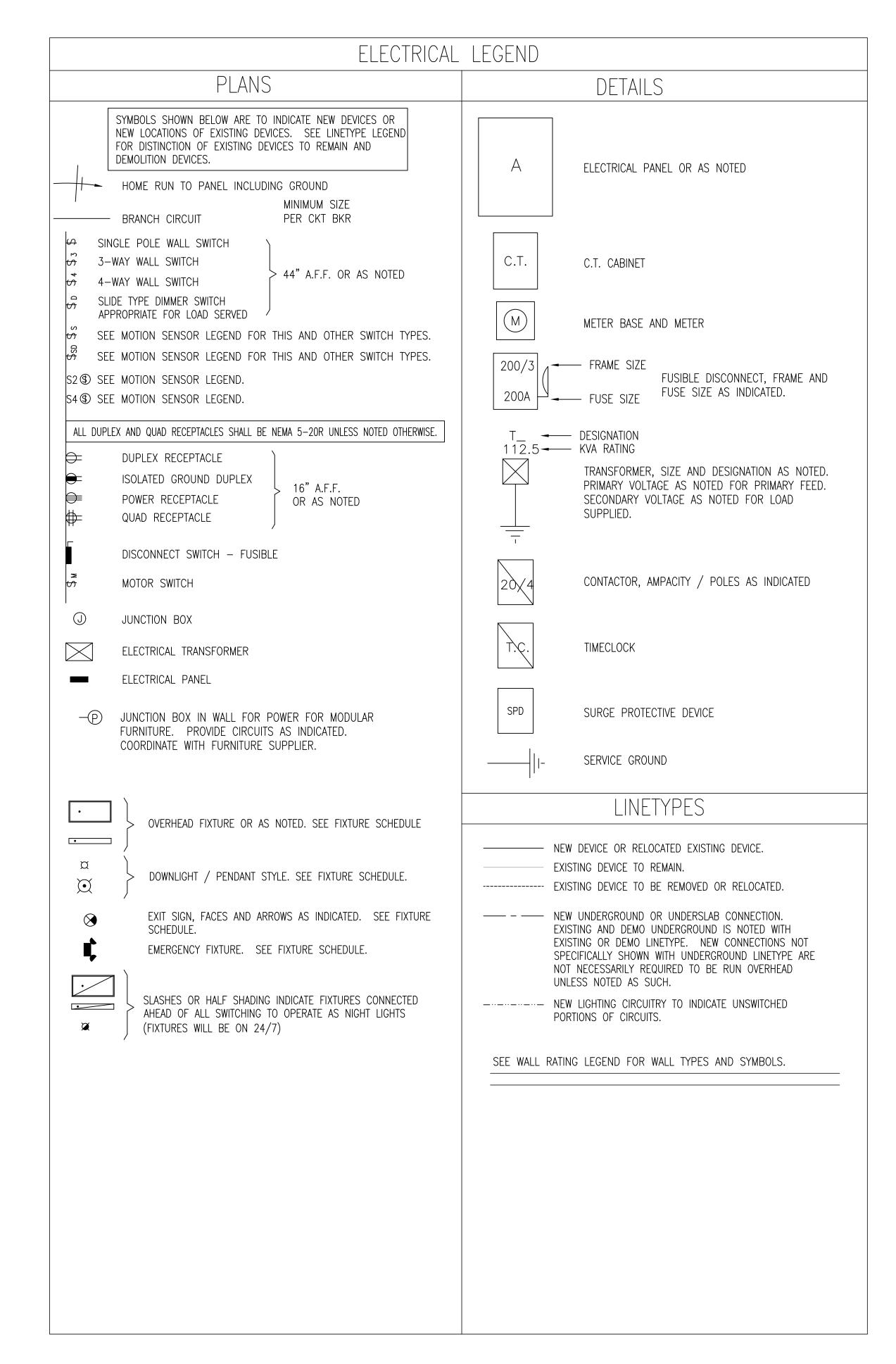


GENERAL NOTES AND REQUIREMENTS.

