

SUBMITTALS:

- 1. SUBMIT SHOP DRAWINGS & PRODUCT INFORMATION FOR THE FOLLOWING:
SERVICES & DISTRIBUTION EQUIPMENT
PROTECTIVE DEVICES
LIGHTING FIXTURES AND LAMPS
WIRING DEVICES AND COVER PLATES

DISTRIBUTION EQUIPMENT:

- 1. DISTRIBUTION EQUIPMENT: RATED FOR 240 OR 600 VAC, 60 HZ, FAULT CURRENT INTERRUPTING CAPACITY AS INDICATED, IN AMPERES, RMS, SYMMETRICAL, BUT NOT LESS THAN 10,000 AMPS...
2. DISTRIBUTION EQUIPMENT USING CIRCUIT BREAKER TYPE PROTECTIVE DEVICES; BOLTED-ON OR SQUARE D I-LINE DEVICES.
3. PANELBOARDS; FACTORY ASSEMBLED, MINIMUM WIDTH OF 20 INCHES, A MINIMUM DEPTH OF 5-3/4 INCHES...
4. PANELBOARD MAINS; COPPER OR ALUMINUM WITH BRANCH CONNECTIONS IN VERTICALLY DISTRIBUTED CONSECUTIVE PHASE SEQUENCE...
5. PANELBOARD MOUNTING; TOP OF ENCLOSURE 78 INCHES ABOVE THE FINISHED FLOOR/GRADE...
6. DISCONNECT SWITCHES; 'HEAVY-DUTY' RATED WITH QUICK-MAKE AND QUICK-BREAK MECHANISMS...
7. PROVIDE AN ENCLOSED SWITCH FOR ELECTRICALLY SERVED EQUIPMENT...
8. FUSED SWITCHES IN BRANCH CIRCUITS; NON-RENEWABLE CARTRIDGE FUSES RATED 250 OR 300 VAC OR 600VAC AS FOLLOWS...
9. STATIONARY FRACTIONAL HORSEPOWER MOTORS NOT PROVIDED WITH INTEGRAL MOTOR RUNNING OVERLOAD PROTECTION...
10. STARTERS AND DISCONNECT SWITCHES; ENCLOSED QUICK-MAKE AND QUICK-BREAK MECHANISMS.
11. BRANCH CIRCUIT BREAKERS; MOLDED CASE, AUTOMATIC TRIPPING TYPE, BOLT-ON OR I-LINE CONSTRUCTION...
12. GROUP SINGLE-POLE BREAKERS USED FOR MULTI-WIRE CIRCUITS CONSECUTIVELY ON THE SAME SIDE OF THE CABINET.

CONDUCTORS:

- 1. CONDUCTORS; SOFT DRAWN, ANNEALED COPPER WITH CONDUCTIVITY OF NOT LESS THAN 98 'ASTM' STANDARDS.
2. CONDUCTOR SIZE NUMBERS; AMERICAN WIRE GAUGE (AWG, SYSTEM, STANDARD TRADE SIZES.
3. CONDUCTORS; COLOR CODED PER CODE AND UTILITY CO.
4. CONDUCTORS:
No.10 AWG SIZE AND SMALLER; SOLID OR STRANDED.
No.8 AWG SIZE AND LARGER; STRANDED.
CONTROL CIRCUITS; MINIMUM AWG No.14.
POWER AND LIGHTING BRANCH CIRCUITS; AWG # 12 FOR GENERAL CIRCUITS NOT REQUIRING DERATING OR SIZE INCREASE TO REDUCE VOLTAGE DROP.
5. USE A SEPARATE LUG FOR EACH CONDUCTOR WHERE MULTIPLE CONDUCTORS ARE CONNECTED TO THE SAME ELECTRICAL TERMINAL POSITION.
6. BRANCH CIRCUIT CONDUCTORS; UNSPLICED EXCEPT WHERE CIRCUITS ARE SHOWN TO DIVIDE BY THE PLANS.
7. GENERAL WIRING CONDUCTORS OPERATING AT 600 VOLTS AND BELOW; RATED 60 HERTZ, 600 VOLTS, WITH 75c OR 90c INSULATION AS FOLLOWS:
A. FEEDER CONDUCTORS; RATED FOR WET LOCATIONS OF 'THW', 'THWN' OR 'XH'HW'.
B. BRANCH CONDUCTORS RATED FOR:
WET LOCATIONS, OR LOCATIONS LOCATED BELOW GRADE OR ENCASED IN SLAB ON GRADE OF 'THW', 'THWN' OR 'XH'HW'.
DRY LOCATIONS OF 'THW', 'THWN', 'XH'HW' OR 'THHN'.
C. RATED LIGHTING CONDUCTORS FOR CIRCUITS REQUIRING 90c RATING; 'THHN' OR 'XH'HW', OR OTHER APPROVED TYPE.
D. JOINTS ON CONDUCTORS RATED ABOVE 75c; TAPED OR MADE-UP WITH MATERIALS HAVING A SUITABLE HIGH TEMPERATURE RATING.

