ABBREVIATIONS SPECIAL MOUNTING HEIGHT. COORDINATE LOCATION WITH ARCHITECTURAL ELEVATIONS ABOVE FINISHED FLOOR AMPERE INTERRUPTING AUTOMATIC TRANSFER SWITCH AMERICAN WIRE GAUGE CIRCUIT BREAKER CLOSED CIRCUIT TELEVISION DEGREE CELSIUS DEGREE FAHRENHEIT DISTRIBUTION PANEL BOARD EXISTING TO REMAIN ELECTRICAL CONTRACTOR EXISTING TO BE REMOVED EXISTING TO BE REMOVED & FIRE ALARM CONTROL PANEL FIRE ALARM ANNUNCIATOR FULL LOAD AMPERES GROUND FAULT INTERRUPTER ISOLATED GROUND THOUSAND CIRCULAR MILS KILOVOLT AMPERE MAIN CIRCUIT BREAKER MOTOR CONTROL CENTER MAIN DISTRIBUTION PANEL NORMALLY CLOSED NOT IN CONTRACT NORMALLY OPEN

COORDINATED WITH THE OWNER. MAKE ARRANGEMENTS AT LEAST 5 BUSINESS DAYS PRIOR TO A SHUTDOWN.

ELECTRICAL DEMOLITION NOTES

1. THE CONTRACTOR SHALL INCLUDE IN HIS BID ALL COSTS ASSOCIATED WITH

SPECIFICATIONS WITH ALLOWANCES FOR EXPECTED OR UNFORESEEN

IN CERTAIN CASES CONSIDERED JUSTIFIABLE BY THE ARCHITECT.

2. THE CONTRACTOR SHALL REMOVE AND/OR RELOCATE ALL EXISTING

POWER SUPPLY.

PANELBOARD.

REMOVALS AND RELOCATIONS OF ELECTRICAL WORK AS DESCRIBED IN THE

DIFFICULTIES WHEN CONCEALED WORK HAS BEEN OPENED. NO CLAIMS FOR

ADDITIONAL WORK ASSOCIATED WITH DEMOLITION WILL BE ACCEPTED, EXCEPT

ELECTRICAL WORK WHICH INTERFERES WITH THE NEW ARCHITECTURAL AND

DEMOLITION PLANS. ALL SYSTEMS WHICH ARE NO LONGER REQUIRED TO

FUNCTION SHALL BE DE-ENERGIZED AND DISCONNECTED AT THE SOURCE OF

ELECTRICAL LAYOUTS IN FULL COORDINATION WITH THE ARCHITECT'S

3. THE CONTRACTOR SHALL PERFORM DEMOLITION AND REMOVAL WORK WITH

AFFECTED SYSTEMS SHALL BE RECONNECTED AND RESTORED.

SURFACE TO ITS ORIGINAL CONDITION.

PROVIDED WITH MATCHING BLANK COVERS.

PROCEED IN THE SPECIFIED SEQUENCE.

DIRECTED BY THE OWNER.

EXISTING SYSTEMS.

MINIMUM INTERFERENCE WITH FUNCTIONING ELECTRICAL SYSTEMS. ALL

DEMOLITION AND REMOVAL WORK SHALL BE PERFORMED IN A NEAT AND

WORKMANLIKE MANNER. THE CONTRACTOR SHALL PATCH, REPAIR OR

OTHERWISE RESTORE ANY DAMAGED INTERIOR OR EXTERIOR BUILDING

5. THE CONTRACTOR SHALL REMOVE ALL ELECTRICAL OUTLETS, SWITCHES AND

OTHER DEVICES, COMPLETE WITH ASSOCIATED WIRING, CONDUITS, ETC., FROM

SHALL INSTALL JUNCTION BOXES AND OTHER DEVICES AND PROVIDE BYPASS

SHALL BE REMOVED AND REROUTED CONCEALED BEHIND FINISHED SURFACES.

PARTITIONS THAT ARE TO BE REMOVED. WHERE THE REMOVAL OF THESE

CONNECTIONS NECESSARY TO MAKE CIRCUITS AFFECTED CONTINUOUS AND

READY FOR OPERATION. OTHERWISE, WIRING SHALL BE REMOVED BACK TO

THE NEAREST ELECTRICAL JUNCTION BOX THAT IS TO REMAIN OR TO

6. ALL RACEWAYS WHICH BECOME EXPOSED DURING THE ALTERATION WORK

ALL UNUSED OUTLET BOXES OR CAPPED FLOOR OUTLETS SHALL BE

MODIFIED TO REFLECT THE BRANCH CIRCUIT WIRING CHANGES.

CABLE TYPE, CONDUCTOR AMPACITY, CONDUIT SIZES, ETC.