- 1. WORKMANSHIP SHALL CONFORM TO NECA PUBLICATION "STANDARDS OF INSTALLATION."
- 2. INSTALLATION SHALL COMPLY WITH NATIONAL ELECTRICAL CODE, INTERNATIONAL BUILDING CODE, AND ALL REQUIREMENTS OF THE LOCAL INSPECTOR (FURNISH INSPECTION CERTIFICATE). ALL WORK SHALL BE BY LICENSED ELECTRICAL CONTRACTOR.
- 3. THE CONTRACTOR SHALL REFER TO THE ARCHITECTURAL PLANS FOR FLOOR PLAN DIMENSIONS. DO NOT SCALE THESE DRAWINGS.
- 4. THE CONTRACTOR SHALL COORDINATE ANY AND ALL WORK WITH OTHER TRADES INVOLVED IN THE PROJECT, PRIOR TO INSTALLATION OF ELEC. EQUIPMENT, SO AS TO AVOID CONFLICTS DURING CONSTRUCTION AND TO ALLOW FOR OPTIMUM MAINTENANCE AND WORKING SPACE.
- 5. ALL BRANCH CIRCUITS SHALL BE IN ZINC-COATED EMT OR RIGID CONDUIT AS PERMITTED OR REQUIRED BY THE NATIONAL ELECTRICAL CODE. SCHEDULE 40 PVC CONDUIT MAY BE USED ONLY FOR THE SECONDARY UNDERGROUND SERVICE, THE UNDERGROUND TELEPHONE SERVICE CONDUIT, AND BRANCH CIRCUIT TELEPHONE SYSTEM CONDUITS LOCATED BELOW THE FLOOR SLAB ON GRADE OR BURIED ON THE EXTERIOR OF THE BUILDING, OR IN CONCRETE BLOCK WALLS. ALL CONDUIT SHALL BE 3/4" MINIMUM SIZE EMT FITTINGS SHALL BE STEEL COMPRESSION OR SET SCREW TYPE.
- 6. ALL CONDUCTORS SHALL BE COPPER TYPE THHN OR THWN, SOLID FOR #10 AWG OR #12 AWG, AND STRANDED FOR ALL LARGER SIZES. MINIMUM CONDUCTOR SIZE SHALL BE #12
- 7. ALL WIRE AND CONDUIT SIZES ARE BASED ON 75° C THHN WIRE UNLESS OTHERWISE NOTED. ALL TERMINATIONS & DEVICES SHALL BE RATED FOR 75°C.
- 8. CONDUITS MAY BE RUN EXPOSED IN MECHANICAL AREAS. CONDUITS SHALL BE RUN PARALLEL OR PERPENDICULAR TO STRUCTURAL ELEMENTS AND SHALL BE RUN IN GROUPS. SEAL ALL PENETRATIONS AIR TIGHT AROUND ALL CONDUITS WHEN PASSING INTO MECHANICAL ROOMS.
- 9. ALL LIGHT FIXTURES SHALL BE SUPPORTED INDEPENDENTLY OF THE SUSPENDED CEILING SYSTEM.
- 10. WHERE FIRST OUTLET ON BRANCH CIRCUIT IS GREATER THAN 65 FEET FROM THE PANELBOARD, SEE VOLTAGE DROP SCHEDULE.
- 11. ALL MOUNTING HEIGHTS ARE GIVEN TO THE BOTTOM OF THE DEVICE UNLESS NOTED OTHERWISE.
- 12. THE LOCATION OF ALL WALL MOUNTED DEVICES, INCLUDING MOUNTING HEIGHTS, SHALL BE FIELD VERIFIED PRIOR TO INSTALLATION.
- 13. ALL FUSES, DISCONNECT SWITCHES, AND BREAKER SIZES, SHOWN FOR MECHANICAL EQUIPMENT, SHALL BE VERIFIED BEFORE THE PURCHASE OR INSTALLATION OF SAID EQUIPMENT, WITH THE EQUIPMENT SUPPLIER AND THE CONTRACTOR.