RACEWAYS:

- 1. INSTALL WIRING IN METALLIC, RIGID TYPE RACEWAYS ABOVE ACCESSIBLE CEILINGS. MC CABLE SHALL BE PERMITTED TO BE USED IN NON-ACCESSIBLE AREAS.
2. RUN RACEWAYS AND CABLE CONCEALED, EXCEPT RACEWAYS IN EQUIPMENT ROOMS RUN EXPOSED.
3. RACEWAYS IN ORDINARY LOCATIONS:
INSIDE (NOT IN WET OR DAMP LOCATIONS OR EXPOSED TO MECHANICAL INJURY); STEEL ELECTRICAL METALLIC TUBING (EMT) OR MC CABLE.
EXPOSED OUTSIDE THROUGH OUTSIDE WALL OR ROOF, OR THROUGH TWO-HOUR OR MORE RATED FIRE BARRIERS; GALVANIZED RIGID STEEL (GRS) CONDUIT MADE UP WATER TIGHT.
FINAL CONNECTION IN DRY LOCATIONS SERVING LIGHTING FIXTURES; FLEXIBLE METALLIC CONDUIT OR FLEXIBLE METALLIC TUBING.
CONNECTIONS TO MOTORS, OR TO COMPONENTS IN WET OR DAMP LOCATIONS. LIQUIDTIGHT FLEXIBLE METAL CONDUIT (LT FLEX).
4. RIGID STEEL GRS, AND STEEL IMC; HOT DIP GALVANIZED
5. STEEL EMT; HOT DIP GALVANIZED OUTSIDE, AND ENAMEL OR GALVANIZED FINISHED INSIDE.
6. EMT COUPLINGS AND CONNECTORS; METAL AS FOLLOWS:
RANTIGHT, HEX-NUT, EXPANSION-GLAND COMPRESSION STEEL FOR ANY WET OR DAMP LOCATION OR FEEDER (OR SUB-FEEDER).
SET-SCREW OR TAP-ON, STEEL OR CAST METAL, FOR DRY LOCATIONS.
7. CIRCULAR RACEWAYS; MINIMUM TRADE SIZE AS FOLLOWS:
GENERAL PURPOSE CIRCUITS; MINIMUM 1 1/2 INCH.
3/4-INCH; HOMERUN CIRCUIT WIRING; MORE THAN (3) CONDUCTORS.

- 8. SIZE RACEWAYS TO ACCOMMODATE THE ENCLOSED CONDUCTORS.
9. PROVIDE JUNCTION OR PULL BOXES TO AVOID EXCESSIVE RUNS OR BENDS BETWEEN OUTLETS, AND AT LOW POINTS IN RACEWAY RUNS.
10. SUPPORT CONCEALED CONDUIT ABOVE THE CEILING INDEPENDENTLY OF CEILING CONSTRUCTION. INSTALL CONDUITS HIGH ABOVE LAY-IN CEILINGS TO PERMIT REMOVAL OF CEILING PANELS OR EQUIPMENT.
11. INSTALL EXPOSED RACEWAYS PARALLEL OR PERPENDICULAR TO STRUCTURAL MEMBERS AND ARCHITECTURAL FEATURES. INSTALL CONCEALED CONDUIT RACEWAYS WITH AS FEW BENDS AS FEASIBLE, COORDINATED WITH STRUCTURAL, MECHANICAL AND ARCHITECTURAL REQUIREMENTS. ROUTE RACEWAYS TO AVOID 'TRAPPING' WHERE PRACTICABLE.

ENCLOSURES AND BOXES:

