELATIVE HUMIDITY SETPOINT OF 55% (ADJ.) MINUS 3% (ADJ.). IF THE SPACE RELATIVE HUMIDITY SENSOR FAILS, THE DEHUMIDIFICATION SEQUENCE SHALL BE TERMINATED AND AN ALARM SHALL BE ANNUNCIATED AT THE BAS.

SUPPLY FAN: THE SUPPLY FAN SHALL BE ENABLED WHILE IN THE OCCUPIED MODE AND CYCLED ON DURING THE UNOCCUPIED MODE. IF THE SUPPLY FAN DOES NOT START WITHIN 40 SECONDS AFTER A REQUEST FOR FAN OPERATION A FAN FAILURE ALARM SHALL BE ANNUNCIATED AT THE BAS, THE UNIT SHALL STOP, REQUIRING A MANUAL RESET.

FILTER STATUS: MONITOR HOURS OF SUPPLY FAN OPERATION. ALARMS SHALL BE PROVIDED WHEN FILTER HAS BEEN IN USE FOR MORE THAN 2,200 HRS (ADJ.).

1 AH/HP CONTROLS
NOT TO SCALE

SEQUENCE OF OPERATIONS

SEQUENCE OF OPERATION:

1. ELECTRIC METER

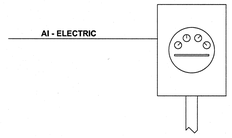
ELECTRIC METER:
THE CONTROLLER SHALL MONITOR THE ELECTRIC METER FOR ELECTRIC CONSUMPTION ON A CONTINUAL BASIS. THESE VALUES SHALL BE MADE AVAILABLE TO THE SYSTEM AT ALL TIMES.

ALARM SHALL BE GENERATED AS FOLLOWS:
- METER FAILURE: SENSOR READING INDICATES A LOSS OF PULSE OUTPUT FROM THE ELECTRIC METER.

PEAK DEMAND HISTORY:
THE CONTROLLER SHALL MONITOR AND RECORD THE PEAK (HIGH AND LOW) DEMAND READINGS FROM THE ELECTRIC METER. PEAK READINGS SHALL BE RECORDED ON A DAILY, MONTH-TO-DATE, AND YEAR-TO-DATE BASIS.

USAGE HISTORY:
THE CONTROLLER SHALL MONITOR AND RECORD ELECTRIC METER READINGS SO AS TO PROVIDE A POWER CONSUMPTION HISTORY. USAGE READINGS SHALL BE RECORDED ON A DAILY, MONTH-TO-DATE, AND YEAR-TO-DATE BASIS.

DEMAND LEVELS:
THE CONTROLLER SHALL SET THE SYSTEM DEMAND LEVEL (ADJ.) BASED ON THE CURRENT POWER CONSUMPTION READINGS FROM THE ELECTRIC METER. THERE SHALL BE SIX DAILY TIME PERIODS IN WHICH THE DEMAND SHALL BE ADJUSTED ON THREE LEVELS. THESE DEMAND LEVELS SHALL BE AVAILABLE FOR FACILITY EQUIPMENT TO UTILIZE FOR DEMAND LIMITING.
- DEMAND LEVEL 1: POWER CONSUMPTION HAS EXCEEDED THE FIRST DEMAND LEVEL THRESHOLD (ADJ.).
- DEMAND LEVEL 2: POWER CONSUMPTION HAS EXCEEDED THE SECOND DEMAND LEVEL THRESHOLD (ADJ.).
- DEMAND LEVEL 3: POWER CONSUMPTION HAS EXCEEDED THE THIRD DEMAND LEVEL THRESHOLD (ADJ.).



POWER METER POINTS LIST

	HARDWARE POINTS				SOFTWARE POINTS					
POINT NAME	AI	AO	BI	BO	AV	BV	LOOP	SCHED	TREND	ALARM	SHOW ON GRAPHIC
KW PULSE	X										X
CURRENT DEMAND LEVEL					X				X		X
KW DEMAND									X		X
KW PEAK MONTH-TO-DATE									X		X
KW PEAK TODAY									X		X
KW PEAK YEAR-TO-DATE									X		X
KWH TODAY									X		X
MWH MONTH-TO-DATE									X		X
MWH YEAR-TO-DATE									X		X
DEMAND LEVEL 1										X	
DEMAND LEVEL 2										X	
DEMAND LEVEL 3										X	
METER FAILURE										X	

2 POWER METER
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 043801 ENGINEER TROY O. GRADY
06/28/2019

SHEET TITLE: MECHANICAL CONTROLS

M-8

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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
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DES. WTB
DR. WTB
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SUBMITTED BY:
DESIGN DIR. T H BURTON, PE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

APPROVED: DATE
SATISFACTORY TO: DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025142 | CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 44 OF 57

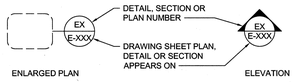
REVISIONS			
SYM.		DATE	APPROVED

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	2x4 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	2x2 LIGHT FIXTURE, RECESSED OR SURFACE MOUNTED LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	4FT OR 8FT LIGHT FIXTURE, SUSPENDED OR SURFACE MOUNTED LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	4FT WALL MOUNTED VANITY LIGHT FIXTURE LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	RECESSED LIGHT FIXTURE LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	SURFACE LIGHT FIXTURE LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	WALL MOUNTED LIGHT FIXTURE LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	EXIT SIGN, SINGLE FACE, CEILING, ARROW INDICATES DIRECTION. LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	EXIT SIGN W/EMERGENCY LIGHTING UNIT, CEILING MOUNTED, ARROW INDICATES DIRECTION. LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	EXIT SIGN, SINGLE FACE, WALL/END MOUNTED, ARROW INDICATES DIRECTION. LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	EMERGENCY LIGHTING UNIT, 2-HEAD WITH BATTERY BACK-UP, WALL MOUNTED, "NOT SWITCHED" LETTER INDICATES FIXTURE TYPE (SEE FIXTURE SCHEDULE)
	POWER & SWITCH LEG
	UNSWITCHED LEG
	CONDUIT, HOME RUN TO PANEL BOARD
S	SWITCH, SINGLE POLE, 120/277VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL).
S3	3-WAY SWITCH, SINGLE POLE 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED
S4	4-WAY SWITCH 120/277 VAC, 20A, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED
OSD	HEAVY DUTY DIMMER, 20A, 1500W @ 120 VAC, 0-10V CAPABLE, WITH OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, PIR,MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL).
DS3	HEAVY DUTY DIMMER, 3 WAY/4 WAY CAPABLE, 20A, 1500W @ 120 VAC, 0-10V CAPABLE, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL).
ST	WALL MOUNTED DIGITAL TIMED SWITCH (5 MIN'S TO 12 HR'S), SINGLE BUTTON ON/OFF CONTROL, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
OS	CEILING MOUNTED DUAL TECHNOLOGY OCCUPANCY SENSOR, 360° COVERAGE, PIR
OS	WALL MOUNTED OCCUPANCY SENSOR, SINGLE BUTTON ON/OFF CONTROL, 180° COVERAGE, PIR, MOUNTED AT 46" AFF UNLESS OTHERWISE NOTED.
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 16" AFF, UNLESS OTHERWISE NOTED. (SEE ELECTRICAL MOUNTING HEIGHT DETAIL) WP - LISTED WEATHER-RESISTANT TYPE DEVICE WITH WEATHERPROOF IN USE COVER GFI - GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A LOCATE GFI TEST SWITCH IN A READILY ACCESSIBLE LOCATION
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED 6" ABOVE COUNTER TOP OR BACK SPLASH. GFI - GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A LOCATE GFI TEST SWITCH IN A READILY ACCESSIBLE LOCATION (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	RECEPTACLE, QUADPLEX, 120VAC, 20A MOUNTED 16"AFF UNLESS OTHERWISE NOTED (SEE ELECTRICAL MOUNTING HEIGHT DETAIL)
	JUNCTION BOX WITH BLANK COVER IN PLACE WITH CIRCUITRY LABELED ON COVER

ELECTRICAL LEGEND

SYMBOL	DESCRIPTION
	FLUSH VALVE JUNCTION BOX, MOUNTED BEHIND FLUSH VALVE, COORDINATE WITH PLUMBING CONTRACTOR. PROVIDE 1" CONDUIT TO ABOVE GRID TO PLUMBING CONTRACTOR SUPPLIED, ELECTRICAL CONTRACTOR INSTALLED CONTROLLER
	RECEPTACLE, DUPLEX, 120VAC, 20A CEILING MOUNTED (LAY-IN / GYPBOARD / SUSPENDED)
	RECEPTACLE, DUPLEX, 120VAC, 20A, MOUNTED BELOW COUNTER FOR FAUCET CONTROL. GFI - GROUND FAULT CIRCUIT INTERRUPTER TYPE, 120VAC, 20A, LOCATE GFI TEST SWITCH IN A READILY ACCESSIBLE LOCATION
	RECEPTACLE, 125/250V, 20A, 1Φ, 4 WIRE TWIST LOCK, L14-20R
30A/3/4X, W/ 30AF	DISCONNECT SWITCH, FUSED, HEAVY DUTY, SIZE AS INDICATED ON DRAWINGS ###A = DISCONNECT SIZE / # = NUMBER OF POLES / # = NEMA RATING, /###AF = FUSE SIZE
M	MANUAL MOTOR STARTER, ELECTRICAL CONTRACTOR SHALL COORDINATE POLES AND SIZE WITH EQUIPMENT
208/120V	PANELBOARD, SURFACE OR RECESSED MOUNTED AS SHOWN. SIZE, RATINGS, AND MOUNTING AS INDICATED ON PANEL SCHEDULE. CONTRACTOR IS RESPONSIBLE FOR REQUIRED CLEARANCE IN FRONT OF ELECTRICAL PANEL. SEE NEC TABLE 110.26 WORKING SPACES FOR ADDITIONAL CLEARANCE CONDITIONS.
	UTILITY METER
PE	PHOTOCELL, REMOTE MOUNTED, 120V, 10 SECOND TIME DELAY, UL WET LOCATION, RATED FOR 1500 W @ 120 VAC (FOR USE WITH LAMP SOURCE(S) SHOWN)
	CABLE TRAY, LADDER TYPE
	CABLE TRAY, BASKET TYPE
V/D	COMBINATION DATA/TELEPHONE OUTLET, IN A 5 SQUARE BOX WITH A SINGLE GANG PLASTER RING, MOUNTED 18" AFF UNLESS OTHERWISE NOTED. PROVIDE 11/4" CONDUIT TO DATA/COMM CLOSET W/PULL STRING.
WAP	WIRELESS ACCESS POINT, 1 DATA IN A DUAL GANG 5 SQUARE BOX WITH A SINGLE GANG PLASTER RING. PROVIDE 11/4" CONDUIT TO DATA/COMM CLOSET WITH PULL STRING. OWNER SHALL PROVIDE SURGE PROTECTOR AND WAP DEVICE, THE ELECTRICAL CONTRACTOR SHALL INSTALL.
V/D	COMBINATION DATA/TELEPHONE OUTLET, RECESSED CEILING MOUNTED (LAY-IN / GYPBOARD) PROVIDE 1 1/4"" CONDUIT TO ABOVE GRID CEILING W/PULL STRING. OUTLETS LOCATED BELOW HARD(GYPBOARD) CEILINGS, ROUTE 1 1/4"" CONDUIT BACK TO TELEPHONE/DATA ROOM.
	FLOOR MOUNTED DATA RACK
	PROJECTOR PAN, CEILING MOUNTED
	GROUND BUS, "TG" INDICATES TELECOMMUNICATIONS GROUND BAR, "EGB" INDICATES ELECTRICAL GROUND BAR
	3/4" FIRE RETARDANT PLYWOOD, 4'x8', MOUNT 12" AFF ALL WALLS IN DATA/COMM ROOM
	HATCHING INDICATES ITEMS TO BE DEMOLISHED. REMOVE DEVICE, EQUIPMENT, FIXTURE INDICATED, CIRCUIT, AND CONDUIT BACK TO SOURCE UNLESS OTHERWISE NOTED.
	1 HOUR RATED FIRE WALL

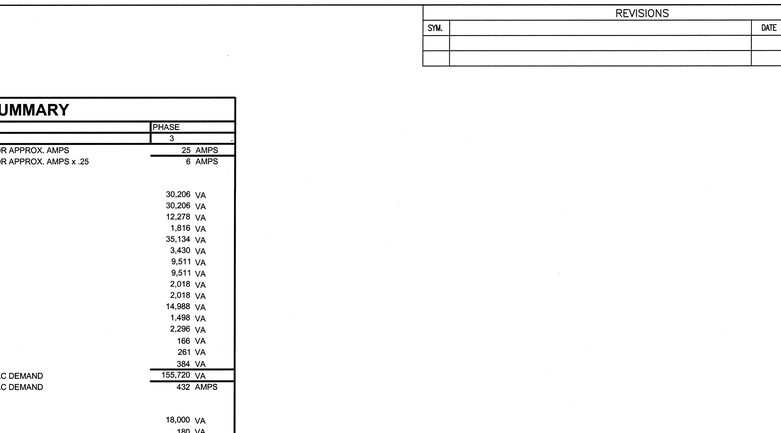


TYPICAL ABBREVIATIONS:

A, AMP	AMPERE
AFF	ABOVE FINISHED FLOOR
AFG	ABOVE FINISHED GRADE
AHU	AIR HANDLING UNIT
AIC	AMPERE INTERRUPTING CAPACITY
ATS	AUTOMATIC TRANSFER SWITCH
AWG	AMERICAN WIRE GAUGE
BOF	BOTTOM OF FIXTURE
BRKR	BREAKER
C, COND	CONDUIT
CAB	CABINET
CAT	CATALOG
CL	CHLORINE
CB	CIRCUIT BREAKER
CCTV	CLOSED CIRCUIT TELEVISION
CKT	CIRCUIT
CLG	CEILING
CP	CONTROL PANEL
CR	CONTROL RELAY, CORROSION RESISTANT
CS	CONTROL SWITCH
CV	CONTROL VALVE
CT	CURRENT TRANSFORMER
CU	COPPER
EF	EXHAUST FAN
EMER	EMERGENCY
EMT	ELECTRICAL METALLIC TUBING
ENCL	ENCLOSURE
EQUIP	EQUIPMENT
EWC	ELECTRIC WATER COOLER
EWH	ELECTRIC WATER HEATER
EPRF	EXPLOSION PROOF
FA	FIRE ALARM
FAAP	FIRE ALARM ANNUNCIATOR PANEL
FACP	FIRE ALARM CONTROL PANEL
FBO	FURNISHED BY OTHERS
FLA	FULL LOAD AMPS
FLUOR	FLUORESCENT
FLR	FLOOR
FWE	FURNISHED WITH EQUIPMENT
GEN	GENERATOR
G, GND	GROUND
GFCI	GROUND FAULT CIRCUIT INTERRUPTER
HH	HANDHOLE
HID	HIGH INTENSITY DISCHARGE
HOA	HAND-OFF-AUTO
HP	HORSE POWER
HPF	HIGH POWER FACTOR
HPS	HIGH PRESSURE SODIUM
HTR	HEATER
HV	HIGH VOLTAGE
Hz	HERTZ
IMC	INTERMEDIATE METALLIC CONDUIT
INCAND	INCANDESCENT
JB	JUNCTION BOX
K	THOUSAND
KCMIL	THOUSAND CIRCULAR MILLS
KVA	KILOVOLT AMPERE
KW	KILOWATTS
KWH	KILOWATT-HOURS
LP	LIGHTING PANEL, LIGHT POLE
LTG	LIGHTING
MCB	MAIN CIRCUIT BREAKER
MCC	MOTOR CONTROL CENTER
MCP	MOTOR CIRCUIT PROTECTOR
MDP	MAIN DISTRIBUTION PANEL
MFR	MANUFACTURER
MH	MANHOLE
MLO	MAIN LUGS ONLY
MTD	MOUNTED
MTG	MOUNTING
MTS	MANUAL TRANSFER SWITCH
MV	MEDIUM VOLTAGE
N, NEUT	NEUTRAL
NA	NOT APPLICABLE
NC	NORMALLY CLOSED
NEC	NATIONAL ELECTRIC CODE
NIC	NOT IN CONTRACT
NL	NIGHT LIGHT
NO	NORMALLY OPEN
NTS	NOT TO SCALE
P	POLE
PA	PUBLIC ADDRESS
PB	PULL BOX, PUSH-BUTTON
PF	POWER FACTOR
PH,ϕ	PHASE
PLC	PROGRAMMABLE LOGIC CONTROLLER
PNL	PANEL
PP	POWER PANEL, POWER POLE
PT	POTENTIAL TRANSFORMER
PWR	POWER
RECPT, RCP	RECEPTACLE
REQ'D	REQUIRED
RGS	RIGID GALVANIZED STEEL CONDUIT
RM	ROOM
RTU	REMOTE TELEMETRY UNIT
SCR	DC MOTOR DRIVE
SH	SHEET
SPEC	SPECIFICATION
SS	SELECTOR SWITCH
SST	STAINLESS STEEL
SW	SWITCH
SWBD	SWITCHBOARD
SWGR	SWITCH GEAR
TEL	TELEPHONE
TPS	TWISTED PAIR SHIELDED
TVSS	TRANSIENT VOLTAGE SURGE SUPPRESSER
TYP	TYPICAL
UGND	UNDERGROUND
UH	UNIT HEATER
UON	UNLESS OTHERWISE NOTED
UTIL	UTILITY
V	VOLTS
VFD	VARIABLE FREQUENCY DRIVE
W	WIRE, WATT
WH	WATT-HOUR
WP	WEATHERPROOF
XFMR	TRANSFORMER

LOAD SUMMARY

VOLTAGE	PHASE
208	3
LARGEST MOTOR APPROX. AMPS	25 AMPS
LARGEST MOTOR APPROX. AMPS x .25	6 AMPS
HVAC	
EDH01	30,206 VA
EDH02	30,206 VA
ACC01	12,278 VA
DOAS01	1,816 VA
ACC02	35,134 VA
DOAS02	3,430 VA
HP04	9,511 VA
HP03	9,511 VA
AH03-01	2,018 VA
AH04-01	2,018 VA
DHP01	14,988 VA
DHP02	1,498 VA
DAH01-11	2,296 VA
DAH02-01	166 VA
BC01	261 VA
PV01-03	384 VA
SUB-TOTAL HVAC DEMAND	155,720 VA
SUB-TOTAL HVAC DEMAND	432 AMPS
EQUIPMENT	
EWH1	18,000 VA
EWC1	180 VA
CP1	100 VA
SUB-TOTAL EQUIPMENT DEMAND	18,280 VA
SUB-TOTAL EQUIPMENT DEMAND	51 AMPS
ADD FOR LARGEST MOTOR	6 AMPS
TOTAL EQUIPMENT DEMAND	57 AMPS
LIGHTING	
LIGHTS (INTERIOR, BASED ON NEC 220.12)	20,209 VA
LIGHTS (EXTERIOR)	360 VA
SIGN	1,200 VA
TOTAL LIGHTING LOAD	21,769 VA
LIGHTING LOAD x 1.25	27,211 VA
TOTAL DEMAND FOR LIGHTING	76 AMPS
RECEPTACLES	
RECEPTACLES	24,660 VA
FIRST 10000VA	10,000 VA
REMAINDER @ 50%	7,330 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	17,330 VA
TOTAL DEMAND FOR RECEPTACLE/POWER PANELS	48 AMPS
TOTAL DEMAND BUILDING AMPS	613 AMPS
TOTAL DEMAND BUILDING AMPS	220,793 VA
TOTAL BUILDING CONNECTED LOAD	220,429 VA



NOTE:
DETAIL SHOWN FOR REFERENCE ONLY, NOT ALL DEVICES ARE INDICATED ON PLANS.