- 14. ALL DISCONNECT SWITCHES ARE TO BE FUSIBLE TYPE. FUSE IN ACCORDANCE WITH NAMEPLATE DATA WITH DUAL ELEMENT TYPE FUSES.
- 15. THE CONTRACTOR SHALL PROVIDE ALL NECESSARY DISCONNECTS, SWITCHES, AND RECEPTACLES UNDER THE BID AND SHALL INCLUDE ALL NECESSARY CIRCUITS TO AND FINAL CONNECTIONS TO THE EQUIPMENT PROVIDED BY ALL SUPPLIERS, UNLESS NOTED OTHERWISE BY OTHER DISCIPLINES. COORDINATE CLOSELY.
- 16. ALL ELECTRICAL EQUIPMENT SHALL BE INSTALLED SO THAT ALL CODE—REQUIRED AND MANUFACTURER—RECOMMENDED SERVICING CLEARANCES ARE MAINTAINED. INSTALLATIONS SHALL FULLY COMPLY WITH NEC 110.26 AND NEC 408.18 FOR CLEARANCE REQUIREMENTS.
- 17. COORDINATE LOCATIONS OF ALL LIGHT FIXTURES WITH THE REFLECTED CEILING PLANS. LIGHT FIXTURES INSTALLED IN MECHANICAL AREAS SHALL AVOID MECHANICAL PIPING, EQUIPMENT, DUCTWORK, ETC.
- 18. PROVIDE GROUNDING CONDUCTOR FOR ALL CIRCUITS PER N.E.C. AND BUILDING GROUND SHALL MEET ALL REQUIREMENTS OF NEC 250.
- 19. THE CONTRACTOR SHALL PATCH ANY WALL, CEILING, OR FLOOR OPENINGS AND PENETRATIONS RESULTING FROM DEMOLITION OR NEW WORK IN EXISTING AREAS.
- 20. ALL MULTIWIRE BRANCH CIRCUITS SHALL HAVE MULTIPOLE BREAKERS AS REQUIRED BY NEC 210.4(B).
- 21. ALL CIRCUITS SHALL BE TESTED WITH 500 VOLT TESTER PRIOR TO ENERGIZING.
- 22. PROVIDE PULL WIRE IN ALL EMPTY CONDUIT FOR FUTURE SYSTEMS.
- 23. CONDUIT SHALL BE LABELED EVERY TEN FEET.
- 24. THE CONTRACTOR IS RESPONSIBLE FOR PROPERLY DISPOSING OF ALL WASTE MATERIALS, DEMO MATERIALS AND OTHER TRASH. THIS INCLUDES BUT IS NOT LIMITED TO PROPER DISPOSAL OF MERCURY CONTAINING LAMPS, RECYCLABLE MATERIALS ETC.
- 25. IT IS THE <u>SOLE</u> RESPONSIBILITY OF THE CONTRACTOR TO COORDINATE W/ ALL OTHER TRADES REGARDING VOLTAGES, LOADS, CIRCUIT BREAKERS, ETC. PRIOR TO BEGINNING ANY WORK.
- 26. AS USED ON THESE DOCUMENTS, THE WORD "PROVIDE" SHALL MEAN TO FURNISH AND INSTALL THE ITEM OR EQUIPMENT AND MAKE THE FINAL CONNECTION AS REQUIRED.
- 27. CONTRACTOR IS RESPONSIBLE TO COMPLY WITH ALL REQUIREMENTS OF THE INTERNATIONAL BUILDING CODE, ACCESSIBILITY CODE WHICH ARE APPLICABLE TO THIS PROJECT REGARDLESS OF WHETHER ALL DETAILS ARE INDICATED ON PLANS.
- 28. IT IS NOTED THAT IF TELEPHONE SERVICE IS NOT LOCATED WITHIN 20' OF ELECTRICAL SERVICE, THEN PROVIDE SEPARATE GROUNDING ELECTRODE AS REQUIRED PER NEC 800.