8. EXISTING PANEL DIRECTORIES AFFECTED BY THE ALTERATION WORK SHALL BE

9. PORTIONS OF FEEDER RUNS TO BE REMOVED OR ABANDONED AS A RESULT

10. THE CONTRACTOR SHALL NOTIFY THE OWNER AT THE APPROPRIATE TIME OF

WITH THE PROJECT REQUIREMENTS. THE CONTRACTOR SHALL FOLLOW

11. ALL EXISTING MATERIAL AND EQUIPMENT IN USABLE CONDITION, WHICH IS TO

12. ARRANGE TO WORK CONTINUOUSLY, INCLUDING OVER TIME, IF REQUIRED, TO

ASSURE THAT SYSTEMS WILL BE SHUT DOWN ONLY DURING THE TIME ACTUALLY REQUIRED TO MAKE THE NECESSARY CONNECTIONS TO THE

13. THE SHUTDOWN OF EXISTING BUILDING ELECTRICAL SERVICES SHALL BE

CLOSELY THE ARCHITECT'S DEMOLITION AND PHASING SCHEDULE AND

OF DEMOLITION WORK, BUT WHICH ARE REQUIRED TO REMAIN ENERGIZED,

SHALL BE CUT AT CONVENIENT LOCATIONS, REROUTED AND RECONNECTED.

NEW FEEDER EXTENSIONS SHALL MATCH EXISTING ONES IN ALL RESPECTS,

THE PROJECTED DEMOLITION AND PHASING SCHEDULE SO THAT REMOVAL OR

RELOCATION OF AFFECTED UTILITIES MAY BE CARRIED OUT IN COORDINATION

BE REMOVED UNDER THIS CONTRACT, SHALL REMAIN THE PROPERTY OF THE

OWNER OR SHALL BE DISPOSED OF BY THE ELECTRICAL CONTRACTOR, AS

ITEMS DISRUPTS EXISTING WIRING THAT IS TO REMAIN, THE CONTRACTOR

CIRCUIT TRACING NOTE ELECTRICAL CONTRACTOR SHALL UPDATE ALL EXISTING PANELBOARD DIRECTORIES TO REFLECT ALL CIRCUITS MADE SPARE FROM DEMOLITION. ALL EXISTING CIRCUIT BREAKERS IN ALL EXISTING PANELBOARDS SHOWN ON THE DRAWINGS SHALL BE TRACED OUT AND LABELED IN PANELBOARD OF ORIGIN.

ALL CIRCUITS THAT ARE NO LONGER IN USE SHALL BE PULLED BACK TO

PANEL OF ORIGIN. ALL CIRCUIT BREAKERS NOT BEING UTILIZED SHALL BE

LABELED AS SPARE AND PUT IN THE OPEN (OFF) POSITION.

VENDOR DRAWING NOTE

ELECTRICAL CONTRACTOR SHALL REFER TO VENDOR SITE SPECIFIC DOCUMENTS FOR FURTHER INFORMATION AND ANY ADDITIONAL WORK NOT SHOWN ON THESE DRAWINGS BUT REQUIRED TO BE INSTALLED BY THE ELECTRICAL CONTRACTOR.

DEMOLITION LEGEND (NOT ALL ABBREVIATIONS ARE NECESSARILY USED ON THIS PROJECT) EXISTING TO REMAIN

EXISTING TO BE REMOVED (ER) EXISTING TO BE REMOVED & RELOCATED (ERR)

NEW RELOCATED EXISTING

(RE)