1 ELECTRICAL DEVICES - MOUNTING HEIGHT DETAIL
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 035230 ENGINEER JASON P. FAMIGLETTI
06/28/2019

SHEET TITLE: ELECTRICAL ABBREVIATIONS LEGEND, DETAIL, SUMMARIES

E-1

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

APPROVED: DATE
SATISFACTORY TO: DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025143 | CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 45 OF 57

REVISIONS			
SYM.		DATE	APPROVED

GENERAL NOTES

1. ALL ELECTRICAL WORK SHALL BE IN FULL COMPLIANCE WITH NFPA 70 THE NORTH CAROLINA STATE BUILDING CODE, ALL LOCAL CODES AND ORDINANCES AND IN ACCORDANCE WITH THE REQUIREMENTS OF THE LOCAL AUTHORITY HAVING JURISDICTION.
2. ALL EQUIPMENT PROVIDED BY THE CONTRACTOR SHALL BE LISTED AND LABELED BY A NATIONALLY-RECOGNIZED TESTING AGENCY, ACCEPTABLE TO THE AUTHORITY HAVING JURISDICTION, FOR THE CONDITIONS OF INSTALLATION. ALL MATERIAL, EQUIPMENT AND DEVICES SHALL BE NEW CURRENT PRODUCTS OF MANUFACTURERS REGULARLY ENGAGED IN THE PRODUCTION OF SUCH PRODUCTS. EQUIPMENT SHALL BE SUITABLE FOR ITS APPLICATION (E.G. WHEN INSTALLED OUTDOORS, IT SHALL BE WEATHERPROOF, ETC.)
3. THE CONTRACTOR SHALL REVIEW ALL DRAWINGS AND SPECIFICATIONS FOR WORK REQUIREMENTS, THE AMOUNT OF SPACE AVAILABLE FOR ELECTRICAL EQUIPMENT, AND LAYOUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER.
4. THE CONTRACTOR SHALL ALSO BE RESPONSIBLE FOR THOROUGHLY FAMILIARIZING HIMSELF WITH ANY CONTRACTUAL REQUIREMENTS AS MAY BE SET FORTH IN THE OTHER DIVISIONS OF THE PROJECT SPECIFICATIONS.
5. UNLESS SPECIFICALLY NOTED OTHERWISE, SYSTEMS PROVIDED OR INSTALLED BY THE CONTRACTOR SHALL BE COMPLETE AND FULLY-FUNCTIONING AFTER INSTALLATION. INCIDENTAL COMPONENTS MAY NOT BE SHOWN, AND ALL WORK WHICH MAY BE REASONABLY IMPLIED AS BEING INCIDENTAL TO THIS WORK, BUT REQUIRED FOR THE PROPER OPERATION OF THE EQUIPMENT OR SYSTEM, SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ADDITIONAL CIRCUITS SHALL BE INSTALLED WHEREVER NEEDED TO CONFORM TO THE SPECIFIC REQUIREMENTS OF EQUIPMENT.
6. TEMPORARY POWER CONNECTIONS AS REQUIRED SHALL BE PROVIDED BY THE CONTRACTOR AND INCLUDED IN THE BID. ALL TEMPORARY EQUIPMENT WIRING SHALL BE IN ACCORDANCE WITH THE NATIONAL ELECTRICAL CODE. THE CONTRACTOR SHALL PROVIDE DETAILS, METHODS, MATERIALS, ETC. FOR REVIEW PRIOR TO MAKING TEMPORARY CONNECTIONS. FURNISH AND INSTALL ALL EQUIPMENT AND MATERIALS INCLUDING CONTROL EQUIPMENT, MOTOR STARTERS, BRANCH AND FEEDER CIRCUIT BREAKERS, PANELBOARDS, TRANSFORMERS, ETC. FOR TEMPORARY POWER. COORDINATE WITH THE ELECTRICAL UTILITY COMPANY AS REQUIRED.
7. THE WORK SHALL INCLUDE COMPLETE TESTING OF ALL EQUIPMENT AND WIRING AT THE COMPLETION OF WORK AND ANY MINOR CORRECTIONS, CHANGES OR ADJUSTMENTS NECESSARY FOR THE PROPER FUNCTIONING OF THE SYSTEM AND EQUIPMENT.
8. ALL EQUIPMENT SHOWN DOTTED OR DASHED IS BY OTHERS OR IS EXISTING, AS NOTED.
9. ALL ELECTRICAL EQUIPMENT SHALL, AT ALL TIMES DURING CONSTRUCTION, BE ADEQUATELY PROTECTED AGAINST MECHANICAL INJURY, OR DAMAGE BY WATER AND/OR THE ELEMENTS. ELECTRICAL EQUIPMENT SHALL NOT BE STORED OUT OF DOORS, BUT SHALL BE STORED IN DRY PERMANENT SHELTERS. IF AN APPARATUS HAS BEEN DAMAGED, OR HAS BEEN SUBJECT TO POSSIBLE INJURY BY WATER OR THE ELEMENTS, SUCH DAMAGE SHALL BE REPLACED AT NO ADDITIONAL COST.
10. DO NOT SCALE ELECTRICAL DRAWINGS. REFER TO THE ARCHITECTURAL DRAWINGS FOR DIMENSIONS.
11. CIRCUIT LAYOUTS ARE NOT INTENDED TO SHOW THE NUMBER OF FITTINGS, OR OTHER INSTALLATION DETAILS. UNLESS NOTED OTHERWISE, THE EXACT ROUTING OF FEEDER AND BRANCH CIRCUIT RACEWAYS AND CABLES IS THE RESPONSIBILITY OF THE CONTRACTOR. RISER AND GENERAL CIRCUIT ARRANGEMENTS ARE SHOWN SCHEMATICALLY/DIAGRAMMATICALLY ONLY. THE CONTRACTOR SHALL ROUTE CONDUITS AS REQUIRED BY THE CONDITIONS OF THE INSTALLATION.
12. UNLESS DIMENSIONED, DEVICE LOCATIONS SHOWN ON THE DRAWINGS ARE APPROXIMATE. ADJUST EXACT LOCATIONS AS REQUIRED TO SERVE THE INTENDED PURPOSE AND TO AVOID CONFLICTS AND INTERFERENCES WITH OTHER TRADES. EXACT DEVICE LOCATIONS SHALL BE AS INDICATED ON THE ARCHITECTURAL DRAWINGS OR AS DIMENSIONED. IF NOT SHOWN ON THE ARCHITECTURAL DRAWINGS OR DIMENSIONED ON THE ELECTRICAL DRAWINGS, VERIFY EXACT LOCATION WITH THE CONTRACTING OFFICER PRIOR TO ROUGH-IN.
13. CONDUIT TERMINATING IN PRESSED STEEL BOXES SHALL HAVE DOUBLE LOCKNUTS AND INSULATED BUSHINGS. CONDUITS TERMINATING IN GASKETED ENCLOSURES SHALL BE TERMINATED WITH GROUNDING TYPE CONDUIT HUBS.
14. BRANCH CIRCUIT HOMERUNS SHOWN ON DRAWINGS INDICATE PHASE CONDUCTORS, NEUTRAL, EQUIPMENT GROUND CONDUCTORS AS REQUIRED. ADDITIONAL CONDUCTORS REQUIRED FOR CONTROL SHALL BE INCLUDED EVEN IF NOT EXPLICITLY SHOWN.
15. SEAL ALL CONDUIT OPENINGS THROUGH EXTERIOR BUILDING WALLS WATERTIGHT.
16. IN WET LOCATIONS AND EXTERIOR, ALL WIRING DEVICES SHALL BE WEATHER-RESISTANT LISTED WITH WEATHERPROOF WHILE IN USE COVER. LIGHTING FIXTURES SHALL BE APPROPRIATELY RATED AND LISTED FOR THE ENVIRONMENT ITO BE INSTALLED IN.
17. RACEWAYS PENETRATING FLOORS, CEILINGS OR WALLS SHALL BE PROPERLY SEALED SMOKETIGHT.
18. ALL RACEWAYS SHALL BE CONCEALED WHERE POSSIBLE IF APPLICABLE, MATCH EXISTING RACEWAY INSTALLATION METHODS AND ROUTINGS AT OR NEAR EXISTING FACILITIES.
19. INSTALL EXPOSED RACEWAYS PARALLEL TO OR AT RIGHT ANGLES TO NEARBY SURFACES OR STRUCTURAL MEMBERS, AND FOLLOW THE SURFACE CONTOURS AS MUCH AS POSSIBLE. NO DIAGONAL RUNS WILL BE ALLOWED. ALL CONDUITS SHALL BE RUN STRAIGHT AND TRUE. RUN PARALLEL OR BANKED RACEWAYS TOGETHER ON COMMON SUPPORTS WHERE PRACTICAL. MAKE BENDS IN PARALLEL OR BANKED RUNS FROM SAME CENTERLINE TO MAKE BENDS PARALLEL.
20. PATCHING OF WATERPROOFED SURFACES SHALL RENDER THE AREA OF THE PATCHING COMPLETELY WATERPROOF.
21. ALL MOTORS , DRY TYPE TRANSFORMERS AND OTHER VIBRATING EQUIPMENT SHALL BE CONNECTED TO THE CONDUIT SYSTEM BY MEANS OF A SHORT SECTION (18 INCH MINIMUM) OF FLEXIBLE CONDUIT UNLESS OTHERWISE INDICATED. AN EQUIPMENT GROUNDING CONDUCTOR SHALL BE INSTALLED INSIDE THE FLEXIBLE CONDUIT AND TERMINATE AT THE LOAD END WITH AN APPROVED GROUNDING CLAMP OR LUG.
22. SURFACE MOUNTED PANELBOARDS, JUNCTION, OUTLET AND PULL BOXES, RACEWAYS, ETC., INSTALLED ON EXTERIOR SURFACES OR INSIDE ON EXTERIOR WALLS SHALL BE SUPPORTED BY SPACERS TO PROVIDE A 1/4" MINIMUM CLEARANCE BETWEEN THE WALL AND EQUIPMENT.
23. CEILING MOUNTED DEVICES INSTALLED IN ACOUSTICAL TILE CEILING AREAS SHALL BE SUPPORTED FROM THE STRUCTURE ABOVE WITH RODS OF SUFFICIENT SIZE TO PREVENT VERTICAL MOVEMENT OF THE OUTLET BOX. BRIDGES ALONE ARE NOT ADEQUATE UNLESS SPECIFICALLY APPROVED. CEILING MOUNTED EXIT LIGHT FIXTURES SHALL BE INSTALLED LEVEL. DO NOT SUPPORT DEVICES FROM ACOUSTICAL CEILING TILE.
24. PROVIDE ADHESIVE BACKED RECEPTACLE DEVICE PLATE LABELS IDENTIFYING THE CIRCUIT FEEDING THE DEVICE. LABELS SHALL INDICATE PANEL AND CIRCUIT NUMBER. ALSO PROVIDE IDENTIFICATION FOR MULTI-WIRE BRANCH CIRCUIT PHASE CONDUCTORS IN PANELBOARD.
25. FINAL TYPED PANELBOARD DIRECTORIES INSTALLED IN THE PANELBOARD DOOR POCKET SHALL INCLUDE FINAL ACTUAL ROOM NAMES AND NUMBERS IN ADDITION TO THE GENERAL DESCRIPTION SHOWN ON THE PANEL SCHEDULES ON THE DRAWINGS.
26. CONDUCTOR SIZING IS BASED ON 75 DEGREE C. COPPER NEC RATINGS, UNLESS NOTED OTHERWISE. THE CONTRACTOR SHALL VERIFY, PRIOR TO INSTALLATION OF CONDUCTORS OR CONDUIT FEEDING ANY EQUIPMENT, THE ELECTRICAL EQUIPMENT IS RATED FOR USE WITH 75 DEGREE C. WIRING. IF ANY EQUIPMENT IS RATED FOR USE WITH LESS THAN 75 DEGREE C. CONDUCTORS, THE CONTRACTOR SHALL NOTIFY THE CONTRACTING OFFICER IMMEDIATELY FOR EVALUATION/CORRECTION.
27. DO NOT PULL CONDUCTORS UNTIL THE CONDUIT SYSTEM IS COMPLETE IN EVERY DETAIL. IN THE CASE OF CONCEALED WORK, "COMPLETE" MEANS UNTIL ALL ROUGH PLASTERING OR MASONRY HAS BEEN COMPLETED.
28. WHERE SIZE IS NOT SHOWN ON THE DRAWINGS, BRANCH CIRCUITS SHALL CONSIST OF #12 OR #10 AWG MINIMUM PHASE, NEUTRAL AND EQUIPMENT GROUND CONDUCTORS IN 3/4" MINIMUM RACEWAY.
29. USE #10 AWG CONDUCTORS FOR 20 AMPERE, 120 VOLT BRANCH CIRCUITS WITH A TOTAL INSTALLED LENGTH GREATER THAN 75 FEET AND/OR BRANCH CIRCUIT HOMERUNS LONGER THAN 50 FEET, I.E.; #12 AWG INCREASED TO #10 AWG FOR RECEPTACLE BRANCH CIRCUITS OVER 75 FEET TOTAL LENGTH (INCLUDING THE AWG HOMERUN SEGMENT) AND HOMERUNS OVER 50 FEET.
30. COMMON NEUTRAL CONDUCTORS OF MULTIWIRE RECEPTACLE BRANCH CIRCUIT HOMERUNS SHALL BE #10 AWG MINIMUM.
31. KEEP CONDUCTOR SPLICES TO A MINIMUM. INSTALL SPLICES AND TAPES THAT POSSESS EQUIVALENT OR BETTER MECHANICAL STRENGTH AND INSULATION RATINGS THAN CONDUCTORS BEING SPLICED. USE SPLICE AND TAP CONNECTORS COMPATIBLE WITH CONDUCTOR MATERIAL. INSTALL CONDUCTORS AT EACH OUTLET WITH AT LEAST 6 INCHES OF SLACK. CONNECT OUTLETS AND COMPONENTS TO WIRING AND TO GROUND AS INDICATED AND INSTRUCTED BY THE MANUFACTURER.
32. DO NOT SPLICE BRANCH CIRCUIT HOMERUNS WITHOUT THE PERMISSION OF THE CONTRACTING OFFICER. HOMERUNS SHALL BE CONTINUOUS FROM THE LAST OUTLET BOX TO THE SERVING PANELBOARD.
33. DO NOT COMBINE BRANCH CIRCUIT HOMERUNS UNLESS SPECIFICALLY INDICATED ON THE DRAWINGS.
34. DO NOT CHANGE CIRCUITING SHOWN WITHOUT PERMISSION OF THE CONTRACTING OFFICER.
35. TROUGH TAPS SHALL BE AT SWITCH AMPACITY, UNLESS NOTED OTHERWISE.
36. INSTALL WIRING DEVICES AT HEIGHTS AS SHOWN ON THE DRAWINGS. ALSO COORDINATE MOUNTING HEIGHTS WITH THE ARCHITECTURAL DRAWINGS AND CASEWORK DETAILS. IF CONFLICTING, ARCHITECTURAL DRAWINGS AND DETAILS SHALL GOVERN.
37. PROVIDE GROUND FAULT CIRCUIT-INTERRUPTER PROTECTION FOR PERSONNEL IN ACCORDANCE WITH THE NEC INCLUDING ALL ELECTRIC WATER COOLERS, EXTERIOR RECEPTACLES AND RECEPTACLES IN AREAS SUBJECT TO POSSIBLE WET CONDITIONS. ALL RECEPTACLES INSTALLED WITHIN 6 FEET OF A SINK SHALL BE GFI PROTECTED. ALL RECEPTACLES IN NON-RESIDENTIAL KITCHENS SHALL BE GFI PROTECTED.
38. IN AREAS IN WHICH DUAL LEVEL SWITCHING IS INDICATED (TYPICALLY BY 2 OR MORE ADJACENT, GANGED SWITCHES), PROVIDE THE APPROPRIATE NUMBER OF CONDUCTORS TO FACILITATE THIS FUNCTION (AS TYPICALLY SHOWN).
39. CONNECT BATTERY PACK TYPE EMERGENCY AND EXIT LIGHTING FIXTURES TO UN-SWITCHED LIGHTING CIRCUIT SERVING THE SPACE LIGHTED BY THE EMERGENCY AND EXIT FIXTURES. THESE CONNECTIONS ARE INTENTIONALLY NOT SHOWN TO MAINTAIN DRAWING FOR CLARITY.
40. COORDINATE LIGHTING FIXTURE LOCATIONS WITH THE ARCHITECTURAL REFLECTED CEILING PLAN. IF CONFLICTS ARE NOTED, REQUEST CLARIFICATION FROM THE CONTRACTING OFFICER BEFORE PROCEEDING.
41. ADJACENT SWITCHES SHALL BE GANGED. INSTALL BARRIERS BETWEEN UNLIKE VOLTAGE SECTIONS.
42. SEPARATE NEUTRALS ARE REQUIRED FOR ALL DIMMED LIGHTING CIRCUITS.
43. WHERE THE DRAWINGS INDICATE A LIGHTING FIXTURE IS TO BE PROVIDED WITH SPECIAL FEATURES/SWITCHING (DIMMING, EMERGENCY BATTERY BALLAST, MULTI-LEVEL, ETC), THE CONTRACTOR SHALL PROVIDE THESE FIXTURES WITH THE APPROPRIATE BALLASTING TO ACCOMMODATE THE SPECIAL FEATURE. THE CONTRACTOR SHALL PROVIDE THE FIXTURES AS INDICATED IN THE LIGHTING FIXTURE SCHEDULE WITH MODIFICATIONS AS REQUIRED BY DRAWING NOTES.
44. COORDINATE LOCATIONS OF PLUMBING, MECHANICAL, DATA AND TELEPHONE AND AUDIO/VISUAL EQUIPMENT. GOVERNMENT-PROVIDED TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THIS CONTRACTOR. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.
45. PROVIDE TELEPHONE, FIBER AND DATA SERVICE ENTRANCE CONDUIT IN SIZES AND LOCATIONS AS SHOWN ON THE DRAWINGS AND AS REQUIRED BY THE GOVERNMENT AND THE SERVICE UTILITIES. UTILITY SERVICE ENTRANCE CABLES WILL BE PROVIDED AND INSTALLED BY THIS CONTRACTOR. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.
46. INSTALLATION INFORMATION PACKED WITH LIGHTING FIXTURES, DEVICES AND EQUIPMENT SHALL BE RETAINED FOR INCLUSION IN THE OPERATIONS AND MAINTENANCE MANUALS.
47. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY TO INSTALL ALL EQUIPMENT AS REQUIRED AND SHALL RE-ESTABLISH ALL FINISHES TO THEIR ORIGINAL CONDITION WHERE CUTTING AND PATCHING OCCUR. ALL CUTTING AND PATCHING SHALL BE DONE IN A THOROUGHLY WORKMANSHIP MANNER. SAW CUT CONCRETE AND MASONRY PRIOR TO BREAKING OUT SECTIONS. ALL PATCHING MATERIALS AND WORKMANSHIP SHALL BE PERFORMED BY TRADESMEN EXPERIENCED IN THAT WORK. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE RESPECTIVE SUPPLIERS AND VENDORS AND THE GOVERNMENT BEFORE ROUGH-IN. ADJUST LIGHTING FIXTURES, RECEPTACLES AND ELECTRICAL EQUIPMENT TO ACCOMMODATE THIS EQUIPMENT. ADVISE THE GOVERNMENT OF CONFLICTS BEFORE ROUGH-IN.
48. BEFORE COMMENCING WORK OR ORDERING MATERIALS, THE CONTRACTOR SHALL COORDINATE WITH OTHER TRADES AND VERIFY THE NAMEPLATE RATINGS OF ALL EQUIPMENT (MOTORS, HEATERS, COMPRESSORS, ETC.) AND ADJUST THE RATINGS OF THE ELECTRICAL EQUIPMENT (SWITCHES, FUSES, CIRCUIT BREAKERS, FEEDERS, ETC.) AS APPROPRIATE TO SERVE THIS EQUIPMENT.
49. ENERGIZE EQUIPMENT ONLY AFTER OBTAINING PERMISSION FROM THE CONTRACTOR PROVIDING THE EQUIPMENT.
50. UNLESS SPECIFICALLY NOTED OTHERWISE, THE CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ALL UTILIZATION EQUIPMENT SHOWN ON THE DRAWINGS. VERIFY THE TYPE OF FINAL CONNECTION AND PROVIDE APPROPRIATE WIRING METHOD. THE CONTRACTOR SHALL COORDINATE WITH THE MECHANICAL AND PLUMBING EQUIPMENT, PRIOR TO ORDERING OR INSTALLATION OF ANY EQUIPMENT, TO VERIFY MECHANICAL AND PLUMBING EQUIPMENT REQUIREMENTS ARE PROVIDED IN THE ELECTRICAL DESIGN. THE CONTRACTOR WILL NOT BE COMPENSATED FOR COSTS ASSOCIATED WITH CHANGING THE ELECTRICAL SYSTEMS TO MATCH UTILIZATION EQUIPMENT, EVEN IF THE ELECTRICAL WORK IS INSTALLED PER THE ELECTRICAL DRAWINGS.
51. THE CONTRACTOR SHALL FURNISH ALL STARTERS AND CONTROLS FOR THEIR EQUIPMENT. THE CONTRACTOR SHALL PROVIDE ALL SAFETY SWITCHES, SHALL MOUNT STARTERS AND PROVIDE WIRING AND CONNECTIONS TO LINE SIDE OF STARTERS. THE CONTRACTOR SHALL PROVIDE LOAD SIDE WIRING AND CONNECTIONS TO MECHANICAL AND PLUMBING EQUIPMENT. FOR RESISTANCE TYPE LOADS WHERE STARTERS OR CONTACTORS ARE NOT REQUIRED, THE CONTRACTOR SHALL PROVIDE ALL POWER WIRING AND CONNECTIONS COMPLETE TO EQUIPMENT. THE MECHANICAL AND PLUMBING CONTRACTORS SHALL PROVIDE ALL CONTROL WIRING AND CONNECTIONS AND DEVICES FOR THEIR EQUIPMENT.
52. TELECOMMUNICATIONS AND DATA CABLES WILL BE PROVIDED AND INSTALLED BY THE CONTRACTOR. OSP CABLING SHALL BE INSTALLED BY THE GOVERNMENT. LEAVE PULL WIRES OR ROPES OF ADEQUATE TENSILE STRENGTH IN ALL EMPTY CONDUITS.
54. THE CONTRACTOR SHALL PERFORM ALL CUTTING AND PATCHING NECESSARY TO INSTALL ALL EQUIPMENT AS REQUIRED AND SHALL REESTABLISH ALL FINISHES TO THEIR ORIGINAL CONDITION WHERE CUTTING AND PATCHING OCCUR. ALL CUTTING AND PATCHING SHALL BE DONE IN A THOROUGHLY WORKMANSHIP MANNER. SAW CUT CONCRETE AND MASONRY PRIOR TO BREAKING OUT SECTIONS. ALL PATCHING MATERIALS AND WORKMANSHIP SHALL BE PERFORMED BY TRADESMEN EXPERIENCED IN THAT WORK. ALL WORK SHALL BE SUBJECT TO THE APPROVAL OF THE CONTRACTING OFFICER.
55. CORE DRILL HOLES IN EXISTING CONCRETE WALLS AS REQUIRED.
56. INSTALL WORK AT SUCH TIME AS TO REQUIRE THE MINIMUM AMOUNT TO CUTTING AND PATCHING.
57. CUT OPENINGS ONLY LARGE ENOUGH TO ALLOW EASY INSTALLATION OF THE CONDUIT.
58. ABANDONED POWER WIRING, RACEWAYS AND CONDUCTORS, SHALL BE REMOVED BACK TO THEIR SOURCE. THE ACCESSIBLE PORTIONS OF ABANDONED CABLES (VOICE, DATA, VIDEO, ALARM, ETC.) SHALL BE REMOVED.
59. THE EXISTING ELECTRICAL SYSTEMS DEPICTED ON THESE DRAWINGS HAVE BEEN COMPILED BY THE ENGINEER FROM THE GOVERNMENT'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF THE EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL DIMENSIONS, POINTS OF ACCESS AND FIELD CONDITIONS AFFECTING HIS WORK.
60. THE CONTRACTOR SHALL VISIT THE SITE AND BECOME FAMILIAR WITH THE EXISTING ELECTRICAL SYSTEMS AND THE EXISTING BUILDING. THE SUBMISSION OF THE PROPOSAL BY THE CONTRACTOR SHALL BE CONSIDERED EVIDENCE THAT HE OR HIS REPRESENTATIVE HAS VISITED THE SITE AND BUILDINGS AND NOTED THE LOCATION AND CONDITIONS UNDER WHICH THE WORK WILL BE PERFORMED AND THAT HE TAKES FULL RESPONSIBILITY OF ALL FACTORS GOVERNING HIS WORK. NO EXTRAS WILL BE CONSIDERED BECAUSE OF ADDITIONAL WORK NECESSITATED BY EXISTING JOB CONDITIONS THAT ARE NOT INDICATED ON THE DRAWINGS.
61. ALL UNUSED OUTLET BOXES SHALL BE REMOVED OR, WITH SPECIFIC APPROVAL OF THE CONTRACTING OFFICER, SHALL BE BLANKED WITH STAINLESS STEEL PLATES. ALL OPENINGS IN EXISTING WALLS AND CEILINGS MADE BY THIS CONTRACTOR SHALL BE REPAIRED TO AN EQUAL FINISH AS ADJACENT SURFACES.
62. PROVIDE ALL ELECTRICAL RELOCATION WORK ASSOCIATED WITH THE RELOCATING OF EQUIPMENT FOR THE EXISTING FACILITIES, INCLUDING DISCONNECTING ALL EXISTING WIRING AND CONDUITS AND PROVIDING NEW WIRING AND CONDUITS TO THE RELOCATED EQUIPMENT.
63. SEE "KEYED/GENERAL DEMOLITION NOTES" FOR ADDITIONAL REQUIREMENTS.
64. SAFETY
    - A. COMPLY WITH OSHA AND NEC ARC FLASH PROTECTION REQUIREMENTS.
    - B. FOR EQUIPMENT BEING REMOVED AND REPLACED, THE CONTRACTOR SHALL DE-ENERGIZE THE EQUIPMENT AND MAKE IT SAFE PRIOR TO REMOVAL AND COMPLY WITH OSHA REQUIREMENTS FOR LOCKING-OUT AND TAGGING EQUIPMENT TO PREVENT INADVERTENT RE-ENERGIZING.
    - C. WHERE EQUIPMENT IS BEING REMOVED, BUT NOT REPLACED, REMOVE THE CONDUCTORS FEEDING THE EQUIPMENT BACK TO THE POINT WHERE THEY RECEIVE POWER. REMOVE ACCESSIBLE CONDUITS. ABANDON IN PLACE INACCESSIBLE CONDUITS. AFTER REMOVAL OF EQUIPMENT, REPAIR ANY OPENING LEFT TO MATCH SURROUNDING WALLS, CEILINGS, OR FLOORS TO THE CONTRACTING OFFICER SATISFACTION.
    - D. COORDINATE WITH THE OTHER TRADES, PRIOR TO BID, AND INCLUDE IN THE BASE BID THE ELECTRICAL DISCONNECTION OF ANY EQUIPMENT BEING DEMOLISHED, EVEN IF NOT EXPLICITLY SHOWN. UNLESS NOTED OTHERWISE, REMOVE ALL DEMOLISHED EQUIPMENT FROM THE PROPERTY.

