

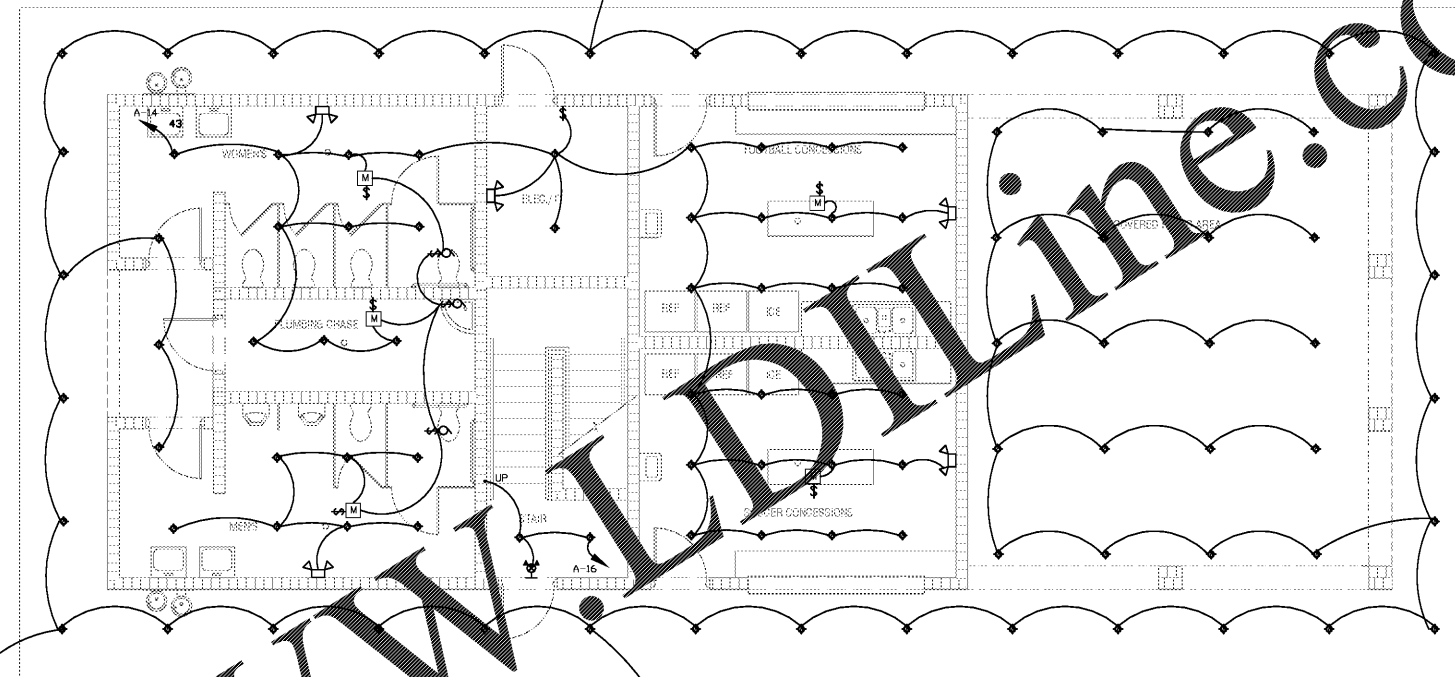
ELECTRICAL NOTES

1. CONTRACTOR SHALL NOT RUN ANY WIRES WITHOUT VERIFYING WITH ELECTRICAL CHARACTERISTICS OF EQUIPMENT DESIGN DOCUMENTS MAY DIFFER FROM ACTUAL ELECTRICAL CHARACTERISTICS OF EQUIPMENT. ENGINEER DOES NOT HAVE ACTUAL EQUIPMENT DATA DURING DESIGN PROCESS. CONTRACTOR SHALL BRING ATTENTION TO ENGINEER FOR ANY DISCREPANCIES. CONTRACTOR MUST SUBMIT EQUIPMENT DATA WHICH REQUIRED ELECTRICAL POWER TO ENGINEER. APPROVED EQUIPMENT BY ENGINEER OR ARCHITECT DOES NOT RELIEVE CONTRACTOR FROM RESPONSIBILITY OF VERIFICATION OF ELECTRICAL CHARACTERISTICS OF EQUIPMENT AND MODIFY CIRCUITS AS NECESSARY.
2. CONTRACTOR SHALL VERIFY UTILITY COMPANY'S POWER SUPPLY (VOLTAGES AND PHASE) BEFORE PURCHASING ANY EQUIPMENT, LIGHT FIXTURES AND NOTIFY ENGINEER FOR ANY DISCREPANCIES. CONTRACTOR SHALL SUBMIT ALL EQUIPMENT DATA AND LIGHT FIXTURES FOR APPROVAL.
3. ANY EQUIPMENT REQUIRES DUAL VOLTAGES (e.g. 240/120V FOR OVEN AND DRYER OR 277/120 VOLTS WITH CONTROL WIRES), CONTRACTOR SHALL RUN NEUTRAL WIRE.
4. PROVIDE GROUND FAULT OUTLET WITHIN 25 FEET OF ALL AIR CONDITIONING EQUIPMENT ON ROOF, OUTSIDE AND IN THE ATTIC REGULAR AS PER NEC CODE 210-8(B) & 210-63. CONNECT TO NEAREST RECEPTACLE CIRCUIT UNLESS OTHERWISE INDICATED.
5. PROVIDE ELECTRICAL CONNECTIONS TO ALL ITEMS SHOWN AS PART OF THE GENERAL CONTRACT WHICH REQUIRES ELECTRICITY.
6. COORDINATE ALL CONNECTIONS WITH EQUIPMENT SUPPLIER FOR EXACT LOCATION AND REQUIREMENTS.
7. PROVIDE CONNECTION TO ALL APPLIANCES, MECHANICAL AND PLUMBING EQUIPMENT INCLUDING TOILET EXHAUST FANS AND UNDER CABINET LIGHTS, SIGNS, ETC., CONTRACTOR MUST VERIFY WITH ARCHITECTURAL, INTERIOR, CIVIL, MECHANICAL, AND PLUMBING CONTRACTORS THE QUANTITY OF EQUIPMENT CONNECTIONS BEFORE BIDDING AND FINAL CONTRACT. NEGLIGENCE OF VERIFYING QUANTITY WILL NOT BE COMPENSATED.
8. COORDINATE ALL ELECTRICAL AND COMMUNICATION OUTLETS WITH MILLWORK. IF ACCESS GROWTHS ARE NOT PROVIDED IN COUNTER TOP, INSTALL OUTLETS ABOVE COUNTER.
9. EXPOSED WIRING SHALL BE IN EMT OR RIGID CONDUIT.
10. SEE MECHANICAL DRAWINGS FOR LOCATION OF HEATING AND A/C EQUIPMENT.
11. ALL RECEPTACLES AT VANITY, BATH, KITCHEN COUNTER AREAS, AND WET LOCATION SHALL BE GROUND FAULT INTERRUPTER TYPE.
12. VERIFY EXACT LOCATIONS AND LOADS OF SERVICES TO EQUIPMENT TO BE SUPPLIED BY OTHERS, SUCH AS BUILDING SIGNAGE, WELDING MACHINES, ETC., AS WELL AS ALL MECHANICAL EQUIPMENT.
13. RECESSED LIGHT FIXTURES IN RATED CEILINGS MUST BE PROTECTED OR LISTED FOR USE IN THE RATED ASSEMBLY.
14. ELECTRICAL OUTLETS BOXES ON OPPOSITE SIDES OF RATED WALLS SHALL BE SEPARATED BY A HORIZONTAL DISTANCE OF 24" MINIMUM.
15. MAINTAIN CLEARANCES IN FRONT OF ELECTRICAL EQUIPMENT (TRANSFORMER, PANELS, ETC.) AS REQUIRED BY MANUFACTURER AND NEC CODE 110-26(A), SEE TABLE 26(A)(1), (3)-(6) TO 4-(6). MINIMUM WIDTH 30" OR SIZE OF EQUIPMENT.