- 1. EQUIPMENT ENCLOSURES, BOXES, & COVERS; GALVANIZED STEEL, MALLEABLE IRON, GRAY IRON, OR COPPER-FREE ALUMINUM. SCREWS; STAINLESS STEEL; ALUMINUM FOR ALUMINUM BOXES.
2. ENCLOSURES:
FLUSH MOUNTED WITH CONCEALED RACEWAYS OR FLUSH MOUNTED DEVICES.
SURFACE MOUNTED TYPE IN EQUIPMENT ROOMS, WITH EXPOSED RACEWAYS AND OTHER SURFACE MOUNTED DEVICES.
3. BOXES FOR USE WITH GENERAL RACEWAY SYSTEMS; 4 INCHES SQUARE OR OCTAGONAL SIZE, NOT BE LESS THAN 1-1/2 INCHES DEEP. EXCEPT WHERE SHALLOWER BOXES ARE REQUIRED BY STRUCTURAL CONDITIONS. 4 BY 2 INCH BOXES; WHERE ONLY ONE RACEWAY ENTERS AN OUTLET BOX, OR WHERE NEEDED TO MATCH DEVICES AND/OR MOUNTING HARDWARE.
4. BOXES FOR RACEWAY SYSTEMS SERVING CEILING 'POWER' GRID SYSTEMS OR LIGHTING FIXTURES; SIZE 4-11/16 INCH SQUARE BOXES, 42 CU. IN. USE EXTENSION RINGS OR LARGER BOXES IF NECESSARY TO MEET CU. IN. CAPACITY REQUIRED BY CODE.
5. ENCLOSURES AND BOXES; VOLUME AND REQUIRED WIRE BENDING AND GUTTER SPACE AND FEATURES TO SUIT CODE REQUIREMENTS.
6. DO NOT INSTALL BOXES BACK-TO-BACK. DO NOT USE THRU-WALL TYPE BOXES. SEPARATE BOXES IN THE SAME FIRE RATED WALL BY EITHER SOLID STUDS, OR A MINIMUM DISTANCE ESTABLISHED BY LOCAL BUILDING OFFICIALS; SEAL CONNECTING CONDUIT TO PREVENT THE TRANSMISSION OF HEAT, SMOKE, AND NOISE, WITH SEALING METHOD AS APPROVED BY THE FIRE MARSHAL.
7. DO NOT USE SUSPENDED CEILING CONSTRUCTION TO SUPPORT RACEWAYS, BOXES OR OTHER ITEMS, EXCEPT AS ALLOWED BY CODE AND ACCEPTED BY THE ARCHITECT IN WRITING.

DEVICES:

- 1. SWITCHES; STANDARD LINE STYLE, MAINTAINED, 15 OR 20 AMPS, 120-277 VAC, QUIET OPERATING, FLUSH MOUNTING, BY LEVITON, 'SPEC-MASTER, COMMERCIAL SPEC. GRADE' SERIES, HUBBELL OR ARROW HART.
2. RECEPTACLES; STANDARD LINE STYLE, STRAIGHT BLADE, 2-POLE, 3-WIRE GROUNDING TYPE, RATED 125 VAC, 15 OR 20 AMPS, BY LEVITON, 'SPECMASTER, COMM. SPEC. GRADE' SERIES, HUBBELL OR ARROW HART.
3. DIMMER SWITCHES; RATED FOR FULL RANGE DIMMING OF 120 VAC LOADS, EITHER FLUORESCENT OR INCANDESCENT, KNOB OR SLIDE CONTROLLED W/ FULL OFF POSITION, FLUSH MOUNTABLE IN STANDARD 1-GANG OR 2-GANG BOXES. ARCHITECTURAL STYLE, THIN PROFILE TYPES, BY LEVITON, 'COMM. SPEC. GRADE' SERIES, LUTRON OR LITHONIA.
4. GROUND FAULT CIRCUIT INTERRUPTED (GFCI) RECEPTACLES; U.L. LISTED FOR PERSONNEL PROTECTION AGAINST LINE-TO-GROUND SHOCK HAZARD. GFCI RECEPTS; DUPLEX, 'DECORA STYLE' BY LEVITON, 'COMM. SPEC. GRADE', HUBBELL OR ARROW HART.
5. KEYLESS LAMPHOLDER; WHITE PORCELAIN, 660 WATTS AT 250 VOLTS; LEVITON, CAT. No. 9875-2.
6. LOW VOLTAGE SWITCHES & COMPONENTS; ABB/GENERAL ELECTRIC, 24-VOLT SYSTEM.
7. COVER PLATES; FOR FLUSH, INSIDE, WALL MOUNTED DEVICES; LEVITON.
8. MOUNT DEVICES RECESSED FOR FLUSH INSTALLATION. PROVIDE COVER PLATES FOR EACH DEVICE.
9. ALIGN DEVICES AT DIFFERENT LEVELS VERTICALLY. GROUP DEVICES AT THE SAME LEVEL USING SECTIONAL GANG BOXES. CENTER DEVICES IN ARCHITECTURAL FEATURES.
10. LOCATE WALL SWITCHES ON THE STRIKE SIDE OF A DOOR, SIX (6) INCHES FROM THE OPENING.
11. MOUNT SMALL FLUSH MOUNTED MOTOR DEVICES IN STANDARD DEVICE BOXES.
12. INSTALL WIRING DEVICES WITH TOP-OF-BOX MOUNTING HEIGHT ABOVE FINISHED FLOORS BETWEEN 18 INCHES AND 48 INCHES, AS REQUIRED BY HANDICAPPED CODES.
13. COVER PLATES FOR FLUSH, DRY, ORDINARY LOCATIONS; STANDARD SIZE, ONE PIECE, WIRING DEVICES AND COVER PLATE FINISHES; AS INDICATED BY THE ARCHITECT IN WRITING.