GENERAL DEMOLITION NOTES

1. DEMOLITION SHALL BE AS DESCRIBED HEREIN AND AS SHOWN ON THE CONTRACT DRAWINGS. IDENTIFY ACTIVE UTILITIES, AND AT THE APPROPRIATE TIME, DISCONNECT AND CAP OFF SUCH UTILITIES AND PROVIDE EXPEREINCED PERSONNEL ON SITE DURING GENERAL CONTRACTOR DEMOLITION OPERATIONS TO PERFORM SUCH OPERATIONS AND RESOLVE ISSUES. REMOVE MATERIALS NOTED FOR SALVAGE AND REUSE. IDENTIFY AND MARK WIRING AND DEVICES TO REMAIN FOR THE GENERAL CONTRACTOR.
2. THE CONTRACTOR SHALL REVIEW THE ARCHITECTURAL, MECHANICAL, PLUMBING AND ELECTRICAL DRAWINGS AND SPECIFICATIONS FOR DEMOLITION REQUIREMENTS AND CARRY OUT HIS WORK IN A COMPATIBLE AND COMPLEMENTARY MANNER. REMOVE ALL WIRING DEVICES, BOXES, FIXTURES, EXPOSED ABANDONED RACEWAYS, HANGARS, ETC., AND THOSE MADE OBSOLETE BY THESE ALTERATIONS AND AS SHOWN ON THE ELECTRICAL DRAWINGS. ALL ITEMS TO BE REMOVED OR MODIFIED MAY NOT BE SHOWN, HOWEVER, THIS CONTRACTOR SHALL REMOVE ANY ELECTRICAL WORK AS REQUIRED BY THE CONSTRUCTION OR AS DIRECTED BY THE GOVERNMENT OR CONTRACTING OFFICER. SURVEY THE AFFECTED AREAS BEFORE SUBMITTING A BID AS ALL EXISTING CONDITIONS CANNOT BE COMPLETELY DEPICTED ON THE DRAWINGS AND SOME UNUSUAL CONDITIONS MAY EXIST.
3. REMOVE, RELOCATE, AND EXTEND EXISTING INSTALLATIONS TO ACCOMMODATE NEW CONSTRUCTION.
4. VERIFY FIELD MEASUREMENTS AND CIRCUITING ARRANGEMENTS ARE AS SHOWN ON DRAWINGS.
5. VERIFY THAT ABANDONED WIRING AND EQUIPMENT SERVE ONLY ABANDONED FACILITIES.
6. DISCONNECT AND/OR DE-ENERGIZE ELECTRICAL SYSTEMS IN WALLS, FLOORS, AND CEILINGS SCHEDULED FOR REMOVAL.
7. PROVIDE TEMPORARY AND/OR PERMANENT WIRING AND CONNECTIONS AS SHOWN AND/OR AS REQUIRED BY CONDITIONS TO MAINTAIN EXISTING SYSTEMS IN SERVICE DURING CONSTRUCTION. WHEN WORK MUST BE PERFORMED ON ENERGIZED EQUIPMENT OR CIRCUITS, AND WHEN SUCH WORK IS SPECIFICALLY APPROVED BY THE GOVERNMENT AND PERMITTED BY REGULATORY AUTHORITIES, USE PERSONNEL EXPERIENCED IN SUCH OPERATIONS.
8. EXISTING ELECTRICAL SERVICE: COORDINATE POWER OUTAGES WITH THE GOVERNMENT AND UTILITY COMPANY. MAINTAIN EXISTING SYSTEMS IN SERVICE. DISABLE SYSTEMS ONLY TO MAKE SWITCHOVERS AND CONNECTIONS. OBTAIN PERMISSION FROM THE GOVERNMENT AT LEAST 24 HOURS BEFORE PARTIALLY OR COMPLETELY DISABLING SYSTEM. MINIMIZE OUTAGE DURATION. MAKE TEMPORARY CONNECTIONS TO MAINTAIN SERVICE IN AREAS ADJACENT TO WORK AREA.
9. CONTINUOUS SERVICE IS REQUIRED ON ALL CIRCUITS AND OUTLETS AFFECTED BY THESE CHANGES, EXCEPT WHERE THE GOVERNMENT WILL PERMIT AN OUTAGE FOR A SPECIFIC TIME. OBTAIN GOVERNMENT CONSENT BEFORE REMOVING ANY CIRCUIT FROM CONTINUOUS SERVICE.
10. ENDS OF ALL CONDUITS TO REMAIN SHALL BE TIGHTLY PLUGGED TO EXCLUDE DUST AND MOISTURE WHILE THE BUILDING IS UNDER RENOVATION.
11. SECURE ALL CIRCUITS, RACEWAYS, CABLE AND CONDUCTORS THAT, AS A RESULT FROM THIS CONSTRUCTION, ARE ABANDONED OR UNUSED. REMOVE UNUSED EXPOSED CONDUIT AND WIRING BACK TO POINT OF CONCEALMENT INCLUDING ABANDONED CONDUIT ABOVE ACCESSIBLE CEILINGS. REMOVE UNUSED WIRING IN CONCEALED CONDUITS BACK TO SOURCE OR NEAREST POINT OF USAGE. BLANK ABANDONED KNOCKOUTS IN REMAINING BOXES. INSTALL BLANK PLATES FOR ALL UNUSED OUTLETS THAT WILL REMAIN AS A RESULT OF THIS CONSTRUCTION. ALL SUCH WORK SHALL BE IN STRICT ACCORDANCE WITH ALL APPLICABLE CODES AND ORDINANCES.
12. TRACE OUT EXISTING WIRING THAT IS TO BE RELOCATED OR REMOVED AND PERFORM THE RELOCATION OR REMOVAL WORK AS REQUIRED FOR A COMPLETE OPERATING AND SAFE SYSTEM.
13. RECONNECT EXISTING CIRCUITS SEPARATED AS A RESULT OF THIS CONSTRUCTION.
14. DELIVER ALL REMOVED AND SALVAGED LIGHTING FIXTURES, WIRING DEVICES, FIRE ALARM DEVICES, SPEAKERS, ETC., TO THE GOVERNMENT, OR AT THE GOVERNMENT'S OPTION, DISPOSE OF PROPERLY OFF SITE IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. FEES ASSOCIATED WITH DISPOSAL SHALL BE INCLUDED IN THE CONTRACTOR'S BASE BID.
15. COORDINATE WITH THE OTHER TRADES, PRIOR TO BID, AND INCLUDE IN THE BASE BID THE ELECTRICAL DISCONNECTION OF ANY EQUIPMENT BEING DEMOLISHED, EVEN IF NOT EXPLICITLY SHOWN. UNLESS NOTED OTHERWISE, REMOVE ALL DEMOLISHED EQUIPMENT FROM THE PROPERTY AND IDENTIFIED IN THE ELECTRICAL DRAWINGS.
16. THESE DRAWINGS ARE COMPILED BY THE ARCHITECT/ENGINEER FROM THE GOVERNMENT'S RECORD DRAWINGS AND LIMITED FIELD VERIFICATION OF EXISTING CONDITIONS FOR THE PURPOSE OF INDICATING THE WORK REQUIRED AND ARE BELIEVED TO BE CORRECT. NOTWITHSTANDING, THE CONTRACTOR SHALL VERIFY ALL CIRCUITS, WIRING, CONDUIT, DIMENSIONS, POINTS OF ACCESS AND ALL FIELD CONDITIONS AFFECTING HIS WORK. BEGINNING OF DEMOLITION MEANS THE CONTRACTOR ACCEPTS EXISTING CONDITIONS.
17. THE CONTRACTOR IS RESPONSIBLE FOR DISPOSAL OF ALL LAMPS CONTAINING MERCURY IN A LINED LANDFILL IN ACCORDANCE WITH NC GEN STATUTE 309.10M.
18. SEE GENERAL NOTES FOR ADDITIONAL REQUIREMENTS.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON R FAMIGLETTI
06/28/2019

SHEET TITLE: ELECTRICAL GENERAL NOTES, DEMOLITION NOTES

E-2

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

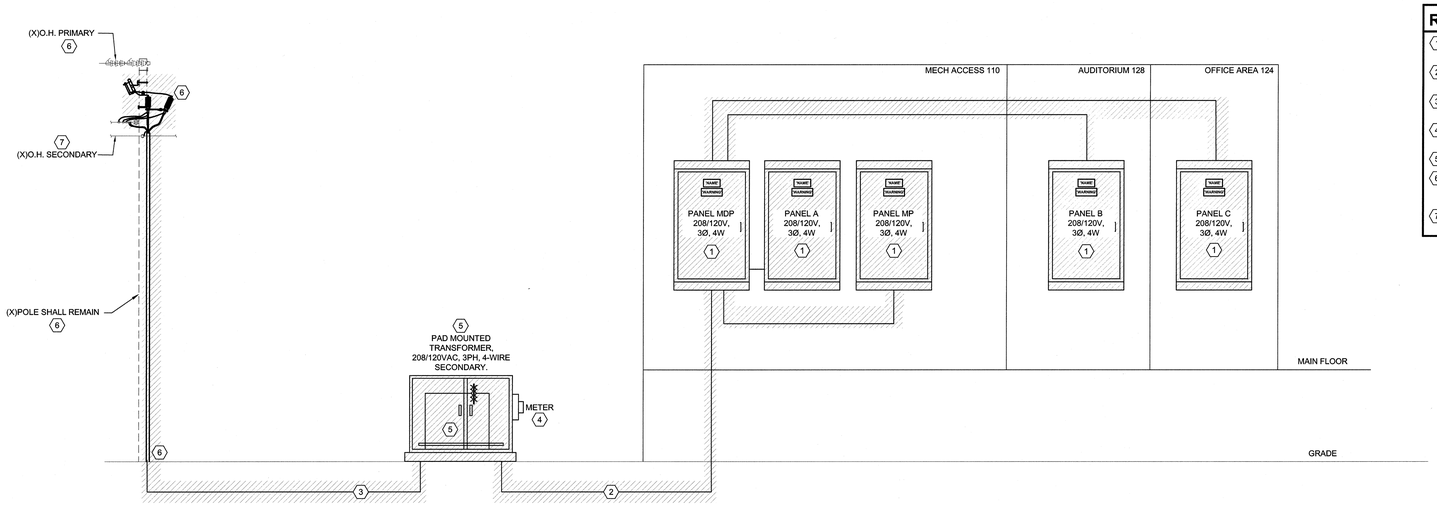
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025144 | CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 46 OF 57

REVISIONS			
SYM.		DATE	APPROVED



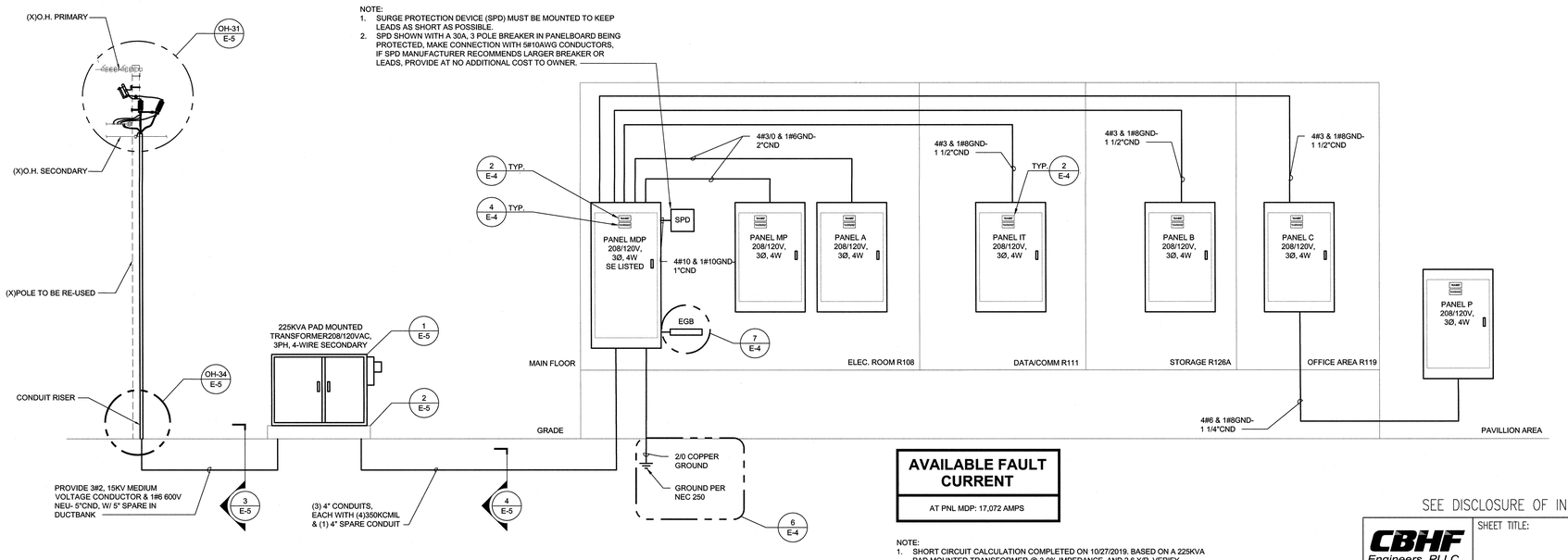
1 RISER DIAGRAM - DEMOLITION

NOT TO SCALE

RISER DIAGRAM DEMOLITION KEYED NOTES

1. PANELBOARD: CONTRACTOR MUST REMOVE PANELBOARD, FEED CONDUIT AND CONDUCTORS IN ENTIRETY TO SOURCE. REMOVE DISTRIBUTION CONDUIT AND CONDUCTORS IN ENTIRETY.
2. TRANSFORMER SECONDARY: CONTRACTOR MUST REMOVE CONDUIT AND CONDUCTORS IN ENTIRETY FROM TRANSFORMER TO PANEL MDP.
3. TRANSFORMER PRIMARY CONDUIT AND CONDUCTORS: CONTRACTOR MUST REMOVE CONDUIT AND CONDUCTORS IN ENTIRETY FROM TRANSFORMER TO POLE.
4. UTILITY METER AND CURRENT TRANSFORMERS: CONTRACTOR MUST REMOVE, PROTECT AND STORE DURING DEMOLITION AND CONSTRUCTION FOR RE-USE.
5. TRANSFORMER: TRANSFORMER AND CONCRETE PAD SHALL BE REMOVED IN ENTIRETY.
6. (X)UTILITY POLE: CONTRACTOR MUST PROTECT POLE FOR RE-USE. REMOVE PRIMARY RISER CONDUIT AND PRIMARY CONDUCTORS IN CONDUIT, CUTOUTS, STRAPS, INSULATORS, ECT. IN ENTIRETY. PROTECT OVERHEAD PRIMARY CONDUCTORS FOR REUSE.
7. (X)SECONDARY OVERHEAD CONDUCTORS: PROTECT CONDUCTORS DURING DEMOLITION AND CONSTRUCTION.