VOLTAGE DROP SCHEDULE 120 VOLT BRANCH CIRCUITS UP TO 8 AMPS (<1.0 KVA) RUN DISTANCE IN FEET WIRE SIZE AWG – 190**'** - 470' 120 VOLT BRANCH CIRCUITS 9 AMPS TO 14 AMPS (1-1.7 KVA) RUN DISTANCE IN FEET WIRE SIZE AWG – 110**'** 111' – 170' 171' – 270' 277 VOLT BRANCH CIRCUITS UP TO 14 AMPS (<3.9 KVA) RUN DISTANCE IN FEET WIRE SIZE AWG _ _ WIRE SIZES INDICATED IN GENERAL NOTES AND CONNECTIONS SCHEDULES ARE MINIMUM WIRE SIZES. CONTRACTOR SHALL UPSIZE WIRES BASED ON LOAD AND LENGTH OF RUN AS

UPSIZE WIRES BASED ON LOAD AND LENGTH OF RUN AS INDICATED IN SCHEDULE ABOVE.

ELECTRICAL ABBREVIATIONS

INDICATES A DEVICE IS TO BE MOUNTED WITH BOTTOM OF BOX 1 1/2" ABOVE BACKSPLASH UNLESS NOTED OTHERWISE.

ABOVE FINISHED FLOOR

G COMBINATION OF 'A' AND 'G'

ARCH ARCHITECT

C INDICATES A DEVICE IS TO BE FLUSH MOUNTED IN CEILING TILE.

EX. EXISTING

G

EXT. EXTERIOR

FAH FAHRENHEIT

FURN FURNITURE

INDICATES A DEVICE WITH INTEGRAL GROUND FAULT INTERRUPTER (GFI) PROTECTION.

GFI SAME AS 'G'

DEVICE SHALL HAVE ISOLATED
GROUND AND WILL REQUIRE ISOLATED
GROUND CIRCUITRY.

J.B. JUNCTION BOX

NTS NOT TO SCALE

OC ON CENTER

PROV PROVIDED BY

INDICATES DEVICE IS TO BE SURFACE MOUNTED.

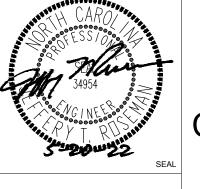
W/ WIT

INDICATES A DEVICE THAT IS
WEATHER-PROOF AND RATED FOR
EXTERIOR TEMPERATURES.

MDP MAIN DISTRIBUTION PANEL

SYM DESCRIPTION DATE APPR







APPROVED

FOR COMMANDER NAVFAC

ACTIVITY

SATISFACTORY TO

DES JTR DRW OWN CHK JTR

PM/DM Heather Perry

BRANCH MANAGER Heather Perry

CHIEF ENG/ARCH Patrick Faulkner

NAVAL FACILITIES ENGINEERING COMMAND
COMMAND ~ MIDATLANTIC
NAVAL STATION - NORFOLK, VA
CHERRY POINT, NC
CONVEYORS
L HEATING PLANT

AEPLACE VERTICAL CONVERTION

REPLACE VERTICAL CONVEY

CHACLITIES ENGINEERING COMMAND ~ MI

NAVAL FACILITIES

NAVAL FACILITIES

NAVAL FACILITIES

NAVAL FACILITIES

OTHER

DING 152 - CENTRAL HEATING

DEPARTMENT OF THE NAVY

NAVAL FACILITI

IPT MARINE

SCATE:

SCATE:

BUILDING 1

NAVAEC DEPARTMENT OF THE NAVY

REPLACE

STATE OR SPANNING NO

NAVAEC DEPARTMENT OF THE NAVY

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DRAWFORM REVISION: 10 MARCH 2009

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SHEET **11** OF 17