EXISTING TO BE REMOVED AND RETURN TO OWNER

EXAMPLE



ELECTRICAL GENERAL NOTES

- 1. GENERAL NOTES, SYMBOL LIST AND DETAILS ARE APPLICABLE TO ALL ELECTRICAL DRAWINGS.
- 2. ALL WORK IS NEW UNLESS OTHERWISE NOTED.
- DRAWINGS ARE DIAGRAMMATIC AND INDICATE GENERAL ARRANGEMENT OF SYSTEMS AND WORK. FOLLOW DRAWINGS IN LAYING OUT WORK AND CHECK DRAWINGS OF OTHER TRADES TO VERIFY SPACE CONDITIONS. MAINTAIN HEADROOM AND SPACE CONDITIONS.
 - SECURE ALL SUPPORTS TO BUILDING STRUCTURE UTILIZING TOGGLE BOLTS (HOLLOW MASONRY), EXPANSION SHIELDS OR INSERTS (CONCRETE AND BRICK), MACHINE SCREWS (METAL), BEAM CLAMPS (FRAMEWORK), WOOD SCREWS (WOOD) OR PAN THRU STRAPS (METAL DECK). NAILS, RAWL PLUGS AND WOOD PLUGS ARE NOT PERMITTED. WHERE REQUIRED BY STRUCTURE. PROVIDE THRU BOLTS AND FISH PLATES. SUPPORT HORIZONTAL RUNS OF METALLIC RACEWAYS NOT MORE THAN 10 FT APART. SUPPORT RACEWAY RISERS AT EACH FLOOR LEVEL. RUN EXPOSED RACEWAYS PARALLEL WITH OR AT RIGHT ANGLES TO WALLS.
- PASS RACEWAYS OVER WATER, STEAM OR OTHER PIPING WHEN PULL BOXES ARE NOT REQUIRED. NO RACEWAY WITHIN 3 INCHES OF STEAM OR HOT WATER PIPES OR APPLIANCES (EXCEPT PIPE CROSSINGS WHERE RACEWAY SHALL BE AT LEAST 1 INCH FROM PIPE COVERS).
- CUT CONDUIT ENDS SQUARE. REAM SMOOTH, PAINT MALE THREAD OF FIELD THREADED RACEWAYS WITH GRAPHITE BASE PIPE COMPOUND. DRAW UP TIGHT WITH RACEWAY COUPLING.
- HORIZONTAL OR CROSS RUNS IN PARTITIONS AND WALLS ARE NOT PERMITTED. DO NOT RUN CONDUIT IN PRECAST ROOF SLABS, IN 2 INCH SLABS OR IN TERRAZZO FLOOR FINISH.
- 8. LEAVE WIRES WITH SUFFICIENT SLACK TO PERMIT MAKING FINAL CONNECTIONS. RACEWAYS OVER 10 FT LONG IN WHICH WIRING IS NOT INSTALLED: FURNISH FISH WIRE.
- 9. SET BOXES SQUARE AND TRUE WITH BUILDING FINISH. ERECT WALL AND SWITCH OUTLETS IN ADVANCE OF FURRING AND FIREPROOFING. SECURE TO BUILDING STRUCTURE BY ADJUSTABLE STRAP IRONS.
- 10. VERIFY LOCATIONS OF OUTLETS AND SWITCHES IN FINISHED ROOMS WITH ARCHITECTURAL DRAWINGS OF INTERIOR DETAILS AND FINISH. IN CENTERING OUTLETS AND LOCATING BOXES AND OUTLETS, ALLOW FOR OVERHEAD PIPES, DUCTS AND MECHANICAL EQUIPMENT, VARIATIONS IN FIREPROOFING AND PLASTERING, WINDOW AND DOOR TRIM, PANELING, HUNG CEILINGS AND THE LIKE. CORRECT ANY INACCURACY RESULTING FROM FAILURE TO DO SO WITHOUT EXPENSE TO OWNER.
- 11. LOCATIONS INDICATED FOR LOCAL WALL SWITCHES ARE SUBJECT TO MODIFICATIONS AT OR NEAR DOORS. COORDINATE WITH ARCHITECT AND INSTALL SWITCH ON SIDE OPPOSITE HINGE. VERIFY FINAL HINGE LOCATIONS IN FIELD PRIOR TO SWITCH OUTLET INSTALLATION.
- 12. COVERS OF JUNCTION AND PULLBOXES SHALL BE READILY ACCESSIBLE.
- 13. PROVIDE PULLBOXES WHERE INDICATED, WHERE REQUIRED BY CODE AND WHEREVER NECESSARY TO FACILITATE PULLING OF WIRE. COORDINATE PULLBOX LOCATIONS WITH OTHER TRADES.
- 14. EMPTY RACEWAY RUNS: PROVIDE PULLBOXES EVERY 100 FT AND AS INDICATED. COORDINATE LOCATIONS WITH OTHER TRADES.
- 15. JUNCTION AND PULLBOXES: LOCATE GENERALLY NOT EXPOSED IN FINISHED SPACES. WHERE NECESSARY, REROUTE RACEWAYS OR MAKE OTHER ARRANGEMENTS FOR CONCEALMENT.
- 16. SUPPORT PANEL, JUNCTION AND PULLBOXES INDEPENDENTLY TO BUILDING STRUCTURE WITH NO WEIGHT BEARING ON RACEWAYS.
- 17. ALL ACCESS DOOR LOCATIONS SHALL BE REVIEWED BY ARCHITECT PRIOR TO INSTALLATION.
- 18. CONNECT CONDUIT TO MOTOR CONDUIT TERMINAL BOXES WITH FLEXIBLE CONDUIT (MINIMUM 18 IN. LENGTH AND 50% SLACK). DO NOT TERMINATE IN OR FASTEN RACEWAYS TO MOTOR FOUNDATION.
- 19. PROVIDE 2#14 INDICATING PILOT LIGHT WIRES FROM PILOT LIGHT IN CONTROLLER TO LOAD SIDE OF DISCONNECT SWITCH. RUN WIRES IN BRANCH CIRCUIT CONDUIT AND INCREASE CONDUIT SIZE AS REQUIRED.
- 20. PULL NO THERMOPLASTIC WIRES AT TEMPERATURES LOWER THAN 32°F (OC). PROVIDE CABLE SUPPORTS FOR WIRE IN RISER CONDUITS AS REQUIRED BY
- 21. PROVIDE SEPARATE RACEWAYS FOR CONDUCTORS OF NORMAL AND EMERGENCY CIRCUITS. COMMON BOXES: PROVIDE BARRIERS BETWEEN
- EMERGENCY AND NORMAL WIRING.
- 22. HEIGHTS OF OUTLETS FROM FINISHED FLOOR TO CENTERLINE OF OUTLET:

RECEPTACLES AND TELEPHONES: GENERALLY OVER WORK BENCHES 3'-6' WALL SWITCHES WALL FIXTURES MOTOR CONTROLLERS

GONGS AND HORNS FIRE ALARM STATIONS 4'-0" STROBE LIGHTS 6'-8" TO BOTTOM

EXCEPTIONS: AT JUNCTION OF DIFFERENT WALL FINISH MATERIALS, ON MOLDING OR BREAK IN WALL SURFACE, IN VIOLATION OF CODE REQUIREMENTS, AS NOTED OR DIRECTED.

CONTRACTOR SHALL BE RESPONSIBLE FOR COORDINATING AND CONFIRMING ALL MOUNTING HEIGHTS WITH ARCHITECT AND ARCHITECTURAL DRAWINGS.

- 23. WIRE COLOR CODING: AS PER CODE. WHERE COLOR-CODED CABLE IS NOT AVAILABLE, CERTIFY IN WRITING AND REQUEST PERMISSION FOR OVERLAP COLOR TAPING OF CONDUCTORS (MINIMUM LENGTH 6") IN ACCESSIBLE LOCATIONS. COLOR CODING, ONCE SELECTED, MUST BE USED CONSISTENTLY FOR THE ENTIRE PROJECT.
- 24. INSTALL NEW WORK AND CONNECT TO EXISTING WORK WITH MINIMUM. INTERFERENCE TO EXISTING FACILITIES. TEMPORARY SHUTDOWNS: ONLY WITH WRITTEN CONSENT OF OWNER. MAINTAIN CONTINUOUS OPERATION OF EXISTING FACILITIES. ALARM AND EMERGENCY SYSTEMS ARE NOT TO BE
- 25. FIRESTOPPING SHALL BE INSTALLED WHENEVER WIRING OR RACEWAYS CROSS FIRE RATED CONSTRUCTION.
- 26. LIGHTING FIXTURE SCHEDULE STANDARD NOTE: LIGHTING FIXTURE SCHEDULE SHOWN ON ENGINEER'S DRAWINGS ARE FOR INFORMATION PURPOSES ONLY LIGHTING FIXTURES SHOWN ARE THOSE SELECTED BY ARCHITECT. ENGINEER SHALL NOT BE RESPONSIBLE FOR INFORMATION SHOWN RELATED TO FIXTURE SELECTION AND OVERALL LIGHTING DESIGN. REFER TO ARCHITECTURAL DRAWINGS FOR FURTHER INFORMATION.

99 Bedford Street, 2nd Fl. Boston, MA 02111 T: 617.737.1111 F: 617.737.4311 BAITIMORE / BOSTON / HAMILTON / MEXICO CITY / MINNEAPOLIS NEW HAVEN / NEW YORK / PHILADELPHIA / PUEBLA / SEATTLE ENGINEERING / ANALYSIS & TESTING / BUILDING MANAGEMENT SYSTEMS / CENTRAL UTILITIES CODE CONSULTING / COMMISSIONING / CRITICAL SYSTEMS / ENERGY & SUSTAINABILITY

FIRE PROTECTION / IT/AV/SECURITY / LIGHTING DESIGN / SPECIAL INSPECTIONS

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SMRT FILE:

ELECTRICAL COVER SHEET

SHEET TITLE:

PROJECT MANAGER: PROJECT NO: B160143-004 A/E OF RECORD JOB CAPTAIN:

SHEET No.

ELECTRICAL DRAWING LIST ELECTRICAL COVER SHEET ELECTRICAL FLOOR PLAN - LIGHTING DEMOLITION AND NEW ELECTRICAL FLOOR PLAN - POWER DEMOLITION AND NEW ELECTRICAL SCHEDULES **ELECTRICAL SPECIFICATIONS** E3.1 **ELECTRICAL SPECIFICATIONS**