NOTE:
1. SURGE PROTECTION DEVICE (SPD) MUST BE MOUNTED TO KEEP LEADS AS SHORT AS POSSIBLE.
2. SPD SHOWN WITH A 30A, 3 POLE BREAKER IN PANELBOARD BEING PROTECTED, MAKE CONNECTION WITH 5#10AWG CONDUCTORS, IF SPD MANUFACTURER RECOMMENDS LARGER BREAKER OR LEADS, PROVIDE AT NO ADDITIONAL COST TO OWNER.



2 RISER DIAGRAM

NOT TO SCALE

AVAILABLE FAULT CURRENT

AT PNL MDP: 17,072 AMPS

NOTE:
1. SHORT CIRCUIT CALCULATION COMPLETED ON 10/27/2019. BASED ON A 225KVA PAD MOUNTED TRANSFORMER @ 3.0% IMPEDANCE, AND 2.6 X/R. VERIFY ACTUAL PARAMETERS WITH UTILITY COMPANY AND EQUIPMENT CHARACTERISTICS PRIOR TO INSTALLATION
2. SERVICE EQUIPMENT SHALL BE LEGIBLY MARKED WITH MAX. AVAILABLE FAULT CURRENT, INCLUDING THE DATE THE FAULT CURRENT CALCULATIONS WERE PERFORMED, PER NEC 110.24

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL RISER DIAGRAMS

E-3

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

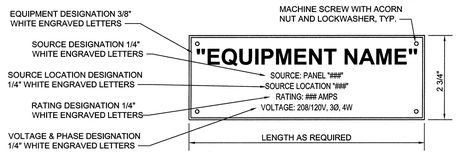
DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

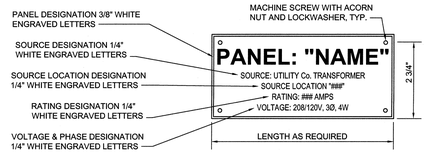
SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025145
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 47 OF 57

REVISIONS			
SYM.		DATE	APPROVED



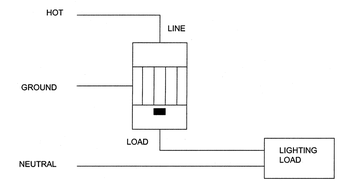
1 TYPICAL EQUIPMENT NAMEPLATE DETAIL

NOT TO SCALE



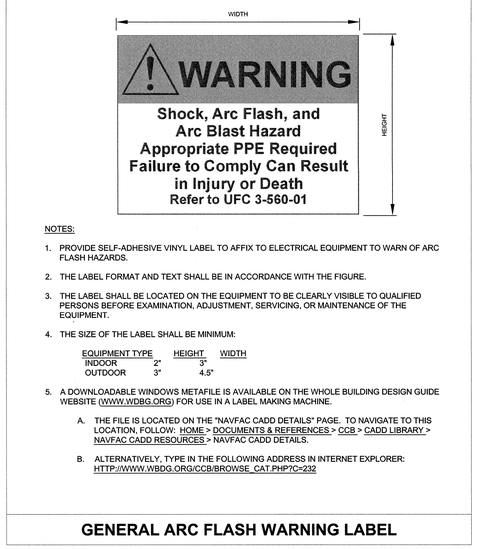
2 TYPICAL PANELBOARD NAMEPLATE DETAIL

NOT TO SCALE



3 OCCUPANCY SENSOR WALL SWITCH DIAGRAM

NOT TO SCALE



NOTES:

1. PROVIDE SELF-ADHESIVE VINYL LABEL TO AFFIX TO ELECTRICAL EQUIPMENT TO WARN OF ARC FLASH HAZARDS.
2. THE LABEL FORMAT AND TEXT SHALL BE IN ACCORDANCE WITH THE FIGURE.
3. THE LABEL SHALL BE LOCATED ON THE EQUIPMENT TO BE CLEARLY VISIBLE TO QUALIFIED PERSONS BEFORE EXAMINATION, ADJUSTMENT, SERVICING, OR MAINTENANCE OF THE EQUIPMENT.
4. THE SIZE OF THE LABEL SHALL BE MINIMUM:

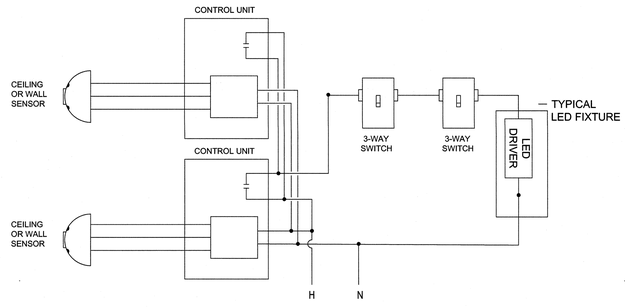
EQUIPMENT TYPE	HEIGHT	WIDTH
INDOOR	2"	3"
OUTDOOR	3"	4.5"

5. A DOWNLOADABLE WINDOWS METAFILE IS AVAILABLE ON THE WHOLE BUILDING DESIGN GUIDE WEBSITE (WWW.WDBG.ORG) FOR USE IN A LABEL MAKING MACHINE.
   A. THE FILE IS LOCATED ON THE "NAVFAC CADD DETAILS" PAGE. TO NAVIGATE TO THIS LOCATION, FOLLOW: HOME > DOCUMENTS & REFERENCES > CCB > CADD LIBRARY > NAVFAC CADD RESOURCES > NAVFAC CADD DETAILS.
   B. ALTERNATIVELY, TYPE IN THE FOLLOWING ADDRESS IN INTERNET EXPLORER: HTTP://WWW.WBDG.ORG/CCB/BROWSE_CAT.PHP?C=232

GENERAL ARC FLASH WARNING LABEL

4 ELECTRICAL EQUIPMENT WARNING LABEL DETAIL

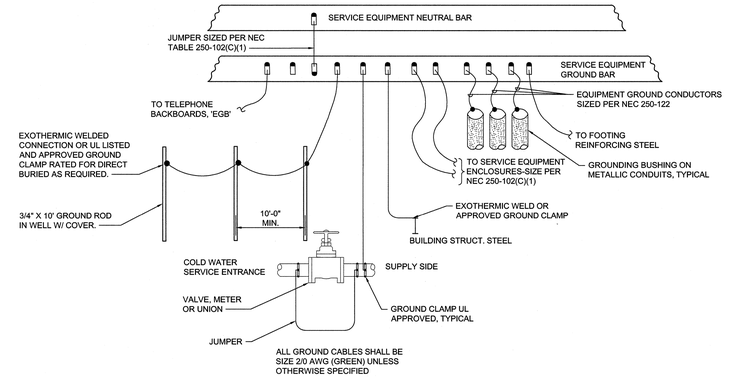
NOT TO SCALE



5 OCCUPANCY SENSOR 3 WAY SWITCH WITH MULTIPLE CEILING SENSOR WIRING DIAGRAM

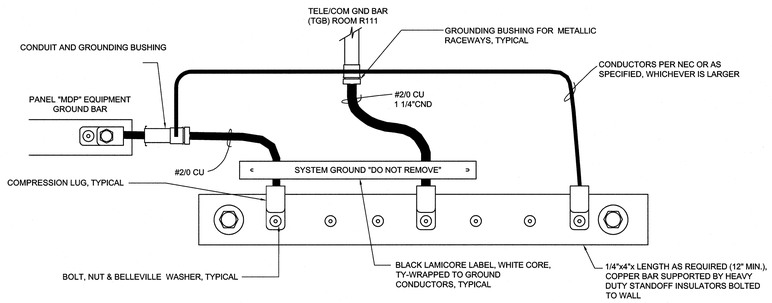
NOT TO SCALE

NOTE:
OCCUPANCY SENSOR WIRING SCHEMATICS ARE PROVIDED TO INDICATE SWITCHING FUNCTION(S) REQUIRED. COMPONENTS AND CONNECTIONS BETWEEN COMPONENTS ARE REPRESENTATIVE ONLY AND MAY NOT BE APPLICABLE FOR ALL MANUFACTURER'S DEVICES. CONSULT ACTUAL APPROVED DEVICE MANUFACTURER APPLICATION INFORMATION AND INSTALLATION INSTRUCTIONS FOR COMPONENTS AND WIRING REQUIRED BEFORE ROUGHING IN AND INSTALLING SYSTEMS.



6 SERVICE GROUNDING DETAIL

NOT TO SCALE



7 'EGB' GROUND BAR DETAIL

NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL DETAILS — E-4

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025146 | CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 48 OF 57

REVISIONS			
SYM.		DATE	APPROVED

POLE LINE MATERIAL LIST

1. FLAT STEEL BRACE (TWO PIECES)
2. MACHINE BOLT, 3/8" X LENGTH NEEDED WITH WASHER, NUT AND LOCKWASHER
3. 8' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 3 1/2" X 4 1/2"
4. MACHINE BOLT, 5/8" X LENGTH NEEDED WITH WASHER, NUT AND LOCKWASHER
5. TIMBER CONNECTOR
6. LAGSCREW, 1/2" X 4"
7. ANGLE STEEL BRACE (TWO PIECES)
8. MACHINE BOLT, 1/2" X LENGTH NEEDED, WITH WASHER, NUT & LOCKWASHER
9. DEADEND BOX
10. STEEL PIN
11. PIN INSULATOR
12. GRID GAIN, USED ONLY WHEN THERE IS NO POLE GAIN
13. ANGLE STEEL BRACE (ONE PIECE)
14. 10' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 3 1/2" X 4 1/2"
15. 5/8" EYE NUT
16. 5/8" EYE BOLT, LENGTH AS NEEDED, WITH WASHER, NUT & LOCKWASHER
17. EXTENSION LINK
18. BELL TYPE SUSPENSION INSULATOR WITH CONNECTING HARDWARE
19. STRAIN CLAMP
20. STEEL ANGLE PIN
21. CLUSTER MOUNTING BRACKET, STEEL
22. TRANSFORMER GROUNDING CONNECTION
23. STIRRUP
24. SECONDARY LEAD SUPPORT BRACKET
25. ADAPTER PLATE FOR CLUSTER MOUNTING
26. CLEVIS BRACKET FOR SPOOL INSULATOR
27. SPOOL INSULATOR
28. U BOLT CLAMP
29. PREFORMED GUY GRIP
30. GUY HOOK
31. GUY STRAIN INSULATOR
32. GUY WIRE, SIZE AS SPECIFIED
33. #4 WP CU. SOFT DRAWN GROUND WIRE
34. GROUND CLAMP
35. CONDUIT COUPLING
36. CONDUIT BEND
37. INSULATED BUSHING
38. PERFORATED STRAPPING, 1-1/2" WIDE
39. HOT LINE CLAMP
40. FUSED CUTOUT, AS SPECIFIED
41. SURGE ARRESTER, AS SPECIFIED
42. POLE TOP PIN (RIDGE PIN) – 24 INCHES LONG
43. CROSSARM ANGLE PIN
44. ANGLE POLE TOP PIN
45. WEATHERPROOF SOFT DRAWN WIRE–SIZE
    - (a) TO MATCH OR EXCEED AMPACITY OF CONNECTING CABLE, OR
    - (b) AT 125% OF TRANSFORMER FULL LOAD CURRENT, BUT NOT LESS THAN NO. 4 AWG

POLE LINE MATERIAL LIST

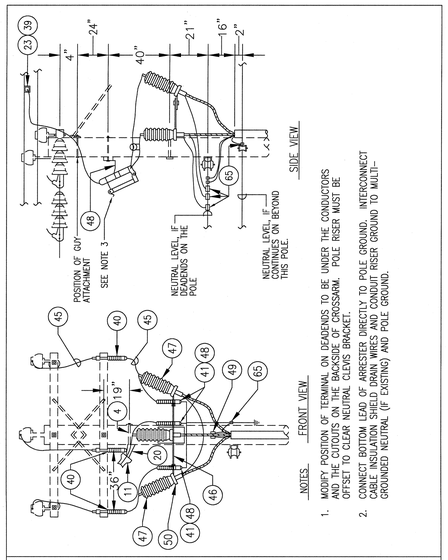
SKETCH DATE	JUNE 2002	STYLE	OH–1.5

POLE LINE MATERIAL LIST

46. TRI–MOUNT BRACKET
47. TERMINATOR
48. MOUNTING BRACKET
49. CABLE GRIP HANGER
50. HOSE CLAMP
51. STUD, 3/4" X 1–3/4"
52. LINE POST INSULATOR
53. TRIPLE INSULATOR BRACKET
54. ANGLE CLAMP
55. INSULATOR, LINE POST CLAMP
56. 4' CROSSARM
57. CROSSARM GAIN BRACKET
58. PULLEY BRACKET
59. WEDGE CLAMP
60. MIDSPAN SERVICE CLAMP
61. STUD, 7"
62. SADDLE, ANGLE
63. SADDLE, CROSSARM
64. FITTING, POLE TOP
65. CONNECTOR
66. SUSPENSION CLAMP
67. TIE, SERVICE CABLE
68. 54" FIBERGLASS STRAIN INSULATOR
69. PVC RISER SHIELD
70. PVC EXTENSION SHIELD
71. PVC BACK PLATE
72. 8' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 4 3/4" X 5 3/4"
73. 10' WOOD CROSSARM WITH CROSS SECTION DIMENSIONS OF 4 3/4" X 5 3/4"
74. BACK–UP CURRENT LIMITING FUSE

POLE LINE MATERIAL LIST

SKETCH DATE	JUNE 2002	STYLE	OH–1.5A

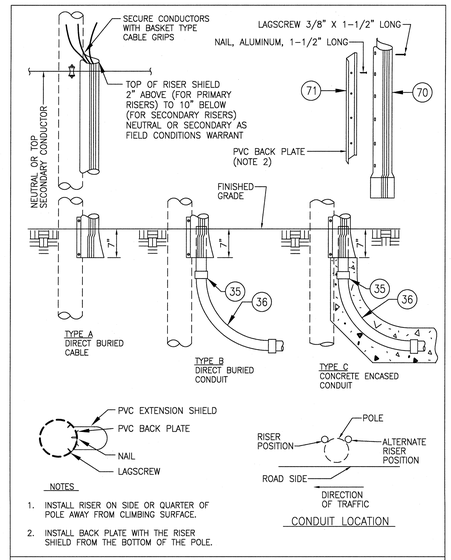


NOTES:

1. MODIFY POSITION OF TERMINAL ON DEADENDS TO BE UNDER THE CONDUCTORS AND THE CUTOUTS ON THE BACKSIDE OF CROSSARM. POLE RISER MUST BE OFFSET TO CLEAR NEUTRAL CLEVIS BRACKET.
2. CONNECT BOTTOM LEAD OF ARRESTER DIRECTLY TO POLE GROUND. INTERCONNECT CONNECTION SHALL BE MADE AT GROUND WIRE. RISER GROUND TO MULTI–GROUNDED NEUTRAL (IF EXISTING) AND POLE GROUND.

U.G. TERMINAL
(0–25KV)

SKETCH DATE	JUNE 2002	STYLE	OH–31



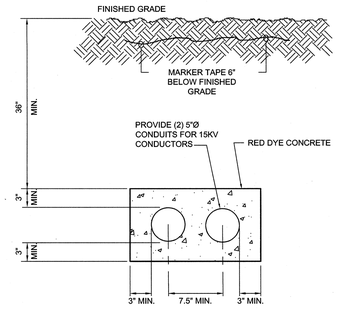
NOTES

1. INSTALL RISER ON SIDE OR QUARTER OF POLE AWAY FROM CLIMBING SURFACE.
2. INSTALL BACK PLATE WITH THE RISER SHIELD FROM THE BOTTOM OF THE POLE.