LIGHTING:

- 1. PROVIDE ALL LAMPS AT 3500K, UNLESS NOTED OTHERWISE.
2. FIXTURE OR SHALL MEET OR EXCEED THAT SPECIFIED IN FIXTURE SCHEDULE INCLUDED WITHIN CONTRACT DOCUMENTS - WHERE NO CRI IS SCHEDULED, CRI SHALL BE 80 OR GREATER.
3. ALL LED DRIVERS SHALL HAVE AN OPERATING EFFICIENCY OF AT LEAST 85%, MINIMUM STARTING TEMPERATURE OF AT LEAST -40DEGREES CELSIUS, VOLTAGE INPUT/PHASE AS SPECIFIED IN FIXTURE SCHEDULE.
4. ALL LED FIXTURES SHALL COME EQUIPPED WITH INTEGRAL HEAT DISSIPATION SYSTEMS.
5. LED FIXTURES SHALL HAVE LED SOURCES AND DRIVERS THAT ARE ACCESSIBLE FROM THE EXPOSED SIDE OF THE FIXTURE AND DO NOT REQUIRE REMOVAL OF FIXTURE FOR LED SOURCE AND/OR DRIVER REPAIR/REPLACEMENT.
6. FLUORESCENT BALLASTS; HIGH POWER FACTOR (HPF) TYPE, CLASS 'P' PROTECTED, SOUND RATING 'A', AND ENERGY SAVING TYPE.
FLUORESCENT BALLASTS FOR THE MINI-LAMPS; U.L. LABELED OR ACCEPTABLE TO BUILDING OFFICIALS, ENCAPSULATED, QUIET OPERATING DESIGN IF AVAILABLE.
8. PREVENT FLUORESCENT LAMPS WITHIN THE SAME VISUAL SPACE IN THE SAME DIRECTION.

GROUNDING:

- 1. GROUND ELECTRICAL SYSTEMS, EQUIPMENT, AND SUPPORTING STRUCTURES. PROVIDE BONDING JUMPERS WHERE NECESSARY, MECHANICALLY AND ELECTRICALLY SECURE METAL RACEWAYS AND FITTINGS, JOINTS AND CONNECTIONS AT EQUIPMENT TO PROVIDE AN GROUNDING MEANS. METAL RACEWAYS; ELECTRICALLY CONTINUOUS THROUGHOUT THEIR LENGTH FOR AN EFFECTIVE GROUNDING PATH TO THE POWER SERVICE DISCONNECT SWITCH.
2. INSTALL GROUNDING CONDUCTORS WITHOUT JOINT OR SPLICE TO THE GREATEST PRACTICAL EXTENT.
3. PROVIDE FOR EACH RACEWAY A GREEN #12 GROUNDING CONDUCTOR IN ADDITION TO BRANCH CONDUCTORS INDICATED.
4. DO NOT SPLICE MAIN BONDING JUMPER. CONFIRM THAT A MAIN BONDING JUMPER IS PROVIDED AT THE POINT OF SERVICE ONLY.

TESTING:

- 1. TEST INDIVIDUAL SYSTEMS AND COMPONENTS FOR FULL FUNCTIONAL REQUIREMENTS. PERFORM TESTS AS REQUIRED BY CODE, LOCAL PRACTICES, OR AS REASONABLY REQUIRED BY THE OWNER'S REPRESENTATIVE WHERE A QUESTION ARISES AS TO THE PROPER INSTALLATION OR OPERATION OF MATERIALS.
2. PROVIDE TESTING INSTRUMENTS, PROCEDURES, AND DOCUMENTATION.