16. CONTRACTOR SHALL VERIFY ELECTRICAL CHARACTERISTICS BEFORE RUNNING CONDUIT AND WIRES.
17. SEE ARCHITECTURAL DRAWINGS FOR UNDER CABINET LIGHTING AND PROVIDE NECESSARY CIRCUITS.
18. CONTRACTOR SHALL VERIFY WITH UTILITY COMPANY VOLTAGES AND UTILITY COMPANY'S SCOPE OF WORK.
19. CONTRACTOR SHALL PROVIDE WIRES AND CONDUIT FROM TRANSFORMER TO ELECTRICAL ROOM. SEE SITE PLAN FOR EXACT LOCATION OF TRANSFORMER AND ELECTRICAL POWER RISER FOR WIRES AND CONDUITS SIZES.
20. CONTRACTOR SHALL PAY APPLICATION, COORDINATION, AND FEES FOR ELECTRICAL TRANSFORMER.
21. COORDINATE WITH THE ELECTRICAL UTILITY AND VERIFY LOCATION AND ORIENTATION OF SERVICE EQUIPMENT AND ASSOCIATED METERING EQUIPMENT.
22. PROVIDE AND INSTALL ALL MATERIALS DESIGNATED BY THE ELECTRICAL UTILITY TO BE FURNISHED BY CUSTOMER. THIS MAY INCLUDE BUT NOT LIMITED TO, COMPRESSION LUGS FOR TRANSFORMER SECONDARY CONNECTION, CONCRETE PAD FOR SERVICE TRANSFORMER, GROUNDING MATERIAL, METER BASE AND EMTY CONDUITS FOR PRIMARY LINES.
23. CONTRACTOR SHALL PROVIDE COMPLETE TELEPHONE WIRING FROM TELEPHONE OUTLETS TO TELEPHONE COMPANY'S MAIN TELEPHONE WIRES. CONTRACTOR SHALL COORDINATE THE SCOPE OF WORK WITH TELEPHONE COMPANY FOR COMPLETE OPERATION OF TELEPHONE SYSTEM.
24. THE BRANCH CIRCUIT FEEDING THE EMERGENCY LIGHT AND EXIT LIGHT UNIT EQUIPMENT SHALL BE THE SAME BRANCH CIRCUIT THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES AS PER NEC CODE 700-12(F).
 - a. EMERGENCY AND EXIT LIGHTS CONNECTED TO CIRCUITS CONTROLLED BY TIME CLOCK, OR PHOTOCELL SHALL HAVE BYPASS MEANS TO BE CONTINUOUSLY ENERGIZED WHEN CIRCUIT IS ACTIVE.
 - b. CIRCUIT WITH EMERGENCY AND EXIT LIGHTS WITH NO SWITCH, TIME CLOCK OR PHOTOCELL SHALL BE PROGRAMMED TO OPERATE CONTINUOUSLY.
25. PROVIDE TWO HEAD WALL MOUNTED BATTERY EMERGENCY LIGHT AT EACH INTERMEDIATE LANDING OF STAIRWELL AS PER NFPA-101-7.9.1.2
26. PROVIDE TWO HEAD WALL MOUNTED BATTERY EMERGENCY LIGHT AT EACH EXIT WALKWAYS AS PER NFPA-101-7.9.1.2
27. NO PIPING, DUCT, OR EQUIPMENT FOREIGN TO THE ELECTRICAL INSTALLATION SHALL BE INSTALLED ABOVE THE ELECTRICAL PANEL BOARD, MOTOR CONTROL CENTER, OR SWITCHBOARD.
28. PROTECT PANELBOARDS, TRANSFORMERS, ETC. AS PER NEC CODE 110-27(B).
29. CONTRACTOR SHALL SUBMIT GROUND FAULT PERFORMANCE TESTS TO BUILDING INSPECTOR AND ENGINEER.
30. PROVIDE APPLICABLE PENETRATION FIRE-STOP SYSTEM AS PER SBC SECTION 705.4.
31. ALL OUTLETS WITHIN SIX FEET OF ANY SINK SHALL BE GROUND FAULT PROTECTION TYPE.
32. PROVIDE FIRE SAFE BLANKET WRAP AROUND EACH OUTLET BOX IN FIRE RATED ASSEMBLY TO MAINTAIN ASSEMBLY FIRE RATING.
33. PROVIDE GROUND FAULT PROTECTION TYPE (GFD) RECEPTACLES AT THE FOLLOWING LOCATION:
 - a. BATHROOM
 - b. KITCHEN COUNTER TOP INCLUDING COMMERCIAL KITCHEN
 - c. WITHIN SIX FEET OF ANY SINK
 - d. OUTSIDE WITH WEATHERPROOF (READILY ACCESSIBLE).
 - e. WET LOCATION
 - f. AS PER NEC 210-B.
34. BRANCH CIRCUIT CONDUCTORS:

WIRES RUN OVER 100 FEET LONG SHALL BE SIZED NOT SIZE OF WIRE SCHEDULE. THIS APPLIES TO THE ENTIRE CIRCUIT CONDUCTORS.
35. DO NOT INSTALL ELECTRICAL OUTLETS ABOVE ELECTRICAL HEATER.
36. ALL DISCONNECTING DEVICES SHALL BE IDENTIFIED AS PER NEC CODE SECTION 110.22.
37. TYPE NM, NMC, AND NMS CONDUITS IS NOT PERMITTED AS EXPOSED IN DROPPED OR SUSPENDED CEILING AS PER NEC CODE ARTICLE 334.12-1
38. ELECTRIC ROOM SHALL HAVE MINIMUM 30" EMERGENCY LIGHT SHALL 1 FOOTCANDLE LIGHT LEVEL.
39. DISCONNECT SWITCH SHALL BE INSTALLED AS PER NEC 404.8(A). ALL SWITCHES AND BREAKERS USED AS SWITCHES SHALL BE LOCATED SO THAT THEY CAN BE OPERATED FROM A READILY ACCESSIBLE PLACE. THEY SHALL BE INSTALLED SUCH THAT THE CENTER OF THE GRIP OF THE OPERATING HANDLE OF THE SWITCH OR CIRCUIT BREAKER, WHEN IN THE HIGHEST POSITION, IS MORE THAN 6'-7" ABOVE THE FLOOR OR WORKING PLATFORM.