CONDUIT LOCATION

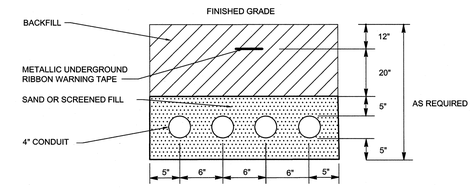
PVC RISER SHIELD
(SIZE & TYPE AS INDICATED)

SKETCH DATE	JUNE 2002	STYLE	OH–34



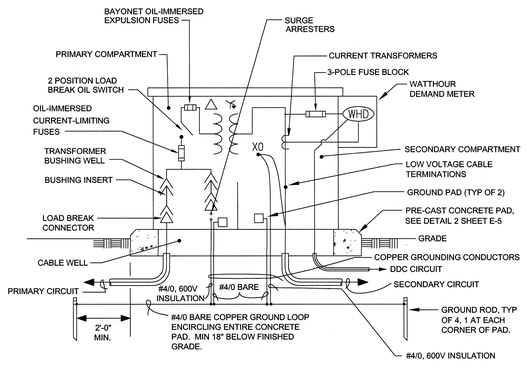
3 PRIMARY DUCTBANK SECTION

NOT TO SCALE



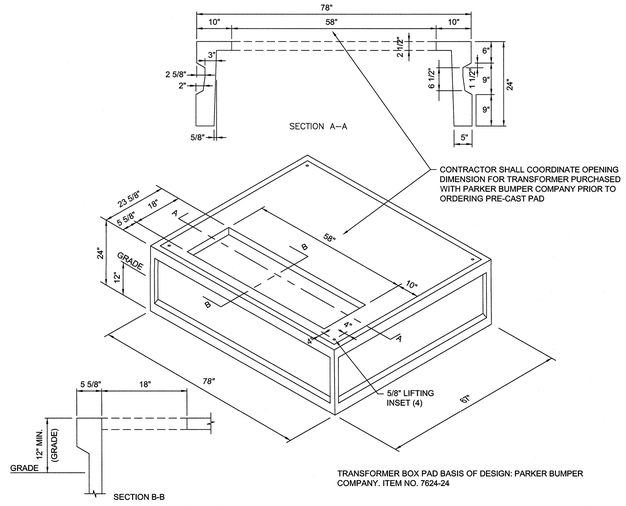
4 SECONDARY DUCTBANK SECTION

NOT TO SCALE



1 PAD-MOUNTED TRANSFORMER DETAIL

NOT TO SCALE



TRANSFORMER BOX PAD BASIS OF DESIGN: PARKER BUMPER COMPANY. ITEM NO. 7624-24

2 PRE-CAST TRANSFORMER PAD DETAIL

NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T–1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL DETAILS

E–5

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151–0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M–104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025147
CONST. CONTR. NO. N40085–19–B–0034
SCALE: NOTED | SPEC. 05–19–0034 | SHEET 49 OF 57

REVISIONS			
SYM.		DATE	APPROVED

PANEL MDP

SERVICE EQUIPMENT LISTED

TYPE: SURFACE
BOLT-ON
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: WALL
FEED: BOTTOM
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
PANEL MP	19,008	200/3		19,108			30/3		100	SPD
|	19,008	|	1		19,108		2	|	100	|
|	18,128	|			18,228		|	100	|
PANEL A	6,184	200/3		9,562			100/3		3,378	PANEL C
|	8,010	|	3		10,404		4	|	2,394	|
|	6,428	|			8,588		|	2,160	|
PANEL B	2,900	100/3		3,620			100/3		720	PANEL IT
|	1,260	|	5		3,060		6	|	1,800	|
|	1,620	|			3,420		|	1,800	|
EDH01	10,069	150/3		20,138			150/3		10,069	EDH02
|	10,069	|	7		20,138		8	|	10,069	|
|	10,069	|			20,138		|	10,069	|
DOAS02	11,711	125/3		17,711			70/3		6,000	EWH1
|	11,711	|	9		17,711		10	|	6,000	|
|	11,711	|				17,711	|	6,000	|
SPARE		100/3					100/3			SPARE
|		|	11				12	|		|
SPACE		-					-			SPACE
|		-	13				14	-		|
		-						-		
				70,139	70,421	68,085	TOTAL VOLT AMPS		800	A. BUS (COPPER)
				584	587	567	CONN. AMPS		800	A. MAIN CIRCUIT BREAKER

NOTE:
1. HVAC EQUIPMENT SHALL USE TYPE HACR BREAKERS.

42 KAIC MIN.

PANEL MP

TYPE: NEMA 1
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: SURFACE
FEED: TOP
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
DOAS01	4,093	45/3	1	4,766			2	15/3	673	AH03-01
|	4,093	|	3		4,766		4	|	673	|
|	4,093	|	5			4,766	6	|	673	|
BC01	131	15/2	7	804			8	15/3	673	AH04-01
|	131	|	9		804		10	|	673	|
SPARE		20/1	11			673	12	|	673	|
HP04	3,107	45/3	13	8,103			14	80/3	4,996	DHP01
|	3,107	|	15		8,103		16	|	4,996	|
|	3,107	|	17			8,103	18	|	4,996	|
HP03	3,107	45/3	19	3,856			20	15/2	749	DHP02
|	3,107	|	21		3,856		22	|	749	|
|	3,107	|	23			3,107	24	20/1		SPARE
ACC01	336	15/3	25	1,479			26	15/3	1,143	ACC02
|	336	|	27		1,479		28	|	1,143	|
|	336	|	29			1,479	30	|	1,143	|
SPARE		20/1	31				32	20/1		SPARE
SPARE		20/1	33				34	20/1		SPARE
SPARE		20/1	35				36	20/1		SPARE
SPARE		20/1	37				38	20/1		SPARE
SPARE		20/1	39				40	20/1		SPARE
SPARE		20/1	41				42	20/1		SPARE
				19,008	19,008	18,128	TOTAL VOLT AMPS		200	A. BUS (COPPER)
				158	158	151	CONN. AMPS		200	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.

22 KAIC MIN.

PANEL A

TYPE: NEMA 1
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: SURFACE
FEED: TOP
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
RECEPTS: R101	360	20/1	1	1,080			2	20/1	720	RECEPTS: R101
RECEPTS: R101	720	20/1	3		1,440		4	20/1	720	RECEPTS: R101
RECEPTS: R101	720	20/1	5			1,620	6	20/1	900	RECEPTS: R101,R106
RECEPTS: R108	360	20/1	7	720			8	20/1	360	RECEPTS: R115
RECEPTS: R110	720	20/1	9		1,260		10	20/1	540	RECEPTS: R110
LIGHTS: EXTERIOR	432	20/1	11			612	12	20/1	180	RECEPTS: R112
LIGHTS: R110, R111, R112, R125	761	20/1	13	1,616			14	20/1	855	LIGHTS: R101,R107
LIGHTS: R125	1,310	20/1	15		2,422		16	20/1	1,112	LIGHTS: R110, R200,R201, R202, R204
LIGHTS: R126,R126A,R127,R128	561	20/1	17			1,506	18	20/1	945	LIGHTS: R128
DAH01-01,03,10	428	15/2	19	1,148			20	20/1	720	RECEPTS: R101
|	428	|	21		1,628		22	20/1	1,200	SIGN
RECEPTS: R101	1,080	20/1	23			2,150	24	20/1	1,070	LIGHTS: R102,R113 THRU R124A
RECEPTS: R101	720	20/1	25	900			26	20/1	180	FMCP (NOTE 2)
RECEPTS: R101	1,080	20/1	27		1,260		28	20/1	180	FTAC (NOTE 2)
RECEPTS: R101	360	20/1	29			540	30	20/1	180	RECEPT: PROJECTOR
RECEPTS: R203, R204	540	20/1	31	1,080			32	20/1	540	RECEPTS: R205
SPARE		20/1	33				34	20/1		SPARE
SPARE		20/1	35				36	20/1		SPARE
SPARE		20/1	37				38	20/1		SPARE
SPARE		20/1	39				40	20/1		SPARE
SPARE		20/1	41				42	20/1		SPARE
				6,544	8,010	6,428	TOTAL VOLT AMPS		200	A. BUS (COPPER)
				55	67	54	CONN. AMPS		200	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.40
3. PROVIDE GFI BREAKER

22 KAIC MIN.

PANEL B

TYPE: NEMA 1
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: FLUSH
FEED: TOP
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
RECEPTS: R125, EXTERIOR GFI	900	20/1	1	1,800			2	20/1	900	RECEPTS: R125, EXTERIOR GFI
RECEPTS: R127	180	20/1	3		360		4	20/1	180	RECEPTS: R128
RECEPTS: R126A	540	20/1	5			900	6	20/1	360	RECEPTS: R126
RECEPTS: R126A	360	20/1	7	900			8	20/1	540	RECEPTS: R126
RECEPTS: R125	540	20/1	9		900		10	20/1	360	PV02, PV01
RECEPTS: R125	540	20/1	11			720	12	20/1	180	RECEPT: PROJECTOR
FAUCET CONTROL (NOTE 3)	100	20/1	13	200			14	20/1	100	FAUCET CONTROL (NOTE 3)
SPARE		20/1	15				16	20/1		SPARE
SPARE		20/1	17				18	20/1		SPARE
SPARE		20/1	19				20	20/1		SPARE
SPARE		20/1	21				22	20/1		SPARE
SPARE		20/1	23				24	20/1		SPARE
				2,900	1,260	1,620	TOTAL VOLT AMPS		200	A. BUS (COPPER)
				24	11	14	CONN. AMPS		100	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.40
3. PROVIDE GFI BREAKER

10 KAIC MIN.

PANEL C

TYPE: NEMA 1
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: SURFACE
FEED: TOP
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
RECEPTS: R122	720	20/1	1	1,620			2	20/1	900	RECEPTS: R123, R124
RECEPTS: R121,R124, EXTERIOR GFI	900	20/1	3		1,620		4	20/1	720	RECEPTS: R119
RECEPT: R114	180	20/1	5			360	6	20/1	180	RECEPT: R117
RECEPT: EWC1 (NOTE 3)	180	20/1	7	360			8	20/1	180	PV01
SPARE		20/1	9				10	20/1		SPARE
RECEPTS: R124A	720	20/1	11			1,440	12	20/1	720	RECEPT: R122A
DAH01-04,05,06,07,08,09,11	414	15/2	13	414			14	20/1		SPARE
|	414	|	15		414		16	20/1		SPARE
SPARE		20/1	17				18	20/1		SPARE
SPARE		20/1	19				20	20/1		SPARE
SPARE		20/1	21				22	20/1		SPARE
SPARE		20/1	23				24	20/1		SPARE
PANEL P	984	60/3	25	984			26	20/1		SPARE
|	360	|	27		360		28	20/1		SPARE
|	360	|	29			360	30	20/1		SPARE
				3,378	2,394	2,160	TOTAL VOLT AMPS		200	A. BUS (COPPER)
				28	20	18	CONN. AMPS		100	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.40
3. PROVIDE GFI BREAKER

10 KAIC MIN.

PANEL IT

TYPE: NEMA 1
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: SURFACE
FEED: TOP
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
RECEPTS: R111	360	20/1	1	720			2	20/1	360	RECEPTS: R111
RECEPT: R111	900	30/2	3		1,800		4	30/2	900	RECEPT: R111
|	900	|	5			1,800	6	|	900	|
SPARE		20/1	7				8	20/1		SPARE
SPARE		20/1	9				10	20/1		SPARE
SPARE		20/1	11				12	20/1		SPARE
SPARE		20/1	13				14	20/1		SPARE
SPARE		20/1	15				16	20/1		SPARE
SPARE		20/1	17				18	20/1		SPARE
SPARE		20/1	19				20	20/1		SPARE
SPARE		20/1	21				22	20/1		SPARE
SPARE		20/1	23				24	20/1		SPARE
				720	1,800	1,800	TOTAL VOLT AMPS		200	A. BUS (COPPER)
				6	15	15	CONN. AMPS		100	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.40
3. PROVIDE GFI BREAKER

10 KAIC MIN.

PANEL P

TYPE: NEMA 4X
BOLT-ON
DOOR-IN-DOOR WITH-IN HINGED TRIM
FRONT COVER
208 | 120 V, | 3 PH, | 4 WIRE
MOUNT: SURFACE
FEED: BOTTOM
PROVIDE IF XX
CHECKED: XX
EQUIP. GROUND BUS
NEUTRAL BUS
GUTTER TAPS
SUB-FEED LUGS

LOAD SERVED	LOAD VA	CKT BKR	CKT #	LOAD VA A	LOAD VA B	LOAD VA C	CKT #	CKT BKR	LOAD VA	LOAD SERVED
LTS: PAVILLION	624	20/1	1	804			2	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	3		180		4	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	5			180	6	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	7	180			8	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	9		180		10	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	11			180	12	20/1	180	RECEPTS: PAVILLION
SPARE		20/1	13				14	20/1		SPARE
SPARE		20/1	15				16	20/1		SPARE
SPARE		20/1	17				18	20/1		SPARE
SPARE		20/1	19				20	20/1		SPARE
SPARE		20/1	21				22	20/1		SPARE
SPARE		20/1	23				24	20/1		SPARE
				984	360	360	TOTAL VOLT AMPS		100	A. BUS (COPPER)
				8	3	3	CONN. AMPS		60	A. MAIN CIRCUIT BREAKER

NOTES:
1. HVAC & REFRIGERATION EQUIPMENT MUST USE TYPE HACR BREAKERS.
2. PROVIDE CIRCUIT BREAKER LOCKING DEVICE FOR FACU ALONG WITH IDENTIFYING CIRCUIT BREAKER IN ACCORDANCE WITH NEC 760.40
3. PROVIDE GFI BREAKER

10 KAIC MIN.

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA REGISTERED SEAL 35230 ENGINEER JASON P. FAMIGLETTI
06/28/2019

SHEET TITLE: ELECTRICAL PANEL SCHEDULES

E-6

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025148
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 50 OF 57

REVISIONS			
SYM.		DATE	APPROVED

LIGHTING FIXTURE SCHEDULE

MARK	DESCRIPTION	SIZE/APERATURE	VOLTS	LAMPS	WATTS	LENS	COLOR	MOUNTING HEIGHT	DRIVER	REMARKS
A	2x2 LED LAY-IN VOLUMETRIC LUMINARE	24"W X 24"L X 4"H	MVOLT	LED 4000K 4500 LUMENS	45	VOLUMETRIC	WHITE	RECESSED CEILING	LED DRIVER DIMMING 0-10V	1
B	2x2 LED LAY-IN VOLUMETRIC LUMINARE	24"W X 24"L X 4"H	MVOLT	LED 4000K 3000 LUMENS	27	VOLUMETRIC	WHITE	RECESSED CEILING	LED DRIVER DIMMING 0-10V	1
C	2x2 LED LAY-IN LENSED LUMINARE	24"W X 24"L X 4"H	MVOLT	LED 4000K 3000 LUMENS	16	N/A	WHITE	CEILING MOUNTED	LED DRIVER	6
D	RECESSED MOUNTED 6" SHOWER LIGHT WET LOCATION LISTED	6" DIA.	MVOLT	LED 4000K 1000 LUMENS	10	ACRYLIC CLEAR	WHITE	RECESSED CEILING	LED DRIVER	3
D1	RECESSED MOUNTED 6" DOWN LIGHT	6" DIA.	MVOLT	LED 4000K 1000 LUMENS	10	ACRYLIC CLEAR	WHITE	RECESSED CEILING	LED DRIVER DIMMING 0-10V	1,3
E	2-HEAD EMERGENCY FIXTURE CONSTRUCTION: INJECTION-MOLDED HIGH-IMPACT THERMOPLASTIC WITH SNAP-FIT COMPONENTS	12.5"W X 3.75"D X 3.75"H	MVOLT	2-1.8W LED SQUARE LAMPS	10	N/A	WHITE	WALL MOUNTED 7' 6" AFF	N/A	8
F	2x4 LED LAY-IN VOLUMETRIC LUMINARE	24"W X 48"L X 4"H	MVOLT	LED 4000K 4300 LUMENS	36	VOLUMETRIC	WHITE	RECESSED CEILING	LED DRIVER DIMMING 0-10V	1
G	WALL MOUNTED VANITY FIXTURE CAST ALUMINUM WITH POWDER COAT FINISH	48"W X 4"T X 4"D	MVOLT	LED 4000K 2800 LUMENS	31	FROSTED ACRYLIC	WHITE	ABOVE MIRROR	LED DRIVER	2,6,7
H	4' LENSED STRIP FIXTURE	2.5"W X 48"L X 3"H	MVOLT	LED 4000K 4000 LUMENS	31	FROSTED	WHITE	SURFACE MOUNTED CEILING OR WALL	LED DRIVER	4
J	4' CEILING MOUNTED SURFACE WET LOCATION VAPOR TITE	8"W X 48"L X 4"H	MVOLT	LED 4000K 4300 LUMENS	39	CLEAR	WHITE	CEILING MOUNTED	LED DRIVER	3
K	WALL MOUNTED FULL CUT OFF FIXTURE WITH EMERGENCY BATTERY BACKUP	7.5"W X 11.2"H X 3.75"D	MVOLT	LED 4500K 700/500 LUMENS	24	N/A	BRONZE	WALL MOUNTED	LED DRIVER	3,8,9
L	LENSED RECESSED MOUNTED 6" DOWN LIGHT WITH EMERGENCY BATTERY BACKUP, WET LOCATION	6" DIA.	MVOLT	LED 4000K 2000 LUMENS	30	FROSTED		RECESSED CEILING	LED DRIVER	3,8
M	TRACK LIGHTING 60 DEGREE LED WIDE FLOOD HEAD WITH 60 DEGREE REFLECTOR PROVIDE WITH 75W CURRENT LIMITER	3-3/8"x 5-3/4" 4' TRACK	MVOLT	LED 3500K 2100 LUMENS	21		WHITE	CEILING MOUNTED	LED DRIVER DIMMING 0-10V	1
X	EXIT SIGN, SINGLE FACE, 6" RED LETTERS	12"W X 8"H X 2"D	MVOLT	LED	6	N/A	WHITE	SURFACE CEILING 7'-6"AFF WHEN WALL MOUNTED	N/A	8
X1	EXIT SIGN, SINGLE FACE, 6" RED LETTERS WITH EMERGENCY LIGHTING DUAL HEADS	12"W X 8"H X 2"D	MVOLT	LED	6	N/A	WHITE	SURFACE CEILING 7'-6"AFF WHEN WALL MOUNTED	N/A	8

REMARKS:
1. 0-10V DIMMING DRIVER
2. DAMP LOCATION
3. WET LOCATION
4. COORDINATE LOCATION WITH DUCTWORK AND/OR EQUIPMENT
5. LED REQUIRED SURGE PROTECTION
6. CONFIRM MOUNTING HEIGHT WITH ARCHITECT
7. FINAL COLOR SELECTION BY ARCHITECT
8. 90 MIN BATTERY BACKUP-INTEGRAL
9. INTEGRAL PHOTOCELL

GENERAL NOTES:

A. THE CONTRACTOR SHALL VERIFY THE LEAD TIME OF ALL PRODUCTS SPECIFIED IN THIS SCHEDULE AT THE TIME OF PACKAGE QUOTE.
B. DURING THE BID PROCESS, THE CONTRACTOR SHALL NOTIFY THE ARCHITECT/ENGINEER OF ANY DELIVERY/SCHEDULING ISSUES.
C. NO SUBSTITUTIONS WILL BE ALLOWED DUE TO THE LACK OF COORDINATION OF DELIVERY DATES AND CONSTRUCTION SCHEDULE AFTER BID.
D. ALL EXPEDITED EXPENSES SHALL BE THE RESPONSIBILITY OF THE CONTRACTORS.
E. FIXTURES TO BE INSTALLED IN CEILINGS, INDICATE ON THE ARCHITECTURAL PLANS AS HAVING INSULATION IN CONTACT WITH THE CEILING SURFACE, SHALL BE IC RATED BY MANUFACTURER.
F. LIGHTING FIXTURES SHALL MEET THE AESTHETICS, DESCRIPTION AND SPECIFICATIONS, SUBSTITUTIONS SHALL INCLUDE PT. BY PT. CALCULATIONS.
G. LIGHTING FIXTURES, AS SPECIFIED, HAVE BEEN SO SELECTED TO ACHIEVE REQUIRED/DESIRED FOOTCANDLE LEVELS IN THEIR RESPECTIVE AREA. HENCE SPECIFIC FIXTURE CHARACTERISTICS WHICH MAY CREATE PARTICULAR ILLUMINATION RESULTS ARE ESSENTIAL. ANY DEVIATIONS FROM SPECIFIED FIXTURES SHALL DEEM THE SUBMITTING AGENT AND CONTRACTORS RESPONSIBLE IN PROVIDINGSUCH DEVIATION FOR THE ARCHITECT/ ENGINEER AND OWNER TO MAKE AN INFORMED DECISION.
H. SUBSTITUTIONS ARE ACCEPTABLE AS LONG AS THEY ARE EQUAL TO THE FIXTURE SPECIFIED, UNLESS OTHERWISE NOTED THIS INCLUDES LENS, COLORS, REFLECTORS, PHOTOMETRICS, HOUSING MATERIAL, FINISHES, ETC. ALL
I. ANY FIXTURE WITH THE TEXT "NL" ADJACENT TO IT SHALL INDICATE THAT THAT FIXTURE IS A NIGHT LIGHT (24HR LIGHT). THE FIXTURE SHALL BE CONNECTED TO THE UNSWITCHED HOT LEG OF THE INDICATED CIRCUIT.
J. ACRYLIC PRISMATIC LENSES SHALL BE 0.156" NOMINAL MINIMUM THICKNESS.
K. ALL EXIT AND EMERGENCY FIXTURES SHALL COMPLY WITH NCSBC STANDARDS AND HAVE AUTOMATIC TESTING DEVICES.
L. LED EMERGENCY BATTERY SHALL PROVIDE 1400 MINIMUM LUMENS OUTPUT FROM 1 LAMP FOR 90 MINUTES MINIMUM.
M. LED MODULES SHALL BE REPLACEABLE.
N. SEE SPECIFICATIONS SECTIONS 265100 AND 265200 FOR ADDITIONAL REQUIREMENTS.
O. ELECTRICAL CONTRACTOR SHALL RECEIVE APPROVAL FOR ALL LIGHTING FIXTURES FROM ARCHITECT/OWNER PRIOR TO PURCHASE AND ROUGH-IN.
P. ALL LIGHTING FIXTURES PENETRATING RATED FLOOR/CEILING ASSEMBLY SHALL BE PROVIDED WITH ACCESSORIES TO MAINTAIN ASSEMBLY FIRE RATING. REFER TO ARCHITECTURAL DRAWINGS FOR ADDITIONAL RATINGS.
Q. THE ABOVE FIXTURE TYPES ARE LISTED AS THE DESIGN BASIS. THE ACTUAL FIXTURES SUBMITTED SHALL BE MANUFACTURED IN THE UNITED STATES.
R. PROVIDE MANUFACTURER INSTALLED NEC 2014 ARTICLE 410.130 (G) COMPLIANT DISCONNECTING MEANS FOR ALL APPLICABLE FIXTURES.
S. ALL LUMINAIRE SUPPORTS, INCLUDING POLES, SHALL BE 3RD PARTY LISTED.