MISCELLANEOUS:

- 1. SELECT, SIZE, AND ASSEMBLE FOUNDATIONS, SUPPORTS, AND FASTENERS.
2. FASTENINGS FOR SECURING CONDUIT RUNS, LIGHT APPARATUS.
BOLTS, BEAM CLAMPS, OR DRIVEN OR WELDED STUDS ON STEEL WORK
TOGGLE BOLTS ON HOLLOW TILE OR CONCRETE BLOCKS
STEEL ANCHORS OF THE SELF-DRILLING OR NON-DRILLING TYPES ON SOLID CONCRETE OR MASONRY.
POWER DRIVEN STUDS MAY BE USED ON STEEL AND SOLID CONCRETE WHERE ACCEPTED BY THE OWNER'S REPRESENTATIVE.
3. MAJOR COMPONENTS OF THE DISTRIBUTION SYSTEM SUCH AS THE PANELBOARD SHALL HAVE PERMANENT NAMEPLATES FOR EQUIPMENT IDENTIFICATION.
4. SEAL CONDUITS ROUTED BETWEEN SPACES OF DIFFERENT AMBIENT TEMPERATURES, SUCH AS REFRIGERATED SPACES OR OUTDOOR AREAS, TO PREVENT CIRCULATION OF AIR.
5. INSTALL RACEWAY OR CABLE, ETC. THAT PENETRATES A FIRE BARRIER, WITH MATERIALS AND METHODS APPROVED FOR APPLICATION BY BUILDING OFFICIALS. IDENTIFY EACH FIRE BARRIER FROM THE ARCHITECTURAL PLANS, AND FOR SECURE APPROVAL OF MATERIALS AND METHODS FOR EACH TYPE PENETRATION.

TELEPHONE SYSTEM ROUGH-IN:

- 1. CONTACT THE TELEPHONE CO. COORDINATE THE WORK TO MAKE THE INSTALLATION READY FOR THE TELEPHONE COMPANY, INCLUDING CABINETS, RACEWAYS AND PULL WIRES, RACEWAY SYSTEM BOXES, DEDICATED ELECTRICAL BRANCH CIRCUITS AND RECEPTACLES, DEDICATED GROUNDING CONDUCTORS, AND MISCELLANEOUS MATERIALS OR DEVICES.
2. PROVIDE COMPLETE ENCLOSED RACEWAYS WITH MEASURED PULL CORDS FOR FUTURE USE BY OTHERS. PROVIDE A 3/4" PVC CONDUIT FROM EACH MAIN CABINET OR BACKBOARD LOCATION TO NEAREST ACCESSIBLE, GROUNDED, METAL COLD WATER PIPE, AND A #8 SOLID COPPER CONDUCTOR BONDED TO THE WATER PIPE AND COILED FOR USE IN GROUNDING EQUIPMENT.

COMcheck Software Version 4.1.4.3
Interior Lighting Compliance Certificate

Project Information

Energy Code: 98 (2007) Standard
Project Title: 9 Rounds
Project Type: New Construction
Construction Location: 1745 Peachtree Road NW, Suite L, Atlanta, GA 30328
Owner/Agent:
Designer/Contractor: Charles C. Esslinger, Westside Engineering, 5525 Interstate North Pkwy, Atlanta, GA 30328

Allowed Interior Lighting Power

Table with 4 columns: Area Category, Floor Area (ft2), Allowed Watts / ft2, Allowed Watts (B X C). Row 1: 1-9 Rounds (Exercise Center), 1000, 1.00, 1000. Total Allowed Watts = 1000.

Proposed Interior Lighting Power

Table with 5 columns: Fixture ID : Description / Lamp / Wattage Per Lamp / Ballast, Lamps/Fixture, # of Fixtures, Fixture Watt., (C X D). Row 1: LED 1: P: 15' LED PENDANT: Other, 1, 1, 29, 29. Row 2: LED 2: Other, 1, 28, 20, 590. Total Proposed Watts = 599.

Interior Lighting PASSES: Design 41% better than code

Interior Lighting Compliance Statement

Compliance Statement: The proposed interior lighting design represented in this document is consistent with the building plans, specifications, and other calculations submitted with this permit application. The proposed interior lighting systems have been designed to meet the 90.4 (2007) Standard requirements in COMcheck Version 4.1.4.3 and to comply with any applicable mandatory requirements listed in the Inspection Checklist.

Charles C. Esslinger, PE
Signature: [Signature] Date: 11-24-2020

Project Title: 9 Rounds Report date: 11/24/20
Data filename: C:\Users\Chris\Dropbox (Westside Engineering)\Westside Engineering Team Folder\2020\20236 Page 2 of 6
9 Rounds\Elec\20236 - 9 Rounds COMcheck.cck

9Round - Atlanta
1745 Peachtree Road NW, Suite L
Atlanta, GA 30309
Project Number: 739.00
ISSUED FOR CONSTRUCTION

STRUCTURAL
M.E.P. & F.P.
WestSide Engineering
5525 Interstate North Parkway
Suite 200
Atlanta, GA 30328
Phone: 404-242-6240
WE# 20238

CIVIL