ELECTRICAL SPECIFICATIONS

- I. GENERAL:
 - A. PROVIDE ALL LABOR, MATERIALS, EQUIPMENT AND NECESSARY ITEMS AND OBTAIN AND PAY FOR ALL FEES AND PERMITS REQUIRED TO INSTALL A COMPLETE ELECTRICAL SYSTEM.
 - B. IT IS THE INTENT OF THESE PLANS TO PROVIDE A COMPLETE ELECTRICAL SYSTEM, REGARDLESS OF WHETHER EACH INDIVIDUAL COMPONENT IS MENTIONED OR NOT.
 - C. THE WORK SHALL COMPLY WITH THE STANDARDS OF THE FOLLOWING CODES AND ORDINANCES:
 1. NFPA NO. 70, "NATIONAL ELECTRIC CODE," LATEST ED.
 2. NEC "STANDARD OF INSTALLATION"
 3. THE ELECTRICAL UTILITY COMPANY SERVICE STANDARDS
 4. UNDERWRITERS LABORATORY STANDARDS
 5. OTHER LOCAL CODES, ORDINANCES AND LAWS APPLICABLE TO THE LOCATION OF THIS PROJECT.
 - D. ELECTRICAL CONTRACTOR SHALL COORDINATE WITH TELEPHONE SYSTEM, CABLE TV, AND SECURITY SYSTEM INSTALLATIONS.
- II. MATERIALS AND WORKMANSHIP:
 - A. THE ELECTRICAL CONTRACTOR SHALL BE RESPONSIBLE FOR TIMELY PLACEMENT OF ALL CONDUITS, OUTLET BOXES, CABINETS, AND OTHER WIRING DEVICES IN FLOORS, WALLS, CEILINGS, ETC. AS THE CONSTRUCTION PROGRESSES.
 - B. OUTLET BOXES SHALL BE LOCATED AS FOLLOWS:
 1. WALL SWITCHES - 4'-0" ABOVE FINISH FLOOR.
 2. CONVENIENCE OUTLETS - 16" A.F.F.
 3. EQUIPMENT OUTLETS AS REQUIRED (VERIFY)
 - C. WIRING SYSTEM SHALL BE AS FOLLOWS:
 1. RIGID CONDUIT-GALVANIZED STEEL OR RIGID ALUMINUM AS PERMITTED BY N. E. C.
 2. EMT- ELECTRIC METALLIC TUBING CONDUIT MAY BE USED ONLY WHERE IT IS NOT SUBJECT TO MECHANICAL DAMAGE AND WHERE PERMITTED BY THE N. E. C. AND LOCAL CODES.
 3. FLEXIBLE METAL TUBING - TO BE USED AT CONNECTIONS WHERE REQUIRED. CONNECTIONS SHALL BE MADE WITH GROUND. ALL SUCH CONNECTIONS SHALL BE LIQUID TIGHT.
 4. UNDERGROUND CIRCUIT SHALL BE SCHEDULE 40 PVC.
 - D. CONDUCTORS SHALL BE COPPER, TYPE THWN/THHN.
 - E. CONVENIENCE RECEPTACLES SHALL BE 15 (20AMP), 125 VOLT NEMA 5-15(20R).
 - F. WALL SWITCHES SHALL BE 20 AMP, 120/277 V. AC, SINGLE POLE OR AS INDICATED ON THE DRAWING.
 - G. PANELBOARDS SHALL BE BY SQUARE D, SIEMENS, OR GENERAL ELECTRIC.
 - H. GROUNDING OF ELECTRICAL SYSTEMS SHALL BE IN ACCORDANCE WITH THE NEC AND LOCAL REQUIREMENTS.
 - I. ELECTRICAL CONTRACTOR SHALL MAKE FINAL CONNECTIONS TO ITEMS SHOWN AS PART OF THE GENERAL CONTRACT WHICH REQUIRE ELECTRICITY INCLUDING ALL SIGNAGE, BUILDING LIGHTING, AND CONTROL WIRING.
 - J. FUSES SHALL BE DUAL-ELEMENT CURRENT LIMITING FUSES IN ALL DISCONNECT SWITCHES OR OTHER FUSIBLE DEVICES. FURNISH A SPARE FUSE OF EACH TYPE USED ON THE JOB.
 - K. ELECTRICAL CONTRACTOR SHALL INSTALL AND CONNECT MOTOR STARTERS, RELAYS, SWITCHES, AND RELATED ITEMS WHICH ARE SUPPLIED BY OTHERS.
 - L. ALL MATERIAL SHALL BE NEW AND UL APPROVED AND LABELED.
 - M. ALL ELECTRICAL EQUIPMENT AND SYSTEMS SHALL BE TESTED AND ADJUSTED FOR PROPER OPERATION. COMPLETE WIRING SYSTEM SHALL BE FREE OF SHORT CIRCUITS.
 - N. CONTRACTOR SHALL MAKE COMPLETE CONNECTIONS TO ALL EQUIPMENT. COORDINATE WITH EQUIPMENT SUPPLIER FOR EXACT LOCATIONS AND REQUIREMENTS.
 - O. RUN 3/4" C W/PULL WIRE FROM TV, TELEPHONE AND DATA OUTLETS TO COMPUTER/IT ROOM.
 - P. CONTRACTOR MUST SUBMIT EQUIPMENT DATA FOR APPROVAL TO ENGINEER.