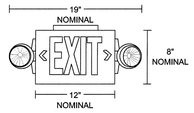


LUMINAIRE REQUIREMENTS:

1. HOUSING/TRIM - EXTRUDED ALUMINUM WITH OPTIONAL FINISHES OF SATIN ALUMINUM, WHITE, BLACK, BRASS, BRONZE OR CHROME.
2. PLAQUE - WATER-CLEAR INJECTION-MOLDED ACRYLIC. OPTIONAL MIRROR BACKGROUND ON SINGLE FACE MODELS; STANDARD ON DOUBLE-FACED MODELS.
3. LETTERS/CHEVRONS - MINIMUM 6" HIGH WITH 3/4" STROKE. RED OR GREEN LETTERS AS INDICATED. PROVIDE CHEVRONS AS INDICATED EITHER LEFT, RIGHT OR BOTH DIRECTIONS AS INDICATED.
4. EMERGENCY PACK - SOLID-STATE, CONSTANT-CURRENT TYPE BATTERY CHARGER WITH MAINTENANCE-FREE, NICKEL-CADMIUM BATTERY, AC-ON INDICATOR LAMP AND TEST SWITCH.
5. MOUNTING - UNIVERSAL MOUNTING KIT FOR CEILING, WALL OR END OF FIXTURE MOUNTING.
6. ILLUMINATION - PROVIDED BY RED OR GREEN HIGH-OUTPUT LEDS IN TOP HOUSING. RATED LIFE SHALL BE IN EXCESS OF 20 YEARS.
7. CERTIFICATION - UL LISTED AND LABELED.

EDGE-LIT EXIT SIGN

1 TYPE X DETAIL
NOT TO SCALE

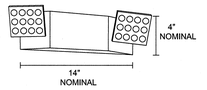


LUMINAIRE REQUIREMENTS:

1. THERMOPLASTIC HOUSING, IMPACT-RESISTANT, SCRATCH-RESISTANT AND CORROSION-PROOF. UL94V-0 FLAME RATING. UV-STABLE RESIN. RUGGED UNIBODY HOUSING SNAPS TOGETHER WITH NO ADDITIONAL FASTENERS. UNIVERSAL, DIRECTIONAL CHEVRON INSERTS ARE EASILY REMOVED AND REINSERTED. LETTERS ARE 6" HIGH WITH 3/4" STROKE, WITH 100 FT. VIEWING DISTANCE RATING BASED UPON UL924 STANDARD. LEDs MOUNTED ON PRIMARY CIRCUIT BOARDS FOR SIGN ILLUMINATION. LOW-ENERGY LED LAMP IN SIGN OPERATES IN NORMAL (AC INPUT) AND EMERGENCY (DC INPUT) MODES. LOW-PROFILE, INTEGRATED TEST SWITCH/PILOT LIGHT. RED STATUS INDICATOR. UNIQUE TRACK-AND-SWIVEL ARRANGEMENT PERMITS FULL RANGE OF DIRECTION OF LAMP HEAD ADJUSTMENT. TOOL-LESS ACCESS FOR MAINTENANCE.
2. OPTICS - TWIN LED LAMP HEADS OPERATE IN EMERGENCY (DC INPUT) MODE WITH 12 SERIES-PARALLEL WHITE LEDS IN EACH HEAD.
3. ELECTRICAL - DUAL-VOLTAGE INPUT CAPABILITY (120/277V). CURRENT-LIMITING CHARGER. SHORT-CIRCUIT PROTECTION. SINGLE MULTI-COLOR LED INDICATOR TO DISPLAY TWO-STATE CHARGING, TEST ACTIVATION AND THREE-STATE DIAGNOSTIC TEST. TEST SWITCH. SELF-DIAGNOSTIC TESTING FOR 30 SECONDS EVERY 30 DAYS, 30 MINUTES AT 180-DAY INTERVAL, AND 90 MINUTES ANNUALLY. DIAGNOSTIC EVALUATION OF LED LIGHT SOURCE, AC-TO-DC TRANSFER, CHARGING AND BATTERY CONDITION. BATTERY: SEALED, MAINTENANCE-FREE NICKEL-CADMIUM BATTERY. DELIVERS 90-MINUTE CAPACITY TO EMERGENCY LAMPS.
4. INSTALLATION - TOP, END OR BACK MOUNTING. HOUSING SNAPS TO CANOPY WITH POSITIVE-LOCKING TABS. CAM LOCKING PIN SECURES HOUSING TO CANOPY.
5. LISTINGS - UL DAMP LOCATION LISTED STANDARD 50°-104°F (10°-40°C). MEETS UL 924, NFPA 101 (CURRENT LIFE SAFETY CODE), NEC AND OSHA ILLUMINATION STANDARDS.

LED COMBO/EXIT SIGN

2 TYPE X1 DETAIL
NOT TO SCALE



LUMINAIRE REQUIREMENTS:

1. HOUSING - INJECTION-MOLDED, FAME-RETARDANT, HIGH-IMPACT, THERMOPLASTIC HOUSING WITH SNAP-FIT DESIGN COMPONENTS. TRACK AND SWIVEL ARRANGEMENT PERMITS FULL RANGE OF LAMP ADJUSTMENT.
2. OPTICS - TWO 1.8W LED LAMPS FOR EMERGENCY LIGHT.
3. ELECTRICAL - DUAL-VOLTAGE INPUT 120V OR 277V AC. EMERGENCY UNIT PROVIDED WITH TEST SWITCH, STATUS INDICATOR AND RECHARGEABLE BATTERY. MAINTENANCE-FREE NICKEL-CADMIUM BATTERY. 90 MINUTES OF EMERGENCY POWER.
4. LISTINGS - UL LISTED. MEETS UL 924, NFPA 101, NFPA 70-NEC AND OSHA ILLUMINATION STANDARDS. DAMP LOCATION 32°F TO 122°F (0°C TO 50°C) LISTED STANDARD.

DECORATIVE EMERGENCY LIGHTING UNIT

3 TYPE E DETAIL
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL LIGHTING DETAILS

E-7

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES. JLG	
DR. JLG	
CHK. JPF	
SUBMITTED BY:	
DESIGN DIR. T H BURTON, PE	
APPROVED: DATE	
SATISFACTORY TO: DATE	

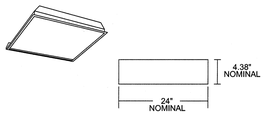
RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025149

CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 51 OF 57

REVISIONS			
SYM.		DATE	APPROVED

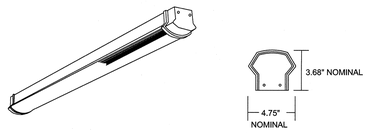


LUMINAIRE REQUIREMENTS:

1. CONSTRUCTION - COMPONENTS ARE DIE-FORMED FOR DIMENSIONAL CONSISTENCY AND PAINTED AFTER FABRICATION WITH A POLYESTER POWDER PAINT FOR IMPROVED PERFORMANCE AND PROTECTION. THE REFLECTOR IS FINISHED WITH A HIGH REFLECTIVE MATTE WHITE POWDER PAINT FOR IMPROVED AESTHETICS AND INCREASED LIGHT DIFFUSION. END PLATES CONTAIN EASY-TO-POSITION INTEGRAL T-BAR CLIPS FOR SECURELY ATTACHING THE LUMINAIRE TO THE T-GRID. FOR ADDITIONAL T-GRID SECURITY, OPTIONAL SCREW ON T-BAR CLIPS ARE AVAILABLE. DIFFUSERS ARE EXTRUDED FROM IMPACT MODIFIED ACRYLIC FOR INCREASED DURABILITY. LED BOARDS AND DRIVERS ARE ACCESSIBLE FROM THE PLENUM.
2. OPTICS - VOLUMETRIC ILLUMINATION IS ACHIEVED BY CREATING AN OPTIMAL MIX OF LIGHT TO WALLS, PARTITIONS AND VERTICAL AND HORIZONTAL WORK SURFACES - RENDERING THE INTERIOR SPACE, OBJECTS AND OCCUPANTS IN A MORE BALANCED, COMPLIMENTARY LUMINOUS ENVIRONMENT. HIGH PERFORMANCE EXTRUDED ACRYLIC DIFFUSERS CONCEAL LEDS AND EFFERENTLY DELIVER LIGHT IN A VOLUMETRIC DISTRIBUTION. FOUR DIFFUSER CHOICES AVAILABLE - CURVED AND SQUARE DESIGNS WITH LINEAR PRISMS OR A SMOOTH FROSTED FINISH.
3. ELECTRICAL - LONG-LIFE LEDS, COUPLED WITH HIGH-EFFICENCY DRIVERS, PROVIDE SUPERIOR QUANTITY AND QUALITY OF ILLUMINATION FOR EXTENDED SERVICE LIFE. FIXTURE SHALL BE RATED TO DELIVER L80 PERFORMANCE FOR 50,000 HOURS.
4. LED DRIVER - DRIVER DELIVERS FULL RANGE DIMMING FROM 0 - 10V CONTROL SIGNAL.
5. INSTALLATION - GRID INTERFACING ARRANGEMENT PROVIDES MOUNTING INTO STADARD 1" AND 9/16" TEE BAR OR SCREW SLOT GRIDS. 9/16" ALLOWS FIXTURE TRIM TO HANG LEVEL WITH ARCHITECTURAL CEILING TILES. DRYWALL CEILING ADAPTORS AVAILABLE. SUITABLE FOR DAMP LOCATION.
6. LISTINGS - CSA CERTIFIED TO MEET US AND CANADIAN STANDARDS. PATENTS PENDING. DLC CERTIFIED TEST TO LM80 STANDARDS.
7. SEE SCHEDULE FOR DELIVERED LUMEN PACKAGE, 3500K
8. FIXTURE MUST HAVE A HIGH IMPACT RESISTANT LENS SUITABLE FOR THE APPLICATION OF THE FIXTURE IN THE ATHLETIC FACILITY.
9. PROVIDE DRYWALL FLANGE KIT AND ANY OTHER OPTIONS AS REQUIRED FOR INSTALLATION.

DIRECT RECESSED 2' X 2' LED

1 TYPE C DETAIL
NOT TO SCALE

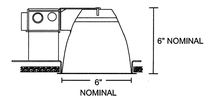


LUMINAIRE REQUIREMENTS:

1. HOUSING - 2NOMINAL 1 1/4" X 1 3/4" RECTANGULAR HOUSING FORMED FROM COLD-ROLLED STEEL.
2. END CAPS - DIE-CAST END CAPS ARE MECHANICALLY ATTACHED WITH NO EXPOSED FASTENERS. FLAT END CAPS STANDARD, SCULPTURED END CAPS OPTIONAL.
3. COLOR - HOUSING AND END CAPS IS WHITE, BLACK OR PAINTED ALUMINUM.
4. LUMINAIRE LENGTH - 4' AND 8' LENGTHS IS A SINGLE SECTION FOR EXACT SUSPENSION SPACING OF 4' OR 8'. FOR TOTAL LUMINAIRE LENGTH, ADD 5/8" FOR EACH FLAT END CAP AND 4" FOR EACH SCULPTURED END CAP. USING INTERNAL JOINERS, 4' AND 8' SECTIONS CAN BE JOINED TO FOR LONGER ROWS.
5. SOURCE - TWO LED LUMEN PACKAGES AND THREE AVAILABLE COLOR TEMPERATURE OPTIONS (3000K, 3500K, AND 4000K) - ALL WITHIN 2.5 MACADAM ELLIPSE.
6. OPTICS - HIGH PERFORMANCE LENS, DIFFUSERS AND METAL REFLECTORS.
7. DIMMING DRIVER - SMOOTH CONTINUOUS AND FLICKER-FREE DIMMING TO DARK (0.1%). SYNCING FOR CONTROLS: 2mA MAX. THD:<20%. INSIGNIFICANT INRUSH CURRENT AT 120 AND 277VAC. FCC CLASS A AND B TESTED FOR EMI AND RFI.
8. ELECTRICAL - LED LIGHT ENGINE - CONSISTING OF MODULAR LED BOARDS AND ELDOLED DIMMING DRIVER - RATED FOR 50,000 HOURS (L80) AT 25°C AMBIENT TEMPERATURE. SPECIFY 120V OR 277V. PRE-WIRED WITH 16WAG FIXTURE WIRE. PLUG-IN ELECTRICAL CONNECTORS INCLUDED.

LED 4' SURFACE MOUNT STRIP FIXTURE

2 TYPE H DETAIL
NOT TO SCALE

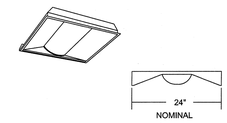


LUMINAIRE REQUIREMENTS:

1. HOUSING - ONE-PIECE, DIE-STAMPED, COLD ROLLED STEEL OR ACRYLIC-ENAMELED ALUMINUM. PROVIDE WITH PRE-WIRED JUNCTION BOX HAVING SNAP-ON ACCESS COVER. ACCESS TO JUNCTION BOX FROM BELOW CEILING SHALL BE PROVIDED THROUGH FIXTURE AFTER REMOVAL OF REFLECTOR.
2. REFLECTOR AND TRIM - ONE-PIECE, CLEAR, SPUN ALUMINUM, IRIDESCENCE-SUPRESSED, WITH PAINTED WHITE SELF TRIM. OTHER FINISHES AND TYPES AVAILABLE. SEE LIGHTING FIXTURE SCHEDULE.
3. LED DRIVER - DRIVER DELIVERS FULL RANGE DIMMING FROM 0 - 10V CONTROL SIGNAL.
4. ELECTRICAL - LONG-LIFE LEDS, COUPLED WITH HIGH-EFFICENCY DRIVERS, PROVIDE SUPERIOR QUANTITY AND QUALITY OF ILLUMINATION FOR EXTENDED SERVICE LIFE. FIXTURE SHALL BE RATED TO DELIVER L80 PERFORMANCE FOR 50,000 HOURS.
5. CERTIFICATION - UL LISTED AND LABELED.
6. OPTIONS -
   REFLECTOR TYPE - DIRECT DOWNLIGHT OR WALL WASH; SEMI-SPECULAR OR SPECULAR.
   REFLECTOR COLOR - CLEAR, CHAMPAGNE, PEWTER, WHEAT, GOLD OR BRONZE.
   TRIM - OPEN REFLECTOR, STEPPED WHITE OR BLACK BAFFLE.

RECESSED LED DOWNLIGHT

3 TYPE D,D1 & L DETAIL
NOT TO SCALE

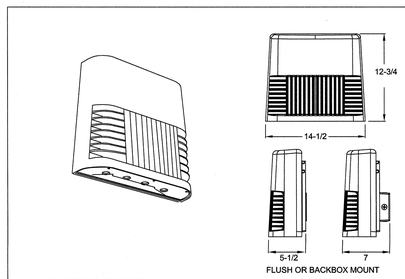


LUMINAIRE REQUIREMENTS:

1. CONSTRUCTION - COMPONENTS ARE DIE-FORMED FOR DIMENSIONAL CONSISTENCY AND PAINTED AFTER FABRICATION WITH A POLYESTER POWDER PAINT FOR IMPROVED PERFORMANCE AND PROTECTION. THE REFLECTOR IS FINISHED WITH A HIGH REFLECTIVE MATTE WHITE POWDER PAINT FOR IMPROVED AESTHETICS AND INCREASED LIGHT DIFFUSION. END PLATES CONTAIN EASY-TO-POSITION INTEGRAL T-BAR CLIPS FOR SECURELY ATTACHING THE LUMINAIRE TO THE T-GRID. FOR ADDITIONAL T-GRID SECURITY, OPTIONAL SCREW ON T-BAR CLIPS ARE AVAILABLE. DIFFUSERS ARE EXTRUDED FROM IMPACT MODIFIED ACRYLIC FOR INCREASED DURABILITY. LED BOARDS AND DRIVERS ARE ACCESSIBLE FROM THE PLENUM.
2. OPTICS - VOLUMETRIC ILLUMINATION IS ACHIEVED BY CREATING AN OPTIMAL MIX OF LIGHT TO WALLS, PARTITIONS AND VERTICAL AND HORIZONTAL WORK SURFACES - RENDERING THE INTERIOR SPACE, OBJECTS AND OCCUPANTS IN A MORE BALANCED, COMPLIMENTARY LUMINOUS ENVIRONMENT. HIGH PERFORMANCE EXTRUDED ACRYLIC DIFFUSERS CONCEAL LEDS AND EFFERENTLY DELIVER LIGHT IN A VOLUMETRIC DISTRIBUTION. FOUR DIFFUSER CHOICES AVAILABLE - CURVED AND SQUARE DESIGNS WITH LINEAR PRISMS OR A SMOOTH FROSTED FINISH.
3. ELECTRICAL - LONG-LIFE LEDS, COUPLED WITH HIGH-EFFICENCY DRIVERS, PROVIDE SUPERIOR QUANTITY AND QUALITY OF ILLUMINATION FOR EXTENDED SERVICE LIFE. FIXTURE SHALL BE RATED TO DELIVER L80 PERFORMANCE FOR 50,000 HOURS.
4. LED DRIVER - DRIVER DELIVERS FULL RANGE DIMMING FROM 0 - 10V CONTROL SIGNAL.
5. INSTALLATION - GRID INTERFACING ARRANGEMENT PROVIDES MOUNTING INTO STADARD 1" AND 9/16" TEE BAR OR SCREW SLOT GRIDS. 9/16" ALLOWS FIXTURE TRIM TO HANG LEVEL WITH ARCHITECTURAL CEILING TILES. DRYWALL CEILING ADAPTORS AVAILABLE. SUITABLE FOR DAMP LOCATION.
6. LISTINGS - CSA CERTIFIED TO MEET US AND CANADIAN STANDARDS. PATENTS PENDING. DLC CERTIFIED TEST TO LM80 STANDARDS.
7. SEE SCHEDULE FOR DELIVERED LUMEN PACKAGE, 3500K

DIRECT/INDIRECT RECESSED 2' X 2' & 2' X 4' LED

4 TYPE A & B & F DETAIL
NOT TO SCALE



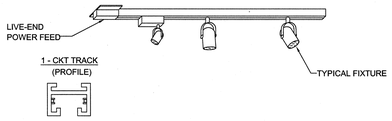
FLUSH OR BACKBOX MOUNT

LUMINAIRE REQUIREMENTS:

1. HOUSING - CAST ALUMINUM HOUSING.
2. FINISH - THERMOSET POWDER COAT FINISH.
3. LENS - CLEAR GLASS.
4. LAMPS - LEDs.
5. DRIVER - ELECTRONIC >90% POWER FACTOR.
6. ELECTRICAL - 120/277V
7. CERTIFICATION - UL LISTED AND LABELED.
8. INTEGRAL PHOTOCELL

LED EXTERIOR / EGRESS SURFACE FIXTURE

5 TYPE K DETAIL
NOT TO SCALE



LUMINAIRE REQUIREMENTS:

1. TRACK SECTION - HEAVY-GAUGE, EXTRUDED ALUMINUM CHANNEL WITH NATURAL ALUMINUM OR BAKED ENAMEL OR POWDER COAT WHITE, OR BLACK FINISH.
2. AMPACITY - TRACK SHALL HAVE ONE OR TWO 20 AMP CIRCUITS INTEGRAL TO EXTRUDED TRACK CHANNEL AS NOTED.
3. LENGTHS - TRACK SHALL BE AVAILABLE IN 2', 4', 8', AND 12' CONTINUOUS SECTIONS.
4. MOUNTING - EACH 4' OR LESS SECTION OF TRACK SHALL BE SECURED BY TWO TOGGLE-BOLT TYPE FASTENERS, OR SCREWS IF JOIST IS AVAILABLE.
5. FIXTURE TYPES - SEE NL-43 FOR COMMON TRACK LIGHTING FIXTURES.
6. CERTIFICATION - UL LISTED AND LABELED.
7. OPTIONS - PROVIDE ACCESSORIES AS NECESSARY FOR A COMPLETE INSTALLATION. AVAILABLE ACCESSORIES INCLUDE:
   A. LIVE END FEED - USED TO START A SINGLE RUN.
   B. LINEAR COUPLER - USED TO JOIN TWO STRIGHT TRACKS.
   C. L FEED CONNECTOR - JOINS TWO TRACKS IN 90 DEGREE CONFIGURATION.
   D. T FEED CONNECTOR - JOINS THREE TRACKS IN TEE CONFIGURATION.
   E. X FEED CONNECTOR - JOINS FOUR TRACKS IN AN X CONFIGURATION.
   F. FLEXIBLE CONNECTOR - JOINS TWO TRACKS IN UP TO A 90 DEGREE BEND.
   G. SURFACE CONDUIT FEED - PERMITS TRACK END TO BE CONNECTED TO 1/2" CONDUIT.
   H. CONCEALED FEED - PERMITS TRACK TO BE CONNECTED FROM ABOVE WITHOUT OUTLET BOX.

SURFACE-MOUNTED TRACK LIGHTING

6 TYPE M DETAIL
NOT TO SCALE

LED TRACK LIGHTING SPOT AND FLOOD

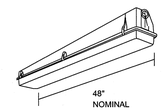


LUMINAIRE REQUIREMENTS:

1. HOUSING - SEAMLESS ALUMINUM WITH CAST ALUMINUM TOP FOR HEAT DISSAPATION.
2. FINISH - TYPE L & M: MATTE WHITE POWDER COAT STANDARD. VARIETY OF OTHER COLORS AVAILABLE. ADD SPECIFIC DESCRIPTION TO LIGHTING FIXTURE SCHEDULE.
3. DRIVER - LED DIMMABLE TO 5% VIA AN ELECTRONIC LOW VOLTAGE DIMMER ON 120V TRACK TRACK. MUST HAVE A SEAMLESS DRIVER CASE
4. LAMPS - LED LIGHT SOURCE 2100L/CRI 80+ @ 3000k.
   TYPE L - 21 DEGREE SPOT
   TYPE M - 60 DEGREE WIDE FLOOD
5. CERTIFICATION - UL LISTED AND LABELED.

TYPICAL TRACK LIGHTING FIXTURES

7 TYPE M DETAIL
NOT TO SCALE



LUMINAIRE REQUIREMENTS:

1. HOUSING - ONE-PIECE, IMPACT-RESISTANT, FIBERGLASS REINFORCED POLYESTER
2. FINISH - ALUMINUM REFLECTOR
3. LENS - 100% CLEAR OR FROSTED POLYCARBONITE. FILM. CLOSED CELL NEOPRENE GASKET WITH CAPTIVE NONMETALLIC, SNAP ACTION CAM LATCHES TO SECURE LENS TO HOUSING.
4. LUMEN SOURCE - LED ARRAYS WITH LUMEN OUTPUTS AS INDICATED. SEE LIGHTING FIXTURE SCHEDULE.
5. POWER SUPPLY/LED DRIVER - CLASS 1 DRIVER SHALL OPERATE AT 120/277 VOLTS, 50/60 HZ, WITH OTHER VOLTAGES OPTIONAL; POWER FACTOR GREATER THAN 0.9 AND THD LESS THAN 20% AT FULL LOAD.
6. CERTIFICATION - UL LISTED AND LABELED. SUITABLE FOR WET LOCATION AS DESIGNATED IN LIGHTING FIXTURE SCHEDULE.

LED SURFACE MOUNTED FIXTURE

8 TYPE J DETAIL
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA REGISTERED PROFESSIONAL ENGINEER 35230 JASON P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL LIGHTING DETAILS

E-8

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY — NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	JLG
DR.	JLG
CHK.	JPF
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

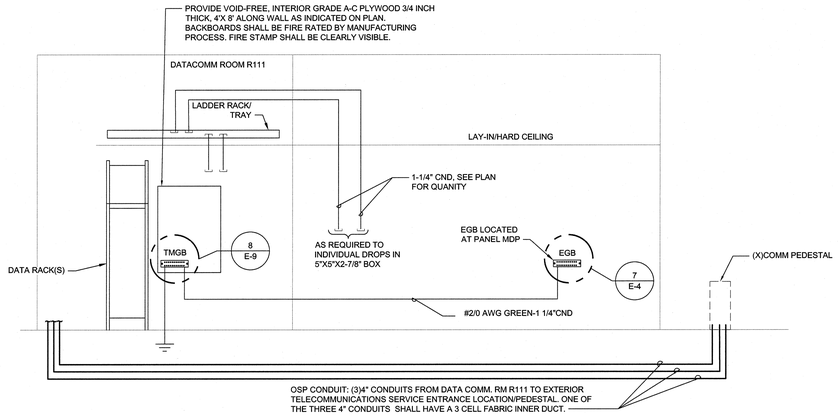
RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025150

CONST. CONTR. NO. N40085-19-B-0034

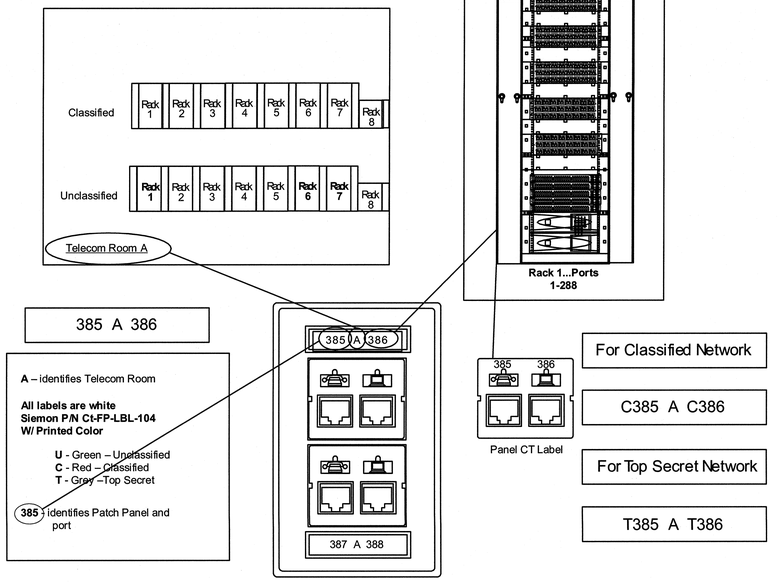
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 52 OF 57

REVISIONS			
SYM.		DATE	APPROVED



1 **TELECOMMUNICATION RISER**
NOT TO SCALE

Labeling Scheme



2 **DATA OUTLET LABELING DETAIL**
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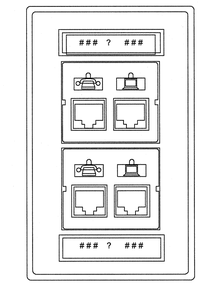
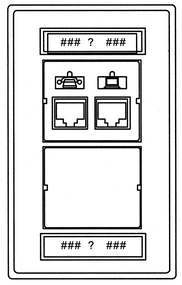
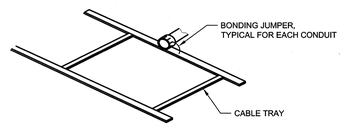


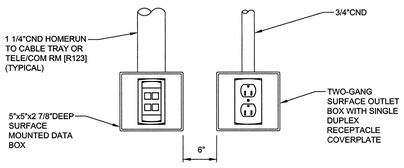
3 **TYPICAL DATA OUTLET DETAIL**
NOT TO SCALE



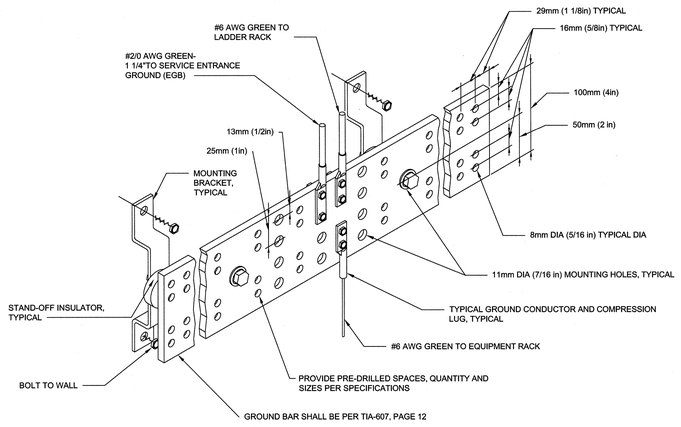
4 **DDC AND FMCP OUTLET DETAIL**
NOT TO SCALE



5 **CONDUIT/TRAY BONDING DETAIL**
NOT TO SCALE



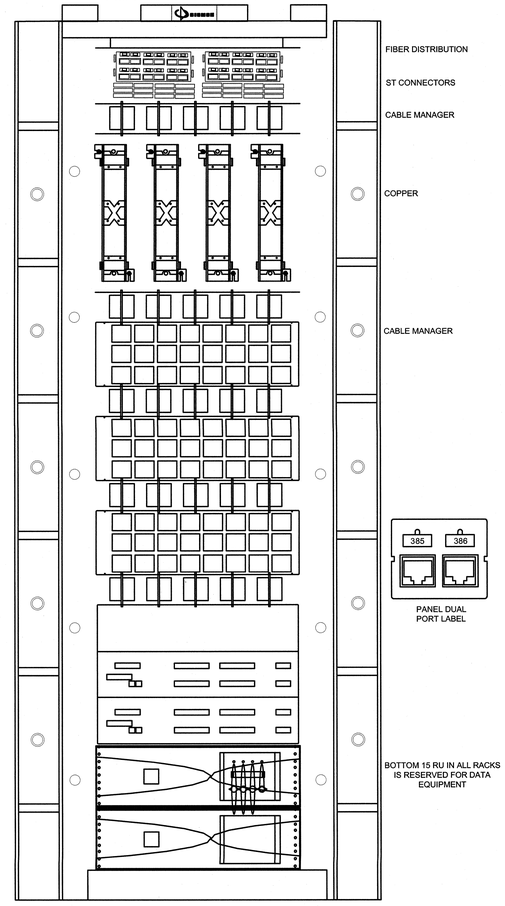
6 **DATA/RECEPTACLE MOUNTING DETAIL**
NOT TO SCALE



8 **TELECOMMUNICATIONS GROUND BAR DETAIL**
NOT TO SCALE

RACK OR CABINET IF IN UNSECURE AREA

ON BACKBOARD - PROTECTOR / BUILDING ENTRANCE (BEP), TMGB PROPER BONDING & GROUNDING, CABLE MANAGEMENT AND SLACK ON LADDER RACK. LADDER RACK SHOULD BE ANCHORED FROM COMM. RACK TO AT LEAST TWO WALLS.



NUMBER OF TELECOMMUNICATIONS WORK OUTLETS IN BUILDING DETERMINE NUMBER OF PATCH PANELS AND NEED FOR ADDITIONAL RACKS.

IF 2 RACKS ARE USED: BACKBONE FIBER AND COPPER CABLE TERMINATIONS ARE IN THE LEFT RACK

IF 3 OR MORE RACKS ARE USED: PLACE THE FIBER AND COPPER TERMINATIONS IN THE CENTER RACKING TO REDUCE PATCH CORD LENGTH

7 **ENCLOSURE/RACK ELEVATION EXAMPLE**
NOT TO SCALE

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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SHEET TITLE: ELECTRICAL COMMUNICATIONS DETAILS

E-9

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

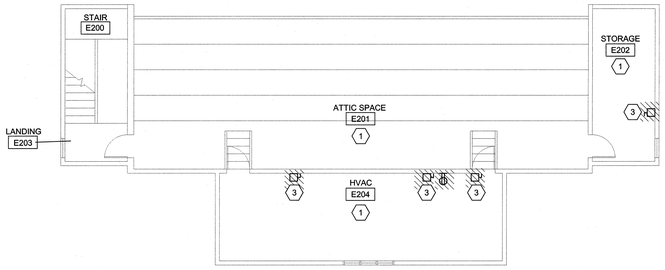
DES.	JLG
DR.	JLG
CHK.	JPF
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

NORTH CAROLINA PROFESSIONAL ENGINEER SEAL 35250 JASON R. FAMIGLIETTI
06/28/2019

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025151
		CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED	SPEC. 05-19-0034	SHEET 53 OF 57

REVISIONS			
SYM.		DATE	APPROVED



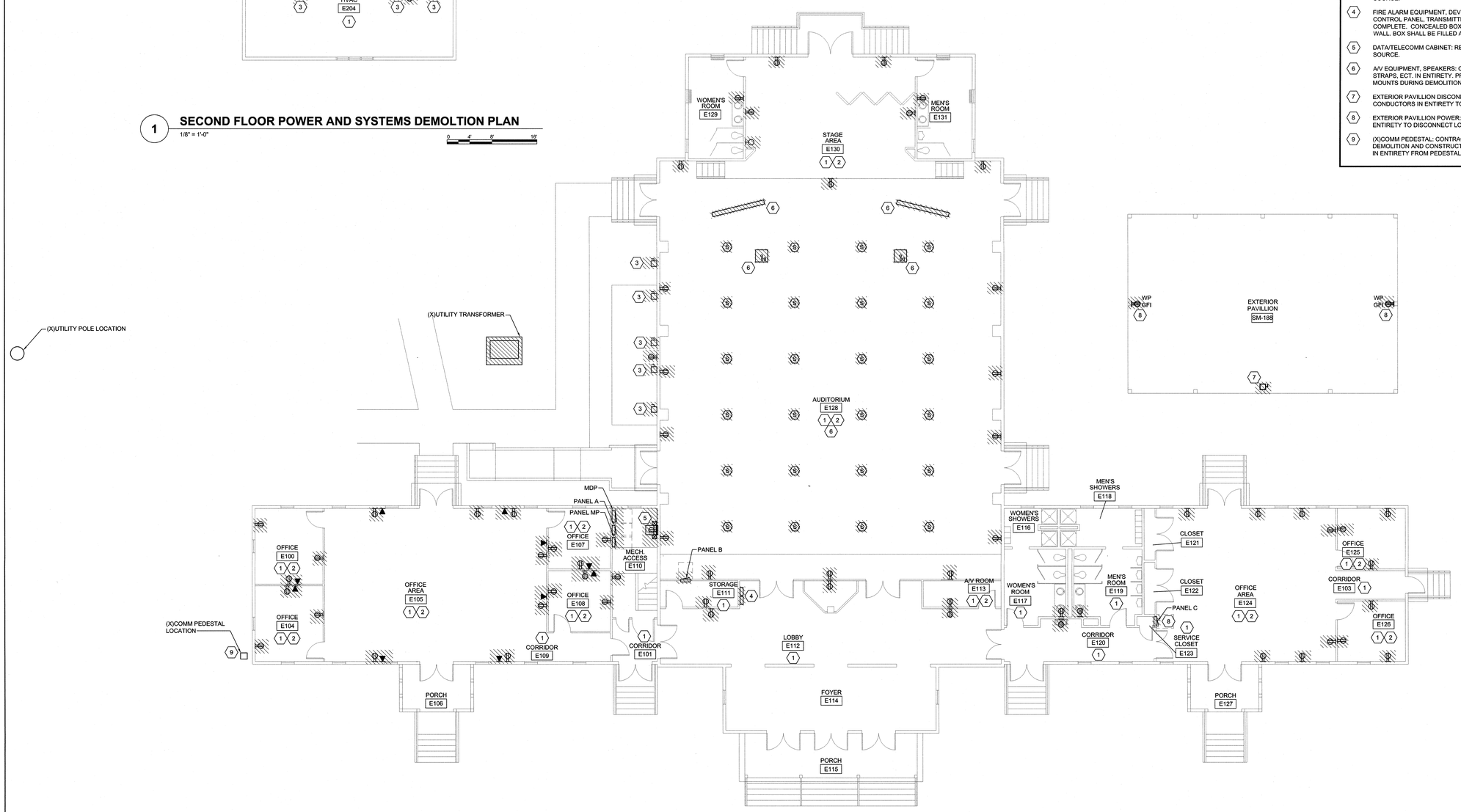
1 SECOND FLOOR POWER AND SYSTEMS DEMOLTION PLAN

1/8" = 1'-0"

0 4' 8' 16'

DEMOLITION KEYED NOTES

1. RECEPTACLES: DEVICE, BOXES, CONDUIT AND CONDUCTORS SHALL BE REMOVED COMPLETE TO SOURCE. CONCEALED BOXES AND CONDUIT SHALL BE ABANDONED IN PLACE AND CUT FLUSH WITH WALL. BOX SHALL BE FILLED AND PATCHED TO MATCH WALL FINISH.
2. DATA SYSTEMS AND DEVICES: REMOVE DEVICE, COVERPLATE AND CABLING COMPLETE TO DATA RACK/SOURCE. SURFACE RACEWAY, J-HOOKS AND CONDUIT SLEEVES SHALL BE REMOVED COMPLETE. CONCEALED BOXES AND CONDUIT SHALL BE ABANDONED IN PLACE AND CUT FLUSH WITH WALL. BOX SHALL BE FILLED AND PATCHED TO MATCH WALL FINISH. DATA RACK AND EQUIPMENT TO BE REMOVED COMPLETE AND TRANSMITTED TO THE CONTRACTING OFFICER.
3. MECHANICAL EQUIPMENT: REMOVE DISCONNECT, STARTER, CONDUIT AND CONDUCTORS COMPLETE TO SOURCE.
4. FIRE ALARM EQUIPMENT, DEVICES AND POWER DISCONNECT SWITCH: REMOVE DISCONNECT, FIRE ALARM CONTROL PANEL, TRANSMITTER, ANTENNA, FIRE ALARM DEVICES, BOXES, RACEWAYS AND CONDUCTORS COMPLETE. CONCEALED BOXES AND CONDUIT SHALL BE ABANDONED IN PLACE AND CUT FLUSH WITH WALL. BOX SHALL BE FILLED AND PATCHED TO MATCH WALL FINISH.
5. DATA/TELECOMM CABINET: REMOVE CABINET, BOARD, RACEWAYS AND CONDUCTORS COMPLETE TO SOURCE.
6. A/V EQUIPMENT, SPEAKERS: CONTRACTOR MUST REMOVE EQUIPMENT, CONDUIT, CONDUCTORS, MOUNTS, STRAPS, ECT. IN ENTIRETY. PROTECT AND STOR PROJECTION SCREENS, PROJECTORS AND PROJECTOR MOUNTS DURING DEMOLITION AND CONSTRUCTION FOR RE-USE.
7. EXTERIOR PAVILLION DISCONNECT: CONTRACTOR MUST REMOVE DISCONNECT,CONDUIT AND CONDUCTORS IN ENTIRETY TO SOURCE PANEL C.
8. EXTERIOR PAVILLION POWER: CONTRACTOR MUST REMOVE DEVICE, BOX, CONDUIT AND CONDUCTORS IN ENTIRETY TO DISCONNECT LOCATION.
9. (X)COMM PEDESTAL: CONTRACTOR MUST PROTECT PEDESTAL AND INCOMING UTILITY CABLES DURING DEMOLITION AND CONSTRUCTION FOR RE-USE. REMOVE OUTGOING DISTRIBUTION CABLES AND CONDUIT IN ENTIRETY FROM PEDESTAL TO COMMUNICATIONS BACKBOARD IN ROOM MECH. ACCESS E110.