EMERGENCY LIGHT NOTES:

1. THE BRANCH CIRCUIT FEEDING THE EMERGENCY LIGHT AND EXIT LIGHT SHALL BE THE SAME BRANCH CIRCUIT AS THAT SERVING THE NORMAL LIGHTING IN THE AREA AND CONNECTED AHEAD OF ANY LOCAL SWITCHES AS PER NEC CODE 700-12(F).
2. EMERGENCY AND EXIT LIGHTS SHALL HAVE BYPASS MEANS TO BE CONTINUOUSLY ENERGIZED WHEN CIRCUIT IS ACTIVE.
3. CIRCUIT WITH EMERGENCY AND EXIT LIGHTS WITH NO SWITCH, TIME CLOCK OR PHOTOCELL SHALL BE PROGRAMMED TO OPERATE CONTINUOUSLY.

LIGHT FIXTURE SCHEDULE

Symbol	Label	Manufacturer	Catalog Number Description	Lamp	Number Lamps	File name	Lumens Per Lamp	Light Loss Factor	Wattage
⬢	A	Cree Inc	S-DL4-11L-40K w. S-DL41-M-SS-C	4-Inch Downlight, 11L Lunen Package, 4000K, Medium Distribution	1	S-DL4-11L-40K w. S-DL41-M-SS-C_PL08046-00/ALCS	961.8757	0.95	11.18
⬢			LED-S2-WH-GE	EXTRONIX LED-S2 SERIES EMERGENCY LIGHT					1.1
⬢			VLED-EL90-GE	EXTRONIX VLED SERIES COMBINATION EXIT AND EMERGENCY LIGHT					
⬢			902E/903E-U-WB-RM-GE	EXTRONIX 900 SERIES EXIT LIGHT					
⬢	B		C-WM-A-VLHR-12L-40K-MB	CREE-LED EXTERIOR LIGHT WET LOCATION			1200		22

FIRST FLOOR PLAN-LIGHT
1/4"=1'-0"

Number	Date	Remarks	Number	Date	Remarks
1	00-00-00	ISSUED			

CONSULTANTS
Date Plotted: Apr 19, 2018 - 12:13pm
File: 2018-02025 DWG

ATLANTA MANAGEMENT AND ENGINEERING CONSULTANTS, INC.
2001 WILLOWATER PLACE, LAWRENCEVILLE, GA 30046
TEL: 770-962-1111 FAX: 770-962-1111 WWW.AMECONS.COM

CARTER WATKINS ASSOCIATES ARCHITECTS, INC.
POST OFFICE BOX 1004
137 EAST WASHINGTON STREET
MONROE, GEORGIA 30655
Fax: 770-267-1064
email@carterwatkins.com www.carterwatkins.com



DOUGLAS COUNTY BOUNDARY WATERS PARK CONCESSION STAND
DOUGLASVILLE, GEORGIA

SHEET TITLE: FIRST FLOOR PLAN -LIGHT
PRINTED: 04/19/18
NUMBER: E-2

Owner Plans @

www.Downline.com

DATE: 04/19/18 PRINTED