2 FIRST FLOOR POWER AND SYSTEMS DEMOLITION PLAN

1/8" = 1'-0"

0 4' 8' 16'

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

CBHF Engineers, PLLC
2246 Yaupon Drive
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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER LAWSON P FAMIGLETTI

06/28/2019

SHEET TITLE: ELECTRICAL POWER & SYSTEMS DEMOLITION PLAN

E-10

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

DES.	JLG
DR.	JLG
CHK.	JPF
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025152

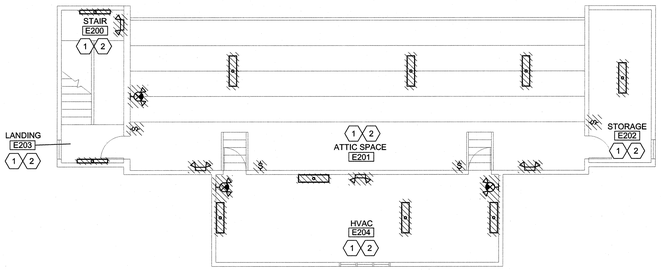
CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 54 OF 57

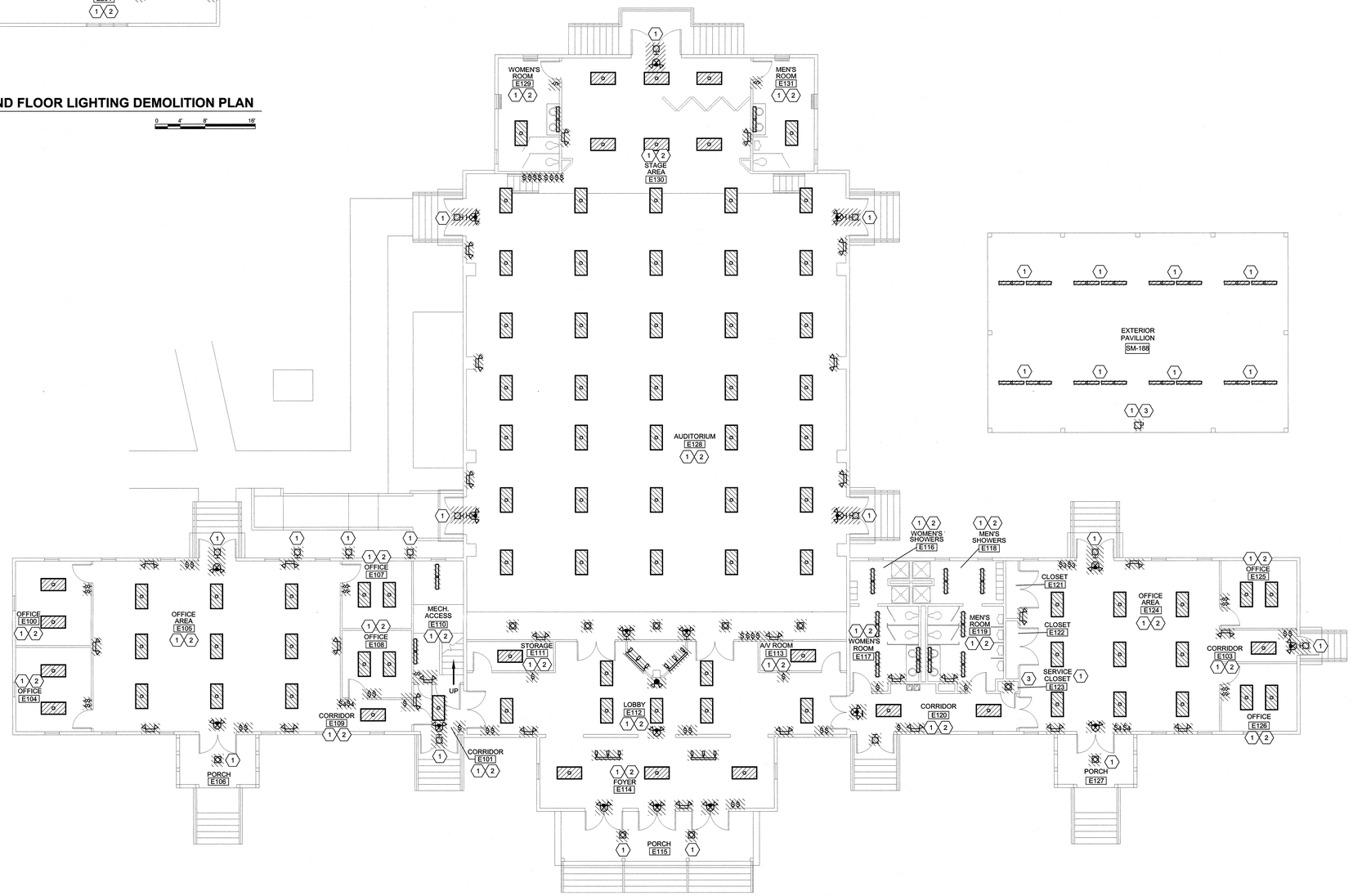
REVISIONS			
SYM.		DATE	APPROVED

DEMOLITION KEYED NOTES

1. LIGHT FIXTURES: REMOVE FIXTURE, BOXES, CONDUIT AND CONDUCTORS COMPLETE TO SOURCE
2. SWITCHES: REMOVE DEVICE, CONDUIT AND CONDUCTORS IN ENTIRETY.
3. PAVILLION DISCONNECT: REMOVE DISCONNECT. PROTECT FEED CONDUIT DURING DEMOLITION AND CONSTRUCTION FOR RE-USE. REMOVE FEED CONDUCTORS IN ENTIRETY TO PANEL C.



1 SECOND FLOOR LIGHTING DEMOLITION PLAN
1/8" = 1'-0"
0 4' 8' 16'



2 FIRST FLOOR LIGHTING DEMOLITION PLAN
1/8" = 1'-0"
0 4' 8' 16'

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JASON P. FAMIGLETTI
06/28/2019

SHEET TITLE: ELECTRICAL LIGHTING DEMOLITION PLAN

E-11

TALLEY & SMITH ARCHITECTURE INC.
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DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	JLG
DR.	JLG
CHK.	JPF
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

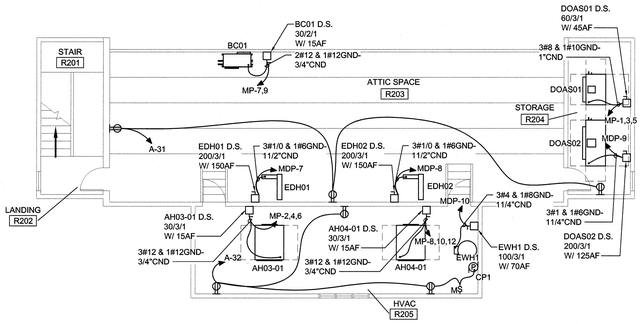
RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025153

CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED SPEC. 05-19-0034 SHEET 55 OF 57

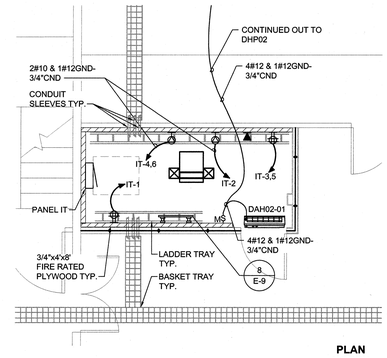
REVISIONS			
SYM.		DATE	APPROVED



2 SECOND FLOOR POWER AND SYSTEMS PLAN

1/8" = 1'-0"

PLAN NORTH

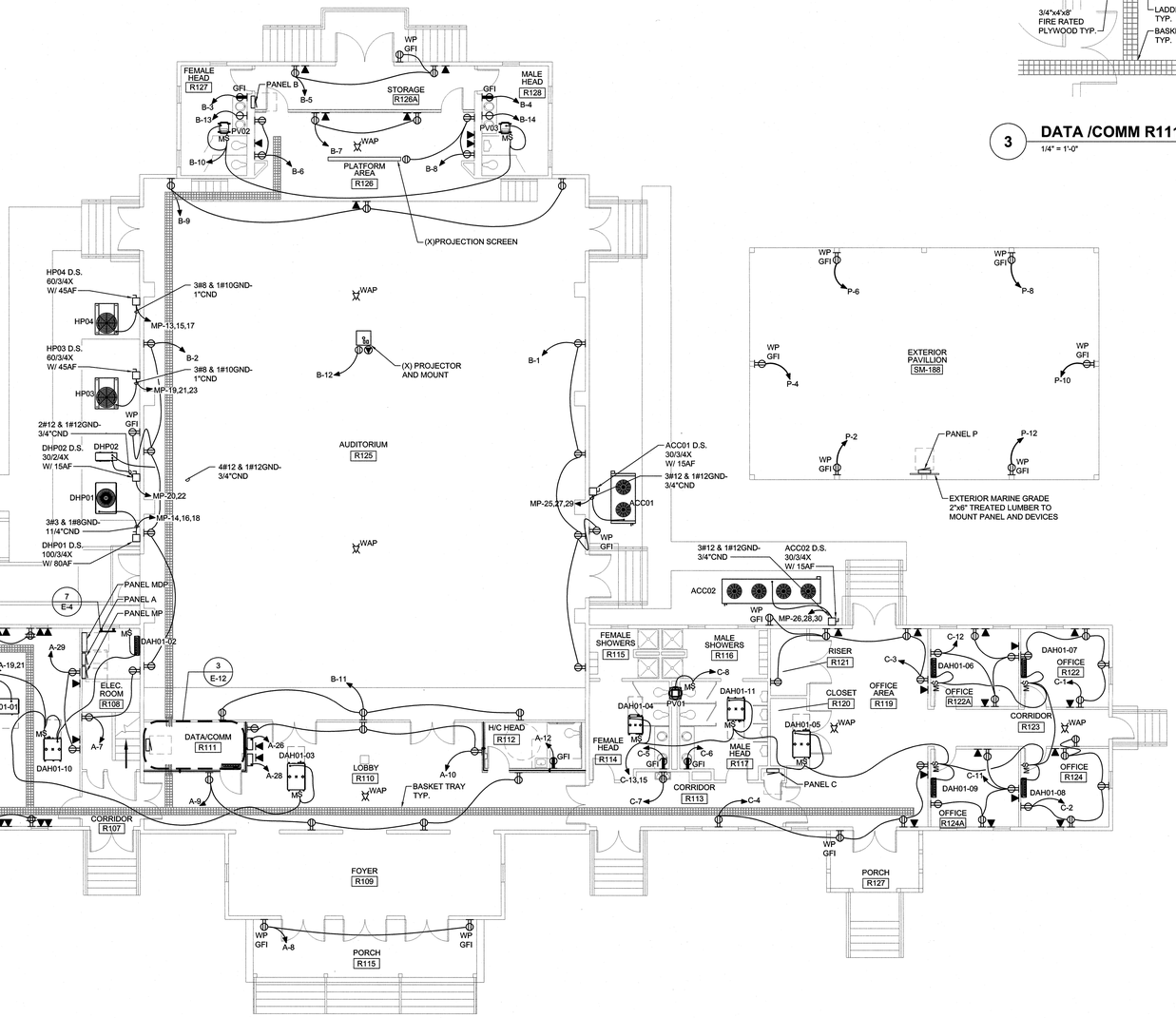


3 DATA /COMM R111 FLOOR PLAN

1/4" = 1'-0"

PLAN NORTH





1 FIRST FLOOR POWER AND SYSTEMS PLAN

1/8" = 1'-0"

PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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DES. JLG
DR. JLG
CHK. JPF
SUBMITTED BY:
DESIGN DIR. T H BURTON, PE
APPROVED: DATE
SATISFACTORY TO: DATE

NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JOSEPH P. FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL POWER AND SYSTEMS FLOOR PLAN

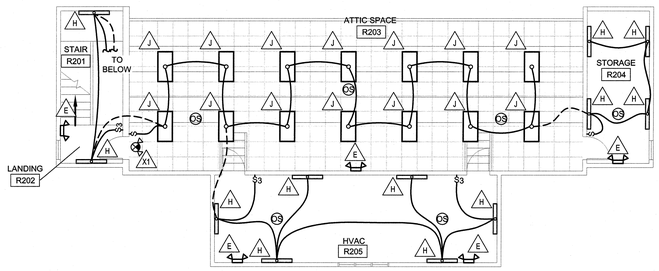
E-12

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE F | CODE IDENT. NO. 80091 | NAVFAC DRAWING NO. 60025154
CONST. CONTR. NO. N40085-19-B-0034
SCALE: NOTED | SPEC. 05-19-0034 | SHEET 56 OF 57

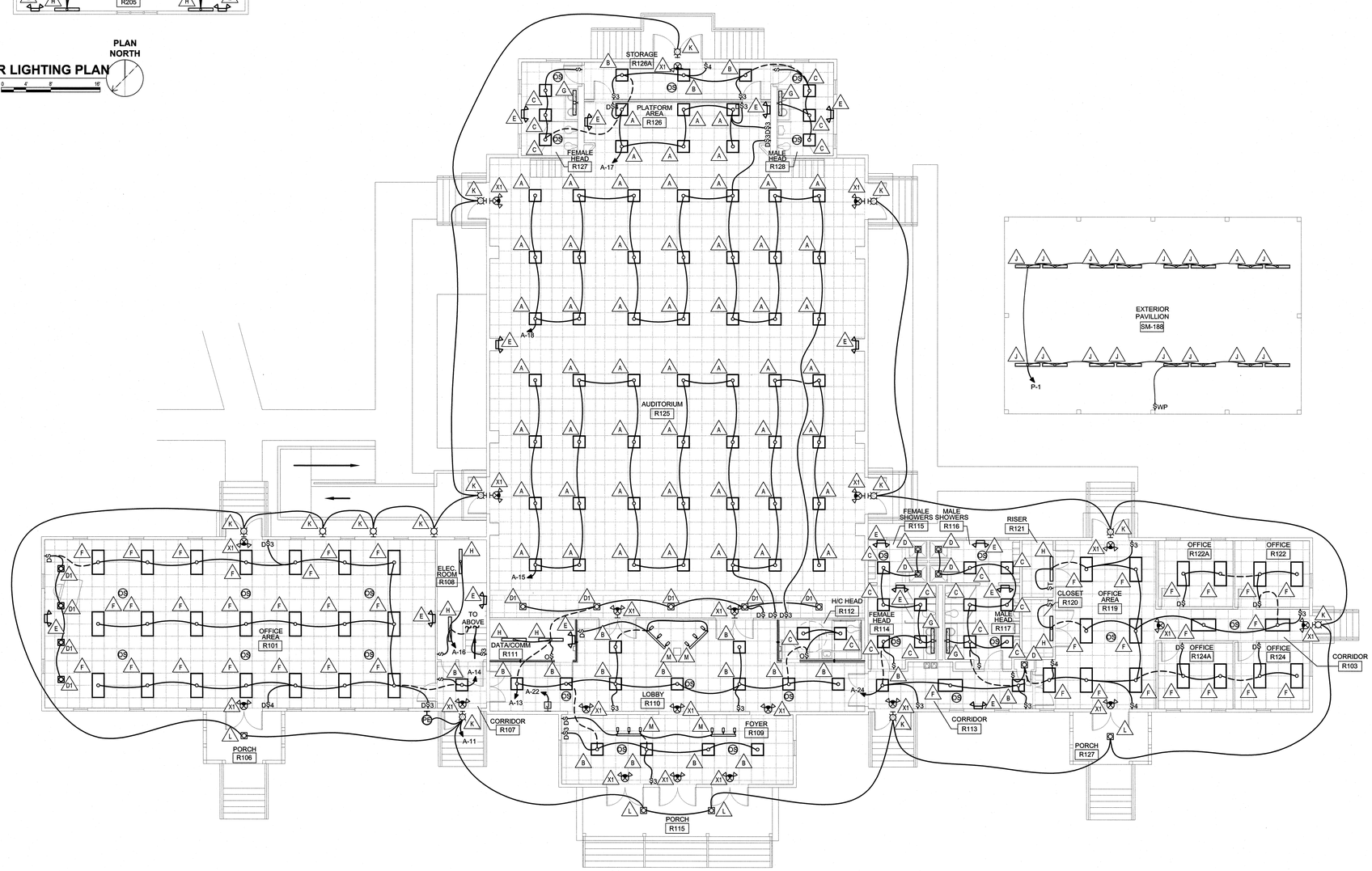
REVISIONS			
SYM.		DATE	APPROVED



2 SECOND FLOOR LIGHTING PLAN

1/8" = 1'-0"

PLAN NORTH



1 FIRST FLOOR LIGHTING PLAN

1/8" = 1'-0"

PLAN NORTH

SEE DISCLOSURE OF INFORMATION STATEMENT ON SHEET T-1

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NORTH CAROLINA PROFESSIONAL SEAL 35230 ENGINEER JOHN R FAMIGLIETTI
06/28/2019

SHEET TITLE: ELECTRICAL LIGHTING

E-13

TALLEY & SMITH ARCHITECTURE INC.
P.O. BOX 518 SHELBY, NC 28151-0518
409 EAST MARION ST. SHELBY, NC 28150

DEPARTMENT OF THE NAVY NAVAL FACILITIES ENGINEERING COMMAND
MARINE CORPS BASE
CAMP LEJEUNE, NORTH CAROLINA

DES.	JLG
DR.	JLG
CHK.	JPF
SUBMITTED BY:	
DESIGN DIR.	T H BURTON, PE
APPROVED:	DATE
SATISFACTORY TO:	DATE

RENOVATION
BLDG. M-104
CAMP LEJEUNE, NORTH CAROLINA

SIZE	CODE IDENT. NO.	NAVFAC DRAWING NO.
F	80091	60025155

CONST. CONTR. NO. N40085-19-B-0034

SCALE: NOTED | SPEC. 05-19-0034 | SHEET 57 OF 57